Appendices

Appendix A. Edge weights between cover types derived from 1992 NLCD imagery used to calculate all Fragstats weighted edge metrics.

	Nonforest	Open water	Deciduous forest	Coniferous forest	Mixed forest	Shrub	Grass-herbaceous	Woody wetland	Emergent wetland
Nonforest	0								
Open water	1	0							
Deciduous forest	1	1	0						
Coniferous forest	1	1	0.1	0					
Mixed forest	1	1	0.05	0.05	0				
Shrub	1	1	1	1	1	0			
Grass-herbaceous	1	1	1	1	1	0.9	0		
Woody wetland	1	1	0.1	0.1	0.1	1	1	0	
Emergent wetland	1	1	1	1	1	0.9	0.1	1	0

Appendix B. Edge depths (m) between cover types derived from 1992 NLCD imagery used to calculate all Fragstats core area metrics

	Nonforest	Open water	Deciduous forest	Coniferous forest	Mixed forest	Shrub	Grass-herbaceous	Woody wetland	Emergent wetland
Nonforest	0								
Open water	0	0							
Deciduous forest	100	50	0						
Coniferous forest	100	50	5	0					
Mixed forest	100	50	0	0	0				
Shrub	100	50	50	50	50	0			
Grass/herbaceous	100	50	50	50	50	50	0		
Woody wetland	100	50	5	5	5	50	50	0	
Emergent wetland	100	50	50	50	50	5	5	50	0

Appendix C. Descriptive statistics for the FIA and landscape variables at the BBS route scale within the 3 buffer classes (V1 = 100 m, V2 = 1 km, V3 = 10 km). Note: Values for the FIA variables are in English units (dbh = inches, height = feet, and per unit area = acres).

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
V1STDAGE	226	0.000	77.370	37.120	1.094	16.451	0.443
V1STDSZCD	227	0.280	3.886	2.104	0.047	0.713	0.339
V1SITECLCD	227	0.331	4.525	2.137	0.052	0.785	0.367
V1TPA	227	37.089	717.241	340.818	8.083	121.783	0.357
V1DOMTPA	227	6.914	146.545	65.308	1.629	24.551	0.376
V1SSTPA	227	10.679	426.088	179.311	4.876	73.472	0.410
V1UTPA	227	11.537	556.249	259.337	6.572	99.011	0.382
V1DEADTPA	226	0.109	19.137	7.066	0.245	3.685	0.522
V1RCTPA	224	0.045	5.525	1.702	0.077	1.147	0.674
V1DRCTPA	226	0.254	20.165	8.753	0.281	4.229	0.483
V1ALLDIAMAVG	227	1.901	5.752	4.011	0.050	0.746	0.186
V1ALLHTAVG	171	11.153	38.120	21.038	0.518	6.778	0.322
V1DDIAMAVG	227	4.925	13.445	10.109	0.084	1.263	0.125
V1DOMHTAVG	171	26.327	75.265	57.974	0.670	8.767	0.151
V1SSDIAMAVG	227	1.500	2.429	1.773	0.006	0.098	0.055
V1UDIAMAVG	227	1.994	4.450	2.930	0.020	0.302	0.103
V1RCDIAMAVG	224	2.923	75.209	12.764	0.438	6.549	0.513
V1DEADDIAMAV	215	5.108	35.628	10.194	0.223	3.274	0.321
V1DRCDIAMAVG	215	5.108	45.757	10.646	0.254	3.721	0.350
V1ALLDIAMCV	227	0.670	2.184	1.061	0.022	0.334	0.314
V1ALLHTCV	171	0.423	2.067	1.346	0.035	0.454	0.337
V1DDIAMCV	227	0.306	1.181	0.454	0.005	0.078	0.171
V1DHTCV	171	0.159	0.896	0.401	0.010	0.137	0.341
V1SSDIAMCV	227	0.000	0.427	0.321	0.004	0.058	0.181
V1UDIAMCV	216	0.542	0.902	0.729	0.004	0.058	0.080
V1ALLSW_N	227	2.666	33.346	18.145	0.299	4.509	0.249
V1DSW_N	227	1.367	3.422	1.597	0.015	0.231	0.145
V1SSSW_N	226	0.745	19.298	1.752	0.104	1.569	0.896
V1USW_N	227	1.372	2.458	1.557	0.010	0.148	0.095
V1V11	227	0.000	0.562	0.029	0.005	0.080	2.775
V1V12	227	0.000	0.239	0.010	0.002	0.026	2.730
V1V13	227	0.000	0.003	0.000	0.000	0.000	10.814
V1V19	227	0.000	0.342	0.010	0.003	0.042	4.123
V1V21	227	0.000	0.277	0.028	0.003	0.051	1.785
V1V22	227	0.000	0.674	0.225	0.015	0.226	1.006
V1V23	227	0.000	0.588	0.068	0.008	0.128	1.878
V1V24	227	0.000	0.053	0.007	0.001	0.011	1.588
V1V25	227	0.000	0.030	0.002	0.000	0.005	2.622
V1V29	227	0.000	0.885	0.222	0.020	0.309	1.392
V1V31	227	0.000	0.038	0.002	0.000	0.006	3.400
V1V32	227	0.000	0.320	0.012	0.003	0.048	3.982
V1V34	227	0.000	0.008	0.000	0.000	0.001	8.829
V1V39	227	0.000	0.032	0.002	0.000	0.005	3.069
V1PLAND	227	3.209	92.915	41.967	1.321	19.897	0.474

Appendix C continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
V1PD	227	0.389	38.938	18.706	0.530	7.988	0.427
V1LPI	227	0.477	92.891	10.391	0.795	11.978	1.153
V1LSI	227	6.640	27.293	17.826	0.209	3.145	0.176
V1SHAPE_MN	227	1.121	4.683	1.477	0.019	0.293	0.198
V1SHAPE_AM	227	1.575	12.048	3.685	0.105	1.586	0.430
V1SHAPE_CV	227	25.496	128.384	55.159	1.134	17.087	0.310
V1CPLAND	227	0.000	88.222	21.751	1.293	19.481	0.896
V1CAI_MN	227	0.000	99.939	24.345	1.727	26.013	1.069
V1CAI_AM	227	0.000	99.382	43.492	1.636	24.652	0.567
V1CAI_CV	227	0.000	1003.343	253.243	11.751	177.049	0.699
V1CWED	227	0.313	103.901	47.861	1.496	22.544	0.471
V1TECI	227	0.153	76.807	32.829	1.132	17.055	0.520
V1IJI	227	11.201	79.979	56.074	0.856	12.900	0.230
V1LANDPD	227	14.289	152.984	72.548	1.717	25.873	0.357
V1LANDLPI	227	2.248	92.891	16.474	0.901	13.579	0.824
V1LANDLSI	227	5.590	31.749	19.175	0.251	3.778	0.197
V1LSHAPE_MN	227	1.190	1.451	1.297	0.003	0.042	0.032
V1LSHAPE_AM	227	2.233	11.300	3.674	0.077	1.167	0.317
V1LSHAPE_CV	227	37.282	64.974	47.455	0.309	4.651	0.098
V1LCAI_MN	227	11.254	99.514	48.763	1.447	21.804	0.447
V1LCAI_AM	227	44.913	99.438	71.518	0.751	11.320	0.158
V1LCAI_CV	227	6.829	274.809	111.535	3.598	54.206	0.486
V1LANDCWED	227	2.527	74.755	38.619	0.990	14.920	0.386
V1LANDTECI	227	1.265	23.338	14.183	0.333	5.021	0.354
V1LANDCONTAG	227	21.026	86.395	51.238	0.840	12.655	0.247
V1LANDIJI	227	15.744	86.489	54.921	0.776	11.686	0.213
V1LANDSHDI	227	0.276	1.651	1.014	0.017	0.250	0.247
V1LANDSIDI	227	0.125	0.771	0.548	0.009	0.137	0.249
V2STDAGE	227	0.000	77.370	36.975	1.093	16.463	0.445
V2STDSZCD	227	0.280	3.886	2.104	0.047	0.711	0.338
V2SITECLCD	227	0.331	4.525	2.137	0.052	0.783	0.366
V2TPA	227	37.442	717.242	340.684	8.040	121.130	0.356
V2DOMTPA	227	7.045	145.925	65.309	1.625	24.479	0.375
V2SSTPA	227	10.679	426.088	179.196	4.847	73.027	0.408
V2UTPA	227	11.537	556.249	259.204	6.536	98.469	0.380
V2DEADTPA	226	0.110	19.137	7.057	0.243	3.652	0.518
V2RCTPA	225	0.004	5.525	1.693	0.076	1.145	0.676
V2DRCTPA	226	0.253	20.149	8.742	0.279	4.197	0.480
V2ALLDIAMAVG	227	1.939	5.758	4.012	0.049	0.743	0.185
V2ALLHTAVG	172	0.202	38.120	20.903	0.529	6.933	0.332
V2DDIAMAVG	227	4.925	13.186	10.107	0.083	1.254	0.124
V2DOMHTAVG	172	0.363	75.309	57.596	0.742	9.727	0.169
V2SSDIAMAVG	227	1.500	2.436	1.773	0.006	0.097	0.055
V2UDIAMAVG	227	1.994	4.455	2.931	0.020	0.299	0.102
V2RCDIAMAVG	225	0.041	75.443	12.701	0.436	6.547	0.515
V2DEADDIAMAV	215	5.059	35.017	10.201	0.225	3.294	0.323

Appendix C continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
V2DRCDIAMAVG	215	5.059	44.789	10.648	0.252	3.701	0.348
V2ALLDIAMCV	227	0.670	2.164	1.061	0.022	0.332	0.313
V2ALLHTCV	172	0.003	2.056	1.339	0.035	0.464	0.346
V2DDIAMCV	227	0.310	1.181	0.454	0.005	0.077	0.170
V2DHTCV	172	0.002	0.891	0.399	0.011	0.139	0.348
V2SSDIAMCV	227	0.010	0.420	0.321	0.004	0.057	0.179
V2UDIAMCV	216	0.547	0.902	0.729	0.004	0.058	0.079
V2ALLSW_N	227	2.666	33.337	18.139	0.298	4.485	0.247
V2DSW_N	227	1.367	3.422	1.597	0.015	0.230	0.144
V2SSSW_N	226	0.784	18.787	1.754	0.105	1.571	0.896
V2USW_N	227	1.372	2.485	1.557	0.010	0.147	0.094
V2V11	227	0.000	0.562	0.029	0.005	0.080	2.766
V2V12	227	0.000	0.239	0.010	0.002	0.026	2.707
V2V13	227	0.000	0.004	0.000	0.000	0.000	10.832
V2V19	227	0.000	0.342	0.010	0.003	0.041	4.091
V2V21	227	0.000	0.275	0.028	0.003	0.050	1.779
V2V22	227	0.000	0.670	0.225	0.015	0.225	1.003
V2V23	227	0.000	0.584	0.068	0.008	0.127	1.873
V2V24	227	0.000	0.053	0.007	0.001	0.011	1.573
V2V25	227	0.000	0.030	0.002	0.000	0.005	2.591
V2V29	227	0.000	0.885	0.222	0.020	0.308	1.389
V2V31	227	0.000	0.037	0.002	0.000	0.006	3.372
V2V32	227	0.000	0.320	0.012	0.003	0.048	3.970
V2V34	227	0.000	0.008	0.000	0.000	0.001	8.488
V2V39	227	0.000	0.032	0.001	0.000	0.005	3.051
V2PLAND	227	5.665	89.724	50.762	1.273	19.176	0.378
V2PD	227	0.580	24.679	7.958	0.327	4.928	0.619
V2LPI	227	0.337	88.598	28.396	1.641	24.730	0.871
V2LSI	227	8.338	60.333	35.747	0.669	10.078	0.282
V2SHAPE_MN	227	1.199	1.555	1.348	0.004	0.060	0.044
V2SHAPE_AM	227	2.405	39.608	13.009	0.453	6.828	0.525
V2SHAPE_CV	227	37.815	199.672	91.301	2.182	32.872	0.360
V2CPLAND	227	0.425	82.184	31.707	1.319	19.872	0.627
V2CAI_MN	227	0.176	94.207	25.707	1.698	25.584	0.995
V2CAI_AM	227	4.658	97.827	56.776	1.450	21.840	0.385
V2CAI_CV	227	23.391	1216.688	269.725	13.055	196.686	0.729
V2CWED	227	2.247	91.179	40.350	1.343	20.230	0.501
V2TECI	227	2.105	88.698	38.544	1.369	20.626	0.535
V2IJI	227	21.748	77.119	53.092	0.666	10.034	0.189
V2LANDPD	227	11.800	95.833	42.180	0.954	14.366	0.341
V2LANDLPI	227	3.420	88.598	34.717	1.532	23.079	0.665
V2LANDLSI	227	8.662	61.034	33.464	0.690	10.392	0.311
V2LSHAPE_MN	227	1.159	1.414	1.266	0.004	0.053	0.042
V2LSHAPE_AM	227	4.601	27.093	11.039	0.286	4.309	0.390
V2LSHAPE_CV	227	41.591	75.118	57.201	0.439	6.608	0.116
V2LCAI_MN	227	9.367	96.651	55.414	1.423	21.442	0.387

Appendix C continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
V2LCAI_AM	227	55.052	97.829	74.230	0.626	9.429	0.127
V2LCAI_CV	227	17.946	308.500	97.277	3.446	51.921	0.534
V2LANDCWED	227	4.900	73.867	32.001	0.873	13.146	0.411
V2LANDTECI	227	3.911	40.584	22.009	0.606	9.130	0.415
V2LANDCONTAG	227	27.634	82.282	55.391	0.745	11.228	0.203
V2LANDIJI	227	22.522	74.966	50.744	0.648	9.761	0.192
V2LANDSHDI	227	0.423	1.688	1.019	0.016	0.238	0.233
V2LANDSIDI	227	0.190	0.794	0.545	0.009	0.130	0.239
V3STDAGE	227	2.698	73.075	36.981	0.988	14.893	0.403
V3STDSZCD	227	0.341	3.553	2.092	0.045	0.677	0.324
V3SITECLCD	227	0.457	4.478	2.136	0.049	0.743	0.348
V3TPA	227	57.980	696.765	338.809	7.425	111.874	0.330
V3DOMTPA	227	6.385	120.880	64.976	1.502	22.629	0.348
V3SSTPA	227	23.673	409.863	177.724	4.423	66.641	0.375
V3UTPA	227	34.373	539.287	257.401	6.023	90.750	0.353
V3DEADTPA	227	0.163	18.128	6.977	0.222	3.342	0.479
V3RCTPA	226	0.030	4.906	1.652	0.069	1.044	0.632
V3DRCTPA	227	0.290	19.947	8.621	0.259	3.900	0.452
V3ALLDIAMAVG	227	2.270	5.302	4.015	0.045	0.674	0.168
V3ALLHTAVG	172	11.263	36.299	20.757	0.476	6.240	0.301
V3DDIAMAVG	227	7.130	12.653	10.105	0.072	1.091	0.108
V3DOMHTAVG	172	21.399	75.300	57.365	0.608	7.980	0.139
V3SSDIAMAVG	227	1.574	2.320	1.771	0.005	0.079	0.045
V3UDIAMAVG	227	2.245	4.050	2.934	0.017	0.259	0.088
V3RCDIAMAVG	226	0.489	57.630	12.355	0.354	5.324	0.431
V3DEADDIAMAV	216	3.488	29.204	10.123	0.219	3.218	0.318
V3DRCDIAMAVG	216	3.506	35.737	10.522	0.229	3.369	0.320
V3ALLDIAMCV	227	0.712	2.055	1.056	0.020	0.306	0.290
V3ALLHTCV	171	0.420	2.133	1.346	0.034	0.447	0.332
V3DDIAMCV	227	0.327	0.884	0.450	0.004	0.058	0.128
V3DHTCV	171	0.209	0.745	0.399	0.009	0.121	0.304
V3SSDIAMCV	227	0.114	0.382	0.323	0.003	0.041	0.127
V3UDIAMCV	216	0.517	0.829	0.725	0.004	0.053	0.073
V3ALLSW_N	227	6.637	33.223	18.088	0.272	4.099	0.227
V3DSW_N	227	1.367	2.730	1.592	0.012	0.178	0.112
V3SSSW_N	227	0.674	26.764	1.813	0.150	2.263	1.248
V3USW_N	224	1.373	2.900	1.560	0.011	0.165	0.106
V3V11	227	0.000	0.477	0.028	0.005	0.073	2.581
V3V12	227	0.000	0.178	0.011	0.002	0.024	2.291
V3V13	227	0.000	0.006	0.000	0.000	0.000	10.612
V3V19	227	0.000	0.311	0.010	0.002	0.036	3.644
V3V21	227	0.000	0.292	0.028	0.003	0.048	1.689
V3V22	227	0.000	0.644	0.226	0.014	0.213	0.943
V3V23	227	0.000	0.526	0.066	0.008	0.115	1.746
V3V24	227	0.000	0.046	0.007	0.001	0.009	1.331
V3V25	227	0.000	0.020	0.002	0.000	0.004	2.042

Appendix C continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
V3V29	227	0.000	0.885	0.221	0.019	0.290	1.313
V3V31	227	0.000	0.033	0.002	0.000	0.005	3.085
V3V32	227	0.000	0.335	0.012	0.003	0.043	3.610
V3V34	227	0.000	0.010	0.000	0.000	0.001	8.222
V3V39	227	0.000	0.031	0.001	0.000	0.004	2.759
V3PLAND	227	11.517	88.536	52.140	1.114	16.778	0.322
V3PD	227	0.394	21.481	7.127	0.275	4.141	0.581
V3LPI	227	0.619	88.457	35.896	1.605	24.178	0.674
V3LSI	227	45.737	185.513	112.146	2.107	31.751	0.283
V3SHAPE_MN	227	1.170	1.372	1.265	0.003	0.041	0.033
V3SHAPE_AM	227	4.956	116.538	48.082	1.750	26.366	0.548
V3SHAPE_CV	227	43.411	282.903	98.307	2.228	33.563	0.341
V3CPLAND	227	0.579	79.624	33.656	1.160	17.470	0.519
V3CAI_MN	227	0.321	83.504	23.393	1.436	21.634	0.925
V3CAI_AM	227	4.309	95.596	60.568	1.280	19.287	0.318
V3CAI_CV	227	44.158	1450.728	290.695	15.139	228.087	0.785
V3CWED	227	3.464	91.798	39.113	1.228	18.497	0.473
V3TECI	227	4.778	91.208	40.307	1.363	20.537	0.510
V3IJI	227	23.211	77.318	51.761	0.592	8.921	0.172
V3LANDPD	227	11.868	84.005	38.790	0.820	12.351	0.318
V3LANDLPI	227	2.804	88.457	42.546	1.426	21.481	0.505
V3LANDLSI	227	37.709	203.086	104.542	2.117	31.898	0.305
V3LSHAPE_MN	227	1.147	1.385	1.248	0.003	0.047	0.038
V3LSHAPE_AM	227	9.084	84.719	37.568	1.011	15.227	0.405
V3LSHAPE_CV	227	44.329	80.797	60.144	0.482	7.266	0.121
V3LCAI_MN	227	14.002	91.375	55.768	1.233	18.574	0.333
V3LCAI_AM	227	56.458	95.000	75.175	0.541	8.145	0.108
V3LCAI_CV	227	30.332	246.108	94.063	2.734	41.189	0.438
V3LANDCWED	227	5.323	66.326	30.756	0.762	11.487	0.373
V3LANDTECI	227	5.636	45.589	23.723	0.635	9.568	0.403
V3LANDCONTAG	227	37.037	79.251	56.431	0.597	8.998	0.159
V3LANDIJI	227	22.281	73.679	49.170	0.538	8.111	0.165
V3LANDSHDI	227	0.465	1.641	1.058	0.014	0.209	0.197
V3LANDSIDI	227	0.210	0.765	0.561	0.007	0.111	0.198
V3CONIFPD	227	0.128	46.993	12.843	0.646	9.728	0.757
V1CONIFPD	227	0.518	29.284	7.788	0.373	5.614	0.721
V3CONIFPLAND	227	0.127	30.182	6.042	0.388	5.840	0.967
V3CONIFCAI_CV	227	25.681	712.551	99.271	4.832	72.808	0.733
V3CONIFIJI	227	17.943	78.837	52.117	0.737	11.109	0.213
V1CONIFIJI	227	6.884	97.714	59.309	0.952	14.346	0.242
V2CONIFPLAND	227	0.024	38.170	6.366	0.437	6.578	1.033
V3CONIFCWED	227	0.125	35.836	4.962	0.302	4.550	0.917

Appendix D. Descriptive statistics for the FIA and landscape variables calculated at the FIA unit and physiographic section scales. Note: Values for the FIA variables are in English units (dbh = inches, height = feet, and per unit area = acres)

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
FIA Unit Scale							
STDAGE	29	14.074	58.166	36.139	2.231	12.013	0.332
STDSZCD	30	0.801	3.524	2.072	0.122	0.671	0.324
SITECLCD	30	0.894	3.444	2.176	0.132	0.726	0.333
TPA	30	132.028	513.794	341.779	19.822	108.571	0.318
DOMTPA	30	24.369	98.794	61.750	3.722	20.388	0.330
SSTPA	30	64.251	318.041	184.790	12.035	65.919	0.357
UTPA	30	94.678	431.199	261.582	16.179	88.615	0.339
DEADTPA	30	1.832	10.818	6.227	0.440	2.410	0.387
RCTPA	30	0.256	3.611	1.449	0.162	0.888	0.613
DRCTPA	30	2.103	12.853	7.676	0.538	2.948	0.384
ALLDIAMAVG	30	1.974	4.604	3.839	0.113	0.621	0.162
ALLHTAVG	22	11.935	32.756	22.005	1.606	7.531	0.342
DDIAMAVG	30	7.456	11.673	9.872	0.180	0.984	0.100
DOMHTAVG	22	47.245	69.054	58.304	1.359	6.375	0.109
SSDIAMAVG	30	1.686	1.871	1.753	0.007	0.040	0.023
UDIAMAVG	30	2.338	3.131	2.823	0.037	0.200	0.071
RCDIAMAVG	30	9.857	16.112	12.157	0.287	1.570	0.129
DEADDIAMAVG	29	8.813	10.117	9.397	0.053	0.286	0.030
DRCDIAMAVG	29	9.224	11.098	9.841	0.068	0.368	0.037
ALLDIAMCV	30	0.863	2.124	1.070	0.060	0.329	0.307
ALLHTCV	22	0.588	2.013	1.272	0.110	0.518	0.407
DDIAMCV	30	0.383	0.574	0.472	0.008	0.042	0.089
DHTCV	22	0.251	0.567	0.405	0.022	0.103	0.255
SSDIAMCV	30	0.334	0.358	0.344	0.001	0.006	0.017
UDIAMCV	29	0.675	0.804	0.740	0.006	0.030	0.040
ALLSW_N	30	16.785	36.782	25.613	0.814	4.459	0.174
DSW_N	30	1.347	1.948	1.463	0.020	0.109	0.075
SSSW_N	30	1.348	1.552	1.447	0.008	0.046	0.032
USW_N	30	1.342	1.533	1.436	0.008	0.042	0.029
V11	30	0.000	0.234	0.029	0.011	0.061	2.137
V12	30	0.000	0.100	0.013	0.005	0.026	1.989
V13	30	0.000	0.002	0.000	0.000	0.000	2.979
V19	30	0.000	0.109	0.009	0.004	0.023	2.684
V21	30	0.000	0.125	0.023	0.007	0.036	1.530
V22	30	0.000	0.584	0.214	0.038	0.208	0.973
V23	30	0.000	0.412	0.070	0.022	0.122	1.739
V24	30	0.000	0.021	0.007	0.001	0.007	0.982
V25	30	0.000	0.008	0.002	0.000	0.002	1.125
V29	30	0.000	0.806	0.218	0.055	0.302	1.388
V31	30	0.000	0.012	0.001	0.001	0.003	2.068
V32	30	0.000	0.204	0.009	0.007	0.037	4.008
V33	30	0.000	0.000	0.000	0.000	0.000	5.477
V34	30	0.000	0.005	0.000	0.000	0.001	4.462

Appendix D continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
FIA Unit Scale							
V39	30	0.000	0.015	0.002	0.001	0.003	2.119
PLAND	30	31.459	91.347	51.150	2.725	14.927	0.292
PD	30	0.001	0.221	0.102	0.011	0.063	0.615
LPI	30	6.448	91.326	37.677	4.273	23.402	0.621
LSI	30	17.720	130.335	80.602	4.839	26.506	0.329
SHAPE_MN	30	1.226	3.085	1.386	0.060	0.328	0.236
SHAPE_AM	30	10.476	89.097	39.886	3.461	18.954	0.475
SHAPE_CV	30	74.677	247.908	136.173	8.739	47.867	0.352
CPLAND	30	31.459	91.347	51.150	2.725	14.927	0.292
CWED	30	1.997	16.020	8.735	0.674	3.691	0.423
TECI	30	18.263	91.055	52.168	3.856	21.122	0.405
IJI	30	23.295	74.457	55.496	2.185	11.970	0.216
LANDPD	30	0.335	1.084	0.710	0.036	0.198	0.279
LANDLPI	30	8.755	91.326	43.870	3.753	20.555	0.469
LANDLSI	30	17.996	126.945	73.241	4.633	25.376	0.346
LSHAPE_MN	30	1.065	1.310	1.182	0.010	0.054	0.046
LSHAPE_AM	30	10.079	58.567	30.054	2.131	11.671	0.388
LSHAPE_CV	30	34.791	97.982	68.368	2.413	13.214	0.193
LANDCWED	30	1.242	9.390	6.543	0.353	1.936	0.296
LANDTECI	30	15.916	44.624	30.104	1.595	8.739	0.290
LANDCONTAG	30	27.658	80.228	46.134	1.988	10.890	0.236
LANDIJI	30	24.907	69.092	51.532	1.831	10.031	0.195
LANDSHDI	30	0.393	1.459	1.096	0.040	0.219	0.200
LANDSIDI	30	0.163	0.743	0.579	0.021	0.115	0.198
CONIFPLAND	30	0.896	17.690	5.659	0.879	4.812	0.850
CONIFPD	30	0.045	0.345	0.167	0.015	0.083	0.499
CONIFLPI	30	0.006	1.428	0.147	0.050	0.276	1.883
CONIFLSI	30	23.842	122.484	60.314	4.974	27.244	0.452
CONIFSHAPE_MN	30	1.025	1.218	1.087	0.009	0.050	0.046
CONIFSHAPE_AM	30	1.073	4.220	1.569	0.126	0.688	0.439
CONIFSHAPE_CV	30	10.819	41.696	22.277	1.613	8.832	0.396
CONIFPLAND	30	0.896	17.690	5.659	0.879	4.812	0.850
CONIFCWED	30	0.164	3.621	1.250	0.149	0.815	0.652
CONIFTECI	30	12.247	54.280	30.576	1.984	10.865	0.355
CONIFIJI	30	30.638	70.173	56.115	1.450	7.941	0.142
Physiographic section scale							
STDAGE	16	17.470	70.860	36.707	3.342	13.366	0.364
STDSZCD	16	0.989	3.126	2.171	0.168	0.673	0.310
SITECLCD	16	1.167	3.269	2.393	0.180	0.720	0.301
TPA	16	146.823	498.959	358.760	27.957	111.830	0.312
DOMTPA	16	28.954	104.516	64.785	5.490	21.959	0.339
SSTPA	16	77.746	280.921	189.439	15.531	62.124	0.328
UTPA	16	110.382	395.030	269.278	21.199	84.797	0.315
DEADTPA	16	2.971	12.185	6.530	0.628	2.514	0.385
RCTPA	16	0.204	3.021	1.367	0.232	0.930	0.680

Appendix D continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
Physiographic section scale							
DRCTPA	16	3.458	15.207	7.897	0.807	3.230	0.409
ALLDIAMAVG	16	3.041	4.656	3.838	0.118	0.473	0.123
DDIAMAVG	16	7.553	11.717	9.853	0.267	1.070	0.109
SSDIAMAVG	16	1.691	1.809	1.745	0.009	0.035	0.020
UDIAMAVG	16	2.396	3.172	2.832	0.054	0.215	0.076
RCDIAMAVG	16	10.530	14.535	12.162	0.286	1.143	0.094
DEADDIAMAVG	16	3.872	9.756	9.035	0.349	1.397	0.155
DRCDIAMAVG	16	4.899	10.214	9.481	0.316	1.263	0.133
ALLDIAMCV	16	3.025	4.801	3.950	0.120	0.481	0.122
DDIAMCV	16	3.749	5.097	4.645	0.088	0.350	0.075
SSDIAMCV	16	0.575	0.624	0.600	0.003	0.013	0.021
UDIAMCV	15	1.609	2.419	2.093	0.058	0.226	0.108
ALLSW_N	16	15.077	35.776	27.104	1.278	5.111	0.189
DSW_N	16	1.345	1.996	1.486	0.042	0.166	0.112
SSSW_N	16	1.378	1.576	1.434	0.012	0.046	0.032
USW_N	16	1.367	1.544	1.422	0.011	0.042	0.030
V11	16	0.000	0.098	0.027	0.008	0.033	1.185
V12	16	0.000	0.039	0.010	0.003	0.011	1.094
V13	16	0.000	0.001	0.000	0.000	0.000	2.173
V19	16	0.000	0.061	0.014	0.005	0.020	1.490
V21	16	0.000	0.122	0.027	0.011	0.043	1.588
V22	16	0.003	0.581	0.175	0.038	0.153	0.877
V23	16	0.003	0.228	0.069	0.020	0.080	1.157
V24	16	0.000	0.013	0.006	0.001	0.004	0.644
V25	16	0.000	0.010	0.002	0.001	0.003	1.391
V29	16	0.002	0.621	0.280	0.049	0.197	0.706
V31	16	0.000	0.006	0.001	0.000	0.002	2.054
V32	16	0.000	0.097	0.008	0.006	0.024	3.018
V33	16	0.000	0.000	0.000	0.000	0.000	4.000
V34	16	0.000	0.001	0.000	0.000	0.000	2.982
V39	16	0.000	0.006	0.001	0.000	0.002	1.309
PLAND	16	26.034	82.288	49.922	4.234	16.937	0.339
PD	16	0.004	0.261	0.114	0.020	0.080	0.698
LPI	16	2.617	82.105	35.190	6.773	27.093	0.770
LSI	16	41.906	174.141	113.260	10.535	42.141	0.372
SHAPE_MN	16	1.243	1.859	1.344	0.036	0.145	0.108
SHAPE_AM	16	5.911	125.681	49.963	7.817	31.268	0.626
SHAPE_CV	16	65.502	294.000	141.427	17.776	71.102	0.503
CPLAND	16	26.034	82.288	49.922	4.234	16.937	0.339
CWED	16	3.526	14.330	7.496	0.863	3.452	0.460
TECI	16	21.406	79.339	45.784	5.276	21.103	0.461
IJI	16	42.364	66.870	58.768	1.995	7.980	0.136
LANDPD	16	0.511	1.119	0.766	0.049	0.197	0.258
LANDLPI	16	5.238	82.105	37.928	6.196	24.784	0.653
LANDLSI	16	41.650	159.347	103.954	9.146	36.585	0.352

Appendix D continued

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
Physiographic section scale							
LSHAPE_MN	16	1.095	1.289	1.190	0.013	0.053	0.044
LSHAPE_AM	16	8.527	85.032	36.145	4.801	19.202	0.531
LSHAPE_CV	16	46.517	84.078	65.092	2.447	9.786	0.150
LANDCWED	16	2.762	9.136	6.232	0.500	2.002	0.321
LANDTECI	16	14.477	41.381	27.814	2.218	8.872	0.319
LANDCONTAG	16	26.850	66.894	43.834	2.767	11.069	0.253
LANDIJI	16	43.797	65.218	55.015	1.790	7.160	0.130
LANDSHDI	16	0.655	1.472	1.148	0.055	0.219	0.191
LANDSIDI	16	0.311	0.755	0.594	0.030	0.118	0.199
CONIFPLAND	16	1.807	20.032	7.454	1.521	6.083	0.816
CONIFPD	16	0.076	0.335	0.190	0.023	0.093	0.488
CONIFLPI	16	0.008	1.277	0.189	0.080	0.320	1.694
CONIFLSI	16	37.512	163.677	89.186	8.526	34.102	0.382
CONIFSHAPE_MN	16	1.045	1.240	1.110	0.015	0.060	0.054
CONIFSHAPE_AM	16	1.140	4.046	1.788	0.195	0.781	0.437
CONIFSHAPE_CV	16	14.599	46.588	26.347	2.498	9.993	0.379
CONIFPLAND	16	1.807	20.032	7.454	1.521	6.083	0.816
CONIFCWED	16	0.309	4.434	1.529	0.287	1.148	0.750
CONIFTECI	16	13.453	46.150	28.832	2.459	9.836	0.341
CONIFIJI	16	44.329	66.044	58.384	1.583	6.332	0.108

Appendix E. Descriptive statistics for the FIA variables calculated from the statistical report data from the 1965, ’75, ’89, and 2000 inventory cycles and interpolated to annual values from 1966-2000. Values were calculated from data for 11 FIA units in MD, NY, PA, and WV. Note: Values for the FIA variables are in English units (volume = cuft and per unit area = acres)

Variable	N of cases	Minimum	Maximum	Mean	S.E.	S.D.	C.V.
%ForCover	35	0.6541	0.6815	0.6713	0.0013	0.0079	0.0117
%SoftWood	35	0.0475	0.0727	0.0630	0.0012	0.0072	0.1136
%HardWood	35	0.9273	0.9525	0.9367	0.0012	0.0071	0.0075
%Saw	35	0.4214	0.6240	0.5121	0.0123	0.0730	0.1425
%Pole	35	0.2696	0.3174	0.2978	0.0023	0.0135	0.0455
%NonSawPole	35	0.1064	0.2839	0.1901	0.0105	0.0619	0.3258
SoftWDPoleVol/ac	35	28.0433	39.2270	34.0569	0.5785	3.4227	0.1005
SoftWDSawVol/ac	35	47.7116	141.1200	87.3489	5.6877	33.6486	0.3852
HDWDPoleVol/ac	35	402.8956	1131.9955	583.6751	36.6870	217.0434	0.3719
HDWDSawVol/ac	35	447.6777	2376.4879	957.3352	98.5979	583.3131	0.6093
TotalSoftWDVol/ac	35	81.2662	180.3471	122.7416	6.0007	35.5007	0.2892
TotalHDWDVol/ac	35	901.2248	3508.4833	1550.5937	134.0266	792.9119	0.5114
TotalVol/ac	35	985.9267	3688.8304	1673.3328	139.4686	825.1076	0.4931

Appendix F. Correlation matrix for all FIA and landscape variables within the 100 m buffers used to develop models at the BBS route scale.

	V1STDAGE	V1STDSZCD	V1SITECLCD	V1TPA	V1DOMTPA	V1SSTPA	V1UTPA	V1DEADTPA	V1RCTPA
V1STDAGE	1.000								
V1STDSZCD	0.653	1.000							
V1SITECLCD	0.621	0.821	1.000						
V1TPA	0.549	0.761	0.789	1.000					
V1DOMTPA	0.645	0.576	0.532	0.786	1.000				
V1SSTPA	0.385	0.700	0.762	0.953	0.597	1.000			
V1UTPA	0.470	0.776	0.787	0.970	0.644	0.979	1.000		
V1DEADTPA	0.488	0.648	0.462	0.628	0.569	0.516	0.608	1.000	
V1RCTPA	0.177	0.322	-0.006	0.181	0.283	0.108	0.171	0.336	1.000
V1DRCTPA	0.479	0.658	0.409	0.603	0.579	0.484	0.582	0.967	0.568
V1ALLDIAMAVG	0.457	-0.125	-0.127	-0.273	0.134	-0.447	-0.382	-0.035	-0.057
V1ALLHTAVG	0.222	-0.060	0.202	-0.112	-0.131	-0.136	-0.103	-0.140	-0.460
V1DDIAMAVG	0.074	0.406	0.149	-0.027	-0.272	0.022	0.122	0.210	0.208
V1DOMHTAVG	-0.010	0.531	0.472	0.200	-0.221	0.293	0.358	0.236	0.058
V1SSDIAMAVG	-0.088	-0.072	-0.188	-0.071	0.002	-0.085	-0.026	0.004	0.106
V1UDIAMAVG	0.228	0.145	-0.109	-0.185	0.005	-0.326	-0.167	0.250	0.332
V1RCDIAMAVG	-0.020	-0.046	0.067	-0.085	-0.166	-0.039	-0.059	-0.108	-0.259
V1DEADDIAMAV	-0.186	-0.247	-0.179	-0.299	-0.367	-0.220	-0.258	-0.289	-0.225
V1DRCDIAMAVG	-0.194	-0.258	-0.183	-0.305	-0.367	-0.232	-0.267	-0.302	-0.220
V1ALLDIAMCV	-0.353	0.318	0.079	0.189	-0.122	0.303	0.326	0.224	0.319
V1ALLHTCV	-0.162	0.207	-0.079	0.166	0.143	0.186	0.172	0.193	0.515
V1DDIAMCV	-0.046	-0.241	-0.039	-0.089	-0.026	-0.087	-0.172	-0.172	-0.166
V1DHTCV	0.229	-0.212	-0.212	-0.059	0.345	-0.189	-0.244	-0.103	0.184
V1SSDIAMCV	0.458	0.132	0.265	0.053	0.177	-0.024	-0.014	-0.036	-0.023
V1UDIAMCV	0.231	0.281	0.231	0.057	-0.029	0.063	0.043	0.162	0.279
V1ALLSW_N	-0.024	0.245	0.316	0.198	-0.057	0.285	0.273	-0.014	-0.100
V1DSW_N	-0.160	-0.333	-0.199	-0.163	-0.038	-0.180	-0.228	-0.135	-0.126
V1SSSW_N	-0.091	-0.137	-0.112	-0.043	-0.042	-0.066	-0.077	-0.108	-0.041
V1USW_N	-0.138	-0.166	-0.153	-0.153	-0.146	-0.153	-0.167	-0.115	-0.025
V1V11	0.368	0.106	0.193	0.187	0.115	0.156	0.207	0.135	-0.114
V1V12	0.341	0.169	0.043	0.105	0.272	0.007	0.047	0.076	0.073
V1V13	-0.051	-0.078	-0.064	-0.042	-0.039	-0.028	-0.048	-0.088	-0.056
V1V19	0.157	0.175	0.382	0.337	0.159	0.368	0.323	0.243	-0.138
V1V21	0.122	-0.170	-0.252	-0.066	0.242	-0.190	-0.169	-0.004	0.301
V1V22	0.329	-0.009	-0.207	-0.032	0.338	-0.166	-0.157	0.057	0.273
V1V23	0.441	0.279	0.368	0.219	0.177	0.139	0.204	0.203	-0.175
V1V24	0.121	-0.086	-0.126	-0.079	0.032	-0.117	-0.123	-0.023	0.190
V1V25	0.115	-0.007	-0.054	-0.039	0.051	-0.066	-0.075	-0.058	0.075
V1V29	-0.234	0.359	0.347	0.327	-0.018	0.440	0.438	0.194	0.118
V1V31	0.029	-0.051	-0.126	-0.075	0.073	-0.111	-0.123	-0.016	0.235
V1V32	0.236	0.203	0.252	0.120	0.159	0.056	0.100	0.164	-0.188
V1V34	-0.026	-0.052	-0.046	-0.071	-0.059	-0.073	-0.060	-0.099	0.063
V1V39	-0.124	-0.178	-0.103	-0.201	-0.225	-0.145	-0.193	-0.186	-0.102
V1PLAND	0.358	0.460	0.315	0.377	0.339	0.302	0.377	0.408	0.263
V1PD	-0.080	-0.106	0.062	0.008	0.077	0.022	-0.036	-0.159	-0.216
V1LPI	0.262	0.227	0.142	0.199	0.164	0.153	0.213	0.287	0.177
V1LSI	0.173	0.312	0.386	0.362	0.375	0.323	0.324	0.174	0.028
V1SHAPE_MN	0.269	0.293	0.200	0.309	0.260	0.258	0.318	0.338	0.175
V1SHAPE_AM	0.307	0.331	0.226	0.280	0.208	0.234	0.303	0.333	0.251
V1SHAPE_CV	0.320	0.403	0.269	0.331	0.260	0.274	0.347	0.364	0.285
V1CPLAND	0.400	0.397	0.301	0.381	0.346	0.299	0.366	0.461	0.119
V1CAI_MN	0.426	0.392	0.442	0.501	0.446	0.422	0.461	0.479	-0.077
V1CAI_AM	0.483	0.471	0.431	0.514	0.467	0.425	0.483	0.519	0.050
V1CAI_CV	-0.444	-0.520	-0.503	-0.585	-0.542	-0.506	-0.550	-0.464	-0.052
V1CWED	-0.212	-0.149	-0.227	-0.237	-0.153	-0.205	-0.227	-0.272	0.221
V1TECI	-0.478	-0.549	-0.544	-0.599	-0.529	-0.511	-0.571	-0.531	-0.025
V1IJI	0.240	0.267	0.229	0.309	0.349	0.240	0.279	0.212	0.173
V1LANDPD	0.199	0.313	0.458	0.390	0.367	0.349	0.353	0.157	-0.148
V1LANDLPI	-0.034	-0.170	-0.219	-0.186	-0.215	-0.165	-0.157	-0.011	0.087
V1LANDLSI	0.245	0.375	0.514	0.466	0.435	0.419	0.423	0.240	-0.100
V1LSHAPE_MN	0.198	0.241	0.320	0.281	0.218	0.276	0.265	0.169	-0.063
V1LSHAPE_AM	0.078	-0.034	-0.101	-0.055	-0.110	-0.052	-0.023	0.100	0.131
V1LSHAPE_CV	0.122	0.051	-0.023	0.030	-0.030	0.028	0.046	0.148	0.175
V1LCAI_MN	0.446	0.499	0.473	0.543	0.469	0.464	0.520	0.526	0.094
V1LCAI_AM	0.085	-0.155	-0.152	-0.077	-0.065	-0.089	-0.088	0.121	-0.129
V1LCAI_CV	-0.480	-0.559	-0.521	-0.593	-0.528	-0.511	-0.569	-0.529	-0.131
V1LANDCWED	-0.211	-0.136	-0.124	-0.174	-0.093	-0.145	-0.174	-0.274	0.051
V1LANDTECI	-0.363	-0.338	-0.366	-0.416	-0.328	-0.354	-0.393	-0.428	0.073
V1LANDCONTAG	-0.232	-0.335	-0.465	-0.438	-0.410	-0.400	-0.397	-0.173	0.062
V1LANDIJI	0.129	0.126	0.174	0.203	0.232	0.162	0.170	0.046	0.017
V1LANDSHDI	0.180	0.315	0.357	0.393	0.426	0.344	0.350	0.186	-0.005
V1LANDSIDI	0.186	0.319	0.372	0.390	0.406	0.352	0.353	0.172	-0.016

Appendix F continued

	V1DRCTPA	V1ALLDIAMAVG	V1ALLHTAVG	V1DDIAMAVG	V1DOMHTAVG	V1SSDIAMAVG	V1UDIAMAVG
	1.000						
V1ALLDIAMAVG	-0.047	1.000					
V1ALLHTAVG	-0.254	0.356	1.000				
V1DDIAMAVG	0.239	-0.053	0.056	1.000			
V1DOMHTAVG	0.215	-0.285	0.247	0.913	1.000		
V1SSDIAMAVG	0.017	0.084	0.023	0.131	-0.004	1.000	
V1UDIAMAVG	0.295	0.524	0.142	0.536	0.309	0.494	1.000
V1RCDIAMAVG	-0.166	-0.076	0.150	0.017	0.095	-0.036	-0.174
V1DEADDIAMAV	-0.311	-0.140	-0.029	0.007	0.068	-0.123	-0.189
V1DRCDIAMAVG	-0.320	-0.121	0.043	0.013	0.014	-0.105	-0.152
V1ALLDIAMCV	0.283	-0.804	-0.365	0.492	0.533	0.115	-0.013
V1ALLHTCV	0.314	-0.330	-0.953	0.158	-0.026	0.011	-0.001
V1DDIAMCV	-0.194	-0.018	-0.063	-0.636	-0.652	-0.304	-0.493
V1DHTCV	-0.030	0.406	-0.353	-0.660	-0.782	-0.165	-0.185
V1SSDIAMCV	-0.035	0.357	0.174	0.013	0.033	-0.435	-0.047
V1UDIAMCV	0.218	0.060	-0.114	0.182	0.088	-0.646	-0.093
V1ALLSW_N	-0.034	-0.278	-0.013	0.232	0.375	0.072	-0.125
V1DSW_N	-0.152	0.007	0.088	-0.471	-0.456	-0.124	-0.228
V1SSSW_N	-0.107	-0.027	-0.126	-0.071	-0.096	-0.058	-0.044
V1USW_N	-0.113	-0.130	-0.020	-0.274	-0.278	-0.187	-0.207
V1V11	0.088	0.149	0.605	0.090	0.114	0.050	0.074
V1V12	0.087	0.254	0.060	-0.064	-0.115	0.125	0.135
V1V13	-0.092	-0.008	0.068	-0.062	-0.025	-0.003	-0.075
V1V19	0.175	-0.116	0.119	-0.156	0.185	-0.124	-0.206
V1V21	0.080	0.324	-0.236	-0.284	-0.427	0.062	0.173
V1V22	0.126	0.549	-0.171	-0.260	-0.468	-0.084	0.138
V1V23	0.132	0.289	0.659	0.182	0.204	-0.004	0.172
V1V24	0.033	0.265	0.035	-0.163	-0.259	-0.150	0.015
V1V25	-0.029	0.183	0.003	-0.054	-0.080	-0.061	0.032
V1V29	0.202	-0.732	-0.323	0.306	0.543	0.072	-0.142
V1V31	0.051	0.161	-0.146	-0.176	-0.299	-0.040	0.061
V1V32	0.093	0.199	0.019	0.113	-0.001	-0.029	0.130
V1V34	-0.069	0.095	-0.034	0.010	0.033	0.091	0.111
V1V39	-0.188	-0.036	-0.080	-0.071	-0.183	-0.036	-0.187
V1PLAND	0.431	-0.028	0.027	0.210	0.228	0.015	0.180
V1PD	-0.197	0.084	-0.037	-0.271	-0.214	-0.074	-0.168
V1LPI	0.299	0.029	0.153	0.149	0.117	0.009	0.133
V1LSI	0.169	-0.025	-0.087	-0.085	0.060	-0.100	-0.041
V1SHAPE_MN	0.345	-0.053	0.085	0.123	0.133	-0.017	0.103
V1SHAPE_AM	0.360	-0.016	0.150	0.221	0.219	0.035	0.169
V1SHAPE_CV	0.399	-0.058	0.083	0.226	0.257	0.023	0.164
V1CPLAND	0.438	0.034	0.139	0.151	0.160	0.023	0.150
V1CAI_MN	0.400	0.066	0.210	0.009	0.115	-0.024	0.039
V1CAI_AM	0.470	0.065	0.154	0.116	0.157	0.041	0.116
V1CAI_CV	-0.417	-0.010	-0.068	-0.059	-0.200	-0.049	-0.049
V1CWED	-0.175	-0.030	-0.285	-0.051	-0.113	-0.040	-0.019
V1TECI	-0.476	-0.025	-0.202	-0.121	-0.254	-0.047	-0.118
V1IJI	0.234	0.086	0.075	0.032	0.035	0.207	0.192
V1LANDPD	0.101	0.021	0.207	-0.039	0.145	0.015	-0.010
V1LANDLPI	0.001	-0.010	0.151	0.039	-0.046	-0.043	-0.029
V1LANDLSI	0.191	-0.010	0.075	-0.054	0.154	-0.043	-0.031
V1LSHAPE_MN	0.140	-0.069	-0.124	-0.024	0.079	-0.124	-0.126
V1LSHAPE_AM	0.119	0.000	0.174	0.102	0.032	-0.018	0.051
V1LSHAPE_CV	0.175	-0.067	-0.041	0.069	0.042	-0.071	-0.010
V1LCAI_MN	0.489	-0.011	0.089	0.103	0.200	-0.030	0.081
V1LCAI_AM	0.066	0.110	0.161	-0.054	-0.146	0.028	0.002
V1LCAI_CV	-0.504	0.007	-0.023	-0.111	-0.209	0.028	-0.088
V1LANDCWED	-0.224	0.002	-0.151	-0.074	-0.095	0.017	-0.023
V1LANDTECI	-0.355	0.002	-0.208	-0.060	-0.156	0.017	-0.028
V1LANDCONTAG	-0.140	-0.010	-0.082	0.088	-0.073	-0.025	0.040
V1LANDIJI	0.047	0.086	0.182	-0.064	-0.026	0.153	0.081
V1LANDSHDI	0.168	0.017	-0.076	-0.046	0.061	0.064	0.009
V1LANDSIDI	0.153	0.017	-0.091	-0.043	0.061	0.044	-0.008

Appendix F continued

	V1RCDIAMAVG	V1DEADDIAMAV	V1DRCDIAMAVG	V1ALLDIAMCV	V1ALLHTCV	V1DDIAMCV	V1DHTCV
V1RCDIAMAVG	1.000						
V1DEADDIAMAV	0.426	1.000					
V1DRCDIAMAVG	0.486	0.960	1.000				
V1ALLDIAMCV	-0.041	-0.039	-0.052	1.000			
V1ALLHTCV	-0.157	0.023	-0.082	0.431	1.000		
V1DDIAMCV	0.177	0.111	0.084	-0.278	-0.123	1.000	
V1DHTCV	-0.120	-0.035	-0.013	-0.535	0.264	0.597	1.000
V1SSDIAMCV	0.072	-0.049	-0.070	-0.406	-0.133	-0.022	0.182
V1UDIAMCV	-0.016	-0.067	-0.097	-0.007	0.140	0.266	0.273
V1ALLSW_N	-0.053	-0.141	-0.161	0.281	0.085	-0.110	-0.309
V1DSW_N	-0.022	0.181	0.251	-0.203	-0.273	0.428	0.171
V1SSSW_N	-0.009	-0.037	-0.036	-0.044	0.147	-0.052	0.042
V1USW_N	0.053	0.197	0.249	0.018	-0.151	0.625	0.080
V1V11	-0.004	-0.047	-0.043	-0.161	-0.604	-0.125	-0.241
V1V12	-0.113	-0.053	-0.073	-0.192	-0.049	-0.012	0.172
V1V13	-0.023	0.021	0.000	-0.040	-0.097	0.021	-0.010
V1V19	0.058	-0.041	-0.038	-0.052	-0.106	0.158	-0.167
V1V21	-0.147	-0.129	-0.113	-0.295	0.204	0.100	0.534
V1V22	-0.249	-0.227	-0.212	-0.471	0.149	0.036	0.664
V1V23	0.106	-0.081	-0.060	-0.196	-0.618	0.045	-0.153
V1V24	-0.171	-0.117	-0.106	-0.255	-0.072	0.291	0.354
V1V25	-0.060	-0.106	-0.093	-0.158	0.030	0.060	0.219
V1V29	0.083	0.048	0.024	0.725	0.394	-0.236	-0.563
V1V31	-0.058	-0.029	-0.020	-0.120	0.113	0.265	0.430
V1V32	0.140	-0.076	-0.076	-0.082	-0.018	0.107	0.093
V1V34	-0.018	-0.035	-0.015	-0.062	0.040	-0.020	-0.021
V1V39	0.457	0.417	0.414	-0.098	0.078	0.150	0.238
V1PLAND	-0.103	-0.217	-0.218	0.178	0.033	-0.184	-0.111
V1PD	-0.027	-0.122	-0.119	-0.200	-0.005	0.151	0.188
V1LPI	-0.031	-0.057	-0.069	0.052	-0.125	-0.115	-0.111
V1LSI	-0.074	-0.300	-0.290	0.041	0.099	0.000	0.049
V1SHAPE_MN	-0.021	-0.095	-0.101	0.125	-0.073	-0.152	-0.139
V1SHAPE_AM	-0.082	-0.117	-0.127	0.138	-0.100	-0.179	-0.173
V1SHAPE_CV	-0.102	-0.120	-0.134	0.188	-0.022	-0.186	-0.162
V1CPLAND	-0.048	-0.145	-0.155	0.071	-0.097	-0.102	-0.115
V1CAI_MN	0.037	-0.122	-0.127	-0.058	-0.188	0.010	-0.103
V1CAI_AM	-0.063	-0.224	-0.233	0.022	-0.107	-0.086	-0.117
V1CAI_CV	0.070	0.223	0.236	-0.034	-0.013	0.153	0.087
V1CWED	-0.069	-0.031	-0.028	0.050	0.275	-0.049	0.211
V1TECI	0.124	0.330	0.333	-0.068	0.144	0.127	0.216
V1IJI	-0.359	-0.465	-0.446	0.029	-0.060	-0.150	-0.016
V1LANDPD	-0.112	-0.372	-0.361	-0.012	-0.179	0.005	-0.103
V1LANDLPI	0.083	0.270	0.248	-0.026	-0.183	0.133	-0.018
V1LANDLSI	-0.081	-0.376	-0.361	0.016	-0.048	-0.002	-0.078
V1LSHAPE_MN	0.254	0.153	0.130	-0.013	0.134	-0.011	-0.014
V1LSHAPE_AM	0.058	0.114	0.109	0.019	-0.184	0.028	-0.067
V1LSHAPE_CV	0.131	0.205	0.203	0.053	0.040	0.011	-0.009
V1LCAI_MN	-0.008	-0.116	-0.126	0.072	-0.043	-0.097	-0.132
V1LCAI_AM	0.136	0.263	0.241	-0.157	-0.194	0.128	0.021
V1LCAI_CV	0.044	0.125	0.138	-0.076	-0.034	0.158	0.102
V1LANDCWED	-0.133	-0.179	-0.173	0.004	0.137	-0.035	0.138
V1LANDTECI	-0.069	-0.005	-0.003	-0.007	0.184	-0.006	0.187
V1LANDCONTAG	0.132	0.373	0.357	0.031	0.067	0.026	0.031
V1LANDIJI	-0.344	-0.423	-0.388	-0.059	-0.194	-0.054	-0.011
V1LANDSHDI	-0.179	-0.376	-0.370	0.020	0.107	-0.102	-0.006
V1LANDSIDI	-0.159	-0.363	-0.360	0.013	0.119	-0.103	-0.003

Appendix F continued

	V1SSDIAMCV	V1UDIAMCV	V1ALLSW_N	V1DSW_N	V1SSSW_N	V1USW_N	V1V11	V1V12
V1SSDIAMCV	1.000							
V1UDIAMCV	0.379	1.000						
V1ALLSW_N	-0.034	-0.003	1.000					
V1DSW_N	-0.144	-0.102	-0.484	1.000				
V1SSSW_N	0.053	0.046	-0.215	-0.010	1.000			
V1USW_N	-0.215	0.203	-0.229	0.526	0.622	1.000		
V1V11	0.085	-0.070	-0.037	0.091	-0.034	-0.024	1.000	
V1V12	0.066	-0.105	-0.234	-0.023	-0.020	-0.024	0.193	1.000
V1V13	0.004	0.005	0.004	-0.020	-0.010	-0.006	-0.024	0.082
V1V19	0.073	0.056	0.251	-0.070	-0.041	-0.016	-0.071	-0.079
V1V21	0.068	0.024	-0.416	0.140	0.180	0.017	-0.132	0.141
V1V22	0.194	0.180	-0.372	0.062	0.079	-0.066	-0.104	0.244
V1V23	0.121	0.072	0.146	-0.101	-0.065	-0.036	0.499	0.072
V1V24	0.042	0.243	-0.258	0.183	-0.011	0.288	0.070	0.144
V1V25	0.084	0.171	-0.026	-0.033	0.022	-0.025	-0.028	0.012
V1V29	-0.193	-0.078	0.375	-0.180	-0.090	-0.048	-0.243	-0.249
V1V31	-0.024	0.295	-0.262	0.211	-0.022	0.180	-0.099	-0.096
V1V32	0.071	0.076	0.181	-0.133	-0.041	-0.017	-0.068	-0.055
V1V34	-0.032	-0.026	-0.051	0.056	-0.010	-0.008	-0.041	-0.042
V1V39	0.060	0.077	-0.081	-0.019	-0.019	-0.022	-0.114	-0.059
V1PLAND	0.005	0.072	0.072	-0.187	-0.099	-0.105	0.219	0.118
V1PD	0.089	-0.042	0.052	0.156	-0.062	-0.010	-0.240	-0.141
V1LPI	0.006	0.045	-0.005	-0.088	-0.046	-0.049	0.396	0.097
V1LSI	0.105	0.053	0.180	0.022	-0.200	-0.084	-0.131	-0.143
V1SHAPE_MN	0.008	0.023	-0.001	-0.061	-0.083	-0.062	0.423	0.042
V1SHAPE_AM	-0.009	0.068	0.053	-0.130	-0.067	-0.078	0.410	0.071
V1SHAPE_CV	-0.015	0.076	0.079	-0.166	-0.092	-0.097	0.310	0.073
V1CPLAND	0.026	0.023	0.031	-0.142	-0.070	-0.073	0.296	0.187
V1CAI_MN	0.098	-0.019	0.034	-0.082	-0.072	-0.062	0.227	0.144
V1CAI_AM	0.059	-0.007	0.079	-0.137	-0.080	-0.106	0.273	0.239
V1CAI_CV	-0.124	0.085	-0.106	0.191	0.067	0.282	-0.140	-0.136
V1CWED	-0.041	0.103	-0.013	0.014	-0.028	-0.010	-0.230	-0.186
V1TECI	-0.081	0.037	-0.159	0.132	0.139	0.146	-0.238	-0.190
V1IJI	0.019	-0.085	0.168	-0.081	-0.133	-0.157	0.047	0.176
V1LANDPD	0.098	-0.044	0.244	-0.008	-0.174	-0.108	-0.054	-0.074
V1LANDLPI	-0.002	0.086	-0.123	0.053	0.054	0.187	0.314	0.070
V1LANDLSI	0.114	-0.005	0.244	-0.001	-0.183	-0.106	-0.080	-0.089
V1LSHAPE_MN	0.107	0.021	0.039	-0.020	-0.078	-0.101	-0.097	-0.018
V1LSHAPE_AM	-0.018	0.101	-0.082	0.004	0.044	0.127	0.413	0.036
V1LSHAPE_CV	-0.011	0.119	-0.126	-0.003	0.132	0.088	0.259	0.005
V1LCAI_MN	0.053	0.030	0.073	-0.142	-0.107	-0.107	0.237	0.113
V1LCAI_AM	-0.009	-0.051	-0.183	0.028	0.114	0.101	0.207	0.171
V1LCAI_CV	-0.052	-0.016	-0.118	0.147	0.160	0.169	-0.211	-0.117
V1LANDCWED	0.003	0.018	0.098	0.043	-0.096	-0.051	-0.262	-0.181
V1LANDTECI	-0.045	0.032	0.014	0.037	-0.033	0.006	-0.284	-0.173
V1LANDCONTAG	-0.099	0.049	-0.199	-0.021	0.157	0.137	0.074	0.009
V1LANDIJI	0.034	-0.102	0.155	0.031	-0.104	-0.092	-0.017	0.132
V1LANDSHDI	0.049	-0.080	0.204	-0.023	-0.160	-0.155	-0.112	0.016
V1LANDSIDI	0.061	-0.067	0.197	-0.027	-0.153	-0.162	-0.127	0.008

Appendix F continued

	V1V13	V1V19	V1V21	V1V22	V1V23	V1V24	V1V25	V1V29	V1V31	V1V32	V1V34	V1V39	V1PLAND	V1PD	V1LPI	V1LSI	V1SHAPE_MN	V1SHAPE_AM	V1SHAPE_CV	V1CPLAND
V1V13	1.000																			
V1V19	-0.023	1.000																		
V1V21	0.007	-0.132	1.000																	
V1V22	0.020	-0.228	0.408	1.000																
V1V23	0.021	-0.110	-0.154	-0.077	1.000															
V1V24	0.005	-0.143	0.386	0.372	0.083	1.000														
V1V25	-0.035	-0.080	0.215	0.336	0.003	0.216	1.000													
V1V29	-0.066	0.194	-0.381	-0.685	-0.368	-0.431	-0.265	1.000												
V1V31	-0.027	-0.068	0.448	0.231	-0.109	0.360	0.219	-0.209	1.000											
V1V32	-0.023	-0.051	-0.120	-0.099	0.592	-0.081	-0.077	-0.180	-0.070	1.000										
V1V34	-0.011	-0.028	0.420	0.002	-0.027	0.167	0.167	-0.080	0.210	-0.029	1.000									
V1V39	-0.030	0.020	0.108	-0.111	-0.154	0.076	-0.039	0.026	0.002	-0.080	0.114	1.000								
V1PLAND	-0.076	-0.088	-0.041	0.066	0.279	0.043	0.105	0.095	-0.149	0.064	-0.058	-0.063	1.000							
V1PD	0.027	0.127	0.025	0.018	-0.164	-0.038	-0.055	0.015	0.196	0.040	0.008	-0.128	-0.659	1.000						
V1LPI	-0.035	-0.105	-0.063	0.007	0.252	0.049	0.067	-0.013	-0.144	0.001	-0.055	0.103	0.771	-0.655	1.000					
V1LSI	-0.090	0.138	-0.017	0.016	0.053	-0.021	-0.066	0.171	0.174	0.100	-0.020	-0.207	-0.067	0.632	-0.347	1.000				
V1SHAPE_MN	-0.067	-0.084	-0.066	-0.011	0.254	-0.027	0.038	0.042	-0.103	0.031	-0.028	-0.029	0.731	-0.595	0.777	-0.129	1.000			
V1SHAPE_AM	-0.077	-0.113	-0.096	0.009	0.310	0.029	0.060	0.037	-0.158	-0.016	-0.064	0.022	0.844	-0.684	0.924	-0.186	0.772	1.000		
V1SHAPE_CV	-0.106	-0.110	-0.096	0.022	0.301	-0.006	0.064	0.090	-0.154	0.018	-0.062	-0.002	0.903	-0.711	0.818	-0.097	0.758	0.946	1.000	
V1CPLAND	-0.053	0.033	-0.072	0.013	0.341	-0.009	0.102	0.014	-0.185	0.164	-0.092	-0.025	0.884	-0.643	0.793	-0.231	0.697	0.779	0.800	1.000
V1CAI_MN	-0.067	0.271	-0.113	-0.041	0.382	-0.090	0.047	-0.013	-0.153	0.321	-0.082	-0.080	0.510	-0.247	0.434	0.052	0.455	0.406	0.440	0.758
V1CAI_AM	-0.018	0.209	-0.103	-0.006	0.369	-0.049	0.087	0.023	-0.207	0.248	-0.123	-0.104	0.716	-0.418	0.581	-0.079	0.499	0.588	0.606	0.895
V1CAI_CV	0.060	-0.186	0.079	-0.028	-0.291	0.142	-0.027	-0.104	0.183	-0.209	0.064	0.138	-0.588	0.150	-0.366	-0.235	-0.417	-0.419	-0.490	-0.642
V1CWED	-0.026	-0.264	0.181	0.208	-0.306	0.177	0.051	0.018	0.266	-0.278	0.090	-0.003	-0.183	0.297	-0.304	0.333	-0.213	-0.210	-0.183	-0.575
V1TECI	0.035	-0.232	0.167	0.061	-0.395	0.134	-0.019	-0.108	0.228	-0.283	0.100	0.197	-0.660	0.264	-0.474	-0.155	-0.473	-0.524	-0.577	-0.798
V1IJI	0.023	0.053	-0.005	0.095	0.143	-0.049	-0.024	0.043	-0.127	0.000	-0.050	-0.287	0.251	0.081	0.030	0.343	0.048	0.142	0.201	0.176
V1LANDPD	0.006	0.166	-0.123	-0.139	0.237	-0.154	-0.129	0.168	0.000	0.262	-0.057	-0.283	-0.067	0.604	-0.303	0.790	-0.160	-0.181	-0.122	-0.134
V1LANDLPI	-0.024	-0.099	-0.045	-0.044	0.084	0.079	0.022	-0.144	-0.061	-0.072	-0.024	0.220	0.174	-0.552	0.620	-0.674	0.402	0.478	0.342	0.321
V1LANDLSI	-0.033	0.266	-0.110	-0.096	0.180	-0.124	-0.104	0.196	0.025	0.227	-0.065	-0.263	-0.005	0.557	-0.290	0.903	-0.111	-0.148	-0.069	-0.083
V1LSHAPE_MN	-0.110	0.216	-0.116	-0.030	-0.027	-0.087	0.034	0.167	-0.039	0.085	-0.041	0.047	0.005	0.193	-0.199	0.355	-0.046	-0.183	-0.089	0.049
V1LSHAPE_AM	-0.048	-0.113	-0.055	-0.018	0.177	0.057	0.056	-0.119	-0.067	-0.085	-0.045	0.183	0.418	-0.656	0.789	-0.531	0.599	0.743	0.619	0.503
V1LSHAPE_CV	-0.147	-0.077	-0.063	0.056	0.084	0.035	0.128	-0.045	-0.070	-0.079	-0.087	0.179	0.440	-0.634	0.596	-0.373	0.527	0.632	0.620	0.458
V1LCAI_MN	-0.111	0.185	-0.123	0.004	0.357	-0.059	0.053	0.069	-0.190	0.231	-0.087	-0.062	0.785	-0.481	0.604	0.038	0.612	0.653	0.718	0.872
V1LCAI_AM	0.021	0.165	0.020	-0.013	0.099	0.025	0.083	-0.235	-0.042	0.120	-0.038	0.157	-0.040	-0.330	0.229	-0.591	0.088	0.070	-0.003	0.373
V1LCAI_CV	0.126	-0.161	0.114	-0.042	-0.322	0.061	-0.059	-0.109	0.178	-0.201	0.083	0.094	-0.785	0.386	-0.542	-0.176	-0.579	-0.627	-0.709	-0.794
V1LANDCWED	0.043	-0.162	0.083	0.078	-0.239	0.024	-0.041	0.075	0.202	-0.167	0.039	-0.121	-0.393	0.623	-0.489	0.538	-0.385	-0.407	-0.391	-0.695
V1LANDTECI	0.071	-0.236	0.148	0.112	-0.357	0.111	-0.012	-0.012	0.214	-0.272	0.079	0.012	-0.492	0.442	-0.479	0.205	-0.442	-0.450	-0.468	-0.783
V1LANDCONTAG	0.012	-0.217	0.077	0.044	-0.118	0.112	0.106	-0.173	0.016	-0.133	0.045	0.267	0.051	-0.595	0.335	-0.770	0.198	0.222	0.152	0.122
V1LANDIJI	0.077	0.098	-0.003	0.012	0.076	-0.079	-0.078	0.039	-0.066	-0.015	-0.013	-0.304	-0.063	0.301	-0.198	0.333	-0.187	-0.135	-0.101	-0.072
V1LANDSHDI	-0.014	0.177	-0.005	0.007	0.034	-0.095	-0.079	0.164	0.025	0.106	-0.035	-0.252	-0.103	0.591	-0.378	0.737	-0.263	-0.265	-0.201	-0.178
V1LANDSIDI	-0.008	0.181	-0.024	0.030	0.026	-0.076	-0.062	0.156	0.013	0.110	-0.034	-0.262	-0.113	0.615	-0.415	0.753	-0.288	-0.294	-0.228	-0.219

Appendix F continued

	V1CAI_MN	V1CAI_AM	V1CAI_CV	V1CWED	V1TECI	V1IJI	V1LANDPD	V1LANDLPI	V1LANDLSI	V1LSHAPE_MN	V1LSHAPE_AM
V1CAI_MN	1.000										
V1CAI_AM	0.829	1.000									
V1CAI_CV	-0.725	-0.771	1.000								
V1CWED	-0.738	-0.682	0.452	1.000							
V1TECI	-0.839	-0.920	0.844	0.679	1.000						
V1IJI	0.128	0.305	-0.416	-0.099	-0.480	1.000					
V1LANDPD	0.136	0.084	-0.350	0.025	-0.348	0.533	1.000				
V1LANDLPI	0.096	0.096	0.112	-0.303	0.052	-0.306	-0.605	1.000			
V1LANDLSI	0.235	0.155	-0.404	0.031	-0.404	0.491	0.923	-0.676	1.000		
V1LSHAPE_MN	0.391	0.205	-0.330	-0.093	-0.245	-0.062	0.112	-0.398	0.343	1.000	
V1LSHAPE_AM	0.196	0.243	0.033	-0.273	-0.109	-0.214	-0.542	0.877	-0.549	-0.383	1.000
V1LSHAPE_CV	0.238	0.229	-0.042	-0.129	-0.075	-0.311	-0.564	0.639	-0.453	0.006	0.794
V1LCAI_MN	0.881	0.879	-0.774	-0.544	-0.856	0.192	0.057	0.098	0.181	0.329	0.278
V1LCAI_AM	0.481	0.388	-0.007	-0.688	-0.170	-0.360	-0.534	0.503	-0.499	0.042	0.412
V1LCAI_CV	-0.775	-0.840	0.814	0.390	0.842	-0.287	-0.158	0.058	-0.291	-0.389	-0.142
V1LANDCWED	-0.709	-0.680	0.367	0.804	0.525	0.196	0.461	-0.496	0.383	-0.134	-0.495
V1LANDTECI	-0.899	-0.841	0.646	0.871	0.803	-0.067	0.061	-0.286	-0.011	-0.252	-0.344
V1LANDCONTAG	-0.172	-0.148	0.446	-0.035	0.391	-0.650	-0.856	0.693	-0.876	-0.356	0.639
V1LANDIJI	-0.005	0.087	-0.227	-0.108	-0.297	0.890	0.577	-0.342	0.495	-0.119	-0.338
V1LANDSHDI	0.092	0.140	-0.416	0.091	-0.330	0.554	0.808	-0.728	0.827	0.302	-0.696
V1LANDSIDI	0.057	0.109	-0.393	0.163	-0.291	0.501	0.783	-0.779	0.822	0.368	-0.742

Appendix F continued

	V1LSHAPE_CV	V1LCAI_MN	V1LCAI_AM	V1LCAI_CV	V1LANDCWED	V1LANDTECI	V1LANDCONTAG	V1LANDIJI	V1LANDSHDI	V1LANDSIDI
V1LSHAPE_CV	1.000									
V1LCAI_MN	0.373	1.000								
V1LCAI_AM	0.341	0.274	1.000							
V1LCAI_CV	-0.263	-0.954	-0.078	1.000						
V1LANDCWED	-0.478	-0.666	-0.808	0.496	1.000					
V1LANDTECI	-0.349	-0.831	-0.624	0.699	0.896	1.000				
V1LANDCONTAG	0.570	-0.111	0.510	0.255	-0.410	-0.037	1.000			
V1LANDIJI	-0.493	-0.078	-0.334	-0.002	0.312	0.064	-0.697	1.000		
V1LANDSHDI	-0.628	0.074	-0.487	-0.246	0.425	0.092	-0.887	0.566	1.000	
V1LANDSIDI	-0.633	0.051	-0.523	-0.241	0.458	0.142	-0.898	0.505	0.976	1.000

Appendix G. Correlation matrix for all FIA and landscape variables within the 1 km buffers used to develop models at the BBS route scale.

	V2STDAGE	V2STDSZCD	V2SITECLCD	V2TPA	V2DOMTPA	V2SSTPA	V2UTPA	V2DEADTPA	V2RCTPA	V2DRCTPA
V2STDAGE	1.000									
V2STDSZCD	0.643	1.000								
V2SITECLCD	0.618	0.821	1.000							
V2TPA	0.534	0.761	0.790	1.000						
V2DOMTPA	0.640	0.575	0.530	0.786	1.000					
V2SSTPA	0.366	0.701	0.763	0.953	0.596	1.000				
V2UTPA	0.451	0.777	0.788	0.970	0.643	0.979	1.000			
V2DEADTPA	0.479	0.650	0.463	0.627	0.570	0.515	0.608	1.000		
V2RCTPA	0.178	0.331	0.007	0.197	0.295	0.123	0.186	0.345	1.000	
V2DRCTPA	0.468	0.659	0.408	0.603	0.580	0.484	0.583	0.967	0.575	1.000
V2ALLDIAMAVG	0.472	-0.126	-0.129	-0.274	0.133	-0.449	-0.383	-0.036	-0.074	-0.049
V2ALLHTAVG	0.227	-0.058	0.188	-0.164	-0.174	-0.179	-0.143	-0.130	-0.438	-0.236
V2DDIAMAVG	0.078	0.411	0.155	-0.022	-0.269	0.026	0.128	0.216	0.200	0.243
V2DOMHTAVG	-0.009	0.480	0.413	0.068	-0.284	0.167	0.233	0.226	0.094	0.218
V2SSDIAMAVG	-0.105	-0.068	-0.184	-0.068	0.008	-0.085	-0.025	0.009	0.050	0.022
V2UDIAMAVG	0.232	0.146	-0.109	-0.185	0.005	-0.325	-0.166	0.253	0.275	0.298
V2RCDIAMAVG	0.003	-0.020	0.087	-0.061	-0.142	-0.019	-0.037	-0.094	-0.244	-0.149
V2DEADDIAMAV	-0.186	-0.249	-0.180	-0.303	-0.370	-0.223	-0.261	-0.293	-0.212	-0.315
V2DRCDIAMAVG	-0.192	-0.260	-0.184	-0.309	-0.371	-0.234	-0.270	-0.307	-0.208	-0.325
V2ALLDIAMCV	-0.368	0.322	0.084	0.194	-0.119	0.307	0.330	0.230	0.326	0.288
V2ALLHTCV	-0.174	0.201	-0.084	0.105	0.092	0.133	0.123	0.194	0.533	0.318
V2DDIAMCV	-0.048	-0.245	-0.043	-0.095	-0.031	-0.092	-0.178	-0.178	-0.151	-0.200
V2DHTCV	0.225	-0.213	-0.222	-0.114	0.281	-0.230	-0.281	-0.100	0.211	-0.024
V2SSDIAMCV	0.475	0.135	0.266	0.057	0.179	-0.021	-0.010	-0.036	-0.006	-0.034
V2UDIAMCV	0.256	0.285	0.234	0.062	-0.029	0.069	0.049	0.163	0.289	0.219
V2ALLSW_N	-0.041	0.247	0.321	0.202	-0.054	0.289	0.277	-0.010	-0.088	-0.030
V2DSW_N	-0.154	-0.333	-0.200	-0.163	-0.038	-0.180	-0.228	-0.135	-0.123	-0.152
V2SSSW_N	-0.093	-0.140	-0.115	-0.047	-0.046	-0.069	-0.080	-0.111	-0.045	-0.110
V2USW_N	-0.137	-0.167	-0.154	-0.154	-0.146	-0.154	-0.168	-0.121	-0.045	-0.119
V2V11	0.371	0.108	0.196	0.189	0.117	0.158	0.209	0.138	-0.109	0.091
V2V12	0.343	0.169	0.042	0.106	0.273	0.008	0.048	0.079	0.077	0.090
V2V13	-0.050	-0.078	-0.065	-0.044	-0.040	-0.030	-0.049	-0.088	-0.056	-0.092
V2V19	0.154	0.174	0.381	0.334	0.158	0.365	0.320	0.234	-0.137	0.167
V2V21	0.127	-0.169	-0.253	-0.064	0.244	-0.188	-0.167	-0.003	0.305	0.081
V2V22	0.332	-0.012	-0.211	-0.034	0.337	-0.167	-0.159	0.054	0.276	0.124
V2V23	0.443	0.281	0.370	0.220	0.176	0.140	0.205	0.208	-0.170	0.135
V2V24	0.129	-0.084	-0.126	-0.076	0.035	-0.115	-0.121	-0.021	0.196	0.036
V2V25	0.111	-0.013	-0.059	-0.045	0.047	-0.071	-0.080	-0.061	0.082	-0.030
V2V29	-0.247	0.360	0.349	0.328	-0.018	0.441	0.439	0.195	0.121	0.203
V2V31	0.032	-0.050	-0.126	-0.073	0.074	-0.109	-0.121	-0.016	0.235	0.051
V2V32	0.238	0.203	0.254	0.122	0.158	0.058	0.102	0.169	-0.187	0.097
V2V34	-0.019	-0.043	-0.043	-0.070	-0.057	-0.071	-0.059	-0.101	0.063	-0.071
V2V39	-0.121	-0.179	-0.104	-0.202	-0.227	-0.146	-0.194	-0.189	-0.100	-0.191
V2PLAND	0.342	0.494	0.330	0.366	0.292	0.311	0.383	0.345	0.357	0.400
V2PD	-0.147	-0.255	-0.063	-0.114	-0.032	-0.097	-0.160	-0.162	-0.355	-0.239
V2LPI	0.288	0.359	0.232	0.229	0.150	0.193	0.255	0.254	0.252	0.291
V2LSI	-0.060	-0.052	0.110	0.053	0.126	0.042	0.008	-0.031	-0.192	-0.076
V2SHAPE_MN	0.015	0.136	0.165	0.215	0.137	0.218	0.241	0.161	0.154	0.183
V2SHAPE_AM	0.282	0.431	0.319	0.299	0.212	0.261	0.330	0.267	0.301	0.317
V2SHAPE_CV	0.280	0.456	0.334	0.321	0.226	0.275	0.352	0.294	0.350	0.353
V2CPLAND	0.454	0.534	0.408	0.463	0.370	0.393	0.465	0.455	0.268	0.471
V2CAI_MN	0.508	0.471	0.533	0.546	0.510	0.449	0.494	0.504	-0.009	0.438
V2CAI_AM	0.559	0.615	0.562	0.630	0.527	0.551	0.609	0.541	0.178	0.523
V2CAI_CV	-0.479	-0.547	-0.537	-0.604	-0.578	-0.514	-0.560	-0.520	-0.110	-0.487
V2CWED	-0.421	-0.446	-0.479	-0.493	-0.355	-0.444	-0.484	-0.433	0.023	-0.371
V2TECI	-0.529	-0.616	-0.636	-0.662	-0.567	-0.581	-0.634	-0.552	-0.077	-0.504
V2IJI	0.124	0.073	0.022	0.140	0.284	0.072	0.091	0.147	0.127	0.165
V2LANDPD	0.129	0.207	0.371	0.271	0.253	0.243	0.244	0.118	-0.182	0.056
V2LANDLPI	0.059	0.034	-0.060	-0.093	-0.164	-0.091	-0.051	0.052	0.124	0.074
V2LANDLSI	0.163	0.236	0.433	0.358	0.357	0.325	0.308	0.163	-0.183	0.097
V2LSHAPE_MN	0.235	0.225	0.426	0.391	0.338	0.371	0.345	0.235	-0.220	0.143
V2LSHAPE_AM	0.136	0.229	0.144	0.081	-0.022	0.072	0.130	0.129	0.192	0.166
V2LSHAPE_CV	0.172	0.197	0.343	0.288	0.292	0.267	0.247	0.133	-0.113	0.085
V2LCAI_MN	0.491	0.605	0.559	0.585	0.477	0.516	0.577	0.522	0.225	0.518
V2LCAI_AM	0.310	0.148	0.121	0.220	0.155	0.179	0.206	0.308	0.004	0.267
V2LCAI_CV	-0.509	-0.632	-0.581	-0.609	-0.518	-0.540	-0.598	-0.510	-0.250	-0.516
V2LANDCWED	-0.407	-0.434	-0.381	-0.439	-0.298	-0.392	-0.441	-0.416	-0.143	-0.400
V2LANDTECI	-0.542	-0.616	-0.635	-0.674	-0.575	-0.588	-0.641	-0.567	-0.091	-0.520
V2LANDCONTAG	-0.116	-0.133	-0.303	-0.285	-0.333	-0.257	-0.229	-0.095	0.173	-0.040
V2LANDIJI	0.030	-0.021	0.023	0.085	0.193	0.048	0.040	0.017	-0.072	-0.002
V2LANDSHDI	0.055	0.091	0.180	0.234	0.322	0.207	0.181	0.064	-0.081	0.038
V2LANDSIDI	0.039	0.047	0.158	0.181	0.262	0.168	0.135	0.014	-0.132	-0.019

Appendix G continued

	V2ALLDIAMAVG	V2ALLHTAVG	V2DDIAMAVG	V2DOMHTAVG	V2SSDIAMAVG	V2UDIAMAVG	V2RCDIAMAVG
V2ALLDIAMAVG	1.000						
V2ALLHTAVG	0.353	1.000					
V2DDIAMAVG	-0.055	0.072	1.000				
V2DOMHTAVG	-0.242	0.317	0.847	1.000			
V2SSDIAMAVG	0.092	0.032	0.132	0.007	1.000		
V2UDIAMAVG	0.523	0.165	0.536	0.323	0.502	1.000	
V2RCDIAMAVG	-0.095	0.015	0.014	-0.031	-0.091	-0.206	1.000
V2DEADDIAMAV	-0.142	-0.059	0.010	0.003	-0.132	-0.191	0.440
V2DRCDIAMAVG	-0.124	0.006	0.016	-0.051	-0.114	-0.157	0.501
V2ALLDIAMCV	-0.805	-0.346	0.493	0.493	0.109	-0.013	-0.030
V2ALLHTCV	-0.316	-0.854	0.168	0.076	0.012	0.019	-0.131
V2DDIAMCV	-0.016	-0.063	-0.634	-0.584	-0.307	-0.490	0.192
V2DHTCV	0.403	-0.287	-0.628	-0.583	-0.157	-0.160	-0.122
V2SSDIAMCV	0.353	0.154	0.014	0.013	-0.433	-0.046	0.093
V2UDIAMCV	0.060	-0.094	0.181	0.112	-0.645	-0.095	0.008
V2ALLSW_N	-0.278	-0.017	0.229	0.318	0.064	-0.129	-0.038
V2DSW_N	0.006	0.094	-0.474	-0.391	-0.124	-0.231	-0.021
V2SSSW_N	-0.029	-0.121	-0.072	-0.078	-0.058	-0.046	-0.012
V2USW_N	-0.130	-0.018	-0.275	-0.247	-0.188	-0.209	0.032
V2V11	0.150	0.596	0.091	0.117	0.050	0.075	0.000
V2V12	0.255	0.064	-0.062	-0.089	0.129	0.138	-0.109
V2V13	-0.008	0.070	-0.061	-0.018	-0.003	-0.075	-0.022
V2V19	-0.115	-0.127	-0.156	-0.284	-0.122	-0.207	0.059
V2V21	0.322	-0.220	-0.285	-0.357	0.063	0.169	-0.145
V2V22	0.550	-0.143	-0.262	-0.372	-0.082	0.138	-0.243
V2V23	0.290	0.651	0.185	0.204	-0.002	0.174	0.110
V2V24	0.265	0.044	-0.164	-0.205	-0.153	0.011	-0.163
V2V25	0.186	0.008	-0.052	-0.055	-0.059	0.034	-0.058
V2V29	-0.733	-0.336	0.308	0.436	0.070	-0.143	0.090
V2V31	0.160	-0.138	-0.176	-0.253	-0.042	0.057	-0.055
V2V32	0.199	0.020	0.114	0.003	-0.028	0.131	0.143
V2V34	0.097	-0.032	0.013	0.036	0.084	0.107	-0.017
V2V39	-0.037	-0.073	-0.070	-0.153	-0.035	-0.189	0.463
V2PLAND	-0.087	0.040	0.264	0.329	0.005	0.154	-0.101
V2PD	0.149	-0.029	-0.292	-0.372	-0.066	-0.151	-0.001
V2LPI	-0.042	0.154	0.272	0.320	-0.040	0.138	-0.086
V2LSI	0.076	-0.073	-0.238	-0.263	-0.051	-0.083	0.047
V2SHAPE_MN	-0.202	-0.083	0.035	0.077	0.078	-0.005	0.226
V2SHAPE_AM	-0.100	0.132	0.290	0.353	0.014	0.167	-0.102
V2SHAPE_CV	-0.147	0.110	0.308	0.383	0.009	0.179	-0.061
V2CPLAND	-0.044	0.134	0.245	0.299	-0.002	0.143	-0.089
V2CAI_MN	0.112	0.166	0.018	0.048	-0.059	0.068	0.055
V2CAI_AM	-0.008	0.127	0.166	0.228	-0.002	0.082	-0.100
V2CAI_CV	-0.022	-0.051	-0.063	-0.138	0.021	-0.073	0.016
V2CWED	0.023	-0.234	-0.158	-0.216	-0.006	-0.059	0.056
V2TECI	-0.002	-0.209	-0.121	-0.224	-0.017	-0.092	0.119
V2IJI	0.145	-0.081	-0.079	-0.154	0.248	0.155	-0.323
V2LANDPD	0.048	0.228	-0.041	-0.030	0.072	0.018	-0.124
V2LANDLPI	-0.043	0.238	0.225	0.249	-0.024	0.113	0.024
V2LANDLSI	0.044	0.048	-0.164	-0.160	-0.028	-0.077	-0.016
V2LSHAPE_MN	0.024	0.078	-0.171	-0.148	-0.073	-0.158	0.179
V2LSHAPE_AM	-0.089	0.219	0.295	0.333	0.001	0.167	-0.021
V2LSHAPE_CV	0.025	-0.111	-0.166	-0.140	-0.159	-0.130	0.247
V2LCAI_MN	-0.068	0.016	0.183	0.243	-0.057	0.088	0.057
V2LCAI_AM	0.045	0.187	0.060	0.046	-0.015	0.038	0.062
V2LCAI_CV	0.055	0.058	-0.171	-0.226	0.056	-0.072	-0.087
V2LANDCWED	0.078	-0.104	-0.184	-0.235	0.051	-0.053	-0.040
V2LANDTECI	0.008	-0.188	-0.102	-0.201	0.016	-0.073	0.077
V2LANDCONTAG	-0.100	0.019	0.237	0.249	-0.050	0.077	0.084
V2LANDIJI	0.148	0.054	-0.151	-0.178	0.208	0.063	-0.334
V2LANDSHDI	0.078	-0.133	-0.218	-0.221	0.078	-0.068	-0.095
V2LANDSIDI	0.102	-0.126	-0.233	-0.248	0.057	-0.091	-0.054

Appendix G continued

	V2DEADDIAMAV	V2DRCDIAMAVG	V2ALLDIAMCV	V2ALLHTCV	V2DDIAMCV	V2DHTCV	V2SSDIAMCV	V2UDIAMCV
V2DEADDIAMAV	1.000							
V2DRCDIAMAVG	0.960	1.000						
V2ALLDIAMCV	-0.039	-0.050	1.000					
V2ALLHTCV	-0.006	-0.110	0.427	1.000				
V2DDIAMCV	0.116	0.091	-0.279	-0.121	1.000			
V2DHTCV	-0.066	-0.048	-0.515	0.303	0.577	1.000		
V2SSDIAMCV	-0.042	-0.063	-0.402	-0.130	-0.025	0.170	1.000	
V2UDIAMCV	-0.069	-0.098	-0.008	0.152	0.267	0.281	0.370	1.000
V2ALLSW_N	-0.143	-0.163	0.278	0.071	-0.108	-0.309	-0.029	0.001
V2DSW_N	0.173	0.242	-0.204	-0.258	0.436	0.174	-0.146	-0.100
V2SSSW_N	-0.030	-0.029	-0.044	0.147	-0.050	0.045	0.053	0.044
V2USW_N	0.198	0.250	0.018	-0.146	0.630	0.079	-0.218	0.205
V2V11	-0.049	-0.044	-0.162	-0.582	-0.127	-0.232	0.085	-0.071
V2V12	-0.054	-0.073	-0.192	-0.041	-0.013	0.172	0.065	-0.108
V2V13	0.021	0.000	-0.040	-0.093	0.019	-0.009	0.004	0.007
V2V19	-0.042	-0.039	-0.053	-0.243	0.158	-0.275	0.074	0.054
V2V21	-0.130	-0.114	-0.294	0.213	0.101	0.535	0.071	0.028
V2V22	-0.228	-0.214	-0.471	0.168	0.036	0.670	0.192	0.182
V2V23	-0.082	-0.061	-0.195	-0.592	0.044	-0.143	0.122	0.076
V2V24	-0.120	-0.108	-0.255	-0.055	0.294	0.357	0.044	0.250
V2V25	-0.107	-0.095	-0.157	0.039	0.058	0.221	0.085	0.173
V2V29	0.048	0.025	0.726	0.356	-0.237	-0.572	-0.191	-0.079
V2V31	-0.031	-0.020	-0.121	0.117	0.264	0.421	-0.023	0.298
V2V32	-0.076	-0.077	-0.082	-0.015	0.107	0.094	0.072	0.078
V2V34	-0.037	-0.017	-0.062	0.044	-0.019	-0.016	-0.030	-0.016
V2V39	0.423	0.421	-0.098	0.081	0.148	0.234	0.059	0.075
V2PLAND	-0.223	-0.222	0.234	0.080	-0.236	-0.135	0.036	0.092
V2PD	-0.017	-0.033	-0.272	-0.121	0.251	0.173	0.051	-0.044
V2LPI	-0.158	-0.150	0.173	-0.056	-0.198	-0.183	0.062	0.103
V2LSI	-0.062	-0.064	-0.137	-0.048	0.156	0.115	0.055	-0.003
V2SHAPE_MN	0.118	0.124	0.197	0.082	-0.081	-0.109	-0.071	-0.030
V2SHAPE_AM	-0.196	-0.183	0.262	-0.035	-0.261	-0.251	0.041	0.068
V2SHAPE_CV	-0.134	-0.127	0.311	-0.009	-0.274	-0.280	0.039	0.093
V2CPLAND	-0.210	-0.214	0.166	-0.037	-0.179	-0.166	0.071	0.081
V2CAI_MN	-0.108	-0.113	-0.090	-0.202	-0.002	-0.117	0.150	0.054
V2CAI_AM	-0.297	-0.303	0.092	-0.071	-0.118	-0.169	0.099	0.052
V2CAI_CV	0.165	0.172	-0.027	0.009	0.202	0.115	-0.135	-0.012
V2CWED	0.152	0.151	-0.055	0.225	0.061	0.296	-0.092	-0.014
V2TECI	0.330	0.340	-0.075	0.188	0.131	0.269	-0.138	-0.029
V2IJI	-0.343	-0.371	-0.059	0.058	-0.142	0.136	-0.010	-0.134
V2LANDPD	-0.335	-0.338	-0.025	-0.317	0.031	-0.160	0.062	-0.062
V2LANDLPI	0.059	0.074	0.120	-0.171	-0.040	-0.172	-0.010	0.084
V2LANDLSI	-0.255	-0.254	-0.087	-0.179	0.091	-0.033	0.101	-0.016
V2LSHAPE_MN	0.034	0.022	-0.159	-0.191	0.142	-0.032	0.115	-0.018
V2LSHAPE_AM	-0.132	-0.107	0.230	-0.140	-0.181	-0.267	0.007	0.091
V2LSHAPE_CV	0.120	0.119	-0.125	0.019	0.075	0.052	0.131	0.050
V2LCAI_MN	-0.089	-0.095	0.150	0.018	-0.168	-0.199	0.100	0.105
V2LCAI_AM	0.114	0.103	-0.056	-0.181	0.061	-0.083	0.045	0.022
V2LCAI_CV	0.067	0.071	-0.132	-0.111	0.228	0.129	-0.114	-0.067
V2LANDCWED	-0.003	-0.005	-0.113	0.068	0.082	0.223	-0.057	-0.074
V2LANDTECI	0.264	0.273	-0.067	0.179	0.110	0.250	-0.130	-0.046
V2LANDCONTAG	0.264	0.275	0.165	0.080	-0.068	-0.111	-0.059	0.081
V2LANDIJI	-0.347	-0.363	-0.137	-0.078	-0.053	0.131	-0.019	-0.150
V2LANDSHDI	-0.245	-0.244	-0.110	0.069	0.026	0.138	0.012	-0.109
V2LANDSIDI	-0.203	-0.206	-0.152	0.052	0.050	0.151	0.026	-0.110

Appendix G continued

	V2ALLSW_N	V2DSW_N	V2SSSW_N	V2USW_N	V2V11	V2V12	V2V13	V2V19	V2V21	V2V22	V2V23	V2V24	V2V25	V2V29	V2V31	V2V32	V2V34	V2V39
V2ALLSW_N	1.000																	
V2DSW_N	-0.485	1.000																
V2SSSW_N	-0.218	-0.009	1.000															
V2USW_N	-0.230	0.530	0.628	1.000														
V2V11	-0.037	0.092	-0.035	-0.024	1.000													
V2V12	-0.236	-0.021	-0.021	-0.025	0.193	1.000												
V2V13	0.007	-0.021	-0.010	-0.006	-0.024	0.079	1.000											
V2V19	0.255	-0.070	-0.042	-0.016	-0.067	-0.073	-0.023	1.000										
V2V21	-0.416	0.140	0.181	0.017	-0.132	0.139	0.008	-0.133	1.000									
V2V22	-0.371	0.064	0.078	-0.066	-0.104	0.242	0.020	-0.229	0.412	1.000								
V2V23	0.149	-0.101	-0.066	-0.036	0.499	0.071	0.021	-0.108	-0.155	-0.078	1.000							
V2V24	-0.257	0.185	-0.013	0.291	0.071	0.142	0.004	-0.142	0.389	0.378	0.083	1.000						
V2V25	-0.026	-0.031	0.021	-0.026	-0.033	0.010	-0.036	-0.083	0.219	0.339	-0.001	0.224	1.000					
V2V29	0.374	-0.182	-0.090	-0.048	-0.242	-0.249	-0.066	0.194	-0.382	-0.687	-0.366	-0.433	-0.267	1.000				
V2V31	-0.266	0.213	-0.023	0.182	-0.101	-0.098	-0.027	-0.069	0.453	0.235	-0.110	0.363	0.216	-0.211	1.000			
V2V32	0.181	-0.134	-0.041	-0.017	-0.069	-0.057	-0.023	-0.050	-0.121	-0.099	0.593	-0.082	-0.078	-0.179	-0.071	1.000		
V2V34	-0.048	0.052	-0.010	-0.008	-0.043	-0.044	-0.011	-0.029	0.410	0.014	-0.027	0.180	0.164	-0.084	0.208	-0.030	1.000	
V2V39	-0.080	-0.021	-0.020	-0.022	-0.115	-0.059	-0.030	0.022	0.107	-0.115	-0.155	0.072	-0.038	0.029	0.002	-0.081	0.112	1.000
V2PLAND	0.119	-0.211	-0.122	-0.117	0.214	0.131	-0.067	-0.142	-0.051	0.059	0.248	0.072	0.126	0.149	-0.154	0.004	-0.016	-0.063
V2PD	0.006	0.177	-0.024	0.053	-0.213	-0.155	0.023	0.197	-0.010	-0.012	-0.161	-0.082	-0.112	-0.088	0.152	0.091	-0.051	-0.050
V2LPI	0.064	-0.164	-0.088	-0.069	0.294	0.146	-0.074	-0.144	-0.108	0.029	0.291	0.052	0.120	0.048	-0.193	-0.013	-0.016	-0.053
V2LSI	0.040	0.145	-0.067	-0.004	-0.181	-0.226	-0.028	0.177	0.033	-0.026	-0.081	-0.069	-0.128	0.016	0.276	0.097	-0.001	-0.091
V2SHAPE_MN	0.041	-0.054	-0.069	-0.083	0.082	-0.218	-0.003	-0.033	0.041	-0.118	0.078	-0.063	-0.102	0.176	0.119	0.041	0.161	0.177
V2SHAPE_AM	0.093	-0.132	-0.107	-0.095	0.297	0.088	-0.105	-0.142	-0.092	-0.026	0.330	0.031	0.059	0.117	-0.118	0.011	-0.031	-0.166
V2SHAPE_CV	0.085	-0.153	-0.094	-0.098	0.315	0.001	-0.091	-0.155	-0.085	-0.059	0.327	0.020	0.018	0.169	-0.082	0.017	0.009	-0.100
V2CPLAND	0.106	-0.200	-0.109	-0.095	0.297	0.207	-0.071	-0.014	-0.101	0.003	0.341	0.013	0.093	0.119	-0.208	0.105	-0.064	-0.061
V2CAI_MN	0.019	-0.082	-0.076	-0.066	0.193	0.121	-0.077	0.282	-0.067	-0.026	0.381	-0.062	0.008	0.011	-0.077	0.338	-0.056	-0.095
V2CAI_AM	0.173	-0.183	-0.130	-0.111	0.283	0.245	-0.051	0.214	-0.132	-0.023	0.363	-0.039	0.074	0.126	-0.216	0.215	-0.084	-0.122
V2CAI_CV	-0.088	0.122	0.052	0.237	-0.172	-0.088	0.111	-0.186	0.003	-0.025	-0.263	0.141	0.023	-0.111	-0.008	-0.206	-0.006	0.075
V2CWED	-0.115	0.108	0.023	0.057	-0.268	-0.191	0.028	-0.262	0.214	0.174	-0.378	0.163	0.059	-0.112	0.282	-0.267	0.082	0.095
V2TECI	-0.177	0.129	0.132	0.162	-0.261	-0.145	0.067	-0.258	0.158	0.088	-0.401	0.156	0.035	-0.149	0.140	-0.281	0.071	0.207
V2IJI	0.107	-0.109	-0.109	-0.208	-0.075	0.230	0.041	-0.021	0.106	0.155	0.030	-0.095	-0.025	-0.048	-0.042	0.028	-0.016	-0.159
V2LANDPD	0.271	0.002	-0.177	-0.098	-0.006	-0.138	0.029	0.164	-0.120	-0.177	0.245	-0.176	-0.128	0.117	0.036	0.252	-0.038	-0.256
V2LANDLPI	-0.081	-0.068	-0.028	0.112	0.265	0.110	-0.074	-0.180	-0.119	-0.058	0.216	0.058	0.056	-0.044	-0.181	-0.062	-0.022	0.061
V2LANDLSI	0.202	0.063	-0.151	-0.093	-0.090	-0.165	-0.008	0.299	-0.073	-0.112	0.118	-0.126	-0.114	0.132	0.135	0.231	-0.029	-0.196
V2LSHAPE_MN	0.051	0.080	-0.037	-0.074	-0.011	-0.072	-0.048	0.393	-0.118	-0.130	0.083	-0.148	-0.073	0.109	0.081	0.237	-0.031	-0.040
V2LSHAPE_AM	0.021	-0.119	-0.105	0.032	0.294	0.044	-0.087	-0.161	-0.128	-0.078	0.287	0.050	0.008	0.056	-0.139	-0.040	-0.062	-0.087
V2LSHAPE_CV	-0.038	0.068	-0.077	-0.067	-0.098	-0.122	-0.108	0.233	-0.013	-0.011	-0.002	-0.033	-0.029	0.081	0.170	0.194	-0.028	-0.029
V2LCAI_MN	0.105	-0.190	-0.116	-0.143	0.239	0.093	-0.146	0.152	-0.119	-0.007	0.345	-0.030	0.060	0.147	-0.156	0.201	-0.013	-0.033
V2LCAI_AM	-0.113	-0.054	0.063	0.077	0.284	0.263	-0.045	0.203	-0.055	-0.053	0.231	-0.008	0.022	-0.095	-0.159	0.149	-0.087	0.069
V2LCAI_CV	-0.135	0.215	0.138	0.271	-0.206	-0.095	0.161	-0.131	0.088	-0.041	-0.298	0.055	-0.083	-0.161	0.124	-0.175	-0.006	0.027
V2LANDCWED	0.000	0.134	-0.040	0.008	-0.293	-0.216	0.089	-0.155	0.127	0.066	-0.306	0.018	-0.030	-0.079	0.251	-0.151	0.033	-0.019
V2LANDTECI	-0.129	0.110	0.094	0.128	-0.284	-0.141	0.092	-0.255	0.141	0.073	-0.401	0.118	0.022	-0.135	0.130	-0.273	0.054	0.166
V2LANDCONTAG	-0.142	-0.073	0.132	0.126	0.136	0.059	-0.032	-0.256	-0.022	0.018	0.009	0.125	0.086	-0.066	-0.151	-0.162	-0.004	0.166
V2LANDIJI	0.130	0.000	-0.133	-0.149	-0.105	0.155	0.115	0.062	0.061	0.034	-0.035	-0.145	-0.103	-0.010	0.027	0.030	-0.028	-0.201
V2LANDSHDI	0.134	0.078	-0.096	-0.129	-0.147	-0.056	0.002	0.213	0.128	0.039	-0.084	-0.084	-0.020	0.039	0.218	0.088	0.067	-0.136
V2LANDSIDI	0.119	0.082	-0.092	-0.120	-0.163	-0.056	0.029	0.218	0.097	0.063	-0.101	-0.064	-0.013	0.000	0.188	0.101	0.048	-0.129

Appendix G continued

	V2PLAND	V2PD	V2LPI	V2LSI	V2SHAPE_MN	V2SHAPE_AM	V2SHAPE_CV	V2CPLAND	V2CAI_MN	V2CAI_AM	V2CAI_CV	V2CWED	V2TECI
V2PLAND	1.000												
V2PD	-0.813	1.000											
V2LPI	0.885	-0.759	1.000										
V2LSI	-0.632	0.816	-0.669	1.000									
V2SHAPE_MN	0.256	-0.302	0.111	0.032	1.000								
V2SHAPE_AM	0.743	-0.644	0.788	-0.298	0.157	1.000							
V2SHAPE_CV	0.804	-0.720	0.789	-0.358	0.373	0.895	1.000						
V2CPLAND	0.912	-0.710	0.855	-0.628	0.160	0.643	0.700	1.000					
V2CAI_MN	0.295	-0.085	0.267	0.034	0.135	0.259	0.292	0.552	1.000				
V2CAI_AM	0.692	-0.441	0.607	-0.391	0.078	0.492	0.476	0.880	0.703	1.000			
V2CAI_CV	-0.324	0.069	-0.243	-0.120	-0.178	-0.331	-0.345	-0.494	-0.748	-0.663	1.000		
V2CWED	-0.330	0.212	-0.385	0.273	0.063	-0.245	-0.245	-0.654	-0.747	-0.808	0.645	1.000	
V2TECI	-0.427	0.122	-0.372	-0.021	-0.113	-0.428	-0.418	-0.656	-0.820	-0.843	0.837	0.844	1.000
V2IJI	0.097	0.046	0.002	0.091	-0.098	0.121	0.020	0.064	-0.064	0.160	-0.255	-0.069	-0.227
V2LANDPD	-0.195	0.526	-0.240	0.695	0.024	0.089	-0.013	-0.173	0.169	0.045	-0.302	-0.091	-0.404
V2LANDLPI	0.560	-0.645	0.814	-0.691	-0.011	0.540	0.563	0.579	0.078	0.266	0.075	-0.278	-0.061
V2LANDLSI	-0.300	0.628	-0.405	0.857	0.078	-0.043	-0.133	-0.256	0.309	0.041	-0.399	-0.069	-0.414
V2LSHAPE_MN	-0.321	0.505	-0.405	0.553	0.085	-0.265	-0.288	-0.104	0.587	0.222	-0.526	-0.365	-0.497
V2LSHAPE_AM	0.599	-0.557	0.763	-0.327	0.068	0.860	0.801	0.528	0.152	0.288	-0.077	-0.162	-0.222
V2LSHAPE_CV	-0.244	0.409	-0.364	0.635	0.180	-0.071	-0.089	-0.197	0.481	0.018	-0.375	0.013	-0.260
V2LCAI_MN	0.739	-0.552	0.659	-0.303	0.348	0.632	0.696	0.822	0.763	0.811	-0.680	-0.626	-0.737
V2LCAI_AM	0.166	-0.274	0.274	-0.434	-0.069	0.029	0.065	0.507	0.602	0.585	-0.297	-0.727	-0.439
V2LCAI_CV	-0.729	0.511	-0.597	0.237	-0.375	-0.615	-0.657	-0.758	-0.664	-0.775	0.711	0.512	0.696
V2LANDCWED	-0.566	0.598	-0.589	0.581	-0.118	-0.395	-0.448	-0.788	-0.677	-0.795	0.501	0.819	0.625
V2LANDTECI	-0.462	0.202	-0.413	0.036	-0.179	-0.453	-0.464	-0.695	-0.879	-0.858	0.837	0.847	0.977
V2LANDCONTAG	0.398	-0.677	0.532	-0.790	0.019	0.210	0.312	0.361	-0.178	0.026	0.353	-0.018	0.311
V2LANDIJI	-0.228	0.376	-0.287	0.316	-0.262	-0.167	-0.286	-0.193	-0.112	-0.012	-0.152	-0.049	-0.166
V2LANDSHDI	-0.441	0.646	-0.577	0.742	-0.052	-0.246	-0.373	-0.413	0.076	-0.054	-0.330	0.086	-0.218
V2LANDSIDI	-0.501	0.682	-0.648	0.764	-0.042	-0.308	-0.445	-0.500	0.021	-0.128	-0.230	0.180	-0.126

Appendix G continued

	V2IJI	V2LANDPD	V2LANDLPI	V2LANDLSI	V2LSHAPE_MN	V2LSHAPE_AM	V2LSHAPE_CV	V2LCAI_MN	V2LCAI_AM	V2LCAI_CV	V2LANDCWED
V2IJI	1.000										
V2LANDPD	0.439	1.000									
V2LANDLPI	-0.194	-0.422	1.000								
V2LANDLSI	0.272	0.888	-0.622	1.000							
V2LSHAPE_MN	-0.036	0.407	-0.512	0.673	1.000						
V2LSHAPE_AM	-0.085	-0.034	0.751	-0.204	-0.417	1.000					
V2LSHAPE_CV	-0.218	0.301	-0.507	0.630	0.745	-0.187	1.000				
V2LCAI_MN	-0.008	-0.032	0.339	0.039	0.200	0.445	0.249	1.000			
V2LCAI_AM	-0.217	-0.381	0.382	-0.329	0.196	0.102	-0.061	0.437	1.000		
V2LCAI_CV	-0.064	-0.013	-0.196	-0.103	-0.225	-0.339	-0.294	-0.951	-0.277	1.000	
V2LANDCWED	0.159	0.363	-0.499	0.316	-0.113	-0.317	0.059	-0.784	-0.811	0.668	1.000
V2LANDTECI	-0.132	-0.291	-0.122	-0.339	-0.499	-0.253	-0.299	-0.820	-0.527	0.761	0.725
V2LANDCONTAG	-0.449	-0.785	0.759	-0.890	-0.659	0.418	-0.562	0.113	0.367	-0.002	-0.412
V2LANDIJI	0.850	0.568	-0.395	0.433	0.142	-0.306	-0.137	-0.299	-0.257	0.233	0.350
V2LANDSHDI	0.390	0.662	-0.808	0.783	0.573	-0.496	0.497	-0.178	-0.352	0.032	0.423
V2LANDSIDI	0.306	0.619	-0.868	0.772	0.575	-0.542	0.550	-0.235	-0.399	0.077	0.482

Appendix G continued

	V2LANDTECI	V2LANDCONTAG	V2LANDIJI	V2LANDSHDI	V2LANDSIDI
V2LANDTECI	1.000				
V2LANDCONTAG	0.220	1.000			
V2LANDIJI	-0.035	-0.645	1.000		
V2LANDSHDI	-0.132	-0.914	0.577	1.000	
V2LANDSIDI	-0.044	-0.906	0.494	0.970	1.000

Appendix H. Correlation matrix for all FIA and landscape variables within the 10 km buffers used to develop models at the BBS route scale.

	V3STDAGE	V3STDSZCD	V3SITECLCD	V3TPA	V3DOMTPA	V3SSTPA	V3UTPA	V3DEADTPA	V3RCTPA	V3DRCTPA
V3STDAGE	1.000									
V3STDSZCD	0.670	1.000								
V3SITECLCD	0.605	0.825	1.000							
V3TPA	0.583	0.798	0.823	1.000						
V3DOMTPA	0.678	0.610	0.546	0.795	1.000					
V3SSTPA	0.418	0.739	0.808	0.954	0.609	1.000				
V3UTPA	0.506	0.815	0.825	0.970	0.656	0.979	1.000			
V3DEADTPA	0.556	0.695	0.498	0.654	0.632	0.530	0.634	1.000		
V3RCTPA	0.200	0.353	-0.003	0.233	0.344	0.151	0.221	0.412	1.000	
V3DRCTPA	0.533	0.693	0.430	0.627	0.637	0.498	0.606	0.970	0.623	1.000
V3ALLDIAMAVG	0.453	-0.150	-0.172	-0.268	0.148	-0.445	-0.383	-0.015	-0.071	-0.030
V3ALLHTAVG	0.158	-0.134	0.122	-0.171	-0.194	-0.172	-0.147	-0.126	-0.486	-0.238
V3DDIAMAVG	0.103	0.436	0.171	0.009	-0.246	0.052	0.164	0.268	0.239	0.294
V3DOMHTAVG	-0.073	0.468	0.411	0.120	-0.259	0.220	0.282	0.310	0.188	0.310
V3SSDIAMAVG	-0.042	-0.066	-0.194	-0.098	0.035	-0.137	-0.071	0.062	0.087	0.079
V3UDIAMAVG	0.263	0.156	-0.131	-0.172	0.049	-0.327	-0.158	0.322	0.324	0.362
V3RCDIAMAVG	0.059	0.056	0.173	0.005	-0.109	0.048	0.037	-0.056	-0.222	-0.108
V3DEADDIAMAV	-0.205	-0.245	-0.186	-0.316	-0.389	-0.231	-0.266	-0.310	-0.199	-0.320
V3DRCDIAMAVG	-0.212	-0.254	-0.186	-0.321	-0.396	-0.239	-0.272	-0.325	-0.199	-0.333
V3ALLDIAMCV	-0.311	0.354	0.129	0.213	-0.088	0.318	0.350	0.256	0.354	0.315
V3ALLHTCV	-0.146	0.207	-0.078	0.160	0.169	0.157	0.146	0.200	0.572	0.323
V3DDIAMCV	-0.035	-0.245	-0.011	-0.103	-0.029	-0.098	-0.193	-0.267	-0.245	-0.295
V3DHTCV	0.199	-0.257	-0.319	-0.119	0.316	-0.245	-0.302	-0.149	0.193	-0.071
V3SSDIAMCV	0.435	0.165	0.280	0.101	0.181	0.028	0.041	0.020	0.013	0.020
V3UDIAMCV	0.142	0.239	0.145	0.078	-0.039	0.102	0.084	0.094	0.303	0.164
V3ALLSW_N	0.016	0.273	0.395	0.247	-0.014	0.330	0.318	0.057	-0.094	0.028
V3DSW_N	-0.169	-0.333	-0.194	-0.154	-0.021	-0.170	-0.232	-0.184	-0.161	-0.203
V3SSSW_N	-0.104	-0.135	-0.109	-0.045	-0.076	-0.079	-0.093	-0.122	-0.060	-0.122
V3USW_N	-0.197	-0.341	-0.398	-0.295	-0.195	-0.333	-0.341	-0.200	-0.056	-0.197
V3V11	0.376	0.105	0.193	0.223	0.147	0.198	0.243	0.184	-0.105	0.130
V3V12	0.396	0.178	0.027	0.155	0.361	0.028	0.075	0.144	0.116	0.155
V3V13	-0.059	-0.086	-0.073	-0.066	-0.057	-0.051	-0.067	-0.082	-0.060	-0.086
V3V19	0.149	0.175	0.411	0.331	0.167	0.359	0.311	0.176	-0.170	0.106
V3V21	0.117	-0.166	-0.283	-0.083	0.213	-0.207	-0.189	-0.013	0.323	0.076
V3V22	0.316	-0.023	-0.253	-0.046	0.336	-0.184	-0.175	0.064	0.318	0.141
V3V23	0.483	0.306	0.395	0.251	0.185	0.183	0.247	0.260	-0.167	0.179
V3V24	0.141	-0.079	-0.167	-0.068	0.066	-0.106	-0.115	-0.051	0.191	0.009
V3V25	0.073	-0.083	-0.147	-0.095	0.032	-0.120	-0.133	-0.094	0.170	-0.035
V3V29	-0.227	0.374	0.385	0.333	-0.011	0.444	0.446	0.201	0.112	0.203
V3V31	0.042	-0.055	-0.138	-0.056	0.081	-0.078	-0.093	-0.042	0.216	0.022
V3V32	0.307	0.249	0.312	0.159	0.158	0.098	0.146	0.229	-0.198	0.144
V3V34	0.024	0.026	-0.013	-0.030	-0.025	-0.026	-0.024	-0.084	0.048	-0.059
V3V39	-0.169	-0.196	-0.118	-0.228	-0.277	-0.160	-0.210	-0.243	-0.141	-0.246
V3PLAND	0.399	0.582	0.381	0.462	0.358	0.412	0.498	0.455	0.454	0.514
V3PD	-0.188	-0.309	-0.070	-0.172	-0.069	-0.161	-0.233	-0.225	-0.417	-0.306
V3LPI	0.343	0.526	0.339	0.407	0.287	0.363	0.448	0.435	0.413	0.485
V3LSI	-0.137	-0.125	0.074	-0.022	0.057	-0.021	-0.072	-0.097	-0.215	-0.140
V3SHAPE_MN	-0.121	-0.243	-0.060	-0.097	-0.043	-0.074	-0.121	-0.186	-0.235	-0.225
V3SHAPE_AM	0.276	0.487	0.324	0.384	0.306	0.339	0.421	0.423	0.430	0.480
V3SHAPE_CV	0.195	0.493	0.332	0.355	0.208	0.338	0.417	0.334	0.414	0.398
V3CPLAND	0.552	0.675	0.503	0.605	0.487	0.526	0.619	0.594	0.377	0.613
V3CAI_MN	0.578	0.640	0.637	0.658	0.637	0.537	0.601	0.626	0.158	0.581
V3CAI_AM	0.646	0.699	0.608	0.719	0.622	0.625	0.701	0.640	0.243	0.618
V3CAI_CV	-0.508	-0.594	-0.564	-0.656	-0.631	-0.560	-0.608	-0.566	-0.155	-0.532
V3CWED	-0.520	-0.588	-0.573	-0.620	-0.485	-0.546	-0.604	-0.541	-0.061	-0.482
V3TECI	-0.577	-0.687	-0.682	-0.737	-0.652	-0.641	-0.706	-0.652	-0.152	-0.603
V3IJI	0.177	0.075	0.006	0.164	0.324	0.077	0.108	0.243	0.115	0.245
V3LANDPD	0.110	0.190	0.386	0.253	0.226	0.232	0.229	0.130	-0.209	0.059
V3LANDLPI	0.029	0.150	-0.013	0.004	-0.126	0.009	0.072	0.156	0.249	0.196
V3LANDLSI	0.130	0.204	0.427	0.322	0.323	0.294	0.268	0.143	-0.183	0.078
V3LSHAPE_MN	0.285	0.259	0.484	0.419	0.369	0.385	0.365	0.265	-0.229	0.165
V3LSHAPE_AM	0.076	0.275	0.097	0.109	-0.006	0.105	0.185	0.246	0.354	0.306
V3LSHAPE_CV	0.147	0.150	0.294	0.233	0.272	0.209	0.182	0.091	-0.086	0.055
V3LCAI_MN	0.569	0.771	0.654	0.718	0.584	0.642	0.723	0.657	0.381	0.668
V3LCAI_AM	0.433	0.306	0.222	0.348	0.293	0.274	0.330	0.409	0.088	0.371
V3LCAI_CV	-0.585	-0.772	-0.660	-0.727	-0.615	-0.652	-0.726	-0.640	-0.387	-0.655
V3LANDCWED	-0.522	-0.599	-0.470	-0.581	-0.441	-0.512	-0.584	-0.545	-0.262	-0.537
V3LANDTECI	-0.607	-0.724	-0.707	-0.776	-0.688	-0.675	-0.742	-0.684	-0.194	-0.641
V3LANDCONTAG	-0.099	-0.071	-0.257	-0.235	-0.327	-0.198	-0.163	-0.100	0.200	-0.038
V3LANDIJI	0.044	-0.074	-0.039	0.055	0.194	0.000	0.001	0.079	-0.113	0.044
V3LANDSHDI	0.045	-0.009	0.150	0.181	0.293	0.151	0.104	0.037	-0.177	-0.010
V3LANDSIDI	0.022	-0.088	0.079	0.086	0.219	0.064	0.013	-0.042	-0.219	-0.088

Appendix H continued

	V3ALLDIAMAVG	V3ALLHTAVG	V3DDIAMAVG	V3DOMHTAVG	V3SSDIAMAVG	V3UDIAMAVG	V3RCDIAMAVG
V3ALLDIAMAVG	1.000						
V3ALLHTAVG	0.316	1.000					
V3DDIAMAVG	-0.141	0.020	1.000				
V3DOMHTAVG	-0.386	0.196	0.872	1.000			
V3SSDIAMAVG	0.131	-0.005	0.114	-0.045	1.000		
V3UDIAMAVG	0.496	0.097	0.504	0.257	0.507	1.000	
V3RCDIAMAVG	-0.079	-0.021	0.099	0.103	-0.078	-0.148	1.000
V3DEADDIAMAV	-0.126	-0.119	0.083	0.173	-0.147	-0.144	0.493
V3DRCDIAMAVG	-0.119	-0.047	0.089	0.151	-0.137	-0.127	0.562
V3ALLDIAMCV	-0.811	-0.341	0.543	0.590	0.084	0.009	-0.028
V3ALLHTCV	-0.307	-0.957	0.138	0.023	0.006	0.016	0.012
V3DDIAMCV	0.130	-0.003	-0.596	-0.589	-0.271	-0.438	0.080
V3DHTCV	0.492	-0.378	-0.674	-0.737	-0.129	-0.117	-0.112
V3SSDIAMCV	0.321	0.118	0.016	0.007	-0.410	-0.007	0.135
V3UDIAMCV	0.014	-0.173	0.211	0.193	-0.556	-0.094	-0.017
V3ALLSW_N	-0.303	0.027	0.192	0.332	-0.018	-0.195	0.058
V3DSW_N	0.048	0.128	-0.483	-0.352	-0.063	-0.194	-0.109
V3SSSW_N	-0.067	-0.158	-0.061	-0.073	-0.140	-0.074	-0.023
V3USW_N	0.098	-0.121	-0.082	-0.177	0.018	0.138	-0.011
V3V11	0.120	0.574	0.055	0.021	-0.013	0.028	0.020
V3V12	0.294	-0.051	-0.099	-0.299	0.170	0.175	-0.091
V3V13	0.008	0.108	-0.055	0.005	0.029	-0.055	-0.022
V3V19	-0.107	-0.018	-0.176	-0.194	-0.126	-0.241	0.079
V3V21	0.344	-0.251	-0.278	-0.370	0.064	0.175	-0.162
V3V22	0.566	-0.167	-0.270	-0.416	-0.044	0.170	-0.265
V3V23	0.295	0.638	0.207	0.113	-0.018	0.190	0.159
V3V24	0.311	0.005	-0.163	-0.268	-0.127	0.027	-0.206
V3V25	0.214	-0.052	-0.107	-0.153	-0.039	0.019	-0.111
V3V29	-0.758	-0.306	0.340	0.563	0.049	-0.152	0.122
V3V31	0.192	-0.165	-0.157	-0.231	-0.013	0.057	-0.077
V3V32	0.220	0.064	0.140	-0.107	0.013	0.178	0.185
V3V34	0.076	-0.053	0.017	0.029	0.019	0.042	-0.015
V3V39	-0.079	-0.089	-0.066	-0.155	-0.047	-0.242	0.526
V3PLAND	-0.175	-0.031	0.367	0.411	0.099	0.202	-0.040
V3PD	0.225	0.063	-0.380	-0.399	-0.093	-0.170	-0.023
V3LPI	-0.198	0.036	0.399	0.433	0.069	0.201	-0.039
V3LSI	0.112	0.003	-0.305	-0.237	-0.104	-0.121	0.015
V3SHAPE_MN	0.123	-0.075	-0.290	-0.376	-0.071	-0.154	0.261
V3SHAPE_AM	-0.197	0.038	0.355	0.400	0.086	0.218	-0.056
V3SHAPE_CV	-0.318	-0.010	0.411	0.509	0.040	0.190	-0.031
V3CPLAND	-0.132	0.075	0.352	0.363	0.086	0.204	-0.027
V3CAI_MN	0.094	0.085	0.099	0.125	-0.042	0.164	0.101
V3CAI_AM	-0.045	0.112	0.235	0.225	0.093	0.138	-0.026
V3CAI_CV	0.031	-0.037	-0.040	-0.112	-0.053	-0.048	-0.052
V3CWED	0.088	-0.199	-0.199	-0.218	-0.030	-0.084	0.014
V3TECI	0.034	-0.187	-0.139	-0.240	-0.059	-0.139	0.061
V3IJI	0.138	-0.021	-0.140	-0.216	0.344	0.131	-0.204
V3LANDPD	0.056	0.338	-0.064	0.005	0.098	0.018	-0.098
V3LANDLPI	-0.226	0.092	0.421	0.430	0.007	0.174	0.058
V3LANDLSI	0.073	0.140	-0.202	-0.133	-0.029	-0.080	-0.002
V3LSHAPE_MN	0.067	0.205	-0.195	-0.120	-0.112	-0.118	0.127
V3LSHAPE_AM	-0.218	0.096	0.462	0.488	0.066	0.251	0.017
V3LSHAPE_CV	0.139	-0.117	-0.192	-0.170	-0.195	-0.081	0.222
V3LCAI_MN	-0.179	-0.048	0.310	0.357	-0.015	0.142	0.134
V3LCAI_AM	0.020	0.154	0.148	0.054	-0.012	0.106	0.076
V3LCAI_CV	0.152	0.110	-0.269	-0.312	0.012	-0.117	-0.169
V3LANDCWED	0.163	-0.040	-0.281	-0.273	0.032	-0.096	-0.075
V3LANDTECI	0.055	-0.162	-0.136	-0.248	-0.029	-0.128	0.037
V3LANDCONTAG	-0.178	-0.049	0.330	0.327	-0.057	0.087	0.055
V3LANDIJI	0.177	0.110	-0.243	-0.284	0.283	0.037	-0.278
V3LANDSHDI	0.165	-0.018	-0.372	-0.358	0.062	-0.140	-0.066
V3LANDSIDI	0.235	-0.036	-0.387	-0.415	0.052	-0.136	-0.031

Appendix H continued

	V3DEADDIAMAV	V3DRCDIAMAVG	V3ALLDIAMCV	V3ALLHTCV	V3DDIAMCV	V3DHTCV	V3SSDIAMCV	V3UDIAMCV
V3DEADDIAMAV	1.000							
V3DRCDIAMAVG	0.968	1.000						
V3ALLDIAMCV	-0.036	-0.044	1.000					
V3ALLHTCV	0.195	0.102	0.404	1.000				
V3DDIAMCV	0.026	0.014	-0.395	-0.121	1.000			
V3DHTCV	-0.042	-0.045	-0.563	0.328	0.620	1.000		
V3SSDIAMCV	-0.019	-0.033	-0.344	-0.079	0.038	0.187	1.000	
V3UDIAMCV	-0.051	-0.074	0.040	0.254	0.141	0.270	0.312	1.000
V3ALLSW_N	-0.137	-0.147	0.275	-0.005	-0.007	-0.347	0.029	0.036
V3DSW_N	0.076	0.126	-0.253	-0.222	0.367	0.172	-0.148	-0.175
V3SSSW_N	-0.001	-0.001	-0.037	0.189	-0.095	0.021	0.101	0.091
V3USW_N	0.239	0.262	-0.145	0.149	-0.126	0.137	-0.057	-0.099
V3V11	-0.077	-0.065	-0.162	-0.611	-0.156	-0.287	0.090	-0.142
V3V12	-0.087	-0.100	-0.208	-0.035	0.017	0.205	0.061	-0.220
V3V13	0.024	0.000	-0.045	-0.113	-0.003	-0.038	0.007	0.000
V3V19	-0.054	-0.050	-0.071	-0.153	0.220	-0.207	0.100	-0.006
V3V21	-0.133	-0.119	-0.293	0.252	0.125	0.573	0.080	0.110
V3V22	-0.222	-0.219	-0.448	0.176	0.054	0.716	0.153	0.222
V3V23	-0.117	-0.091	-0.198	-0.645	0.065	-0.219	0.146	0.027
V3V24	-0.174	-0.160	-0.277	-0.037	0.288	0.388	0.050	0.265
V3V25	-0.136	-0.124	-0.174	0.071	0.140	0.310	0.083	0.185
V3V29	0.067	0.049	0.738	0.361	-0.283	-0.594	-0.158	-0.060
V3V31	-0.062	-0.047	-0.149	0.154	0.209	0.403	-0.002	0.285
V3V32	-0.117	-0.113	-0.098	-0.148	0.159	0.004	0.090	-0.149
V3V34	-0.039	-0.025	-0.050	0.065	0.020	0.041	0.002	0.067
V3V39	0.537	0.549	-0.084	0.088	0.198	0.213	0.015	0.058
V3PLAND	-0.231	-0.238	0.374	0.100	-0.343	-0.258	0.037	0.083
V3PD	-0.051	-0.056	-0.377	-0.119	0.327	0.290	0.090	-0.054
V3LPI	-0.173	-0.174	0.386	0.032	-0.345	-0.326	0.020	0.079
V3LSI	-0.097	-0.089	-0.200	-0.031	0.210	0.169	0.057	0.023
V3SHAPE_MN	0.213	0.223	-0.270	-0.004	0.237	0.254	-0.017	-0.100
V3SHAPE_AM	-0.214	-0.211	0.404	0.026	-0.347	-0.338	0.009	0.061
V3SHAPE_CV	-0.159	-0.148	0.516	0.091	-0.401	-0.406	-0.017	0.098
V3CPLAND	-0.237	-0.240	0.309	-0.022	-0.294	-0.288	0.064	0.032
V3CAI_MN	-0.167	-0.160	-0.001	-0.058	-0.044	-0.109	0.137	0.026
V3CAI_AM	-0.321	-0.332	0.176	-0.091	-0.192	-0.249	0.117	-0.014
V3CAI_CV	0.224	0.217	-0.084	0.017	0.192	0.149	-0.060	0.009
V3CWED	0.156	0.152	-0.144	0.192	0.115	0.341	-0.053	0.058
V3TECI	0.391	0.390	-0.147	0.164	0.180	0.331	-0.120	0.029
V3IJI	-0.327	-0.342	-0.050	-0.026	-0.086	0.121	-0.109	-0.191
V3LANDPD	-0.398	-0.397	-0.029	-0.370	0.065	-0.212	0.059	-0.118
V3LANDLPI	0.129	0.158	0.350	-0.026	-0.261	-0.355	-0.068	0.046
V3LANDLSI	-0.299	-0.298	-0.119	-0.179	0.142	-0.012	0.109	-0.029
V3LSHAPE_MN	-0.036	-0.042	-0.202	-0.243	0.138	-0.057	0.142	-0.082
V3LSHAPE_AM	-0.090	-0.066	0.431	-0.010	-0.359	-0.397	-0.016	0.079
V3LSHAPE_CV	0.061	0.055	-0.220	0.112	0.121	0.196	0.189	0.073
V3LCAI_MN	-0.103	-0.109	0.325	0.097	-0.270	-0.292	0.075	0.082
V3LCAI_AM	0.082	0.094	0.011	-0.156	-0.036	-0.130	0.038	-0.067
V3LCAI_CV	0.084	0.090	-0.287	-0.158	0.284	0.215	-0.108	-0.083
V3LANDCWED	-0.002	-0.010	-0.242	0.014	0.192	0.286	-0.036	-0.018
V3LANDTECI	0.365	0.364	-0.161	0.134	0.188	0.319	-0.116	0.015
V3LANDCONTAG	0.303	0.320	0.244	0.100	-0.163	-0.189	-0.064	0.083
V3LANDIJI	-0.349	-0.351	-0.170	-0.173	0.068	0.129	-0.140	-0.195
V3LANDSHDI	-0.259	-0.279	-0.260	-0.034	0.160	0.234	0.043	-0.077
V3LANDSIDI	-0.217	-0.243	-0.333	-0.022	0.189	0.297	0.089	-0.073

Appendix H continued

	V3ALLSW_N	V3DSW_N	V3SSSW_N	V3USW_N	V3V11	V3V12	V3V13	V3V19	V3V21	V3V22	V3V23	V3V24	V3V25	V3V29	V3V31	V3V32	V3V34	V3V39
V3ALLSW_N	1.000																	
V3DSW_N	-0.495	1.000																
V3SSSW_N	-0.230	-0.008	1.000															
V3USW_N	-0.659	0.233	0.759	1.000														
V3V11	0.003	0.057	-0.042	-0.092	1.000													
V3V12	-0.200	-0.040	-0.035	0.090	0.168	1.000												
V3V13	0.024	-0.029	-0.011	-0.032	-0.021	0.056	1.000											
V3V19	0.312	-0.067	-0.040	-0.175	-0.047	-0.041	-0.026	1.000										
V3V21	-0.454	0.161	0.220	0.309	-0.144	0.162	0.003	-0.157	1.000									
V3V22	-0.416	0.109	0.058	0.177	-0.104	0.276	0.025	-0.254	0.443	1.000								
V3V23	0.197	-0.141	-0.066	-0.181	0.523	0.085	0.018	-0.067	-0.173	-0.092	1.000							
V3V24	-0.282	0.184	-0.040	0.016	0.068	0.100	-0.019	-0.168	0.427	0.467	0.065	1.000						
V3V25	-0.084	0.041	0.033	0.018	-0.057	0.040	-0.046	-0.126	0.300	0.392	-0.036	0.365	1.000					
V3V29	0.392	-0.196	-0.086	-0.237	-0.230	-0.259	-0.072	0.190	-0.411	-0.696	-0.337	-0.486	-0.328	1.000				
V3V31	-0.317	0.224	-0.029	0.060	-0.116	-0.116	-0.031	-0.085	0.529	0.278	-0.125	0.419	0.254	-0.242	1.000			
V3V32	0.198	-0.152	-0.037	-0.133	-0.044	-0.008	-0.025	0.029	-0.131	-0.122	0.614	-0.092	-0.100	-0.158	-0.076	1.000		
V3V34	-0.021	0.025	-0.009	0.012	-0.047	-0.053	-0.012	-0.034	0.284	0.092	-0.029	0.200	0.157	-0.091	0.159	-0.033	1.000	
V3V39	-0.044	0.014	-0.031	0.051	-0.133	-0.093	-0.034	0.057	0.056	-0.168	-0.182	0.009	-0.051	0.072	0.003	-0.098	0.073	1.000
V3PLAND	0.198	-0.333	-0.128	-0.247	0.226	0.147	-0.035	-0.168	-0.092	0.021	0.269	0.002	0.024	0.246	-0.190	0.039	0.023	-0.115
V3PD	0.014	0.235	-0.002	0.003	-0.204	-0.166	-0.009	0.271	0.007	-0.007	-0.161	-0.056	-0.080	-0.148	0.163	0.072	-0.067	-0.030
V3LPI	0.130	-0.271	-0.079	-0.163	0.261	0.121	-0.031	-0.186	-0.128	-0.048	0.295	0.024	0.025	0.247	-0.229	0.048	0.015	-0.096
V3LSI	-0.017	0.248	-0.012	-0.078	-0.154	-0.282	-0.002	0.183	0.049	0.009	-0.077	0.006	-0.061	-0.064	0.302	0.063	-0.030	-0.099
V3SHAPE_MN	-0.129	0.184	-0.015	0.055	-0.116	-0.153	-0.043	0.157	0.140	0.002	-0.095	0.001	-0.091	-0.146	0.276	0.049	0.110	0.179
V3SHAPE_AM	0.111	-0.217	-0.055	-0.185	0.240	0.021	0.006	-0.203	-0.105	-0.032	0.306	0.049	0.086	0.224	-0.125	0.062	-0.030	-0.196
V3SHAPE_CV	0.129	-0.198	-0.069	-0.194	0.236	-0.051	-0.020	-0.197	-0.105	-0.098	0.242	-0.041	-0.025	0.306	-0.077	-0.010	0.003	-0.155
V3CPLAND	0.192	-0.293	-0.119	-0.231	0.317	0.250	-0.060	-0.027	-0.131	-0.060	0.378	-0.071	-0.058	0.253	-0.237	0.163	-0.051	-0.137
V3CAI_MN	-0.013	-0.043	-0.071	-0.134	0.136	0.185	-0.082	0.273	-0.035	-0.048	0.367	-0.083	-0.146	0.134	-0.030	0.414	-0.086	-0.157
V3CAI_AM	0.239	-0.256	-0.122	-0.296	0.323	0.322	-0.056	0.183	-0.159	-0.071	0.397	-0.118	-0.060	0.215	-0.234	0.257	-0.099	-0.200
V3CAI_CV	-0.077	0.027	0.060	0.213	-0.186	-0.171	0.077	-0.179	-0.026	0.016	-0.256	0.151	0.142	-0.179	-0.062	-0.196	0.067	0.122
V3CWED	-0.132	0.061	0.037	0.145	-0.276	-0.255	0.032	-0.250	0.202	0.217	-0.388	0.204	0.176	-0.233	0.233	-0.306	0.128	0.162
V3TECI	-0.187	0.096	0.103	0.290	-0.273	-0.174	0.038	-0.249	0.149	0.106	-0.405	0.177	0.132	-0.219	0.094	-0.317	0.141	0.316
V3IJI	0.136	-0.113	-0.093	-0.155	0.043	0.331	0.022	-0.019	0.140	0.131	0.124	-0.066	0.053	-0.092	-0.031	0.002	-0.035	-0.166
V3LANDPD	0.335	-0.001	-0.155	-0.355	0.044	-0.150	0.056	0.185	-0.172	-0.191	0.294	-0.189	-0.139	0.094	0.009	0.267	-0.082	-0.304
V3LANDLPI	-0.070	-0.154	0.031	0.112	0.198	0.031	-0.044	-0.272	-0.110	-0.170	0.193	0.040	-0.049	0.165	-0.246	-0.020	-0.002	0.093
V3LANDLSI	0.193	0.119	-0.109	-0.294	-0.044	-0.193	0.023	0.294	-0.098	-0.096	0.151	-0.092	-0.115	0.084	0.144	0.236	-0.061	-0.232
V3LSHAPE_MN	0.026	0.178	-0.018	-0.085	0.062	-0.067	-0.045	0.443	-0.138	-0.159	0.135	-0.152	-0.162	0.110	0.082	0.275	-0.089	-0.078
V3LSHAPE_AM	0.042	-0.239	-0.046	-0.085	0.235	-0.048	-0.026	-0.294	-0.111	-0.112	0.240	0.064	0.009	0.196	-0.180	-0.036	-0.047	-0.072
V3LSHAPE_CV	-0.116	0.115	0.020	-0.012	-0.120	-0.150	-0.078	0.230	0.045	0.088	-0.035	0.051	0.002	-0.016	0.231	0.198	-0.012	-0.009
V3LCAI_MN	0.130	-0.210	-0.115	-0.250	0.269	0.148	-0.131	0.092	-0.142	-0.049	0.362	-0.062	-0.068	0.286	-0.154	0.229	0.003	-0.089
V3LCAI_AM	-0.095	-0.049	0.046	0.104	0.312	0.350	-0.091	0.170	-0.030	-0.118	0.274	-0.061	-0.102	0.025	-0.171	0.204	-0.124	0.018
V3LCAI_CV	-0.145	0.220	0.124	0.283	-0.245	-0.150	0.131	-0.088	0.120	-0.013	-0.329	0.067	0.022	-0.264	0.119	-0.204	-0.014	0.076
V3LANDCWED	-0.009	0.131	-0.016	0.031	-0.307	-0.302	0.093	-0.114	0.114	0.106	-0.319	0.068	0.080	-0.211	0.234	-0.187	0.057	0.024
V3LANDTECI	-0.161	0.093	0.093	0.275	-0.291	-0.175	0.064	-0.244	0.136	0.088	-0.403	0.146	0.126	-0.229	0.089	-0.305	0.122	0.285
V3LANDCONTAG	-0.127	-0.116	0.045	0.203	0.100	0.080	-0.015	-0.289	-0.048	-0.033	-0.013	0.084	0.013	0.029	-0.205	-0.162	0.042	0.187
V3LANDIJI	0.148	0.045	-0.097	-0.159	-0.030	0.170	0.057	0.090	0.115	0.014	0.047	-0.096	-0.017	-0.085	0.078	0.045	-0.055	-0.192
V3LANDSHDI	0.092	0.119	0.017	-0.139	-0.107	-0.033	0.017	0.287	0.124	0.077	-0.084	-0.058	0.031	-0.066	0.239	0.061	-0.014	-0.134
V3LANDSIDI	0.058	0.110	0.018	-0.118	-0.129	-0.028	0.039	0.255	0.116	0.145	-0.109	-0.024	0.073	-0.151	0.218	0.069	-0.013	-0.114

Appendix H continued

	V3PLAND	V3PD	V3LPI	V3LSI	V3SHAPE_MN	V3SHAPE_AM	V3SHAPE_CV	V3CPLAND	V3CAI_MN	V3CAI_AM	V3CAI_CV	V3CWED	V3TECI
V3PLAND	1.000												
V3PD	-0.831	1.000											
V3LPI	0.932	-0.814	1.000										
V3LSI	-0.631	0.812	-0.635	1.000									
V3SHAPE_MN	-0.595	0.504	-0.666	0.541	1.000								
V3SHAPE_AM	0.758	-0.644	0.831	-0.264	-0.543	1.000							
V3SHAPE_CV	0.773	-0.676	0.769	-0.284	-0.429	0.788	1.000						
V3CPLAND	0.906	-0.718	0.881	-0.625	-0.566	0.665	0.647	1.000					
V3CAI_MN	0.196	0.018	0.227	0.152	-0.017	0.299	0.192	0.452	1.000				
V3CAI_AM	0.644	-0.415	0.624	-0.416	-0.382	0.487	0.365	0.873	0.633	1.000			
V3CAI_CV	-0.274	0.005	-0.267	-0.153	0.074	-0.334	-0.262	-0.483	-0.704	-0.655	1.000		
V3CWED	-0.313	0.187	-0.372	0.225	0.238	-0.269	-0.198	-0.658	-0.715	-0.852	0.679	1.000	
V3TECI	-0.364	0.051	-0.361	-0.100	0.158	-0.428	-0.349	-0.617	-0.796	-0.808	0.840	0.848	1.000
V3IJI	0.206	-0.073	0.166	-0.074	-0.113	0.198	0.034	0.240	0.006	0.340	-0.403	-0.205	-0.308
V3LANDPD	-0.134	0.478	-0.160	0.637	0.181	0.131	0.060	-0.082	0.276	0.111	-0.382	-0.188	-0.500
V3LANDLPI	0.572	-0.708	0.747	-0.645	-0.550	0.535	0.545	0.549	-0.008	0.225	0.092	-0.193	0.019
V3LANDLSI	-0.301	0.630	-0.337	0.850	0.360	0.015	-0.092	-0.235	0.419	0.028	-0.428	-0.137	-0.485
V3LSHAPE_MN	-0.353	0.547	-0.340	0.564	0.396	-0.176	-0.291	-0.093	0.655	0.241	-0.536	-0.463	-0.584
V3LSHAPE_AM	0.649	-0.643	0.768	-0.339	-0.550	0.840	0.758	0.525	0.078	0.230	-0.032	-0.079	-0.137
V3LSHAPE_CV	-0.372	0.528	-0.401	0.683	0.446	-0.127	-0.223	-0.332	0.494	-0.133	-0.237	0.062	-0.197
V3LCAI_MN	0.729	-0.544	0.722	-0.270	-0.296	0.681	0.683	0.806	0.702	0.749	-0.600	-0.611	-0.687
V3LCAI_AM	0.191	-0.288	0.285	-0.460	-0.168	0.076	0.022	0.539	0.536	0.664	-0.345	-0.760	-0.453
V3LCAI_CV	-0.726	0.515	-0.684	0.226	0.248	-0.663	-0.650	-0.769	-0.645	-0.724	0.616	0.543	0.668
V3LANDCWED	-0.563	0.584	-0.614	0.549	0.333	-0.423	-0.402	-0.799	-0.613	-0.815	0.480	0.820	0.602
V3LANDTECI	-0.421	0.123	-0.420	-0.059	0.159	-0.475	-0.409	-0.662	-0.838	-0.825	0.835	0.837	0.984
V3LANDCONTAG	0.433	-0.708	0.488	-0.773	-0.420	0.166	0.338	0.340	-0.322	-0.010	0.429	0.081	0.398
V3LANDIJI	-0.154	0.278	-0.177	0.158	0.045	-0.110	-0.293	-0.039	-0.007	0.180	-0.350	-0.198	-0.264
V3LANDSHDI	-0.496	0.701	-0.551	0.704	0.426	-0.253	-0.441	-0.396	0.225	-0.019	-0.382	-0.039	-0.301
V3LANDSIDI	-0.555	0.728	-0.629	0.715	0.490	-0.320	-0.518	-0.496	0.144	-0.116	-0.246	0.086	-0.178

Appendix H continued

	V3IJI	V3LANDPD	V3LANDLPI	V3LANDLSI	V3LSHAPE_MN	V3LSHAPE_AM	V3LSHAPE_CV	V3LCAI_MN	V3LCAI_AM	V3LCAI_CV	V3LANDCWED
V3IJI	1.000										
V3LANDPD	0.360	1.000									
V3LANDLPI	-0.116	-0.401	1.000								
V3LANDLSI	0.143	0.873	-0.592	1.000							
V3LSHAPE_MN	-0.060	0.462	-0.478	0.700	1.000						
V3LSHAPE_AM	-0.034	-0.055	0.789	-0.221	-0.418	1.000					
V3LSHAPE_CV	-0.372	0.251	-0.521	0.623	0.694	-0.292	1.000				
V3LCAI_MN	0.057	0.032	0.368	0.058	0.170	0.472	0.123	1.000			
V3LCAI_AM	0.010	-0.305	0.364	-0.313	0.216	0.072	-0.154	0.439	1.000		
V3LCAI_CV	-0.109	-0.053	-0.258	-0.101	-0.183	-0.398	-0.169	-0.973	-0.333	1.000	
V3LANDCWED	-0.020	0.276	-0.485	0.278	-0.133	-0.307	0.156	-0.780	-0.842	0.706	1.000
V3LANDTECI	-0.253	-0.424	-0.035	-0.436	-0.569	-0.185	-0.224	-0.773	-0.496	0.747	0.672
V3LANDCONTAG	-0.324	-0.739	0.780	-0.871	-0.707	0.474	-0.592	0.116	0.278	-0.035	-0.348
V3LANDIJI	0.829	0.473	-0.362	0.312	0.173	-0.325	-0.239	-0.258	-0.024	0.216	0.170
V3LANDSHDI	0.323	0.591	-0.825	0.748	0.643	-0.565	0.538	-0.199	-0.236	0.105	0.349
V3LANDSIDI	0.222	0.524	-0.883	0.715	0.595	-0.601	0.594	-0.277	-0.313	0.168	0.434

Appendix H continued

	V3LANDTECI	V3LANDCONTAG	V3LANDIJI	V3LANDSHDI	V3LANDSIDI
V3LANDTECI	1.000				
V3LANDCONTAG	0.336	1.000			
V3LANDIJI	-0.170	-0.546	1.000		
V3LANDSHDI	-0.240	-0.958	0.557	1.000	
V3LANDSIDI	-0.119	-0.923	0.443	0.966	1.000

Appendix I. Correlation matrix for all FIA and landscape variables between the 100 m (V1) and 1 km (V2) buffers used to develop models at the BBS route scale.

	V1STDAGE	V1STDSZCD	V1SITECLCD	V1TPA	V1DOMTPA	V1SSTPA	V1UTPA	V1DEADTPA	V1RCTPA	V1DRCTPA
V2STDAGE	1.000	0.644	0.620	0.535	0.642	0.368	0.452	0.479	0.169	0.469
V2STDSZCD	0.652	1.000	0.821	0.760	0.575	0.700	0.776	0.647	0.322	0.657
V2SITECLCD	0.619	0.821	1.000	0.789	0.531	0.762	0.787	0.461	-0.006	0.408
V2TPA	0.547	0.761	0.790	1.000	0.786	0.953	0.970	0.627	0.184	0.603
V2DOMTPA	0.643	0.576	0.531	0.785	1.000	0.596	0.643	0.569	0.284	0.580
V2SSTPA	0.383	0.701	0.763	0.953	0.597	1.000	0.979	0.514	0.111	0.484
V2UTPA	0.468	0.777	0.788	0.969	0.644	0.978	1.000	0.607	0.174	0.582
V2DEADTPA	0.488	0.651	0.463	0.628	0.570	0.515	0.609	1.000	0.339	0.967
V2RCTPA	0.186	0.331	0.007	0.194	0.293	0.120	0.183	0.341	1.000	0.572
V2DRCTPA	0.478	0.659	0.408	0.603	0.579	0.484	0.582	0.965	0.571	1.000
V2ALLDIAMAVG	0.458	-0.125	-0.127	-0.272	0.135	-0.446	-0.381	-0.034	-0.059	-0.047
V2ALLHTAVG	0.183	-0.081	0.121	-0.203	-0.194	-0.221	-0.183	-0.175	-0.397	-0.267
V2DDIAMAVG	0.077	0.409	0.153	-0.024	-0.271	0.024	0.125	0.211	0.208	0.239
V2DOMHTAVG	-0.058	0.389	0.254	-0.040	-0.312	0.039	0.112	0.092	0.119	0.111
V2SSDIAMAVG	-0.082	-0.069	-0.185	-0.068	0.007	-0.085	-0.025	0.008	0.106	0.020
V2UDIAMAVG	0.230	0.145	-0.110	-0.187	0.004	-0.327	-0.168	0.251	0.331	0.296
V2RCDIAMAVG	-0.003	-0.020	0.087	-0.060	-0.142	-0.018	-0.037	-0.093	-0.260	-0.148
V2DEADDIAMAV	-0.188	-0.249	-0.180	-0.301	-0.369	-0.220	-0.260	-0.291	-0.226	-0.313
V2DRCDIAMAVG	-0.196	-0.261	-0.184	-0.308	-0.370	-0.233	-0.269	-0.305	-0.221	-0.323
V2ALLDIAMCV	-0.352	0.319	0.081	0.190	-0.122	0.303	0.326	0.224	0.320	0.283
V2ALLHTCV	-0.160	0.201	-0.086	0.101	0.089	0.129	0.120	0.192	0.521	0.316
V2DDIAMCV	-0.049	-0.244	-0.042	-0.093	-0.029	-0.090	-0.175	-0.175	-0.169	-0.197
V2DHTCV	0.218	-0.211	-0.220	-0.113	0.281	-0.229	-0.280	-0.097	0.199	-0.022
V2SSDIAMCV	0.459	0.135	0.267	0.056	0.180	-0.021	-0.010	-0.035	-0.021	-0.033
V2UDIAMCV	0.232	0.285	0.235	0.061	-0.029	0.067	0.047	0.162	0.278	0.219
V2ALLSW_N	-0.022	0.246	0.319	0.200	-0.056	0.288	0.275	-0.013	-0.101	-0.033
V2DSW_N	-0.159	-0.334	-0.200	-0.163	-0.038	-0.181	-0.228	-0.134	-0.126	-0.151
V2SSSW_N	-0.094	-0.140	-0.115	-0.047	-0.046	-0.069	-0.080	-0.110	-0.042	-0.110
V2USW_N	-0.138	-0.166	-0.153	-0.153	-0.146	-0.153	-0.167	-0.118	-0.025	-0.117
V2V11	0.370	0.107	0.195	0.189	0.118	0.159	0.209	0.137	-0.113	0.090
V2V12	0.343	0.171	0.044	0.108	0.275	0.010	0.049	0.080	0.074	0.091
V2V13	-0.051	-0.077	-0.064	-0.042	-0.039	-0.028	-0.047	-0.088	-0.056	-0.092
V2V19	0.156	0.175	0.382	0.336	0.158	0.367	0.322	0.239	-0.139	0.172
V2V21	0.122	-0.169	-0.253	-0.065	0.242	-0.190	-0.169	-0.001	0.302	0.082
V2V22	0.327	-0.010	-0.209	-0.032	0.337	-0.166	-0.157	0.056	0.273	0.126
V2V23	0.441	0.280	0.369	0.220	0.177	0.140	0.205	0.204	-0.176	0.132
V2V24	0.122	-0.086	-0.127	-0.078	0.033	-0.117	-0.123	-0.021	0.192	0.036
V2V25	0.111	-0.011	-0.059	-0.043	0.047	-0.070	-0.079	-0.060	0.078	-0.030
V2V29	-0.234	0.359	0.347	0.326	-0.019	0.439	0.437	0.193	0.118	0.201
V2V31	0.030	-0.050	-0.126	-0.075	0.073	-0.111	-0.122	-0.014	0.236	0.053
V2V32	0.236	0.203	0.253	0.121	0.160	0.057	0.100	0.166	-0.188	0.094
V2V34	-0.022	-0.044	-0.043	-0.071	-0.058	-0.072	-0.060	-0.101	0.063	-0.071
V2V39	-0.126	-0.180	-0.104	-0.201	-0.227	-0.145	-0.193	-0.188	-0.104	-0.190
V2PLAND	0.347	0.493	0.330	0.365	0.291	0.311	0.382	0.340	0.347	0.395
V2PD	-0.148	-0.253	-0.063	-0.112	-0.031	-0.096	-0.158	-0.157	-0.345	-0.233
V2LPI	0.286	0.358	0.232	0.229	0.149	0.193	0.254	0.251	0.245	0.288
V2LSI	-0.061	-0.053	0.109	0.052	0.126	0.040	0.007	-0.030	-0.189	-0.075
V2SHAPE_MN	0.014	0.134	0.163	0.212	0.135	0.215	0.238	0.159	0.140	0.181
V2SHAPE_AM	0.281	0.429	0.318	0.297	0.212	0.258	0.328	0.261	0.293	0.310
V2SHAPE_CV	0.280	0.454	0.332	0.320	0.226	0.272	0.350	0.287	0.340	0.346
V2CPLAND	0.455	0.535	0.408	0.463	0.371	0.394	0.466	0.452	0.258	0.468
V2CAI_MN	0.505	0.471	0.534	0.548	0.512	0.451	0.495	0.503	-0.017	0.437
V2CAI_AM	0.561	0.615	0.563	0.630	0.528	0.553	0.610	0.539	0.168	0.521
V2CAI_CV	-0.478	-0.548	-0.538	-0.604	-0.579	-0.515	-0.560	-0.519	-0.102	-0.486
V2CWED	-0.415	-0.447	-0.480	-0.496	-0.357	-0.447	-0.486	-0.433	0.022	-0.371
V2TECI	-0.527	-0.617	-0.637	-0.664	-0.569	-0.582	-0.635	-0.550	-0.072	-0.503
V2IJI	0.124	0.075	0.024	0.140	0.284	0.073	0.092	0.146	0.138	0.164
V2LANDPD	0.129	0.207	0.370	0.271	0.254	0.242	0.244	0.117	-0.177	0.057
V2LANDLPI	0.053	0.035	-0.059	-0.092	-0.164	-0.089	-0.050	0.050	0.132	0.073
V2LANDLSI	0.164	0.235	0.432	0.358	0.358	0.323	0.307	0.163	-0.184	0.098
V2LSHAPE_MN	0.235	0.226	0.427	0.394	0.340	0.373	0.348	0.238	-0.224	0.147
V2LSHAPE_AM	0.133	0.228	0.144	0.081	-0.021	0.072	0.129	0.124	0.196	0.162
V2LSHAPE_CV	0.175	0.197	0.343	0.289	0.294	0.267	0.248	0.134	-0.124	0.086
V2LCAI_MN	0.490	0.603	0.558	0.585	0.477	0.516	0.576	0.519	0.211	0.515
V2LCAI_AM	0.304	0.149	0.123	0.223	0.156	0.182	0.209	0.309	0.004	0.268
V2LCAI_CV	-0.511	-0.630	-0.580	-0.608	-0.518	-0.539	-0.597	-0.507	-0.232	-0.512
V2LANDCWED	-0.403	-0.434	-0.382	-0.439	-0.299	-0.394	-0.442	-0.414	-0.135	-0.398
V2LANDTECI	-0.540	-0.616	-0.636	-0.675	-0.576	-0.589	-0.642	-0.565	-0.082	-0.519
V2LANDCONTAG	-0.116	-0.133	-0.303	-0.285	-0.333	-0.256	-0.229	-0.096	0.171	-0.042
V2LANDIJI	0.028	-0.019	0.024	0.085	0.194	0.048	0.040	0.017	-0.057	0.000
V2LANDSHDI	0.055	0.091	0.179	0.233	0.321	0.205	0.180	0.065	-0.085	0.039
V2LANDSIDI	0.042	0.047	0.158	0.180	0.262	0.166	0.134	0.016	-0.136	-0.017

Appendix I continued

	V1ALLDIAMAVG	V1ALLHTAVG	V1DDIAMAVG	V1DOMHTAVG	V1SSDIAMAVG	V1UDIAMAVG	V1RCDIAMAVG
V2STDAGE	0.471	0.235	0.075	-0.009	-0.111	0.231	-0.015
V2STDSZCD	-0.126	-0.060	0.408	0.533	-0.071	0.147	-0.046
V2SITECLCD	-0.129	0.201	0.151	0.474	-0.187	-0.108	0.067
V2TPA	-0.275	-0.115	-0.024	0.202	-0.070	-0.183	-0.085
V2DOMTPA	0.133	-0.134	-0.269	-0.219	0.003	0.007	-0.167
V2SSTPA	-0.449	-0.139	0.024	0.296	-0.085	-0.323	-0.040
V2UTPA	-0.384	-0.105	0.125	0.361	-0.026	-0.164	-0.060
V2DEADTPA	-0.037	-0.141	0.215	0.240	0.005	0.252	-0.109
V2RCTPA	-0.072	-0.475	0.201	0.054	0.051	0.276	-0.259
V2DRCTPA	-0.049	-0.256	0.243	0.218	0.018	0.298	-0.167
V2ALLDIAMAVG	1.000	0.357	-0.055	-0.286	0.085	0.522	-0.076
V2ALLHTAVG	0.357	1.000	0.087	0.245	0.049	0.181	0.054
V2DDIAMAVG	-0.054	0.059	1.000	0.914	0.131	0.534	0.020
V2DOMHTAVG	-0.197	0.247	0.813	1.000	0.047	0.344	-0.082
V2SSDIAMAVG	0.090	0.026	0.132	-0.004	0.999	0.500	-0.037
V2UDIAMAVG	0.524	0.147	0.537	0.310	0.496	0.999	-0.174
V2RCDIAMAVG	-0.095	0.073	0.010	0.088	-0.090	-0.206	1.000
V2DEADDIAMAV	-0.143	-0.031	0.006	0.070	-0.124	-0.195	0.430
V2DRCDIAMAVG	-0.124	0.041	0.012	0.017	-0.107	-0.159	0.492
V2ALLDIAMCV	-0.804	-0.365	0.493	0.533	0.113	-0.013	-0.041
V2ALLHTCV	-0.314	-0.953	0.171	-0.026	0.016	0.024	-0.202
V2DDIAMCV	-0.017	-0.065	-0.635	-0.651	-0.304	-0.491	0.176
V2DHTCV	0.403	-0.356	-0.625	-0.782	-0.155	-0.156	-0.167
V2SSDIAMCV	0.355	0.169	0.014	0.034	-0.437	-0.049	0.073
V2UDIAMCV	0.061	-0.113	0.182	0.088	-0.648	-0.093	-0.015
V2ALLSW_N	-0.278	-0.011	0.231	0.375	0.069	-0.125	-0.054
V2DSW_N	0.007	0.087	-0.473	-0.456	-0.124	-0.229	-0.023
V2SSSW_N	-0.029	-0.127	-0.071	-0.095	-0.057	-0.047	-0.008
V2USW_N	-0.130	-0.020	-0.274	-0.278	-0.187	-0.207	0.059
V2V11	0.149	0.605	0.089	0.114	0.050	0.073	-0.003
V2V12	0.253	0.058	-0.064	-0.114	0.126	0.135	-0.113
V2V13	-0.009	0.069	-0.062	-0.025	-0.002	-0.075	-0.023
V2V19	-0.116	0.119	-0.157	0.187	-0.123	-0.207	0.058
V2V21	0.323	-0.237	-0.282	-0.425	0.062	0.172	-0.147
V2V22	0.549	-0.172	-0.260	-0.469	-0.084	0.139	-0.250
V2V23	0.289	0.660	0.182	0.205	-0.004	0.172	0.106
V2V24	0.266	0.033	-0.163	-0.260	-0.152	0.014	-0.172
V2V25	0.184	-0.001	-0.051	-0.079	-0.060	0.034	-0.062
V2V29	-0.732	-0.322	0.307	0.544	0.071	-0.142	0.083
V2V31	0.162	-0.147	-0.175	-0.298	-0.043	0.061	-0.058
V2V32	0.199	0.019	0.112	-0.001	-0.029	0.130	0.140
V2V34	0.097	-0.036	0.013	0.035	0.084	0.107	-0.019
V2V39	-0.037	-0.080	-0.072	-0.182	-0.035	-0.188	0.462
V2PLAND	-0.088	0.014	0.261	0.314	0.004	0.153	-0.121
V2PD	0.149	0.021	-0.289	-0.317	-0.067	-0.150	0.013
V2LPI	-0.043	0.136	0.270	0.311	-0.042	0.136	-0.096
V2LSI	0.078	-0.029	-0.238	-0.204	-0.055	-0.079	0.050
V2SHAPE_MN	-0.200	-0.082	0.032	0.091	0.082	-0.004	0.211
V2SHAPE_AM	-0.100	0.112	0.285	0.343	0.010	0.165	-0.114
V2SHAPE_CV	-0.148	0.095	0.303	0.388	0.007	0.177	-0.075
V2CPLAND	-0.046	0.121	0.242	0.302	-0.004	0.139	-0.104
V2CAI_MN	0.109	0.210	0.013	0.137	-0.066	0.063	0.046
V2CAI_AM	-0.010	0.133	0.162	0.261	-0.006	0.079	-0.117
V2CAI_CV	-0.021	-0.072	-0.060	-0.197	0.026	-0.072	0.028
V2CWED	0.026	-0.263	-0.155	-0.291	-0.002	-0.053	0.056
V2TECI	0.000	-0.240	-0.117	-0.305	-0.011	-0.088	0.128
V2IJI	0.145	-0.067	-0.074	-0.136	0.245	0.156	-0.315
V2LANDPD	0.048	0.295	-0.042	0.079	0.067	0.019	-0.121
V2LANDLPI	-0.046	0.217	0.222	0.222	-0.024	0.106	0.033
V2LANDLSI	0.044	0.122	-0.165	-0.040	-0.033	-0.074	-0.018
V2LSHAPE_MN	0.023	0.143	-0.174	-0.042	-0.076	-0.162	0.176
V2LSHAPE_AM	-0.090	0.201	0.290	0.320	-0.003	0.165	-0.015
V2LSHAPE_CV	0.025	-0.071	-0.171	-0.065	-0.161	-0.130	0.239
V2LCAI_MN	-0.070	0.032	0.178	0.307	-0.060	0.085	0.039
V2LCAI_AM	0.042	0.194	0.058	0.057	-0.015	0.032	0.064
V2LCAI_CV	0.055	0.046	-0.166	-0.281	0.059	-0.071	-0.058
V2LANDCWED	0.081	-0.114	-0.180	-0.280	0.051	-0.048	-0.028
V2LANDTECI	0.011	-0.221	-0.097	-0.284	0.021	-0.068	0.090
V2LANDCONTAG	-0.101	-0.026	0.236	0.187	-0.046	0.074	0.083
V2LANDIJI	0.149	0.065	-0.145	-0.178	0.205	0.067	-0.322
V2LANDSHDI	0.080	-0.109	-0.216	-0.190	0.075	-0.063	-0.102
V2LANDSIDI	0.104	-0.101	-0.232	-0.220	0.054	-0.086	-0.061

Appendix I continued

	V1DEADDIAMAV	V1DRCDIAMAVG	V1ALLDIAMCV	V1ALLHTCV	V1DDIAMCV	V1DHTCV	V1SSDIAMCV	V1UDIAMCV
V2STDAGE	-0.185	-0.191	-0.370	-0.177	-0.045	0.237	0.473	0.256
V2STDSZCD	-0.247	-0.258	0.320	0.207	-0.242	-0.214	0.132	0.281
V2SITECLCD	-0.179	-0.182	0.082	-0.078	-0.040	-0.214	0.264	0.230
V2TPA	-0.301	-0.306	0.193	0.170	-0.092	-0.060	0.053	0.059
V2DOMTPA	-0.368	-0.367	-0.119	0.146	-0.029	0.345	0.176	-0.029
V2SSTPA	-0.222	-0.233	0.307	0.190	-0.089	-0.189	-0.024	0.065
V2UTPA	-0.260	-0.268	0.330	0.175	-0.175	-0.246	-0.014	0.045
V2DEADTPA	-0.291	-0.303	0.230	0.195	-0.175	-0.106	-0.037	0.163
V2RCTPA	-0.211	-0.206	0.325	0.527	-0.149	0.197	-0.008	0.290
V2DRCTPA	-0.312	-0.321	0.288	0.316	-0.197	-0.033	-0.036	0.219
V2ALLDIAMAVG	-0.139	-0.121	-0.805	-0.332	-0.017	0.406	0.355	0.059
V2ALLHTAVG	-0.054	0.012	-0.335	-0.953	-0.079	-0.352	0.150	-0.103
V2DDIAMAVG	0.012	0.017	0.492	0.155	-0.634	-0.662	0.013	0.181
V2DOMHTAVG	0.004	-0.042	0.463	-0.027	-0.573	-0.782	0.002	0.083
V2SSDIAMAVG	-0.130	-0.112	0.111	0.008	-0.307	-0.166	-0.430	-0.642
V2UDIAMAVG	-0.185	-0.151	-0.014	-0.006	-0.491	-0.188	-0.045	-0.095
V2RCDIAMAVG	0.437	0.496	-0.030	-0.086	0.193	-0.076	0.091	0.007
V2DEADDIAMAV	1.000	0.956	-0.039	0.025	0.118	-0.037	-0.043	-0.064
V2DRCDIAMAVG	0.964	1.000	-0.051	-0.080	0.091	-0.015	-0.066	-0.094
V2ALLDIAMCV	-0.039	-0.051	1.000	0.431	-0.279	-0.536	-0.404	-0.006
V2ALLHTCV	-0.007	-0.111	0.428	1.000	-0.123	0.264	-0.135	0.153
V2DDIAMCV	0.110	0.084	-0.279	-0.122	1.000	0.595	-0.024	0.267
V2DHTCV	-0.064	-0.046	-0.514	0.268	0.578	1.000	0.170	0.280
V2SSDIAMCV	-0.047	-0.068	-0.404	-0.127	-0.024	0.183	1.000	0.377
V2UDIAMCV	-0.072	-0.100	-0.009	0.139	0.266	0.274	0.372	0.999
V2ALLSW_N	-0.143	-0.163	0.280	0.082	-0.110	-0.310	-0.033	-0.003
V2DSW_N	0.179	0.248	-0.204	-0.272	0.433	0.171	-0.144	-0.100
V2SSSW_N	-0.032	-0.030	-0.044	0.148	-0.049	0.042	0.054	0.045
V2USW_N	0.201	0.252	0.018	-0.151	0.625	0.080	-0.215	0.203
V2V11	-0.048	-0.043	-0.162	-0.603	-0.125	-0.241	0.086	-0.071
V2V12	-0.054	-0.073	-0.191	-0.047	-0.012	0.172	0.065	-0.105
V2V13	0.021	0.000	-0.040	-0.098	0.020	-0.011	0.005	0.004
V2V19	-0.041	-0.038	-0.053	-0.107	0.159	-0.168	0.073	0.056
V2V21	-0.129	-0.113	-0.294	0.206	0.100	0.533	0.069	0.025
V2V22	-0.228	-0.212	-0.470	0.151	0.036	0.666	0.193	0.180
V2V23	-0.081	-0.060	-0.196	-0.618	0.045	-0.153	0.121	0.072
V2V24	-0.118	-0.107	-0.255	-0.070	0.292	0.355	0.042	0.247
V2V25	-0.107	-0.094	-0.157	0.034	0.059	0.220	0.085	0.173
V2V29	0.048	0.025	0.725	0.392	-0.237	-0.564	-0.192	-0.078
V2V31	-0.030	-0.020	-0.121	0.114	0.265	0.429	-0.022	0.297
V2V32	-0.077	-0.077	-0.082	-0.018	0.107	0.094	0.072	0.076
V2V34	-0.037	-0.017	-0.062	0.042	-0.020	-0.019	-0.030	-0.016
V2V39	0.420	0.417	-0.098	0.079	0.149	0.236	0.058	0.074
V2PLAND	-0.222	-0.220	0.234	0.060	-0.236	-0.161	0.032	0.086
V2PD	-0.017	-0.033	-0.271	-0.080	0.251	0.227	0.054	-0.042
V2LPI	-0.158	-0.149	0.173	-0.077	-0.197	-0.208	0.057	0.100
V2LSI	-0.059	-0.061	-0.138	-0.008	0.156	0.165	0.056	-0.005
V2SHAPE_MN	0.117	0.123	0.196	0.087	-0.078	-0.106	-0.073	-0.033
V2SHAPE_AM	-0.195	-0.181	0.260	-0.057	-0.259	-0.276	0.037	0.063
V2SHAPE_CV	-0.134	-0.126	0.310	-0.025	-0.271	-0.301	0.036	0.088
V2CPLAND	-0.210	-0.213	0.166	-0.050	-0.177	-0.182	0.067	0.078
V2CAI_MN	-0.107	-0.112	-0.090	-0.170	0.002	-0.079	0.150	0.056
V2CAI_AM	-0.296	-0.301	0.091	-0.067	-0.116	-0.165	0.096	0.050
V2CAI_CV	0.164	0.170	-0.027	-0.012	0.199	0.097	-0.133	-0.010
V2CWED	0.152	0.151	-0.056	0.208	0.058	0.279	-0.092	-0.018
V2TECI	0.330	0.338	-0.075	0.167	0.127	0.246	-0.137	-0.029
V2IJI	-0.342	-0.369	-0.058	0.074	-0.145	0.150	-0.007	-0.132
V2LANDPD	-0.331	-0.334	-0.026	-0.283	0.031	-0.115	0.064	-0.065
V2LANDLPI	0.055	0.070	0.121	-0.201	-0.039	-0.201	-0.011	0.088
V2LANDLSI	-0.251	-0.249	-0.089	-0.125	0.092	0.035	0.101	-0.020
V2LSHAPE_MN	0.032	0.019	-0.159	-0.142	0.146	0.028	0.117	-0.013
V2LSHAPE_AM	-0.130	-0.105	0.229	-0.166	-0.179	-0.294	0.004	0.087
V2LSHAPE_CV	0.119	0.118	-0.126	0.065	0.078	0.100	0.130	0.049
V2LCAI_MN	-0.089	-0.094	0.149	0.037	-0.165	-0.184	0.096	0.103
V2LCAI_AM	0.112	0.099	-0.055	-0.182	0.064	-0.079	0.045	0.029
V2LCAI_CV	0.066	0.070	-0.131	-0.130	0.224	0.115	-0.108	-0.062
V2LANDCWED	-0.001	-0.004	-0.114	0.059	0.079	0.217	-0.055	-0.078
V2LANDTECI	0.264	0.272	-0.066	0.155	0.105	0.225	-0.128	-0.046
V2LANDCONTAG	0.260	0.271	0.166	0.040	-0.068	-0.159	-0.062	0.084
V2LANDIJI	-0.344	-0.360	-0.136	-0.074	-0.056	0.137	-0.014	-0.149
V2LANDSHDI	-0.242	-0.240	-0.111	0.096	0.024	0.167	0.013	-0.111
V2LANDSIDI	-0.199	-0.202	-0.154	0.078	0.049	0.182	0.027	-0.112

Appendix I continued

	V1ALLSW_N	V1DSW_N	V1SSSW_N	V1USW_N	V1V11	V1V12	V1V13	V1V19	V1V21	V1V22	V1V23	V1V24	V1V25	V1V29
V2STDAGE	-0.043	-0.155	-0.090	-0.137	0.369	0.342	-0.050	0.155	0.128	0.334	0.443	0.128	0.115	-0.247
V2STDSZCD	0.246	-0.333	-0.137	-0.167	0.107	0.168	-0.079	0.174	-0.170	-0.011	0.281	-0.084	-0.009	0.360
V2SITECLCD	0.318	-0.199	-0.112	-0.154	0.193	0.041	-0.065	0.381	-0.252	-0.210	0.368	-0.125	-0.055	0.348
V2TPA	0.200	-0.163	-0.043	-0.154	0.186	0.103	-0.044	0.335	-0.064	-0.033	0.219	-0.077	-0.041	0.329
V2DOMTPA	-0.055	-0.039	-0.041	-0.146	0.115	0.270	-0.040	0.159	0.245	0.337	0.176	0.033	0.051	-0.017
V2SSTPA	0.287	-0.180	-0.066	-0.154	0.156	0.005	-0.030	0.365	-0.188	-0.167	0.139	-0.115	-0.068	0.442
V2UTPA	0.275	-0.228	-0.077	-0.168	0.206	0.045	-0.049	0.321	-0.168	-0.159	0.204	-0.121	-0.077	0.440
V2DEADTPA	-0.011	-0.136	-0.109	-0.118	0.136	0.074	-0.088	0.237	-0.005	0.055	0.207	-0.023	-0.059	0.196
V2RCTPA	-0.087	-0.124	-0.044	-0.045	-0.110	0.076	-0.056	-0.136	0.304	0.276	-0.170	0.193	0.079	0.121
V2DRCTPA	-0.031	-0.152	-0.107	-0.115	0.089	0.086	-0.092	0.170	0.079	0.124	0.135	0.033	-0.029	0.204
V2ALLDIAMAVG	-0.278	0.006	-0.027	-0.130	0.150	0.256	-0.007	-0.115	0.322	0.550	0.290	0.264	0.185	-0.733
V2ALLHTAVG	-0.026	0.096	-0.115	-0.017	0.590	0.071	0.069	-0.229	-0.204	-0.119	0.645	0.058	0.019	-0.344
V2DDIAMAVG	0.230	-0.472	-0.072	-0.275	0.092	-0.062	-0.061	-0.156	-0.287	-0.261	0.186	-0.164	-0.055	0.307
V2DOMHTAVG	0.281	-0.354	-0.067	-0.225	0.120	-0.069	-0.013	-0.446	-0.310	-0.302	0.204	-0.165	-0.038	0.371
V2SSDIAMAVG	0.067	-0.123	-0.059	-0.188	0.050	0.128	-0.003	-0.122	0.063	-0.082	-0.002	-0.151	-0.060	0.070
V2UDIAMAVG	-0.128	-0.230	-0.044	-0.209	0.075	0.138	-0.075	-0.206	0.169	0.137	0.174	0.011	0.033	-0.143
V2RCDIAMAVG	-0.037	-0.020	-0.013	0.027	0.000	-0.109	-0.022	0.059	-0.144	-0.242	0.111	-0.162	-0.057	0.089
V2DEADDIAMAV	-0.141	0.174	-0.036	0.193	-0.048	-0.053	0.020	-0.042	-0.130	-0.227	-0.082	-0.119	-0.107	0.048
V2DRCDIAMAVG	-0.161	0.245	-0.034	0.246	-0.044	-0.073	0.000	-0.038	-0.114	-0.213	-0.061	-0.107	-0.094	0.025
V2ALLDIAMCV	0.279	-0.203	-0.044	0.018	-0.161	-0.193	-0.040	-0.053	-0.295	-0.472	-0.195	-0.255	-0.158	0.726
V2ALLHTCV	0.074	-0.258	0.147	-0.146	-0.582	-0.042	-0.092	-0.242	0.212	0.167	-0.592	-0.057	0.035	0.357
V2DDIAMCV	-0.108	0.431	-0.053	0.630	-0.127	-0.013	0.019	0.157	0.102	0.036	0.044	0.293	0.059	-0.237
V2DHTCV	-0.308	0.174	0.045	0.079	-0.231	0.173	-0.009	-0.275	0.535	0.668	-0.143	0.356	0.220	-0.571
V2SSDIAMCV	-0.031	-0.147	0.053	-0.218	0.085	0.066	0.004	0.074	0.070	0.194	0.121	0.043	0.084	-0.191
V2UDIAMCV	0.001	-0.101	0.046	0.205	-0.070	-0.107	0.008	0.055	0.026	0.182	0.076	0.246	0.171	-0.079
V2ALLSW_N	1.000	-0.483	-0.215	-0.230	-0.036	-0.236	0.007	0.252	-0.416	-0.373	0.149	-0.256	-0.027	0.375
V2DSW_N	-0.486	1.000	-0.009	0.530	0.092	-0.021	-0.021	-0.069	0.140	0.063	-0.101	0.184	-0.032	-0.182
V2SSSW_N	-0.217	-0.010	0.999	0.623	-0.035	-0.021	-0.010	-0.042	0.181	0.077	-0.065	-0.013	0.019	-0.090
V2USW_N	-0.229	0.526	0.626	1.000	-0.024	-0.024	-0.006	-0.016	0.017	-0.066	-0.036	0.288	-0.025	-0.048
V2V11	-0.038	0.091	-0.034	-0.024	1.000	0.194	-0.024	-0.066	-0.132	-0.104	0.499	0.070	-0.030	-0.243
V2V12	-0.234	-0.023	-0.020	-0.025	0.192	1.000	0.079	-0.072	0.140	0.244	0.071	0.143	0.012	-0.248
V2V13	0.004	-0.020	-0.010	-0.006	-0.024	0.082	1.000	-0.022	0.007	0.020	0.021	0.004	-0.035	-0.066
V2V19	0.255	-0.070	-0.042	-0.016	-0.071	-0.079	-0.023	1.000	-0.133	-0.230	-0.110	-0.144	-0.081	0.196
V2V21	-0.416	0.139	0.180	0.017	-0.132	0.140	0.008	-0.132	1.000	0.409	-0.155	0.386	0.215	-0.382
V2V22	-0.370	0.062	0.080	-0.066	-0.104	0.242	0.020	-0.227	0.410	1.000	-0.078	0.374	0.337	-0.686
V2V23	0.146	-0.100	-0.065	-0.036	0.499	0.073	0.020	-0.108	-0.154	-0.077	1.000	0.084	0.002	-0.368
V2V24	-0.258	0.185	-0.010	0.291	0.071	0.143	0.005	-0.141	0.389	0.376	0.082	1.000	0.219	-0.433
V2V25	-0.025	-0.033	0.023	-0.026	-0.031	0.011	-0.036	-0.081	0.219	0.337	0.000	0.221	0.999	-0.266
V2V29	0.374	-0.180	-0.090	-0.048	-0.243	-0.249	-0.067	0.192	-0.382	-0.686	-0.366	-0.431	-0.265	1.000
V2V31	-0.265	0.212	-0.022	0.182	-0.100	-0.097	-0.028	-0.068	0.449	0.235	-0.110	0.360	0.216	-0.210
V2V32	0.180	-0.133	-0.041	-0.017	-0.068	-0.055	-0.023	-0.051	-0.120	-0.098	0.593	-0.080	-0.077	-0.180
V2V34	-0.047	0.051	-0.010	-0.008	-0.043	-0.043	-0.011	-0.029	0.409	0.013	-0.027	0.179	0.161	-0.084
V2V39	-0.079	-0.020	-0.020	-0.022	-0.115	-0.059	-0.030	0.021	0.107	-0.114	-0.155	0.074	-0.040	0.028
V2PLAND	0.119	-0.209	-0.117	-0.117	0.213	0.129	-0.067	-0.141	-0.048	0.059	0.248	0.074	0.129	0.148
V2PD	0.004	0.176	-0.024	0.053	-0.212	-0.154	0.023	0.195	-0.013	-0.010	-0.161	-0.085	-0.113	-0.088
V2LPI	0.065	-0.164	-0.086	-0.069	0.292	0.143	-0.074	-0.143	-0.105	0.029	0.290	0.054	0.122	0.048
V2LSI	0.036	0.146	-0.064	-0.004	-0.180	-0.224	-0.028	0.176	0.031	-0.025	-0.081	-0.070	-0.127	0.015
V2SHAPE_MN	0.042	-0.053	-0.067	-0.083	0.081	-0.217	-0.003	-0.032	0.042	-0.119	0.078	-0.061	-0.097	0.175
V2SHAPE_AM	0.093	-0.131	-0.103	-0.095	0.296	0.088	-0.105	-0.141	-0.089	-0.026	0.329	0.033	0.060	0.117
V2SHAPE_CV	0.085	-0.152	-0.091	-0.098	0.314	0.001	-0.091	-0.154	-0.083	-0.059	0.327	0.022	0.021	0.169
V2CPLAND	0.107	-0.201	-0.105	-0.095	0.296	0.204	-0.071	-0.014	-0.098	0.003	0.342	0.015	0.096	0.118
V2CAI_MN	0.018	-0.085	-0.074	-0.066	0.191	0.115	-0.077	0.284	-0.066	-0.025	0.380	-0.061	0.012	0.011
V2CAI_AM	0.173	-0.184	-0.125	-0.111	0.282	0.241	-0.051	0.214	-0.130	-0.022	0.364	-0.038	0.077	0.126
V2CAI_CV	-0.087	0.123	0.048	0.237	-0.170	-0.085	0.112	-0.186	0.002	-0.027	-0.263	0.141	0.020	-0.110
V2CWED	-0.116	0.110	0.025	0.057	-0.267	-0.186	0.029	-0.262	0.214	0.172	-0.378	0.162	0.059	-0.112
V2TECI	-0.176	0.130	0.128	0.162	-0.259	-0.141	0.067	-0.257	0.157	0.086	-0.400	0.155	0.032	-0.149
V2IJI	0.106	-0.107	-0.106	-0.208	-0.073	0.232	0.040	-0.023	0.106	0.155	0.029	-0.095	-0.026	-0.047
V2LANDPD	0.267	0.004	-0.173	-0.098	-0.005	-0.136	0.029	0.162	-0.120	-0.176	0.244	-0.174	-0.124	0.116
V2LANDLPI	-0.078	-0.071	-0.032	0.112	0.263	0.108	-0.074	-0.178	-0.119	-0.056	0.215	0.058	0.056	-0.043
V2LANDLSI	0.198	0.065	-0.146	-0.093	-0.090	-0.164	-0.008	0.297	-0.073	-0.112	0.117	-0.125	-0.111	0.131
V2LSHAPE_MN	0.049	0.078	-0.036	-0.074	-0.011	-0.074	-0.049	0.393	-0.118	-0.129	0.083	-0.149	-0.070	0.109
V2LSHAPE_AM	0.021	-0.118	-0.102	0.032	0.292	0.043	-0.087	-0.159	-0.127	-0.077	0.285	0.051	0.009	0.055
V2LSHAPE_CV	-0.039	0.067	-0.072	-0.067	-0.098	-0.123	-0.109	0.233	-0.012	-0.011	-0.002	-0.033	-0.027	0.080
V2LCAI_MN	0.105	-0.191	-0.111	-0.143	0.237	0.088	-0.146	0.154	-0.116	-0.007	0.344	-0.028	0.064	0.146
V2LCAI_AM	-0.111	-0.059	0.059	0.077	0.282	0.257	-0.045	0.205	-0.055	-0.052	0.231	-0.008	0.022	-0.094
V2LCAI_CV	-0.134	0.214	0.131	0.271	-0.205	-0.091	0.162	-0.132	0.085	-0.041	-0.297	0.053	-0.088	-0.160
V2LANDCWED	-0.002	0.137	-0.037	0.008	-0.291	-0.211	0.089	-0.156	0.126	0.066	-0.306	0.017	-0.031	-0.079
V2LANDTECI	-0.128	0.112	0.091	0.128	-0.282	-0.137	0.093	-0.255	0.140	0.072	-0.400	0.117	0.019	-0.135
V2LANDCONTAG	-0.139	-0.075	0.126	0.126	0.135	0.056	-0.031	-0.253	-0.023	0.018	0.009	0.125	0.084	-0.066
V2LANDIJI	0.128	0.002	-0.130	-0.149	-0.103	0.158	0.114	0.058	0.060	0.034	-0.035	-0.145	-0.104	-0.010
V2LANDSHDI	0.131	0.079	-0.089	-0.129	-0.146	-0.054	0.002	0.211	0.128	0.039	-0.084	-0.084	-0.020	0.038
V2LANDSIDI	0.115	0.083	-0.085	-0.120	-0.162	-0.054	0.029	0.216	0.097	0.063	-0.101	-0.064	-0.012	-0.001

Appendix I continued

	V1V31	V1V32	V1V34	V1V39	V1PLAND	V1PD	V1LPI	V1LSI	V1SHAPE_MN	V1SHAPE_AM	V1SHAPE_CV	V1CPLAND
V2STDAGE	0.032	0.237	-0.024	-0.119	0.357	-0.088	0.265	0.162	0.269	0.309	0.321	0.403
V2STDSZCD	-0.051	0.203	-0.051	-0.178	0.461	-0.106	0.228	0.314	0.294	0.331	0.403	0.397
V2SITECLCD	-0.126	0.253	-0.045	-0.103	0.315	0.062	0.142	0.388	0.201	0.226	0.269	0.301
V2TPA	-0.074	0.121	-0.070	-0.201	0.378	0.007	0.199	0.363	0.311	0.280	0.331	0.380
V2DOMTPA	0.074	0.158	-0.058	-0.225	0.340	0.076	0.165	0.375	0.262	0.209	0.261	0.346
V2SSTPA	-0.109	0.058	-0.072	-0.146	0.303	0.022	0.153	0.326	0.260	0.234	0.275	0.297
V2UTPA	-0.121	0.101	-0.059	-0.194	0.378	-0.037	0.213	0.326	0.319	0.303	0.348	0.365
V2DEADTPA	-0.017	0.168	-0.099	-0.187	0.412	-0.163	0.289	0.176	0.342	0.337	0.369	0.463
V2RCTPA	0.235	-0.187	0.063	-0.098	0.273	-0.219	0.179	0.039	0.183	0.253	0.293	0.127
V2DRCTPA	0.049	0.096	-0.069	-0.189	0.435	-0.201	0.302	0.170	0.350	0.364	0.403	0.440
V2ALLDIAMAVG	0.159	0.199	0.095	-0.035	-0.027	0.083	0.031	-0.027	-0.053	-0.015	-0.056	0.038
V2ALLHTAVG	-0.129	0.024	-0.028	-0.067	0.046	-0.075	0.169	-0.113	0.097	0.168	0.105	0.131
V2DDIAMAVG	-0.176	0.114	0.010	-0.070	0.212	-0.272	0.150	-0.083	0.125	0.223	0.229	0.154
V2DOMHTAVG	-0.223	0.010	0.036	-0.134	0.223	-0.245	0.138	-0.003	0.139	0.225	0.258	0.125
V2SSDIAMAVG	-0.039	-0.027	0.091	-0.036	0.016	-0.072	0.008	-0.095	-0.017	0.036	0.025	0.026
V2UDIAMAVG	0.057	0.131	0.111	-0.188	0.181	-0.170	0.134	-0.046	0.104	0.171	0.165	0.154
V2RCDIAMAVG	-0.055	0.143	-0.017	0.458	-0.089	-0.029	-0.028	-0.057	-0.010	-0.078	-0.089	-0.039
V2DEADDIAMAV	-0.031	-0.075	-0.035	0.420	-0.217	-0.123	-0.056	-0.305	-0.095	-0.116	-0.120	-0.144
V2DRCDIAMAVG	-0.020	-0.076	-0.016	0.418	-0.220	-0.121	-0.068	-0.295	-0.101	-0.127	-0.135	-0.155
V2ALLDIAMCV	-0.120	-0.082	-0.062	-0.098	0.178	-0.199	0.052	0.044	0.125	0.137	0.188	0.070
V2ALLHTCV	0.116	-0.015	0.042	0.080	0.041	-0.034	-0.110	0.069	-0.065	-0.084	-0.011	-0.093
V2DDIAMCV	0.264	0.107	-0.020	0.149	-0.185	0.152	-0.116	0.000	-0.153	-0.181	-0.188	-0.104
V2DHTCV	0.422	0.093	-0.018	0.236	-0.098	0.152	-0.096	0.017	-0.131	-0.154	-0.147	-0.111
V2SSDIAMCV	-0.024	0.072	-0.032	0.061	0.009	0.086	0.010	0.107	0.011	-0.006	-0.011	0.029
V2UDIAMCV	0.295	0.077	-0.026	0.077	0.077	-0.042	0.048	0.061	0.026	0.073	0.081	0.024
V2ALLSW_N	-0.264	0.182	-0.052	-0.081	0.072	0.055	-0.006	0.184	-0.002	0.052	0.079	0.029
V2DSW_N	0.213	-0.134	0.057	-0.021	-0.188	0.156	-0.088	0.019	-0.061	-0.130	-0.167	-0.141
V2SSSW_N	-0.022	-0.041	-0.010	-0.020	-0.104	-0.065	-0.048	-0.207	-0.085	-0.070	-0.096	-0.073
V2USW_N	0.180	-0.017	-0.008	-0.022	-0.105	-0.010	-0.049	-0.084	-0.062	-0.078	-0.097	-0.073
V2V11	-0.100	-0.069	-0.041	-0.115	0.220	-0.241	0.398	-0.131	0.424	0.412	0.311	0.297
V2V12	-0.098	-0.056	-0.042	-0.059	0.120	-0.143	0.098	-0.144	0.043	0.073	0.075	0.192
V2V13	-0.027	-0.023	-0.011	-0.030	-0.076	0.027	-0.035	-0.089	-0.067	-0.077	-0.106	-0.053
V2V19	-0.068	-0.050	-0.028	0.021	-0.089	0.129	-0.106	0.141	-0.084	-0.115	-0.111	0.032
V2V21	0.452	-0.120	0.421	0.108	-0.044	0.026	-0.064	-0.018	-0.068	-0.097	-0.098	-0.074
V2V22	0.232	-0.099	0.003	-0.112	0.067	0.016	0.008	0.015	-0.011	0.009	0.022	0.013
V2V23	-0.109	0.592	-0.027	-0.154	0.280	-0.165	0.252	0.053	0.255	0.311	0.301	0.342
V2V24	0.363	-0.083	0.168	0.074	0.042	-0.037	0.050	-0.023	-0.028	0.029	-0.008	-0.009
V2V25	0.219	-0.078	0.170	-0.038	0.102	-0.055	0.066	-0.069	0.035	0.058	0.061	0.099
V2V29	-0.209	-0.178	-0.081	0.026	0.095	0.016	-0.014	0.173	0.042	0.037	0.090	0.013
V2V31	1.000	-0.071	0.210	0.002	-0.150	0.198	-0.145	0.176	-0.104	-0.159	-0.155	-0.186
V2V32	-0.070	1.000	-0.029	-0.080	0.065	0.040	0.002	0.100	0.031	-0.016	0.018	0.165
V2V34	0.207	-0.030	0.995	0.111	-0.048	0.001	-0.051	-0.020	-0.023	-0.056	-0.054	-0.091
V2V39	0.003	-0.081	0.116	1.000	-0.066	-0.128	0.100	-0.208	-0.030	0.018	-0.005	-0.028
V2PLAND	-0.152	0.003	-0.026	-0.061	0.941	-0.609	0.688	-0.008	0.669	0.790	0.858	0.761
V2PD	0.150	0.091	-0.044	-0.050	-0.731	0.831	-0.567	0.350	-0.568	-0.650	-0.715	-0.578
V2LPI	-0.191	-0.014	-0.028	-0.050	0.876	-0.691	0.745	-0.166	0.685	0.826	0.862	0.762
V2LSI	0.273	0.097	0.007	-0.092	-0.586	0.818	-0.588	0.693	-0.453	-0.560	-0.558	-0.560
V2SHAPE_MN	0.121	0.041	0.170	0.176	0.233	-0.141	0.199	0.174	0.329	0.241	0.273	0.141
V2SHAPE_AM	-0.116	0.011	-0.037	-0.164	0.698	-0.452	0.418	0.203	0.505	0.625	0.706	0.496
V2SHAPE_CV	-0.081	0.017	0.001	-0.098	0.756	-0.531	0.549	0.131	0.636	0.720	0.789	0.560
V2CPLAND	-0.207	0.104	-0.068	-0.058	0.915	-0.621	0.734	-0.090	0.681	0.795	0.846	0.910
V2CAI_MN	-0.077	0.338	-0.052	-0.093	0.423	-0.124	0.302	0.189	0.326	0.304	0.350	0.642
V2CAI_AM	-0.215	0.214	-0.084	-0.119	0.719	-0.374	0.526	0.069	0.499	0.592	0.643	0.809
V2CAI_CV	-0.007	-0.206	-0.008	0.075	-0.388	0.017	-0.227	-0.340	-0.295	-0.276	-0.342	-0.488
V2CWED	0.281	-0.266	0.077	0.094	-0.422	0.327	-0.385	0.100	-0.347	-0.388	-0.408	-0.670
V2TECI	0.139	-0.281	0.063	0.205	-0.490	0.077	-0.318	-0.309	-0.360	-0.392	-0.447	-0.633
V2IJI	-0.041	0.028	-0.011	-0.159	0.088	0.114	-0.074	0.223	-0.082	0.000	0.043	0.001
V2LANDPD	0.036	0.252	-0.031	-0.254	-0.160	0.573	-0.296	0.673	-0.178	-0.198	-0.168	-0.185
V2LANDLPI	-0.178	-0.063	-0.033	0.062	0.582	-0.730	0.626	-0.452	0.532	0.644	0.638	0.555
V2LANDLSI	0.134	0.231	-0.022	-0.195	-0.257	0.709	-0.403	0.805	-0.257	-0.333	-0.296	-0.244
V2LSHAPE_MN	0.080	0.237	-0.022	-0.041	-0.233	0.511	-0.279	0.411	-0.198	-0.325	-0.305	-0.015
V2LSHAPE_AM	-0.137	-0.040	-0.070	-0.086	0.579	-0.501	0.432	0.031	0.469	0.597	0.628	0.429
V2LSHAPE_CV	0.168	0.194	-0.025	-0.030	-0.197	0.521	-0.325	0.566	-0.194	-0.302	-0.256	-0.140
V2LCAI_MN	-0.155	0.200	-0.019	-0.030	0.778	-0.444	0.545	0.145	0.586	0.635	0.716	0.780
V2LCAI_AM	-0.159	0.149	-0.078	0.070	0.275	-0.472	0.380	-0.436	0.286	0.320	0.300	0.604
V2LCAI_CV	0.123	-0.175	-0.001	0.026	-0.736	0.337	-0.469	-0.239	-0.530	-0.574	-0.668	-0.686
V2LANDCWED	0.250	-0.150	0.033	-0.020	-0.620	0.634	-0.546	0.287	-0.507	-0.564	-0.601	-0.775
V2LANDTECI	0.129	-0.272	0.046	0.163	-0.538	0.157	-0.365	-0.260	-0.413	-0.434	-0.493	-0.687
V2LANDCONTAG	-0.149	-0.162	-0.015	0.166	0.366	-0.758	0.487	-0.663	0.379	0.457	0.432	0.339
V2LANDIJI	0.026	0.030	-0.020	-0.202	-0.218	0.377	-0.284	0.256	-0.298	-0.270	-0.258	-0.215
V2LANDSHDI	0.216	0.088	0.079	-0.136	-0.425	0.731	-0.528	0.598	-0.423	-0.500	-0.477	-0.398
V2LANDSIDI	0.187	0.101	0.060	-0.129	-0.503	0.777	-0.596	0.587	-0.484	-0.573	-0.555	-0.482

Appendix I continued

	V1CAI_MN	V1CAI_AM	V1CAI_CV	V1CWED	V1TECI	V1IJI	V1LANDPD	V1LANDLPI	V1LANDLSI	V1LSHAPE_MN
V2STDAGE	0.428	0.484	-0.441	-0.222	-0.479	0.231	0.196	-0.026	0.238	0.185
V2STDSZCD	0.391	0.470	-0.519	-0.147	-0.548	0.266	0.313	-0.171	0.376	0.241
V2SITECLCD	0.441	0.430	-0.502	-0.226	-0.543	0.228	0.458	-0.220	0.515	0.320
V2TPA	0.499	0.512	-0.584	-0.234	-0.597	0.308	0.390	-0.188	0.466	0.281
V2DOMTPA	0.444	0.466	-0.540	-0.150	-0.528	0.349	0.366	-0.215	0.434	0.216
V2SSTPA	0.420	0.422	-0.504	-0.201	-0.509	0.240	0.350	-0.168	0.420	0.275
V2UTPA	0.459	0.481	-0.548	-0.224	-0.569	0.278	0.353	-0.159	0.424	0.265
V2DEADTPA	0.479	0.520	-0.465	-0.271	-0.533	0.213	0.158	-0.012	0.241	0.168
V2RCTPA	-0.070	0.057	-0.060	0.225	-0.031	0.166	-0.149	0.085	-0.096	-0.044
V2DRCTPA	0.399	0.471	-0.418	-0.174	-0.477	0.235	0.101	0.001	0.191	0.139
V2ALLDIAMAVG	0.070	0.068	-0.012	-0.034	-0.027	0.086	0.021	-0.007	-0.011	-0.070
V2ALLHTAVG	0.118	0.106	-0.024	-0.211	-0.135	0.088	0.135	0.176	-0.005	-0.187
V2DDIAMAVG	0.013	0.118	-0.065	-0.053	-0.125	0.030	-0.038	0.039	-0.053	-0.021
V2DOMHTAVG	-0.053	0.048	-0.087	0.017	-0.102	0.060	0.012	0.021	-0.013	-0.071
V2SSDIAMAVG	-0.018	0.045	-0.050	-0.044	-0.053	0.212	0.020	-0.050	-0.036	-0.120
V2UDIAMAVG	0.043	0.120	-0.056	-0.025	-0.121	0.191	-0.010	-0.021	-0.034	-0.128
V2RCDIAMAVG	0.045	-0.055	0.059	-0.063	0.116	-0.364	-0.111	0.080	-0.075	0.268
V2DEADDIAMAV	-0.121	-0.224	0.219	-0.031	0.332	-0.469	-0.375	0.279	-0.380	0.152
V2DRCDIAMAVG	-0.127	-0.235	0.233	-0.029	0.336	-0.452	-0.366	0.258	-0.367	0.130
V2ALLDIAMCV	-0.058	0.021	-0.035	0.052	-0.067	0.029	-0.011	-0.029	0.017	-0.011
V2ALLHTCV	-0.214	-0.117	0.007	0.293	0.167	-0.064	-0.218	-0.159	-0.093	0.095
V2DDIAMCV	0.006	-0.088	0.160	-0.046	0.129	-0.148	0.005	0.130	-0.001	-0.013
V2DHTCV	-0.133	-0.127	0.106	0.232	0.238	-0.020	-0.148	0.003	-0.124	-0.050
V2SSDIAMCV	0.100	0.062	-0.127	-0.040	-0.083	0.019	0.096	-0.004	0.115	0.110
V2UDIAMCV	-0.021	-0.006	0.086	0.109	0.036	-0.082	-0.041	0.077	0.002	0.023
V2ALLSW_N	0.033	0.078	-0.106	-0.011	-0.159	0.171	0.248	-0.127	0.248	0.038
V2DSW_N	-0.080	-0.136	0.189	0.011	0.132	-0.084	-0.010	0.057	-0.004	-0.018
V2SSSW_N	-0.074	-0.084	0.067	-0.031	0.145	-0.139	-0.178	0.065	-0.189	-0.082
V2USW_N	-0.062	-0.106	0.282	-0.010	0.146	-0.157	-0.108	0.187	-0.106	-0.101
V2V11	0.230	0.274	-0.141	-0.232	-0.239	0.045	-0.055	0.315	-0.080	-0.097
V2V12	0.151	0.244	-0.140	-0.192	-0.195	0.175	-0.076	0.071	-0.089	-0.014
V2V13	-0.067	-0.018	0.059	-0.026	0.035	0.024	0.007	-0.024	-0.033	-0.110
V2V19	0.270	0.208	-0.186	-0.264	-0.232	0.055	0.168	-0.099	0.268	0.215
V2V21	-0.115	-0.106	0.081	0.180	0.169	-0.005	-0.124	-0.042	-0.112	-0.118
V2V22	-0.041	-0.006	-0.027	0.209	0.062	0.094	-0.141	-0.044	-0.097	-0.031
V2V23	0.383	0.369	-0.291	-0.307	-0.396	0.142	0.238	0.084	0.180	-0.027
V2V24	-0.092	-0.050	0.145	0.178	0.136	-0.049	-0.156	0.080	-0.126	-0.088
V2V25	0.043	0.084	-0.022	0.052	-0.016	-0.025	-0.132	0.024	-0.107	0.031
V2V29	-0.013	0.023	-0.104	0.018	-0.108	0.043	0.169	-0.145	0.197	0.168
V2V31	-0.154	-0.209	0.183	0.268	0.229	-0.127	0.000	-0.062	0.025	-0.039
V2V32	0.321	0.248	-0.209	-0.278	-0.283	-0.001	0.262	-0.072	0.227	0.085
V2V34	-0.085	-0.125	0.064	0.102	0.103	-0.057	-0.060	-0.023	-0.066	-0.042
V2V39	-0.082	-0.107	0.141	-0.002	0.201	-0.289	-0.285	0.220	-0.265	0.049
V2PLAND	0.370	0.591	-0.489	-0.033	-0.552	0.260	-0.070	0.122	0.000	0.015
V2PD	-0.174	-0.370	0.198	0.024	0.257	-0.017	0.433	-0.321	0.362	0.058
V2LPI	0.384	0.549	-0.421	-0.155	-0.505	0.161	-0.168	0.314	-0.134	-0.110
V2LSI	-0.133	-0.370	0.113	0.195	0.181	0.063	0.614	-0.520	0.630	0.187
V2SHAPE_MN	0.140	0.066	-0.150	0.100	-0.099	-0.090	0.031	-0.004	0.089	0.148
V2SHAPE_AM	0.262	0.390	-0.406	0.039	-0.439	0.264	0.139	-0.004	0.193	-0.026
V2SHAPE_CV	0.298	0.380	-0.395	0.034	-0.422	0.168	0.029	0.127	0.086	-0.036
V2CPLAND	0.629	0.807	-0.631	-0.386	-0.755	0.276	-0.045	0.223	0.017	0.074
V2CAI_MN	0.922	0.741	-0.687	-0.645	-0.779	0.144	0.244	-0.016	0.346	0.440
V2CAI_AM	0.739	0.908	-0.756	-0.542	-0.892	0.388	0.186	0.028	0.264	0.237
V2CAI_CV	-0.652	-0.615	0.739	0.431	0.728	-0.373	-0.380	0.151	-0.452	-0.370
V2CWED	-0.758	-0.778	0.649	0.841	0.827	-0.311	-0.169	-0.182	-0.189	-0.178
V2TECI	-0.772	-0.779	0.782	0.611	0.913	-0.471	-0.480	0.111	-0.519	-0.273
V2IJI	-0.079	0.112	-0.189	0.066	-0.213	0.729	0.434	-0.275	0.339	-0.203
V2LANDPD	0.065	-0.004	-0.209	-0.003	-0.253	0.461	0.916	-0.504	0.805	-0.031
V2LANDLPI	0.207	0.274	-0.108	-0.201	-0.181	-0.110	-0.413	0.598	-0.437	-0.288
V2LANDLSI	0.157	0.006	-0.248	-0.001	-0.242	0.336	0.867	-0.614	0.886	0.275
V2LSHAPE_MN	0.474	0.248	-0.405	-0.369	-0.354	0.076	0.476	-0.327	0.537	0.612
V2LSHAPE_AM	0.179	0.236	-0.161	0.013	-0.247	0.055	-0.040	0.170	-0.002	-0.175
V2LSHAPE_CV	0.313	0.045	-0.244	0.019	-0.119	-0.128	0.370	-0.432	0.505	0.656
V2LCAI_MN	0.760	0.770	-0.715	-0.375	-0.770	0.177	0.087	0.035	0.225	0.376
V2LCAI_AM	0.658	0.641	-0.322	-0.753	-0.477	-0.109	-0.326	0.448	-0.273	0.124
V2LCAI_CV	-0.652	-0.706	0.743	0.240	0.721	-0.219	-0.143	0.083	-0.282	-0.433
V2LANDCWED	-0.719	-0.769	0.568	0.654	0.683	-0.045	0.236	-0.350	0.135	-0.232
V2LANDTECI	-0.831	-0.807	0.793	0.620	0.903	-0.372	-0.380	0.052	-0.446	-0.324
V2LANDCONTAG	-0.041	0.051	0.201	-0.043	0.154	-0.404	-0.771	0.645	-0.743	-0.253
V2LANDIJI	-0.160	-0.050	-0.049	0.001	-0.100	0.651	0.538	-0.350	0.407	-0.224
V2LANDSHDI	-0.049	-0.088	-0.155	0.099	-0.069	0.324	0.653	-0.634	0.638	0.223
V2LANDSIDI	-0.099	-0.158	-0.080	0.152	0.012	0.245	0.603	-0.660	0.604	0.277

Appendix I continued

	V1LSHAPE_AM	V1LSHAPE_CV	V1LCAI_MN	V1LCAI_AM	V1LCAI_CV	V1LANDCWED	V1LANDTECI	V1LANDCONTAG
V2STDAGE	0.084	0.118	0.448	0.091	-0.480	-0.220	-0.368	-0.222
V2STDSZCD	-0.034	0.050	0.500	-0.158	-0.560	-0.135	-0.338	-0.335
V2SITECLCD	-0.101	-0.024	0.473	-0.153	-0.521	-0.124	-0.365	-0.465
V2TPA	-0.056	0.028	0.543	-0.080	-0.593	-0.173	-0.414	-0.438
V2DOMTPA	-0.109	-0.030	0.468	-0.066	-0.528	-0.093	-0.326	-0.408
V2SSTPA	-0.054	0.025	0.463	-0.093	-0.511	-0.142	-0.351	-0.400
V2UTPA	-0.024	0.043	0.520	-0.091	-0.569	-0.172	-0.391	-0.396
V2DEADTPA	0.101	0.149	0.528	0.118	-0.531	-0.274	-0.429	-0.173
V2RCTPA	0.127	0.181	0.106	-0.131	-0.144	0.046	0.065	0.060
V2DRCTPA	0.120	0.176	0.491	0.064	-0.506	-0.224	-0.355	-0.139
V2ALLDIAMAVG	0.003	-0.064	-0.008	0.113	0.006	-0.001	-0.001	-0.010
V2ALLHTAVG	0.197	-0.027	0.031	0.119	0.022	-0.099	-0.134	-0.040
V2DDIAMAVG	0.102	0.071	0.107	-0.052	-0.115	-0.077	-0.064	0.086
V2DOMHTAVG	0.081	0.052	0.060	-0.183	-0.086	0.008	-0.010	0.006
V2SSDIAMAVG	-0.021	-0.073	-0.026	0.029	0.024	0.017	0.014	-0.030
V2UDIAMAVG	0.054	-0.006	0.084	0.007	-0.088	-0.028	-0.034	0.041
V2RCDIAMAVG	0.053	0.138	0.005	0.131	0.027	-0.136	-0.076	0.129
V2DEADDIAMAV	0.118	0.209	-0.116	0.265	0.126	-0.181	-0.006	0.376
V2DRCDIAMAVG	0.113	0.208	-0.127	0.245	0.141	-0.176	-0.004	0.362
V2ALLDIAMCV	0.017	0.052	0.071	-0.159	-0.077	0.006	-0.006	0.030
V2ALLHTCV	-0.159	0.048	-0.063	-0.187	-0.014	0.148	0.205	0.096
V2DDIAMCV	0.027	0.008	-0.099	0.124	0.160	-0.031	-0.002	0.026
V2DHTCV	-0.045	0.002	-0.149	0.022	0.118	0.150	0.210	0.063
V2SSDIAMCV	-0.017	-0.008	0.056	-0.010	-0.057	0.001	-0.047	-0.098
V2UDIAMCV	0.100	0.117	0.032	-0.060	-0.021	0.023	0.036	0.045
V2ALLSW_N	-0.084	-0.131	0.072	-0.187	-0.118	0.102	0.016	-0.203
V2DSW_N	0.006	0.001	-0.141	0.033	0.148	0.039	0.034	-0.019
V2SSSW_N	0.048	0.139	-0.111	0.119	0.168	-0.099	-0.035	0.164
V2USW_N	0.127	0.088	-0.107	0.101	0.169	-0.051	0.006	0.137
V2V11	0.416	0.260	0.239	0.208	-0.212	-0.264	-0.286	0.075
V2V12	0.038	0.009	0.119	0.176	-0.122	-0.187	-0.180	0.011
V2V13	-0.048	-0.147	-0.111	0.021	0.126	0.043	0.071	0.012
V2V19	-0.115	-0.079	0.183	0.163	-0.160	-0.159	-0.235	-0.221
V2V21	-0.053	-0.061	-0.126	0.021	0.118	0.084	0.149	0.078
V2V22	-0.018	0.055	0.004	-0.013	-0.042	0.078	0.112	0.045
V2V23	0.178	0.084	0.358	0.099	-0.322	-0.239	-0.357	-0.117
V2V24	0.059	0.037	-0.060	0.026	0.063	0.024	0.113	0.114
V2V25	0.057	0.126	0.049	0.083	-0.054	-0.040	-0.009	0.109
V2V29	-0.120	-0.045	0.069	-0.236	-0.109	0.075	-0.012	-0.174
V2V31	-0.068	-0.071	-0.191	-0.042	0.178	0.204	0.216	0.015
V2V32	-0.085	-0.079	0.231	0.120	-0.201	-0.168	-0.272	-0.133
V2V34	-0.040	-0.077	-0.082	-0.051	0.078	0.045	0.087	0.050
V2V39	0.182	0.179	-0.065	0.157	0.097	-0.121	0.013	0.269
V2PLAND	0.373	0.416	0.660	-0.157	-0.693	-0.260	-0.344	0.023
V2PD	-0.462	-0.521	-0.458	-0.052	0.439	0.393	0.291	-0.374
V2LPI	0.543	0.524	0.632	-0.028	-0.608	-0.360	-0.404	0.188
V2LSI	-0.554	-0.527	-0.320	-0.269	0.257	0.488	0.293	-0.542
V2SHAPE_MN	0.094	0.119	0.243	-0.075	-0.264	-0.066	-0.111	-0.027
V2SHAPE_AM	0.230	0.290	0.522	-0.271	-0.558	-0.109	-0.252	-0.096
V2SHAPE_CV	0.373	0.414	0.563	-0.215	-0.574	-0.172	-0.286	0.010
V2CPLAND	0.440	0.448	0.809	0.130	-0.783	-0.518	-0.637	0.009
V2CAI_MN	0.068	0.154	0.809	0.385	-0.726	-0.597	-0.818	-0.275
V2CAI_AM	0.203	0.226	0.823	0.188	-0.824	-0.529	-0.733	-0.251
V2CAI_CV	0.046	0.006	-0.648	-0.054	0.683	0.306	0.585	0.435
V2CWED	-0.234	-0.183	-0.688	-0.390	0.595	0.663	0.844	0.171
V2TECI	-0.025	-0.001	-0.733	-0.110	0.723	0.396	0.722	0.496
V2IJI	-0.249	-0.346	-0.005	-0.324	-0.082	0.300	0.127	-0.422
V2LANDPD	-0.453	-0.554	-0.041	-0.441	-0.029	0.444	0.096	-0.718
V2LANDLPI	0.693	0.623	0.357	0.191	-0.232	-0.426	-0.325	0.518
V2LANDLSI	-0.578	-0.552	0.016	-0.353	-0.098	0.378	0.037	-0.790
V2LSHAPE_MN	-0.426	-0.309	0.236	0.166	-0.236	-0.120	-0.354	-0.560
V2LSHAPE_AM	0.415	0.416	0.375	-0.126	-0.324	-0.147	-0.189	0.152
V2LSHAPE_CV	-0.446	-0.172	0.191	-0.017	-0.232	0.052	-0.121	-0.468
V2LCAI_MN	0.234	0.380	0.927	0.122	-0.914	-0.544	-0.714	-0.147
V2LCAI_AM	0.436	0.428	0.551	0.809	-0.385	-0.851	-0.796	0.303
V2LCAI_CV	-0.112	-0.290	-0.849	0.016	0.910	0.402	0.590	0.242
V2LANDCWED	-0.429	-0.502	-0.789	-0.481	0.690	0.835	0.858	-0.165
V2LANDTECI	-0.081	-0.105	-0.812	-0.190	0.782	0.506	0.801	0.407
V2LANDCONTAG	0.676	0.681	0.112	0.329	0.000	-0.435	-0.142	0.814
V2LANDIJI	-0.397	-0.577	-0.236	-0.295	0.158	0.407	0.222	-0.523
V2LANDSHDI	-0.688	-0.689	-0.174	-0.288	0.035	0.430	0.197	-0.699
V2LANDSIDI	-0.726	-0.699	-0.242	-0.276	0.097	0.453	0.256	-0.677

Appendix I continued

	V1LANDIJI	V1LANDSHDI	V1LANDSIDI
V2STDAGE	0.122	0.176	0.179
V2STDSZCD	0.125	0.315	0.320
V2SITECLCD	0.173	0.357	0.372
V2TPA	0.203	0.394	0.391
V2DOMTPA	0.231	0.426	0.406
V2SSTPA	0.162	0.346	0.353
V2UTPA	0.170	0.351	0.354
V2DEADTPA	0.046	0.187	0.173
V2RCTPA	0.008	0.000	-0.010
V2DRCTPA	0.046	0.168	0.153
V2ALLDIAMAVG	0.086	0.016	0.015
V2ALLHTAVG	0.197	-0.110	-0.129
V2DDIAMAVG	-0.066	-0.047	-0.043
V2DOMHTAVG	0.026	-0.019	-0.028
V2SSDIAMAVG	0.158	0.068	0.048
V2UDIAMAVG	0.080	0.006	-0.011
V2RCDIAMAVG	-0.350	-0.172	-0.150
V2DEADDIAMAV	-0.428	-0.380	-0.366
V2DRCDIAMAVG	-0.395	-0.375	-0.365
V2ALLDIAMCV	-0.059	0.021	0.015
V2ALLHTCV	-0.192	0.078	0.091
V2DDIAMCV	-0.052	-0.101	-0.102
V2DHTCV	-0.013	-0.031	-0.028
V2SSDIAMCV	0.032	0.049	0.061
V2UDIAMCV	-0.101	-0.076	-0.062
V2ALLSW_N	0.159	0.207	0.200
V2DSW_N	0.029	-0.025	-0.029
V2SSSW_N	-0.108	-0.168	-0.162
V2USW_N	-0.092	-0.155	-0.162
V2V11	-0.018	-0.113	-0.128
V2V12	0.130	0.014	0.007
V2V13	0.078	-0.014	-0.008
V2V19	0.102	0.180	0.183
V2V21	-0.002	-0.007	-0.026
V2V22	0.011	0.007	0.030
V2V23	0.075	0.033	0.025
V2V24	-0.079	-0.096	-0.077
V2V25	-0.079	-0.081	-0.063
V2V29	0.039	0.165	0.158
V2V31	-0.065	0.026	0.014
V2V32	-0.015	0.105	0.110
V2V34	-0.022	-0.040	-0.039
V2V39	-0.305	-0.254	-0.264
V2PLAND	-0.038	-0.085	-0.075
V2PD	0.233	0.390	0.376
V2LPI	-0.094	-0.260	-0.276
V2LSI	0.229	0.545	0.542
V2SHAPE_MN	-0.206	-0.025	0.010
V2SHAPE_AM	0.013	0.057	0.057
V2SHAPE_CV	-0.091	-0.085	-0.087
V2CPLAND	0.013	-0.075	-0.102
V2CAI_MN	0.038	0.197	0.162
V2CAI_AM	0.174	0.230	0.202
V2CAI_CV	-0.231	-0.433	-0.378
V2CWED	-0.232	-0.106	-0.034
V2TECI	-0.349	-0.420	-0.372
V2IJI	0.626	0.468	0.413
V2LANDPD	0.532	0.669	0.638
V2LANDLPI	-0.261	-0.602	-0.637
V2LANDLSI	0.422	0.746	0.740
V2LSHAPE_MN	0.165	0.493	0.492
V2LSHAPE_AM	-0.137	-0.227	-0.237
V2LSHAPE_CV	-0.104	0.427	0.475
V2LCAI_MN	-0.110	0.094	0.094
V2LCAI_AM	-0.170	-0.300	-0.359
V2LCAI_CV	0.069	-0.213	-0.231
V2LANDCWED	0.144	0.199	0.229
V2LANDTECI	-0.226	-0.334	-0.290
V2LANDCONTAG	-0.526	-0.802	-0.795
V2LANDIJI	0.766	0.554	0.477
V2LANDSHDI	0.439	0.833	0.806
V2LANDSIDI	0.369	0.781	0.798

Appendix J. Correlation matrix for all FIA and landscape variables between the 100 m (V1) and 10 km (V3) buffers used to develop models at the BBS route scale.

	V1STDAGE	V1STDSZCD	V1SITECLCD	V1TPA	V1DOMTPA	V1SSTPA	V1UTPA	V1DEADTPA	V1RCTPA	V1DRCTPA
V3STDAGE	0.972	0.663	0.612	0.561	0.654	0.391	0.480	0.522	0.173	0.509
V3STDSZCD	0.629	0.981	0.807	0.759	0.566	0.696	0.774	0.651	0.319	0.660
V3SITECLCD	0.586	0.811	0.984	0.791	0.524	0.766	0.791	0.469	-0.020	0.411
V3TPA	0.551	0.777	0.800	0.980	0.768	0.931	0.952	0.636	0.197	0.615
V3DOMTPA	0.644	0.599	0.536	0.785	0.980	0.599	0.648	0.610	0.303	0.620
V3SSTPA	0.394	0.720	0.785	0.936	0.584	0.976	0.962	0.518	0.125	0.492
V3UTPA	0.475	0.793	0.801	0.949	0.628	0.953	0.979	0.613	0.186	0.591
V3DEADTPA	0.507	0.677	0.478	0.623	0.578	0.507	0.608	0.972	0.361	0.950
V3RCTPA	0.190	0.340	0.000	0.208	0.309	0.129	0.199	0.372	0.976	0.592
V3DRCTPA	0.489	0.674	0.413	0.593	0.581	0.471	0.577	0.937	0.575	0.976
V3ALLDIAMAVG	0.446	-0.143	-0.152	-0.266	0.153	-0.444	-0.384	-0.025	-0.068	-0.041
V3ALLHTAVG	0.173	-0.080	0.088	-0.143	-0.104	-0.183	-0.144	-0.052	-0.321	-0.139
V3DDIAMAVG	0.071	0.413	0.150	-0.021	-0.271	0.023	0.129	0.206	0.211	0.235
V3DOMHTAVG	-0.025	0.412	0.267	0.072	-0.165	0.116	0.192	0.220	0.219	0.249
V3SSDIAMAVG	-0.051	-0.074	-0.204	-0.094	0.027	-0.130	-0.063	0.033	0.103	0.044
V3UDIAMAVG	0.234	0.138	-0.140	-0.190	0.024	-0.339	-0.178	0.268	0.323	0.309
V3RCDIAMAVG	0.052	0.054	0.165	0.004	-0.093	0.040	0.031	-0.067	-0.259	-0.125
V3DEADDIAMAV	-0.193	-0.244	-0.180	-0.295	-0.367	-0.208	-0.247	-0.307	-0.222	-0.326
V3DRCDIAMAVG	-0.198	-0.252	-0.179	-0.300	-0.371	-0.220	-0.255	-0.323	-0.221	-0.340
V3ALLDIAMCV	-0.327	0.337	0.100	0.196	-0.114	0.305	0.333	0.225	0.331	0.287
V3ALLHTCV	-0.158	0.185	-0.098	0.136	0.135	0.150	0.139	0.178	0.508	0.300
V3DDIAMCV	-0.032	-0.255	-0.016	-0.094	-0.018	-0.093	-0.187	-0.208	-0.223	-0.238
V3DHTCV	0.201	-0.248	-0.285	-0.106	0.321	-0.234	-0.287	-0.107	0.186	-0.034
V3SSDIAMCV	0.460	0.165	0.294	0.087	0.187	0.011	0.022	-0.018	-0.006	-0.014
V3UDIAMCV	0.138	0.240	0.156	0.055	-0.046	0.067	0.053	0.124	0.334	0.204
V3ALLSW_N	0.012	0.268	0.362	0.222	-0.036	0.303	0.294	0.001	-0.118	-0.023
V3DSW_N	-0.157	-0.342	-0.190	-0.149	-0.010	-0.168	-0.227	-0.134	-0.129	-0.155
V3SSSW_N	-0.089	-0.127	-0.100	-0.038	-0.046	-0.055	-0.068	-0.113	-0.045	-0.113
V3USW_N	-0.179	-0.328	-0.374	-0.263	-0.156	-0.285	-0.297	-0.169	-0.026	-0.169
V3V11	0.374	0.102	0.201	0.218	0.141	0.186	0.234	0.160	-0.110	0.111
V3V12	0.372	0.181	0.046	0.169	0.338	0.056	0.094	0.132	0.097	0.143
V3V13	-0.050	-0.077	-0.061	-0.047	-0.041	-0.031	-0.050	-0.088	-0.058	-0.092
V3V19	0.157	0.179	0.407	0.337	0.161	0.365	0.321	0.209	-0.158	0.140
V3V21	0.118	-0.165	-0.264	-0.077	0.223	-0.201	-0.179	0.001	0.305	0.085
V3V22	0.309	-0.015	-0.229	-0.047	0.322	-0.180	-0.170	0.064	0.288	0.136
V3V23	0.457	0.292	0.384	0.236	0.190	0.155	0.220	0.226	-0.178	0.151
V3V24	0.132	-0.094	-0.157	-0.069	0.064	-0.112	-0.120	-0.014	0.229	0.053
V3V25	0.081	-0.062	-0.129	-0.086	0.019	-0.109	-0.120	-0.077	0.147	-0.026
V3V29	-0.229	0.364	0.360	0.322	-0.026	0.435	0.436	0.186	0.109	0.193
V3V31	0.050	-0.039	-0.123	-0.051	0.097	-0.088	-0.099	-0.011	0.246	0.058
V3V32	0.269	0.229	0.276	0.135	0.170	0.070	0.115	0.186	-0.203	0.108
V3V34	0.006	0.007	-0.022	-0.059	-0.043	-0.054	-0.049	-0.095	0.053	-0.068
V3V39	-0.159	-0.203	-0.116	-0.231	-0.270	-0.165	-0.215	-0.223	-0.139	-0.231
V3PLAND	0.373	0.563	0.370	0.431	0.326	0.378	0.464	0.401	0.409	0.465
V3PD	-0.172	-0.300	-0.075	-0.158	-0.055	-0.145	-0.216	-0.198	-0.375	-0.277
V3LPI	0.327	0.506	0.333	0.383	0.265	0.339	0.422	0.386	0.368	0.440
V3LSI	-0.120	-0.122	0.063	-0.020	0.066	-0.022	-0.071	-0.096	-0.195	-0.137
V3SHAPE_MN	-0.112	-0.240	-0.065	-0.079	-0.013	-0.067	-0.110	-0.157	-0.243	-0.203
V3SHAPE_AM	0.266	0.469	0.314	0.362	0.281	0.323	0.398	0.347	0.381	0.409
V3SHAPE_CV	0.180	0.472	0.322	0.325	0.182	0.301	0.383	0.274	0.372	0.343
V3CPLAND	0.513	0.653	0.489	0.576	0.453	0.497	0.590	0.551	0.336	0.576
V3CAI_MN	0.526	0.612	0.613	0.641	0.612	0.522	0.583	0.608	0.130	0.568
V3CAI_AM	0.595	0.674	0.585	0.694	0.584	0.605	0.678	0.603	0.203	0.587
V3CAI_CV	-0.483	-0.595	-0.557	-0.639	-0.612	-0.542	-0.592	-0.541	-0.132	-0.514
V3CWED	-0.474	-0.566	-0.551	-0.605	-0.462	-0.536	-0.590	-0.529	-0.053	-0.478
V3TECI	-0.537	-0.671	-0.659	-0.714	-0.621	-0.621	-0.683	-0.613	-0.124	-0.572
V3IJI	0.155	0.078	0.003	0.163	0.305	0.085	0.112	0.207	0.090	0.209
V3LANDPD	0.099	0.176	0.356	0.241	0.217	0.220	0.213	0.083	-0.203	0.020
V3LANDLPI	0.032	0.139	-0.005	-0.003	-0.123	0.002	0.062	0.151	0.237	0.191
V3LANDLSI	0.122	0.191	0.398	0.312	0.319	0.283	0.257	0.114	-0.181	0.054
V3LSHAPE_MN	0.274	0.265	0.473	0.427	0.377	0.393	0.373	0.281	-0.222	0.184
V3LSHAPE_AM	0.079	0.260	0.095	0.090	-0.022	0.088	0.162	0.190	0.318	0.253
V3LSHAPE_CV	0.142	0.148	0.283	0.235	0.276	0.212	0.185	0.088	-0.101	0.051
V3LCAI_MN	0.520	0.734	0.625	0.683	0.543	0.609	0.688	0.614	0.329	0.629
V3LCAI_AM	0.395	0.294	0.218	0.349	0.281	0.281	0.333	0.430	0.079	0.394
V3LCAI_CV	-0.544	-0.742	-0.636	-0.693	-0.574	-0.619	-0.693	-0.596	-0.333	-0.616
V3LANDCWED	-0.477	-0.574	-0.456	-0.562	-0.413	-0.496	-0.567	-0.536	-0.234	-0.533
V3LANDTECI	-0.564	-0.705	-0.684	-0.750	-0.654	-0.650	-0.716	-0.646	-0.161	-0.612
V3LANDCONTAG	-0.095	-0.078	-0.242	-0.237	-0.325	-0.203	-0.168	-0.082	0.202	-0.022
V3LANDIJI	0.038	-0.055	-0.037	0.066	0.200	0.013	0.013	0.071	-0.104	0.039
V3LANDSHDI	0.049	0.007	0.145	0.188	0.294	0.163	0.117	0.025	-0.177	-0.020
V3LANDSIDI	0.029	-0.074	0.074	0.094	0.220	0.079	0.027	-0.055	-0.223	-0.102

Appendix J continued

	V1ALLHTAVG	V1DDIAMAVG	V1DOMHTAVG	V1SSDIAMAVG	V1UDIAMAVG	V1RCDIAMAVG	V1DEADDIAMAV
V3STDAGE	0.211	0.108	0.016	-0.072	0.254	-0.022	-0.200
V3STDSZCD	-0.084	0.419	0.539	-0.070	0.159	-0.050	-0.250
V3SITECLCD	0.182	0.170	0.509	-0.181	-0.100	0.068	-0.185
V3TPA	-0.120	0.018	0.237	-0.069	-0.142	-0.092	-0.320
V3DOMTPA	-0.154	-0.222	-0.171	0.016	0.043	-0.188	-0.388
V3SSTPA	-0.128	0.061	0.323	-0.088	-0.279	-0.039	-0.241
V3UTPA	-0.099	0.165	0.386	-0.036	-0.125	-0.061	-0.275
V3DEADTPA	-0.131	0.281	0.298	0.043	0.304	-0.126	-0.308
V3RCTPA	-0.504	0.238	0.109	0.097	0.317	-0.262	-0.220
V3DRCTPA	-0.248	0.305	0.279	0.062	0.349	-0.180	-0.325
V3ALLDIAMAVG	0.341	-0.109	-0.337	0.061	0.472	-0.078	-0.127
V3ALLHTAVG	0.977	0.049	0.194	0.060	0.175	-0.056	-0.263
V3DDIAMAVG	0.044	0.958	0.898	0.086	0.490	0.039	0.057
V3DOMHTAVG	0.163	0.748	0.933	0.070	0.349	-0.228	-0.494
V3SSDIAMAVG	-0.002	0.134	-0.033	0.924	0.533	-0.053	-0.163
V3UDIAMAVG	0.119	0.502	0.269	0.425	0.943	-0.173	-0.155
V3RCDIAMAVG	0.046	0.087	0.248	-0.045	-0.140	0.968	0.461
V3DEADDIAMAV	-0.110	0.046	0.213	-0.091	-0.175	0.458	0.971
V3DRCDIAMAVG	-0.033	0.053	0.200	-0.078	-0.145	0.522	0.963
V3ALLDIAMCV	-0.362	0.502	0.543	0.101	0.002	-0.045	-0.040
V3ALLHTCV	-0.947	0.154	-0.032	0.001	0.028	-0.163	0.016
V3DDIAMCV	-0.056	-0.635	-0.657	-0.292	-0.473	0.170	0.109
V3DHTCV	-0.395	-0.609	-0.740	-0.133	-0.111	-0.134	-0.063
V3SSDIAMCV	0.157	0.039	0.056	-0.422	-0.037	0.067	-0.061
V3UDIAMCV	-0.207	0.196	0.102	-0.561	-0.056	-0.018	-0.074
V3ALLSW_N	0.032	0.224	0.380	0.021	-0.138	-0.038	-0.163
V3DSW_N	0.071	-0.511	-0.474	-0.096	-0.235	-0.020	0.183
V3SSSW_N	-0.134	-0.062	-0.082	-0.054	-0.055	-0.012	-0.017
V3USW_N	-0.102	-0.094	-0.194	0.088	0.094	0.045	0.226
V3V11	0.607	0.071	0.104	0.039	0.057	-0.001	-0.053
V3V12	0.021	-0.088	-0.138	0.133	0.126	-0.110	-0.063
V3V13	0.092	-0.066	-0.016	0.016	-0.063	-0.026	0.019
V3V19	0.140	-0.158	0.188	-0.124	-0.219	0.063	-0.043
V3V21	-0.252	-0.262	-0.412	0.060	0.184	-0.157	-0.132
V3V22	-0.181	-0.241	-0.462	-0.060	0.166	-0.257	-0.233
V3V23	0.677	0.184	0.209	-0.004	0.181	0.100	-0.087
V3V24	0.006	-0.179	-0.290	-0.159	0.023	-0.183	-0.130
V3V25	-0.063	-0.071	-0.139	-0.049	0.036	-0.087	-0.123
V3V29	-0.310	0.320	0.547	0.053	-0.144	0.088	0.049
V3V31	-0.164	-0.164	-0.279	-0.048	0.065	-0.063	-0.034
V3V32	0.157	0.116	0.058	-0.022	0.143	0.139	-0.077
V3V34	-0.038	0.029	0.038	0.029	0.064	-0.019	-0.040
V3V39	-0.097	-0.079	-0.188	-0.043	-0.214	0.553	0.493
V3PLAND	-0.026	0.346	0.391	0.103	0.201	-0.130	-0.260
V3PD	0.071	-0.330	-0.340	-0.100	-0.157	0.015	-0.040
V3LPI	0.031	0.359	0.403	0.059	0.178	-0.111	-0.191
V3LSI	0.014	-0.280	-0.212	-0.094	-0.101	0.031	-0.070
V3SHAPE_MN	-0.039	-0.302	-0.342	-0.030	-0.142	0.271	0.220
V3SHAPE_AM	0.022	0.318	0.352	0.069	0.180	-0.123	-0.213
V3SHAPE_CV	-0.012	0.369	0.460	0.070	0.194	-0.097	-0.162
V3CPLAND	0.084	0.328	0.379	0.087	0.192	-0.110	-0.250
V3CAI_MN	0.119	0.079	0.232	-0.059	0.129	0.038	-0.146
V3CAI_AM	0.128	0.233	0.297	0.069	0.131	-0.115	-0.329
V3CAI_CV	-0.059	-0.059	-0.177	-0.044	-0.072	0.022	0.216
V3CWED	-0.212	-0.169	-0.294	-0.021	-0.058	0.051	0.133
V3TECI	-0.215	-0.141	-0.331	-0.052	-0.128	0.133	0.376
V3IJI	-0.027	-0.095	-0.187	0.309	0.137	-0.235	-0.328
V3LANDPD	0.363	-0.053	0.082	0.081	0.014	-0.131	-0.373
V3LANDLPI	0.069	0.350	0.363	0.019	0.137	0.069	0.135
V3LANDLSI	0.179	-0.182	-0.043	-0.039	-0.072	-0.033	-0.280
V3LSHAPE_MN	0.251	-0.173	0.001	-0.099	-0.132	0.116	-0.034
V3LSHAPE_AM	0.069	0.404	0.408	0.063	0.219	-0.007	-0.080
V3LSHAPE_CV	-0.069	-0.167	-0.068	-0.182	-0.079	0.188	0.043
V3LCAI_MN	-0.018	0.279	0.419	-0.008	0.137	0.033	-0.120
V3LCAI_AM	0.159	0.116	0.108	-0.006	0.075	0.071	0.109
V3LCAI_CV	0.070	-0.259	-0.384	0.000	-0.128	-0.051	0.118
V3LANDCWED	-0.056	-0.240	-0.326	0.019	-0.078	-0.026	-0.013
V3LANDTECI	-0.191	-0.135	-0.335	-0.030	-0.121	0.113	0.350
V3LANDCONTAG	-0.069	0.276	0.261	-0.034	0.068	0.080	0.302
V3LANDIJI	0.085	-0.201	-0.286	0.224	0.042	-0.265	-0.319
V3LANDSHDI	-0.003	-0.308	-0.304	0.038	-0.107	-0.084	-0.264
V3LANDSIDI	-0.017	-0.319	-0.356	0.026	-0.105	-0.051	-0.230

Appendix J continued

	V1DRCDIAMAVG	V1ALLDIAMCV	V1ALLHTCV	V1DDIAMCV	V1DHTCV	V1SSDIAMCV	V1UDIAMCV	V1ALLSW_N
V3STDAGE	-0.208	-0.323	-0.146	-0.057	0.215	0.401	0.229	-0.015
V3STDSZCD	-0.260	0.331	0.226	-0.236	-0.227	0.123	0.272	0.240
V3SITECLCD	-0.188	0.110	-0.060	-0.042	-0.255	0.238	0.216	0.342
V3TPA	-0.323	0.203	0.181	-0.112	-0.083	0.060	0.077	0.218
V3DOMTPA	-0.389	-0.089	0.178	-0.054	0.316	0.157	-0.018	-0.032
V3SSTPA	-0.247	0.306	0.183	-0.104	-0.205	-0.010	0.087	0.302
V3UTPA	-0.279	0.335	0.170	-0.186	-0.262	0.003	0.075	0.288
V3DEADTPA	-0.322	0.249	0.214	-0.239	-0.152	0.001	0.124	0.042
V3RCTPA	-0.217	0.340	0.579	-0.203	0.172	-0.010	0.230	-0.073
V3DRCTPA	-0.335	0.303	0.337	-0.262	-0.080	-0.003	0.166	0.019
V3ALLDIAMAVG	-0.116	-0.801	-0.333	0.063	0.445	0.330	0.062	-0.300
V3ALLHTAVG	-0.225	-0.285	-0.955	-0.011	-0.331	0.107	-0.111	-0.040
V3DDIAMAVG	0.061	0.516	0.146	-0.549	-0.675	-0.004	0.201	0.181
V3DOMHTAVG	-0.486	0.473	0.022	-0.490	-0.745	-0.012	0.103	0.257
V3SSDIAMAVG	-0.146	0.088	0.014	-0.273	-0.148	-0.388	-0.579	0.002
V3UDIAMAVG	-0.136	0.000	0.000	-0.413	-0.167	-0.004	-0.068	-0.178
V3RCDIAMAVG	0.523	-0.029	0.020	0.042	-0.108	0.125	-0.027	0.050
V3DEADDIAMAV	0.909	-0.037	0.192	0.007	-0.096	0.001	-0.082	-0.097
V3DRCDIAMAVG	0.969	-0.047	0.100	-0.010	-0.082	-0.017	-0.113	-0.114
V3ALLDIAMCV	-0.050	0.985	0.429	-0.310	-0.543	-0.355	0.001	0.268
V3ALLHTCV	-0.091	0.395	0.991	-0.139	0.261	-0.099	0.147	0.057
V3DDIAMCV	0.089	-0.359	-0.109	0.955	0.655	0.020	0.237	-0.043
V3DHTCV	-0.050	-0.541	0.321	0.509	0.960	0.178	0.228	-0.298
V3SSDIAMCV	-0.074	-0.377	-0.104	-0.013	0.181	0.952	0.368	0.006
V3UDIAMCV	-0.089	0.027	0.241	0.138	0.271	0.285	0.858	0.041
V3ALLSW_N	-0.172	0.274	0.025	-0.076	-0.345	-0.006	0.004	0.963
V3DSW_N	0.235	-0.247	-0.244	0.412	0.207	-0.114	-0.116	-0.502
V3SSSW_N	-0.014	-0.042	0.158	-0.050	0.044	0.064	0.042	-0.182
V3USW_N	0.247	-0.139	0.116	-0.059	0.130	-0.062	-0.107	-0.603
V3V11	-0.047	-0.168	-0.611	-0.120	-0.237	0.092	-0.071	-0.027
V3V12	-0.081	-0.195	-0.015	-0.008	0.206	0.058	-0.117	-0.221
V3V13	-0.004	-0.043	-0.116	0.011	-0.028	0.009	-0.021	0.005
V3V19	-0.041	-0.064	-0.132	0.169	-0.171	0.084	0.053	0.293
V3V21	-0.117	-0.287	0.229	0.095	0.532	0.065	0.046	-0.422
V3V22	-0.218	-0.446	0.160	0.029	0.658	0.160	0.171	-0.379
V3V23	-0.069	-0.197	-0.631	0.058	-0.156	0.125	0.081	0.144
V3V24	-0.119	-0.271	-0.051	0.290	0.392	0.037	0.278	-0.288
V3V25	-0.106	-0.165	0.084	0.101	0.288	0.070	0.194	-0.058
V3V29	0.026	0.721	0.378	-0.242	-0.567	-0.173	-0.068	0.381
V3V31	-0.024	-0.137	0.141	0.221	0.423	0.002	0.282	-0.279
V3V32	-0.076	-0.091	-0.116	0.123	0.045	0.076	0.079	0.170
V3V34	-0.023	-0.052	0.047	-0.014	-0.004	-0.016	0.045	-0.019
V3V39	0.503	-0.091	0.084	0.167	0.221	0.029	0.041	-0.058
V3PLAND	-0.261	0.343	0.119	-0.317	-0.242	0.001	0.037	0.162
V3PD	-0.040	-0.345	-0.128	0.265	0.263	0.103	-0.022	0.026
V3LPI	-0.189	0.353	0.053	-0.300	-0.298	-0.003	0.063	0.091
V3LSI	-0.065	-0.191	-0.046	0.175	0.175	0.077	0.030	0.003
V3SHAPE_MN	0.224	-0.259	-0.029	0.228	0.266	-0.007	-0.074	-0.103
V3SHAPE_AM	-0.211	0.370	0.045	-0.297	-0.301	0.002	0.070	0.086
V3SHAPE_CV	-0.157	0.472	0.093	-0.336	-0.376	-0.024	0.061	0.116
V3CPLAND	-0.250	0.290	0.006	-0.260	-0.257	0.021	0.026	0.148
V3CAI_MN	-0.143	0.001	-0.040	-0.038	-0.090	0.124	0.104	-0.040
V3CAI_AM	-0.332	0.172	-0.055	-0.184	-0.215	0.069	0.017	0.192
V3CAI_CV	0.213	-0.082	-0.002	0.195	0.128	-0.060	0.017	-0.053
V3CWED	0.131	-0.146	0.159	0.075	0.280	-0.027	-0.006	-0.099
V3TECI	0.375	-0.143	0.133	0.166	0.278	-0.094	-0.020	-0.160
V3IJI	-0.338	-0.036	-0.001	-0.112	0.124	-0.097	-0.208	0.120
V3LANDPD	-0.371	-0.028	-0.353	0.030	-0.151	0.058	-0.055	0.310
V3LANDLPI	0.157	0.328	-0.011	-0.176	-0.310	-0.073	0.060	-0.094
V3LANDLSI	-0.277	-0.116	-0.176	0.094	0.025	0.109	0.004	0.184
V3LSHAPE_MN	-0.041	-0.181	-0.235	0.120	-0.029	0.136	0.002	0.030
V3LSHAPE_AM	-0.062	0.396	0.004	-0.287	-0.352	-0.020	0.076	0.018
V3LSHAPE_CV	0.038	-0.210	0.096	0.069	0.153	0.186	0.112	-0.087
V3LCAI_MN	-0.128	0.300	0.114	-0.245	-0.278	0.050	0.099	0.103
V3LCAI_AM	0.112	0.024	-0.137	0.015	-0.101	0.012	0.008	-0.114
V3LCAI_CV	0.125	-0.260	-0.174	0.284	0.214	-0.079	-0.075	-0.124
V3LANDCWED	-0.015	-0.232	-0.008	0.131	0.249	-0.004	-0.059	0.016
V3LANDTECI	0.349	-0.154	0.108	0.167	0.269	-0.091	-0.036	-0.134
V3LANDCONTAG	0.310	0.227	0.098	-0.099	-0.195	-0.069	0.058	-0.134
V3LANDIJI	-0.318	-0.144	-0.149	0.037	0.156	-0.117	-0.202	0.127
V3LANDSHDI	-0.275	-0.242	-0.034	0.094	0.230	0.050	-0.069	0.105
V3LANDSIDI	-0.244	-0.316	-0.028	0.110	0.278	0.095	-0.065	0.075

Appendix J continued

	V1DSW_N	V1SSSW_N	V1USW_N	V1V11	V1V12	V1V13	V1V19	V1V21	V1V22	V1V23	V1V24	V1V25	V1V29
V3STDAGE	-0.165	-0.106	-0.134	0.361	0.352	-0.053	0.145	0.120	0.319	0.458	0.127	0.097	-0.229
V3STDSZCD	-0.313	-0.144	-0.153	0.104	0.151	-0.080	0.169	-0.169	-0.028	0.283	-0.068	-0.040	0.364
V3SITECLCD	-0.194	-0.121	-0.148	0.182	0.016	-0.073	0.381	-0.271	-0.242	0.373	-0.137	-0.079	0.368
V3TPA	-0.160	-0.051	-0.159	0.192	0.095	-0.058	0.324	-0.075	-0.043	0.233	-0.072	-0.060	0.330
V3DOMTPA	-0.048	-0.072	-0.153	0.120	0.285	-0.051	0.167	0.224	0.335	0.164	0.036	0.054	-0.001
V3SSTPA	-0.172	-0.088	-0.152	0.168	-0.015	-0.044	0.351	-0.196	-0.179	0.169	-0.106	-0.088	0.439
V3UTPA	-0.222	-0.101	-0.164	0.214	0.031	-0.061	0.305	-0.179	-0.171	0.230	-0.112	-0.097	0.438
V3DEADTPA	-0.177	-0.122	-0.126	0.170	0.106	-0.077	0.188	-0.018	0.055	0.239	-0.051	-0.073	0.194
V3RCTPA	-0.158	-0.061	-0.104	-0.107	0.086	-0.054	-0.151	0.320	0.298	-0.164	0.156	0.100	0.117
V3DRCTPA	-0.194	-0.122	-0.136	0.118	0.114	-0.081	0.121	0.071	0.129	0.162	-0.001	-0.035	0.198
V3ALLDIAMAVG	0.028	-0.057	-0.075	0.122	0.281	0.006	-0.107	0.338	0.560	0.279	0.280	0.198	-0.744
V3ALLHTAVG	0.174	-0.130	0.040	0.554	0.014	0.084	-0.107	-0.171	-0.063	0.605	0.076	0.039	-0.350
V3DDIAMAVG	-0.420	-0.069	-0.170	0.072	-0.076	-0.048	-0.170	-0.290	-0.278	0.202	-0.138	-0.081	0.319
V3DOMHTAVG	-0.223	-0.060	-0.129	0.076	-0.154	0.006	-0.294	-0.245	-0.222	0.145	-0.115	-0.042	0.371
V3SSDIAMAVG	-0.072	-0.129	-0.090	0.000	0.155	0.018	-0.126	0.072	-0.061	-0.017	-0.122	-0.032	0.059
V3UDIAMAVG	-0.183	-0.066	-0.155	0.045	0.176	-0.063	-0.225	0.166	0.148	0.173	0.024	0.022	-0.152
V3RCDIAMAVG	-0.113	-0.029	-0.149	0.016	-0.096	-0.020	0.067	-0.151	-0.252	0.160	-0.181	-0.073	0.111
V3DEADDIAMAV	0.024	-0.022	-0.141	-0.075	-0.084	0.024	-0.052	-0.130	-0.212	-0.103	-0.167	-0.113	0.061
V3DRCDIAMAVG	0.078	-0.024	-0.142	-0.064	-0.098	0.002	-0.048	-0.114	-0.209	-0.076	-0.151	-0.104	0.044
V3ALLDIAMCV	-0.202	-0.040	0.003	-0.150	-0.196	-0.043	-0.060	-0.295	-0.459	-0.192	-0.251	-0.161	0.725
V3ALLHTCV	-0.253	0.179	-0.145	-0.602	-0.072	-0.094	-0.125	0.227	0.166	-0.629	-0.061	0.016	0.373
V3DDIAMCV	0.373	-0.098	0.500	-0.157	0.014	0.004	0.199	0.133	0.052	0.051	0.279	0.094	-0.272
V3DHTCV	0.121	0.023	0.023	-0.293	0.153	-0.022	-0.200	0.570	0.701	-0.217	0.326	0.228	-0.574
V3SSDIAMCV	-0.170	0.088	-0.219	0.080	0.067	-0.001	0.088	0.082	0.176	0.137	0.059	0.087	-0.172
V3UDIAMCV	-0.154	0.092	0.101	-0.151	-0.235	0.016	-0.006	0.089	0.226	0.064	0.220	0.136	-0.077
V3ALLSW_N	-0.433	-0.253	-0.186	0.002	-0.193	0.022	0.264	-0.438	-0.409	0.195	-0.236	-0.052	0.375
V3DSW_N	0.949	0.008	0.427	0.069	-0.034	-0.038	-0.058	0.163	0.106	-0.137	0.149	-0.012	-0.195
V3SSSW_N	-0.028	0.990	-0.034	-0.038	-0.028	-0.010	-0.035	0.176	0.070	-0.062	-0.029	0.018	-0.081
V3USW_N	0.191	0.748	0.862	-0.083	0.092	-0.027	-0.152	0.276	0.181	-0.172	0.010	0.009	-0.225
V3V11	0.075	-0.038	-0.026	0.980	0.155	-0.019	-0.024	-0.135	-0.102	0.495	0.062	-0.047	-0.235
V3V12	-0.039	-0.028	-0.029	0.165	0.933	0.070	-0.013	0.158	0.271	0.062	0.121	0.023	-0.240
V3V13	-0.011	-0.011	-0.006	-0.026	0.067	0.951	-0.023	-0.005	0.027	0.020	-0.015	-0.036	-0.068
V3V19	-0.077	-0.047	-0.018	-0.080	-0.083	-0.025	0.972	-0.149	-0.250	-0.083	-0.159	-0.095	0.200
V3V21	0.133	0.223	0.022	-0.140	0.143	0.014	-0.139	0.983	0.429	-0.164	0.388	0.223	-0.391
V3V22	0.072	0.069	-0.059	-0.104	0.243	0.022	-0.224	0.422	0.985	-0.085	0.389	0.338	-0.677
V3V23	-0.103	-0.069	-0.038	0.517	0.086	0.019	-0.079	-0.162	-0.086	0.982	0.083	-0.009	-0.357
V3V24	0.204	-0.020	0.296	0.071	0.105	0.003	-0.139	0.423	0.443	0.061	0.960	0.253	-0.471
V3V25	0.031	0.037	0.027	-0.035	0.038	-0.045	-0.109	0.285	0.378	-0.026	0.318	0.942	-0.316
V3V29	-0.176	-0.095	-0.051	-0.228	-0.249	-0.070	0.171	-0.398	-0.690	-0.331	-0.431	-0.273	0.987
V3V31	0.189	-0.026	0.129	-0.109	-0.102	-0.030	-0.074	0.499	0.274	-0.118	0.355	0.211	-0.228
V3V32	-0.131	-0.042	-0.014	-0.032	0.023	-0.025	-0.024	-0.127	-0.106	0.599	-0.061	-0.073	-0.183
V3V34	0.015	-0.008	-0.008	-0.044	-0.045	-0.011	-0.030	0.274	0.069	-0.023	0.210	0.107	-0.087
V3V39	0.001	-0.025	0.015	-0.125	-0.080	-0.034	0.044	0.063	-0.159	-0.172	0.041	-0.053	0.059
V3PLAND	-0.264	-0.118	-0.152	0.231	0.134	-0.037	-0.159	-0.060	0.010	0.277	0.033	0.051	0.225
V3PD	0.174	-0.006	0.028	-0.213	-0.159	-0.009	0.244	-0.010	0.006	-0.179	-0.081	-0.080	-0.133
V3LPI	-0.206	-0.069	-0.093	0.265	0.105	-0.040	-0.173	-0.101	-0.052	0.299	0.060	0.044	0.224
V3LSI	0.194	-0.017	-0.024	-0.172	-0.277	-0.018	0.172	0.036	0.019	-0.102	-0.030	-0.054	-0.052
V3SHAPE_MN	0.125	-0.029	-0.017	-0.128	-0.137	-0.018	0.159	0.137	0.014	-0.110	-0.034	-0.076	-0.140
V3SHAPE_AM	-0.156	-0.045	-0.108	0.234	0.016	-0.011	-0.184	-0.082	-0.036	0.295	0.068	0.109	0.205
V3SHAPE_CV	-0.157	-0.066	-0.109	0.233	-0.079	-0.033	-0.176	-0.092	-0.105	0.242	-0.023	0.011	0.288
V3CPLAND	-0.242	-0.113	-0.115	0.313	0.220	-0.055	-0.030	-0.110	-0.064	0.377	-0.033	-0.024	0.233
V3CAI_MN	-0.064	-0.070	-0.068	0.107	0.113	-0.084	0.261	-0.040	-0.045	0.337	-0.066	-0.106	0.133
V3CAI_AM	-0.228	-0.116	-0.124	0.303	0.271	-0.043	0.171	-0.145	-0.070	0.380	-0.092	-0.029	0.201
V3CAI_CV	0.050	0.049	0.146	-0.169	-0.125	0.098	-0.163	-0.021	0.006	-0.240	0.159	0.118	-0.177
V3CWED	0.066	0.045	0.007	-0.252	-0.205	0.027	-0.232	0.210	0.206	-0.366	0.176	0.151	-0.224
V3TECI	0.104	0.106	0.154	-0.247	-0.127	0.047	-0.229	0.148	0.095	-0.378	0.168	0.091	-0.210
V3IJI	-0.083	-0.086	-0.137	0.038	0.287	0.034	-0.020	0.153	0.125	0.115	-0.078	0.051	-0.083
V3LANDPD	0.004	-0.160	-0.110	0.024	-0.159	0.046	0.165	-0.151	-0.179	0.251	-0.192	-0.080	0.093
V3LANDLPI	-0.100	0.026	0.075	0.208	0.033	-0.066	-0.253	-0.108	-0.168	0.204	0.085	-0.053	0.148
V3LANDLSI	0.088	-0.112	-0.113	-0.072	-0.204	0.007	0.273	-0.087	-0.087	0.113	-0.111	-0.078	0.090
V3LSHAPE_MN	0.104	-0.027	-0.085	0.032	-0.085	-0.060	0.411	-0.146	-0.141	0.113	-0.165	-0.121	0.117
V3LSHAPE_AM	-0.159	-0.042	-0.034	0.233	-0.044	-0.047	-0.268	-0.099	-0.113	0.236	0.097	0.022	0.176
V3LSHAPE_CV	0.038	0.024	-0.121	-0.140	-0.155	-0.094	0.217	0.037	0.093	-0.055	0.021	0.022	-0.005
V3LCAI_MN	-0.203	-0.111	-0.150	0.244	0.090	-0.133	0.099	-0.127	-0.053	0.345	-0.042	-0.029	0.270
V3LCAI_AM	-0.057	0.039	0.092	0.291	0.300	-0.068	0.165	-0.049	-0.111	0.265	-0.033	-0.095	0.023
V3LCAI_CV	0.228	0.121	0.246	-0.224	-0.099	0.137	-0.092	0.102	-0.010	-0.313	0.056	-0.019	-0.248
V3LANDCWED	0.127	-0.010	-0.016	-0.287	-0.246	0.083	-0.117	0.123	0.104	-0.310	0.036	0.067	-0.200
V3LANDTECI	0.104	0.095	0.143	-0.263	-0.122	0.071	-0.228	0.136	0.079	-0.376	0.134	0.080	-0.219
V3LANDCONTAG	-0.073	0.043	0.132	0.115	0.080	-0.012	-0.261	-0.048	-0.042	0.011	0.113	-0.011	0.020
V3LANDIJI	0.063	-0.087	-0.013	-0.025	0.169	0.072	0.065	0.121	0.015	0.044	-0.115	-0.023	-0.074
V3LANDSHDI	0.063	0.019	-0.126	-0.118	-0.028	0.021	0.258	0.118	0.087	-0.098	-0.088	0.048	-0.056
V3LANDSIDI	0.057	0.021	-0.142	-0.140	-0.020	0.041	0.232	0.111	0.155	-0.126	-0.058	0.079	-0.141

Appendix J continued

	V1V31	V1V32	V1V34	V1V39	V1PLAND	V1PD	V1LPI	V1LSI	V1SHAPE_MN	V1SHAPE_AM	V1SHAPE_CV
V3STDAGE	0.022	0.271	-0.020	-0.129	0.396	-0.113	0.294	0.167	0.292	0.344	0.363
V3STDSZCD	-0.066	0.221	-0.042	-0.167	0.482	-0.124	0.248	0.325	0.313	0.358	0.434
V3SITECLCD	-0.140	0.292	-0.044	-0.103	0.326	0.059	0.150	0.406	0.216	0.237	0.286
V3TPA	-0.073	0.148	-0.044	-0.195	0.389	-0.004	0.205	0.370	0.311	0.292	0.346
V3DOMTPA	0.060	0.142	-0.045	-0.226	0.361	0.062	0.175	0.384	0.272	0.230	0.287
V3SSTPA	-0.095	0.092	-0.041	-0.139	0.313	0.013	0.161	0.335	0.259	0.246	0.289
V3UTPA	-0.109	0.137	-0.034	-0.186	0.391	-0.048	0.220	0.336	0.321	0.316	0.364
V3DEADTPA	-0.051	0.215	-0.092	-0.206	0.437	-0.169	0.295	0.206	0.350	0.358	0.396
V3RCTPA	0.194	-0.182	0.074	-0.096	0.319	-0.246	0.208	0.053	0.226	0.284	0.331
V3DRCTPA	0.009	0.136	-0.059	-0.202	0.463	-0.210	0.310	0.197	0.362	0.385	0.430
V3ALLDIAMAVG	0.174	0.197	0.071	-0.048	-0.028	0.100	0.021	-0.017	-0.063	-0.029	-0.063
V3ALLHTAVG	-0.108	0.009	-0.040	-0.139	0.074	-0.051	0.179	-0.065	0.098	0.181	0.109
V3DDIAMAVG	-0.161	0.136	-0.011	-0.065	0.245	-0.313	0.178	-0.081	0.158	0.256	0.272
V3DOMHTAVG	-0.159	-0.028	0.026	-0.284	0.267	-0.153	0.150	0.127	0.149	0.237	0.252
V3SSDIAMAVG	-0.004	0.004	0.076	-0.035	0.030	-0.061	-0.004	-0.064	0.000	0.017	0.024
V3UDIAMAVG	0.051	0.156	0.072	-0.207	0.210	-0.179	0.138	-0.033	0.129	0.178	0.188
V3RCDIAMAVG	-0.079	0.184	-0.013	0.436	-0.037	-0.034	-0.005	-0.014	0.019	-0.041	-0.039
V3DEADDIAMAV	-0.070	-0.057	-0.036	0.476	-0.188	-0.137	-0.014	-0.313	-0.073	-0.075	-0.074
V3DRCDIAMAVG	-0.056	-0.061	-0.017	0.469	-0.201	-0.138	-0.041	-0.308	-0.083	-0.096	-0.098
V3ALLDIAMCV	-0.133	-0.087	-0.060	-0.089	0.201	-0.224	0.071	0.049	0.158	0.164	0.215
V3ALLHTCV	0.123	-0.040	0.057	0.081	0.021	-0.001	-0.122	0.092	-0.066	-0.102	-0.032
V3DDIAMCV	0.236	0.139	0.002	0.177	-0.202	0.198	-0.147	0.024	-0.184	-0.218	-0.222
V3DHTCV	0.383	0.080	0.012	0.227	-0.110	0.194	-0.114	0.028	-0.149	-0.179	-0.171
V3SSDIAMCV	-0.028	0.081	-0.017	0.047	0.025	0.090	0.025	0.116	0.022	0.014	0.005
V3UDIAMCV	0.274	0.096	-0.008	0.081	0.081	-0.045	0.041	0.093	0.027	0.095	0.109
V3ALLSW_N	-0.291	0.206	-0.059	-0.065	0.109	0.032	0.028	0.199	0.046	0.084	0.108
V3DSW_N	0.232	-0.153	0.074	-0.005	-0.231	0.206	-0.118	0.019	-0.090	-0.171	-0.207
V3SSSW_N	-0.029	-0.034	-0.011	-0.025	-0.111	-0.063	-0.052	-0.209	-0.089	-0.075	-0.103
V3USW_N	0.050	-0.134	0.007	0.049	-0.178	-0.105	-0.077	-0.384	-0.129	-0.136	-0.168
V3V11	-0.106	-0.072	-0.044	-0.120	0.218	-0.234	0.391	-0.119	0.403	0.412	0.312
V3V12	-0.106	-0.074	-0.050	-0.067	0.152	-0.151	0.106	-0.126	0.067	0.094	0.113
V3V13	-0.028	-0.023	-0.011	-0.031	-0.091	0.034	-0.045	-0.079	-0.071	-0.083	-0.109
V3V19	-0.078	0.021	-0.031	0.031	-0.104	0.158	-0.123	0.163	-0.096	-0.137	-0.131
V3V21	0.480	-0.123	0.442	0.097	-0.073	0.032	-0.083	-0.032	-0.084	-0.116	-0.116
V3V22	0.238	-0.116	0.017	-0.121	0.071	0.010	0.004	0.009	-0.013	0.007	0.020
V3V23	-0.115	0.578	-0.031	-0.163	0.281	-0.163	0.255	0.059	0.254	0.317	0.306
V3V24	0.397	-0.108	0.153	0.038	0.029	-0.022	0.042	-0.024	-0.034	0.026	-0.016
V3V25	0.260	-0.100	0.205	-0.031	0.066	-0.056	0.038	-0.080	0.003	0.036	0.030
V3V29	-0.220	-0.139	-0.084	0.042	0.113	-0.001	0.007	0.181	0.067	0.061	0.115
V3V31	0.966	-0.077	0.201	-0.002	-0.160	0.208	-0.158	0.177	-0.113	-0.171	-0.164
V3V32	-0.070	0.965	-0.031	-0.088	0.085	0.033	0.027	0.090	0.042	-0.002	0.030
V3V34	0.163	-0.031	0.785	0.074	0.011	-0.034	-0.016	-0.012	0.010	-0.002	-0.001
V3V39	0.008	-0.089	0.111	0.964	-0.101	-0.126	0.058	-0.224	-0.057	-0.023	-0.044
V3PLAND	-0.180	0.032	-0.038	-0.075	0.770	-0.526	0.530	0.026	0.549	0.664	0.738
V3PD	0.149	0.068	-0.040	-0.044	-0.616	0.740	-0.478	0.321	-0.489	-0.576	-0.636
V3LPI	-0.214	0.037	-0.052	-0.063	0.755	-0.571	0.541	-0.030	0.551	0.670	0.736
V3LSI	0.284	0.062	0.030	-0.107	-0.517	0.752	-0.472	0.578	-0.397	-0.484	-0.516
V3SHAPE_MN	0.265	0.060	0.183	0.156	-0.410	0.397	-0.292	0.174	-0.255	-0.369	-0.407
V3SHAPE_AM	-0.114	0.056	-0.048	-0.160	0.568	-0.337	0.332	0.210	0.396	0.507	0.563
V3SHAPE_CV	-0.071	-0.015	0.011	-0.144	0.572	-0.400	0.378	0.150	0.478	0.554	0.616
V3CPLAND	-0.228	0.148	-0.092	-0.100	0.742	-0.505	0.543	-0.002	0.545	0.652	0.719
V3CAI_MN	-0.039	0.390	-0.066	-0.129	0.286	0.034	0.142	0.331	0.197	0.180	0.243
V3CAI_AM	-0.235	0.240	-0.124	-0.151	0.569	-0.289	0.395	0.105	0.398	0.475	0.528
V3CAI_CV	-0.039	-0.183	0.011	0.108	-0.237	-0.102	-0.082	-0.408	-0.169	-0.159	-0.210
V3CWED	0.233	-0.286	0.118	0.141	-0.320	0.192	-0.242	-0.044	-0.256	-0.285	-0.324
V3TECI	0.104	-0.295	0.094	0.276	-0.336	-0.057	-0.163	-0.392	-0.239	-0.254	-0.303
V3IJI	-0.016	-0.001	0.023	-0.125	0.151	0.000	0.027	0.153	0.045	0.083	0.116
V3LANDPD	0.018	0.245	-0.045	-0.278	-0.109	0.499	-0.215	0.599	-0.117	-0.139	-0.132
V3LANDLPI	-0.212	-0.025	-0.069	0.083	0.451	-0.631	0.411	-0.341	0.387	0.477	0.498
V3LANDLSI	0.134	0.223	-0.021	-0.208	-0.245	0.674	-0.326	0.709	-0.231	-0.290	-0.288
V3LSHAPE_MN	0.062	0.263	-0.040	-0.072	-0.198	0.495	-0.195	0.398	-0.156	-0.250	-0.255
V3LSHAPE_AM	-0.156	-0.036	-0.085	-0.059	0.449	-0.436	0.321	0.013	0.354	0.476	0.495
V3LSHAPE_CV	0.194	0.193	0.023	-0.004	-0.226	0.527	-0.257	0.461	-0.205	-0.291	-0.283
V3LCAI_MN	-0.153	0.217	-0.035	-0.057	0.660	-0.358	0.443	0.211	0.502	0.564	0.644
V3LCAI_AM	-0.166	0.192	-0.104	0.012	0.253	-0.393	0.298	-0.310	0.243	0.278	0.285
V3LCAI_CV	0.128	-0.193	0.018	0.046	-0.644	0.290	-0.403	-0.268	-0.472	-0.526	-0.614
V3LANDCWED	0.228	-0.177	0.068	0.012	-0.519	0.513	-0.420	0.162	-0.422	-0.480	-0.534
V3LANDTECI	0.096	-0.284	0.077	0.245	-0.395	0.001	-0.211	-0.380	-0.290	-0.306	-0.361
V3LANDCONTAG	-0.185	-0.155	-0.029	0.158	0.316	-0.694	0.365	-0.585	0.301	0.381	0.387
V3LANDIJI	0.083	0.040	0.014	-0.175	-0.139	0.258	-0.182	0.198	-0.170	-0.184	-0.175
V3LANDSHDI	0.216	0.061	0.070	-0.110	-0.369	0.658	-0.376	0.480	-0.336	-0.415	-0.433
V3LANDSIDI	0.191	0.071	0.057	-0.084	-0.424	0.673	-0.410	0.433	-0.379	-0.465	-0.492

Appendix J continued

	V1CPLAND	V1CAI_MN	V1CAI_AM	V1CAI_CV	V1CWED	V1TECI	V1IJI	V1LANDPD	V1LANDLPI	V1LANDLSI
V3STDAGE	0.445	0.465	0.526	-0.464	-0.248	-0.522	0.252	0.208	-0.020	0.253
V3STDSZCD	0.410	0.401	0.481	-0.524	-0.155	-0.568	0.281	0.329	-0.165	0.395
V3SITECLCD	0.312	0.457	0.442	-0.508	-0.242	-0.567	0.240	0.482	-0.226	0.542
V3TPA	0.382	0.485	0.510	-0.571	-0.229	-0.603	0.325	0.391	-0.192	0.472
V3DOMTPA	0.365	0.452	0.485	-0.550	-0.155	-0.551	0.377	0.361	-0.217	0.440
V3SSTPA	0.295	0.400	0.415	-0.483	-0.188	-0.510	0.252	0.352	-0.172	0.425
V3UTPA	0.367	0.445	0.476	-0.530	-0.216	-0.574	0.292	0.358	-0.162	0.431
V3DEADTPA	0.466	0.450	0.526	-0.474	-0.245	-0.548	0.269	0.196	-0.051	0.273
V3RCTPA	0.168	-0.040	0.093	-0.107	0.220	-0.068	0.188	-0.144	0.063	-0.079
V3DRCTPA	0.446	0.377	0.479	-0.432	-0.151	-0.492	0.286	0.134	-0.038	0.220
V3ALLDIAMAVG	0.051	0.095	0.082	-0.015	-0.050	-0.037	0.087	0.039	-0.004	0.001
V3ALLHTAVG	0.155	0.173	0.154	-0.070	-0.235	-0.199	0.115	0.184	0.141	0.073
V3DDIAMAVG	0.176	0.027	0.124	-0.064	-0.057	-0.130	-0.008	-0.033	0.058	-0.048
V3DOMHTAVG	0.145	-0.001	0.108	-0.165	0.038	-0.191	0.130	0.165	-0.076	0.163
V3SSDIAMAVG	0.049	0.015	0.072	-0.014	-0.062	-0.082	0.214	0.045	-0.096	0.000
V3UDIAMAVG	0.187	0.082	0.139	-0.095	-0.045	-0.142	0.181	0.015	0.007	-0.019
V3RCDIAMAVG	-0.001	0.084	-0.007	-0.025	-0.064	0.054	-0.311	-0.063	0.035	-0.024
V3DEADDIAMAV	-0.123	-0.117	-0.209	0.162	-0.020	0.318	-0.458	-0.383	0.282	-0.389
V3DRCDIAMAVG	-0.143	-0.129	-0.229	0.180	-0.016	0.335	-0.453	-0.380	0.265	-0.384
V3ALLDIAMCV	0.075	-0.063	0.020	-0.047	0.066	-0.074	0.028	-0.013	-0.034	0.021
V3ALLHTCV	-0.114	-0.208	-0.129	0.003	0.294	0.169	-0.085	-0.195	-0.174	-0.064
V3DDIAMCV	-0.119	0.006	-0.080	0.148	-0.040	0.115	-0.113	0.045	0.057	0.039
V3DHTCV	-0.119	-0.117	-0.119	0.084	0.236	0.230	-0.007	-0.137	-0.027	-0.112
V3SSDIAMCV	0.046	0.105	0.082	-0.131	-0.040	-0.093	0.016	0.101	-0.003	0.124
V3UDIAMCV	-0.027	-0.116	-0.065	0.107	0.220	0.091	-0.066	-0.074	0.008	-0.007
V3ALLSW_N	0.063	0.070	0.115	-0.120	-0.040	-0.207	0.204	0.286	-0.129	0.285
V3DSW_N	-0.156	-0.061	-0.139	0.156	-0.011	0.144	-0.115	-0.022	0.052	-0.012
V3SSSW_N	-0.078	-0.077	-0.089	0.058	-0.037	0.146	-0.143	-0.177	0.072	-0.189
V3USW_N	-0.115	-0.131	-0.171	0.107	-0.026	0.284	-0.266	-0.338	0.214	-0.397
V3V11	0.301	0.254	0.281	-0.142	-0.247	-0.251	0.049	-0.046	0.314	-0.067
V3V12	0.229	0.226	0.281	-0.186	-0.219	-0.240	0.187	-0.072	0.069	-0.074
V3V13	-0.066	-0.068	-0.039	0.062	-0.030	0.038	0.033	0.015	-0.016	-0.026
V3V19	0.025	0.272	0.213	-0.199	-0.277	-0.243	0.086	0.202	-0.112	0.297
V3V21	-0.092	-0.125	-0.123	0.101	0.172	0.187	-0.015	-0.149	-0.030	-0.135
V3V22	0.010	-0.054	-0.006	-0.017	0.224	0.067	0.100	-0.150	-0.050	-0.104
V3V23	0.347	0.394	0.379	-0.294	-0.324	-0.411	0.142	0.261	0.085	0.196
V3V24	-0.023	-0.109	-0.054	0.150	0.190	0.142	-0.034	-0.159	0.072	-0.127
V3V25	0.056	-0.015	0.044	0.041	0.079	0.034	-0.025	-0.175	0.045	-0.136
V3V29	0.028	-0.004	0.033	-0.116	0.010	-0.124	0.049	0.174	-0.140	0.207
V3V31	-0.195	-0.162	-0.209	0.164	0.271	0.229	-0.122	-0.003	-0.085	0.027
V3V32	0.191	0.338	0.268	-0.225	-0.297	-0.304	-0.003	0.272	-0.059	0.226
V3V34	-0.074	-0.088	-0.117	0.052	0.154	0.103	-0.090	-0.063	-0.015	-0.058
V3V39	-0.064	-0.120	-0.149	0.181	0.013	0.250	-0.332	-0.313	0.221	-0.291
V3PLAND	0.563	0.208	0.443	-0.372	0.057	-0.435	0.283	-0.002	0.066	0.025
V3PD	-0.455	-0.072	-0.277	0.119	-0.030	0.180	-0.037	0.373	-0.287	0.346
V3LPI	0.581	0.239	0.452	-0.360	-0.015	-0.433	0.235	-0.034	0.128	-0.014
V3LSI	-0.475	-0.099	-0.322	0.082	0.146	0.156	0.010	0.515	-0.415	0.527
V3SHAPE_MN	-0.308	-0.023	-0.211	0.086	0.011	0.193	-0.199	0.123	-0.143	0.139
V3SHAPE_AM	0.375	0.160	0.315	-0.308	0.090	-0.363	0.292	0.178	-0.055	0.200
V3SHAPE_CV	0.351	0.111	0.218	-0.254	0.135	-0.281	0.170	0.079	0.030	0.098
V3CPLAND	0.683	0.438	0.640	-0.521	-0.251	-0.632	0.327	0.072	0.119	0.092
V3CAI_MN	0.418	0.675	0.567	-0.595	-0.450	-0.644	0.211	0.397	-0.152	0.463
V3CAI_AM	0.645	0.601	0.759	-0.616	-0.473	-0.778	0.420	0.252	-0.016	0.291
V3CAI_CV	-0.312	-0.471	-0.471	0.538	0.311	0.589	-0.363	-0.462	0.268	-0.510
V3CWED	-0.509	-0.613	-0.650	0.566	0.675	0.723	-0.333	-0.281	-0.045	-0.291
V3TECI	-0.444	-0.603	-0.620	0.648	0.480	0.775	-0.482	-0.556	0.214	-0.576
V3IJI	0.142	0.085	0.225	-0.176	-0.075	-0.286	0.528	0.310	-0.176	0.260
V3LANDPD	-0.106	0.129	0.051	-0.209	-0.079	-0.295	0.430	0.837	-0.439	0.749
V3LANDLPI	0.354	0.026	0.131	0.002	-0.032	-0.046	-0.100	-0.334	0.401	-0.359
V3LANDLSI	-0.213	0.149	0.005	-0.214	-0.036	-0.231	0.297	0.793	-0.520	0.795
V3LSHAPE_MN	0.023	0.456	0.267	-0.411	-0.400	-0.385	0.128	0.509	-0.267	0.542
V3LSHAPE_AM	0.259	-0.021	0.096	-0.031	0.149	-0.097	0.067	-0.055	0.124	-0.049
V3LSHAPE_CV	-0.161	0.213	-0.001	-0.194	0.024	-0.061	-0.122	0.317	-0.341	0.408
V3LCAI_MN	0.609	0.568	0.627	-0.612	-0.243	-0.654	0.207	0.165	-0.018	0.266
V3LCAI_AM	0.505	0.547	0.565	-0.333	-0.628	-0.445	-0.011	-0.186	0.347	-0.162
V3LCAI_CV	-0.570	-0.525	-0.607	0.637	0.174	0.640	-0.241	-0.193	0.098	-0.302
V3LANDCWED	-0.616	-0.563	-0.643	0.502	0.506	0.592	-0.107	0.109	-0.242	0.040
V3LANDTECI	-0.486	-0.635	-0.644	0.673	0.454	0.776	-0.430	-0.500	0.187	-0.541
V3LANDCONTAG	0.219	-0.152	-0.037	0.216	0.074	0.207	-0.316	-0.671	0.525	-0.670
V3LANDIJI	-0.060	0.013	0.076	-0.048	-0.134	-0.177	0.466	0.413	-0.253	0.334
V3LANDSHDI	-0.243	0.113	0.021	-0.166	-0.083	-0.144	0.261	0.528	-0.475	0.546
V3LANDSIDI	-0.301	0.063	-0.039	-0.096	-0.037	-0.065	0.194	0.448	-0.473	0.477

Appendix J continued

	V1LSHAPE_MN	V1LSHAPE_AM	V1LSHAPE_CV	V1LCAI_MN	V1LCAI_AM	V1LCAI_CV	V1LANDCWED	V1LANDTECI
V3STDAGE	0.193	0.104	0.136	0.490	0.100	-0.519	-0.247	-0.406
V3STDSZCD	0.243	-0.017	0.067	0.522	-0.173	-0.580	-0.142	-0.352
V3SITECLCD	0.331	-0.098	-0.019	0.492	-0.163	-0.539	-0.129	-0.383
V3TPA	0.277	-0.050	0.030	0.545	-0.098	-0.598	-0.171	-0.416
V3DOMTPA	0.226	-0.099	-0.013	0.491	-0.069	-0.553	-0.106	-0.344
V3SSTPA	0.268	-0.048	0.019	0.461	-0.119	-0.513	-0.135	-0.346
V3UTPA	0.257	-0.017	0.041	0.521	-0.112	-0.572	-0.167	-0.389
V3DEADTPA	0.146	0.075	0.118	0.526	0.064	-0.544	-0.243	-0.411
V3RCTPA	-0.029	0.126	0.188	0.149	-0.134	-0.192	0.035	0.045
V3DRCTPA	0.123	0.096	0.149	0.494	0.016	-0.522	-0.197	-0.340
V3ALLDIAMAVG	-0.075	-0.003	-0.069	-0.001	0.135	0.007	-0.005	-0.010
V3ALLHTAVG	-0.208	0.187	-0.057	0.075	0.108	-0.003	-0.111	-0.166
V3DDIAMAVG	-0.033	0.128	0.093	0.128	-0.056	-0.128	-0.091	-0.077
V3DOMHTAVG	-0.133	0.031	-0.045	0.089	-0.258	-0.093	0.069	-0.007
V3SSDIAMAVG	-0.098	-0.047	-0.099	0.000	0.035	-0.005	0.019	0.006
V3UDIAMAVG	-0.139	0.057	0.013	0.111	0.012	-0.100	-0.035	-0.055
V3RCDIAMAVG	0.297	0.030	0.130	0.060	0.097	-0.045	-0.133	-0.095
V3DEADDIAMAV	0.164	0.141	0.240	-0.096	0.248	0.104	-0.170	0.004
V3DRCDIAMAVG	0.151	0.131	0.243	-0.114	0.236	0.123	-0.168	0.007
V3ALLDIAMCV	-0.011	0.024	0.061	0.084	-0.185	-0.095	0.009	-0.004
V3ALLHTCV	0.125	-0.177	0.045	-0.059	-0.198	-0.017	0.145	0.199
V3DDIAMCV	0.026	-0.035	-0.047	-0.099	0.099	0.140	0.003	0.020
V3DHTCV	-0.009	-0.081	-0.013	-0.128	0.017	0.091	0.150	0.210
V3SSDIAMCV	0.120	-0.001	0.011	0.055	-0.008	-0.054	-0.001	-0.052
V3UDIAMCV	0.007	0.092	0.115	-0.015	-0.151	-0.007	0.110	0.136
V3ALLSW_N	0.033	-0.076	-0.143	0.110	-0.204	-0.154	0.088	-0.014
V3DSW_N	0.022	-0.015	0.013	-0.140	0.076	0.150	0.020	0.017
V3SSSW_N	-0.081	0.050	0.148	-0.117	0.122	0.176	-0.103	-0.041
V3USW_N	-0.172	0.089	0.195	-0.192	0.235	0.283	-0.139	-0.002
V3V11	-0.087	0.422	0.268	0.258	0.222	-0.226	-0.280	-0.307
V3V12	0.027	0.058	0.062	0.188	0.201	-0.180	-0.228	-0.235
V3V13	-0.106	-0.045	-0.143	-0.120	0.017	0.142	0.051	0.074
V3V19	0.222	-0.136	-0.107	0.176	0.155	-0.157	-0.150	-0.238
V3V21	-0.117	-0.043	-0.046	-0.147	0.049	0.148	0.070	0.145
V3V22	-0.029	-0.025	0.048	0.000	-0.018	-0.041	0.084	0.123
V3V23	-0.035	0.180	0.076	0.366	0.101	-0.329	-0.247	-0.371
V3V24	-0.083	0.058	0.036	-0.067	0.020	0.060	0.041	0.129
V3V25	0.011	0.072	0.130	-0.002	0.081	-0.002	-0.025	0.031
V3V29	0.167	-0.105	-0.032	0.084	-0.245	-0.124	0.069	-0.023
V3V31	-0.023	-0.091	-0.086	-0.196	-0.045	0.171	0.214	0.228
V3V32	0.074	-0.079	-0.084	0.241	0.124	-0.213	-0.178	-0.290
V3V34	-0.038	-0.005	-0.006	-0.041	-0.115	0.037	0.074	0.115
V3V39	0.066	0.172	0.182	-0.100	0.161	0.126	-0.120	0.032
V3PLAND	-0.067	0.285	0.297	0.485	-0.230	-0.537	-0.132	-0.206
V3PD	0.115	-0.413	-0.434	-0.341	-0.013	0.337	0.295	0.193
V3LPI	-0.079	0.325	0.345	0.509	-0.159	-0.530	-0.199	-0.265
V3LSI	0.159	-0.462	-0.450	-0.276	-0.220	0.232	0.406	0.236
V3SHAPE_MN	0.201	-0.246	-0.237	-0.171	0.110	0.174	0.062	0.058
V3SHAPE_AM	-0.036	0.129	0.155	0.395	-0.266	-0.443	-0.022	-0.155
V3SHAPE_CV	-0.089	0.236	0.265	0.368	-0.289	-0.401	-0.030	-0.124
V3CPLAND	0.008	0.307	0.299	0.618	-0.009	-0.631	-0.338	-0.466
V3CAI_MN	0.365	-0.088	0.014	0.608	0.159	-0.582	-0.352	-0.597
V3CAI_AM	0.169	0.139	0.126	0.656	0.130	-0.662	-0.405	-0.610
V3CAI_CV	-0.262	0.134	0.117	-0.447	0.022	0.497	0.132	0.409
V3CWED	-0.191	-0.104	-0.077	-0.553	-0.251	0.509	0.478	0.685
V3TECI	-0.230	0.089	0.112	-0.551	-0.012	0.566	0.230	0.558
V3IJI	-0.176	-0.099	-0.221	0.098	-0.107	-0.147	0.104	-0.043
V3LANDPD	-0.030	-0.371	-0.489	0.011	-0.358	-0.056	0.346	0.018
V3LANDLPI	-0.225	0.469	0.481	0.212	0.060	-0.135	-0.264	-0.158
V3LANDLSI	0.211	-0.492	-0.511	0.001	-0.307	-0.065	0.334	0.020
V3LSHAPE_MN	0.465	-0.346	-0.296	0.227	0.144	-0.221	-0.107	-0.362
V3LSHAPE_AM	-0.194	0.297	0.296	0.199	-0.189	-0.185	-0.023	-0.023
V3LSHAPE_CV	0.498	-0.381	-0.192	0.093	-0.023	-0.130	0.084	-0.054
V3LCAI_MN	0.288	0.169	0.294	0.752	-0.006	-0.774	-0.382	-0.553
V3LCAI_AM	0.119	0.331	0.342	0.480	0.611	-0.367	-0.692	-0.686
V3LCAI_CV	-0.343	-0.094	-0.238	-0.722	0.074	0.787	0.307	0.491
V3LANDCWED	-0.205	-0.317	-0.391	-0.648	-0.331	0.597	0.642	0.697
V3LANDTECI	-0.263	0.055	0.042	-0.616	-0.032	0.628	0.285	0.596
V3LANDCONTAG	-0.234	0.540	0.571	0.039	0.168	0.033	-0.297	-0.021
V3LANDIJI	-0.186	-0.252	-0.432	-0.110	-0.081	0.066	0.205	0.042
V3LANDSHDI	0.236	-0.509	-0.541	-0.080	-0.071	0.010	0.244	0.026
V3LANDSIDI	0.275	-0.520	-0.531	-0.139	-0.048	0.069	0.254	0.082

Appendix J continued

	V1LANDCONTAG	V1LANDIJI	V1LANDSHDI	V1LANDSIDI	V1ALLDIAMAVG
V3STDAGE	-0.226	0.124	0.185	0.186	0.451
V3STDSZCD	-0.337	0.123	0.318	0.321	-0.133
V3SITECLCD	-0.478	0.176	0.369	0.383	-0.146
V3TPA	-0.438	0.210	0.393	0.391	-0.255
V3DOMTPA	-0.409	0.237	0.431	0.411	0.132
V3SSTPA	-0.402	0.169	0.345	0.353	-0.423
V3UTPA	-0.397	0.176	0.348	0.352	-0.362
V3DEADTPA	-0.204	0.084	0.231	0.216	-0.011
V3RCTPA	0.052	0.006	0.015	0.006	-0.060
V3DRCTPA	-0.166	0.077	0.207	0.192	-0.022
V3ALLDIAMAVG	-0.016	0.090	0.024	0.019	0.977
V3ALLHTAVG	-0.075	0.202	-0.055	-0.072	0.330
V3DDIAMAVG	0.107	-0.106	-0.074	-0.070	-0.105
V3DOMHTAVG	-0.121	0.098	0.123	0.110	-0.190
V3SSDIAMAVG	-0.039	0.157	0.093	0.070	0.140
V3UDIAMAVG	0.037	0.071	0.006	-0.015	0.501
V3RCDIAMAVG	0.080	-0.326	-0.119	-0.096	-0.070
V3DEADDIAMAV	0.377	-0.443	-0.373	-0.359	-0.131
V3DRCDIAMAVG	0.371	-0.419	-0.377	-0.366	-0.118
V3ALLDIAMCV	0.032	-0.068	0.019	0.015	-0.791
V3ALLHTCV	0.087	-0.219	0.090	0.106	-0.288
V3DDIAMCV	-0.025	-0.015	-0.048	-0.046	0.061
V3DHTCV	0.055	-0.031	0.004	0.007	0.453
V3SSDIAMCV	-0.106	0.026	0.043	0.059	0.338
V3UDIAMCV	0.048	-0.104	-0.058	-0.036	0.034
V3ALLSW_N	-0.227	0.190	0.228	0.217	-0.277
V3DSW_N	-0.020	0.008	-0.022	-0.030	0.026
V3SSSW_N	0.167	-0.109	-0.173	-0.167	-0.036
V3USW_N	0.331	-0.208	-0.319	-0.322	0.099
V3V11	0.074	-0.019	-0.114	-0.130	0.141
V3V12	0.018	0.107	0.017	0.006	0.249
V3V13	0.004	0.087	-0.020	-0.018	-0.003
V3V19	-0.264	0.147	0.211	0.208	-0.110
V3V21	0.098	-0.007	-0.028	-0.048	0.330
V3V22	0.050	0.008	0.012	0.037	0.547
V3V23	-0.116	0.069	0.040	0.030	0.294
V3V24	0.104	-0.072	-0.074	-0.054	0.287
V3V25	0.132	-0.076	-0.097	-0.077	0.199
V3V29	-0.180	0.042	0.162	0.155	-0.729
V3V31	0.001	-0.056	0.047	0.037	0.178
V3V32	-0.131	-0.014	0.101	0.104	0.214
V3V34	0.072	-0.074	-0.056	-0.051	0.090
V3V39	0.296	-0.333	-0.280	-0.290	-0.067
V3PLAND	-0.011	0.020	-0.025	-0.007	-0.150
V3PD	-0.344	0.191	0.354	0.333	0.205
V3LPI	0.044	-0.024	-0.074	-0.071	-0.180
V3LSI	-0.465	0.170	0.456	0.455	0.111
V3SHAPE_MN	-0.108	-0.084	0.109	0.123	0.113
V3SHAPE_AM	-0.135	0.049	0.133	0.142	-0.181
V3SHAPE_CV	-0.026	-0.055	-0.011	-0.002	-0.280
V3CPLAND	-0.076	0.101	0.034	0.016	-0.121
V3CAI_MN	-0.402	0.129	0.360	0.327	0.075
V3CAI_AM	-0.273	0.249	0.263	0.228	-0.050
V3CAI_CV	0.475	-0.293	-0.496	-0.448	0.025
V3CWED	0.271	-0.279	-0.216	-0.156	0.103
V3TECI	0.554	-0.403	-0.491	-0.450	0.036
V3IJI	-0.251	0.439	0.335	0.282	0.119
V3LANDPD	-0.650	0.494	0.591	0.558	0.047
V3LANDLPI	0.409	-0.254	-0.472	-0.480	-0.217
V3LANDLSI	-0.713	0.391	0.667	0.656	0.069
V3LSHAPE_MN	-0.562	0.241	0.484	0.462	0.054
V3LSHAPE_AM	0.136	-0.133	-0.174	-0.163	-0.198
V3LSHAPE_CV	-0.397	-0.081	0.376	0.413	0.136
V3LCAI_MN	-0.193	-0.059	0.161	0.168	-0.163
V3LCAI_AM	0.175	-0.070	-0.174	-0.230	-0.002
V3LCAI_CV	0.251	0.032	-0.234	-0.251	0.127
V3LANDCWED	-0.061	0.062	0.084	0.108	0.162
V3LANDTECI	0.511	-0.323	-0.452	-0.417	0.051
V3LANDCONTAG	0.679	-0.430	-0.708	-0.681	-0.167
V3LANDIJI	-0.347	0.576	0.438	0.352	0.149
V3LANDSHDI	-0.577	0.381	0.657	0.624	0.157
V3LANDSIDI	-0.521	0.312	0.589	0.586	0.228

Appendix K. Correlation matrix for all FIA and landscape variables between the 1 km (V2) and 10 km (V3) buffers used to develop models at the BBS route scale.

	V2STDAGE	V2STDSZCD	V2SITECLCD	V2TPA	V2DOMTPA	V2SSTPA	V2UTPA	V2DEADTPA	V2RCTPA	V2DRCTPA
V3STDAGE	0.975	0.663	0.611	0.561	0.654	0.391	0.480	0.523	0.184	0.509
V3STDSZCD	0.623	0.983	0.808	0.762	0.568	0.699	0.777	0.655	0.329	0.663
V3SITECLCD	0.586	0.813	0.986	0.794	0.524	0.769	0.793	0.471	-0.006	0.412
V3TPA	0.539	0.778	0.802	0.983	0.769	0.934	0.955	0.638	0.210	0.616
V3DOMTPA	0.639	0.599	0.537	0.787	0.982	0.600	0.650	0.611	0.315	0.621
V3SSTPA	0.382	0.722	0.787	0.938	0.586	0.979	0.964	0.519	0.138	0.493
V3UTPA	0.463	0.795	0.803	0.952	0.630	0.956	0.982	0.615	0.199	0.593
V3DEADTPA	0.501	0.677	0.478	0.624	0.579	0.507	0.609	0.975	0.367	0.951
V3RCTPA	0.179	0.342	0.001	0.212	0.312	0.132	0.203	0.376	0.979	0.596
V3DRCTPA	0.480	0.675	0.414	0.595	0.583	0.473	0.579	0.941	0.580	0.979
V3ALLDIAMAVG	0.458	-0.145	-0.155	-0.270	0.150	-0.448	-0.387	-0.028	-0.080	-0.044
V3ALLHTAVG	0.185	-0.080	0.088	-0.146	-0.106	-0.186	-0.147	-0.051	-0.337	-0.139
V3DDIAMAVG	0.076	0.415	0.151	-0.019	-0.270	0.025	0.131	0.210	0.206	0.239
V3DOMHTAVG	-0.020	0.415	0.270	0.075	-0.164	0.120	0.196	0.228	0.215	0.255
V3SSDIAMAVG	-0.068	-0.074	-0.204	-0.095	0.027	-0.131	-0.064	0.034	0.047	0.045
V3UDIAMAVG	0.238	0.139	-0.140	-0.190	0.025	-0.339	-0.178	0.271	0.280	0.312
V3RCDIAMAVG	0.057	0.054	0.165	0.004	-0.094	0.040	0.031	-0.067	-0.241	-0.125
V3DEADDIAMAV	-0.191	-0.244	-0.180	-0.296	-0.368	-0.210	-0.249	-0.309	-0.211	-0.328
V3DRCDIAMAVG	-0.195	-0.252	-0.179	-0.302	-0.372	-0.221	-0.257	-0.325	-0.210	-0.341
V3ALLDIAMCV	-0.340	0.340	0.103	0.201	-0.111	0.310	0.338	0.231	0.336	0.293
V3ALLHTCV	-0.170	0.186	-0.096	0.141	0.139	0.155	0.143	0.180	0.520	0.302
V3DDIAMCV	-0.034	-0.255	-0.017	-0.095	-0.019	-0.094	-0.188	-0.211	-0.205	-0.241
V3DHTCV	0.200	-0.250	-0.287	-0.107	0.322	-0.234	-0.288	-0.110	0.199	-0.036
V3SSDIAMCV	0.478	0.165	0.294	0.088	0.187	0.011	0.022	-0.019	0.011	-0.014
V3UDIAMCV	0.156	0.241	0.155	0.057	-0.045	0.070	0.055	0.125	0.344	0.204
V3ALLSW_N	-0.003	0.269	0.365	0.224	-0.035	0.305	0.296	0.004	-0.102	-0.020
V3DSW_N	-0.151	-0.342	-0.190	-0.150	-0.011	-0.169	-0.228	-0.136	-0.131	-0.156
V3SSSW_N	-0.087	-0.127	-0.100	-0.037	-0.045	-0.055	-0.068	-0.114	-0.046	-0.114
V3USW_N	-0.175	-0.330	-0.376	-0.266	-0.157	-0.288	-0.299	-0.172	-0.046	-0.171
V3V11	0.375	0.103	0.201	0.218	0.140	0.186	0.233	0.160	-0.106	0.111
V3V12	0.364	0.179	0.043	0.166	0.336	0.053	0.092	0.130	0.101	0.141
V3V13	-0.050	-0.079	-0.062	-0.050	-0.042	-0.034	-0.052	-0.088	-0.058	-0.093
V3V19	0.156	0.179	0.406	0.336	0.161	0.364	0.319	0.206	-0.156	0.137
V3V21	0.120	-0.165	-0.264	-0.076	0.225	-0.200	-0.179	-0.001	0.307	0.084
V3V22	0.311	-0.016	-0.230	-0.047	0.323	-0.180	-0.170	0.063	0.290	0.135
V3V23	0.459	0.294	0.384	0.236	0.189	0.155	0.221	0.229	-0.173	0.153
V3V24	0.138	-0.092	-0.156	-0.068	0.066	-0.110	-0.119	-0.014	0.233	0.052
V3V25	0.078	-0.063	-0.128	-0.086	0.021	-0.109	-0.120	-0.078	0.152	-0.025
V3V29	-0.237	0.365	0.362	0.324	-0.025	0.438	0.438	0.190	0.112	0.196
V3V31	0.053	-0.040	-0.123	-0.050	0.098	-0.086	-0.097	-0.013	0.245	0.056
V3V32	0.271	0.229	0.277	0.136	0.169	0.071	0.117	0.188	-0.201	0.110
V3V34	0.010	0.009	-0.020	-0.057	-0.041	-0.053	-0.047	-0.094	0.052	-0.067
V3V39	-0.155	-0.203	-0.116	-0.231	-0.270	-0.166	-0.216	-0.225	-0.136	-0.232
V3PLAND	0.361	0.565	0.371	0.434	0.328	0.381	0.467	0.407	0.418	0.471
V3PD	-0.165	-0.301	-0.075	-0.160	-0.057	-0.146	-0.218	-0.203	-0.385	-0.283
V3LPI	0.314	0.508	0.334	0.384	0.266	0.340	0.423	0.392	0.376	0.445
V3LSI	-0.114	-0.121	0.065	-0.020	0.065	-0.021	-0.071	-0.098	-0.200	-0.139
V3SHAPE_MN	-0.107	-0.241	-0.064	-0.078	-0.014	-0.066	-0.110	-0.161	-0.236	-0.207
V3SHAPE_AM	0.259	0.472	0.316	0.363	0.282	0.324	0.399	0.354	0.390	0.416
V3SHAPE_CV	0.176	0.475	0.324	0.328	0.184	0.304	0.386	0.281	0.380	0.350
V3CPLAND	0.501	0.655	0.489	0.577	0.453	0.497	0.591	0.556	0.344	0.580
V3CAI_MN	0.529	0.613	0.613	0.641	0.612	0.522	0.583	0.610	0.136	0.570
V3CAI_AM	0.587	0.674	0.585	0.695	0.584	0.605	0.679	0.606	0.213	0.590
V3CAI_CV	-0.480	-0.596	-0.557	-0.640	-0.611	-0.543	-0.593	-0.543	-0.137	-0.516
V3CWED	-0.471	-0.566	-0.551	-0.604	-0.461	-0.534	-0.589	-0.531	-0.054	-0.479
V3TECI	-0.533	-0.672	-0.659	-0.714	-0.620	-0.621	-0.684	-0.616	-0.127	-0.575
V3IJI	0.150	0.076	0.001	0.163	0.306	0.085	0.112	0.208	0.087	0.210
V3LANDPD	0.100	0.176	0.357	0.241	0.217	0.221	0.214	0.085	-0.210	0.020
V3LANDLPI	0.023	0.140	-0.005	-0.003	-0.123	0.000	0.061	0.153	0.237	0.194
V3LANDLSI	0.125	0.192	0.400	0.313	0.319	0.285	0.258	0.114	-0.183	0.054
V3LSHAPE_MN	0.278	0.264	0.472	0.425	0.374	0.391	0.371	0.278	-0.222	0.181
V3LSHAPE_AM	0.072	0.262	0.097	0.091	-0.022	0.088	0.162	0.196	0.320	0.259
V3LSHAPE_CV	0.148	0.149	0.284	0.236	0.276	0.213	0.186	0.087	-0.094	0.050
V3LCAI_MN	0.513	0.737	0.627	0.686	0.545	0.611	0.690	0.619	0.341	0.634
V3LCAI_AM	0.392	0.292	0.217	0.347	0.280	0.277	0.331	0.429	0.082	0.394
V3LCAI_CV	-0.536	-0.745	-0.638	-0.696	-0.576	-0.622	-0.695	-0.602	-0.347	-0.621
V3LANDCWED	-0.471	-0.575	-0.456	-0.562	-0.413	-0.496	-0.567	-0.539	-0.244	-0.536
V3LANDTECI	-0.560	-0.706	-0.684	-0.750	-0.653	-0.651	-0.717	-0.650	-0.167	-0.614
V3LANDCONTAG	-0.100	-0.077	-0.242	-0.237	-0.324	-0.203	-0.168	-0.080	0.203	-0.020
V3LANDIJI	0.038	-0.057	-0.038	0.065	0.200	0.013	0.012	0.070	-0.110	0.038
V3LANDSHDI	0.055	0.006	0.145	0.187	0.293	0.163	0.117	0.023	-0.177	-0.023
V3LANDSIDI	0.036	-0.074	0.074	0.094	0.219	0.079	0.027	-0.058	-0.223	-0.105

Appendix K continued

	V2ALLDIAMAVG	V2ALLHTAVG	V2DDIAMAVG	V2DOMHTAVG	V2SSDIAMAVG	V2UDIAMAVG	V2RCDIAMAVG
V3STDAGE	0.452	0.161	0.111	-0.057	-0.068	0.254	-0.002
V3STDSZCD	-0.133	-0.115	0.422	0.375	-0.067	0.158	-0.024
V3SITECLCD	-0.147	0.091	0.173	0.261	-0.179	-0.103	0.089
V3TPA	-0.256	-0.203	0.020	0.007	-0.067	-0.146	-0.067
V3DOMTPA	0.133	-0.213	-0.223	-0.272	0.021	0.041	-0.163
V3SSTPA	-0.423	-0.206	0.062	0.084	-0.088	-0.283	-0.017
V3UTPA	-0.362	-0.174	0.167	0.151	-0.035	-0.128	-0.037
V3DEADTPA	-0.010	-0.141	0.282	0.207	0.046	0.305	-0.110
V3RCTPA	-0.061	-0.437	0.237	0.164	0.095	0.315	-0.246
V3DRCTPA	-0.022	-0.238	0.306	0.219	0.066	0.348	-0.161
V3ALLDIAMAVG	0.978	0.335	-0.109	-0.259	0.068	0.475	-0.093
V3ALLHTAVG	0.332	0.967	0.052	0.245	0.062	0.180	-0.107
V3DDIAMAVG	-0.106	0.071	0.961	0.792	0.087	0.493	0.036
V3DOMHTAVG	-0.192	0.276	0.750	0.945	0.070	0.349	-0.215
V3SSDIAMAVG	0.142	0.017	0.134	0.008	0.931	0.536	-0.106
V3UDIAMAVG	0.501	0.154	0.504	0.300	0.432	0.949	-0.201
V3RCDIAMAVG	-0.070	-0.019	0.091	0.088	-0.047	-0.141	0.970
V3DEADDIAMAV	-0.130	-0.127	0.051	0.134	-0.098	-0.170	0.465
V3DRCDIAMAVG	-0.118	-0.052	0.058	0.128	-0.085	-0.141	0.529
V3ALLDIAMCV	-0.793	-0.330	0.502	0.475	0.098	0.000	-0.034
V3ALLHTCV	-0.291	-0.948	0.151	-0.034	-0.002	0.022	-0.094
V3DDIAMCV	0.062	-0.074	-0.636	-0.581	-0.295	-0.475	0.186
V3DHTCV	0.453	-0.395	-0.614	-0.743	-0.135	-0.115	-0.092
V3SSDIAMCV	0.337	0.130	0.039	0.013	-0.419	-0.035	0.090
V3UDIAMCV	0.031	-0.185	0.194	0.105	-0.561	-0.062	0.006
V3ALLSW_N	-0.277	0.024	0.222	0.299	0.018	-0.143	-0.018
V3DSW_N	0.026	0.078	-0.512	-0.373	-0.096	-0.235	-0.025
V3SSSW_N	-0.036	-0.123	-0.062	-0.060	-0.056	-0.054	-0.015
V3USW_N	0.101	-0.084	-0.093	-0.132	0.085	0.103	0.018
V3V11	0.143	0.553	0.074	0.042	0.039	0.059	0.003
V3V12	0.253	-0.031	-0.086	-0.208	0.137	0.130	-0.105
V3V13	-0.003	0.092	-0.065	-0.005	0.015	-0.063	-0.025
V3V19	-0.109	-0.221	-0.157	-0.441	-0.122	-0.219	0.065
V3V21	0.329	-0.217	-0.266	-0.295	0.060	0.181	-0.153
V3V22	0.547	-0.134	-0.243	-0.309	-0.059	0.164	-0.251
V3V23	0.295	0.643	0.188	0.168	-0.002	0.184	0.105
V3V24	0.287	0.013	-0.181	-0.224	-0.161	0.020	-0.174
V3V25	0.200	-0.040	-0.074	-0.080	-0.050	0.034	-0.082
V3V29	-0.731	-0.316	0.321	0.412	0.052	-0.145	0.095
V3V31	0.177	-0.145	-0.165	-0.206	-0.047	0.061	-0.060
V3V32	0.214	0.147	0.118	0.043	-0.019	0.145	0.142
V3V34	0.090	-0.032	0.029	0.040	0.030	0.065	-0.017
V3V39	-0.067	-0.083	-0.078	-0.136	-0.044	-0.215	0.554
V3PLAND	-0.150	0.022	0.349	0.405	0.103	0.201	-0.111
V3PD	0.204	0.000	-0.333	-0.396	-0.099	-0.158	0.000
V3LPI	-0.179	0.070	0.362	0.406	0.061	0.180	-0.097
V3LSI	0.110	-0.048	-0.281	-0.282	-0.092	-0.104	0.024
V3SHAPE_MN	0.112	-0.103	-0.301	-0.397	-0.034	-0.143	0.276
V3SHAPE_AM	-0.181	0.059	0.322	0.360	0.072	0.182	-0.111
V3SHAPE_CV	-0.280	0.021	0.373	0.439	0.071	0.194	-0.085
V3CPLAND	-0.120	0.098	0.331	0.344	0.089	0.194	-0.094
V3CAI_MN	0.076	0.016	0.082	0.010	-0.053	0.133	0.047
V3CAI_AM	-0.048	0.088	0.235	0.178	0.073	0.131	-0.099
V3CAI_CV	0.024	-0.021	-0.061	-0.080	-0.050	-0.070	0.013
V3CWED	0.100	-0.147	-0.173	-0.138	-0.025	-0.062	0.048
V3TECI	0.034	-0.145	-0.144	-0.162	-0.058	-0.130	0.126
V3IJI	0.120	-0.014	-0.099	-0.135	0.312	0.134	-0.236
V3LANDPD	0.048	0.269	-0.053	-0.057	0.086	0.013	-0.139
V3LANDLPI	-0.215	0.121	0.353	0.399	0.019	0.142	0.067
V3LANDLSI	0.068	0.052	-0.182	-0.230	-0.035	-0.074	-0.036
V3LSHAPE_MN	0.055	0.113	-0.171	-0.205	-0.096	-0.128	0.116
V3LSHAPE_AM	-0.198	0.119	0.408	0.433	0.066	0.222	-0.006
V3LSHAPE_CV	0.135	-0.145	-0.165	-0.204	-0.180	-0.079	0.194
V3LCAI_MN	-0.162	-0.060	0.284	0.260	-0.005	0.138	0.052
V3LCAI_AM	0.000	0.113	0.119	0.016	-0.007	0.080	0.074
V3LCAI_CV	0.127	0.103	-0.264	-0.247	-0.002	-0.127	-0.077
V3LANDCWED	0.161	-0.019	-0.244	-0.201	0.020	-0.081	-0.041
V3LANDTECI	0.050	-0.119	-0.139	-0.159	-0.035	-0.123	0.102
V3LANDCONTAG	-0.167	0.001	0.278	0.331	-0.039	0.071	0.080
V3LANDIJI	0.150	0.097	-0.206	-0.207	0.228	0.038	-0.268
V3LANDSHDI	0.156	-0.051	-0.310	-0.336	0.043	-0.111	-0.083
V3LANDSIDI	0.227	-0.067	-0.321	-0.383	0.030	-0.109	-0.050

Appendix K continued

	V2DEADDIAMAV	V2DRCDIAMAVG	V2ALLDIAMCV	V2ALLHTCV	V2DDIAMCV	V2DHTCV	V2SSDIAMCV	V2UDIAMCV
V3STDAGE	-0.202	-0.210	-0.321	-0.158	-0.059	0.190	0.404	0.231
V3STDSZCD	-0.252	-0.263	0.333	0.205	-0.238	-0.240	0.126	0.277
V3SITECLCD	-0.187	-0.190	0.112	-0.083	-0.044	-0.278	0.241	0.220
V3TPA	-0.323	-0.326	0.203	0.121	-0.114	-0.132	0.064	0.081
V3DOMTPA	-0.391	-0.393	-0.090	0.125	-0.055	0.257	0.160	-0.018
V3SSTPA	-0.242	-0.250	0.307	0.131	-0.106	-0.242	-0.006	0.092
V3UTPA	-0.277	-0.282	0.336	0.121	-0.188	-0.295	0.007	0.079
V3DEADTPA	-0.311	-0.325	0.249	0.219	-0.240	-0.138	0.003	0.124
V3RCTPA	-0.221	-0.219	0.340	0.584	-0.204	0.190	-0.007	0.230
V3DRCTPA	-0.328	-0.338	0.304	0.344	-0.264	-0.063	0.000	0.167
V3ALLDIAMAVG	-0.129	-0.118	-0.802	-0.323	0.063	0.436	0.328	0.063
V3ALLHTAVG	-0.265	-0.228	-0.285	-0.902	-0.011	-0.301	0.102	-0.109
V3DDIAMAVG	0.056	0.060	0.518	0.153	-0.549	-0.649	-0.003	0.201
V3DOMHTAVG	-0.496	-0.489	0.475	0.097	-0.488	-0.608	-0.012	0.105
V3SSDIAMAVG	-0.166	-0.150	0.087	0.013	-0.273	-0.146	-0.392	-0.582
V3UDIAMAVG	-0.157	-0.139	0.000	0.018	-0.414	-0.147	-0.006	-0.072
V3RCDIAMAVG	0.464	0.527	-0.029	-0.022	0.040	-0.147	0.128	-0.026
V3DEADDIAMAV	0.975	0.917	-0.037	0.166	0.003	-0.112	0.002	-0.088
V3DRCDIAMAVG	0.963	0.974	-0.046	0.072	-0.013	-0.104	-0.015	-0.117
V3ALLDIAMCV	-0.040	-0.050	0.986	0.426	-0.310	-0.522	-0.354	0.000
V3ALLHTCV	0.018	-0.089	0.395	0.992	-0.137	0.265	-0.094	0.146
V3DDIAMCV	0.112	0.093	-0.361	-0.110	0.958	0.638	0.020	0.239
V3DHTCV	-0.063	-0.051	-0.543	0.321	0.510	0.964	0.180	0.230
V3SSDIAMCV	-0.057	-0.070	-0.375	-0.109	-0.015	0.167	0.956	0.365
V3UDIAMCV	-0.075	-0.090	0.028	0.252	0.140	0.281	0.286	0.867
V3ALLSW_N	-0.165	-0.174	0.273	0.022	-0.073	-0.337	-0.003	0.009
V3DSW_N	0.180	0.234	-0.248	-0.230	0.413	0.210	-0.117	-0.118
V3SSSW_N	-0.016	-0.013	-0.042	0.156	-0.051	0.045	0.064	0.042
V3USW_N	0.231	0.252	-0.140	0.119	-0.064	0.133	-0.064	-0.116
V3V11	-0.054	-0.048	-0.168	-0.609	-0.122	-0.248	0.091	-0.071
V3V12	-0.063	-0.081	-0.197	-0.052	-0.010	0.161	0.058	-0.121
V3V13	0.019	-0.004	-0.043	-0.111	0.010	-0.027	0.009	-0.019
V3V19	-0.043	-0.041	-0.064	-0.254	0.169	-0.278	0.085	0.052
V3V21	-0.133	-0.118	-0.288	0.236	0.096	0.534	0.066	0.048
V3V22	-0.234	-0.220	-0.448	0.177	0.029	0.662	0.161	0.174
V3V23	-0.088	-0.070	-0.196	-0.617	0.057	-0.157	0.126	0.085
V3V24	-0.131	-0.120	-0.272	-0.045	0.292	0.387	0.038	0.281
V3V25	-0.124	-0.107	-0.167	0.090	0.102	0.291	0.070	0.194
V3V29	0.049	0.027	0.723	0.354	-0.243	-0.568	-0.171	-0.069
V3V31	-0.035	-0.025	-0.137	0.145	0.221	0.418	0.002	0.284
V3V32	-0.077	-0.076	-0.091	-0.115	0.123	0.041	0.077	0.079
V3V34	-0.040	-0.023	-0.052	0.049	-0.011	0.002	-0.015	0.046
V3V39	0.495	0.506	-0.091	0.086	0.167	0.220	0.030	0.043
V3PLAND	-0.261	-0.264	0.344	0.140	-0.318	-0.211	0.005	0.042
V3PD	-0.040	-0.040	-0.346	-0.166	0.266	0.210	0.100	-0.024
V3LPI	-0.191	-0.190	0.354	0.074	-0.301	-0.268	0.001	0.066
V3LSI	-0.073	-0.067	-0.190	-0.088	0.175	0.121	0.074	0.032
V3SHAPE_MN	0.221	0.227	-0.258	-0.059	0.225	0.224	-0.008	-0.076
V3SHAPE_AM	-0.215	-0.214	0.372	0.063	-0.299	-0.276	0.005	0.073
V3SHAPE_CV	-0.163	-0.159	0.474	0.104	-0.339	-0.356	-0.022	0.065
V3CPLAND	-0.251	-0.252	0.290	0.016	-0.262	-0.242	0.025	0.029
V3CAI_MN	-0.148	-0.145	0.001	-0.091	-0.042	-0.140	0.124	0.105
V3CAI_AM	-0.331	-0.336	0.172	-0.069	-0.186	-0.227	0.073	0.019
V3CAI_CV	0.222	0.219	-0.082	0.018	0.197	0.146	-0.061	0.011
V3CWED	0.135	0.133	-0.146	0.184	0.078	0.304	-0.027	-0.005
V3TECI	0.380	0.379	-0.144	0.161	0.169	0.306	-0.095	-0.021
V3IJI	-0.332	-0.343	-0.038	-0.001	-0.111	0.122	-0.099	-0.207
V3LANDPD	-0.377	-0.376	-0.027	-0.386	0.030	-0.198	0.056	-0.053
V3LANDLPI	0.136	0.158	0.328	0.020	-0.178	-0.269	-0.072	0.057
V3LANDLSI	-0.284	-0.281	-0.115	-0.234	0.094	-0.052	0.108	0.007
V3LSHAPE_MN	-0.033	-0.040	-0.181	-0.279	0.116	-0.087	0.133	-0.001
V3LSHAPE_AM	-0.082	-0.064	0.397	0.031	-0.289	-0.316	-0.018	0.077
V3LSHAPE_CV	0.046	0.040	-0.210	0.041	0.067	0.095	0.187	0.112
V3LCAI_MN	-0.120	-0.129	0.301	0.086	-0.249	-0.297	0.054	0.102
V3LCAI_AM	0.110	0.113	0.022	-0.147	0.012	-0.114	0.014	0.003
V3LCAI_CV	0.119	0.127	-0.261	-0.148	0.287	0.231	-0.085	-0.080
V3LANDCWED	-0.014	-0.015	-0.232	0.010	0.134	0.262	-0.007	-0.058
V3LANDTECI	0.353	0.352	-0.155	0.138	0.171	0.298	-0.092	-0.038
V3LANDCONTAG	0.305	0.314	0.227	0.131	-0.099	-0.149	-0.067	0.056
V3LANDIJI	-0.325	-0.325	-0.146	-0.137	0.040	0.160	-0.121	-0.201
V3LANDSHDI	-0.266	-0.278	-0.241	-0.055	0.094	0.200	0.049	-0.067
V3LANDSIDI	-0.232	-0.247	-0.315	-0.051	0.110	0.244	0.094	-0.063

Appendix K continued

	V2ALLSW_N	V2DSW_N	V2SSSW_N	V2USW_N	V2V11	V2V12	V2V13	V2V19	V2V21	V2V22	V2V23	V2V24
V3STDAGE	-0.014	-0.164	-0.109	-0.134	0.363	0.355	-0.053	0.145	0.120	0.319	0.459	0.128
V3STDSZCD	0.241	-0.314	-0.147	-0.153	0.105	0.153	-0.080	0.169	-0.168	-0.028	0.284	-0.068
V3SITECLCD	0.345	-0.195	-0.124	-0.148	0.184	0.017	-0.073	0.381	-0.271	-0.242	0.375	-0.138
V3TPA	0.220	-0.160	-0.055	-0.159	0.194	0.098	-0.058	0.324	-0.075	-0.042	0.234	-0.072
V3DOMTPA	-0.032	-0.047	-0.077	-0.153	0.122	0.288	-0.051	0.167	0.224	0.335	0.165	0.038
V3SSTPA	0.304	-0.173	-0.092	-0.152	0.170	-0.013	-0.044	0.351	-0.196	-0.178	0.170	-0.106
V3UTPA	0.290	-0.223	-0.105	-0.164	0.217	0.033	-0.061	0.305	-0.179	-0.171	0.231	-0.112
V3DEADTPA	0.044	-0.177	-0.125	-0.126	0.172	0.109	-0.078	0.187	-0.016	0.055	0.240	-0.050
V3RCTPA	-0.074	-0.157	-0.062	-0.104	-0.107	0.087	-0.054	-0.151	0.321	0.300	-0.164	0.158
V3DRCTPA	0.020	-0.194	-0.125	-0.136	0.119	0.117	-0.081	0.120	0.073	0.129	0.163	0.001
V3ALLDIAMAVG	-0.300	0.030	-0.058	-0.075	0.122	0.281	0.005	-0.107	0.339	0.559	0.279	0.281
V3ALLHTAVG	-0.036	0.172	-0.131	0.040	0.553	0.012	0.084	-0.108	-0.171	-0.064	0.605	0.074
V3DDIAMAVG	0.182	-0.422	-0.069	-0.170	0.071	-0.076	-0.049	-0.170	-0.289	-0.279	0.202	-0.139
V3DOMHTAVG	0.260	-0.226	-0.059	-0.129	0.073	-0.157	0.007	-0.295	-0.244	-0.223	0.144	-0.118
V3SSDIAMAVG	0.001	-0.073	-0.131	-0.090	-0.001	0.156	0.018	-0.125	0.072	-0.061	-0.018	-0.124
V3UDIAMAVG	-0.179	-0.183	-0.067	-0.155	0.044	0.176	-0.064	-0.226	0.166	0.148	0.174	0.024
V3RCDIAMAVG	0.048	-0.115	-0.028	-0.149	0.017	-0.096	-0.020	0.068	-0.152	-0.253	0.160	-0.182
V3DEADDIAMAV	-0.100	0.023	-0.016	-0.141	-0.075	-0.084	0.024	-0.053	-0.130	-0.213	-0.103	-0.168
V3DRCDIAMAVG	-0.117	0.076	-0.018	-0.142	-0.065	-0.099	0.002	-0.048	-0.114	-0.210	-0.076	-0.153
V3ALLDIAMCV	0.268	-0.204	-0.040	0.003	-0.151	-0.196	-0.043	-0.060	-0.294	-0.459	-0.192	-0.251
V3ALLHTCV	0.054	-0.253	0.179	-0.145	-0.602	-0.070	-0.095	-0.125	0.228	0.167	-0.629	-0.058
V3DDIAMCV	-0.043	0.376	-0.097	0.500	-0.157	0.015	0.004	0.201	0.132	0.053	0.052	0.280
V3DHTCV	-0.300	0.122	0.022	0.023	-0.293	0.154	-0.022	-0.201	0.570	0.704	-0.216	0.329
V3SSDIAMCV	0.007	-0.170	0.089	-0.219	0.081	0.066	0.000	0.089	0.082	0.176	0.138	0.059
V3UDIAMCV	0.042	-0.155	0.089	0.101	-0.152	-0.236	0.016	-0.006	0.090	0.227	0.064	0.224
V3ALLSW_N	0.966	-0.437	-0.257	-0.186	0.001	-0.194	0.022	0.268	-0.438	-0.408	0.195	-0.238
V3DSW_N	-0.503	0.952	0.010	0.427	0.069	-0.033	-0.037	-0.059	0.162	0.106	-0.137	0.151
V3SSSW_N	-0.183	-0.027	0.994	-0.034	-0.038	-0.028	-0.010	-0.035	0.176	0.071	-0.062	-0.029
V3USW_N	-0.607	0.195	0.758	0.874	-0.083	0.093	-0.027	-0.154	0.276	0.180	-0.172	0.010
V3V11	-0.026	0.076	-0.039	-0.026	0.982	0.156	-0.019	-0.026	-0.136	-0.102	0.495	0.063
V3V12	-0.225	-0.037	-0.029	-0.029	0.168	0.938	0.070	-0.016	0.157	0.270	0.063	0.120
V3V13	0.007	-0.012	-0.011	-0.006	-0.025	0.065	0.954	-0.023	-0.005	0.026	0.020	-0.015
V3V19	0.294	-0.077	-0.048	-0.018	-0.077	-0.079	-0.025	0.976	-0.149	-0.250	-0.082	-0.159
V3V21	-0.423	0.134	0.224	0.022	-0.140	0.143	0.014	-0.140	0.986	0.431	-0.164	0.392
V3V22	-0.380	0.073	0.067	-0.059	-0.104	0.244	0.022	-0.226	0.423	0.987	-0.086	0.392
V3V23	0.147	-0.103	-0.070	-0.038	0.518	0.086	0.020	-0.080	-0.163	-0.087	0.983	0.082
V3V24	-0.287	0.205	-0.023	0.296	0.071	0.106	0.002	-0.141	0.424	0.445	0.062	0.964
V3V25	-0.059	0.032	0.035	0.027	-0.038	0.038	-0.045	-0.110	0.286	0.380	-0.026	0.322
V3V29	0.382	-0.178	-0.096	-0.051	-0.228	-0.249	-0.070	0.174	-0.398	-0.691	-0.331	-0.434
V3V31	-0.280	0.191	-0.026	0.129	-0.109	-0.104	-0.030	-0.075	0.504	0.274	-0.118	0.360
V3V32	0.170	-0.131	-0.042	-0.014	-0.033	0.022	-0.025	-0.024	-0.127	-0.107	0.600	-0.063
V3V34	-0.019	0.015	-0.008	-0.008	-0.044	-0.045	-0.011	-0.030	0.274	0.071	-0.023	0.210
V3V39	-0.058	0.000	-0.025	0.015	-0.126	-0.080	-0.034	0.045	0.064	-0.159	-0.172	0.039
V3PLAND	0.163	-0.267	-0.123	-0.152	0.232	0.134	-0.037	-0.160	-0.064	0.011	0.277	0.030
V3PD	0.028	0.175	-0.005	0.028	-0.213	-0.160	-0.009	0.246	-0.006	0.005	-0.179	-0.078
V3LPI	0.091	-0.208	-0.073	-0.093	0.265	0.106	-0.039	-0.174	-0.103	-0.052	0.299	0.057
V3LSI	0.006	0.193	-0.018	-0.024	-0.172	-0.279	-0.018	0.174	0.038	0.018	-0.102	-0.028
V3SHAPE_MN	-0.104	0.127	-0.026	-0.017	-0.128	-0.137	-0.019	0.158	0.137	0.014	-0.110	-0.034
V3SHAPE_AM	0.087	-0.158	-0.050	-0.108	0.234	0.016	-0.011	-0.186	-0.084	-0.036	0.295	0.066
V3SHAPE_CV	0.117	-0.159	-0.069	-0.109	0.234	-0.079	-0.033	-0.177	-0.094	-0.105	0.242	-0.025
V3CPLAND	0.148	-0.243	-0.117	-0.115	0.313	0.223	-0.055	-0.031	-0.112	-0.064	0.377	-0.036
V3CAI_MN	-0.039	-0.063	-0.073	-0.068	0.109	0.117	-0.084	0.261	-0.039	-0.046	0.337	-0.067
V3CAI_AM	0.192	-0.228	-0.121	-0.124	0.304	0.275	-0.043	0.171	-0.147	-0.071	0.381	-0.095
V3CAI_CV	-0.054	0.051	0.056	0.146	-0.170	-0.127	0.097	-0.164	-0.022	0.007	-0.241	0.158
V3CWED	-0.098	0.065	0.045	0.007	-0.254	-0.209	0.027	-0.232	0.210	0.208	-0.366	0.178
V3TECI	-0.162	0.104	0.110	0.154	-0.249	-0.130	0.046	-0.230	0.149	0.097	-0.378	0.169
V3IJI	0.119	-0.084	-0.090	-0.137	0.037	0.288	0.033	-0.019	0.152	0.125	0.116	-0.079
V3LANDPD	0.315	0.002	-0.163	-0.110	0.024	-0.160	0.046	0.167	-0.151	-0.180	0.252	-0.193
V3LANDLPI	-0.095	-0.100	0.031	0.075	0.208	0.034	-0.065	-0.255	-0.106	-0.168	0.204	0.084
V3LANDLSI	0.188	0.087	-0.117	-0.113	-0.072	-0.205	0.007	0.275	-0.087	-0.087	0.114	-0.111
V3LSHAPE_MN	0.032	0.106	-0.027	-0.085	0.034	-0.082	-0.059	0.412	-0.145	-0.143	0.113	-0.164
V3LSHAPE_AM	0.019	-0.162	-0.044	-0.034	0.234	-0.044	-0.047	-0.270	-0.099	-0.113	0.236	0.095
V3LSHAPE_CV	-0.085	0.039	0.021	-0.121	-0.139	-0.155	-0.094	0.218	0.036	0.093	-0.055	0.022
V3LCAI_MN	0.103	-0.203	-0.116	-0.150	0.246	0.094	-0.133	0.098	-0.130	-0.053	0.345	-0.044
V3LCAI_AM	-0.117	-0.054	0.043	0.092	0.293	0.304	-0.068	0.164	-0.048	-0.112	0.264	-0.034
V3LCAI_CV	-0.124	0.229	0.127	0.246	-0.226	-0.102	0.136	-0.091	0.105	-0.011	-0.314	0.058
V3LANDCWED	0.018	0.125	-0.011	-0.016	-0.289	-0.251	0.083	-0.116	0.124	0.105	-0.310	0.038
V3LANDTECI	-0.136	0.103	0.099	0.143	-0.265	-0.126	0.071	-0.228	0.136	0.080	-0.377	0.135
V3LANDCONTAG	-0.136	-0.073	0.048	0.132	0.115	0.081	-0.012	-0.263	-0.048	-0.041	0.010	0.112
V3LANDIJI	0.128	0.062	-0.091	-0.013	-0.026	0.168	0.072	0.067	0.122	0.015	0.045	-0.114
V3LANDSHDI	0.107	0.064	0.014	-0.126	-0.118	-0.029	0.021	0.261	0.119	0.087	-0.098	-0.087
V3LANDSIDI	0.077	0.057	0.016	-0.142	-0.141	-0.021	0.041	0.234	0.110	0.154	-0.126	-0.057

Appendix K continued

	V2V25	V2V29	V2V31	V2V32	V2V34	V2V39	V2PLAND	V2PD	V2LPI	V2LSI	V2SHAPE_MN	V2SHAPE_AM
V3STDAGE	0.094	-0.229	0.022	0.272	-0.014	-0.131	0.368	-0.157	0.311	-0.067	0.023	0.300
V3STDSZCD	-0.042	0.364	-0.065	0.222	-0.032	-0.169	0.505	-0.254	0.370	-0.049	0.153	0.440
V3SITECLCD	-0.083	0.368	-0.140	0.292	-0.040	-0.104	0.334	-0.054	0.233	0.122	0.179	0.319
V3TPA	-0.064	0.330	-0.073	0.148	-0.043	-0.196	0.380	-0.121	0.243	0.053	0.219	0.314
V3DOMTPA	0.051	-0.002	0.060	0.143	-0.043	-0.229	0.313	-0.041	0.167	0.124	0.132	0.235
V3SSTPA	-0.090	0.438	-0.095	0.092	-0.040	-0.140	0.326	-0.104	0.208	0.045	0.230	0.275
V3UTPA	-0.099	0.437	-0.109	0.137	-0.034	-0.186	0.400	-0.169	0.273	0.010	0.252	0.349
V3DEADTPA	-0.074	0.194	-0.050	0.215	-0.093	-0.208	0.383	-0.191	0.277	-0.031	0.170	0.323
V3RCTPA	0.104	0.116	0.195	-0.182	0.071	-0.098	0.395	-0.384	0.277	-0.203	0.190	0.325
V3DRCTPA	-0.035	0.198	0.010	0.136	-0.061	-0.204	0.437	-0.267	0.313	-0.078	0.197	0.366
V3ALLDIAMAVG	0.198	-0.745	0.175	0.197	0.074	-0.050	-0.100	0.176	-0.052	0.091	-0.229	-0.111
V3ALLHTAVG	0.036	-0.349	-0.109	0.009	-0.041	-0.143	0.057	0.019	0.170	-0.039	-0.116	0.149
V3DDIAMAVG	-0.080	0.320	-0.161	0.135	-0.007	-0.066	0.293	-0.325	0.303	-0.253	0.076	0.321
V3DOMHTAVG	-0.040	0.373	-0.158	-0.028	0.027	-0.289	0.363	-0.296	0.313	-0.199	0.054	0.355
V3SSDIAMAVG	-0.033	0.059	-0.007	0.004	0.068	-0.034	0.015	-0.054	-0.034	-0.045	0.040	0.014
V3UDIAMAVG	0.023	-0.151	0.051	0.157	0.069	-0.209	0.175	-0.158	0.164	-0.095	-0.024	0.200
V3RCDIAMAVG	-0.075	0.112	-0.079	0.184	-0.014	0.440	-0.046	-0.022	-0.053	0.047	0.256	-0.056
V3DEADDIAMAV	-0.114	0.062	-0.070	-0.057	-0.038	0.479	-0.195	-0.032	-0.131	-0.090	0.134	-0.194
V3DRCDIAMAVG	-0.104	0.045	-0.056	-0.062	-0.019	0.473	-0.204	-0.046	-0.134	-0.087	0.136	-0.181
V3ALLDIAMCV	-0.160	0.726	-0.134	-0.087	-0.060	-0.089	0.263	-0.303	0.198	-0.150	0.226	0.290
V3ALLHTCV	0.021	0.372	0.125	-0.040	0.060	0.082	0.044	-0.076	-0.091	-0.002	0.106	-0.074
V3DDIAMCV	0.093	-0.273	0.237	0.140	0.005	0.177	-0.257	0.298	-0.232	0.188	-0.115	-0.305
V3DHTCV	0.231	-0.575	0.385	0.081	0.017	0.226	-0.172	0.239	-0.224	0.152	-0.133	-0.306
V3SSDIAMCV	0.088	-0.172	-0.026	0.082	-0.014	0.045	0.060	0.046	0.092	0.048	-0.081	0.067
V3UDIAMCV	0.140	-0.077	0.277	0.096	0.004	0.079	0.118	-0.072	0.104	0.003	-0.008	0.089
V3ALLSW_N	-0.052	0.375	-0.294	0.205	-0.055	-0.064	0.152	-0.008	0.096	0.031	0.036	0.122
V3DSW_N	-0.011	-0.195	0.233	-0.153	0.068	-0.005	-0.263	0.230	-0.209	0.182	-0.065	-0.184
V3SSSW_N	0.019	-0.081	-0.029	-0.034	-0.011	-0.025	-0.128	-0.022	-0.092	-0.066	-0.065	-0.110
V3USW_N	0.009	-0.225	0.050	-0.133	0.008	0.049	-0.220	-0.011	-0.127	-0.148	-0.132	-0.198
V3V11	-0.050	-0.235	-0.107	-0.072	-0.046	-0.121	0.211	-0.205	0.296	-0.170	0.093	0.300
V3V12	0.023	-0.241	-0.107	-0.074	-0.052	-0.068	0.144	-0.152	0.169	-0.220	-0.217	0.109
V3V13	-0.037	-0.068	-0.028	-0.023	-0.011	-0.031	-0.071	0.028	-0.078	-0.010	-0.008	-0.105
V3V19	-0.097	0.198	-0.079	0.021	-0.032	0.032	-0.152	0.218	-0.162	0.194	-0.050	-0.154
V3V21	0.227	-0.392	0.481	-0.123	0.431	0.096	-0.083	0.007	-0.132	0.046	0.031	-0.117
V3V22	0.340	-0.678	0.241	-0.116	0.029	-0.124	0.060	-0.018	0.020	-0.031	-0.126	-0.030
V3V23	-0.011	-0.356	-0.116	0.580	-0.032	-0.164	0.238	-0.140	0.287	-0.058	0.089	0.328
V3V24	0.259	-0.472	0.399	-0.108	0.164	0.037	0.050	-0.056	0.029	-0.052	-0.065	0.007
V3V25	0.949	-0.317	0.258	-0.100	0.202	-0.032	0.094	-0.106	0.092	-0.123	-0.139	0.040
V3V29	-0.274	0.988	-0.222	-0.140	-0.087	0.044	0.172	-0.106	0.072	0.004	0.187	0.142
V3V31	0.211	-0.228	0.971	-0.077	0.198	-0.001	-0.165	0.166	-0.209	0.284	0.115	-0.131
V3V32	-0.074	-0.182	-0.071	0.967	-0.032	-0.089	0.016	0.091	0.010	0.095	0.044	0.019
V3V34	0.110	-0.087	0.163	-0.031	0.843	0.075	0.043	-0.079	0.051	-0.045	0.083	0.007
V3V39	-0.052	0.060	0.007	-0.090	0.107	0.967	-0.097	-0.045	-0.079	-0.080	0.177	-0.189
V3PLAND	0.048	0.225	-0.182	0.033	-0.030	-0.077	0.875	-0.746	0.743	-0.544	0.256	0.701
V3PD	-0.079	-0.133	0.151	0.068	-0.045	-0.044	-0.721	0.898	-0.662	0.735	-0.284	-0.589
V3LPI	0.043	0.224	-0.216	0.038	-0.043	-0.065	0.846	-0.752	0.766	-0.563	0.195	0.734
V3LSI	-0.055	-0.051	0.287	0.062	0.021	-0.107	-0.576	0.762	-0.598	0.895	0.032	-0.313
V3SHAPE_MN	-0.080	-0.140	0.266	0.059	0.177	0.156	-0.501	0.455	-0.484	0.491	0.349	-0.420
V3SHAPE_AM	0.108	0.206	-0.115	0.056	-0.047	-0.162	0.661	-0.571	0.530	-0.229	0.251	0.758
V3SHAPE_CV	0.009	0.289	-0.072	-0.015	0.010	-0.145	0.654	-0.596	0.593	-0.251	0.393	0.739
V3CPLAND	-0.027	0.233	-0.230	0.149	-0.089	-0.102	0.790	-0.632	0.700	-0.505	0.162	0.623
V3CAI_MN	-0.109	0.134	-0.038	0.390	-0.071	-0.130	0.192	0.032	0.113	0.198	0.140	0.219
V3CAI_AM	-0.030	0.201	-0.236	0.240	-0.124	-0.153	0.560	-0.346	0.473	-0.286	0.047	0.431
V3CAI_CV	0.120	-0.177	-0.041	-0.183	0.021	0.108	-0.206	-0.042	-0.105	-0.242	-0.134	-0.276
V3CWED	0.152	-0.224	0.233	-0.286	0.123	0.142	-0.263	0.128	-0.271	0.128	0.034	-0.244
V3TECI	0.093	-0.210	0.103	-0.295	0.104	0.278	-0.297	0.003	-0.219	-0.163	-0.098	-0.361
V3IJI	0.050	-0.084	-0.018	-0.001	0.016	-0.125	0.149	-0.057	0.083	0.020	-0.019	0.173
V3LANDPD	-0.084	0.094	0.017	0.245	-0.053	-0.279	-0.153	0.469	-0.192	0.622	0.041	0.082
V3LANDLPI	-0.053	0.148	-0.215	-0.024	-0.060	0.083	0.512	-0.660	0.575	-0.595	0.091	0.484
V3LANDLSI	-0.081	0.091	0.136	0.223	-0.029	-0.208	-0.294	0.617	-0.387	0.801	0.070	-0.084
V3LSHAPE_MN	-0.123	0.117	0.064	0.264	-0.050	-0.071	-0.296	0.521	-0.349	0.538	0.017	-0.228
V3LSHAPE_AM	0.022	0.177	-0.159	-0.036	-0.082	-0.060	0.545	-0.572	0.518	-0.308	0.196	0.677
V3LSHAPE_CV	0.021	-0.004	0.198	0.192	0.018	-0.004	-0.289	0.473	-0.406	0.596	0.143	-0.228
V3LCAI_MN	-0.032	0.271	-0.154	0.217	-0.031	-0.059	0.665	-0.491	0.554	-0.212	0.378	0.609
V3LCAI_AM	-0.094	0.023	-0.166	0.192	-0.110	0.012	0.170	-0.248	0.243	-0.352	-0.054	0.089
V3LCAI_CV	-0.016	-0.250	0.128	-0.193	0.014	0.048	-0.665	0.466	-0.524	0.175	-0.386	-0.595
V3LANDCWED	0.067	-0.200	0.229	-0.177	0.068	0.013	-0.501	0.514	-0.492	0.451	-0.134	-0.403
V3LANDTECI	0.083	-0.220	0.095	-0.285	0.088	0.247	-0.354	0.075	-0.268	-0.121	-0.165	-0.404
V3LANDCONTAG	-0.009	0.020	-0.187	-0.154	-0.019	0.158	0.386	-0.663	0.490	-0.740	0.025	0.247
V3LANDIJI	-0.022	-0.075	0.082	0.041	0.004	-0.173	-0.171	0.274	-0.202	0.242	-0.212	-0.109
V3LANDSHDI	0.047	-0.055	0.218	0.061	0.058	-0.110	-0.435	0.647	-0.529	0.674	-0.077	-0.324
V3LANDSIDI	0.080	-0.141	0.193	0.071	0.047	-0.085	-0.484	0.672	-0.577	0.664	-0.091	-0.392

Appendix K continued

	V2CPLAND	V2CAI_MN	V2CAI_AM	V2CAI_CV	V2CWED	V2TECI	V2IJI	V2LANDPD	V2LANDLPI	V2LANDLSI
V3STDAGE	0.485	0.538	0.596	-0.501	-0.451	-0.559	0.146	0.143	0.067	0.173
V3STDSZCD	0.546	0.481	0.630	-0.552	-0.463	-0.628	0.082	0.227	0.041	0.251
V3SITECLCD	0.415	0.545	0.577	-0.547	-0.498	-0.655	0.033	0.398	-0.067	0.456
V3TPA	0.472	0.544	0.639	-0.614	-0.500	-0.672	0.153	0.280	-0.091	0.363
V3DOMTPA	0.391	0.523	0.553	-0.598	-0.370	-0.589	0.305	0.259	-0.162	0.363
V3SSTPA	0.399	0.445	0.556	-0.522	-0.444	-0.588	0.079	0.253	-0.088	0.330
V3UTPA	0.476	0.494	0.617	-0.568	-0.489	-0.644	0.099	0.257	-0.042	0.314
V3DEADTPA	0.479	0.489	0.565	-0.538	-0.435	-0.574	0.199	0.157	0.034	0.186
V3RCTPA	0.302	0.010	0.204	-0.134	0.017	-0.098	0.146	-0.182	0.121	-0.180
V3DRCTPA	0.493	0.423	0.543	-0.500	-0.369	-0.522	0.212	0.089	0.057	0.116
V3ALLDIAMAVG	-0.047	0.131	-0.008	-0.012	0.021	-0.004	0.145	0.062	-0.042	0.058
V3ALLHTAVG	0.137	0.160	0.135	-0.035	-0.217	-0.211	-0.051	0.287	0.241	0.104
V3DDIAMAVG	0.273	0.030	0.175	-0.038	-0.168	-0.122	-0.135	-0.042	0.271	-0.172
V3DOMHTAVG	0.302	0.003	0.231	-0.057	-0.151	-0.218	-0.103	0.098	0.217	-0.048
V3SSDIAMAVG	0.013	-0.032	0.026	0.018	-0.014	-0.030	0.261	0.091	-0.030	-0.011
V3UDIAMAVG	0.172	0.097	0.098	-0.066	-0.081	-0.113	0.147	0.032	0.153	-0.075
V3RCDIAMAVG	-0.037	0.107	-0.037	-0.069	0.023	0.053	-0.284	-0.081	0.000	0.023
V3DEADDIAMAV	-0.186	-0.118	-0.282	0.134	0.146	0.319	-0.303	-0.351	0.068	-0.276
V3DRCDIAMAVG	-0.200	-0.121	-0.297	0.140	0.149	0.334	-0.334	-0.355	0.079	-0.275
V3ALLDIAMCV	0.186	-0.092	0.106	-0.035	-0.059	-0.085	-0.060	-0.026	0.131	-0.092
V3ALLHTCV	-0.073	-0.186	-0.093	0.002	0.232	0.193	0.060	-0.297	-0.213	-0.133
V3DDIAMCV	-0.202	0.002	-0.115	0.179	0.075	0.130	-0.085	0.071	-0.109	0.140
V3DHTCV	-0.203	-0.096	-0.187	0.089	0.312	0.283	0.190	-0.156	-0.231	0.000
V3SSDIAMCV	0.096	0.148	0.130	-0.130	-0.101	-0.148	-0.031	0.067	0.010	0.107
V3UDIAMCV	0.056	-0.050	0.003	0.003	0.082	0.041	-0.113	-0.098	0.043	-0.040
V3ALLSW_N	0.147	0.051	0.222	-0.095	-0.155	-0.213	0.121	0.301	-0.057	0.220
V3DSW_N	-0.231	-0.053	-0.200	0.074	0.090	0.115	-0.115	-0.008	-0.108	0.080
V3SSSW_N	-0.112	-0.077	-0.133	0.049	0.015	0.128	-0.112	-0.174	-0.033	-0.147
V3USW_N	-0.193	-0.150	-0.277	0.188	0.102	0.290	-0.147	-0.338	0.093	-0.326
V3V11	0.301	0.225	0.296	-0.186	-0.288	-0.281	-0.069	0.007	0.265	-0.074
V3V12	0.229	0.200	0.276	-0.140	-0.226	-0.188	0.245	-0.126	0.127	-0.150
V3V13	-0.078	-0.077	-0.067	0.091	0.030	0.057	0.052	0.041	-0.071	0.006
V3V19	-0.014	0.293	0.226	-0.202	-0.280	-0.277	-0.001	0.187	-0.204	0.326
V3V21	-0.124	-0.073	-0.153	0.005	0.213	0.168	0.088	-0.140	-0.125	-0.085
V3V22	-0.006	-0.039	-0.032	-0.012	0.193	0.106	0.161	-0.188	-0.069	-0.120
V3V23	0.339	0.397	0.374	-0.272	-0.394	-0.419	0.033	0.279	0.207	0.148
V3V24	-0.015	-0.085	-0.062	0.140	0.184	0.169	-0.070	-0.176	0.030	-0.122
V3V25	0.052	-0.043	0.032	0.060	0.093	0.083	-0.008	-0.172	0.042	-0.141
V3V29	0.143	0.017	0.146	-0.121	-0.129	-0.168	-0.050	0.121	-0.024	0.130
V3V31	-0.217	-0.082	-0.215	-0.023	0.281	0.136	-0.043	0.029	-0.215	0.138
V3V32	0.125	0.356	0.233	-0.221	-0.288	-0.302	0.017	0.267	-0.041	0.239
V3V34	-0.028	-0.065	-0.068	0.006	0.097	0.100	-0.039	-0.065	0.041	-0.057
V3V39	-0.098	-0.125	-0.166	0.099	0.123	0.252	-0.200	-0.280	0.066	-0.210
V3PLAND	0.765	0.167	0.600	-0.277	-0.246	-0.371	0.196	-0.098	0.440	-0.244
V3PD	-0.608	0.000	-0.376	0.024	0.140	0.076	-0.019	0.440	-0.553	0.574
V3LPI	0.770	0.204	0.588	-0.270	-0.307	-0.377	0.139	-0.128	0.527	-0.279
V3LSI	-0.573	0.045	-0.379	-0.100	0.237	-0.017	-0.009	0.594	-0.615	0.762
V3SHAPE_MN	-0.466	0.008	-0.334	0.055	0.209	0.153	-0.138	0.163	-0.393	0.333
V3SHAPE_AM	0.549	0.205	0.452	-0.311	-0.184	-0.392	0.190	0.138	0.255	0.026
V3SHAPE_CV	0.516	0.126	0.339	-0.230	-0.121	-0.311	0.054	0.064	0.373	-0.070
V3CPLAND	0.844	0.416	0.787	-0.461	-0.554	-0.605	0.187	-0.038	0.430	-0.158
V3CAI_MN	0.397	0.830	0.591	-0.698	-0.616	-0.742	0.023	0.308	-0.092	0.446
V3CAI_AM	0.742	0.603	0.884	-0.609	-0.740	-0.781	0.250	0.142	0.184	0.099
V3CAI_CV	-0.359	-0.606	-0.554	0.818	0.527	0.751	-0.305	-0.413	0.178	-0.473
V3CWED	-0.548	-0.657	-0.733	0.621	0.872	0.794	-0.126	-0.203	-0.137	-0.186
V3TECI	-0.498	-0.701	-0.716	0.766	0.724	0.915	-0.264	-0.499	0.076	-0.505
V3IJI	0.164	0.054	0.240	-0.268	-0.148	-0.278	0.748	0.348	-0.083	0.186
V3LANDPD	-0.115	0.209	0.077	-0.295	-0.149	-0.426	0.370	0.930	-0.364	0.823
V3LANDLPI	0.471	-0.015	0.181	0.093	-0.152	0.005	-0.136	-0.373	0.695	-0.540
V3LANDLSI	-0.247	0.291	0.020	-0.364	-0.084	-0.395	0.213	0.830	-0.583	0.930
V3LSHAPE_MN	-0.063	0.581	0.250	-0.548	-0.425	-0.543	0.005	0.457	-0.457	0.675
V3LSHAPE_AM	0.411	-0.002	0.187	0.004	-0.013	-0.100	-0.032	-0.053	0.461	-0.207
V3LSHAPE_CV	-0.246	0.373	-0.045	-0.317	0.040	-0.181	-0.213	0.255	-0.530	0.565
V3LCAI_MN	0.712	0.621	0.730	-0.635	-0.532	-0.679	0.049	0.058	0.237	0.101
V3LCAI_AM	0.472	0.543	0.570	-0.327	-0.677	-0.445	-0.117	-0.259	0.315	-0.229
V3LCAI_CV	-0.683	-0.576	-0.718	0.672	0.472	0.666	-0.105	-0.081	-0.147	-0.141
V3LANDCWED	-0.689	-0.575	-0.732	0.488	0.716	0.591	0.062	0.228	-0.377	0.205
V3LANDTECI	-0.543	-0.735	-0.743	0.774	0.711	0.905	-0.215	-0.431	0.037	-0.463
V3LANDCONTAG	0.301	-0.259	-0.016	0.378	0.063	0.340	-0.310	-0.704	0.688	-0.823
V3LANDIJI	-0.084	0.015	0.080	-0.181	-0.134	-0.213	0.610	0.464	-0.283	0.341
V3LANDSHDI	-0.337	0.198	-0.009	-0.341	-0.038	-0.261	0.273	0.562	-0.703	0.708
V3LANDSIDI	-0.413	0.135	-0.087	-0.236	0.056	-0.153	0.208	0.488	-0.731	0.660

Appendix K continued

	V2LSHAPE_MN	V2LSHAPE_AM	V2LSHAPE_CV	V2LCAI_MN	V2LCAI_AM	V2LCAI_CV	V2LANDCWED	V2LANDTECI
V3STDAGE	0.241	0.144	0.167	0.526	0.330	-0.539	-0.436	-0.575
V3STDSZCD	0.220	0.238	0.191	0.627	0.150	-0.648	-0.448	-0.630
V3SITECLCD	0.434	0.138	0.344	0.576	0.122	-0.594	-0.390	-0.654
V3TPA	0.375	0.092	0.278	0.599	0.209	-0.623	-0.445	-0.684
V3DOMTPA	0.329	-0.008	0.289	0.505	0.159	-0.546	-0.317	-0.599
V3SSTPA	0.353	0.086	0.257	0.528	0.161	-0.553	-0.394	-0.595
V3UTPA	0.327	0.148	0.237	0.592	0.193	-0.612	-0.446	-0.652
V3DEADTPA	0.214	0.153	0.127	0.540	0.274	-0.536	-0.412	-0.584
V3RCTPA	-0.227	0.200	-0.104	0.263	0.007	-0.290	-0.157	-0.114
V3DRCTPA	0.121	0.186	0.081	0.536	0.234	-0.540	-0.394	-0.533
V3ALLDIAMAVG	0.042	-0.093	0.042	-0.076	0.060	0.073	0.086	0.009
V3ALLHTAVG	0.050	0.242	-0.147	0.004	0.134	0.081	-0.075	-0.184
V3DDIAMAVG	-0.188	0.345	-0.171	0.206	0.082	-0.176	-0.207	-0.108
V3DOMHTAVG	-0.192	0.350	-0.196	0.169	-0.065	-0.140	-0.133	-0.177
V3SSDIAMAVG	-0.084	0.009	-0.158	-0.044	-0.009	0.058	0.057	0.009
V3UDIAMAVG	-0.145	0.196	-0.118	0.105	0.062	-0.075	-0.067	-0.093
V3RCDIAMAVG	0.195	-0.011	0.283	0.128	0.054	-0.171	-0.066	0.015
V3DEADDIAMAV	0.031	-0.138	0.105	-0.070	0.104	0.032	-0.006	0.261
V3DRCDIAMAVG	0.023	-0.115	0.115	-0.078	0.098	0.035	-0.009	0.272
V3ALLDIAMCV	-0.180	0.253	-0.137	0.172	-0.062	-0.158	-0.126	-0.078
V3ALLHTCV	-0.151	-0.182	0.069	0.024	-0.196	-0.117	0.074	0.177
V3DDIAMCV	0.172	-0.246	0.107	-0.172	0.020	0.206	0.124	0.119
V3DHTCV	0.007	-0.338	0.112	-0.186	-0.105	0.106	0.238	0.263
V3SSDIAMCV	0.120	0.036	0.129	0.106	0.059	-0.122	-0.069	-0.139
V3UDIAMCV	-0.103	0.105	0.013	0.066	-0.079	-0.064	-0.003	0.033
V3ALLSW_N	0.045	0.054	-0.054	0.136	-0.096	-0.155	-0.027	-0.161
V3DSW_N	0.146	-0.179	0.131	-0.186	-0.029	0.198	0.125	0.092
V3SSSW_N	-0.033	-0.112	-0.079	-0.119	0.067	0.134	-0.045	0.090
V3USW_N	-0.095	-0.125	-0.111	-0.231	0.128	0.268	-0.006	0.237
V3V11	0.008	0.301	-0.084	0.262	0.300	-0.225	-0.312	-0.308
V3V12	-0.049	0.070	-0.094	0.154	0.294	-0.144	-0.258	-0.194
V3V13	-0.034	-0.082	-0.102	-0.146	-0.061	0.160	0.099	0.087
V3V19	0.423	-0.184	0.249	0.148	0.203	-0.130	-0.153	-0.271
V3V21	-0.113	-0.142	-0.012	-0.140	-0.038	0.112	0.123	0.148
V3V22	-0.142	-0.090	-0.014	-0.011	-0.066	-0.037	0.075	0.090
V3V23	0.101	0.281	0.008	0.352	0.236	-0.304	-0.310	-0.417
V3V24	-0.141	0.019	-0.029	-0.048	-0.030	0.067	0.044	0.135
V3V25	-0.106	-0.011	-0.050	0.014	0.008	-0.033	-0.010	0.071
V3V29	0.099	0.083	0.071	0.165	-0.087	-0.177	-0.094	-0.153
V3V31	0.094	-0.165	0.179	-0.166	-0.160	0.120	0.259	0.133
V3V32	0.246	-0.038	0.186	0.208	0.158	-0.183	-0.160	-0.291
V3V34	-0.072	-0.006	-0.042	0.023	-0.118	-0.033	0.031	0.084
V3V39	-0.035	-0.095	-0.012	-0.058	0.062	0.045	-0.004	0.206
V3PLAND	-0.364	0.544	-0.290	0.606	0.078	-0.621	-0.447	-0.383
V3PD	0.514	-0.501	0.426	-0.447	-0.210	0.424	0.489	0.137
V3LPI	-0.362	0.620	-0.283	0.622	0.161	-0.593	-0.502	-0.402
V3LSI	0.533	-0.330	0.586	-0.269	-0.411	0.208	0.515	0.028
V3SHAPE_MN	0.439	-0.395	0.404	-0.214	-0.095	0.168	0.259	0.125
V3SHAPE_AM	-0.201	0.565	-0.045	0.544	-0.031	-0.547	-0.301	-0.401
V3SHAPE_CV	-0.299	0.633	-0.111	0.531	-0.066	-0.525	-0.288	-0.336
V3CPLAND	-0.134	0.478	-0.210	0.686	0.379	-0.655	-0.648	-0.620
V3CAI_MN	0.589	0.073	0.521	0.619	0.409	-0.565	-0.503	-0.777
V3CAI_AM	0.188	0.252	-0.025	0.660	0.518	-0.621	-0.676	-0.778
V3CAI_CV	-0.457	-0.086	-0.329	-0.496	-0.211	0.513	0.329	0.727
V3CWED	-0.380	-0.140	-0.059	-0.531	-0.604	0.445	0.678	0.788
V3TECI	-0.493	-0.164	-0.281	-0.584	-0.324	0.562	0.471	0.879
V3IJI	-0.081	0.020	-0.265	0.063	-0.032	-0.097	0.027	-0.208
V3LANDPD	0.383	-0.009	0.257	0.006	-0.312	-0.030	0.288	-0.322
V3LANDLPI	-0.481	0.609	-0.388	0.294	0.255	-0.185	-0.399	-0.052
V3LANDLSI	0.632	-0.217	0.559	0.018	-0.317	-0.074	0.296	-0.322
V3LSHAPE_MN	0.930	-0.356	0.651	0.182	0.205	-0.194	-0.123	-0.533
V3LSHAPE_AM	-0.428	0.710	-0.186	0.337	-0.025	-0.283	-0.200	-0.121
V3LSHAPE_CV	0.694	-0.335	0.840	0.130	-0.109	-0.192	0.114	-0.204
V3LCAI_MN	0.156	0.407	0.213	0.878	0.320	-0.860	-0.664	-0.740
V3LCAI_AM	0.197	0.112	-0.018	0.410	0.869	-0.280	-0.738	-0.521
V3LCAI_CV	-0.179	-0.336	-0.242	-0.861	-0.227	0.905	0.600	0.715
V3LANDCWED	-0.110	-0.294	0.026	-0.685	-0.684	0.603	0.858	0.670
V3LANDTECI	-0.485	-0.197	-0.312	-0.661	-0.358	0.637	0.534	0.899
V3LANDCONTAG	-0.654	0.418	-0.508	0.088	0.238	-0.006	-0.323	0.263
V3LANDIJI	0.105	-0.210	-0.173	-0.218	-0.059	0.192	0.203	-0.114
V3LANDSHDI	0.608	-0.494	0.452	-0.147	-0.179	0.057	0.307	-0.193
V3LANDSIDI	0.587	-0.542	0.473	-0.209	-0.221	0.107	0.362	-0.088

Appendix K continued

	V2LANDCONTAG	V2LANDIJI	V2LANDSHDI	V2LANDSIDI
V3STDAGE	-0.117	0.036	0.050	0.032
V3STDSZCD	-0.132	-0.027	0.083	0.038
V3SITECLCD	-0.315	0.027	0.186	0.163
V3TPA	-0.286	0.088	0.232	0.180
V3DOMTPA	-0.336	0.196	0.323	0.265
V3SSTPA	-0.260	0.052	0.207	0.167
V3UTPA	-0.229	0.042	0.176	0.129
V3DEADTPA	-0.118	0.054	0.092	0.040
V3RCTPA	0.174	-0.070	-0.081	-0.133
V3DRCTPA	-0.060	0.031	0.062	0.003
V3ALLDIAMAVG	-0.106	0.152	0.080	0.103
V3ALLHTAVG	-0.013	0.069	-0.090	-0.089
V3DDIAMAVG	0.282	-0.212	-0.271	-0.286
V3DOMHTAVG	0.145	-0.099	-0.124	-0.160
V3SSDIAMAVG	-0.063	0.225	0.096	0.075
V3UDIAMAVG	0.098	0.045	-0.099	-0.124
V3RCDIAMAVG	0.050	-0.318	-0.061	-0.022
V3DEADDIAMAV	0.270	-0.333	-0.252	-0.213
V3DRCDIAMAVG	0.283	-0.352	-0.253	-0.218
V3ALLDIAMCV	0.174	-0.148	-0.119	-0.161
V3ALLHTCV	0.046	-0.091	0.095	0.081
V3DDIAMCV	-0.144	0.014	0.100	0.128
V3DHTCV	-0.162	0.154	0.193	0.206
V3SSDIAMCV	-0.054	-0.043	0.001	0.018
V3UDIAMCV	0.094	-0.145	-0.092	-0.090
V3ALLSW_N	-0.148	0.149	0.131	0.110
V3DSW_N	-0.103	0.004	0.112	0.112
V3SSSW_N	0.135	-0.135	-0.102	-0.097
V3USW_N	0.259	-0.169	-0.213	-0.208
V3V11	0.131	-0.112	-0.145	-0.160
V3V12	0.063	0.128	-0.059	-0.061
V3V13	-0.047	0.125	0.006	0.031
V3V19	-0.299	0.102	0.244	0.245
V3V21	-0.013	0.048	0.124	0.095
V3V22	0.024	0.033	0.039	0.065
V3V23	-0.006	-0.034	-0.072	-0.086
V3V24	0.108	-0.122	-0.055	-0.038
V3V25	0.101	-0.090	-0.022	-0.012
V3V29	-0.062	-0.014	0.027	-0.013
V3V31	-0.167	0.038	0.246	0.216
V3V32	-0.161	0.029	0.083	0.093
V3V34	0.050	-0.064	-0.007	-0.022
V3V39	0.182	-0.225	-0.144	-0.139
V3PLAND	0.309	-0.108	-0.334	-0.381
V3PD	-0.596	0.290	0.567	0.589
V3LPI	0.373	-0.165	-0.399	-0.460
V3LSI	-0.694	0.210	0.647	0.672
V3SHAPE_MN	-0.330	-0.003	0.321	0.370
V3SHAPE_AM	0.092	-0.083	-0.110	-0.154
V3SHAPE_CV	0.208	-0.210	-0.245	-0.293
V3CPLAND	0.236	-0.045	-0.276	-0.351
V3CAI_MN	-0.328	0.015	0.231	0.181
V3CAI_AM	-0.039	0.123	0.008	-0.067
V3CAI_CV	0.425	-0.281	-0.404	-0.309
V3CWED	0.097	-0.132	-0.027	0.055
V3TECI	0.410	-0.256	-0.317	-0.239
V3IJI	-0.246	0.597	0.282	0.194
V3LANDPD	-0.698	0.495	0.570	0.531
V3LANDLPI	0.653	-0.358	-0.700	-0.738
V3LANDLSI	-0.821	0.385	0.713	0.706
V3LSHAPE_MN	-0.654	0.219	0.546	0.527
V3LSHAPE_AM	0.356	-0.276	-0.402	-0.416
V3LSHAPE_CV	-0.542	-0.093	0.490	0.540
V3LCAI_MN	0.043	-0.220	-0.095	-0.143
V3LCAI_AM	0.270	-0.155	-0.263	-0.316
V3LCAI_CV	0.030	0.172	-0.001	0.042
V3LANDCWED	-0.289	0.230	0.298	0.353
V3LANDTECI	0.358	-0.169	-0.271	-0.196
V3LANDCONTAG	0.866	-0.512	-0.841	-0.817
V3LANDIJI	-0.432	0.745	0.478	0.380
V3LANDSHDI	-0.794	0.478	0.844	0.816
V3LANDSIDI	-0.763	0.407	0.802	0.823

Appendix L. Correlation matrix of bird abundance by species to the forest and landscape variables calculated within the 3 buffers (100 m, 1 km, and 10 km) on the BBS routes.

	AMRE100M	AMRE10K	AMRE1K	BAWW100M	BAWW10K	BAWW1K	BBCU100M	BBCU10K	BBCU1K	BTBW100M
AllDiamAvg	0.167	0.163	0.166	0.075	0.073	0.074	0.129	0.122	0.129	0.171
AllDiamCV	0.067	0.085	0.068	0.082	0.106	0.083	0.019	0.016	0.019	-0.025
AllHtAvg	-0.160	-0.117	-0.099	0.044	0.033	0.023	-0.273	-0.212	-0.237	0.214
AllHtCV	0.219	0.273	0.239	0.012	-0.005	0.014	0.269	0.304	0.275	-0.147
AllSW_N	-0.245	-0.250	-0.245	0.008	0.059	0.008	-0.102	-0.123	-0.105	0.001
DDiamAvg	0.108	0.125	0.110	0.180	0.232	0.183	0.087	0.052	0.086	0.115
DDiamCV	-0.217	-0.249	-0.219	-0.115	-0.133	-0.117	-0.117	-0.101	-0.117	0.043
DeadDiamAvg	-0.108	-0.107	-0.216	-0.282	-0.277	-0.185	-0.023	-0.016	-0.102	-0.353
DeadTPA	0.314	0.337	0.317	0.410	0.438	0.414	0.017	0.024	0.017	0.357
DHtCV	0.143	0.206	0.162	-0.085	-0.116	-0.083	0.052	0.154	0.065	-0.051
DomHtAvg	0.033	0.138	0.121	0.230	0.171	0.154	-0.005	0.049	0.039	0.110
DomTPA	0.313	0.334	0.313	0.451	0.460	0.451	-0.001	0.029	0.000	0.283
DRCDiamAvg	-0.118	-0.113	-0.119	-0.259	-0.261	-0.260	-0.031	-0.025	-0.030	-0.370
DRCTPA	0.409	0.432	0.412	0.402	0.428	0.406	0.081	0.093	0.081	0.301
DSW_N	-0.135	-0.145	-0.135	-0.168	-0.193	-0.168	-0.034	-0.011	-0.031	-0.103
RCDiamAvg	-0.212	-0.195	-0.214	-0.046	0.017	-0.036	-0.130	-0.126	-0.124	0.215
RCTPA	0.464	0.498	0.463	0.154	0.191	0.161	0.244	0.273	0.247	-0.090
SITECLCD	-0.002	-0.011	-0.003	0.472	0.489	0.473	-0.169	-0.169	-0.169	0.165
SSDiamAvg	0.054	0.051	0.057	0.053	0.052	0.057	0.100	0.086	0.098	0.043
SSDiamCV	0.009	0.018	0.009	0.095	0.117	0.094	-0.053	-0.043	-0.051	-0.089
SSSW_N	0.004	-0.014	-0.001	-0.081	-0.083	-0.083	-0.019	-0.015	-0.017	-0.063
SSTPA	0.010	0.026	0.011	0.338	0.369	0.341	-0.093	-0.081	-0.094	0.027
STDAGE	0.208	0.236	0.214	0.434	0.470	0.441	0.015	0.043	0.022	0.274
STDSZCD	0.275	0.281	0.275	0.539	0.566	0.540	0.022	0.026	0.022	0.315
TPA	0.128	0.142	0.130	0.442	0.465	0.444	-0.089	-0.070	-0.088	0.152
UDiamAvg	0.361	0.357	0.361	0.246	0.266	0.248	0.158	0.144	0.159	0.254
UDiamCV	0.139	0.201	0.067	-0.213	-0.023	-0.105	0.121	0.094	0.055	-0.379
USW_N	-0.075	0.077	-0.075	-0.063	-0.136	-0.063	-0.040	0.064	-0.040	-0.010
UTPA	0.086	0.102	0.087	0.421	0.451	0.424	-0.078	-0.069	-0.078	0.088
V11	-0.094	-0.094	-0.094	0.078	0.083	0.079	-0.115	-0.122	-0.115	0.025
V12	0.125	0.143	0.125	0.272	0.285	0.273	0.090	0.104	0.092	0.198
V13	-0.104	-0.097	-0.104	-0.076	-0.083	-0.076	-0.031	-0.015	-0.031	-0.046
V19	-0.161	-0.181	-0.162	0.106	0.100	0.105	-0.144	-0.162	-0.145	-0.092
V21	0.287	0.288	0.286	0.022	-0.009	0.019	0.153	0.160	0.154	0.011
V22	0.436	0.452	0.436	-0.004	0.005	-0.003	0.346	0.384	0.347	-0.046
V23	-0.030	-0.050	-0.031	0.306	0.318	0.307	-0.123	-0.140	-0.125	0.357
V24	0.238	0.242	0.238	0.004	-0.024	0.002	0.183	0.237	0.187	0.014
V25	0.193	0.203	0.193	-0.047	-0.068	-0.050	0.171	0.208	0.171	0.041
V29	-0.113	-0.113	-0.113	0.099	0.114	0.100	-0.165	-0.181	-0.165	-0.066
V31	0.203	0.208	0.204	-0.094	-0.106	-0.097	0.038	0.061	0.041	-0.101
V32	-0.133	-0.144	-0.132	0.253	0.264	0.252	-0.089	-0.099	-0.089	0.378
V34	0.079	0.116	0.088	-0.056	0.018	-0.046	0.247	0.342	0.270	0.000
V39	-0.084	-0.104	-0.085	-0.152	-0.161	-0.154	-0.103	-0.118	-0.102	0.056
CAI_AM	0.234	0.190	0.255	0.554	0.556	0.592	-0.032	-0.106	-0.027	0.583
CAI_CV	-0.254	-0.200	-0.256	-0.515	-0.400	-0.464	0.005	0.161	0.083	-0.457
CAI_MN	0.112	0.133	0.143	0.495	0.534	0.532	-0.087	-0.165	-0.140	0.581
CPLAND	0.330	0.325	0.393	0.527	0.551	0.581	0.033	-0.017	0.053	0.581
CWED	0.110	-0.029	-0.060	-0.284	-0.481	-0.491	0.148	0.220	0.111	-0.480
IJI	0.241	0.162	0.174	0.318	0.144	0.137	0.051	-0.006	0.037	-0.020
LPI	0.283	0.355	0.370	0.301	0.445	0.432	0.100	0.068	0.166	0.298
LSI	0.077	-0.175	-0.199	0.187	-0.208	-0.173	-0.100	-0.120	-0.185	-0.158
PD	-0.285	-0.341	-0.388	-0.270	-0.300	-0.351	-0.146	-0.161	-0.187	-0.283
PLAND	0.467	0.406	0.468	0.549	0.452	0.503	0.118	0.112	0.141	0.416
SHAPE_AM	0.361	0.346	0.380	0.398	0.366	0.433	0.103	0.037	0.086	0.238
SHAPE_CV	0.398	0.358	0.426	0.458	0.379	0.473	0.104	0.100	0.098	0.287
SHAPE_MN	0.270	-0.176	0.148	0.322	-0.129	0.175	0.091	-0.004	0.009	0.204
TECI	-0.219	-0.152	-0.195	-0.588	-0.500	-0.554	0.053	0.189	0.133	-0.541
LANDCONT	0.023	0.133	0.166	-0.220	0.029	0.028	0.147	0.154	0.185	0.092
LANDCWED	-0.043	-0.186	-0.212	-0.297	-0.519	-0.520	0.004	0.058	-0.025	-0.509
LANDIJI	0.036	-0.048	-0.047	0.146	-0.002	-0.017	-0.035	-0.122	-0.084	-0.126
LANDLPI	-0.003	0.170	0.223	-0.070	0.223	0.226	0.056	0.019	0.122	0.146
LANDLSI	-0.006	-0.139	-0.143	0.294	0.052	0.096	-0.178	-0.197	-0.230	-0.049
LANDPD	-0.066	-0.129	-0.134	0.236	0.109	0.099	-0.203	-0.213	-0.227	-0.042
LANDSHDI	0.015	-0.141	-0.140	0.177	-0.106	-0.099	-0.092	-0.115	-0.103	-0.098
LANDSIDI	0.000	-0.175	-0.202	0.150	-0.175	-0.169	-0.090	-0.072	-0.113	-0.158
LANDTECI	-0.084	-0.185	-0.216	-0.462	-0.534	-0.580	0.068	0.164	0.115	-0.566
LCAI_AM	-0.124	0.007	0.028	-0.005	0.368	0.323	-0.058	-0.166	-0.076	0.432
LCAI_CV	-0.313	-0.349	-0.363	-0.570	-0.555	-0.557	-0.042	-0.061	-0.084	-0.497
LCAI_MN	0.278	0.328	0.351	0.576	0.590	0.606	0.023	0.024	0.060	0.550
LSHAPE_AM	0.121	0.257	0.299	0.069	0.234	0.324	0.069	0.010	0.036	0.120
LSHAPE_CV	0.154	-0.056	-0.073	0.105	0.023	0.100	0.153	-0.048	-0.136	0.156
LSHAPE_MN	-0.041	-0.178	-0.189	0.128	0.132	0.115	-0.038	-0.249	-0.229	0.170

Appendix L continued

	BTBW10K	BTBW1K	CAWA100M	CAWA10K	CAWA1K	CERW100M	CERW10K	CERW1K	COYE100M	COYE10K
AllDiamAvg	0.208	0.175	0.151	0.171	0.154	-0.242	-0.277	-0.244	0.135	0.130
AllDiamCV	-0.053	-0.028	-0.010	-0.021	-0.011	0.323	0.352	0.324	-0.092	-0.081
AllHtAvg	0.189	0.227	-0.064	-0.066	-0.033	-0.135	-0.091	-0.115	-0.474	-0.400
AllHtCV	-0.142	-0.125	0.093	0.103	0.103	0.182	0.194	0.188	0.478	0.515
AllSW_N	0.026	-0.002	-0.071	-0.082	-0.074	0.229	0.223	0.228	-0.293	-0.343
DDiamAvg	0.126	0.118	0.041	0.039	0.042	0.334	0.376	0.335	-0.100	-0.113
DDiamCV	0.034	0.041	-0.062	-0.054	-0.062	-0.154	-0.175	-0.154	-0.072	-0.061
DeadDiamAvg	-0.411	0.114	-0.195	-0.224	-0.015	-0.004	0.017	-0.064	0.189	0.191
DeadTPA	0.384	0.361	0.236	0.204	0.238	-0.002	0.028	-0.001	-0.101	-0.128
DHtCV	-0.041	-0.039	0.067	0.100	0.078	-0.267	-0.239	-0.250	0.464	0.512
DomHtAvg	0.025	0.127	0.005	-0.006	0.051	0.376	0.351	0.334	-0.253	-0.094
DomTPA	0.314	0.281	0.151	0.170	0.149	-0.148	-0.133	-0.147	0.020	0.006
DRCDiamAvg	-0.423	-0.370	-0.206	-0.238	-0.206	-0.002	0.013	-0.002	0.176	0.191
DRCTPA	0.324	0.305	0.205	0.176	0.207	0.033	0.060	0.033	-0.015	-0.035
DSW_N	-0.076	-0.098	-0.103	-0.063	-0.101	-0.180	-0.221	-0.181	-0.054	-0.038
RCDiamAvg	0.262	0.220	0.076	0.069	0.075	-0.027	0.003	-0.021	-0.043	-0.046
RCTPA	-0.072	-0.088	-0.036	-0.024	-0.036	0.121	0.132	0.123	0.263	0.278
SITECLCD	0.191	0.165	-0.033	-0.011	-0.033	0.192	0.208	0.193	-0.268	-0.307
SSDiamAvg	0.074	0.050	-0.026	0.060	-0.019	-0.020	-0.032	-0.024	-0.056	-0.041
SSDiamCV	-0.054	-0.088	-0.061	-0.092	-0.062	0.022	0.033	0.025	-0.021	-0.046
SSSW_N	-0.065	-0.063	-0.044	-0.053	-0.045	-0.062	-0.060	-0.062	0.109	0.099
SSTPA	0.023	0.024	-0.131	-0.115	-0.133	0.110	0.144	0.112	-0.199	-0.210
STDAGE	0.311	0.275	0.034	0.057	0.042	-0.025	-0.019	-0.026	-0.090	-0.124
STDSZCD	0.311	0.312	0.133	0.124	0.131	0.248	0.271	0.250	-0.063	-0.093
TPA	0.166	0.150	-0.047	-0.032	-0.049	0.046	0.076	0.048	-0.172	-0.186
UDiamAvg	0.317	0.265	0.235	0.274	0.242	0.061	0.051	0.059	0.044	0.033
UDiamCV	-0.286	-0.167	-0.179	-0.051	0.028	0.116	0.144	0.112	0.369	0.293
USW_N	-0.039	-0.010	0.082	0.023	0.080	-0.037	-0.148	-0.037	-0.029	0.238
UTPA	0.096	0.086	-0.103	-0.079	-0.103	0.128	0.161	0.130	-0.211	-0.226
V11	0.014	0.025	-0.156	-0.159	-0.157	-0.107	-0.107	-0.107	-0.439	-0.454
V12	0.205	0.201	0.039	0.062	0.039	-0.090	-0.107	-0.090	0.101	0.100
V13	-0.067	-0.046	-0.041	-0.055	-0.041	-0.052	-0.050	-0.052	-0.035	-0.028
V19	-0.094	-0.092	-0.086	-0.100	-0.087	0.013	0.006	0.013	-0.199	-0.214
V21	0.009	0.011	0.014	0.007	0.013	-0.221	-0.226	-0.221	0.376	0.386
V22	-0.042	-0.047	0.062	0.070	0.061	-0.093	-0.095	-0.093	0.485	0.481
V23	0.379	0.357	0.096	0.097	0.096	-0.081	-0.095	-0.081	-0.416	-0.455
V24	-0.040	0.013	-0.061	-0.048	-0.059	-0.058	-0.074	-0.058	0.263	0.283
V25	-0.039	0.035	0.086	0.011	0.081	0.012	0.007	0.013	0.162	0.207
V29	-0.073	-0.066	-0.038	-0.052	-0.038	0.302	0.326	0.302	-0.118	-0.124
V31	-0.113	-0.100	0.026	0.004	0.027	-0.134	-0.151	-0.135	0.259	0.280
V32	0.434	0.378	0.207	0.260	0.210	-0.084	-0.089	-0.084	-0.319	-0.351
V34	-0.046	0.000	-0.071	-0.076	-0.074	-0.027	0.017	-0.020	0.110	0.102
V39	0.070	0.057	0.008	0.010	0.008	-0.050	-0.036	-0.052	0.123	0.140
CAI_AM	0.472	0.515	0.277	0.091	0.194	0.128	0.085	0.211	-0.384	-0.325
CAI_CV	-0.338	-0.400	-0.303	-0.183	-0.281	-0.107	0.108	-0.007	0.224	0.132
CAI_MN	0.515	0.591	0.342	0.264	0.350	-0.020	-0.156	-0.087	-0.442	-0.280
CPLAND	0.390	0.480	0.321	0.126	0.241	0.231	0.248	0.371	-0.312	-0.190
CWED	-0.466	-0.495	-0.188	-0.103	-0.187	0.068	0.017	-0.103	0.517	0.430
IJI	0.071	-0.084	-0.015	0.012	-0.015	0.195	-0.052	0.006	-0.034	0.040
LPI	0.241	0.252	0.133	0.107	0.133	0.268	0.363	0.435	-0.234	-0.063
LSI	-0.191	-0.209	-0.029	-0.047	-0.104	0.009	-0.274	-0.353	0.077	0.019
PD	-0.154	-0.200	-0.126	-0.061	-0.120	-0.268	-0.341	-0.415	0.155	-0.041
PLAND	0.203	0.301	0.269	0.101	0.199	0.390	0.384	0.477	-0.123	-0.012
SHAPE_AM	0.178	0.111	0.095	0.085	0.041	0.327	0.245	0.322	-0.228	-0.063
SHAPE_CV	0.049	0.181	0.168	0.056	0.159	0.356	0.375	0.389	-0.188	-0.067
SHAPE_MN	-0.121	0.032	0.117	-0.139	-0.006	0.214	-0.211	0.097	-0.209	0.046
TECI	-0.447	-0.496	-0.278	-0.169	-0.246	-0.162	0.015	-0.094	0.402	0.344
LANDCONT	0.009	0.120	0.002	-0.037	0.040	0.000	0.267	0.287	0.033	0.066
LANDCWED	-0.448	-0.476	-0.225	-0.106	-0.196	0.001	-0.094	-0.202	0.393	0.279
LANDIJI	0.031	-0.144	-0.050	0.049	-0.024	0.078	-0.182	-0.139	-0.029	-0.022
LANDLPI	0.193	0.208	-0.002	0.055	0.075	0.055	0.274	0.329	-0.189	-0.050
LANDLSI	-0.026	-0.057	-0.039	-0.023	-0.065	0.003	-0.169	-0.208	-0.136	-0.182
LANDPD	0.030	-0.060	-0.060	-0.020	-0.091	-0.023	-0.059	-0.111	-0.151	-0.295
LANDSHDI	-0.059	-0.168	0.011	-0.013	-0.053	-0.081	-0.317	-0.334	0.013	-0.015
LANDSIDI	-0.100	-0.215	-0.039	-0.042	-0.107	-0.066	-0.323	-0.358	0.050	0.019
LANDTECI	-0.468	-0.527	-0.279	-0.180	-0.264	-0.021	0.010	-0.085	0.478	0.335
LCAI_AM	0.462	0.480	0.173	0.081	0.141	-0.249	-0.156	-0.077	-0.312	-0.344
LCAI_CV	-0.400	-0.437	-0.308	-0.170	-0.255	-0.191	-0.214	-0.261	0.273	0.149
LCAI_MN	0.429	0.489	0.320	0.166	0.265	0.157	0.202	0.261	-0.363	-0.228
LSHAPE_AM	0.088	0.085	0.001	0.011	0.009	0.168	0.272	0.309	-0.217	-0.038
LSHAPE_CV	0.063	0.120	0.068	0.108	0.117	0.163	-0.214	-0.254	-0.105	0.028
LSHAPE_MN	0.202	0.178	0.128	0.087	0.075	-0.054	-0.265	-0.280	-0.017	-0.272

Appendix L continued

	COYE1K	CSWA100M	CSWA10K	CSWA1K	DOWO100M	DOWO10K	DOWO1K	EAWP100M	EAWP10K	EAWP1K
AllDiamAvg	0.133	0.209	0.212	0.210	-0.111	-0.118	-0.111	-0.128	-0.138	-0.129
AllDiamCV	-0.092	-0.067	-0.068	-0.067	0.112	0.110	0.111	0.102	0.100	0.102
AllHtAvg	-0.393	-0.106	-0.115	-0.060	-0.030	-0.042	-0.041	0.048	0.030	0.098
AllHtCV	0.485	0.169	0.207	0.184	0.053	0.027	0.046	-0.082	-0.034	-0.048
AllSW_N	-0.294	-0.221	-0.239	-0.222	0.135	0.159	0.135	0.139	0.144	0.137
DDiamAvg	-0.103	-0.025	-0.028	-0.023	0.081	0.063	0.078	0.072	0.056	0.069
DDiamCV	-0.071	-0.008	-0.025	-0.009	-0.009	0.010	-0.008	-0.099	-0.091	-0.096
DeadDiamAvg	-0.013	-0.277	-0.277	-0.200	0.016	0.015	-0.098	0.108	0.127	0.014
DeadTPA	-0.103	0.330	0.326	0.335	-0.061	-0.082	-0.063	-0.195	-0.207	-0.195
DHtCV	0.472	0.160	0.201	0.173	-0.023	-0.034	-0.026	-0.152	-0.072	-0.114
DomHtAvg	-0.106	-0.008	0.004	0.062	0.116	0.116	0.070	0.015	0.041	0.109
DomTPA	0.020	0.345	0.358	0.345	-0.070	-0.066	-0.068	-0.302	-0.297	-0.301
DRCDiamAvg	0.176	-0.266	-0.271	-0.266	0.013	0.015	0.014	0.102	0.116	0.102
DRCTPA	-0.016	0.359	0.356	0.364	-0.034	-0.059	-0.037	-0.199	-0.205	-0.200
DSW_N	-0.055	0.012	0.084	0.015	-0.121	-0.122	-0.119	-0.183	-0.225	-0.183
RCDiamAvg	-0.035	-0.122	-0.118	-0.122	0.056	0.060	0.053	0.081	0.057	0.075
RCTPA	0.267	0.206	0.224	0.207	0.075	0.043	0.070	-0.112	-0.106	-0.115
SITECLCD	-0.270	0.070	0.072	0.070	0.083	0.071	0.083	-0.222	-0.231	-0.222
SSDiamAvg	-0.057	-0.153	-0.137	-0.148	0.038	0.036	0.035	0.100	0.088	0.096
SSDiamCV	-0.021	-0.040	-0.067	-0.041	0.007	0.025	0.007	-0.126	-0.120	-0.125
SSSW_N	0.106	0.036	0.021	0.032	-0.069	-0.078	-0.071	-0.019	-0.026	-0.020
SSTPA	-0.199	0.077	0.094	0.079	0.061	0.064	0.061	-0.165	-0.176	-0.165
STDAGE	-0.091	0.133	0.154	0.144	-0.031	-0.052	-0.030	-0.228	-0.226	-0.229
STDSZCD	-0.065	0.272	0.259	0.272	0.089	0.075	0.088	-0.168	-0.179	-0.168
TPA	-0.172	0.183	0.198	0.184	0.025	0.022	0.025	-0.228	-0.235	-0.228
UDiamAvg	0.041	0.200	0.210	0.203	0.002	-0.038	0.002	0.000	-0.036	-0.002
UDiamCV	0.153	-0.136	0.138	-0.042	0.166	0.010	0.062	0.108	-0.019	-0.078
USW_N	-0.029	0.102	0.101	0.099	-0.005	-0.104	-0.005	0.028	-0.041	0.028
UTPA	-0.211	0.106	0.120	0.107	0.053	0.050	0.053	-0.163	-0.176	-0.163
V11	-0.440	-0.171	-0.177	-0.171	-0.083	-0.084	-0.082	-0.032	-0.038	-0.033
V12	0.100	-0.029	-0.036	-0.028	0.069	0.063	0.069	-0.015	-0.028	-0.014
V13	-0.035	-0.068	-0.100	-0.068	-0.051	-0.035	-0.051	-0.053	-0.047	-0.053
V19	-0.199	-0.150	-0.154	-0.150	0.020	0.005	0.020	-0.204	-0.215	-0.204
V21	0.376	0.179	0.188	0.179	-0.072	-0.083	-0.072	-0.102	-0.120	-0.104
V22	0.484	0.315	0.313	0.315	-0.101	-0.096	-0.101	-0.127	-0.125	-0.128
V23	-0.417	0.087	0.086	0.086	-0.064	-0.081	-0.064	-0.125	-0.152	-0.126
V24	0.263	0.139	0.155	0.141	0.058	0.033	0.056	0.007	-0.037	0.004
V25	0.164	0.088	0.062	0.087	0.010	0.000	0.009	0.065	0.052	0.066
V29	-0.118	-0.138	-0.140	-0.138	0.170	0.170	0.169	0.128	0.133	0.128
V31	0.260	0.165	0.206	0.170	-0.044	-0.070	-0.045	-0.145	-0.169	-0.146
V32	-0.320	0.215	0.225	0.215	-0.180	-0.178	-0.180	-0.202	-0.212	-0.202
V34	0.111	0.087	0.100	0.087	0.065	0.112	0.076	0.022	0.052	0.028
V39	0.124	0.000	-0.009	0.000	-0.042	-0.024	-0.042	0.071	0.092	0.072
CAI_AM	-0.343	0.245	0.160	0.220	-0.047	-0.011	0.002	0.066	-0.067	0.045
CAI_CV	0.192	-0.341	-0.401	-0.394	-0.003	0.052	0.069	0.013	0.228	0.119
CAI_MN	-0.388	0.269	0.406	0.346	-0.084	-0.133	-0.130	-0.028	-0.307	-0.135
CPLAND	-0.230	0.285	0.150	0.230	-0.030	0.026	0.059	0.196	0.030	0.200
CWED	0.496	-0.104	-0.192	-0.193	0.136	0.069	0.052	0.034	0.173	0.049
IJI	0.079	-0.007	-0.107	-0.080	0.103	0.080	0.116	0.000	0.033	-0.045
LPI	-0.132	0.187	0.083	0.120	0.008	0.058	0.119	0.214	0.130	0.269
LSI	0.046	0.051	0.117	0.002	0.114	-0.050	-0.036	-0.204	-0.300	-0.338
PD	0.003	-0.066	0.042	-0.023	0.099	0.013	-0.031	-0.245	-0.214	-0.306
PLAND	-0.039	0.269	0.078	0.175	0.051	0.071	0.108	0.248	0.117	0.262
SHAPE_AM	-0.100	0.131	0.095	0.034	0.009	-0.018	0.091	0.182	0.065	0.164
SHAPE_CV	-0.118	0.154	0.040	0.108	-0.002	0.039	0.071	0.182	-0.003	0.107
SHAPE_MN	-0.072	0.194	-0.009	0.041	-0.029	-0.027	-0.049	0.191	-0.126	-0.005
TECI	0.388	-0.242	-0.300	-0.284	0.018	0.061	0.029	-0.012	0.253	0.113
LANDCONT	0.014	-0.036	-0.172	-0.056	-0.115	0.015	-0.003	0.196	0.224	0.291
LANDCWED	0.355	-0.159	-0.185	-0.197	0.183	0.103	0.080	-0.059	0.067	-0.064
LANDIJI	0.028	-0.052	-0.042	-0.062	0.108	0.063	0.103	-0.077	-0.004	-0.110
LANDLPI	-0.148	0.005	-0.056	0.004	-0.079	0.052	0.098	0.123	0.180	0.285
LANDLSI	-0.145	0.016	0.123	0.033	0.103	-0.015	0.004	-0.221	-0.310	-0.307
LANDPD	-0.211	-0.002	-0.011	-0.051	0.127	0.072	0.072	-0.209	-0.190	-0.230
LANDSHDI	0.063	0.091	0.148	0.098	0.098	-0.023	-0.020	-0.194	-0.184	-0.280
LANDSIDI	0.082	0.042	0.093	0.024	0.090	-0.056	-0.049	-0.198	-0.166	-0.290
LANDTECI	0.397	-0.217	-0.331	-0.310	0.137	0.078	0.058	-0.004	0.248	0.104
LCAI_AM	-0.397	0.056	0.114	0.105	-0.206	-0.127	-0.119	-0.011	-0.064	0.012
LCAI_CV	0.168	-0.306	-0.274	-0.276	0.039	0.043	0.012	-0.028	0.135	0.009
LCAI_MN	-0.278	0.291	0.260	0.267	-0.061	-0.053	-0.024	0.041	-0.140	0.004
LSHAPE_AM	-0.115	-0.001	-0.052	-0.036	-0.076	0.017	0.115	0.151	0.134	0.198
LSHAPE_CV	-0.017	0.006	0.287	0.154	-0.075	-0.110	-0.088	0.129	-0.276	-0.248
LSHAPE_MN	-0.228	0.025	0.223	0.138	0.007	-0.084	-0.082	-0.029	-0.277	-0.229

Appendix L continued

	ETTI100M	ETTI10K	ETTI1K	GCFL100M	GCFL10K	GCFL1K	HOWA100M	HOWA10K	HOWA1K	KEWA100M	KEWA10K
AllDiamAvg	-0.212	-0.223	-0.212	-0.094	-0.113	-0.095	0.011	0.010	0.011	-0.152	-0.190
AllDiamCV	0.110	0.113	0.110	-0.013	-0.020	-0.014	0.044	0.058	0.044	0.062	0.088
AllHtAvg	0.200	0.111	0.173	0.048	0.004	0.038	0.140	0.079	0.062	0.223	0.170
AllHtCV	-0.210	-0.227	-0.209	-0.073	-0.073	-0.076	-0.063	-0.125	-0.090	-0.156	-0.170
AllSW_N	0.364	0.412	0.365	0.105	0.115	0.104	0.165	0.200	0.164	0.201	0.220
DDiamAvg	0.077	0.077	0.076	-0.163	-0.233	-0.167	0.205	0.238	0.208	0.182	0.195
DDiamCV	0.074	0.109	0.076	-0.104	-0.071	-0.103	-0.013	0.008	-0.014	-0.028	-0.011
DeadDiamAvg	0.002	0.011	0.029	0.106	0.110	-0.063	-0.260	-0.242	-0.154	0.059	0.093
DeadTPA	-0.185	-0.175	-0.185	-0.174	-0.169	-0.174	0.190	0.196	0.191	-0.172	-0.186
DHtCV	-0.222	-0.234	-0.218	-0.069	-0.048	-0.071	-0.170	-0.215	-0.193	-0.241	-0.271
DomHtAvg	0.142	0.044	0.084	-0.107	-0.094	-0.102	0.344	0.147	0.147	0.367	0.285
DomTPA	-0.200	-0.207	-0.201	0.003	0.017	0.005	0.177	0.179	0.176	-0.231	-0.245
DRCDiamAvg	0.017	0.022	0.018	0.071	0.077	0.070	-0.231	-0.225	-0.231	0.083	0.107
DRCTPA	-0.219	-0.215	-0.219	-0.193	-0.184	-0.193	0.157	0.165	0.157	-0.203	-0.213
DSW_N	-0.106	-0.159	-0.108	0.029	0.028	0.028	-0.234	-0.245	-0.233	-0.145	-0.187
RCDiamAvg	0.176	0.191	0.188	0.001	-0.006	0.012	0.046	0.109	0.054	0.250	0.273
RCTPA	-0.226	-0.244	-0.214	-0.176	-0.160	-0.163	-0.045	-0.020	-0.039	-0.213	-0.211
SITECLCD	0.159	0.167	0.159	-0.105	-0.114	-0.105	0.506	0.518	0.506	0.287	0.275
SSDiamAvg	0.052	0.015	0.047	0.193	0.144	0.189	-0.070	-0.072	-0.069	-0.156	-0.187
SSDiamCV	-0.016	0.023	-0.014	-0.094	-0.088	-0.092	0.073	0.112	0.076	0.117	0.150
SSSW_N	-0.134	-0.135	-0.134	0.009	0.005	0.007	-0.046	-0.056	-0.049	-0.079	-0.069
SSTPA	0.086	0.090	0.085	0.028	0.025	0.029	0.365	0.371	0.366	0.115	0.125
STDAGE	-0.079	-0.089	-0.087	-0.113	-0.104	-0.115	0.284	0.311	0.291	-0.022	-0.056
STDSZCD	0.004	0.006	0.004	-0.154	-0.162	-0.153	0.417	0.436	0.418	0.154	0.143
TPA	0.006	0.003	0.005	0.001	0.000	0.002	0.365	0.365	0.365	0.024	0.023
UDiamAvg	-0.182	-0.210	-0.183	-0.150	-0.218	-0.155	0.066	0.060	0.065	-0.138	-0.179
UDiamCV	-0.075	-0.102	-0.104	0.142	-0.116	-0.145	-0.184	-0.038	0.001	0.091	0.087
USW_N	0.014	-0.269	0.014	-0.094	-0.053	-0.094	-0.063	-0.160	-0.063	-0.060	-0.138
UTPA	0.065	0.064	0.064	0.003	-0.009	0.003	0.392	0.396	0.393	0.097	0.099
V11	0.110	0.105	0.109	0.103	0.097	0.103	0.088	0.098	0.090	-0.075	-0.074
V12	-0.058	-0.075	-0.058	0.156	0.179	0.158	0.048	0.083	0.052	-0.187	-0.210
V13	-0.057	-0.057	-0.057	-0.033	-0.028	-0.033	-0.056	-0.050	-0.055	-0.025	-0.015
V19	0.111	0.128	0.111	-0.030	-0.034	-0.029	0.199	0.191	0.197	0.084	0.076
V21	-0.301	-0.332	-0.303	-0.059	-0.055	-0.059	-0.123	-0.143	-0.126	-0.303	-0.331
V22	-0.429	-0.432	-0.429	-0.123	-0.121	-0.123	-0.073	-0.074	-0.072	-0.194	-0.214
V23	0.134	0.122	0.135	-0.164	-0.186	-0.165	0.363	0.381	0.366	0.073	0.047
V24	-0.133	-0.163	-0.134	-0.121	-0.138	-0.124	0.065	0.038	0.063	-0.119	-0.158
V25	-0.090	-0.124	-0.093	-0.063	-0.028	-0.059	0.139	0.095	0.137	0.086	0.040
V29	0.253	0.267	0.253	0.125	0.124	0.125	0.042	0.052	0.041	0.196	0.223
V31	-0.235	-0.272	-0.236	-0.064	-0.095	-0.065	-0.132	-0.156	-0.135	-0.144	-0.175
V32	0.011	0.005	0.011	-0.278	-0.286	-0.278	0.240	0.260	0.241	-0.038	-0.061
V34	-0.014	0.028	-0.006	0.022	0.021	0.023	0.111	0.139	0.119	-0.043	0.008
V39	0.074	0.095	0.074	0.028	0.013	0.028	-0.124	-0.128	-0.124	0.078	0.120
CAI_AM	0.062	0.087	0.107	-0.015	0.035	-0.014	0.496	0.344	0.502	-0.039	-0.068
CAI_CV	-0.050	0.129	0.105	-0.025	-0.049	-0.015	-0.447	-0.156	-0.346	-0.070	0.115
CAI_MN	-0.018	-0.171	-0.104	-0.068	-0.183	-0.115	0.497	0.323	0.455	-0.047	-0.151
CPLAND	0.036	0.104	0.115	-0.084	-0.067	-0.083	0.485	0.336	0.505	-0.002	0.036
CWED	-0.023	-0.006	-0.063	0.024	0.011	0.036	-0.289	-0.262	-0.432	0.158	0.106
IJI	0.169	0.110	0.148	0.127	0.296	0.188	0.172	0.012	-0.005	-0.030	-0.185
LPI	0.015	0.117	0.157	-0.069	-0.146	-0.077	0.296	0.333	0.477	0.020	0.134
LSI	0.036	-0.191	-0.144	0.070	-0.008	0.071	0.096	-0.153	-0.205	0.149	-0.052
PD	-0.074	-0.124	-0.157	0.116	0.094	0.096	-0.270	-0.234	-0.324	-0.013	-0.092
PLAND	0.099	0.137	0.144	-0.092	-0.093	-0.095	0.504	0.329	0.466	0.151	0.153
SHAPE_AM	0.083	0.054	0.187	-0.041	-0.176	-0.041	0.354	0.277	0.411	0.081	0.068
SHAPE_CV	0.104	0.083	0.141	-0.047	-0.119	-0.112	0.408	0.294	0.413	0.128	0.177
SHAPE_MN	0.017	-0.018	0.060	-0.025	0.123	-0.037	0.331	-0.051	0.195	0.067	-0.018
TECI	-0.096	0.059	-0.021	-0.004	0.024	0.014	-0.526	-0.287	-0.455	-0.028	0.078
LANDCONT	-0.119	0.077	0.017	-0.096	-0.156	-0.131	-0.139	0.027	0.062	-0.114	0.075
LANDCWED	0.037	0.019	-0.036	0.079	0.076	0.087	-0.337	-0.329	-0.486	0.133	0.085
LANDIJI	0.154	0.096	0.124	0.146	0.324	0.230	0.009	-0.148	-0.171	-0.047	-0.187
LANDLPI	-0.033	0.108	0.153	-0.098	-0.227	-0.124	-0.040	0.138	0.293	-0.130	0.086
LANDLSI	0.133	-0.027	0.016	0.068	0.003	0.068	0.221	0.076	0.076	0.132	0.002
LANDPD	0.180	0.157	0.157	0.078	0.049	0.082	0.169	0.136	0.099	0.101	0.050
LANDSHDI	0.067	-0.115	-0.087	0.185	0.220	0.201	0.041	-0.093	-0.156	-0.001	-0.131
LANDSIDI	0.064	-0.131	-0.099	0.152	0.195	0.172	0.057	-0.100	-0.181	0.052	-0.116
LANDTECI	-0.009	0.069	-0.005	0.036	0.039	0.024	-0.448	-0.319	-0.488	0.084	0.082
LCAI_AM	-0.156	-0.030	-0.023	-0.064	-0.018	-0.045	0.006	0.129	0.217	-0.309	-0.253
LCAI_CV	-0.044	0.018	-0.030	0.035	0.103	0.075	-0.544	-0.463	-0.556	-0.068	-0.044
LCAI_MN	0.032	-0.013	0.036	-0.079	-0.153	-0.124	0.575	0.472	0.607	0.031	0.012
LSHAPE_AM	-0.015	0.076	0.176	-0.075	-0.247	-0.095	0.085	0.161	0.332	-0.032	0.118
LSHAPE_CV	-0.062	-0.268	-0.189	-0.100	-0.158	-0.083	0.136	0.083	0.083	0.024	-0.022
LSHAPE_MN	-0.013	-0.095	-0.071	0.013	-0.006	0.017	0.178	0.074	0.108	0.158	-0.043

Appendix L continued

	KEWA1K	OVEN100m	OVEN10k	OVEN1k	PIWA100M	PIWA10K	PIWA1K	PIWO100M	PIWO10K	PIWO1K	PRAW100M
AllDiamAvg	-0.154	0.215	0.225	0.216	-0.160	-0.160	-0.160	-0.136	-0.135	-0.134	-0.187
AllDiamCV	0.064	-0.009	0.007	-0.008	-0.108	-0.118	-0.109	0.096	0.102	0.096	0.010
AllHtAvg	0.188	-0.088	-0.014	-0.097	0.225	0.105	0.086	0.230	0.121	0.152	0.133
AllHtCV	-0.138	0.143	0.122	0.138	-0.255	-0.331	-0.290	-0.181	-0.252	-0.201	-0.140
AllSW_N	0.203	-0.103	-0.078	-0.104	0.218	0.236	0.218	0.269	0.312	0.270	0.276
DDiamAvg	0.183	0.129	0.146	0.131	-0.318	-0.356	-0.321	0.155	0.175	0.158	-0.073
DDiamCV	-0.027	-0.162	-0.169	-0.163	0.159	0.220	0.159	-0.045	-0.042	-0.047	-0.011
DeadDiamAvg	0.030	-0.247	-0.235	-0.239	-0.041	-0.025	-0.061	-0.087	-0.057	0.015	0.035
DeadTPA	-0.173	0.447	0.453	0.448	0.019	-0.013	0.016	0.164	0.169	0.164	-0.187
DHtCV	-0.221	0.170	0.182	0.165	-0.093	-0.175	-0.135	-0.215	-0.282	-0.233	-0.097
DomHtAvg	0.257	0.029	0.069	-0.002	-0.038	-0.138	-0.239	0.235	0.050	0.071	0.097
DomTPA	-0.232	0.501	0.521	0.502	0.230	0.240	0.233	0.110	0.114	0.110	-0.032
DRCDiamAvg	0.083	-0.247	-0.244	-0.248	-0.050	-0.038	-0.050	-0.080	-0.063	-0.081	0.040
DRCTPA	-0.205	0.468	0.479	0.470	-0.057	-0.084	-0.060	0.107	0.111	0.107	-0.222
DSW_N	-0.148	-0.235	-0.245	-0.234	0.150	0.200	0.151	-0.247	-0.298	-0.249	-0.043
RCDiamAvg	0.256	-0.129	-0.070	-0.114	0.051	0.077	0.057	0.193	0.239	0.203	0.017
RCTPA	-0.209	0.274	0.330	0.285	-0.290	-0.286	-0.284	-0.152	-0.137	-0.142	-0.227
SITECLCD	0.287	0.258	0.257	0.258	0.331	0.352	0.333	0.400	0.410	0.401	0.197
SSDiamAvg	-0.158	0.063	0.079	0.065	-0.031	-0.069	-0.035	0.001	-0.015	0.000	-0.078
SSDiamCV	0.119	0.084	0.087	0.088	0.039	0.077	0.044	0.088	0.141	0.093	0.004
SSSW_N	-0.083	-0.057	-0.073	-0.062	-0.076	-0.074	-0.077	-0.061	-0.065	-0.065	-0.050
SSTPA	0.115	0.258	0.267	0.259	0.380	0.374	0.382	0.349	0.335	0.347	0.179
STDAGE	-0.027	0.503	0.537	0.504	0.049	0.085	0.058	0.279	0.302	0.275	-0.062
STDSZCD	0.155	0.451	0.466	0.452	0.032	0.052	0.035	0.353	0.356	0.353	0.063
TPA	0.024	0.386	0.393	0.387	0.356	0.351	0.358	0.324	0.314	0.322	0.103
UDiamAvg	-0.140	0.281	0.293	0.281	-0.335	-0.390	-0.340	-0.090	-0.085	-0.088	-0.295
UDiamCV	0.125	-0.057	0.056	0.026	-0.057	-0.168	-0.087	-0.189	-0.175	-0.107	0.109
USW_N	-0.060	-0.098	-0.051	-0.098	-0.043	-0.220	-0.043	-0.092	-0.210	-0.092	-0.055
UTPA	0.097	0.339	0.348	0.340	0.318	0.306	0.319	0.365	0.354	0.364	0.123
V11	-0.074	0.151	0.156	0.152	0.150	0.170	0.151	0.169	0.184	0.169	-0.076
V12	-0.188	0.296	0.350	0.300	-0.066	-0.047	-0.063	0.090	0.109	0.092	-0.138
V13	-0.024	-0.073	-0.088	-0.074	-0.060	-0.057	-0.060	-0.075	-0.074	-0.074	-0.016
V19	0.082	0.009	-0.022	0.006	0.405	0.420	0.406	0.190	0.188	0.189	0.126
V21	-0.305	0.153	0.135	0.150	-0.132	-0.150	-0.133	-0.297	-0.315	-0.298	-0.211
V22	-0.195	0.361	0.374	0.362	-0.230	-0.234	-0.228	-0.227	-0.237	-0.227	-0.083
V23	0.074	0.271	0.279	0.271	0.016	0.023	0.017	0.264	0.265	0.265	-0.091
V24	-0.122	0.149	0.166	0.149	-0.023	-0.023	-0.023	-0.080	-0.120	-0.082	-0.131
V25	0.087	0.190	0.174	0.188	-0.050	-0.072	-0.050	-0.022	-0.068	-0.023	-0.002
V29	0.196	-0.191	-0.189	-0.191	0.155	0.156	0.155	0.186	0.200	0.186	0.169
V31	-0.146	0.011	0.005	0.009	-0.122	-0.134	-0.123	-0.255	-0.278	-0.257	-0.150
V32	-0.038	0.107	0.125	0.107	-0.042	-0.031	-0.041	0.178	0.182	0.179	-0.095
V34	-0.035	-0.018	0.011	-0.014	-0.006	-0.035	-0.012	-0.061	-0.013	-0.055	-0.058
V39	0.079	-0.124	-0.172	-0.128	-0.002	-0.021	-0.004	0.108	0.097	0.107	-0.045
CAI_AM	0.052	0.649	0.517	0.617	0.317	0.203	0.304	0.471	0.440	0.504	-0.088
CAI_CV	0.045	-0.603	-0.371	-0.516	-0.331	-0.225	-0.297	-0.395	-0.186	-0.266	-0.018
CAI_MN	-0.091	0.544	0.381	0.511	0.382	0.227	0.343	0.430	0.230	0.346	-0.084
CPLAND	0.134	0.647	0.523	0.629	0.168	0.013	0.122	0.427	0.410	0.473	-0.129
CWED	0.045	-0.236	-0.322	-0.410	-0.291	-0.246	-0.321	-0.281	-0.344	-0.397	0.126
IJI	-0.154	0.279	0.267	0.175	0.055	0.032	-0.008	0.139	0.080	0.014	0.088
LPI	0.234	0.489	0.450	0.545	0.078	-0.122	-0.035	0.285	0.328	0.386	-0.122
LSI	-0.101	0.058	-0.269	-0.272	0.249	0.228	0.183	0.081	-0.253	-0.214	0.194
PD	-0.180	-0.363	-0.356	-0.399	0.224	0.273	0.187	-0.198	-0.238	-0.282	0.243
PLAND	0.243	0.665	0.481	0.577	0.039	-0.105	-0.010	0.399	0.337	0.400	-0.062
SHAPE_AM	0.220	0.534	0.367	0.463	0.049	-0.133	-0.044	0.314	0.219	0.325	-0.121
SHAPE_CV	0.213	0.571	0.353	0.468	0.024	-0.141	-0.058	0.344	0.211	0.292	-0.101
SHAPE_MN	0.119	0.442	-0.116	0.170	0.064	0.156	0.075	0.258	-0.082	0.155	-0.094
TECI	-0.004	-0.611	-0.388	-0.515	-0.358	-0.279	-0.369	-0.467	-0.297	-0.401	0.004
LANDCONT	0.062	-0.077	0.072	0.105	-0.331	-0.346	-0.304	-0.148	0.071	0.063	-0.264
LANDCWED	-0.009	-0.374	-0.471	-0.534	-0.160	-0.092	-0.191	-0.310	-0.385	-0.445	0.245
LANDIJI	-0.166	0.019	0.003	-0.091	0.083	0.104	0.068	0.002	-0.065	-0.124	0.168
LANDLPI	0.151	0.050	0.149	0.279	-0.088	-0.256	-0.155	0.009	0.149	0.230	-0.193
LANDLSI	0.007	0.109	-0.095	-0.050	0.367	0.367	0.363	0.200	-0.009	0.048	0.226
LANDPD	0.033	0.036	-0.056	-0.048	0.295	0.271	0.245	0.145	0.071	0.060	0.250
LANDSHDI	-0.144	0.116	-0.085	-0.092	0.269	0.336	0.245	0.069	-0.120	-0.154	0.207
LANDSIDI	-0.120	0.100	-0.116	-0.158	0.263	0.284	0.223	0.087	-0.131	-0.151	0.234
LANDTECI	0.004	-0.495	-0.436	-0.561	-0.329	-0.290	-0.382	-0.416	-0.325	-0.434	0.154
LCAI_AM	-0.200	0.086	0.306	0.324	0.090	0.098	0.173	0.087	0.282	0.301	-0.267
LCAI_CV	-0.133	-0.691	-0.584	-0.651	-0.295	-0.163	-0.251	-0.449	-0.393	-0.448	0.029
LCAI_MN	0.101	0.680	0.566	0.668	0.293	0.147	0.253	0.468	0.402	0.482	-0.093
LSHAPE_AM	0.228	0.199	0.180	0.311	-0.058	-0.261	-0.116	0.101	0.140	0.254	-0.186
LSHAPE_CV	0.002	0.230	-0.016	0.028	-0.040	0.271	0.292	0.138	-0.070	0.030	-0.196
LSHAPE_MN	-0.025	0.111	-0.016	0.009	0.291	0.452	0.432	0.235	0.128	0.157	0.067

Appendix L continued

	PRAW10K	PRAW1K	RBGR100M	RBGR10K	RBGR1K	RBWO100M	RBWO10K	RBWO1K	REVI100M	REVI10K	REVI1K
AllDiamAvg	-0.207	-0.188	0.293	0.287	0.291	-0.163	-0.172	-0.163	0.033	0.028	0.034
AllDiamCV	0.004	0.010	-0.201	-0.207	-0.201	-0.057	-0.072	-0.058	0.149	0.167	0.150
AllHtAvg	0.100	0.100	-0.235	-0.200	-0.172	0.093	0.003	0.087	-0.164	-0.155	-0.188
AllHtCV	-0.178	-0.151	0.249	0.306	0.267	-0.154	-0.157	-0.156	0.241	0.191	0.220
AllSW_N	0.262	0.276	-0.342	-0.398	-0.344	0.252	0.261	0.251	0.013	0.028	0.012
DDiamAvg	-0.112	-0.076	-0.248	-0.282	-0.251	-0.114	-0.147	-0.118	0.187	0.194	0.188
DDiamCV	0.031	-0.009	0.041	0.066	0.042	0.158	0.216	0.161	-0.220	-0.224	-0.222
DeadDiamAvg	0.054	-0.058	0.000	-0.007	-0.165	0.252	0.250	0.191	-0.268	-0.239	-0.268
DeadTPA	-0.195	-0.188	0.122	0.076	0.121	-0.519	-0.549	-0.522	0.526	0.546	0.529
DHtCV	-0.127	-0.107	0.385	0.450	0.397	-0.102	-0.084	-0.101	0.024	0.010	0.009
DomHtAvg	0.072	0.029	-0.262	-0.155	-0.119	-0.049	-0.117	-0.045	0.193	0.147	0.095
DomTPA	-0.045	-0.031	0.165	0.169	0.165	-0.492	-0.503	-0.491	0.528	0.557	0.529
DRCDiamAvg	0.050	0.038	0.010	0.002	0.008	0.261	0.260	0.262	-0.268	-0.248	-0.269
DRCTPA	-0.233	-0.224	0.187	0.151	0.186	-0.563	-0.589	-0.566	0.554	0.576	0.557
DSW_N	-0.059	-0.045	0.087	0.144	0.088	0.041	0.026	0.040	-0.274	-0.289	-0.274
RCDiamAvg	0.029	0.022	-0.166	-0.205	-0.167	0.182	0.140	0.181	-0.051	0.029	-0.033
RCTPA	-0.252	-0.226	0.253	0.282	0.254	-0.409	-0.442	-0.409	0.333	0.393	0.344
SITECLCD	0.195	0.197	-0.304	-0.321	-0.306	-0.203	-0.214	-0.203	0.410	0.419	0.410
SSDiamAvg	-0.131	-0.082	-0.013	-0.017	-0.013	-0.018	-0.061	-0.025	0.064	0.076	0.066
SSDiamCV	0.044	0.004	-0.115	-0.113	-0.114	-0.059	-0.036	-0.058	0.064	0.099	0.069
SSSW_N	-0.047	-0.052	0.066	0.054	0.064	-0.039	-0.036	-0.037	-0.060	-0.073	-0.066
SSTPA	0.188	0.180	-0.249	-0.257	-0.248	-0.247	-0.256	-0.248	0.426	0.441	0.428
STDAGE	-0.053	-0.053	-0.034	-0.024	-0.024	-0.363	-0.393	-0.369	0.453	0.484	0.449
STDSZCD	0.045	0.063	-0.115	-0.142	-0.117	-0.377	-0.396	-0.377	0.584	0.595	0.585
TPA	0.105	0.104	-0.154	-0.162	-0.153	-0.371	-0.382	-0.372	0.526	0.541	0.528
UDiamAvg	-0.351	-0.298	0.218	0.179	0.214	-0.313	-0.370	-0.316	0.230	0.226	0.229
UDiamCV	-0.006	0.015	0.125	0.212	0.074	0.100	-0.105	-0.073	-0.056	0.036	0.001
USW_N	-0.151	-0.055	0.259	0.199	0.257	0.099	-0.082	0.099	-0.158	-0.156	-0.158
UTPA	0.124	0.124	-0.246	-0.260	-0.245	-0.322	-0.339	-0.323	0.503	0.518	0.504
V11	-0.054	-0.075	-0.268	-0.276	-0.269	-0.135	-0.145	-0.135	0.072	0.088	0.073
V12	-0.139	-0.138	0.001	-0.007	0.001	-0.043	-0.075	-0.044	0.181	0.247	0.185
V13	-0.014	-0.015	-0.082	-0.057	-0.082	0.035	0.039	0.035	-0.106	-0.112	-0.106
V19	0.135	0.128	-0.196	-0.225	-0.197	0.079	0.091	0.081	0.065	0.051	0.063
V21	-0.237	-0.212	0.394	0.407	0.394	-0.279	-0.286	-0.279	0.047	0.029	0.044
V22	-0.095	-0.083	0.538	0.551	0.540	-0.287	-0.288	-0.288	0.197	0.203	0.198
V23	-0.107	-0.092	-0.166	-0.189	-0.167	-0.200	-0.228	-0.200	0.208	0.210	0.208
V24	-0.112	-0.131	0.311	0.327	0.312	-0.104	-0.132	-0.106	0.069	0.073	0.068
V25	-0.033	-0.003	0.267	0.281	0.270	-0.090	-0.078	-0.088	0.144	0.123	0.142
V29	0.170	0.169	-0.307	-0.320	-0.308	0.123	0.119	0.123	0.079	0.085	0.079
V31	-0.154	-0.151	0.310	0.321	0.313	-0.233	-0.259	-0.233	-0.062	-0.079	-0.063
V32	-0.116	-0.095	-0.055	-0.047	-0.054	-0.183	-0.190	-0.184	0.100	0.100	0.101
V34	0.023	-0.046	0.182	0.188	0.182	0.012	0.047	0.020	0.011	0.009	0.011
V39	-0.048	-0.046	0.138	0.160	0.140	0.149	0.198	0.151	-0.076	-0.121	-0.079
CAI_AM	-0.030	-0.008	-0.039	-0.206	-0.101	-0.331	-0.347	-0.316	0.649	0.597	0.672
CAI_CV	-0.009	0.020	0.009	0.020	-0.011	0.320	0.456	0.444	-0.625	-0.448	-0.555
CAI_MN	-0.140	-0.115	-0.042	-0.034	-0.033	-0.354	-0.511	-0.429	0.518	0.445	0.499
CPLAND	-0.057	-0.036	0.073	-0.091	0.018	-0.334	-0.362	-0.303	0.634	0.625	0.682
CWED	0.078	0.063	0.213	0.262	0.228	0.130	0.305	0.232	-0.168	-0.364	-0.393
IJI	0.119	0.131	-0.089	-0.024	0.022	-0.103	-0.089	-0.048	0.353	0.288	0.243
LPI	-0.053	-0.003	0.092	-0.057	0.051	-0.241	-0.305	-0.175	0.426	0.574	0.545
LSI	0.090	0.071	-0.079	0.012	-0.069	-0.117	-0.038	-0.042	0.201	-0.264	-0.244
PD	0.107	0.078	-0.068	-0.019	-0.092	0.161	0.178	0.136	-0.308	-0.448	-0.480
PLAND	0.015	0.035	0.125	-0.006	0.095	-0.318	-0.293	-0.253	0.704	0.620	0.680
SHAPE_AM	-0.072	-0.015	0.040	-0.120	-0.074	-0.290	-0.378	-0.231	0.513	0.525	0.554
SHAPE_CV	-0.077	-0.083	0.052	-0.040	0.012	-0.317	-0.342	-0.323	0.598	0.483	0.570
SHAPE_MN	0.015	-0.013	0.052	0.105	0.046	-0.273	0.076	-0.236	0.459	-0.147	0.327
TECI	0.022	-0.007	0.130	0.188	0.165	0.328	0.451	0.393	-0.651	-0.499	-0.589
LANDCONT	-0.194	-0.189	0.152	0.031	0.074	0.065	0.073	0.056	-0.229	0.006	0.003
LANDCWED	0.176	0.147	0.026	0.120	0.066	0.211	0.363	0.275	-0.296	-0.509	-0.528
LANDIJI	0.157	0.181	-0.145	-0.073	-0.060	0.044	0.071	0.092	0.051	-0.039	-0.075
LANDLPI	-0.205	-0.104	-0.008	-0.094	-0.014	-0.009	-0.115	0.003	-0.096	0.197	0.196
LANDLSI	0.191	0.180	-0.238	-0.176	-0.205	-0.104	-0.111	-0.112	0.238	0.001	0.048
LANDPD	0.202	0.197	-0.302	-0.321	-0.319	-0.051	-0.050	-0.057	0.146	0.021	0.029
LANDSHDI	0.164	0.147	-0.115	0.018	-0.017	-0.089	-0.043	-0.073	0.208	-0.053	-0.037
LANDSIDI	0.164	0.156	-0.107	0.030	-0.034	-0.075	0.011	-0.029	0.219	-0.097	-0.091
LANDTECI	0.041	0.032	0.100	0.143	0.122	0.296	0.491	0.424	-0.469	-0.551	-0.629
LCAI_AM	-0.284	-0.263	0.016	-0.138	-0.082	-0.109	-0.253	-0.185	-0.041	0.234	0.219
LCAI_CV	0.025	-0.010	-0.028	0.023	-0.047	0.392	0.479	0.402	-0.729	-0.744	-0.765
LCAI_MN	-0.085	-0.056	0.005	-0.061	0.005	-0.406	-0.506	-0.427	0.693	0.708	0.753
LSHAPE_AM	-0.176	-0.093	0.006	-0.151	-0.103	-0.120	-0.246	-0.122	0.083	0.302	0.338
LSHAPE_CV	0.011	-0.005	0.082	0.108	0.018	-0.156	-0.209	-0.210	0.184	0.046	0.110
LSHAPE_MN	0.105	0.093	0.018	-0.100	-0.107	-0.042	-0.161	-0.135	0.233	0.063	0.088

Appendix L continued

	RSTO100M	RSTO10K	RSTO1K	WEWA100M	WEWA10K	WEWA1K	WOTH100M	WOTH10K	WOTH1K	YBCH100M
AllDiamAvg	-0.172	-0.178	-0.170	-0.088	-0.084	-0.087	-0.054	-0.083	-0.056	-0.291
AllDiamCV	0.193	0.203	0.192	0.030	0.020	0.029	0.196	0.228	0.198	0.042
AllHtAvg	-0.006	-0.004	-0.011	0.203	0.153	0.121	-0.120	-0.099	-0.099	0.234
AllHtCV	0.007	-0.017	0.006	-0.189	-0.252	-0.204	0.169	0.182	0.169	-0.235
AllSW_N	0.400	0.432	0.400	0.233	0.259	0.232	0.226	0.261	0.227	0.376
DDiamAvg	0.105	0.096	0.104	0.043	0.041	0.044	0.274	0.290	0.274	-0.040
DDiamCV	-0.056	-0.023	-0.054	0.039	0.054	0.038	-0.214	-0.188	-0.211	0.097
DeadDiamAvg	-0.192	-0.194	-0.155	-0.123	-0.103	-0.073	-0.111	-0.091	-0.132	0.146
DeadTPA	0.048	0.083	0.051	0.175	0.167	0.175	0.045	0.069	0.047	-0.317
DHtCV	-0.206	-0.208	-0.199	-0.121	-0.164	-0.137	-0.132	-0.090	-0.124	-0.288
DomHtAvg	0.184	0.112	0.139	0.112	0.007	-0.035	0.257	0.208	0.241	0.250
DomTPA	0.031	0.057	0.033	0.162	0.171	0.162	0.073	0.075	0.075	-0.269
DRCDiamAvg	-0.186	-0.191	-0.188	-0.114	-0.106	-0.115	-0.111	-0.093	-0.113	0.149
DRCTPA	0.034	0.068	0.037	0.123	0.118	0.123	0.089	0.116	0.091	-0.373
DSW_N	-0.180	-0.215	-0.181	-0.156	-0.167	-0.155	-0.314	-0.334	-0.315	0.017
RCDiamAvg	0.002	0.055	0.022	0.030	0.077	0.038	-0.009	0.058	0.000	0.129
RCTPA	-0.058	-0.024	-0.040	-0.121	-0.100	-0.113	0.167	0.198	0.173	-0.375
SITECLCD	0.201	0.219	0.201	0.352	0.360	0.353	0.209	0.207	0.211	0.257
SSDiamAvg	-0.026	-0.008	-0.026	0.084	0.031	0.080	0.132	0.123	0.129	-0.160
SSDiamCV	-0.086	-0.079	-0.083	0.043	0.087	0.047	0.042	0.075	0.046	-0.019
SSSW_N	-0.123	-0.140	-0.130	-0.128	-0.113	-0.130	-0.081	-0.090	-0.086	-0.113
SSTPA	0.123	0.135	0.124	0.389	0.380	0.389	0.153	0.172	0.157	0.146
STDAGE	0.002	0.015	-0.004	0.284	0.317	0.275	0.137	0.136	0.137	-0.187
STDSZCD	0.187	0.206	0.189	0.263	0.270	0.264	0.291	0.296	0.292	0.015
TPA	0.112	0.130	0.113	0.368	0.364	0.368	0.148	0.156	0.151	0.008
UDiamAvg	-0.076	-0.078	-0.076	-0.056	-0.080	-0.058	0.164	0.120	0.159	-0.402
UDiamCV	-0.118	-0.030	-0.050	-0.132	-0.099	-0.085	-0.009	0.043	0.001	0.110
USW_N	-0.051	-0.328	-0.051	-0.055	-0.199	-0.055	-0.142	-0.211	-0.142	0.021
UTPA	0.130	0.146	0.131	0.399	0.389	0.399	0.197	0.210	0.200	0.067
V11	0.067	0.068	0.067	0.296	0.314	0.297	0.045	0.033	0.044	-0.117
V12	0.093	0.112	0.097	0.116	0.154	0.121	0.050	0.054	0.051	-0.206
V13	-0.075	-0.094	-0.076	-0.030	-0.029	-0.030	-0.015	-0.020	-0.015	-0.002
V19	-0.034	-0.036	-0.035	0.270	0.249	0.268	-0.076	-0.084	-0.076	0.254
V21	-0.305	-0.349	-0.310	-0.191	-0.205	-0.192	-0.092	-0.130	-0.096	-0.432
V22	-0.164	-0.171	-0.163	-0.129	-0.123	-0.128	0.012	0.014	0.013	-0.352
V23	0.173	0.182	0.174	0.308	0.310	0.308	0.129	0.126	0.130	-0.110
V24	-0.059	-0.094	-0.060	-0.011	-0.023	-0.012	0.030	0.024	0.028	-0.171
V25	-0.042	-0.063	-0.043	0.074	0.060	0.073	0.116	0.101	0.115	-0.121
V29	0.189	0.208	0.189	0.001	0.004	0.001	0.115	0.123	0.115	0.340
V31	-0.394	-0.436	-0.397	-0.143	-0.155	-0.143	-0.141	-0.166	-0.145	-0.255
V32	0.086	0.109	0.086	0.120	0.134	0.120	-0.020	-0.006	-0.019	-0.108
V34	-0.064	0.011	-0.053	0.080	0.078	0.080	0.053	0.100	0.062	-0.075
V39	-0.038	-0.036	-0.038	-0.064	-0.090	-0.066	-0.100	-0.097	-0.101	0.093
CAI_AM	0.279	0.224	0.318	0.586	0.439	0.560	0.230	0.179	0.275	-0.244
CAI_CV	-0.237	-0.037	-0.111	-0.440	-0.174	-0.324	-0.235	-0.019	-0.125	0.125
CAI_MN	0.171	0.025	0.109	0.566	0.224	0.449	0.108	-0.067	0.059	-0.204
CPLAND	0.329	0.285	0.387	0.540	0.356	0.516	0.287	0.288	0.381	-0.263
CWED	-0.070	-0.081	-0.189	-0.424	-0.361	-0.495	0.091	0.026	-0.072	0.163
IJI	0.254	0.200	0.165	0.095	0.098	-0.049	0.196	0.161	0.143	0.003
LPI	0.263	0.361	0.423	0.362	0.219	0.375	0.281	0.362	0.441	-0.186
LSI	0.039	-0.198	-0.261	-0.015	-0.215	-0.234	0.110	-0.230	-0.235	0.178
PD	-0.221	-0.239	-0.303	-0.281	-0.168	-0.263	-0.204	-0.328	-0.363	0.269
PLAND	0.428	0.367	0.451	0.430	0.245	0.378	0.443	0.417	0.485	-0.171
SHAPE_AM	0.308	0.324	0.364	0.383	0.092	0.236	0.347	0.291	0.416	-0.175
SHAPE_CV	0.347	0.272	0.343	0.397	0.141	0.245	0.372	0.361	0.410	-0.172
SHAPE_MN	0.261	-0.273	0.044	0.364	-0.006	0.176	0.295	-0.075	0.207	-0.163
TECI	-0.326	-0.126	-0.227	-0.546	-0.290	-0.446	-0.247	-0.045	-0.164	0.133
LANDCONT	-0.106	0.058	0.083	-0.024	0.039	0.130	-0.063	0.158	0.138	-0.220
LANDCWED	-0.080	-0.106	-0.207	-0.468	-0.388	-0.531	0.010	-0.099	-0.177	0.290
LANDIJI	0.095	0.024	-0.005	-0.048	-0.027	-0.167	0.007	-0.050	-0.067	0.143
LANDLPI	-0.042	0.170	0.250	0.118	0.059	0.246	-0.076	0.170	0.232	-0.173
LANDLSI	0.102	0.004	-0.031	0.114	-0.018	0.003	0.107	-0.099	-0.066	0.189
LANDPD	0.106	0.157	0.089	0.031	0.049	-0.009	0.094	0.039	0.041	0.209
LANDSHDI	0.063	-0.115	-0.146	-0.043	-0.048	-0.177	0.060	-0.193	-0.148	0.095
LANDSIDI	0.072	-0.127	-0.165	-0.038	-0.066	-0.200	0.085	-0.183	-0.175	0.130
LANDTECI	-0.161	-0.136	-0.219	-0.550	-0.312	-0.480	-0.056	-0.055	-0.162	0.240
LCAI_AM	-0.206	-0.115	-0.077	0.296	0.342	0.453	-0.252	-0.128	-0.090	-0.340
LCAI_CV	-0.347	-0.298	-0.359	-0.520	-0.350	-0.452	-0.329	-0.326	-0.394	0.179
LCAI_MN	0.314	0.287	0.359	0.573	0.366	0.515	0.273	0.269	0.365	-0.230
LSHAPE_AM	0.046	0.230	0.292	0.251	-0.002	0.198	0.067	0.237	0.330	-0.174
LSHAPE_CV	0.043	-0.192	-0.153	0.270	-0.043	0.012	0.112	-0.167	-0.117	-0.163
LSHAPE_MN	0.026	-0.170	-0.173	0.149	0.124	0.162	0.052	-0.254	-0.192	0.109

Appendix L continued

	YBCH10K	YBCH1K	YBCU100M	YBCU10K	YBCU1K
AllDiamAvg	-0.292	-0.319	-0.209	-0.208	-0.208
AllDiamCV	0.043	0.052	-0.036	-0.043	-0.037
AllHtAvg	0.164	0.153	0.227	0.148	0.172
AllHtCV	-0.264	-0.278	-0.297	-0.330	-0.314
AllSW_N	0.378	0.395	0.271	0.282	0.269
DDiamAvg	-0.041	-0.046	-0.162	-0.178	-0.164
DDiamCV	0.100	0.144	0.093	0.110	0.094
DeadDiamAvg	0.082	0.148	0.216	0.213	0.125
DeadTPA	-0.318	-0.333	-0.283	-0.315	-0.286
DHtCV	-0.316	-0.355	-0.162	-0.212	-0.183
DomHtAvg	0.100	0.129	-0.059	-0.123	-0.131
DomTPA	-0.269	-0.278	-0.191	-0.200	-0.191
DRCDiamAvg	0.148	0.154	0.188	0.190	0.189
DRCTPA	-0.376	-0.391	-0.348	-0.380	-0.351
DSW_N	0.014	-0.013	0.044	0.029	0.044
RCDiamAvg	0.133	0.133	0.050	0.036	0.048
RCTPA	-0.373	-0.408	-0.374	-0.414	-0.376
SITECLCD	0.258	0.264	0.018	0.008	0.016
SSDiamAvg	-0.165	-0.200	0.021	0.018	0.019
SSDiamCV	-0.018	0.007	-0.043	-0.069	-0.045
SSSW_N	-0.114	-0.107	-0.109	-0.114	-0.110
SSTPA	0.147	0.163	0.053	0.033	0.050
STDAGE	-0.194	-0.204	-0.112	-0.124	-0.112
STDSZCD	0.016	0.014	-0.142	-0.155	-0.143
TPA	0.009	0.015	-0.042	-0.060	-0.044
UDiamAvg	-0.406	-0.454	-0.331	-0.354	-0.331
UDiamCV	0.031	-0.005	0.113	-0.169	-0.069
USW_N	0.021	-0.228	0.076	-0.157	0.076
UTPA	0.069	0.078	-0.006	-0.026	-0.007
V11	-0.117	-0.105	0.082	0.100	0.083
V12	-0.207	-0.198	0.043	0.094	0.047
V13	-0.002	0.009	-0.019	-0.033	-0.019
V19	0.258	0.287	0.203	0.206	0.204
V21	-0.433	-0.449	-0.312	-0.335	-0.313
V22	-0.353	-0.367	-0.304	-0.318	-0.306
V23	-0.110	-0.129	-0.148	-0.157	-0.149
V24	-0.174	-0.214	-0.164	-0.186	-0.166
V25	-0.123	-0.167	-0.079	-0.110	-0.080
V29	0.341	0.351	0.211	0.209	0.211
V31	-0.257	-0.281	-0.229	-0.267	-0.233
V32	-0.108	-0.125	-0.209	-0.208	-0.209
V34	-0.063	0.005	-0.090	-0.012	-0.080
V39	0.094	0.133	0.095	0.120	0.095
CAI_AM	-0.155	-0.115	0.063	0.033	0.093
CAI_CV	0.161	0.174	0.017	0.105	0.059
CAI_MN	-0.196	-0.209	0.053	-0.217	-0.021
CPLAND	-0.145	-0.137	0.038	-0.044	0.052
CWED	0.109	0.093	-0.165	-0.049	-0.128
IJI	-0.172	-0.093	0.013	0.092	-0.002
LPI	-0.111	-0.053	0.005	-0.098	0.036
LSI	0.108	0.088	-0.106	-0.155	-0.134
PD	0.175	0.160	0.005	0.057	-0.005
PLAND	-0.076	-0.064	-0.030	-0.087	-0.002
SHAPE_AM	-0.175	-0.085	-0.017	-0.217	-0.052
SHAPE_CV	-0.093	-0.126	-0.032	-0.196	-0.118
SHAPE_MN	0.005	-0.122	-0.056	-0.012	-0.180
TECI	0.120	0.101	-0.068	0.092	-0.021
LANDCONT	-0.018	-0.138	0.005	0.008	0.029
LANDCWED	0.144	0.197	-0.098	0.023	-0.076
LANDIJI	0.014	0.067	0.079	0.183	0.077
LANDLPI	0.165	-0.060	0.055	-0.102	0.065
LANDLSI	0.084	0.161	-0.025	-0.080	-0.045
LANDPD	-0.124	0.183	-0.017	0.006	-0.018
LANDSHDI	0.029	0.040	-0.046	0.017	-0.061
LANDSIDI	0.130	0.080	-0.046	0.021	-0.052
LANDTECI	-0.073	0.146	-0.093	0.111	-0.011
LCAI_AM	0.149	-0.312	0.096	0.051	0.114
LCAI_CV	0.218	0.123	0.018	0.179	0.067
LCAI_MN	-0.317	-0.171	-0.001	-0.184	-0.047
LSHAPE_AM	-0.004	-0.040	0.047	-0.221	-0.026
LSHAPE_CV	-0.176	0.000	-0.009	-0.207	-0.094
LSHAPE_MN	-0.138	0.057	0.079	0.040	0.071

Appendix M. Correlation matrices for all FIA and landscape variables at the FIA unit and physiographic section scales.

FIA Unit Scale	STDAGE	STDSZCD	SITECLCD	TPA	DOMTPA	SSTPA	UTPA	DEADTPA	RCTPA	DRCTPA	ALLDIAMAVG
STDAGE	1.000										
STDSZCD	0.777	1.000									
SITECLCD	0.641	0.846	1.000								
TPA	0.735	0.871	0.829	1.000							
DOMTPA	0.713	0.662	0.625	0.827	1.000						
SSTPA	0.647	0.847	0.789	0.963	0.664	1.000					
UTPA	0.701	0.886	0.796	0.968	0.681	0.986	1.000				
DEADTPA	0.686	0.634	0.392	0.633	0.543	0.574	0.654	1.000			
RCTPA	0.223	0.329	-0.043	0.227	0.284	0.190	0.253	0.489	1.000		
DRCTPA	0.621	0.618	0.307	0.586	0.529	0.527	0.611	0.965	0.701	1.000	
ALLDIAMAVG	0.302	-0.263	-0.176	-0.346	0.047	-0.513	-0.474	-0.228	-0.139	-0.228	1.000
ALLHTAVG	0.126	0.009	0.293	-0.065	-0.135	-0.063	-0.089	-0.363	-0.695	-0.492	0.281
DDIAMAVG	0.310	0.522	0.215	0.212	-0.078	0.275	0.385	0.489	0.467	0.541	-0.257
DOMHTAVG	0.180	0.677	0.647	0.484	-0.030	0.583	0.616	0.365	0.132	0.332	-0.641
SSDIAMAVG	-0.062	-0.300	-0.299	-0.297	-0.107	-0.371	-0.296	0.054	-0.163	-0.005	0.302
UDIAMAVG	0.223	0.041	-0.144	-0.171	0.006	-0.296	-0.141	0.315	0.372	0.370	0.450
RCDIAMAVG	0.332	0.296	0.491	0.213	-0.022	0.260	0.240	0.106	-0.431	-0.043	0.071
DEADDIAMAVG	0.407	0.159	-0.082	0.043	0.028	0.043	0.102	0.352	0.158	0.330	0.166
DRCDIAMAVG	0.402	0.292	0.107	0.071	-0.101	0.138	0.166	0.199	0.221	0.227	0.125
ALLDIAMCV	-0.101	0.378	0.096	0.344	0.015	0.468	0.500	0.454	0.430	0.500	-0.866
ALLHTCV	-0.091	0.073	-0.218	0.131	0.158	0.132	0.162	0.410	0.723	0.537	-0.342
DDIAMCV	-0.188	-0.380	-0.094	-0.374	-0.256	-0.371	-0.467	-0.598	-0.579	-0.663	0.398
DHTCV	0.053	-0.376	-0.392	-0.325	0.182	-0.457	-0.479	-0.254	0.135	-0.166	0.715
SSDIAMCV	0.034	0.094	-0.066	0.099	-0.071	0.184	0.162	0.063	0.061	0.070	-0.299
UDIAMCV	0.314	0.350	0.121	0.064	-0.031	0.089	0.127	0.107	0.501	0.238	0.177
ALLSW_N	-0.295	-0.052	0.131	-0.188	-0.389	-0.135	-0.121	-0.172	-0.392	-0.259	-0.191
DSW_N	0.122	0.059	0.234	0.374	0.571	0.273	0.220	0.147	0.067	0.141	0.041
SSSW_N	0.295	0.029	-0.177	0.079	0.165	0.077	0.079	0.132	0.295	0.197	0.192
USW_N	0.296	0.012	-0.232	0.073	0.243	0.043	0.046	0.144	0.368	0.229	0.248
V11	0.499	0.298	0.358	0.308	0.207	0.285	0.305	0.130	-0.131	0.066	0.170
V12	0.550	0.523	0.413	0.402	0.387	0.378	0.349	-0.004	0.085	0.022	0.144
V13	-0.099	-0.125	-0.049	-0.080	0.042	-0.108	-0.130	-0.443	-0.281	-0.447	0.086
V19	-0.061	0.005	0.251	0.114	0.049	0.098	0.064	0.033	-0.292	-0.061	-0.074
V21	-0.093	-0.367	-0.515	-0.356	0.020	-0.455	-0.440	-0.167	0.341	-0.033	0.498
V22	0.317	-0.010	-0.215	-0.047	0.317	-0.180	-0.170	-0.085	0.271	0.012	0.588
V23	0.647	0.505	0.508	0.372	0.275	0.338	0.365	0.293	-0.098	0.210	0.263
V24	0.254	0.051	-0.063	-0.022	0.160	-0.086	-0.093	-0.284	0.023	-0.225	0.487
V25	-0.095	-0.380	-0.464	-0.323	-0.024	-0.395	-0.395	-0.350	0.083	-0.261	0.495
V29	-0.229	0.235	0.274	0.307	-0.013	0.412	0.416	0.318	0.116	0.295	-0.800
V31	-0.013	-0.239	-0.317	-0.129	0.240	-0.225	-0.220	-0.084	0.350	0.037	0.369
V32	0.319	0.218	0.253	0.148	0.215	0.068	0.120	0.277	-0.114	0.192	0.223
V33	-0.294	-0.284	-0.276	-0.315	-0.253	-0.290	-0.312	-0.343	-0.254	-0.357	0.074
V34	0.074	0.064	-0.040	-0.058	-0.067	-0.053	-0.048	-0.097	0.019	-0.074	0.113
V39	-0.312	-0.300	-0.145	-0.309	-0.373	-0.237	-0.306	-0.245	-0.127	-0.238	-0.163
PLAND	0.606	0.776	0.450	0.598	0.372	0.631	0.674	0.609	0.579	0.672	-0.303
PD	-0.551	-0.656	-0.286	-0.484	-0.333	-0.495	-0.551	-0.628	-0.619	-0.700	0.262
LPI	0.515	0.694	0.353	0.551	0.357	0.581	0.617	0.551	0.580	0.625	-0.334
LSI	-0.331	-0.420	-0.096	-0.293	0.018	-0.435	-0.414	-0.272	-0.293	-0.310	0.411
SHAPE_MN	0.331	0.466	0.360	0.321	0.122	0.407	0.372	0.080	0.179	0.119	-0.055
SHAPE_AM	0.300	0.290	0.113	0.222	0.404	0.084	0.178	0.459	0.484	0.521	0.050
SHAPE_CV	0.394	0.624	0.263	0.478	0.378	0.468	0.533	0.636	0.755	0.748	-0.385
CPLAND	0.606	0.776	0.450	0.598	0.372	0.631	0.674	0.609	0.579	0.672	-0.303
CWED	-0.643	-0.734	-0.791	-0.779	-0.678	-0.716	-0.736	-0.450	0.022	-0.361	0.106
TECI	-0.679	-0.738	-0.804	-0.837	-0.797	-0.738	-0.770	-0.523	-0.030	-0.436	0.050
IJI	0.553	0.530	0.500	0.677	0.718	0.568	0.603	0.536	0.114	0.473	-0.046
LANDPD	0.133	0.141	0.370	0.389	0.512	0.261	0.285	0.207	-0.280	0.085	-0.003
LANDLPI	0.163	0.371	0.051	0.156	-0.085	0.268	0.274	0.251	0.468	0.346	-0.390
LANDLSI	-0.098	-0.164	0.161	-0.022	0.255	-0.189	-0.156	-0.082	-0.274	-0.149	0.336
LSHAPE_MN	-0.072	-0.133	0.134	0.056	0.221	-0.022	-0.045	-0.196	-0.320	-0.257	0.186
LSHAPE_AM	-0.145	-0.116	-0.299	-0.309	-0.206	-0.350	-0.273	0.111	0.413	0.215	0.021
LSHAPE_CV	-0.492	-0.666	-0.618	-0.678	-0.506	-0.671	-0.683	-0.408	-0.075	-0.357	0.259
LANDCWED	-0.723	-0.843	-0.712	-0.747	-0.547	-0.742	-0.770	-0.562	-0.261	-0.538	0.221
LANDTECI	-0.733	-0.812	-0.826	-0.873	-0.799	-0.788	-0.823	-0.582	-0.114	-0.510	0.094
LANDCONTAG	0.067	0.211	-0.068	-0.073	-0.327	0.072	0.062	0.035	0.380	0.143	-0.213
LANDIJI	0.266	0.217	0.336	0.434	0.557	0.309	0.331	0.272	-0.177	0.169	0.062
LANDSHDI	-0.095	-0.260	0.022	0.028	0.286	-0.116	-0.107	-0.061	-0.393	-0.168	0.233
LANDSIDI	-0.183	-0.399	-0.109	-0.127	0.153	-0.262	-0.255	-0.167	-0.427	-0.266	0.296

Appendix M continued

FIA Unit Scale	ALLHTAVG	DDIAMAVG	DOMHTAVG	SSDIAMAVG	UDIAMAVG	RCDIAMAVG	DEADDIAMAVG	DRCDIAMAVG
ALLHTAVG	1.000							
DDIAMAVG	-0.176	1.000						
DOMHTAVG	0.191	0.868	1.000					
SSDIAMAVG	0.142	-0.058	-0.364	1.000				
UDIAMAVG	-0.180	0.508	-0.068	0.517	1.000			
RCDIAMAVG	0.673	0.092	0.427	-0.239	-0.204	1.000		
DEADDIAMAVG	0.216	0.401	0.077	0.338	0.339	0.010	1.000	
DRCDIAMAVG	0.339	0.485	0.349	-0.138	0.161	0.499	0.663	1.000
ALLDIAMCV	-0.393	0.599	0.656	-0.161	-0.008	-0.188	0.051	0.026
ALLHTCV	-0.993	0.261	-0.092	-0.207	0.175	-0.635	-0.241	-0.320
DDIAMCV	0.500	-0.679	-0.482	-0.121	-0.437	0.383	-0.289	-0.007
DHTCV	-0.340	-0.661	-0.841	0.020	0.150	-0.348	-0.233	-0.228
SSDIAMCV	-0.123	0.170	0.131	-0.485	-0.198	0.104	0.015	0.219
UDIAMCV	-0.198	0.514	0.277	-0.535	0.284	0.183	0.010	0.487
ALLSW_N	0.433	0.140	0.505	0.094	-0.023	0.447	-0.399	-0.144
DSW_N	-0.266	-0.468	-0.511	-0.121	-0.224	-0.174	-0.075	-0.231
SSSW_N	-0.292	0.065	-0.384	-0.109	0.070	-0.227	0.528	0.362
USW_N	-0.384	-0.005	-0.515	-0.068	0.114	-0.338	0.471	0.274
V11	0.688	0.159	0.252	0.051	0.056	0.426	0.429	0.534
V12	0.392	0.023	0.154	-0.201	-0.156	0.243	0.277	0.489
V13	0.337	-0.225	-0.104	-0.055	-0.139	-0.115	0.081	-0.019
V19	0.325	-0.226	0.371	-0.108	-0.250	0.347	-0.420	-0.288
V21	-0.267	-0.205	-0.585	-0.059	0.321	-0.334	0.022	0.069
V22	-0.178	-0.183	-0.667	0.066	0.207	-0.437	0.147	-0.050
V23	0.688	0.260	0.378	-0.083	0.115	0.675	0.380	0.686
V24	0.230	-0.108	-0.344	0.013	0.085	-0.141	0.185	0.166
V25	-0.017	-0.256	-0.703	0.086	0.173	-0.258	0.055	0.034
V29	-0.413	0.278	0.629	-0.115	-0.181	-0.022	-0.229	-0.240
V31	-0.347	-0.277	-0.626	0.058	0.205	-0.373	-0.115	-0.090
V32	0.214	0.116	-0.073	0.040	0.237	0.328	0.133	0.333
V33	0.286	-0.091	-0.026	-0.048	-0.117	0.119	-0.118	-0.074
V34	-0.204	0.095	-0.054	-0.198	0.042	-0.018	-0.165	-0.026
V39	-0.223	-0.238	-0.291	-0.243	-0.469	0.075	-0.159	-0.036
PLAND	-0.074	0.641	0.656	-0.197	0.133	0.163	0.299	0.499
PD	0.220	-0.613	-0.530	0.063	-0.205	0.003	-0.328	-0.372
LPI	-0.098	0.559	0.617	-0.139	0.105	0.055	0.267	0.413
LSI	0.048	-0.393	-0.462	0.218	0.267	-0.164	-0.315	-0.523
SHAPE_MN	0.191	0.272	0.384	-0.381	-0.169	0.418	0.073	0.609
SHAPE_AM	-0.206	0.264	0.079	0.289	0.500	-0.308	0.141	-0.109
SHAPE_CV	-0.411	0.604	0.542	-0.124	0.267	-0.205	0.138	0.151
CPLAND	-0.074	0.641	0.656	-0.197	0.133	0.163	0.299	0.499
CWED	-0.417	-0.174	-0.458	0.090	0.033	-0.478	-0.113	-0.198
TECI	-0.303	-0.130	-0.392	0.042	-0.063	-0.349	-0.079	-0.066
IJI	0.182	0.076	0.172	0.147	0.116	0.203	0.049	-0.034
LANDPD	0.146	-0.235	-0.128	0.246	0.097	0.033	-0.260	-0.537
LANDLPI	-0.030	0.481	0.611	-0.238	-0.034	0.092	0.254	0.551
LANDLSI	0.107	-0.321	-0.360	0.243	0.274	-0.077	-0.327	-0.563
LSHAPE_MN	-0.149	-0.431	-0.379	-0.078	-0.117	-0.184	-0.302	-0.524
LSHAPE_AM	-0.130	0.301	0.102	0.217	0.481	-0.291	0.130	0.053
LSHAPE_CV	-0.370	-0.298	-0.559	0.119	0.045	-0.444	-0.096	-0.294
LANDCWED	-0.274	-0.440	-0.603	0.211	0.013	-0.458	-0.344	-0.538
LANDTECI	-0.273	-0.212	-0.466	0.085	-0.064	-0.368	-0.145	-0.175
LANDCONTAG	0.032	0.471	0.557	-0.305	-0.059	0.157	0.295	0.693
LANDIJI	0.310	-0.170	-0.121	0.248	0.082	0.151	-0.128	-0.314
LANDSHDI	-0.023	-0.482	-0.588	0.308	0.059	-0.148	-0.275	-0.667
LANDSIDI	-0.058	-0.519	-0.637	0.345	0.066	-0.233	-0.236	-0.677

Appendix M continued

FIA Unit Scale	ALLDIAMCV	ALLHTCV	DDIAMCV	DHTCV	SSDIAMCV	UDIAMCV	ALLSW_N	DSW_N	SSSW_N	USW_N	V11	V12	V13	V19	V21	V22
ALLDIAMCV	1.000															
ALLHTCV	0.459	1.000														
DDIAMCV	-0.697	-0.550	1.000													
DHTCV	-0.690	0.273	0.492	1.000												
SSDIAMCV	0.312	0.153	-0.016	-0.111	1.000											
UDIAMCV	0.048	0.253	-0.082	0.206	0.365	1.000										
ALLSW_N	0.111	-0.398	0.139	-0.575	-0.140	-0.132	1.000									
DSW_N	-0.177	0.224	-0.004	0.500	-0.271	-0.306	-0.517	1.000								
SSSW_N	-0.090	0.263	-0.167	0.449	0.301	0.298	-0.853	0.184	1.000							
USW_N	-0.109	0.347	-0.155	0.588	0.257	0.283	-0.915	0.242	0.970	1.000						
V11	-0.156	-0.672	-0.031	-0.322	0.045	0.037	-0.035	0.062	0.119	0.028	1.000					
V12	-0.145	-0.381	0.224	0.010	0.132	0.257	-0.213	0.019	0.195	0.202	0.449	1.000				
V13	-0.135	-0.349	0.167	-0.003	0.197	-0.107	-0.045	-0.064	0.029	0.053	0.117	0.252	1.000			
V19	-0.110	-0.293	0.206	-0.306	-0.077	-0.136	0.521	0.010	-0.425	-0.477	-0.126	-0.144	-0.119	1.000		
V21	-0.301	0.228	0.073	0.691	0.087	0.332	-0.485	0.165	0.478	0.573	-0.194	0.028	0.099	-0.242	1.000	
V22	-0.425	0.130	0.062	0.839	-0.114	0.234	-0.544	0.145	0.380	0.520	0.020	0.294	0.158	-0.362	0.480	1.000
V23	-0.167	-0.656	0.142	-0.280	0.127	0.294	0.015	-0.053	0.026	0.003	0.694	0.525	-0.005	-0.158	-0.190	0.032
V24	-0.389	-0.260	0.176	0.466	-0.152	0.204	-0.335	0.033	0.286	0.357	0.272	0.504	0.182	-0.342	0.355	0.767
V25	-0.381	-0.041	0.121	0.667	-0.036	0.161	-0.381	0.096	0.433	0.498	0.085	0.028	0.112	-0.315	0.653	0.614
V29	0.698	0.475	-0.447	-0.654	0.015	-0.201	0.315	0.017	-0.281	-0.363	-0.336	-0.366	-0.249	0.298	-0.469	-0.747
V31	-0.247	0.303	-0.009	0.673	-0.020	0.180	-0.517	0.277	0.439	0.566	-0.173	-0.057	0.080	-0.185	0.748	0.489
V32	-0.087	-0.213	0.133	0.251	0.119	0.311	0.065	-0.071	-0.116	-0.067	-0.060	-0.038	-0.049	-0.084	-0.105	-0.023
V33	-0.064	-0.283	0.135	-0.106	-0.067	-0.081	0.241	-0.202	-0.123	-0.140	-0.087	-0.095	-0.063	-0.070	0.241	-0.008
V34	-0.061	0.216	0.074	0.280	-0.071	0.287	0.095	-0.093	-0.114	-0.071	-0.108	-0.078	-0.078	-0.086	0.007	0.352
V39	-0.123	0.201	0.428	0.311	0.087	-0.140	0.110	-0.098	-0.047	-0.116	-0.216	-0.167	-0.164	0.255	-0.159	-0.307
PLAND	0.504	0.143	-0.497	-0.400	0.147	0.419	-0.106	-0.104	0.124	0.126	0.312	0.472	-0.200	-0.301	-0.175	0.051
PD	-0.497	-0.280	0.552	0.309	-0.050	-0.311	0.151	0.124	-0.143	-0.170	-0.191	-0.314	0.269	0.406	0.110	-0.156
LPI	0.521	0.165	-0.515	-0.392	0.123	0.339	-0.118	-0.091	0.125	0.141	0.255	0.451	-0.160	-0.337	-0.115	0.092
LSI	-0.429	-0.085	0.161	0.371	-0.319	-0.258	0.077	0.355	-0.204	-0.159	-0.275	-0.438	0.177	0.286	0.268	-0.022
SHAPE_MN	0.079	-0.153	0.097	-0.177	0.135	0.467	-0.042	-0.007	0.011	0.005	0.274	0.590	-0.095	-0.088	-0.098	0.011
SHAPE_AM	0.197	0.232	-0.521	0.034	-0.245	-0.014	-0.142	0.100	0.035	0.119	-0.044	-0.050	-0.018	-0.335	0.163	0.245
SHAPE_CV	0.648	0.479	-0.667	-0.314	0.100	0.321	-0.134	-0.020	0.048	0.100	-0.001	0.159	-0.229	-0.325	-0.042	0.102
CPLAND	0.504	0.143	-0.497	-0.400	0.147	0.419	-0.106	-0.104	0.124	0.126	0.312	0.472	-0.200	-0.301	-0.175	0.051
CWED	-0.132	0.368	0.160	0.434	-0.002	-0.001	-0.058	-0.219	0.041	0.083	-0.419	-0.484	0.024	-0.242	0.330	0.216
TECI	-0.108	0.254	0.240	0.349	0.022	0.011	0.048	-0.343	0.017	0.023	-0.377	-0.386	-0.010	-0.239	0.279	0.101
IJI	0.159	-0.160	-0.360	-0.264	-0.116	-0.138	0.072	0.240	-0.110	-0.072	0.265	0.284	0.039	0.333	-0.115	-0.040
LANDPD	-0.007	-0.154	-0.157	-0.159	-0.151	-0.447	0.190	0.366	-0.313	-0.273	0.022	-0.163	0.178	0.486	-0.170	-0.181
LANDLPI	0.491	0.091	-0.231	-0.405	0.305	0.405	-0.078	-0.281	0.182	0.157	0.147	0.363	-0.171	-0.459	0.018	-0.085
LANDLSI	-0.340	-0.130	0.046	0.268	-0.367	-0.311	0.142	0.399	-0.291	-0.245	-0.181	-0.337	0.159	0.375	0.098	-0.060
LSHAPE_MN	-0.338	0.134	0.218	0.382	-0.043	-0.164	-0.229	0.386	0.088	0.105	-0.204	-0.281	0.114	0.237	-0.005	0.149
LSHAPE_AM	0.193	0.147	-0.309	-0.015	-0.078	0.118	0.014	-0.210	0.027	0.060	-0.160	-0.188	-0.059	-0.420	0.338	0.037
LSHAPE_CV	-0.325	0.320	0.282	0.559	-0.104	-0.064	-0.161	-0.088	0.083	0.125	-0.412	-0.505	0.011	-0.211	0.264	0.291
LANDCWED	-0.310	0.212	0.245	0.462	-0.136	-0.241	0.074	-0.046	-0.131	-0.076	-0.475	-0.614	0.126	0.109	0.287	0.163
LANDTECI	-0.172	0.216	0.269	0.381	-0.016	-0.057	0.083	-0.312	-0.016	-0.010	-0.403	-0.450	0.022	-0.145	0.286	0.097
LANDCONTAG	0.286	0.012	-0.029	-0.294	0.259	0.517	-0.089	-0.347	0.211	0.163	0.170	0.375	-0.189	-0.490	0.015	-0.019
LANDIJI	-0.024	-0.322	-0.195	-0.170	-0.216	-0.356	0.215	0.252	-0.248	-0.212	0.117	0.059	0.111	0.510	-0.065	-0.096
LANDSHDI	-0.308	-0.027	0.045	0.313	-0.249	-0.517	0.098	0.325	-0.190	-0.151	-0.167	-0.383	0.199	0.509	0.018	0.005
LANDSIDI	-0.389	0.002	0.112	0.380	-0.262	-0.531	0.034	0.294	-0.125	-0.093	-0.201	-0.464	0.198	0.400	0.034	0.069

Appendix M continued

FIA Unit Scale	V23	V24	V25	V29	V31	V32	V33	V34	V39	PLAND	PD	LPI	LSI	SHAPE_MN	SHAPE_AM	SHAPE_CV	CPLAND	CWED	TECI
V23	1.000																		
V24	0.248	1.000																	
V25	-0.051	0.686	1.000																
V29	-0.419	-0.745	-0.648	1.000															
V31	-0.190	0.305	0.583	-0.351	1.000														
V32	0.534	-0.053	-0.124	-0.185	-0.076	1.000													
V33	-0.092	0.249	0.316	-0.136	-0.027	-0.037	1.000												
V34	-0.073	0.322	0.320	-0.163	-0.002	-0.035	-0.042	1.000											
V39	-0.258	-0.354	-0.261	0.194	-0.128	-0.118	-0.030	-0.079	1.000										
PLAND	0.460	0.078	-0.198	0.144	-0.120	0.023	-0.235	0.101	-0.312	1.000									
PD	-0.320	-0.120	0.090	-0.123	0.067	-0.028	0.126	-0.178	0.276	-0.943	1.000								
LPI	0.340	0.115	-0.111	0.153	-0.087	-0.088	-0.156	0.094	-0.354	0.974	-0.951	1.000							
LSI	-0.301	-0.159	0.067	-0.041	0.252	0.126	0.051	-0.158	-0.033	-0.711	0.692	-0.711	1.000						
SHAPE_MN	0.504	0.192	-0.168	-0.101	-0.051	0.000	-0.089	0.042	-0.127	0.550	-0.349	0.466	-0.471	1.000					
SHAPE_AM	-0.009	0.022	0.054	0.081	0.194	0.080	-0.096	0.013	-0.348	0.462	-0.613	0.544	0.036	-0.229	1.000				
SHAPE_CV	0.109	-0.053	-0.176	0.291	-0.012	0.015	-0.180	0.099	-0.301	0.855	-0.899	0.876	-0.471	0.227	0.702	1.000			
CPLAND	0.460	0.078	-0.198	0.144	-0.120	0.023	-0.235	0.101	-0.312	1.000	-0.943	0.974	-0.711	0.550	0.462	0.855	1.000		
CWED	-0.539	0.094	0.319	-0.178	0.242	-0.284	0.083	0.302	0.304	-0.396	0.220	-0.330	0.079	-0.317	-0.089	-0.213	-0.396	1.000	
TECI	-0.491	0.061	0.279	-0.153	0.106	-0.319	0.219	0.259	0.418	-0.357	0.200	-0.291	-0.057	-0.230	-0.188	-0.239	-0.357	0.951	1.000
IJI	0.274	-0.092	-0.148	0.155	0.034	0.084	-0.120	-0.223	-0.495	0.373	-0.288	0.379	0.007	0.113	0.314	0.295	0.373	-0.768	-0.804
LANDPD	-0.019	-0.257	-0.179	0.224	0.032	0.215	-0.137	-0.216	-0.342	-0.255	0.310	-0.260	0.582	-0.338	0.101	-0.148	-0.255	-0.516	-0.651
LANDLPI	0.219	0.005	-0.097	0.143	-0.122	-0.172	0.037	0.037	-0.016	0.767	-0.749	0.801	-0.760	0.434	0.293	0.676	0.767	-0.025	0.113
LANDLSI	-0.186	-0.191	-0.054	0.062	0.170	0.196	-0.028	-0.167	-0.145	-0.542	0.542	-0.552	0.945	-0.426	0.156	-0.327	-0.542	-0.181	-0.329
LSHAPE_MN	-0.239	0.044	0.074	-0.044	0.196	0.158	-0.116	0.022	0.101	-0.640	0.641	-0.681	0.621	-0.345	-0.271	-0.503	-0.640	0.000	-0.169
LSHAPE_AM	-0.171	-0.096	0.070	0.067	0.126	-0.086	0.116	-0.017	-0.034	0.265	-0.413	0.354	0.013	-0.268	0.747	0.516	0.265	0.316	0.325
LSHAPE_CV	-0.483	0.131	0.286	-0.234	0.229	-0.092	0.045	0.271	0.375	-0.547	0.345	-0.510	0.264	-0.452	-0.068	-0.330	-0.547	0.888	0.787
LANDCWED	-0.641	0.030	0.320	-0.157	0.293	-0.240	0.108	0.195	0.204	-0.754	0.617	-0.689	0.503	-0.494	-0.233	-0.531	-0.754	0.828	0.721
LANDTECI	-0.549	0.051	0.307	-0.162	0.132	-0.325	0.233	0.239	0.407	-0.487	0.332	-0.418	0.067	-0.313	-0.241	-0.351	-0.487	0.953	0.986
LANDCONTAG	0.289	0.127	-0.042	-0.057	-0.164	-0.131	0.022	0.113	0.121	0.619	-0.571	0.598	-0.749	0.584	-0.001	0.438	0.619	0.155	0.318
LANDIJI	0.075	-0.105	-0.072	0.126	0.043	0.093	0.059	-0.253	-0.427	-0.053	0.109	-0.029	0.340	-0.162	0.142	-0.062	-0.053	-0.627	-0.679
LANDSHDI	-0.306	-0.132	0.069	0.043	0.159	0.111	0.002	-0.126	-0.098	-0.652	0.603	-0.627	0.752	-0.609	-0.025	-0.477	-0.652	-0.132	-0.282
LANDSIDI	-0.369	-0.087	0.147	-0.032	0.165	0.103	-0.001	-0.063	0.001	-0.759	0.669	-0.733	0.766	-0.690	-0.066	-0.563	-0.759	0.049	-0.105

Appendix M continued

FIA Unit Scale	IJI	LANDPD	LANDLPI	LANDLSI	LSHAPE_MN	LSHAPE_AM	LSHAPE_CV	LANDCWED	LANDTECI	LANDCONTAG	LANDIJI	LANDSHDI	LANDSIDI
IJI	1.000												
LANDPD	0.688	1.000											
LANDLPI	-0.084	-0.625	1.000										
LANDLSI	0.276	0.773	-0.761	1.000									
LSHAPE_MN	-0.149	0.437	-0.755	0.600	1.000								
LSHAPE_AM	-0.185	-0.311	0.503	-0.055	-0.473	1.000							
LSHAPE_CV	-0.794	-0.390	-0.252	0.032	0.339	0.210	1.000						
LANDCWED	-0.531	-0.024	-0.528	0.290	0.369	0.020	0.798	1.000					
LANDTECI	-0.776	-0.536	-0.038	-0.206	-0.062	0.253	0.807	0.814	1.000				
LANDCONTAG	-0.376	-0.856	0.879	-0.836	-0.685	0.333	-0.062	-0.369	0.173	1.000			
LANDIJI	0.890	0.867	-0.440	0.554	0.109	-0.283	-0.604	-0.202	-0.587	-0.690	1.000		
LANDSHDI	0.360	0.835	-0.884	0.823	0.663	-0.325	0.072	0.390	-0.134	-0.996	0.689	1.000	
LANDSIDI	0.148	0.701	-0.918	0.783	0.728	-0.297	0.283	0.528	0.042	-0.960	0.503	0.968	1.000

Appendix M continued

Phys. Section Scale	STDAGE	STDSZCD	SITECLCD	TPA	DOMTPA	SSTPA	UTPA	DEADTPA	RCTPA	DRCTPA	ALLDIAMAVG
STDAGE	1.000										
STDSZCD	0.814	1.000									
SITECLCD	0.555	0.828	1.000								
TPA	0.647	0.889	0.906	1.000							
DOMTPA	0.665	0.714	0.663	0.882	1.000						
SSTPA	0.505	0.862	0.924	0.957	0.720	1.000					
UTPA	0.618	0.930	0.908	0.956	0.727	0.982	1.000				
DEADTPA	0.826	0.807	0.476	0.684	0.732	0.541	0.660	1.000			
RCTPA	0.465	0.531	0.047	0.309	0.318	0.261	0.380	0.695	1.000		
DRCTPA	0.776	0.781	0.384	0.621	0.661	0.496	0.623	0.978	0.829	1.000	
ALLDIAMAVG	0.380	-0.175	-0.357	-0.338	-0.073	-0.514	-0.410	0.127	-0.035	0.088	1.000
DDIAMAVG	0.427	0.526	0.160	0.132	-0.104	0.208	0.356	0.484	0.676	0.571	0.031
SSDIAMAVG	0.119	-0.249	-0.337	-0.385	-0.274	-0.421	-0.358	-0.023	-0.229	-0.084	0.483
UDIAMAVG	0.484	0.196	-0.236	-0.156	-0.071	-0.251	-0.067	0.504	0.573	0.557	0.652
RCDIAMAVG	0.081	0.199	0.535	0.242	-0.057	0.363	0.320	-0.226	-0.547	-0.333	-0.078
DEADDIAMAVG	-0.153	-0.107	-0.233	-0.124	-0.156	-0.074	-0.101	-0.106	0.182	-0.030	-0.195
DRCDIAMAVG	-0.158	-0.083	-0.221	-0.135	-0.221	-0.055	-0.076	-0.132	0.228	-0.037	-0.217
ALLDIAMCV	0.346	0.439	-0.024	0.089	-0.005	0.111	0.263	0.573	0.834	0.686	0.007
DDIAMCV	0.305	0.221	-0.045	-0.207	-0.394	-0.148	-0.006	0.185	0.281	0.225	0.346
SSDIAMCV	0.059	-0.347	-0.530	-0.549	-0.390	-0.593	-0.504	-0.073	-0.138	-0.097	0.669
UDIAMCV	0.464	0.299	-0.163	-0.078	-0.086	-0.123	0.050	0.526	0.717	0.612	0.482
ALLSW_N	-0.469	-0.469	-0.273	-0.534	-0.708	-0.375	-0.395	-0.590	-0.514	-0.607	-0.083
DSW_N	0.007	0.107	0.359	0.488	0.650	0.371	0.268	0.065	-0.131	0.013	-0.259
SSSW_N	0.752	0.557	0.167	0.375	0.514	0.222	0.316	0.682	0.601	0.704	0.422
USW_N	0.689	0.516	0.101	0.355	0.519	0.199	0.295	0.687	0.655	0.723	0.410
V11	0.531	0.564	0.493	0.500	0.300	0.553	0.605	0.375	0.269	0.369	-0.086
V12	0.850	0.737	0.475	0.577	0.547	0.507	0.587	0.625	0.390	0.599	0.258
V13	-0.073	0.011	0.220	0.263	0.299	0.268	0.180	-0.228	-0.299	-0.264	-0.103
V19	0.074	0.122	0.482	0.256	0.103	0.281	0.209	-0.021	-0.467	-0.150	-0.097
V21	0.191	-0.152	-0.491	-0.248	0.061	-0.415	-0.339	0.196	0.441	0.279	0.631
V22	0.483	0.164	-0.230	0.077	0.432	-0.133	-0.054	0.465	0.490	0.503	0.541
V23	0.605	0.628	0.546	0.455	0.227	0.498	0.583	0.393	0.228	0.371	0.103
V24	0.041	-0.186	-0.418	-0.314	-0.151	-0.352	-0.300	-0.100	0.164	-0.031	0.473
V25	-0.423	-0.594	-0.666	-0.618	-0.478	-0.617	-0.600	-0.411	-0.027	-0.328	0.360
V29	-0.100	0.384	0.604	0.503	0.203	0.627	0.561	0.106	-0.020	0.077	-0.815
V31	-0.274	-0.430	-0.518	-0.377	-0.186	-0.412	-0.403	-0.224	0.125	-0.138	0.371
V32	0.262	0.163	0.195	0.121	0.170	0.054	0.114	0.209	-0.083	0.138	0.305
V33	-0.261	-0.333	-0.328	-0.383	-0.354	-0.341	-0.375	-0.357	-0.240	-0.347	-0.017
V34	-0.308	-0.345	-0.427	-0.420	-0.350	-0.418	-0.397	-0.279	0.123	-0.182	0.219
V39	-0.617	-0.640	-0.564	-0.639	-0.625	-0.542	-0.619	-0.691	-0.414	-0.657	-0.113
PLAND	0.601	0.776	0.407	0.518	0.315	0.550	0.654	0.629	0.741	0.703	-0.184
PD	-0.548	-0.652	-0.232	-0.366	-0.222	-0.384	-0.500	-0.583	-0.708	-0.658	0.090
LPI	0.625	0.799	0.428	0.538	0.340	0.567	0.672	0.655	0.722	0.717	-0.182
LSI	-0.380	-0.593	-0.548	-0.481	-0.252	-0.511	-0.531	-0.350	-0.267	-0.349	0.246
SHAPE_MN	0.245	0.458	0.387	0.354	0.122	0.428	0.452	0.181	0.505	0.286	-0.263
SHAPE_AM	0.343	0.371	0.020	0.185	0.184	0.185	0.275	0.433	0.485	0.477	-0.042
SHAPE_CV	0.590	0.734	0.335	0.481	0.374	0.454	0.557	0.676	0.844	0.769	-0.162
CPLAND	0.601	0.776	0.407	0.518	0.315	0.550	0.654	0.629	0.741	0.703	-0.184
CWED	-0.699	-0.802	-0.899	-0.879	-0.756	-0.822	-0.829	-0.611	-0.104	-0.505	0.139
TECI	-0.704	-0.789	-0.885	-0.896	-0.825	-0.811	-0.821	-0.658	-0.121	-0.547	0.068
IJI	0.508	0.624	0.769	0.774	0.669	0.737	0.738	0.582	0.005	0.455	-0.178
LANDPD	0.075	0.139	0.558	0.439	0.445	0.382	0.303	0.087	-0.466	-0.066	-0.102
LANDLPI	0.560	0.719	0.319	0.423	0.230	0.457	0.571	0.595	0.758	0.681	-0.117
LANDLSI	-0.221	-0.390	-0.311	-0.249	-0.057	-0.285	-0.306	-0.200	-0.268	-0.233	0.178
LSHAPE_MN	-0.107	-0.182	0.203	0.144	0.322	0.043	-0.052	-0.136	-0.587	-0.275	0.136
LSHAPE_AM	0.162	0.177	-0.228	-0.082	-0.093	-0.053	0.041	0.244	0.521	0.340	-0.001
LSHAPE_CV	-0.516	-0.751	-0.871	-0.805	-0.538	-0.844	-0.836	-0.452	-0.145	-0.394	0.382
LANDCWED	-0.780	-0.897	-0.673	-0.767	-0.618	-0.737	-0.814	-0.731	-0.551	-0.728	0.127
LANDTECI	-0.772	-0.867	-0.864	-0.921	-0.848	-0.831	-0.863	-0.746	-0.282	-0.662	0.071
LANDCONTAG	0.167	0.245	-0.155	-0.087	-0.240	-0.008	0.083	0.147	0.637	0.298	-0.079
LANDIJI	0.076	0.079	0.462	0.374	0.373	0.340	0.267	0.062	-0.560	-0.113	-0.057
LANDSHDI	-0.234	-0.342	0.058	-0.014	0.154	-0.088	-0.181	-0.226	-0.681	-0.372	0.116
LANDSIDI	-0.309	-0.453	-0.070	-0.138	0.060	-0.212	-0.303	-0.302	-0.700	-0.437	0.157

Appendix M continued

Phys. Section Scale	DDIAMAVG	SSDIAMAVG	UDIAMAVG	RCDIAMAVG	DEADDIAMAVG	DRCDIAMAVG	ALLDIAMCV	DDIAMCV
DDIAMAVG	1.000							
SSDIAMAVG	0.033	1.000						
UDIAMAVG	0.698	0.366	1.000					
RCDIAMAVG	-0.031	-0.023	-0.280	1.000				
DEADDIAMAVG	-0.012	-0.032	-0.102	-0.309	1.000			
DRCDIAMAVG	0.084	-0.084	-0.067	-0.242	0.985	1.000		
ALLDIAMCV	0.907	0.010	0.738	-0.353	-0.019	0.048	1.000	
DDIAMCV	0.815	0.247	0.703	0.215	-0.259	-0.159	0.659	1.000
SSDIAMCV	0.117	0.860	0.558	-0.027	-0.176	-0.188	0.146	0.429
UDIAMCV	0.818	0.150	0.961	-0.322	0.619	0.644	0.825	0.737
ALLSW_N	0.026	0.404	-0.098	0.352	-0.195	-0.154	-0.104	0.314
DSW_N	-0.644	-0.445	-0.541	-0.048	0.041	-0.032	-0.526	-0.822
SSSW_N	0.325	-0.056	0.473	-0.290	0.202	0.186	0.353	0.162
USW_N	0.314	-0.115	0.493	-0.349	0.176	0.164	0.393	0.135
V11	0.366	0.138	0.158	0.421	-0.090	-0.017	0.257	0.236
V12	0.349	0.069	0.329	0.250	-0.110	-0.078	0.286	0.296
V13	-0.458	-0.314	-0.410	0.358	0.079	0.078	-0.459	-0.480
V19	-0.260	-0.051	-0.373	0.482	-0.059	-0.086	-0.478	-0.181
V21	0.044	-0.116	0.510	-0.568	0.195	0.188	0.201	0.035
V22	0.008	0.110	0.444	-0.599	0.028	-0.029	0.227	-0.053
V23	0.531	0.066	0.327	0.569	-0.464	-0.367	0.355	0.574
V24	0.072	0.029	0.329	-0.209	-0.097	-0.067	0.162	0.238
V25	-0.076	-0.129	0.228	-0.201	0.133	0.172	0.017	0.088
V29	0.105	-0.388	-0.467	0.233	0.207	0.205	0.004	-0.217
V31	-0.135	-0.221	0.226	-0.344	0.151	0.168	-0.010	-0.147
V32	0.118	0.113	0.261	0.280	-0.976	-0.957	0.136	0.371
V33	-0.114	0.056	-0.241	-0.074	0.060	0.048	-0.142	0.083
V34	0.061	-0.366	0.259	-0.173	0.091	0.152	0.159	0.158
V39	-0.310	0.167	-0.375	0.008	0.173	0.180	-0.319	-0.031
PLAND	0.751	-0.175	0.392	0.023	0.142	0.220	0.714	0.478
PD	-0.726	0.054	-0.449	0.050	-0.117	-0.185	-0.732	-0.535
LPI	0.749	-0.123	0.392	0.016	0.169	0.234	0.709	0.465
LSI	-0.381	0.320	-0.009	-0.279	-0.302	-0.343	-0.205	-0.202
SHAPE_MN	0.477	-0.485	0.080	0.085	-0.004	0.106	0.343	0.230
SHAPE_AM	0.443	0.210	0.370	-0.250	-0.049	-0.043	0.589	0.296
SHAPE_CV	0.696	-0.256	0.406	-0.225	0.120	0.177	0.734	0.398
CPLAND	0.751	-0.175	0.392	0.023	0.142	0.220	0.714	0.478
CWED	-0.105	0.103	0.101	-0.409	0.236	0.251	0.040	0.086
TECI	-0.055	0.160	0.058	-0.354	0.284	0.310	0.048	0.142
IJI	0.025	0.036	-0.105	0.285	-0.141	-0.195	-0.070	-0.229
LANDPD	-0.465	-0.077	-0.408	0.322	-0.314	-0.392	-0.545	-0.491
LANDLPI	0.790	-0.167	0.477	-0.001	0.207	0.291	0.759	0.538
LANDLSI	-0.363	0.309	-0.055	-0.171	-0.398	-0.448	-0.213	-0.235
LSHAPE_MN	-0.700	-0.102	-0.420	0.154	-0.328	-0.426	-0.691	-0.584
LSHAPE_AM	0.504	0.161	0.450	-0.315	0.127	0.165	0.650	0.407
LSHAPE_CV	-0.227	0.168	0.179	-0.465	0.017	-0.009	-0.024	0.039
LANDCWED	-0.514	0.131	-0.230	-0.222	0.081	0.036	-0.444	-0.279
LANDTECI	-0.177	0.192	-0.038	-0.293	0.263	0.274	-0.101	0.052
LANDCONTAG	0.685	-0.098	0.413	-0.137	0.302	0.413	0.677	0.587
LANDIJI	-0.478	0.161	-0.405	0.384	-0.201	-0.292	-0.581	-0.478
LANDSHDI	-0.712	0.111	-0.418	0.126	-0.286	-0.394	-0.703	-0.574
LANDSIDI	-0.732	0.179	-0.387	0.064	-0.286	-0.395	-0.695	-0.556

Appendix M continued

Phys. Section Scale	SSDIAMCV	UDIAMCV	ALLSW_N	DSW_N	SSSW_N	USW_N	V11	V12	V13	V19	V21	V22	V23	V24	V25	V29	V31
SSDIAMCV	1.000																
UDIAMCV	0.346	1.000															
ALLSW_N	0.370	-0.210	1.000														
DSW_N	-0.558	-0.543	-0.574	1.000													
SSSW_N	0.033	0.552	-0.783	0.059	1.000												
USW_N	0.021	0.567	-0.824	0.080	0.982	1.000											
V11	0.048	0.133	0.048	-0.064	0.107	0.080	1.000										
V12	0.136	0.314	-0.329	-0.058	0.657	0.611	0.664	1.000									
V13	-0.180	-0.418	-0.211	0.591	-0.001	0.017	0.162	0.204	1.000								
V19	-0.232	-0.334	0.121	0.149	-0.163	-0.269	0.018	0.001	0.016	1.000							
V21	0.170	0.524	-0.523	0.016	0.622	0.688	-0.267	0.124	0.023	-0.400	1.000						
V22	0.218	0.374	-0.618	0.123	0.737	0.780	-0.105	0.414	-0.030	-0.491	0.730	1.000					
V23	0.094	0.325	0.076	-0.263	0.153	0.136	0.812	0.672	-0.028	-0.008	-0.245	-0.053	1.000				
V24	0.262	0.258	-0.087	-0.222	0.254	0.329	0.008	0.151	0.083	-0.574	0.576	0.558	0.155	1.000			
V25	0.205	0.206	0.092	-0.148	-0.086	0.008	-0.241	-0.314	0.217	-0.383	0.617	0.099	-0.259	0.640	1.000		
V29	-0.644	-0.294	0.015	0.255	-0.270	-0.315	0.081	-0.175	0.039	0.394	-0.664	-0.634	-0.055	-0.768	-0.531	1.000	
V31	0.055	0.251	-0.206	0.065	0.094	0.204	-0.264	-0.247	0.261	-0.321	0.727	0.335	-0.287	0.637	0.843	-0.542	1.000
V32	0.274	0.545	0.176	-0.139	-0.105	-0.070	0.169	0.219	-0.128	-0.045	-0.112	0.082	0.556	0.208	-0.090	-0.307	-0.120
V33	0.059	-0.267	0.204	-0.225	-0.053	-0.072	-0.222	-0.217	-0.123	-0.179	0.059	-0.060	-0.214	0.326	0.294	-0.144	-0.035
V34	0.002	0.304	0.048	-0.087	-0.052	0.013	-0.241	-0.162	0.247	-0.237	0.519	0.086	-0.188	0.464	0.791	-0.339	0.705
V39	0.226	-0.393	0.350	-0.223	-0.304	-0.301	-0.381	-0.411	-0.046	-0.215	-0.081	-0.209	-0.386	0.088	0.230	-0.152	-0.073
PLAND	-0.183	0.526	-0.270	-0.244	0.479	0.480	0.583	0.645	-0.175	-0.323	-0.012	0.194	0.620	0.053	-0.305	0.206	-0.302
PD	0.036	-0.528	0.178	0.357	-0.448	-0.464	-0.532	-0.614	0.246	0.451	-0.047	-0.269	-0.583	-0.193	0.198	-0.059	0.272
LPI	-0.157	0.525	-0.287	-0.242	0.508	0.500	0.561	0.654	-0.173	-0.305	-0.039	0.209	0.592	0.023	-0.357	0.235	-0.344
LSI	0.377	-0.213	0.446	-0.144	-0.447	-0.384	-0.231	-0.312	-0.089	-0.164	0.114	0.179	-0.238	0.365	0.311	-0.525	0.395
SHAPE_MN	-0.486	0.279	-0.326	0.070	0.236	0.238	0.322	0.154	-0.100	-0.143	0.022	-0.052	0.437	-0.006	-0.152	0.224	-0.018
SHAPE_AM	0.184	0.323	0.130	-0.370	0.135	0.159	0.396	0.458	-0.213	-0.412	-0.039	0.359	0.361	0.315	-0.151	-0.122	-0.129
SHAPE_CV	-0.252	0.547	-0.466	-0.098	0.593	0.594	0.375	0.535	-0.269	-0.378	0.138	0.342	0.437	0.026	-0.317	0.178	-0.285
CPLAND	-0.183	0.526	-0.270	-0.244	0.479	0.480	0.583	0.645	-0.175	-0.323	-0.012	0.194	0.620	0.053	-0.305	0.206	-0.302
CWED	0.306	0.087	0.430	-0.403	-0.361	-0.291	-0.506	-0.555	-0.153	-0.430	0.333	0.036	-0.510	0.460	0.721	-0.434	0.548
TECI	0.323	0.055	0.511	-0.473	-0.391	-0.342	-0.446	-0.538	-0.197	-0.442	0.229	-0.047	-0.471	0.391	0.638	-0.369	0.404
IJI	-0.261	-0.109	-0.236	0.315	0.112	0.069	0.410	0.299	0.028	0.558	-0.404	-0.148	0.314	-0.511	-0.639	0.500	-0.394
LANDPD	-0.290	-0.477	-0.131	0.572	-0.191	-0.237	-0.061	-0.136	0.217	0.734	-0.374	-0.277	-0.066	-0.511	-0.415	0.375	-0.190
LANDLPI	-0.110	0.628	-0.291	-0.289	0.523	0.528	0.517	0.625	-0.138	-0.356	0.077	0.210	0.562	0.092	-0.194	0.157	-0.214
LANDLSI	0.300	-0.283	0.423	-0.075	-0.430	-0.383	-0.093	-0.172	-0.058	-0.037	-0.030	0.151	-0.101	0.253	0.107	-0.400	0.244
LSHAPE_MN	-0.142	-0.543	-0.169	0.592	-0.132	-0.144	-0.354	-0.228	0.396	0.537	-0.030	-0.030	-0.322	-0.139	-0.023	0.002	0.167
LSHAPE_AM	0.252	0.450	0.205	-0.508	0.112	0.142	0.254	0.354	-0.217	-0.515	0.106	0.321	0.222	0.356	0.067	-0.199	0.006
LSHAPE_CV	0.424	0.072	0.281	-0.299	-0.182	-0.111	-0.583	-0.409	-0.086	-0.400	0.488	0.290	-0.516	0.578	0.716	-0.632	0.588
LANDCWED	0.191	-0.293	0.441	-0.074	-0.555	-0.530	-0.681	-0.772	-0.023	0.101	0.111	-0.183	-0.702	0.139	0.522	-0.256	0.479
LANDTECI	0.314	-0.059	0.572	-0.419	-0.489	-0.454	-0.507	-0.634	-0.164	-0.295	0.159	-0.136	-0.542	0.327	0.625	-0.334	0.410
LANDCONTAG	0.045	0.564	-0.043	-0.466	0.315	0.333	0.307	0.317	-0.226	-0.592	0.201	0.148	0.338	0.283	0.138	-0.078	-0.048
LANDIJI	-0.097	-0.505	0.052	0.386	-0.241	-0.289	0.049	-0.065	0.207	0.718	-0.434	-0.308	-0.048	-0.490	-0.406	0.327	-0.236
LANDSHDI	-0.001	-0.576	0.101	0.418	-0.347	-0.360	-0.345	-0.362	0.235	0.564	-0.151	-0.163	-0.385	-0.223	-0.028	0.018	0.110
LANDSIDI	0.084	-0.570	0.177	0.361	-0.402	-0.410	-0.390	-0.422	0.203	0.482	-0.120	-0.135	-0.432	-0.153	0.045	-0.069	0.158

Appendix M continued

Phys. Section Scale	V32	V33	V34	V39	PLAND	PD	LPI	LSI	SHAPE_MN	SHAPE_AM	SHAPE_CV	CPLAND	CWED	TECI	IJI	LANDPD	LANDLPI
V32	1.000																
V33	-0.074	1.000															
V34	-0.071	-0.089	1.000														
V39	-0.226	0.707	-0.080	1.000													
PLAND	-0.017	-0.185	-0.120	-0.340	1.000												
PD	-0.037	0.032	0.098	0.214	-0.964	1.000											
LPI	-0.043	-0.185	-0.175	-0.346	0.993	-0.956	1.000										
LSI	0.306	0.010	0.199	0.090	-0.527	0.392	-0.550	1.000									
SHAPE_MN	-0.020	-0.156	-0.026	-0.192	0.532	-0.374	0.484	-0.516	1.000								
SHAPE_AM	0.188	-0.121	0.002	-0.322	0.583	-0.683	0.593	0.274	-0.134	1.000							
SHAPE_CV	-0.029	-0.140	-0.096	-0.306	0.917	-0.869	0.910	-0.577	0.619	0.447	1.000						
CPLAND	-0.017	-0.185	-0.120	-0.340	1.000	-0.964	0.993	-0.527	0.532	0.583	0.917	1.000					
CWED	-0.213	0.316	0.620	0.504	-0.355	0.197	-0.386	0.565	-0.339	0.081	-0.348	-0.355	1.000				
TECI	-0.266	0.408	0.513	0.624	-0.290	0.129	-0.319	0.483	-0.287	0.078	-0.294	-0.290	0.976	1.000			
IJI	0.131	-0.418	-0.605	-0.641	0.154	-0.028	0.199	-0.239	0.020	0.047	0.056	0.154	-0.815	-0.846	1.000		
LANDPD	0.194	-0.343	-0.345	-0.402	-0.467	0.605	-0.435	-0.014	-0.135	-0.439	-0.438	-0.467	-0.573	-0.649	0.723	1.000	
LANDLPI	-0.077	-0.204	0.013	-0.317	0.978	-0.942	0.974	-0.570	0.507	0.537	0.907	0.978	-0.268	-0.213	0.054	-0.530	1.000
LANDLSI	0.401	-0.098	0.050	-0.084	-0.445	0.339	-0.458	0.962	-0.508	0.361	-0.530	-0.445	0.343	0.258	0.000	0.148	-0.523
LSHAPE_MN	0.211	-0.088	-0.055	-0.171	-0.740	0.798	-0.713	0.242	-0.373	-0.499	-0.666	-0.740	-0.230	-0.352	0.363	0.843	-0.760
LSHAPE_AM	0.012	-0.104	0.274	-0.151	0.568	-0.676	0.564	0.244	-0.105	0.915	0.453	0.568	0.353	0.363	-0.276	-0.685	0.584
LSHAPE_CV	0.016	0.335	0.608	0.395	-0.470	0.283	-0.487	0.675	-0.533	0.114	-0.416	-0.470	0.906	0.831	-0.739	-0.430	-0.385
LANDCWED	-0.160	0.206	0.413	0.390	-0.846	0.765	-0.852	0.648	-0.515	-0.321	-0.806	-0.846	0.752	0.686	-0.445	0.087	-0.789
LANDTECI	-0.271	0.398	0.489	0.617	-0.455	0.307	-0.477	0.542	-0.369	-0.026	-0.465	-0.455	0.965	0.978	-0.776	-0.486	-0.382
LANDCONTAG	-0.194	0.151	0.202	0.178	0.765	-0.803	0.731	-0.389	0.501	0.383	0.749	0.765	0.190	0.294	-0.472	-0.872	0.814
LANDIJI	0.125	-0.224	-0.495	-0.289	-0.451	0.525	-0.405	0.110	-0.381	-0.281	-0.554	-0.451	-0.506	-0.554	0.782	0.893	-0.534
LANDSHDI	0.179	-0.044	-0.145	-0.088	-0.824	0.837	-0.795	0.437	-0.555	-0.409	-0.815	-0.824	-0.093	-0.193	0.384	0.810	-0.866
LANDSIDI	0.186	-0.008	-0.089	-0.022	-0.874	0.859	-0.848	0.542	-0.614	-0.369	-0.860	-0.874	0.034	-0.066	0.274	0.731	-0.909

Appendix M continued

Phys. Section Scale	LANDLSI	LSHAPE_MN	LSHAPE_AM	LSHAPE_CV	LANDCWED	LANDTECI	LANDCONTAG	LANDIJI	LANDSHDI	LANDSIDI
LANDLSI	1.000									
LSHAPE_MN	0.315	1.000								
LSHAPE_AM	0.241	-0.675	1.000							
LSHAPE_CV	0.484	0.026	0.307	1.000						
LANDCWED	0.497	0.394	-0.177	0.748	1.000					
LANDTECI	0.328	-0.186	0.235	0.834	0.810	1.000				
LANDCONTAG	-0.485	-0.935	0.588	-0.016	-0.461	0.111	1.000			
LANDIJI	0.285	0.746	-0.555	-0.378	0.103	-0.391	-0.871	1.000		
LANDSHDI	0.507	0.929	-0.590	0.114	0.538	-0.010	-0.989	0.835	1.000	
LANDSIDI	0.586	0.892	-0.524	0.237	0.630	0.115	-0.967	0.768	0.989	1.000

Appendix N. Correlation matrix of bird abundance by species to the forest and landscape variables calculated at the FIA Unit and physiographic section scales.

	YBCU	BBCU	RBGR	BAWW	WEWA	BTBW	OVEN	KEWA	HOWO	CAWA	AMRE
FIA Unit Scale											
AllDiamA	-0.223	0.063	0.208	-0.079	-0.183	0.071	0.16	-0.251	-0.012	0.164	0.02
AllDiamC	-0.021	0.143	0.08	0.286	0.185	0.081	0.168	0.097	0.107	-0.021	0.314
AllHtAvg	0.315	-0.638	-0.648	0.099	0.348	0.191	-0.286	0.296	0.173	-0.243	-0.719
AllHtCV	-0.334	0.639	0.644	-0.027	-0.31	-0.156	0.323	-0.241	-0.121	0.25	0.75
AllSW_N	0.444	-0.294	-0.601	0.059	0.133	0.157	-0.455	0.414	0.075	-0.153	-0.445
DDiamAvg	-0.23	0.223	-0.023	0.511	0.386	0.125	0.502	0.196	0.425	-0.05	0.41
DDiamCV	0.15	-0.273	-0.254	-0.316	-0.088	0.012	-0.441	0.013	-0.05	0.149	-0.587
DeadDiam	-0.108	0.029	-0.059	0.163	0.291	0.198	0.424	-0.287	0.092	-0.003	0.13
DeadTPA	-0.237	0.128	0.224	0.593	0.317	0.404	0.526	-0.254	0.182	0.216	0.563
DHtCV	-0.301	0.365	0.504	-0.313	-0.46	-0.197	0.189	-0.41	-0.185	0.193	0.317
DomHtAvg	0.051	-0.125	-0.491	0.592	0.468	0.058	0.096	0.526	0.461	-0.208	-0.022
DomTPA	-0.268	0.042	0.139	0.555	0.191	0.291	0.507	-0.365	0.175	-0.025	0.415
DRCDiamA	-0.264	-0.064	-0.202	0.236	0.405	-0.038	0.378	-0.112	0.355	0.02	0.032
DRCTPA	-0.358	0.239	0.365	0.573	0.206	0.312	0.589	-0.296	0.162	0.172	0.686
DSW_N	-0.074	0.017	0.107	-0.079	-0.14	-0.19	-0.024	-0.3	-0.144	0.011	0.062
RCDiamAv	0.184	-0.454	-0.511	0.312	0.6	0.115	-0.047	0.261	0.401	0.072	-0.403
RCTPA	-0.546	0.444	0.533	0.292	-0.173	-0.109	0.529	-0.295	0.043	-0.052	0.749
SITECLCD	-0.061	-0.233	-0.555	0.7	0.536	0.146	0.252	0.187	0.537	-0.244	-0.005
SSDiamAv	0.106	-0.099	0.02	-0.139	-0.213	0.266	-0.151	-0.322	-0.376	-0.091	-0.057
SSDiamCV	-0.189	-0.123	0.159	0.034	0.256	0.172	0.248	0.009	0.302	0.404	0.101
SSSW_N	-0.286	0.185	0.383	-0.027	0.153	-0.268	0.549	-0.199	0.049	0.094	0.387
SSTPA	-0.108	-0.043	-0.269	0.614	0.552	0.045	0.383	0.047	0.431	-0.263	0.227
STDAGE	-0.295	0.096	-0.027	0.734	0.546	0.394	0.717	-0.236	0.451	-0.042	0.428
STDSZCD	-0.239	0.071	-0.261	0.856	0.534	0.201	0.567	0.056	0.557	-0.228	0.387
TPA	-0.164	-0.033	-0.184	0.676	0.5	0.192	0.465	-0.071	0.418	-0.212	0.304
UDiamAvg	-0.388	0.237	0.402	0.257	-0.129	0.349	0.397	-0.289	0.089	0.361	0.454
UDiamCV	-0.539	0.336	0.244	0.397	0.176	-0.215	0.554	0.125	0.535	0.209	0.453
USW_N	-0.379	0.273	0.573	-0.014	0.024	-0.2	0.574	-0.298	0.011	0.172	0.48
UTPA	-0.16	-0.011	-0.227	0.682	0.559	0.144	0.461	0.008	0.455	-0.226	0.305
V11	-0.084	-0.254	-0.36	0.269	0.521	0.101	0.309	-0.066	0.319	-0.236	-0.112
V12	-0.175	-0.124	-0.251	0.408	0.317	0.021	0.333	-0.182	0.36	-0.255	-0.012
V13	0.105	-0.175	-0.015	-0.137	-0.078	0.071	-0.076	0.132	0.127	0.259	-0.275
V19	0.377	-0.27	-0.394	0.008	0.13	-0.095	-0.256	0.077	-0.031	-0.148	-0.311
V21	-0.378	0.242	0.696	-0.211	-0.41	-0.148	0.279	-0.384	-0.132	0.354	0.366
V22	-0.428	0.531	0.493	0.02	-0.242	-0.102	0.43	-0.324	-0.011	-0.115	0.462
V23	-0.267	-0.246	-0.199	0.533	0.56	0.35	0.372	0.058	0.539	0.175	-0.048
V24	-0.356	0.338	0.138	0.033	0.04	-0.155	0.338	-0.149	0.221	-0.31	0.143
V25	-0.188	0.346	0.454	-0.244	-0.153	-0.208	0.263	-0.225	-0.026	-0.056	0.278
V29	0.323	-0.136	-0.274	0.097	0.059	-0.061	-0.25	0.207	-0.089	-0.136	-0.02
V31	-0.473	0.229	0.622	-0.164	-0.383	-0.23	0.284	-0.385	-0.221	0.095	0.401
V32	-0.233	-0.099	0.146	0.342	0.228	0.614	0.18	-0.053	0.288	0.636	0.001
V34	0.089	0.744	0.28	0.13	0.079	-0.176	0.163	0.125	0.279	-0.181	0.368
V39	0.315	-0.205	-0.27	-0.379	-0.094	-0.164	-0.397	0.21	-0.286	-0.193	-0.367
CPLAND	-0.281	0.179	-0.064	0.675	0.378	-0.042	0.531	0.064	0.446	-0.329	0.54
CWED	-0.028	0.385	0.288	-0.672	-0.554	-0.33	-0.328	0.08	-0.317	0.013	0.018
IJI	0.087	-0.204	0.031	0.561	0.328	0.321	0.348	-0.214	0.151	-0.088	0.217
LPI	-0.235	0.177	-0.033	0.599	0.281	-0.085	0.472	0.045	0.368	-0.384	0.554
LSI	0.048	-0.21	0.19	-0.275	-0.387	0.122	-0.307	-0.088	-0.246	0.372	-0.26
PD	0.258	-0.304	-0.048	-0.597	-0.264	-0.014	-0.527	-0.024	-0.332	0.342	-0.645
PLAND	-0.281	0.179	-0.064	0.675	0.378	-0.042	0.531	0.064	0.446	-0.329	0.54
SHAPE_AM	-0.22	0.12	0.248	0.377	-0.18	0.197	0.294	-0.109	0.017	-0.086	0.561
SHAPE_CV	-0.338	0.308	0.2	0.584	0.091	0.037	0.475	-0.044	0.25	-0.202	0.701
SHAPE_MN	-0.33	-0.016	-0.153	0.203	0.175	-0.189	0.118	0.027	0.25	-0.164	-0.007
TECI	0.115	0.291	0.145	-0.677	-0.465	-0.383	-0.38	0.155	-0.325	-0.039	-0.099
LANDCONT	-0.227	0.152	-0.149	0.116	0.133	-0.276	0.094	0.175	0.232	-0.197	-0.027
LANDCWED	0.13	0.218	0.324	-0.751	-0.596	-0.251	-0.429	0.046	-0.442	0.088	-0.157
LANDIJI	0.266	-0.286	0.047	0.307	0.182	0.344	-0.164	-0.178	-0.017	0.053	-0.182
LANDLPI	-0.195	0.072	-0.117	0.325	0.176	-0.155	-0.208	0.113	0.275	-0.198	-0.194
LANDLSI	0.083	-0.249	0.1	-0.039	-0.233	0.225	-0.093	-0.096	-0.148	0.284	-0.153
LANDPD	0.197	-0.279	0.039	0.241	0.114	0.387	0.265	-0.143	0.008	0.232	0.336
LANDSHDI	0.263	-0.166	0.148	-0.154	-0.135	0.267	-0.215	-0.181	-0.248	0.216	-0.21
LANDSIDI	0.256	-0.096	0.147	-0.293	-0.206	0.235	0.068	-0.166	-0.305	0.202	-0.193
LANDTECI	0.169	0.263	0.159	-0.732	-0.487	-0.384	0.154	0.152	-0.369	-0.02	0.16
LSHAPE_AM	-0.132	0.045	0.209	0.061	-0.315	0.016	-0.298	0.029	-0.074	0.036	-0.036
LSHAPE_CV	-0.122	0.334	0.236	-0.609	-0.533	-0.148	-0.485	-0.004	-0.308	0.086	-0.188
LSHAPE_MN	-0.116	0.021	0.106	-0.205	-0.158	0.095	0.042	-0.077	-0.126	0.223	0.334
CONIFERPLAND	0.079	-0.254	-0.285	0.376	0.298	0.466	0.138	-0.204	0.289	0.17	-0.079

Appendix N continued

	EAWP	REVI	CERW	PIWA	WOTH	RSTO	CSWA	PRAW	COYE	YBCH	DOWO	PIWO
FIA Unit Scale												
AllDiamA	-0.308	-0.078	-0.151	-0.214	-0.226	-0.3	0.132	-0.166	0.014	-0.336	-0.316	-0.345
AllDiamC	0.275	0.359	-0.441	-0.038	0.399	0.3	0.078	-0.053	0.029	0.058	0.258	0.32
AllHtAvg	-0.051	-0.298	-0.145	0.392	-0.223	-0.153	-0.486	0.34	-0.57	0.329	-0.161	0.344
AllHtCV	0.057	0.353	-0.118	-0.383	0.276	0.194	0.501	-0.333	0.564	-0.299	0.206	-0.291
AllSW_N	0.261	-0.33	-0.064	0.148	0.027	0.258	-0.436	0.28	-0.456	0.635	0.263	0.314
DDiamAvg	0.104	0.565	0.457	-0.294	0.552	0.151	-0.075	-0.225	-0.114	-0.123	0.117	0.411
DDiamCV	-0.109	-0.545	0.147	0.2	-0.411	-0.181	-0.233	0.131	-0.066	0.169	-0.183	-0.114
DeadDiam	0.014	0.373	0.095	-0.091	0.012	-0.228	-0.119	-0.22	-0.132	-0.469	-0.372	0.27
DeadTPA	-0.063	0.666	-0.219	0.075	0.353	0.297	0.42	-0.25	-0.06	-0.325	0.025	0.282
DHtCV	-0.266	-0.091	-0.276	-0.346	-0.174	-0.206	0.362	-0.171	0.533	-0.437	-0.129	-0.65
DomHtAvg	0.151	0.311	-0.106	0.181	0.456	0.302	-0.375	0.117	-0.33	0.396	0.366	0.615
DomTPA	-0.409	0.454	0.161	0.351	0.199	0.283	0.475	-0.078	-0.038	-0.288	0.143	0.047
DRCDiamA	-0.011	0.321	0.507	-0.103	0.194	-0.222	-0.306	-0.348	-0.203	-0.434	-0.238	0.251
DRCTPA	-0.079	0.7	-0.2	-0.085	0.409	0.252	0.481	-0.377	0.057	-0.436	0.037	0.165
DSW_N	-0.332	-0.016	0.195	0.374	-0.149	0.087	0.495	0.039	-0.005	-0.12	0.009	-0.325
RCDiamAv	0.039	0.033	-0.048	0.419	0.091	0.085	-0.255	0.15	-0.481	0.218	0.04	0.489
RCTPA	-0.093	0.516	-0.152	-0.486	0.401	0.031	0.384	-0.574	0.351	-0.567	0.055	-0.218
SITECLCD	-0.346	0.339	-0.361	0.511	0.346	0.378	-0.162	0.13	-0.391	0.222	0.352	0.488
SSDiamAv	-0.046	-0.178	-0.049	-0.234	-0.325	-0.214	-0.042	-0.032	-0.159	-0.11	-0.31	-0.116
SSDiamCV	0.126	0.348	0.523	0.097	0.129	0.114	0.186	-0.115	0.09	-0.201	-0.12	0.247
SSSW_N	-0.055	0.437	-0.193	-0.14	0.082	-0.356	0.214	-0.224	0.437	-0.571	-0.182	-0.08
SSTPA	-0.17	0.468	-0.151	0.464	0.408	0.393	0.04	0.054	-0.168	0.043	0.293	0.416
STDAGE	-0.353	0.625	-0.412	0.193	0.345	0.246	0.18	-0.151	-0.16	-0.34	-0.028	0.347
STDSZCD	-0.229	0.61	0.465	0.23	0.543	0.386	0.018	-0.028	-0.147	-0.05	0.304	0.47
TPA	-0.269	0.521	0.412	0.47	0.386	0.426	0.188	0.016	-0.182	-0.044	0.285	0.359
UDiamAvg	-0.154	0.362	-0.086	-0.494	0.141	-0.073	0.33	-0.373	-0.046	-0.431	-0.105	-0.111
UDiamCV	-0.149	0.461	-0.075	-0.381	0.503	-0.08	0.169	-0.328	0.253	-0.333	0.126	-0.026
USW_N	-0.091	0.438	0.339	-0.211	0.081	-0.334	0.377	-0.245	0.54	-0.639	-0.195	-0.197
UTPA	-0.187	0.544	-0.176	0.399	0.447	0.402	0.09	-0.006	-0.196	-0.018	0.289	0.44
V11	-0.244	0.168	-0.106	0.218	0.143	0.074	-0.294	-0.02	-0.548	-0.143	-0.162	0.257
V12	-0.233	0.202	0.329	0.187	0.109	0.058	-0.252	-0.06	-0.07	-0.214	-0.011	0.16
V13	0.056	-0.054	-0.142	0.082	-0.099	-0.092	-0.127	0.276	-0.005	0.098	0.037	0.115
V19	-0.008	-0.138	-0.237	0.595	-0.069	0.165	-0.104	0.16	-0.195	0.434	0.296	0.101
V21	-0.036	0.13	0.415	-0.311	-0.049	-0.316	0.346	-0.344	0.481	-0.555	-0.083	-0.573
V22	-0.319	0.06	-0.286	-0.378	0.034	-0.084	0.345	-0.108	0.415	-0.44	-0.226	-0.496
V23	-0.234	0.301	-0.209	0.148	0.253	0.14	-0.051	-0.079	-0.429	-0.194	-0.156	0.366
V24	-0.298	-0.059	-0.345	-0.157	0.089	-0.005	-0.043	-0.017	0.169	-0.27	-0.091	-0.352
V25	-0.016	-0.01	-0.351	-0.335	0.041	-0.104	0.287	-0.041	0.33	-0.356	-0.083	-0.473
V29	0.267	0.109	0.045	0.237	0.114	0.21	-0.12	0.105	-0.079	0.394	0.391	0.35
V31	-0.223	0.127	0.46	-0.244	0.044	-0.304	0.374	-0.245	0.545	-0.523	-0.048	-0.58
V32	-0.158	0.169	0.281	0.079	0.059	0.189	0.36	-0.187	-0.279	-0.173	-0.145	0.289
V34	0.181	0.038	-0.027	-0.182	0.407	0.442	0.009	0.329	0.195	0.223	0.304	-0.011
V39	0.259	-0.267	-0.258	0.139	-0.23	-0.089	-0.29	-0.039	0.11	0.241	-0.059	0.163
CPLAND	0.034	0.598	-0.001	-0.169	0.594	0.319	-0.094	-0.124	0.033	-0.176	0.143	0.318
CWED	0.222	-0.373	0.235	-0.525	-0.144	-0.17	-0.139	0.001	0.434	0.025	-0.168	-0.477
IJI	-0.072	0.433	-0.001	0.401	0.207	0.279	0.292	0.096	-0.207	-0.04	0.238	0.238
LPI	0.092	0.543	0.457	-0.219	0.538	0.312	-0.082	-0.076	0.102	-0.155	0.154	0.24
LSI	-0.224	-0.249	-0.105	0.162	-0.397	-0.158	0.34	0.078	-0.078	0.099	0.015	-0.293
PD	-0.106	-0.581	-0.497	0.308	-0.563	-0.35	0.022	0.133	-0.129	0.201	-0.085	-0.257
PLAND	0.034	0.598	-0.343	-0.169	0.594	0.319	-0.094	-0.124	0.033	-0.176	0.143	0.318
SHAPE_AM	-0.002	0.393	0.261	-0.352	0.196	0.216	0.256	-0.077	0.161	-0.186	0.079	0.009
SHAPE_CV	0.013	0.561	0.518	-0.319	0.523	0.353	0.165	-0.218	0.144	-0.204	0.14	0.152
SHAPE_MN	-0.239	0.061	0.25	0.002	0.135	-0.096	-0.192	-0.2	-0.067	-0.16	-0.165	-0.047
TECI	0.356	-0.429	-0.266	-0.514	-0.16	-0.219	-0.297	0.013	0.371	0.091	-0.166	-0.362
LANDCONT	0.172	0.168	0.322	0.517	-0.012	-0.109	-0.441	-0.236	0.119	-0.176	-0.117	0.096
LANDCWED	0.108	-0.485	0.267	-0.455	-0.213	-0.178	0.05	0.168	0.322	0.178	-0.099	-0.55
LANDIJI	-0.02	-0.128	-0.195	0.436	-0.305	0.218	0.336	0.22	-0.24	0.127	0.267	0.127
LANDLPI	0.235	-0.114	0.018	0.294	-0.292	0.045	-0.32	-0.173	0.139	-0.15	0.044	0.209
LANDLSI	-0.275	-0.18	0.359	0.299	-0.282	0.015	0.375	0.14	-0.185	0.156	0.111	-0.134
LANDPD	-0.177	0.318	0.301	-0.338	0.394	0.279	0.395	0.264	-0.303	0.209	0.258	0.14
LANDSHDI	-0.134	-0.213	-0.153	0.322	-0.372	0.085	0.424	0.226	-0.123	0.171	0.118	-0.097
LANDSIDI	-0.137	0.092	-0.121	0.667	-0.032	0.025	0.371	0.213	-0.083	0.151	0.023	-0.15
LANDTECI	0.335	0.116	-0.112	-0.433	0.287	-0.233	-0.264	0.062	0.354	0.138	-0.146	-0.398
LSHAPE_AM	0.265	-0.385	0.21	-0.421	-0.277	-0.029	-0.023	-0.158	0.218	-0.122	0.006	-0.042
LSHAPE_CV	-0.017	-0.519	0.007	-0.239	-0.339	-0.203	-0.01	-0.075	0.343	-0.042	-0.257	-0.435
LSHAPE_MN	-0.433	0.155	0.103	-0.547	0.08	-0.111	0.366	0.073	0.046	0.021	-0.003	-0.212
CONIFERPLAND	-0.418	0.178	-0.108	0.609	0.06	0.371	0.131	0.136	-0.509	0.194	0.182	0.304

Appendix N continued

	RBWO	GCFL	ETTI
FIA Unit Scale			
AllDiamA	-0.297	-0.341	-0.265
AllDiamC	-0.01	0.164	0.181
AllHtAvg	0.206	-0.103	0.227
AllHtCV	-0.216	0.08	-0.201
AllSW_N	0.499	-0.129	0.464
DDiamAvg	-0.284	-0.315	0.126
DDiamCV	0.344	-0.16	0.047
DeadDiam	-0.28	-0.016	-0.092
DeadTPA	-0.408	0.061	0.02
DHtCV	-0.243	-0.159	-0.373
DomHtAvg	0.114	-0.108	0.354
DomTPA	-0.422	0.173	-0.12
DRCDiamA	-0.209	-0.249	0.109
DRCTPA	-0.494	0.029	-0.054
DSW_N	-0.118	0.44	-0.164
RCDiamAv	0.226	-0.113	0.449
RCTPA	-0.533	-0.071	-0.234
SITECLCD	-0.092	-0.048	0.238
SSDiamAv	-0.129	-0.05	-0.176
SSDiamCV	-0.078	-0.141	0.084
SSSW_N	-0.399	0.099	-0.314
SSTPA	-0.165	0.218	0.164
STDAGE	-0.47	-0.144	-0.005
STDSZCD	-0.307	-0.126	0.124
TPA	-0.266	0.194	0.105
UDiamAvg	-0.515	-0.388	-0.148
UDiamCV	-0.406	-0.478	-0.044
USW_N	-0.471	0.067	-0.39
UTPA	-0.242	0.161	0.158
V11	-0.227	-0.013	0.14
V12	-0.184	-0.123	-0.017
V13	0.164	0.034	0.065
V19	0.288	0.19	0.164
V21	-0.298	-0.036	-0.235
V22	-0.485	-0.28	-0.56
V23	-0.293	-0.349	0.134
V24	-0.3	-0.352	-0.38
V25	-0.195	-0.097	-0.274
V29	0.335	0.383	0.346
V31	-0.401	-0.033	-0.346
V32	-0.181	-0.386	0.047
V34	0.244	-0.187	0.197
V39	0.472	0.081	0.137
CPLAND	-0.3	-0.152	0.123
CWED	0.22	-0.185	-0.176
IJI	-0.211	0.357	0.173
LPI	-0.263	-0.095	0.092
LSI	0.01	0.069	-0.116
PD	0.277	0.164	-0.077
PLAND	-0.3	-0.152	0.123
SHAPE_AM	-0.309	-0.131	-0.103
SHAPE_CV	-0.363	-0.132	-0.012
SHAPE_MN	-0.222	-0.279	-0.091
TECI	0.348	-0.146	-0.068
LANDCONT	-0.023	-0.301	0.056
LANDCWED	0.37	-0.02	-0.218
LANDIJI	0.08	0.43	0.175
LANDLPI	-0.027	-0.159	0.18
LANDLSI	-0.117	0.113	-0.044
LANDPD	-0.071	0.344	0.151
LANDSHDI	0.102	0.325	-0.039
LANDSIDI	0.02	0.26	-0.109
LANDTECI	-0.051	-0.1	-0.083
LSHAPE_AM	0.113	-0.208	0.028
LSHAPE_CV	0.257	-0.26	-0.289
LSHAPE_MN	-0.07	-0.003	-0.333
CONIFERPLAND	0.016	0.104	0.231

Appendix N continued

	YBCU	BBCU	RBGR	BAWW	WEWA	BTBW	OVEN	KEWA	HOWO	CAWA	AMRE
Physiographic section scale											
AllDiamA	-0.341	0.11	0.338	-0.007	-0.092	0.374	0.199	-0.415	-0.111	0.439	0.224
AllDiamC	-0.683	0.578	0.558	0.557	-0.031	0.388	0.758	-0.185	0.418	0.391	0.772
AllSW_N	0.628	-0.236	-0.585	-0.286	0.395	-0.24	-0.232	0.42	0.109	0.292	-0.523
DDiamAvg	-0.544	0.343	0.24	0.704	0.255	0.16	0.781	0.071	0.656	0.429	0.651
DDiamCV	-0.348	0.118	0.056	0.481	0.259	0.231	0.519	0.198	0.596	-0.318	0.332
DeadDiam	0.047	0.216	0.048	-0.219	-0.264	-0.608	-0.134	0.064	-0.311	0.374	0.203
DeadTPA	-0.593	0.315	0.502	0.73	0.045	0.723	0.716	-0.46	0.274	0.486	0.737
DomTPA	-0.245	0.085	0.255	0.459	0.005	0.509	0.277	-0.349	0.044	0.549	0.346
DRCDiamA	0.01	0.221	0.034	-0.174	-0.241	-0.648	-0.108	0.119	-0.227	-0.371	0.222
DRCTPA	-0.688	0.442	0.613	0.709	-0.045	0.67	0.754	-0.464	0.258	-0.45	0.828
DSW_N	0.111	-0.125	0.004	-0.08	-0.12	-0.033	-0.333	-0.12	-0.24	0.272	-0.15
RCDiamAv	0.442	-0.688	-0.776	0.24	0.566	-0.246	-0.232	0.492	0.473	-0.378	-0.489
RCTPA	-0.786	0.684	0.762	0.488	-0.279	0.355	0.684	-0.366	0.158	0.482	0.883
SITECLCD	0.066	-0.276	-0.371	0.723	0.573	0.017	0.272	0.236	0.616	-0.752	0.053
SSDiamAv	0.248	-0.052	-0.23	-0.055	0.222	0.299	0.071	-0.14	-0.217	-0.414	-0.086
SSDiamCV	-0.017	0.015	-0.016	-0.153	-0.021	0.475	0.023	-0.321	-0.217	0.314	-0.033
SSSW_N	-0.679	0.322	0.599	0.422	-0.273	0.336	0.467	-0.413	0.028	0.269	0.66
SSTPA	-0.043	-0.117	-0.21	0.654	0.363	-0.008	0.303	0.118	0.463	0.537	0.197
STDAGE	-0.406	0.168	0.253	0.759	0.252	0.548	0.645	-0.24	0.364	-0.808	0.576
STDSZCD	-0.351	0.117	0.08	0.867	0.311	0.31	0.604	-0.005	0.569	0.801	0.527
TPA	-0.141	-0.056	-0.042	0.669	0.276	0.239	0.343	-0.045	0.372	0.593	0.29
UDiamAvg	-0.7	0.474	0.621	0.441	-0.018	0.534	0.685	-0.407	0.261	0.389	0.72
UDiamCV	-0.792	0.524	0.641	0.516	-0.059	0.445	0.736	-0.337	0.356	0.311	0.808
USW_N	-0.765	0.37	0.696	0.37	-0.389	0.381	0.465	-0.481	-0.031	0.265	0.708
UTPA	-0.169	-0.034	-0.116	0.763	0.373	0.12	0.451	0.06	0.529	0.49	0.341
V11	0.022	0.023	-0.205	0.566	0.468	0.137	0.381	0.06	0.395	0.264	0.245
V12	-0.282	0.152	0.138	0.544	0.084	0.375	0.365	-0.22	0.237	-0.263	0.411
V13	0.189	-0.201	-0.27	-0.196	-0.059	-0.337	-0.451	-0.038	-0.101	0.262	-0.273
V19	0.41	-0.518	-0.598	0.105	0.499	-0.263	-0.202	0.043	0.233	0.254	-0.439
V21	-0.692	0.472	0.825	-0.173	-0.6	0.216	0.205	-0.58	-0.317	-0.254	0.521
V22	-0.603	0.605	0.794	0.01	-0.565	0.474	0.299	-0.561	-0.388	-0.245	0.599
V23	-0.17	-0.041	-0.161	0.709	0.473	0.301	0.49	0.188	0.625	0.237	0.263
V24	-0.412	0.497	0.58	-0.185	-0.345	0.091	0.217	-0.111	-0.105	-0.227	0.338
V25	-0.262	0.227	0.378	-0.472	-0.357	-0.189	-0.104	-0.171	-0.169	0.191	0.072
V29	0.323	-0.314	-0.493	0.322	0.401	-0.358	-0.022	0.41	0.38	0.185	-0.155
V31	-0.463	0.389	0.524	-0.388	-0.429	-0.205	0.018	-0.423	-0.251	0.185	0.254
V32	-0.145	-0.118	0.037	0.282	0.227	0.682	0.249	-0.108	0.317	0.185	-0.051
V33	0.258	-0.215	*	-0.347	-0.071	*	-0.112	0.366	-0.128	-0.183	-0.302
V34	-0.352	0.458	0.376	-0.277	-0.319	-0.259	-0.091	-0.164	0.058	-0.18	0.192
V39	0.423	-0.371	-0.333	-0.66	-0.336	-0.455	-0.606	0.373	-0.464	0.173	-0.588
CPLAND	-0.435	0.364	0.228	0.689	0.029	0.165	0.592	0.137	0.425	0.135	0.689
CWED	0.009	0.351	0.261	-0.724	-0.487	-0.298	-0.292	-0.013	-0.419	-0.136	-0.085
IJI	0.086	-0.275	-0.288	0.568	0.536	0.217	0.338	-0.153	0.307	0.129	0.096
LPI	-0.419	0.353	0.201	0.706	0.05	0.159	0.601	0.131	0.422	-0.162	0.689
LSI	0.18	0.25	0.156	-0.599	-0.216	0.139	-0.183	-0.328	-0.487	0.151	-0.206
PD	0.412	-0.406	-0.295	-0.567	0.068	-0.265	-0.576	-0.126	-0.313	0.167	-0.684
PLAND	-0.435	0.364	0.228	0.689	0.029	0.165	0.592	0.137	0.425	-0.168	0.689
SHAPE_AM	-0.194	0.656	0.314	0.237	-0.063	0.3	0.475	-0.143	0.066	-0.145	0.54
SHAPE_CV	-0.565	0.451	0.428	0.671	-0.095	0.292	0.594	0.054	0.355	0.141	0.731
SHAPE_MN	-0.389	0.108	0.113	0.546	0.161	-0.135	0.387	0.31	0.487	0.148	0.336
TECI	0.115	0.275	0.149	-0.704	-0.426	-0.368	-0.315	0.126	-0.399	0.131	-0.149
LANDCONT	-0.388	0.402	0.3	0.264	-0.229	-0.031	0.317	0.252	0.197	0.084	0.505
LANDCWED	0.311	-0.018	-0.053	-0.793	-0.192	-0.384	-0.498	-0.06	-0.422	0.09	-0.476
LANDIJI	0.469	-0.563	-0.54	0.034	0.465	-0.002	-0.163	-0.119	-0.007	-0.078	-0.431
LANDLPI	-0.514	0.403	0.275	0.663	-0.027	0.11	0.568	0.092	0.432	-0.109	0.722
LANDLSI	0.23	0.202	0.073	-0.439	-0.068	0.2	-0.103	-0.33	-0.381	0.108	-0.195
LANDPD	0.299	-0.47	-0.45	0.148	0.461	0.017	-0.142	-0.103	0.141	0.125	-0.378
LANDSHDI	0.416	-0.423	-0.285	-0.355	0.196	0.013	-0.357	-0.246	-0.239	-0.077	-0.55
LANDSIDI	0.433	-0.364	-0.252	-0.446	0.147	0.015	-0.389	-0.251	-0.306	-0.076	-0.565
LANDTECI	0.23	0.18	0.032	-0.763	-0.335	-0.448	-0.391	0.138	-0.405	-0.088	-0.279
LSHAPE_AM	-0.249	0.729	0.371	0.079	-0.234	0.121	0.338	-0.11	0.004	-0.095	0.534
LSHAPE_CV	-0.088	0.367	0.424	-0.72	-0.543	0.01	-0.251	-0.247	-0.48	-0.091	-0.061
LSHAPE_MN	0.23	-0.381	-0.169	-0.233	0.132	0.026	-0.335	-0.256	-0.138	-0.097	-0.461
ConiferCPLAND	0.311	-0.471	-0.42	0.193	0.489	0.096	-0.147	-0.079	0.207	0.047	-0.4
ConiferCWED	0.434	-0.482	-0.53	0.063	0.569	-0.102	-0.213	-0.004	0.192	-0.038	-0.506
ConiferIJI	0.423	-0.382	-0.342	-0.509	0.072	-0.225	-0.453	-0.233	-0.359	*	-0.545
ConiferLPI	0.083	-0.293	-0.262	0.255	0.486	-0.021	0.077	-0.157	0.316	0.066	-0.212
ConiferLSI	0.301	0.003	-0.131	-0.06	0.274	0.401	0.031	-0.31	-0.103	-0.065	-0.2
ConiferPD	0.289	-0.469	-0.449	0.303	0.553	0.19	-0.035	-0.083	0.251	0.068	-0.292
ConiferPLAND	0.311	-0.471	-0.42	0.193	0.489	0.096	-0.147	-0.079	0.207	-0.074	-0.4
ConiferSHAPE_AM	0.096	-0.342	-0.255	0.266	0.461	0.151	0.067	-0.225	0.309	0.057	-0.252
ConiferSHAPE_CV	0.174	-0.369	-0.247	0.248	0.428	0.256	0.011	-0.22	0.227	-0.05	-0.279
ConiferSHAPE_MN	0.263	-0.42	-0.328	0.203	0.435	0.184	-0.099	-0.128	0.184	-0.065	-0.35
ConiferTECI	0.401	-0.043	-0.228	-0.728	-0.145	-0.503	-0.544	0.191	-0.344	0.021	-0.476

Appendix N continued

	EAWP	REVI	CERW	PIWA	WOTH	RSTO	CSWA	PRAW	COYE	YBCH	DOWO
Physiographic section scale											
AllDiamA	-0.072	0.078	-0.315	-0.237	-0.355	-0.468	0.278	-0.351	0.337	-0.446	-0.466
AllDiamC	-0.047	0.71	0.28	-0.771	0.391	0.066	0.575	-0.765	0.22	-0.629	-0.477
AllSW_N	0.521	-0.29	0.079	-0.003	0.309	-0.062	-0.742	0.403	-0.278	0.441	0.181
DDiamAvg	-0.081	0.758	0.456	-0.681	0.526	0.006	0.225	-0.615	0.067	-0.395	-0.325
DDiamCV	0.113	0.447	0.339	-0.635	0.353	-0.218	-0.137	-0.482	-0.019	-0.222	-0.389
DeadDiam	0.112	-0.098	0.211	-0.165	-0.092	-0.23	-0.26	0.128	0.548	0.034	0.067
DeadTPA	-0.372	0.827	0.108	-0.173	-0.004	0.347	0.68	-0.505	0.073	-0.539	-0.301
DomTPA	-0.357	0.454	-0.003	0.39	-0.147	0.544	0.671	-0.064	-0.051	-0.177	0.174
DRCDiamA	0.132	-0.079	0.271	-0.229	-0.02	-0.269	-0.286	0.088	0.515	0.034	0.067
DRCTPA	-0.344	0.827	0.131	-0.319	0.036	0.296	0.731	-0.601	0.152	-0.623	-0.366
DSW_N	-0.302	-0.215	-0.111	0.688	-0.219	0.449	0.785	0.245	-0.119	0.179	0.461
RCDiamAv	0.074	-0.048	0.296	0.473	0.231	0.042	-0.519	0.441	-0.529	0.611	0.532
RCTPA	-0.189	0.636	0.162	-0.64	0.136	0.087	0.708	-0.723	0.329	-0.706	-0.459
SITECLCD	-0.389	0.517	0.436	0.511	0.339	0.61	0.018	0.221	-0.519	0.355	0.54
SSDiamAv	0.184	-0.022	-0.227	-0.192	-0.104	-0.225	-0.323	0.044	0.123	-0.094	-0.228
SSDiamCV	0.205	-0.08	-0.4	-0.379	-0.231	-0.448	-0.122	-0.219	0.207	-0.334	-0.443
SSSW_N	-0.368	0.483	-0.054	-0.313	-0.32	-0.172	0.579	-0.502	0.39	-0.554	-0.406
SSTPA	-0.299	0.546	0.396	0.371	0.322	0.557	0.151	0.129	-0.341	0.183	0.471
STDAGE	-0.291	0.728	0.175	-0.057	-0.014	0.223	0.409	-0.299	0.019	-0.311	-0.117
STDSZCD	-0.329	0.796	0.436	0.023	0.274	0.479	0.317	-0.198	-0.162	-0.099	0.14
TPA	-0.356	0.579	0.297	0.396	0.163	0.603	0.358	0.044	-0.264	0.057	0.369
UDiamAvg	-0.109	0.598	0.051	-0.697	0.108	-0.206	0.685	-0.777	0.376	-0.727	-0.612
UDiamCV	-0.209	0.671	0.178	-0.765	0.181	-0.234	0.739	-0.804	0.447	-0.702	-0.588
USW_N	-0.331	0.469	-0.089	-0.367	-0.33	-0.208	0.695	-0.593	0.459	-0.656	-0.468
UTPA	-0.305	0.68	0.428	0.242	0.355	0.542	0.23	-0.018	-0.28	0.052	0.36
V11	0.09	0.442	0.324	0.076	0.38	0.185	-0.053	-0.041	-0.238	-0.034	0.291
V12	-0.057	0.506	0.103	-0.063	-0.105	0.085	0.247	-0.146	0.031	-0.216	-0.011
V13	0.022	-0.267	-0.085	0.559	-0.104	0.066	-0.09	0.279	0.026	0.202	0.599
V19	-0.465	-0.013	-0.056	0.654	-0.092	0.133	-0.447	0.588	-0.623	0.543	0.354
V21	-0.124	0.047	-0.35	-0.418	-0.432	-0.501	0.639	-0.605	0.616	-0.738	-0.588
V22	-0.085	0.2	-0.263	-0.375	-0.414	-0.145	0.69	-0.452	0.625	-0.648	-0.465
V23	0.03	0.533	0.412	-0.083	0.436	0.142	0.048	-0.192	-0.305	-0.032	0.121
V24	0.266	-0.01	-0.007	-0.4	0.061	-0.503	0.261	-0.39	0.525	-0.437	-0.219
V25	0.245	-0.285	-0.174	-0.245	-0.033	-0.595	0.11	-0.365	0.421	-0.382	-0.216
V29	-0.161	0.204	0.435	0.372	0.376	0.607	-0.29	0.325	-0.419	0.49	0.485
V31	-0.082	-0.128	-0.254	-0.194	-0.06	-0.536	0.36	-0.364	0.505	-0.5	-0.186
V32	-0.03	0.206	-0.15	0.039	0.105	0.183	0.322	-0.237	-0.407	-0.152	-0.152
V33	0.415	-0.35	-0.122	-0.074	-0.106	-0.397	-0.268	0.016	0.019	0.069	-0.165
V34	0.054	-0.123	0.04	-0.227	0.083	-0.23	0.123	-0.278	0.308	-0.229	-0.04
V39	0.496	-0.772	-0.28	-0.154	-0.337	-0.502	-0.457	0.219	0.042	0.255	-0.193
CPLAND	0.117	0.674	0.589	-0.472	0.336	0.232	0.244	-0.394	0.183	-0.246	-0.101
CWED	0.474	-0.487	-0.167	-0.458	-0.069	-0.491	-0.185	-0.083	0.479	-0.149	-0.292
IJI	-0.441	0.551	0.124	0.515	0.161	0.475	0.142	0.189	-0.367	0.108	0.315
LPI	0.091	0.7	0.59	-0.459	0.33	0.25	0.224	-0.374	0.204	-0.235	-0.088
LSI	0.297	-0.335	-0.465	-0.021	-0.135	-0.169	0.034	0.164	0.155	-0.131	-0.118
PD	-0.306	-0.606	-0.535	0.569	-0.272	-0.139	-0.255	0.437	-0.298	0.317	0.219
PLAND	0.117	0.674	0.589	-0.472	0.336	0.232	0.244	-0.394	0.183	-0.246	-0.101
SHAPE_AM	0.377	0.496	0.27	-0.419	0.279	0.252	0.178	-0.179	0.34	-0.3	-0.081
SHAPE_CV	-0.066	0.614	0.464	-0.513	0.217	0.291	0.42	-0.524	0.157	-0.343	-0.243
SHAPE_MN	-0.309	0.311	0.42	-0.227	0.427	0.104	0.174	-0.316	-0.206	-0.046	0.048
TECI	0.561	-0.523	-0.115	-0.489	-0.044	-0.49	-0.329	-0.029	0.429	-0.06	-0.276
LANDCONT	0.353	0.227	0.427	-0.754	0.223	-0.177	0.031	-0.477	0.336	-0.28	-0.31
LANDCWED	0.099	-0.625	-0.377	0.099	-0.153	-0.351	-0.307	0.293	0.113	0.163	-0.007
LANDIJI	-0.31	0.017	-0.201	0.792	-0.093	0.263	-0.167	0.538	-0.422	0.369	0.416
LANDLPI	0.077	0.658	0.576	-0.546	0.317	0.146	0.253	-0.47	0.256	-0.302	-0.148
LANDLSI	0.234	-0.188	-0.406	0.119	-0.075	0.013	0.052	0.25	0.035	-0.061	0.004
LANDPD	-0.585	0.029	-0.147	0.82	-0.018	0.416	-0.002	0.431	-0.562	0.379	0.456
LANDSHDI	-0.28	-0.298	-0.477	0.737	-0.258	0.083	-0.069	0.47	-0.308	0.262	0.273
LANDSIDI	-0.2	-0.366	-0.51	0.671	-0.265	0.04	-0.096	0.459	-0.249	0.239	0.234
LANDTECI	0.494	-0.588	-0.157	-0.342	-0.043	-0.482	-0.411	0.101	0.348	0.05	-0.179
LSHAPE_AM	0.461	0.34	0.269	-0.618	0.217	0.078	0.088	-0.241	0.47	-0.318	-0.189
LSHAPE_CV	0.363	-0.439	-0.381	-0.357	-0.267	-0.471	0.041	-0.148	0.486	-0.286	-0.383
LSHAPE_MN	-0.462	-0.248	-0.433	0.77	-0.276	0.118	0.12	0.368	-0.319	0.228	0.318
ConiferCPLAND	-0.547	0.037	-0.163	0.852	-0.023	0.49	-0.002	0.387	-0.594	0.37	0.508
ConiferCWED	-0.539	-0.075	-0.154	0.801	0.033	0.372	-0.27	0.488	-0.607	0.476	0.494
ConiferIJI	-0.148	-0.382	-0.438	0.549	-0.236	-0.102	-0.2	0.506	-0.115	0.265	0.217
ConiferLPI	-0.707	0.195	-0.219	0.407	0.048	0.27	-0.06	0.101	-0.448	0.133	0.189
ConiferLSI	0.067	0.056	-0.3	0.374	0.012	0.291	0.058	0.302	-0.287	0.042	0.183
ConiferPD	-0.495	0.16	-0.046	0.799	-0.009	0.457	-0.009	0.382	-0.559	0.357	0.437
ConiferPLAND	-0.547	0.037	-0.163	0.852	-0.023	0.49	-0.002	0.387	-0.594	0.37	0.508
ConiferSHAPE_AM	-0.657	0.226	-0.283	0.504	0.016	0.346	0.047	0.126	-0.542	0.118	0.212
ConiferSHAPE_CV	-0.567	0.188	-0.264	0.702	-0.052	0.439	0.132	0.243	-0.556	0.182	0.34
ConiferSHAPE_MN	-0.52	0.077	-0.202	0.829	-0.041	0.503	0.109	0.333	-0.566	0.292	0.478
ConiferTECI	0.38	-0.674	-0.161	-0.116	-0.074	-0.389	-0.545	0.279	0.161	0.262	-0.023

Appendix N continued

	PIWO	RBWO	GCFL	ETTI
Physiographic section scale				
AllDiamA	-0.061	-0.289	-0.41	-0.485
AllDiamC	0.079	-0.726	-0.699	-0.256
AllSW_N	0.606	0.612	0.076	0.613
DDiamAvg	0.371	-0.633	-0.68	0.003
DDiamCV	0.544	-0.336	-0.789	0.093
DeadDiam	-0.305	0.025	0.098	-0.077
DeadTPA	-0.002	-0.747	-0.309	-0.386
DomTPA	-0.239	-0.349	0.245	-0.231
DRCDiamA	-0.257	0.006	0.05	-0.026
DRCTPA	-0.076	-0.818	-0.377	-0.445
DSW_N	-0.551	0.162	0.68	-0.05
RCDiamAv	0.598	0.442	0.223	0.724
RCTPA	-0.259	-0.824	-0.474	-0.502
SITECLCD	0.371	-0.077	0.252	0.434
SSDiamAv	0.391	0.065	-0.092	0.022
SSDiamCV	0.202	-0.064	-0.355	-0.18
SSSW_N	-0.264	-0.73	-0.466	-0.616
SSTPA	0.201	-0.194	0.262	0.302
STDAGE	0.22	-0.564	-0.265	-0.19
STDSZCD	0.248	-0.503	-0.166	0.067
TPA	0.073	-0.284	0.243	0.119
UDiamAvg	0.027	-0.709	-0.725	-0.453
UDiamCV	-0.023	-0.802	-0.775	-0.448
USW_N	-0.376	-0.779	-0.486	-0.706
UTPA	0.228	-0.329	0.125	0.233
V11	0.449	-0.104	0.166	0.389
V12	0.203	-0.362	-0.245	-0.078
V13	-0.386	0.314	0.487	0.18
V19	0.419	0.294	0.344	0.363
V21	-0.651	-0.542	-0.406	-0.841
V22	-0.525	-0.562	-0.378	-0.819
V23	0.58	-0.225	-0.201	0.327
V24	-0.247	-0.208	-0.426	-0.397
V25	-0.441	0.01	-0.192	-0.291
V29	0.224	0.181	0.374	0.555
V31	-0.638	-0.248	-0.103	-0.536
V32	0.314	-0.117	-0.22	0.007
V33	0.164	0.274	-0.103	0.079
V34	-0.461	-0.024	-0.299	-0.215
V39	0.028	0.488	0.007	0.116
CPLAND	0.189	-0.495	-0.416	0.021
CWED	-0.308	0.225	-0.262	-0.221
IJI	0.309	-0.176	0.375	0.19
LPI	0.201	-0.503	-0.422	0.021
LSI	-0.126	0.234	0.121	-0.221
PD	-0.19	0.448	0.503	0.04
PLAND	0.189	-0.495	-0.416	0.021
SHAPE_AM	0.144	-0.243	-0.347	-0.087
SHAPE_CV	0.007	-0.608	-0.46	-0.167
SHAPE_MN	0.063	-0.401	-0.089	0.093
TECI	-0.185	0.294	-0.246	-0.1
LANDCONT	0.051	-0.322	-0.553	-0.036
LANDCWED	-0.237	0.446	0.146	-0.079
LANDIJI	0.236	0.282	0.613	0.263
LANDLPI	0.116	-0.536	-0.514	-0.032
LANDLSI	-0.011	0.224	0.204	-0.13
LANDPD	0.098	0.183	0.573	0.215
LANDSHDI	-0.06	0.368	0.542	0.028
LANDSIDI	-0.083	0.406	0.515	0.005
LANDTECI	-0.15	0.396	-0.134	-0.035
LSHAPE_AM	0.028	-0.21	-0.49	-0.131
LSHAPE_CV	-0.391	0.135	-0.328	-0.426
LSHAPE_MN	-0.202	0.242	0.47	-0.056
ConiferCPLAND	0.095	0.207	0.536	0.264
ConiferCWED	0.195	0.326	0.531	0.344
ConiferIJI	-0.097	0.396	0.491	0.017
ConiferLPI	0.126	-0.097	0.147	0.112
ConiferLSI	0.255	0.2	0.329	0.097
ConiferPD	0.247	0.17	0.464	0.268
ConiferPLAND	0.095	0.207	0.536	0.264
ConiferSHAPE_AM	0.157	-0.079	0.178	0.118
ConiferSHAPE_CV	0.125	0.024	0.341	0.133
ConiferSHAPE_MN	0.06	0.151	0.511	0.208
ConiferTECI	-0.052	0.559	0.028	0.134

Appendix O. Correlation matrix of bird abundance by species to the forest variables calculated using the statistical report data from the 1965, 1975, 1989, and 2000 inventory cycles within 11 FIA Units in MD, NY, PA, and WV.

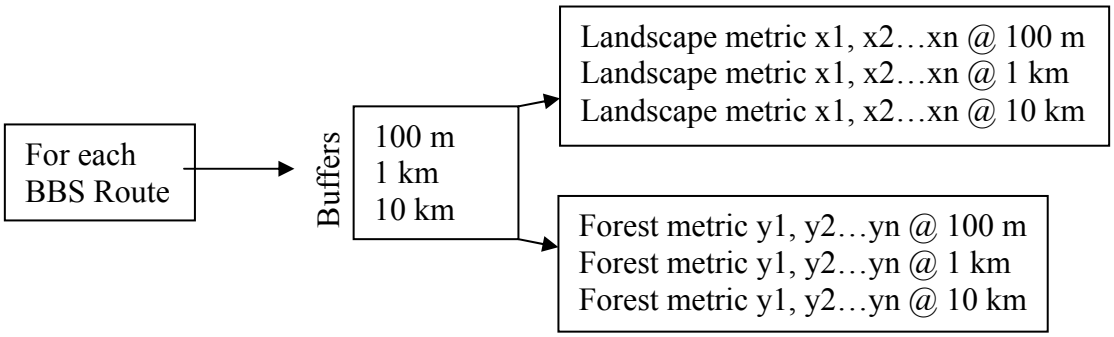
	%ForCover	%SoftWood	%HardWood	%Saw	%Pole	%NonSawPole	SoftWDPoleVol/ha
AMRE	0.781	-0.907	0.903	0.912	-0.902	-0.877	0.877
BAWW	0.493	-0.708	0.715	0.651	-0.790	-0.594	0.729
BBCU	-0.065	0.136	-0.150	-0.015	0.053	0.007	0.049
BTBW	0.822	-0.938	0.935	0.923	-0.888	-0.893	0.843
CAWA	-0.016	-0.195	0.200	0.191	-0.444	-0.128	0.450
CERW	0.719	-0.657	0.640	0.742	-0.544	-0.755	0.582
COYE	0.898	-0.764	0.745	0.834	-0.513	-0.871	0.528
CSWA	0.465	-0.675	0.681	0.633	-0.776	-0.577	0.728
DOWO	0.547	-0.544	0.532	0.608	-0.510	-0.605	0.540
EAWP	0.669	-0.400	0.371	0.562	-0.153	-0.628	0.250
ETTI	0.919	-0.923	0.911	0.962	-0.789	-0.962	0.781
GCFL	0.699	-0.464	0.445	0.529	-0.129	-0.596	0.144
HOWO	0.795	-0.891	0.886	0.893	-0.846	-0.867	0.816
KEWA	0.018	-0.157	0.154	0.219	-0.400	-0.171	0.457
OVEN	0.844	-0.952	0.947	0.949	-0.903	-0.921	0.868
PIWA	0.822	-0.905	0.905	0.855	-0.768	-0.839	0.692
PIWO	0.803	-0.899	0.894	0.898	-0.847	-0.873	0.815
PRAW	0.520	-0.419	0.422	0.328	-0.079	-0.370	-0.024
RBGR	0.638	-0.427	0.410	0.492	-0.134	-0.550	0.152
RBWO	0.865	-0.977	0.975	0.949	-0.896	-0.922	0.838
REVI	0.946	-0.919	0.907	0.947	-0.729	-0.956	0.710
RSTO	-0.583	0.271	-0.247	-0.376	-0.079	0.461	0.027
WEWA	0.611	-0.850	0.861	0.743	-0.870	-0.685	0.762
WOTH	-0.373	0.543	-0.540	-0.581	0.714	0.529	-0.736
YBCH	-0.862	0.779	-0.768	-0.788	0.516	0.816	-0.483
YBCU	0.316	-0.240	0.238	0.212	-0.048	-0.240	0.008

Appendix O continued

	SoftWDSawVol/ha	HDWDPoleVol/ha	HDWDSawVol/ha	TotalSoftWDVol/ha	TotalHDWDVol/ha	TotalVol/ha
AMRE	0.920	0.892	0.906	0.926	0.901	0.906
BAWW	0.667	0.781	0.764	0.680	0.768	0.767
BBCU	-0.022	-0.173	-0.163	-0.019	-0.169	-0.163
BTBW	0.930	0.912	0.931	0.934	0.926	0.930
CAWA	0.207	0.323	0.280	0.227	0.288	0.287
CERW	0.735	0.535	0.583	0.730	0.569	0.578
COYE	0.822	0.579	0.650	0.808	0.632	0.642
CSWA	0.649	0.748	0.730	0.662	0.734	0.733
DOWO	0.606	0.477	0.505	0.606	0.496	0.503
EAWP	0.539	0.161	0.246	0.520	0.223	0.236
ETTI	0.961	0.817	0.863	0.957	0.850	0.858
GCFL	0.511	0.242	0.323	0.487	0.304	0.313
HOWO	0.899	0.857	0.878	0.902	0.871	0.876
KEWA	0.229	0.239	0.211	0.247	0.214	0.216
OVEN	0.955	0.918	0.939	0.959	0.933	0.938
PIWA	0.860	0.858	0.884	0.857	0.879	0.882
PIWO	0.904	0.862	0.884	0.907	0.878	0.883
PRAW	0.321	0.301	0.348	0.301	0.341	0.340
RBGR	0.475	0.229	0.302	0.454	0.284	0.292
RBWO	0.956	0.944	0.966	0.958	0.960	0.964
REVI	0.943	0.792	0.845	0.935	0.832	0.839
RSTO	-0.352	-0.017	-0.107	-0.325	-0.085	-0.095
WEWA	0.760	0.923	0.907	0.771	0.912	0.910
WOTH	-0.592	-0.599	-0.585	-0.609	-0.585	-0.588
YBCH	-0.781	-0.629	-0.689	-0.766	-0.675	-0.681
YBCU	0.206	0.157	0.189	0.194	0.183	0.184

Appendix P. Quick-reference Outline of Modeling Methodology

1) **Spatial Analyses** (variations in bird abundance across space relative to changes in forest and landscape variables): Developed models at 3 hierarchical spatial scales of decreasing resolution using data from the 2000 FIA inventory cycle
   a) **BBS Route scale** (finest resolution): BBS route was the sample unit (*n* = 227).
      i) Steps 1-4 outline below were duplicated using forest variables calculated at the FIA plot level and county level to assess the effect of a random error introduced into FIA plot locations provided in the FIA database
      ii) Multiscale models developed at the BBS route scale
         (1) Buffered each BBS route w/ 100 m, 1 km, and 10 km buffers
         (2) Calculated value for each Fragstats and FIA predictor variable within each buffer size



Provided a value for each forest and landscape variable at 3 overlapping spatial scales.

         (3) For each species developed models for each buffer separately
            (a) Variables selected within each buffer were incorporated into a multi-scale model.
         (4) Bird-habitat models described variations in bird occupancy (logistic regression and classification trees) and abundance (regression trees) across the individual routes
            (a) Each bird species had 4 models (100 m, 1 km, 10 km, multiscale) using 3 methodologies (logistic regression, classification tree, regression tree) for a total of 12 models per bird

   b) **FIA Unit scale**: each FIA unit was the sample unit (*n* = 30, see Fig. 3)
      i) BBS data averaged across unit (abundance/route)
      ii) Forest variables: extrapolated for each unit as per instructions in the FIA database.
      iii) Fragstats metrics: recalculated within each unit
      iv) Bird-habitat models described variations in bird abundance (regression trees) across the FIA units.

   c) **Physiographic section scale** (coarsest resolution): each section was the sample unit (*n* = 16, see Fig. 2b)
      i) Procedure identical to that of the FIA unit scale, except GLMs used for the bird-habitat models

Appendix P continued

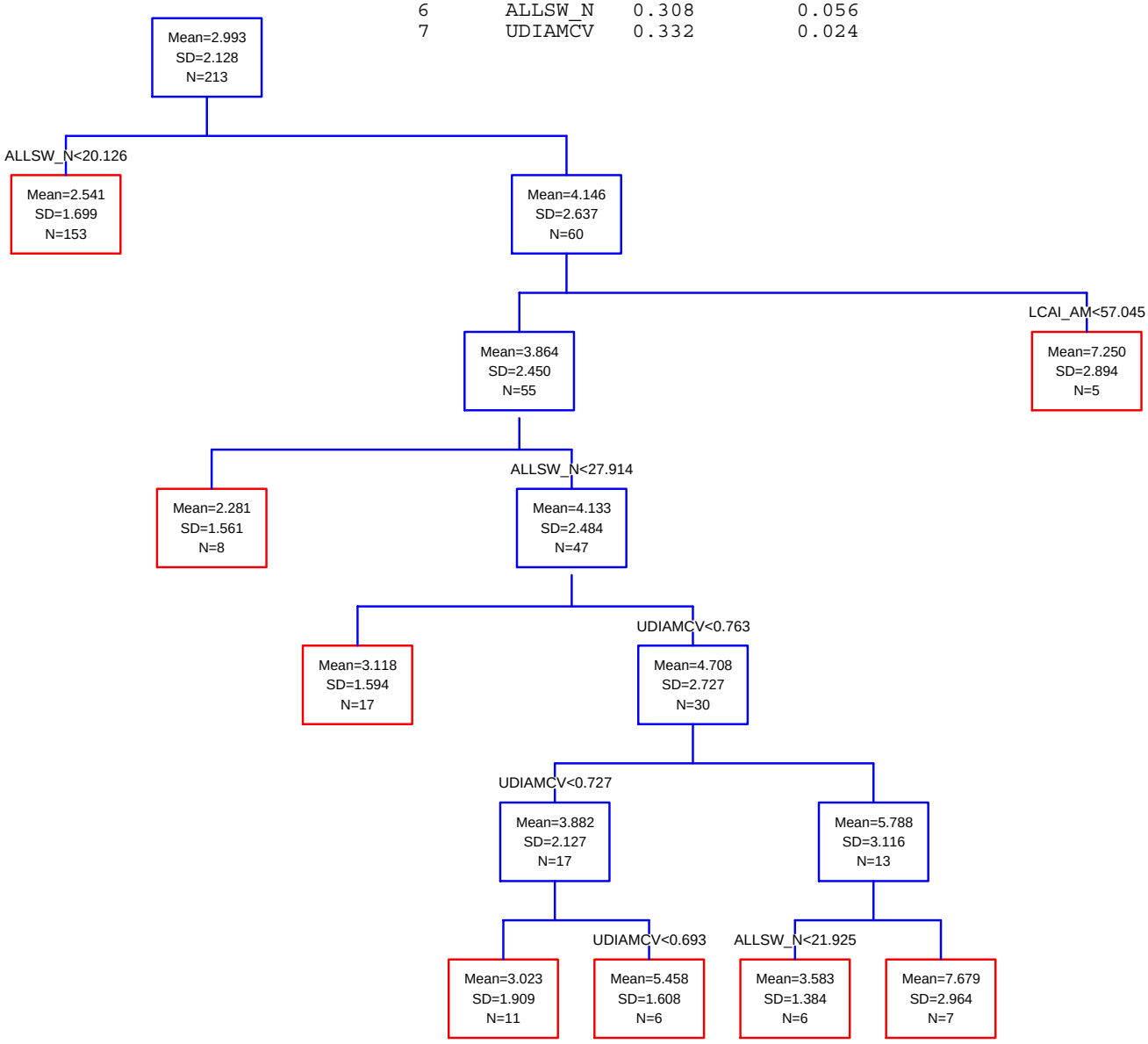
2) **Temporal Analyses** (variation in annual bird abundance relative to annual changes in forest characteristics)
   a) Year was the sample unit (n = 35)
   b) Forest variables developed from FIA statistics reports from the 1965, 1975, 1989, and 2000 inventory cycles for 11 FIA units in MD, NY, PA, and WV
      i) Values averaged across the 11 units
      ii) Developed annual estimates of these variables between successive inventories using linear interpolation
   c) BBS data (abundance/route averaged across the 11 FIA units) calculated per year
   d) Used GLMs to develop bird-habitat models.

Appendix Q. Individual bird-habitat models developed for all spatial analyses at the BBS route, FIA unit, and physiographic section scales. Models are organized by guild, species, scale of the analyses, and modeling methodology. CART models are read from top to bottom with the first split explaining the greatest variability and the subsequent splits accounting for further variations in the data. Each node (square) is labeled with the mode (classification tree) or mean (regression tree) of the response variable for that group, a measure of variability around that measure, and the number of samples in that group. Labels along the branches identify the factor creating the split for the underlying nodes. The global model, best model chosen using AIC, and all competing models (ΔAIC < 2) are provided for the logistic regression and GLM models. Coefficient tables for the logistic regression and GLM models are read left to right and ordered according to the model's AIC weight (w_i) value, with the model in the left most column having the greatest weight.

Cavity Guild
DOWNY WOODPECKER
BBS route level
100 m buffer
Regression tree of abundance

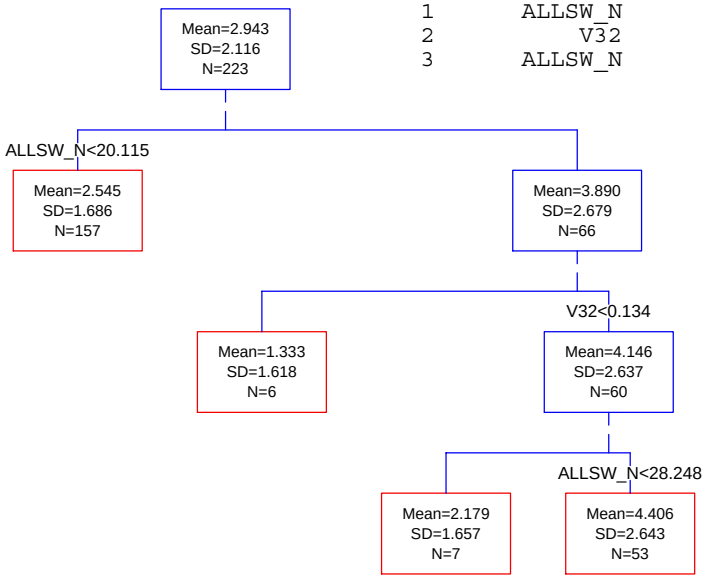
10 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLSW_N	0.116	0.116
2	LCAI_AM	0.170	0.055
3	ALLSW_N	0.195	0.024
4	UDIAMCV	0.223	0.029
5	UDIAMCV	0.251	0.028
6	ALLSW_N	0.308	0.056
7	UDIAMCV	0.332	0.024



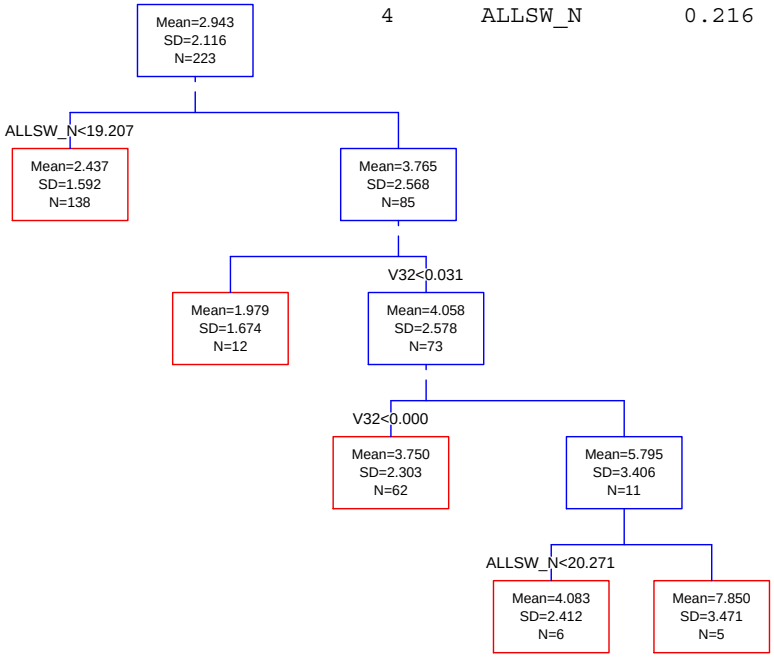
Cavity Guild
DOWNY WOODPECKER
BBS route level
1 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	ALLSW_N	0.085	0.085
2	V32	0.128	0.043
3	ALLSW_N	0.159	0.031



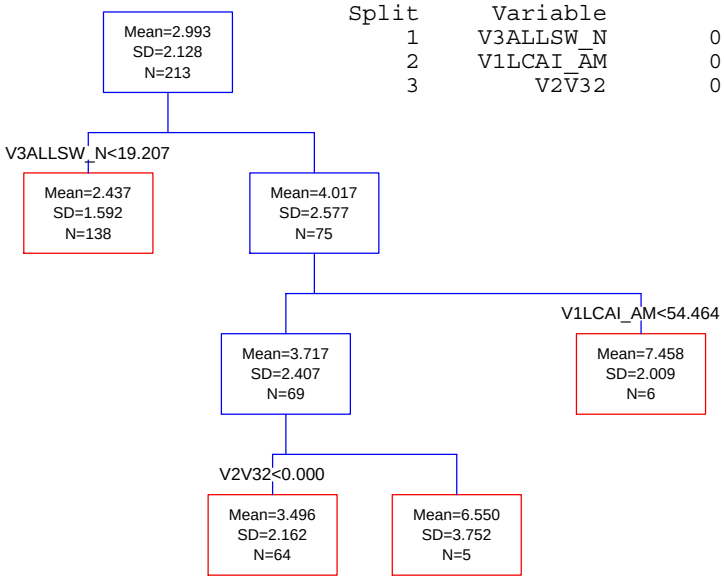
Cavity Guild
DOWNY WOODPECKER
BBS route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	ALLSW_N	0.093	0.093
2	V32	0.138	0.045
3	V32	0.177	0.039
4	ALLSW_N	0.216	0.039



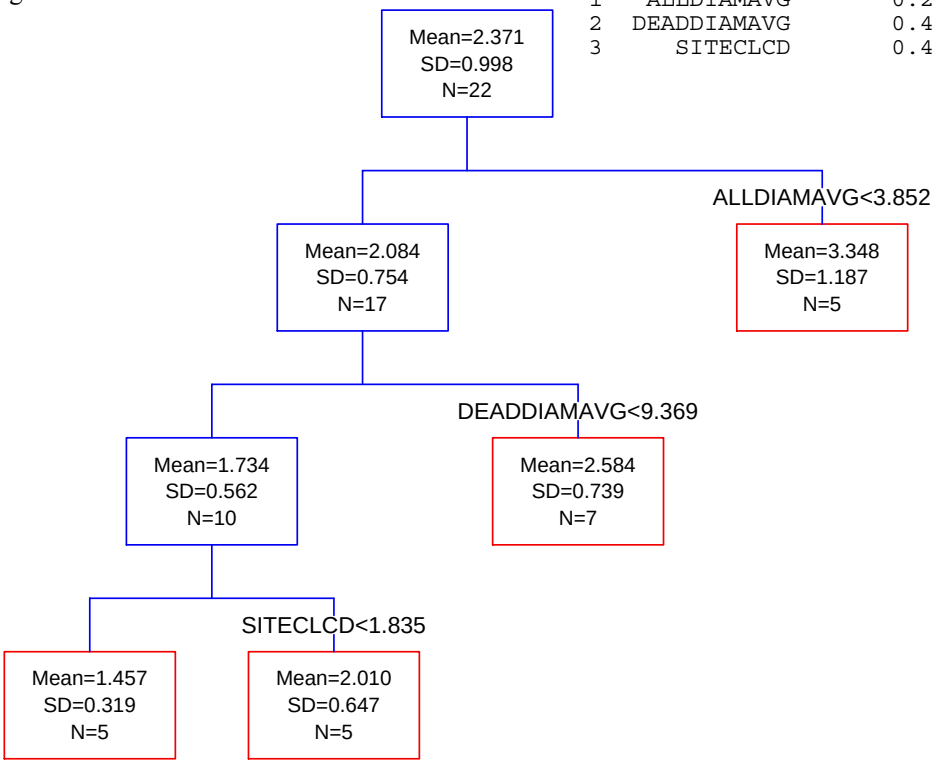
Cavity Guild
DOWNY WOODPECKER
BBS route level
Multiscale
Regression tree of abundance

```
10 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1    V3ALLSW_N       0.126        0.126
    2    V1LCAI_AM       0.207        0.080
    3        V2V32       0.252        0.045
```



Cavity Guild
DOWNY WOODPECKER
FIA Unit Scale
Regression tree of abundance

```
8 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1   ALLDIAMAVG       0.296        0.296
    2  DEADDIAMAVG       0.438        0.142
    3     SITECLCD       0.474        0.037
```



Cavity Guild
DOWNY WOODPECKER
Physiographic Section Scale
GLM of abundance

n	SSE	K	AICc	ΔAIC	w_i
16	0.394	4	-47.6	0.0	0.400
16	0.301	5	-47.6	0.0	0.389
16	0.536	3	-46.3	1.3	0.210

K4		K5(GLOBAL)		K3	
Parameter	Coefficient	Parameter	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
UDIAMAVG	-0.570	UDIAMAVG	-0.417	UDIAMAVG	-0.680
SITECLCD	0.139	SITECLCD	0.123		
		V13	223.282		

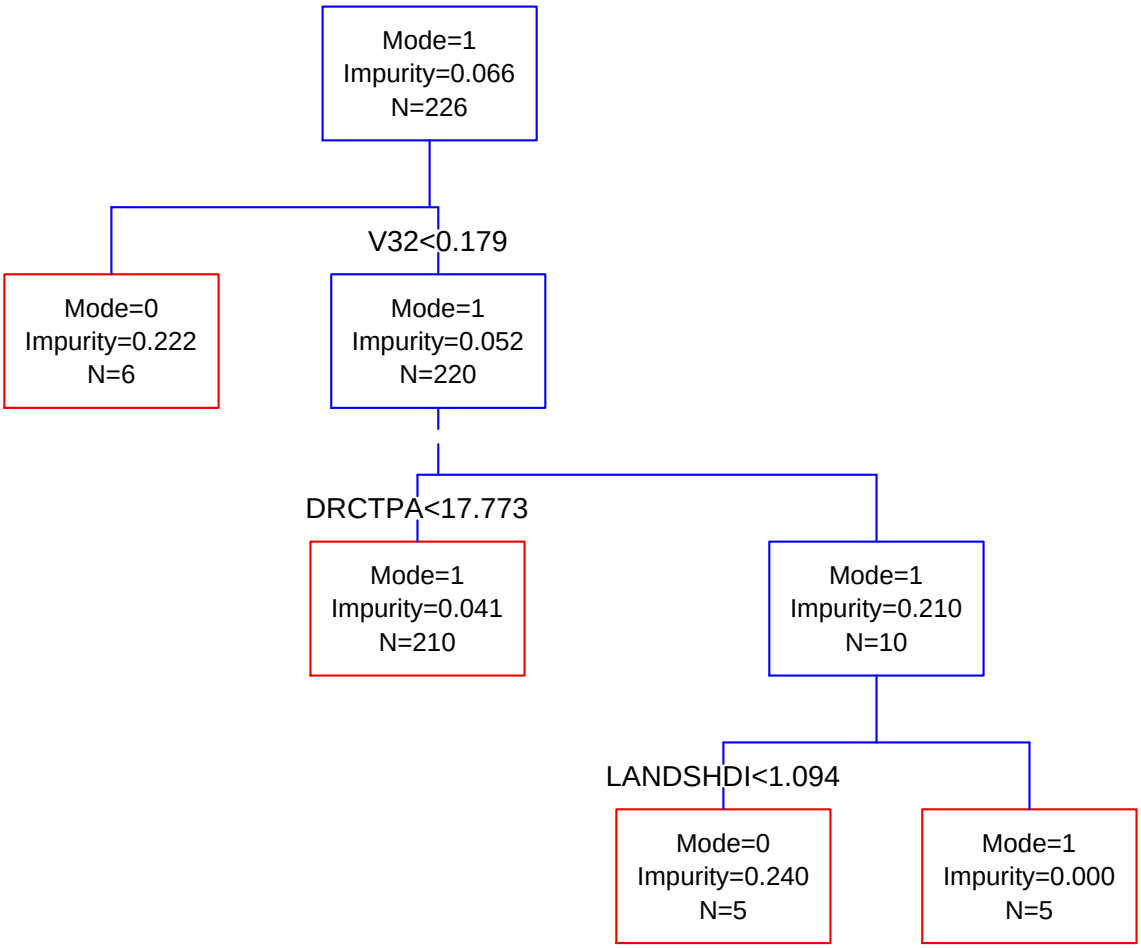
Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	SSE	K	AICc	ΔAIC	w_i
226	-49.272	4	106.7	0.0	0.287
226	-48.264	5	106.8	0.1	0.277
226	-47.213	6	106.8	0.1	0.275
226	-47.104	8	110.9	4.2	0.036

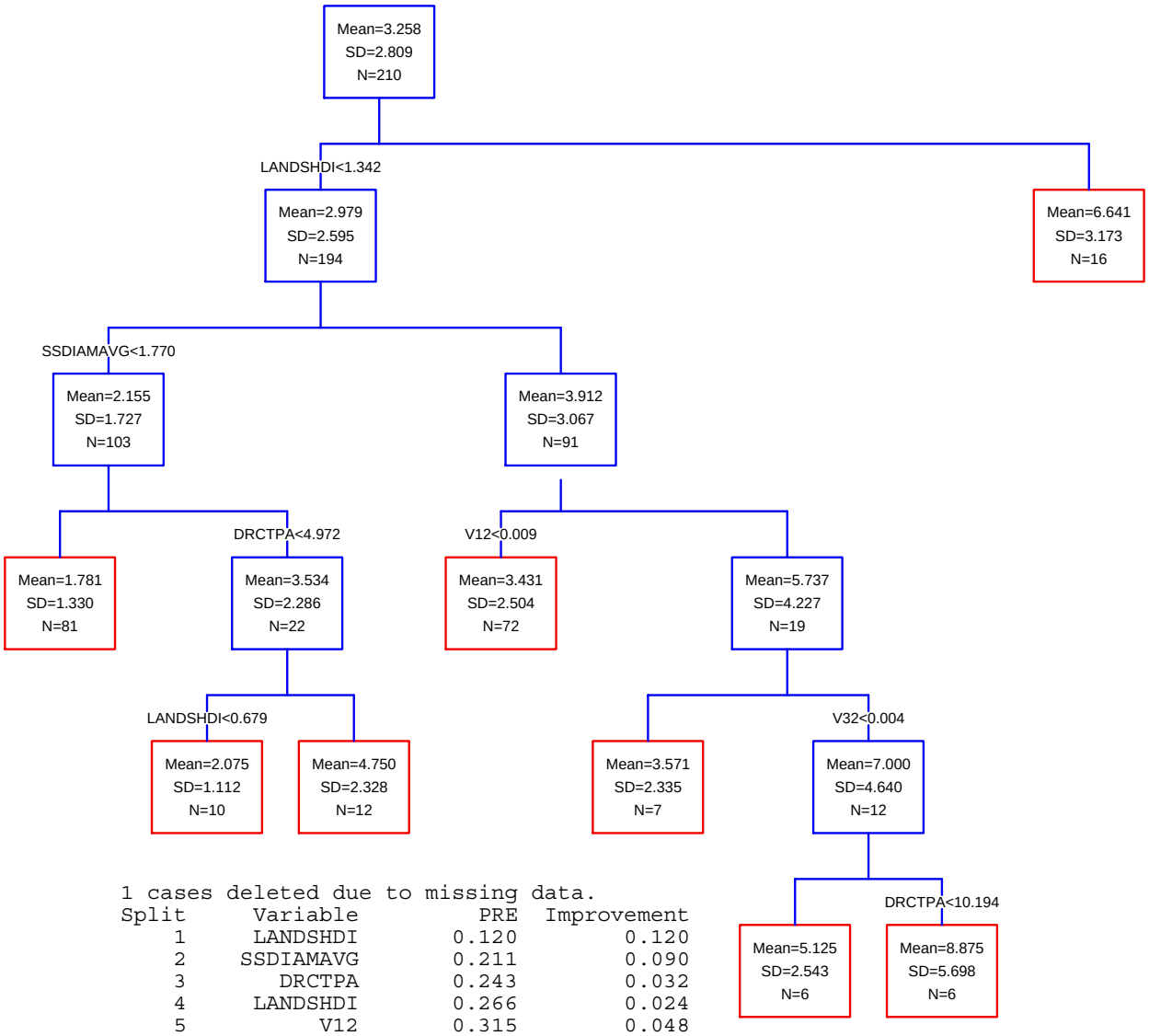
K4		K5		K6		K8(GLOBAL)	
Parameter	Estimate	Parameter	Estimate	Parameter	Estimate	Parameter	Estimate
CONSTANT	4.562	CONSTANT	2.995	CONSTANT	2.779	CONSTANT	1.49
DRCTPA	-0.171	DRCTPA	-0.177	DRCTPA	-0.191	DRCTPA	-0.198
V32	-9.699	V32	-10.896	V12	28.168	DDIAMAVG	0.121
		LANDSHDI	1.644	V32	-10.344	SSDIAMAVG	0.062
				LANDSHDI	1.82	V12	30.297
						V32	-10.576
						LANDSHDI	1.822

Cavity Guild
GREAT CRESTED FLYCATCHER
BBS Route level
100 m buffer
Classification tree of presence-absence

```
1 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1          V32       0.147        0.147
    2       DRCTPA       0.190        0.042
    3     LANDSHDI       0.250        0.061
```



Cavity Guild
GREAT CRESTED FLYCATCHER
BBS Route level
100 m buffer
Regression tree of abundance



1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LANDSHDI	0.120	0.120
2	SSDIAMAVG	0.211	0.090
3	DRCTPA	0.243	0.032
4	LANDSHDI	0.266	0.024
5	V12	0.315	0.048
6	V32	0.346	0.032
7	DRCTPA	0.372	0.026

Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	SSE	K	AICc	ΔAIC	w_i
217	-41.611	4	91.4	0.0	0.237
217	-40.636	5	91.6	0.2	0.221
217	-42.848	3	91.8	0.4	0.195
217	-40.182	6	92.8	1.4	0.121
217	-39.252	7	93.0	1.6	0.105
217	-38.455	10	98.0	6.6	0.009

K4

Parameter	Estimate
CONSTANT	1.878
DRCTPA	-0.171
LANDIJI	0.055

K5

Parameter	Estimate
CONSTANT	8.159
DRCTPA	-0.153
UDIAMCV	-8.755
LANDIJI	0.056

K3

Parameter	Estimate
CONSTANT	4.635
DRCTPA	-0.178

K6

Parameter	Estimate
CONSTANT	20.809
DRCTPA	-0.156
SSDIAMAVG	-5.239
UDIAMCV	-13.837
LANDIJI	0.065

K7

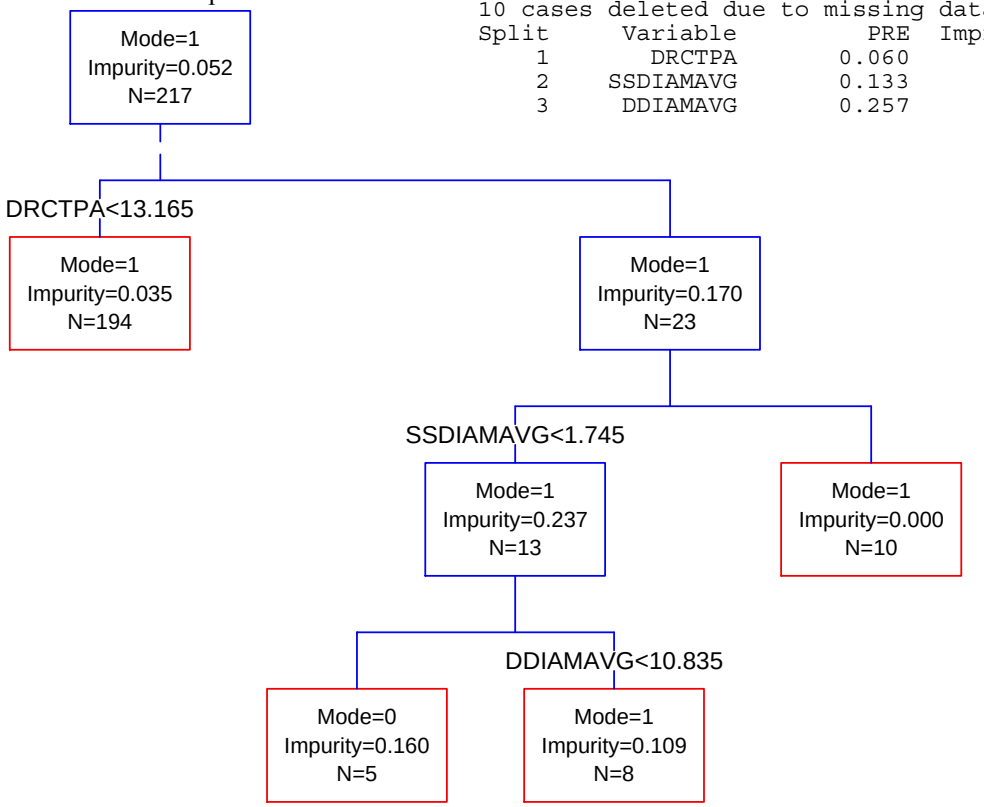
Parameter	Estimate
CONSTANT	24.297
DRCTPA	-0.182
DDIAMAVG	0.411
SSDIAMAVG	-8.164
UDIAMCV	-17.79
LANDIJI	0.08

K10(GLOBAL)

Parameter	Estimate
CONSTANT	24.718
DRCTPA	-0.201
DDIAMAVG	0.53
SSDIAMAVG	-9.006
UDIAMCV	-18.143
V12	25.577
V32	31.147
LANDIJI	0.077
LANDSIDI	0.497

Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
1 km buffer
Classification tree of presence-absence

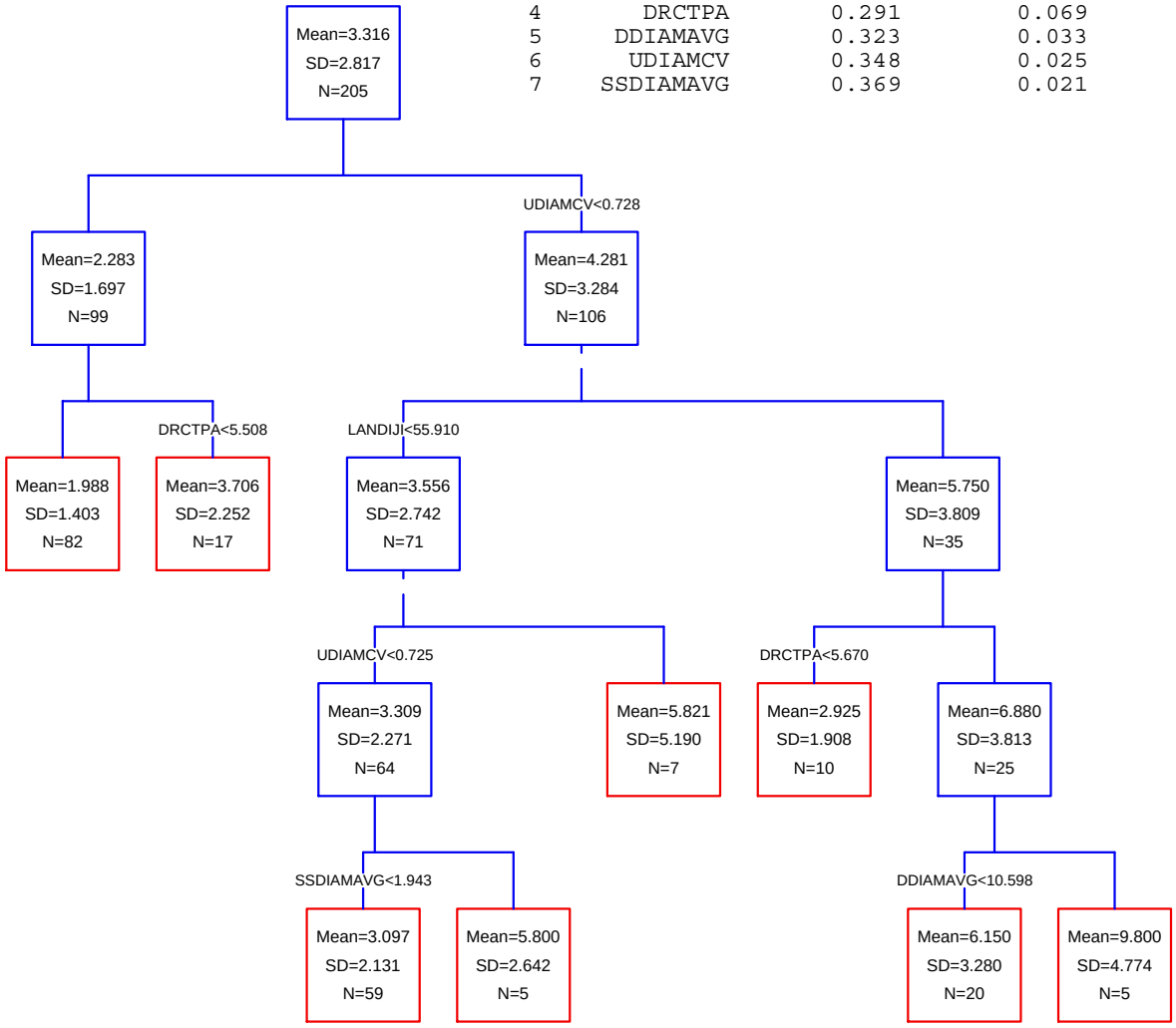
```
10 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1       DRCTPA       0.060        0.060
    2    SSDIAMAVG       0.133        0.074
    3     DDIAMAVG       0.257        0.124
```



Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
1 km buffer
Regression tree of abundance

6 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	UDIAMCV	0.126	0.126
2	DRCTPA	0.152	0.026
3	LANDIJI	0.222	0.070
4	DRCTPA	0.291	0.069
5	DDIAMAVG	0.323	0.033
6	UDIAMCV	0.348	0.025
7	SSDIAMAVG	0.369	0.021



Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	SSE	K	AICc	ΔAIC	w_i
227	-43.436	5	97.1	0.0	0.356
227	-42.469	6	97.3	0.2	0.326
227	-42.128	7	98.8	1.7	0.158
227	-41.143	12	107.7	10.6	0.002

K5

Parameter	Estimate
CONSTANT	-0.814
DRCTPA	-0.203
V32	-15.088
LANDIJI	0.125

K6

Parameter	Estimate
CONSTANT	-5.997
DRCTPA	-0.205
V32	-13.421
LANDCONTAG	0.058
LANDIJI	0.165

K7

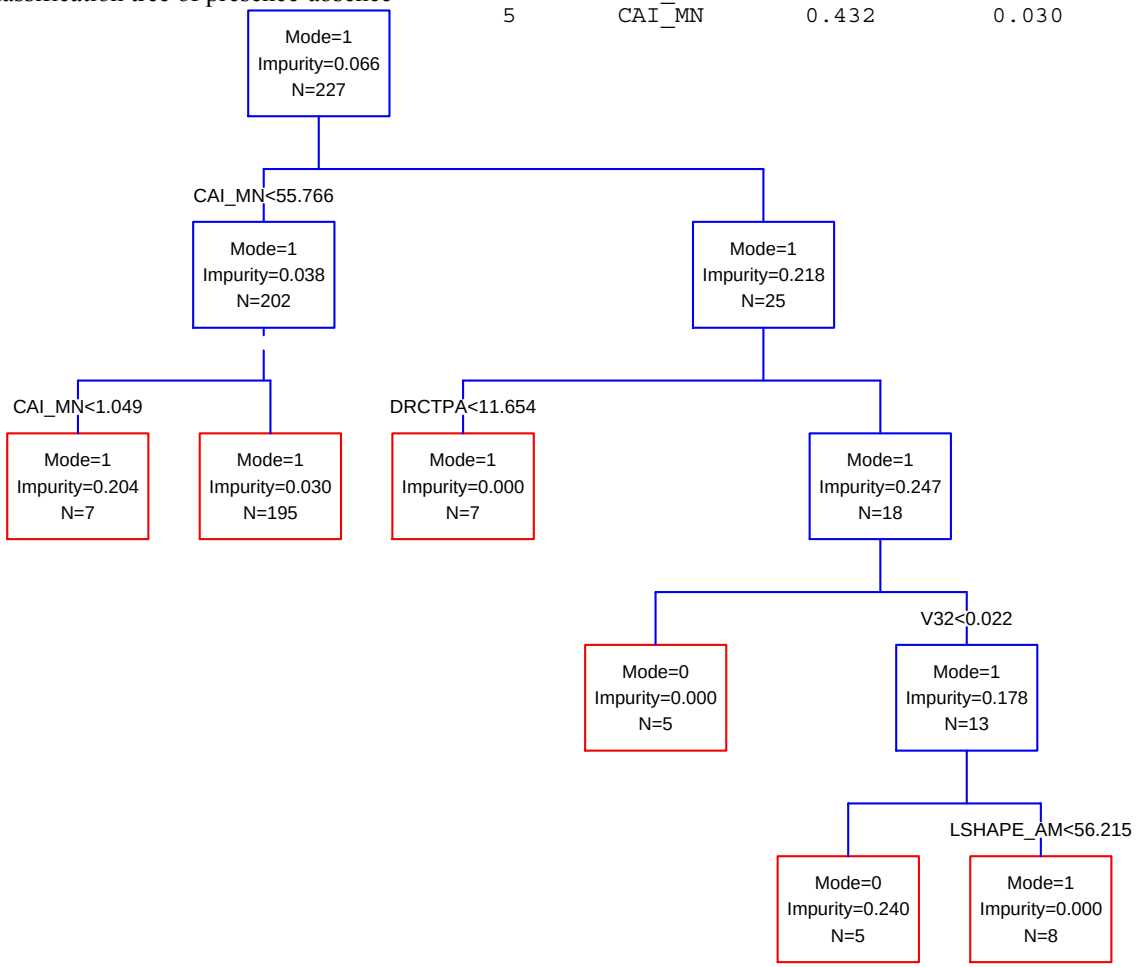
Parameter	Estimate
CONSTANT	-5.819
DRCTPA	-0.214
V24	-24.993
V32	-14.189
LANDCONTAG	0.058
LANDIJI	0.168

K12(GLOBAL)

Parameter	Estimate
CONSTANT	-1.79
DRCTPA	-0.288
DDIAMAVG	0.188
SSDIAMAVG	-5.177
V12	4.062
V24	-32.65
V32	-16.956
CAI_MN	0.014
LSHAPE_AM	-0.014
LANDCONTAG	0.097
LANDIJI	0.212

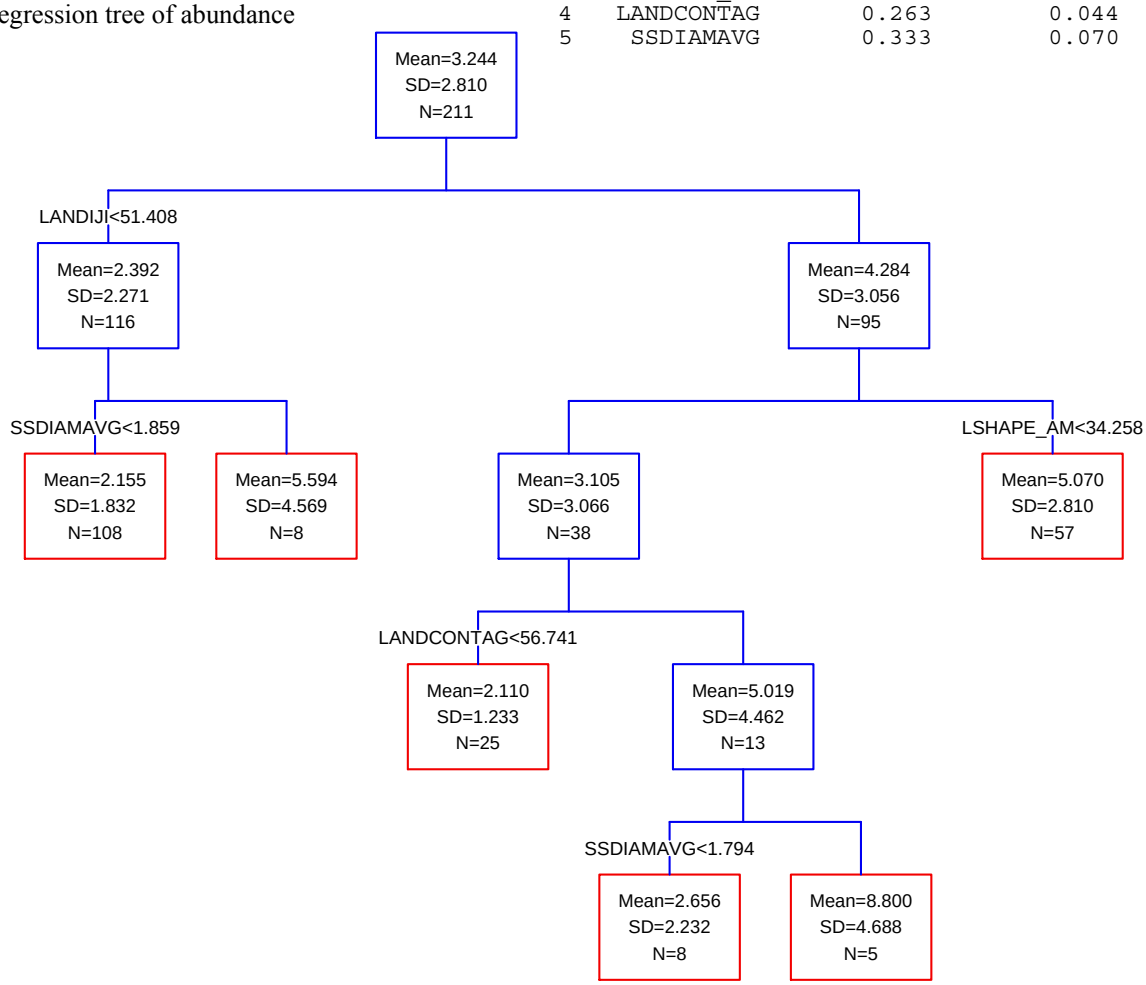
Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
10 km buffer
Classification tree of presence-absence

Split	Variable	PRE	Improvement
1	CAI_MN	0.118	0.118
2	DRCTPA	0.185	0.067
3	V32	0.328	0.144
4	LSHAPE_AM	0.403	0.074
5	CAI_MN	0.432	0.030



Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	LANDIJI	0.113	0.113
2	SSDIAMAVG	0.166	0.053
3	LSHAPE_AM	0.219	0.053
4	LANDCONTAG	0.263	0.044
5	SSDIAMAVG	0.333	0.070



Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
Multiscale
Logistic regression of presence-absence

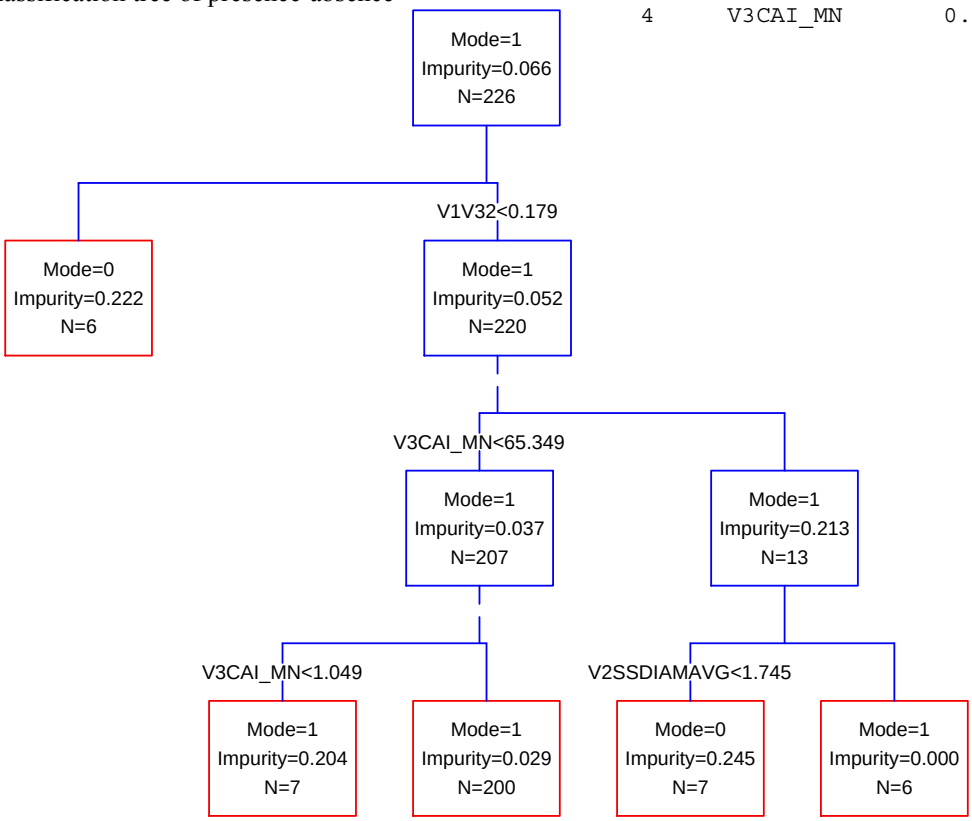
n	SSE	K	AICc	ΔAIC	w_i
226	-42.91	5	96.1	0.0	0.975

K5(GLOBAL)

Parameter	Estimate
CONSTANT	-0.98
V1DRCTPA	-0.192
V3V32	-16.214
V3LANDIJI	0.127

Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
Multiscale
Classification tree of presence-absence

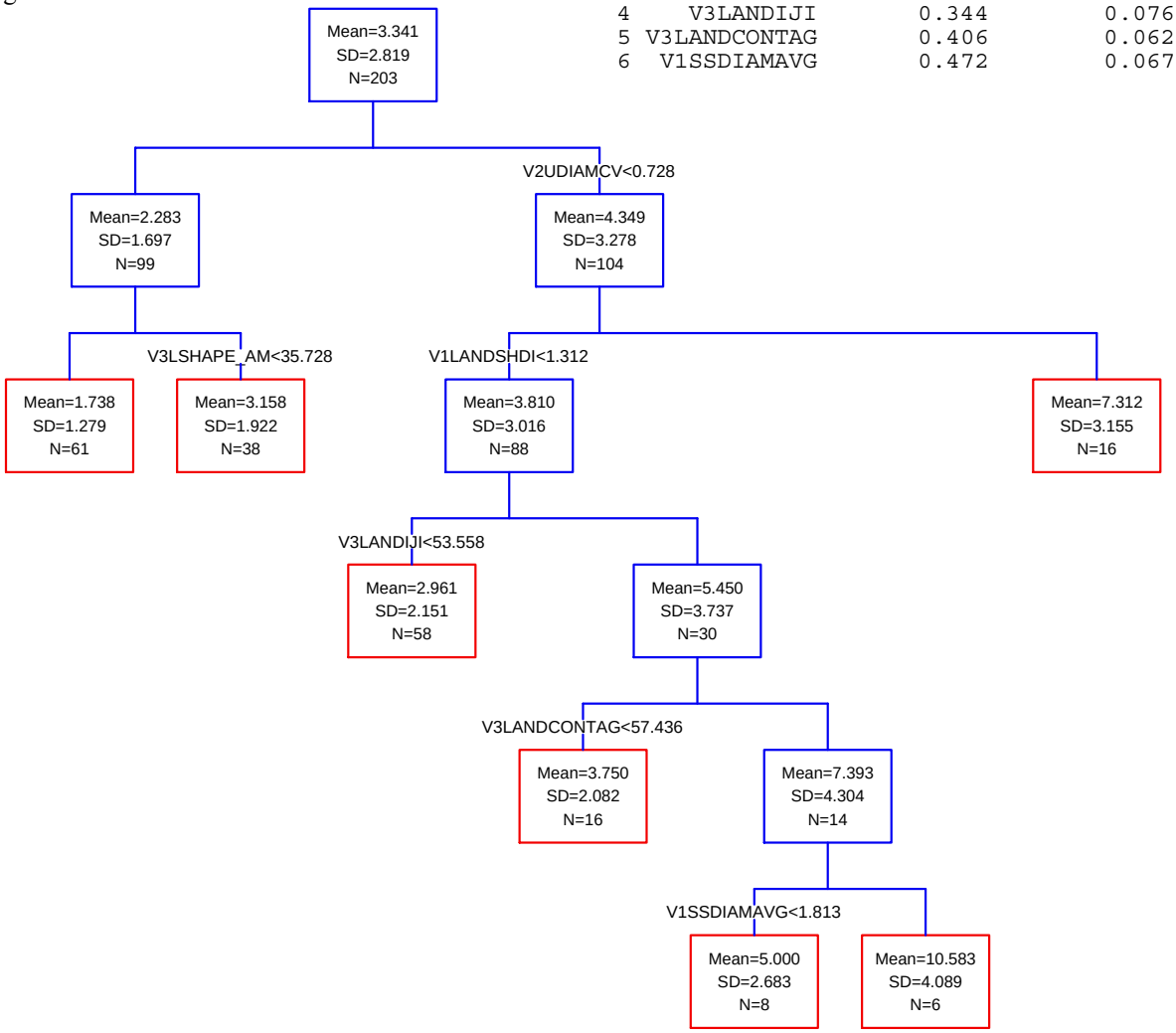
```
1 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1        V1V32        0.147        0.147
    2     V3CAI_MN        0.207        0.060
    3  V2SSDIAMAVG        0.278        0.071
    4     V3CAI_MN        0.307        0.030
```



Cavity Guild
GREAT-CRESTED FLYCATCHER
BBS Route level
Multiscale
Regression tree of abundance

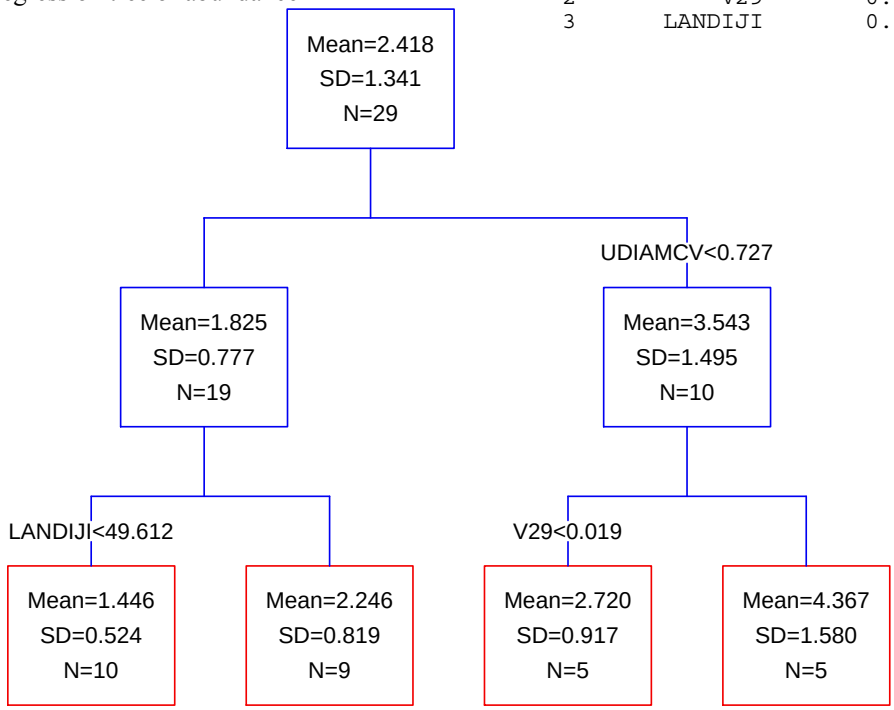
8 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2UDIAMCV	0.135	0.135
2	V3LSHAPE_AM	0.164	0.029
3	V1LANDSHDI	0.268	0.103
4	V3LANDIJI	0.344	0.076
5	V3LANDCONTAG	0.406	0.062
6	V1SSDIAMAVG	0.472	0.067



Cavity Guild
GREAT-CRESTED FLYCATCHER
FIA Unit scale
Regression tree of abundance

```
1 cases deleted due to missing data.
Split      Variable          PRE  Improvement
    1       UDIAMCV        0.384        0.384
    2           V29        0.519        0.135
    3       LANDIJI        0.579        0.060
```



Cavity Guild
GREAT-CRESTED FLYCATCHER
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	0.876	3	-38.5	0.0	0.529
16	0.708	4	-38.3	0.2	0.471

K3		K4(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
DDIAMCV	-0.885	DDIAMCV	-0.721
		LANDIJI	0.017

Cavity Guild
PILEATED WOODPECKER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
169	-54.329	4	116.9	0.0	0.366
169	-53.564	5	117.5	0.6	0.272
169	-51.995	19	147.1	30.2	0.000

K4

Parameter	Estimate
CONSTANT	-5.464
V23	14.726
SHAPE_MN	4.891

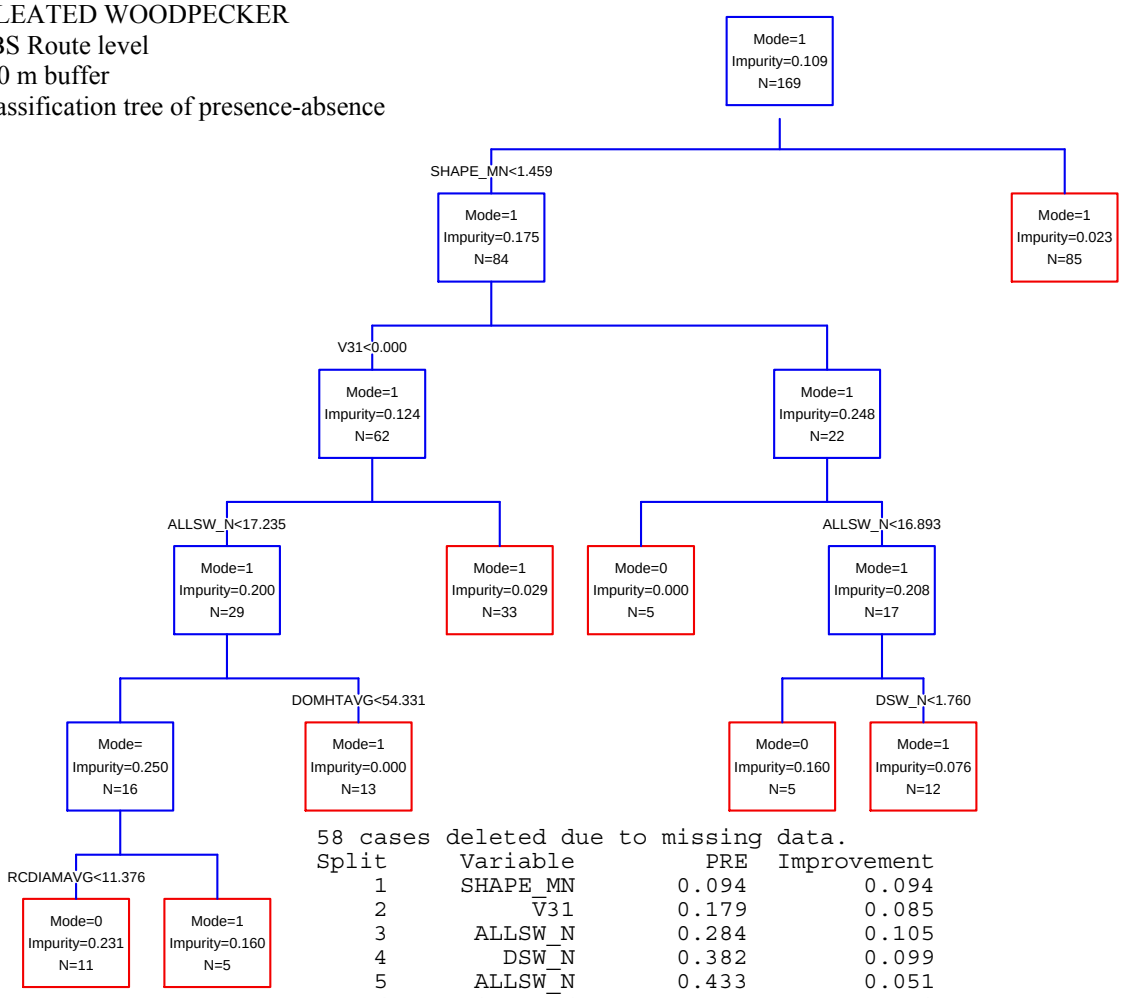
K5

Parameter	Estimate
CONSTANT	-5.327
V11	24.994
V23	8.24
SHAPE_MN	4.787

K19(GLOBAL)

Parameter	Estimate
CONSTANT	-8.024
SITECLCD	0.318
DEADTPA	0.032
RCTPA	-0.182
DOMHTAVG	-0.001
RCDIAMAVG	0.046
ALLSW_N	-0.008
DSW_N	-0.92
V11	33.137
V19	-28.539
V21	-1.073
V22	-1.319
V23	12.756
V31	-12.606
SHAPE_MN	4.446
CAI_AM	-0.01
LANDLSI	0.047
LSHAPE_MN	2.986

Cavity Guild
PILEATED WOODPECKER
BBS Route level
100 m buffer
Classification tree of presence-absence



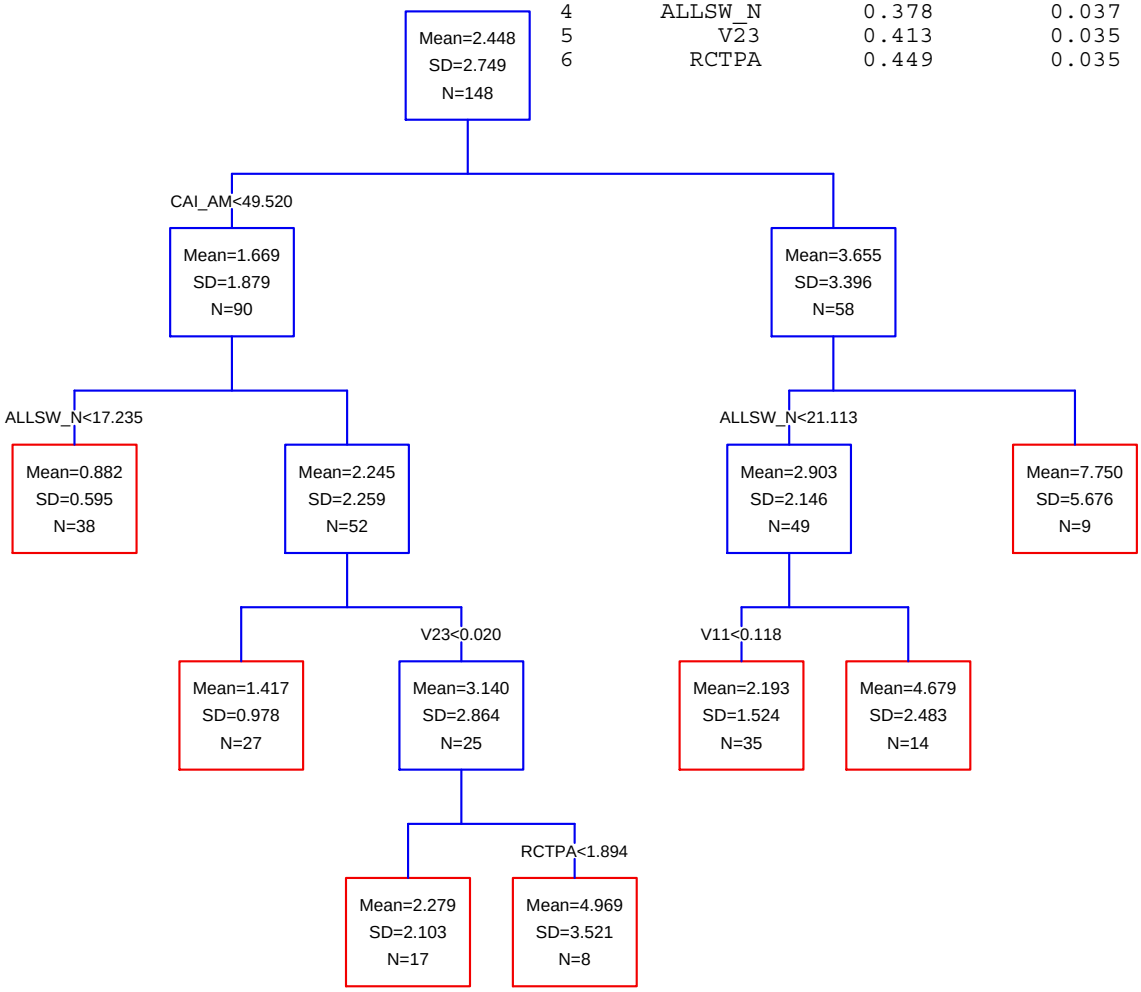
58 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	SHAPE_MN	0.094	0.094
2	V31	0.179	0.085
3	ALLSW_N	0.284	0.105
4	DSW_N	0.382	0.099
5	ALLSW_N	0.433	0.051
6	DOMHTAVG	0.530	0.098
7	RCDIAMAVG	0.566	0.036

Cavity Guild
PILEATED WOODPECKER
BBS Route level
100 m buffer
Regression tree of abundance

51 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_AM	0.125	0.125
2	ALLSW_N	0.286	0.161
3	V11	0.342	0.056
4	ALLSW_N	0.378	0.037
5	V23	0.413	0.035
6	RCTPA	0.449	0.035



Cavity Guild
PILEATED WOODPECKER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
225	-60.438	8	137.5	0.0	0.163
225	-57.247	11	137.7	0.2	0.148
225	-61.779	7	138.1	0.6	0.125
225	-59.676	9	138.2	0.7	0.118
225	-58.727	10	138.5	1.0	0.102
225	-63.099	6	138.6	1.1	0.097
225	-64.368	5	139.0	1.5	0.078
225	-65.494	4	139.2	1.7	0.072
225	-56.567	18	152.5	15.0	0.000

K8

Parameter	Estimate
CONSTANT	2.311
SITECLCD	0.903
RCTPA	-0.393
RCDIAMAVG	0.206
DSW_N	-1.802
LSI	-0.054
SHAPE_AM	0.124

K11

Parameter	Estimate
CONSTANT	5.346
SITECLCD	0.602
RCTPA	-0.233
DDIAMAVG	-0.229
RCDIAMAVG	0.207
DSW_N	-2.197
V11	25.365
V19	51.703
LSI	-0.055
SHAPE_AM	0.115

K7

Parameter	Estimate
CONSTANT	0.47
CAI_AM	0.032
RCDIAMAVG	0.209
DSW_N	-1.825
SHAPE_AM	0.112
RCTPA	-0.362

K9

Parameter	Estimate
CONSTANT	5.902
SITECLCD	0.872
RCTPA	-0.351
DDIAMAVG	-0.267
RCDIAMAVG	0.218
DSW_N	-2.263
LSI	-0.061
SHAPE_AM	0.12

K10

Parameter	Estimate
CONSTANT	5.641
SITECLCD	0.638
RCTPA	-0.28
DDIAMAVG	-0.232
RCDIAMAVG	0.209
DSW_N	-2.15
V19	46.071
LSI	-0.063
SHAPE_AM	0.13

K6

Parameter	Estimate
CONSTANT	-0.177
CAI_AM	0.03
RCDIAMAVG	0.191
DSW_N	-1.468
SHAPE_AM	0.085

K5

Parameter	Estimate
CONSTANT	-0.254
CAI_AM	0.043
RCDIAMAVG	0.216
DSW_N	-1.431

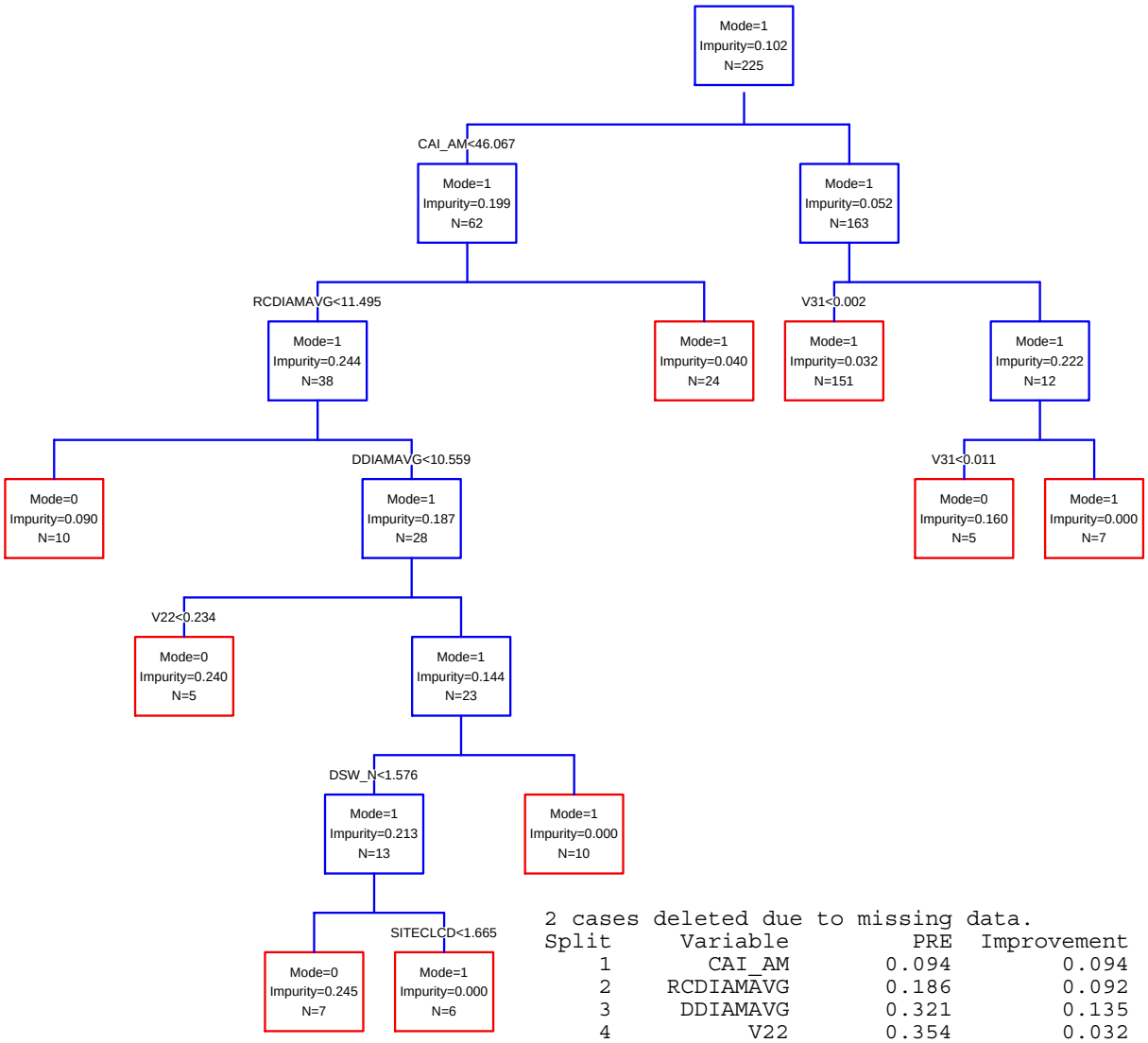
K4

Parameter	Estimate
CONSTANT	-2.662
CAI_AM	0.044
RCDIAMAVG	0.22

K18(GLOBAL)

Parameter	Estimate
CONSTANT	7.755
SITECLCD	0.582
DEADTPA	0.074
RCTPA	-0.257
DDIAMAVG	-0.323
RCDIAMAVG	0.189
ALLSW_N	-0.023
DSW_N	-2.222
V11	23.392
V19	56.095
V21	-3.276
V22	-0.385
V23	5.766
V31	15.006
LSI	-0.072
SHAPE_AM	0.12
CAI_AM	-0.011

Cavity Guild
PILEATED WOODPECKER
BBS Route level
1 km buffer
Classification tree of presence-absence

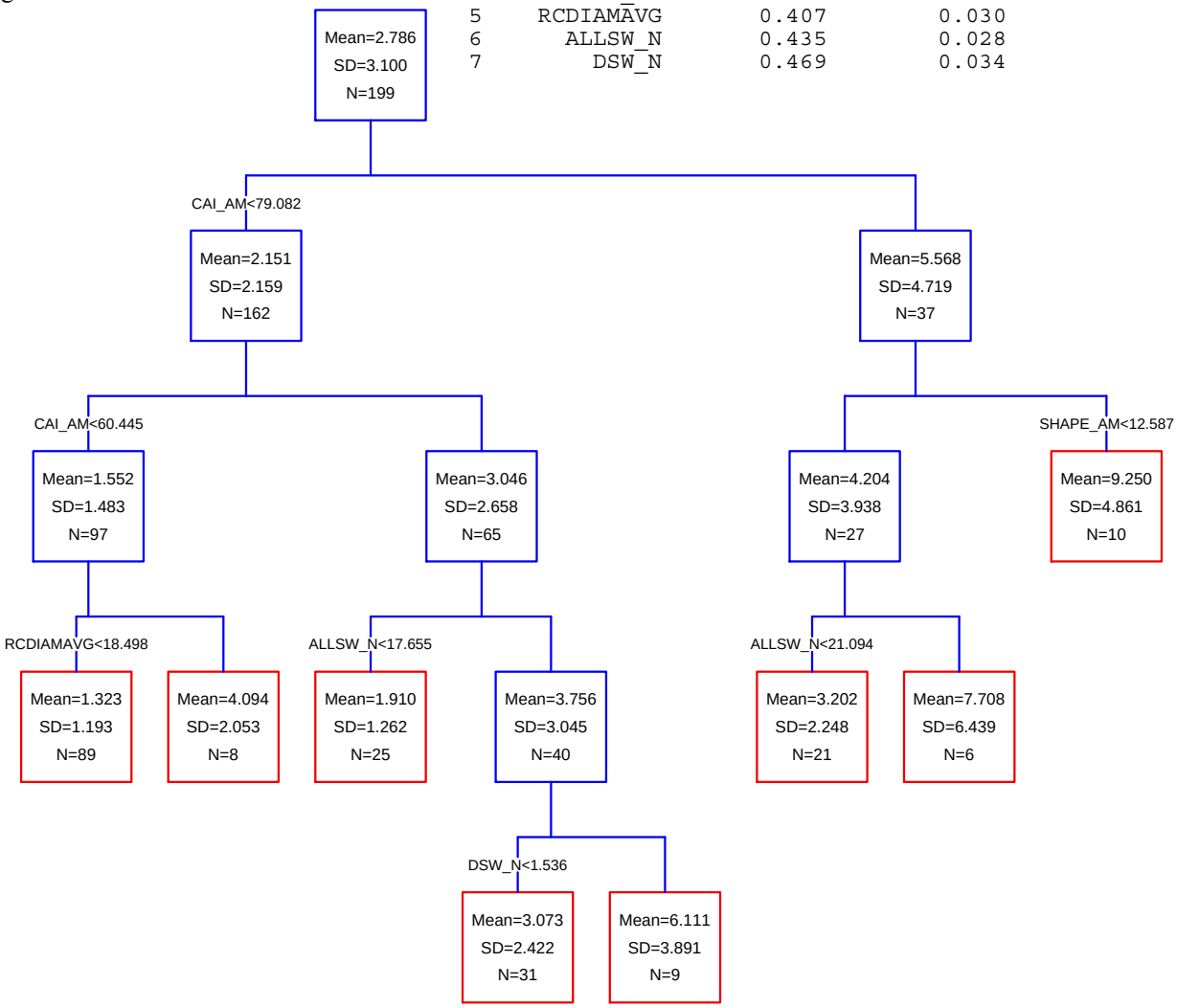


2 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_AM	0.094	0.094
2	RCDIAMAVG	0.186	0.092
3	DDIAMAVG	0.321	0.135
4	V22	0.354	0.032
5	DSW_N	0.377	0.023
6	SITECLCD	0.423	0.046
7	V31	0.466	0.044
8	V31	0.547	0.081

Cavity Guild
PILEATED WOODPECKER
BBS Route level
1 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	CAI_AM	0.185	0.185
2	SHAPE_AM	0.282	0.098
3	ALLSW_N	0.332	0.050
4	CAI_AM	0.378	0.046
5	RCDIAMAVG	0.407	0.030
6	ALLSW_N	0.435	0.028
7	DSW_N	0.469	0.034



Cavity Guild
PILEATED WOODPECKER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
173	-50.526	7	115.7	0.0	0.454
173	-49.999	8	116.9	1.2	0.256
173	-48.926	18	138.3	22.6	0.000

K7

Parameter	Estimate
CONSTANT	8.215
SITECLCD	1.405
RCDIAMAVG	0.325
ALLHTCV	-3.008
DSW_N	-3.117
LSI	-0.025

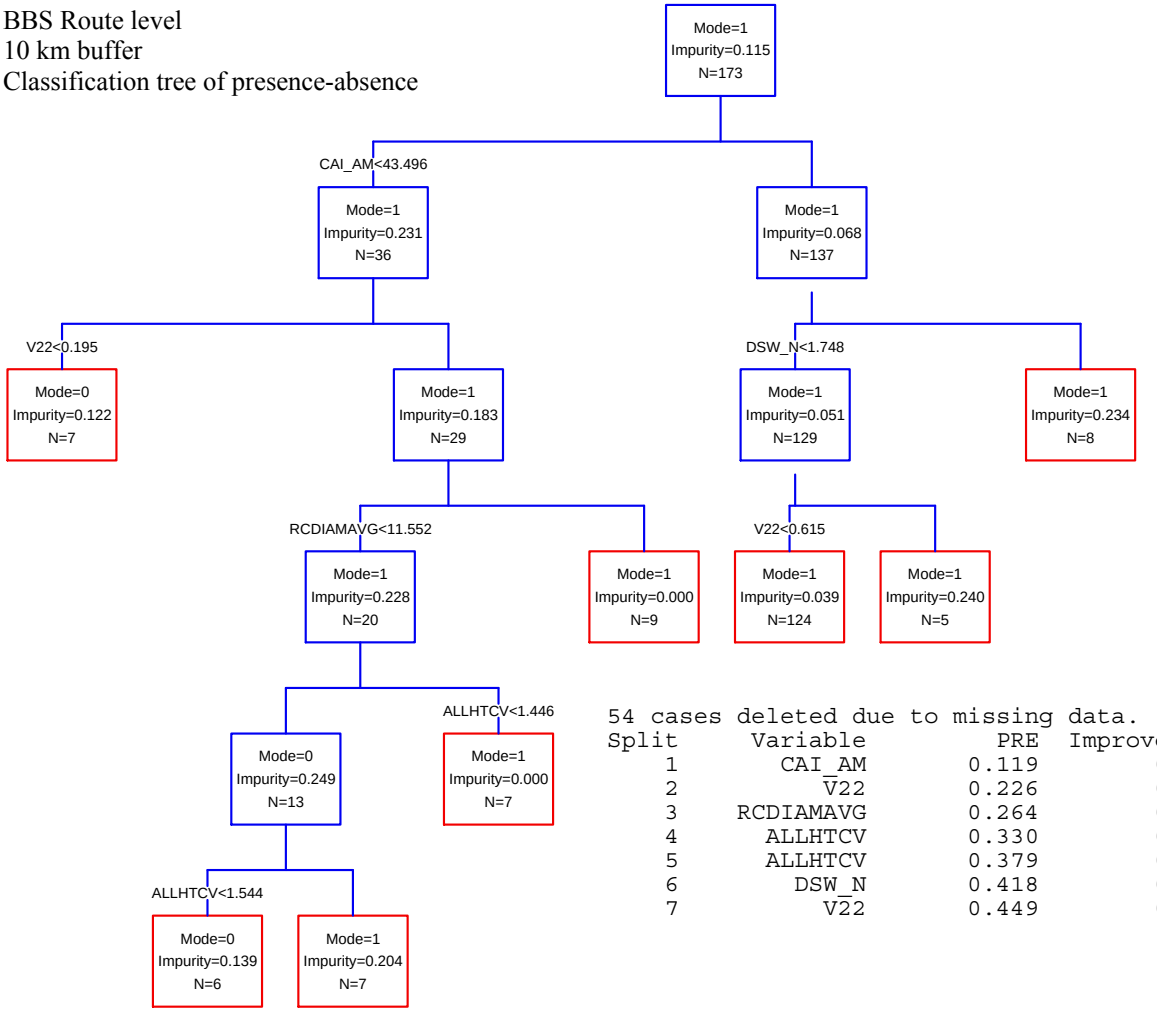
K8

Parameter	Estimate
CONSTANT	12.545
SITECLCD	1.546
DDIAMAVG	-0.313
RCDIAMAVG	0.335
ALLHTCV	-3.132
DSW_N	-3.808
LSI	-0.027

K18(GLOBAL)

Parameter	Estimate
CONSTANT	9.279
SITECLCD	1.219
DEADTPA	0.192
RCTPA	-0.254
DDIAMAVG	-0.425
RCDIAMAVG	0.266
ALLHTCV	-3.01
SSDIAMCV	5.559
UDIAMCV	1.886
ALLSW_N	0.031
DSW_N	-2.955
V19	-35.673
V21	1.106
V22	-1.202
LSI	-0.027
SHAPE_AM	-0.002
CAI_AM	0.005

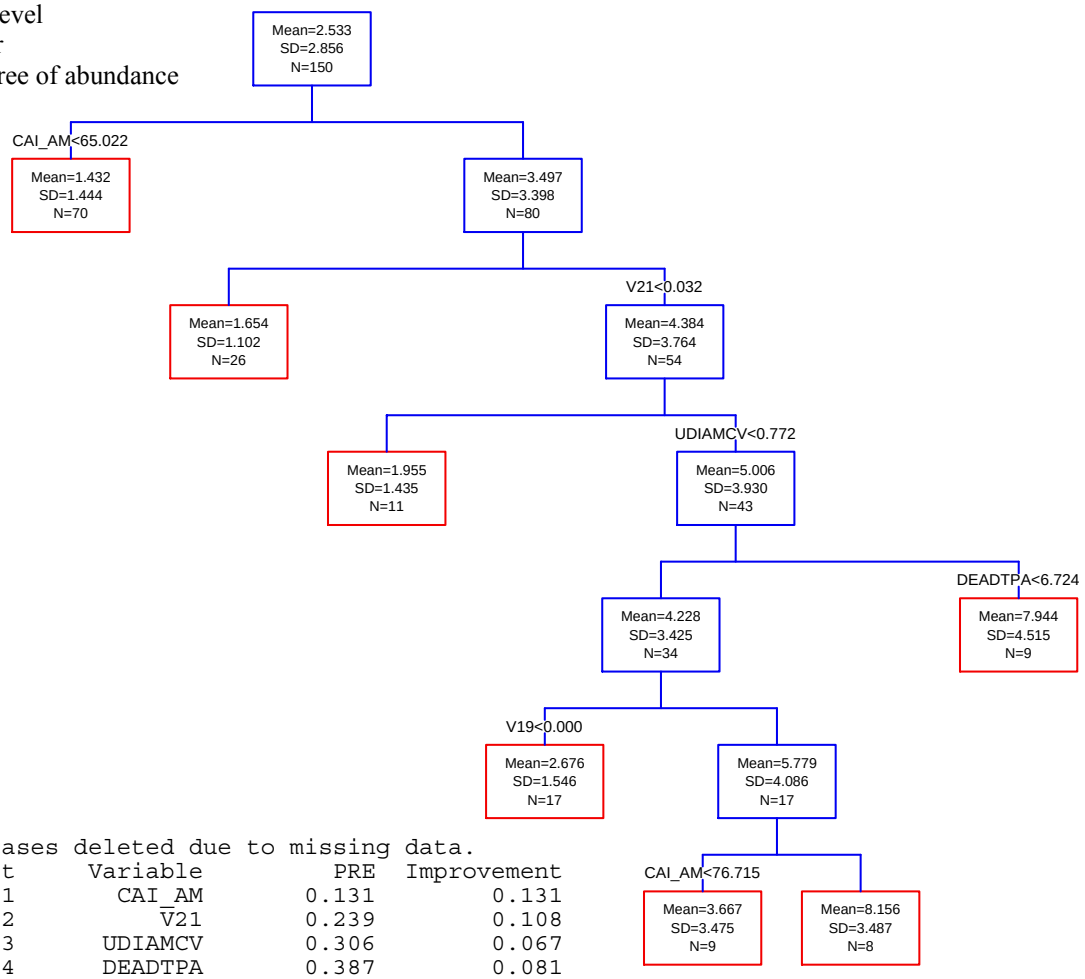
Cavity Guild
PILEATED WOODPECKER
BBS Route level
10 km buffer
Classification tree of presence-absence



54 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_AM	0.119	0.119
2	V22	0.226	0.107
3	RCDIAMAVG	0.264	0.038
4	ALLHTCV	0.330	0.066
5	ALLHTCV	0.379	0.049
6	DSW_N	0.418	0.039
7	V22	0.449	0.031

Cavity Guild
PILEATED WOODPECKER
BBS Route level
10 km buffer
Regression tree of abundance




```
49 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1       CAI_AM       0.131        0.131
    2          V21       0.239        0.108
    3      UDIAMCV       0.306        0.067
    4      DEADTPA       0.387        0.081
    5          V19       0.454        0.067
    6       CAI_AM       0.524        0.070
```

Cavity Guild
PILEATED WOODPECKER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
170	-49.359	8	115.6	0.0	0.263
170	-50.492	7	115.7	0.1	0.255
170	-51.7	6	115.9	0.3	0.226
170	-49.213	11	122.1	6.5	0.010

K8

Parameter	Estimate
CONSTANT	7.041
V2SHAPE_AM	0.088
V3SITECLCD	1.055
V3RCDIAMAVG	0.286
V3ALLHTCV	-2.761
V3DSW_N	-3.07
V3LSI	-0.018

K7

Parameter	Estimate
CONSTANT	8.083
V3SITECLCD	1.398
V3RCDIAMAVG	0.319
V3ALLHTCV	-2.988
V3DSW_N	-2.996
V3LSI	-0.025

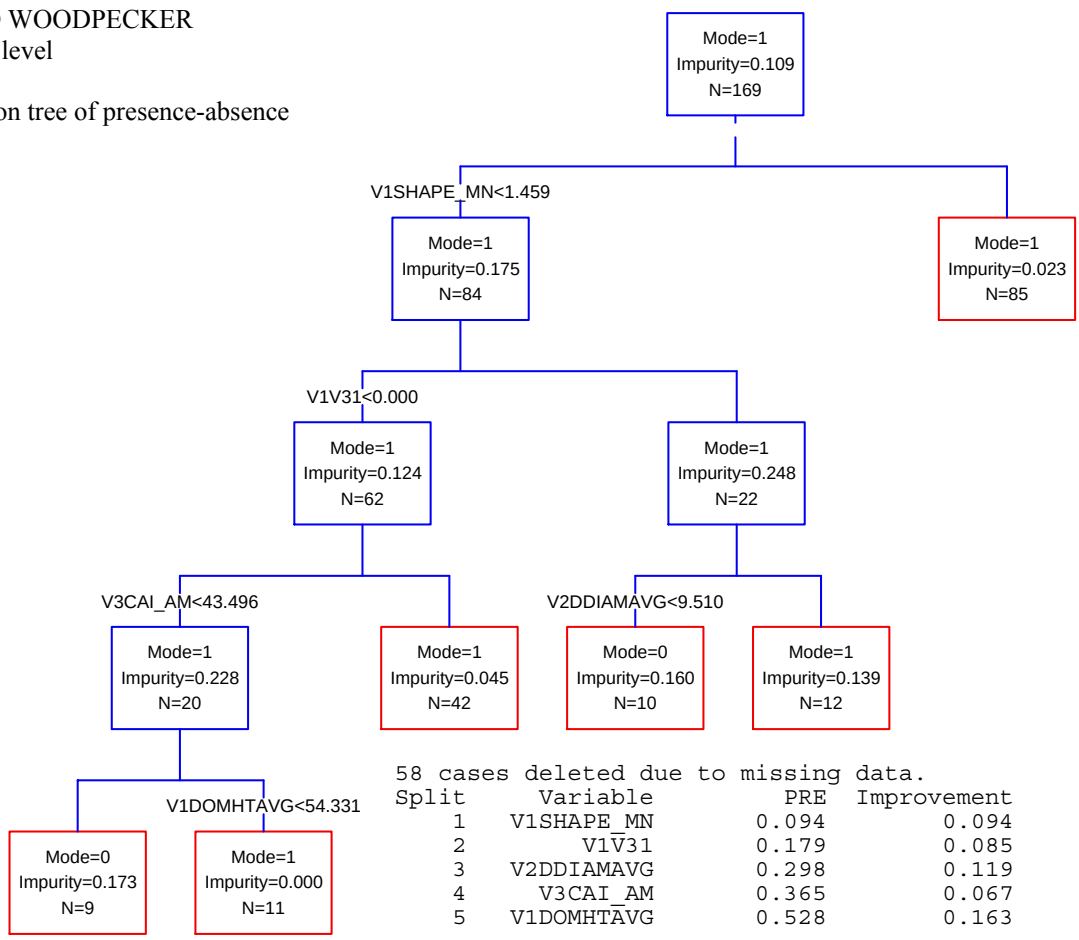
K6

Parameter	Estimate
CONSTANT	3.449
V3SITECLCD	1.407
V3RCDIAMAVG	0.289
V3ALLHTCV	-2.678
V3LSI	-0.028

K(11(GLOBAL)

Parameter	Estimate
CONSTANT	6.249
V1V23	5.695
V1SHAPE_MN	0.375
V2RCTPA	-0.031
V2SHAPE_AM	0.084
V3SITECLCD	0.994
V3RCDIAMAVG	0.27
V3ALLHTCV	-2.587
V3DSW_N	-3.064
V3LSI	-0.016

Cavity Guild
PILEATED WOODPECKER
BBS Route level
Multiscale
Classification tree of presence-absence

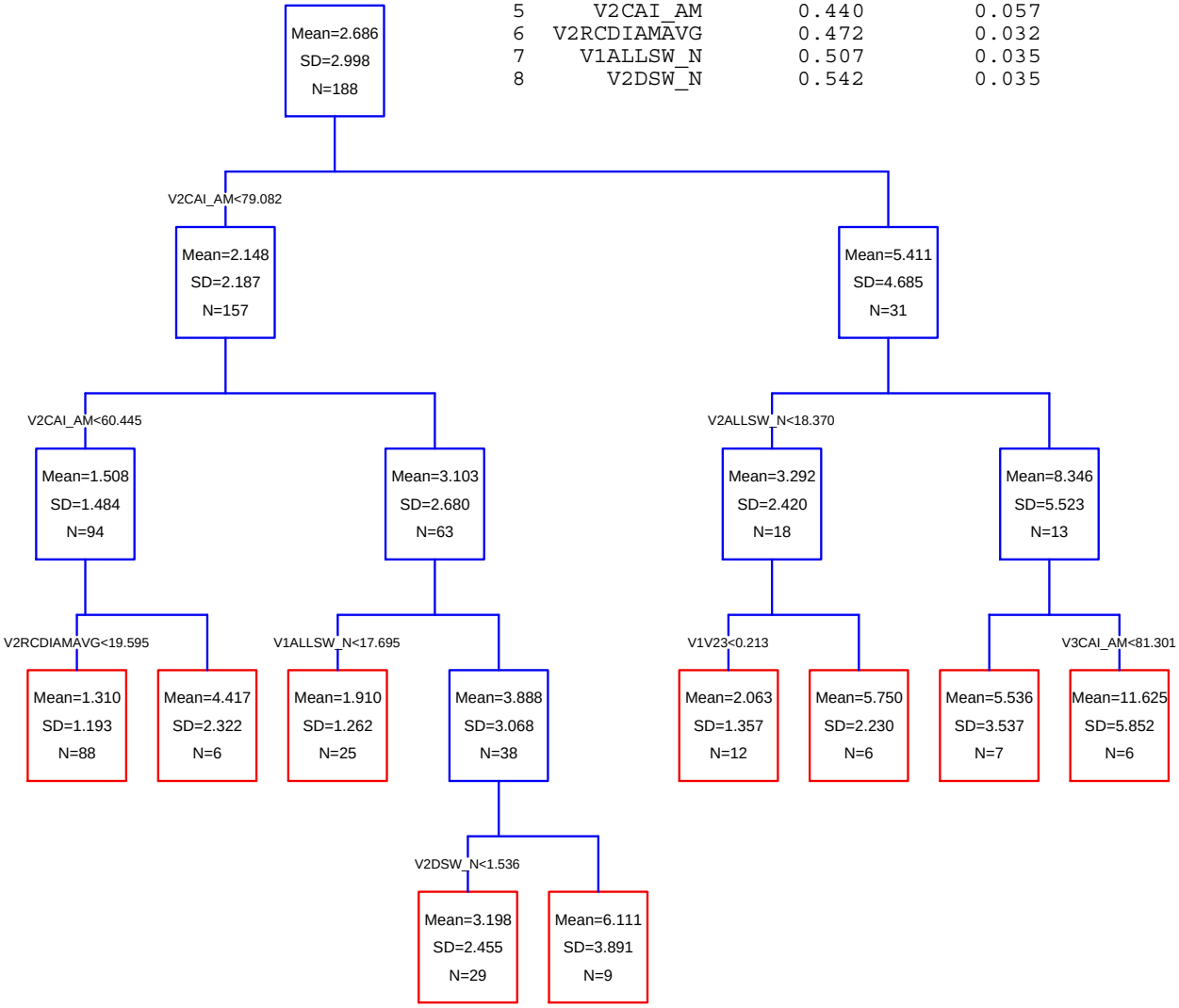



```
58 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1   V1SHAPE_MN        0.094        0.094
    2         V1V31       0.179        0.085
    3   V2DDIAMAVG        0.298        0.119
    4     V3CAI_AM        0.365        0.067
    5   V1DOMHTAVG        0.528        0.163
```

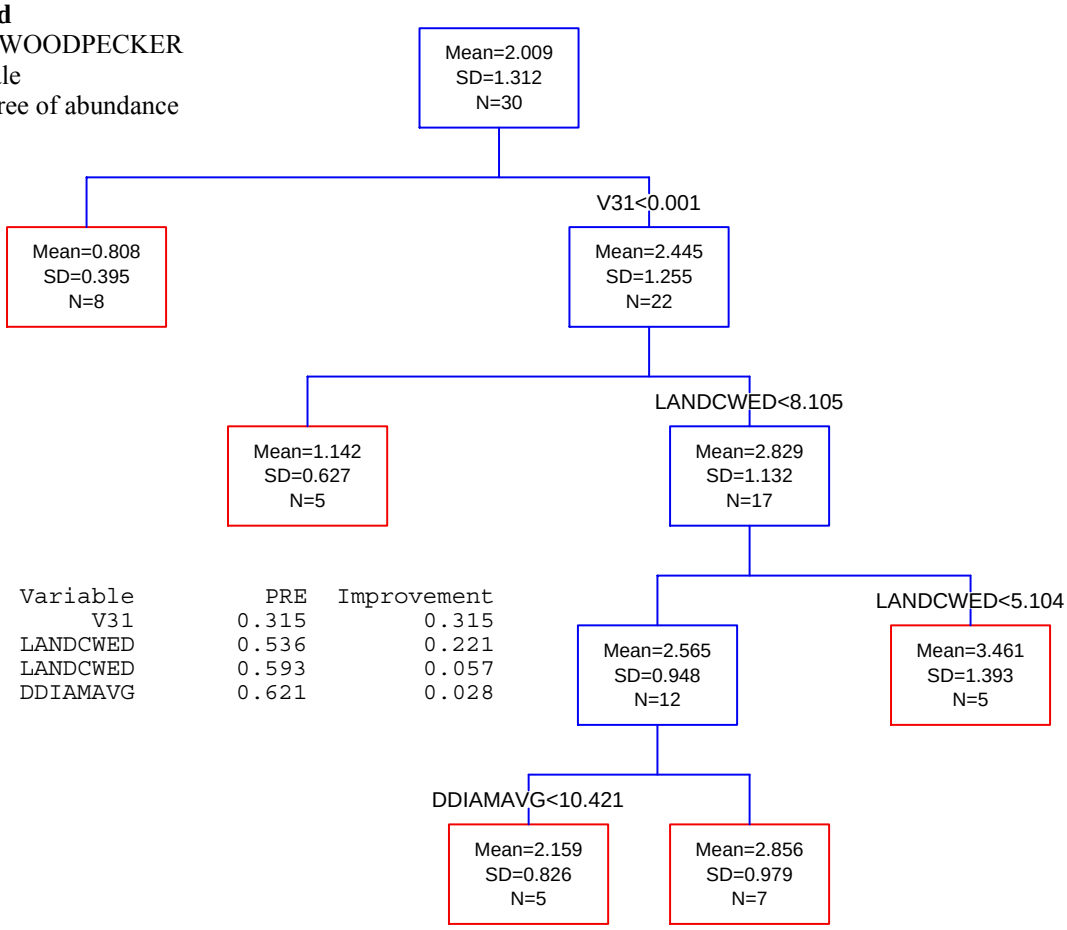
Cavity Guild
PILEATED WOODPECKER
BBS Route level
Multiscale
Regression tree of abundance

11 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2CAI_AM	0.164	0.164
2	V2ALLSW_N	0.279	0.115
3	V1V23	0.311	0.032
4	V3CAI_AM	0.382	0.071
5	V2CAI_AM	0.440	0.057
6	V2RCDIAMAVG	0.472	0.032
7	V1ALLSW_N	0.507	0.035
8	V2DSW_N	0.542	0.035



Cavity Guild
PILEATED WOODPECKER
FIA Unit scale
Regression tree of abundance



Split	Variable	PRE	Improvement
1	V31	0.315	0.315
2	LANDCWED	0.536	0.221
3	LANDCWED	0.593	0.057
4	DDIAMAVG	0.621	0.028

Cavity Guild
PILEATED WOODPECKER
Physiographic Section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	0.539	5	-38.3	0.0	0.697
16	0.788	4	-36.5	1.8	0.296

K5(GLOBAL)		K4	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
V21	-5.687	V21	-6.466
DSW_N	-1.181	DSW_N	-1.396
V23	1.733		

Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
163	-43.07	5	96.5	0.0	0.221
163	-42.068	6	96.7	0.2	0.205
163	-41.193	7	97.1	0.6	0.165
163	-40.379	8	97.7	1.2	0.123
163	-39.615	9	98.4	1.9	0.086
163	-37.444	18	115.6	19.1	0.000

K5

Parameter	Estimate
CONSTANT	2.108
DRCTPA	-0.163
ALLSW_N	0.237
SSTPA	-0.011

K6

Parameter	Estimate
CONSTANT	6.792
DRCTPA	-0.205
ALLSW_N	0.207
SSTPA	-0.011
DDIAMCV	-8.416

K7

Parameter	Estimate
CONSTANT	5.927
DRCTPA	-0.18
ALLSW_N	0.229
SSTPA	-0.012
DDIAMCV	-9.341
PD	0.051

K8

Parameter	Estimate
CONSTANT	6.99
DRCTPA	-0.206
ALLSW_N	0.258
SSTPA	-0.012
DDIAMCV	-12.521
PD	0.058
V39	110.402

K9

Parameter	Estimate
CONSTANT	2.976
STDAGE	-0.046
DRCTPA	-0.305
RCDIAMAVG	-0.425
DRCDIAMAVG	1.621
ALLHTCV	-3.852
V31	-90.43
V23	-10.873

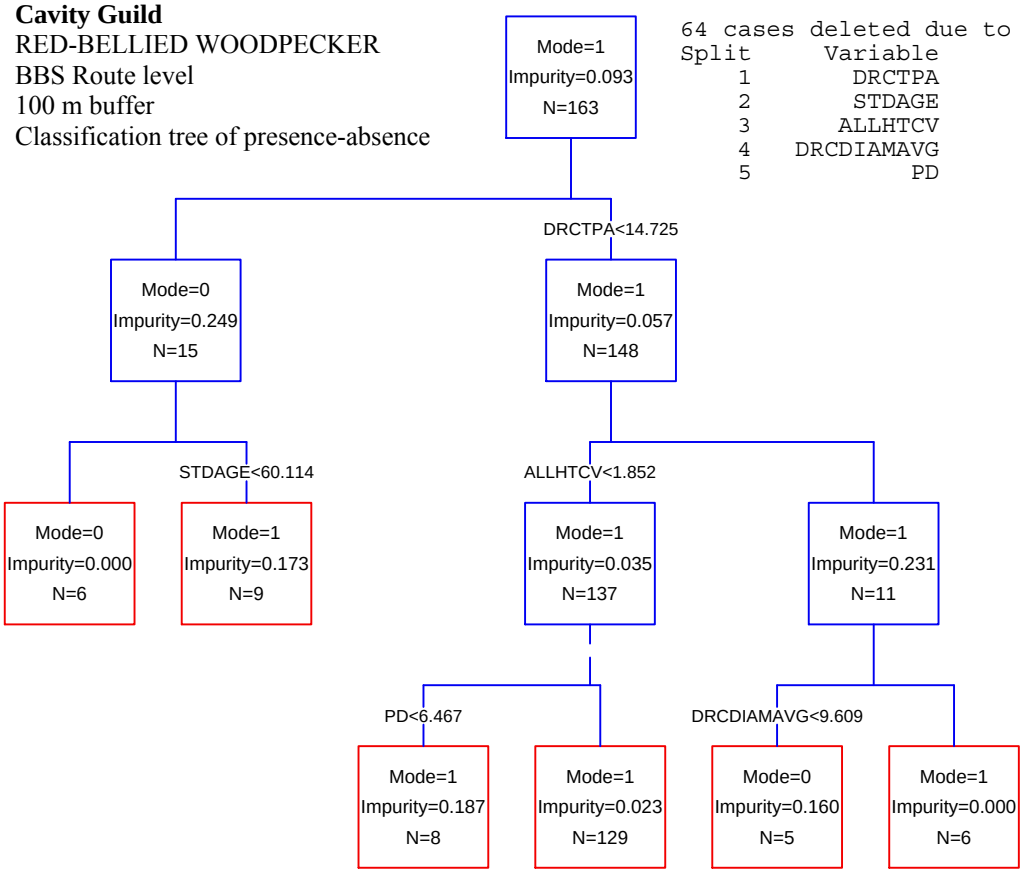
K18(GLOBAL)

Parameter	Estimate
CONSTANT	-6.407
STDAGE	-0.055
SSTPA	-0.002
DRCTPA	-0.263
UDIAMAVG	1.067
RCDIAMAVG	-0.31
DRCDIAMAVG	1.287
ALLHTCV	-3.009
DDIAMCV	-6.763
ALLSW_N	0.237
V31	-77.135
V39	56.029
PD	0.031
LSHAPE_MN	3.317
V21	6.924
V22	2.11
V23	-6.392

Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
100 m buffer
Classification tree of presence-absence

64 cases deleted due to missing data.

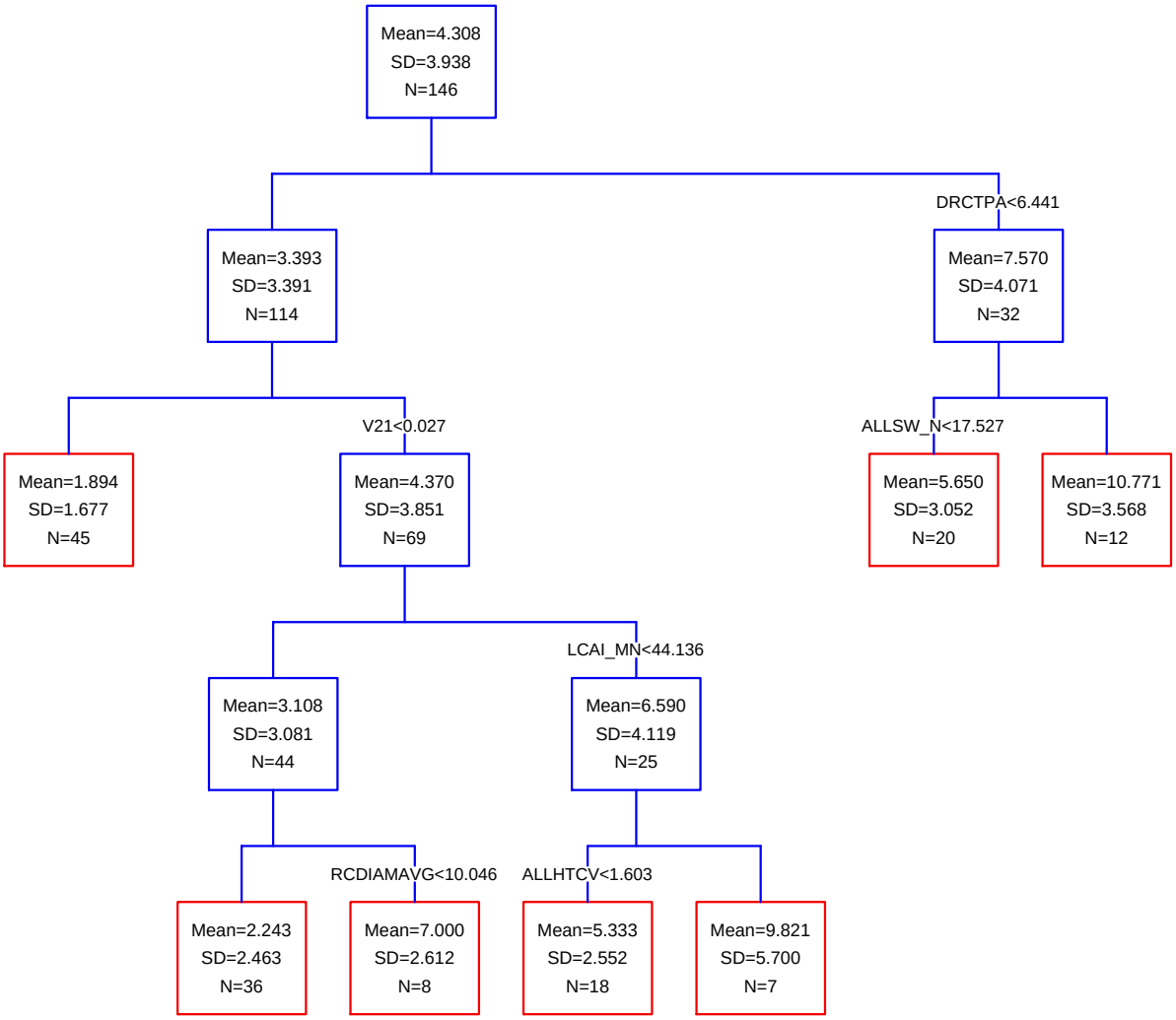
Split	Variable	PRE	Improvement
1	DRCTPA	0.200	0.200
2	STDAGE	0.343	0.143
3	ALLHTCV	0.414	0.072
4	DRCDIAMAVG	0.529	0.115
5	PD	0.554	0.025



Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
100 m buffer
Regression tree of abundance

56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DRCTPA	0.194	0.194
2	ALLSW_N	0.281	0.087
3	V21	0.356	0.074
4	LCAI_MN	0.441	0.086
5	RCDIAMAVG	0.507	0.066
6	ALLHTCV	0.552	0.045



Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
166	-40.662	6	93.9	0.0	0.258
166	-39.682	7	94.1	0.2	0.231
166	-38.982	8	94.9	1.0	0.154
166	-42.664	5	95.7	1.8	0.102
166	-34.545	22	120.2	26.3	0.000

K6

Parameter	Estimate
CONSTANT	9.066
DRCTPA	-0.232
DDIAMCV	-12.018
ALLSW_N	0.21
SHAPE_CV	-0.024

K7

Parameter	Estimate
CONSTANT	10.524
DRCTPA	-0.265
DDIAMCV	-15.572
ALLSW_N	0.245
V39	127.878
SHAPE_CV	-0.026

K8

Parameter	Estimate
CONSTANT	5.839
DRCTPA	-0.283
DRCDIAMAVG	0.562
DDIAMCV	-17.316
ALLSW_N	0.261
V39	142.101
SHAPE_CV	-0.027

K5

Parameter	Estimate
CONSTANT	2.496
DRCTPA	-0.185
ALLSW_N	0.226
SHAPE_CV	-0.02

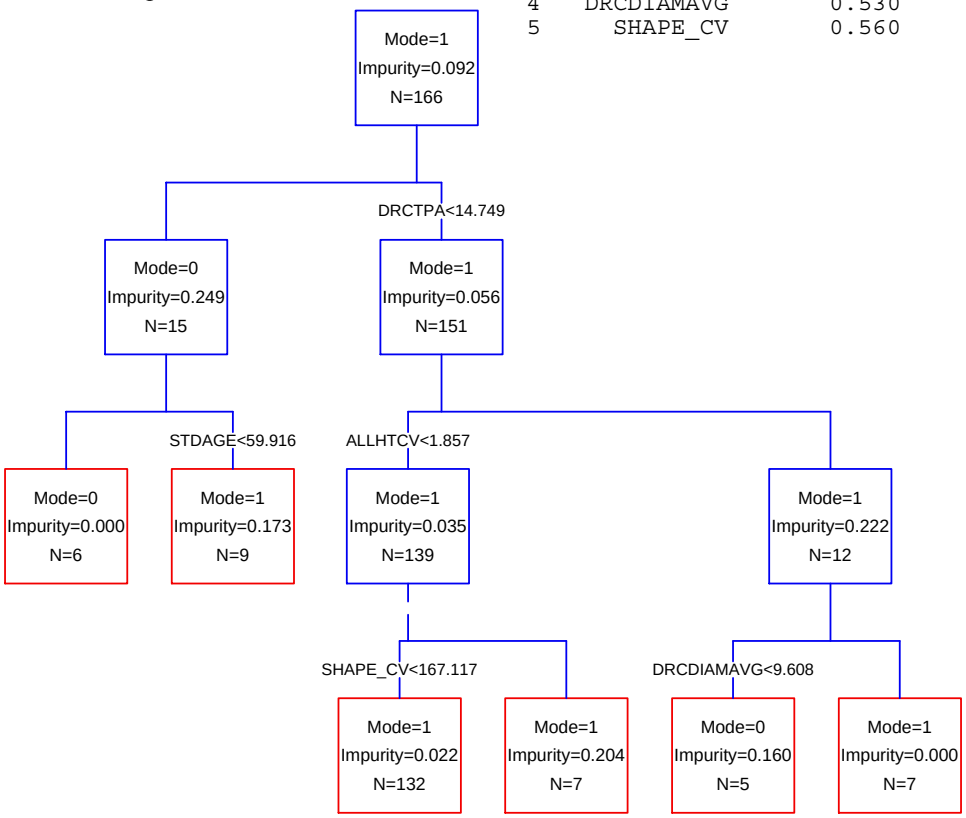
K22(GLOBAL)

Parameter	Estimate
CONSTANT	-8.299
STDAGE	-0.069
SSTPA	0.003
DRCTPA	-0.271
UDIAMAVG	2.07
RCDIAMAVG	-0.402
DRCDIAMAVG	1.618
ALLHTCV	-2.504
DDIAMCV	-22.11
ALLSW_N	0.37
V11	4.789
V21	13.634
V22	3.935
V23	-3.101
V31	-27.168
V39	153.503
SHAPE_MN	-2.606
SHAPE_CV	-0.013
CAI_CV	0.008
LSHAPE_CV	0.053
LCAI_AM	0.051

Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
1 km buffer
Classification tree of presence-absence

61 cases deleted due to missing data.

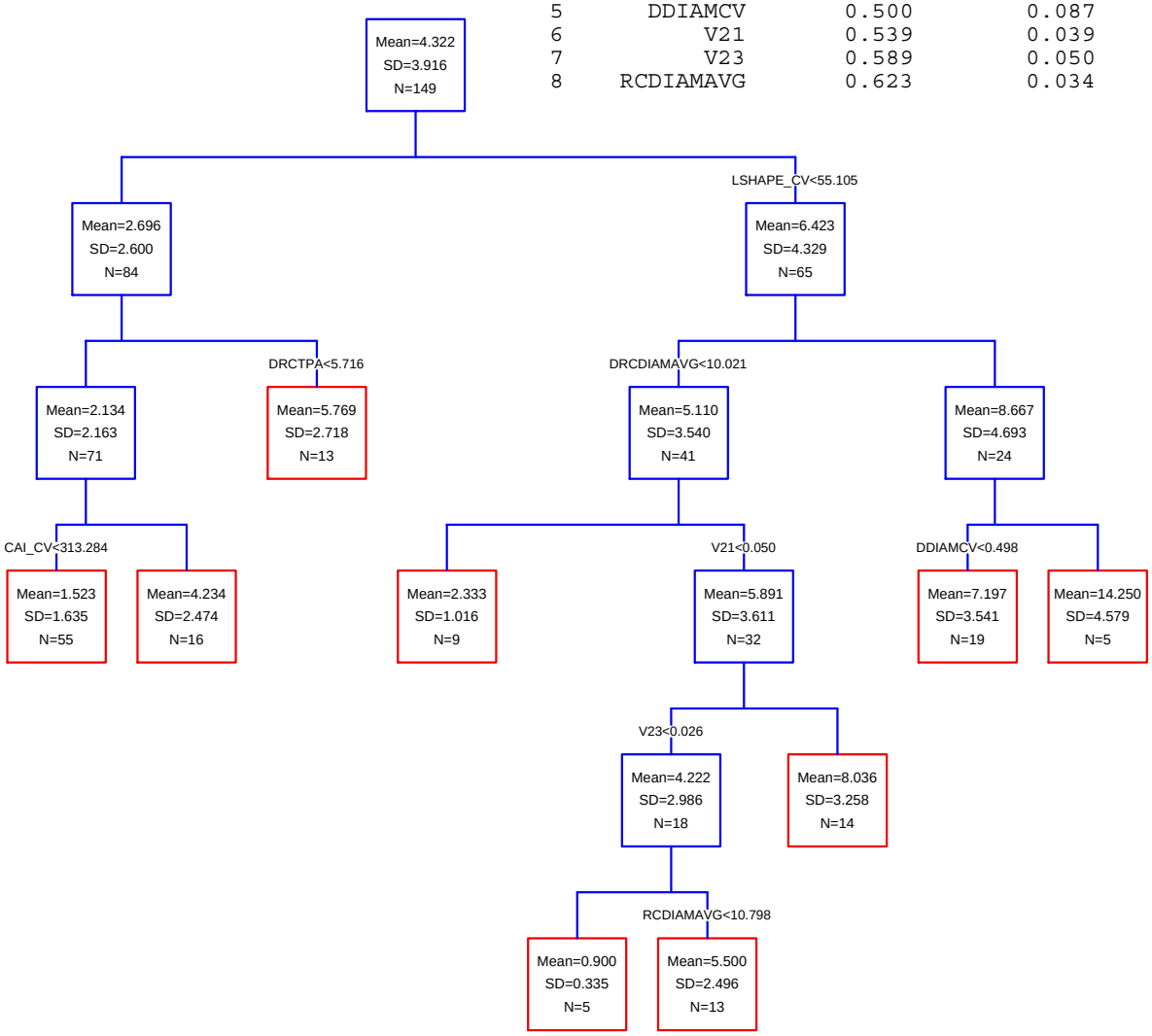
Split	Variable	PRE	Improvement
1	DRCTPA	0.201	0.201
2	STDAGE	0.343	0.143
3	ALLHTCV	0.407	0.064
4	DRCDIAMAVG	0.530	0.122
5	SHAPE_CV	0.560	0.030



Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
1 km buffer
Regression tree of abundance

53 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LSHAPE_CV	0.224	0.224
2	DRCTPA	0.288	0.064
3	CAI_CV	0.328	0.040
4	DRCDIAMAVG	0.413	0.084
5	DDIAMCV	0.500	0.087
6	V21	0.539	0.039
7	V23	0.589	0.050
8	RCDIAMAVG	0.623	0.034



Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
221	-52.692	5	115.7	0.0	0.391
221	-52.23	6	116.9	1.2	0.216
221	-53.53	5	117.3	1.6	0.169
221	-51.513	7	117.6	1.9	0.152
221	-50.104	15	132.5	16.8	0.000

K5

Parameter	Estimate
CONSTANT	1.699
DRCTPA	-0.249
ALLSW_N	0.208
V23	-4.787

K6

Parameter	Estimate
CONSTANT	1.916
DRCTPA	-0.228
ALLSW_N	0.217
V23	-4.497
SHAPE_AM	-0.011

K5

Parameter	Estimate
CONSTANT	5.42
CAI_MN	-0.027
DRCTPA	-0.179
V24	-53.625

K7

Parameter	Estimate
CONSTANT	5.103
DRCTPA	-0.246
DDIAMCV	-5.751
ALLSW_N	0.209
V23	-3.986
SHAPE_AM	-0.017

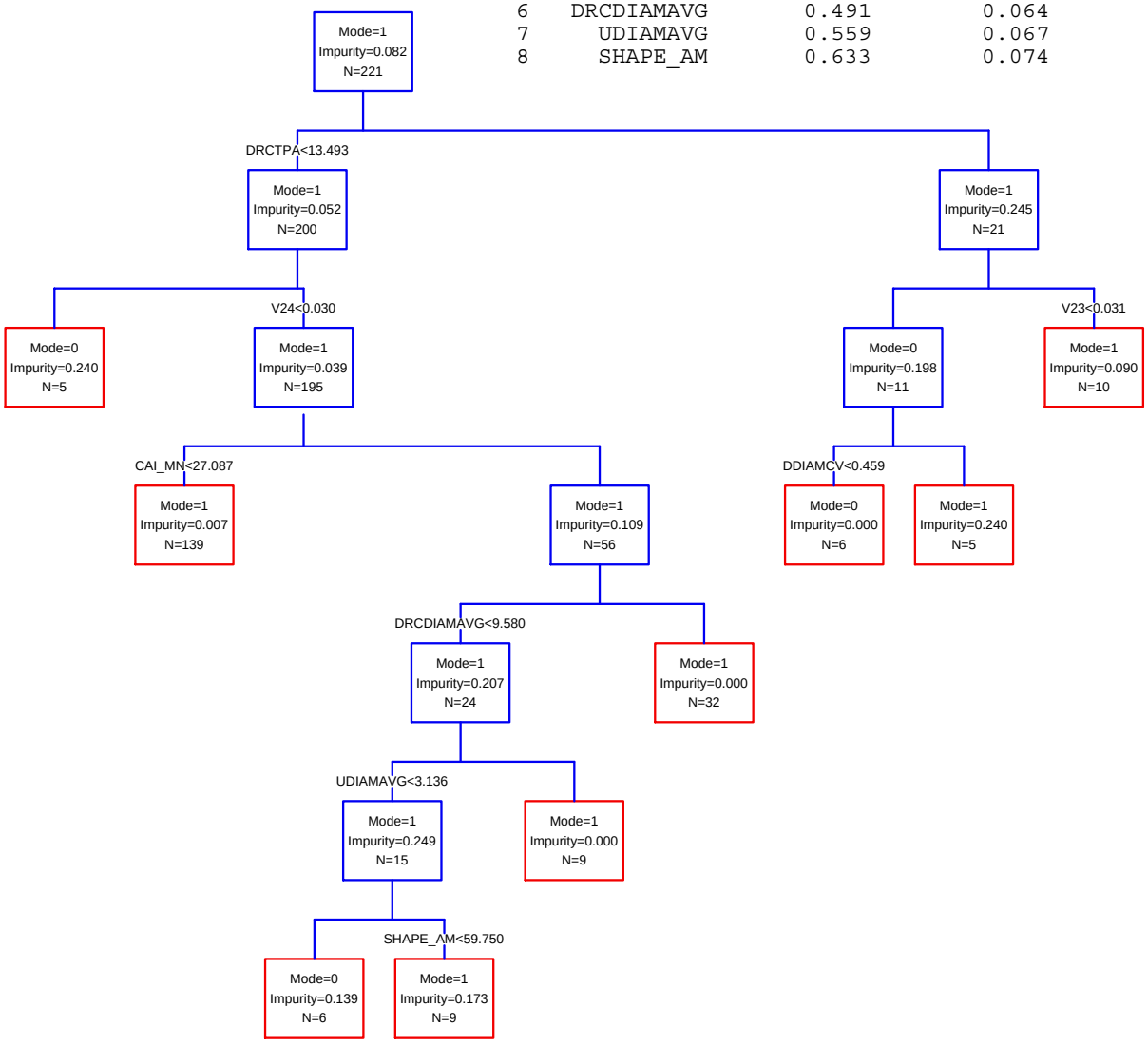
K15(GLOBAL)

Parameter	Estimate
CONSTANT	4.286
SSTPA	-0.006
DRCTPA	-0.163
UDIAMAVG	-0.221
RCDIAMAVG	0.072
DRCDIAMAVG	0.091
DDIAMCV	-3.584
ALLSW_N	0.199
V21	0.051
V22	-1.303
V23	-3.568
V24	0.009
SHAPE_AM	-0.016
CAI_MN	-0.012

Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
10 km buffer
Classification tree of presence-absence

6 cases deleted due to missing data.

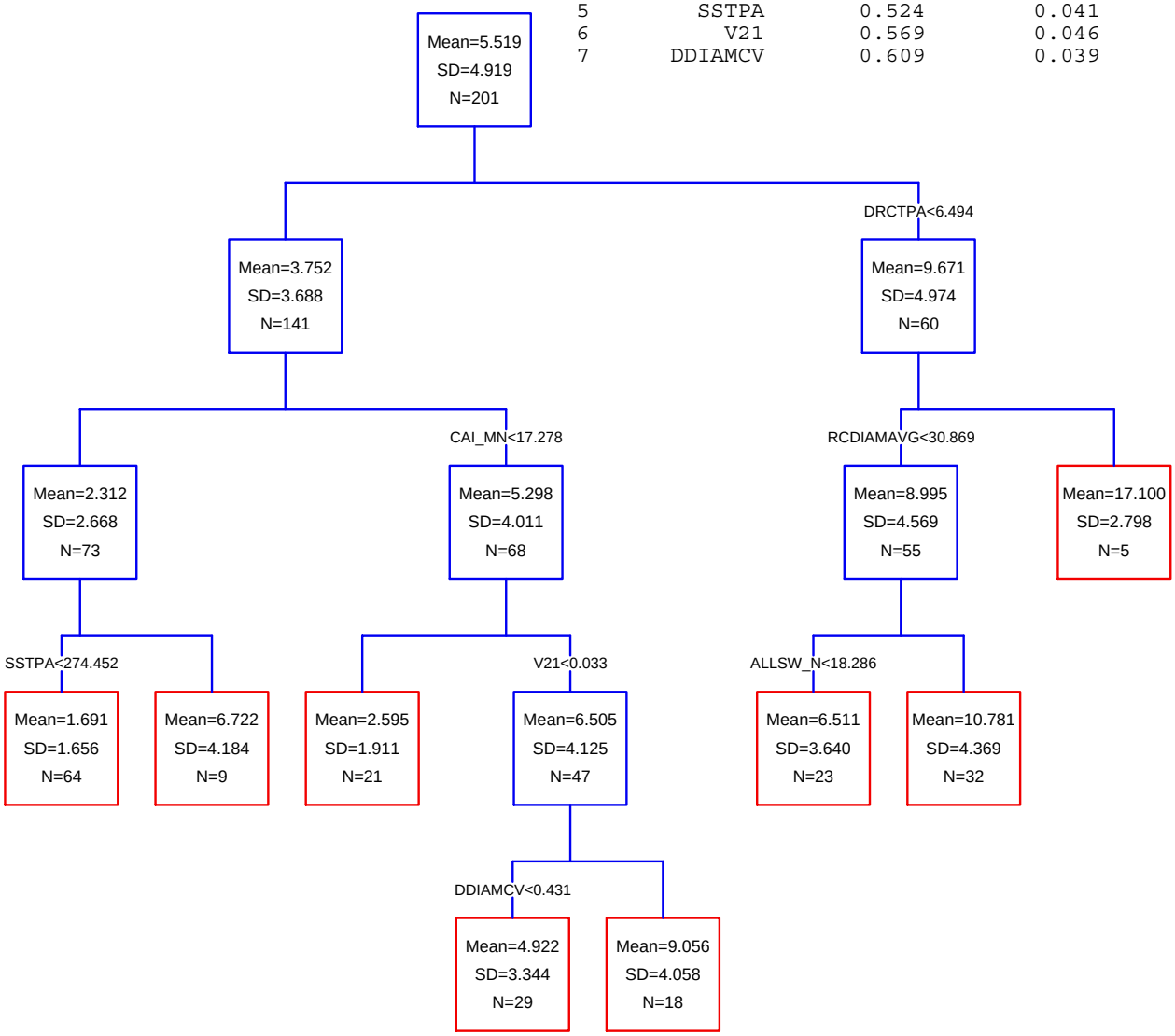
Split	Variable	PRE	Improvement
1	DRCTPA	0.146	0.146
2	V23	0.259	0.113
3	DDIAMCV	0.313	0.054
4	V24	0.397	0.084
5	CAI_MN	0.427	0.030
6	DRCDIAMAVG	0.491	0.064
7	UDIAMAVG	0.559	0.067
8	SHAPE_AM	0.633	0.074



Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
10 km buffer
Regression tree of abundance

1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DRCTPA	0.305	0.305
2	RCDIAMAVG	0.367	0.062
3	ALLSW_N	0.417	0.050
4	CAI_MN	0.482	0.065
5	SSTPA	0.524	0.041
6	V21	0.569	0.046
7	DDIAMCV	0.609	0.039



Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
222	-51.386	6	115.2	0.0	0.341
222	-50.525	7	115.6	0.4	0.277
222	-50.055	8	116.8	1.6	0.151
222	-53.258	5	116.8	1.6	0.151

K6

Parameter	Estimate
CONSTANT	6.992
V2DDIAMCV	-5.539
V2SHAPE_CV	-0.021
V3DRCTPA	-0.256
V3ALLSW_N	0.15

K7

Parameter	Estimate
CONSTANT	5.753
V2DDIAMCV	-4.588
V2SHAPE_CV	-0.016
V3DRCTPA	-0.257
V3ALLSW_N	0.184
V3V23	-2.829

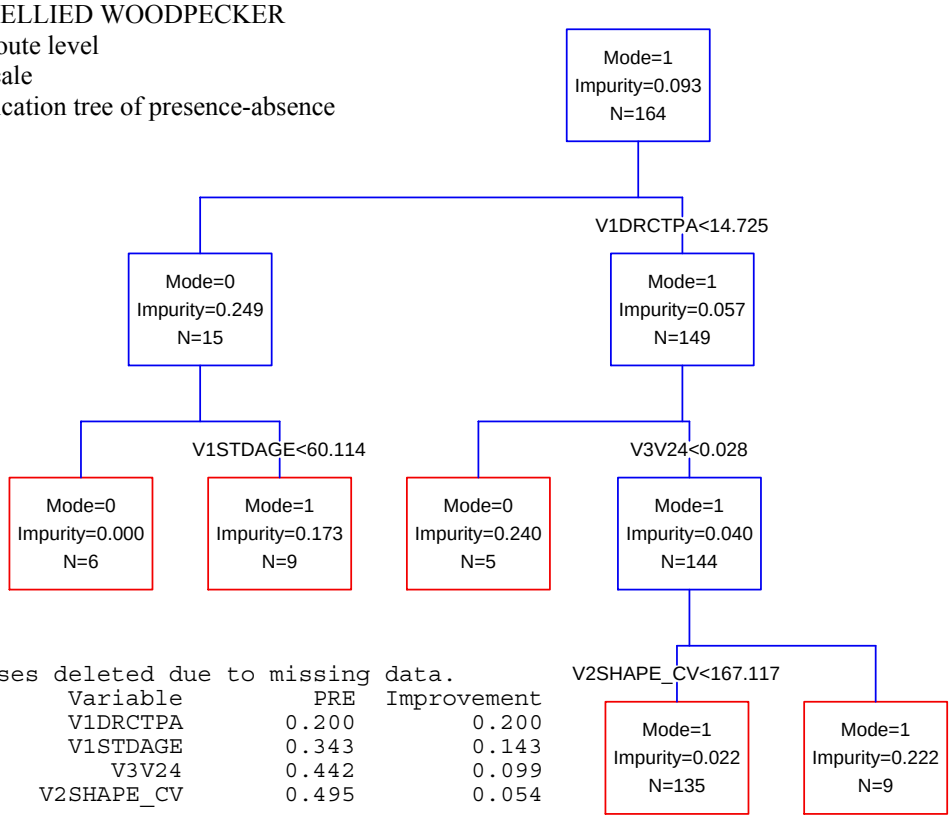
K5

Parameter	Estimate
CONSTANT	10.571
V2DDIAMCV	-7.267
V2SHAPE_CV	-0.019
V3DRCTPA	-0.29

K8(GLOBAL)

Parameter	Estimate
CONSTANT	5.734
V1SSTPA	-0.004
V2DDIAMCV	-4.625
V2SHAPE_CV	-0.017
V3DRCTPA	-0.227
V3ALLSW_N	0.219
V3V23	-2.868

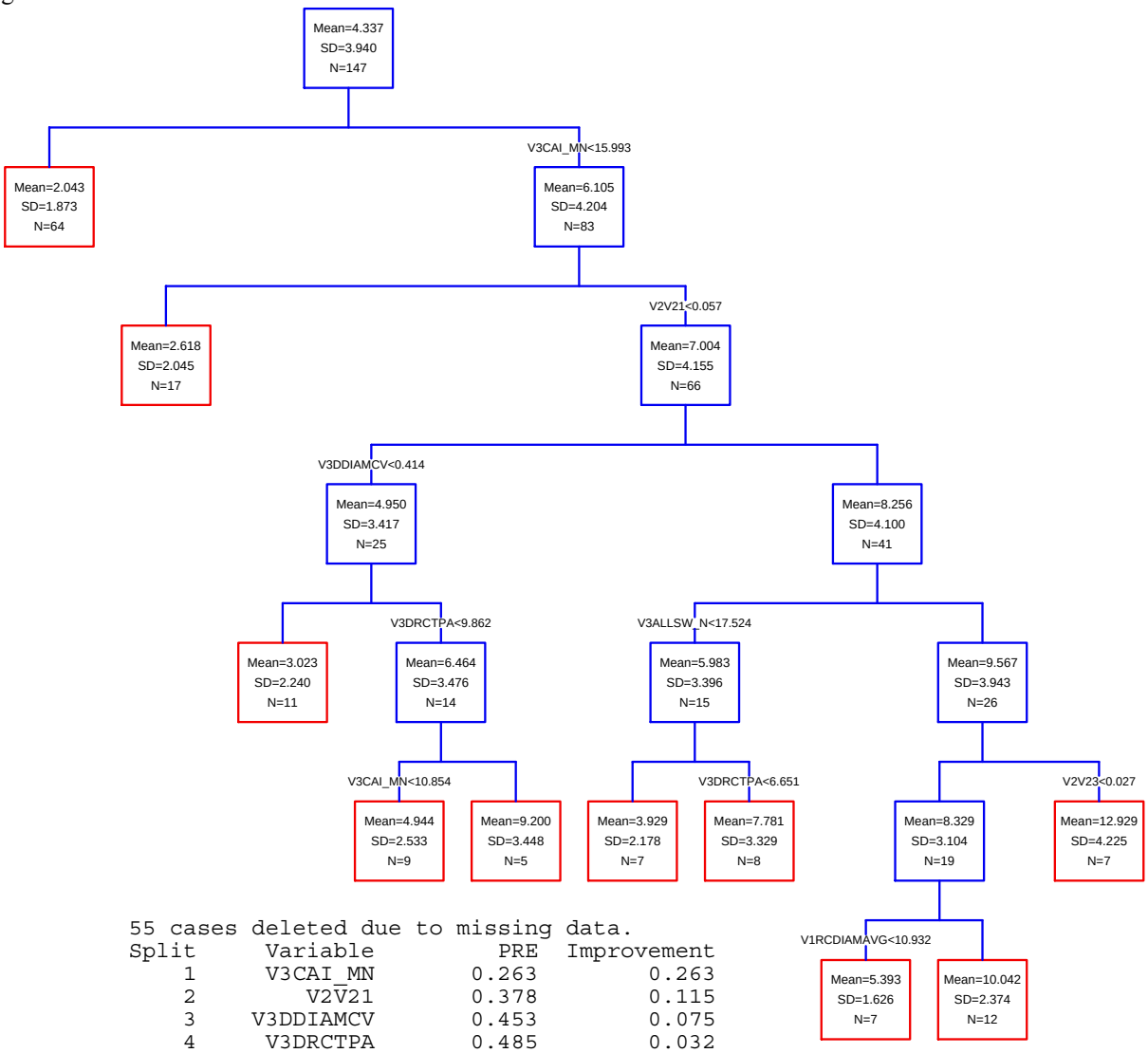
Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
Multiscale
Classification tree of presence-absence



63 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1DRCTPA	0.200	0.200
2	V1STDAGE	0.343	0.143
3	V3V24	0.442	0.099
4	V2SHAPE_CV	0.495	0.054

Cavity Guild
RED-BELLIED WOODPECKER
BBS Route level
Multiscale
Regression tree of abundance

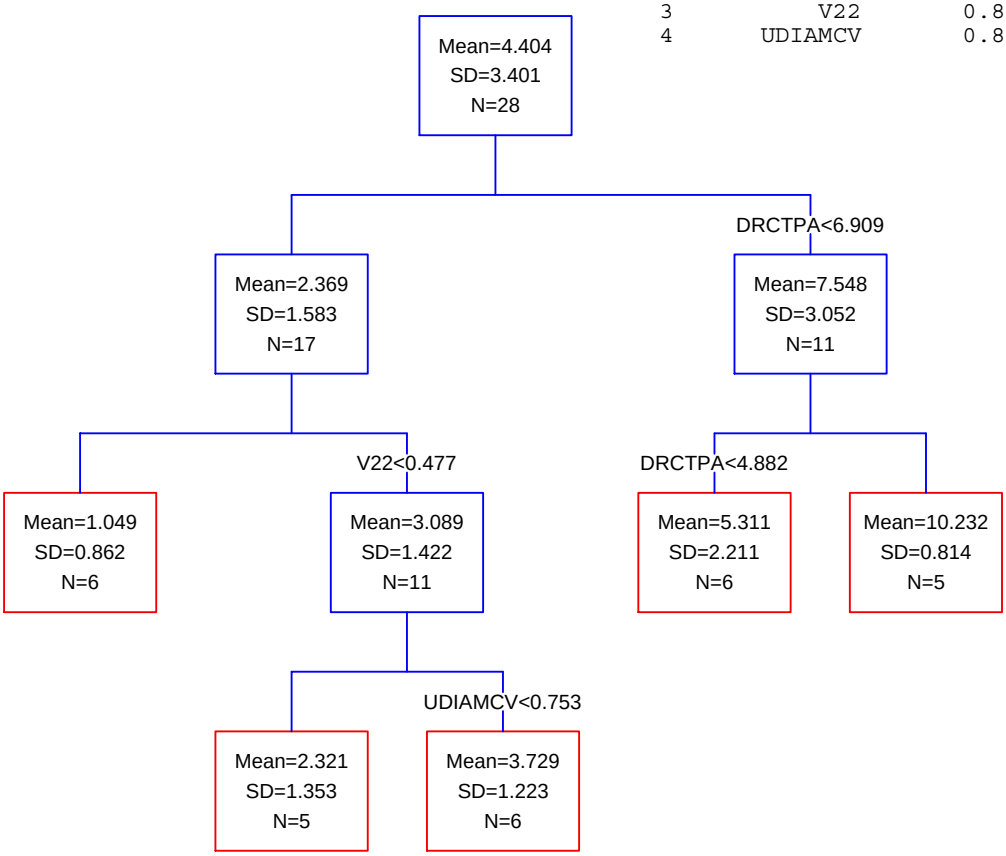


55 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V3CAI_MN	0.263	0.263
2	V2V21	0.378	0.115
3	V3DDIAMCV	0.453	0.075
4	V3DRCTPA	0.485	0.032
5	V3CAI_MN	0.511	0.026
6	V3ALLSW_N	0.565	0.054
7	V3DRCTPA	0.589	0.024
8	V2V23	0.637	0.048
9	V1RCDIAMAVG	0.679	0.042

Cavity Guild
RED-BELLIED WOODPECKER
FIA Unit scale
Regression tree of abundance

```
2 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1       DRCTPA       0.573        0.573
    2       DRCTPA       0.785        0.211
    3          V22       0.837        0.052
    4      UDIAMCV       0.854        0.017
```

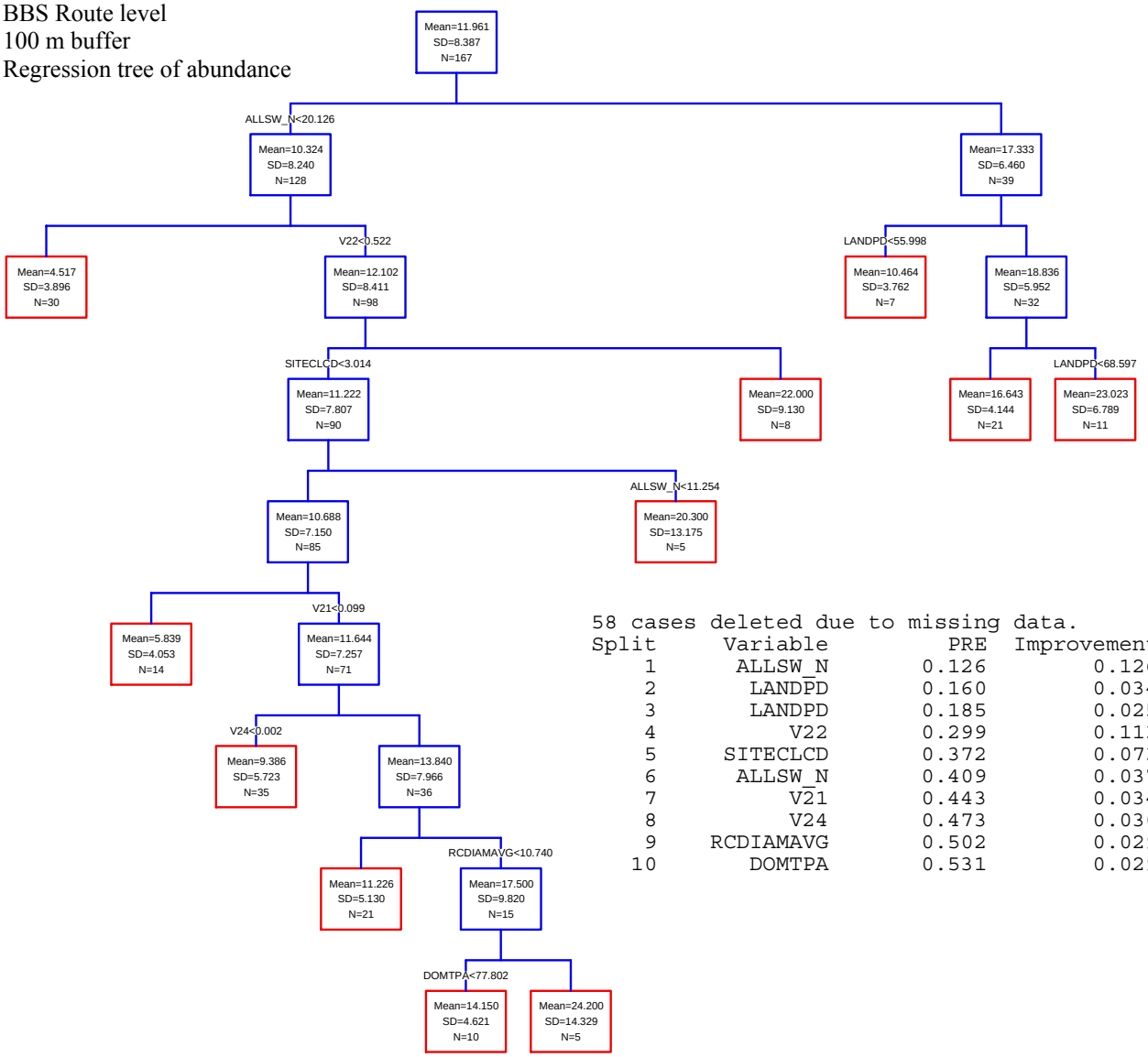


Cavity Guild
RED-BELLIED WOODPECKER
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	2.447	3	-22.0	0.0	0.635
16	2.132	4	-20.6	1.4	0.311
16	2.019	5	-17.1	4.9	0.054

K3		K4		K5(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
RCTPA	-0.632	RCTPA	-0.549	V22	-0.686
		STDAGE	-0.012	RCTPA	-0.511
				STDAGE	-0.010

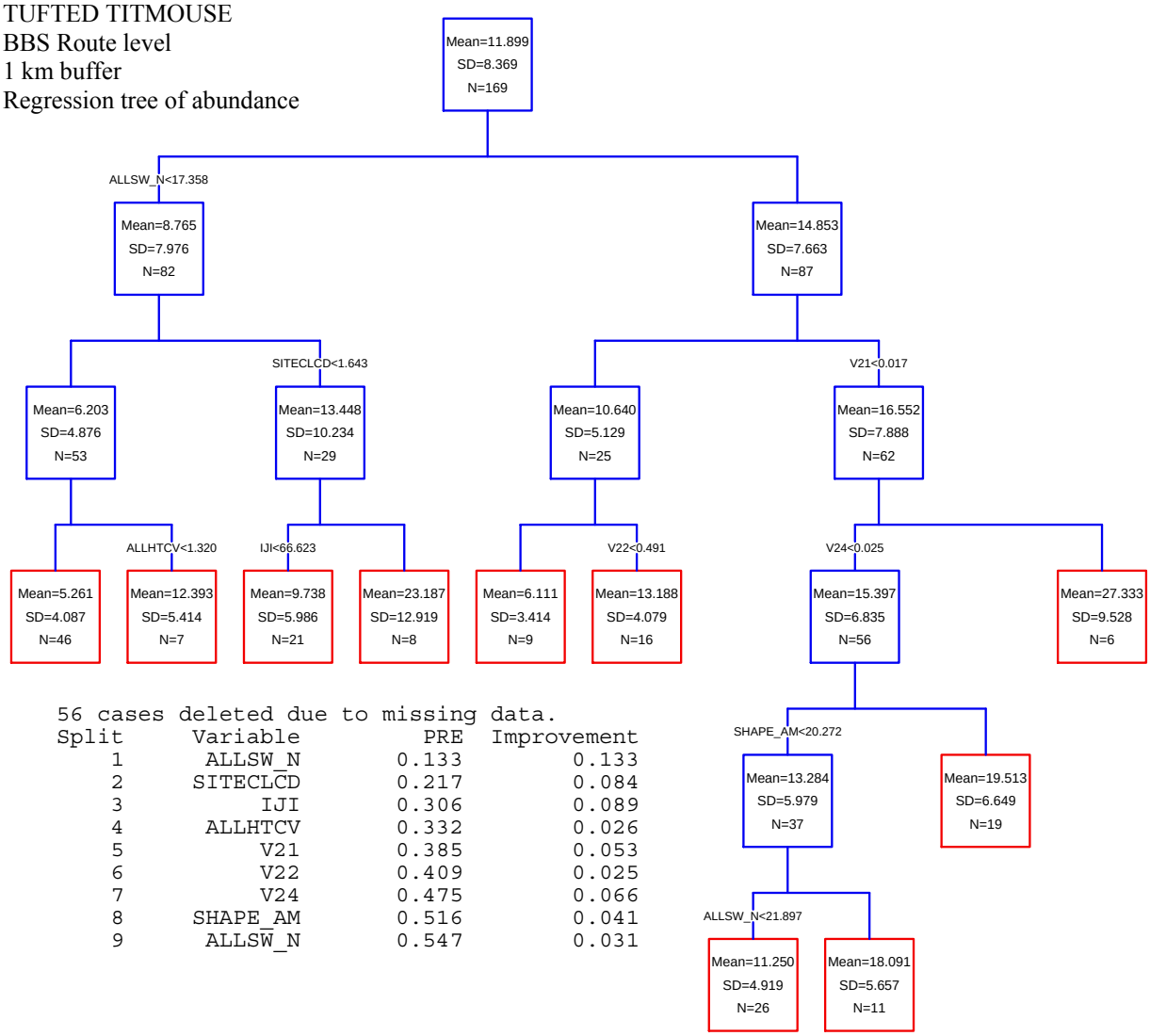
Cavity Guild
TUFTED TITMOUSE
BBS Route level
100 m buffer
Regression tree of abundance



58 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLSW_N	0.126	0.126
2	LANDPD	0.160	0.034
3	LANDPD	0.185	0.025
4	V22	0.299	0.113
5	SITECLCD	0.372	0.073
6	ALLSW_N	0.409	0.037
7	V21	0.443	0.034
8	V24	0.473	0.030
9	RCDIAMAVG	0.502	0.029
10	DOMTPA	0.531	0.029

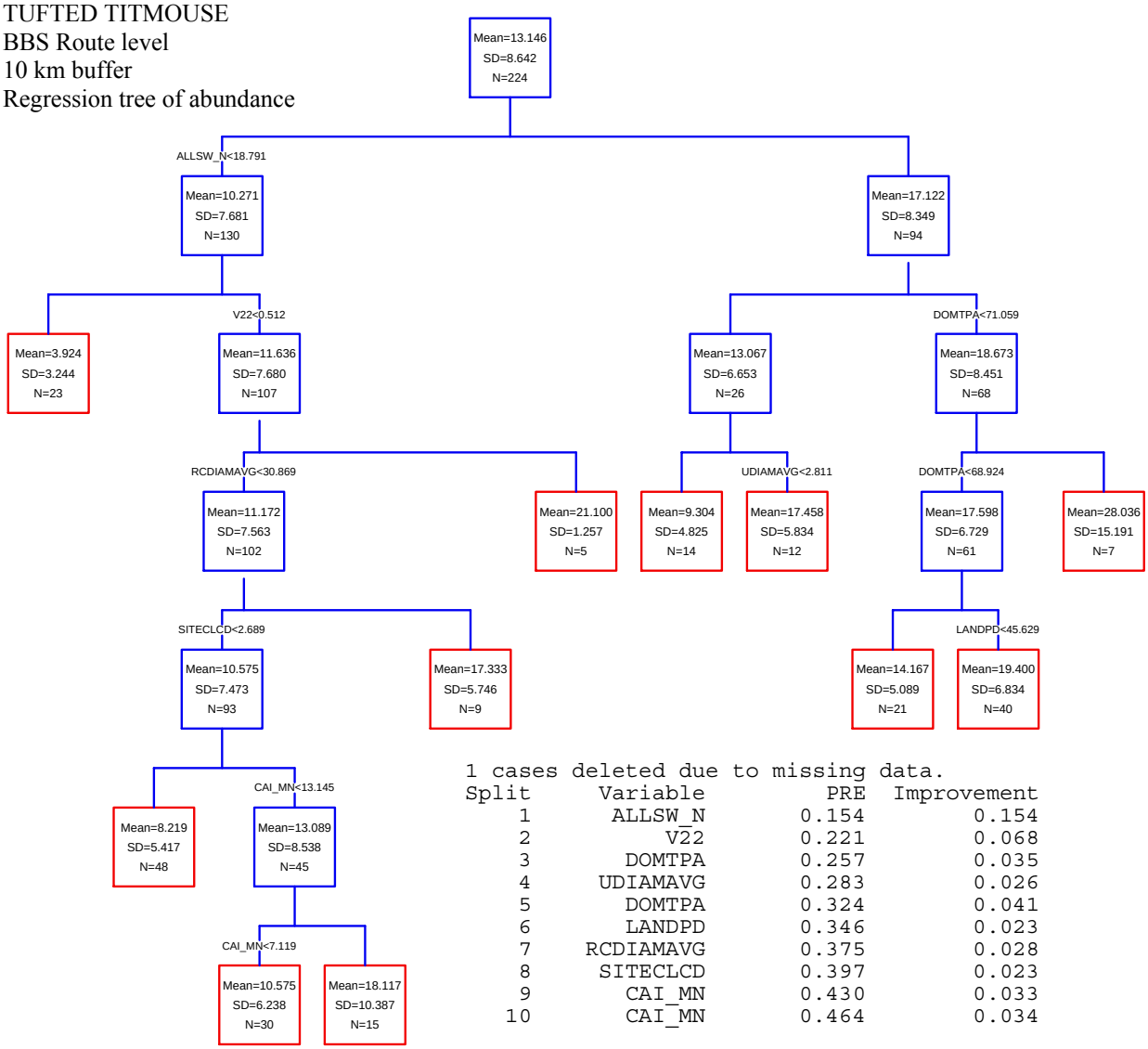
Cavity Guild
TUFTED TITMOUSE
BBS Route level
1 km buffer
Regression tree of abundance



56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLSW_N	0.133	0.133
2	SITECLCD	0.217	0.084
3	IJI	0.306	0.089
4	ALLHTCV	0.332	0.026
5	V21	0.385	0.053
6	V22	0.409	0.025
7	V24	0.475	0.066
8	SHAPE_AM	0.516	0.041
9	ALLSW_N	0.547	0.031

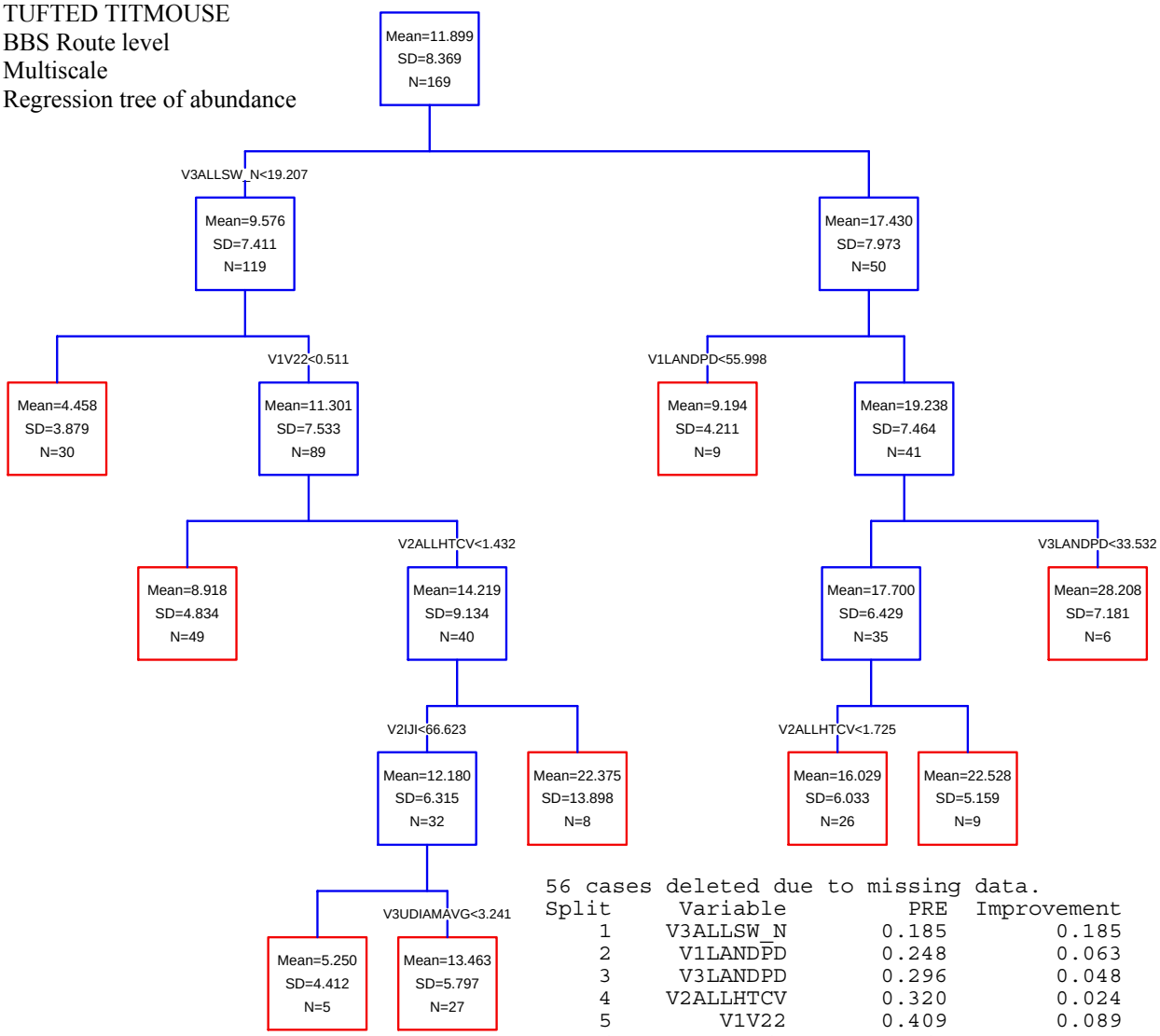
Cavity Guild
TUFTED TITMOUSE
BBS Route level
10 km buffer
Regression tree of abundance



1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLSW_N	0.154	0.154
2	V22	0.221	0.068
3	DOMTPA	0.257	0.035
4	UDIAMAVG	0.283	0.026
5	DOMTPA	0.324	0.041
6	LANDPD	0.346	0.023
7	RCDIAMAVG	0.375	0.028
8	SITECLCD	0.397	0.023
9	CAI_MN	0.430	0.033
10	CAI_MN	0.464	0.034

Cavity Guild
TUFTED TITMOUSE
BBS Route level
Multiscale
Regression tree of abundance

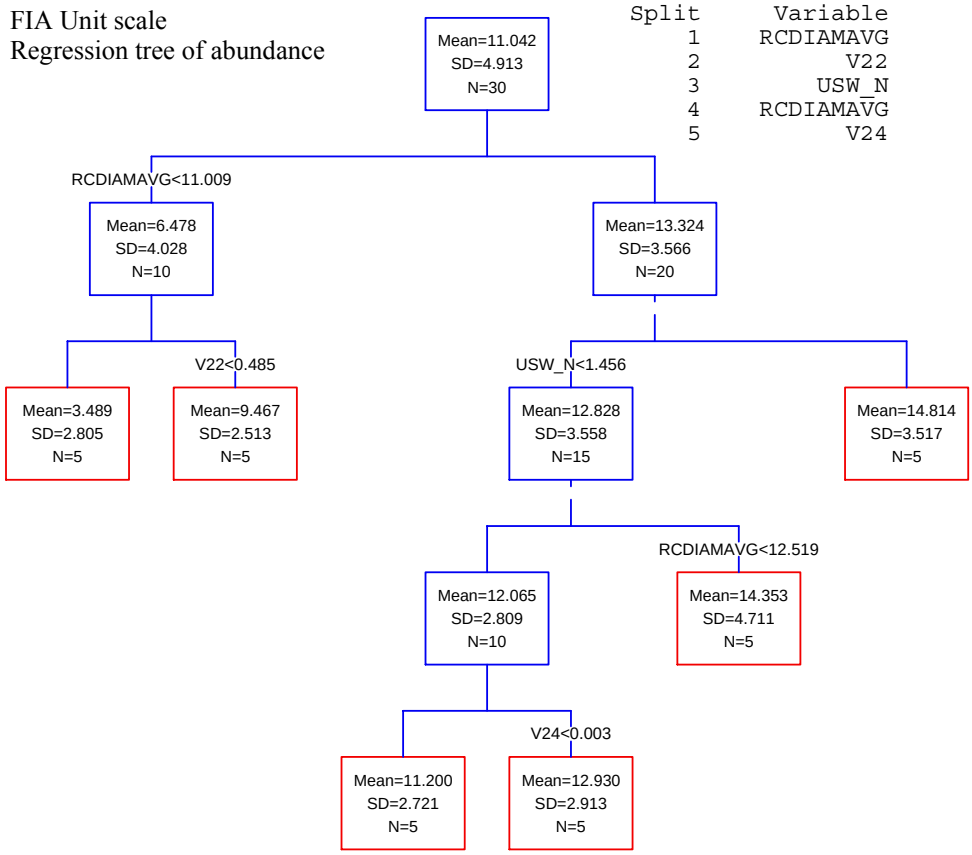


56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V3ALLSW_N	0.185	0.185
2	V1LANDPD	0.248	0.063
3	V3LANDPD	0.296	0.048
4	V2ALLHTCV	0.320	0.024
5	V1V22	0.409	0.089
6	V2ALLHTCV	0.462	0.053
7	V2IJI	0.518	0.057
8	V3UDIAMAVG	0.542	0.024

Cavity Guild
TUFTED TITMOUSE
FIA Unit scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	RCDIAMAVG	0.446	0.446
2	V22	0.574	0.128
3	USW_N	0.595	0.021
4	RCDIAMAVG	0.620	0.025
5	V24	0.631	0.011



Cavity Guild
TUFTED TITMOUSE
Physiographic Section scale
GLM of abundance

n	SSE	K	AICc	ΔAIC	w_i
16	0.984	3	-36.6	0.0	0.748
16	0.89728	5	-30.1	6.5	0.029

K3		K5 (GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
V21	-9.334	V21	-9.492
		V31	29.680
		RCTPA	-0.070

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
140	-57.208	8	131.5	0.0	0.255
140	-56.093	9	131.6	0.1	0.248
140	-58.666	7	132.2	0.7	0.183
140	-55.449	10	132.6	1.1	0.148
140	-54.8	14	141.0	9.5	0.002

K8

Parameter	Estimate
CONSTANT	9.562
V22	3.511
CAI_CV	-0.006
V31	265.97
DRCTPA	0.262
ALLSW_N	-0.146
SSDIAMAVG	-4.797

K9

Parameter	Estimate
CONSTANT	9.01
DRCTPA	0.237
SSDIAMAVG	-4.895
ALLHTCV	0.839
ALLSW_N	-0.146
V22	3.405
V31	261.763
CAI_CV	-0.007

K7

Parameter	Estimate
CONSTANT	0.987
V22	3.85
CAI_CV	-0.006
V31	241.945
DRCTPA	0.236
ALLSW_N	-0.141

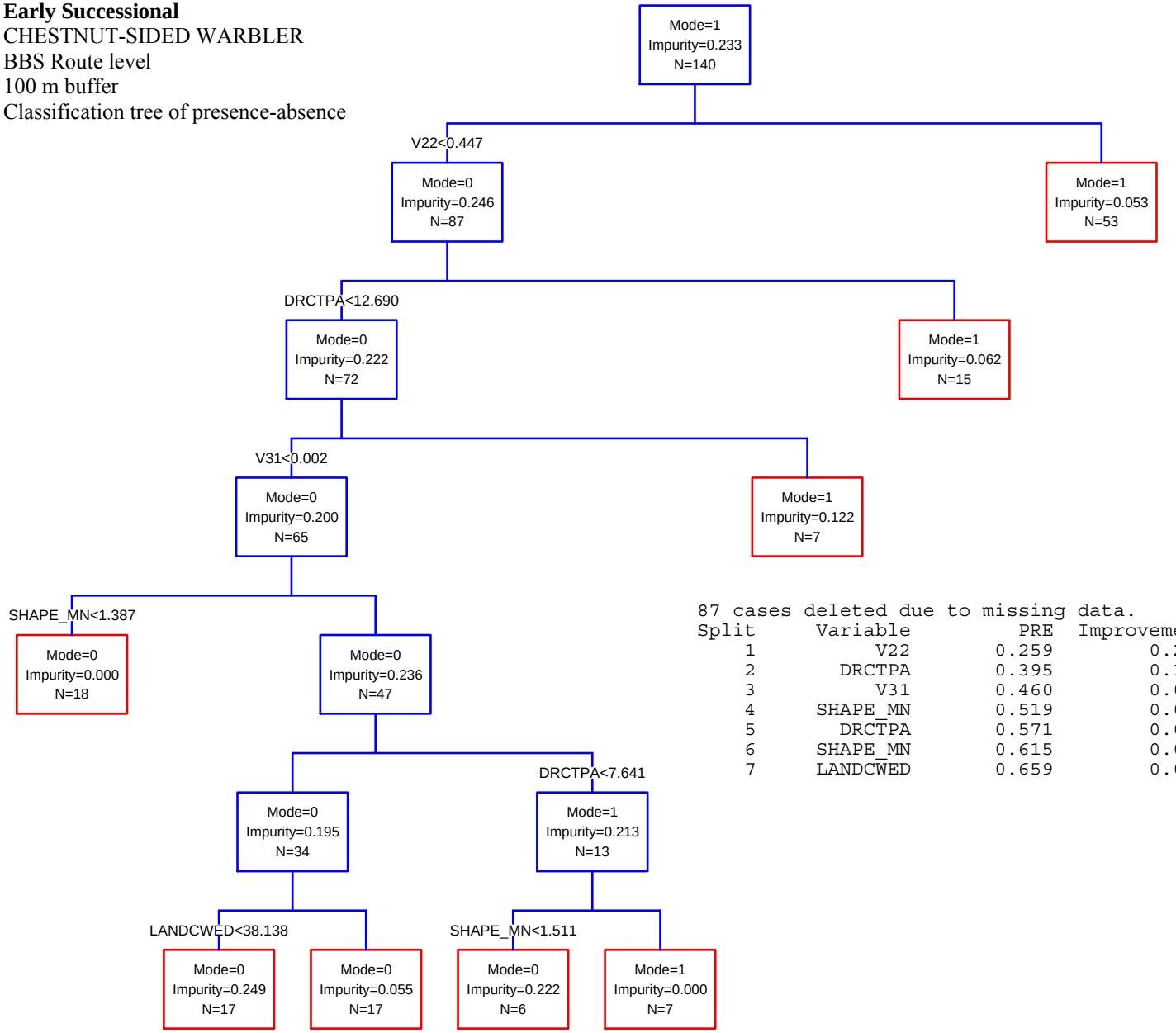
K10

Parameter	Estimate
CONSTANT	5.501
DRCTPA	0.234
SSDIAMAVG	-4.628
ALLHTCV	0.905
ALLSW_N	-0.171
V22	3.769
V31	265.124
SHAPE_MN	1.967
CAI_CV	-0.006

K14(GLOBAL)

Parameter	Estimate
CONSTANT	5.421
DRCTPA	0.215
SSDIAMAVG	-4.671
UDIAMAVG	0.296
DEADDIAMAVG	0.004
ALLHTCV	1.203
ALLSW_N	-0.179
V21	-6.66
V22	4.298
V31	349.674
SHAPE_MN	1.806
CAI_CV	-0.005
LANDCWED	-0.018

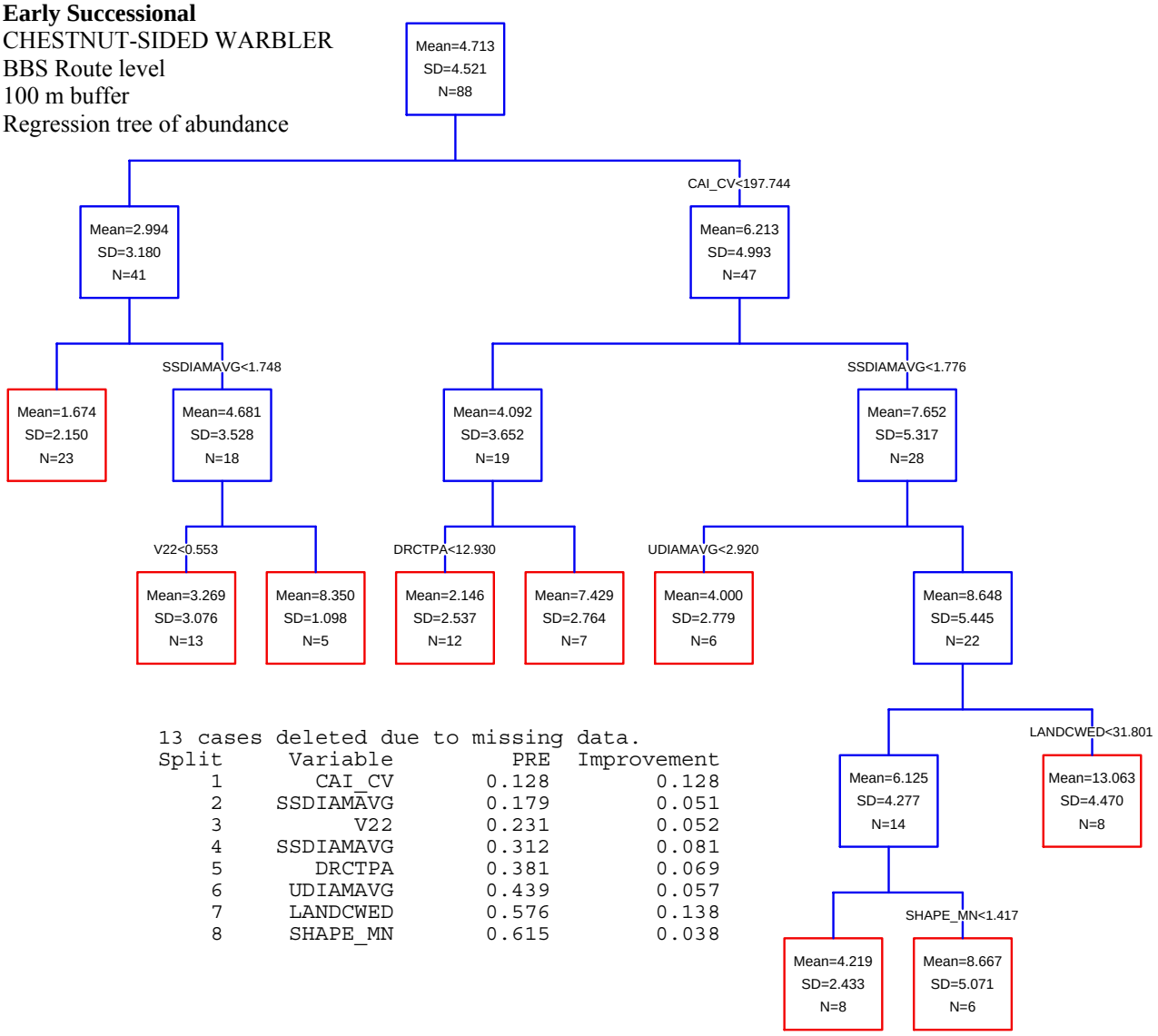
Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
100 m buffer
Classification tree of presence-absence



87 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V22	0.259	0.259
2	DRCTPA	0.395	0.137
3	V31	0.460	0.065
4	SHAPE_MN	0.519	0.058
5	DRCTPA	0.571	0.053
6	SHAPE_MN	0.615	0.044
7	LANDCWED	0.659	0.044

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
100 m buffer
Regression tree of abundance




```
13 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1        CAI_CV       0.128        0.128
    2     SSDIAMAVG       0.179        0.051
    3           V22       0.231        0.052
    4     SSDIAMAVG       0.312        0.081
    5        DRCTPA       0.381        0.069
    6      UDIAMAVG       0.439        0.057
    7      LANDCWED       0.576        0.138
    8      SHAPE_MN       0.615        0.038
```

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
141	-54.677	10	131.0	0.0	0.344
141	-54.285	11	132.6	1.6	0.157
141	-56.664	9	132.7	1.7	0.151
141	-55.584	10	132.9	1.9	0.139
141	-54.049	14	139.4	8.4	0.005

K10

Parameter	Estimate
CONSTANT	-12.403
DRCTPA	0.267
ALLHTCV	1.103
ALLSW_N	-0.204
V12	13.791
V22	4.298
V31	264.141
PLAND	0.073
LSHAPE_CV	0.12

K11

Parameter	Estimate
CONSTANT	-10.732
DRCTPA	0.233
ALLHTCV	1.213
ALLSW_N	-0.189
V12	12.452
V22	4.418
V31	265.107
PLAND	0.068
CAI_CV	-0.002
LSHAPE_CV	0.101

K9

Parameter	Estimate
CONSTANT	-2.774
V22	4.482
CAI_CV	-0.003
V31	251.797
DRCTPA	0.219
PLAND	0.052
ALLSW_N	-0.209
ALLHTCV	0.96

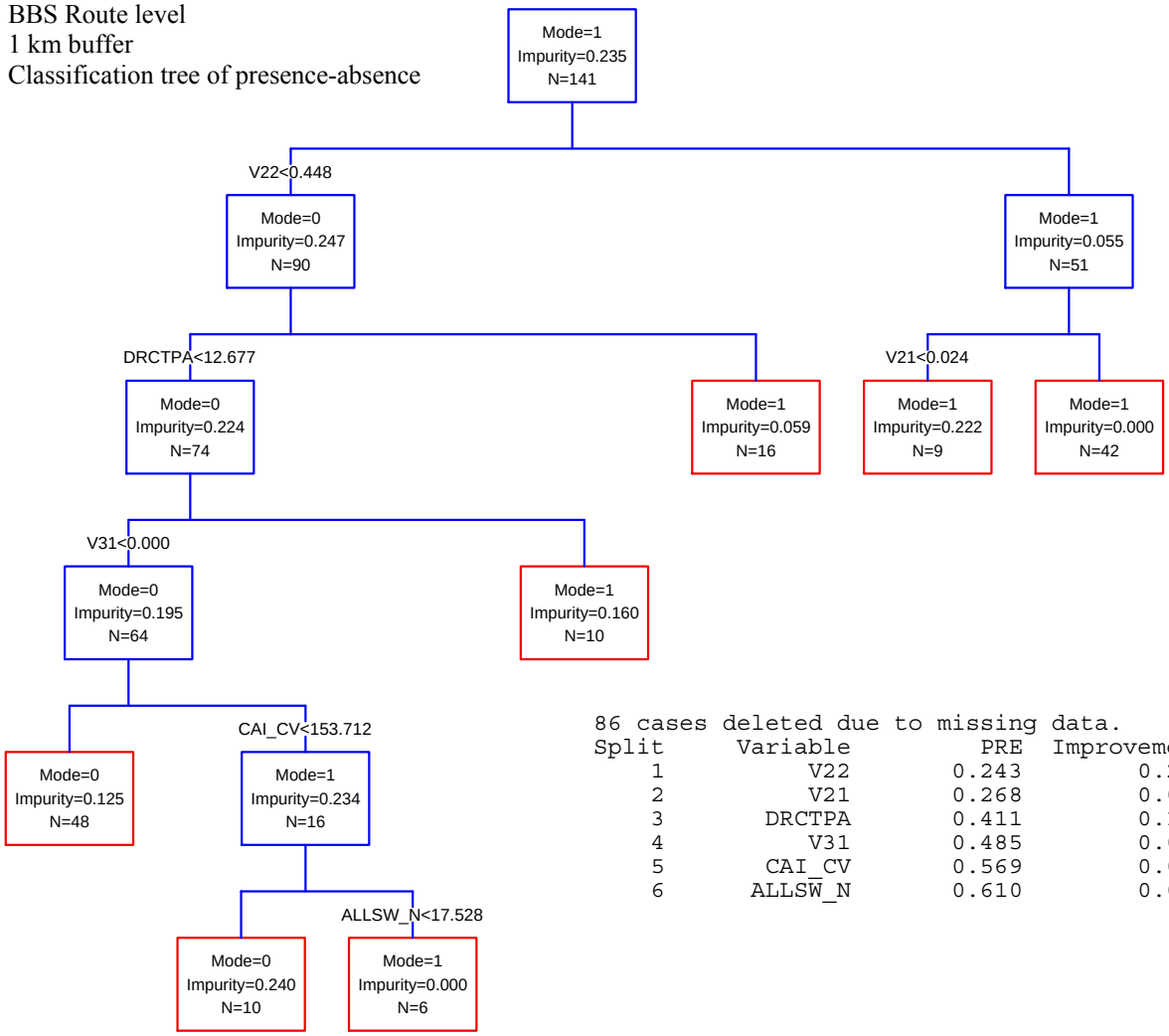
K10

Parameter	Estimate
CONSTANT	-7.841
V22	4.468
CAI_CV	-0.002
V31	239.548
DRCTPA	0.212
PLAND	0.063
ALLSW_N	-0.221
ALLHTCV	1.083
LSHAPE_CV	0.077

K14(GLOBAL)

Parameter	Estimate
CONSTANT	-8.151
DRCTPA	0.239
UDIAMAVG	-0.889
DRCDIAMAVG	0.005
ALLHTCV	1.129
ALLSW_N	-0.203
V12	12.691
V22	4.252
V31	278.513
V32	-5.007
PLAND	0.067
CAI_CV	-0.001
LSHAPE_CV	0.108

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
1 km buffer
Classification tree of presence-absence



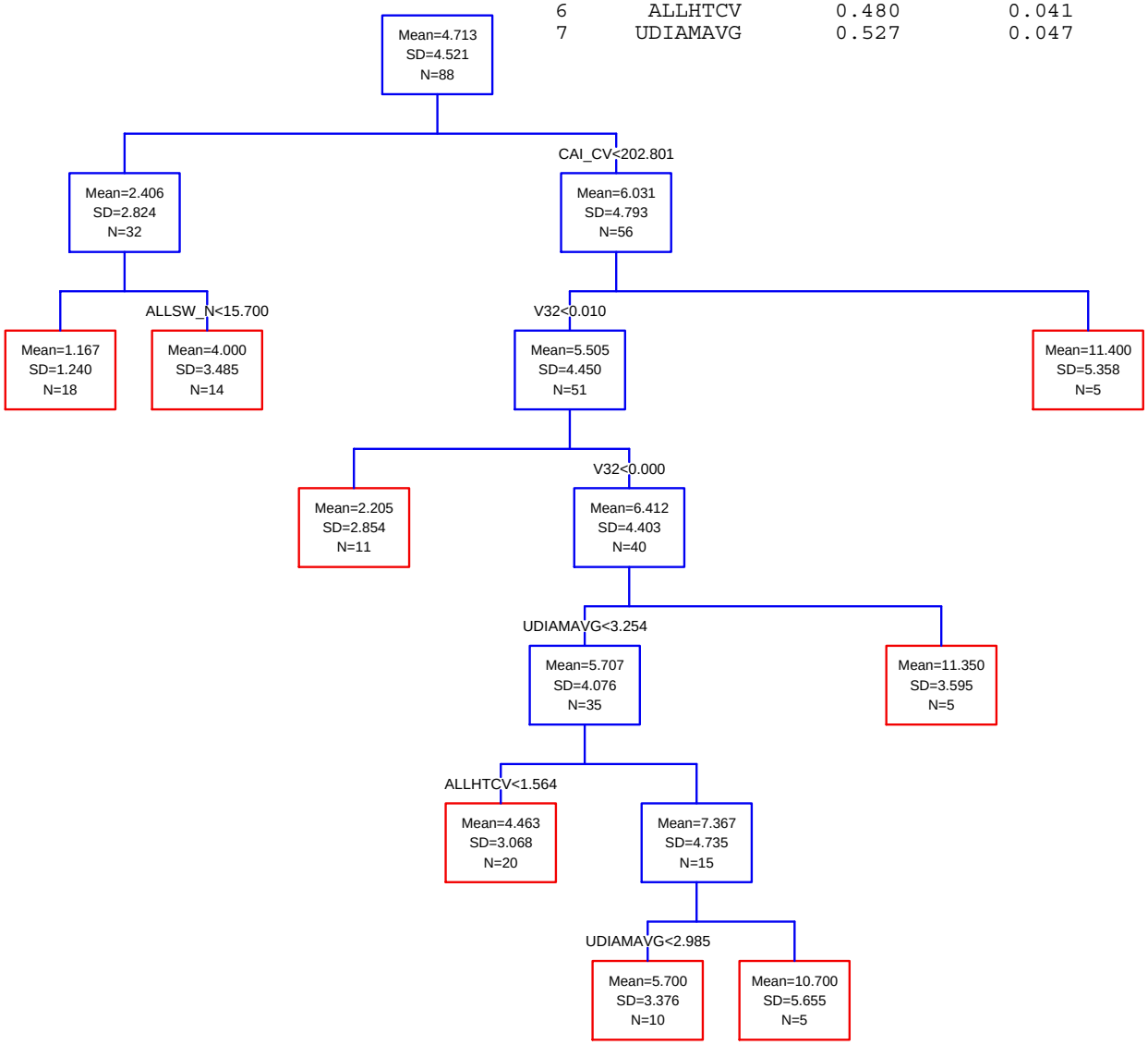
86 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V22	0.243	0.243
2	V21	0.268	0.025
3	DRCTPA	0.411	0.143
4	V31	0.485	0.075
5	CAI_CV	0.569	0.083
6	ALLSW_N	0.610	0.041

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
1 km buffer
Regression tree of abundance

13 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_CV	0.150	0.150
2	ALLSW_N	0.186	0.036
3	V32	0.275	0.089
4	V32	0.361	0.086
5	UDIAMAVG	0.439	0.078
6	ALLHTCV	0.480	0.041
7	UDIAMAVG	0.527	0.047



Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
169	-70.812	8	158.5	0.0	0.366
169	-70.31	9	159.8	1.3	0.198
169	-70.513	9	160.2	1.7	0.162
169	-69.276	13	166.9	8.4	0.006

K8

Parameter	Estimate
CONSTANT	0.024
DEADDIAMAVG	-0.203
V11	-4.662
V19	-26.593
V22	3.959
V31	219.349
CAI_MN	0.064

K9

Parameter	Estimate
CONSTANT	1.713
DEADDIAMAVG	-0.228
ALLSW_N	-0.072
V11	-4.643
V19	-25.342
V22	3.452
V31	204.308
CAI_MN	0.062

K9

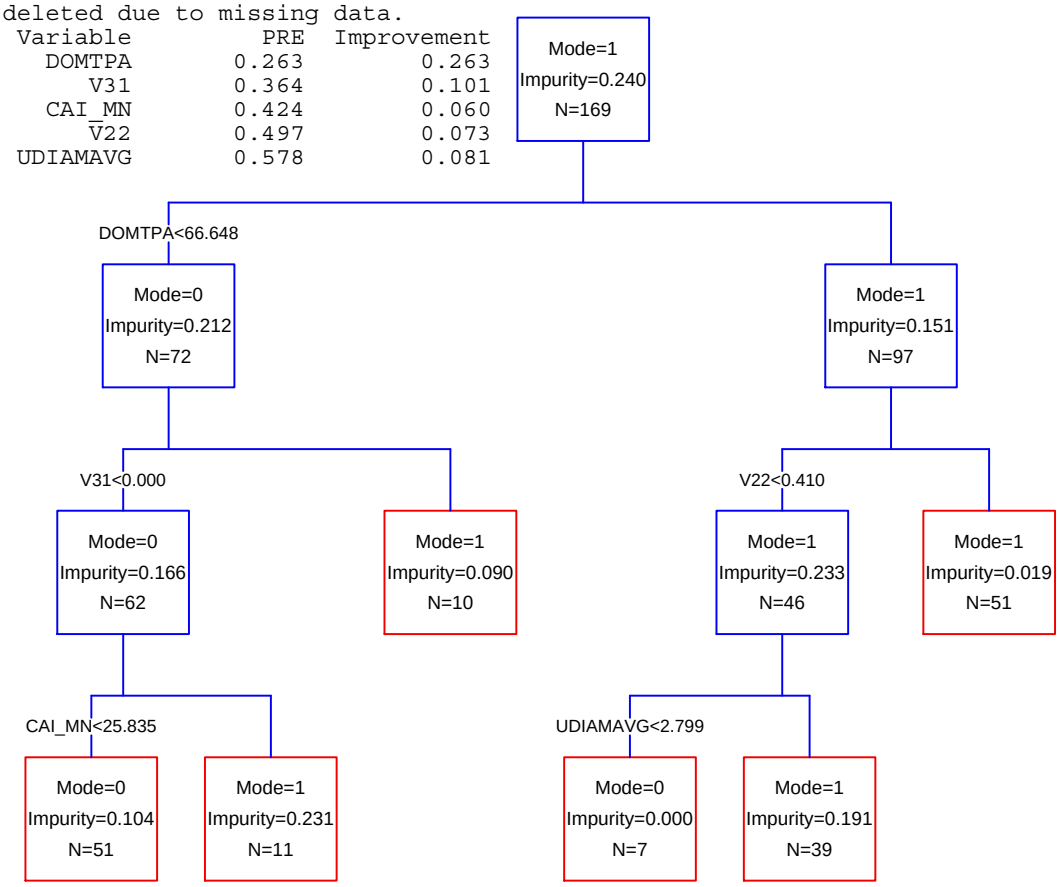
Parameter	Estimate
CONSTANT	-0.601
DOMTPA	0.012
V19	-27.053
V11	-4.838
CAI_MN	0.057
V22	3.496
V31	217.269
DEADDIAMAVG	-0.191

K13(GLOBAL)

Parameter	Estimate
CONSTANT	5.799
DOMTPA	0.008
RCTPA	0.198
UDIAMAVG	-1.235
DEADDIAMAVG	-0.275
ALLSW_N	-0.105
V11	-4.559
V19	-26.07
V22	2.777
V24	-4.913
V31	199.234
CAI_MN	0.057

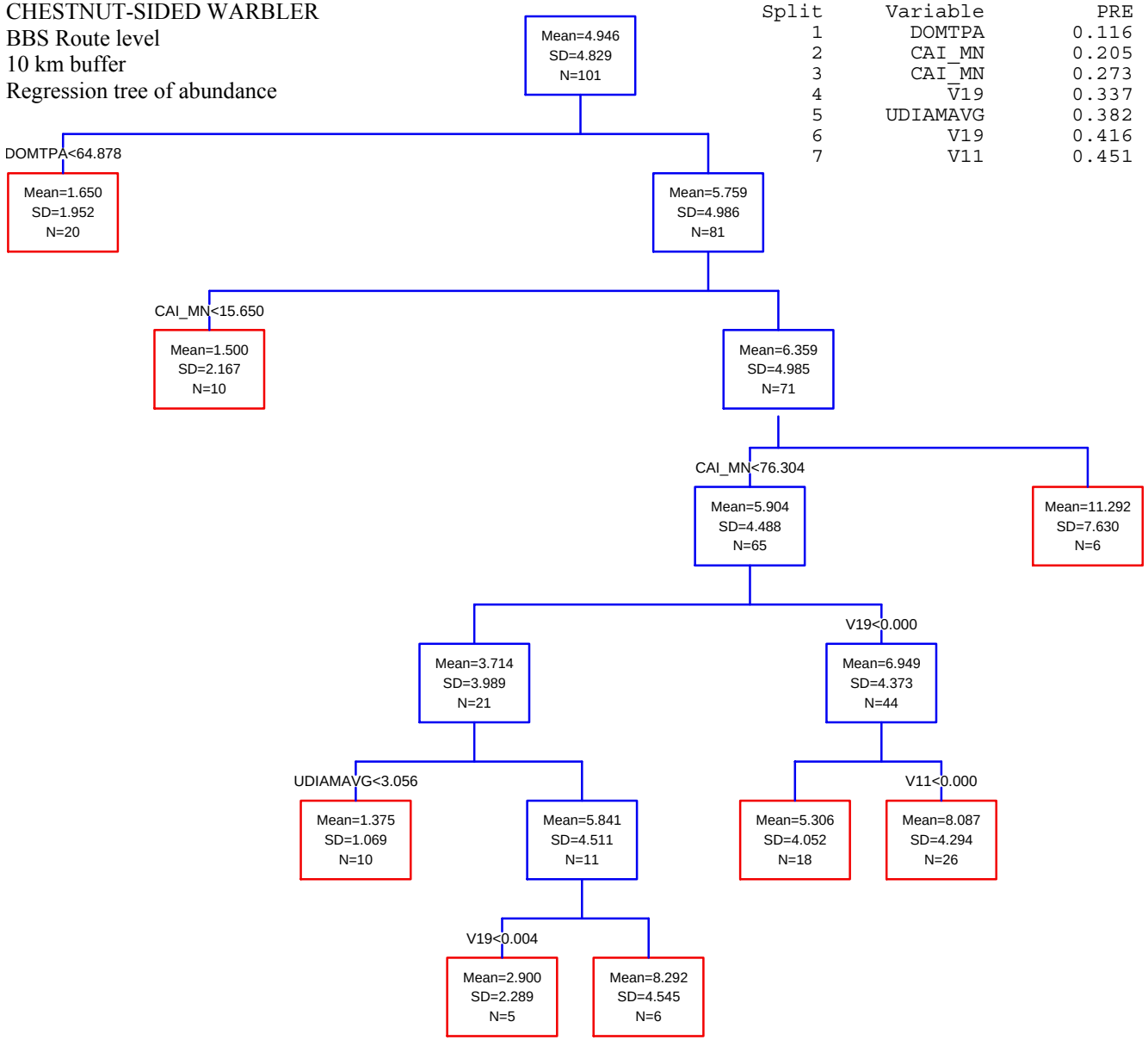
Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
10 km buffer
Classification tree of presence-absence

```
58 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1       DOMTPA       0.263        0.263
    2          V31       0.364        0.101
    3       CAI_MN       0.424        0.060
    4          V22       0.497        0.073
    5     UDIAMAVG       0.578        0.081
```



Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	DOMTPA	0.116	0.116
2	CAI_MN	0.205	0.089
3	CAI_MN	0.273	0.068
4	V19	0.337	0.064
5	UDIAMAVG	0.382	0.045
6	V19	0.416	0.034
7	V11	0.451	0.035



Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
141	-49.683	9	118.7	0.0	0.266
141	-51.064	8	119.2	0.5	0.210
141	-48.87	10	119.4	0.7	0.188
141	-47.901	11	119.8	1.1	0.153
141	-46.703	16	129.8	11.1	0.001

K9

Parameter	Estimate
CONSTANT	2.518
V1V22	5.135
V2ALLHTCV	2.418
V2PLAND	0.064
V2ALLSW_N	-0.168
V3DEADDIAMAV	-1.017
V3V31	344.924
V3CAI_MN	0.096

K8

Parameter	Estimate
CONSTANT	-7.072
V1V22	5.394
V2ALLHTCV	2.266
V2PLAND	0.071
V2ALLSW_N	-0.172
V3V31	359.884
V3CAI_MN	0.085

K10

Parameter	Estimate
CONSTANT	4.58
V1V22	4.823
V2ALLHTCV	2.509
V2V12	14.353
V2PLAND	0.064
V2ALLSW_N	-0.136
V3DEADDIAMAV	-1.325
V3V31	377.389
V3CAI_MN	0.101

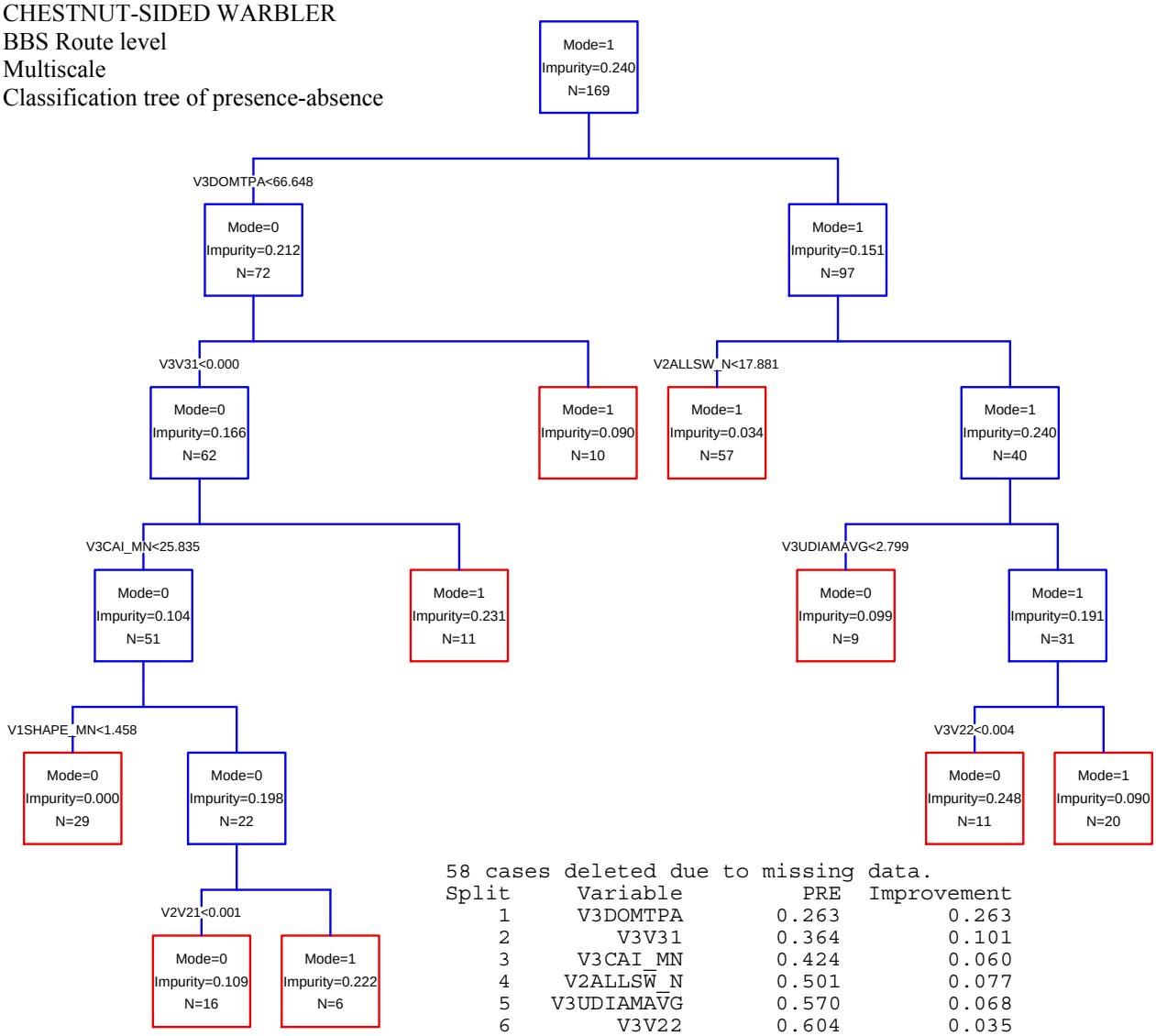
K11

Parameter	Estimate
CONSTANT	10.915
V1SSDIAMAVG	-4.212
V1V22	4.526
V2ALLHTCV	2.659
V2V12	16.678
V2PLAND	0.063
V2ALLSW_N	-0.127
V3DEADDIAMAV	-1.228
V3V31	399.477
V3CAI_MN	0.105

K16(GLOBAL)

Parameter	Estimate
CONSTANT	13.943
V1SSDIAMAVG	-5.104
V1V22	4.315
V1CAI_CV	-0.001
V2DRCTPA	0.156
V2ALLHTCV	1.279
V2V12	9.812
V2PLAND	0.051
V2LSHAPE_CV	-0.028
V2ALLSW_N	-0.156
V3DEADDIAMAV	-0.941
V3V11	-5.743
V3V19	-32.937
V3V31	405.243
V3CAI_MN	0.093

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
Multiscale
Classification tree of presence-absence



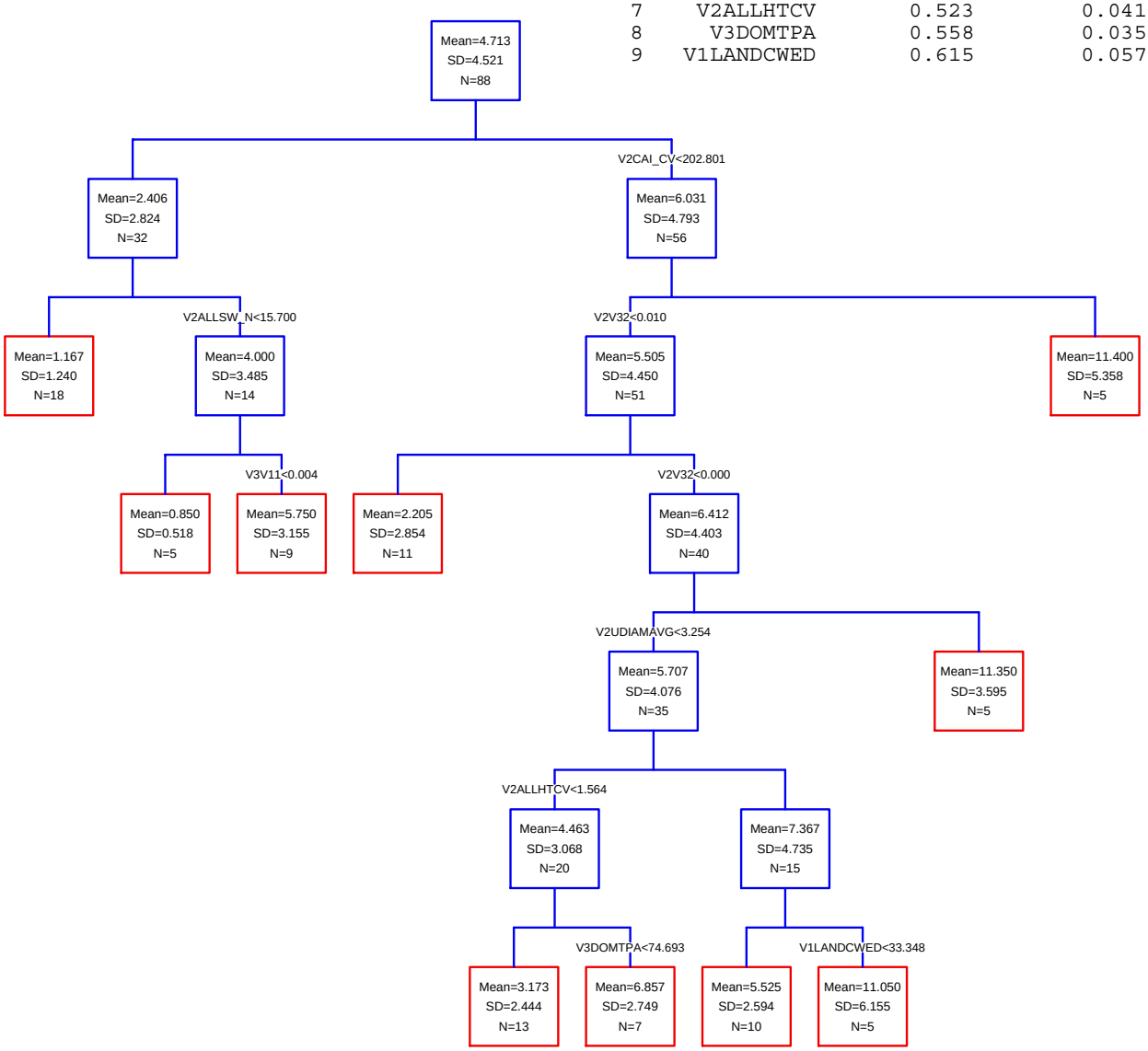
58 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V3DOMTPA	0.263	0.263
2	V3V31	0.364	0.101
3	V3CAI_MN	0.424	0.060
4	V2ALLSW_N	0.501	0.077
5	V3UDIAMAVG	0.570	0.068
6	V3V22	0.604	0.035
7	V1SHAPE_MN	0.627	0.023
8	V2V21	0.659	0.032

Early Successional
CHESTNUT-SIDED WARBLER
BBS Route level
Multiscale
Regression tree of abundance

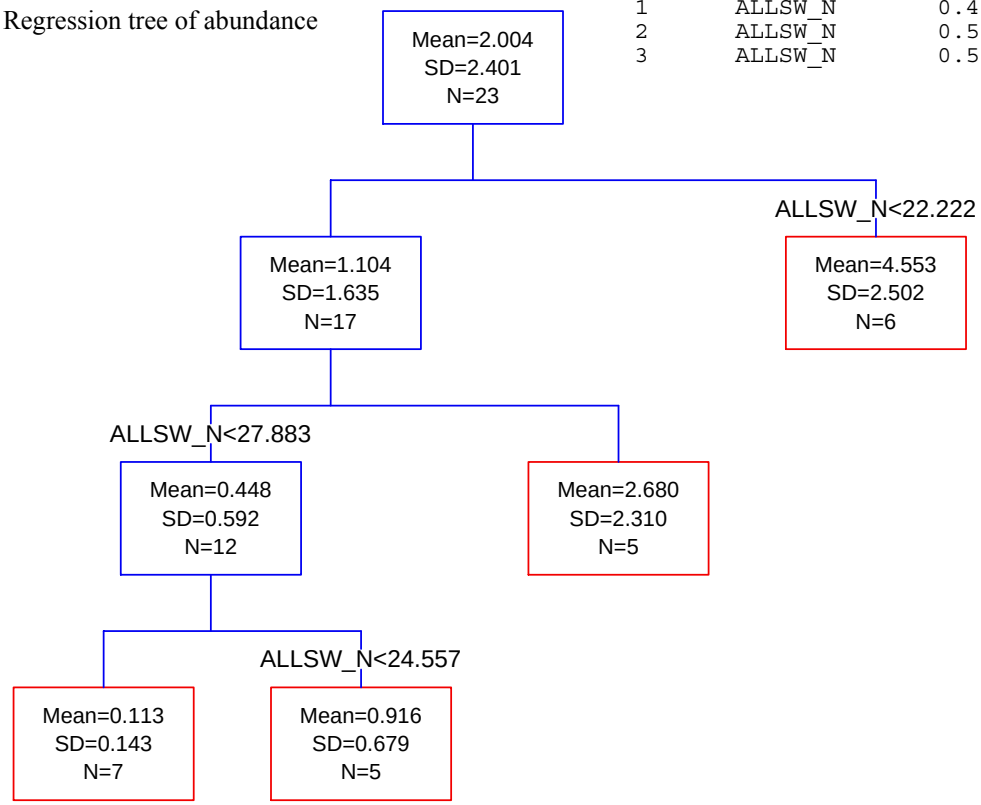
13 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2CAI_CV	0.150	0.150
2	V2ALLSW_N	0.186	0.036
3	V3V11	0.229	0.043
4	V2V32	0.318	0.089
5	V2V32	0.404	0.086
6	V2UDIAMAVG	0.483	0.078
7	V2ALLHTCV	0.523	0.041
8	V3DOMTPA	0.558	0.035
9	V1LANDCWED	0.615	0.057



Early Successional
CHESTNUT-SIDED WARBLER
FIA Unit scale
Regression tree of abundance

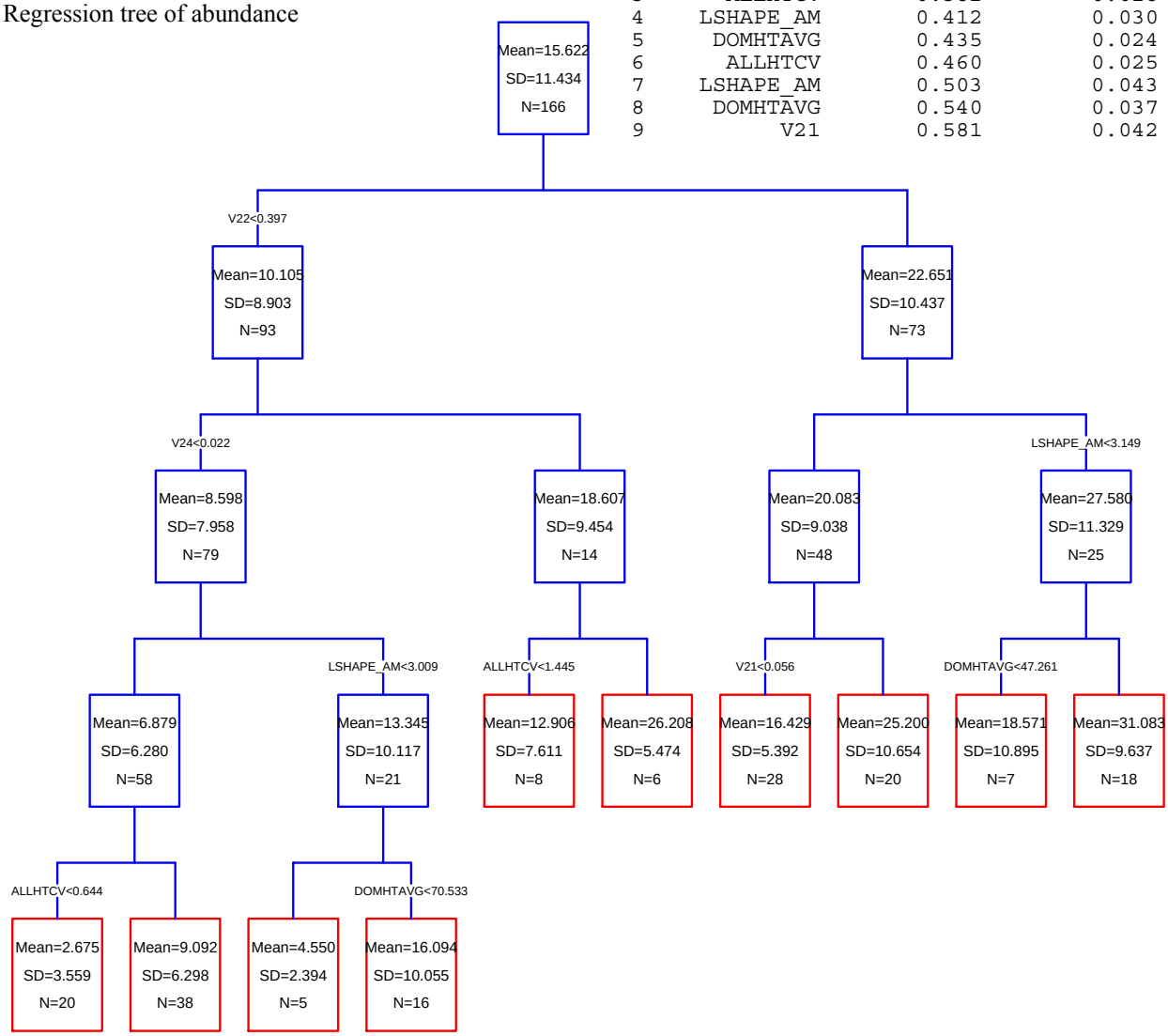
```
7 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1      ALLSW_N        0.416        0.416
    2      ALLSW_N        0.555        0.139
    3      ALLSW_N        0.569        0.015
```



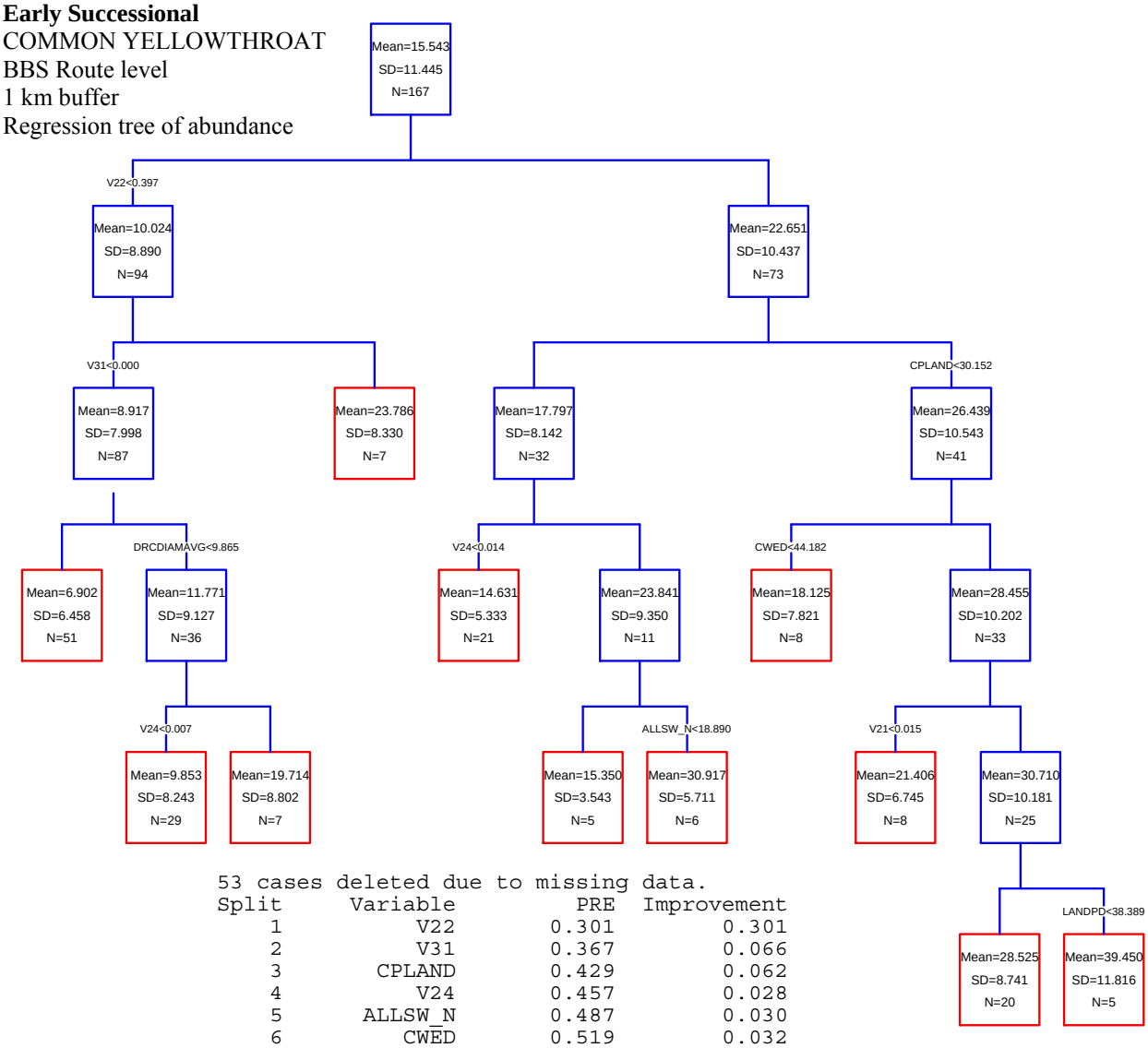
Early Successional
COMMON YELLOWTHROAT
BBS Route level
100 m buffer
Regression tree of abundance

54 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V22	0.298	0.298
2	V24	0.354	0.055
3	ALLHTCV	0.382	0.028
4	LSHAPE_AM	0.412	0.030
5	DOMHTAVG	0.435	0.024
6	ALLHTCV	0.460	0.025
7	LSHAPE_AM	0.503	0.043
8	DOMHTAVG	0.540	0.037
9	V21	0.581	0.042



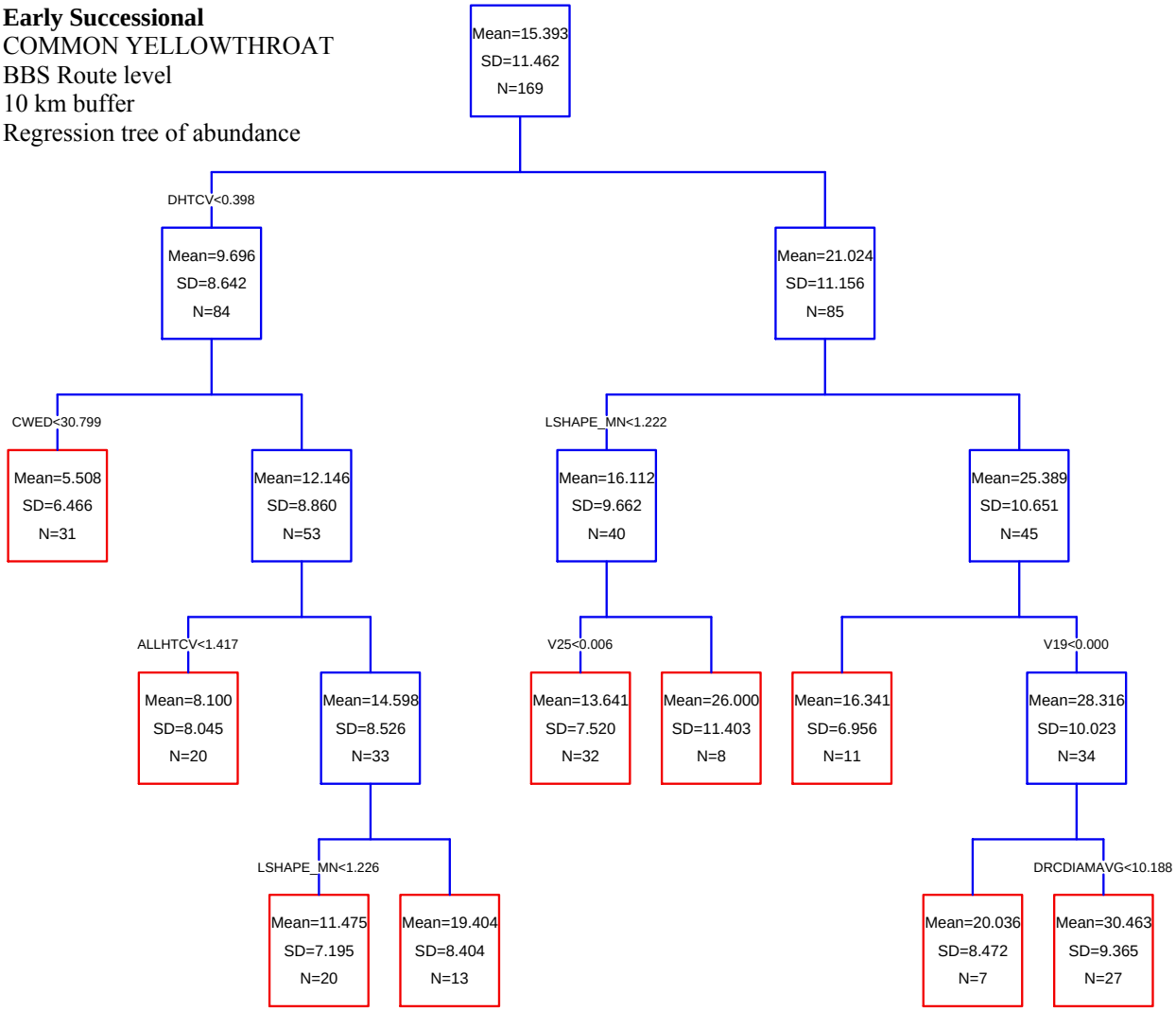
Early Successional
COMMON YELLOWTHROAT
BBS Route level
1 km buffer
Regression tree of abundance



53 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V22	0.301	0.301
2	V31	0.367	0.066
3	CPLAND	0.429	0.062
4	V24	0.457	0.028
5	ALLSW_N	0.487	0.030
6	CWED	0.519	0.032
7	V21	0.543	0.024
8	LANDPD	0.565	0.022
9	DRCDIAMAVG	0.588	0.023
10	V24	0.613	0.025

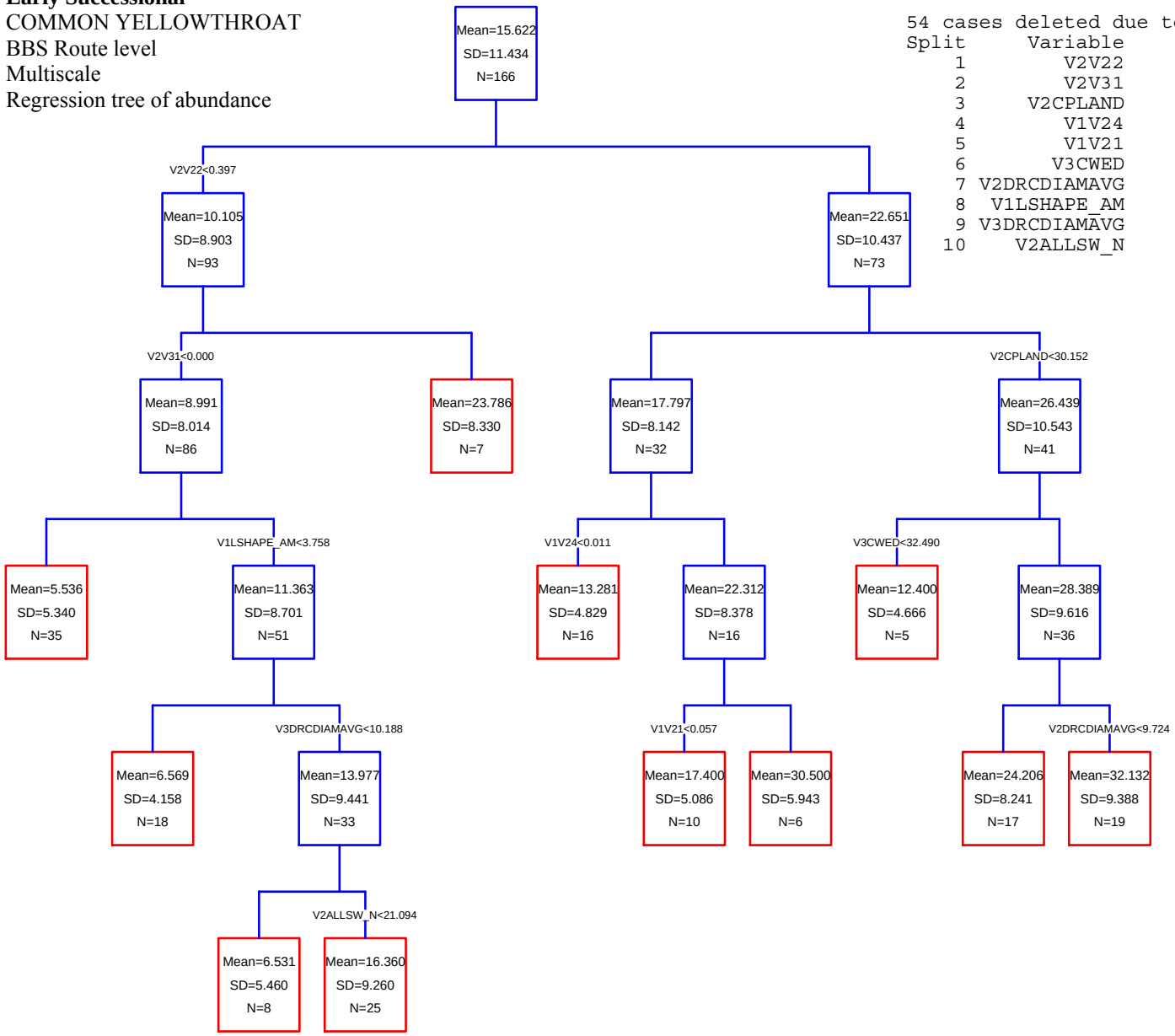
Early Successional
COMMON YELLOWTHROAT
BBS Route level
10 km buffer
Regression tree of abundance



51 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DHTCV	0.246	0.246
2	LSHAPE_MN	0.328	0.083
3	V25	0.372	0.044
4	V19	0.426	0.054
5	DRCDIAMAVG	0.454	0.027
6	CWED	0.493	0.039
7	ALLHTCV	0.517	0.024
8	LSHAPE_MN	0.539	0.022

Early Successional
COMMON YELLOWTHROAT
BBS Route level
Multiscale
Regression tree of abundance

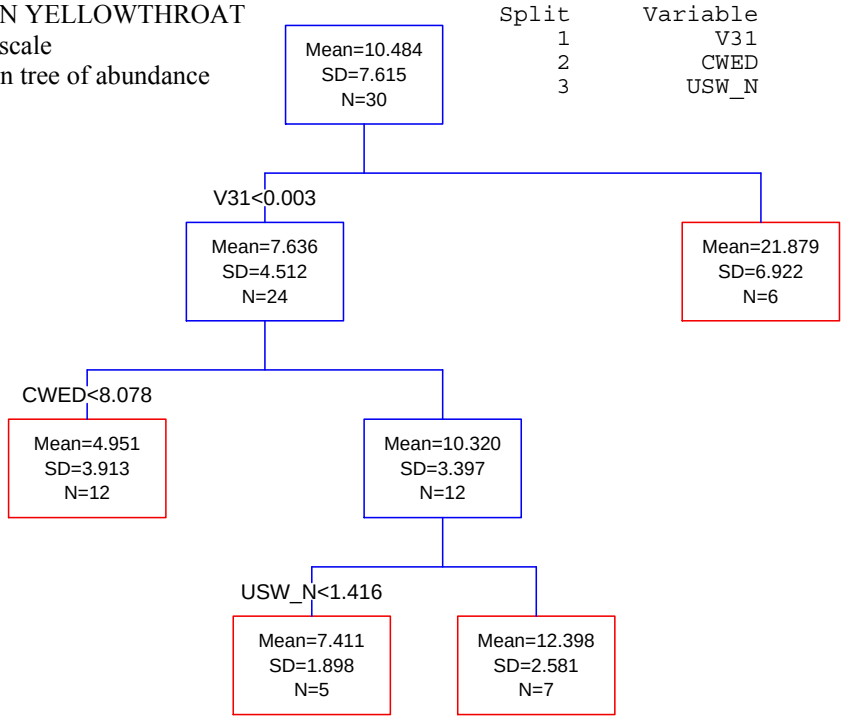


54 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2V22	0.298	0.298
2	V2V31	0.364	0.066
3	V2CPLAND	0.426	0.062
4	V1V24	0.457	0.030
5	V1V21	0.486	0.030
6	V3CWED	0.538	0.052
7	V2DRCDIAMAVG	0.565	0.026
8	V1LSHAPE_AM	0.597	0.033
9	V3DRCDIAMAVG	0.627	0.030
10	V2ALLSW_N	0.654	0.027

Early Successional
COMMON YELLOWTHROAT
FIA Unit scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	V31	0.579	0.579
2	CWED	0.682	0.103
3	USW_N	0.725	0.043



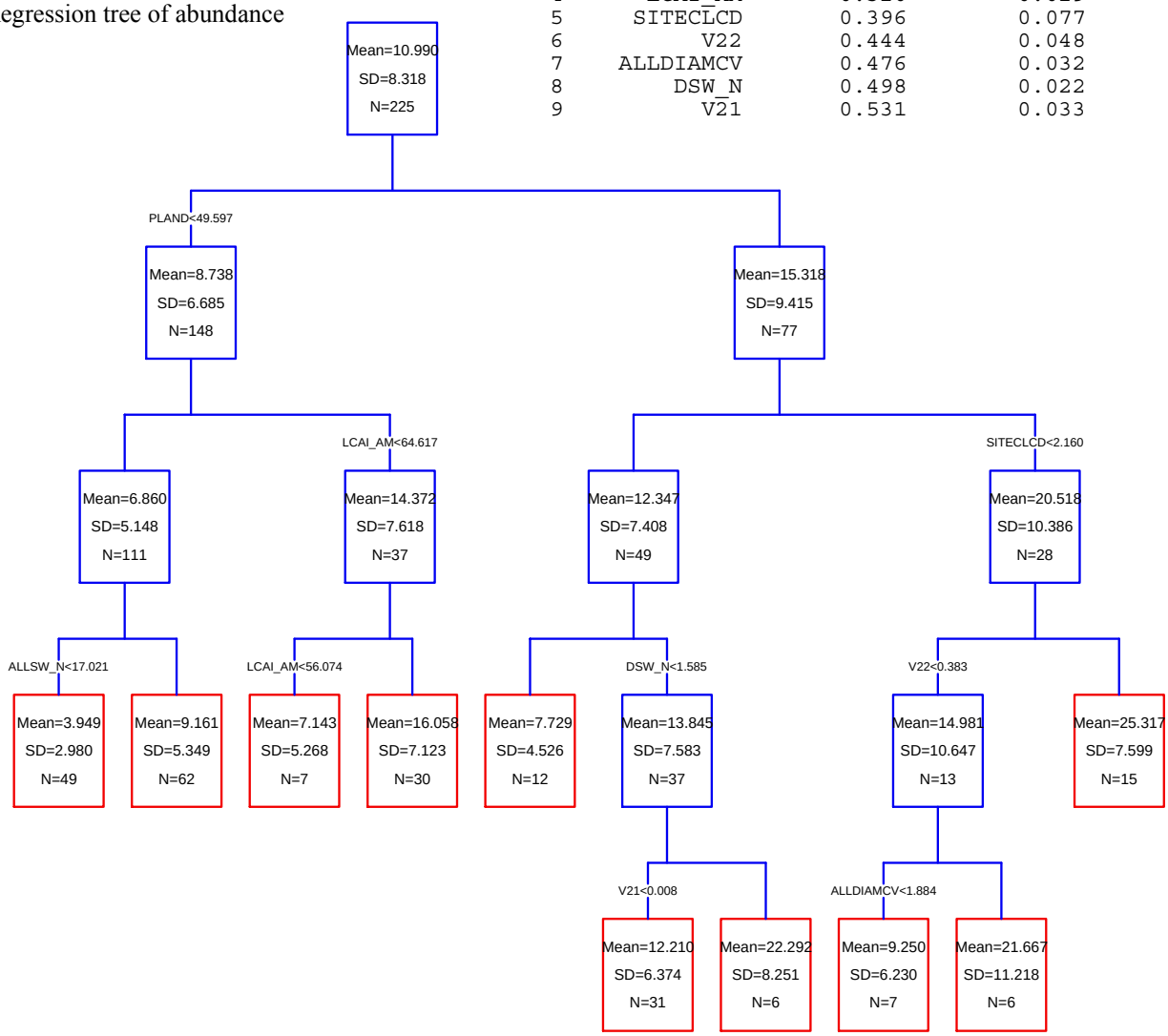
Early Successional
COMMON YELLOWTHROAT
Physiographic section scale
GLM of abundance

n	LL	K	AICc	Δ AIC	w_i
16	1.361	5	-23.4	0.0	0.686
16	1.243	6	-19.5	3.9	0.098

K5		K6(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
V19	-12.337	V19	-9.909
DEADDIAMAVG	0.239	SITECLCD	-0.145
V22	1.788	DEADDIAMAVG	0.224
		V22	1.793

Early Successional
EASTERN TOWHEE
BBS Route level
100 m buffer
Regression tree of abundance

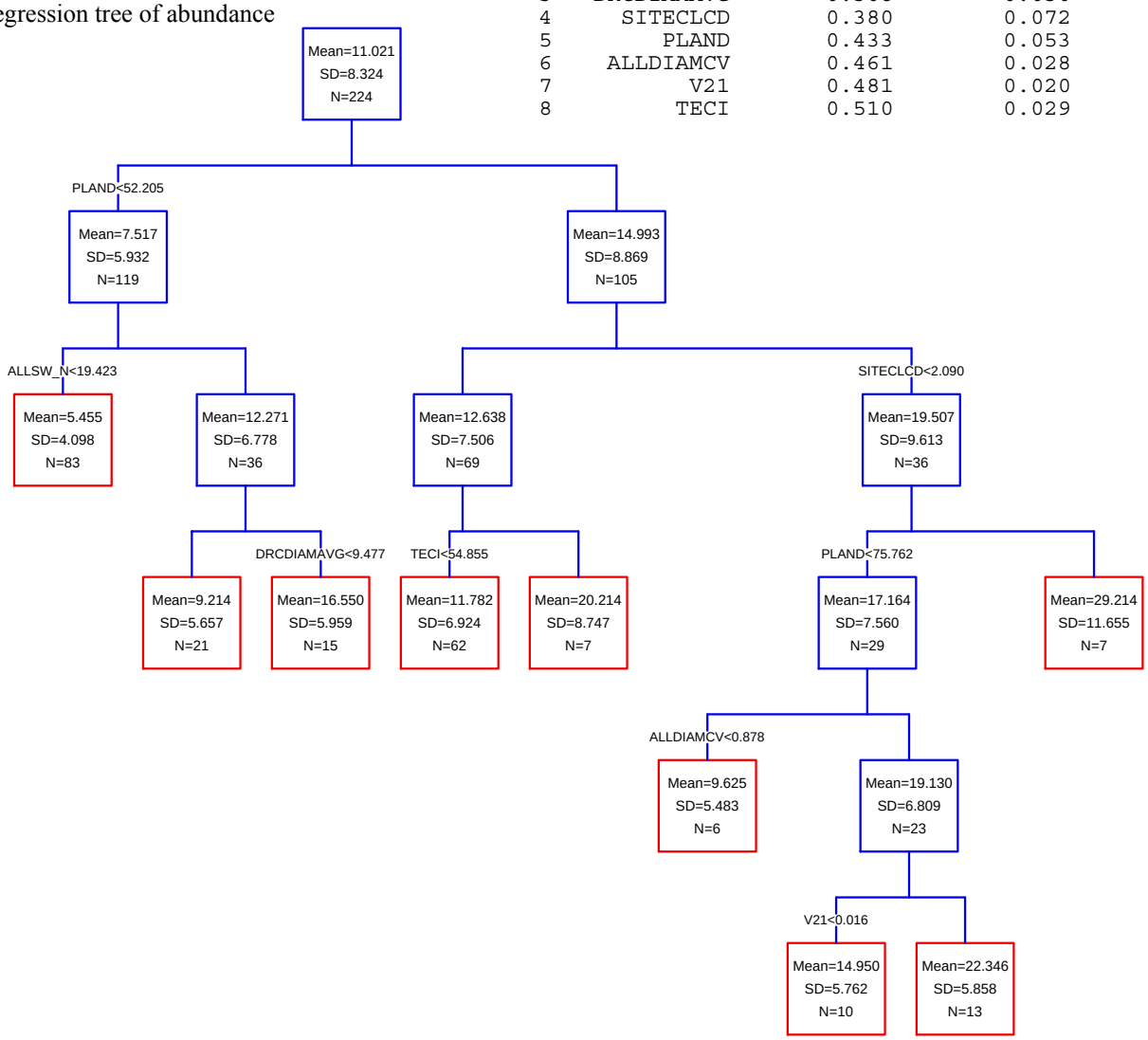
Split	Variable	PRE	Improvement
1	PLAND	0.141	0.141
2	LCAI_AM	0.242	0.101
3	ALLSW_N	0.290	0.048
4	LCAI_AM	0.320	0.029
5	SITECLCD	0.396	0.077
6	V22	0.444	0.048
7	ALLDIAMCV	0.476	0.032
8	DSW_N	0.498	0.022
9	V21	0.531	0.033



Early Successional
EASTERN TOWHEE
BBS Route level
1 km buffer
Regression tree of abundance

1 cases deleted due to missing data.

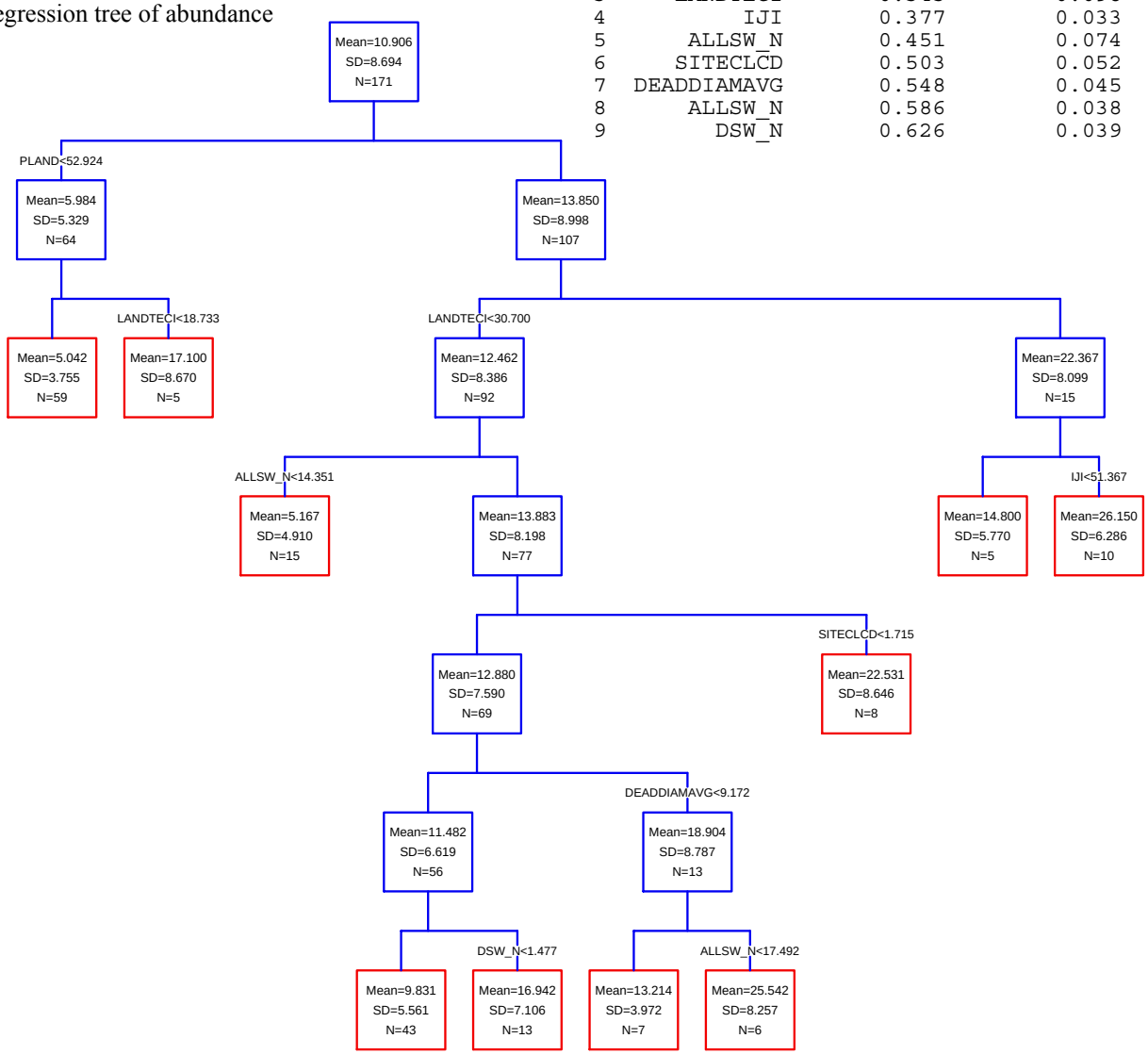
Split	Variable	PRE	Improvement
1	PLAND	0.202	0.202
2	ALLSW_N	0.277	0.076
3	DRCDIAMAVG	0.308	0.030
4	SITECLCD	0.380	0.072
5	PLAND	0.433	0.053
6	ALLDIAMCV	0.461	0.028
7	V21	0.481	0.020
8	TECI	0.510	0.029



Early Successional
EASTERN TOWHEE
BBS Route level
10 km buffer
Regression tree of abundance

54 cases deleted due to missing data.

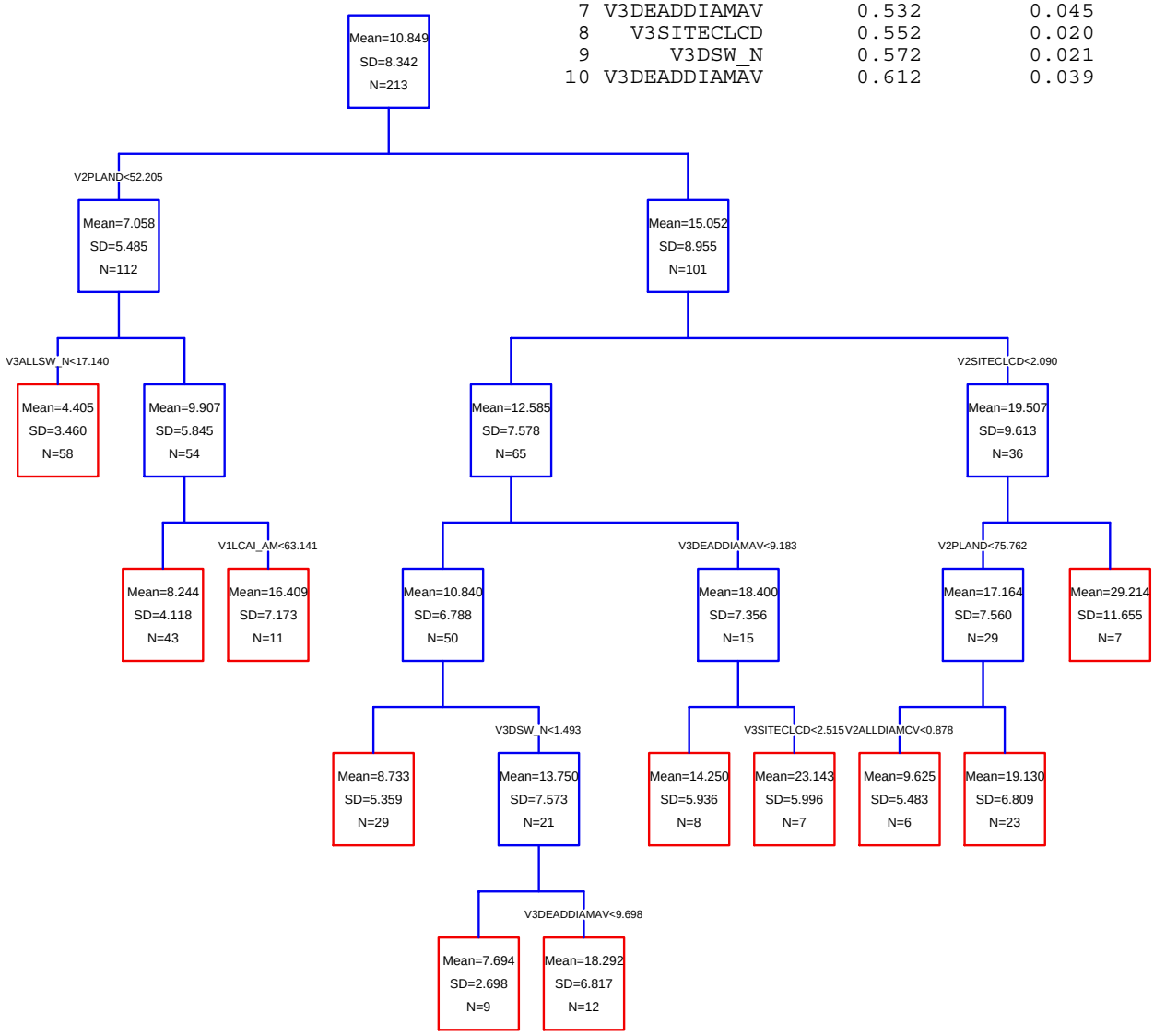
Split	Variable	PRE	Improvement
1	PLAND	0.193	0.193
2	LANDTECI	0.245	0.052
3	LANDTECI	0.343	0.098
4	IJI	0.377	0.033
5	ALLSW_N	0.451	0.074
6	SITECLCD	0.503	0.052
7	DEADDIAMAVG	0.548	0.045
8	ALLSW_N	0.586	0.038
9	DSW_N	0.626	0.039



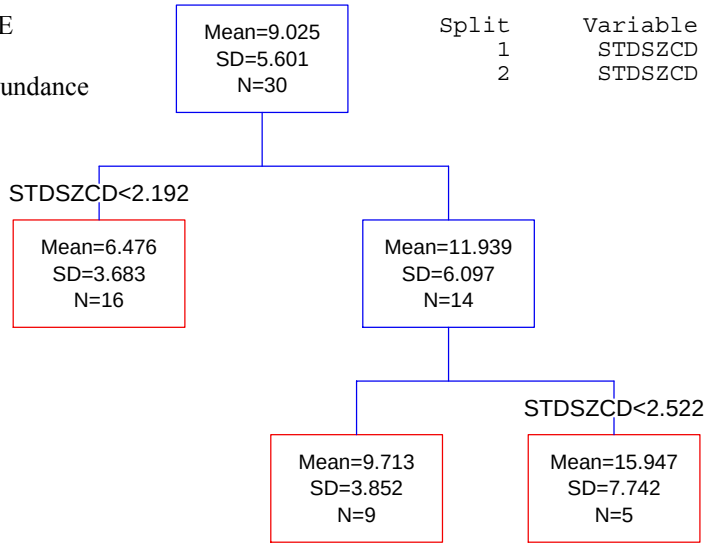
Early Successional
EASTERN TOWHEE
BBS Route level
Multiscale
Regression tree of abundance

12 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2PLAND	0.230	0.230
2	V3ALLSW_N	0.287	0.057
3	V1LCAI_AM	0.327	0.040
4	V2SITECLCD	0.402	0.075
5	V2PLAND	0.458	0.056
6	V2ALLDIAMCV	0.487	0.029
7	V3DEADDIAMAV	0.532	0.045
8	V3SITECLCD	0.552	0.020
9	V3DSW_N	0.572	0.021
10	V3DEADDIAMAV	0.612	0.039



Early Successional
EASTERN TOWHEE
FIA Unit scale
Regression tree of abundance



Split	Variable	PRE	Improvement
1	STDSZCD	0.245	0.245
2	STDSZCD	0.382	0.137

Early Successional
EASTERN TOWHEE
Physiographic section scale
GLM of abundance

n	SSE	K	AICc	Δ AIC	w_i
16	2.385	3	-22.5	0.0	0.692
16	2.102	4	-20.8	1.7	0.308

K3		K4(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
SITECLCD	0.426	SITECLCD	0.338
		V24	-38.392

Early Successional
PRAIRIE WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
220	-128.097	6	268.6	0.0	0.374
220	-124.442	15	281.2	12.6	0.001

K6

Parameter	Estimate
CONSTANT	9.667
UDIAMAVG	-2.519
LCAI_AM	-0.036
PD	0.043
V21	-6.214

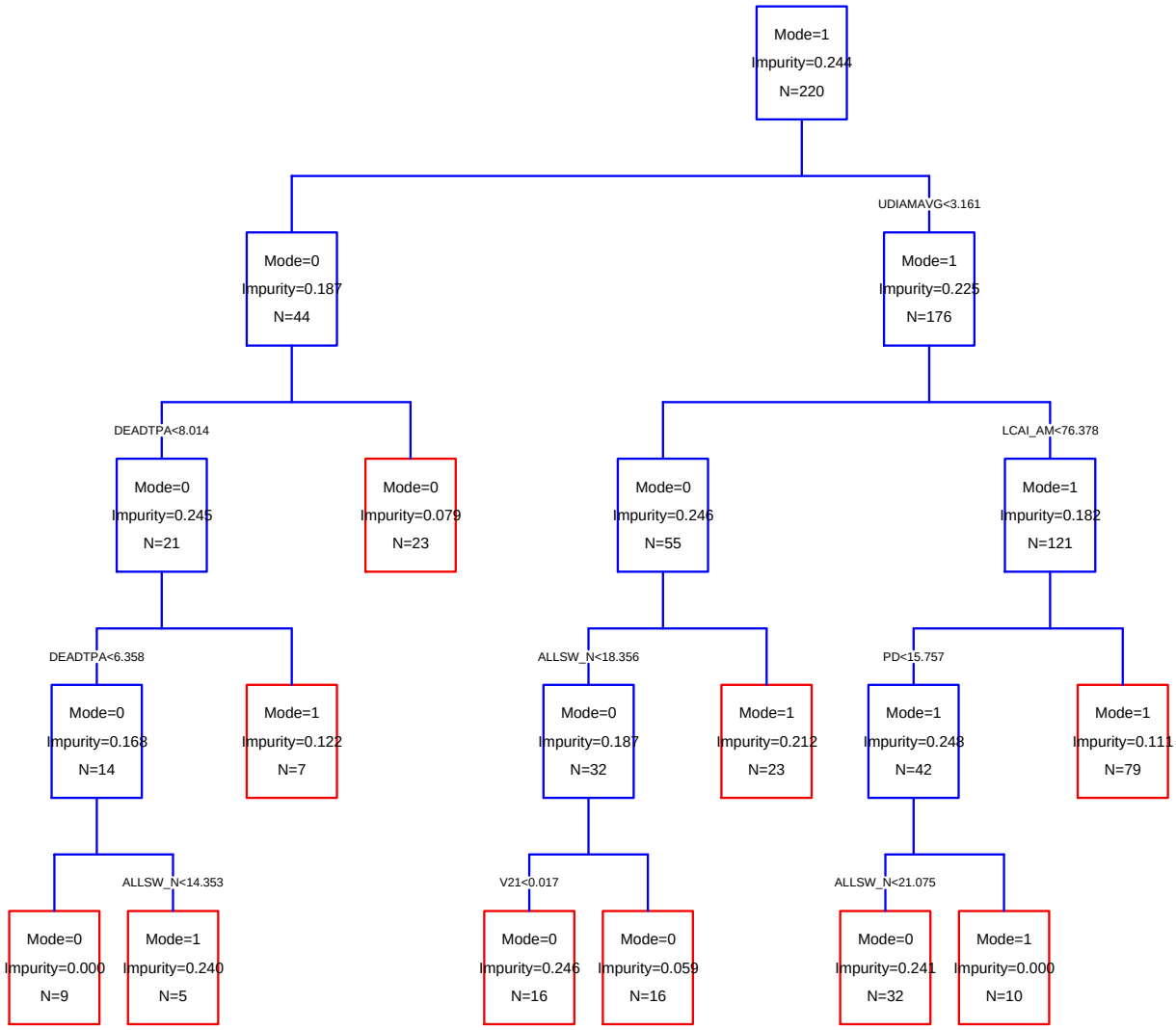
K15(GLOBAL)

Parameter	Estimate
CONSTANT	5.893
SITECLCD	0.47
DEADTPA	-0.071
RCTPA	-0.147
UDIAMAVG	-2.109
ALLSW_N	0.023
V12	-3.595
V21	-1.972
V29	0.385
V31	-15.319
PD	0.042
LCAI_AM	-0.023
LANDIJI	0.023
CPD	-0.025

Early Successional
PRAIRIE WARBLER
BBS Route level
100 m buffer
Classification tree of presence-absence

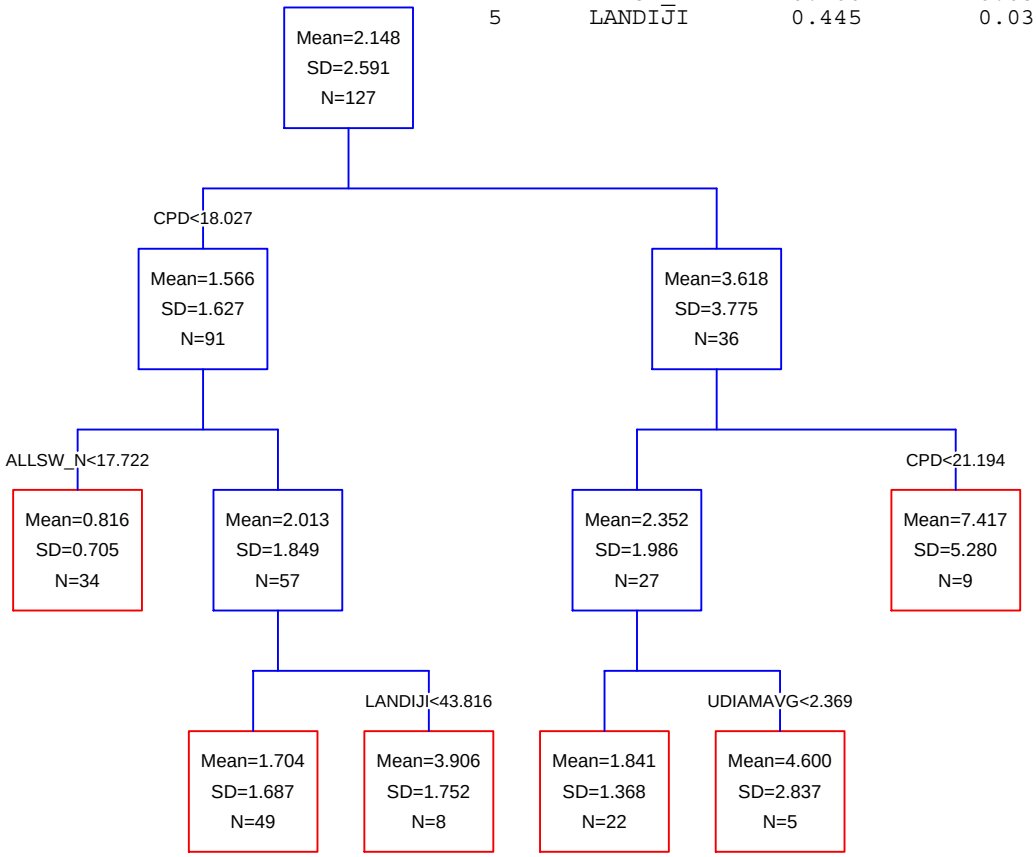
7 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	UDIAMAVG	0.110	0.110
2	DEADTPA	0.134	0.024
3	DEADTPA	0.170	0.036
4	ALLSW_N	0.191	0.022
5	LCAI_AM	0.265	0.074
6	ALLSW_N	0.314	0.050
7	V21	0.335	0.021
8	PD	0.390	0.054
9	ALLSW_N	0.440	0.050



Early Successional
PRAIRIE WARBLER
BBS Route level
100 m buffer
Regression tree of abundance

```
1 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1          CPD       0.128        0.128
    2          CPD       0.333        0.205
    3     UDIAMAVG       0.370        0.037
    4      ALLSW_N       0.406        0.036
    5      LANDIJI       0.445        0.039
```



Early Successional
PRAIRIE WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	Δ AIC	w_i
221	-129.048	7	272.6	0.0	0.289
221	-130.4	6	273.2	0.6	0.217
221	-131.607	5	273.5	0.9	0.187
221	-128.63	8	273.9	1.3	0.149
221	-127.983	13	283.7	11.1	0.001

K7

Parameter	Estimate
CONSTANT	9.11
SITECLCD	0.512
DEADTPA	-0.086
UDIAMAVG	-1.675
V21	-5.594
LCAI_AM	-0.056

K6

Parameter	Estimate
CONSTANT	10.347
UDIAMAVG	-1.981
LCAI_AM	-0.063
V21	-5.81
SITECLCD	0.319

K5

Parameter	Estimate
CONSTANT	10.864
UDIAMAVG	-2.029
LCAI_AM	-0.059
V21	-7.094

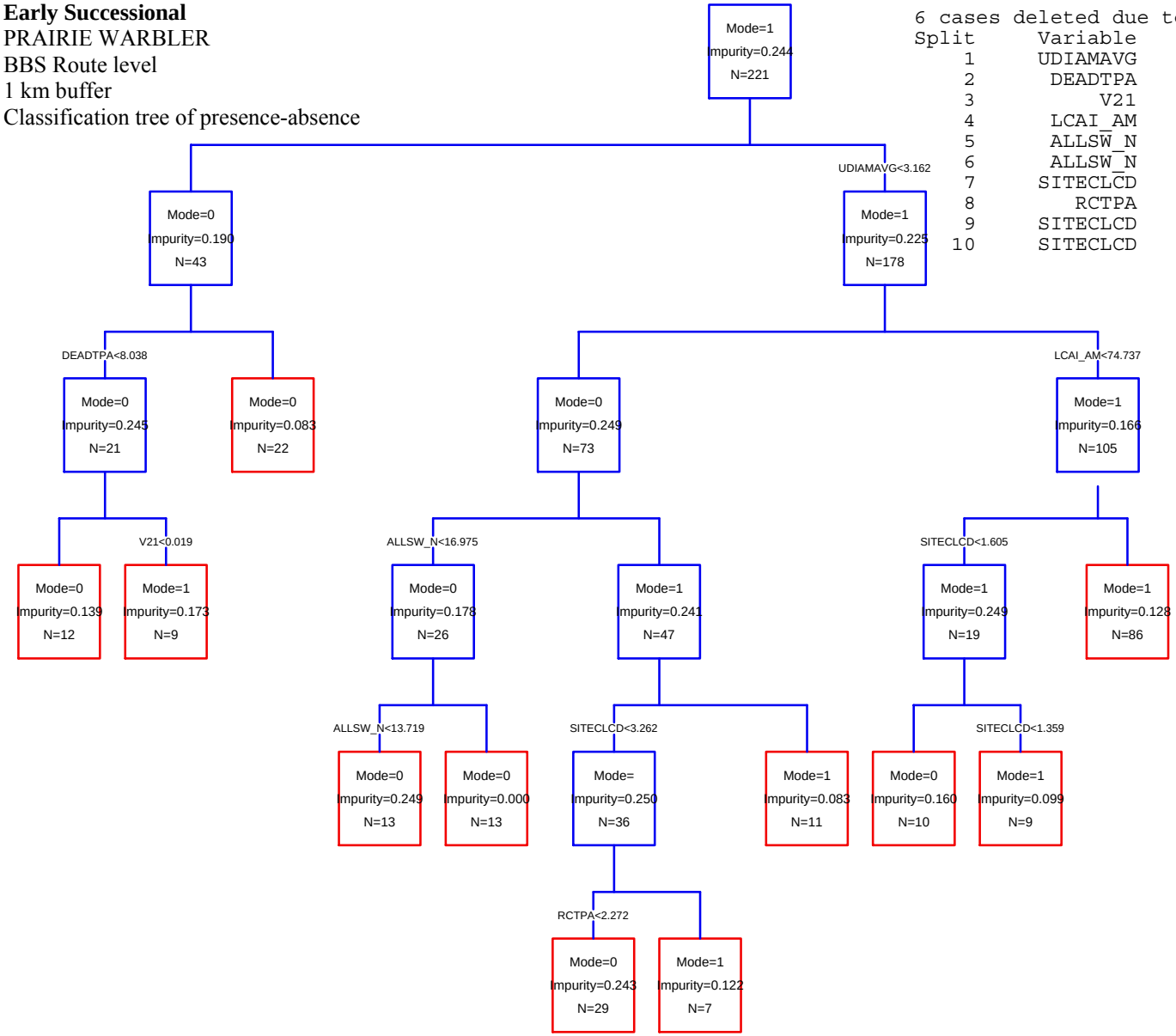
K8

Parameter	Estimate
CONSTANT	9.238
SITECLCD	0.501
DEADTPA	-0.071
RCTPA	-0.136
UDIAMAVG	-1.61
V21	-4.792
LCAI_AM	-0.059

K13(GLOBAL)

Parameter	Estimate
CONSTANT	8.732
SITECLCD	0.49
DEADTPA	-0.075
RCTPA	-0.173
UDIAMAVG	-1.499
ALLSW_N	0.013
V12	-1.442
V21	-2.622
V29	0.46
V31	-11.572
LANDPD	-0.003
LCAI_AM	-0.058

Early Successional
PRAIRIE WARBLER
BBS Route level
1 km buffer
Classification tree of presence-absence

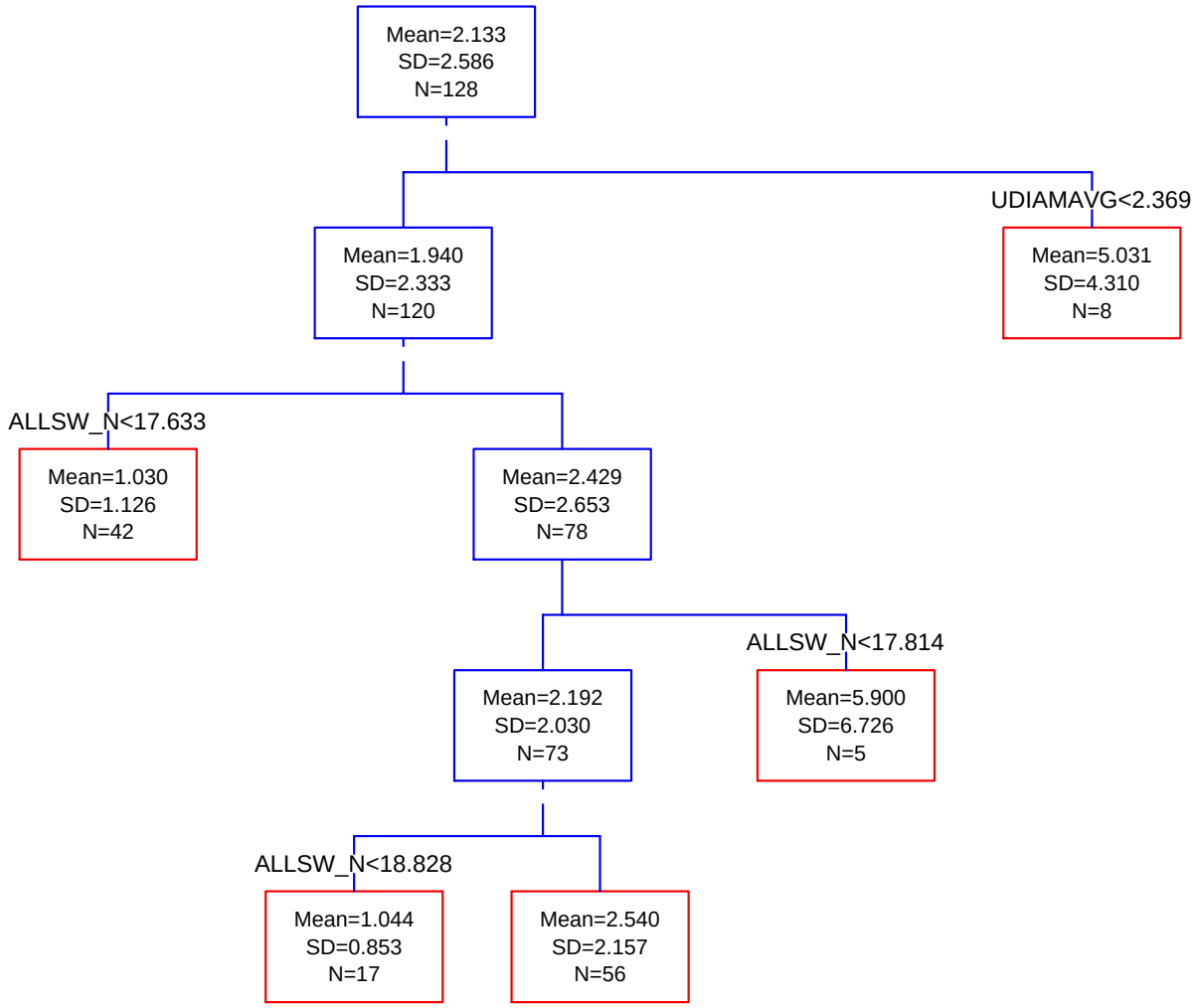


6 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	UDIAMAVG	0.104	0.104
2	DEADTPA	0.126	0.023
3	V21	0.162	0.036
4	LCAI_AM	0.246	0.084
5	ALLSW_N	0.288	0.041
6	ALLSW_N	0.313	0.026
7	SITECLCD	0.340	0.026
8	RCTPA	0.360	0.021
9	SITECLCD	0.390	0.030
10	SITECLCD	0.432	0.042

Early Successional
PRAIRIE WARBLER
BBS Route level
1 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	UDIAMAVG	0.084	0.084
2	ALLSW_N	0.147	0.063
3	ALLSW_N	0.223	0.076
4	ALLSW_N	0.258	0.034



Early Successional
PRAIRIE WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
222	-120.932	9	260.7	0.0	0.318
222	-122.269	8	261.2	0.5	0.248
222	-120.406	10	261.9	1.2	0.180
222	-119.443	15	271.2	10.5	0.002

K9

Parameter	Estimate
CONSTANT	9.004
SITECLCD	1.107
DEADTPA	-0.108
UDIAMAVG	-1.638
V21	-9.839
LANDPD	-0.043
LCAI_AM	-0.109
LANDIJI	0.095

K8

Parameter	Estimate
CONSTANT	11.028
UDIAMAVG	-2.084
LCAI_AM	-0.118
SITECLCD	0.851
LANDIJI	0.089
V21	-9.806
LANDPD	-0.04

K10

Parameter	Estimate
CONSTANT	9.143
SITECLCD	1.091
DEADTPA	-0.108
UDIAMAVG	-1.557
V21	-10.688
LANDPD	-0.045
LANDLPI	-0.009
LCAI_AM	-0.102
LANDIJI	0.089

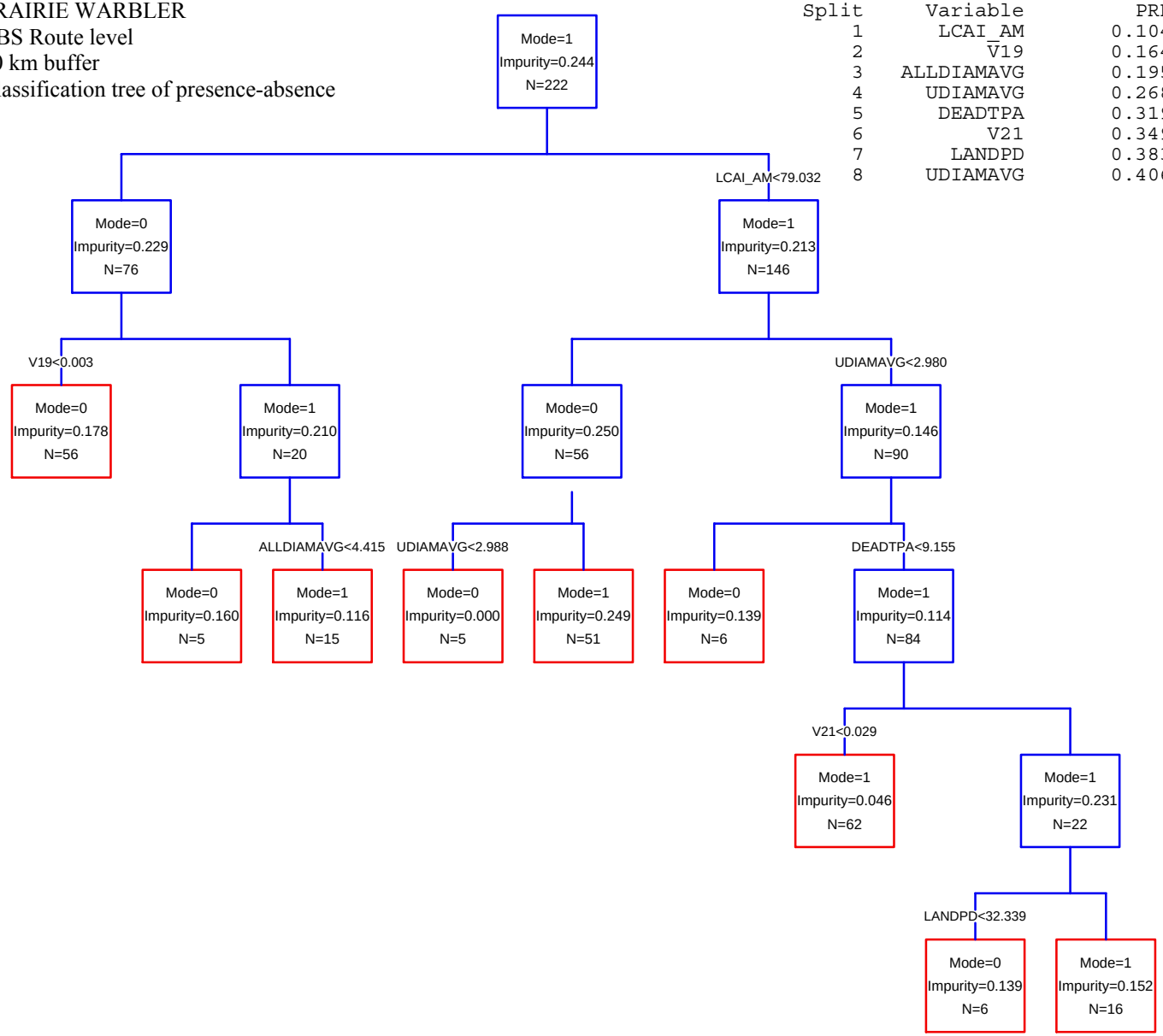
K15(GLOBAL)

Parameter	Estimate
CONSTANT	8.898
SITECLCD	1.15
DEADTPA	-0.127
RCTPA	-0.051
ALLDIAMAVG	-0.258
UDIAMAVG	-1.02
ALLSW_N	-0.034
V12	-4.429
V19	3.932
V21	-10.295
LANDPD	-0.047
LANDLPI	-0.009
LCAI_AM	-0.102
LANDIJI	0.097

Early Successional
PRAIRIE WARBLER
BBS Route level
10 km buffer
Classification tree of presence-absence

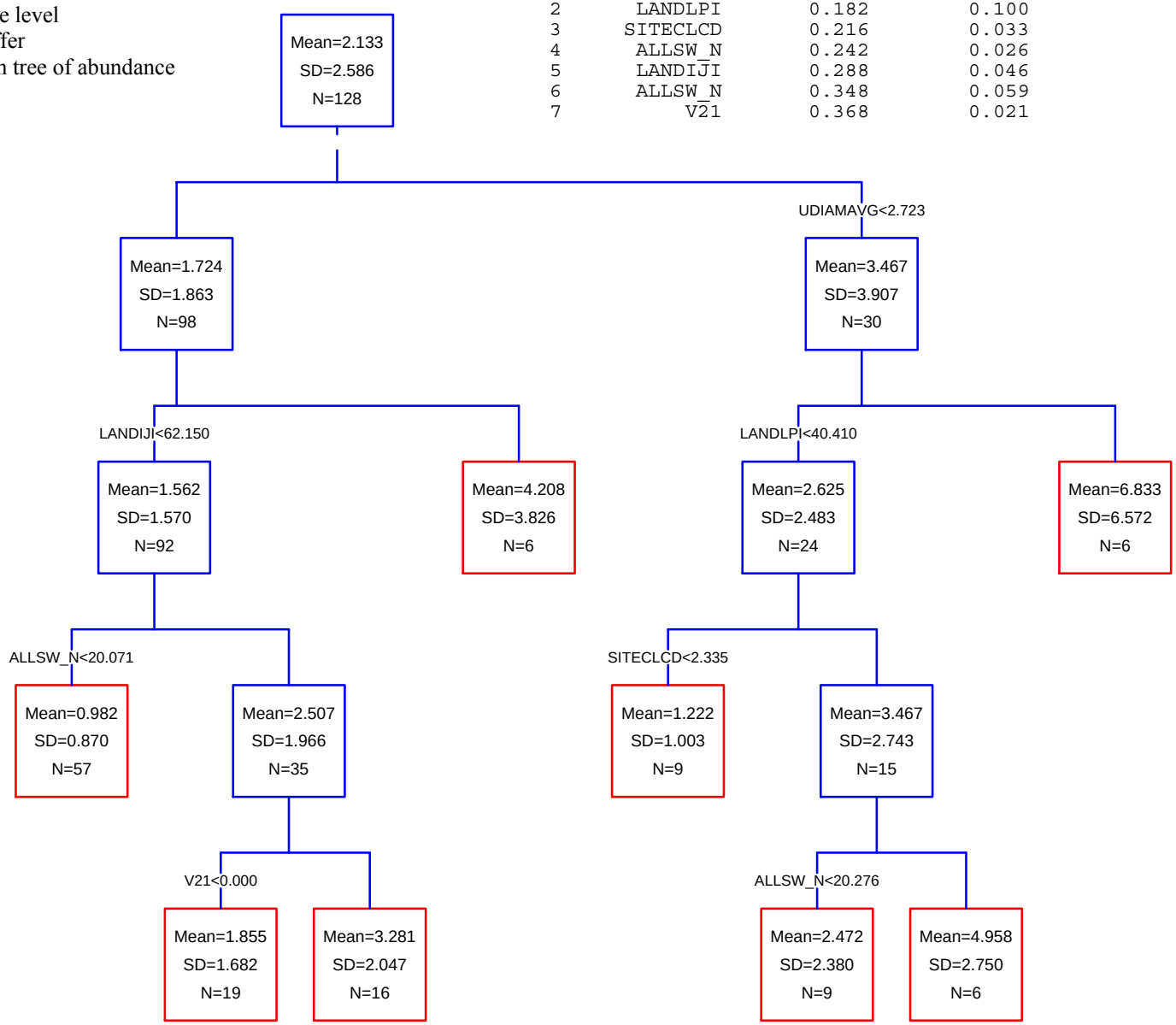
5 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_AM	0.104	0.104
2	V19	0.164	0.060
3	ALLDIAMAVG	0.195	0.031
4	UDIAMAVG	0.268	0.074
5	DEADTPA	0.319	0.051
6	V21	0.349	0.030
7	LANDPD	0.383	0.034
8	UDIAMAVG	0.406	0.024



Early Successional
PRAIRIE WARBLER
BBS Route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	UDIAMAVG	0.082	0.082
2	LANDLPI	0.182	0.100
3	SITECLCD	0.216	0.033
4	ALLSW_N	0.242	0.026
5	LANDIJI	0.288	0.046
6	ALLSW_N	0.348	0.059
7	V21	0.368	0.021



Early Successional
PRAIRIE WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
223	-121.423	9	261.7	0.0	0.297
223	-122.51	8	261.7	0.0	0.297
223	-120.655	10	262.3	0.6	0.214
223	-124.223	7	263.0	1.3	0.157

K9

Parameter	Estimate
CONSTANT	9.061
V2SITECLCD	0.945
V3DEADTPA	-0.096
V3UDIAMAVG	-1.666
V3V21	-10.083
V3LANDPD	-0.036
V3LCAI_AM	-0.104
V3LANDIJI	0.089

K8

Parameter	Estimate
CONSTANT	10.91
V2SITECLCD	0.751
V3UDIAMAVG	-2.067
V3V21	-10.015
V3LANDPD	-0.036
V3LCAI_AM	-0.114
V3LANDIJI	0.085

K10(GLOBAL)

Parameter	Estimate
CONSTANT	8.188
V1PD	0.031
V2SITECLCD	0.943
V3DEADTPA	-0.089
V3UDIAMAVG	-1.591
V3V21	-10.804
V3LANDPD	-0.044
V3LCAI_AM	-0.098
V3LANDIJI	0.088

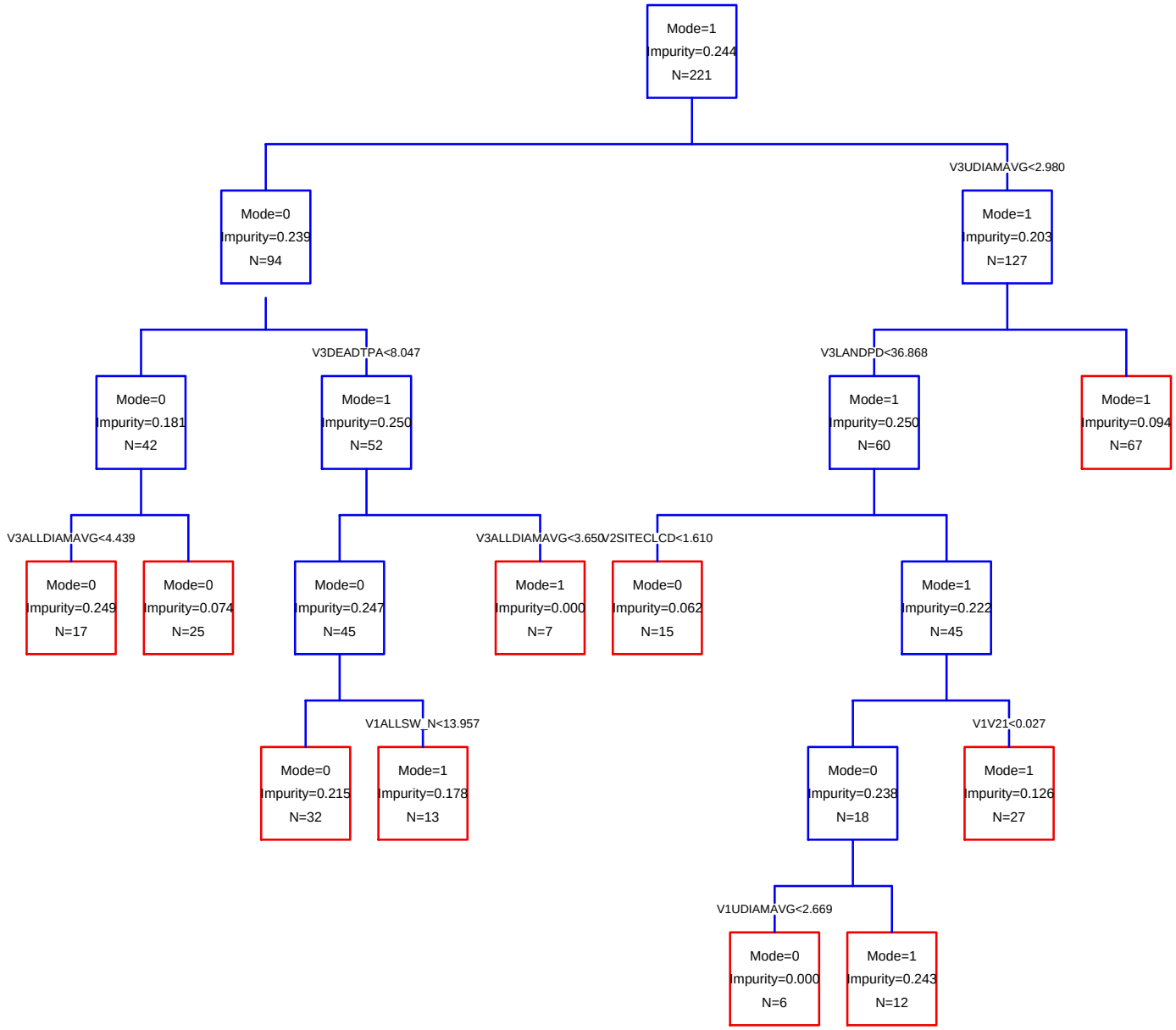
K7

Parameter	Estimate
CONSTANT	10.416
V2SITECLCD	0.485
V3UDIAMAVG	-2.308
V3V21	-8.23
V3LCAI_AM	-0.091
V3LANDIJI	0.056

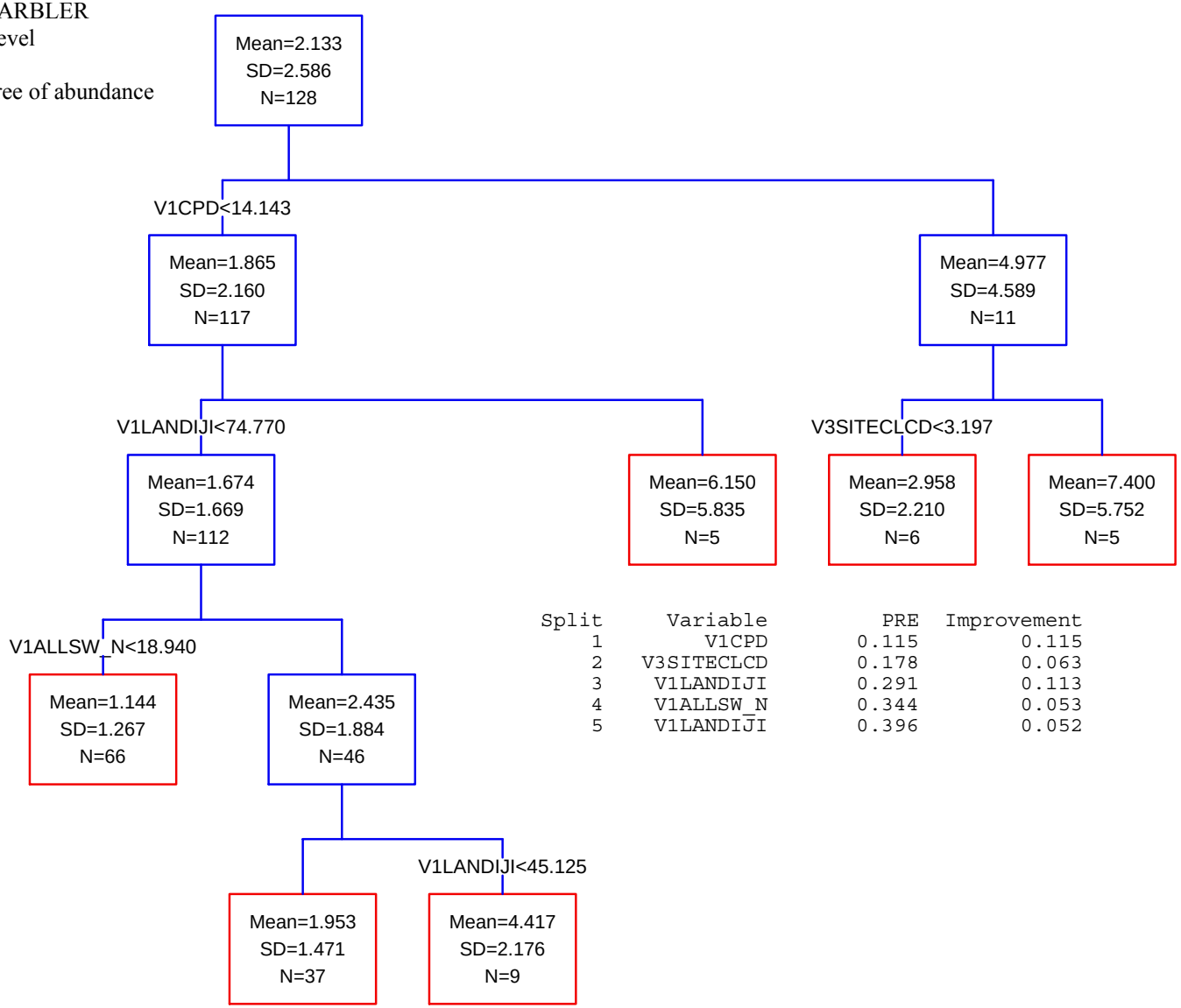
Early Successional
PRAIRIE WARBLER
BBS Route level
Multiscale
Classification tree of presence-absence

6 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V3UDIAMAVG	0.105	0.105
2	V3LANDPD	0.189	0.084
3	V2SITECLCD	0.264	0.075
4	V1V21	0.307	0.043
5	V1UDIAMAVG	0.332	0.025
6	V3DEADTPA	0.366	0.034
7	V3ALLDIAMAVG	0.395	0.029
8	V3ALLDIAMAVG	0.430	0.035
9	V1ALLSW_N	0.466	0.036

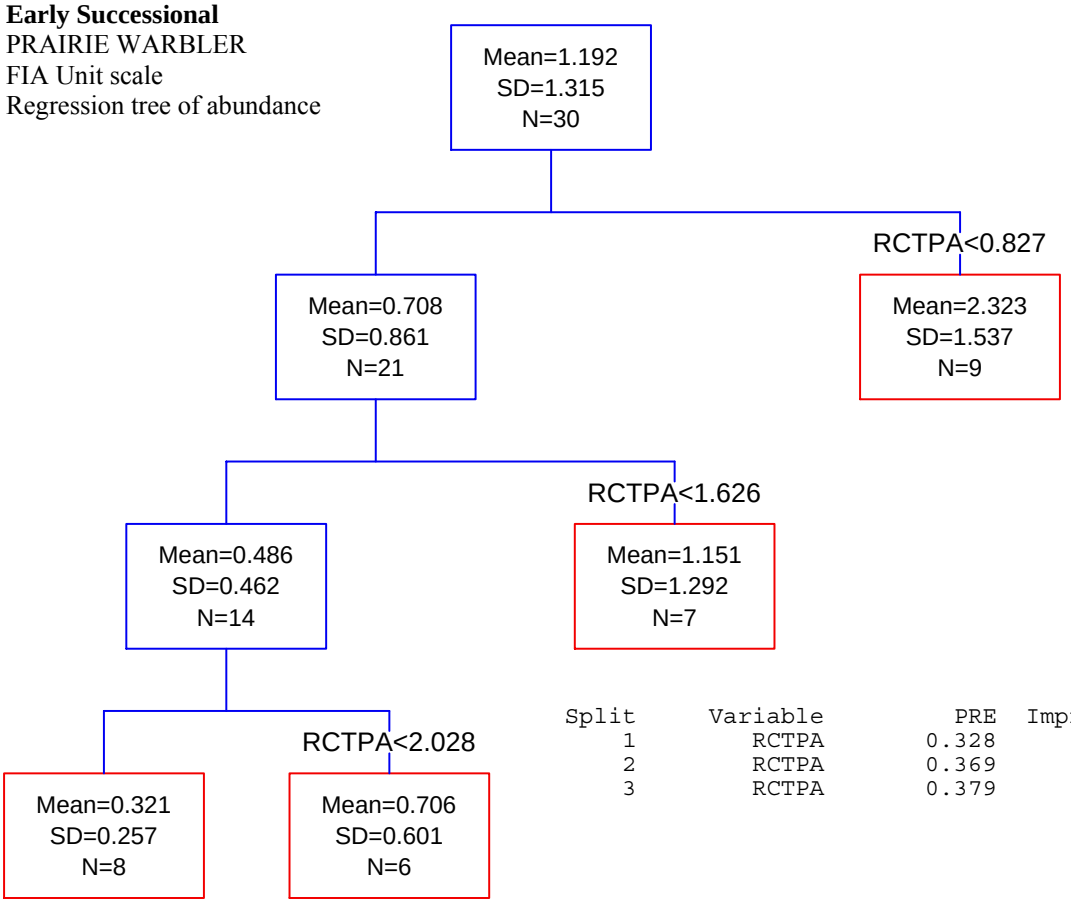


Early Successional
PRAIRIE WARBLER
BBS Route level
Multiscale
Regression tree of abundance



Split	Variable	PRE	Improvement
1	V1CPD	0.115	0.115
2	V3SITECLCD	0.178	0.063
3	V1LANDIJI	0.291	0.113
4	V1ALLSW_N	0.344	0.053
5	V1LANDIJI	0.396	0.052

Early Successional
PRAIRIE WARBLER
FIA Unit scale
Regression tree of abundance



Split	Variable	PRE	Improvement
1	RCTPA	0.328	0.328
2	RCTPA	0.369	0.041
3	RCTPA	0.379	0.010

Early Successional
PRAIRIE WARBLER
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
15	0.739	4	-33.2	0.0	0.721
15	0.736	5	-28.6	4.6	0.072

K4		K5(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
UDIAMCV	-1.434	UDIAMCV	-1.406
V19	8.382	CIJI	0.003
		V19	8.047

Early Successional
YELLOW-BREASTED CHAT
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
162	-47.735	8	112.4	0.0	0.371
162	-47.128	9	113.4	1.0	0.222
162	-49.547	7	113.8	1.4	0.183
162	-45.46	21	139.5	27.1	0.000

K8

Parameter	Estimate
CONSTANT	12.985
V21	-46.562
DEADTPA	-0.529
LCAI_AM	-0.099
RCTPA	-0.831
V31	-151.755
SITECLCD	1.098

K9

Parameter	Estimate
CONSTANT	17.404
V21	-49.849
DEADTPA	-0.521
LCAI_AM	-0.099
RCTPA	-0.805
V31	-154.328
SITECLCD	0.942
UDIAMAVG	-1.41

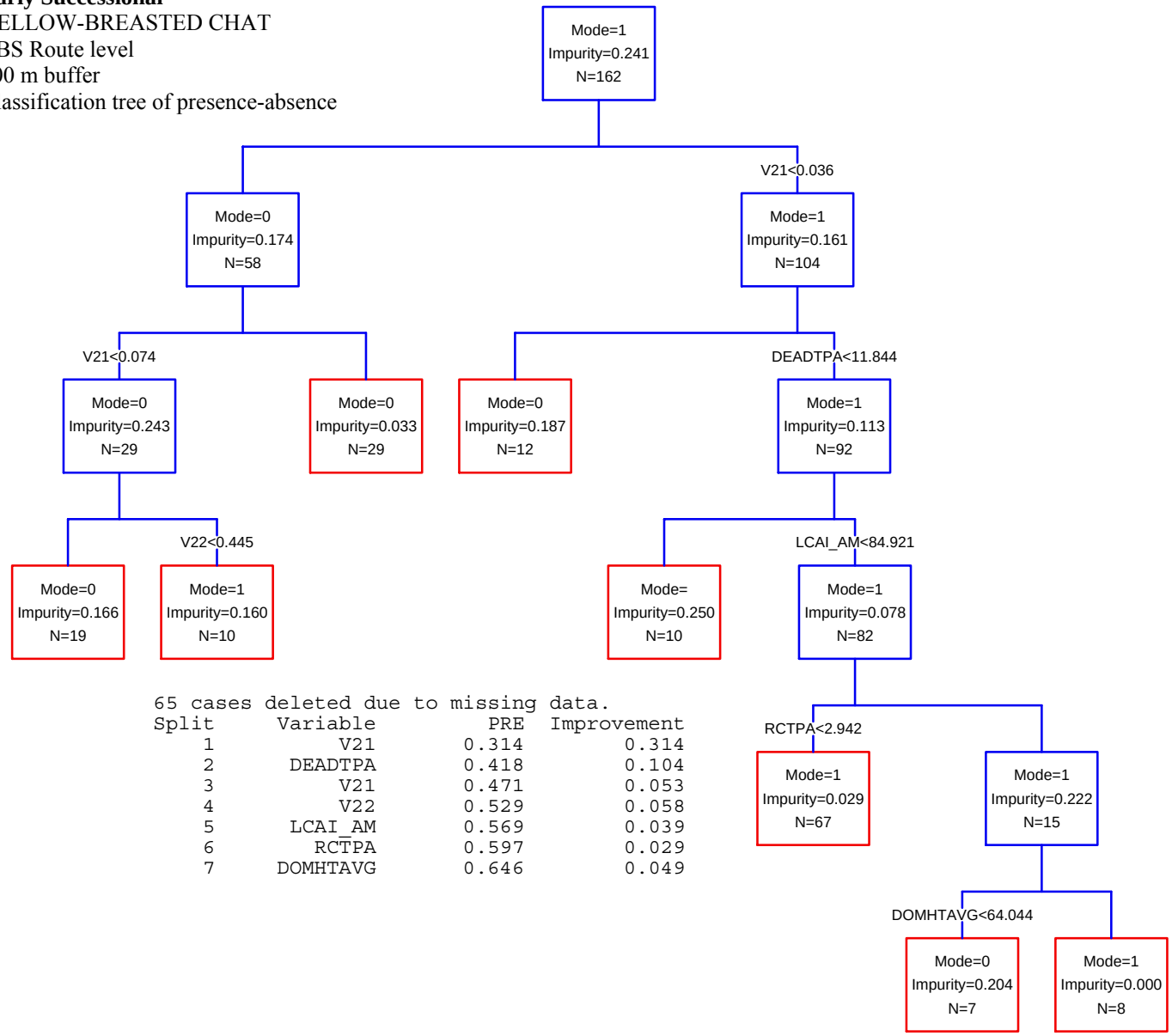
K7

Parameter	Estimate
CONSTANT	13.668
V21	-47.727
DEADTPA	-0.415
LCAI_AM	-0.097
RCTPA	-0.67
V31	-148.115

K21(GLOBAL)

Parameter	Estimate
CONSTANT	23.031
SITECLCD	0.387
DEADTPA	-0.487
RCTPA	-0.651
ALLHTAVG	0.065
DOMHTAVG	0.004
SSDIAMAVG	-1.86
UDIAMAVG	-1.358
DRCDIAMAVG	-0.415
ALLSW_N	0.101
V12	9.762
V19	-55.455
V21	-47.818
V22	-0.772
V24	13.886
V31	-133.396
PD	0.002
CAI_AM	0.002
LCAI_AM	-0.111
LANDIJI	-0.007

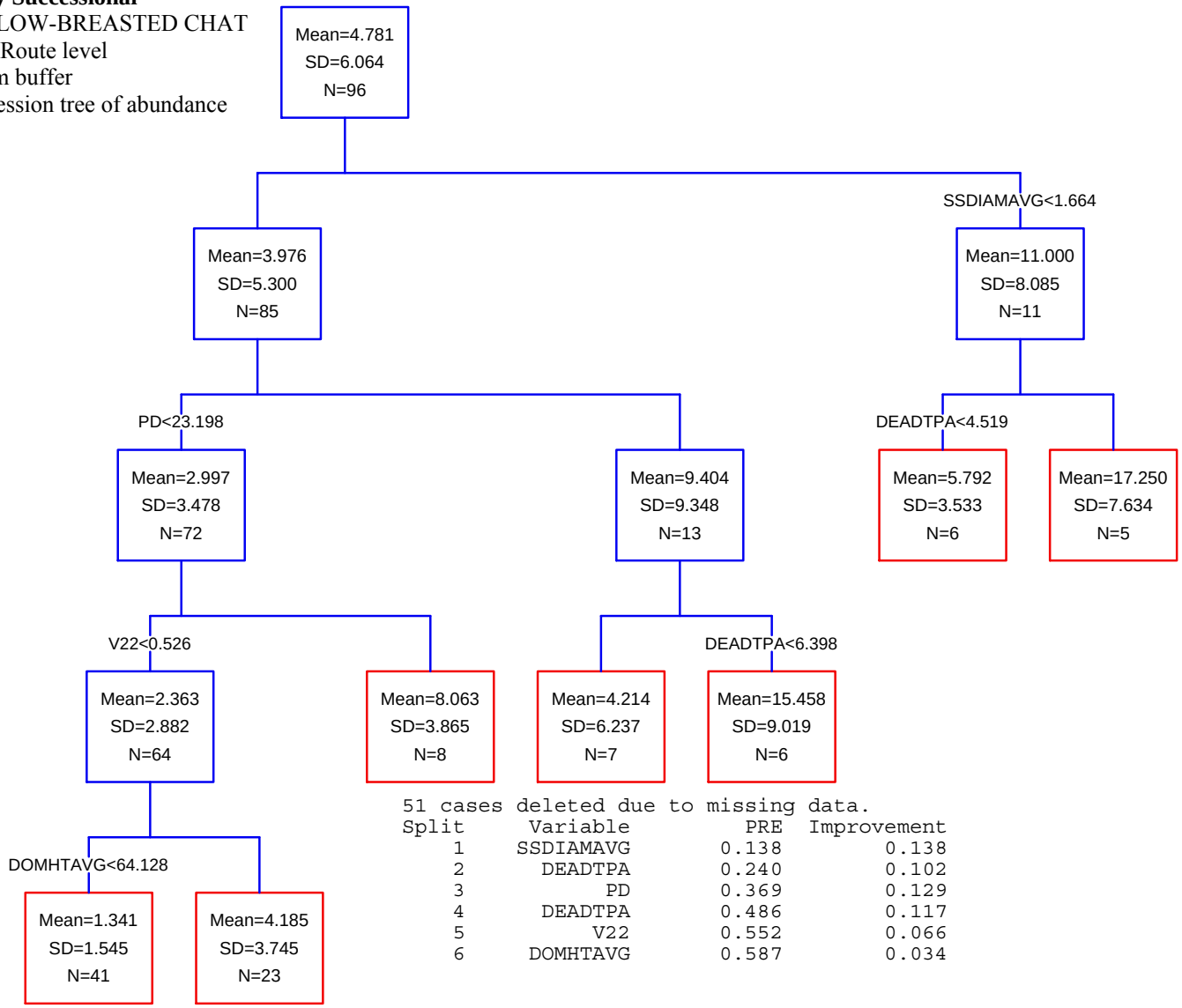
Early Successional
YELLOW-BREASTED CHAT
BBS Route level
100 m buffer
Classification tree of presence-absence



65 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V21	0.314	0.314
2	DEADTPA	0.418	0.104
3	V21	0.471	0.053
4	V22	0.529	0.058
5	LCAI_AM	0.569	0.039
6	RCTPA	0.597	0.029
7	DOMHTAVG	0.646	0.049

Early Successional
YELLOW-BREASTED CHAT
BBS Route level
100 m buffer
Regression tree of abundance



51 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	SSDIAMAVG	0.138	0.138
2	DEADTPA	0.240	0.102
3	PD	0.369	0.129
4	DEADTPA	0.486	0.117
5	V22	0.552	0.066
6	DOMHTAVG	0.587	0.034

Early Successional
YELLOW-BREASTED CHAT
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
164	-48.501	7	111.7	0.0	0.400
164	-47.788	8	112.5	0.8	0.270
164	-45.923	17	130.0	18.3	0.000

K7

Parameter	Estimate
CONSTANT	12.399
SITECLCD	1.236
DRCTPA	-0.54
V21	-46.376
V31	-162.494
LCAI_AM	-0.099

K8

Parameter	Estimate
CONSTANT	17.038
SITECLCD	1.09
DRCTPA	-0.545
UDIAMAVG	-1.376
V21	-50.667
V31	-167.077
LCAI_AM	-0.1

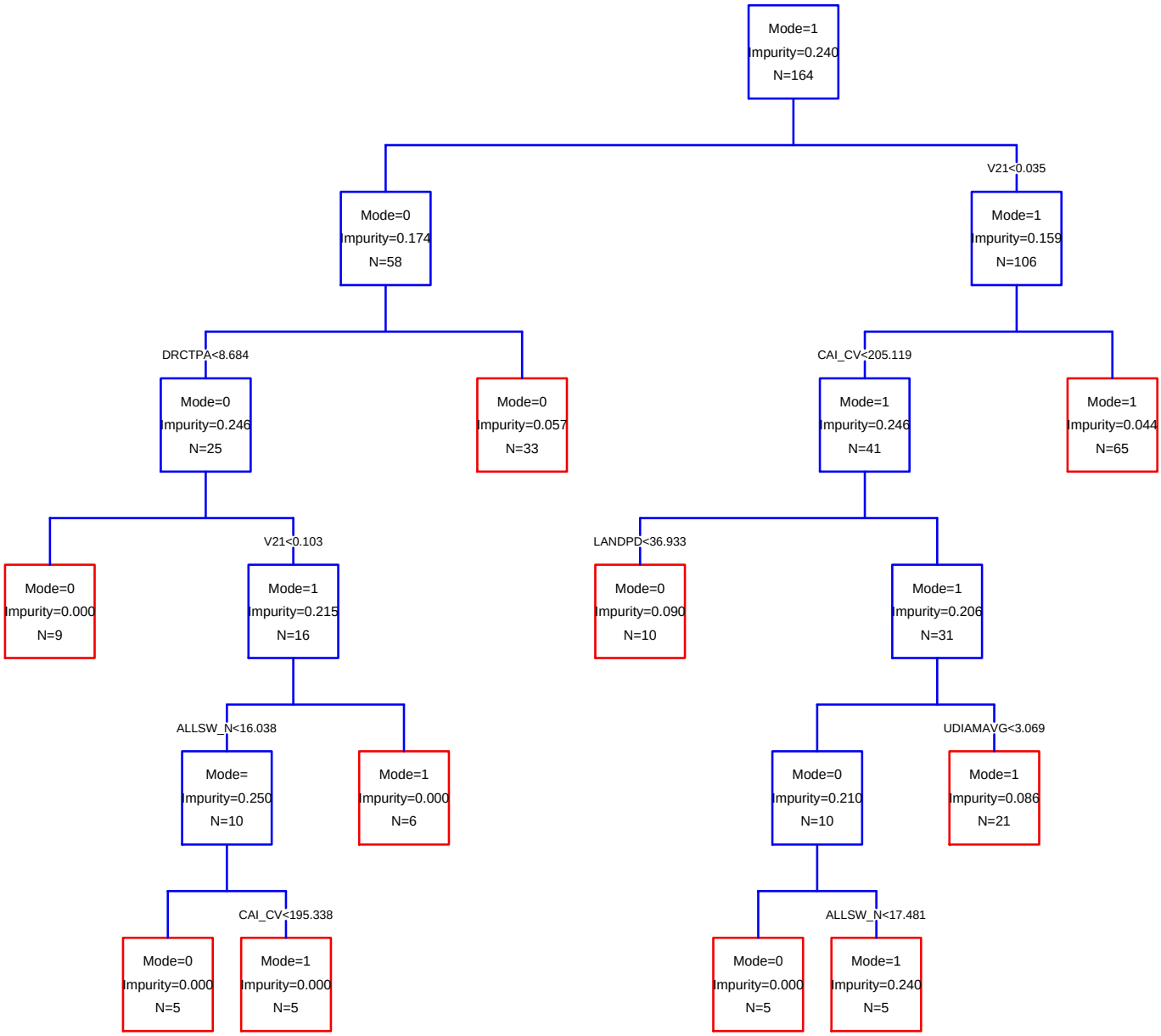
K17(GLOBAL)

Parameter	Estimate
CONSTANT	26.624
SITECLCD	0.673
DRCTPA	-0.531
UDIAMAVG	-1.97
DRCDIAMAVG	-0.496
ALLHTCV	-0.985
ALLSW_N	0.08
V12	12.381
V19	-30.261
V21	-48.422
V22	-1.61
V24	17.079
V31	-131.261
CAI_CV	0
LANDPD	0.001
LCAI_AM	-0.128

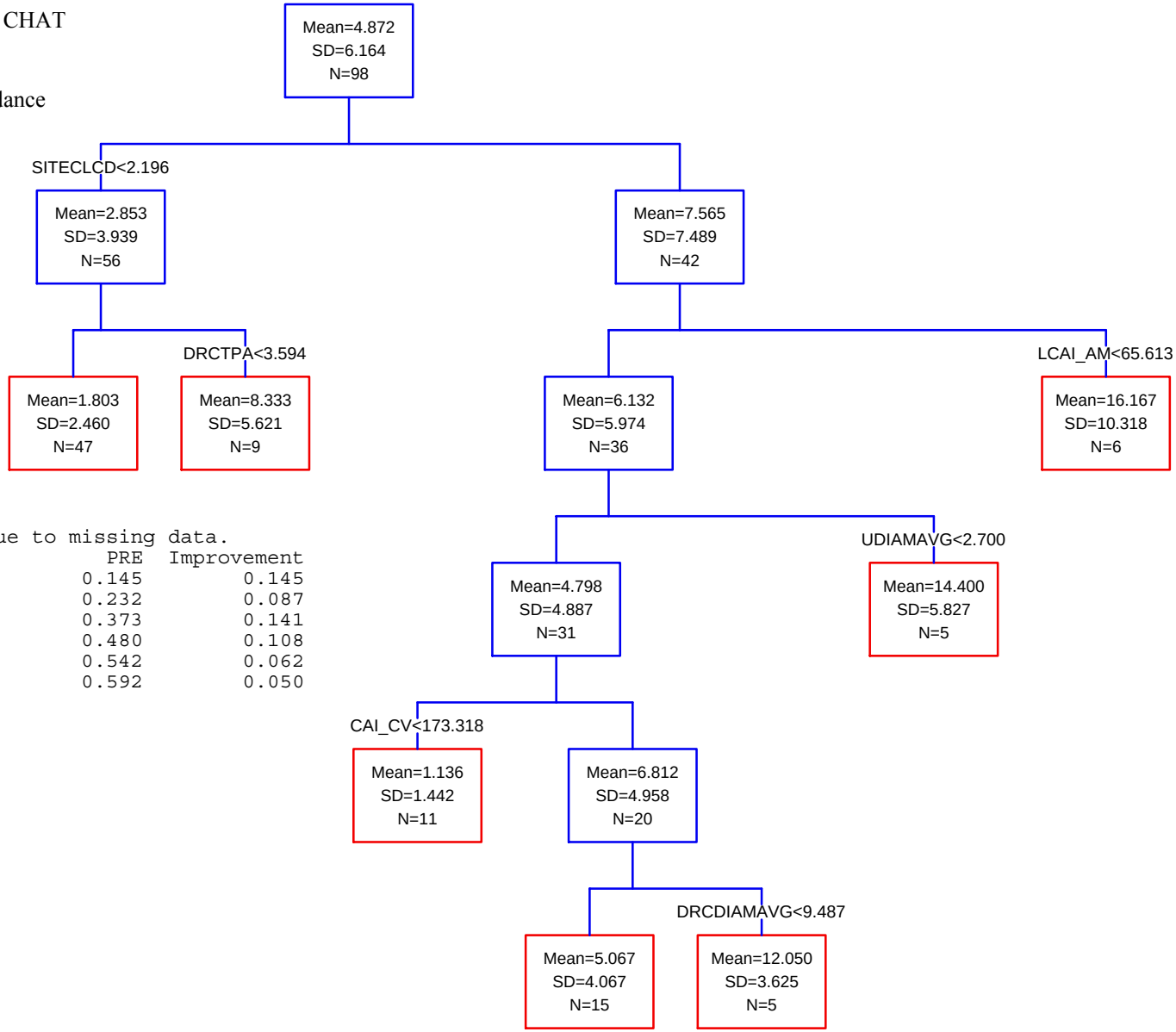
Early Successional
YELLOW-BREASTED CHAT
BBS Route level
1 km buffer
Classification tree of presence-absence

63 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V21	0.317	0.317
2	CAI_CV	0.416	0.098
3	LANDPD	0.487	0.071
4	UDIAMAVG	0.550	0.063
5	ALLSW_N	0.573	0.023
6	DRCTPA	0.624	0.052
7	V21	0.694	0.069
8	ALLSW_N	0.717	0.024
9	CAI_CV	0.781	0.063



Early Successional
YELLOW-BREASTED CHAT
BBS Route level
1 km buffer
Regression tree of abundance

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49 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1     SITECLCD       0.145        0.145
    2       DRCTPA       0.232        0.087
    3      LCAI_AM       0.373        0.141
    4     UDIAMAVG       0.480        0.108
    5       CAI_CV       0.542        0.062
    6   DRCDIAMAVG       0.592        0.050
```

Early Successional
YELLOW-BREASTED CHAT
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
171	-41.252	9	101.6	0.0	0.348
171	-40.786	10	102.9	1.3	0.179
171	-43.283	8	103.5	1.9	0.139
171	-37.683	21	123.6	22.0	0.000

K9

Parameter	Estimate
CONSTANT	-0.987
SITECLCD	2.866
DEADTPA	-0.354
RCTPA	-0.777
V21	-62.067
CAI_CV	0.01
IJI	0.131
LCAI_AM	-0.102

K10

Parameter	Estimate
CONSTANT	3.124
SITECLCD	2.79
DEADTPA	-0.343
RCTPA	-0.766
UDIAMAVG	-1.335
V21	-63.062
CAI_CV	0.01
IJI	0.131
LCAI_AM	-0.103

K8

Parameter	Estimate
CONSTANT	-3.76
V21	-63.53
DEADTPA	-0.353
CAI_CV	0.012
SITECLCD	2.605
IJI	0.118
LCAI_AM	-0.073

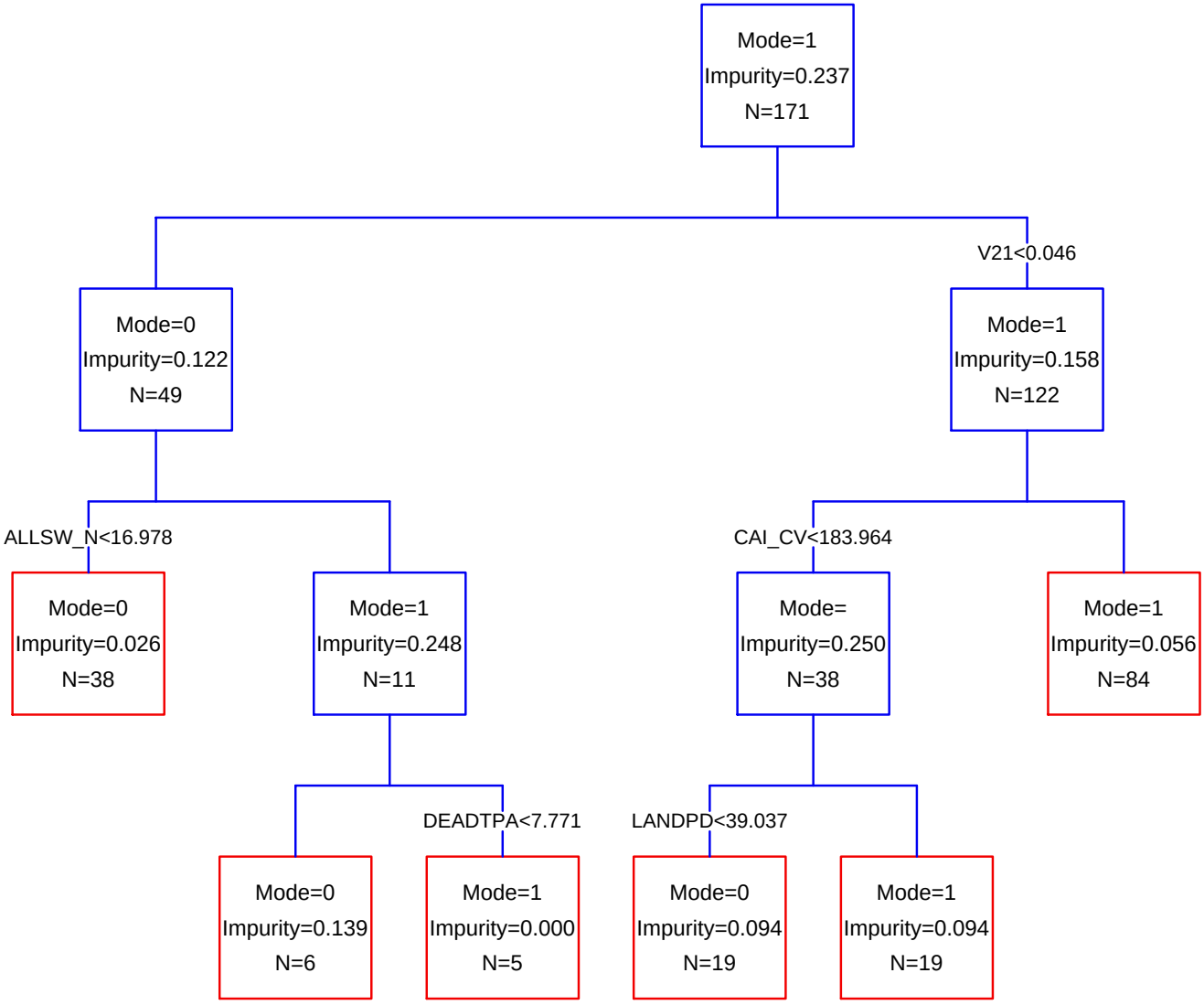
K21(GLOBAL)

Parameter	Estimate
CONSTANT	18.544
SITECLCD	2.372
DEADTPA	-0.298
RCTPA	-0.267
ALLHTAVG	0.056
UDIAMAVG	-4.218
DRCDIAMAVG	0.067
DDIAMCV	-9.103
ALLSW_N	-0.111
V12	35.473
V19	5.842
V21	-69.247
V22	-4.447
V24	66.127
V25	39.315
SHAPE_AM	-0.007
CAI_CV	0.011
IJI	0.127
LANDPD	0.043
LCAI_AM	-0.157

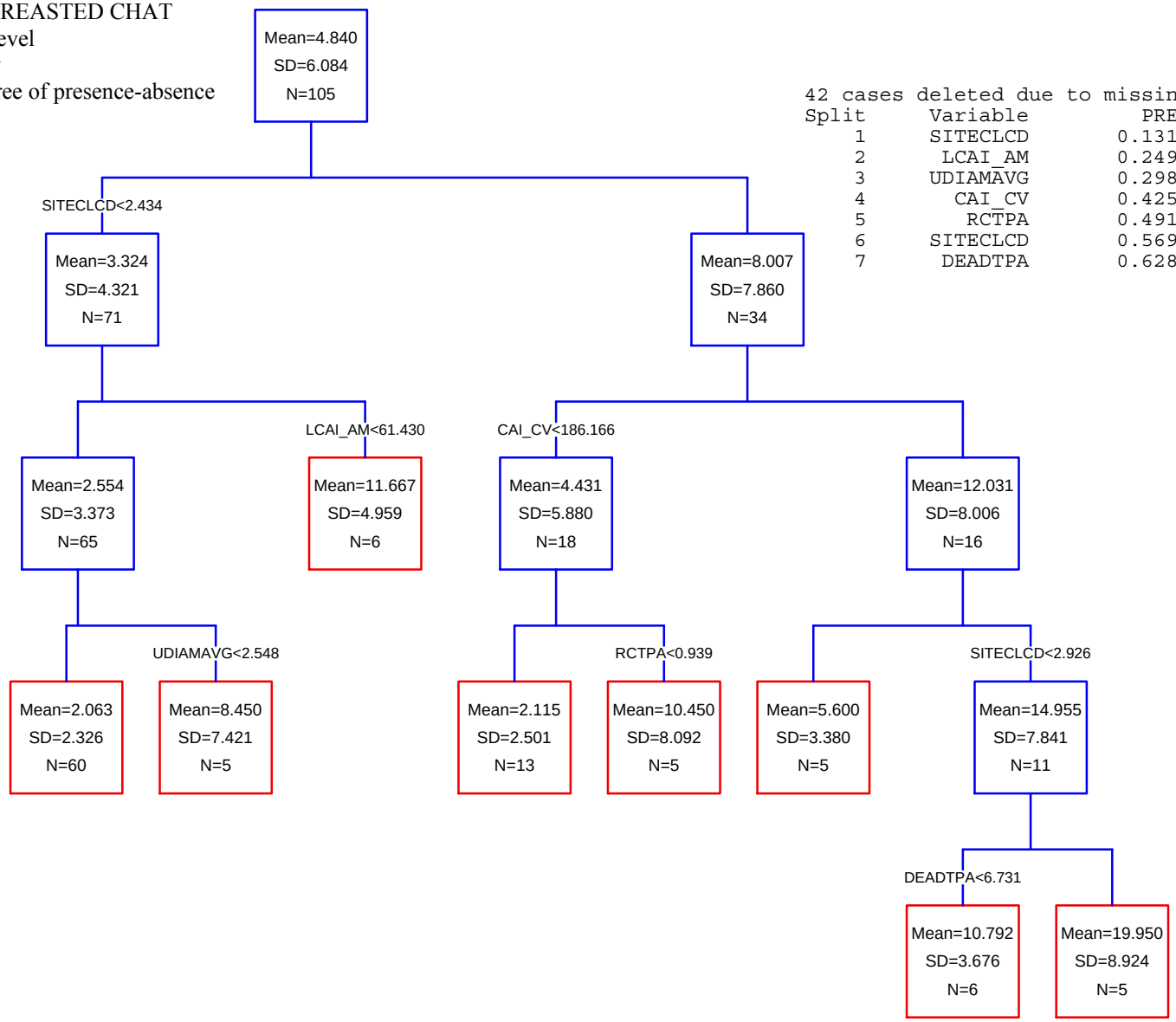
Early Successional
YELLOW-BREASTED CHAT
BBS Route level
10 km buffer
Classification tree of presence-absence

56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V21	0.376	0.376
2	ALLSW_N	0.433	0.057
3	DEADTPA	0.480	0.047
4	CAI_CV	0.605	0.125
5	LANDPD	0.751	0.146



Early Successional
YELLOW-BREASTED CHAT
BBS Route level
10 km buffer
Regression tree of presence-absence



42 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	SITECLCD	0.131	0.131
2	LCAI_AM	0.249	0.118
3	UDIAMAVG	0.298	0.049
4	CAI_CV	0.425	0.127
5	RCTPA	0.491	0.065
6	SITECLCD	0.569	0.078
7	DEADTPA	0.628	0.059

Early Successional
YELLOW-BREASTED CHAT
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
218	-57.298	8	131.3	0.0	0.420
218	-56.884	9	132.6	1.3	0.214
218	-59.081	7	132.7	1.4	0.207
218	-56.696	11	136.7	5.4	0.028

K8

Parameter	Estimate
CONSTANT	-2.915
V1LCAI_AM	-0.044
V2DRCTPA	-0.203
V3SITECLCD	1.675
V3V21	-56.114
V3CAI_CV	0.012
V3IJI	0.071

K9

Parameter	Estimate
CONSTANT	-1.993
V1LCAI_AM	-0.049
V2DRCTPA	-0.203
V2V31	-54.229
V3SITECLCD	1.627
V3V21	-52.475
V3CAI_CV	0.011
V3IJI	0.065

K7

Parameter	Estimate
CONSTANT	1.87
V1LCAI_AM	-0.046
V2DRCTPA	-0.2
V3SITECLCD	1.366
V3V21	-52.676
V3CAI_CV	0.011

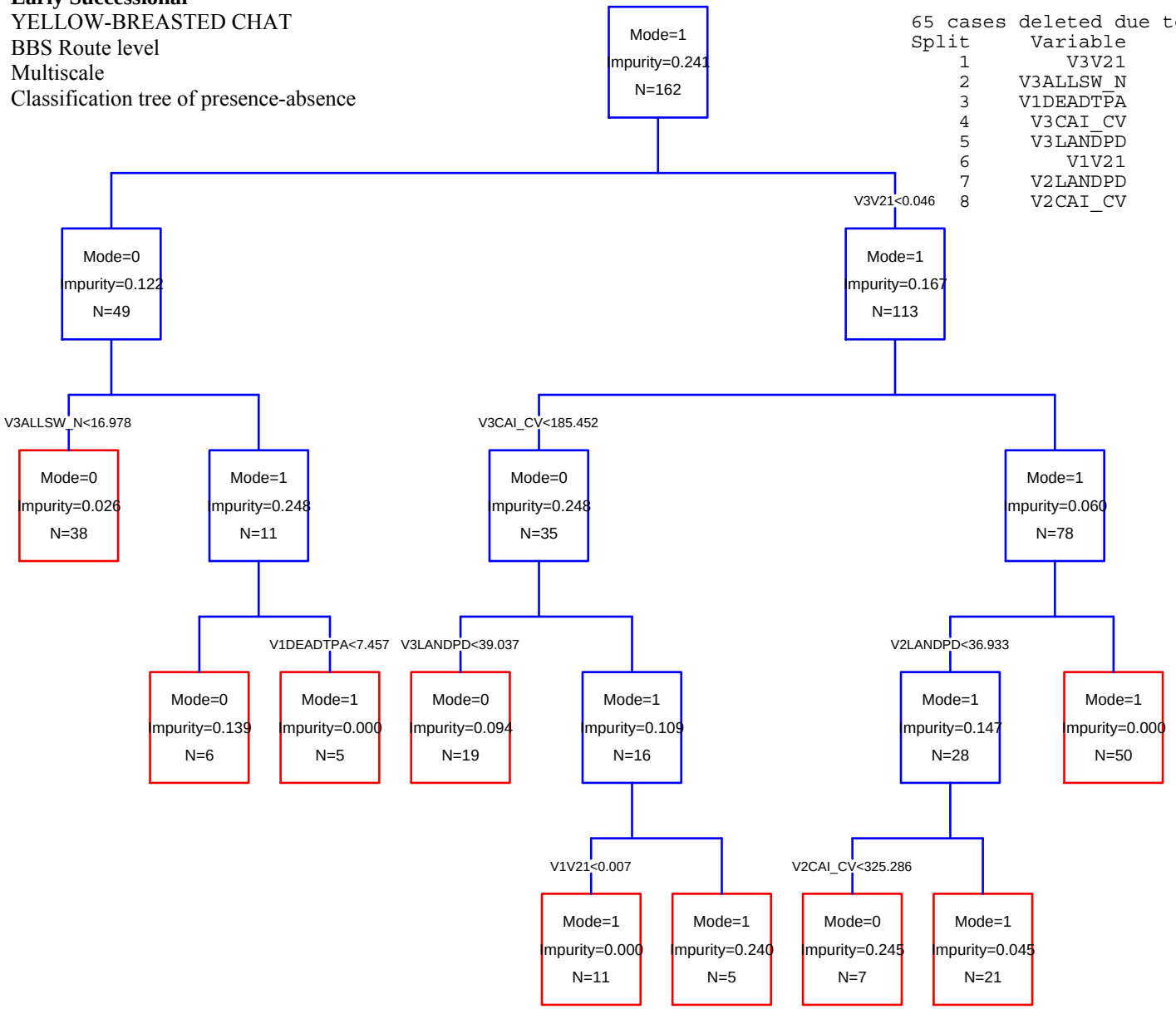
K11(GLOBAL)

Parameter	Estimate
CONSTANT	-1.14
V1LCAI_AM	-0.055
V2DRCTPA	-0.099
V2V31	-55.711
V3SITECLCD	1.538
V3DEADTPA	-0.096
V3RCTPA	-0.243
V3V21	-51.306
V3CAI_CV	0.011
V3IJI	0.065

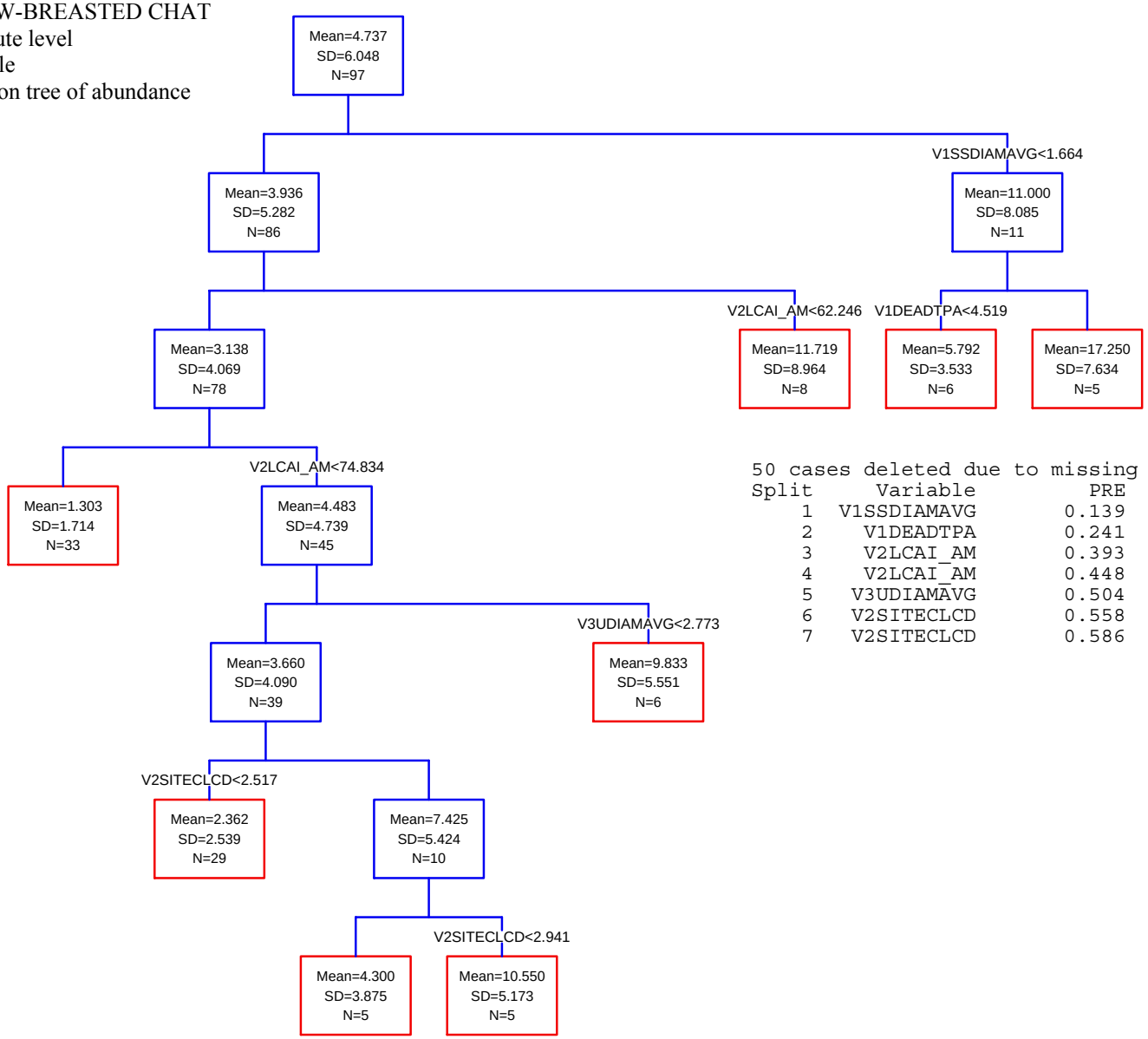
Early Successional
YELLOW-BREASTED CHAT
BBS Route level
Multiscale
Classification tree of presence-absence

65 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V3V21	0.363	0.363
2	V3ALLSW_N	0.422	0.059
3	V1DEADTPA	0.470	0.048
4	V3CAI_CV	0.612	0.142
5	V3LANDPD	0.744	0.132
6	V1V21	0.758	0.014
7	V2LANDPD	0.772	0.015
8	V2CAI_CV	0.809	0.037



Early Successional
YELLOW-BREASTED CHAT
BBS Route level
Multiscale
Regression tree of abundance

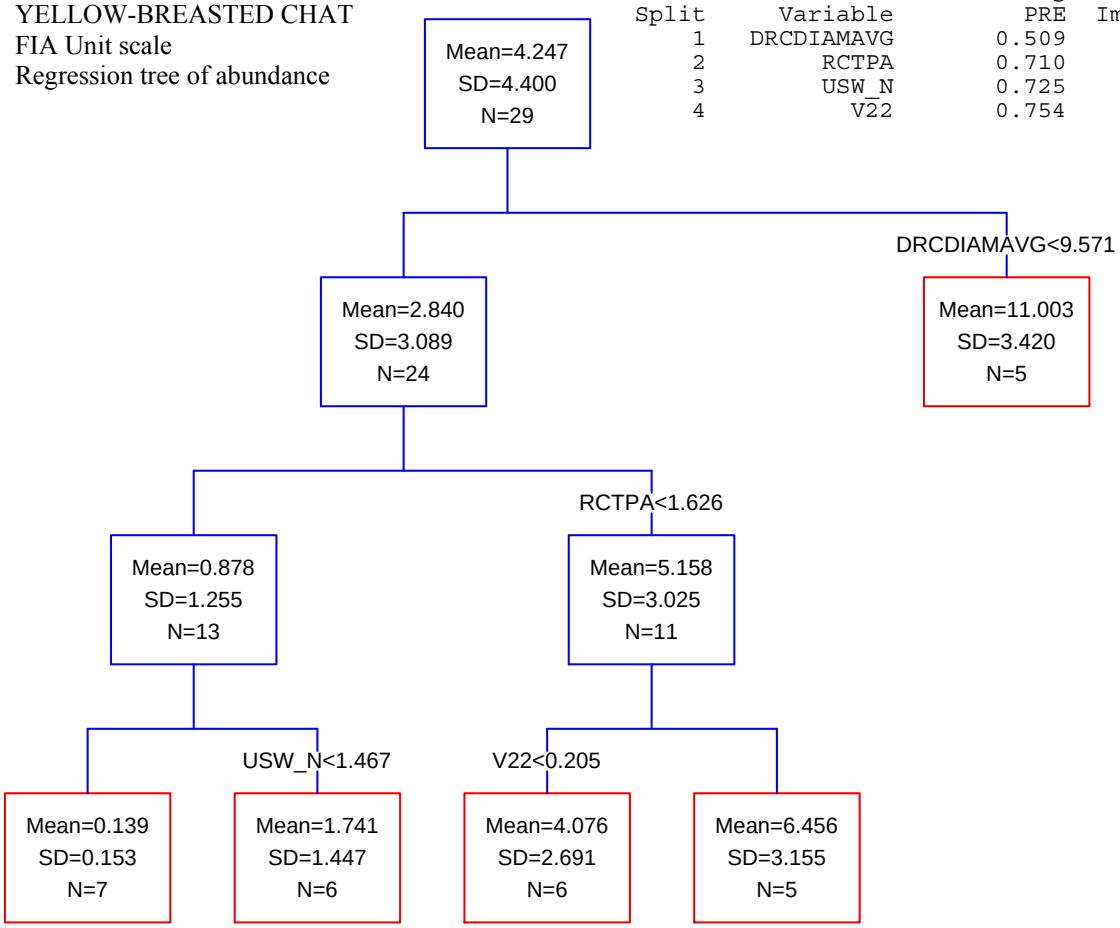


50 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1SSDIAMAVG	0.139	0.139
2	V1DEADTPA	0.241	0.102
3	V2LCAI_AM	0.393	0.152
4	V2LCAI_AM	0.448	0.055
5	V3UDIAMAVG	0.504	0.056
6	V2SITECLCD	0.558	0.054
7	V2SITECLCD	0.586	0.028

Early Successional
YELLOW-BREASTED CHAT
FIA Unit scale
Regression tree of abundance

```
1 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1   DRCDIAMAVG        0.509        0.509
    2        RCTPA        0.710        0.201
    3        USW_N        0.725        0.015
    4          V22        0.754        0.029
```



Early Successional
YELLOW-BREASTED CHAT
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	3.674	4	-11.9	0.0	0.772
16	3.454	5	-8.5	3.4	0.143

K4		K5(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
RCTPA	-0.479	V19	6.951
V21	-11.728	RCTPA	-0.425
		V21	-10.929

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
170	-73.325	10	168.0	0.0	0.285
170	-74.532	9	168.2	0.2	0.263
170	-75.937	8	168.8	0.8	0.197
170	-73.019	11	169.7	1.7	0.123
170	-72.483	15	178.1	10.1	0.002

K10

Parameter	Estimate
CONSTANT	-11.107
ALLDIAMAVG	0.641
DOMTPA	-0.077
ALLHTCV	2.686
SITECLCD	1.627
ALLSW_N	0.132
PLAND	0.059
IJI	0.042
LSHAPE_AM	-0.386

K9

Parameter	Estimate
CONSTANT	-11.963
ALLSW_N	0.117
PLAND	0.048
DOMTPA	-0.076
ALLHTCV	2.765
SITECLCD	1.666
IJI	0.046
ALLDIAMAVG	0.57

K8

Parameter	Estimate
CONSTANT	-7.499
ALLSW_N	0.076
PLAND	0.045
DOMTPA	-0.07
ALLHTCV	2.105
SITECLCD	1.382
IJI	0.042

K11

Parameter	Estimate
CONSTANT	-11.256
ALLDIAMAVG	0.6
DOMTPA	-0.079
V31	27.115
ALLHTCV	2.64
SITECLCD	1.623
ALLSW_N	0.139
PLAND	0.061
IJI	0.045
LSHAPE_AM	-0.382

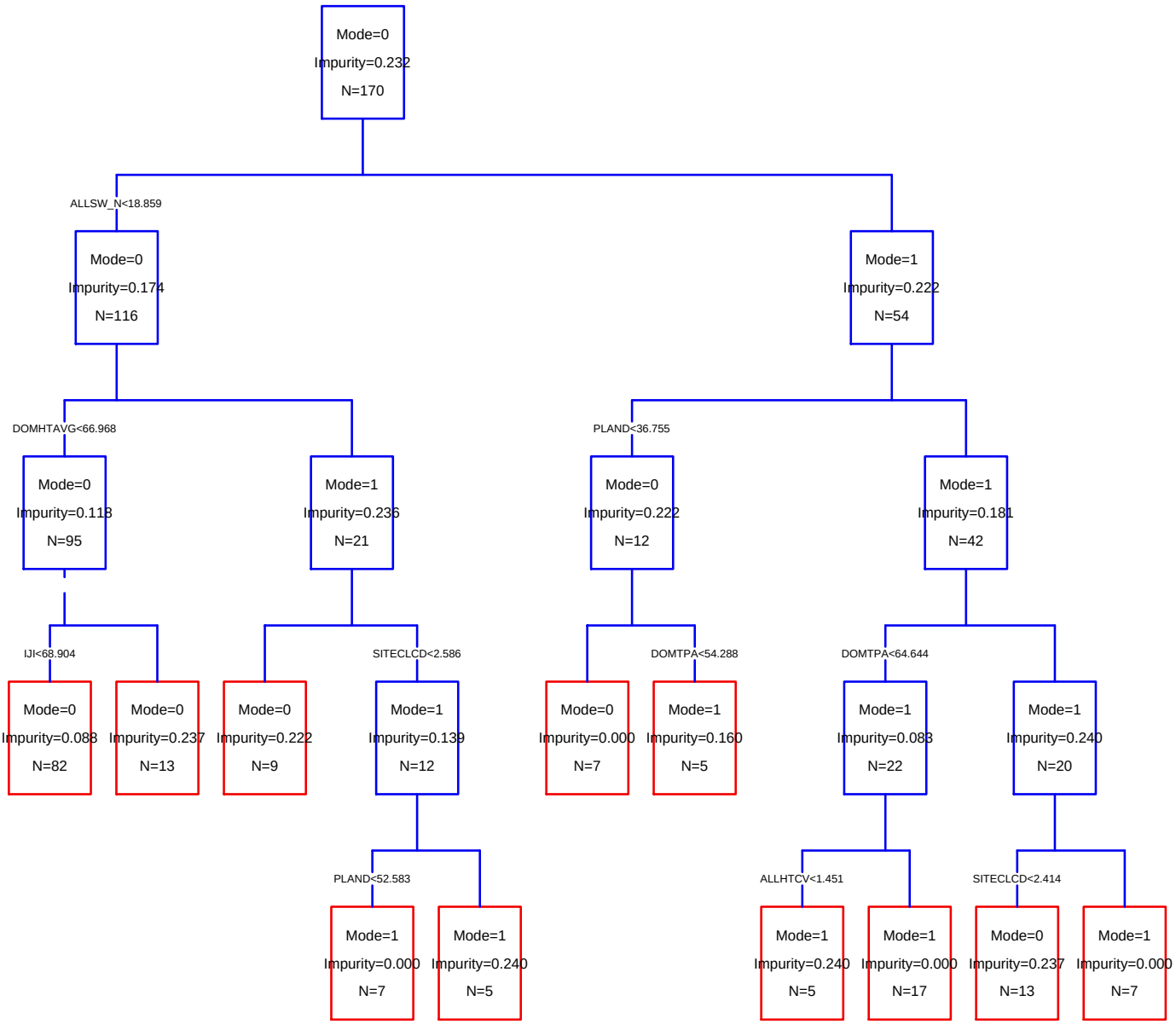
K15(GLOBAL)

Parameter	Estimate
CONSTANT	-12.47
ALLDIAMAVG	0.724
V21	-2.3
DSW_N	-0.726
DOMTPA	-0.078
V31	39.894
ALLHTCV	2.829
SITECLCD	1.555
ALLSW_N	0.135
DOMHTAVG	0.014
PLAND	0.062
IJI	0.049
LSHAPE_AM	-0.448
LCAI_AM	0.013

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
100 m buffer
Classification tree of presence-absence

57 cases deleted due to missing data.

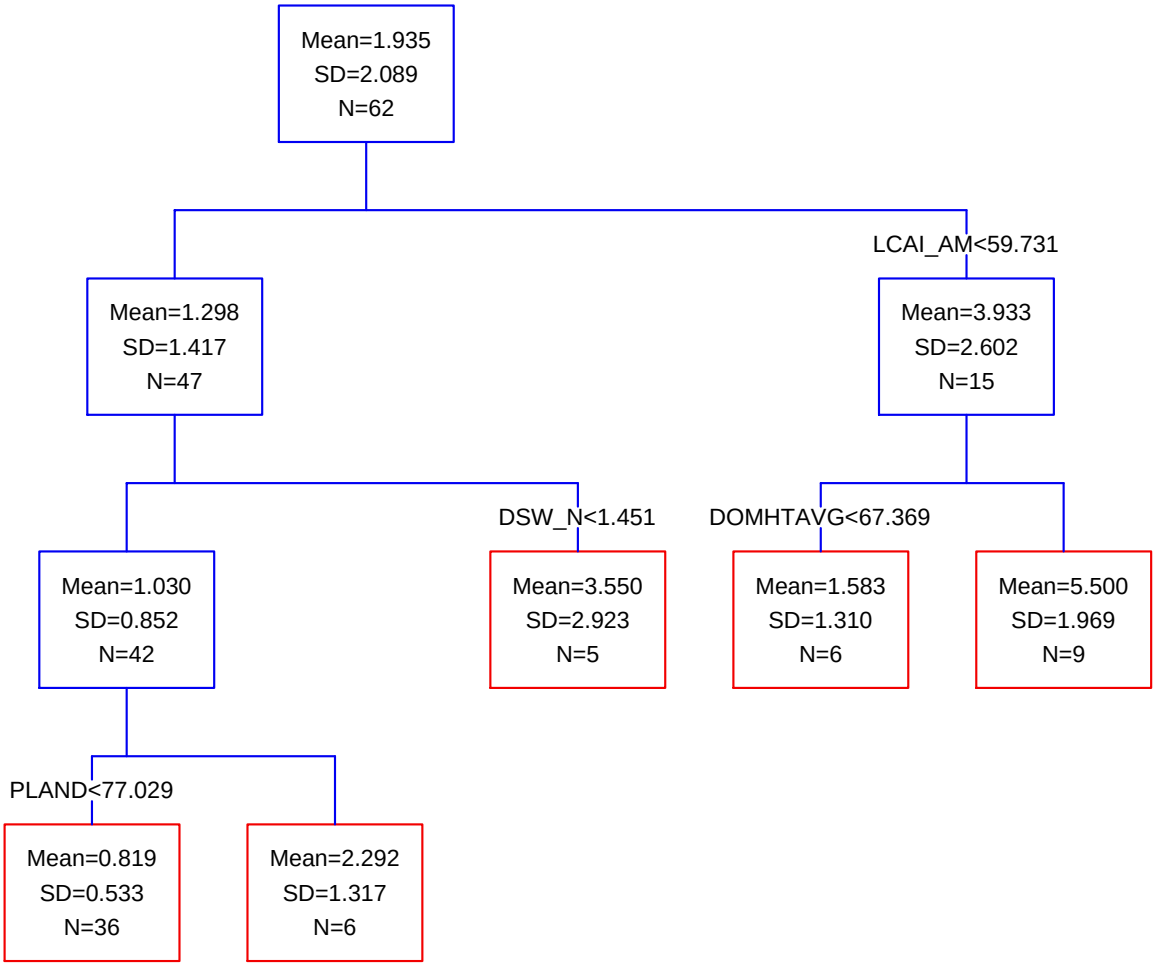
Split	Variable	PRE	Improvement
1	ALLSW_N	0.183	0.183
2	DOMHTAVG	0.285	0.102
3	SITECLCD	0.317	0.033
4	PLAND	0.329	0.012
5	PLAND	0.373	0.044
6	DOMTPA	0.420	0.047
7	DOMTPA	0.446	0.025
8	SITECLCD	0.489	0.044
9	ALLHTCV	0.505	0.016
10	IJI	0.528	0.023



Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
100 m buffer
Regression tree of abundance

16 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_AM	0.297	0.297
2	DOMHTAVG	0.504	0.208
3	DSW_N	0.611	0.107
4	PLAND	0.653	0.042



Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
171	-82.087	7	178.9	0.0	0.293
171	-83.285	6	179.1	0.2	0.262
171	-81.378	8	179.6	0.7	0.198
171	-80.1	13	188.5	9.6	0.002

K7

Parameter	Estimate
CONSTANT	-12.803
STDSZCD	-0.579
DDIAMAVG	0.573
ALLHTCV	1.243
ALLSW_N	0.145
PLAND	0.059

K6

Parameter	Estimate
CONSTANT	-12.032
PLAND	0.05
ALLSW_N	0.142
ALLHTCV	1.169
DDIAMAVG	0.437

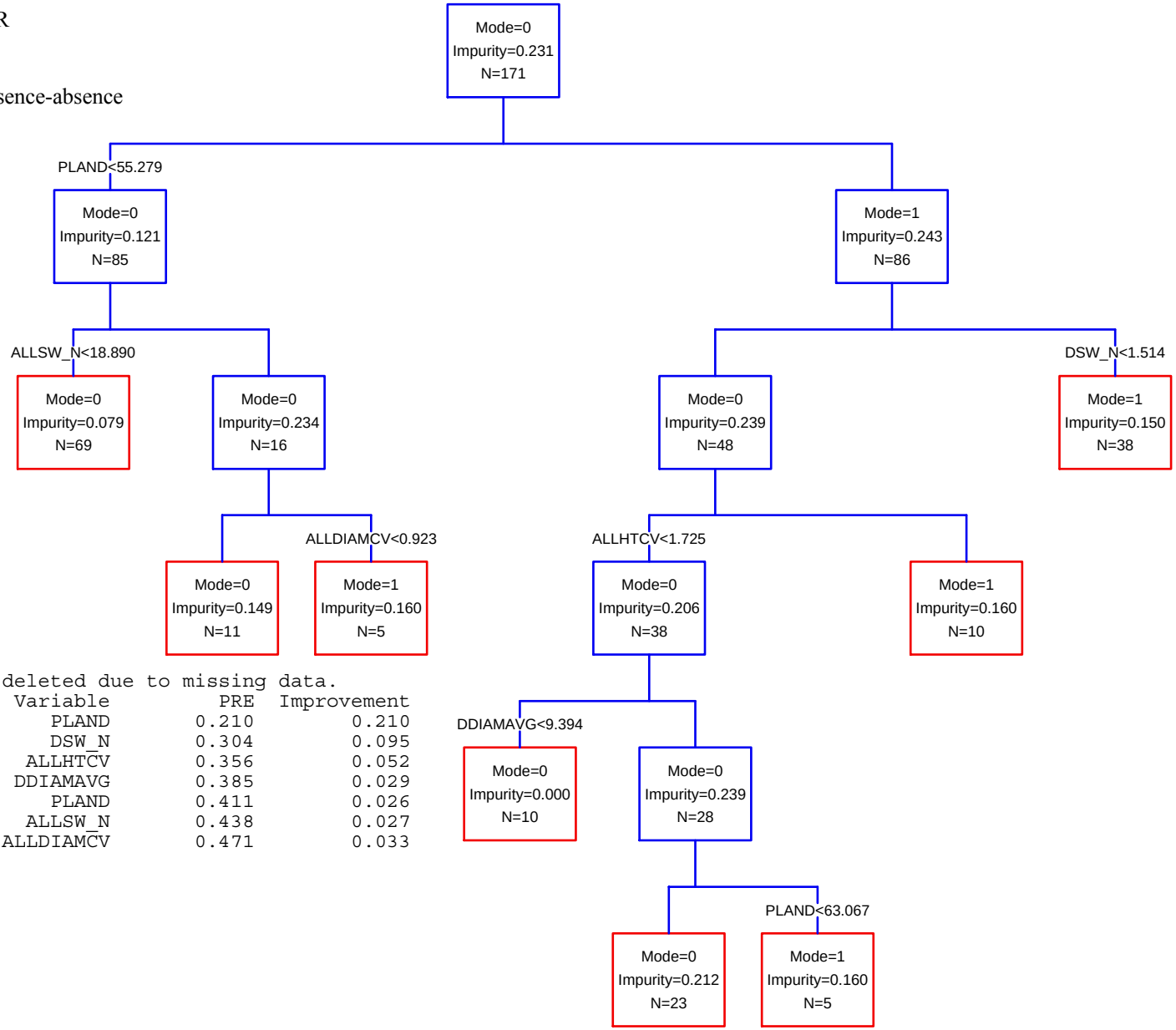
K8

Parameter	Estimate
CONSTANT	-13.775
STDSZCD	-0.634
DDIAMAVG	0.625
ALLHTCV	1.222
ALLSW_N	0.158
V31	39.385
PLAND	0.064

K13(GLOBAL)

Parameter	Estimate
CONSTANT	-17.96
STDSZCD	-0.645
DDIAMAVG	0.815
ALLDIAMCV	-1.059
ALLHTCV	1.713
ALLSW_N	0.178
DSW_N	-0.06
V21	-2.607
V31	43.526
PLAND	0.075
LSI	0.009
LANDIJI	0.032

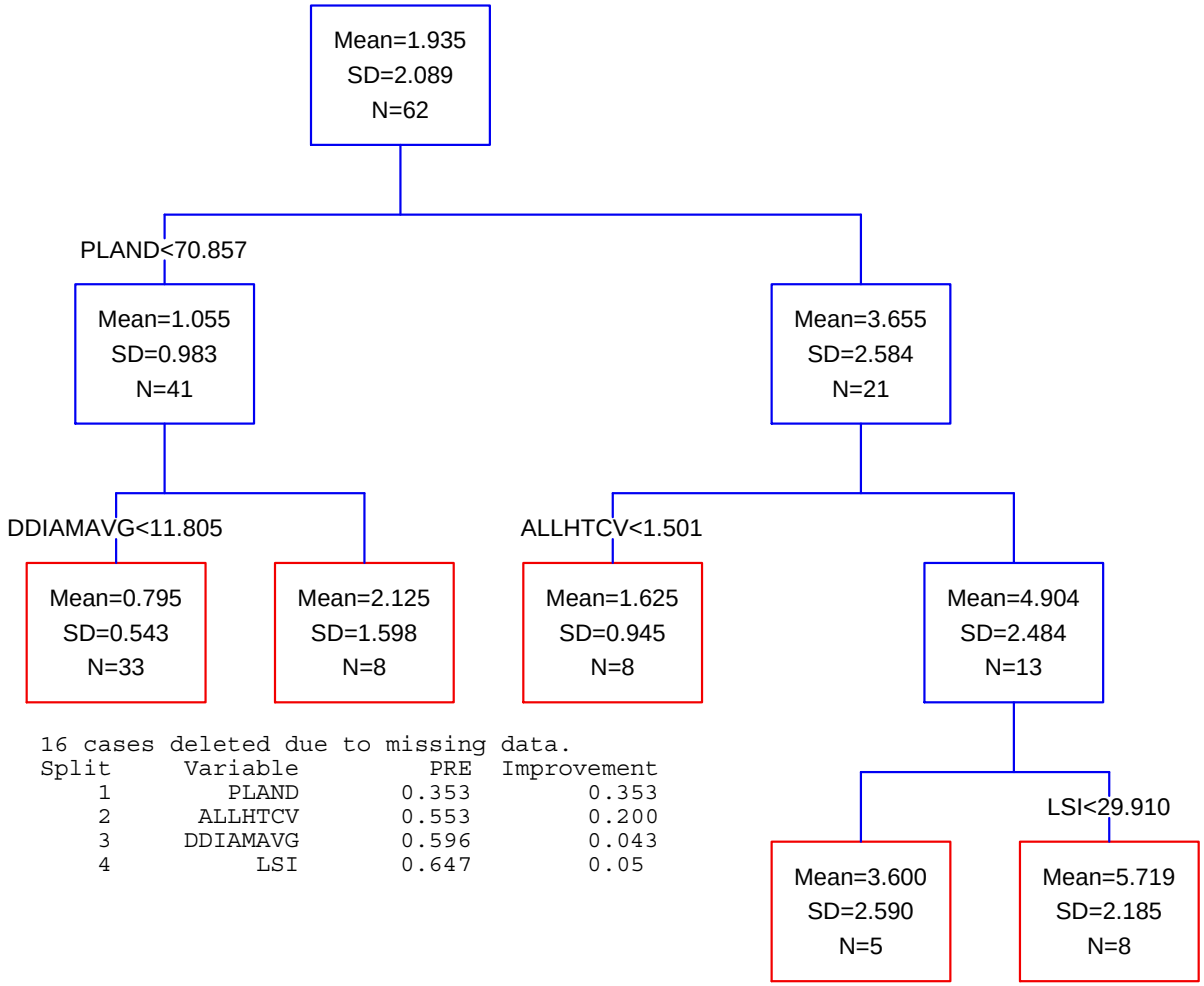
Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
1 km buffer
Classification tree of presence-absence



56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.210	0.210
2	DSW_N	0.304	0.095
3	ALLHTCV	0.356	0.052
4	DDIAMAVG	0.385	0.029
5	PLAND	0.411	0.026
6	ALLSW_N	0.438	0.027
7	ALLDIAMCV	0.471	0.033

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
1 km buffer
Regression tree of abundance



16 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.353	0.353
2	ALLHTCV	0.553	0.200
3	DDIAMAVG	0.596	0.043
4	LSI	0.647	0.05

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
172	-92.269	6	197.0	0.0	0.356
172	-91.287	7	197.3	0.3	0.320
172	-90.78	8	198.4	1.4	0.177
172	-90.455	13	209.2	12.2	0.001

K6

Parameter	Estimate
CONSTANT	-10.555
DDIAMAVG	0.408
ALLHTCV	0.858
ALLSW_N	0.16
PLAND	0.033

K7

Parameter	Estimate
CONSTANT	-13.864
DDIAMAVG	0.635
ALLHTCV	1.211
ALLSW_N	0.184
V29	-1.348
PLAND	0.038

K8

Parameter	Estimate
CONSTANT	-13.163
DDIAMAVG	0.645
ALLHTCV	1.041
ALLSW_N	0.151
V29	-1.057
PLAND	0.042
CAI_MN	-0.011

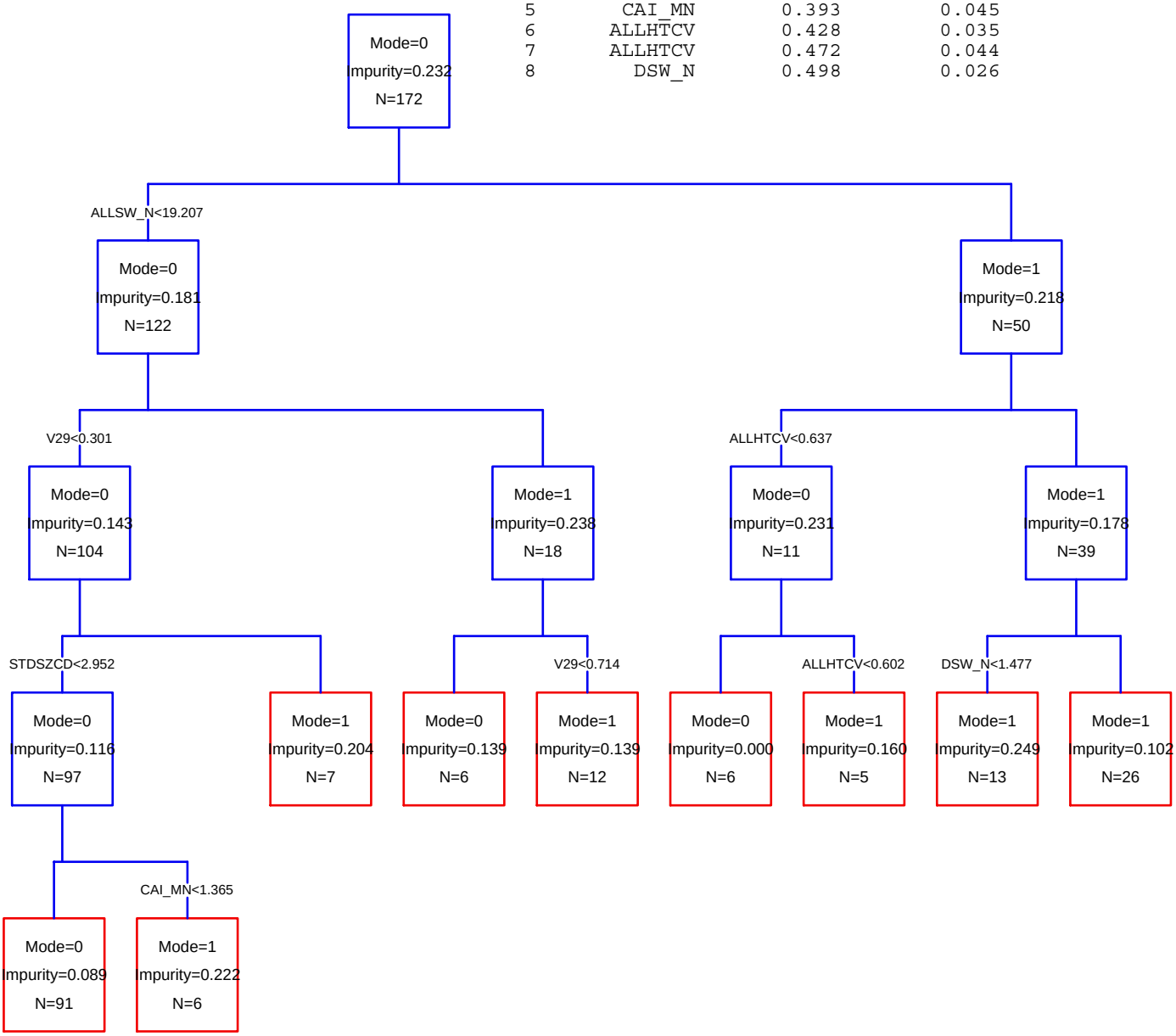
K13(GLOBAL)

Parameter	Estimate
CONSTANT	-15.172
STDSZCD	0.002
DDIAMAVG	0.713
ALLHTCV	1.045
UDIAMCV	0.641
ALLSW_N	0.143
DSW_N	-0.547
V21	0.579
V29	-1.218
PLAND	0.053
CAI_MN	-0.015
LANDSHDI	1.231

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
10 km buffer
Classification tree of presence-absence

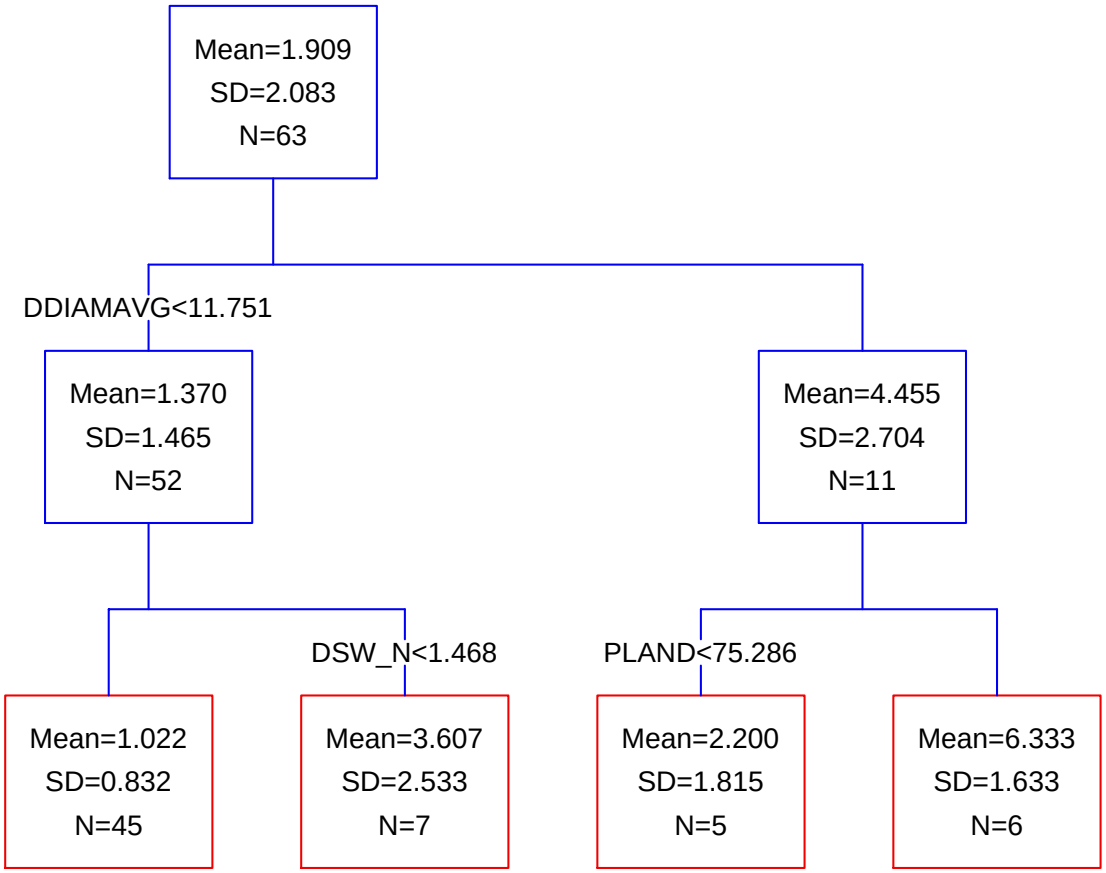
55 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLSW_N	0.174	0.174
2	V29	0.248	0.074
3	V29	0.292	0.045
4	STDSZCD	0.347	0.055
5	CAI_MN	0.393	0.045
6	ALLHTCV	0.428	0.035
7	ALLHTCV	0.472	0.044
8	DSW_N	0.498	0.026



Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
10 km buffer
Regression tree of abundance

```
15 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1     DDIAMAVG        0.321        0.321
    2        PLAND        0.494        0.173
    3        DSW_N        0.645        0.151
```



Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
170	-80.279	8	177.5	0.0	0.263
170	-79.379	9	177.9	0.4	0.212
170	-78.355	10	178.1	0.6	0.191
170	-81.747	7	178.2	0.7	0.182
170	-83.216	6	178.9	1.4	0.124

K8

Parameter	Estimate
CONSTANT	-12.519
V1ALLSW_N	0.155
V1LSHAPE_AM	-0.376
V2STDSZCD	-0.663
V2PLAND	0.069
V3DDIAMAVG	0.656
V3ALLHTCV	1.051

K9

Parameter	Estimate
CONSTANT	-16.423
V1ALLDIAMAVG	0.442
V1ALLSW_N	0.197
V1LSHAPE_AM	-0.424
V2STDSZCD	-0.595
V2PLAND	0.072
V3DDIAMAVG	0.733
V3ALLHTCV	1.364

K10(GLOBAL)

Parameter	Estimate
CONSTANT	-19.383
V1ALLDIAMAVG	0.508
V1ALLSW_N	0.202
V1IJI	0.028
V1LSHAPE_AM	-0.378
V2STDSZCD	-0.617
V2PLAND	0.068
V3DDIAMAVG	0.815
V3ALLHTCV	1.537

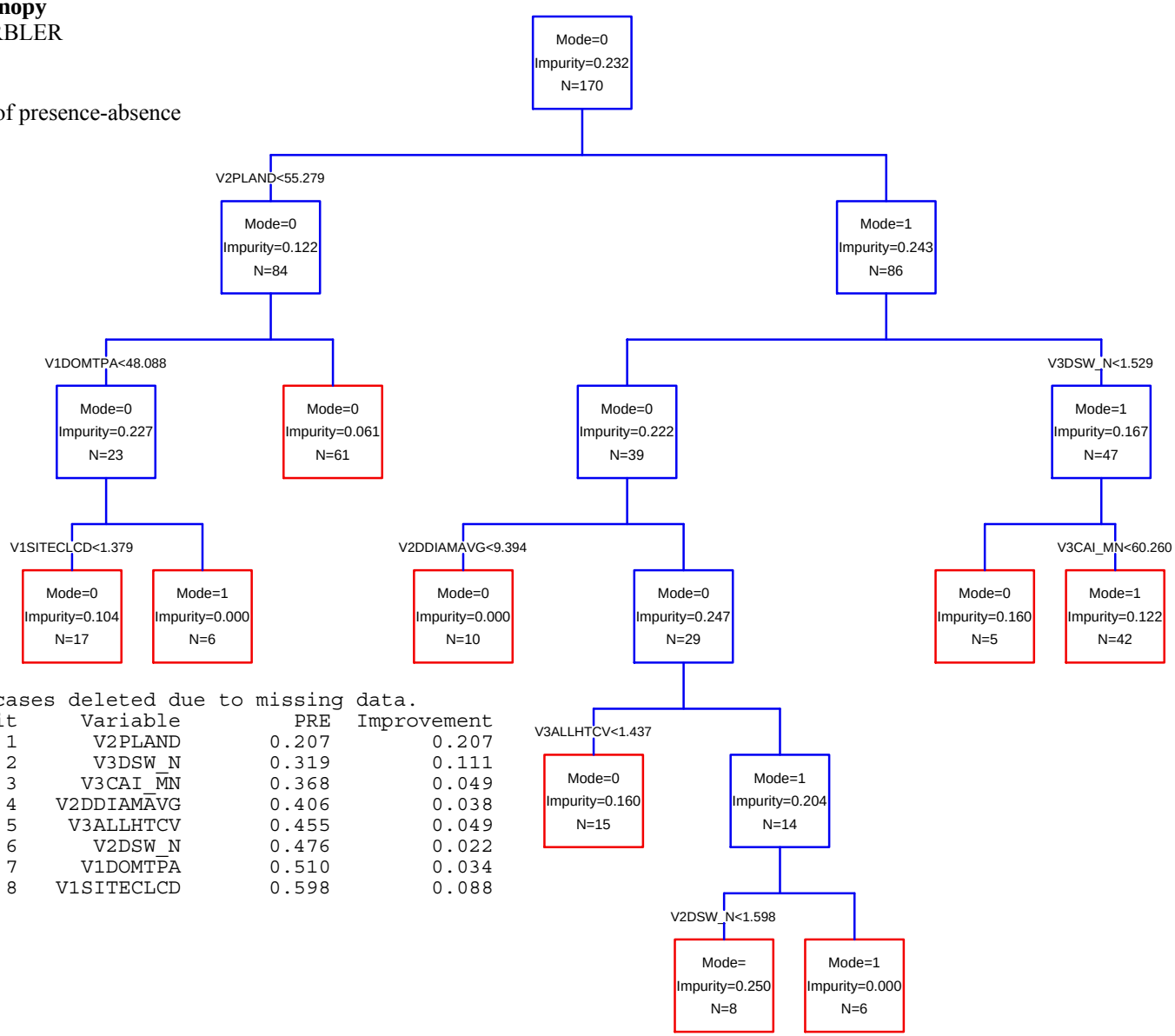
K7

Parameter	Estimate
CONSTANT	-11.41
V1ALLSW_N	0.154
V1LSHAPE_AM	-0.339
V2PLAND	0.06
V3DDIAMAVG	0.451
V3ALLHTCV	1.036

K6

Parameter	Estimate
CONSTANT	-12.402
V1ALLSW_N	0.15
V2PLAND	0.049
V3DDIAMAVG	0.464
V3ALLHTCV	1.203

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
Multiscale
Classification tree of presence-absence



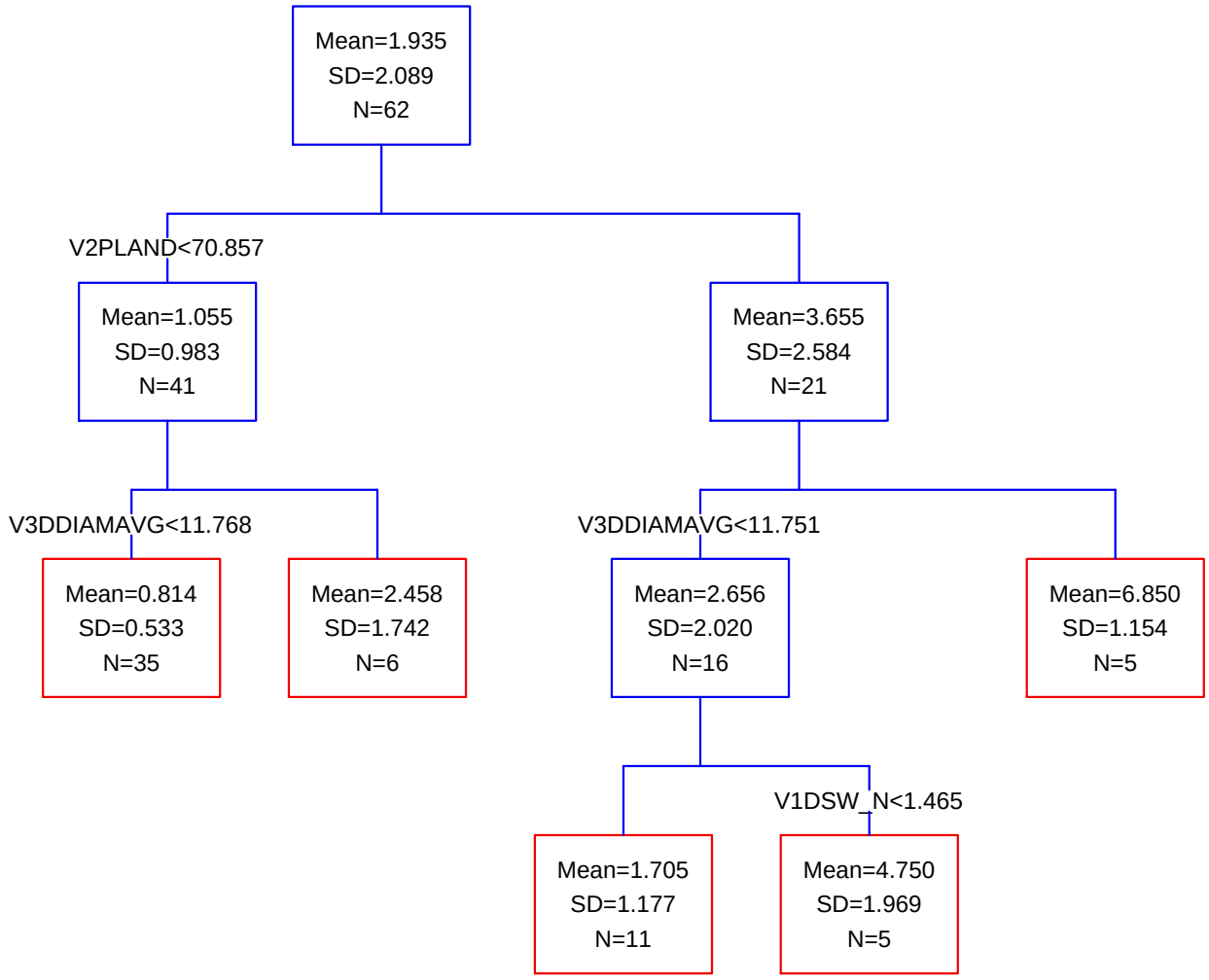
57 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2PLAND	0.207	0.207
2	V3DSW_N	0.319	0.111
3	V3CAI_MN	0.368	0.049
4	V2DDIAMAVG	0.406	0.038
5	V3ALLHTCV	0.455	0.049
6	V2DSW_N	0.476	0.022
7	V1DOMTPA	0.510	0.034
8	V1SITECLCD	0.598	0.088

Mature Forest Canopy
CERULEAN WARBLER
BBS Route level
Multiscale
Regression tree of abundance

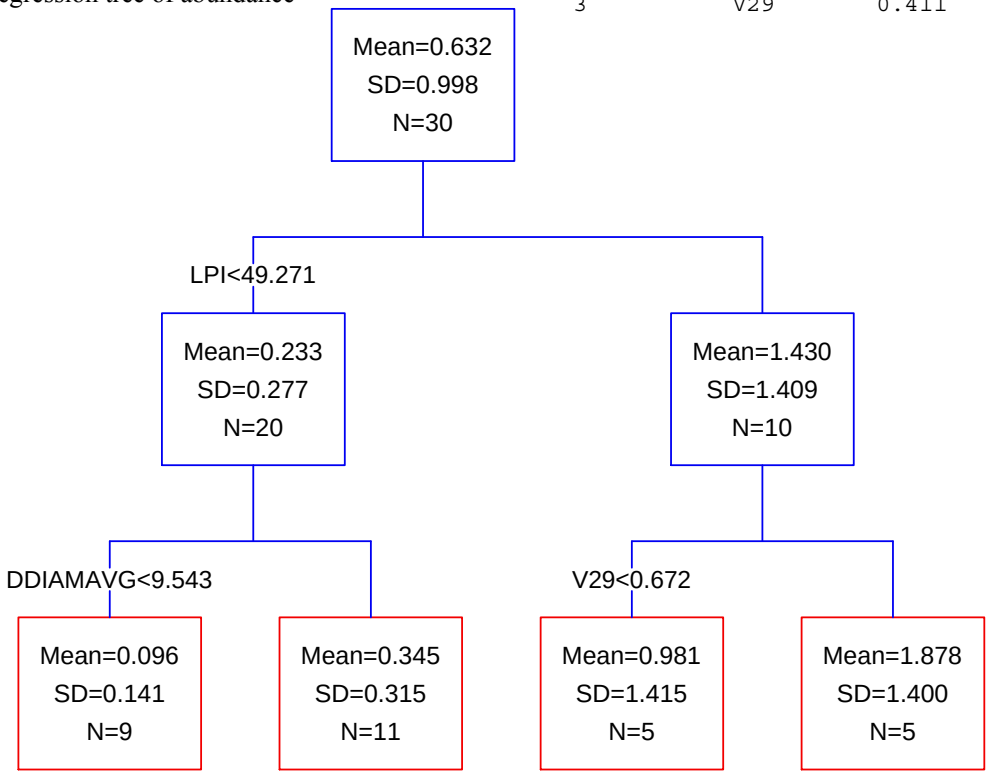
16 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2PLAND	0.353	0.353
2	V3DDIAMAVG	0.605	0.252
3	V1DSW_N	0.724	0.120
4	V3DDIAMAVG	0.776	0.052



Mature Forest Canopy
CERULEAN WARBLER
FIA Unit scale
Regression tree of abundance

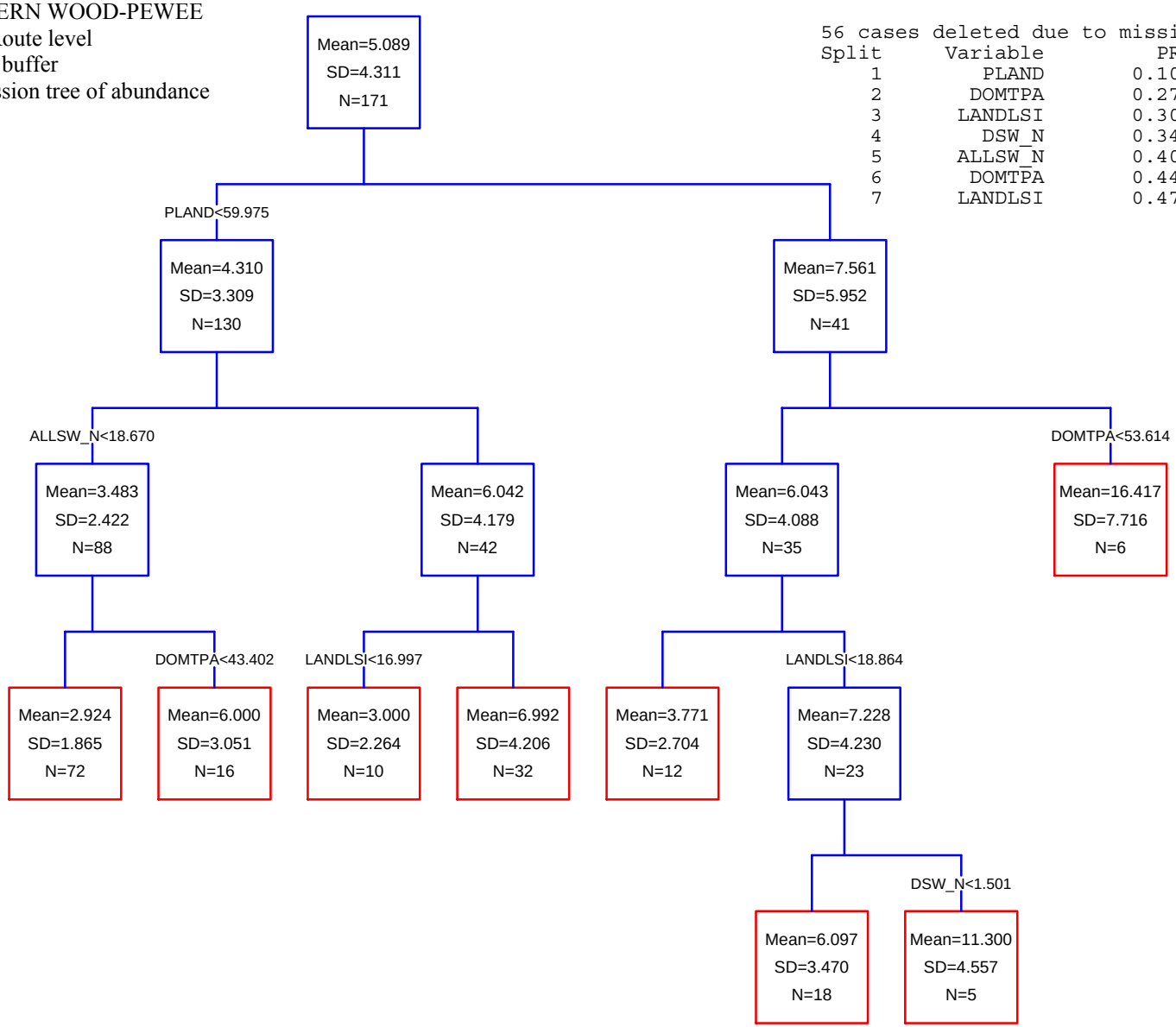
Split	Variable	PRE	Improvement
1	LPI	0.331	0.331
2	DDIAMAVG	0.341	0.011
3	V29	0.411	0.070



Mature Forest Canopy
EASTERN WOOD-PEWEE
BBS Route level
100 m buffer
Regression tree of abundance

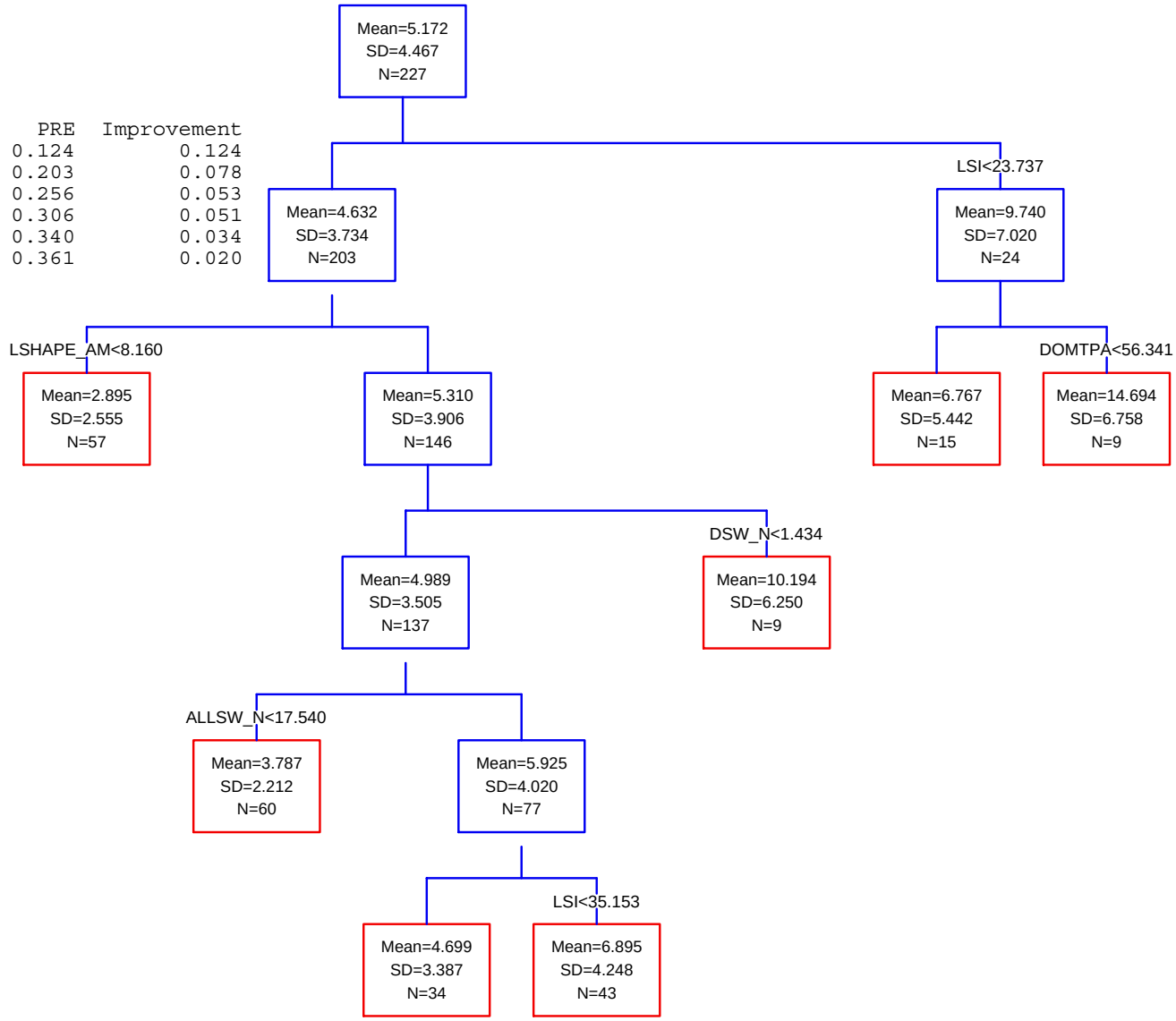
56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.104	0.104
2	DOMTPA	0.279	0.174
3	LANDLSI	0.309	0.030
4	DSW_N	0.342	0.034
5	ALLSW_N	0.401	0.059
6	DOMTPA	0.440	0.039
7	LANDLSI	0.479	0.038



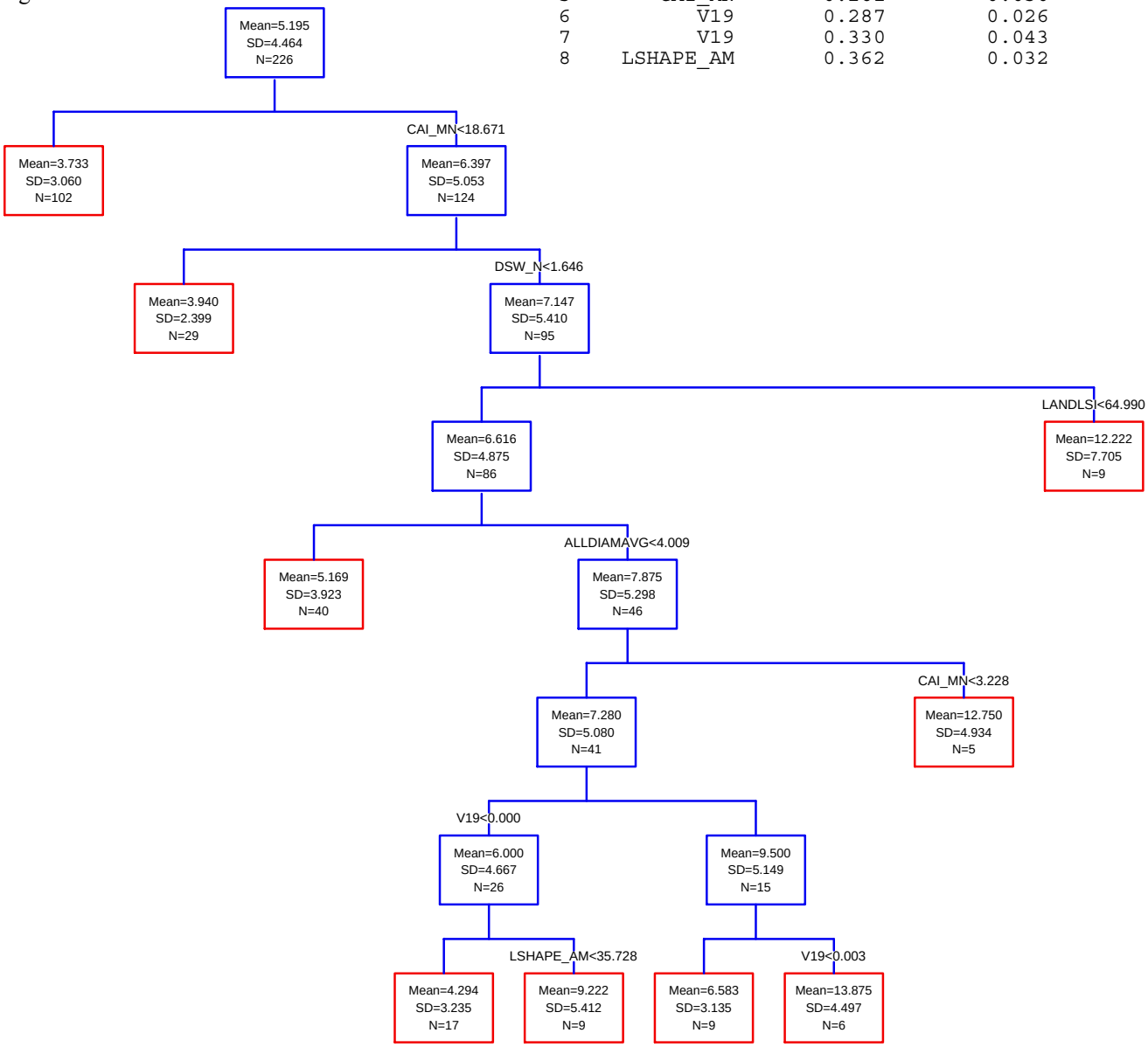
Mature Forest Canopy
EASTERN WOOD-PEWEE
BBS Route level
1 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	LSI	0.124	0.124
2	DOMTPA	0.203	0.078
3	LSHAPE_AM	0.256	0.053
4	DSW_N	0.306	0.051
5	ALLSW_N	0.340	0.034
6	LSI	0.361	0.020



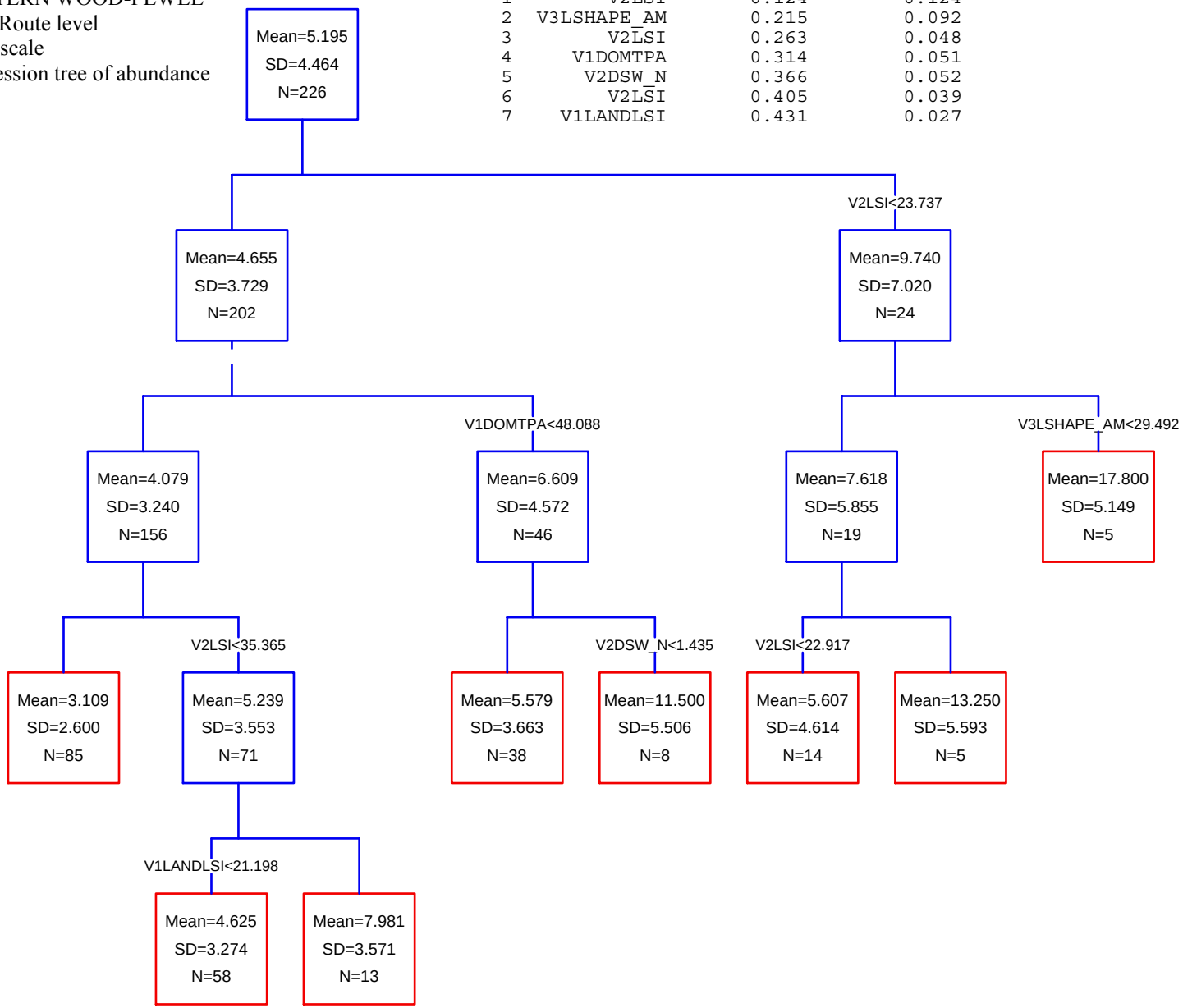
Mature Forest Canopy
EASTERN WOOD-PEWEE
BBS Route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	CAI_MN	0.089	0.089
2	DSW_N	0.140	0.051
3	LANDLSI	0.197	0.057
4	ALLDIAMAVG	0.232	0.035
5	CAI_MN	0.261	0.030
6	V19	0.287	0.026
7	V19	0.330	0.043
8	LSHAPE_AM	0.362	0.032



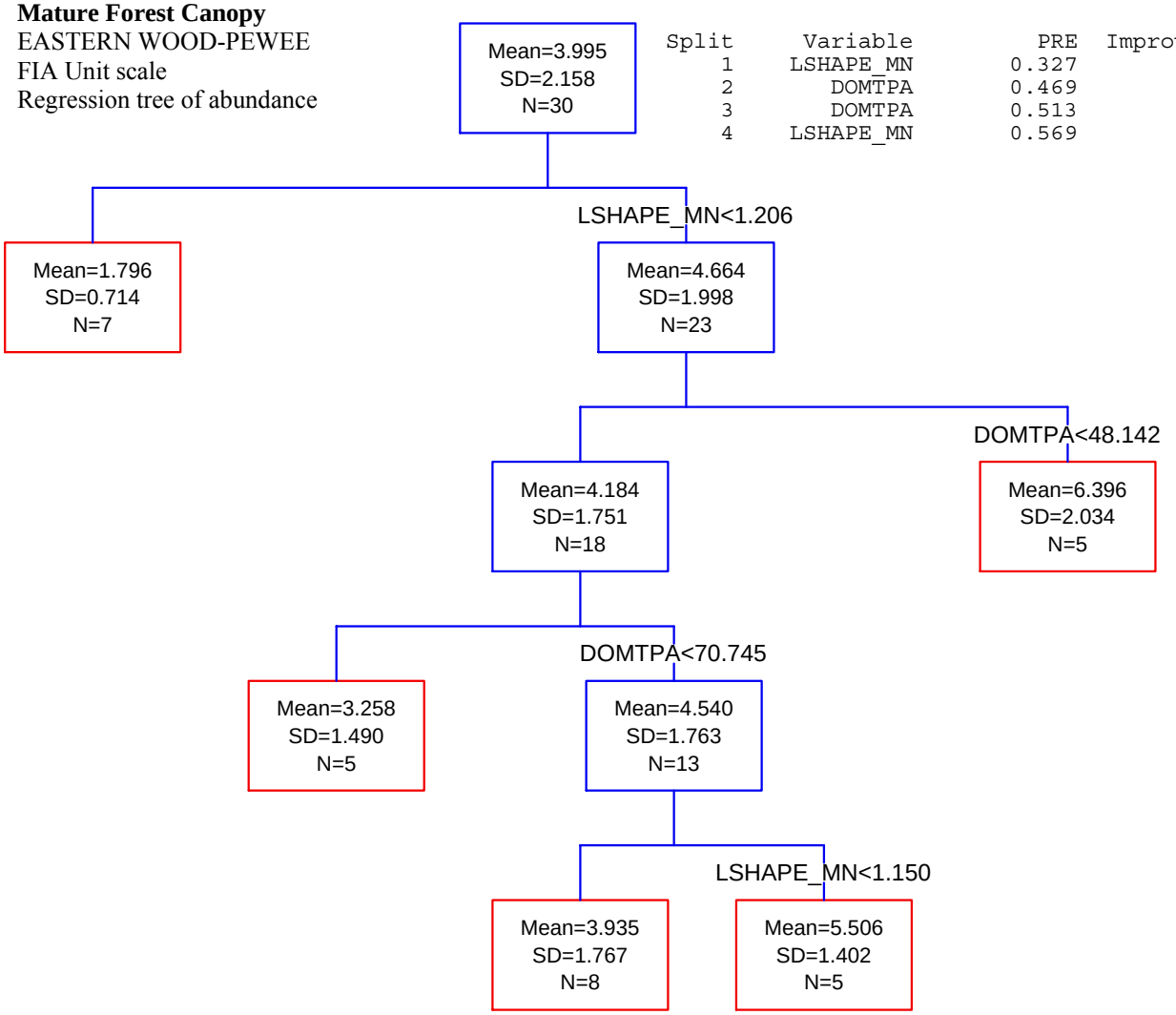
Mature Forest Canopy
EASTERN WOOD-PEWEE
BBS Route level
Multiscale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	V2LSI	0.124	0.124
2	V3LSHAPE_AM	0.215	0.092
3	V2LSI	0.263	0.048
4	V1DOMTPA	0.314	0.051
5	V2DSW_N	0.366	0.052
6	V2LSI	0.405	0.039
7	V1LANDLSI	0.431	0.027



Mature Forest Canopy
EASTERN WOOD-PEWEE
FIA Unit scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	LSHAPE_MN	0.327	0.327
2	DOMTPA	0.469	0.142
3	DOMTPA	0.513	0.044
4	LSHAPE_MN	0.569	0.056



Mature Forest Canopy
EASTERN WOOD-PEWEE
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	1.038	4	-32.1	0.0	0.751

GLOBAL	
Parameter	Coefficient
Constant	
ALLSW_N	0.034
LANDPD	-1.036

Mature Forest Canopy
PINE WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
145	-68.125	10	157.9	0.0	0.275
145	-69.513	9	158.4	0.5	0.218
145	-71.06	8	159.2	1.3	0.144
145	-67.783	11	159.6	1.7	0.120
145	-67.744	16	171.7	13.8	0.000

K10

Parameter	Estimate
CONSTANT	-13.34
RCTPA	-0.922
UDIAMAVG	2.132
ALLSW_N	0.111
V19	-137.831
CAI_AM	0.032
LANDSIDI	3.945
CONPLAND	0.09
CIJI	0.031

K9

Parameter	Estimate
CONSTANT	-10.521
CONPLAND	0.088
RCTPA	-0.9
CAI_AM	0.026
V19	-131.428
UDIAMAVG	1.981
ALLSW_N	0.11
LANDSIDI	3.511

K8

Parameter	Estimate
CONSTANT	-7.897
CONPLAND	0.136
RCTPA	-0.889
CAI_AM	0.019
V19	-135.253
UDIAMAVG	1.805
ALLSW_N	0.104

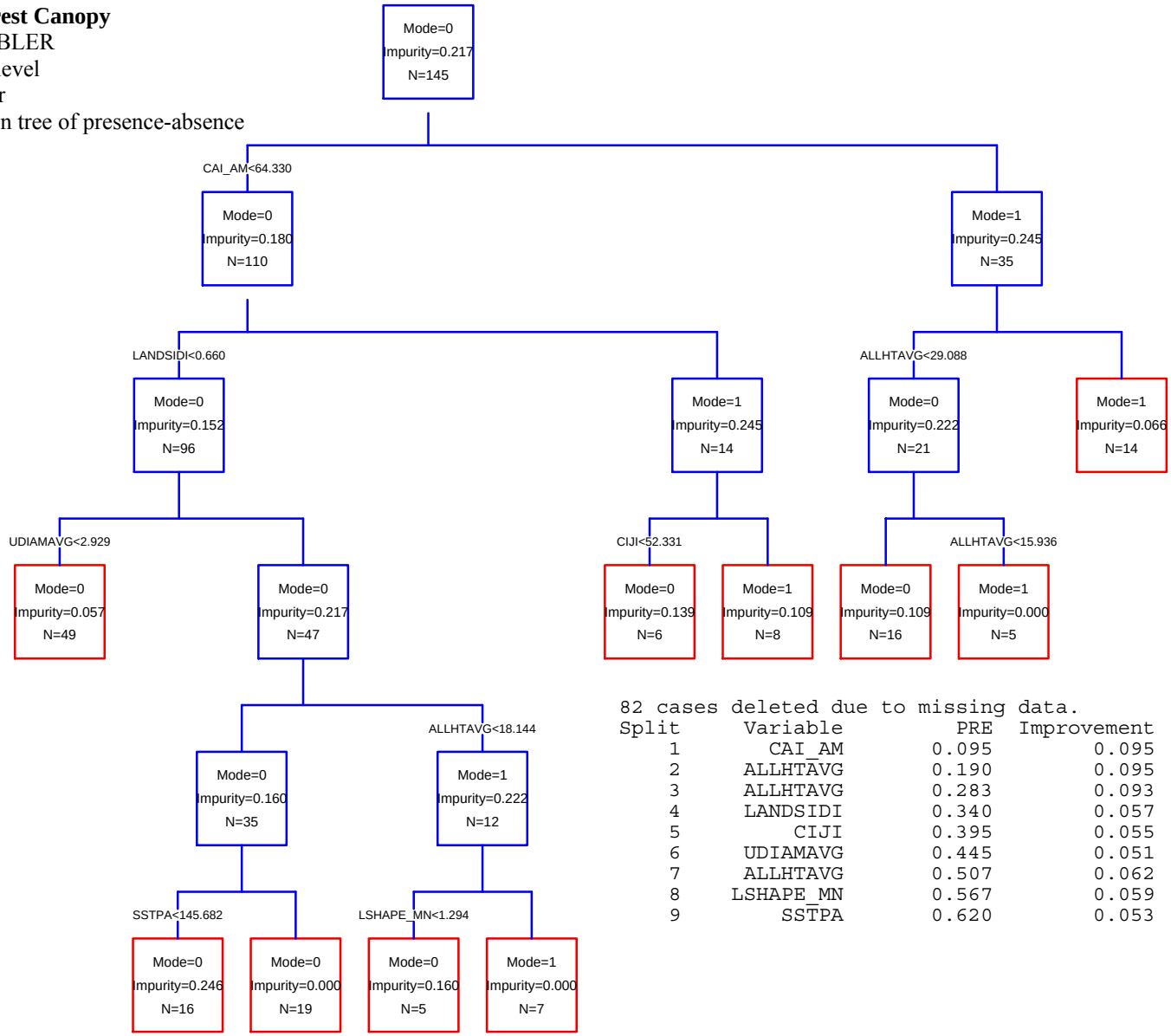
K11

Parameter	Estimate
CONSTANT	-15.446
RCTPA	-0.885
UDIAMAVG	2.272
ALLSW_N	0.135
DSW_N	0.888
V19	-135.422
CAI_AM	0.032
LANDSIDI	3.789
CONPLAND	0.09
CIJI	0.029

K16(GLOBAL)

Parameter	Estimate
CONSTANT	-17.378
SSTPA	0
RCTPA	-0.923
ALLHTAVG	-0.008
UDIAMAVG	2.532
DDIAMCV	2.635
ALLSW_N	0.136
DSW_N	0.81
V19	-135.85
V22	-0.273
CAI_AM	0.032
LSHAPE_MN	0.319
LANDSIDI	4.028
CONPLAND	0.087
CIJI	0.028

Mature Forest Canopy
PINE WARBLER
BBS Route level
100 m buffer
Classification tree of presence-absence

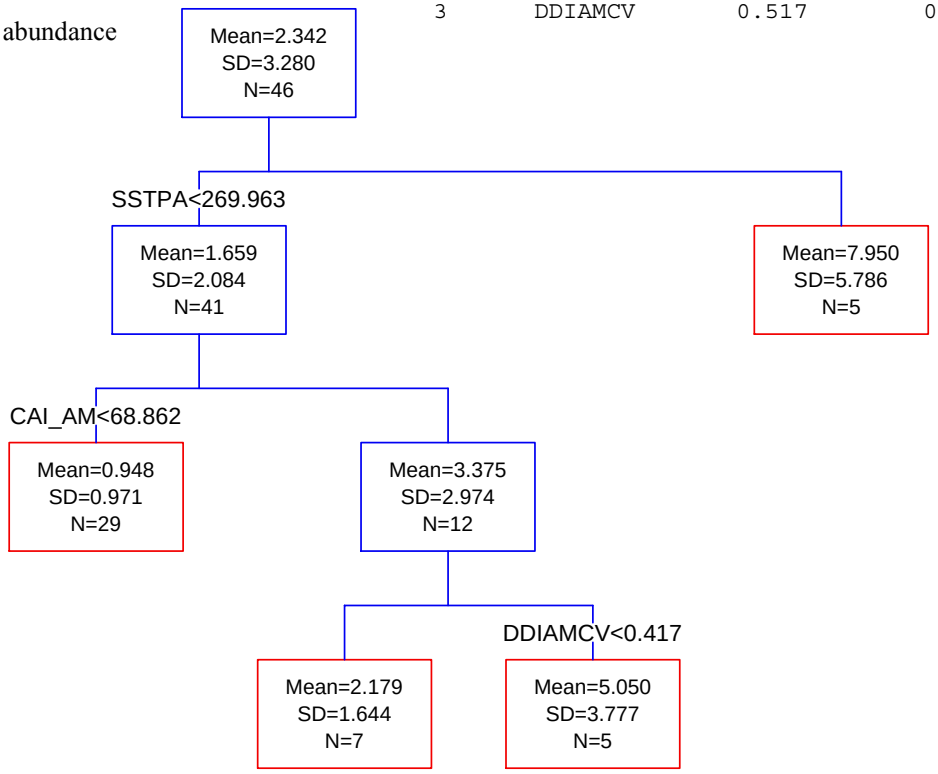


82 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_AM	0.095	0.095
2	ALLHTAVG	0.190	0.095
3	ALLHTAVG	0.283	0.093
4	LANDSIDI	0.340	0.057
5	CIJI	0.395	0.055
6	UDIAMAVG	0.445	0.051
7	ALLHTAVG	0.507	0.062
8	LSHAPE_MN	0.567	0.059
9	SSTPA	0.620	0.053

Mature Forest Canopy
PINE WARBLER
BBS Route level
100 m buffer
Regression tree of abundance

```
34 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1        SSTPA       0.364        0.364
    2       CAI_AM       0.468        0.103
    3      DDIAMCV       0.517        0.050
```



Mature Forest Canopy
PINE WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
148	-77.226	8	171.5	0.0	0.167
148	-81.605	4	171.5	0.0	0.167
148	-76.18	9	171.7	0.2	0.153
148	-80.726	5	171.9	0.4	0.138
148	-79.861	6	172.3	0.8	0.111
148	-78.856	7	172.5	1.0	0.100
148	-75.738	10	173.1	1.6	0.075
148	-84.69	3	175.5	4.0	0.022
148	-75.026	14	181.2	9.7	0.001

K8

Parameter	Estimate
CONSTANT	1.309
DOMHTAVG	-0.051
ALLHTCV	-1.051
ALLSW_N	0.1
V19	-88.974
V22	-2.223
CONPLAND	0.211

K4

Parameter	Estimate
CONSTANT	-0.38
CONPLAND	0.156
ALLHTCV	-0.983

K9

Parameter	Estimate
CONSTANT	-1.307
DOMHTAVG	-0.067
UDIAMAVG	1.094
ALLHTCV	-1.114
ALLSW_N	0.124
V19	-95.092
V22	-2.268
CONPLAND	0.205

K5

Parameter	Estimate
CONSTANT	-0.275
ALLHTCV	-0.89
V22	-1.258
CONPLAND	0.178

K6

Parameter	Estimate
CONSTANT	-0.154
ALLHTCV	-0.956
V19	-51.77
V22	-1.517
CONPLAND	0.194

K7

Parameter	Estimate
CONSTANT	1.913
DOMHTAVG	-0.033
ALLHTCV	-0.906
V19	-64.354
V22	-2.217
CONPLAND	0.195

K10

Parameter	Estimate
CONSTANT	-0.603
DOMHTAVG	-0.076
UDIAMAVG	1.148
ALLHTCV	-1.054
ALLSW_N	0.127
V19	-99.17
V22	-2.16
CWED	-0.011
CONPLAND	0.189

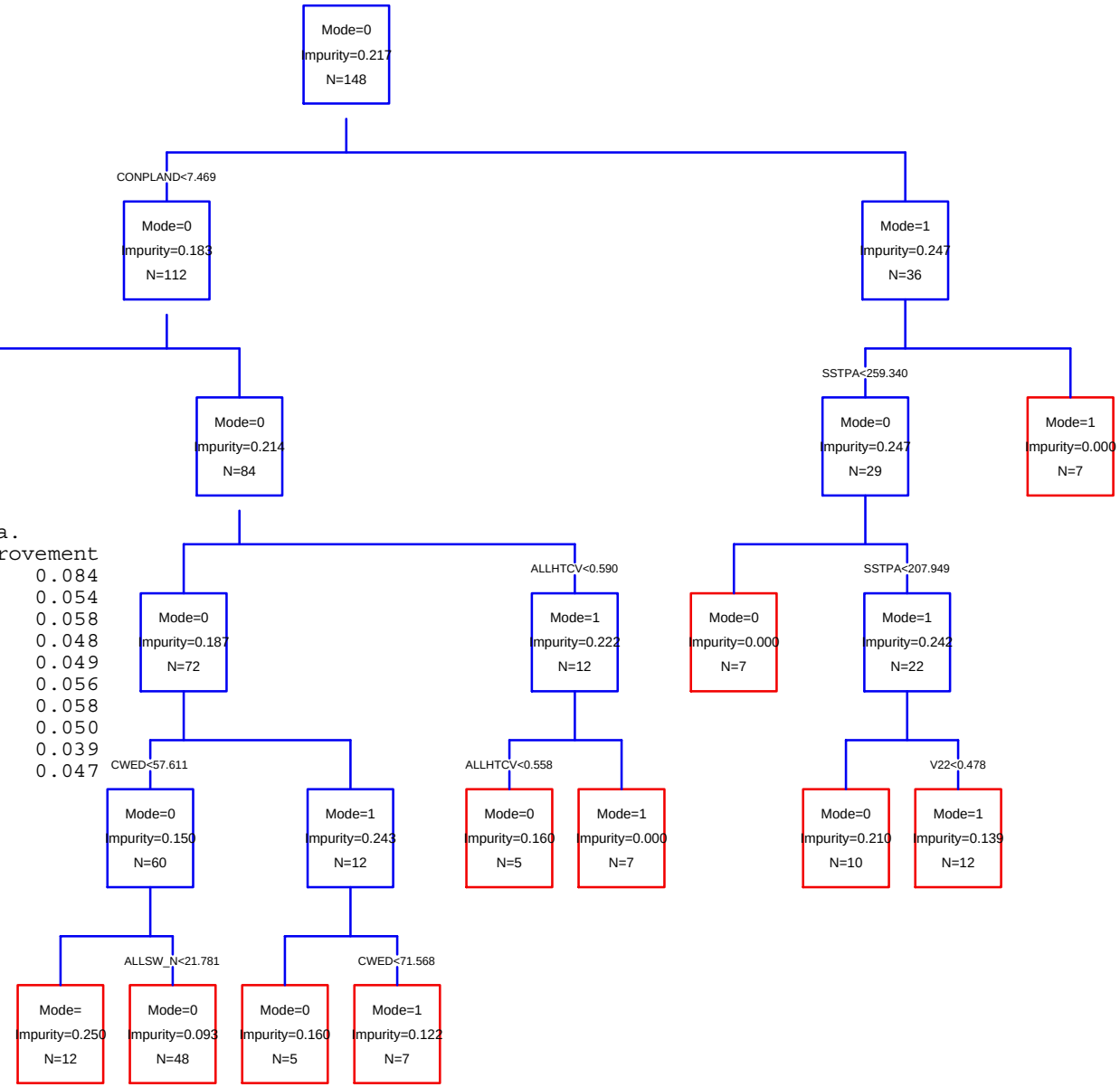
K3

Parameter	Estimate
CONSTANT	-1.678
CONPLAND	0.164

K14(GLOBAL)

Parameter	Estimate
CONSTANT	0.261
SSTPA	0
DOMHTAVG	-0.082
UDIAMAVG	1.061
ALLHTCV	-1.165
ALLSW_N	0.121
DSW_N	-0.439
V19	-98.705
V22	-2.312
CWED	-0.019
LANDSHDI	1.512
CONPLAND	0.147
CIJI	-0.003

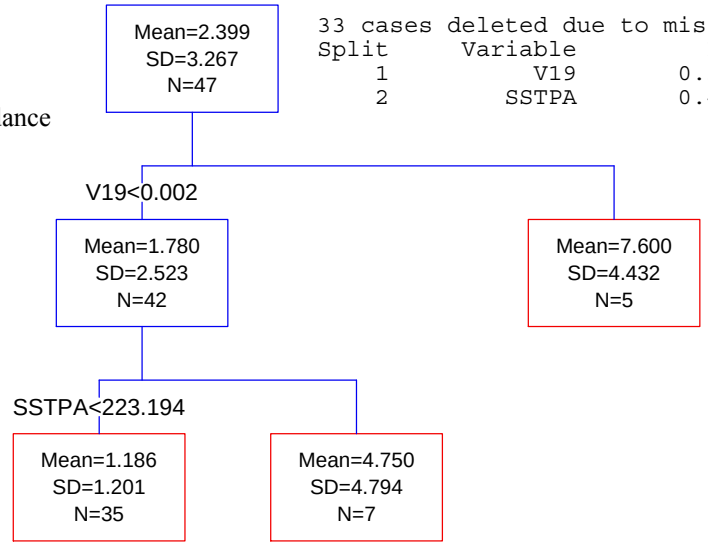
Mature Forest Canopy
PINE WARBLER
BBS Route level
1 km buffer
Classification tree of presence-absence



79 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CONPLAND	0.084	0.084
2	SSTPA	0.138	0.054
3	SSTPA	0.195	0.058
4	V22	0.244	0.048
5	UDIAMAVG	0.293	0.049
6	ALLHTCV	0.348	0.056
7	ALLHTCV	0.407	0.058
8	CWED	0.457	0.050
9	CWED	0.496	0.039
10	ALLSW_N	0.543	0.047

Mature Forest Canopy
PINE WARBLER
BBS Route level
1 km buffer
Regression tree of abundance




```
33 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1          V19       0.308        0.308
    2        SSTPA       0.459        0.151
```

Mature Forest Canopy
PINE WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
149	-75.221	7	165.2	0.0	0.374
149	-74.318	8	165.7	0.5	0.302
149	-75.711	7	166.2	1.0	0.229
149	-73.801	9	166.9	1.7	0.163
149	-71.501	18	184.3	19.1	0.000

K7

Parameter	Estimate
CONSTANT	7.87
ALLHTCV	-1.548
UDIAMCV	-12.739
ALLSW_N	0.159
V21	20.138
CCAI_CV	-0.011

K8

Parameter	Estimate
CONSTANT	6.97
ALLHTCV	-1.356
UDIAMCV	-12.915
ALLSW_N	0.17
V21	19.122
CONPLAND	0.074
CCAI_CV	-0.008

K7

Parameter	Estimate
CONSTANT	5.426
UDIAMCV	-12.353
CONPLAND	0.112
ALLHTCV	-1.182
V21	16.958
ALLSW_N	0.175

K9

Parameter	Estimate
CONSTANT	8.404
ALLHTCV	-1.468
DDIAMCV	-5.504
UDIAMCV	-12.124
ALLSW_N	0.184
V21	21.498
CONPLAND	0.088
CCAI_CV	-0.007

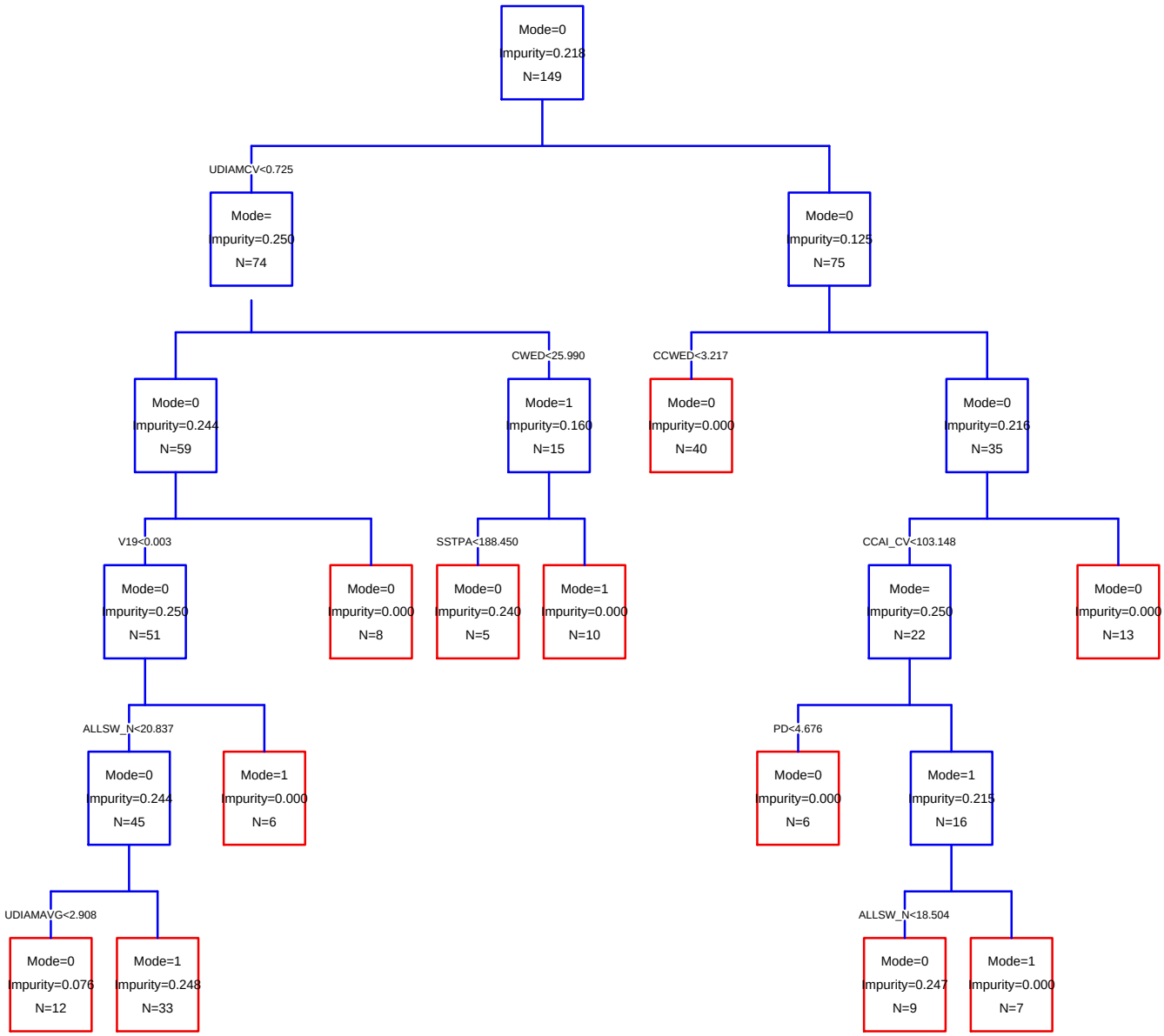
K18(GLOBAL)

Parameter	Estimate
CONSTANT	8.82
SSTPA	-0.003
ALLDIAMAVG	0.761
UDIAMAVG	-1.935
ALLHTCV	-1.004
DDIAMCV	-13.134
UDIAMCV	-12.813
ALLSW_N	0.278
DSW_N	1.767
V19	3.913
V21	19.739
PD	0.038
CWED	-0.001
CONPLAND	0.125
CCAI_CV	-0.015
CCWED	-0.061
CIJI	0.04

Mature Forest Canopy
PINE WARBLER
BBS Route level
10 km buffer
Classification tree of presence-absence

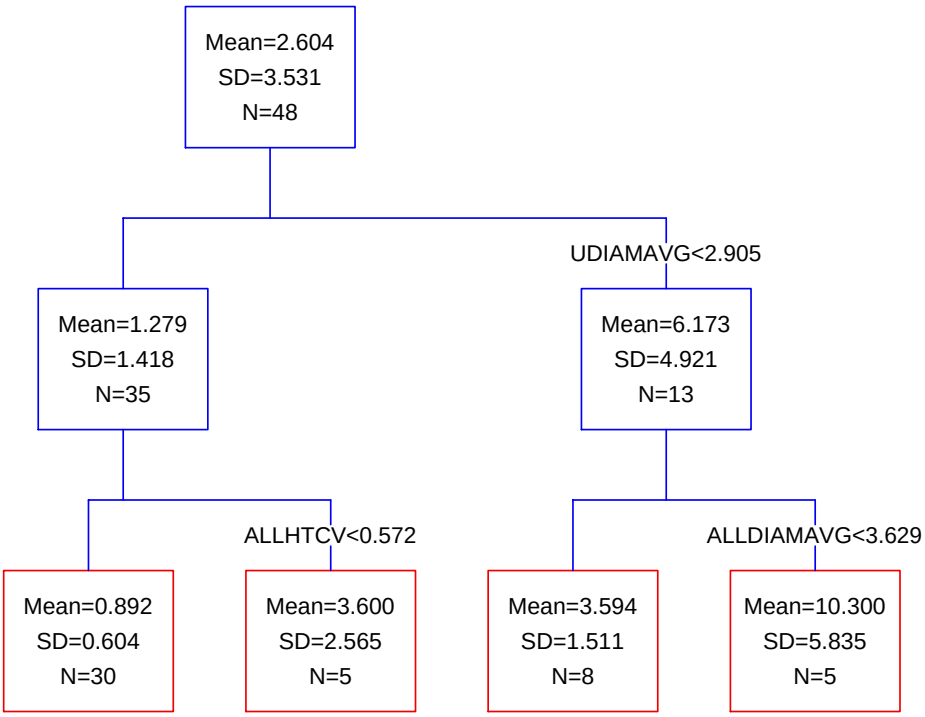
78 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	UDIAMCV	0.143	0.143
2	CCWED	0.200	0.057
3	CCAI_CV	0.262	0.063
4	PD	0.326	0.063
5	ALLSW_N	0.363	0.037
6	CWED	0.415	0.052
7	SSTPA	0.452	0.037
8	V19	0.503	0.051
9	ALLSW_N	0.557	0.054
10	UDIAMAVG	0.615	0.058



Mature Forest Canopy
PINE WARBLER
BBS Route level
10 km buffer
Regression tree of abundance

```
32 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1     UDIAMAVG       0.388        0.388
    2   ALLDIAMAVG       0.624        0.236
    3      ALLHTCV       0.677        0.054
```



Mature Forest Canopy
PINE WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
145	-58.225	11	140.4	0.0	0.272
145	-59.696	10	141.0	0.6	0.202
145	-61.064	9	141.5	1.1	0.163
145	-59.067	11	142.1	1.7	0.117
145	-57.924	12	142.2	1.8	0.112
145	-57.301	15	148.3	7.9	0.005

K11

Parameter	Estimate
CONSTANT	-10.88
V1RCTPA	-0.952
V1UDIAMAVG	2.169
V1V19	-147.137
V1CAI_AM	0.044
V1LANDSIDI	7.18
V2ALLHTCV	-0.968
V3UDIAMCV	-8.732
V3ALLSW_N	0.344
V3V21	28.516

K10

Parameter	Estimate
CONSTANT	-11.816
V1RCTPA	-1.176
V1UDIAMAVG	2.213
V1V19	-141.952
V1CAI_AM	0.044
V1LANDSIDI	6.6
V3UDIAMCV	-7.913
V3ALLSW_N	0.327
V3V21	26.631

K9

Parameter	Estimate
CONSTANT	-18.554
V1RCTPA	-1.319
V1UDIAMAVG	2.501
V1V19	-148.517
V1CAI_AM	0.048
V1LANDSIDI	6.785
V3ALLSW_N	0.337
V3V21	26.795

K11

Parameter	Estimate
CONSTANT	-10.734
V3UDIAMCV	-8.382
V2CONPLAND	0.078
V1RCTPA	-1.153
V3V21	24.979
V3ALLSW_N	0.335
V1CAI_AM	0.038
V1LANDSIDI	5.334
V1V19	-147.171
V1UDIAMAVG	2.115

K12

Parameter	Estimate
CONSTANT	-10.198
V1RCTPA	-0.952
V1UDIAMAVG	2.083
V1V19	-151.858
V1CAI_AM	0.039
V1LANDSIDI	6.206
V2ALLHTCV	-0.877
V2CONPLAND	0.056
V3UDIAMCV	-8.972
V3ALLSW_N	0.35
V3V21	27.184

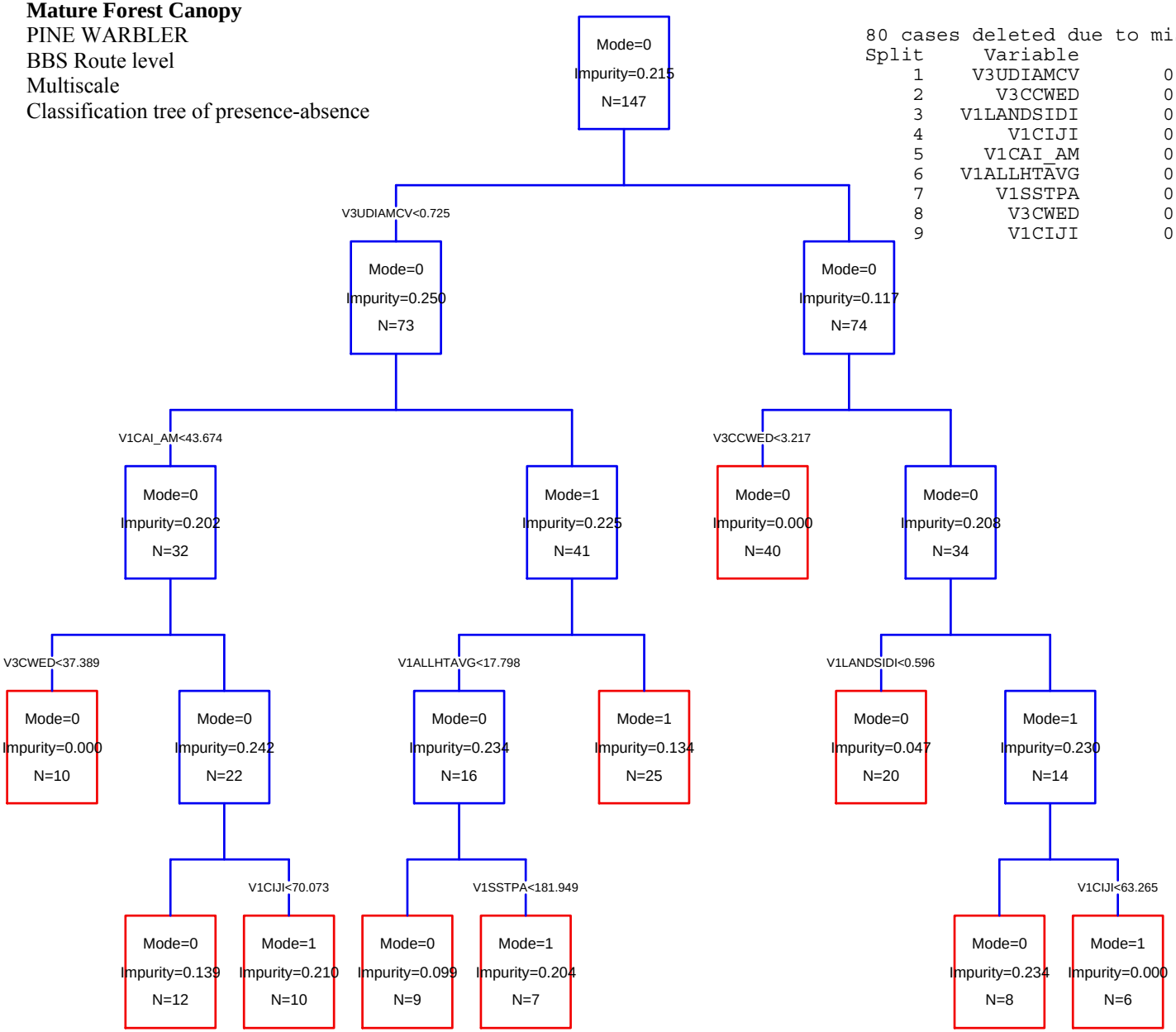
K15(GLOBAL)

Parameter	Estimate
CONSTANT	-9.588
V1RCTPA	-1.073
V1UDIAMAVG	1.923
V1V19	-152.653
V1CAI_AM	0.036
V1LANDSIDI	5.761
V1CIJI	0.017
V2ALLHTCV	-3.102
V2CONPLAND	0.067
V3ALLHTCV	2.415
V3UDIAMCV	-9.357
V3ALLSW_N	0.356
V3V21	28.574
V3CCAI_CV	-0.008

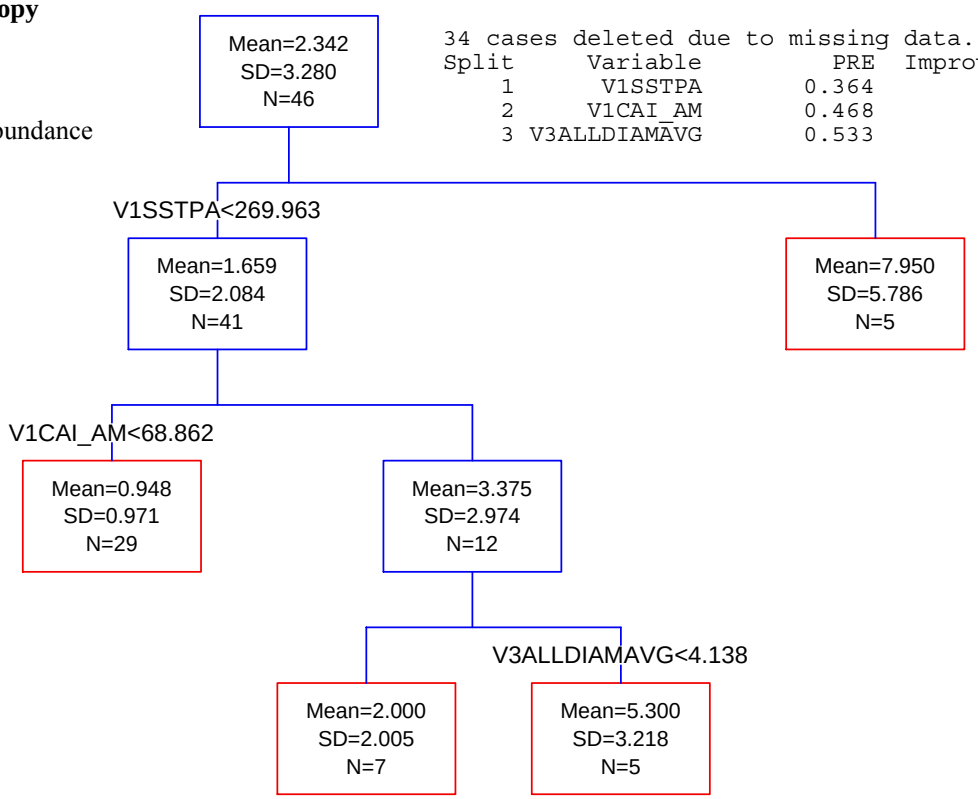
Mature Forest Canopy
PINE WARBLER
BBS Route level
Multiscale
Classification tree of presence-absence

80 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V3UDIAMCV	0.149	0.149
2	V3CCWED	0.199	0.050
3	V1LANDSIDI	0.291	0.092
4	V1CIJI	0.333	0.042
5	V1CAI_AM	0.414	0.081
6	V1ALLHTAVG	0.481	0.067
7	V1SSTPA	0.526	0.045
8	V3CWED	0.563	0.036
9	V1CIJI	0.612	0.049

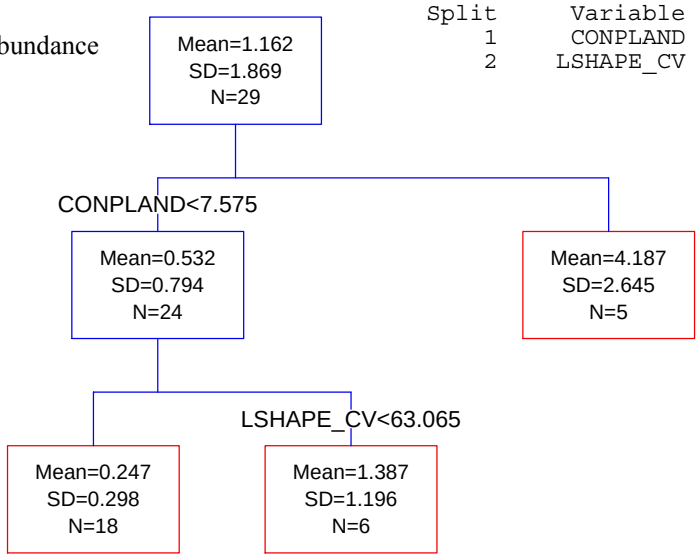


Mature Forest Canopy
PINE WARBLER
BBS Route level
Multiscale
Regression tree of abundance




```
34 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1      V1SSTPA        0.364        0.364
    2      V1CAI_AM       0.468        0.103
    3 V3ALLDIAMAVG        0.533        0.066
```

Mature Forest Canopy
PINE WARBLER
FIA Unit scale
Regression tree of abundance




```
1 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1      CONPLAND       0.565        0.565
    2     LSHAPE_CV       0.625        0.060
```

Mature Forest Canopy
PINE WARBLER
Physiographic section scale
GLM of abundance

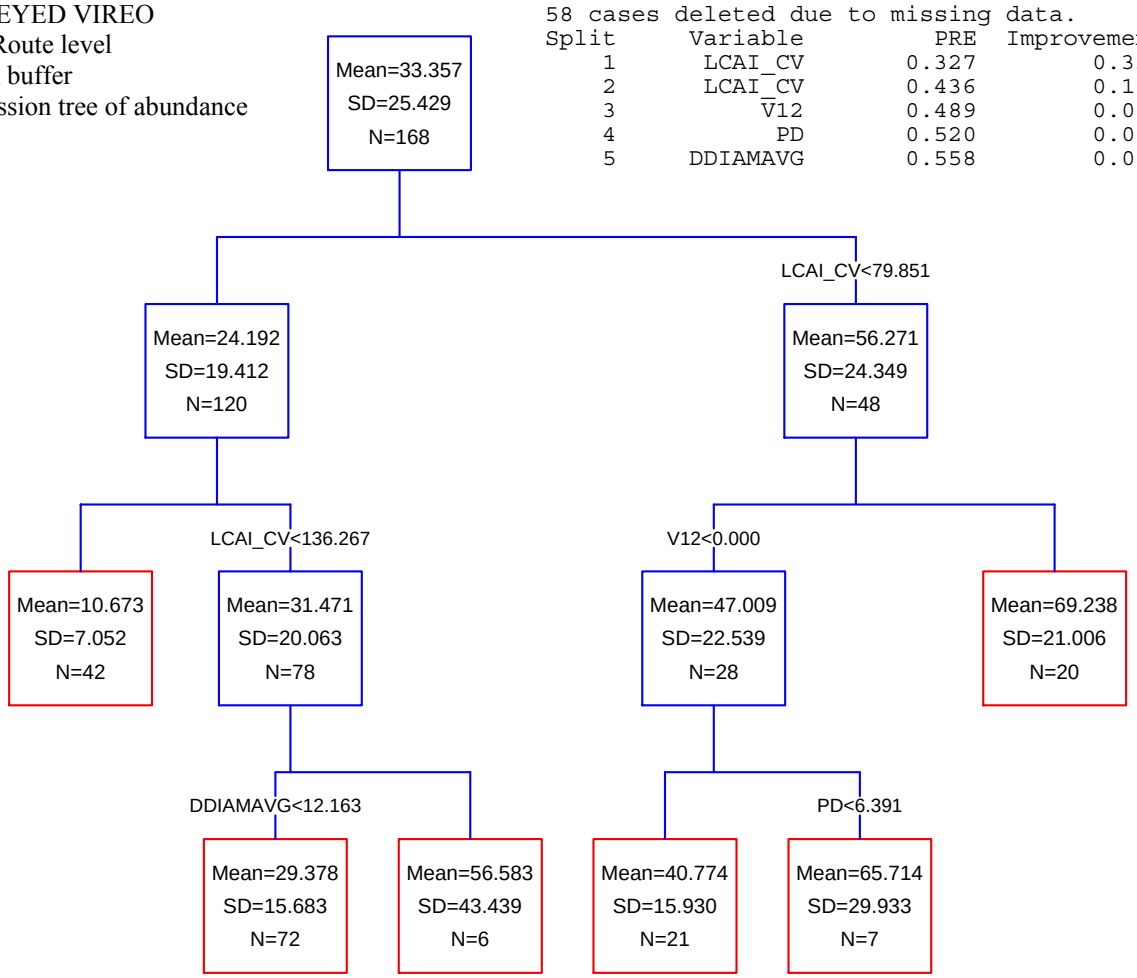
n	LL	K	AICc	ΔAIC	w_i
16	1.108	4	-31.1	0.0	0.580
16	0.889	5	-30.2	0.9	0.381
16	0.866	6	-25.3	5.8	0.033

K4		K5		K6(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
CONPLAND	0.087	CONPLAND	0.082	CONPLAND	0.079
UDIAMAVG	-1.532	V13	350.993	V13	370.941
		UDIAMAVG	-1.332	LANDLPI	-0.002
				UDIAMAVG	-1.243

Mature Forest Canopy
RED-EYED VIREO
BBS Route level
100 m buffer
Regression tree of abundance

58 cases deleted due to missing data.

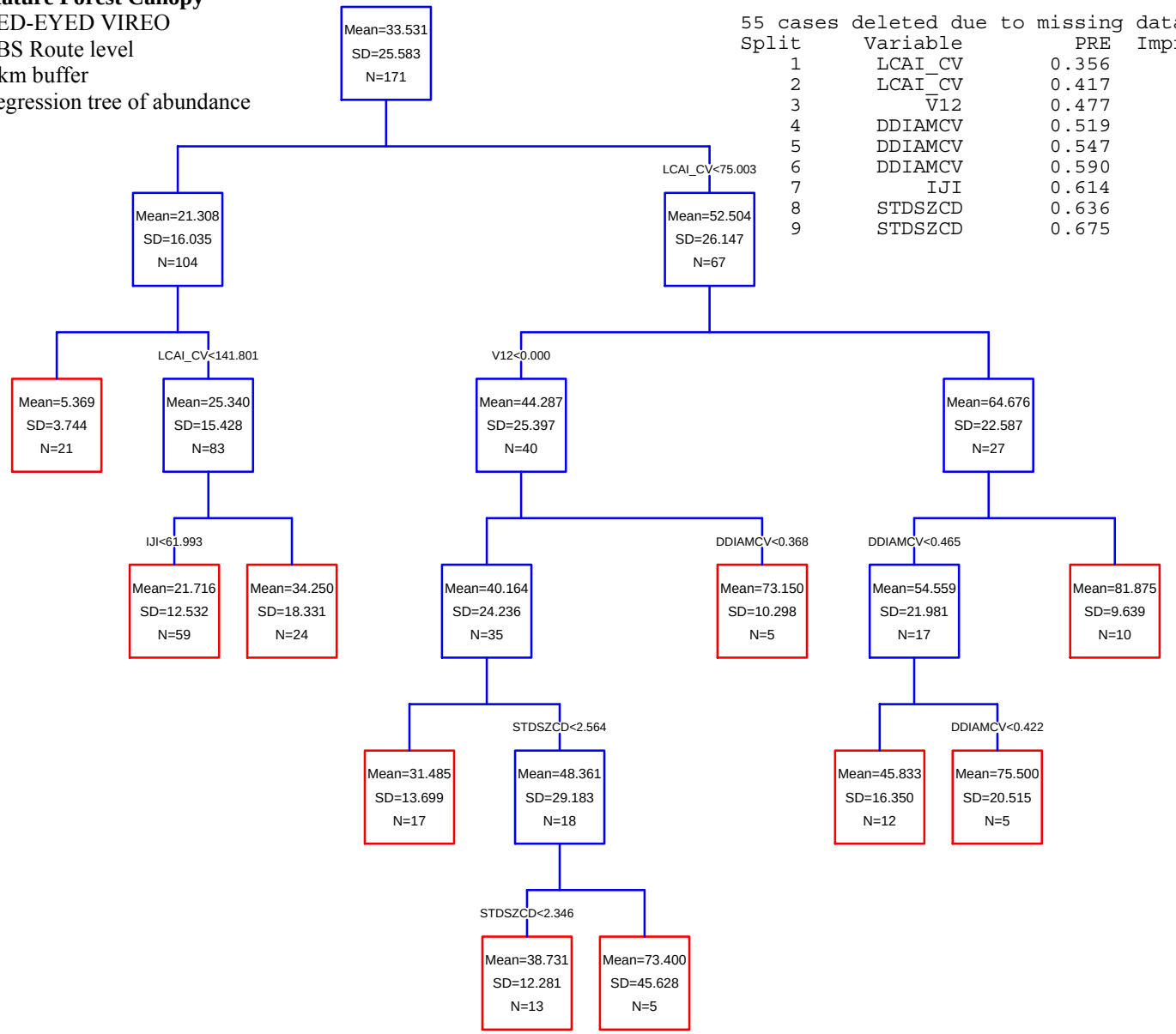
Split	Variable	PRE	Improvement
1	LCAI_CV	0.327	0.327
2	LCAI_CV	0.436	0.109
3	V12	0.489	0.053
4	PD	0.520	0.030
5	DDIAMAVG	0.558	0.038



Mature Forest Canopy
RED-EYED VIREO
BBS Route level
1 km buffer
Regression tree of abundance

55 cases deleted due to missing data.

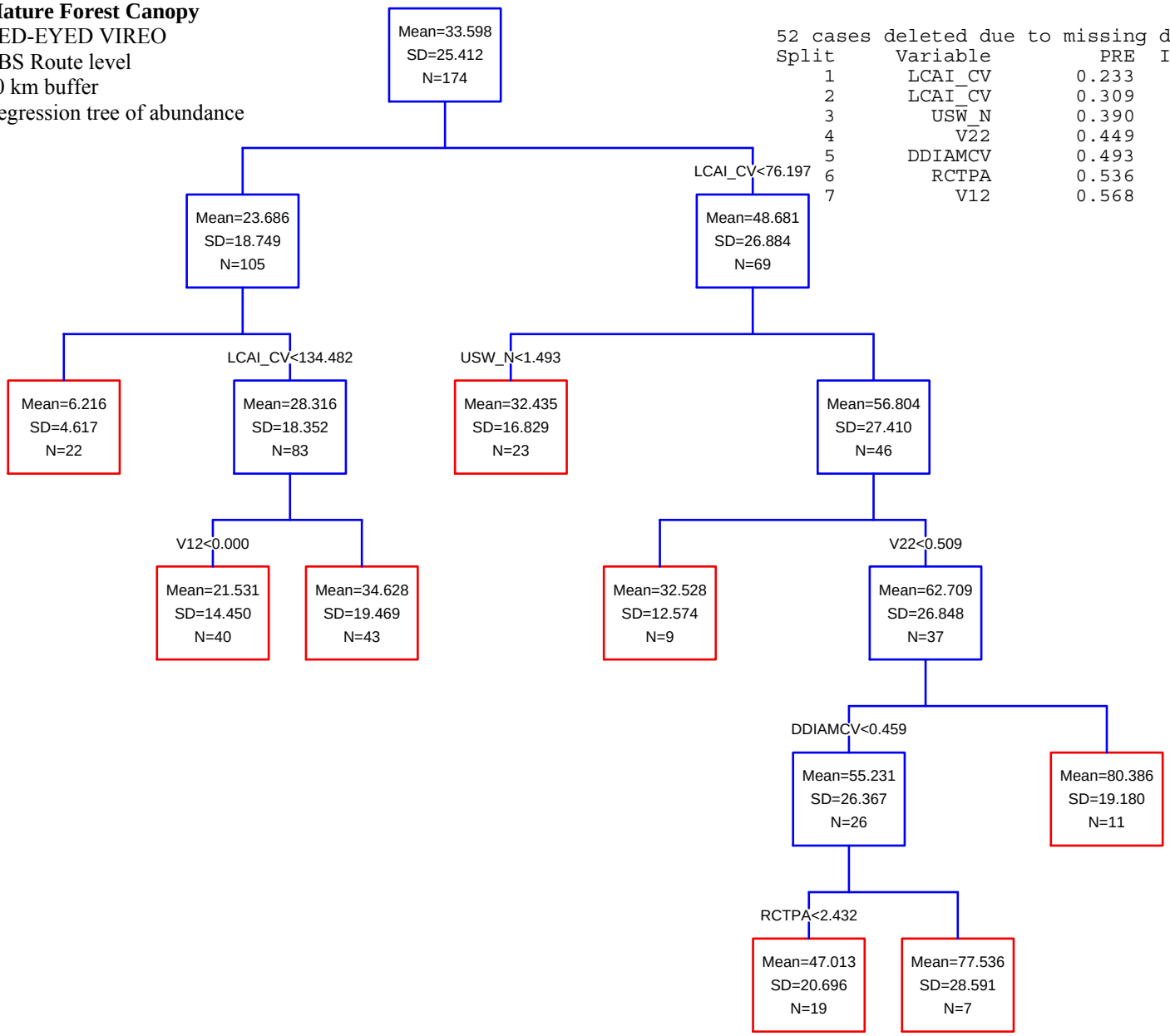
Split	Variable	PRE	Improvement
1	LCAI_CV	0.356	0.356
2	LCAI_CV	0.417	0.060
3	V12	0.477	0.060
4	DDIAMCV	0.519	0.042
5	DDIAMCV	0.547	0.028
6	DDIAMCV	0.590	0.043
7	IJI	0.614	0.024
8	STDSZCD	0.636	0.022
9	STDSZCD	0.675	0.039



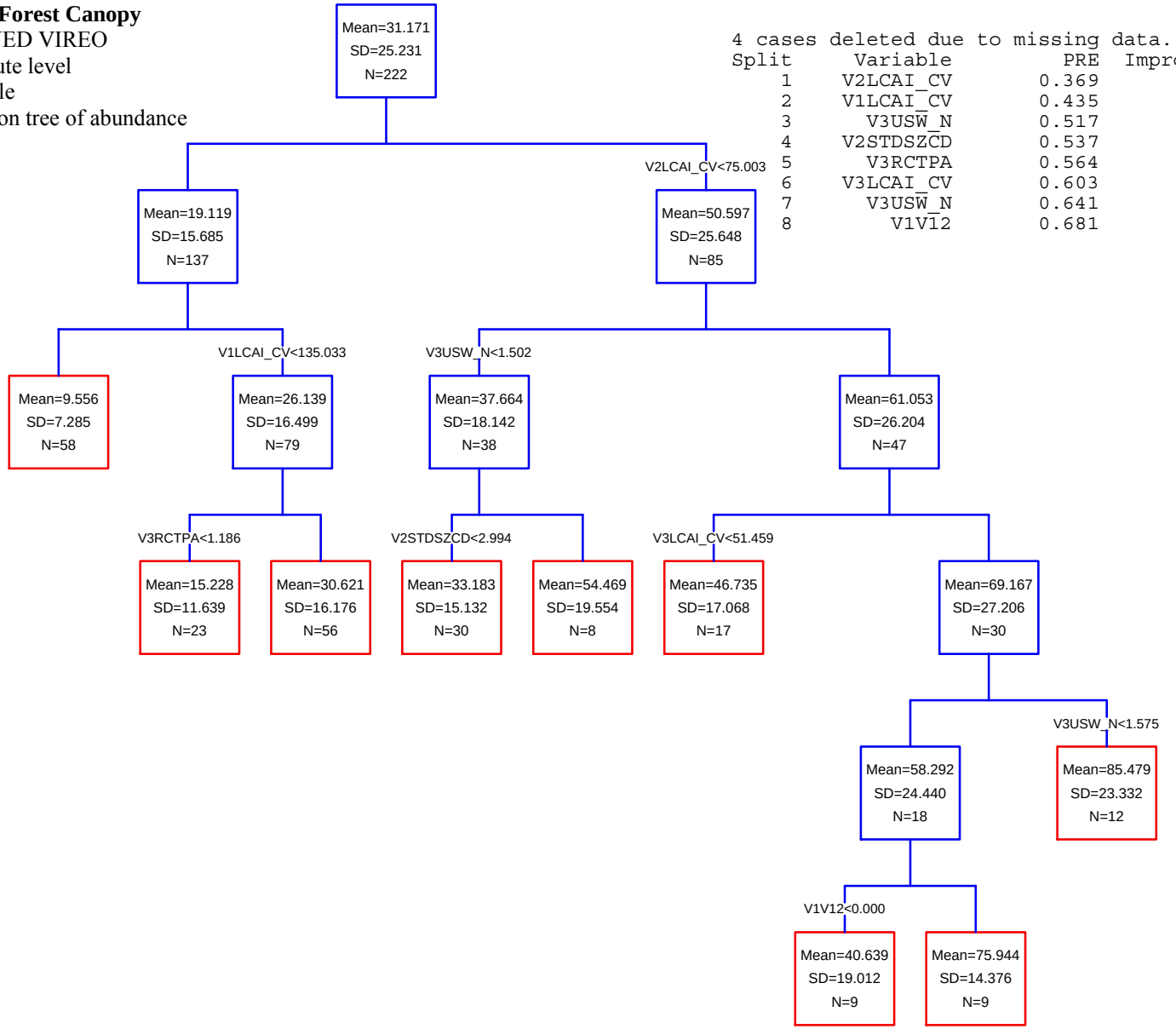
Mature Forest Canopy
RED-EYED VIREO
BBS Route level
10 km buffer
Regression tree of abundance

52 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_CV	0.233	0.233
2	LCAI_CV	0.309	0.076
3	USW_N	0.390	0.082
4	V22	0.449	0.059
5	DDIAMCV	0.493	0.044
6	RCTPA	0.536	0.043
7	V12	0.568	0.032



Mature Forest Canopy
RED-EYED VIREO
BBS Route level
Multiscale
Regression tree of abundance

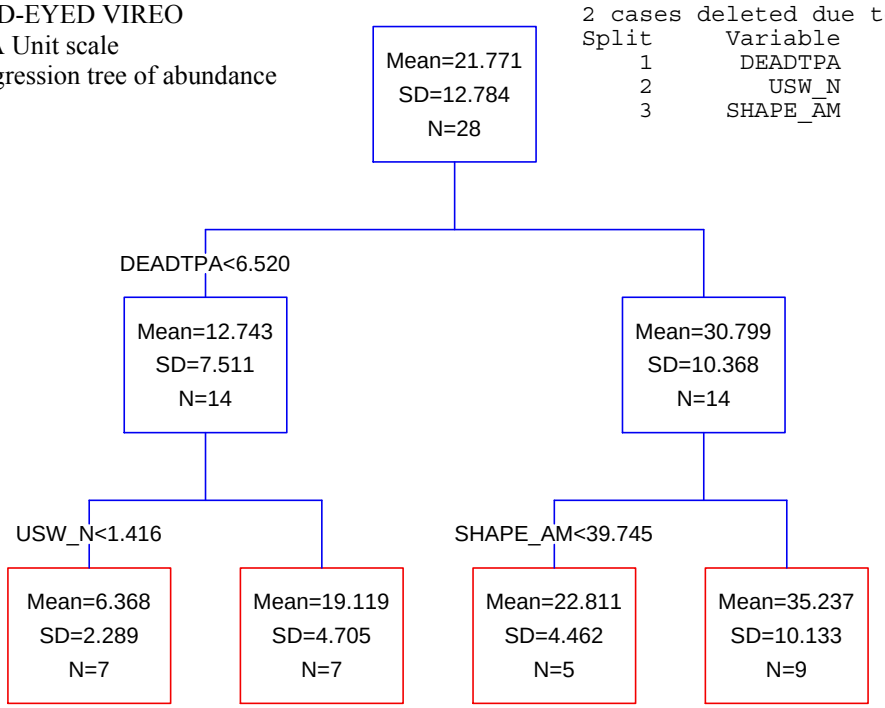


4 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2LCAI_CV	0.369	0.369
2	V1LCAI_CV	0.435	0.065
3	V3USW_N	0.517	0.082
4	V2STDSZCD	0.537	0.020
5	V3RCTPA	0.564	0.027
6	V3LCAI_CV	0.603	0.039
7	V3USW_N	0.641	0.038
8	V1V12	0.681	0.040

Mature Forest Canopy
RED-EYED VIREO
FIA Unit scale
Regression tree of abundance

```
2 cases deleted due to missing data.
Split     Variable          PRE   Improvement
    1      DEADTPA        0.517         0.517
    2        USW_N        0.646         0.129
    3     SHAPE_AM        0.759         0.112
```

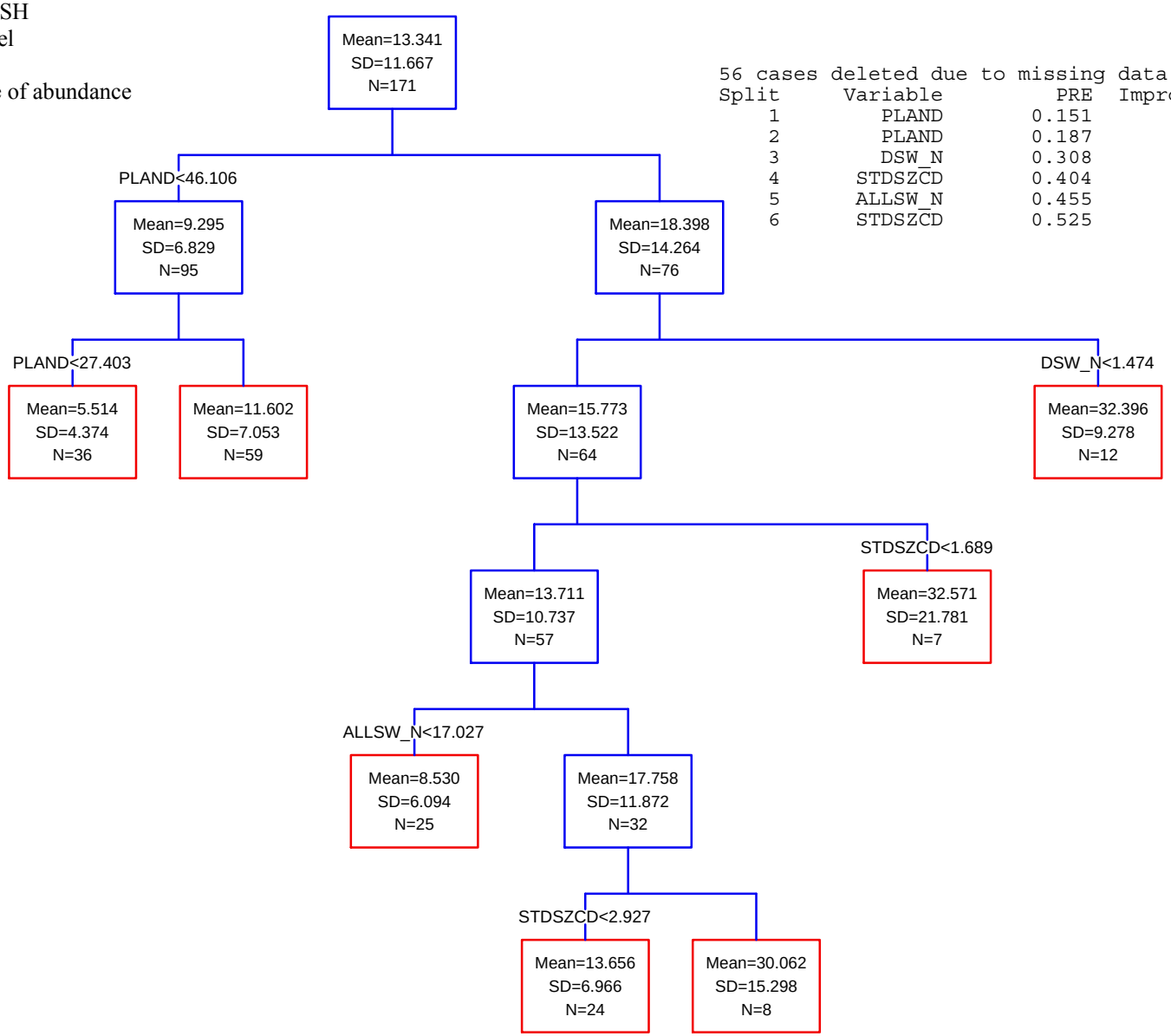


Mature Forest Canopy
RED-EYED VIREO
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	1.842	3	-26.6	0.0	0.686
16	1.618	4	-25.0	1.6	0.314

K3		K4(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
DRCTPA	0.160	IJI	0.017
		DRCTPA	0.140

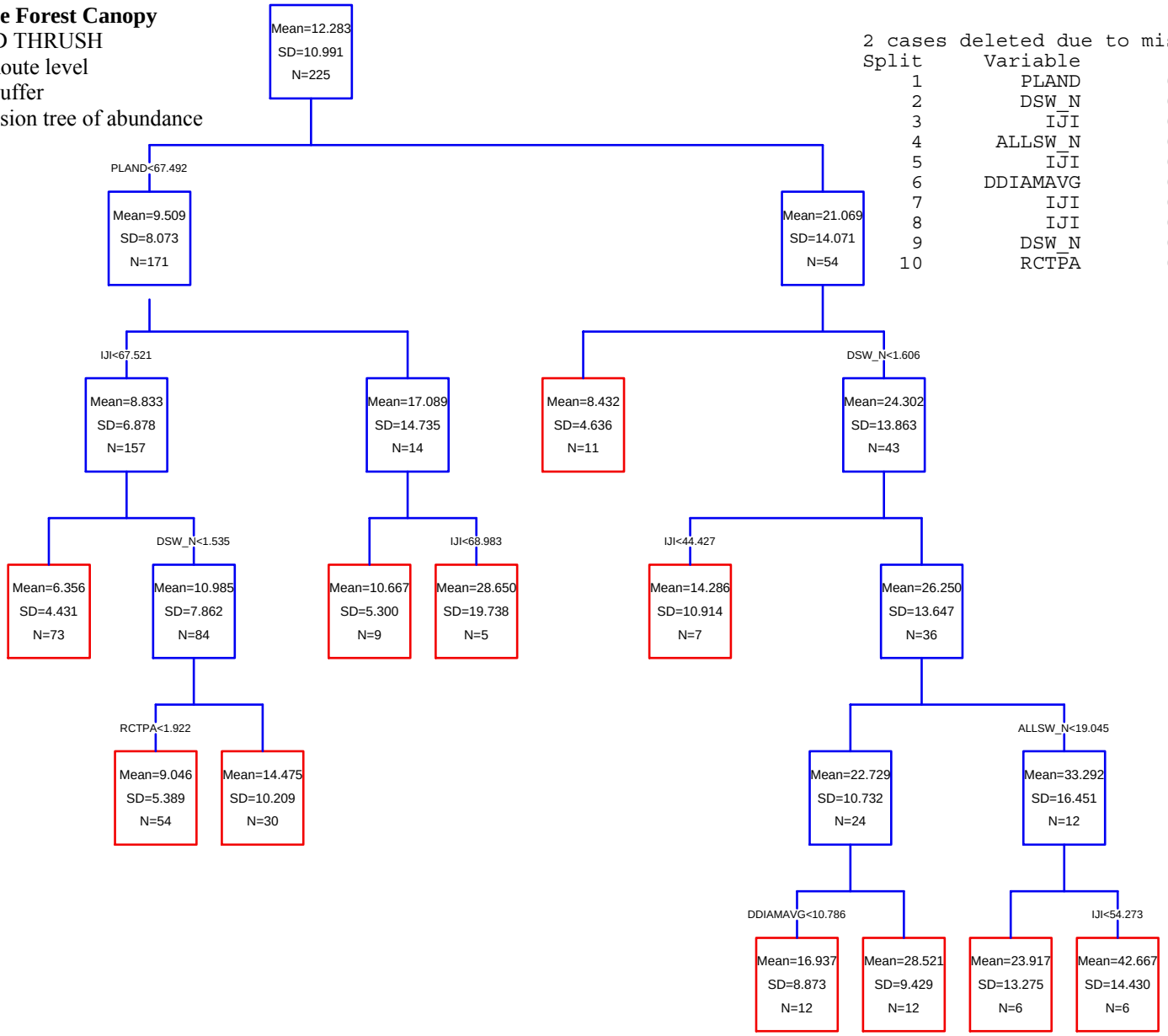
Mature Forest Canopy
WOOD THRUSH
BBS Route level
100 m buffer
Regression tree of abundance



56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.151	0.151
2	PLAND	0.187	0.036
3	DSW_N	0.308	0.121
4	STDSZCD	0.404	0.096
5	ALLSW_N	0.455	0.052
6	STDSZCD	0.525	0.070

Mature Forest Canopy
WOOD THRUSH
BBS Route level
1 km buffer
Regression tree of abundance



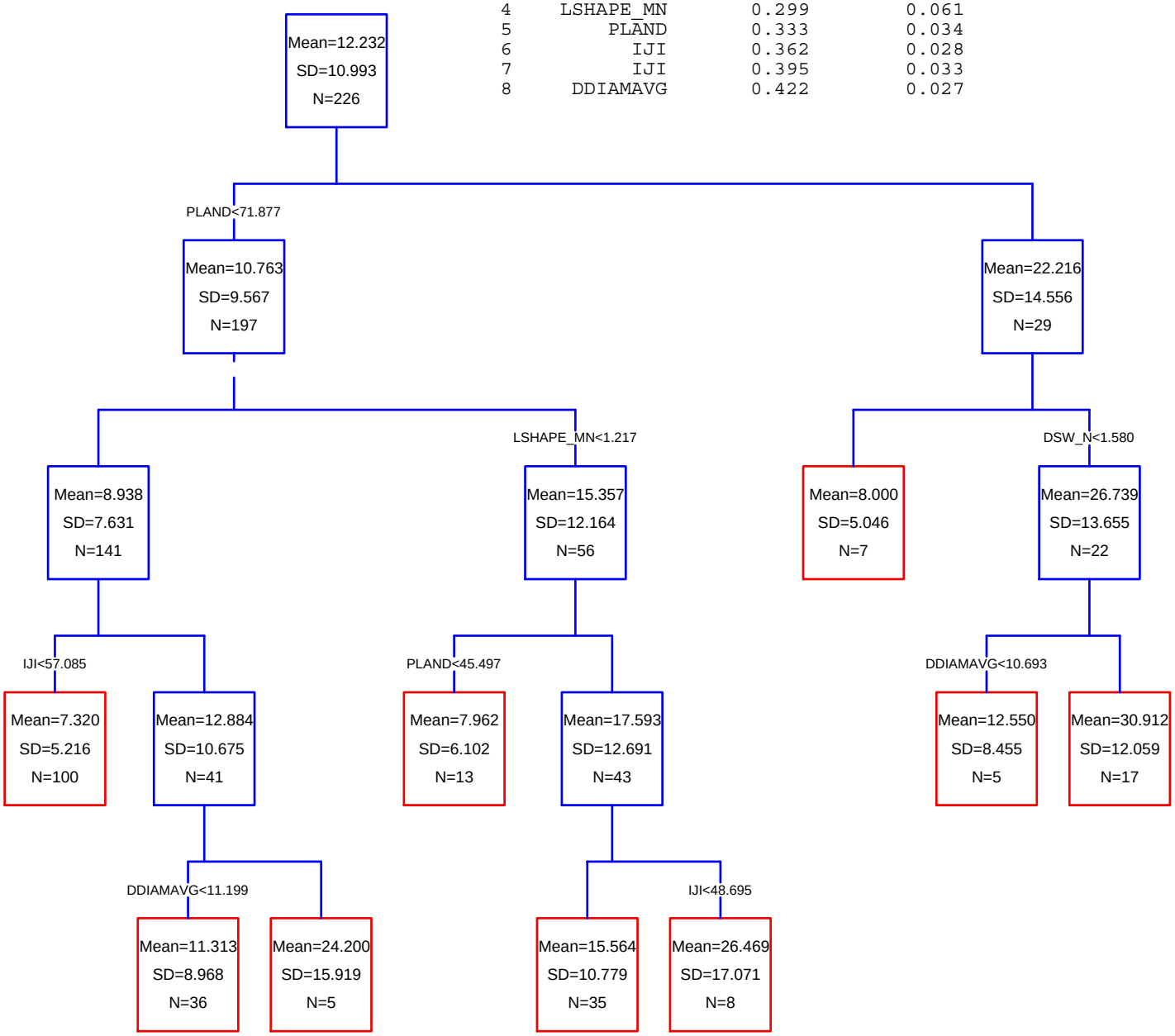
2 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.203	0.203
2	DSW_N	0.284	0.082
3	IJI	0.315	0.031
4	ALLSW_N	0.348	0.033
5	IJI	0.387	0.039
6	DDIAMAVG	0.417	0.030
7	IJI	0.449	0.032
8	IJI	0.488	0.038
9	DSW_N	0.519	0.031
10	RCTPA	0.540	0.021

Mature Forest Canopy
WOOD THRUSH
BBS Route level
10 km buffer
Regression tree of abundance

1 cases deleted due to missing data.

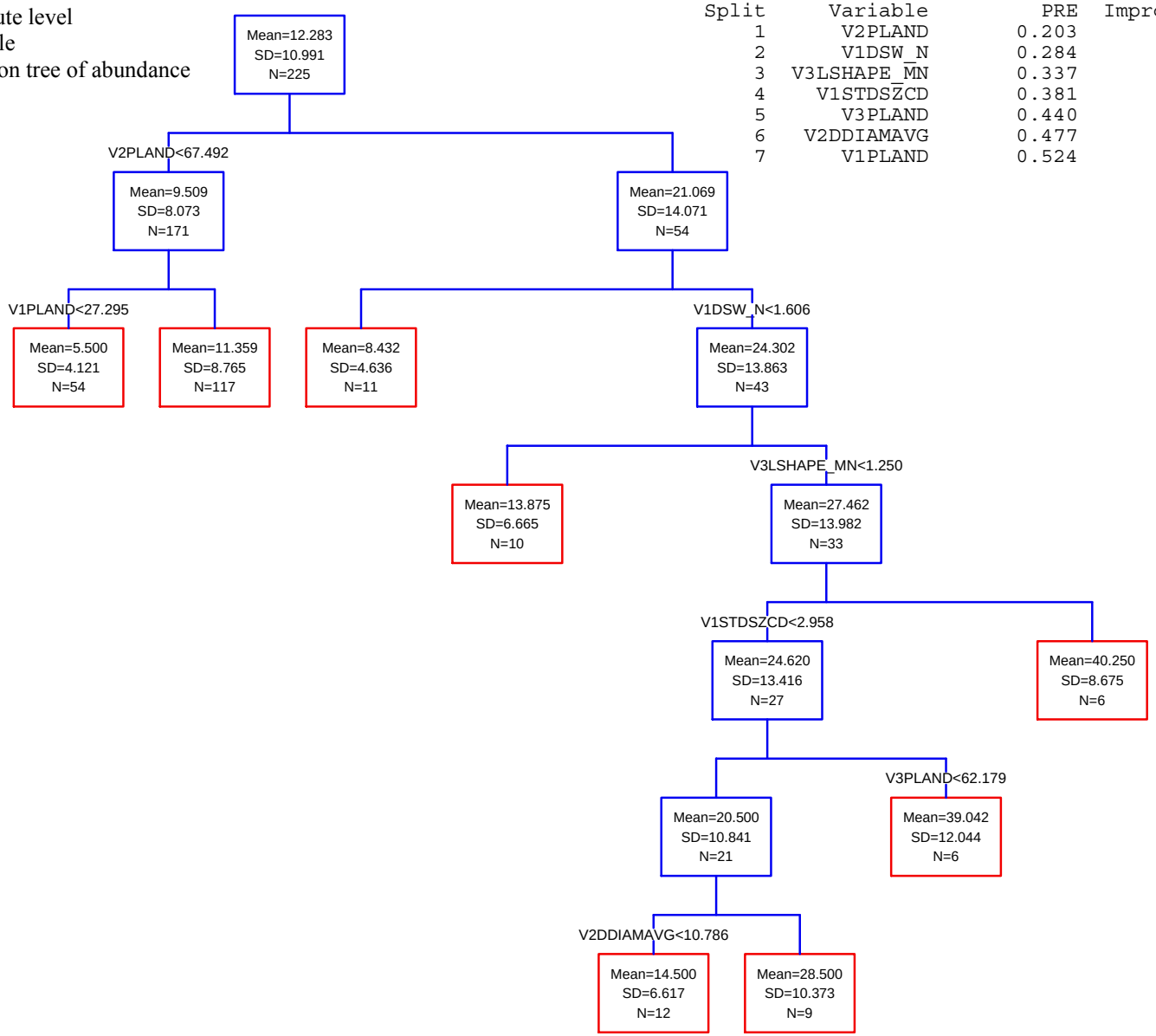
Split	Variable	PRE	Improvement
1	PLAND	0.122	0.122
2	DSW_N	0.191	0.069
3	DDIAMAVG	0.238	0.048
4	LSHAPE_MN	0.299	0.061
5	PLAND	0.333	0.034
6	IJI	0.362	0.028
7	IJI	0.395	0.033
8	DDIAMAVG	0.422	0.027



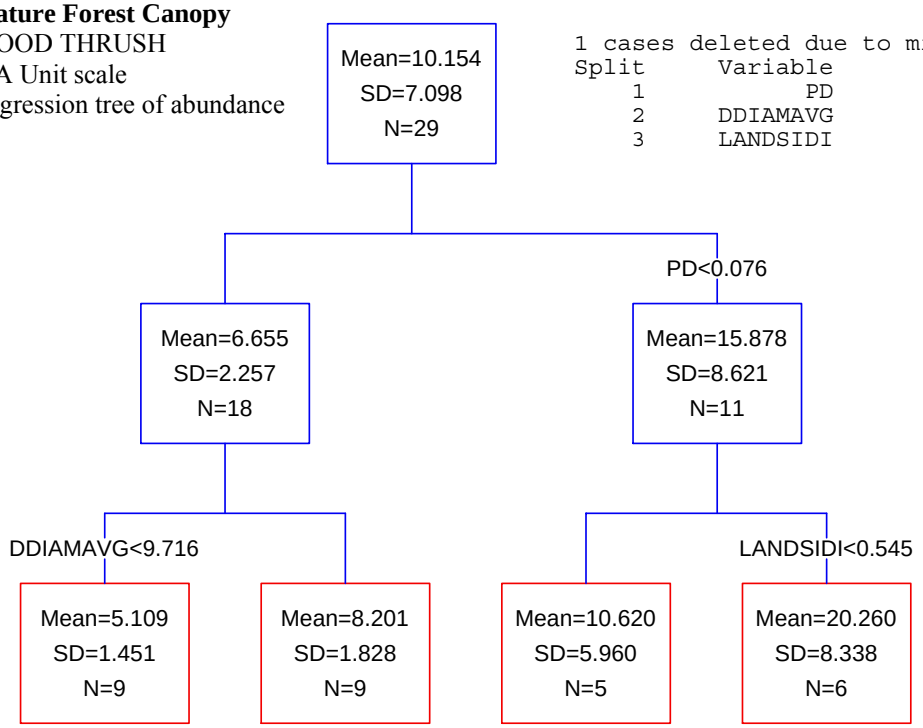
Mature Forest Canopy
WOOD THRUSH
BBS Route level
Multiscale
Regression tree of abundance

2 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2PLAND	0.203	0.203
2	V1DSW_N	0.284	0.082
3	V3LSHAPE_MN	0.337	0.052
4	V1STDSZCD	0.381	0.044
5	V3PLAND	0.440	0.059
6	V2DDIAMAVG	0.477	0.037
7	V1PLAND	0.524	0.047



Mature Forest Canopy
WOOD THRUSH
FIA Unit scale
Regression tree of abundance




```
1 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1           PD        0.412        0.412
    2     DDIAMAVG        0.442        0.030
    3     LANDSIDI        0.622        0.180
```

Mature Forest Canopy
WOOD THRUSH
Physiographic section scale
GLM of abundance

Parameter	Coefficient
CONSTANT	-0.448
DDIAMAVG	0.274

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
159	-42.65	9	104.5	0.0	0.302
159	-41.878	10	105.2	0.7	0.209
159	-42.319	10	106.1	1.6	0.135
159	-44.612	8	106.2	1.7	0.131
159	-41.203	11	106.2	1.7	0.129
159	-34.01	20	114.1	9.6	0.002

K9

Parameter	Estimate
CONSTANT	-19.913
DOMTPA	0.051
ALLHTAVG	-0.161
UDIAMAVG	4.041
UDIAMCV	9.468
V24	65.552
V25	266.239
PLAND	0.053

K10

Parameter	Estimate
CONSTANT	-17.918
DOMTPA	0.051
ALLHTAVG	-0.168
UDIAMAVG	3.811
UDIAMCV	9.631
ALLSW_N	-0.089
V24	65.939
V25	274.766
PLAND	0.061

K10

Parameter	Estimate
CONSTANT	-19.291
PLAND	0.059
ALLHTAVG	-0.157
V22	1.316
UDIAMAVG	3.893
V24	61.963
DOMTPA	0.044
UDIAMCV	8.973
V25	256.392

K8

Parameter	Estimate
CONSTANT	-20.892
DOMTPA	0.058
ALLHTAVG	-0.158
UDIAMAVG	3.973
UDIAMCV	10.611
V24	62.855
PLAND	0.056

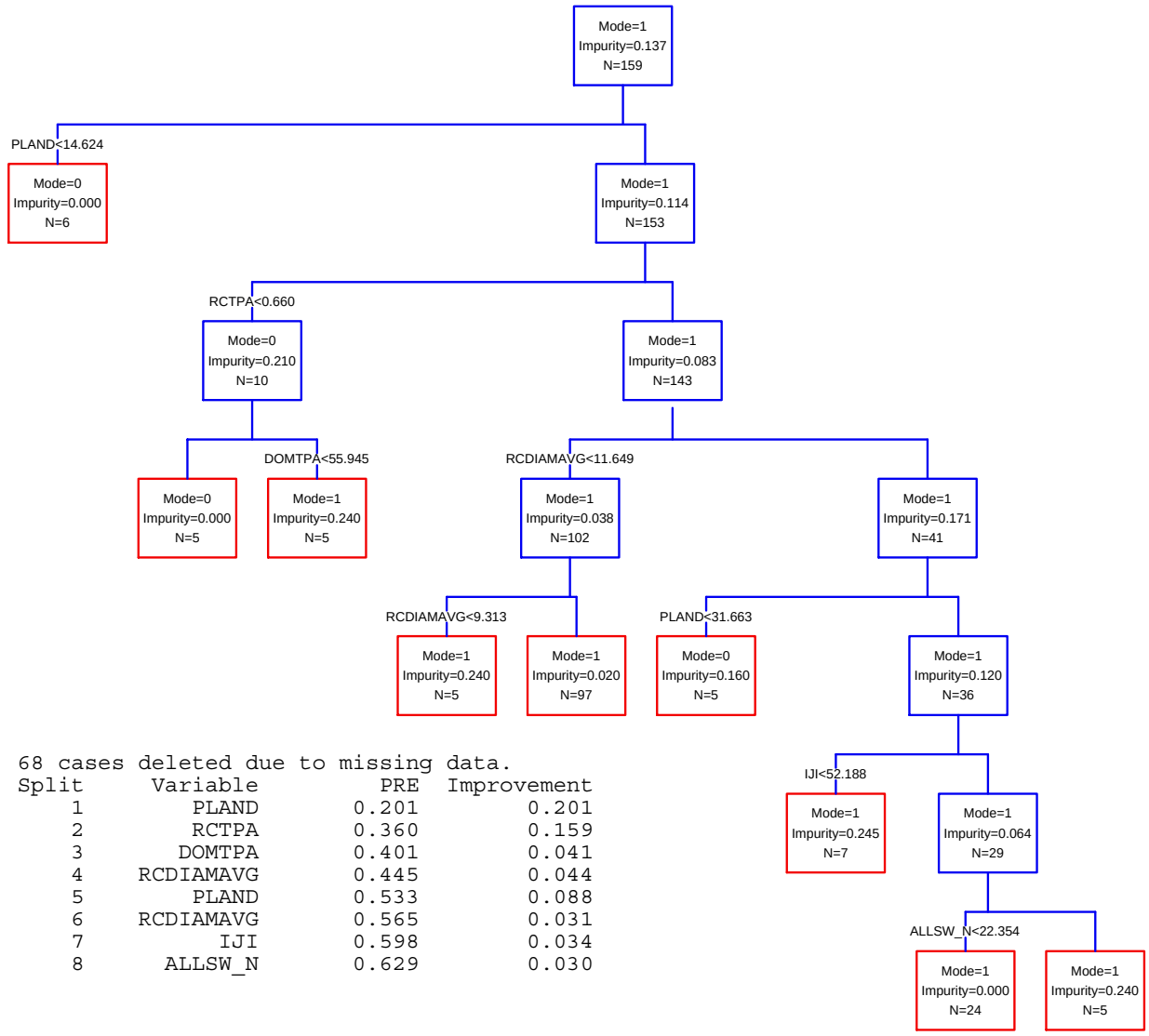
K11

Parameter	Estimate
CONSTANT	-14.608
DOMTPA	0.051
ALLHTAVG	-0.179
UDIAMAVG	3.361
DDIAMCV	-6.45
UDIAMCV	11.093
ALLSW_N	-0.09
V24	80.737
V25	306.194
PLAND	0.059

GLOBAL (K20)

Parameter	Estimate
CONSTANT	-12.12
DOMTPA	0.053
RCTPA	-0.155
ALLHTAVG	-0.209
UDIAMAVG	2.717
RCDIAMAVG	-0.103
DDIAMCV	-13.922
UDIAMCV	9.345
ALLSW_N	-0.19
DSW_N	-3.097
V19	-46.303
V21	-30.405
V22	2.854
V24	91.064
V25	315.658
V31	8821.551
PLAND	0.047
IJI	0.068
LSHAPE_CV	0.192

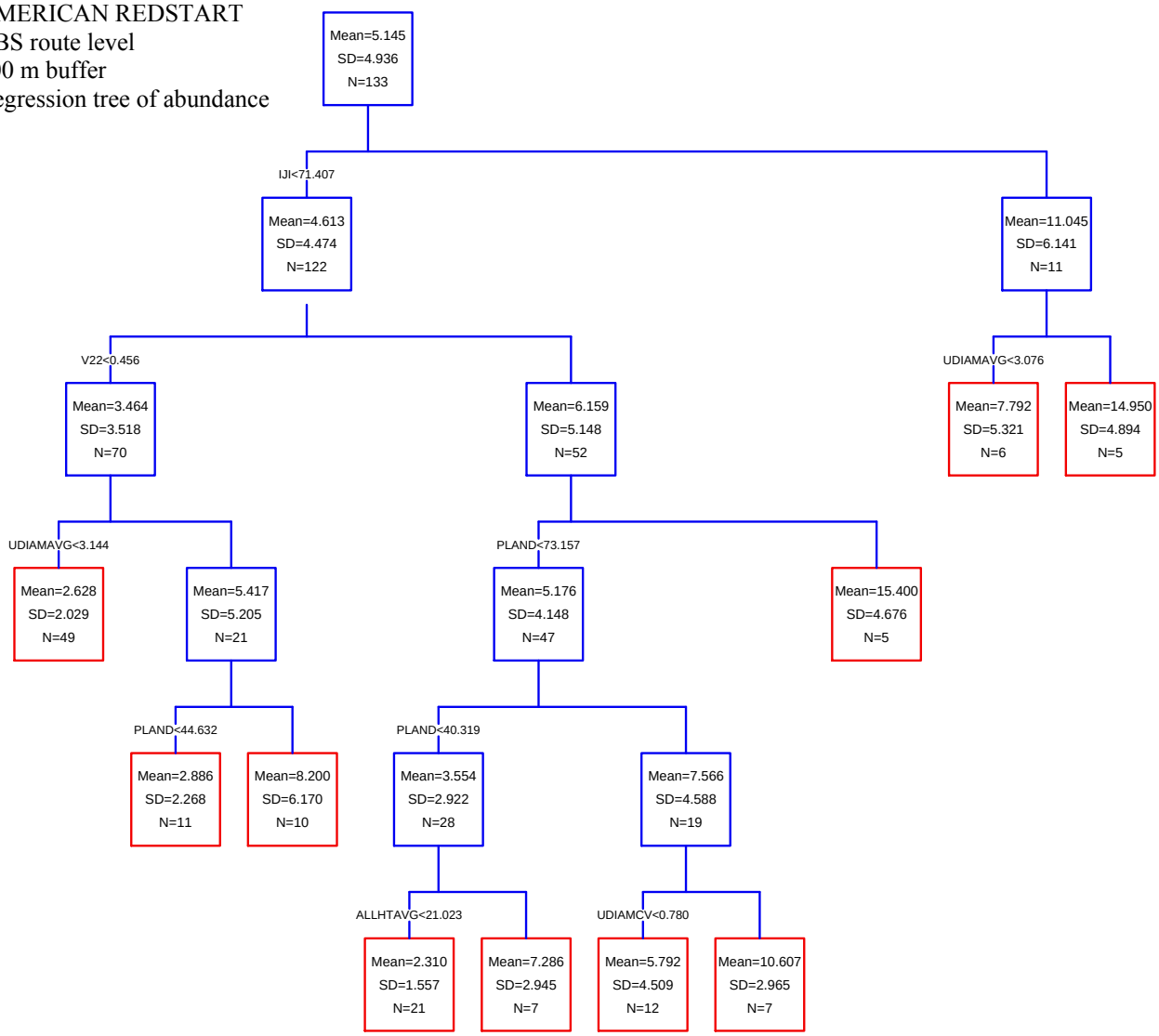
Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
100 m buffer
Classification tree of presence-absence



68 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.201	0.201
2	RCTPA	0.360	0.159
3	DOMTPA	0.401	0.041
4	RCDIAMAVG	0.445	0.044
5	PLAND	0.533	0.088
6	RCDIAMAVG	0.565	0.031
7	IJI	0.598	0.034
8	ALLSW_N	0.629	0.030

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
100 m buffer
Regression tree of abundance



16 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	IJI	0.130	0.130
2	UDIAMAVG	0.173	0.043
3	V22	0.241	0.067
4	PLAND	0.387	0.147
5	PLAND	0.444	0.057
6	ALLHTAVG	0.485	0.040
7	UDIAMCV	0.516	0.032
8	UDIAMAVG	0.552	0.036
9	PLAND	0.598	0.046

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
200	-45.533	16	126.0	0.0	0.204
200	-49.365	13	126.7	0.7	0.147
200	-51.776	11	127.0	1.0	0.129
200	-50.79	12	127.2	1.2	0.111
200	-45.214	17	127.8	1.8	0.085
200	-44.58	24	144.0	18.0	0.000

K16

Parameter	Estimate
CONSTANT	-20.196
STDAGE	-0.035
DEADTPA	0.235
UDIAMAVG	2.62
RCDIAMAVG	-0.235
DEADDIAMAVG	0.15
DDIAMCV	0.686
ALLSW_N	-0.194
DSW_N	-5.313
V21	1.7
V22	5.29
V25	306.688
PLAND	0.078
SHAPE_MN	14.406
LANDLSI	0.049

K13

Parameter	Estimate
CONSTANT	-19.792
PLAND	0.063
V22	4.716
SHAPE_MN	12.577
UDIAMAVG	3.082
DEADTPA	0.172
STDAGE	-0.026
V24	21.625
V25	310.272
DSW_N	-4.789
ALLSW_N	-0.131
V31	483.687

K11

Parameter	Estimate
CONSTANT	-21.454
DEADTPA	0.194
UDIAMAVG	2.178
RCDIAMAVG	-0.288
ALLSW_N	-0.174
DSW_N	-4.668
V22	4.249
V25	298.717
PLAND	0.057
SHAPE_MN	18.456

K12

Parameter	Estimate
CONSTANT	-19.2
STDAGE	-0.025
DEADTPA	0.235
UDIAMAVG	2.282
RCDIAMAVG	-0.226
ALLSW_N	-0.177
DSW_N	-4.466
V22	4.614
V25	298.402
PLAND	0.062
SHAPE_MN	16.04

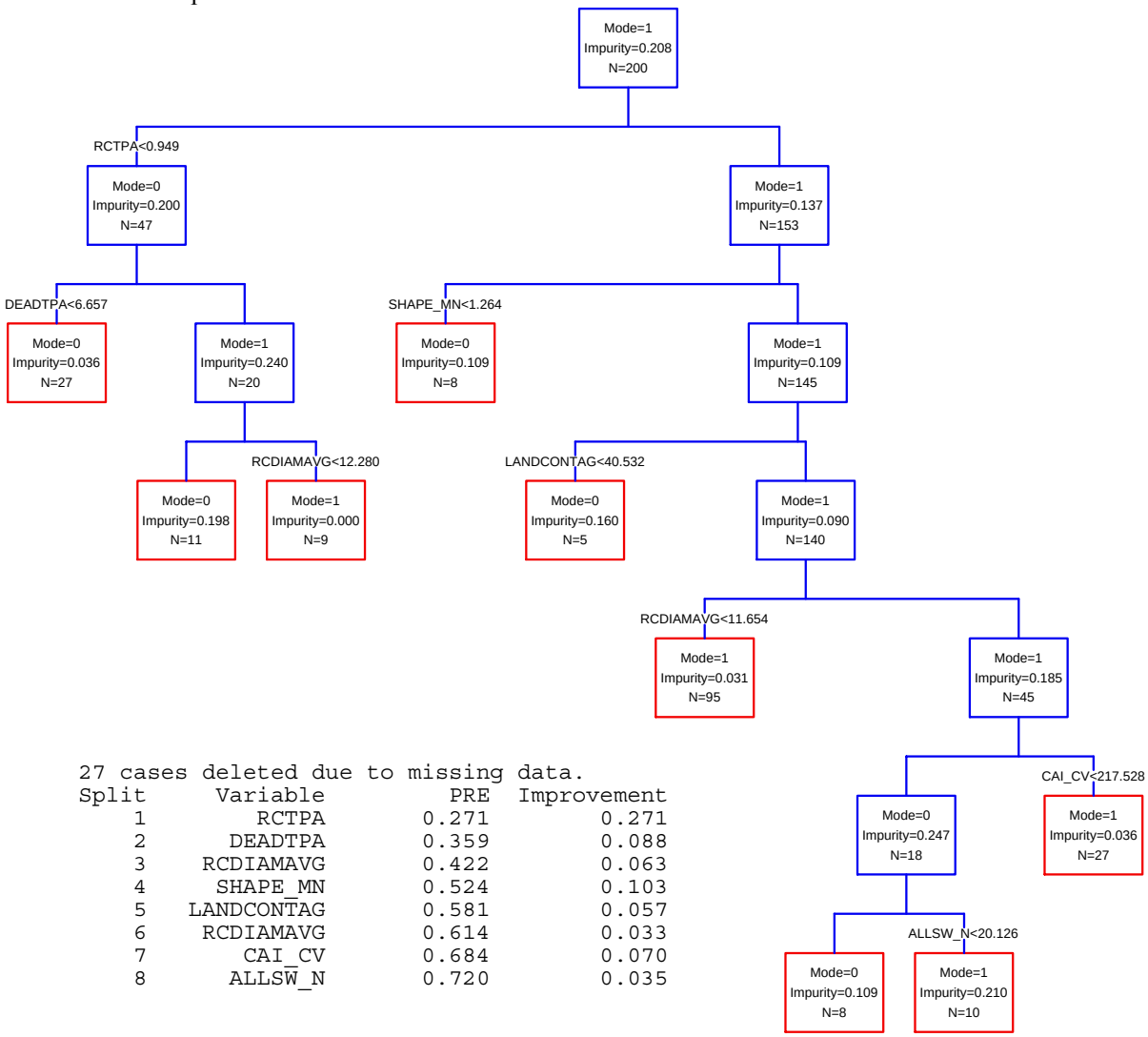
K17

Parameter	Estimate
CONSTANT	-14.706
STDAGE	-0.029
DEADTPA	0.213
UDIAMAVG	1.77
RCDIAMAVG	-0.283
DEADDIAMAVG	0.133
DDIAMCV	-4.608
ALLSW_N	-0.234
DSW_N	-6.259
V21	-16.203
V22	5.901
V25	335.617
V31	1817.162
PLAND	0.073
SHAPE_MN	16.481
LANDLSI	0.041

GLOBAL (K24)

Parameter	Estimate
CONSTANT	-14.802
STDAGE	-0.031
DEADTPA	0.198
RCTPA	0.202
UDIAMAVG	1.532
RCDIAMAVG	-0.249
DEADDIAMAVG	0.145
DDIAMCV	-5.283
ALLSW_N	-0.252
DSW_N	-5.892
V19	2.398
V21	-18.489
V22	6.052
V24	19.598
V25	367.772
V31	1759.46
PLAND	0.085
SHAPE_MN	16
CAI_CV	0.001
IJI	-0.02
LANDLSI	0.036
LANDCONTAG	-0.008
LANDSHDI	1.452

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
1 km buffer
Classification tree of presence-absence



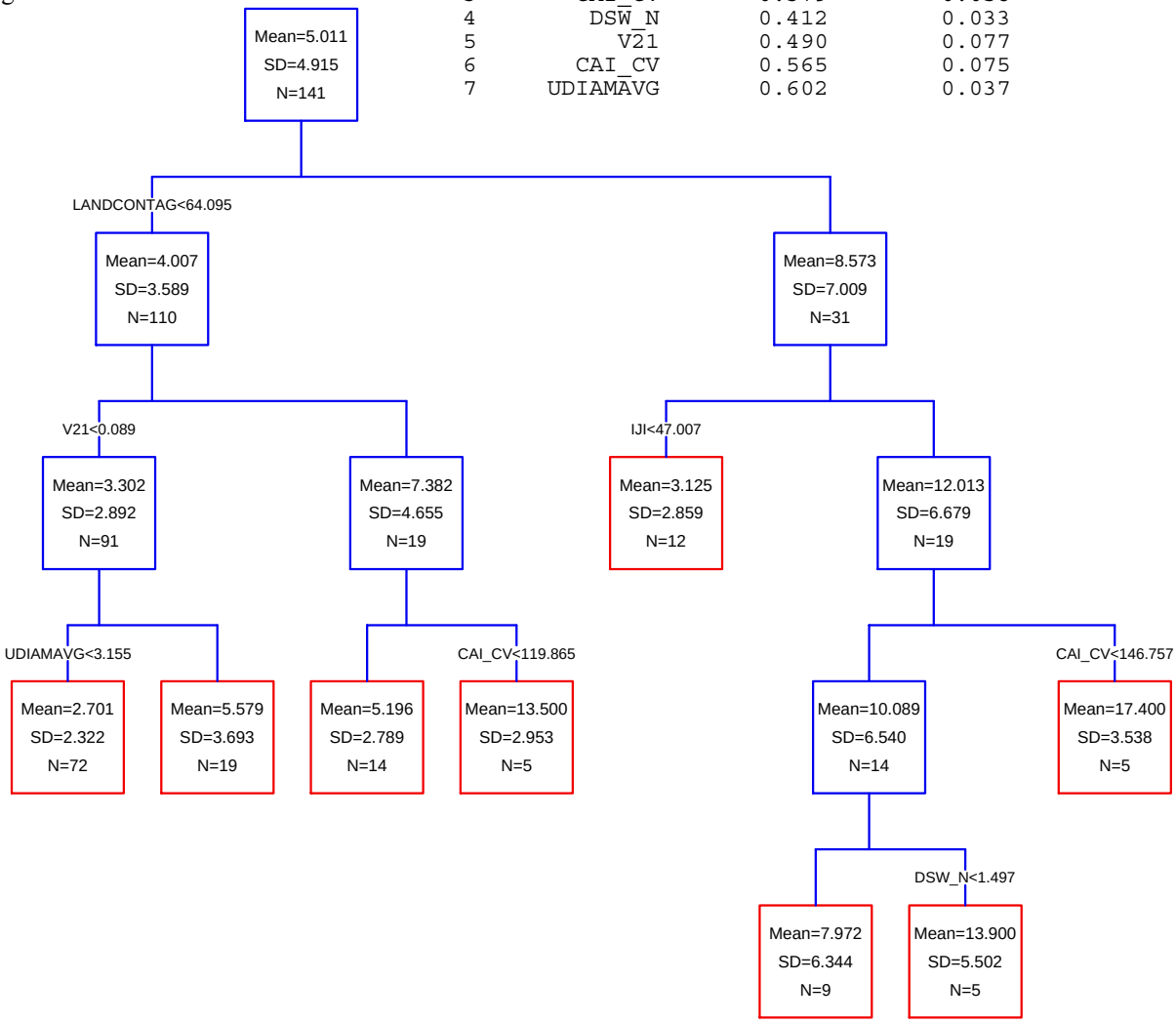
27 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	RCTPA	0.271	0.271
2	DEADTPA	0.359	0.088
3	RCDIAMAVG	0.422	0.063
4	SHAPE_MN	0.524	0.103
5	LANDCONTAG	0.581	0.057
6	RCDIAMAVG	0.614	0.033
7	CAI_CV	0.684	0.070
8	ALLSW_N	0.720	0.035

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
1 km buffer
Regression tree of abundance

8 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LANDCONTAG	0.149	0.149
2	IJI	0.321	0.172
3	CAI_CV	0.379	0.058
4	DSW_N	0.412	0.033
5	V21	0.490	0.077
6	CAI_CV	0.565	0.075
7	UDIAMAVG	0.602	0.037



Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
10 km buffer
Logistic regression of presence-absence

n	SSE	K	AICc	ΔAIC	w_i
202	-58.255	11	139.9	0.0	0.337
202	-59.888	10	140.9	1.0	0.202
202	-57.867	12	141.4	1.5	0.160
202	-56.93	13	141.8	1.9	0.131
202	-55.431	20	155.5	15.6	0.000

K11

Parameter	Estimate
CONSTANT	4.026
DEADTPA	0.239
RCTPA	0.475
UDIAMAVG	2.301
ALLSW_N	-0.275
DSW_N	-7.328
V12	-24.136
V22	5.278
V25	281.368
PLAND	0.062

K10

Parameter	Estimate
CONSTANT	4.026
RCTPA	0.475
V22	5.278
PLAND	0.062
DEADTPA	0.239
ALLSW_N	-0.275
DSW_N	-7.328
V12	-24.136
V25	281.368

K12

Parameter	Estimate
CONSTANT	4.896
DEADTPA	0.257
RCTPA	0.509
UDIAMAVG	2.316
ALLSW_N	-0.271
DSW_N	-7.26
V12	-20.899
V22	5.245
V25	310.884
PLAND	0.064
IJI	-0.027

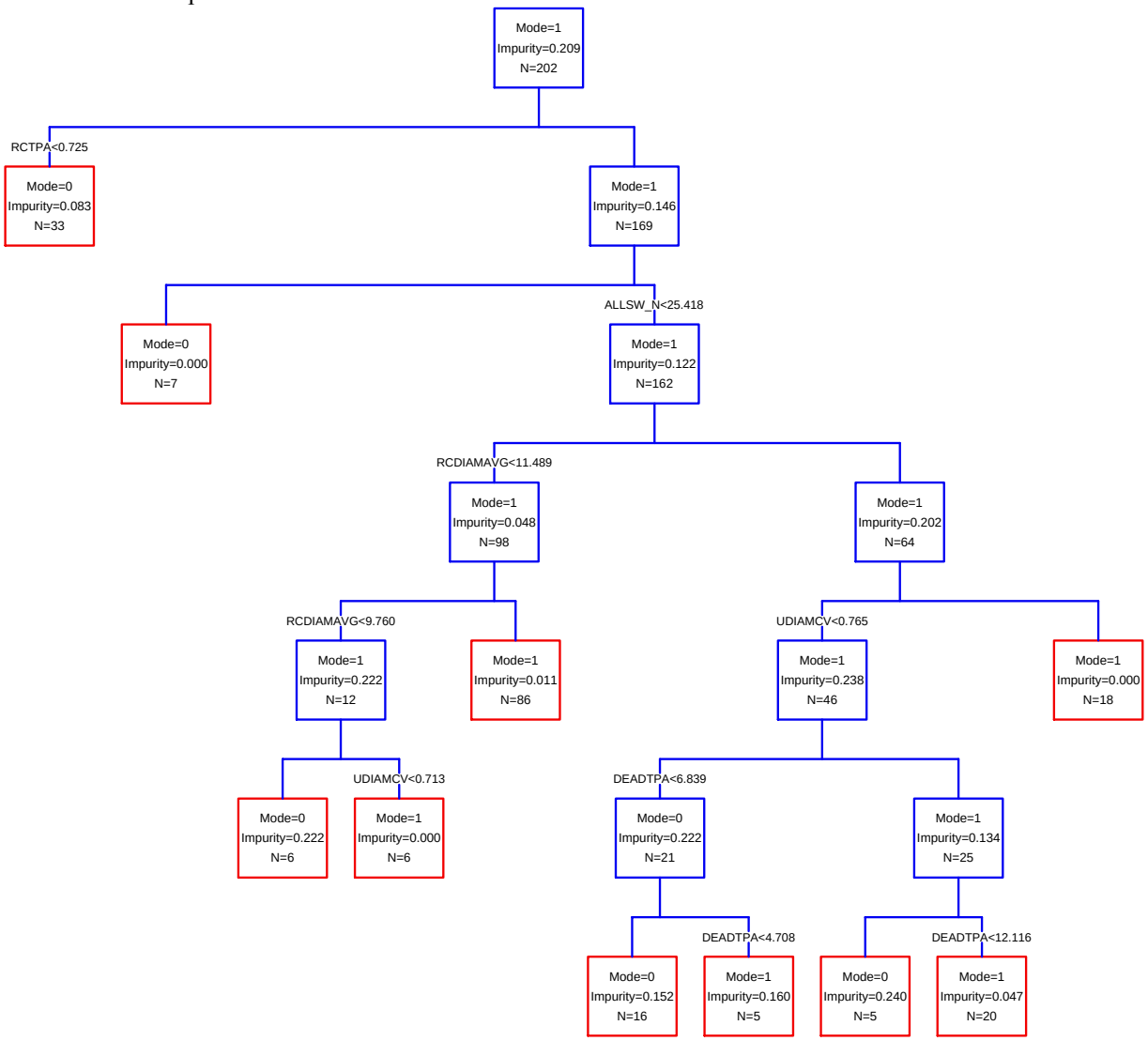
K13

Parameter	Estimate
CONSTANT	1.845
DEADTPA	0.218
RCTPA	0.56
UDIAMAVG	2.666
ALLSW_N	-0.284
DSW_N	-7.735
V12	-21.508
V22	5.358
V25	315.027
PLAND	0.087
IJI	-0.052
LANDSHDI	3.117

GLOBAL(K20)

Parameter	Estimate
CONSTANT	0.465
DEADTPA	0.207
RCTPA	0.544
UDIAMAVG	3.188
RCDIAMAVG	-0.132
DDIAMCV	4.707
UDIAMCV	2.436
ALLSW_N	-0.314
DSW_N	-7.639
V12	-24.6
V19	1.899
V21	-0.423
V22	4.408
V24	25.338
V25	259.016
PLAND	0.085
CAI_CV	-0.001
IJI	-0.05
LANDSHDI	1.864

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
10 km buffer
Classification tree of presence-absence



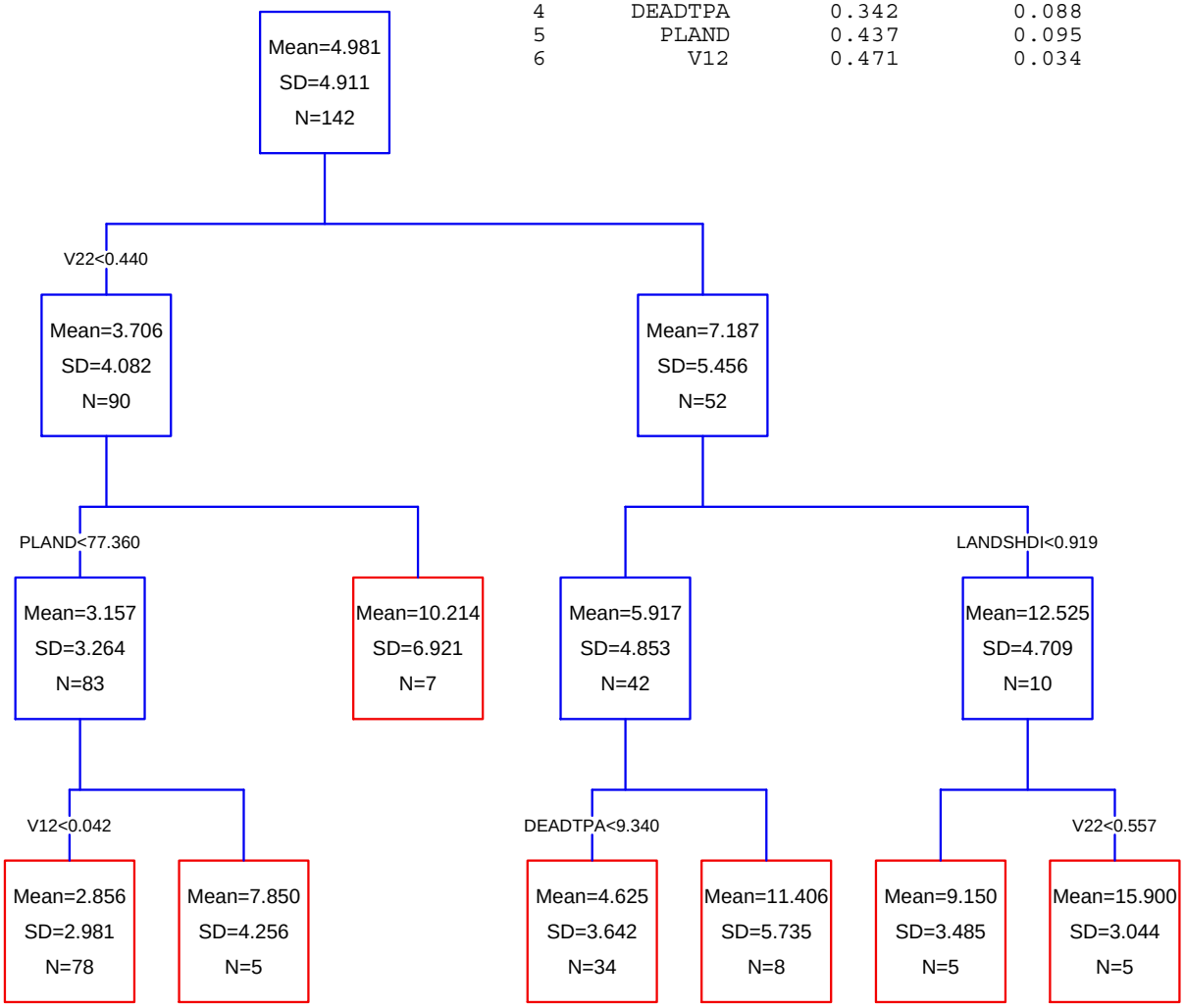
25 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	RCTPA	0.350	0.350
2	ALLSW_N	0.467	0.117
3	RCDIAMAVG	0.516	0.049
4	RCDIAMAVG	0.542	0.026
5	UDIAMCV	0.574	0.032
6	UDIAMCV	0.621	0.047
7	DEADTPA	0.690	0.069
8	DEADTPA	0.719	0.029
9	DEADTPA	0.753	0.034

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
10 km buffer
Regression tree of abundance

7 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V22	0.118	0.118
2	LANDSHDI	0.221	0.104
3	V22	0.255	0.033
4	DEADTPA	0.342	0.088
5	PLAND	0.437	0.095
6	V12	0.471	0.034



Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
Multiscale
Logistic regression of presence-absence

n	SSE	K	AICc	ΔAIC	w_i
159	-27.489	17	93.3	0.0	0.202
159	-28.962	16	93.8	0.5	0.163
159	-26.463	18	93.8	0.5	0.158
159	-25.456	19	94.4	1.1	0.119
159	-30.618	15	94.6	1.3	0.107
159	-31.921	14	94.8	1.5	0.099
159	-25.016	21	98.8	5.5	0.013

K17

Parameter	Estimate
CONSTANT	-47.991
V1DOMTPA	0.111
V1ALLHTAVG	-0.23
V1UDIAMAVG	5.17
V1UDIAMCV	13.468
V1V24	134.342
V2RCDIAMAVG	-0.761
V2DEADDIAMAV	1.394
V2V21	-36.71
V2PLAND	0.093
V2SHAPE_MN	28.615
V2LANDLSI	0.213
V3ALLSW_N	-0.895
V3DSW_N	-9.698
V3V12	-50.275
V3V25	788.559

K16

Parameter	Estimate
CONSTANT	-27.899
V1DOMTPA	0.105
V1ALLHTAVG	-0.201
V1UDIAMAVG	3.635
V1V24	130.012
V2RCDIAMAVG	-0.465
V2DEADDIAMAV	1.196
V2V21	-32.594
V2PLAND	0.083
V2SHAPE_MN	23.837
V2LANDLSI	0.157
V3ALLSW_N	-0.847
V3DSW_N	-9.62
V3V12	-51.761
V3V25	685.488

K18

Parameter	Estimate
CONSTANT	-58.453
V1DOMTPA	0.144
V1ALLHTAVG	-0.183
V1UDIAMAVG	6.541
V1UDIAMCV	23.561
V1V24	123.852
V2STDAGE	-0.072
V2RCDIAMAVG	-0.758
V2DEADDIAMAV	1.55
V2V21	-34.051
V2PLAND	0.098
V2SHAPE_MN	23.056
V2LANDLSI	0.209
V3ALLSW_N	-0.822
V3DSW_N	-7.693
V3V12	-43.636
V3V25	727.479

K19

Parameter	Estimate
CONSTANT	-66.774
V1DOMTPA	0.144
V1ALLHTAVG	-0.149
V1UDIAMAVG	7.436
V1UDIAMCV	22.273
V1V24	109.338
V2STDAGE	-0.081
V2RCDIAMAVG	-0.817
V2DEADDIAMAV	1.812
V2V21	-33.584
V2PLAND	0.109
V2SHAPE_MN	25.824
V2LANDLSI	0.245
V3ALLSW_N	-0.819
V3DSW_N	-8.937
V3V12	-45.609
V3V22	4.359
V3V25	663.52

K15

Parameter	Estimate
CONSTANT	-17.518
V1DOMTPA	0.082
V1ALLHTAVG	-0.189
V1UDIAMAVG	3.737
V1V24	116.229
V2RCDIAMAVG	-0.362
V2V21	-29.079
V2PLAND	0.067
V2SHAPE_MN	20.837
V2LANDLSI	0.151
V3ALLSW_N	-0.697
V3DSW_N	-7.809
V3V12	-37.592
V3V25	681.274

K14

Parameter	Estimate
CONSTANT	-13.343
V1DOMTPA	0.078
V1ALLHTAVG	-0.206
V1UDIAMAVG	3.333
V1V24	122.041
V2V21	-25.145
V2PLAND	0.068
V2SHAPE_MN	15.167
V2LANDLSI	0.122
V3ALLSW_N	-0.643
V3DSW_N	-7.253
V3V12	-36.977
V3V25	616.797

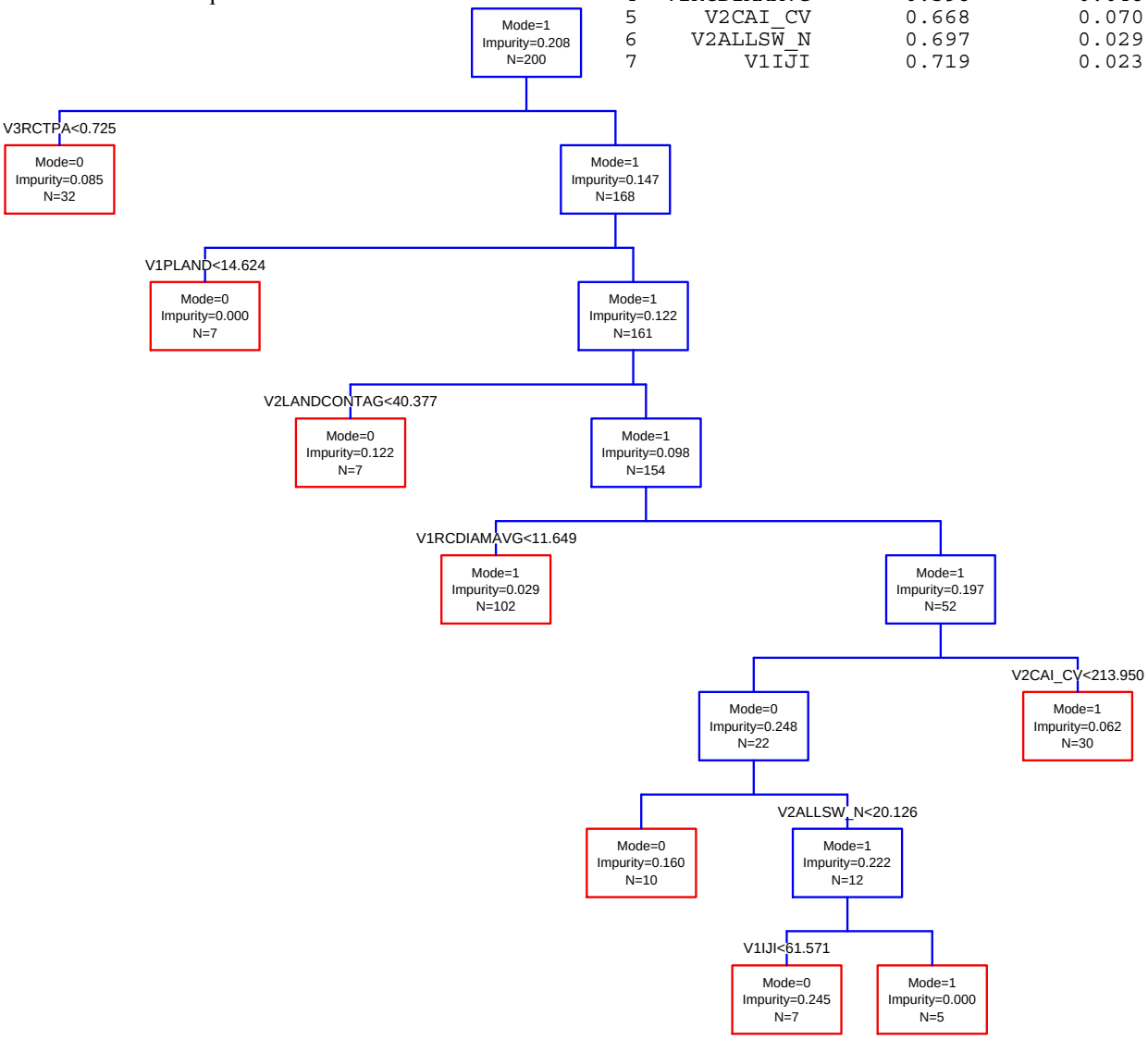
K21(GLOBAL)

Parameter	Estimate
CONSTANT	-61.247
V1DOMTPA	0.124
V1ALLHTAVG	-0.126
V1UDIAMAVG	6.661
V1UDIAMCV	23.369
V1V24	104.018
V2STDAGE	-0.091
V2RCDIAMAVG	-0.743
V2DEADDIAMAV	1.521
V2DDIAMCV	-3.587
V2V21	-28.202
V2PLAND	0.103
V2SHAPE_MN	23.595
V2LANDLSI	0.224
V3DEADTPA	0.177
V3ALLSW_N	-0.744
V3DSW_N	-7.965
V3V12	-35.459
V3V22	5.074
V3V25	601.688

Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
Multiscale
Classification tree of presence-absence

27 cases deleted due to missing data.

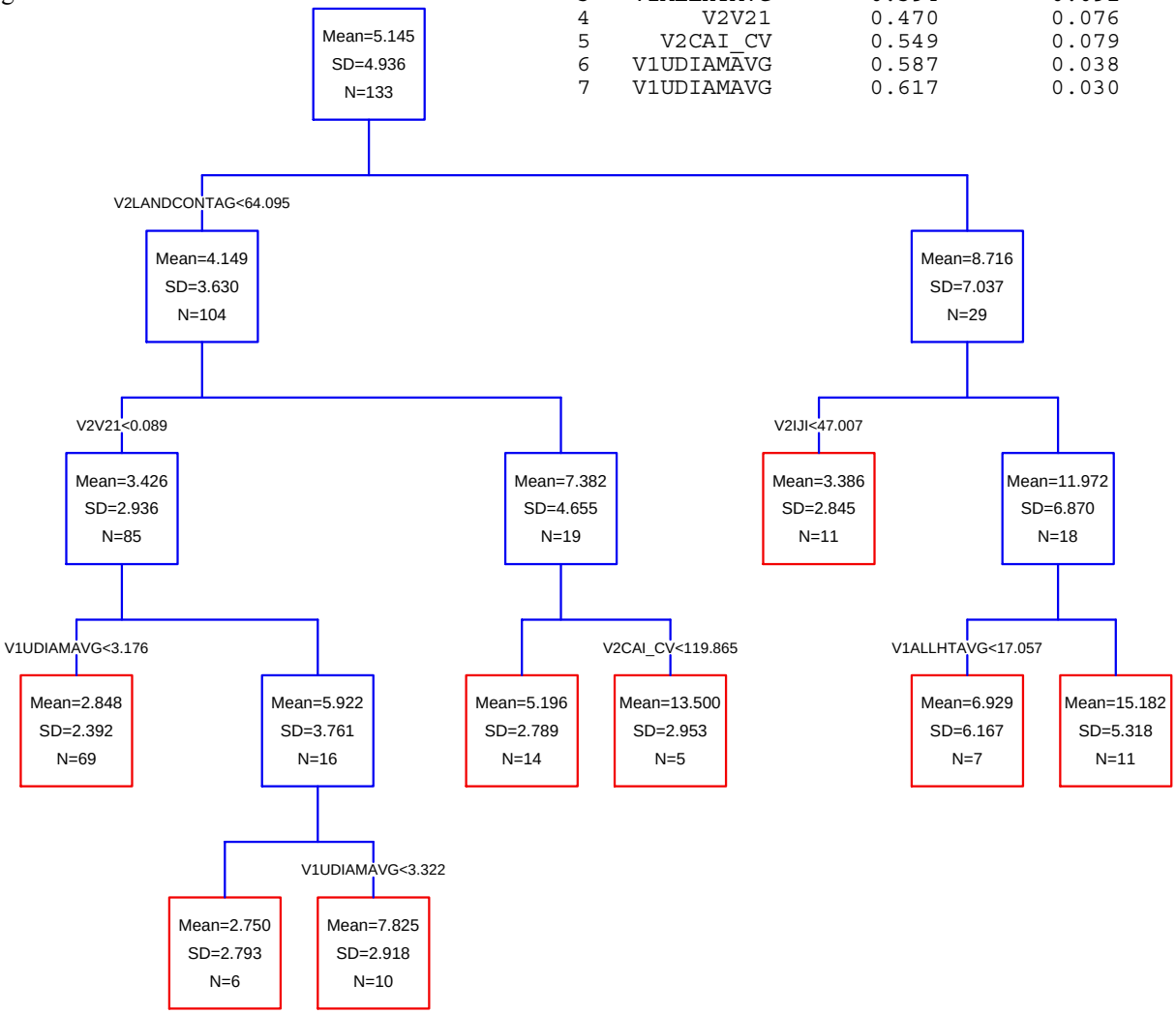
Split	Variable	PRE	Improvement
1	V3RCTPA	0.342	0.342
2	V1PLAND	0.461	0.118
3	V2LANDCONTAG	0.550	0.090
4	V1RCDIAMAVG	0.598	0.048
5	V2CAI_CV	0.668	0.070
6	V2ALLSW_N	0.697	0.029
7	V1IJI	0.719	0.023



Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
BBS route level
Multiscale
Regression tree of abundance

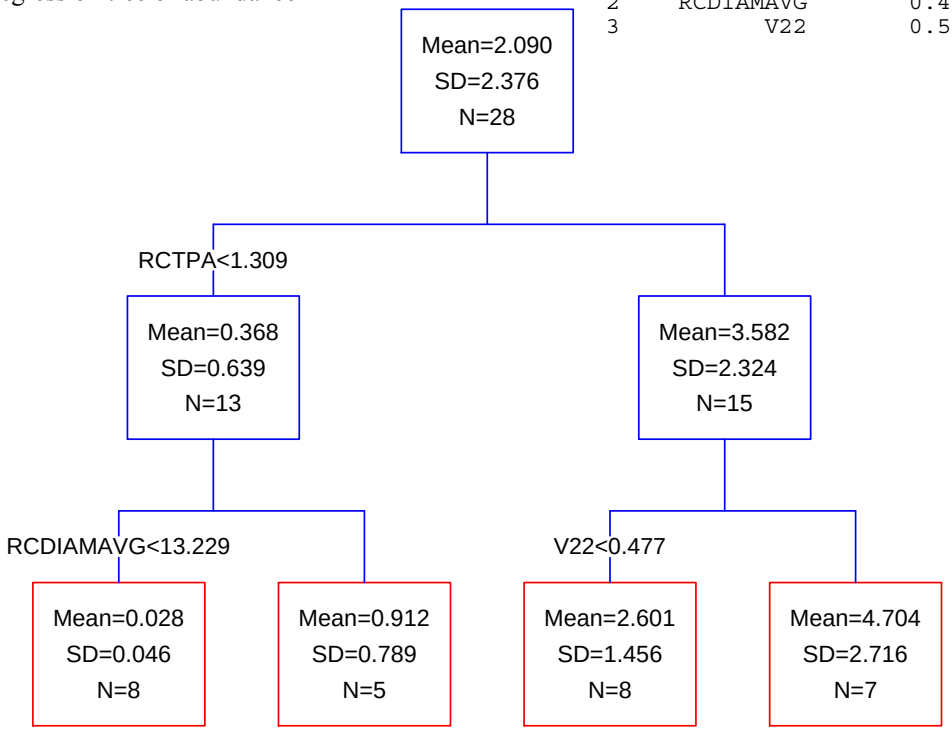
16 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2LANDCONTAG	0.147	0.147
2	V2IJI	0.303	0.156
3	V1ALLHTAVG	0.394	0.091
4	V2V21	0.470	0.076
5	V2CAI_CV	0.549	0.079
6	V1UDIAMAVG	0.587	0.038
7	V1UDIAMAVG	0.617	0.030



Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
FIA Unit scale
Regression tree of abundance

```
2 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1        RCTPA       0.472        0.472
    2    RCDIAMAVG       0.488        0.016
    3          V22       0.596        0.108
```



Mature Forest Ground-Shrub Guild
AMERICAN REDSTART
Physiographic section scale
GLM of abundance

n	SSE	K	AICc	ΔAIC	w_i
16	2.139	3	-24.2	0.0	0.532
16	1.785	4	-23.5	0.7	0.368
16	1.548	6	-16.0	8.2	0.009

K3		K4		GLOBAL(K6)	
Effect	Coefficient	Effect	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
RCTPA	0.766	V22	1.149	SHAPE_AM	0.003
		RCTPA	0.673	STDAGE	0.009
				V22	0.809
				RCTPA	0.600

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
224	-85.986	7	186.5	0.0	0.471
224	-85.378	8	187.4	0.9	0.295
224	-84.757	14	199.5	13.0	0.001

K7

Parameter	Estimate
CONSTANT	-11.434
STDSZCD	0.861
V12	49.025
LSI	0.241
SHAPE_MN	5.065
TECI	-0.042

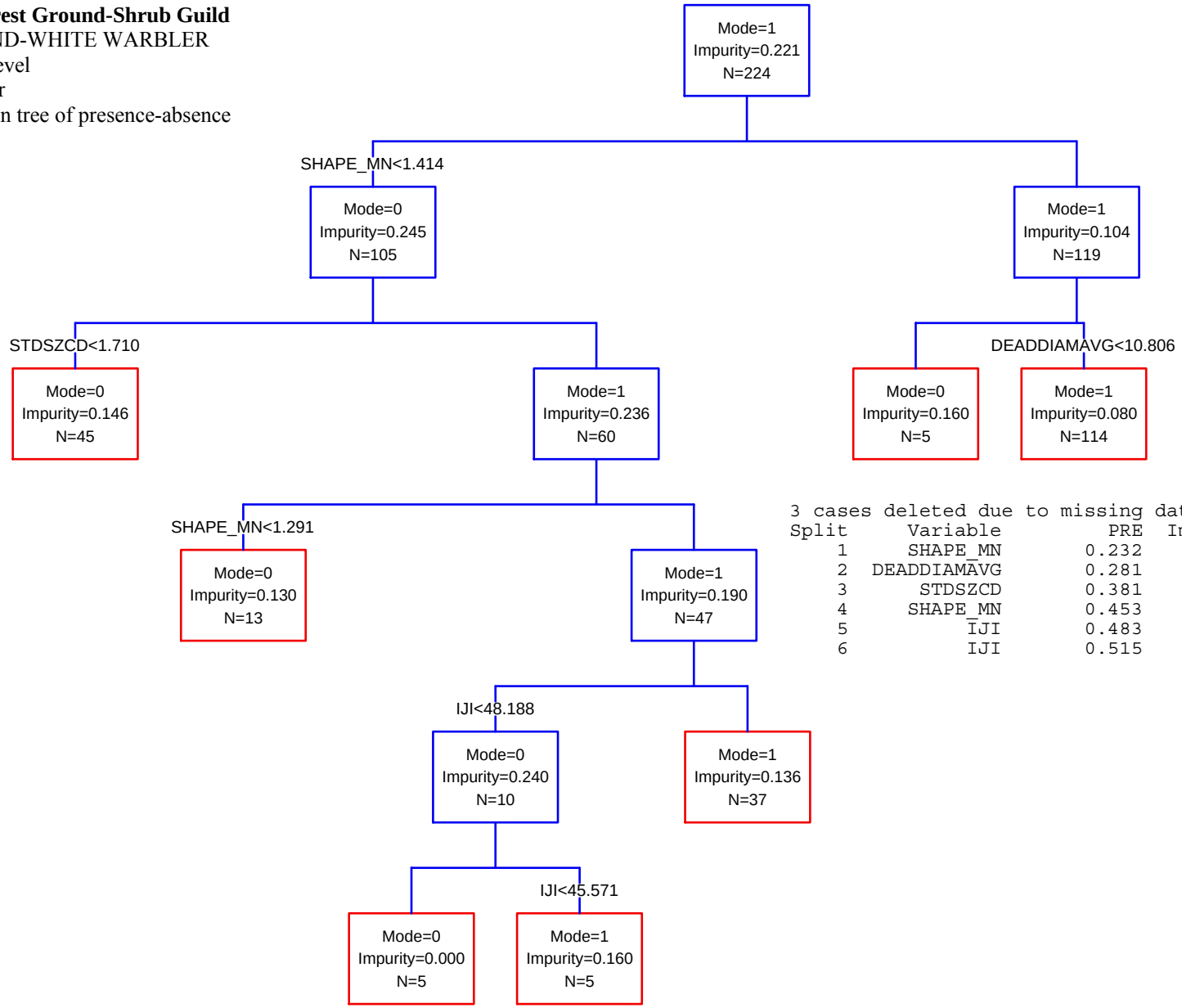
K8

Parameter	Estimate
CONSTANT	-13.431
STDSZCD	0.843
UDIAMAVG	0.79
V12	49.722
LSI	0.25
SHAPE_MN	4.816
TECI	-0.043

K14(GLOBAL)

Parameter	Estimate
CONSTANT	-10.751
STDSZCD	0.633
RCTPA	0.101
UDIAMAVG	0.572
DEADDIAMAVG	0.031
DSW_N	-0.906
V12	47.215
V23	0.073
V39	-26.48
LSI	0.27
SHAPE_MN	4.534
TECI	-0.052
IJI	-0.004

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
100 m buffer
Classification tree of presence-absence

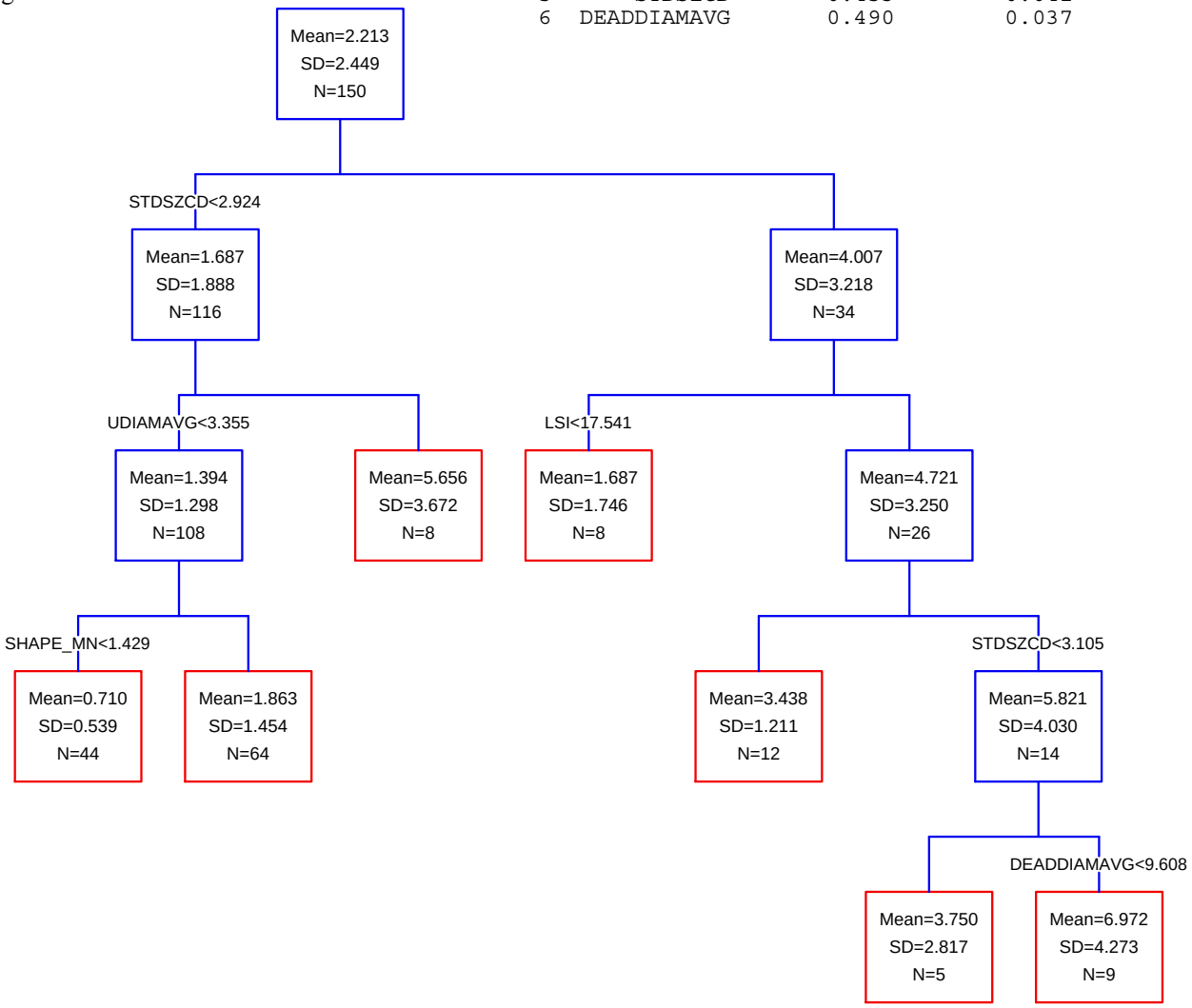


3 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	SHAPE_MN	0.232	0.232
2	DEADDIAMAVG	0.281	0.049
3	STDSZCD	0.381	0.100
4	SHAPE_MN	0.453	0.072
5	IJI	0.483	0.030
6	IJI	0.515	0.032

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
100 m buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	STDSZCD	0.158	0.158
2	UDIAMAVG	0.310	0.152
3	SHAPE_MN	0.349	0.039
4	LSI	0.412	0.063
5	STDSZCD	0.453	0.041
6	DEADDIAMAVG	0.490	0.037



Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
172	-73.745	5	157.9	0.0	0.187
172	-72.69	6	157.9	0.0	0.184
172	-71.606	7	157.9	0.0	0.183
172	-70.761	8	158.4	0.5	0.142
172	-75.421	4	159.1	1.2	0.101
172	-70.028	9	159.2	1.3	0.097
172	-68.062	16	171.6	13.7	0.000

K5

Parameter	Estimate
CONSTANT	-4.904
STDSZCD	0.979
V12	48.29
LCAI_MN	0.065

K6

Parameter	Estimate
CONSTANT	-0.075
LCAI_MN	0.054
V12	40.809
STDSZCD	0.754
DRCDIAMAVG	-0.369

K7

Parameter	Estimate
CONSTANT	-7.574
STDSZCD	0.787
DRCDIAMAVG	-0.401
V12	44.106
SHAPE_MN	5.894
LCAI_MN	0.049

K8

Parameter	Estimate
CONSTANT	-5.437
STDSZCD	1.033
DOMHTAVG	-0.037
DRCDIAMAVG	-0.436
V12	39.217
SHAPE_MN	5.783
LCAI_MN	0.05

K4

Parameter	Estimate
CONSTANT	-2.903
LCAI_MN	0.067
V12	40.308

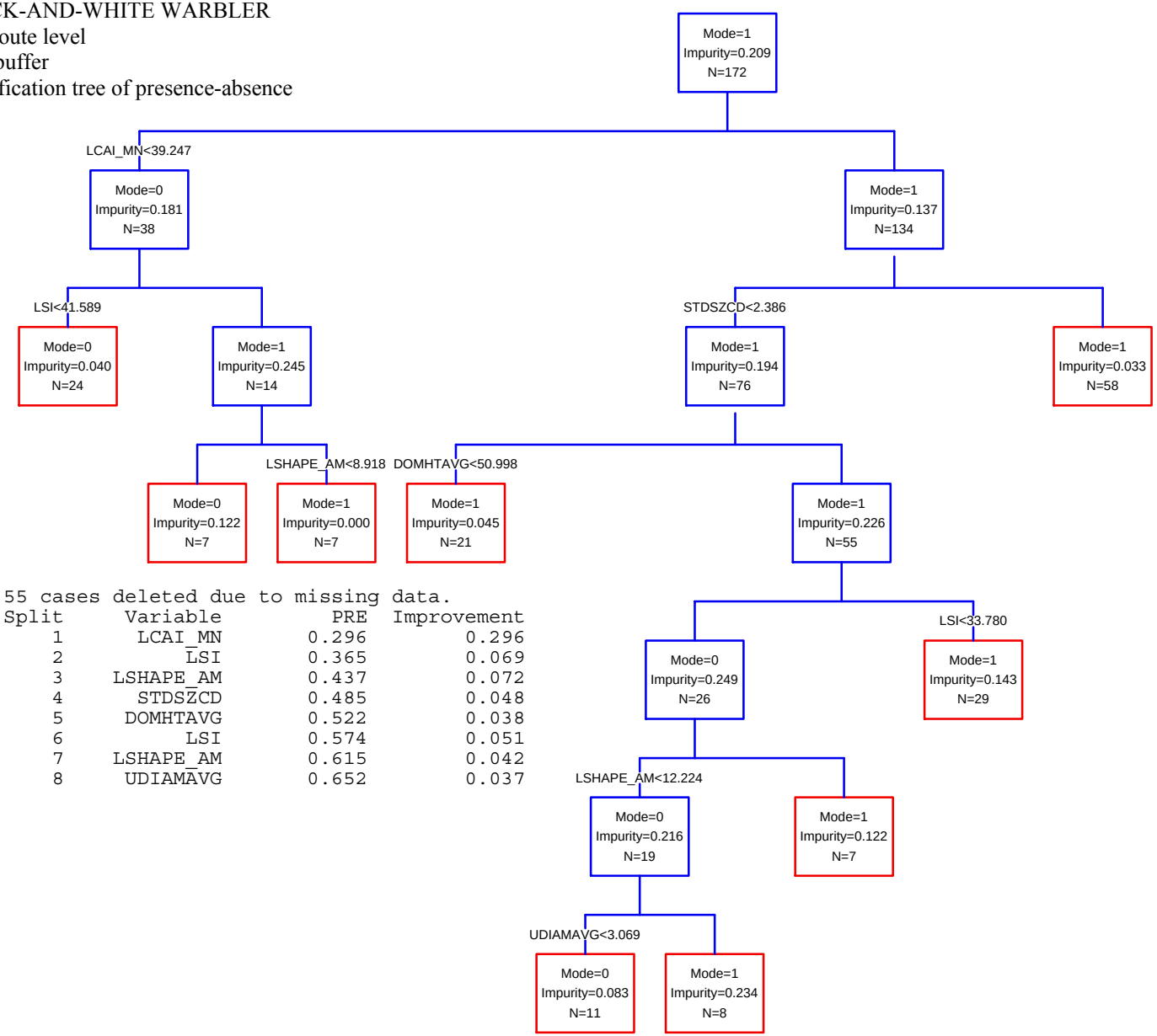
K9

Parameter	Estimate
CONSTANT	-6.113
STDSZCD	1.285
RCTPA	-0.273
DOMHTAVG	-0.046
DRCDIAMAVG	-0.469
V12	40.458
SHAPE_MN	6.855
LCAI_MN	0.051

K16(GLOBAL)

Parameter	Estimate
CONSTANT	-8.064
STDSZCD	1.735
UTPA	-0.004
RCTPA	-0.246
DOMHTAVG	-0.056
UDIAMAVG	-0.012
DRCDIAMAVG	-0.408
DSW_N	-0.656
V12	35.447
V23	2.183
LSI	0.017
SHAPE_MN	7.324
IJI	0.026
LSHAPE_AM	0.043
LCAI_MN	0.05

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
1 km buffer
Classification tree of presence-absence



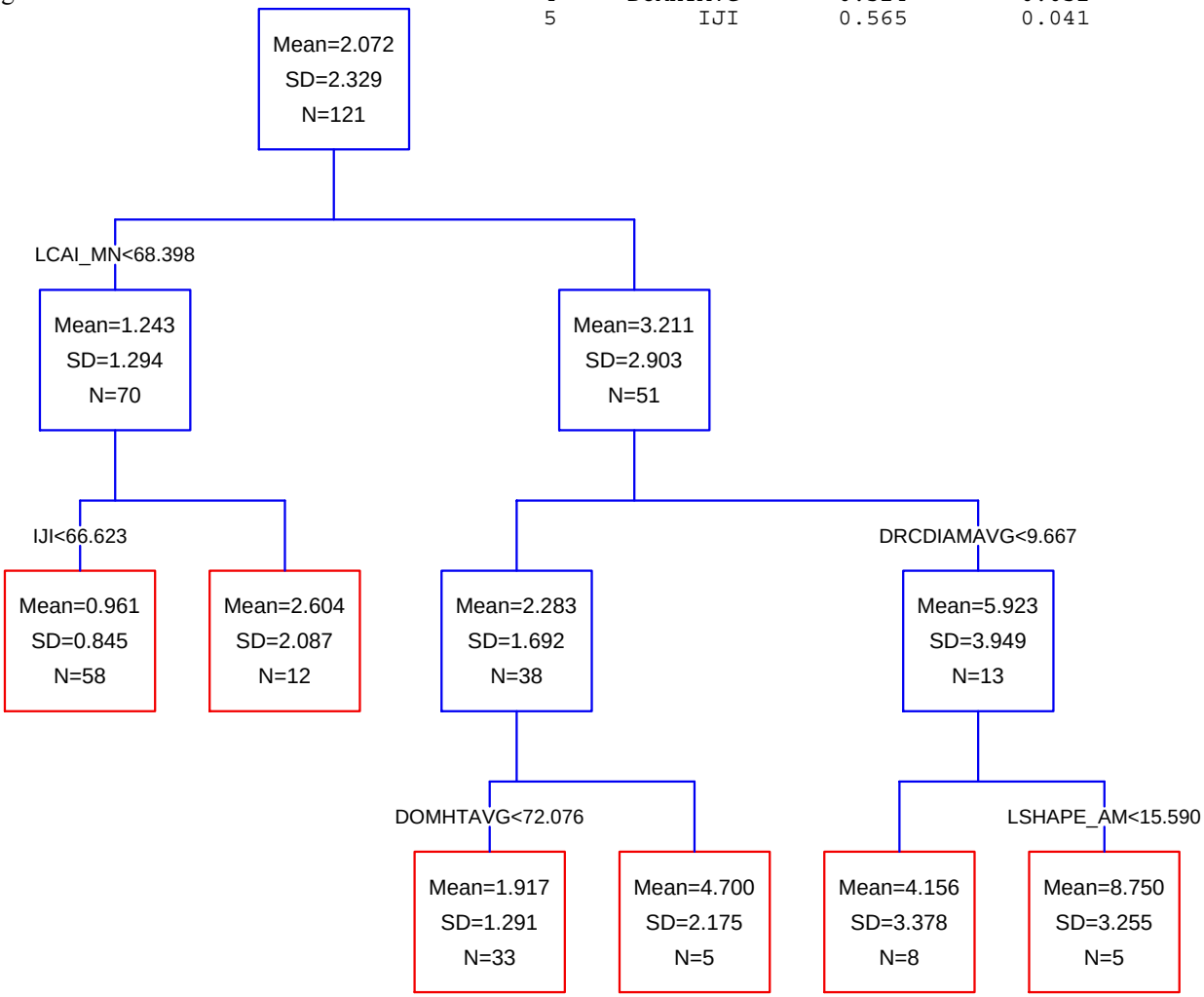
55 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_MN	0.296	0.296
2	LSI	0.365	0.069
3	LSHAPE_AM	0.437	0.072
4	STDSZCD	0.485	0.048
5	DOMHTAVG	0.522	0.038
6	LSI	0.574	0.051
7	LSHAPE_AM	0.615	0.042
8	UDIAMAVG	0.652	0.037

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
1 km buffer
Regression tree of abundance

29 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_MN	0.175	0.175
2	DRCDIAMAVG	0.373	0.197
3	LSHAPE_AM	0.472	0.100
4	DOMHTAVG	0.524	0.052
5	IJI	0.565	0.041



Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
173	-73.496	7	161.7	0.0	0.342
173	-74.792	6	162.1	0.4	0.277
173	-72.788	8	162.5	0.8	0.231
173	-71.904	9	162.9	1.2	0.184
173	-70.958	16	177.4	15.7	0.000

K7

Parameter	Estimate
CONSTANT	1.147
STDSZCD	1.189
DEADDIAMAVG	-0.763
V12	32.504
IJI	0.047
LCAI_MN	0.036

K6

Parameter	Estimate
CONSTANT	3.93
LCAI_MN	0.041
V12	46.145
DEADDIAMAVG	-0.803
STDSZCD	1.007

K8

Parameter	Estimate
CONSTANT	1.383
STDSZCD	1.113
DEADDIAMAVG	-0.79
V12	34.433
V39	-105.195
IJI	0.047
LCAI_MN	0.039

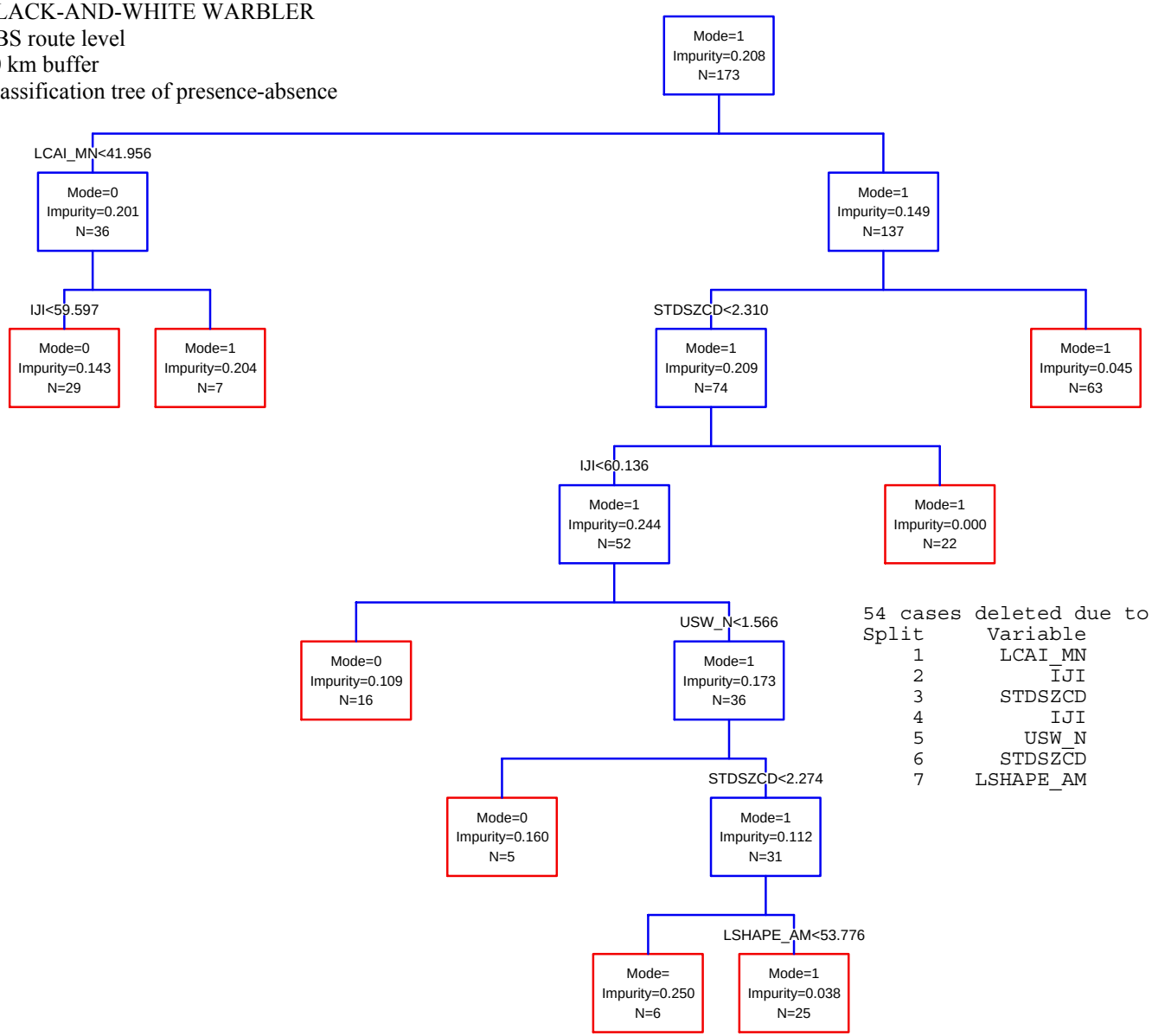
K9

Parameter	Estimate
CONSTANT	1.893
STDSZCD	0.967
DEADDIAMAVG	-0.819
V12	34.495
V39	-118.043
IJI	0.048
LSHAPE_AM	-0.024
LCAI_MN	0.056

K16(GLOBAL)

Parameter	Estimate
CONSTANT	0.324
STDSZCD	0.901
RCTPA	0.043
DOMHTAVG	0.008
UDIAMAVG	0.218
DEADDIAMAVG	-0.847
DSW_N	-1.095
USW_N	0.659
V12	42.735
V23	2.831
V39	-95.965
LSI	0.01
IJI	0.048
LSHAPE_AM	-0.023
LCAI_MN	0.059

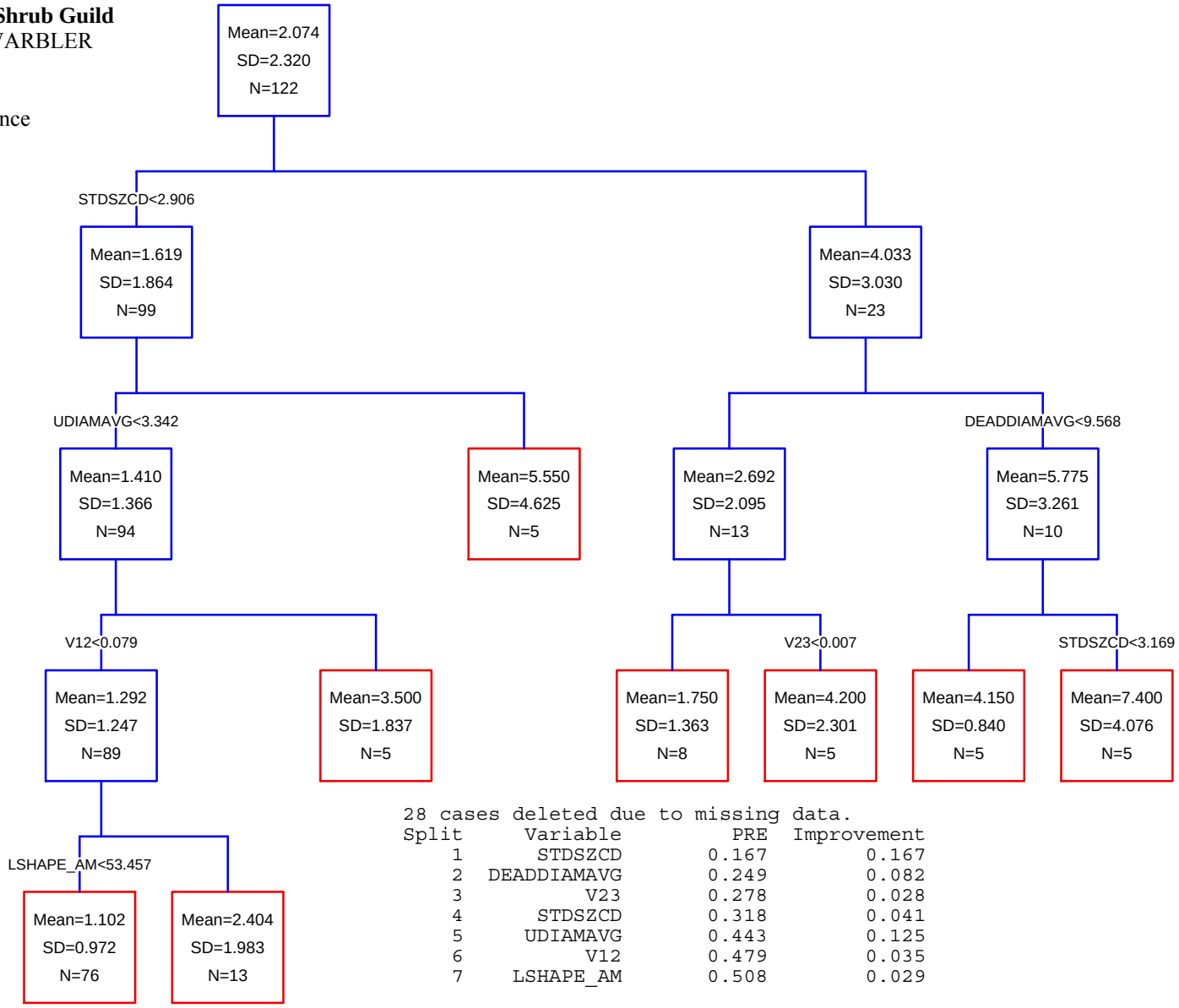
Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
10 km buffer
Classification tree of presence-absence



54 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_MN	0.231	0.231
2	IJI	0.277	0.046
3	STDSZCD	0.336	0.059
4	IJI	0.413	0.077
5	USW_N	0.544	0.131
6	STDSZCD	0.598	0.054
7	LSHAPE_AM	0.626	0.028

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
10 km buffer
Regression tree of abundance



28 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	STDSZCD	0.167	0.167
2	DEADDIAMAVG	0.249	0.082
3	V23	0.278	0.028
4	STDSZCD	0.318	0.041
5	UDIAMAVG	0.443	0.125
6	V12	0.479	0.035
7	LSHAPE_AM	0.508	0.029

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
215	-82.65	7	179.8	0.0	0.338
215	-81.956	8	180.6	0.8	0.230
215	-84.157	6	180.7	0.9	0.218
215	-81.102	11	185.5	5.7	0.020

K7

Parameter	Estimate
CONSTANT	-5.674
V1LSI	0.187
V1TECI	-0.035
V2LCAI_MN	0.049
V3STDSZCD	0.718
V3V12	49.632

K8

Parameter	Estimate
CONSTANT	-8.619
V1LSI	0.209
V1SHAPE_MN	2.158
V1TECI	-0.032
V2LCAI_MN	0.034
V3STDSZCD	0.761
V3V12	48.976

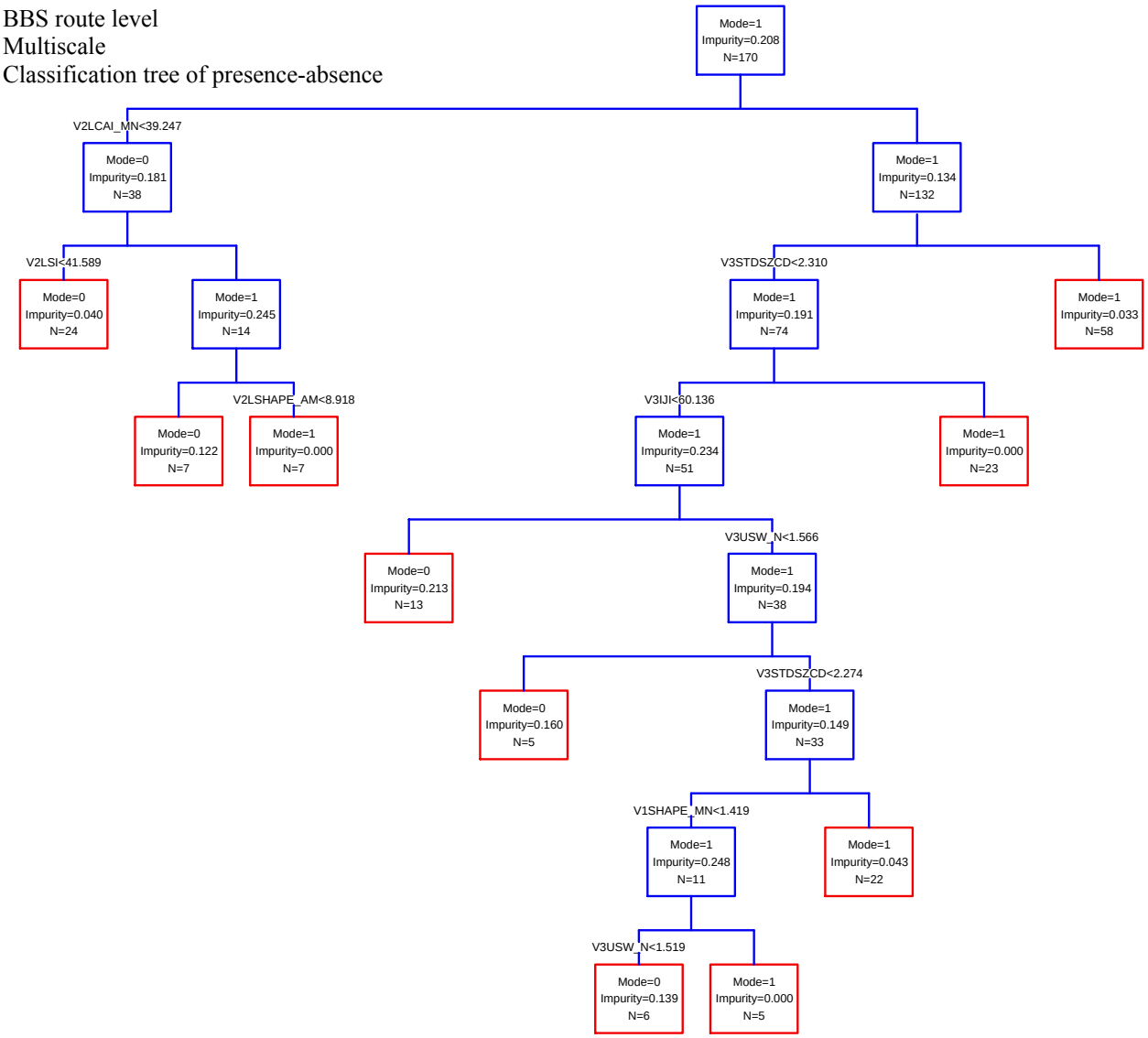
K6

Parameter	Estimate
CONSTANT	-5.071
V1LSI	0.214
V1TECI	-0.04
V2LCAI_MN	0.06
V3V12	51.096

K11(GLOBAL)

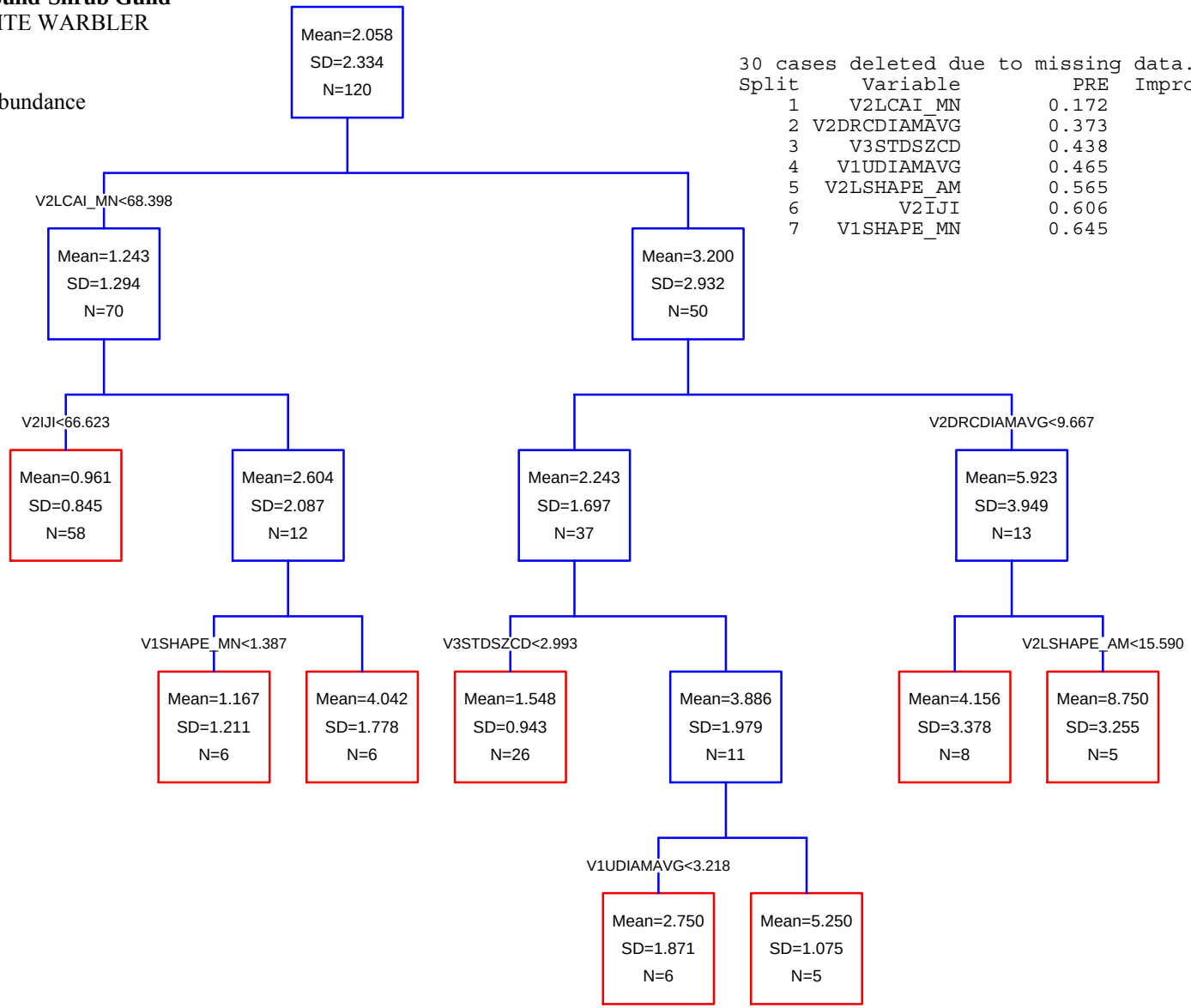
Parameter	Estimate
CONSTANT	-9.257
V1LSI	0.2
V1SHAPE_MN	2.264
V1TECI	-0.029
V2DRCDIAMAVG	0.187
V2LCAI_MN	0.035
V3STDSZCD	0.811
V3DEADDIAMAV	-0.224
V3V12	46.081
V3IJI	0.014

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
Multiscale
Classification tree of presence-absence




```
57 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1     V2LCAI_MN       0.305        0.305
    2         V2LSI       0.375        0.070
    3   V2LSHAPE_AM       0.448        0.073
    4     V3STDSZCD       0.494        0.046
    5         V3IJI       0.556        0.062
    6       V3USW_N       0.607        0.051
    7     V3STDSZCD       0.654        0.047
    8    V1SHAPE_MN       0.688        0.035
    9       V3USW_N       0.742        0.054
```

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
BBS route level
Multiscale
Regression tree of abundance

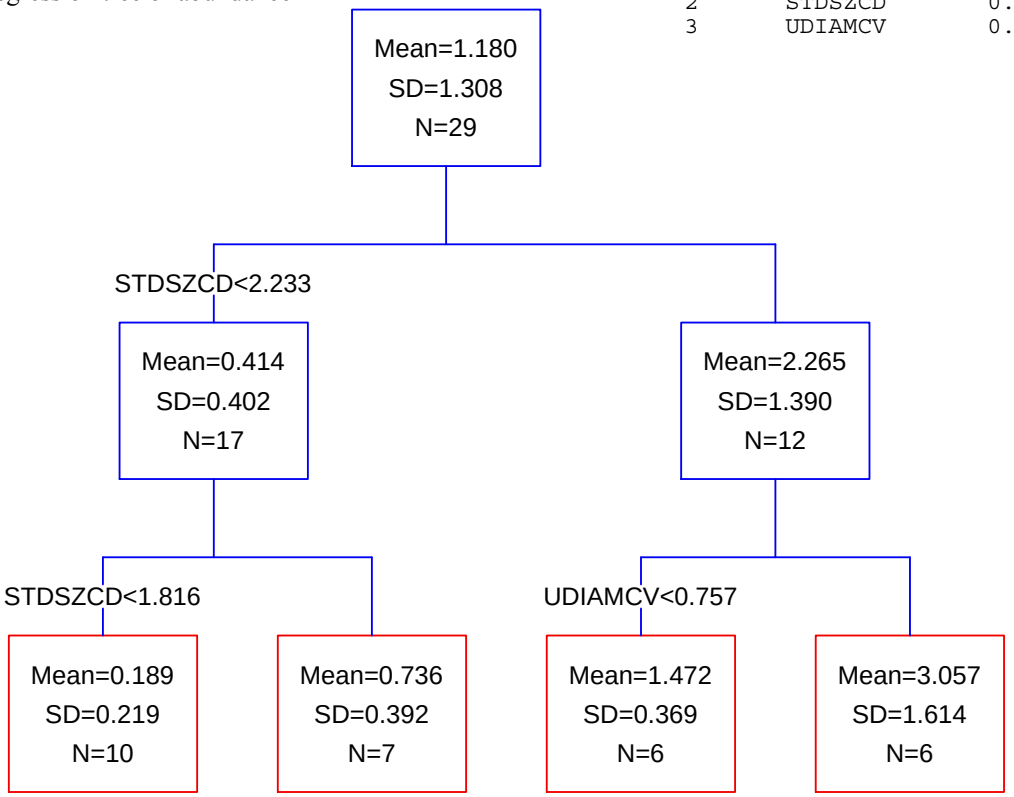


30 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2LCAI_MN	0.172	0.172
2	V2DRCDIAMAVG	0.373	0.201
3	V3STDSZCD	0.438	0.065
4	V1UDIAMAVG	0.465	0.026
5	V2LSHAPE_AM	0.565	0.100
6	V2IJI	0.606	0.041
7	V1SHAPE_MN	0.645	0.038

Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
FIA Unit scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	STDSZCD	0.503	0.503
2	STDSZCD	0.528	0.026
3	UDIAMCV	0.686	0.157



Mature Forest Ground-Shrub Guild
BLACK-AND-WHITE WARBLER
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
15	0.667	4	-24.3	0.0	0.561
15	1.022	3	-23.1	1.2	0.315
15	0.576	6	-15.5	8.8	0.007

K4		K3		K6(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
STDSZCD	0.542	STDSZCD	0.595	STDSZCD	0.554
SHAPE_MN	0.583	UDIAMCV	0.651	ALLDIAMCV	-0.100
UDIAMCV	0.592			SHAPE_MN	0.601
				UDIAMCV	0.756

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
168	-99.873	4	208.0	0.0	0.268
168	-98.821	5	208.0	0.0	0.265
168	-98.046	6	208.6	0.6	0.196
168	-97.188	7	209.1	1.1	0.156
168	-96.088	14	222.9	14.9	0.000

K4

Parameter	Estimate
CONSTANT	1.816
ALLHTAVG	-0.117
V22	2.304

K5

Parameter	Estimate
CONSTANT	-1.25
ALLHTAVG	-0.123
UDIAMAVG	1.056
V22	2.351

K6

Parameter	Estimate
CONSTANT	-1.435
ALLHTAVG	-0.122
UDIAMAVG	1.142
V19	-65.426
V22	2.191

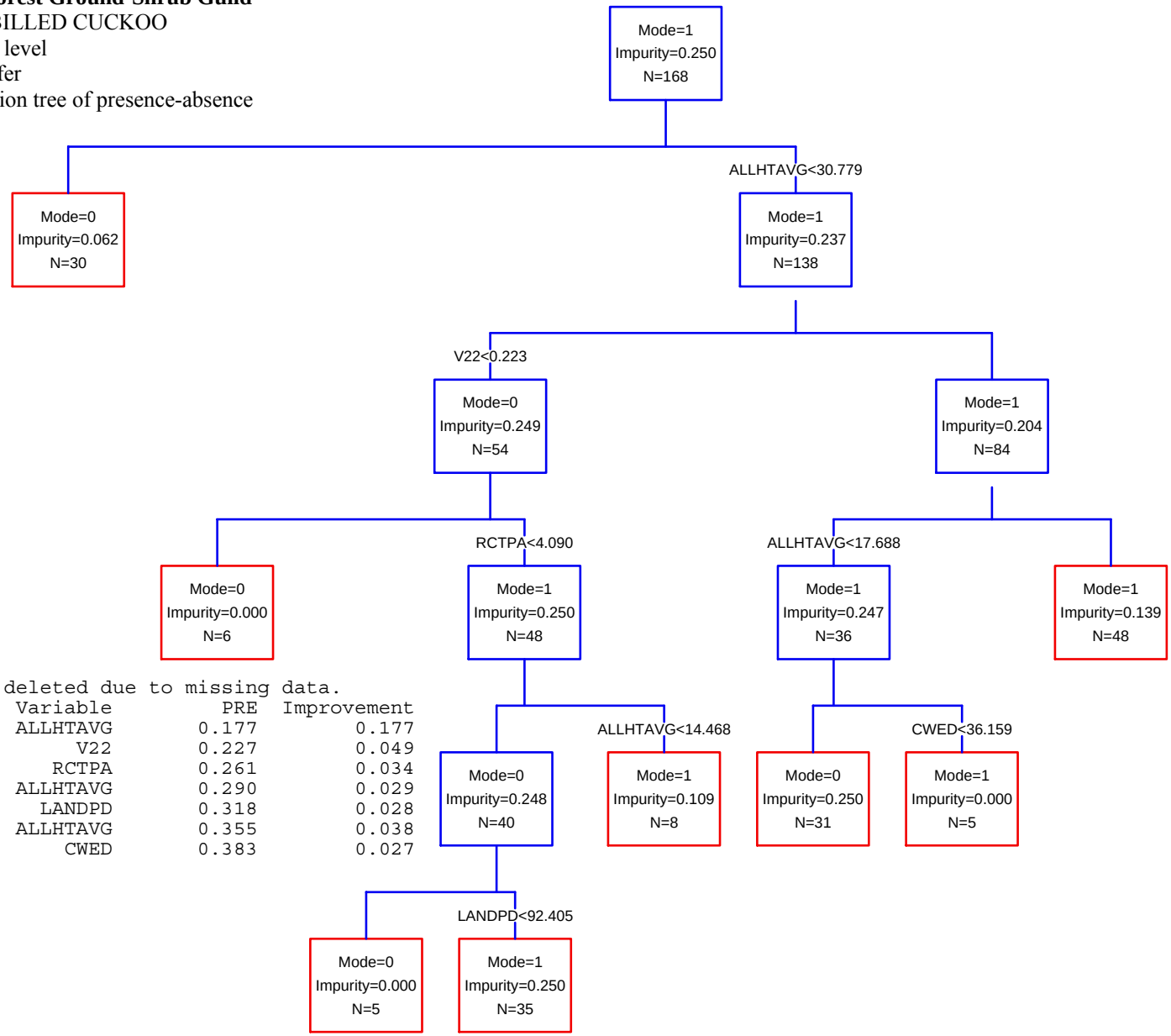
K7

Parameter	Estimate
CONSTANT	-1.102
ALLHTAVG	-0.12
UDIAMAVG	1.006
V19	-61.473
V22	2.228
V34	417.847

K14(GLOBAL)

Parameter	Estimate
CONSTANT	-1.229
SITECLCD	0.305
RCTPA	-0.178
ALLHTAVG	-0.126
UDIAMAVG	1.207
V19	-68.16
V21	1.573
V22	2.268
V24	-14.261
V25	-1.817
V34	390.852
CWED	0.006
LANDPD	-0.012

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
100 m buffer
Classification tree of presence-absence

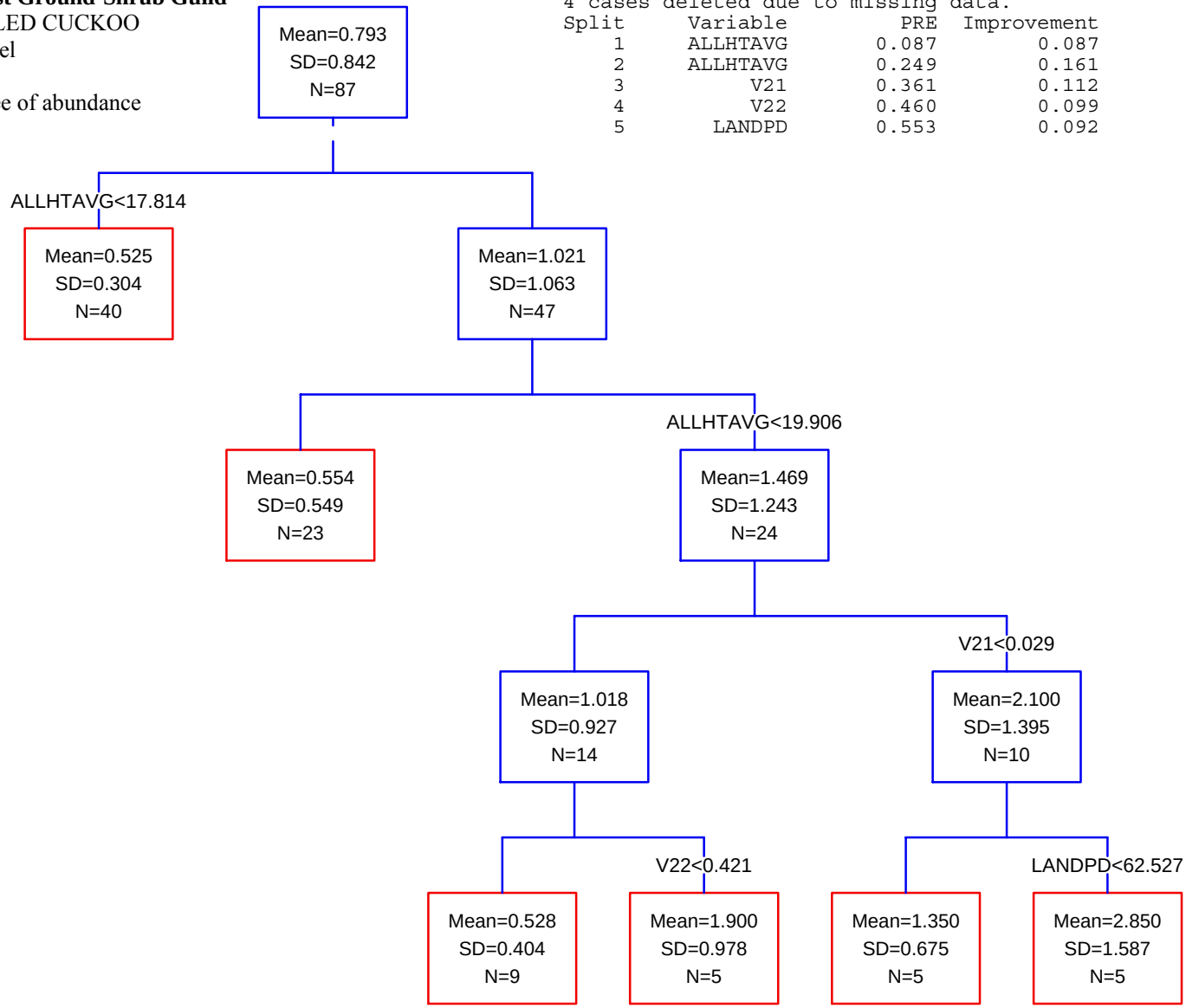


59 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLHTAVG	0.177	0.177
2	V22	0.227	0.049
3	RCTPA	0.261	0.034
4	ALLHTAVG	0.290	0.029
5	LANDPD	0.318	0.028
6	ALLHTAVG	0.355	0.038
7	CWED	0.383	0.027

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
100 m buffer
Regression tree of abundance

```
4 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1     ALLHTAVG        0.087        0.087
    2     ALLHTAVG        0.249        0.161
    3          V21        0.361        0.112
    4          V22        0.460        0.099
    5       LANDPD        0.553        0.092
```



Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
171	-99.6	5	209.6	0.0	0.327
171	-100.808	4	209.9	0.3	0.282
171	-98.953	6	210.4	0.8	0.213
171	-97.94	14	226.6	17.0	0.000

K5

Parameter	Estimate
CONSTANT	-3.076
ALLHTCV	1.723
V22	2.495
V34	449.521

K4

Parameter	Estimate
CONSTANT	-3.049
ALLHTCV	1.739
V22	2.45

K6

Parameter	Estimate
CONSTANT	-2.92
ALLHTCV	1.677
V19	-57.912
V22	2.35
V34	437.541

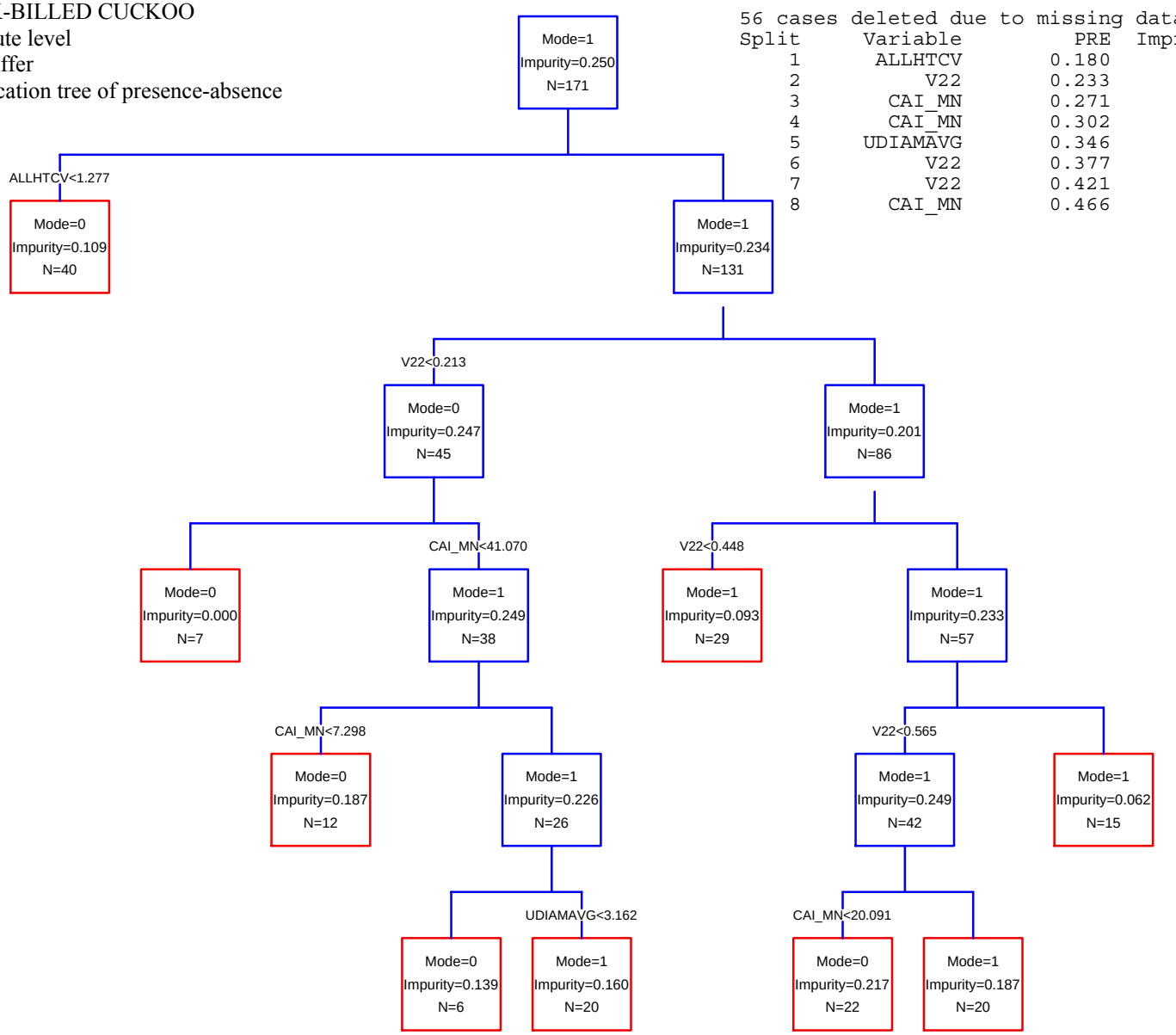
K14(GLOBAL)

Parameter	Estimate
CONSTANT	-4.276
SITECLCD	-0.104
UDIAMAVG	0.525
ALLHTCV	1.664
V19	-59.735
V21	1.669
V22	2.571
V24	-12.742
V25	-8.638
V34	433.497
LPI	0.006
CAI_MN	0
LANDLSI	-0.006

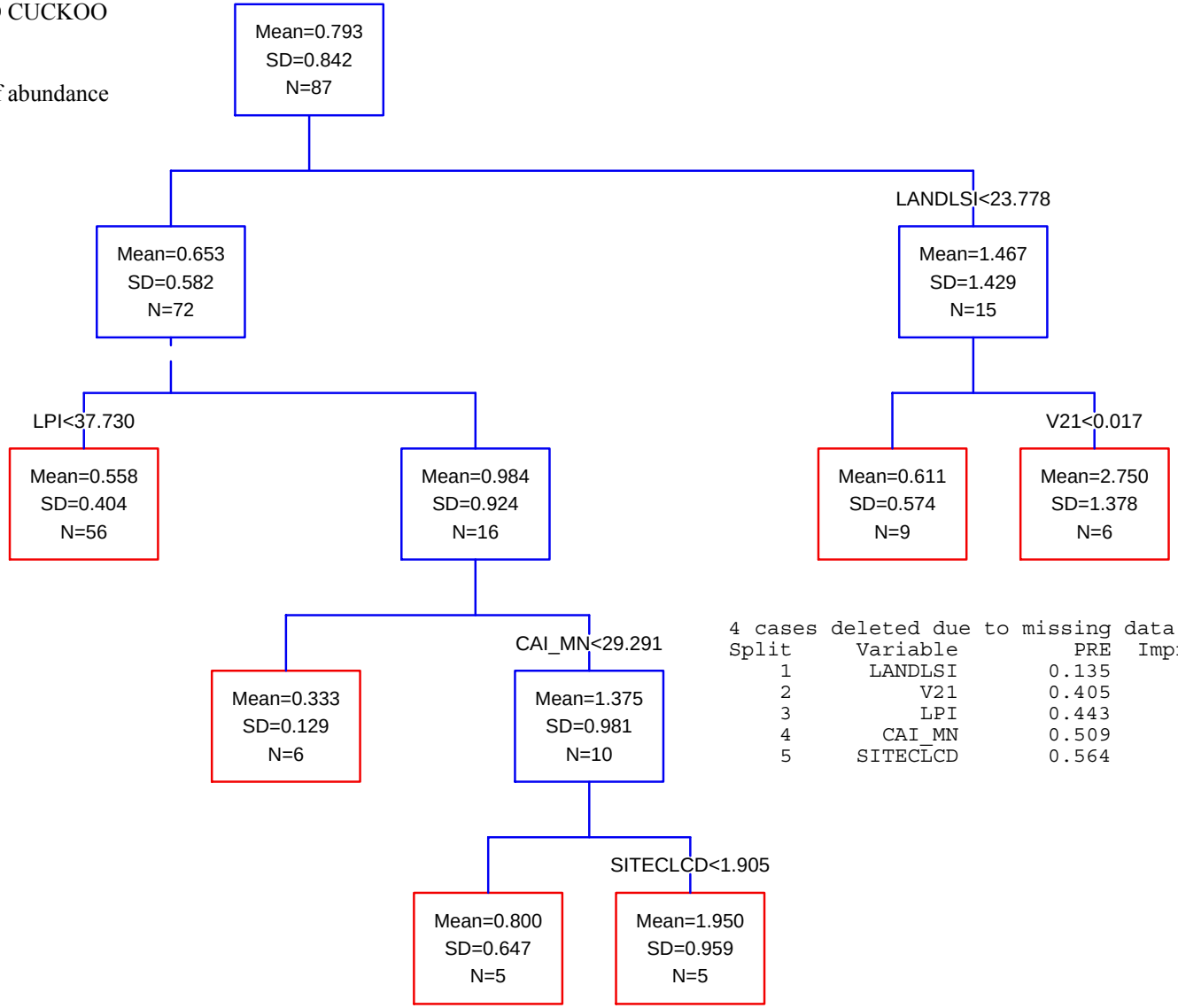
Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
1 km buffer
Classification tree of presence-absence

56 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLHTCV	0.180	0.180
2	V22	0.233	0.053
3	CAI_MN	0.271	0.038
4	CAI_MN	0.302	0.031
5	UDIAMAVG	0.346	0.043
6	V22	0.377	0.032
7	V22	0.421	0.043
8	CAI_MN	0.466	0.046



Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
1 km buffer
Regression tree of abundance



4 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LANDLSI	0.135	0.135
2	V21	0.405	0.270
3	LPI	0.443	0.037
4	CAI_MN	0.509	0.067
5	SITECLCD	0.564	0.054

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
172	-97.324	5	205.0	0.0	0.369
172	-98.403	4	205.0	0.0	0.363
172	-95.834	14	222.3	17.3	0.000

K5

Parameter	Estimate
CONSTANT	-3.169
ALLHTCV	1.837
V19	-106.412
V22	2.648

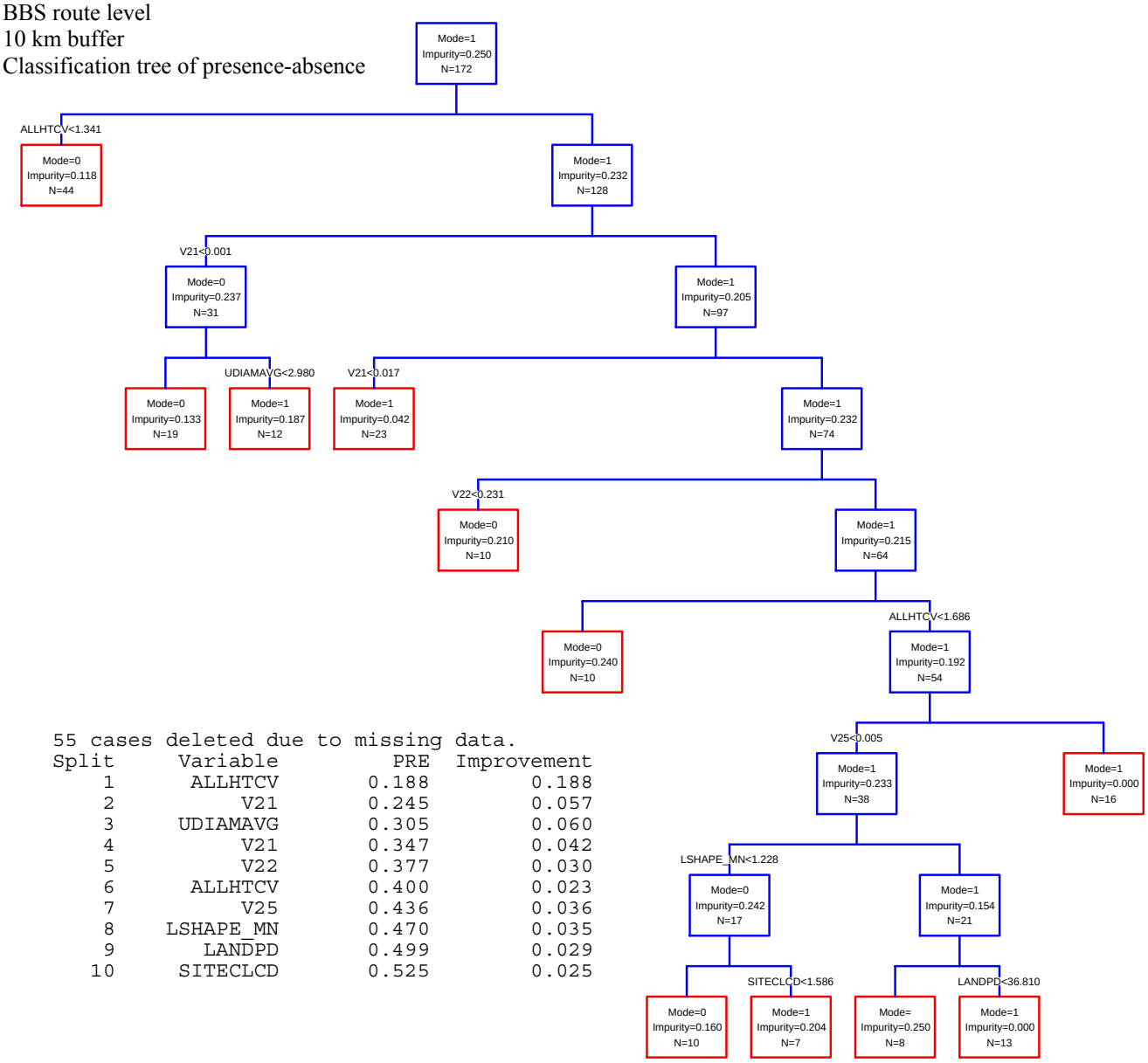
K4

Parameter	Estimate
CONSTANT	-3.424
ALLHTCV	1.918
V22	2.858

K14(GLOBAL)

Parameter	Estimate
CONSTANT	-7.133
SITECLCD	0.179
UDIAMAVG	0.119
ALLHTCV	1.721
V19	-104.105
V21	0.293
V22	2.672
V24	-4.82
V25	-44.043
V34	286.655
CWED	0.012
LANDPD	-0.019
LSHAPE_MN	3.029

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
10 km buffer
Classification tree of presence-absence

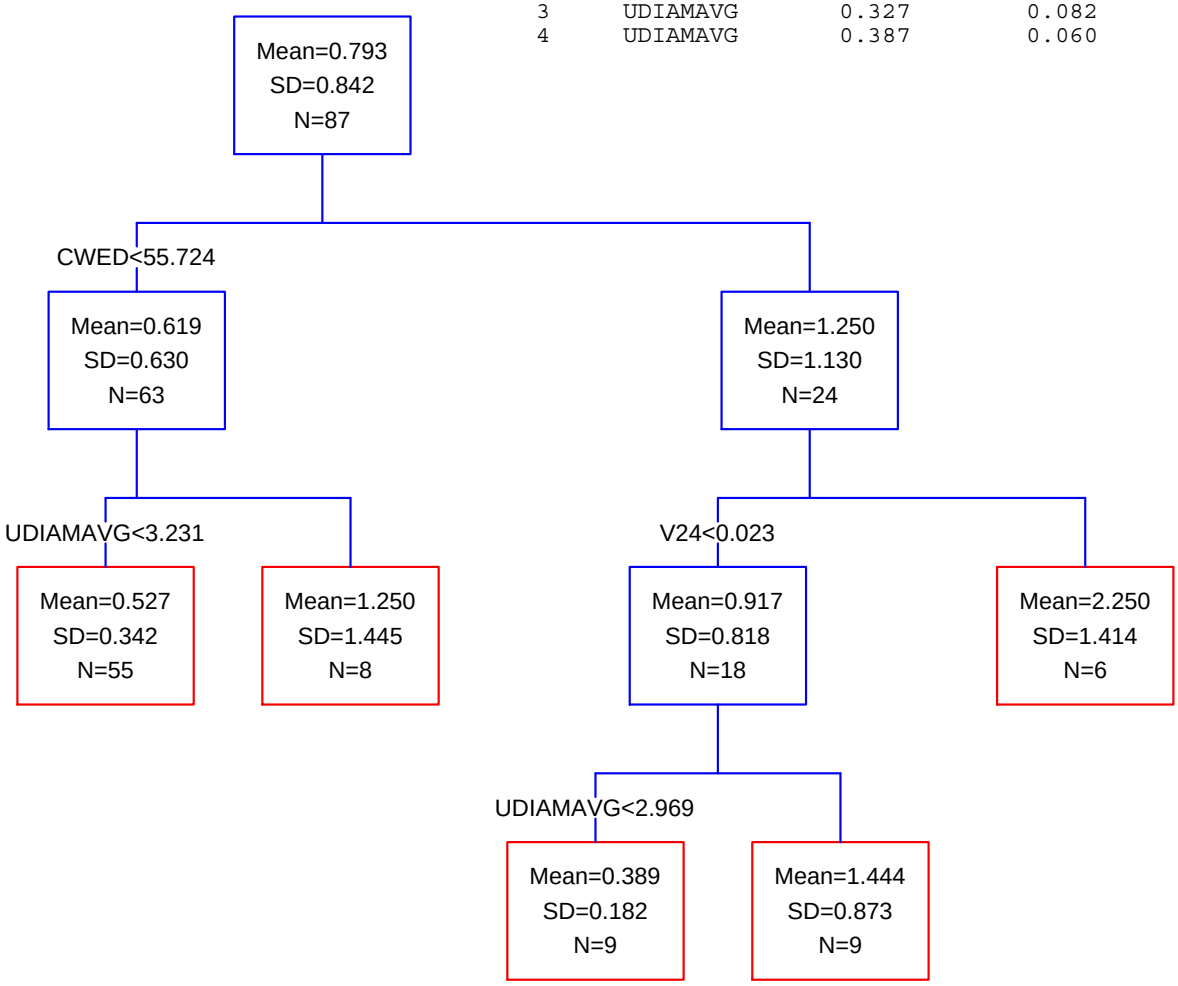


55 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLHTCV	0.188	0.188
2	V21	0.245	0.057
3	UDIAMAVG	0.305	0.060
4	V21	0.347	0.042
5	V22	0.377	0.030
6	ALLHTCV	0.400	0.023
7	V25	0.436	0.036
8	LSHAPE_MN	0.470	0.035
9	LANDPD	0.499	0.029
10	SITECLCD	0.525	0.025

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
10 km buffer
Regression tree of abundance

```
4 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1         CWED       0.114        0.114
    2          V24       0.245        0.131
    3     UDIAMAVG       0.327        0.082
    4     UDIAMAVG       0.387        0.060
```



Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
170	-98.29	4	204.8	0.0	0.336
170	-97.324	5	205.0	0.2	0.306
170	-96.39	6	205.3	0.5	0.265
170	-96.381	7	207.5	2.7	0.090

K4

Parameter	Estimate
CONSTANT	-3.377
V3ALLHTCV	1.891
V3V22	2.843

K5

Parameter	Estimate
CONSTANT	-3.169
V3ALLHTCV	1.837
V3V19	-106.321
V3V22	2.648

K6

Parameter	Estimate
CONSTANT	-3.181
V2V34	404.335
V3ALLHTCV	1.811
V3V19	-101.015
V3V22	2.693

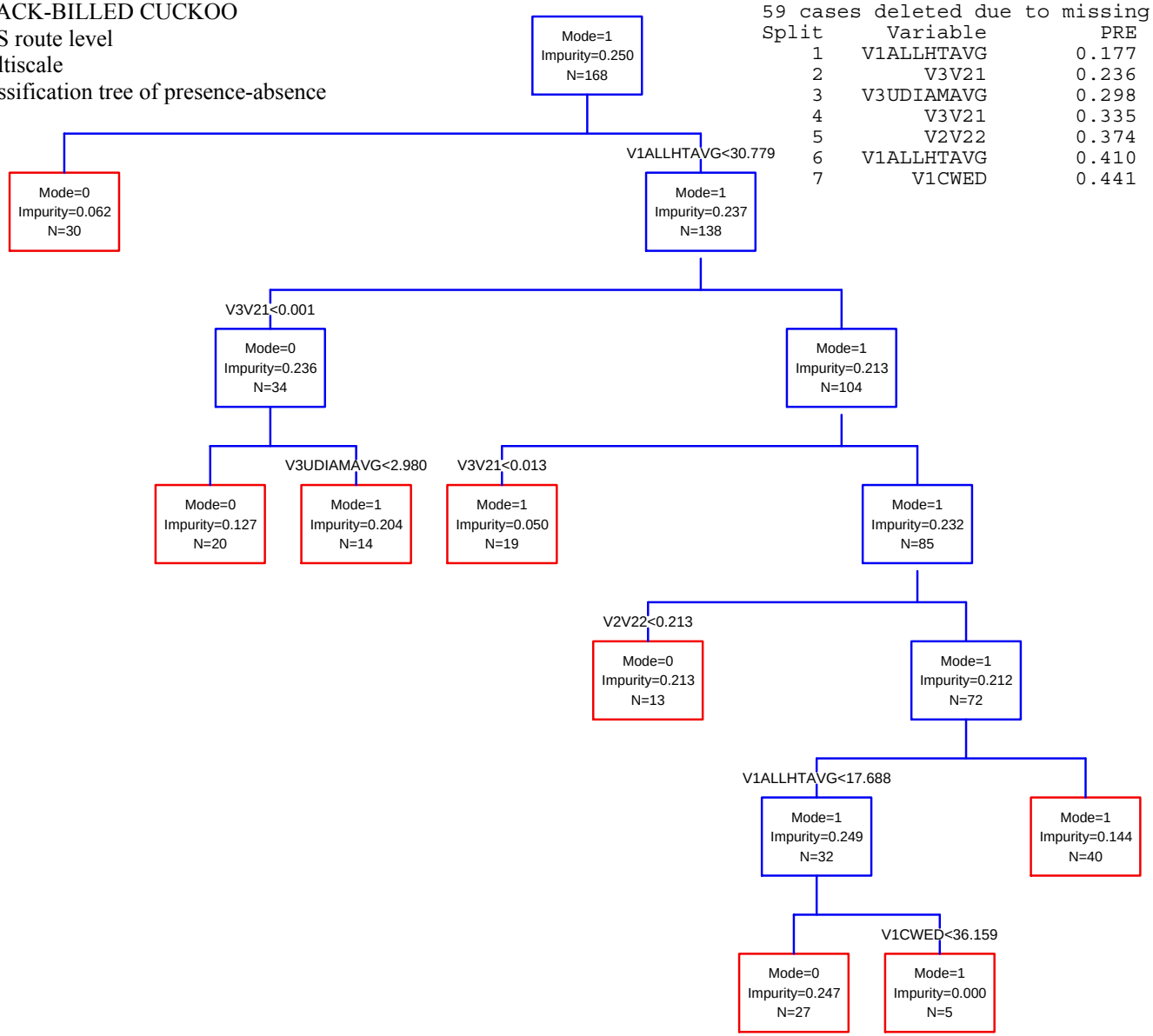
K7(GLOBAL)

Parameter	Estimate
CONSTANT	-2.688
V1ALLHTAVG	-0.012
V2V34	407.337
V3ALLHTCV	1.634
V3V19	-101.361
V3V22	2.688

Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
Multiscale
Classification tree of presence-absence

59 cases deleted due to missing data.

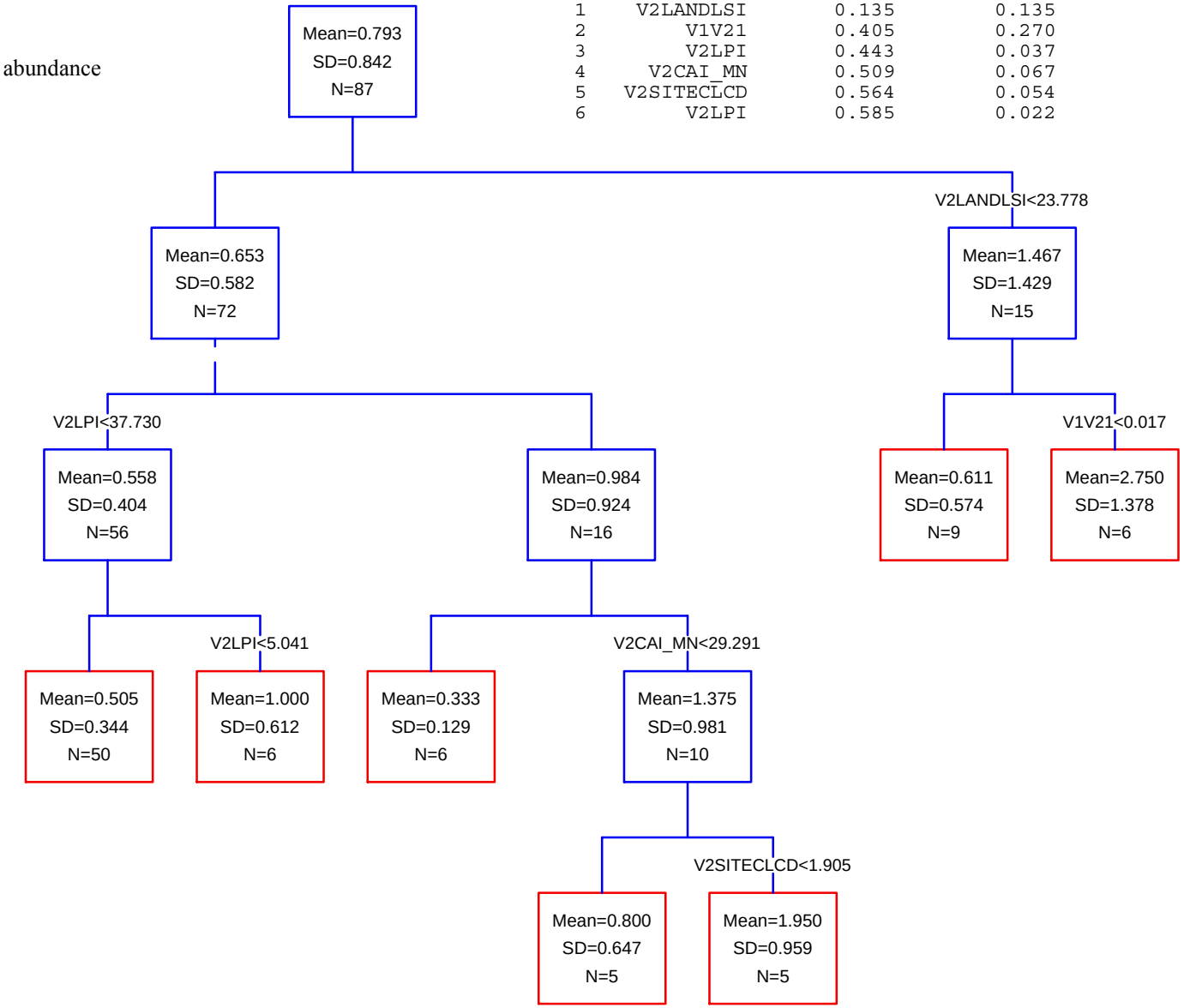
Split	Variable	PRE	Improvement
1	V1ALLHTAVG	0.177	0.177
2	V3V21	0.236	0.059
3	V3UDIAMAVG	0.298	0.063
4	V3V21	0.335	0.036
5	V2V22	0.374	0.039
6	V1ALLHTAVG	0.410	0.037
7	V1CWED	0.441	0.031



Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
BBS route level
Multiscale
Regression tree of abundance

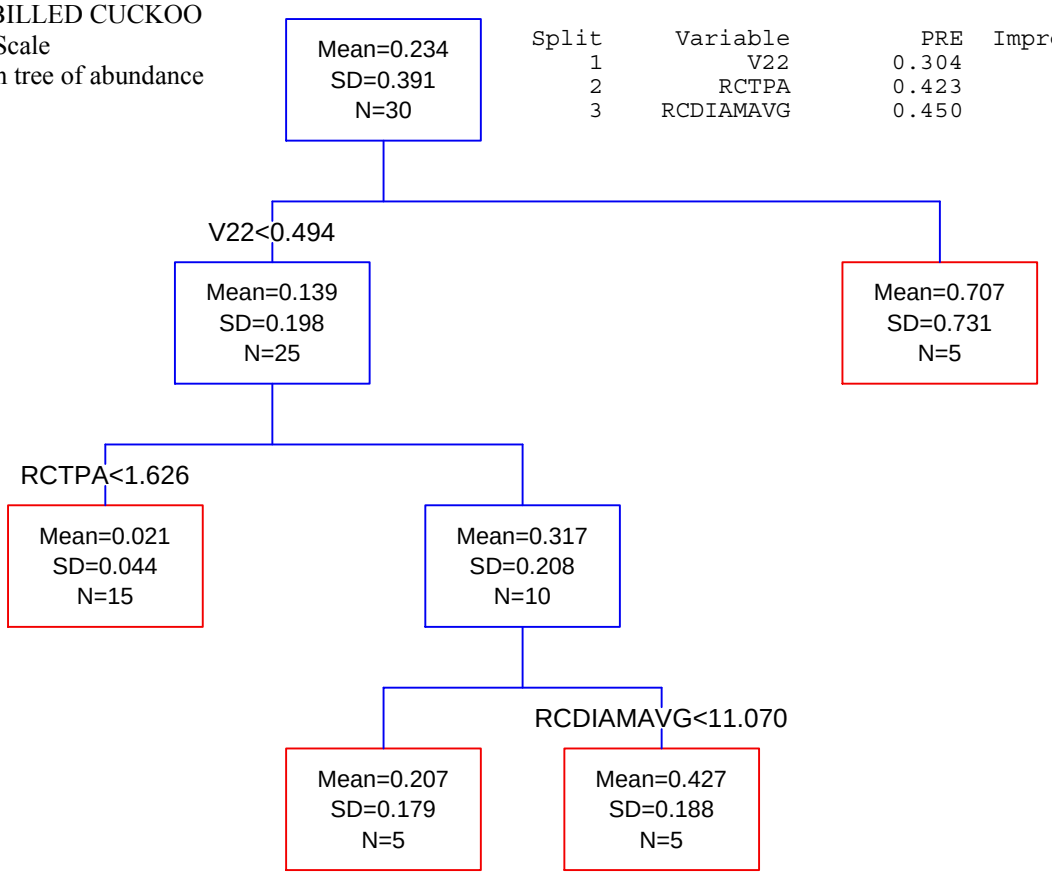
4 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2LANDLSI	0.135	0.135
2	V1V21	0.405	0.270
3	V2LPI	0.443	0.037
4	V2CAI_MN	0.509	0.067
5	V2SITECLCD	0.564	0.054
6	V2LPI	0.585	0.022



Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
FIA Unit Scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	V22	0.304	0.304
2	RCTPA	0.423	0.119
3	RCDIAMAVG	0.450	0.027



Mature Forest Ground-Shrub Guild
BLACK-BILLED CUCKOO
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	0.113	4	-67.6	0.0	0.606
16	0.093	5	-66.4	1.2	0.325
16	0.079	7	-57.0	10.6	0.003

K4		K5		K7(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
RCDIAMAVG	-0.080	RCDIAMAVG	-0.076	RCDIAMAVG	-0.084
LSHAPE_AM	0.005	V24	9.893	V19	2.144
		LSHAPE_AM	0.005	V24	15.095
				ALLDIAMCV	0.054
				LSHAPE_AM	0.004

Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
127	-47.237	7	109.4	0.0	0.475
127	-46.983	8	111.2	1.8	0.196
127	-46.293	13	121.8	12.4	0.001

K7

Parameter	Estimate
CONSTANT	-8.631
DEADTPA	0.296
UDIAMAVG	1.677
RCDIAMAVG	-0.254
V12	10.223
CAI_AM	0.062

K8

Parameter	Estimate
CONSTANT	-10.738
DEADTPA	0.294
UDIAMAVG	1.616
RCDIAMAVG	-0.296
DRCDIAMAVG	0.281
V12	9.585
CAI_AM	0.062

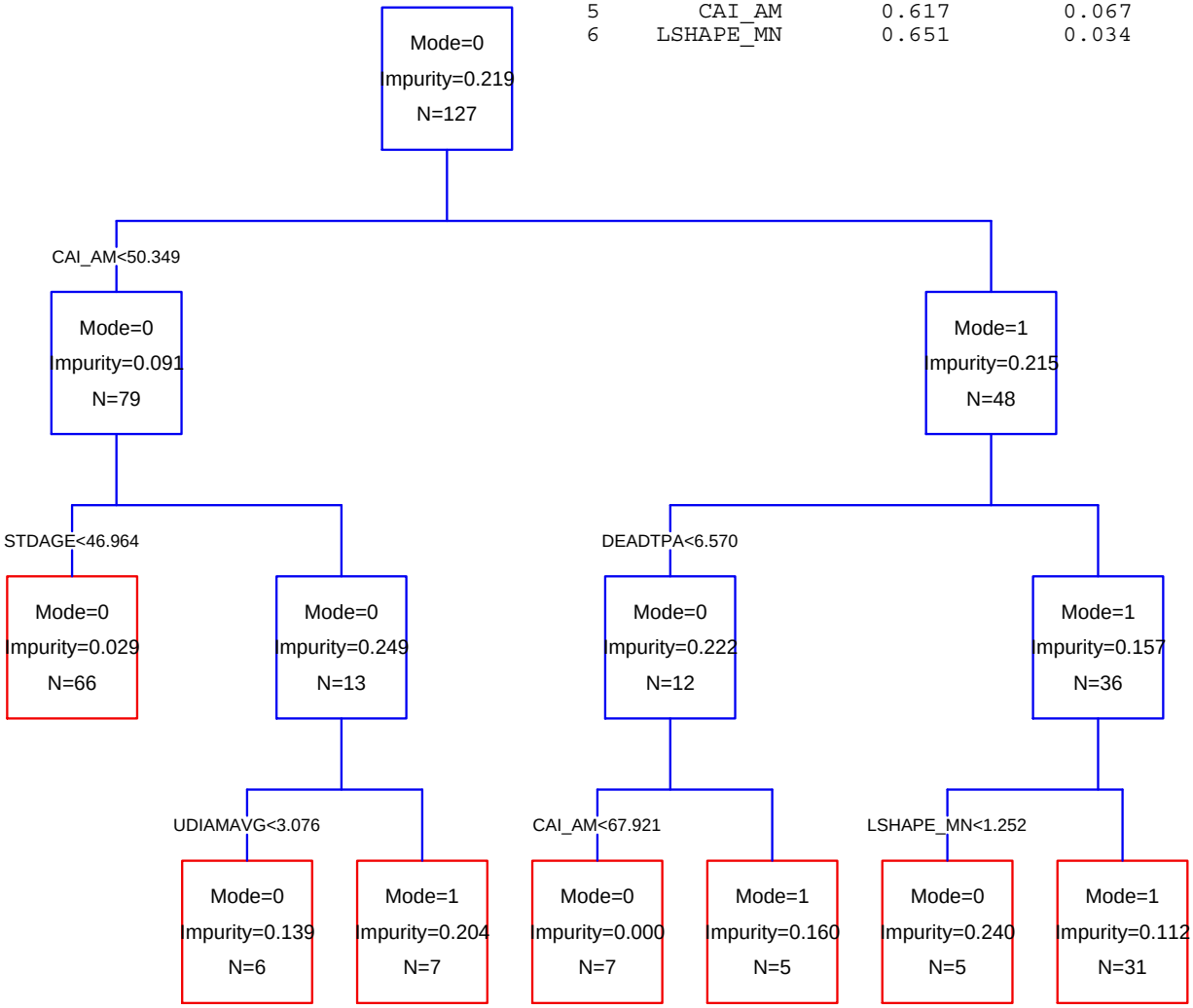
K13(GLOBAL)

Parameter	Estimate
CONSTANT	-6.881
STDAGE	-0.001
DEADTPA	0.3
ALLHTAVG	-0.001
UDIAMAVG	1.652
RCDIAMAVG	-0.345
DRCDIAMAVG	0.422
UDIAMCV	-3.146
V12	8.178
PD	0.007
CAI_AM	0.065
LSHAPE_MN	-2.112

Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
100 m buffer
Classification tree of presence-absence

100 cases deleted due to missing data.

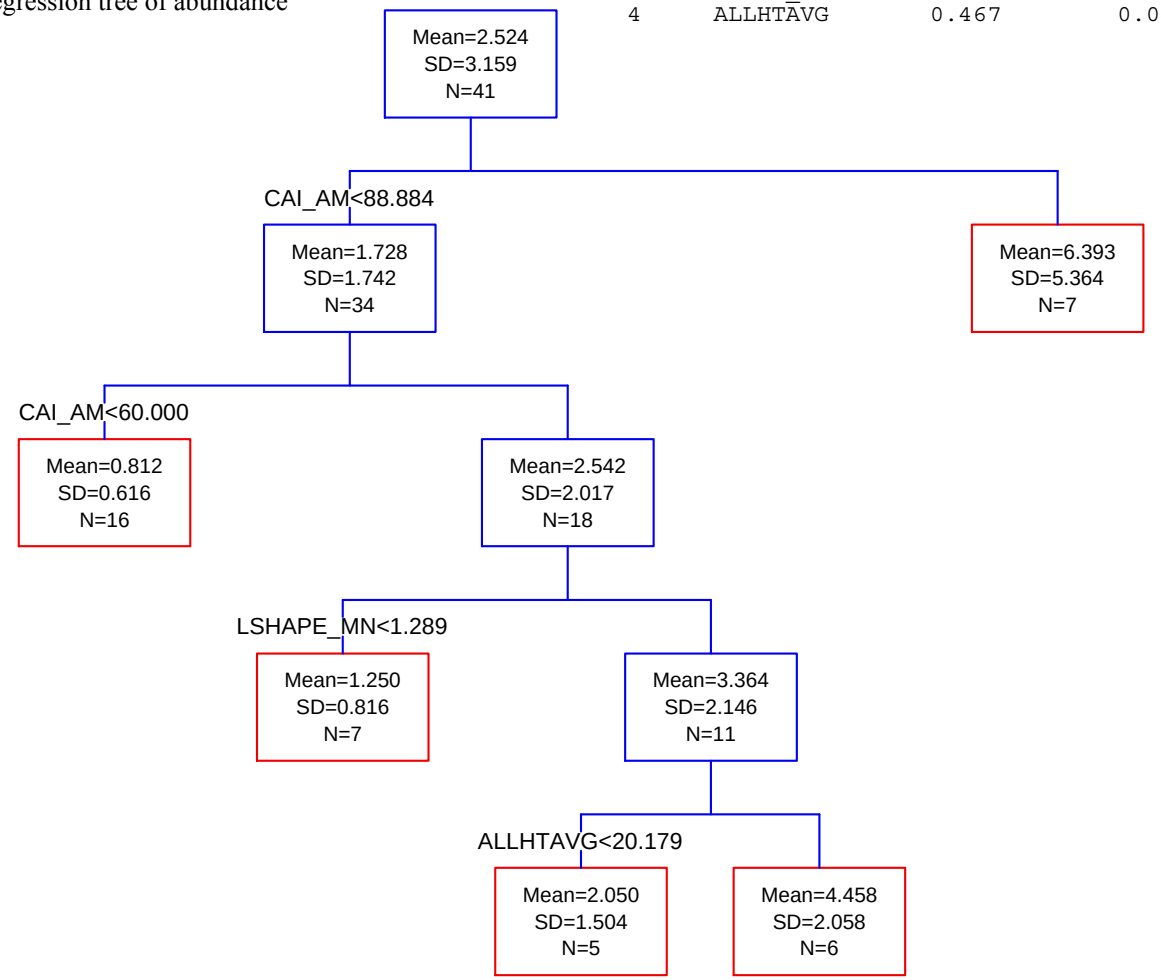
Split	Variable	PRE	Improvement
1	CAI_AM	0.370	0.370
2	STDAGE	0.442	0.073
3	UDIAMAVG	0.477	0.035
4	DEADTPA	0.550	0.072
5	CAI_AM	0.617	0.067
6	LSHAPE_MN	0.651	0.034



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
100 m buffer
Regression tree of abundance

10 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_AM	0.317	0.317
2	CAI_AM	0.380	0.063
3	LSHAPE_MN	0.428	0.048
4	ALLHTAVG	0.467	0.040



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
129	-52.362	6	117.4	0.0	0.373
129	-51.459	7	117.8	0.4	0.301
129	-50.792	8	118.8	1.4	0.188
129	-50.077	13	129.3	11.9	0.001

K6

Parameter	Estimate
CONSTANT	-19.116
DEADTPA	0.295
V12	31.066
PLAND	0.138
LANDSHDI	7.129

K7

Parameter	Estimate
CONSTANT	-18.415
DEADTPA	0.235
V12	30.175
PLAND	0.13
CAI_MN	0.016
LANDSHDI	6.976

K8

Parameter	Estimate
CONSTANT	-16.168
DEADTPA	0.255
RCDIAMAVG	-0.203
V12	27.313
PLAND	0.128
CAI_MN	0.02
LANDSHDI	6.897

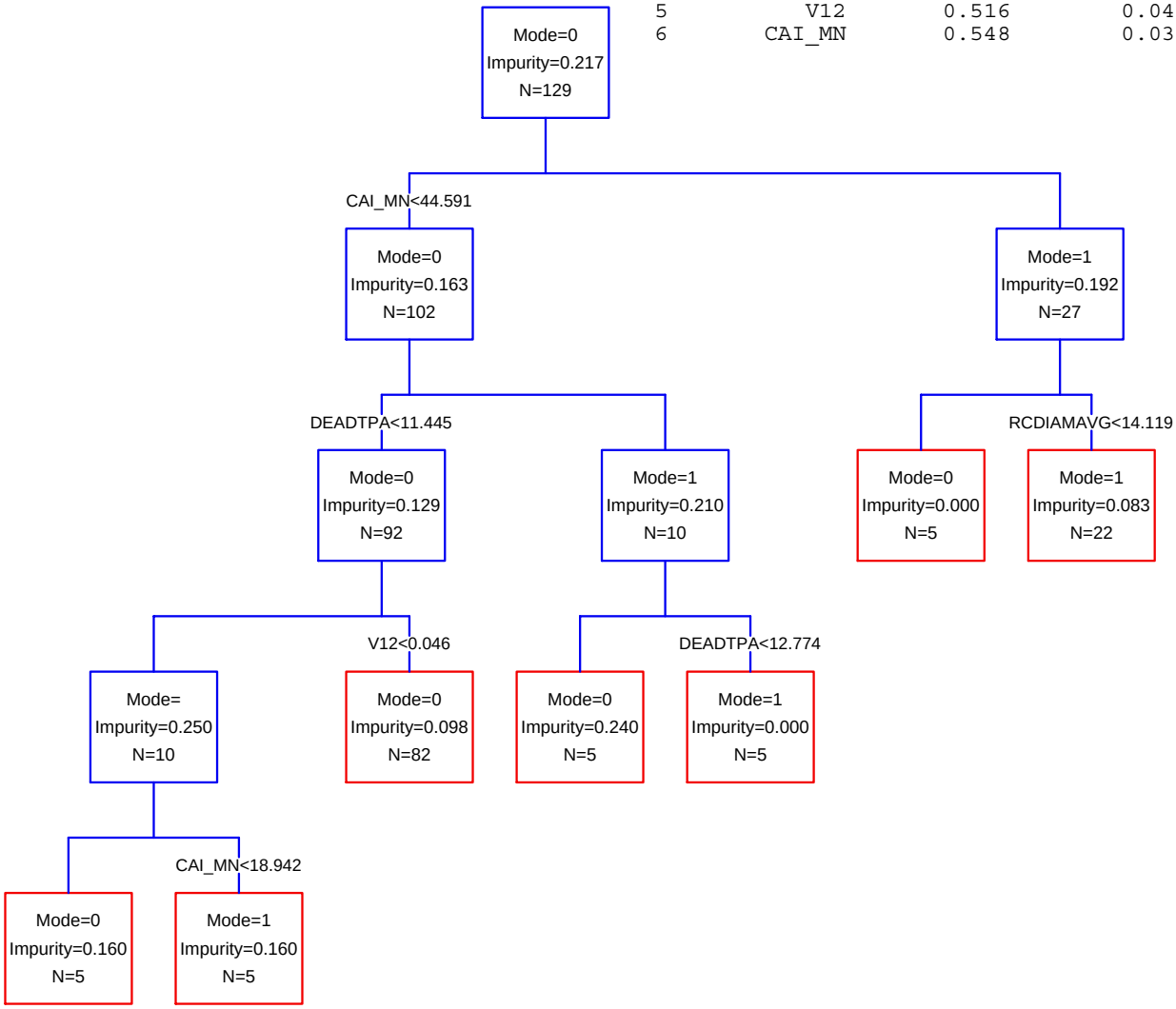
K13(GLOBAL)

Parameter	Estimate
CONSTANT	-20.571
STDAGE	-0.009
DEADTPA	0.279
ALLHTAVG	0.029
UDIAMAVG	0.588
RCDIAMAVG	-0.292
DRCDIAMAVG	0.36
V12	26.337
V32	11.005
PLAND	0.125
CAI_MN	0.019
LANDSHDI	6.818

Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
1 km buffer
Classification tree of presence-absence

98 cases deleted due to missing data.

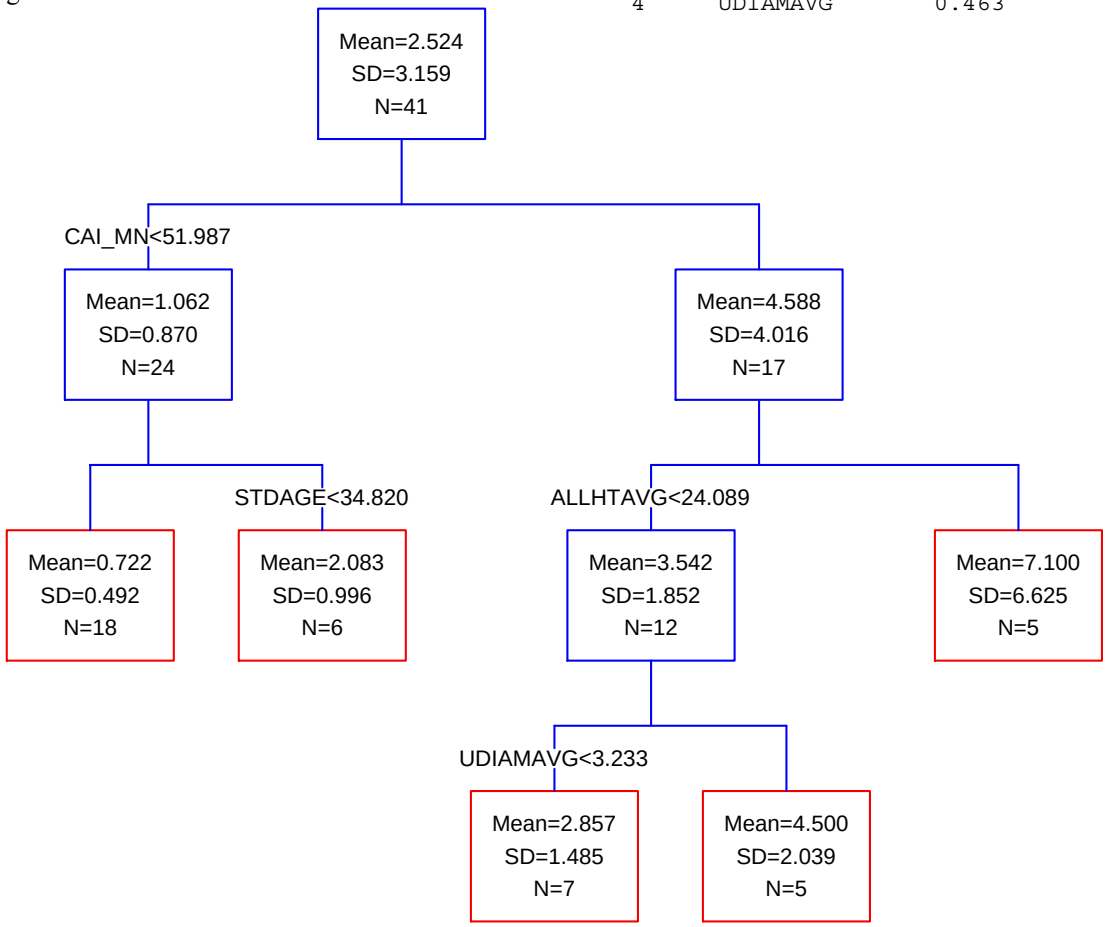
Split	Variable	PRE	Improvement
1	CAI_MN	0.218	0.218
2	RCDIAMAVG	0.339	0.120
3	DEADTPA	0.436	0.097
4	DEADTPA	0.468	0.032
5	V12	0.516	0.049
6	CAI_MN	0.548	0.032



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
1 km buffer
Regression tree of abundance

10 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_MN	0.310	0.310
2	STDAGE	0.331	0.021
3	ALLHTAVG	0.443	0.112
4	UDIAMAVG	0.463	0.020



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
131	-50.633	8	118.4	0.0	0.474
131	-49.876	9	119.2	0.8	0.319
131	-49.502	13	128.1	9.7	0.004

K8

Parameter	Estimate
CONSTANT	8.288
SITECLCD	-2.015
DEADTPA	0.207
DRCDIAMAVG	-1.134
V12	12.011
CPLAND	0.073
CAI_MN	0.055

K9

Parameter	Estimate
CONSTANT	7.413
SITECLCD	-2.239
DEADTPA	0.216
ALLHTAVG	0.066
DRCDIAMAVG	-1.118
V12	12.711
CPLAND	0.068
CAI_MN	0.055

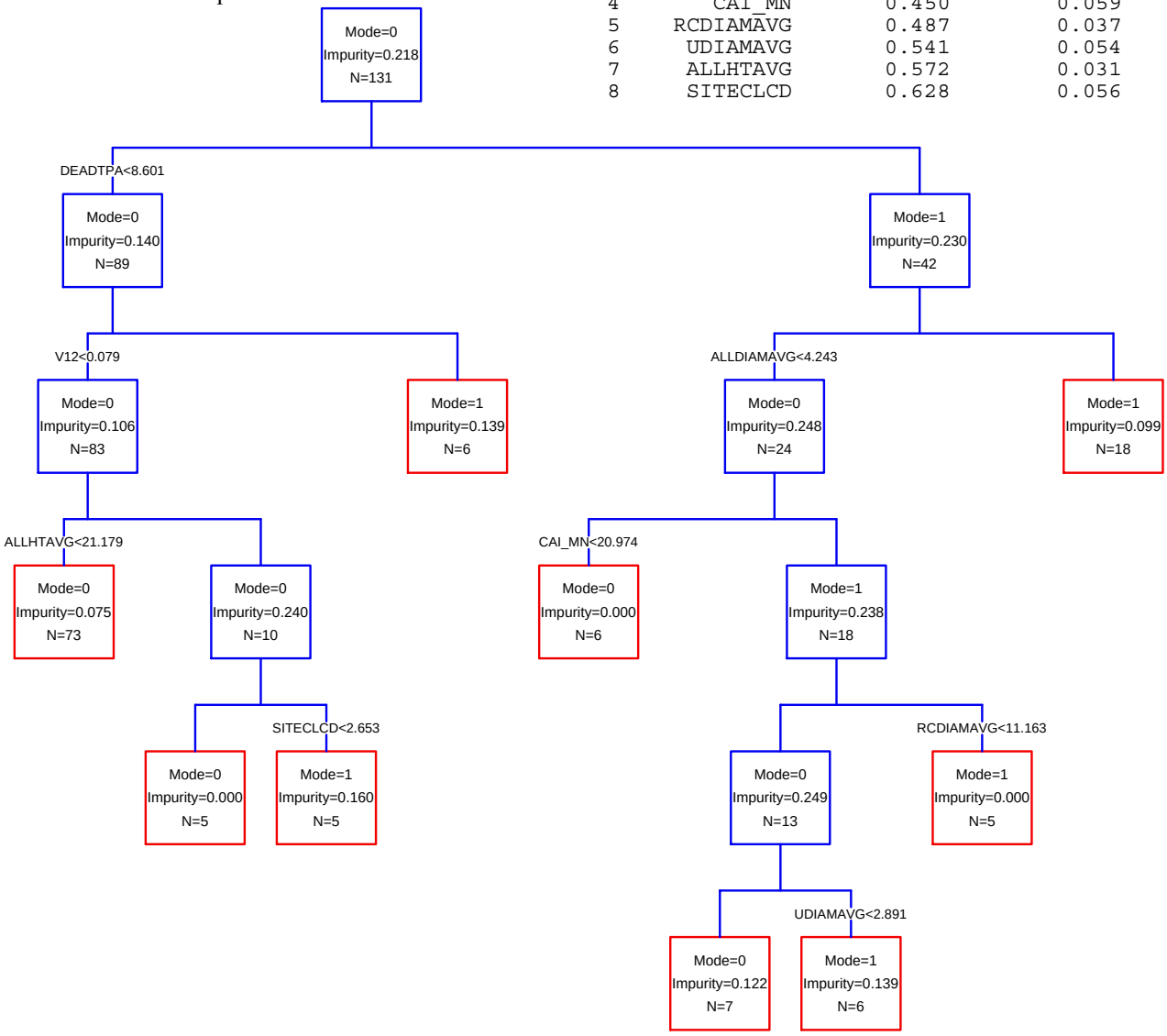
K13(GLOBAL)

Parameter	Estimate
CONSTANT	6.636
SITECLCD	-2.116
DEADTPA	0.241
ALLDIAMAVG	0.237
ALLHTAVG	0.059
UDIAMAVG	-0.247
RCDIAMAVG	-0.157
DRCDIAMAVG	-0.931
V12	9.125
V32	6.633
CPLAND	0.074
CAI_MN	0.055

Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
10 km buffer
Classification tree of presence-absence

96 cases deleted due to missing data.

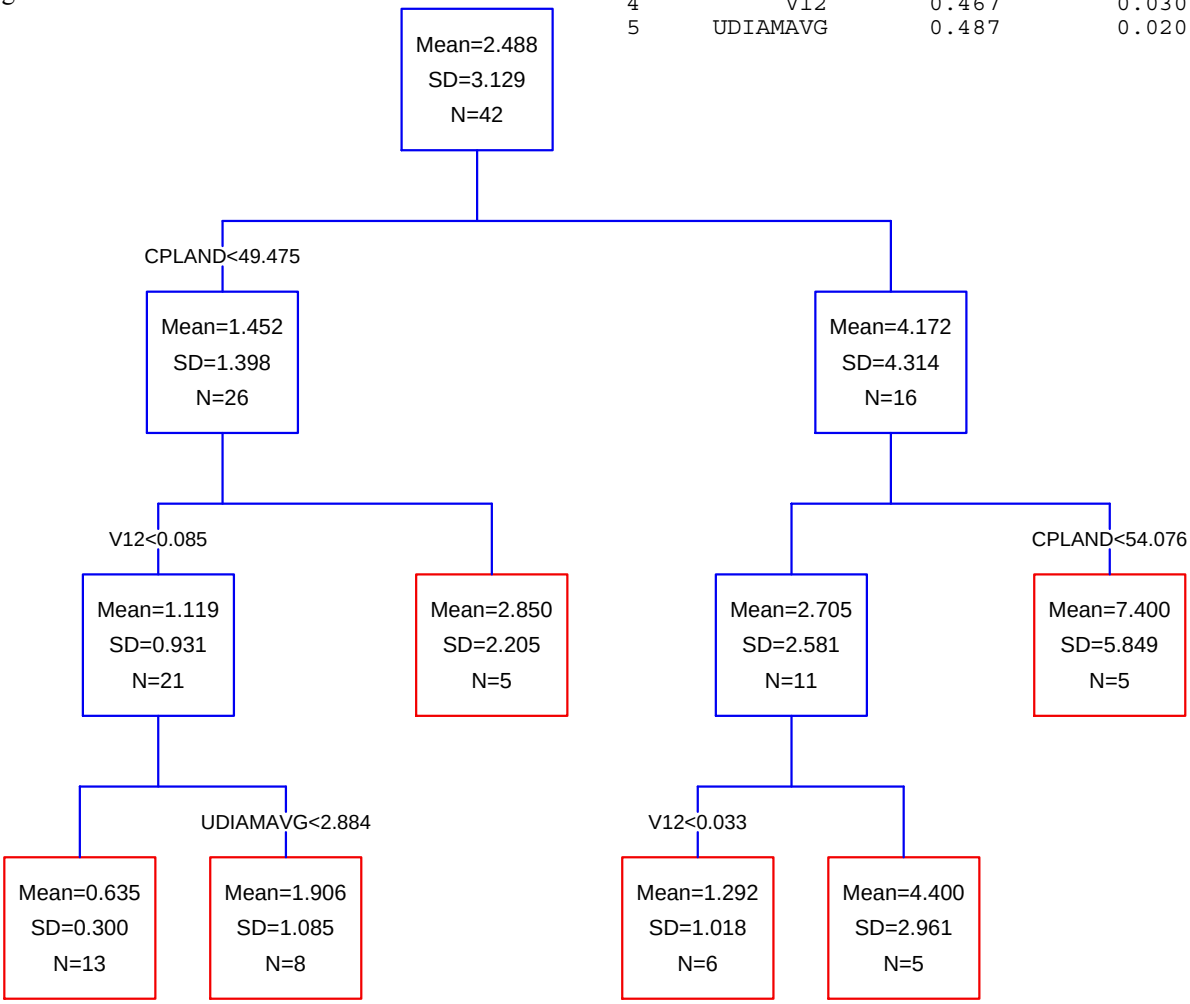
Split	Variable	PRE	Improvement
1	DEADTPA	0.225	0.225
2	V12	0.325	0.100
3	ALLDIAMAVG	0.391	0.067
4	CAI_MN	0.450	0.059
5	RCDIAMAVG	0.487	0.037
6	UDIAMAVG	0.541	0.054
7	ALLHTAVG	0.572	0.031
8	SITECLCD	0.628	0.056



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
10 km buffer
Regression tree of absence

9 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CPLAND	0.183	0.183
2	CPLAND	0.371	0.189
3	V12	0.437	0.066
4	V12	0.467	0.030
5	UDIAMAVG	0.487	0.020



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
127	-42.524	8	102.3	0.0	0.224
127	-41.874	9	103.3	1.0	0.135
127	-40.759	14	113.3	11.0	0.001

K8

Parameter	Estimate
CONSTANT	-12.845
V1ALLHTAVG	0.183
V1CAI_AM	0.078
V1V23	-12.328
V2LANDSHDI	1.98
V3DEADTPA	0.365
V3V12	15.952

K9

Parameter	Estimate
CONSTANT	-21.88
V1ALLHTAVG	0.195
V1CAI_AM	0.064
V1V23	-13.174
V2PLAND	0.089
V2LANDSHDI	6.41
V3DEADTPA	0.319
V3V12	24.764

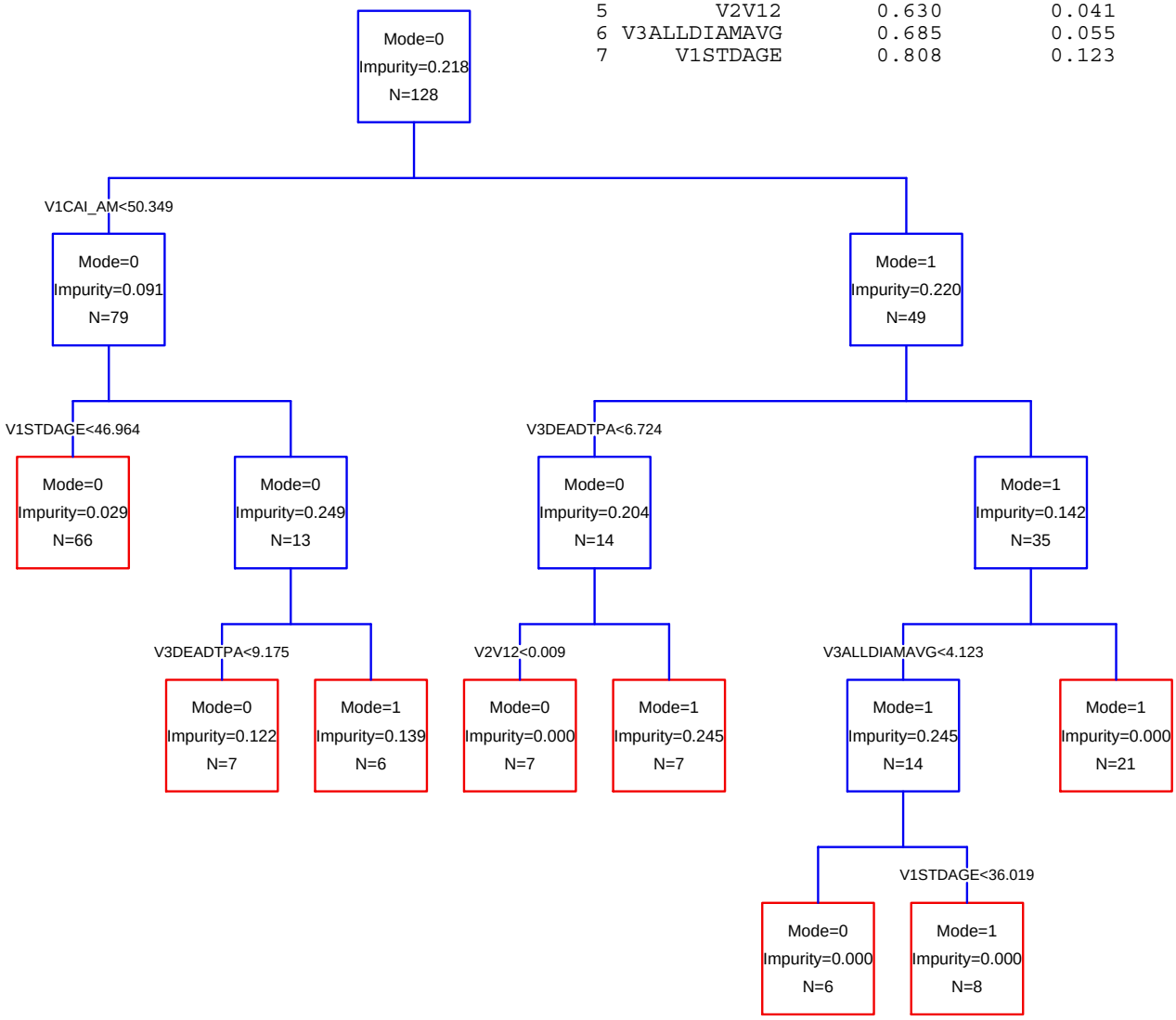
K14(GLOBAL)

Parameter	Estimate
CONSTANT	-19.017
V1STDAGE	0.025
V1ALLHTAVG	0.191
V1CAI_AM	0.067
V1V23	-13.82
V2PLAND	0.08
V2LANDSHDI	7.088
V3SITECLCD	-0.482
V3DEADTPA	0.328
V3DRCDIAMAVG	-0.394
V3V12	15.303
V3CPLAND	0.026
V3CAI_MN	-0.008

Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
Multiscale
Classification tree of presence-absence

99 cases deleted due to missing data.

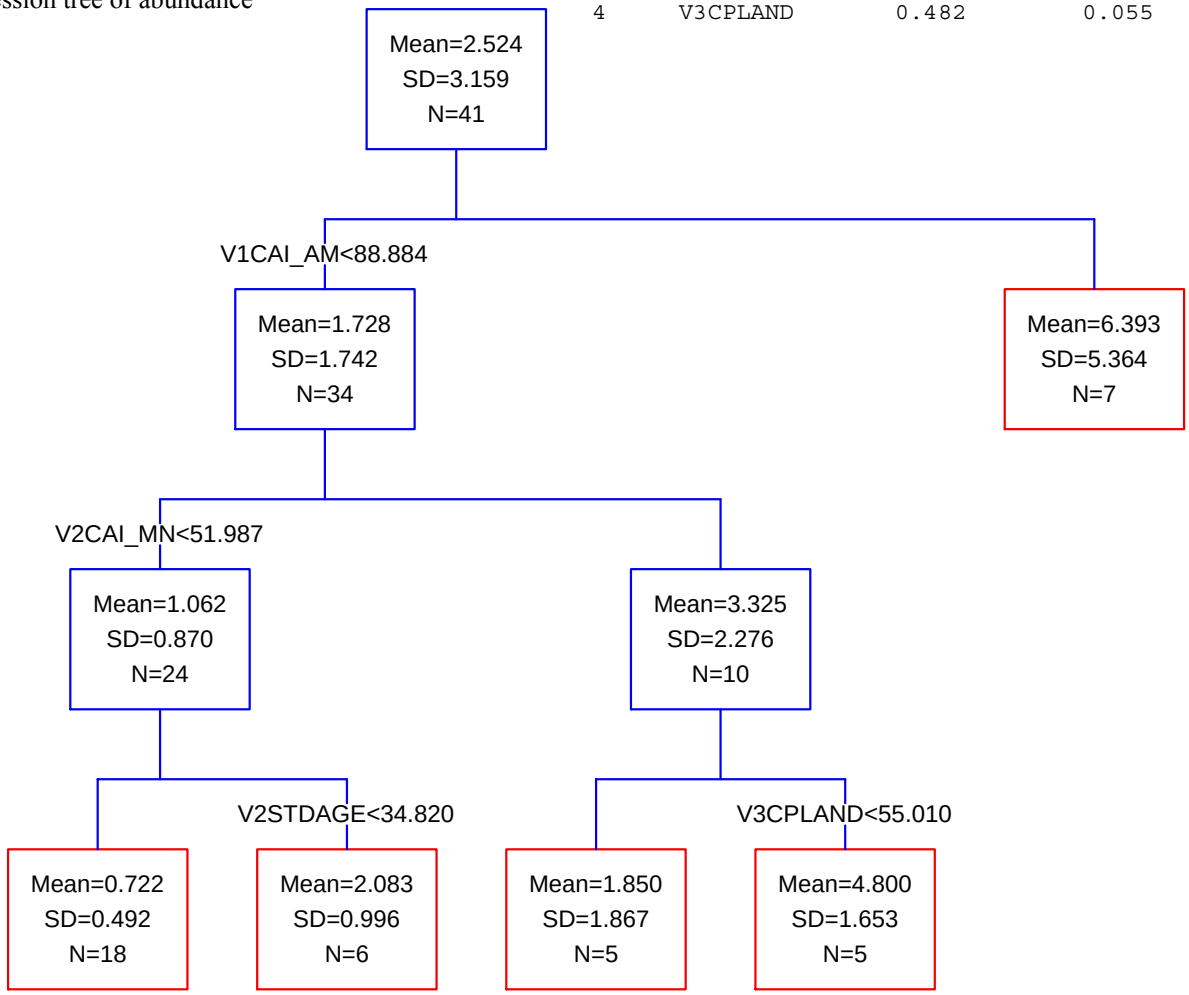
Split	Variable	PRE	Improvement
1	V1CAI_AM	0.355	0.355
2	V1STDAGE	0.428	0.072
3	V3DEADTPA	0.483	0.055
4	V3DEADTPA	0.589	0.106
5	V2V12	0.630	0.041
6	V3ALLDIAMAVG	0.685	0.055
7	V1STDAGE	0.808	0.123



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
BBS route level
Multiscale
Regression tree of abundance

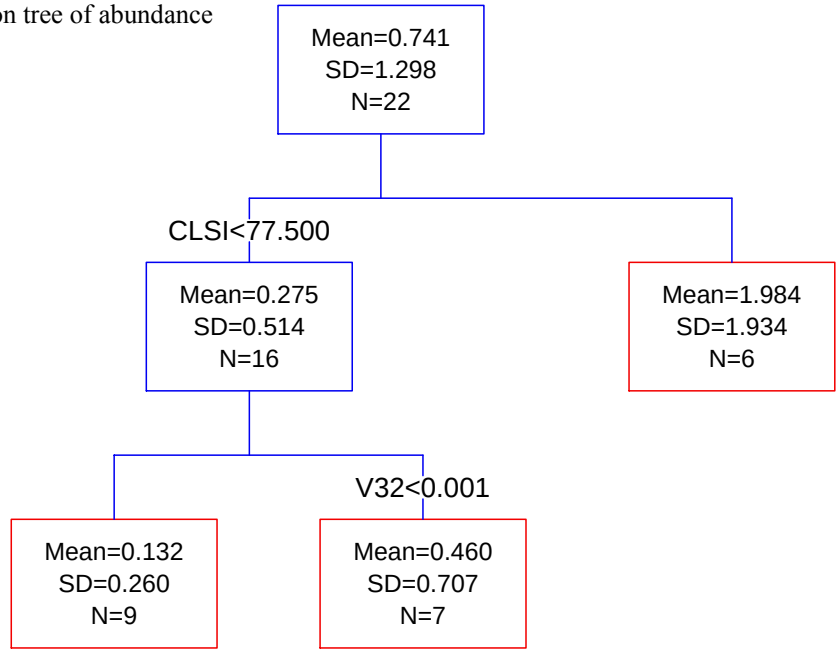
10 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1CAI_AM	0.317	0.317
2	V2CAI_MN	0.407	0.091
3	V2STDAGE	0.428	0.021
4	V3CPLAND	0.482	0.055



Mature Forest Ground-Shrub Guild
BLACK-THROATED BLUE WARBLER
FIA Unit scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	CLSI	0.360	0.360
2	V32	0.372	0.012



Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
137	-77.253	4	162.8	0.0	0.362
137	-76.354	5	163.2	0.4	0.303
137	-75.941	6	164.5	1.7	0.153
137	-75.613	8	168.4	5.6	0.023

K4

Parameter	Estimate
CONSTANT	-6.995
UDIAMAVG	1.802
CAI_MN	0.021

K5

Parameter	Estimate
CONSTANT	-7.578
DEADTPA	0.081
UDIAMAVG	1.8
CAI_MN	0.017

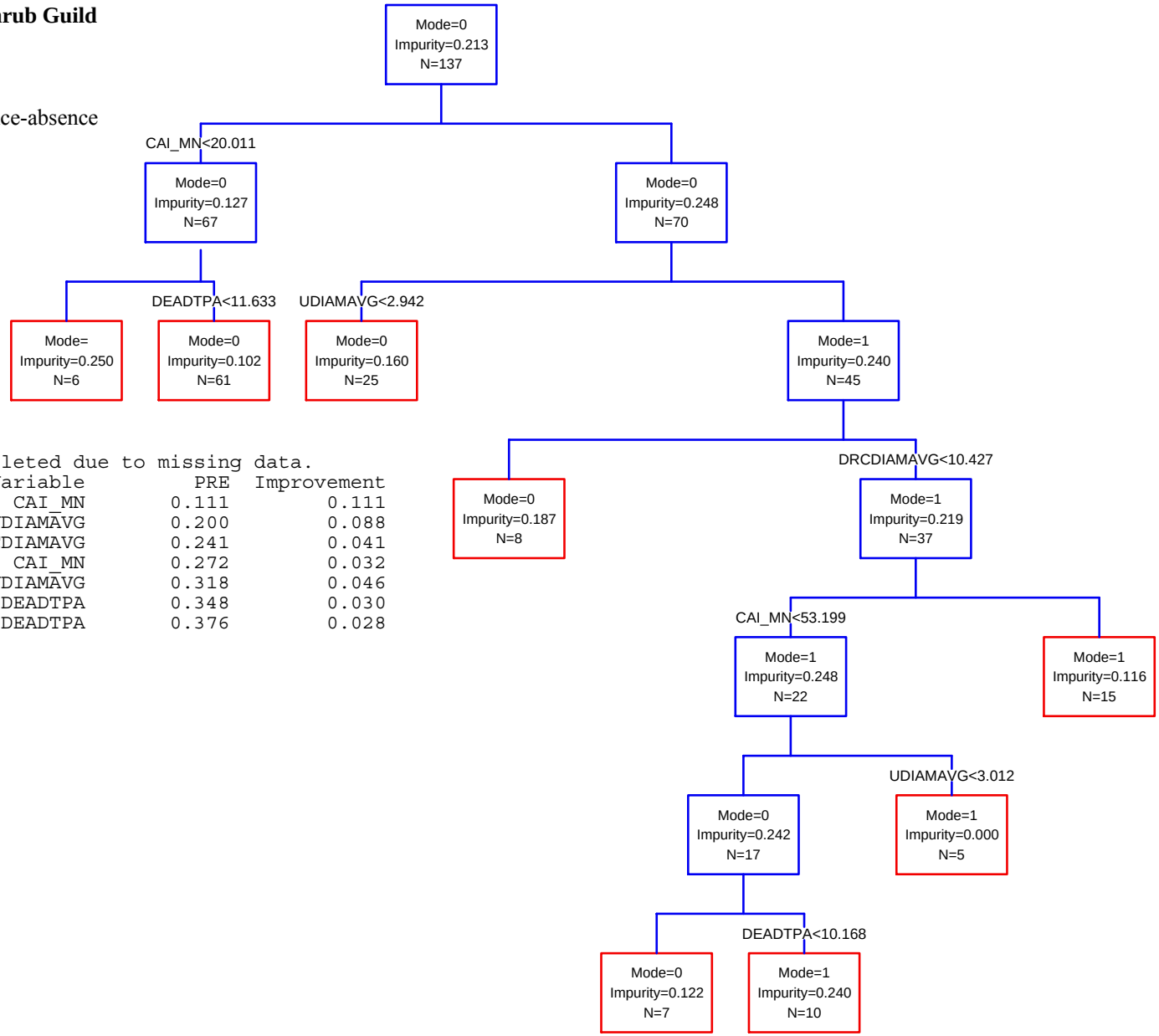
K6

Parameter	Estimate
CONSTANT	-7.934
DEADTPA	0.078
UDIAMAVG	1.922
V32	-2.935
CAI_MN	0.019

K8(GLOBAL)

Parameter	Estimate
CONSTANT	-6.607
DEADTPA	0.079
UDIAMAVG	1.983
DRCDIAMAVG	-0.137
V32	-8.215
SHAPE_CV	-0.003
CAI_MN	0.02

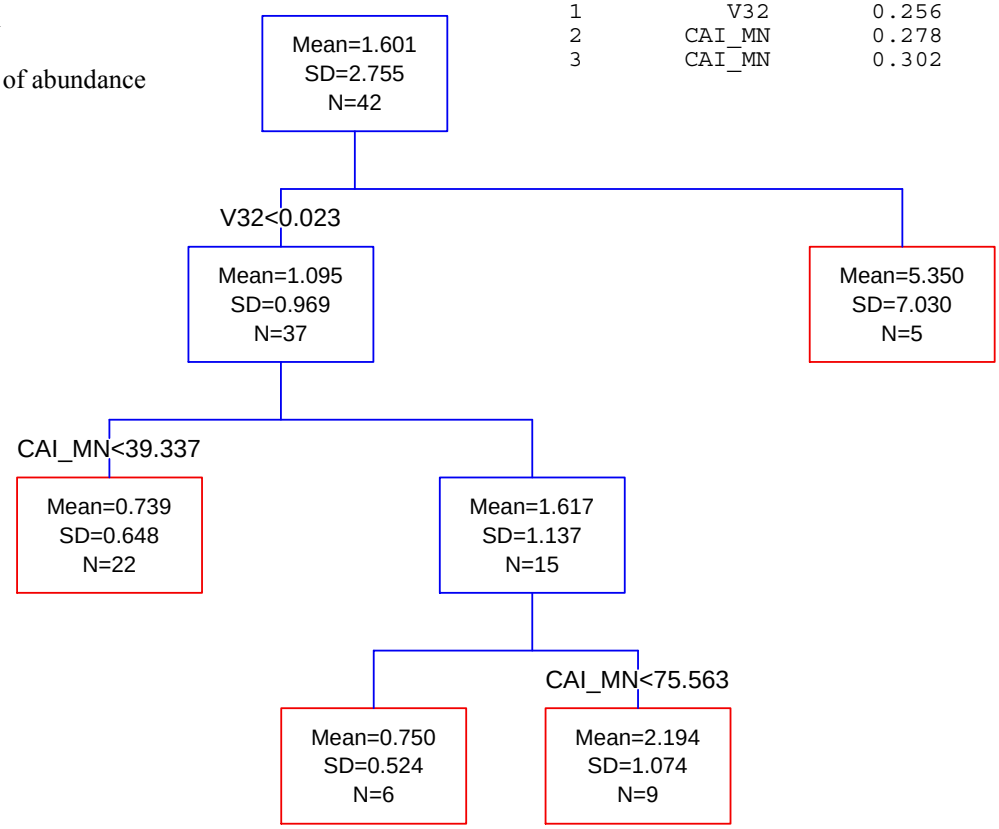
Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
100 m buffer
Classification tree of presence-absence




```
90 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1       CAI_MN       0.111        0.111
    2     UDIAMAVG       0.200        0.088
    3   DRCDIAMAVG       0.241        0.041
    4       CAI_MN       0.272        0.032
    5     UDIAMAVG       0.318        0.046
    6      DEADTPA       0.348        0.030
    7      DEADTPA       0.376        0.028
```

Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
100 m buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	V32	0.256	0.256
2	CAI_MN	0.278	0.022
3	CAI_MN	0.302	0.024



Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
137	-75.809	4	159.9	0.0	0.378
137	-75.111	5	160.7	0.8	0.258
137	-74.554	6	161.8	1.9	0.151
137	-73.954	8	165.0	5.1	0.029

K4

Parameter	Estimate
CONSTANT	-7.125
UDIAMAVG	1.777
CAI_MN	0.025

K5

Parameter	Estimate
CONSTANT	-7.576
UDIAMAVG	1.915
V32	-3.785
CAI_MN	0.028

K6

Parameter	Estimate
CONSTANT	-8.047
DEADTPA	0.065
UDIAMAVG	1.918
V32	-3.561
CAI_MN	0.024

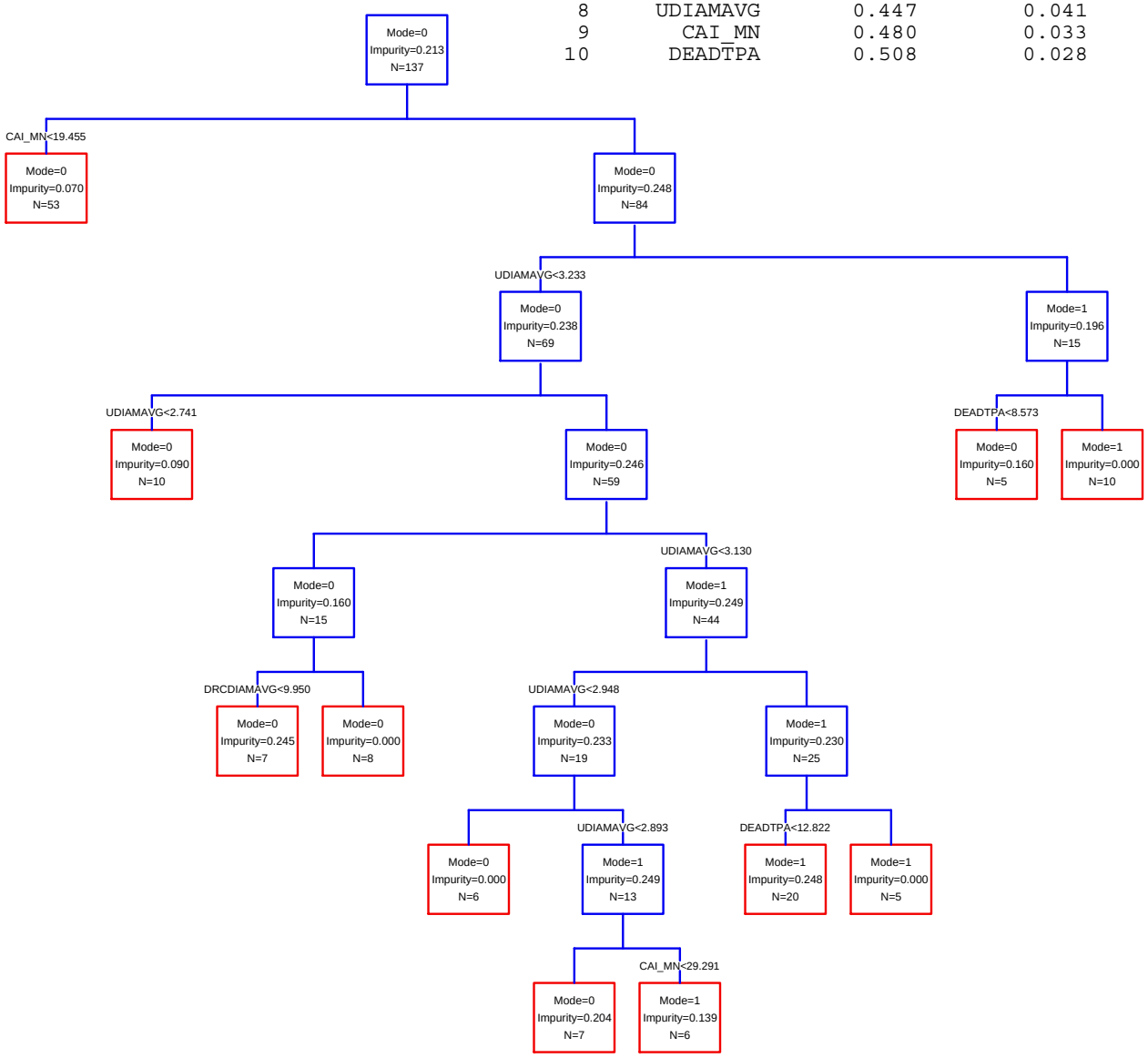
K8(GLOBAL)

Parameter	Estimate
CONSTANT	-6.557
DEADTPA	0.06
UDIAMAVG	1.91
DRCDIAMAVG	-0.182
V32	-10.106
PLAND	0.008
CAI_MN	0.024

Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
1 km buffer
Classification tree of presence-absence

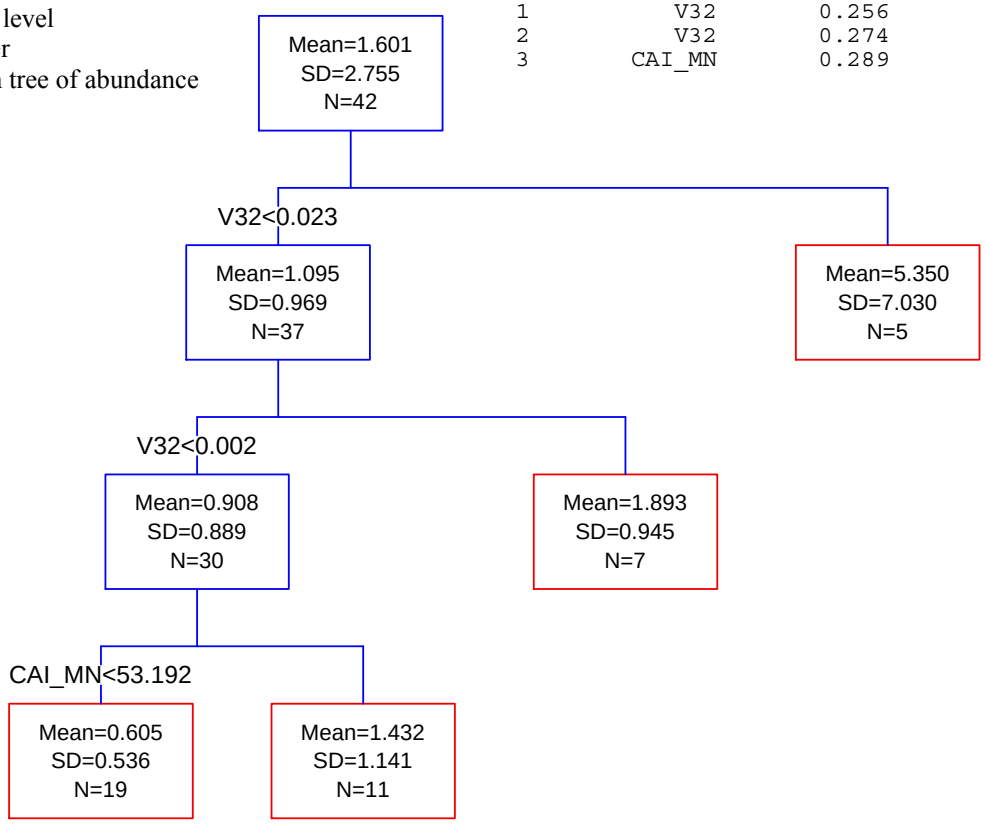
90 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_MN	0.159	0.159
2	UDIAMAVG	0.208	0.049
3	DEADTPA	0.281	0.073
4	UDIAMAVG	0.315	0.034
5	UDIAMAVG	0.355	0.040
6	DRCDIAMAVG	0.379	0.024
7	UDIAMAVG	0.406	0.027
8	UDIAMAVG	0.447	0.041
9	CAI_MN	0.480	0.033
10	DEADTPA	0.508	0.028



Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
1 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	V32	0.256	0.256
2	V32	0.274	0.018
3	CAI_MN	0.289	0.015



Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
137	-75.152	4	158.6	0.0	0.822
137	-75.318	8	167.8	9.2	0.008

K4

Parameter	Estimate
CONSTANT	-6.542
DEADTPA	0.178
ALLDIAMAVG	0.985

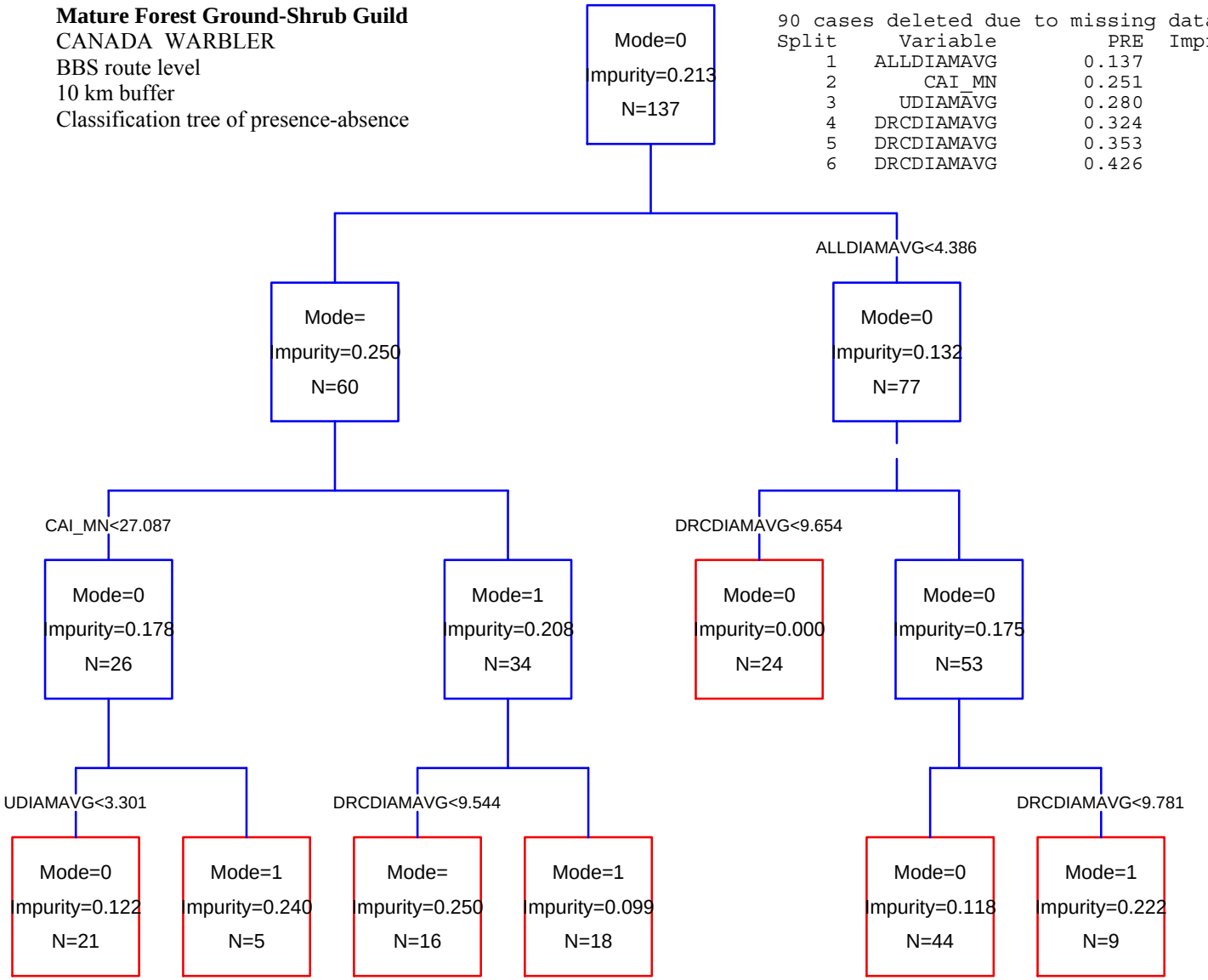
K8(GLOBAL)

Parameter	Estimate
CONSTANT	-7.186
DEADTPA	0.108
ALLDIAMAVG	0.931
UDIAMAVG	0.653
DRCDIAMAVG	-0.101
V32	-8.934
CAI_MN	0.018

Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
10 km buffer
Classification tree of presence-absence

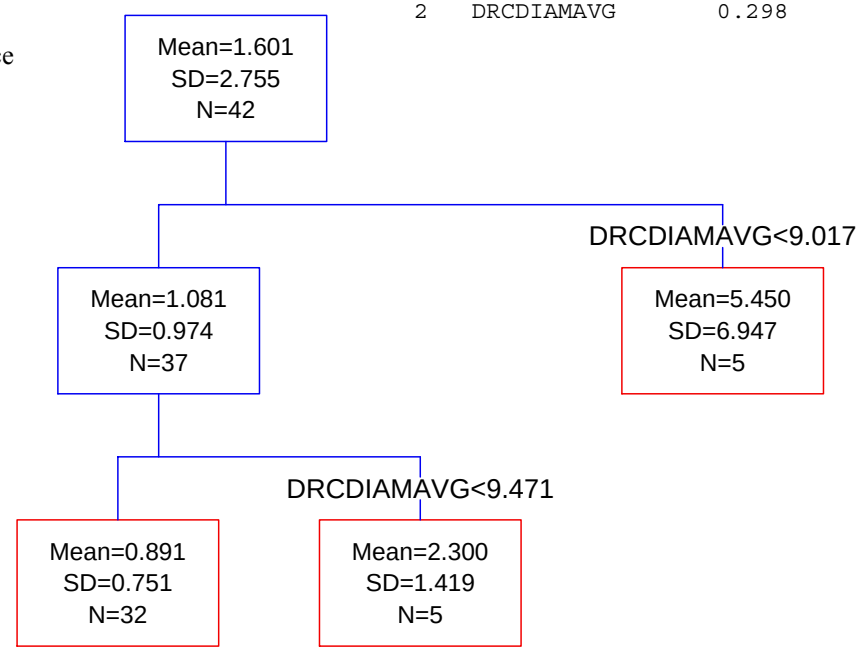
90 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	ALLDIAMAVG	0.137	0.137
2	CAI_MN	0.251	0.114
3	UDIAMAVG	0.280	0.029
4	DRCDIAMAVG	0.324	0.044
5	DRCDIAMAVG	0.353	0.029
6	DRCDIAMAVG	0.426	0.072



Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	DRCDIAMAVG	0.270	0.270
2	DRCDIAMAVG	0.298	0.028



Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
137	-74.7	4	157.7	0.0	0.428
137	-73.742	5	157.9	0.2	0.380
137	-73.571	6	159.8	2.1	0.151

K4

Parameter	Estimate
CONSTANT	-5.44
V2CAI_MN	0.024
V3ALLDIAMAVG	0.877

K5

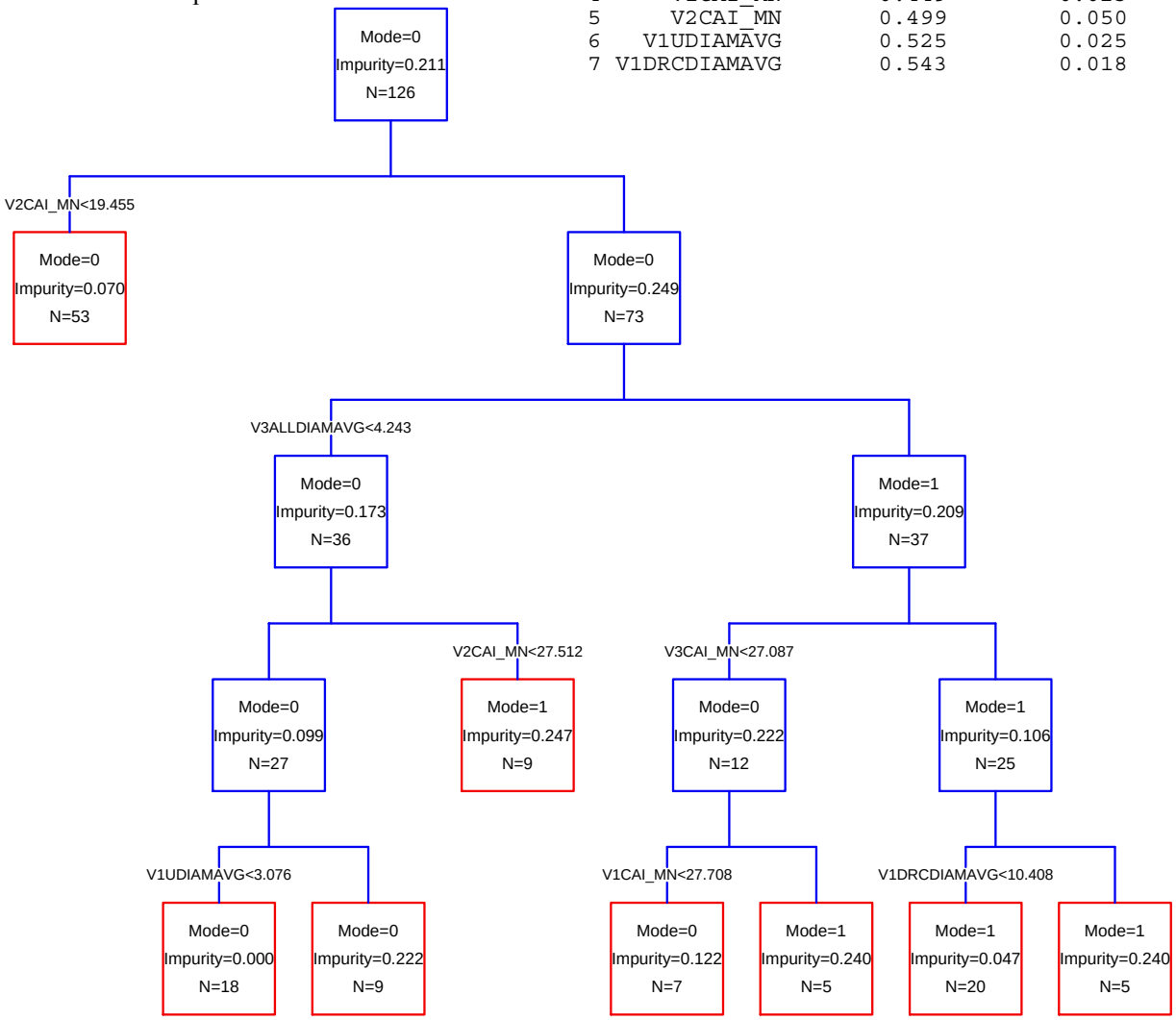
Parameter	Estimate
CONSTANT	-6.539
V2CAI_MN	0.02
V3ALLDIAMAVG	0.964
V3DEADTPA	0.102

K6(GLOBAL)

Parameter	Estimate
CONSTANT	-7.711
V2UDIAMAVG	0.611
V2CAI_MN	0.021
V3ALLDIAMAVG	0.818
V3DEADTPA	0.092

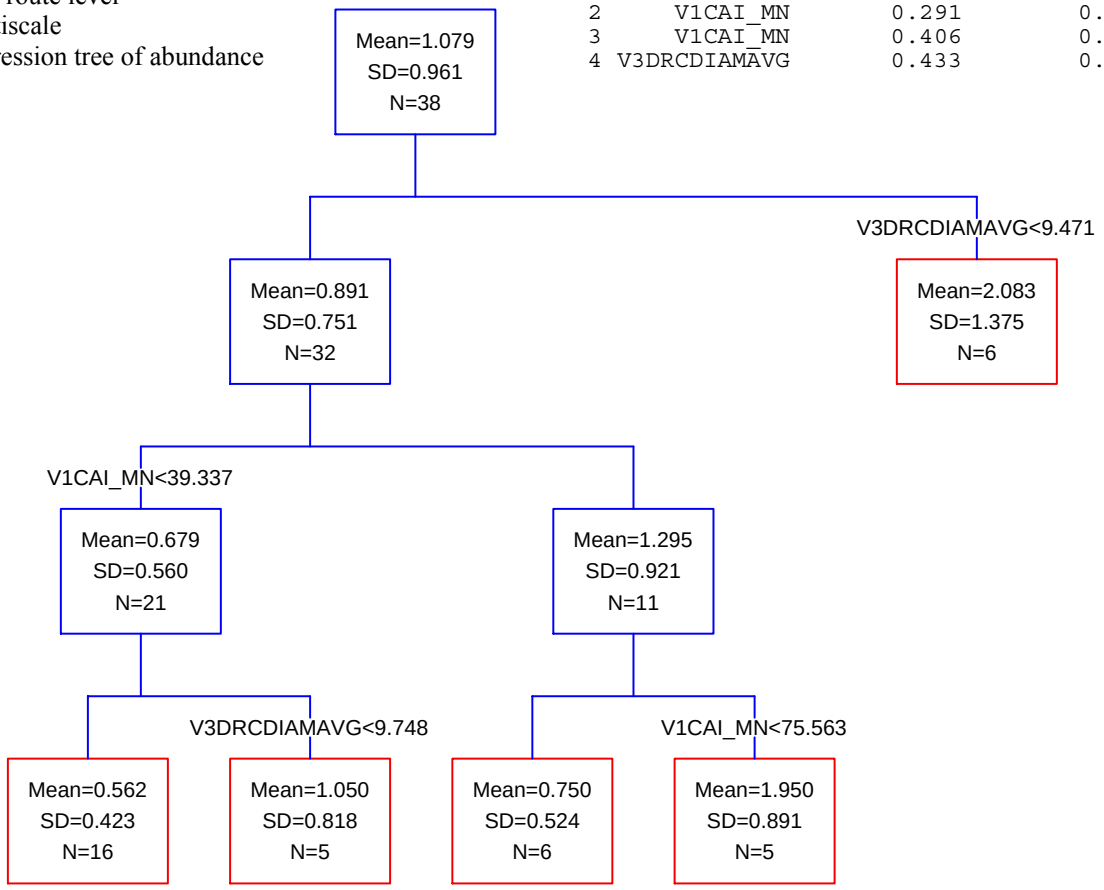
Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
Multiscale
Classification tree of presence-absence

```
101 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1      V2CAI_MN       0.176        0.176
    2 V3ALLDIAMAVG        0.335        0.159
    3      V3CAI_MN       0.426        0.091
    4      V1CAI_MN       0.449        0.023
    5      V2CAI_MN       0.499        0.050
    6    V1UDIAMAVG       0.525        0.025
    7 V1DRCDIAMAVG        0.543        0.018
```



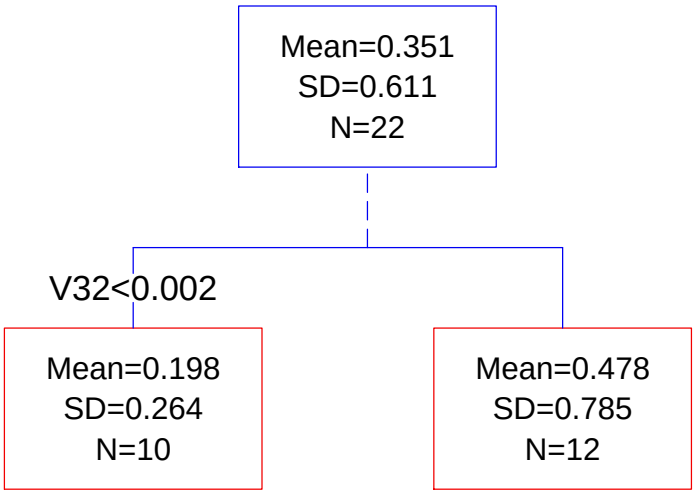
Mature Forest Ground-Shrub Guild
CANADA WARBLER
BBS route level
Multiscale
Regression tree of abundance

```
4 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1 V3DRCDIAMAVG       0.211        0.211
    2     V1CAI_MN       0.291        0.080
    3     V1CAI_MN       0.406        0.115
    4 V3DRCDIAMAVG       0.433        0.027
```



Mature Forest Ground-Shrub Guild
CANADA WARBLER
FIA Unit scale
Regression tree of abundance

```
8 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1          V32        0.055        0.055
```



Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
170	-79.965	7	174.6	0.0	0.307
170	-78.921	8	174.7	0.1	0.290
170	-78.366	9	175.9	1.3	0.166
170	-77.417	16	190.4	15.8	0.000

K7

Parameter	Estimate
CONSTANT	-6.089
SITECLCD	1.181
DEADTPA	-0.162
DOMHTAVG	0.07
V25	172.223
LCAI_MN	0.034

K8

Parameter	Estimate
CONSTANT	4.765
SITECLCD	1.329
DEADTPA	-0.159
DOMHTAVG	0.071
V25	176.97
LSHAPE_MN	-8.805
LCAI_MN	0.038

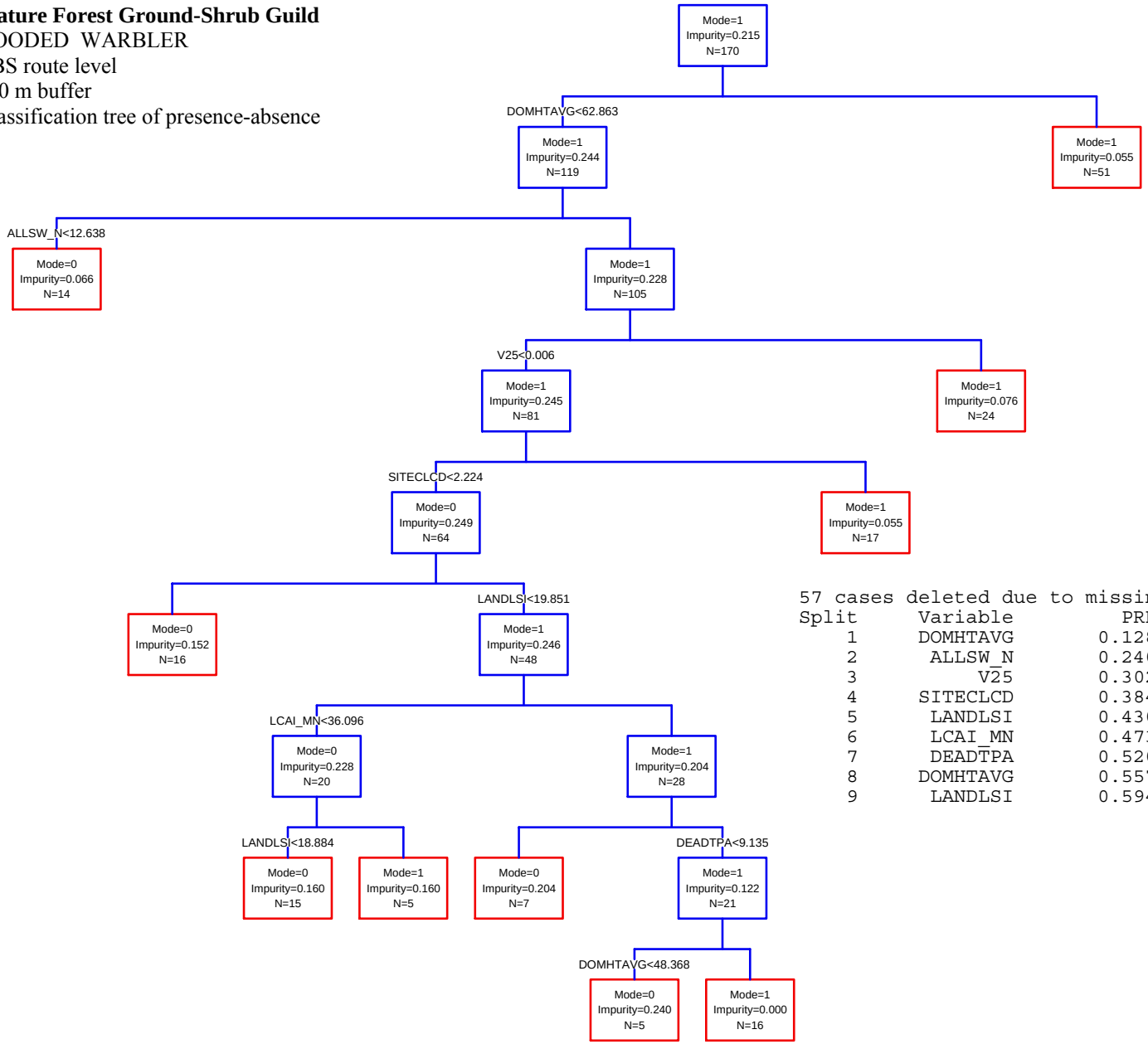
K9

Parameter	Estimate
CONSTANT	4.991
SITECLCD	1.289
DEADTPA	-0.162
DOMHTAVG	0.077
V25	161.92
V31	33.778
LSHAPE_MN	-9.292
LCAI_MN	0.041

K16(GLOBAL)

Parameter	Estimate
CONSTANT	5.241
SITECLCD	1.576
DEADTPA	-0.174
DOMHTAVG	0.073
DRCDIAMAVG	-0.043
UDIAMCV	-1.738
ALLSW_N	0.02
DSW_N	-0.456
V19	-26.787
V23	-1.502
V25	154.013
V31	46.612
LANDLSI	-0.081
LSHAPE_MN	-6.831
LCAI_MN	0.041

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
100 m buffer
Classification tree of presence-absence



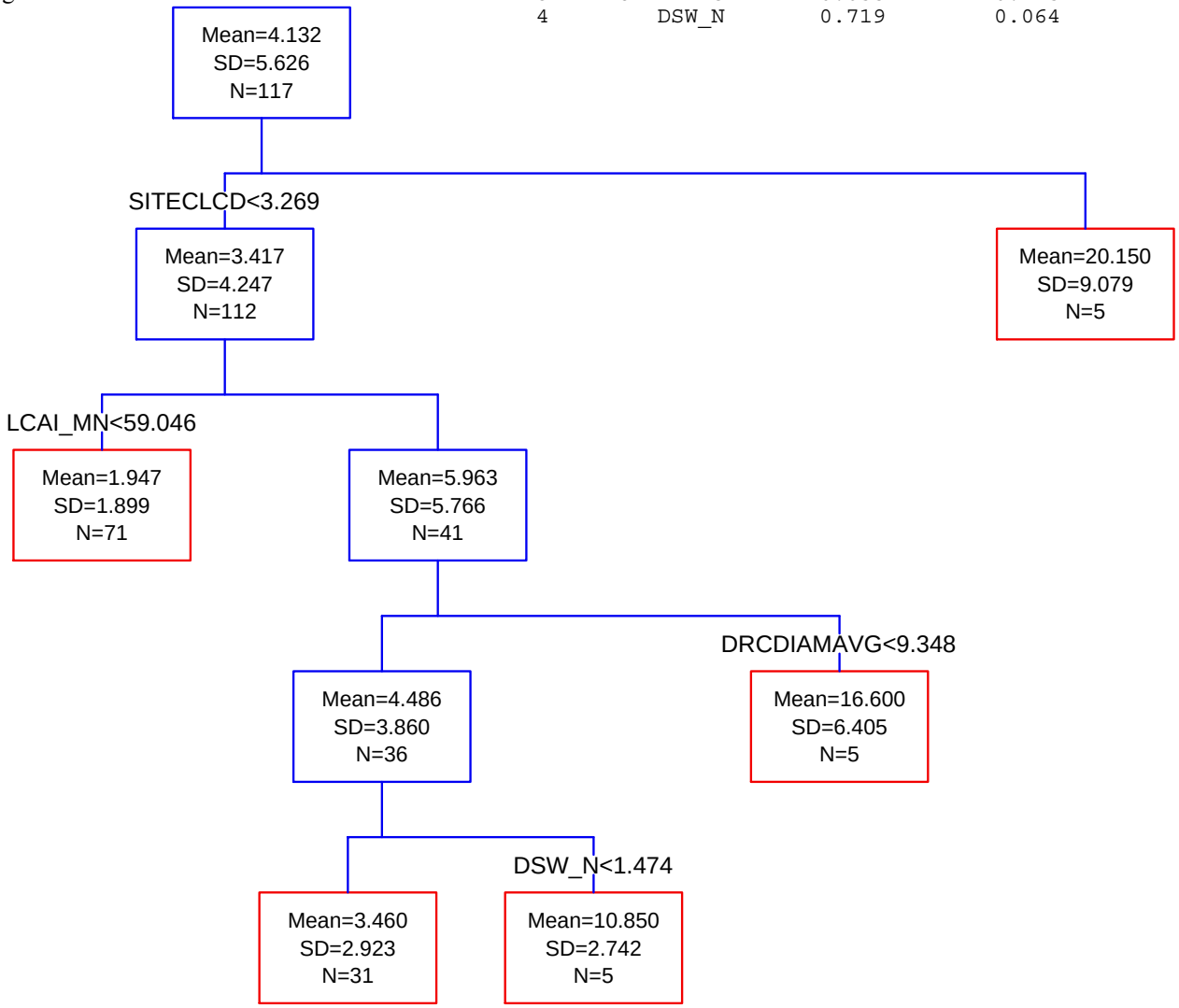
57 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DOMHTAVG	0.128	0.128
2	ALLSW_N	0.240	0.112
3	V25	0.302	0.062
4	SITECLCD	0.384	0.082
5	LANDLSI	0.430	0.046
6	LCAI_MN	0.473	0.042
7	DEADTPA	0.520	0.047
8	DOMHTAVG	0.557	0.038
9	LANDLSI	0.594	0.037

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
100 m buffer
Regression tree of abundance

38 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	SITECLCD	0.365	0.365
2	LCAI_MN	0.479	0.114
3	DRCDIAMAVG	0.655	0.175
4	DSW_N	0.719	0.064



Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
226	-92.182	11	207.6	0.0	0.409
226	-93.981	10	209.0	1.4	0.204
226	-92.751	17	222.4	14.8	0.000

K11

Parameter	Estimate
CONSTANT	-11.998
SITECLCD	1.514
DEADTPA	-0.159
DDIAMAVG	0.319
DRCDIAMAVG	-0.138
V25	119.584
V31	45.123
LSI	-0.055
SHAPE_MN	6.816
LCAI_MN	0.033

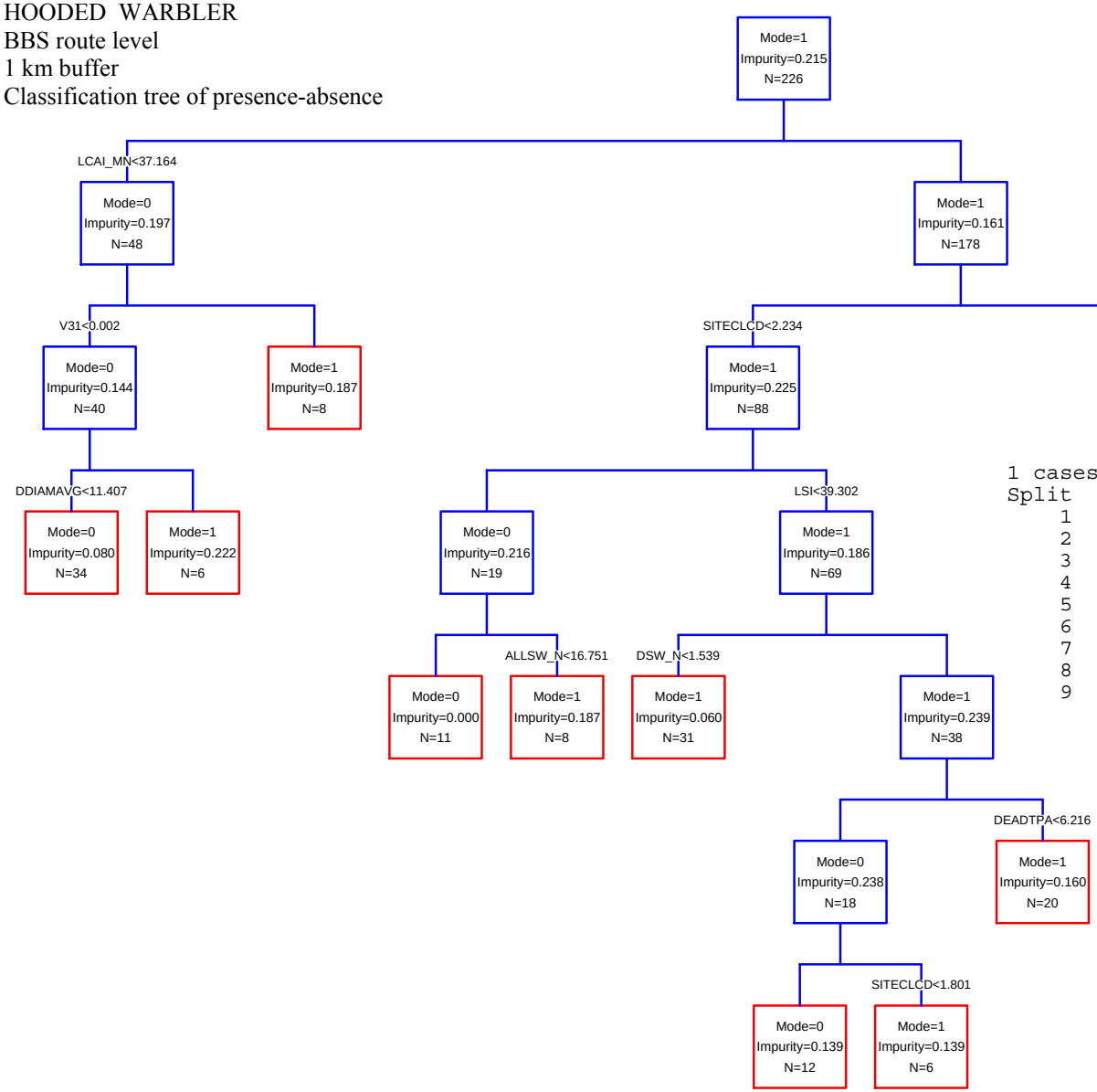
K10

Parameter	Estimate
CONSTANT	-12.946
SITECLCD	1.46
DEADTPA	-0.151
DDIAMAVG	0.321
DRCDIAMAVG	-0.134
V25	147.945
LSI	-0.047
SHAPE_MN	7.355
LCAI_MN	0.032

K17(GLOBAL)

Parameter	Estimate
CONSTANT	-11.925
SITECLCD	1.547
DEADTPA	-0.175
DDIAMAVG	0.374
DRCDIAMAVG	-0.149
ALLSW_N	-0.036
DSW_N	-0.066
V19	2.584
V23	0.055
V25	121.093
V31	42.626
LSI	-0.057
SHAPE_MN	7.177
LSHAPE_AM	-0.032
LCAI_MN	0.036
LANDIJI	0.001

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
1 km buffer
Classification tree of presence-absence

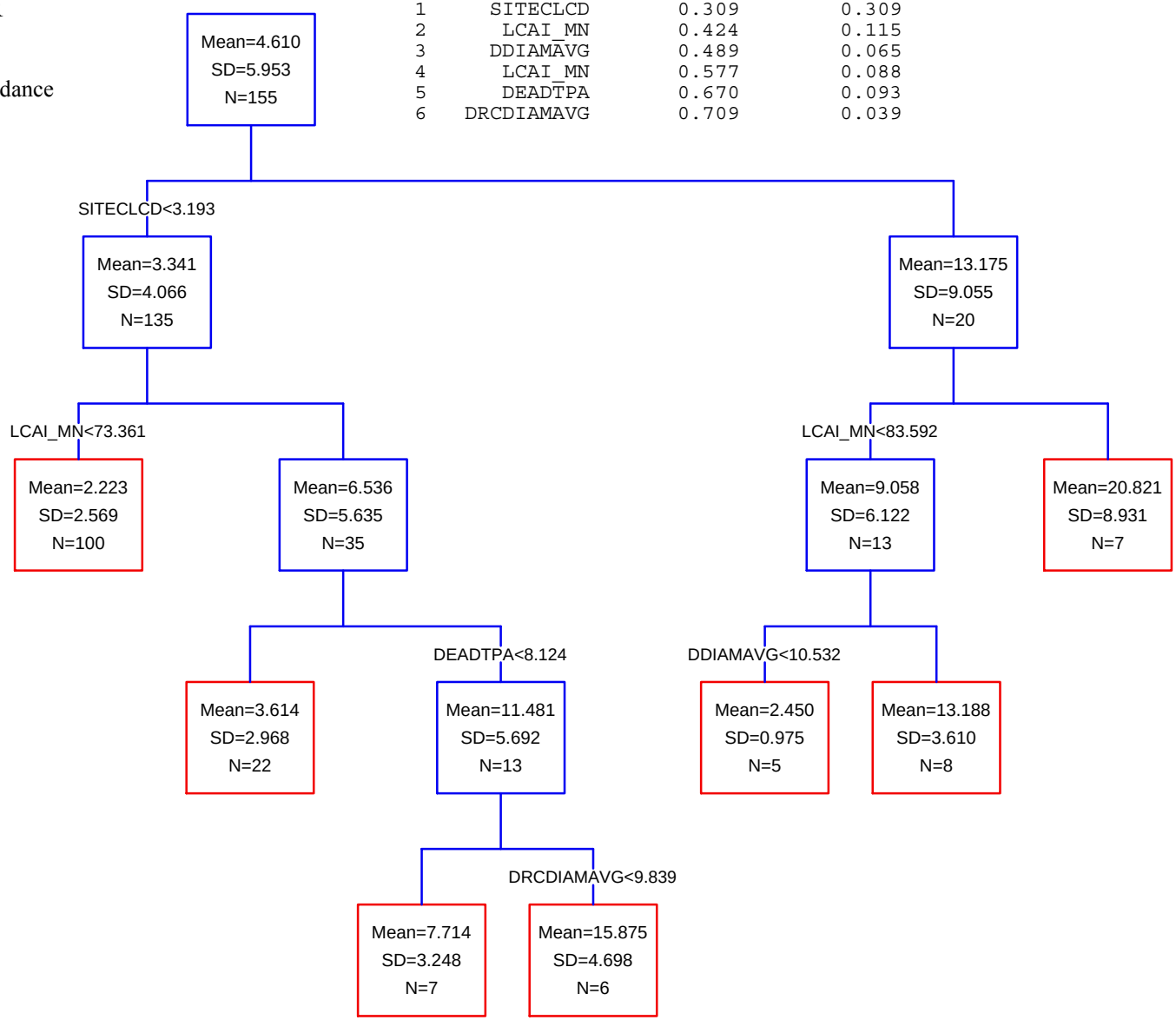


1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_MN	0.216	0.216
2	V31	0.261	0.045
3	DDIAMAVG	0.296	0.035
4	SITECLCD	0.365	0.069
5	LSI	0.423	0.059
6	ALLSW_N	0.477	0.054
7	DSW_N	0.515	0.038
8	DEADTPA	0.548	0.033
9	SITECLCD	0.584	0.037

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
1 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	SITECLCD	0.309	0.309
2	LCAI_MN	0.424	0.115
3	DDIAMAVG	0.489	0.065
4	LCAI_MN	0.577	0.088
5	DEADTPA	0.670	0.093
6	DRCDIAMAVG	0.709	0.039



Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
227	-102.486	9	223.8	0.0	0.311
227	-101.512	10	224.0	0.2	0.276
227	-103.937	8	224.5	0.7	0.215
227	-105.413	7	225.3	1.5	0.144
227	-101.073	11	225.4	1.6	0.142
227	-99.103	16	232.8	9.0	0.003

K9

Parameter	Estimate
CONSTANT	2.578
SITECLCD	1.581
DEADTPA	-0.17
DEADDIAMAVG	-0.18
V31	57.452
LSI	-0.017
LCAI_MN	0.037
LANDIJI	-0.044

K10

Parameter	Estimate
CONSTANT	-0.612
SITECLCD	1.572
DEADTPA	-0.201
DDIAMAVG	0.272
DEADDIAMAVG	-0.186
V31	61.891
LSI	-0.015
LCAI_MN	0.039
LANDIJI	-0.034

K8

Parameter	Estimate
CONSTANT	2.088
LCAI_MN	0.039
SITECLCD	1.448
LSI	-0.012
DEADDIAMAVG	-0.176
DEADTPA	-0.165
LANDIJI	-0.039

K7

Parameter	Estimate
CONSTANT	-0.48
LCAI_MN	0.048
SITECLCD	1.38
LSI	-0.011
DEADDIAMAVG	-0.144
DEADTPA	-0.198

K11

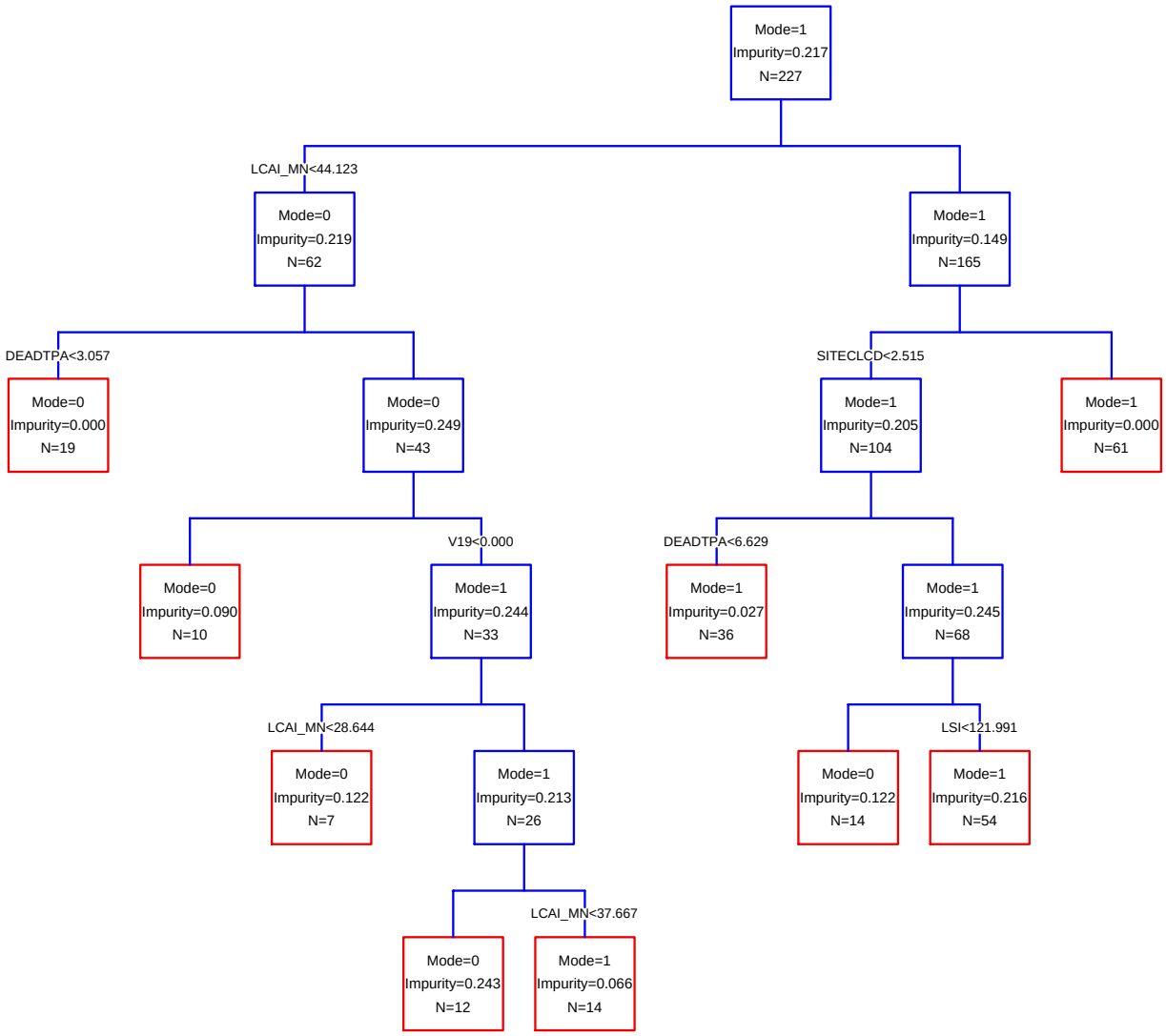
Parameter	Estimate
CONSTANT	-0.517
SITECLCD	1.741
DEADTPA	-0.218
DDIAMAVG	0.318
DEADDIAMAVG	-0.19
ALLSW_N	-0.048
V31	53.634
LSI	-0.015
LCAI_MN	0.037
LANDIJI	-0.03

K16(GLOBAL)

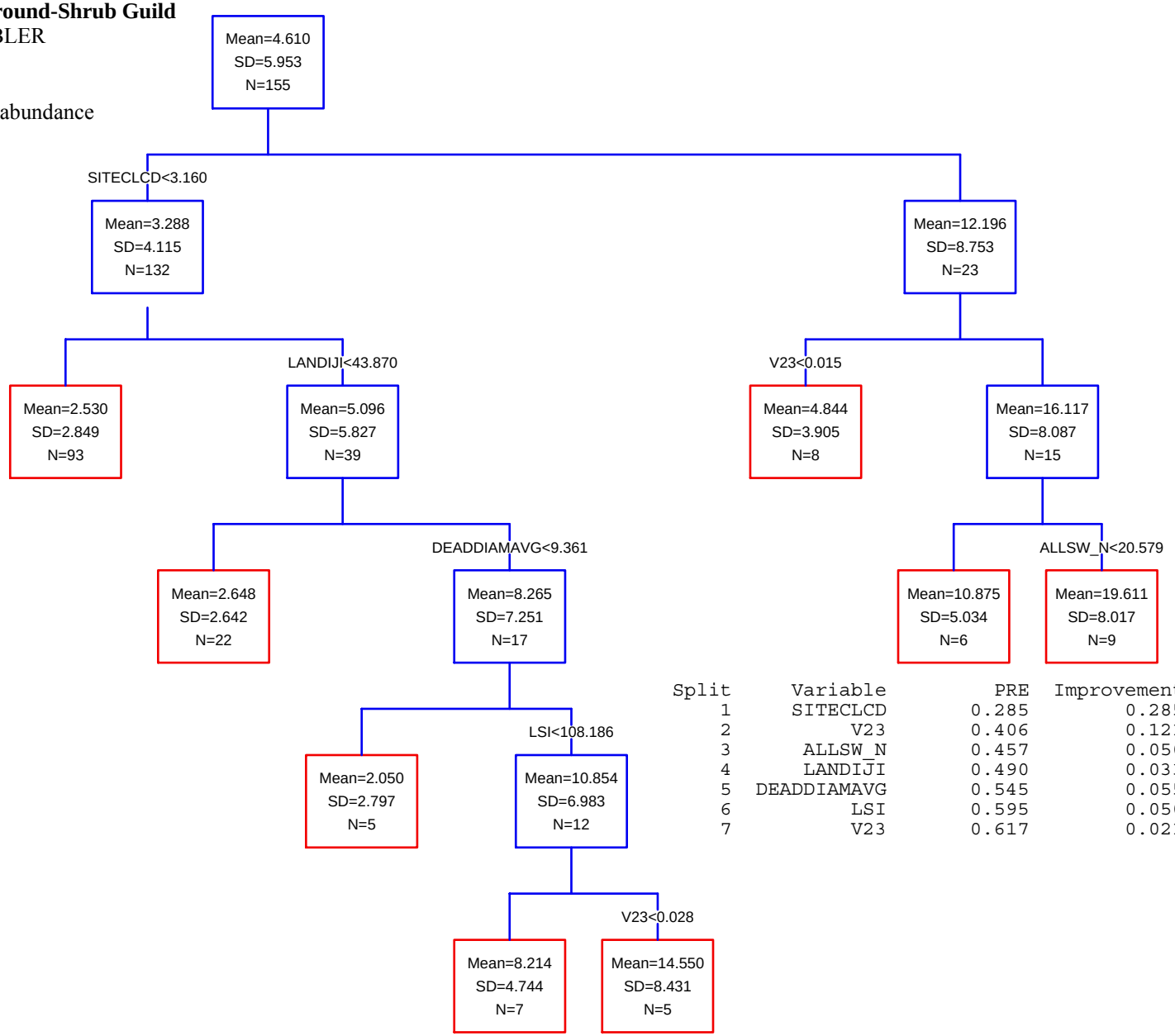
Parameter	Estimate
CONSTANT	1.082
SITECLCD	1.927
DEADTPA	-0.199
DDIAMAVG	0.228
DEADDIAMAVG	-0.176
ALLSW_N	-0.063
DSW_N	-0.767
V19	-1.927
V23	-0.284
V31	34.561
V34	27275.89
LSI	-0.014
LSHAPE_AM	0.01
LCAI_MN	0.029
LANDIJI	-0.026

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
10 km buffer
Classification tree of presence-absence

Split	Variable	PRE	Improvement
1	LCAI_MN	0.225	0.225
2	DEADTPA	0.283	0.058
3	V19	0.318	0.035
4	LCAI_MN	0.352	0.034
5	LCAI_MN	0.387	0.034
6	SITECLCD	0.452	0.065
7	DEADTPA	0.528	0.076
8	LSI	0.594	0.067



Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
10 km buffer
Regression tree of abundance



Split	Variable	PRE	Improvement
1	SITECLCD	0.285	0.285
2	V23	0.406	0.121
3	ALLSW_N	0.457	0.050
4	LANDIJI	0.490	0.033
5	DEADDIAMAVG	0.545	0.055
6	LSI	0.595	0.050
7	V23	0.617	0.021

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
170	-76.26	9	171.6	0.0	0.248
170	-77.462	8	171.8	0.2	0.227
170	-75.502	10	172.4	0.8	0.171
170	-79.027	7	172.7	1.1	0.143
170	-74.616	15	182.3	10.7	0.001

K9

Parameter	Estimate
CONSTANT	-11.712
V1DOMHTAVG	0.06
V1V25	169.535
V2LSI	-0.052
V2SHAPE_MN	6.268
V2LCAI_MN	0.023
V3SITECLCD	1.267
V3DEADTPA	-0.193

K8

Parameter	Estimate
CONSTANT	-3.791
V1DOMHTAVG	0.057
V1V25	163.237
V2LSI	-0.043
V2LCAI_MN	0.03
V3SITECLCD	1.252
V3DEADTPA	-0.187

K10

Parameter	Estimate
CONSTANT	-10.488
V1DOMHTAVG	0.064
V1V25	1951.094
V2LSI	-0.051
V2SHAPE_MN	5.295
V2LCAI_MN	0.025
V2V25	-1807.87
V3SITECLCD	1.17
V3DEADTPA	-0.191

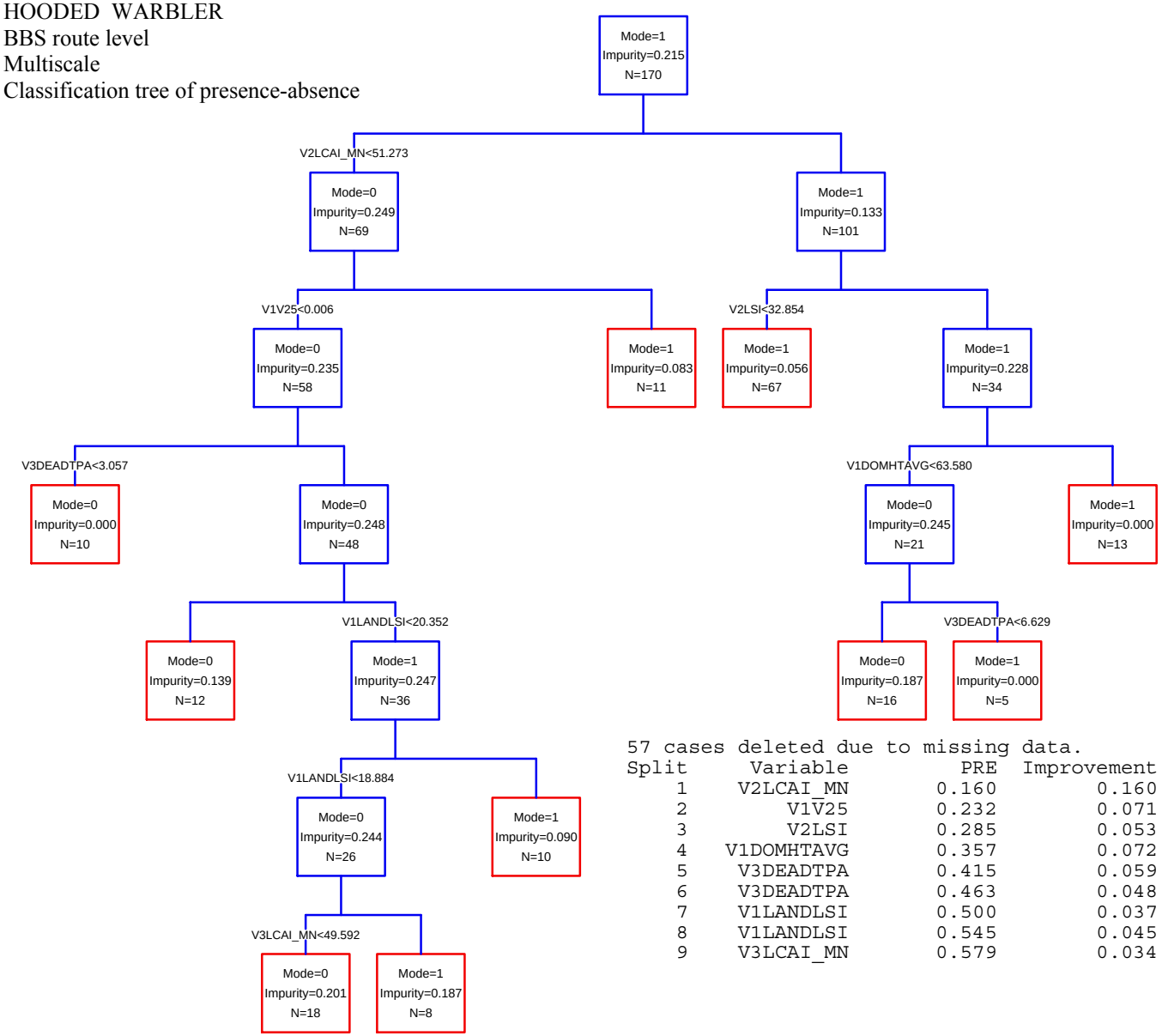
K7

Parameter	Estimate
CONSTANT	-5.836
V1DOMHTAVG	0.065
V1V25	157.87
V2LCAI_MN	0.041
V3SITECLCD	1.034
V3DEADTPA	-0.201

K15(GLOBAL)

Parameter	Estimate
CONSTANT	-6.019
V1DOMHTAVG	0.107
V1V25	1762.778
V2DDIAMAVG	-0.321
V2DRCDIAMAVG	-0.086
V2LSI	-0.062
V2SHAPE_MN	4.368
V2LCAI_MN	0.026
V2V25	-1640.71
V3SITECLCD	1.079
V3DEADTPA	-0.166
V3DEADDIAMAV	-0.111
V3V31	47.738
V3LANDIJI	-0.006

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
Multiscale
Classification tree of presence-absence



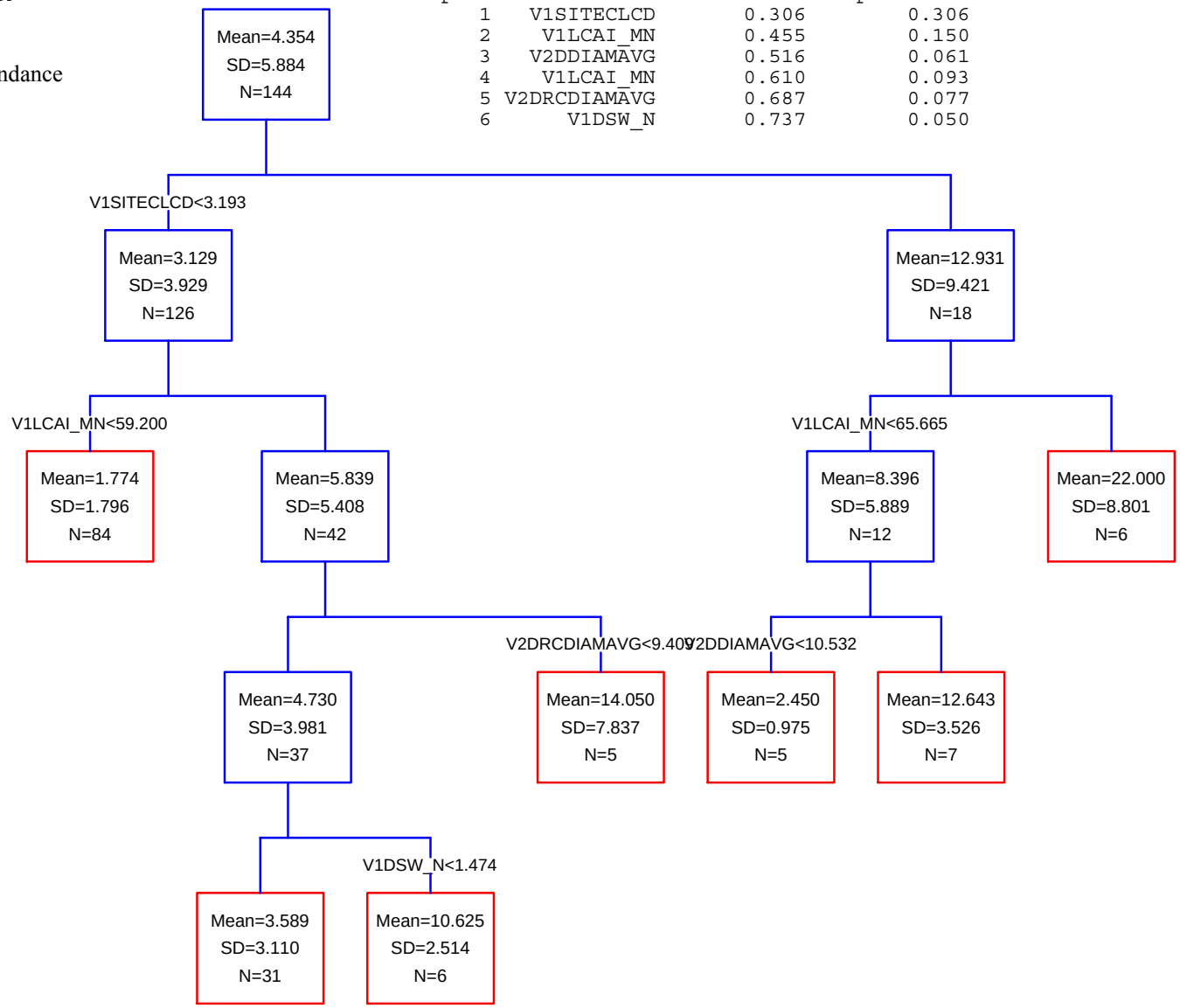
57 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2LCAI_MN	0.160	0.160
2	V1V25	0.232	0.071
3	V2LSI	0.285	0.053
4	V1DOMHTAVG	0.357	0.072
5	V3DEADTPA	0.415	0.059
6	V3DEADTPA	0.463	0.048
7	V1LANDLSI	0.500	0.037
8	V1LANDLSI	0.545	0.045
9	V3LCAI_MN	0.579	0.034

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
Multiscale
Regression tree of abundance

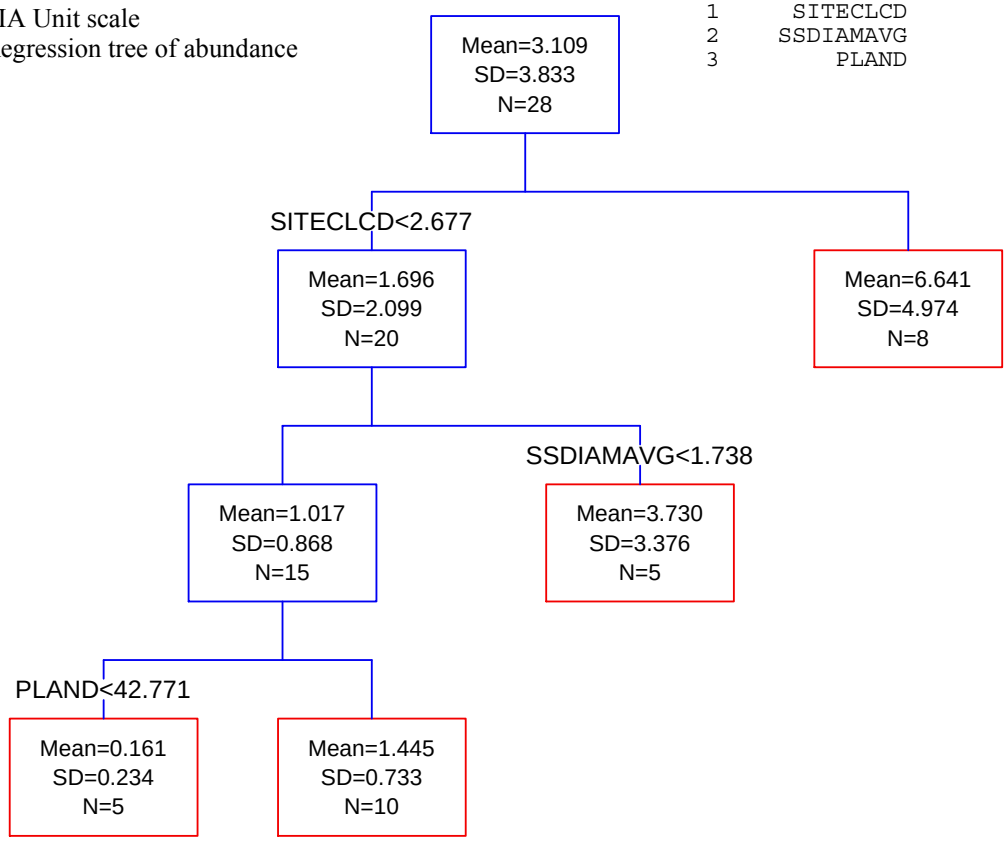
11 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1SITECLCD	0.306	0.306
2	V1LCAI_MN	0.455	0.150
3	V2DDIAMAVG	0.516	0.061
4	V1LCAI_MN	0.610	0.093
5	V2DRCDIAMAVG	0.687	0.077
6	V1DSW_N	0.737	0.050



Mature Forest Ground-Shrub Guild
HOODED WARBLER
FIA Unit scale
Regression tree of abundance

```
2 cases deleted due to missing data.
Split     Variable        PRE  Improvement
    1     SITECLCD      0.352        0.352
    2    SSDIAMAVG      0.422        0.070
    3        PLAND      0.436        0.014
```



Mature Forest Ground-Shrub Guild
HOODED WARBLER
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	2.476	4	-18.2	0.0	0.963
16	4.676	3	-11.7	6.5	0.037

K4(GLOBAL)		K3	
Effect	Coefficient	Parameter	Coefficient
Constant		Constant	
SITECLCD	0.539	DDIAMAVG	0.454
DDIAMAVG	0.396		

Mature Forest Ground-Shrub Guild
KENTUCKY WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
144	-65.136	9	149.6	0.0	0.332
144	-63.25	11	150.5	0.9	0.214
144	-61.256	19	166.6	17.0	0.000

K9

Parameter	Estimate
CONSTANT	13.986
LCAI_AM	-0.09
V21	-13.063
RCTPA	-0.317
PLAND	0.028
DOMTPA	-0.065
SITECLCD	1.428
DDIAMAVG	-0.587

K11

Parameter	Estimate
CONSTANT	17.543
SITECLCD	1.61
DOMTPA	-0.06
RCTPA	-0.45
DDIAMAVG	-0.65
DSW_N	-1.961
V12	-11.457
V21	-11.347
PLAND	0.026
LCAI_AM	-0.089

K19(GLOBAL)

Parameter	Estimate
CONSTANT	6.044
SITECLCD	1.778
DOMTPA	-0.057
RCTPA	-0.681
ALLDIAMAVG	0.495
ALLHTAVG	-0.064
DDIAMAVG	-0.838
DOMHTAVG	0.042
SSDIAMAVG	-0.497
RCDIAMAVG	-0.112
ALLSW_N	0.062
DSW_N	-1.256
V12	-14.235
V21	-13.991
V31	26.249
PLAND	0.025
LSHAPE_MN	7.761
LCAI_AM	-0.084

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
100 m buffer
Classification tree of presence-absence

```
83 cases deleted due to missing data.
Split     Variable        PRE  Improvement
    1      LCAI_AM      0.191        0.191
    2       DOMTPA      0.321        0.130
    3      ALLSW_N      0.409        0.088
    4    RCDIAMAVG      0.486        0.077
    5        PLAND      0.530        0.044
    6        RCTPA      0.563        0.033
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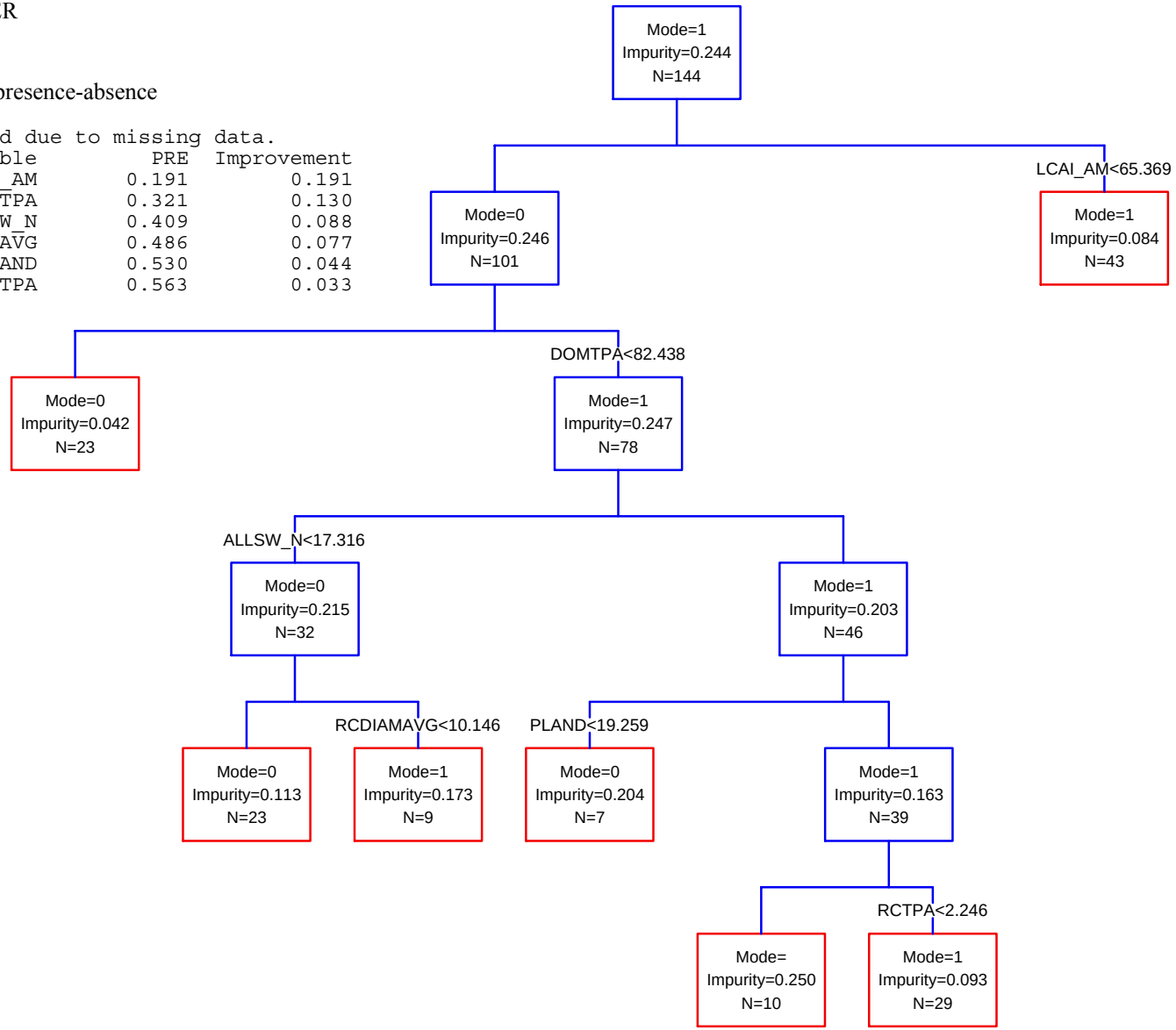
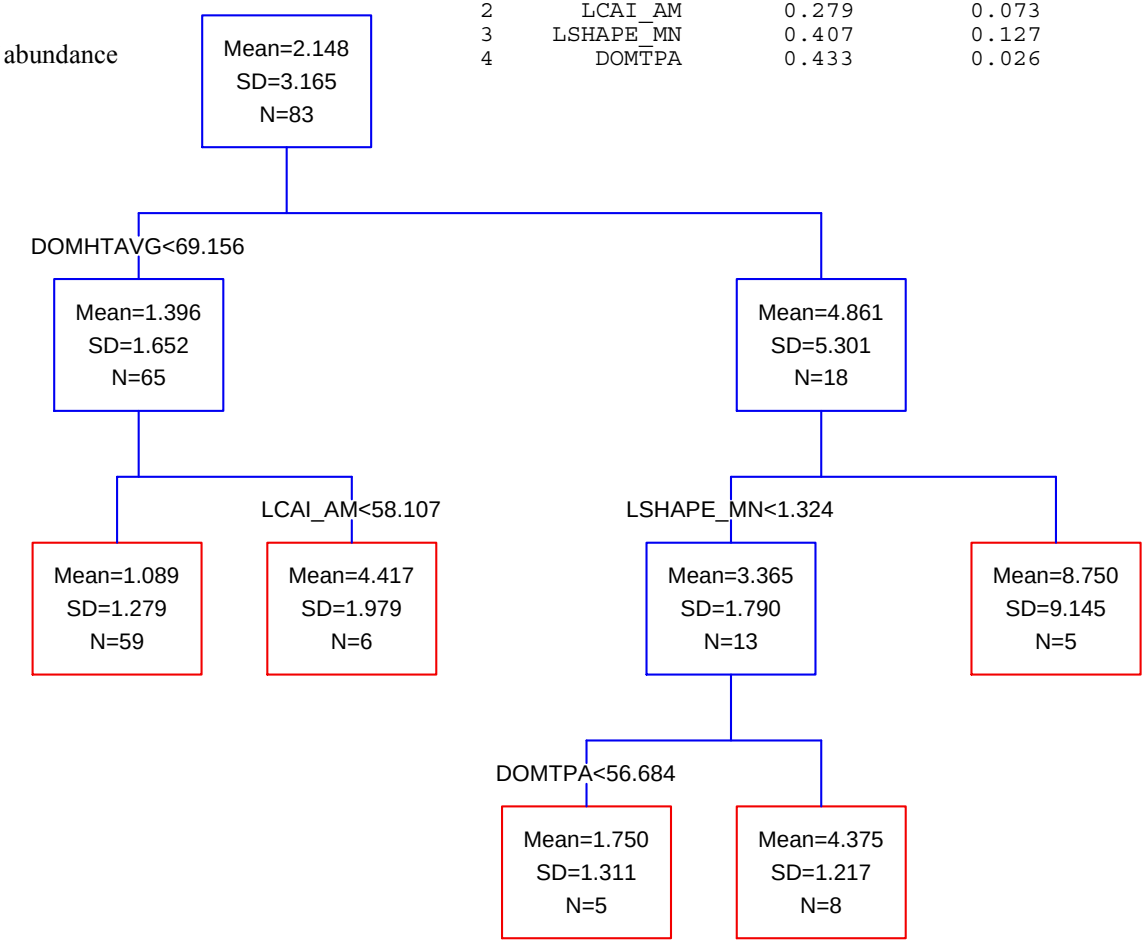


Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
100 m buffer
Regression tree of abundance

```
39 cases deleted due to missing data.
Split     Variable        PRE  Improvement
    1     DOMHTAVG      0.206        0.206
    2      LCAI_AM      0.279        0.073
    3    LSHAPE_MN      0.407        0.127
    4       DOMTPA      0.433        0.026
```



Mature Forest Ground-Shrub Guild
KENTUCKY WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
147	-62.877	11	149.7	0.0	0.260
147	-65.694	9	150.7	1.0	0.158
147	-62.196	12	150.7	1.0	0.157
147	-64.633	10	150.9	1.2	0.144
147	-61.325	13	151.4	1.7	0.112
147	-60.055	20	166.8	17.1	0.000

K11

Parameter	Estimate
CONSTANT	9.82
SITECLCD	1.718
DOMTPA	-0.045
RCTPA	-0.633
ALLHTAVG	-0.086
V12	-13.954
V21	-15.222
V29	-2.61
PLAND	0.051
LCAI_AM	-0.113

K9

Parameter	Estimate
CONSTANT	10.934
V21	-11.671
LCAI_AM	-0.115
PLAND	0.058
RCTPA	-0.507
DOMTPA	-0.053
SITECLCD	1.331
DOMHTAVG	-0.052

K12

Parameter	Estimate
CONSTANT	12.848
SITECLCD	1.724
DOMTPA	-0.042
RCTPA	-0.689
ALLHTAVG	-0.082
DSW_N	-1.582
V12	-15.483
V21	-15.351
V29	-2.862
PLAND	0.052
LCAI_AM	-0.121

K10

Parameter	Estimate
CONSTANT	11.547
V21	-12.235
LCAI_AM	-0.112
PLAND	0.071
RCTPA	-0.515
DOMTPA	-0.06
SITECLCD	1.472
DOMHTAVG	-0.056
LSHAPE_AM	-0.097

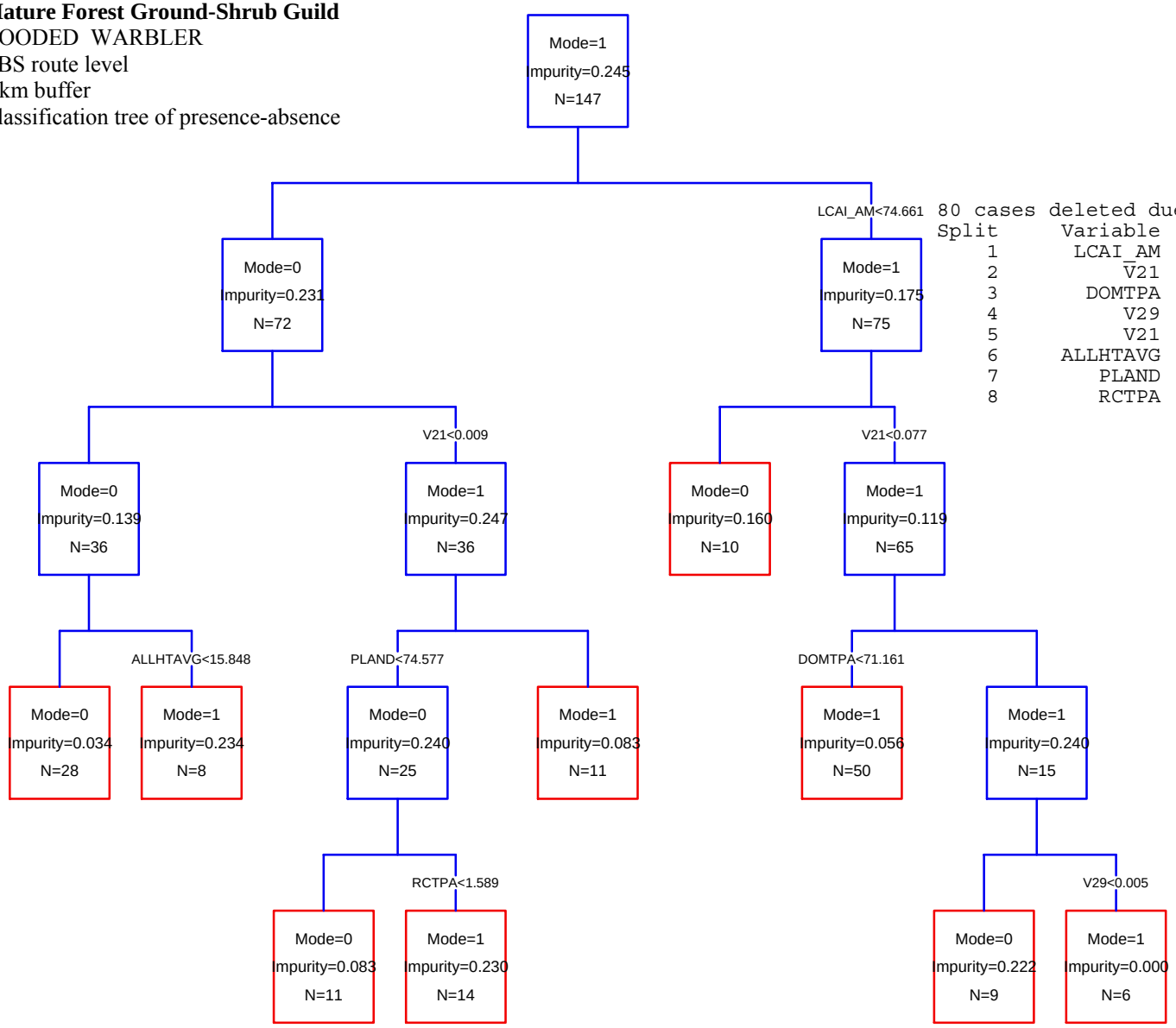
K13

Parameter	Estimate
CONSTANT	10.334
SITECLCD	1.639
DOMTPA	-0.047
RCTPA	-0.65
ALLHTAVG	-0.077
DSW_N	-1.891
V12	-15.901
V21	-16.702
V29	-3.193
PLAND	0.065
LCAI_AM	-0.113
LANDSHDI	2.065

K20(GLOBAL)

Parameter	Estimate
CONSTANT	13.714
SITECLCD	1.709
DOMTPA	-0.05
RCTPA	-0.694
ALLHTAVG	-0.059
DOMHTAVG	-0.024
SSDIAMAVG	-1.015
RCDIAMAVG	-0.129
ALLSW_N	0.012
DSW_N	-1.464
V12	-15.629
V21	-17.363
V29	-2.477
V31	12.719
PLAND	0.079
LSHAPE_AM	-0.076
LCAI_AM	-0.109
LANDIJI	0.002
LANDSHDI	1.82

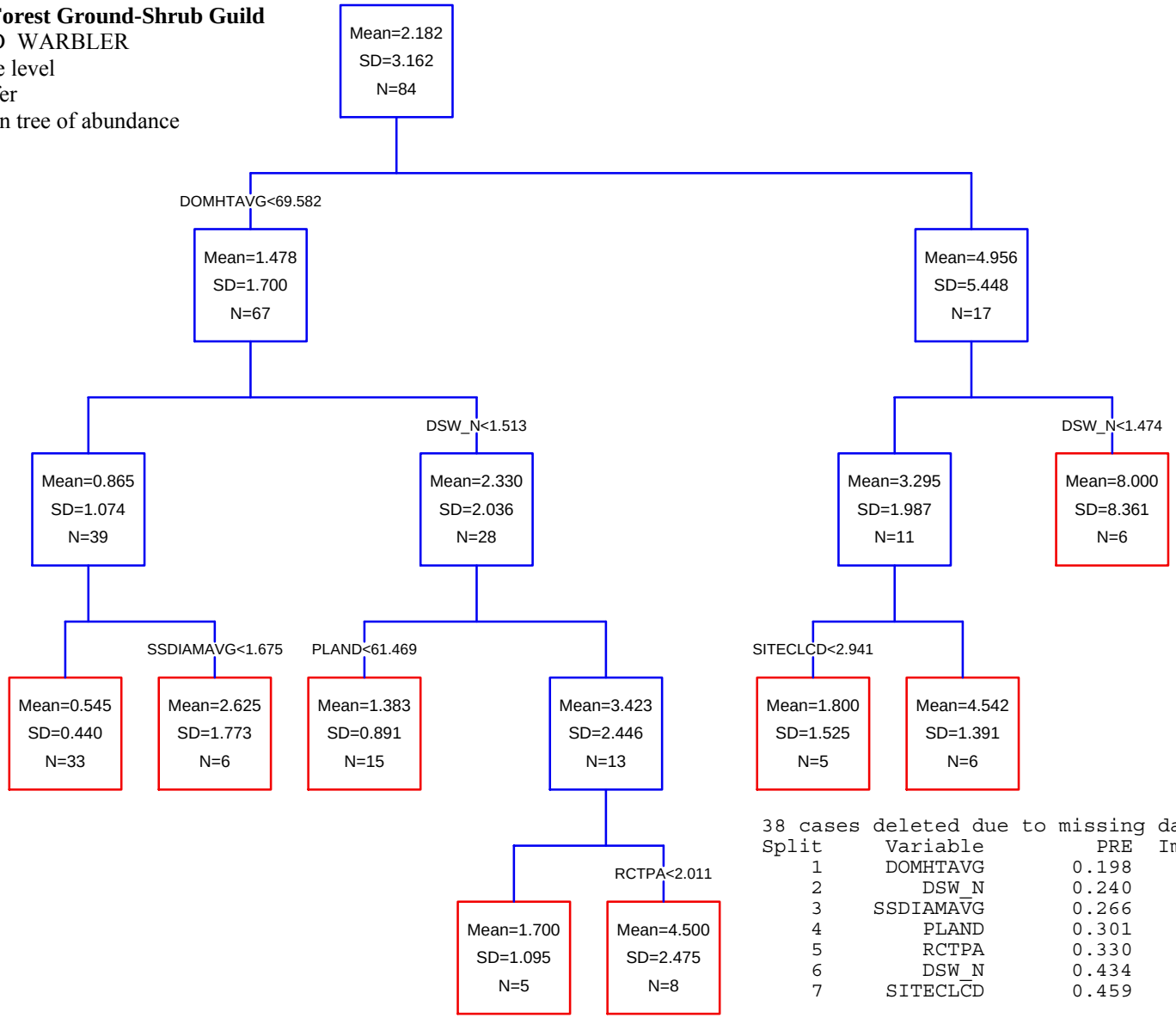
Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
1 km buffer
Classification tree of presence-absence



80 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_AM	0.173	0.173
2	V21	0.279	0.105
3	DOMTPA	0.316	0.037
4	V29	0.360	0.044
5	V21	0.436	0.076
6	ALLHTAVG	0.496	0.060
7	PLAND	0.551	0.055
8	RCTPA	0.603	0.052

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
1 km buffer
Regression tree of abundance



38 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DOMHTAVG	0.198	0.198
2	DSW_N	0.240	0.042
3	SSDIAMAVG	0.266	0.026
4	PLAND	0.301	0.035
5	RCTPA	0.330	0.029
6	DSW_N	0.434	0.104
7	SITECLCD	0.459	0.025

Mature Forest Ground-Shrub Guild
KENTUCKY WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
148	-58.298	11	140.5	0.0	0.475
148	-60.388	10	142.4	1.9	0.189
148	-57.285	18	155.9	15.4	0.000

K11

Parameter	Estimate
CONSTANT	13.522
SITECLCD	2.63
DRCTPA	-0.256
ALLHTCV	1.461
SSDIAMCV	-12.858
DSW_N	-2.662
V12	-29.878
V21	-23.111
V29	-3.86
LCAI_AM	-0.101

K10

Parameter	Estimate
CONSTANT	7.717
SITECLCD	2.797
DRCTPA	-0.291
ALLHTCV	1.846
SSDIAMCV	-12.073
V12	-29.165
V21	-24.63
V29	-3.66
LCAI_AM	-0.09

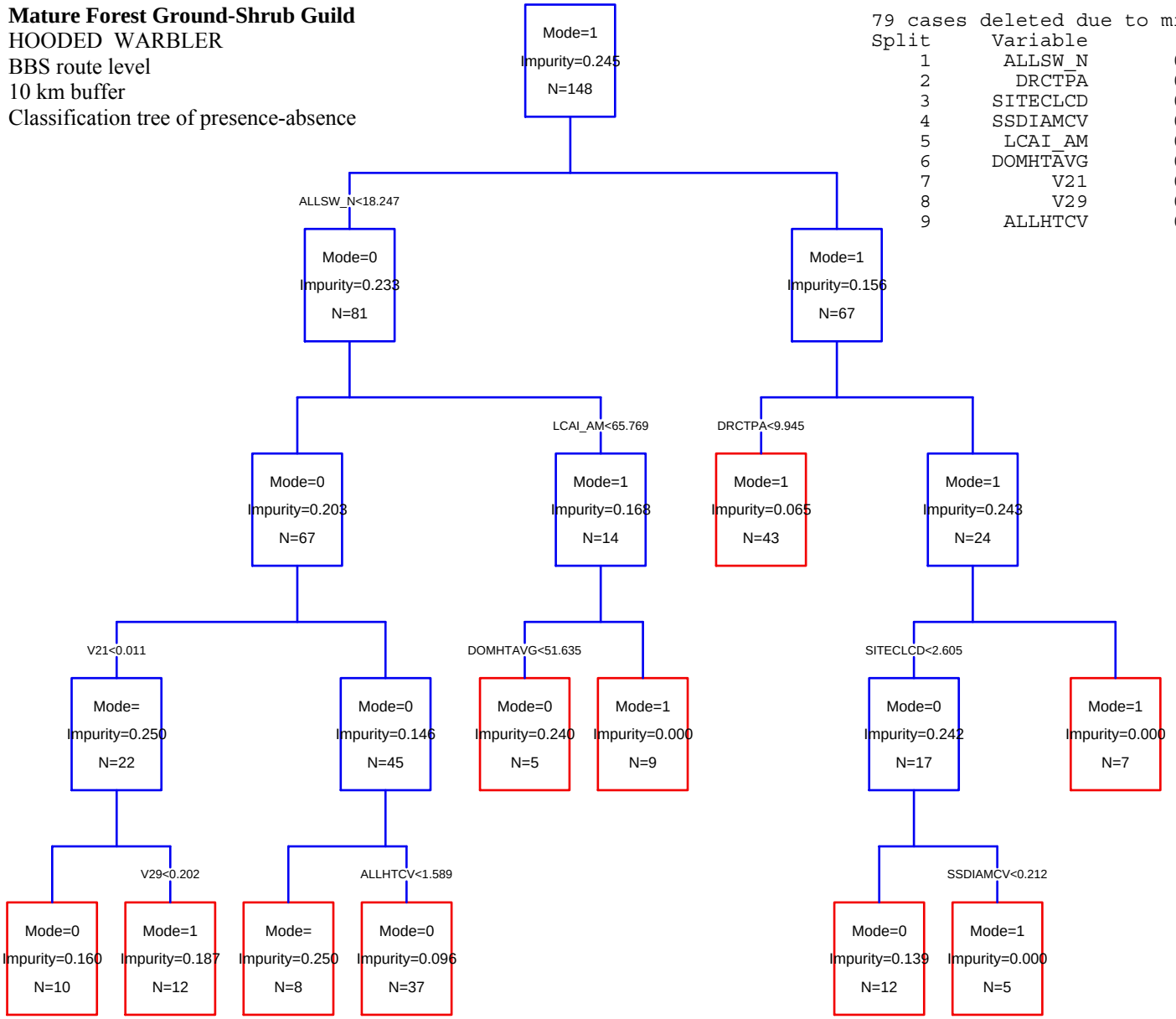
K18(GLOBAL)

Parameter	Estimate
CONSTANT	18.019
SITECLCD	2.451
DRCTPA	-0.204
DOMHTAVG	0.022
SSDIAMAVG	-2.65
RCDIAMAVG	-0.073
ALLHTCV	1.147
SSDIAMCV	-14.929
ALLSW_N	0.033
DSW_N	-2.288
V12	-23.135
V21	-22.437
V24	39.796
V29	-3.42
CAI_MN	-0.007
LANDIJI	-0.013
LCAI_AM	-0.103

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
10 km buffer
Classification tree of presence-absence

79 cases deleted due to missing data.

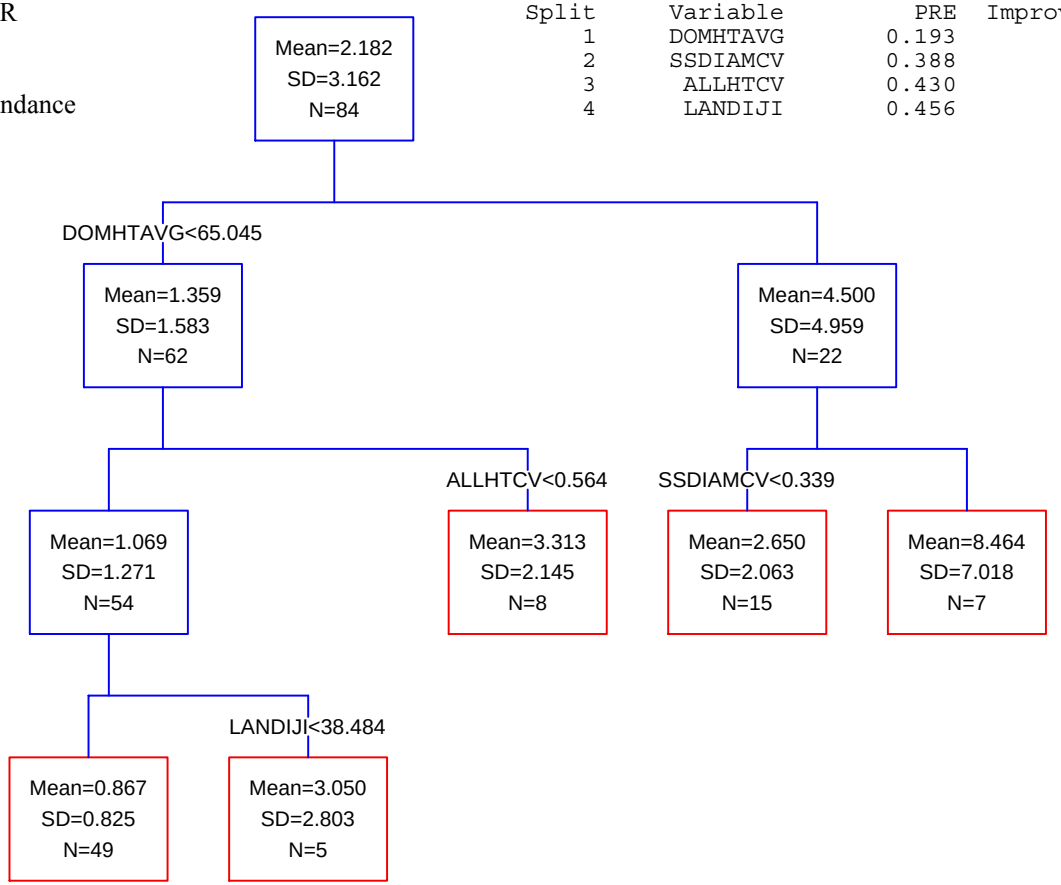
Split	Variable	PRE	Improvement
1	ALLSW_N	0.192	0.192
2	DRCTPA	0.243	0.051
3	SITECLCD	0.290	0.047
4	SSDIAMCV	0.357	0.067
5	LCAI_AM	0.438	0.080
6	DOMHTAVG	0.470	0.032
7	V21	0.512	0.042
8	V29	0.557	0.045
9	ALLHTCV	0.585	0.028



Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
10 km buffer
Regression tree of abundance

38 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DOMHTAVG	0.193	0.193
2	SSDIAMCV	0.388	0.194
3	ALLHTCV	0.430	0.042
4	LANDIJI	0.456	0.026



Mature Forest Ground-Shrub Guild
KENTUCKY WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
144	-56.719	11	137.4	0.0	0.237
144	-58.275	10	138.2	0.8	0.161
144	-56.007	12	138.4	1.0	0.147
144	-54.305	17	147.5	10.1	0.002

K11

Parameter	Estimate
CONSTANT	16.663
V1SITECLCD	1.09
V1LCAI_AM	-0.086
V2PLAND	0.04
V3DRCTPA	-0.297
V3SSDIAMCV	-14.952
V3DSW_N	-3.315
V3V12	-30.77
V3V21	-21.911
V3V29	-3.173

K10

Parameter	Estimate
CONSTANT	10.62
V1SITECLCD	1.052
V1LCAI_AM	-0.08
V2PLAND	0.04
V3DRCTPA	-0.313
V3SSDIAMCV	-13.791
V3V12	-26.693
V3V21	-21.256
V3V29	-2.304

K12

Parameter	Estimate
CONSTANT	13.819
V1SITECLCD	1.438
V1LCAI_AM	-0.073
V2PLAND	0.039
V3DRCTPA	-0.343
V3ALLHTCV	0.936
V3SSDIAMCV	-14.754
V3DSW_N	-2.871
V3V12	-33.895
V3V21	-24.93
V3V29	-3.827

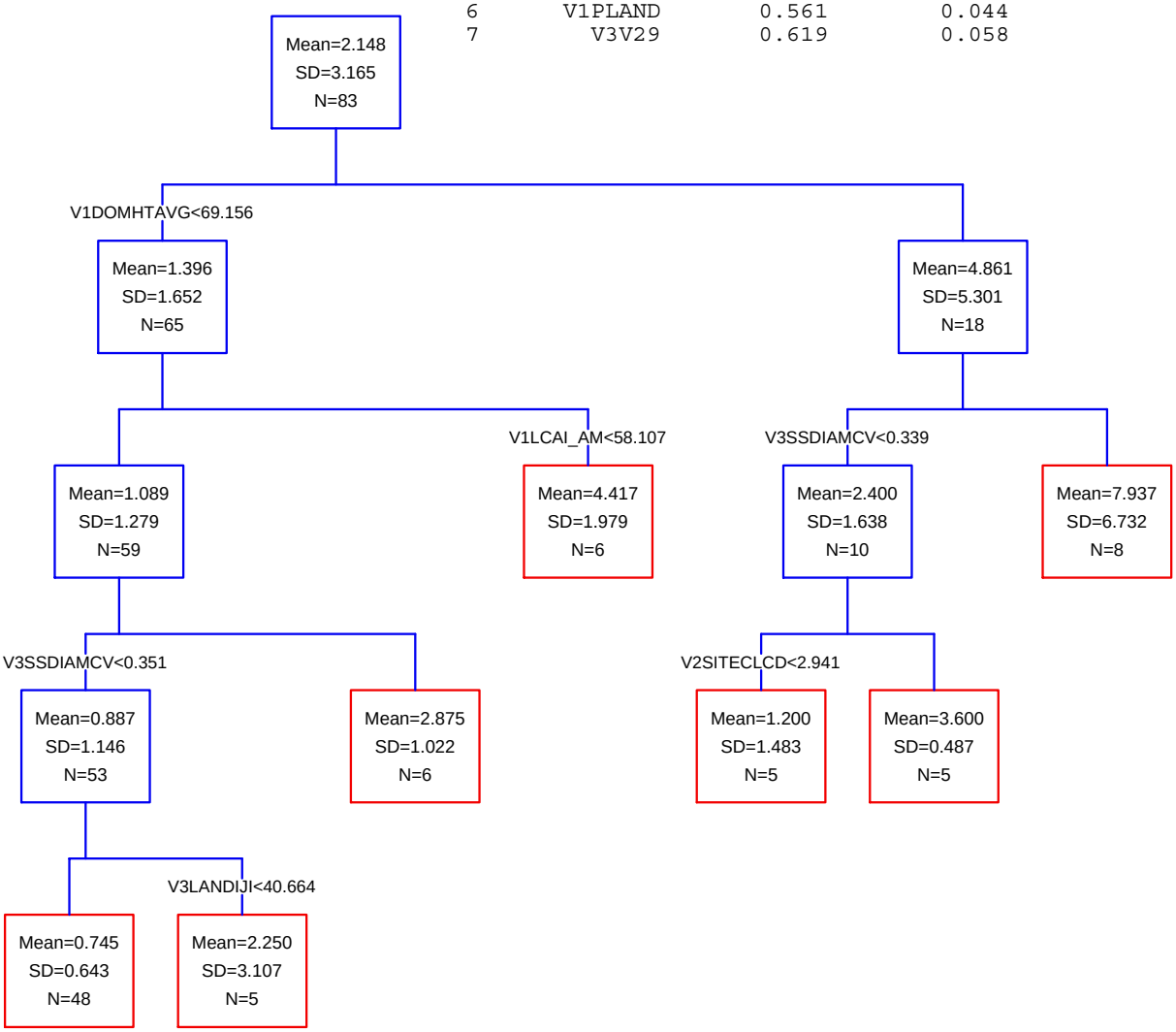
K17(GLOBAL)

Parameter	Estimate
CONSTANT	10.297
V1SITECLCD	1.805
V1RCTPA	-0.349
V1DDIAMAVG	-0.314
V1PLAND	-0.044
V1LCAI_AM	-0.062
V2DOMTPA	-0.024
V2ALLHTAVG	0.109
V2PLAND	0.087
V3DRCTPA	-0.247
V3ALLHTCV	3.069
V3SSDIAMCV	-15.099
V3DSW_N	-2.451
V3V12	-32.264
V3V21	-20.919
V3V29	-3.557

Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
Multiscale
Classification tree of presence-absence

83 cases deleted due to missing data.

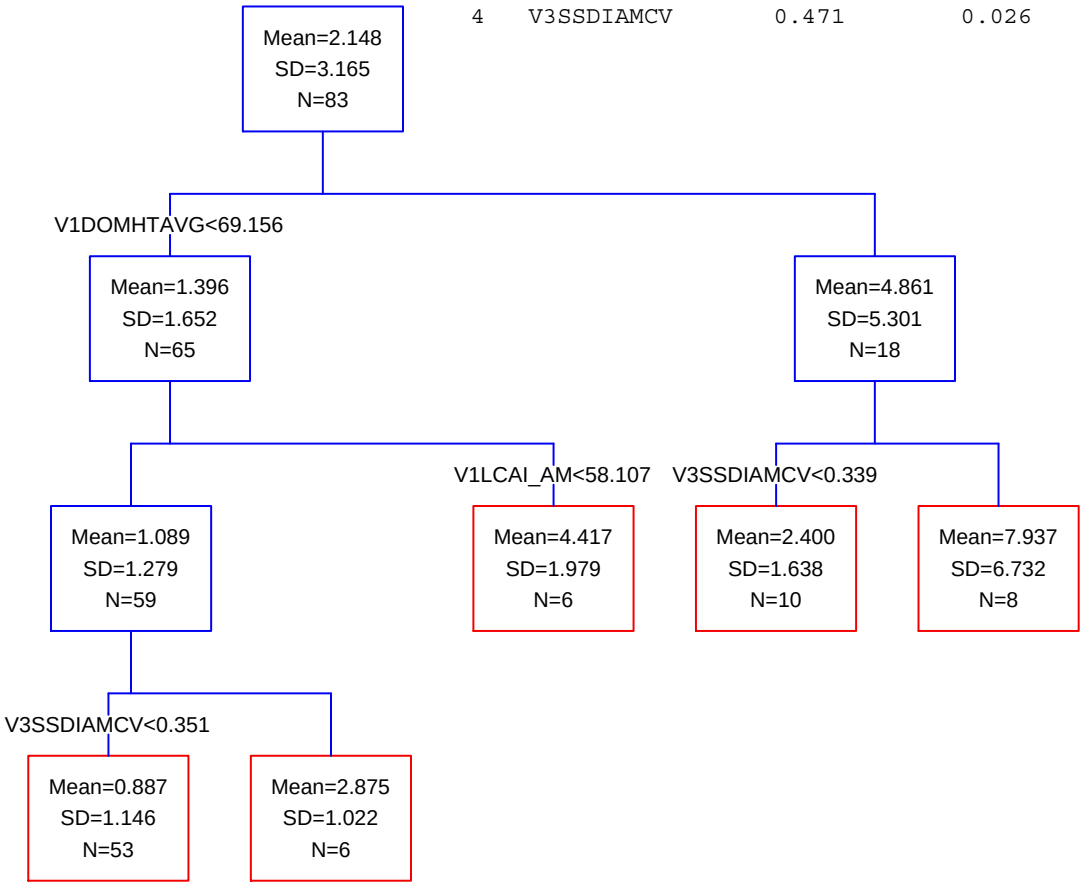
Split	Variable	PRE	Improvement
1	V1LCAI_AM	0.191	0.191
2	V1DOMTPA	0.321	0.130
3	V1ALLSW_N	0.409	0.088
4	V1RCDIAMAVG	0.486	0.077
5	V2DOMTPA	0.517	0.032
6	V1PLAND	0.561	0.044
7	V3V29	0.619	0.058



Mature Forest Ground-Shrub Guild
HOODED WARBLER
BBS route level
Multiscale
Regression tree of abundance

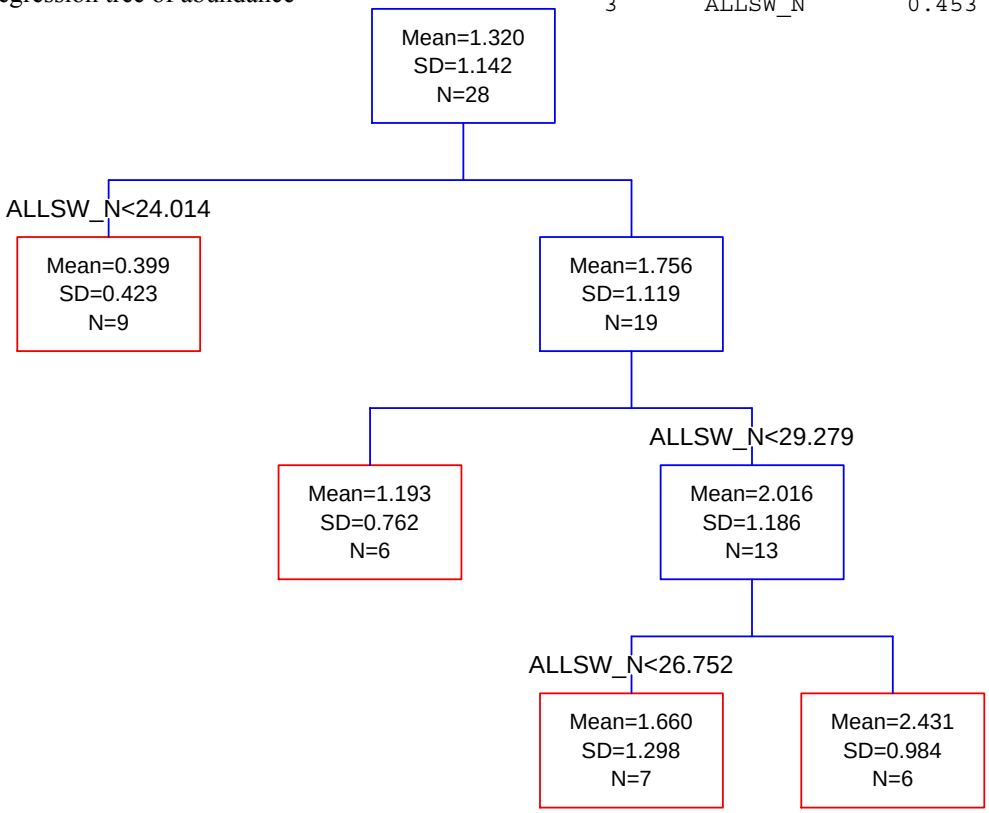
39 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1DOMHTAVG	0.206	0.206
2	V1LCAI_AM	0.279	0.073
3	V3SSDIAMCV	0.445	0.166
4	V3SSDIAMCV	0.471	0.026



Mature Forest Ground-Shrub Guild
HOODED WARBLER
FIA Unit scale
Regression tree of abundance

```
2 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1      ALLSW_N       0.319        0.319
    2      ALLSW_N       0.398        0.079
    3      ALLSW_N       0.453        0.055
```



Mature Forest Ground-Shrub Guild
OVENBIRD
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
225	-36.525	8	89.7	0.0	0.231
225	-37.698	7	89.9	0.2	0.210
225	-35.767	9	90.4	0.7	0.167
225	-32.488	12	90.4	0.7	0.161
225	-31.227	21	109.0	19.3	0.000

K8

Parameter	Estimate
CONSTANT	13.286
LCAI_CV	-0.049
STDAGE	0.047
V24	123.491
DSW_N	-5.426
V22	6.201
DRCTPA	0.141

K7

Parameter	Estimate
CONSTANT	14.981
LCAI_CV	-0.052
STDAGE	0.06
V24	128.139
DSW_N	-5.851
V22	6.7

K9

Parameter	Estimate
CONSTANT	17.1
STDAGE	0.077
DSW_N	-7.029
V21	12.239
V22	7.945
V24	102.252
V25	-132.723
LCAI_CV	-0.059

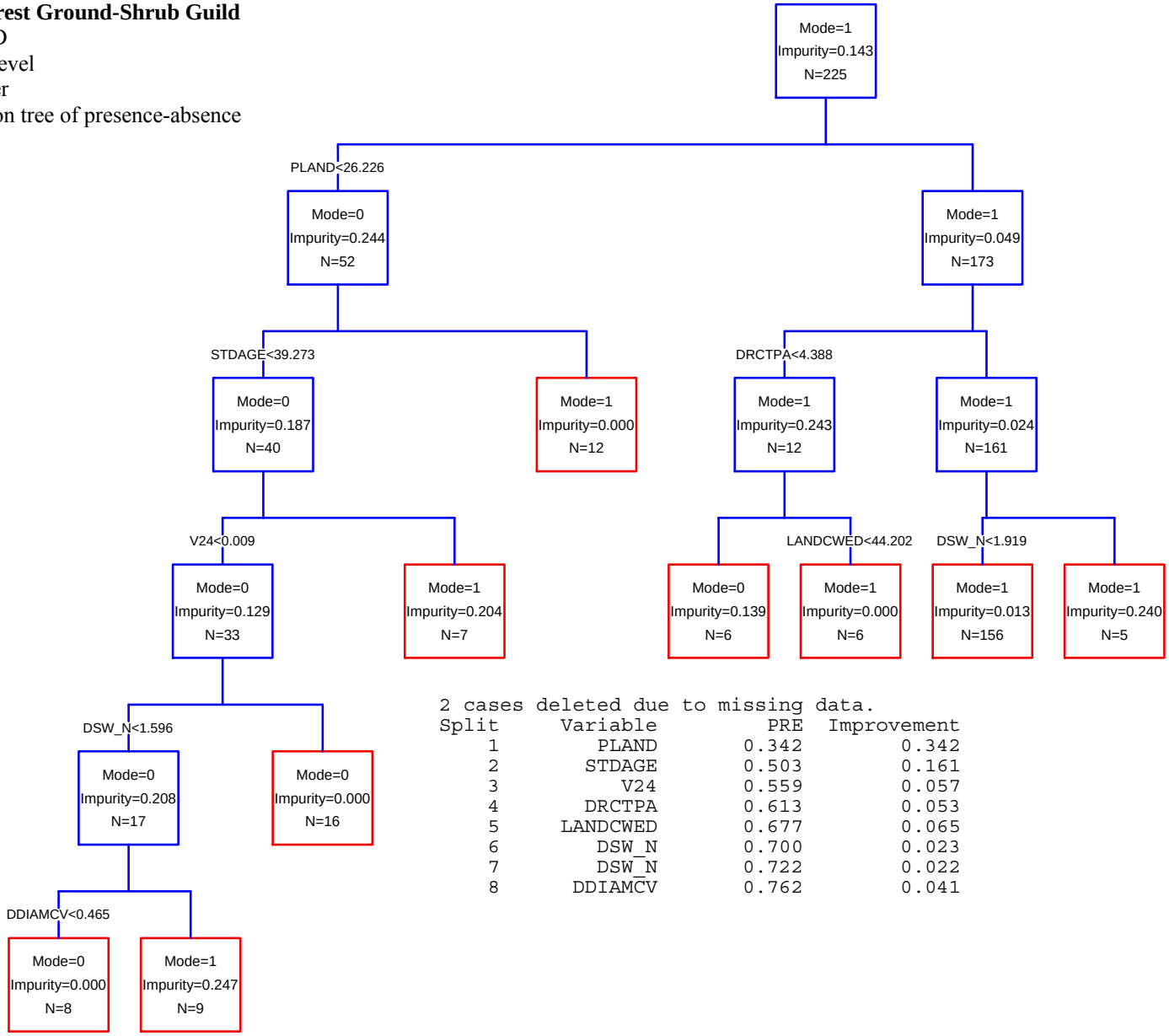
K12

Parameter	Estimate
CONSTANT	15.049
STDAGE	0.075
DRCTPA	0.135
DSW_N	-6.223
V11	-17.082
V21	10.858
V22	6.277
V23	23.672
V24	110.605
V25	-180.197
LCAI_CV	-0.059

K21(GLOBAL)

Parameter	Estimate
CONSTANT	15.071
STDAGE	0.071
SSTPA	-0.002
DRCTPA	0.202
UDIAMAVG	-1.143
DEADDIAMAVG	0.125
DDIAMCV	-6.089
DSW_N	-5.833
V11	-18.65
V12	20.064
V21	12.286
V22	6.309
V23	20.887
V24	134.875
V25	-163.158
PLAND	0.014
IJI	0.029
LSHAPE_CV	0.044
LCAI_CV	-0.053
LANDCWED	-0.024

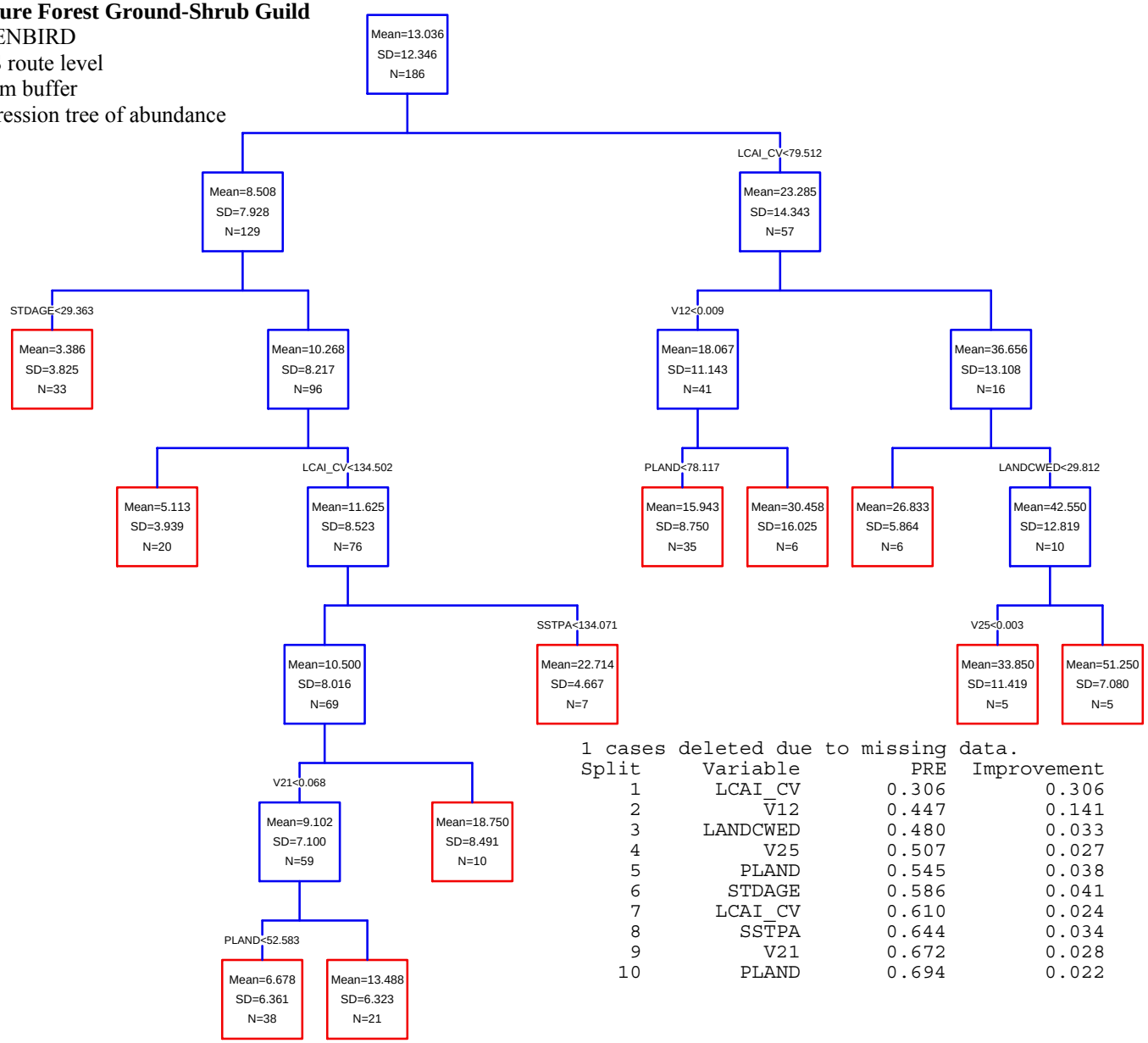
Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
100 m buffer
Classification tree of presence-absence



2 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	PLAND	0.342	0.342
2	STDAGE	0.503	0.161
3	V24	0.559	0.057
4	DRCTPA	0.613	0.053
5	LANDCWED	0.677	0.065
6	DSW_N	0.700	0.023
7	DSW_N	0.722	0.022
8	DDIAMCV	0.762	0.041

Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
100 m buffer
Regression tree of abundance



1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_CV	0.306	0.306
2	V12	0.447	0.141
3	LANDCWED	0.480	0.033
4	V25	0.507	0.027
5	PLAND	0.545	0.038
6	STDAGE	0.586	0.041
7	LCAI_CV	0.610	0.024
8	SSTPA	0.644	0.034
9	V21	0.672	0.028
10	PLAND	0.694	0.022

Mature Forest Ground-Shrub Guild
OVENBIRD
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
226	-25.919	11	75.1	0.0	0.298
226	-24.91	12	75.3	0.2	0.268
226	-24.483	13	76.7	1.6	0.133
226	-27.975	10	77.0	1.9	0.115
226	-23.052	22	95.1	20.0	0.000

K11

Parameter	Estimate
CONSTANT	30.406
DSW_N	-11.638
V11	-41.936
V21	15.224
V22	12.724
V23	78.165
V24	83.745
V25	-278.784
SHAPE_MN	-19.093
LCAI_MN	0.309

K12

Parameter	Estimate
CONSTANT	26.888
STDAGE	0.062
DSW_N	-12.19
V11	-45.693
V21	17.081
V22	13.128
V23	76.438
V24	93.035
V25	-343.978
SHAPE_MN	-17.295
LCAI_MN	0.315

K13

Parameter	Estimate
CONSTANT	28.841
STDAGE	0.068
DRCDIAMAVG	0.082
DSW_N	-12.86
V11	-46.587
V21	18.497
V22	14.228
V23	78.218
V24	97.909
V25	-359.899
SHAPE_MN	-19.227
LCAI_MN	0.325

K10

Parameter	Estimate
CONSTANT	26.341
LCAI_MN	0.267
V22	10.317
DSW_N	-9.881
V24	76.117
SHAPE_MN	-16.717
V23	65.94
V11	-35.227
V21	10.458

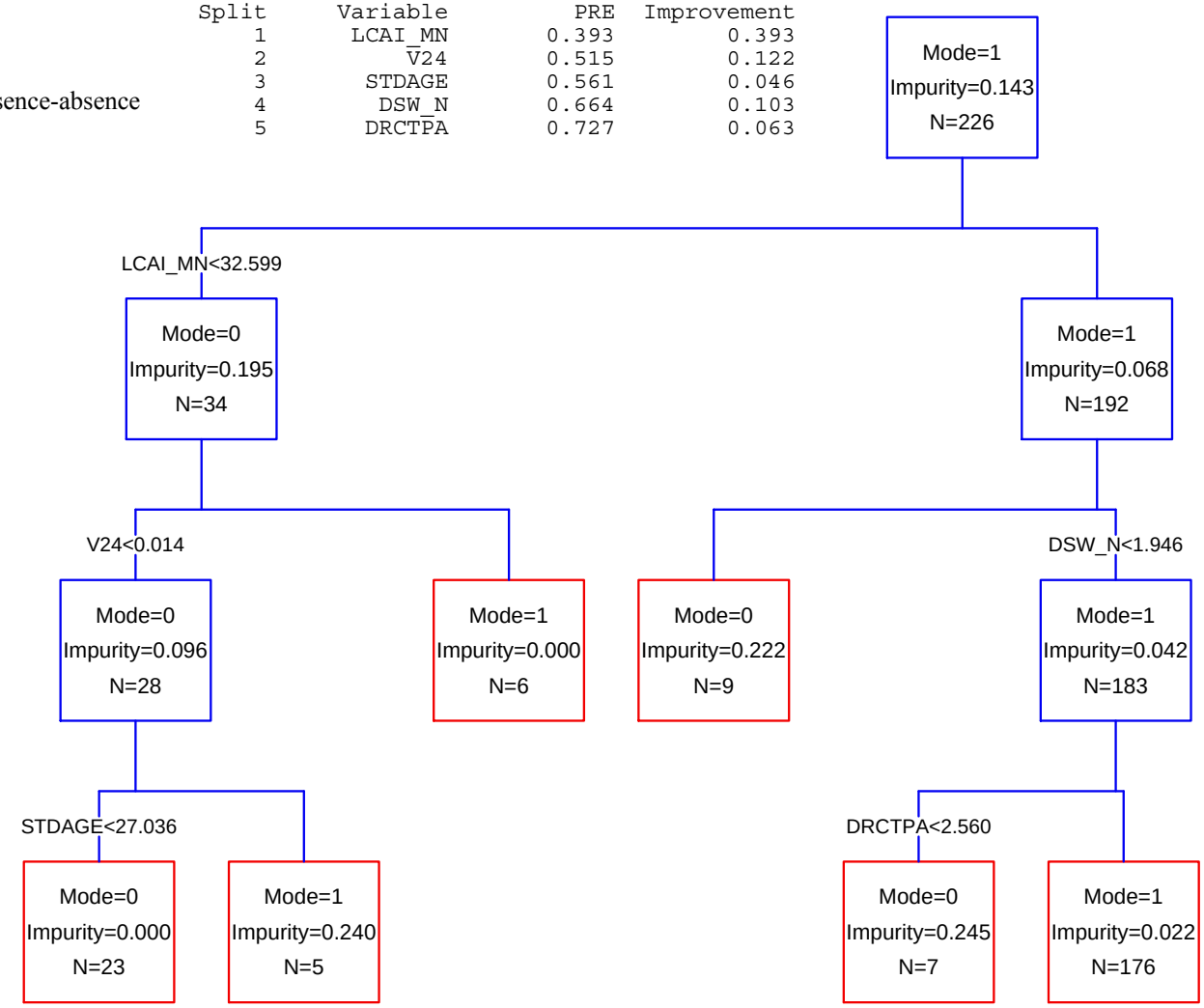
K22(GLOBAL)

Parameter	Estimate
CONSTANT	33.561
STDAGE	0.073
SSTPA	0.002
DRCTPA	-0.175
UDIAMAVG	1.025
DRCDIAMAVG	0.194
DDIAMCV	-3.741
DSW_N	-18.407
V11	-47.229
V12	26.999
V21	30.326
V22	23.348
V23	99.3
V24	114.886
V25	-489.529
V29	5.091
LSI	0.111
SHAPE_MN	-24.293
IJI	-0.003
LSHAPE_AM	-0.056
LCAI_MN	0.387

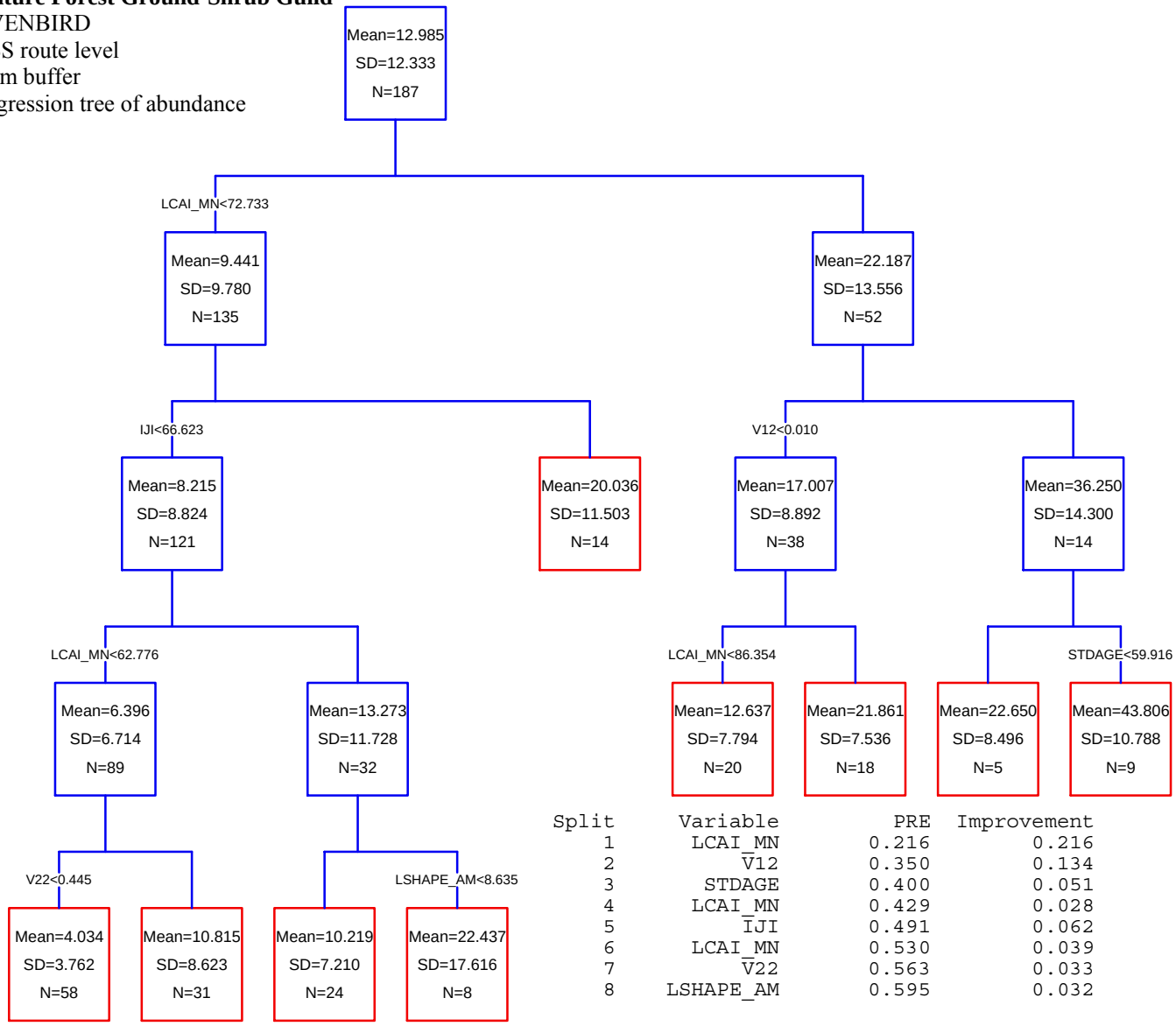
Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
1 km buffer
Classification tree of presence-absence

1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_MN	0.393	0.393
2	V24	0.515	0.122
3	STDAGE	0.561	0.046
4	DSW_N	0.664	0.103
5	DRCTPA	0.727	0.063



Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
1 km buffer
Regression tree of abundance



Split	Variable	PRE	Improvement
1	LCAI_MN	0.216	0.216
2	V12	0.350	0.134
3	STDAGE	0.400	0.051
4	LCAI_MN	0.429	0.028
5	IJI	0.491	0.062
6	LCAI_MN	0.530	0.039
7	V22	0.563	0.033
8	LSHAPE_AM	0.595	0.032

Mature Forest Ground-Shrub Guild
OVENBIRD
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
226	-35.085	7	84.7	0.0	0.312
226	-34.503	8	85.7	1.0	0.190
226	-36.667	6	85.7	1.0	0.186
226	-32.201	20	108.5	23.8	0.000

K7

Parameter	Estimate
CONSTANT	18.584
DSW_N	-6.849
V12	82.367
V22	6.364
V24	144.819
LCAI_CV	-0.068

K8

Parameter	Estimate
CONSTANT	16.982
DDIAMCV	6.584
DSW_N	-7.477
V12	83.734
V22	7.241
V24	143.966
LCAI_CV	-0.073

K6

Parameter	Estimate
CONSTANT	18.859
LCAI_CV	-0.065
V22	7.194
DSW_N	-7.206
V24	141.749

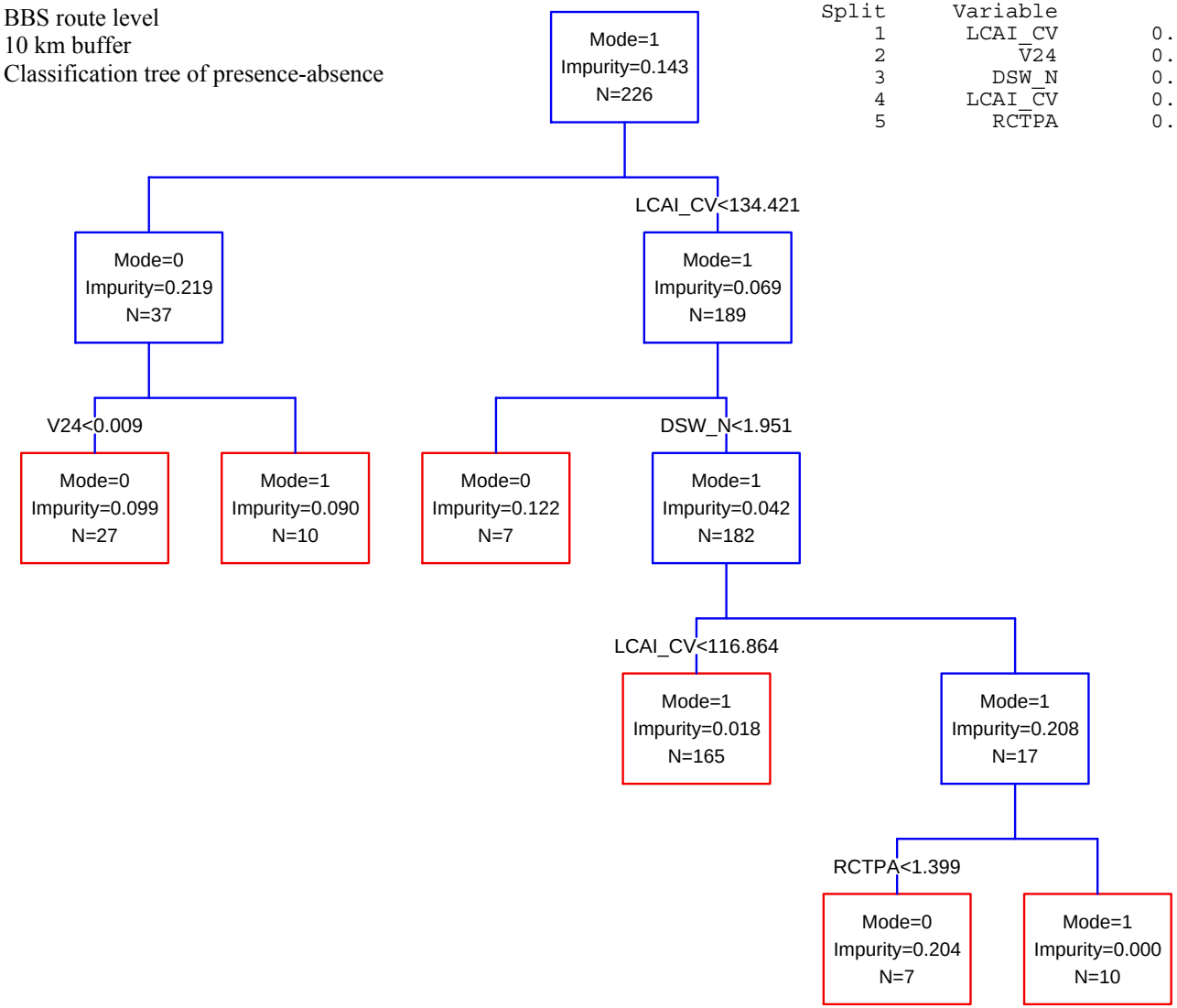
K20(GLOBAL)

Parameter	Estimate
CONSTANT	5.652
STDAGE	0.032
SSTPA	-0.004
RCTPA	-0.483
UDIAMAVG	1.145
DRCDIAMAVG	-0.006
DDIAMCV	13.683
DSW_N	-9.118
V12	66.857
V21	7.736
V22	9.83
V23	-3.189
V24	102.576
V25	-141.056
LSI	0.008
IJI	0.048
LSHAPE_AM	0.011
LCAI_AM	0.078
LCAI_CV	-0.086

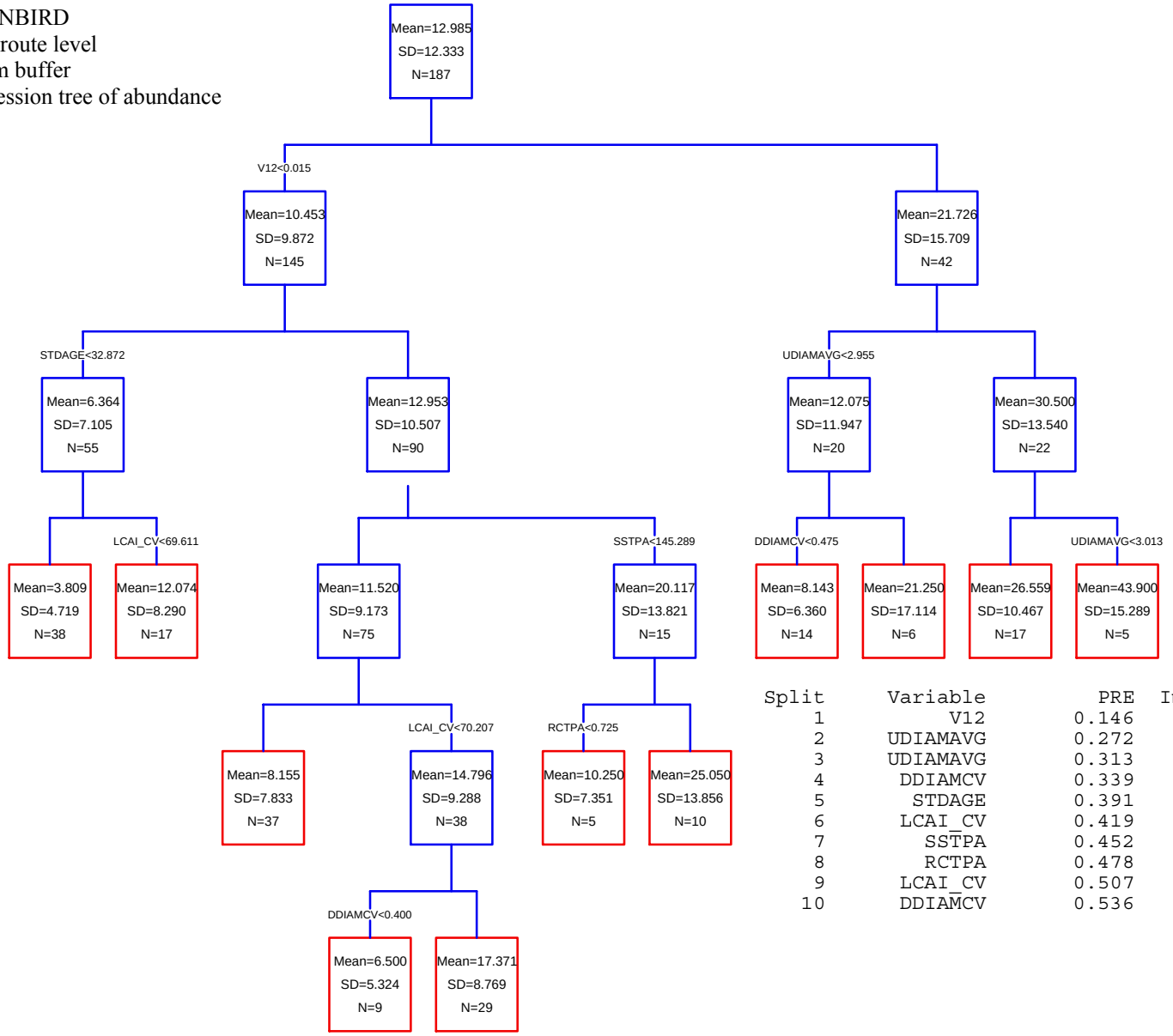
Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
10 km buffer
Classification tree of presence-absence

1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	LCAI_CV	0.347	0.347
2	V24	0.488	0.141
3	DSW_N	0.626	0.138
4	LCAI_CV	0.662	0.036
5	RCTPA	0.727	0.065



Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
10 km buffer
Regression tree of abundance



Split	Variable	PRE	Improvement
1	V12	0.146	0.146
2	UDIAMAVG	0.272	0.126
3	UDIAMAVG	0.313	0.041
4	DDIAMCV	0.339	0.026
5	STDAGE	0.391	0.052
6	LCAI_CV	0.419	0.028
7	SSTPA	0.452	0.033
8	RCTPA	0.478	0.026
9	LCAI_CV	0.507	0.029
10	DDIAMCV	0.536	0.029

Mature Forest Ground-Shrub Guild
OVENBIRD
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
225	-20.824	11	64.9	0.0	0.315
225	-22.581	10	66.2	1.3	0.164
225	-20.55	12	66.6	1.7	0.136
225	-19.933	15	72.2	7.3	0.008

K11

Parameter	Estimate
CONSTANT	45.353
V2V11	-53.086
V2V21	21.403
V2V23	90.604
V2V25	-462.297
V2SHAPE_MN	-25.483
V2LCAI_MN	0.397
V3DSW_N	-18.161
V3V22	18.042
V3V24	156.642

K10

Parameter	Estimate
CONSTANT	39.959
V2V11	-52.458
V2V21	27.32
V2V23	93.915
V2V25	-381.851
V2SHAPE_MN	-22.423
V2LCAI_MN	0.361
V3DSW_N	-16.304
V3V22	16.999

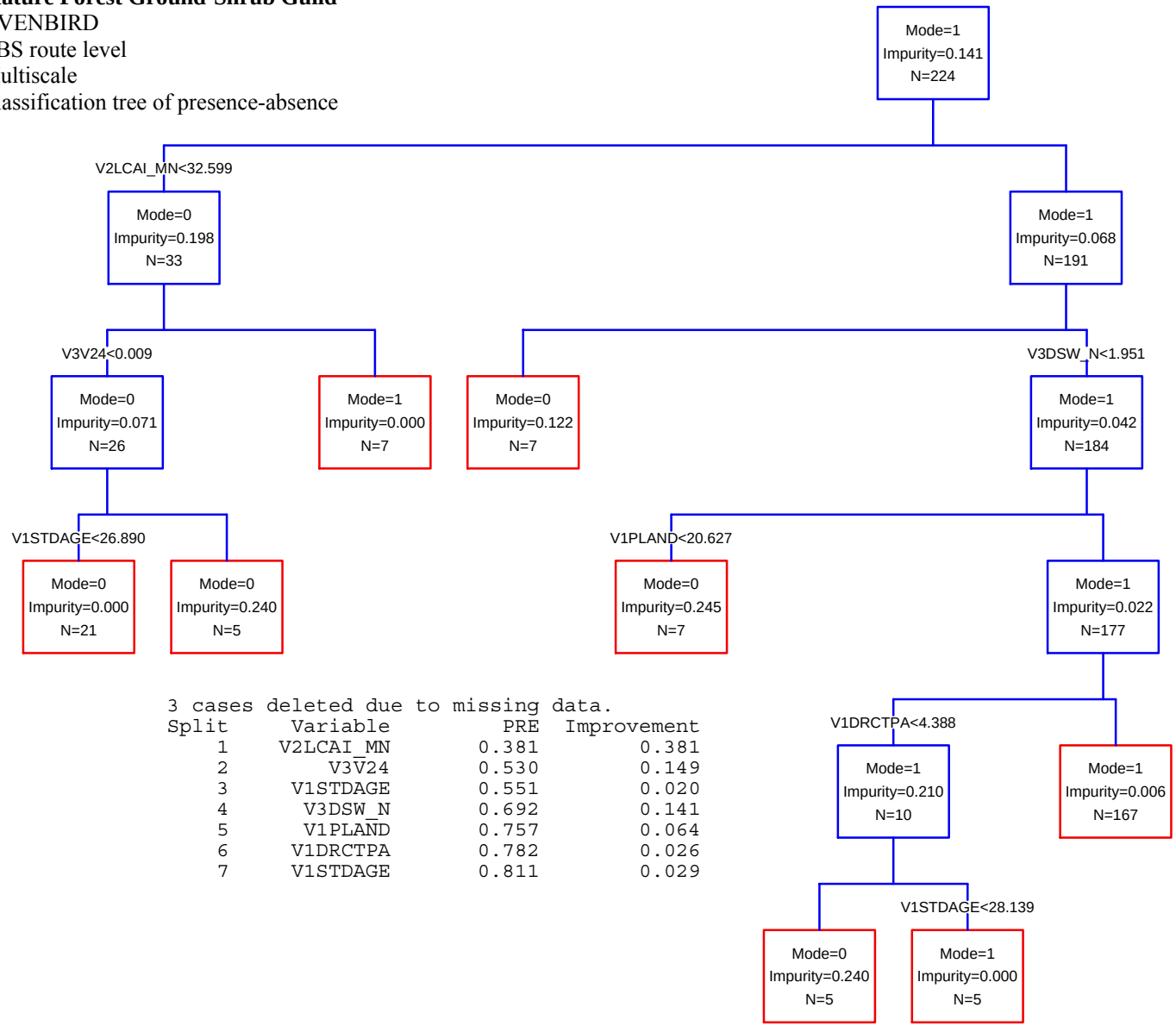
K12

Parameter	Estimate
CONSTANT	49.733
V1DRCTPA	-0.1
V2V11	-54.837
V2V21	23.735
V2V23	96.218
V2V25	-484.072
V2SHAPE_MN	-27.609
V2LCAI_MN	0.424
V3DSW_N	-19.553
V3V22	19.693
V3V24	154.02

K15(GLOBAL)

Parameter	Estimate
CONSTANT	48.145
V1STDAGE	0.066
V1LCAI_CV	-0.002
V1DRCTPA	-0.164
V2V11	-59.4
V2V21	28.124
V2V23	99.612
V2V25	-566.011
V2SHAPE_MN	-26.12
V2LCAI_MN	0.439
V3DSW_N	-21.085
V3V12	-21.64
V3V22	21.55
V3V24	157.847

Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
Multiscale
Classification tree of presence-absence

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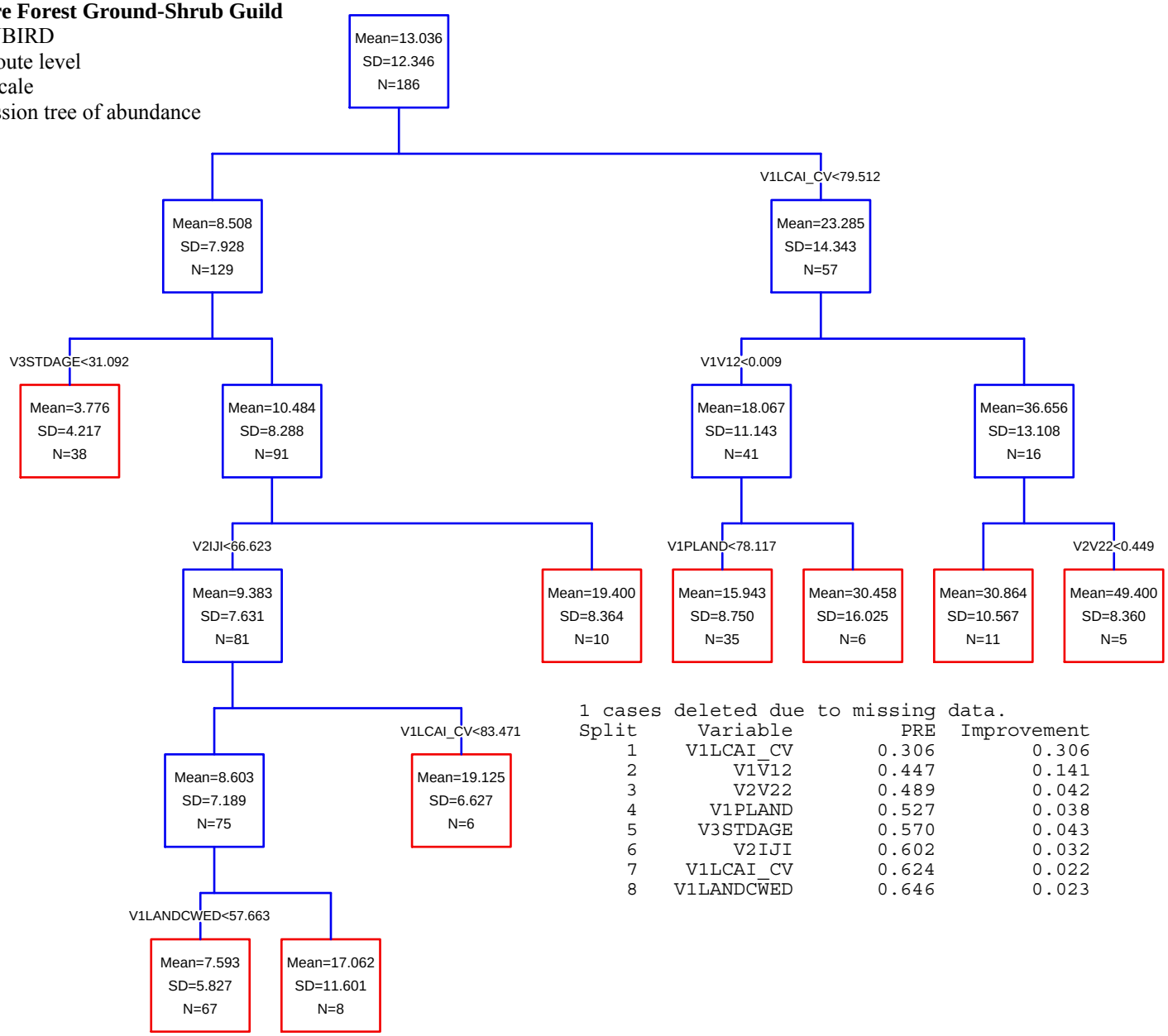
3 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1    V2LCAI_MN       0.381        0.381
    2        V3V24       0.530        0.149
    3     V1STDAGE       0.551        0.020
    4      V3DSW_N       0.692        0.141
    5      V1PLAND       0.757        0.064
    6     V1DRCTPA       0.782        0.026
    7     V1STDAGE       0.811        0.029
```

Mature Forest Ground-Shrub Guild
OVENBIRD
BBS route level
Multiscale
Regression tree of abundance

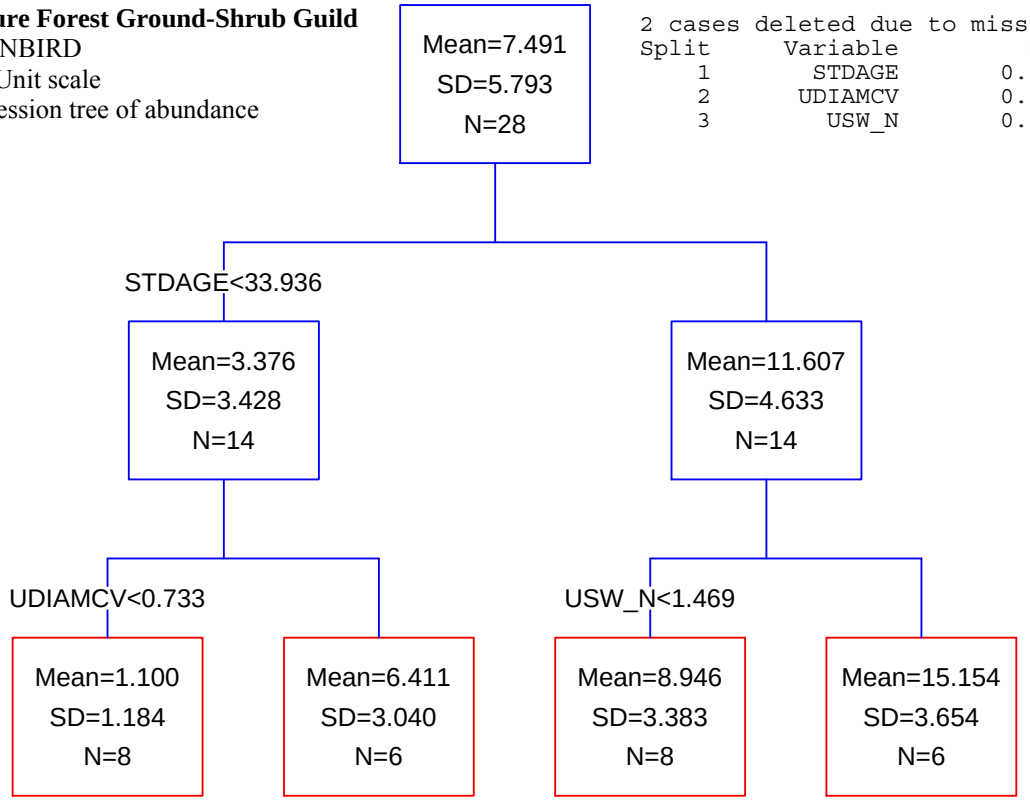


1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1LCAI_CV	0.306	0.306
2	V1V12	0.447	0.141
3	V2V22	0.489	0.042
4	V1PLAND	0.527	0.038
5	V3STDAGE	0.570	0.043
6	V2IJI	0.602	0.032
7	V1LCAI_CV	0.624	0.022
8	V1LANDCWED	0.646	0.023

Mature Forest Ground-Shrub Guild
OVENBIRD
FIA Unit scale
Regression tree of abundance

```
2 cases deleted due to missing data.
Split      Variable          PRE   Improvement
    1        STDAGE        0.523         0.523
    2       UDIAMCV        0.630         0.107
    3         USW_N        0.776         0.146
```



Mature Forest Ground-Shrub Guild
OVENBIRD
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	3.173	4	-14.3	0.0	0.676
16	2.75	6	-6.8	7.5	0.017

K4		K6(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
DEADTPA	0.165	V39	-124.446
DDIAMAVG	0.496	STDAGE	0.006
		DEADTPA	0.078
		DDIAMAVG	0.500

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
148	-44.895	11	113.7	0.0	0.355
148	-44.002	12	114.3	0.6	0.265
148	-40.124	21	129.6	15.9	0.000

K11

Parameter	Estimate
CONSTANT	-11.31
SITECLCD	-1.27
DOMTPA	0.088
UDIAMAVG	3.907
V11	-12.608
V19	-315.579
V23	5.555
V25	459.582
CWED	0.036
LANDPD	-0.056

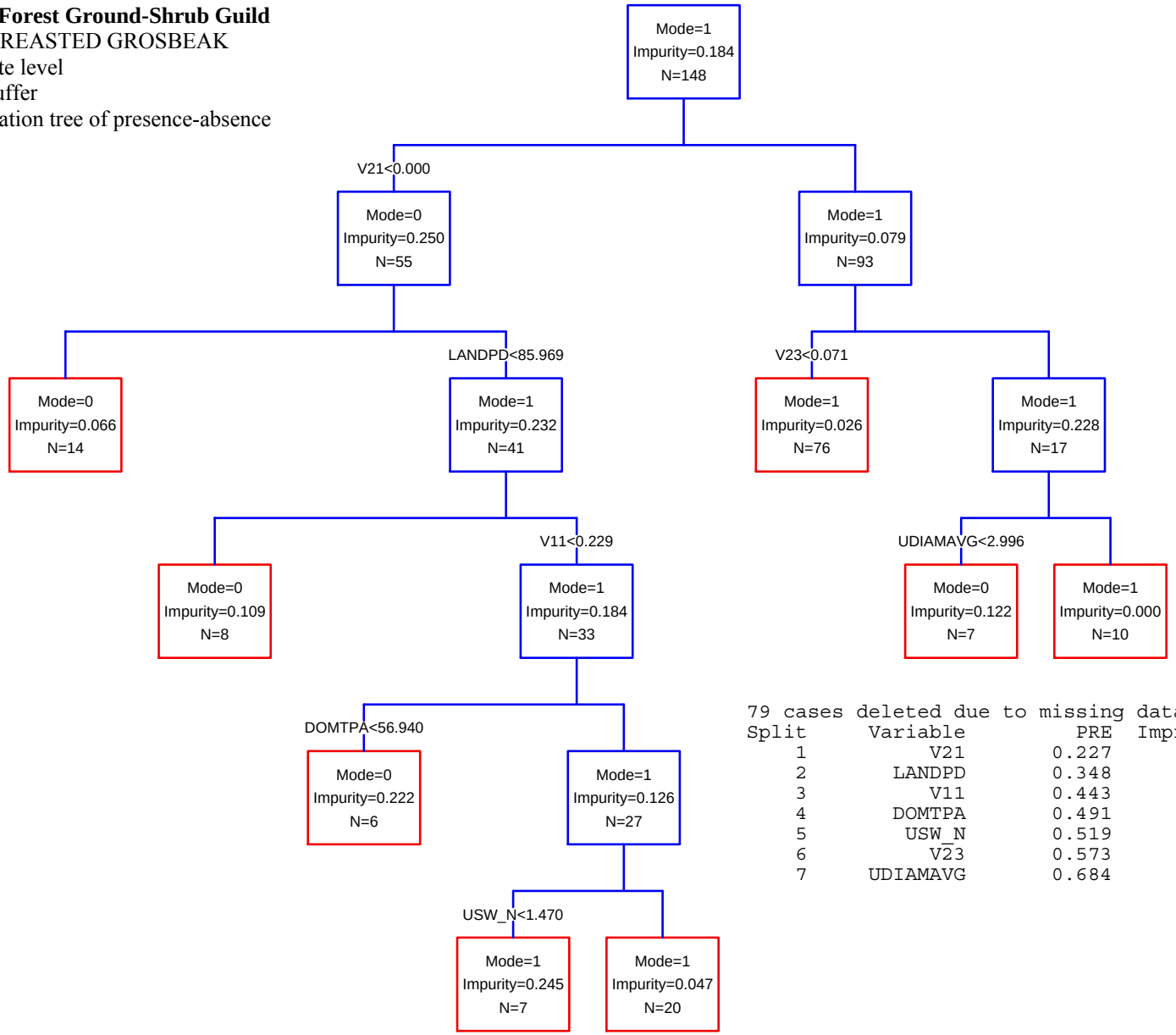
K12

Parameter	Estimate
CONSTANT	-16.681
SITECLCD	-1.085
DOMTPA	0.089
UDIAMAVG	3.579
USW_N	3.752
V11	-12.629
V19	-285.804
V23	5.495
V25	443.383
CWED	0.039
LANDPD	-0.056

K21(GLOBAL)

Parameter	Estimate
CONSTANT	-34.556
SITECLCD	-1.44
DOMTPA	0.094
RCTPA	0.356
DOMHTAVG	0.066
UDIAMAVG	3.113
RCDIAMAVG	0.176
ALLSW_N	0.159
USW_N	9.814
V11	-10.316
V19	-295.075
V21	-1.557
V22	2.692
V23	5.889
V24	-27.313
V25	447.481
V31	14753.66
V34	-19542.7
CWED	0.036
LANDPD	-0.053

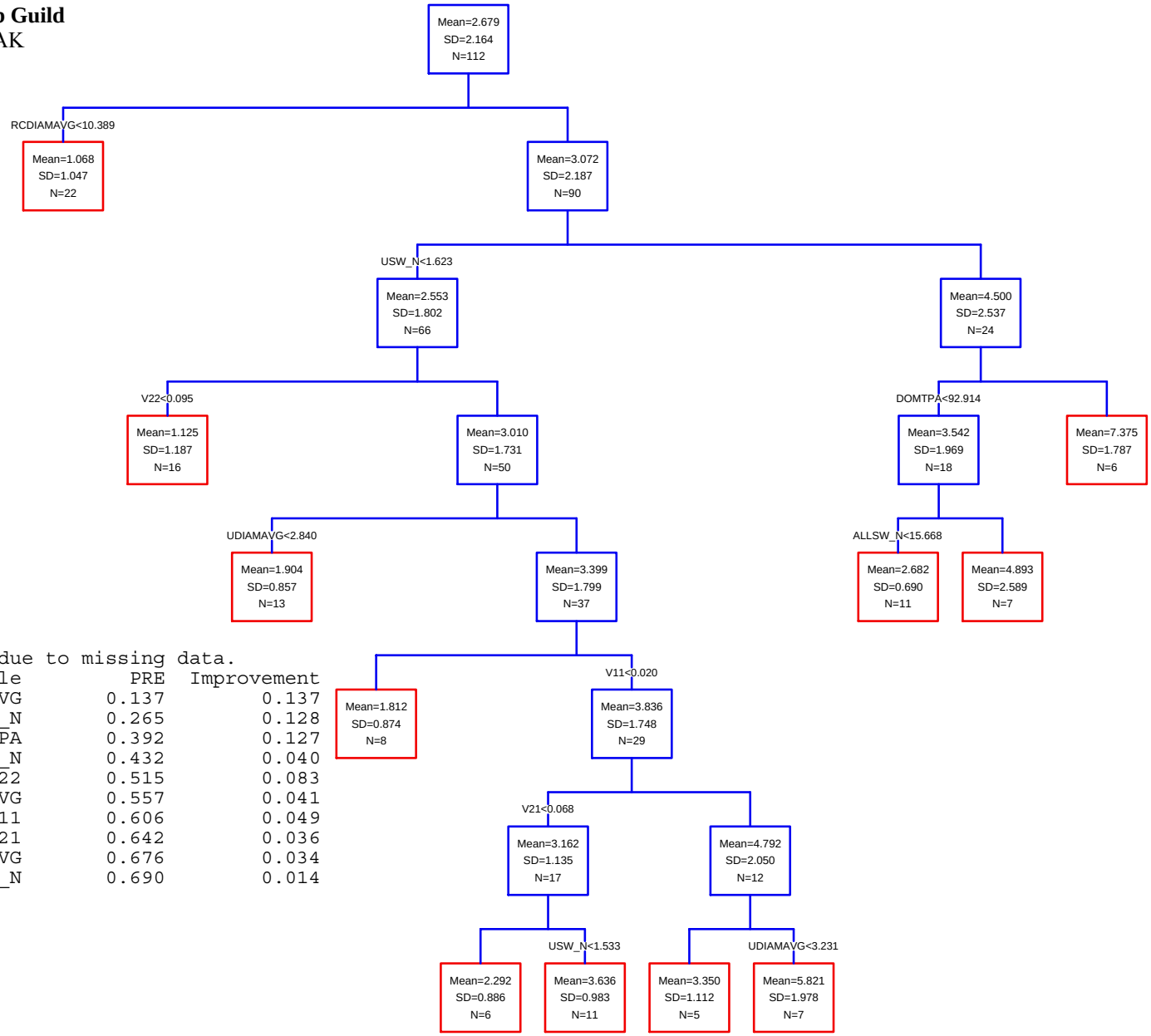
Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
100 m buffer
Classification tree of presence-absence



79 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V21	0.227	0.227
2	LANDPD	0.348	0.121
3	V11	0.443	0.095
4	DOMTPA	0.491	0.048
5	USW_N	0.519	0.027
6	V23	0.573	0.054
7	UDIAMAVG	0.684	0.111

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
100 m buffer
Regression tree of abundance



8 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	RCDIAMAVG	0.137	0.137
2	USW_N	0.265	0.128
3	DOMTPA	0.392	0.127
4	ALLSW_N	0.432	0.040
5	V22	0.515	0.083
6	UDIAMAVG	0.557	0.041
7	V11	0.606	0.049
8	V21	0.642	0.036
9	UDIAMAVG	0.676	0.034
10	USW_N	0.690	0.014

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
149	-45.757	8	108.5	0.0	0.302
149	-44.782	9	108.9	0.4	0.258
149	-44.087	10	109.8	1.3	0.164
149	-43.169	11	110.3	1.8	0.128
149	-39.113	21	127.5	19.0	0.000

K8

Parameter	Estimate
CONSTANT	-9.209
DRCTPA	0.199
DDIAMAVG	-1.434
UDIAMAVG	6.635
ALLHTCV	2.655
V19	-326.733
V25	442.85

K9

Parameter	Estimate
CONSTANT	-4.55
DRCTPA	0.195
DDIAMAVG	-1.46
UDIAMAVG	7.345
DEADDIAMAVG	-0.666
ALLHTCV	2.619
V19	-306.847
V25	436.717

K10

Parameter	Estimate
CONSTANT	-4.365
DRCTPA	0.215
DDIAMAVG	-1.408
UDIAMAVG	7.257
DEADDIAMAVG	-0.796
ALLHTCV	2.855
V19	-291.355
V24	39.277
V25	459.833

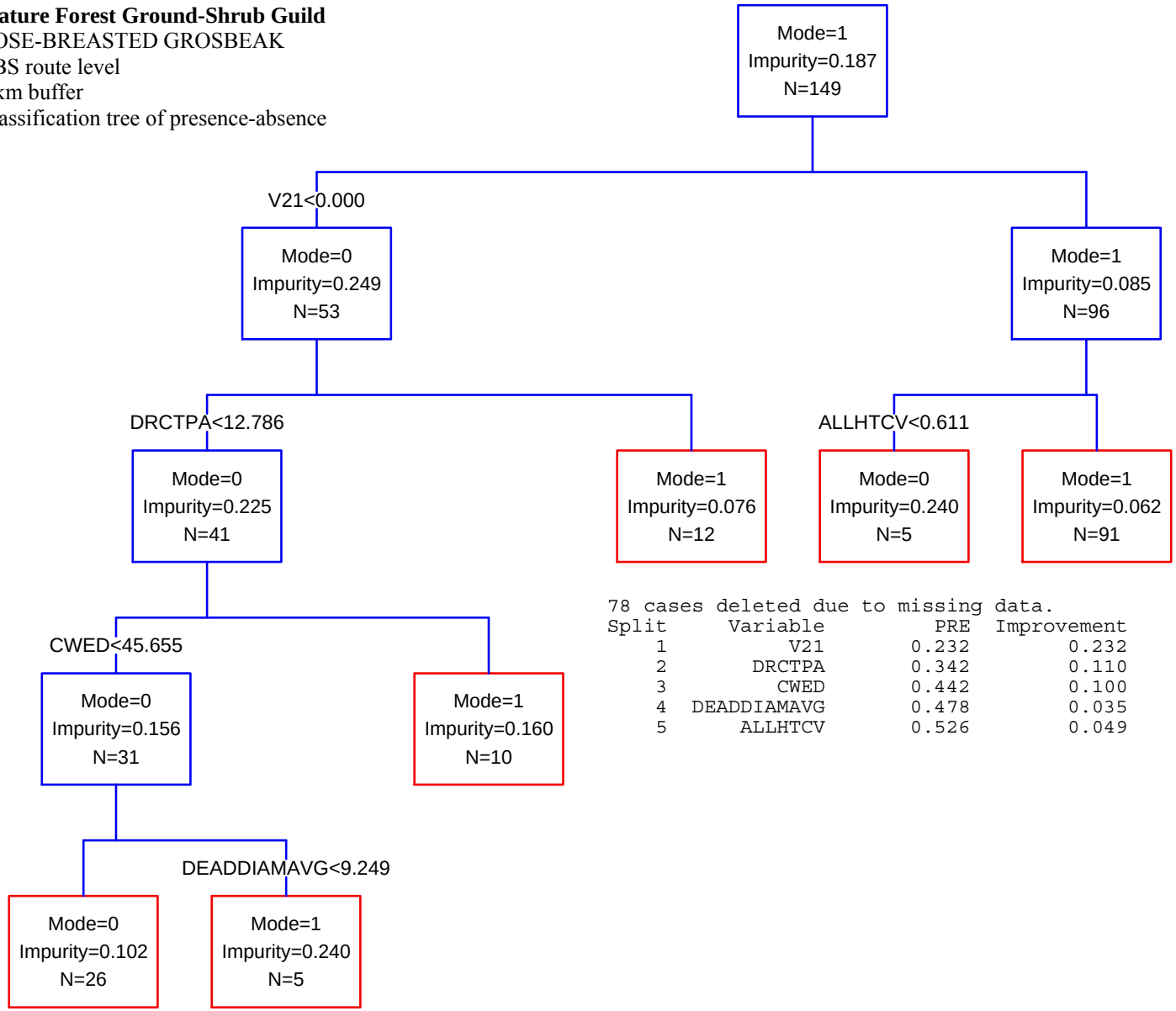
K11

Parameter	Estimate
CONSTANT	-7.773
DRCTPA	0.228
DDIAMAVG	-1.427
UDIAMAVG	7.545
RCDIAMAVG	0.247
DEADDIAMAVG	-0.91
ALLHTCV	3.422
V19	-285.371
V24	51.578
V25	496.986

K21(GLOBAL)

Parameter	Estimate
CONSTANT	-26.014
SITECLCD	0.324
DRCTPA	0.258
DDIAMAVG	-0.966
UDIAMAVG	6.051
RCDIAMAVG	0.224
DEADDIAMAVG	-1.016
ALLDIAMCV	-0.344
ALLHTCV	2.365
ALLSW_N	0.208
USW_N	11.158
V19	-252.258
V21	-2.042
V22	1.301
V24	13.653
V25	434.414
V31	8905.366
V34	-11341.6
CWED	0.014
LANDPD	-0.045

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
1 km buffer
Classification tree of presence-absence

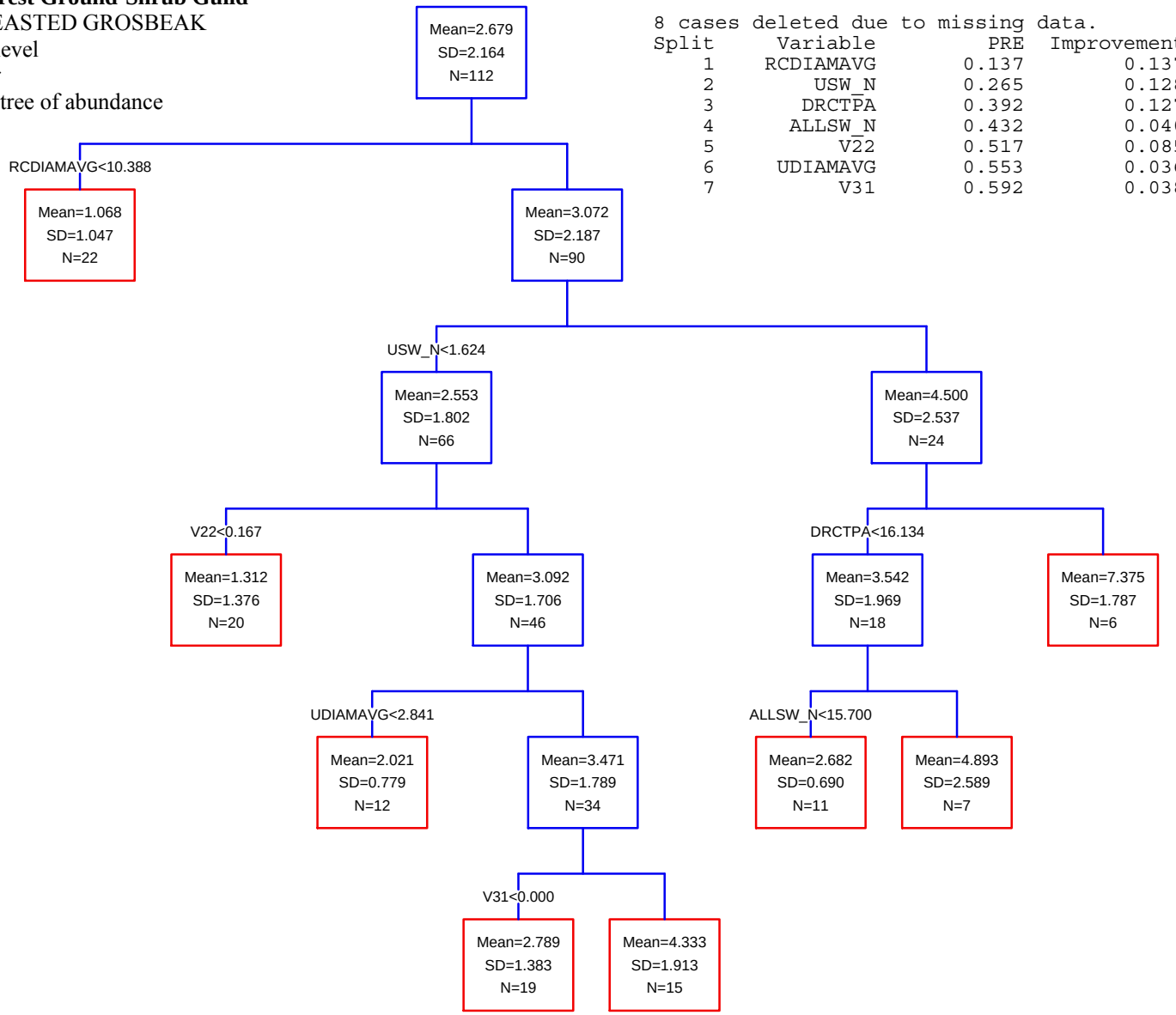



```
78 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1          V21       0.232        0.232
    2       DRCTPA       0.342        0.110
    3         CWED       0.442        0.100
    4  DEADDIAMAVG       0.478        0.035
    5      ALLHTCV       0.526        0.049
```

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
1 km buffer
Regression tree of abundance

8 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	RCDIAMAVG	0.137	0.137
2	USW_N	0.265	0.128
3	DRCTPA	0.392	0.127
4	ALLSW_N	0.432	0.040
5	V22	0.517	0.085
6	UDIAMAVG	0.553	0.036
7	V31	0.592	0.038



Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
150	-47.271	10	116.1	0.0	0.574
150	-47.035	11	118.0	1.9	0.227
150	-45.988	19	135.8	19.7	0.000

K10

Parameter	Estimate
CONSTANT	-22.695
DOMTPA	0.037
DDIAMAVG	-1.481
UDIAMAVG	6.986
RCDIAMAVG	0.408
ALLHTCV	3.332
UDIAMCV	9.345
V19	-266.139
V25	304.488

K11

Parameter	Estimate
CONSTANT	-23.577
DOMTPA	0.036
DDIAMAVG	-1.208
UDIAMAVG	6.471
RCDIAMAVG	0.455
ALLHTCV	3.357
UDIAMCV	7.465
V19	-238.281
V22	1.715
V25	297.271

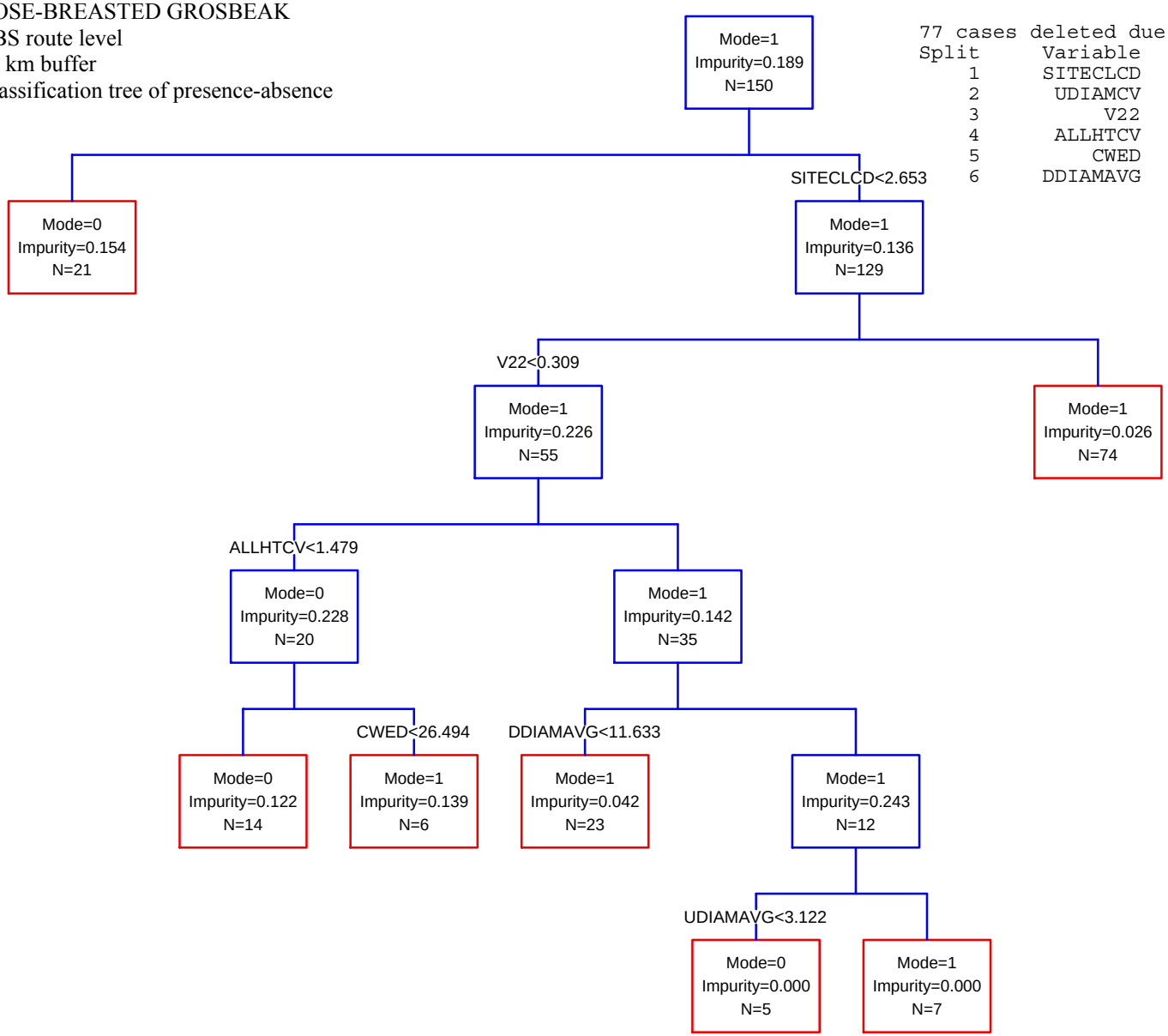
K19(GLOBAL)

Parameter	Estimate
CONSTANT	-20.305
SITECLCD	0.309
DOMTPA	0.037
DDIAMAVG	-1.356
UDIAMAVG	6.248
RCDIAMAVG	0.418
ALLHTCV	3.086
UDIAMCV	8.325
ALLSW_N	-0.049
V19	-249.072
V21	-4.061
V22	1.655
V24	-26.667
V25	367.581
V34	20738.63
CWED	0.016
LANDPD	-0.046
LSHAPE_AM	0.015

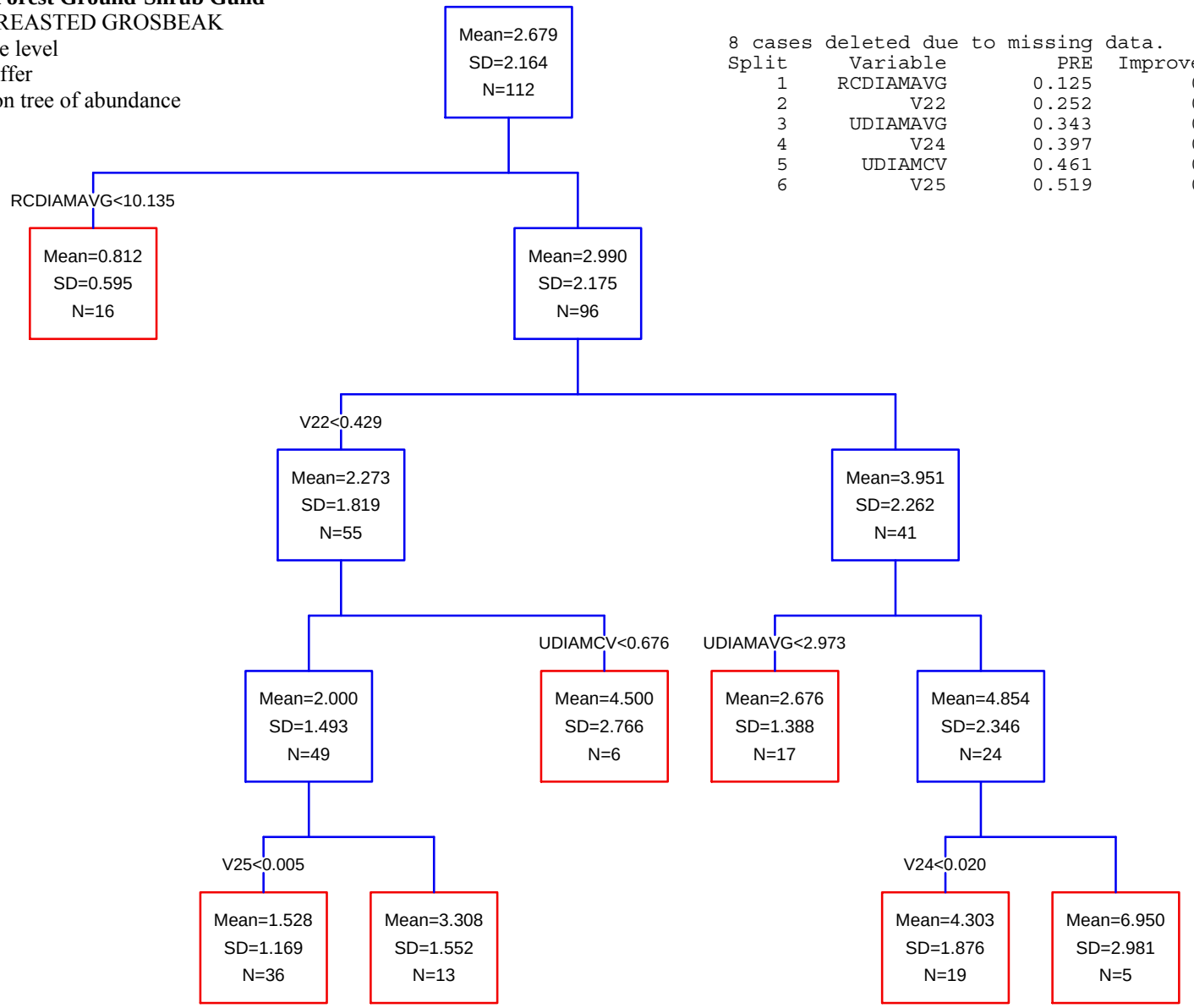
Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
10 km buffer
Classification tree of presence-absence

77 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	SITECLCD	0.266	0.266
2	UDIAMCV	0.296	0.030
3	V22	0.409	0.113
4	ALLHTCV	0.511	0.103
5	CWED	0.582	0.071
6	DDIAMAVG	0.621	0.039



Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
10 km buffer
Regression tree of abundance



8 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	RCDIAMAVG	0.125	0.125
2	V22	0.252	0.127
3	UDIAMAVG	0.343	0.091
4	V24	0.397	0.053
5	UDIAMCV	0.461	0.064
6	V25	0.519	0.058

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
148	-46.901	9	113.1	0.0	0.228
148	-44.646	11	113.2	0.1	0.214
148	-45.888	10	113.4	0.3	0.198
148	-48.521	8	114.1	1.0	0.140
148	-44.151	12	114.6	1.5	0.107
148	-43.278	16	122.7	9.6	0.002

K9

Parameter	Estimate
CONSTANT	-3.74
V1UDIAMAVG	4.635
V1V11	-12.579
V2DRCTPA	0.308
V3DDIAMAVG	-1.495
V3RCDIAMAVG	0.374
V3V19	-345.937
V3V25	315.477

K11

Parameter	Estimate
CONSTANT	-2.982
V1UDIAMAVG	4.051
V1V11	-12.206
V1CWED	0.024
V1LANDPD	-0.028
V2DRCTPA	0.338
V3DDIAMAVG	-1.45
V3RCDIAMAVG	0.46
V3V19	-332.762
V3V25	368.528

K10

Parameter	Estimate
CONSTANT	-2.919
V1UDIAMAVG	4.314
V1V11	-13.103
V1LANDPD	-0.021
V2DRCTPA	0.314
V3DDIAMAVG	-1.401
V3RCDIAMAVG	0.423
V3V19	-327.87
V3V25	305.019

K8

Parameter	Estimate
CONSTANT	0.338
V1UDIAMAVG	4.415
V1V11	-9.504
V2DRCTPA	0.284
V3DDIAMAVG	-1.401
V3V19	-309.545
V3V25	247.375

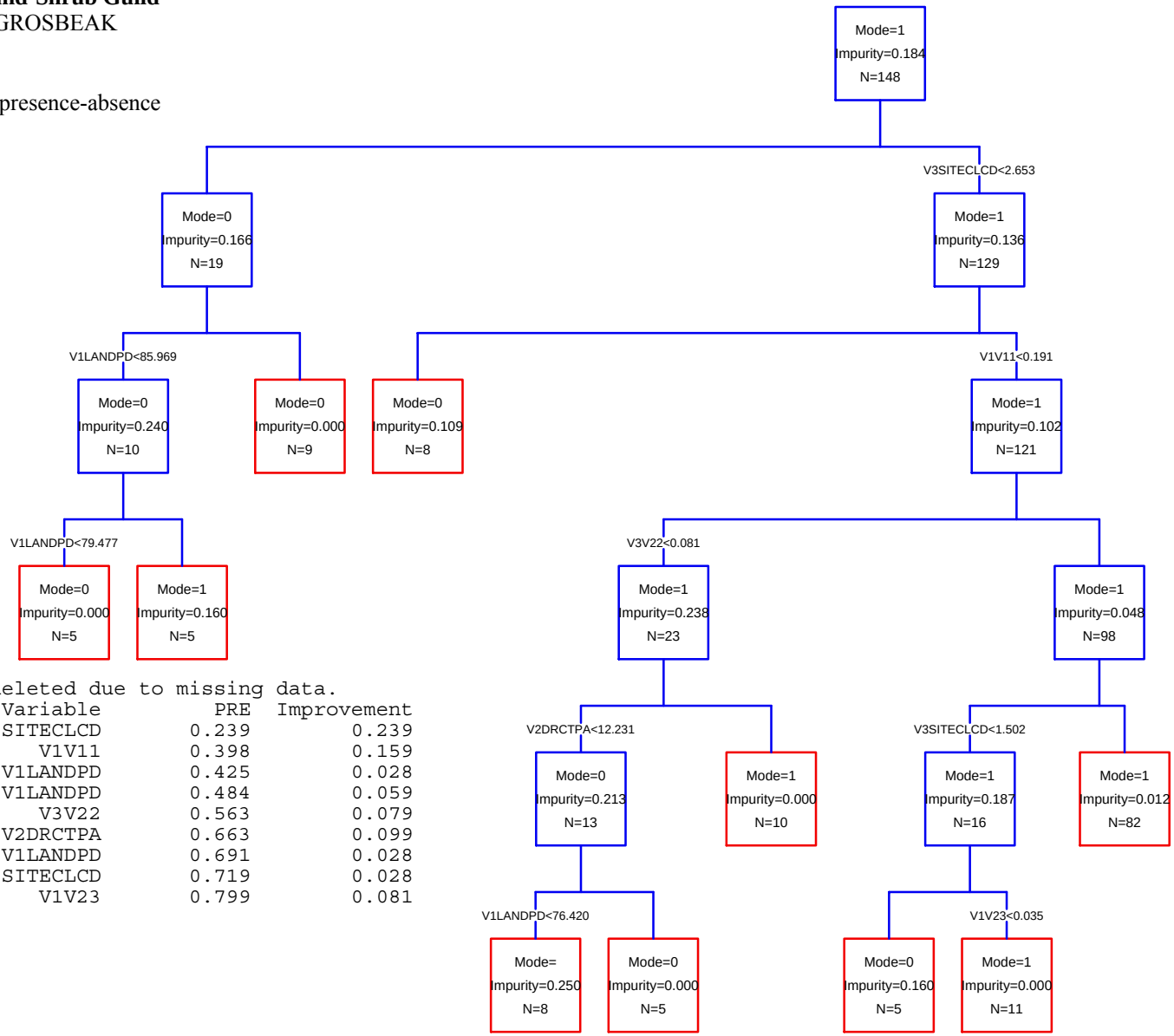
K12

Parameter	Estimate
CONSTANT	-5.788
V1UDIAMAVG	4.409
V1V11	-9.063
V1CWED	0.021
V1LANDPD	-0.02
V2DRCTPA	0.313
V3DDIAMAVG	-1.536
V3RCDIAMAVG	0.517
V3ALLHTCV	1.171
V3V19	-319.631
V3V25	398.558

K16(GLOBAL)

Parameter	Estimate
CONSTANT	-10.326
V1SITECLCD	-0.308
V1UDIAMAVG	4.473
V1V11	-10.082
V1V23	3.783
V1CWED	0.022
V1LANDPD	-0.029
V2DRCTPA	0.246
V3DOMTPA	0.031
V3DDIAMAVG	-1.229
V3RCDIAMAVG	0.388
V3ALLHTCV	1.552
V3UDIAMCV	2.41
V3V19	-310.846
V3V25	369.732

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
Multiscale
Classification tree of presence-absence

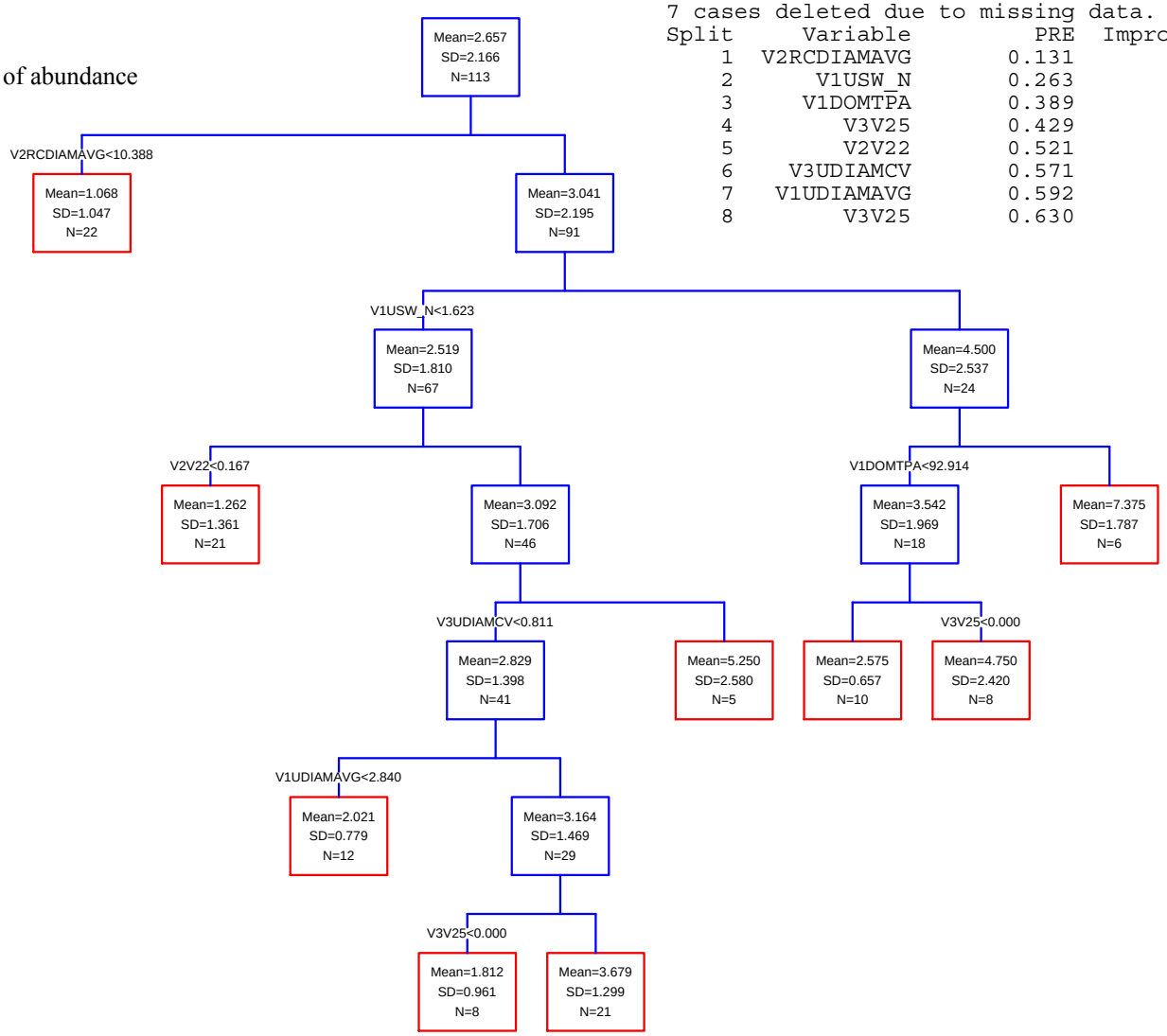



```
79 cases deleted due to missing data.
Split     Variable          PRE  Improvement
    1   V3SITECLCD        0.239        0.239
    2        V1V11        0.398        0.159
    3     V1LANDPD        0.425        0.028
    4     V1LANDPD        0.484        0.059
    5        V3V22        0.563        0.079
    6     V2DRCTPA        0.663        0.099
    7     V1LANDPD        0.691        0.028
    8   V3SITECLCD        0.719        0.028
    9        V1V23        0.799        0.081
```

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
Multiscale
Classification tree of abundance

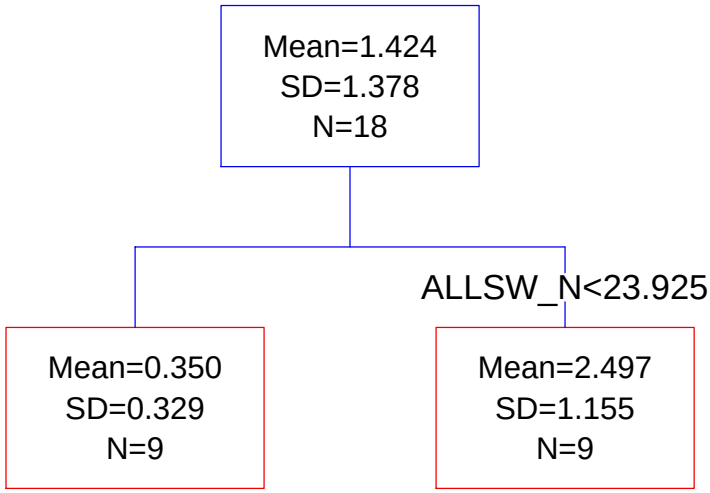
7 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V2RCDIAMAVG	0.131	0.131
2	V1USW_N	0.263	0.132
3	V1DOMTPA	0.389	0.126
4	V3V25	0.429	0.040
5	V2V22	0.521	0.092
6	V3UDIAMCV	0.571	0.050
7	V1UDIAMAVG	0.592	0.021
8	V3V25	0.630	0.038



Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
FIA Unit scale
Classification tree of abundance

```
12 cases deleted due to missing data.
Split     Variable        PRE  Improvement
    1      ALLSW_N      0.643        0.643
```



Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
208	-113.041	8	242.8	0.0	0.441
208	-112.688	9	244.3	1.5	0.210
208	-114.97	7	244.5	1.7	0.189
208	-112.553	15	257.6	14.8	0.000

K8

Parameter	Estimate
CONSTANT	0.799
STDAGE	0.019
UTPA	0.007
DEADTPA	-0.252
DSW_N	-1.786
V11	4.58
CAI_AM	0.037

K9

Parameter	Estimate
CONSTANT	5.058
STDAGE	0.02
UTPA	0.007
DEADTPA	-0.254
DSW_N	-1.641
V11	4.135
CAI_AM	0.037
LSHAPE_MN	-3.551

K7

Parameter	Estimate
CONSTANT	-3.014
CAI_AM	0.037
ALLSW_N	0.047
DEADTPA	-0.235
UTPA	0.006
STDAGE	0.026

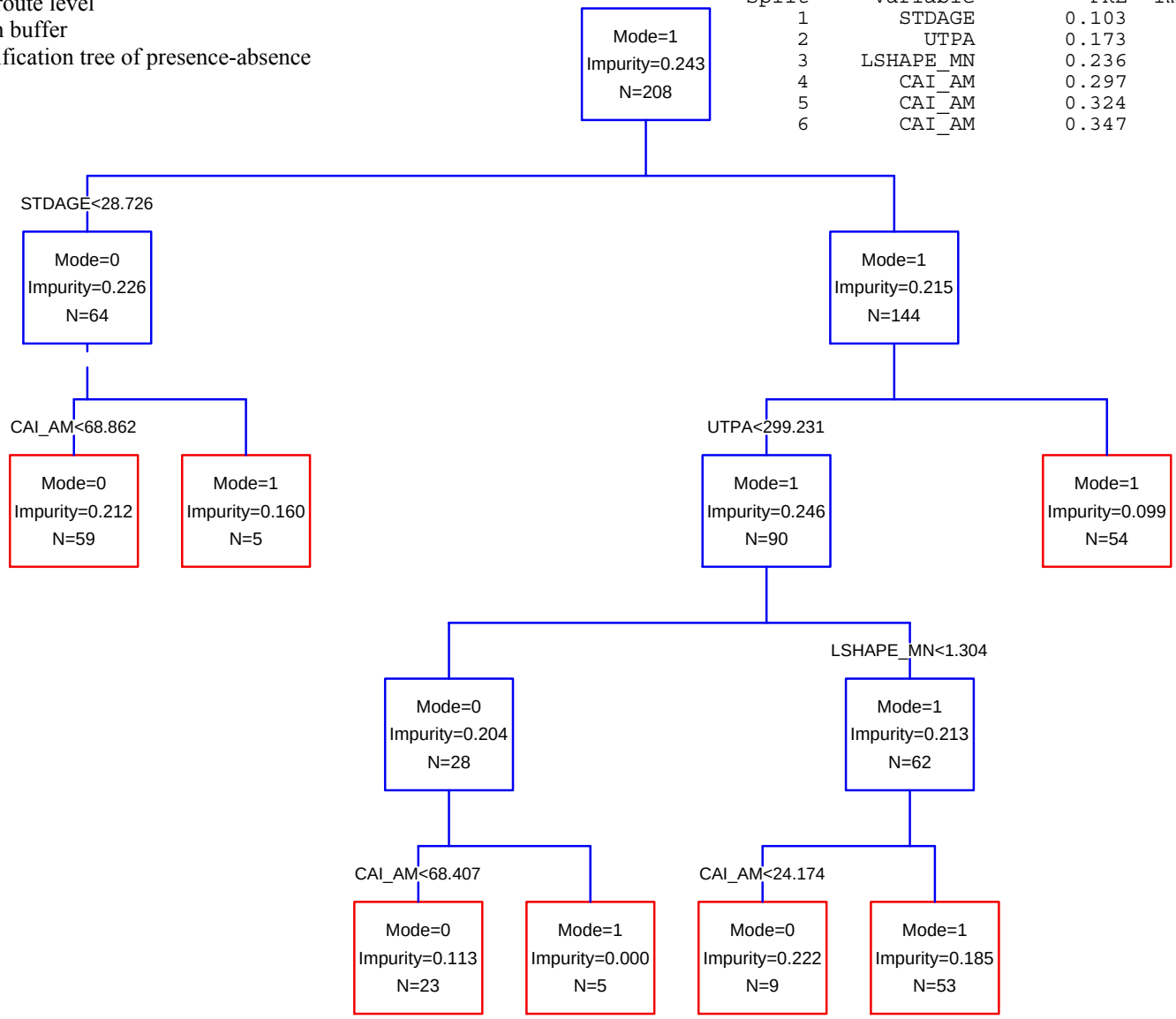
K15(GLOBAL)

Parameter	Estimate
CONSTANT	4.532
STDAGE	0.021
UTPA	0.007
DEADTPA	-0.247
ALLSW_N	0.011
DSW_N	-1.442
V11	3.601
V19	0.321
V21	-0.346
V23	0.528
V31	-6.972
PD	0
CAI_AM	0.036
LSHAPE_MN	-3.498

Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
100 m buffer
Classification tree of presence-absence

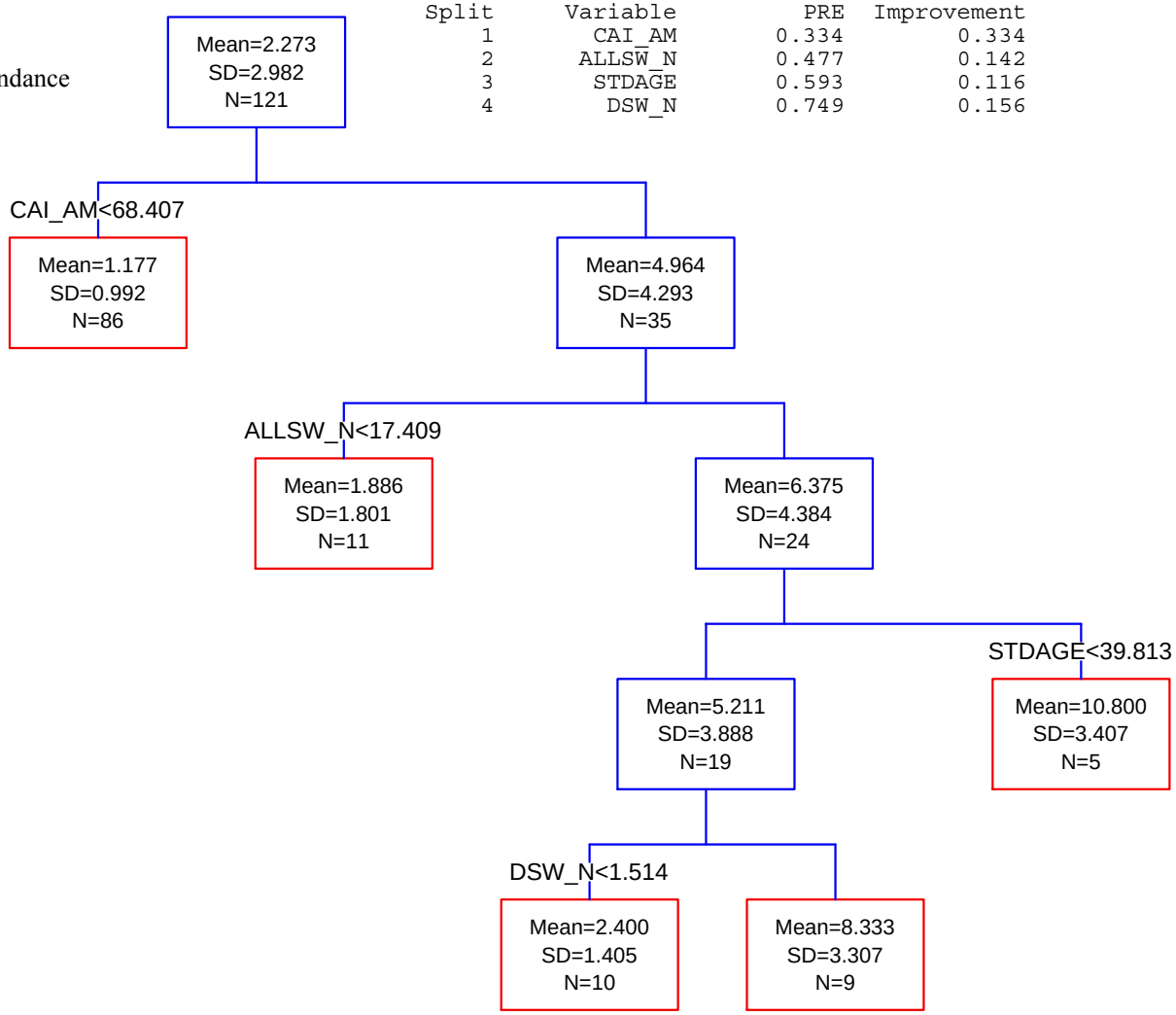
19 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	STDAGE	0.103	0.103
2	UTPA	0.173	0.069
3	LSHAPE_MN	0.236	0.063
4	CAI_AM	0.297	0.061
5	CAI_AM	0.324	0.027
6	CAI_AM	0.347	0.022



Mature Forest Ground-Shrub Guild
ROSE-BREASTED GROSBEAK
BBS route level
100 m buffer
Regression tree of abundance

```
1 cases deleted due to missing data.
Split     Variable         PRE  Improvement
    1       CAI_AM       0.334        0.334
    2      ALLSW_N       0.477        0.142
    3       STDAGE       0.593        0.116
    4        DSW_N       0.749        0.156
```



Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
210	-122.147	6	256.7	0.0	0.271
210	-121.287	7	257.1	0.4	0.220
210	-120.672	8	258.1	1.4	0.138
210	-124.005	5	258.3	1.6	0.122
210	-119.362	15	271.2	14.5	0.000

K6

Parameter	Estimate
CONSTANT	-9.813
ALLSW_N	0.074
V11	4.914
SHAPE_MN	4.964
CAI_AM	0.035

K7

Parameter	Estimate
CONSTANT	-12.426
ALLSW_N	0.073
V11	4.908
SHAPE_MN	6.008
CAI_AM	0.036
LANDIJI	0.023

K8

Parameter	Estimate
CONSTANT	-11.802
ALLSW_N	0.077
V11	4.733
PD	-0.044
SHAPE_MN	5.553
CAI_AM	0.032
LANDIJI	0.032

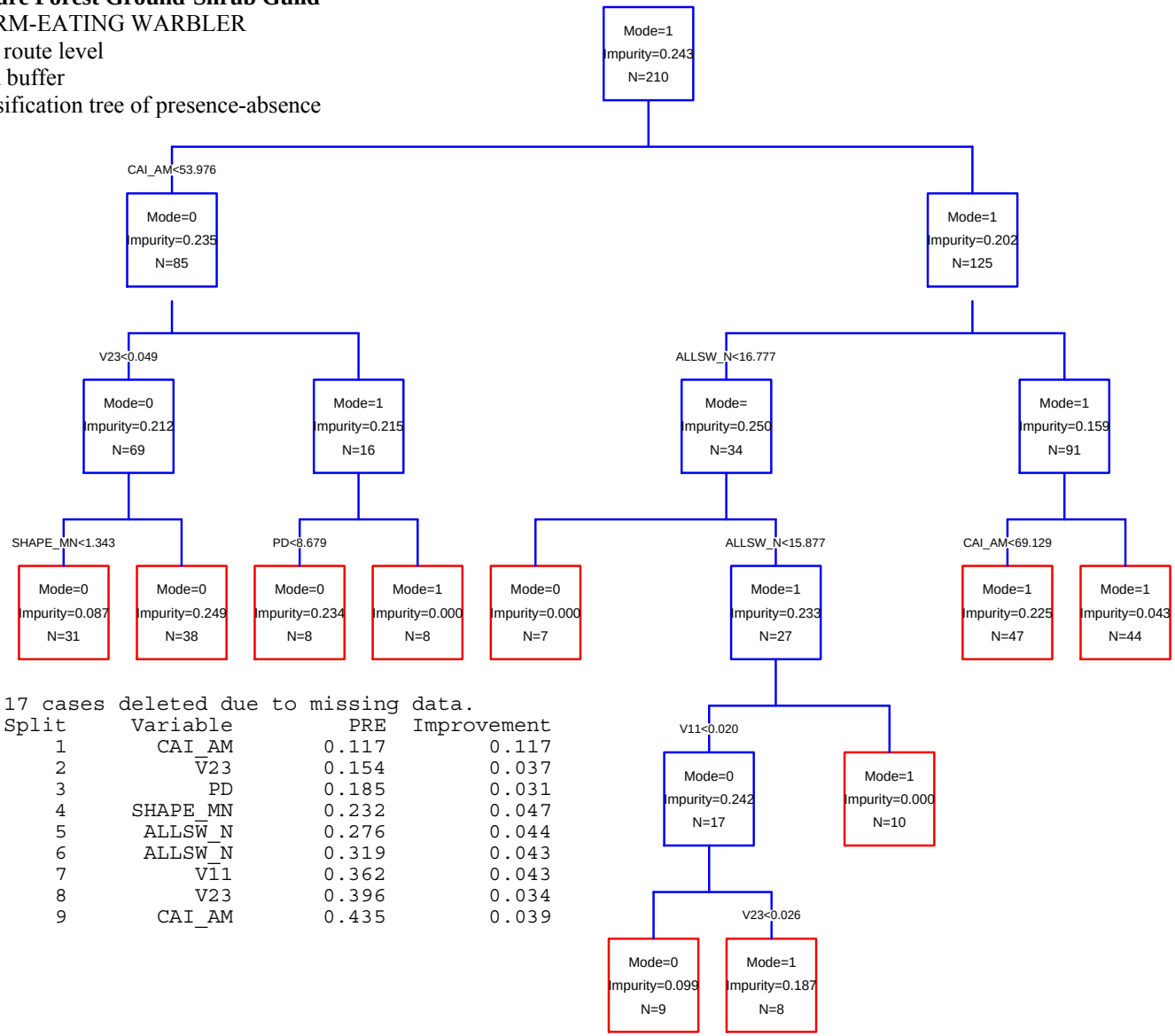
K5

Parameter	Estimate
CONSTANT	-9.648
CAI_AM	0.038
ALLSW_N	0.068
SHAPE_MN	4.854

K15(GLOBAL)

Parameter	Estimate
CONSTANT	-10.715
STDAGE	0.012
UTPA	0
ALLSW_N	0.052
DSW_N	-0.772
V11	3.667
V19	2.45
V21	-1.203
V23	0.797
V31	-17.038
PD	-0.05
SHAPE_MN	5.902
CAI_AM	0.024
LANDIJI	0.035

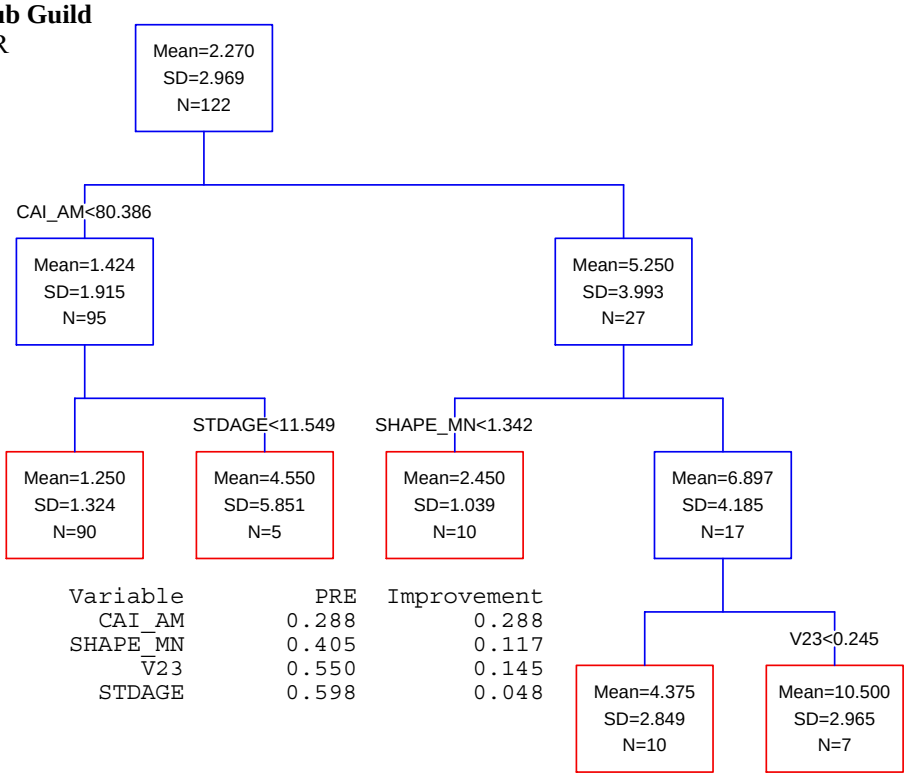
Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS route level
1 km buffer
Classification tree of presence-absence



17 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CAI_AM	0.117	0.117
2	V23	0.154	0.037
3	PD	0.185	0.031
4	SHAPE_MN	0.232	0.047
5	ALLSW_N	0.276	0.044
6	ALLSW_N	0.319	0.043
7	V11	0.362	0.043
8	V23	0.396	0.034
9	CAI_AM	0.435	0.039

Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS route level
1 km buffer
Regression tree of abundance



Split	Variable	PRE	Improvement
1	CAI_AM	0.288	0.288
2	SHAPE_MN	0.405	0.117
3	V23	0.550	0.145
4	STDAGE	0.598	0.048

Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
210	-121.656	7	257.9	0.0	0.479
210	-121.413	8	259.5	1.6	0.207
210	-121.352	12	268.3	10.4	0.003

K7

Parameter	Estimate
CONSTANT	-1.791
UTPA	0.005
ALLSW_N	0.107
V12	14.743
V23	3.18
LSI	-0.013

K8

Parameter	Estimate
CONSTANT	-1.43
UTPA	0.004
ALLSW_N	0.098
V12	14.143
V19	3.987
V23	3.391
LSI	-0.014

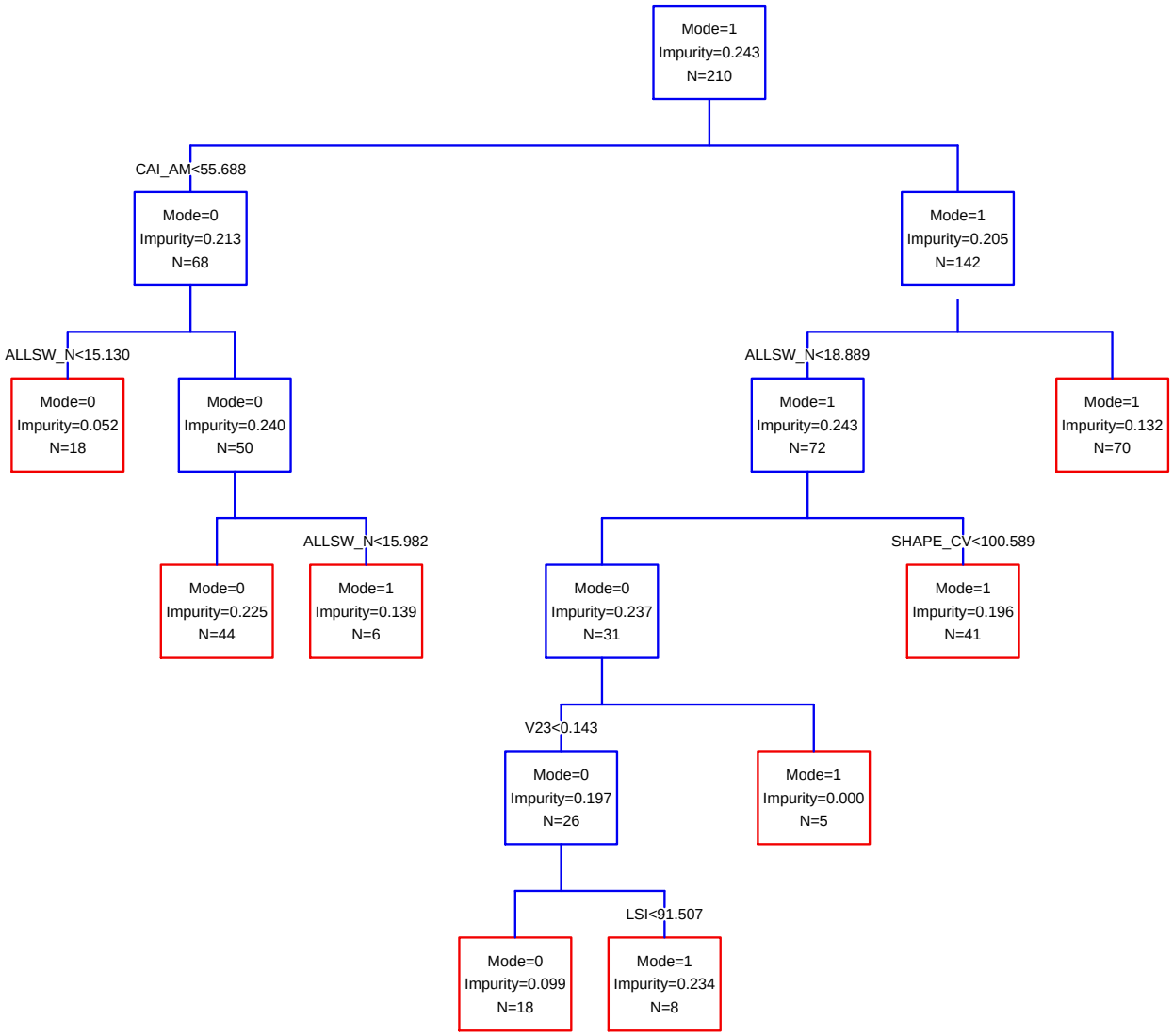
K12(GLOBAL)

Parameter	Estimate
CONSTANT	-1.818
UTPA	0.004
ALLSW_N	0.102
DSW_N	0.15
V12	14.834
V19	4.599
V21	0.268
V23	3.437
LSI	-0.014
SHAPE_CV	0.002
CAI_AM	-0.001

Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS route level
10 km buffer
Classification tree of presence-absence

17 cases deleted due to missing data.

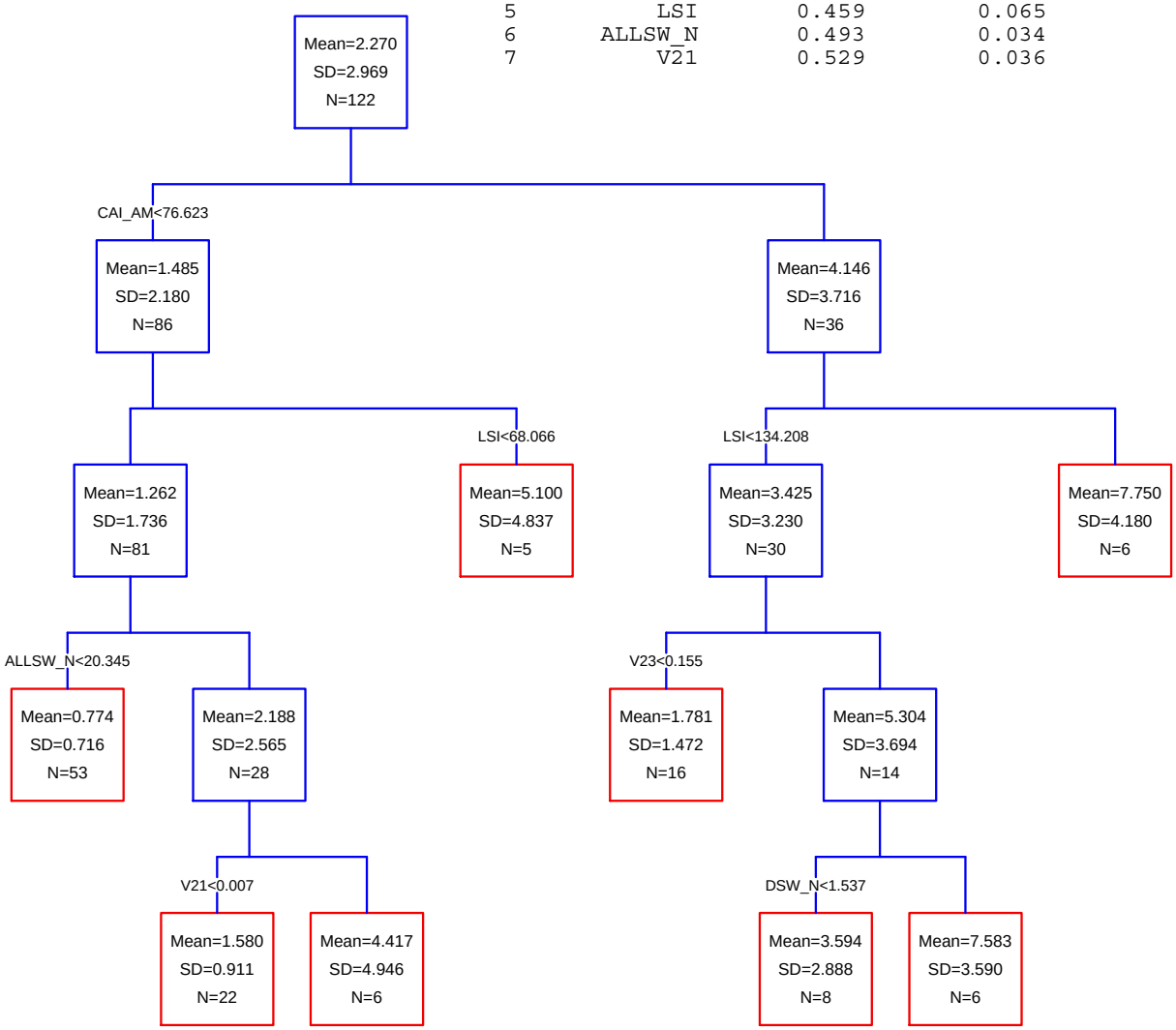
Split	Variable	PRE	Improvement
1	CAI_AM	0.146	0.146
2	ALLSW_N	0.176	0.031
3	ALLSW_N	0.201	0.025
4	ALLSW_N	0.248	0.047
5	SHAPE_CV	0.289	0.041
6	V23	0.333	0.044
7	LSI	0.362	0.029



Mature Forest Ground-Shrub Guild

WORM-EATING WARBLER
BBS route level
10 km buffer
Regression tree of abundance

Split	Variable	PRE	Improvement
1	CAI_AM	0.168	0.168
2	LSI	0.256	0.088
3	V23	0.343	0.087
4	DSW_N	0.394	0.051
5	LSI	0.459	0.065
6	ALLSW_N	0.493	0.034
7	V21	0.529	0.036



Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
208	-109.706	9	238.3	0.0	0.286
208	-108.746	10	238.6	0.3	0.248
208	-111.321	8	239.4	1.1	0.170
208	-108.116	11	239.6	1.3	0.153
208	-107.98	13	243.8	5.5	0.018

K9

Parameter	Estimate
CONSTANT	-12.063
V1STDAGE	0.032
V1UTPA	0.004
V1DEADTPA	-0.232
V1CAI_AM	0.035
V2SHAPE_MN	7.22
V3ALLSW_N	0.097
V3LSI	-0.012

K10

Parameter	Estimate
CONSTANT	-13.758
V1STDAGE	0.026
V1UTPA	0.005
V1DEADTPA	-0.232
V1CAI_AM	0.034
V2SHAPE_MN	8.127
V3ALLSW_N	0.115
V3V12	12.562
V3LSI	-0.01

K8

Parameter	Estimate
CONSTANT	-14.095
V1STDAGE	0.036
V1DEADTPA	-0.18
V1CAI_AM	0.038
V2SHAPE_MN	8.629
V3ALLSW_N	0.129
V3LSI	-0.011

K11

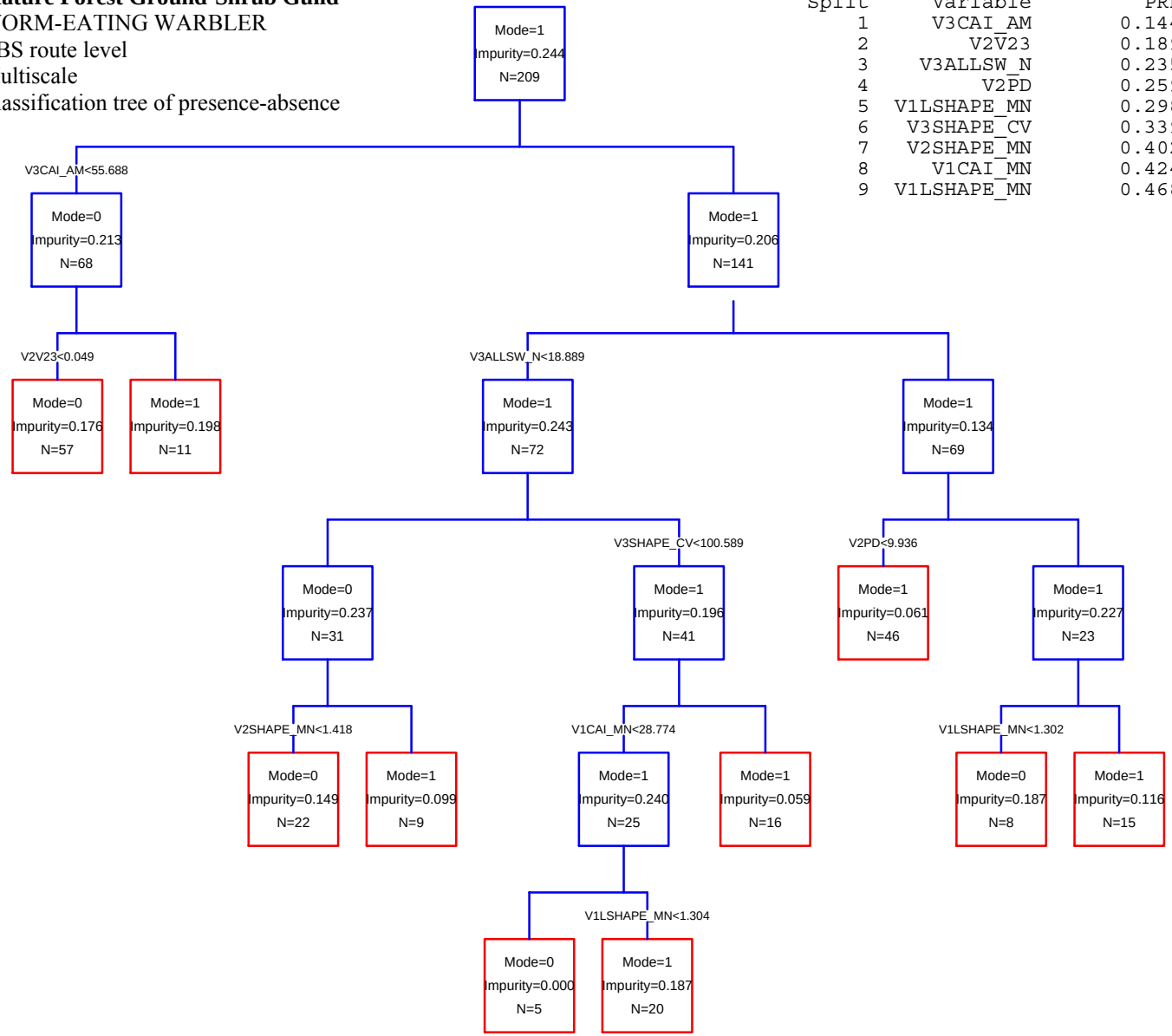
Parameter	Estimate
CONSTANT	-13.869
V1STDAGE	0.022
V1UTPA	0.005
V1DEADTPA	-0.228
V1CAI_AM	0.033
V2V11	3.282
V2SHAPE_MN	8.199
V3ALLSW_N	0.116
V3V12	13.419
V3LSI	-0.009

K13(GLOBAL)

Parameter	Estimate
CONSTANT	-12.583
V1STDAGE	0.021
V1UTPA	0.005
V1DEADTPA	-0.235
V1DSW_N	-0.515
V1CAI_AM	0.034
V2V11	3.421
V2SHAPE_MN	7.956
V3ALLSW_N	0.103
V3V12	13.472
V3V23	0.332
V3LSI	-0.008

Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS route level
Multiscale
Classification tree of presence-absence

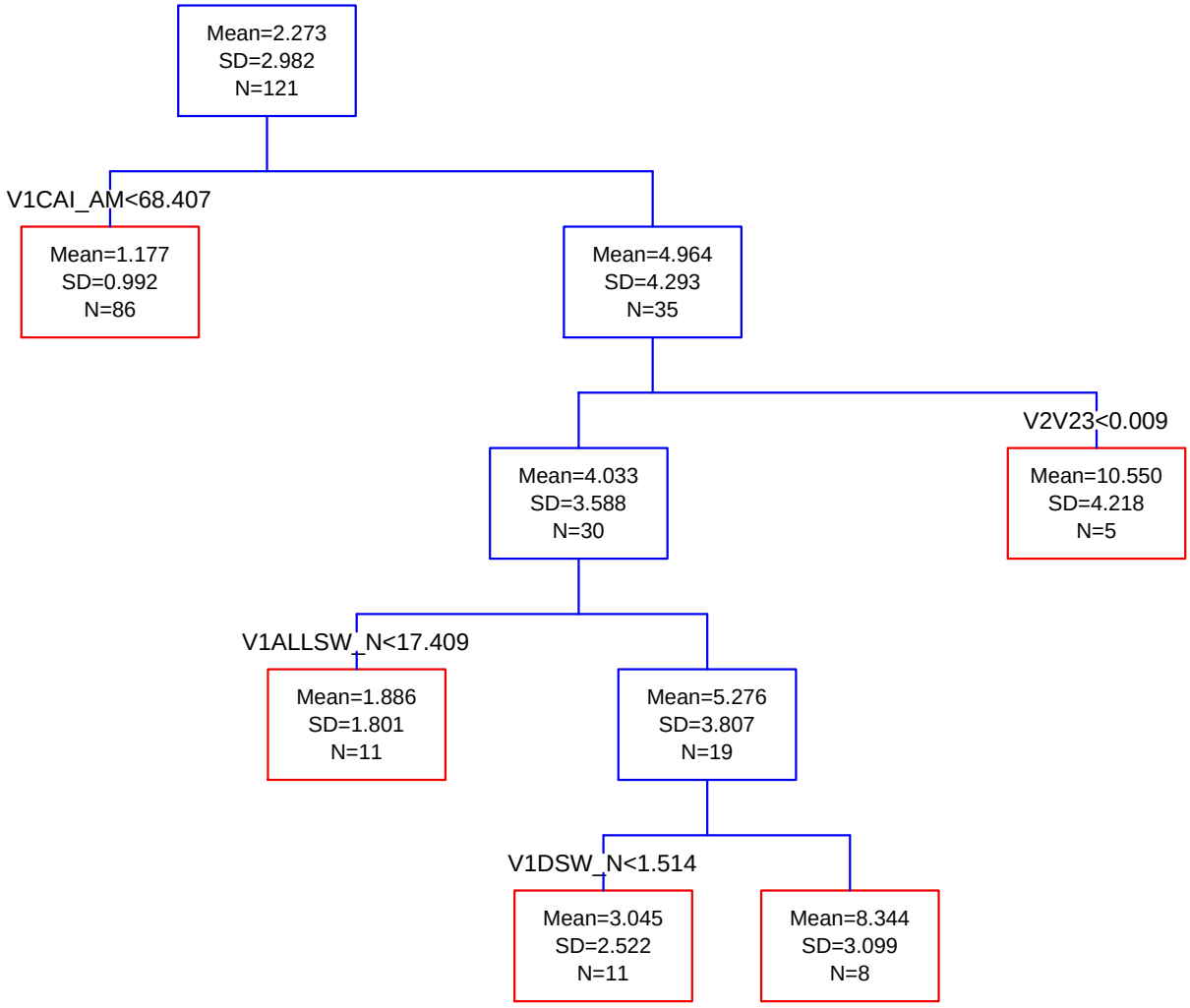
Split	Variable	PRE	Improvement
1	V3CAI_AM	0.144	0.144
2	V2V23	0.189	0.045
3	V3ALLSW_N	0.235	0.046
4	V2PD	0.259	0.024
5	V1LSHAPE_MN	0.298	0.039
6	V3SHAPE_CV	0.339	0.041
7	V2SHAPE_MN	0.402	0.063
8	V1CAI_MN	0.424	0.022
9	V1LSHAPE_MN	0.468	0.044



Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
BBS route level
Multiscale
Regression tree of abundance

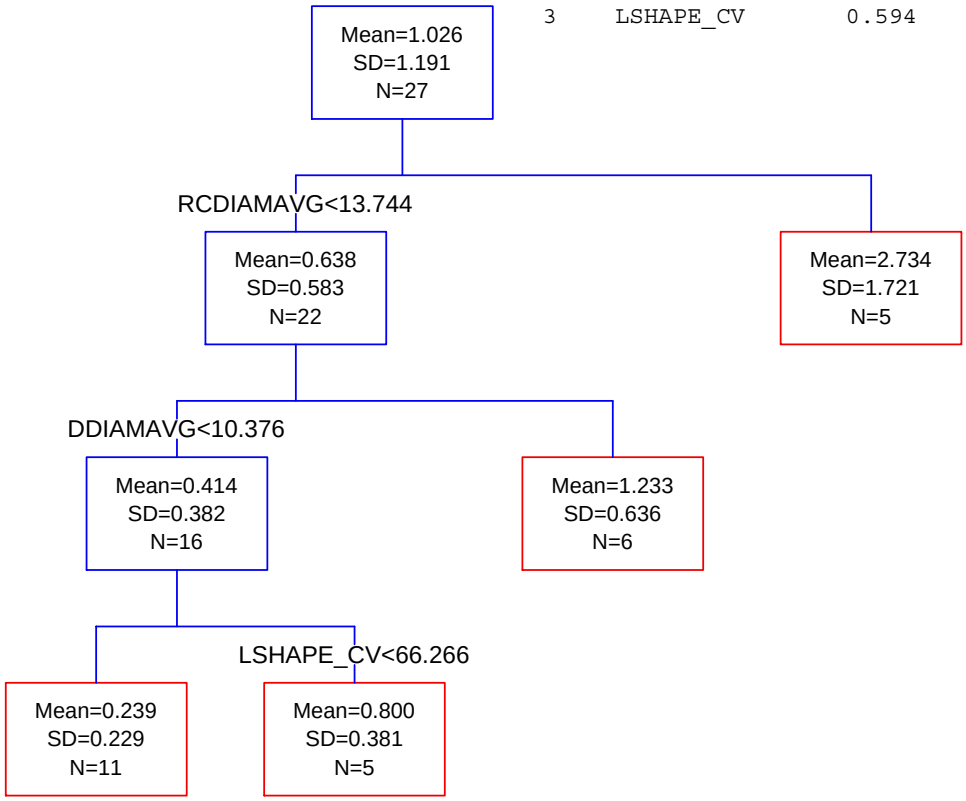
1 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1CAI_AM	0.334	0.334
2	V2V23	0.505	0.171
3	V1ALLSW_N	0.580	0.075
4	V1DSW_N	0.702	0.122



Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
FIA Unit scale
Regression tree of abundance

```
3 cases deleted due to missing data.
Split     Variable          PRE   Improvement
    1    RCDIAMAVG        0.486         0.486
    2     DDIAMAVG        0.565         0.079
    3    LSHAPE_CV        0.594         0.029
```



Mature Forest Ground-Shrub Guild
WORM-EATING WARBLER
Physiographic section scale
GLM of abundance

n	LL	K	AICc	ΔAIC	w_i
16	2.299	3	-23.0	0.0	0.563
16	1.931	4	-22.2	0.8	0.369
16	1.814	5	-18.8	4.2	0.069

K3		K4		K5	
Parameter	Coefficient	Parameter	Coefficient	Parameter	Coefficient
Constant		Constant		Constant	
V21	-6.878	V21	-4.809	V21	-4.288
		SITECLCD	0.250	V19	5.075
				SITECLCD	0.196

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS Route level
100 m buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
169	-65.525	5	141.4	0.0	0.224
169	-62.263	8	141.4	0.0	0.223
169	-64.692	6	141.9	0.5	0.176
169	-63.721	7	142.1	0.7	0.157
169	-66.995	4	142.2	0.8	0.149
169	-62.517	15	158.2	16.8	0.000

K5

Parameter	Estimate
CONSTANT	9.795
DEADTPA	-0.175
DEADDIAMAVG	-0.642
V21	-13.413

K8

Parameter	Estimate
CONSTANT	5.738
DEADTPA	-0.164
ALLHTAVG	0.068
DEADDIAMAVG	-0.587
ALLSW_N	0.12
V19	-57.052
V21	-9.902

K6

Parameter	Estimate
CONSTANT	7.287
DEADTPA	-0.159
DEADDIAMAVG	-0.567
ALLSW_N	0.093
V21	-11.069

K7

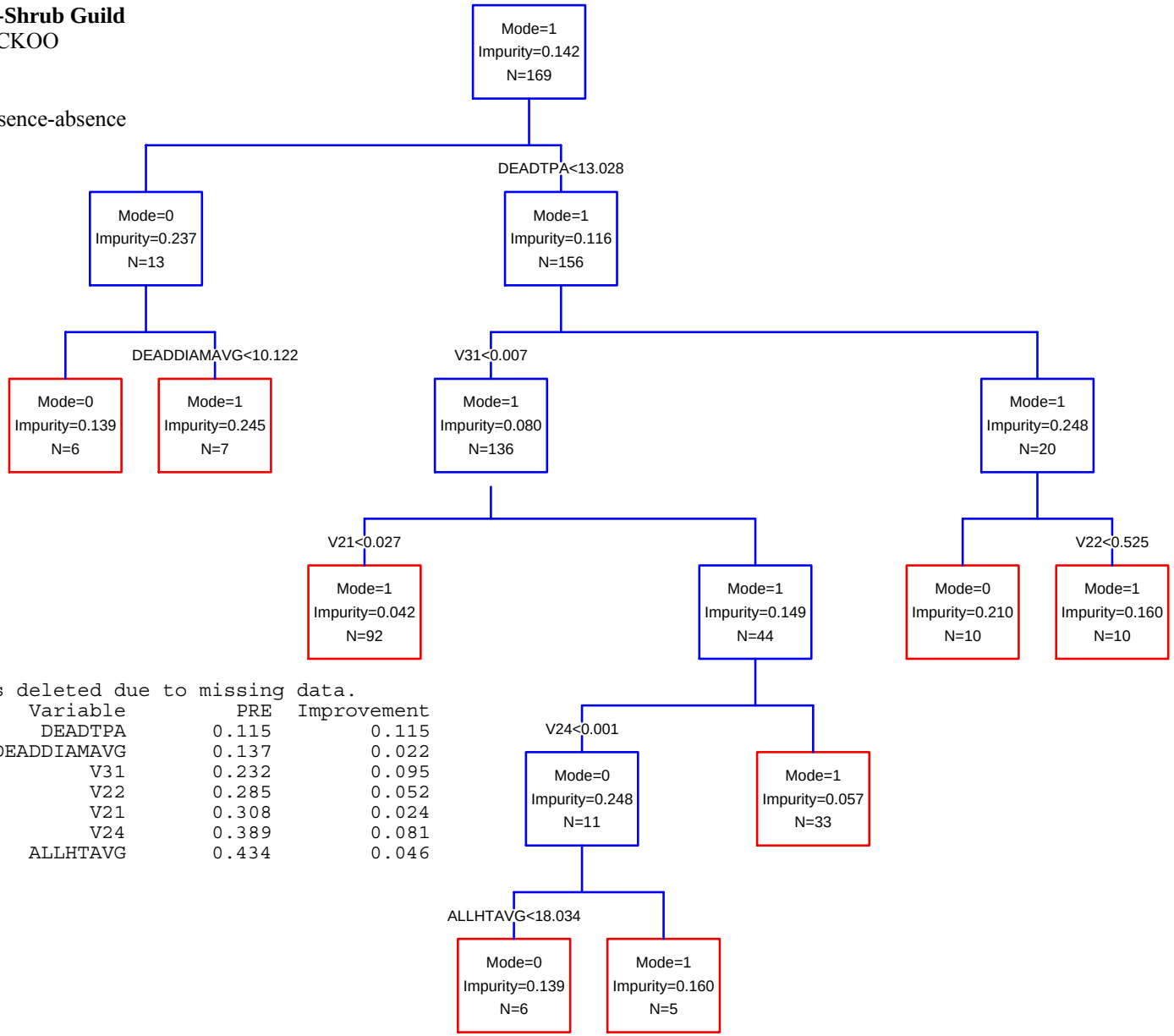
Parameter	Estimate
CONSTANT	6.475
DEADTPA	-0.163
ALLHTAVG	0.061
DEADDIAMAVG	-0.619
ALLSW_N	0.098
V21	-10.049

K4

Parameter	Estimate
CONSTANT	3.674
V21	-12.525
DEADTPA	-0.189

Parameter	Estimate
CONSTANT	7.858
DEADTPA	-0.123
RCTPA	-0.233
ALLHTAVG	0.056
UDIAMAVG	-0.164
DEADDIAMAVG	-0.655
ALLSW_N	0.1
V19	-55.493
V21	-9.409
V22	-0.899
V24	10.426
V31	-4.667
V32	-6.814
CWED	0

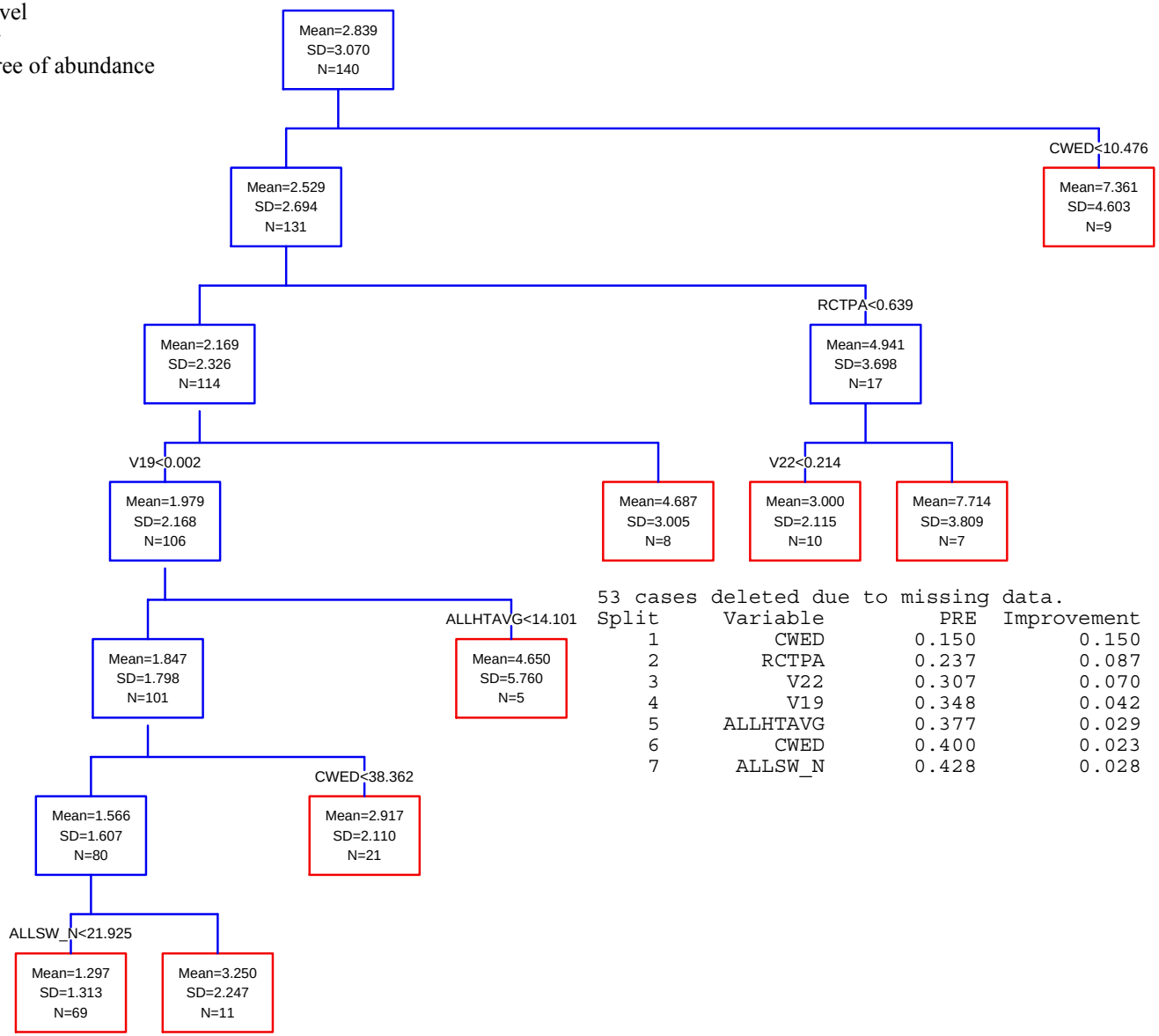
Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
100 m buffer
Classification tree of presence-absence



58 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	DEADTPA	0.115	0.115
2	DEADDIAMAVG	0.137	0.022
3	V31	0.232	0.095
4	V22	0.285	0.052
5	V21	0.308	0.024
6	V24	0.389	0.081
7	ALLHTAVG	0.434	0.046

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
100 m buffer
Regression tree of abundance



53 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	CWED	0.150	0.150
2	RCTPA	0.237	0.087
3	V22	0.307	0.070
4	V19	0.348	0.042
5	ALLHTAVG	0.377	0.029
6	CWED	0.400	0.023
7	ALLSW_N	0.428	0.028

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS Route level
1 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
172	-64.098	7	142.9	0.0	0.220
172	-65.411	6	143.3	0.4	0.175
172	-66.49	5	143.3	0.4	0.174
172	-67.67	4	143.6	0.7	0.155
172	-63.362	8	143.6	0.7	0.153
172	-62.326	17	162.6	19.7	0.000

K7

Parameter	Estimate
CONSTANT	11.676
DEADTPA	-0.122
DRCDIAMAVG	-0.676
V21	-13.888
V22	-3.87
V29	-2.492

K6

Parameter	Estimate
CONSTANT	1.687
V21	-8.659
DEADTPA	-0.117
ALLSW_N	0.12
RCTPA	-0.335

K5

Parameter	Estimate
CONSTANT	1.517
V21	-10.098
DEADTPA	-0.161
ALLSW_N	0.111

K4

Parameter	Estimate
CONSTANT	3.596
V21	-12.749
DEADTPA	-0.175

K8

Parameter	Estimate
CONSTANT	8.813
DEADTPA	-0.099
DRCDIAMAVG	-0.591
ALLSW_N	0.098
V21	-12.073
V22	-3.46
V29	-2.687

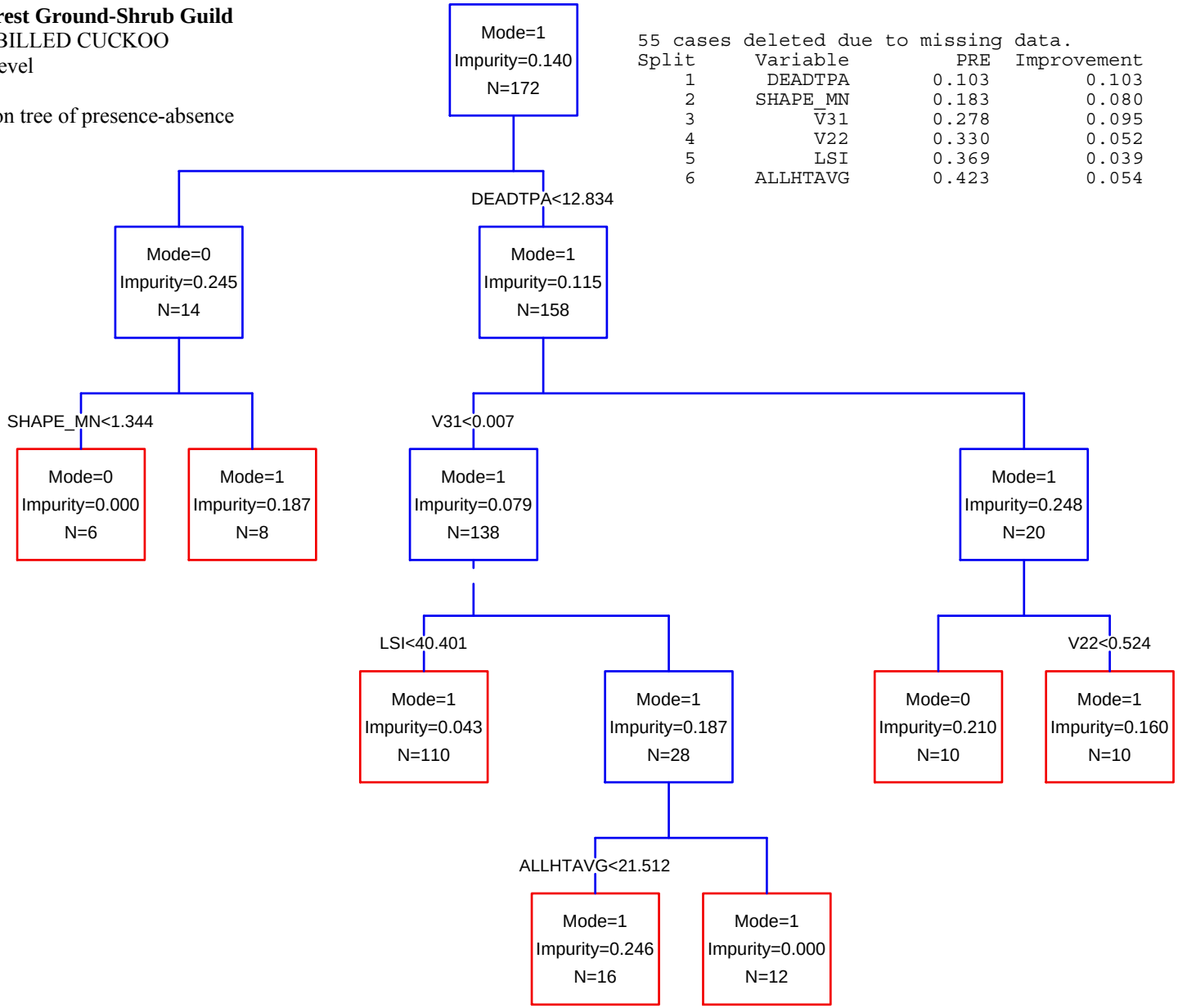
K17(GLOBAL)

Parameter	Estimate
CONSTANT	4.951
DEADTPA	-0.09
RCTPA	-0.111
ALLHTAVG	0.021
UDIAMAVG	-0.516
DRCDIAMAVG	-0.605
ALLSW_N	0.082
V19	10.584
V21	-11.811
V22	-2.986
V24	1.764
V29	-2.467
V31	-5.608
V32	-17.774
LSI	-0.011
SHAPE_MN	4.313

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
1 km buffer
Classification tree of presence-absence

55 cases deleted due to missing data.

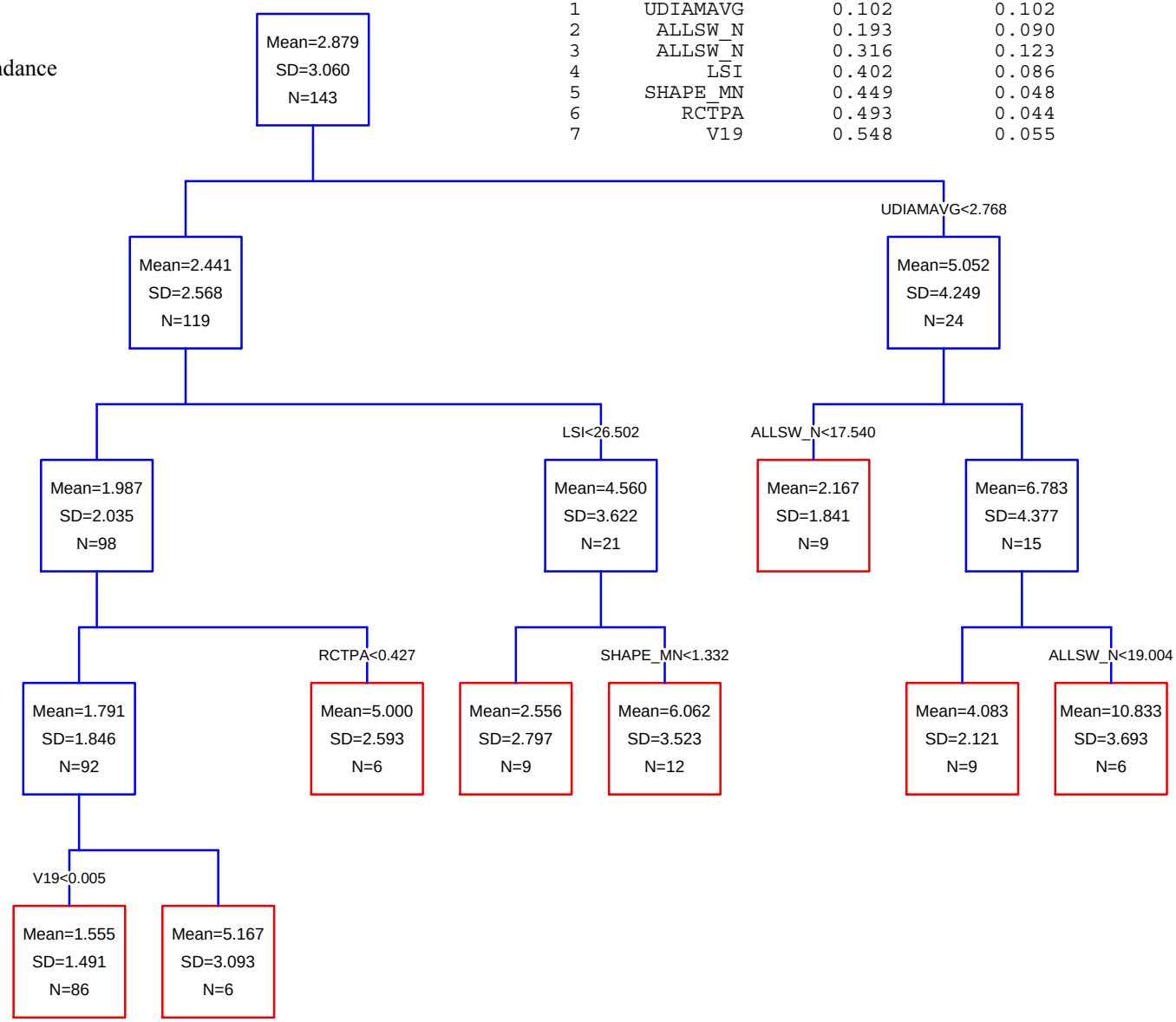
Split	Variable	PRE	Improvement
1	DEADTPA	0.103	0.103
2	SHAPE_MN	0.183	0.080
3	V31	0.278	0.095
4	V22	0.330	0.052
5	LSI	0.369	0.039
6	ALLHTAVG	0.423	0.054



Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
1 km buffer
Regression tree of abundance

50 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	UDIAMAVG	0.102	0.102
2	ALLSW_N	0.193	0.090
3	ALLSW_N	0.316	0.123
4	LSI	0.402	0.086
5	SHAPE_MN	0.449	0.048
6	RCTPA	0.493	0.044
7	V19	0.548	0.055



Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS Route level
10 km buffer
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
177	-62.561	6	137.6	0.0	0.331
177	-61.579	7	137.8	0.2	0.299
177	-64.01	5	138.4	0.8	0.227
177	-61.121	8	139.1	1.5	0.158
177	-59.327	18	159.0	21.4	0.000

K6

Parameter	Estimate
CONSTANT	9.537
DEADTPA	-0.188
UDIAMCV	-10.622
ALLSW_N	0.116
V21	-11.537

K7

Parameter	Estimate
CONSTANT	9.351
DEADTPA	-0.16
UDIAMCV	-10.16
ALLSW_N	0.151
V21	-12.319
LSHAPE_AM	-0.023

K5

Parameter	Estimate
CONSTANT	10.892
V21	-13.626
CAI_MN	-0.029
UDIAMCV	-10.721

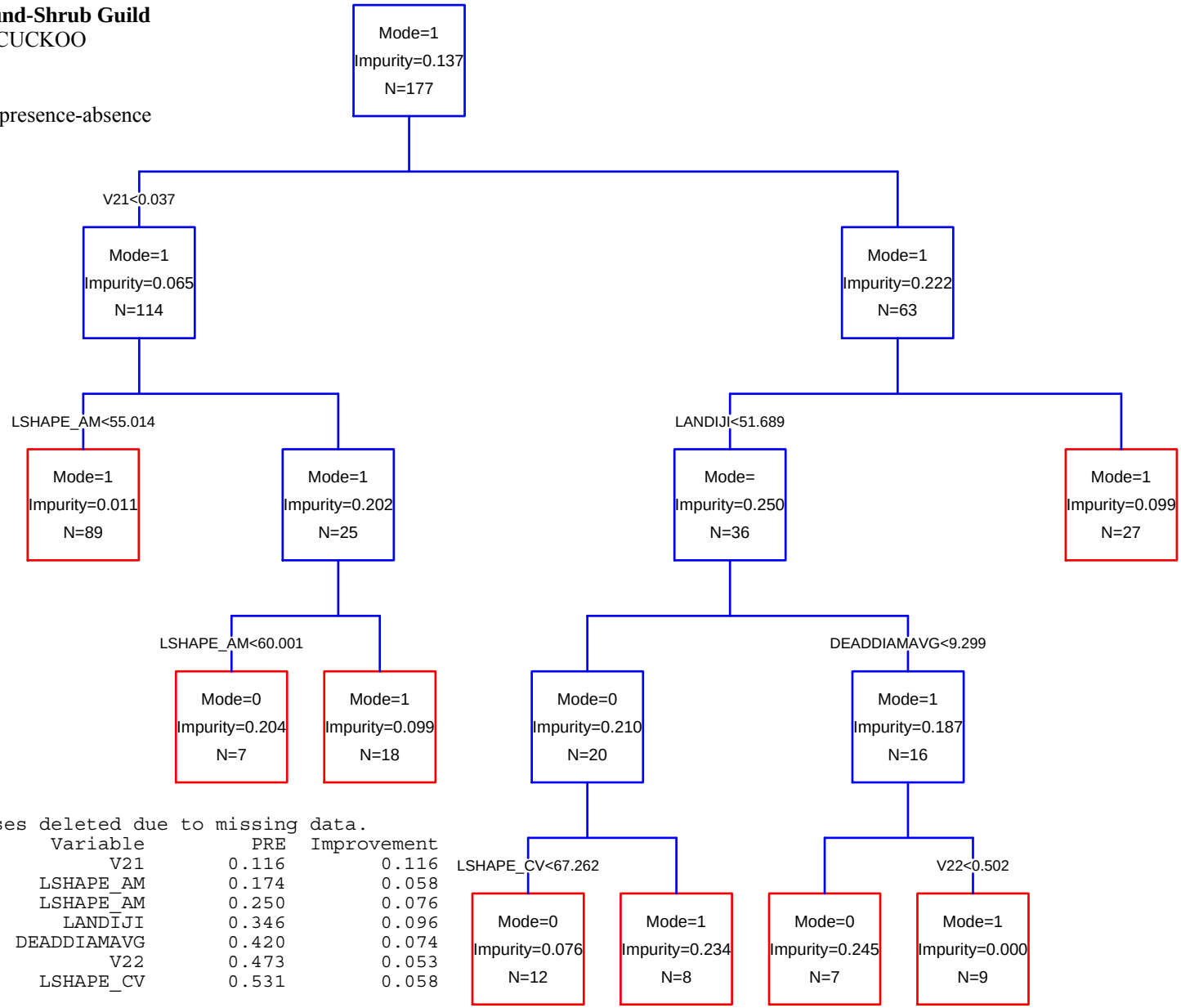
K8

Parameter	Estimate
CONSTANT	10.349
DEADTPA	-0.149
UDIAMCV	-12.293
ALLSW_N	0.167
V21	-13.638
V24	31.776
LSHAPE_AM	-0.022

K18(GLOBAL)

Parameter	Estimate
CONSTANT	11.768
DEADTPA	-0.124
RCTPA	-0.081
ALLHTAVG	0.071
UDIAMAVG	-0.915
DEADDIAMAVG	-0.025
UDIAMCV	-9.623
ALLSW_N	0.118
V19	12.121
V21	-13.164
V22	-0.87
V23	-1.958
V24	34.843
CAI_MN	-0.002
LSHAPE_AM	-0.023
LSHAPE_CV	-0.031
LANDIJI	0.026

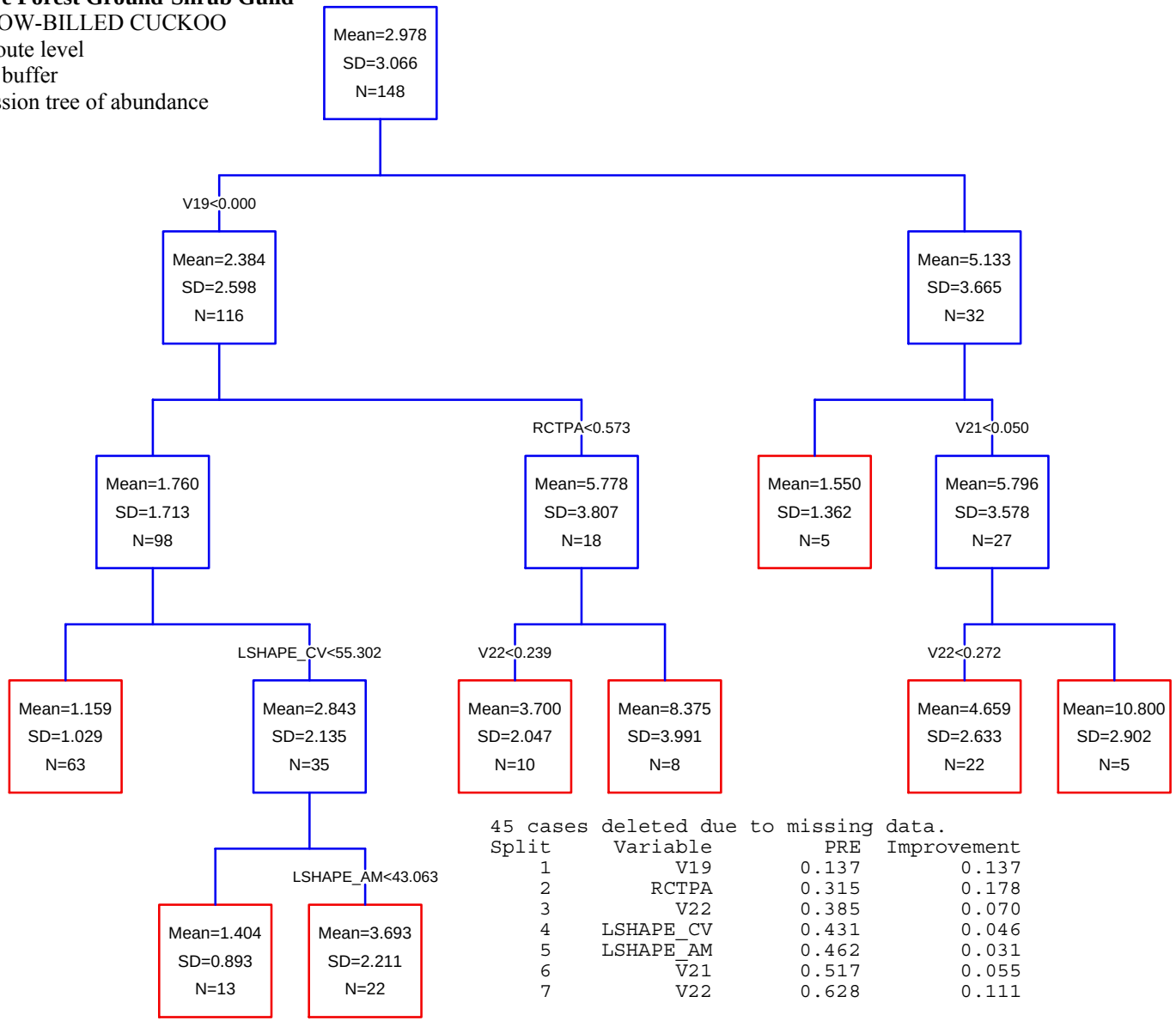
Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
10 km buffer
Classification tree of presence-absence



50 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V21	0.116	0.116
2	LSHAPE_AM	0.174	0.058
3	LSHAPE_AM	0.250	0.076
4	LANDIJI	0.346	0.096
5	DEADDIAMAVG	0.420	0.074
6	V22	0.473	0.053
7	LSHAPE_CV	0.531	0.058

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
10 km buffer
Regression tree of abundance



45 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V19	0.137	0.137
2	RCTPA	0.315	0.178
3	V22	0.385	0.070
4	LSHAPE_CV	0.431	0.046
5	LSHAPE_AM	0.462	0.031
6	V21	0.517	0.055
7	V22	0.628	0.111

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS Route level
Multiscale
Logistic regression of presence-absence

n	LL	K	AICc	ΔAIC	w_i
215	-67.911	6	148.2	0.0	0.331
215	-69.243	5	148.8	0.6	0.251
215	-67.628	7	149.8	1.6	0.151
215	-66.783	10	154.6	6.4	0.013

K6

Parameter	Estimate
CONSTANT	6.725
V3DEADTPA	-0.19
V3UDIAMCV	-7.279
V3ALLSW_N	0.141
V3V21	-11.639

K5

Parameter	Estimate
CONSTANT	1.365
V3DEADTPA	-0.203
V3ALLSW_N	0.149
V3V21	-11.898

K7

Parameter	Estimate
CONSTANT	6.473
V2V29	-0.699
V3DEADTPA	-0.172
V3UDIAMCV	-7.374
V3ALLSW_N	0.162
V3V21	-12.506

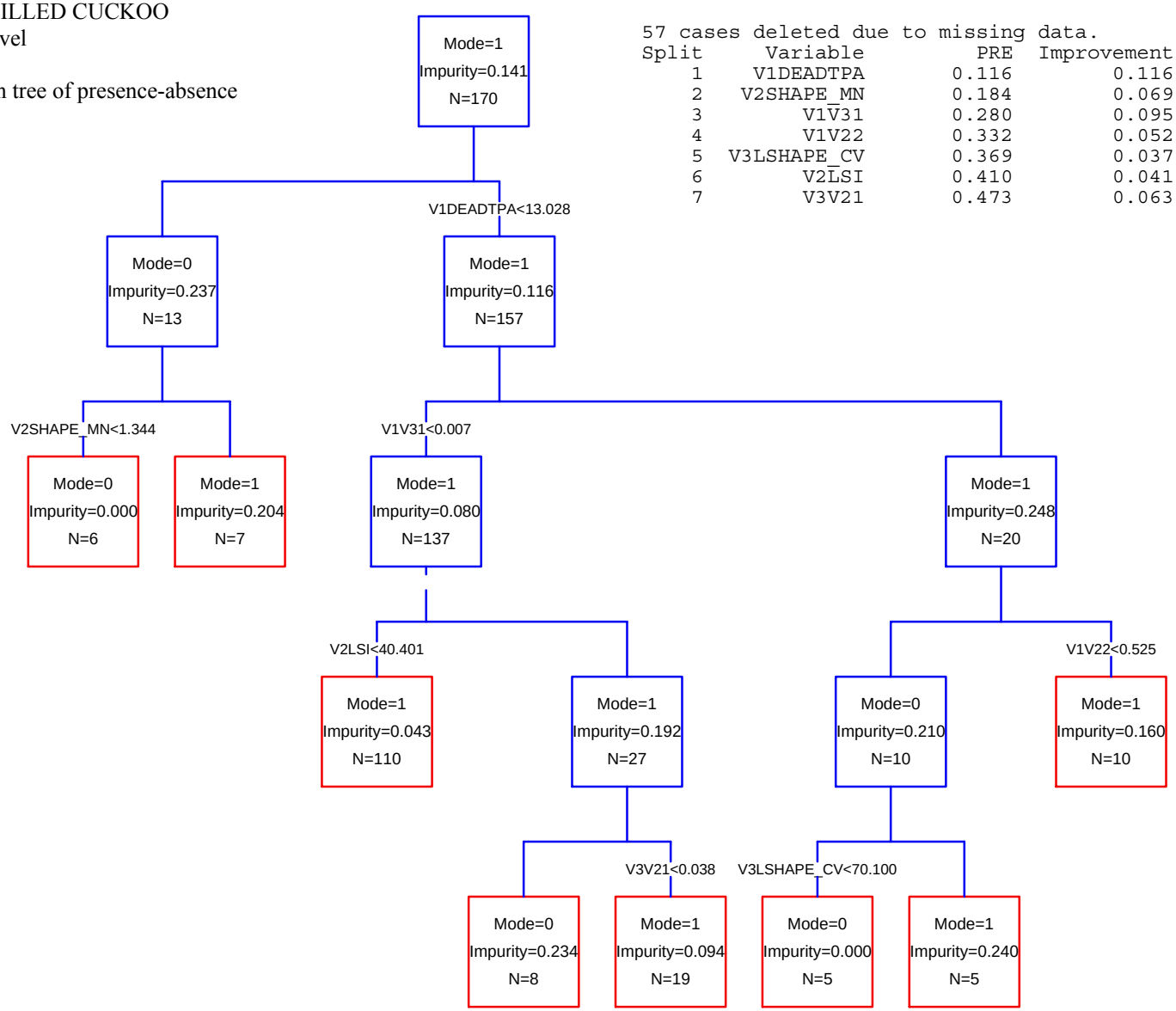
K10(GLOBAL)

Parameter	Estimate
CONSTANT	6.506
V1DEADDIAMAV	-0.159
V2DRCDIAMAVG	0.162
V2V22	-2.129
V2V29	-2.038
V3DEADTPA	-0.132
V3UDIAMCV	-6.147
V3ALLSW_N	0.139
V3V21	-13.564

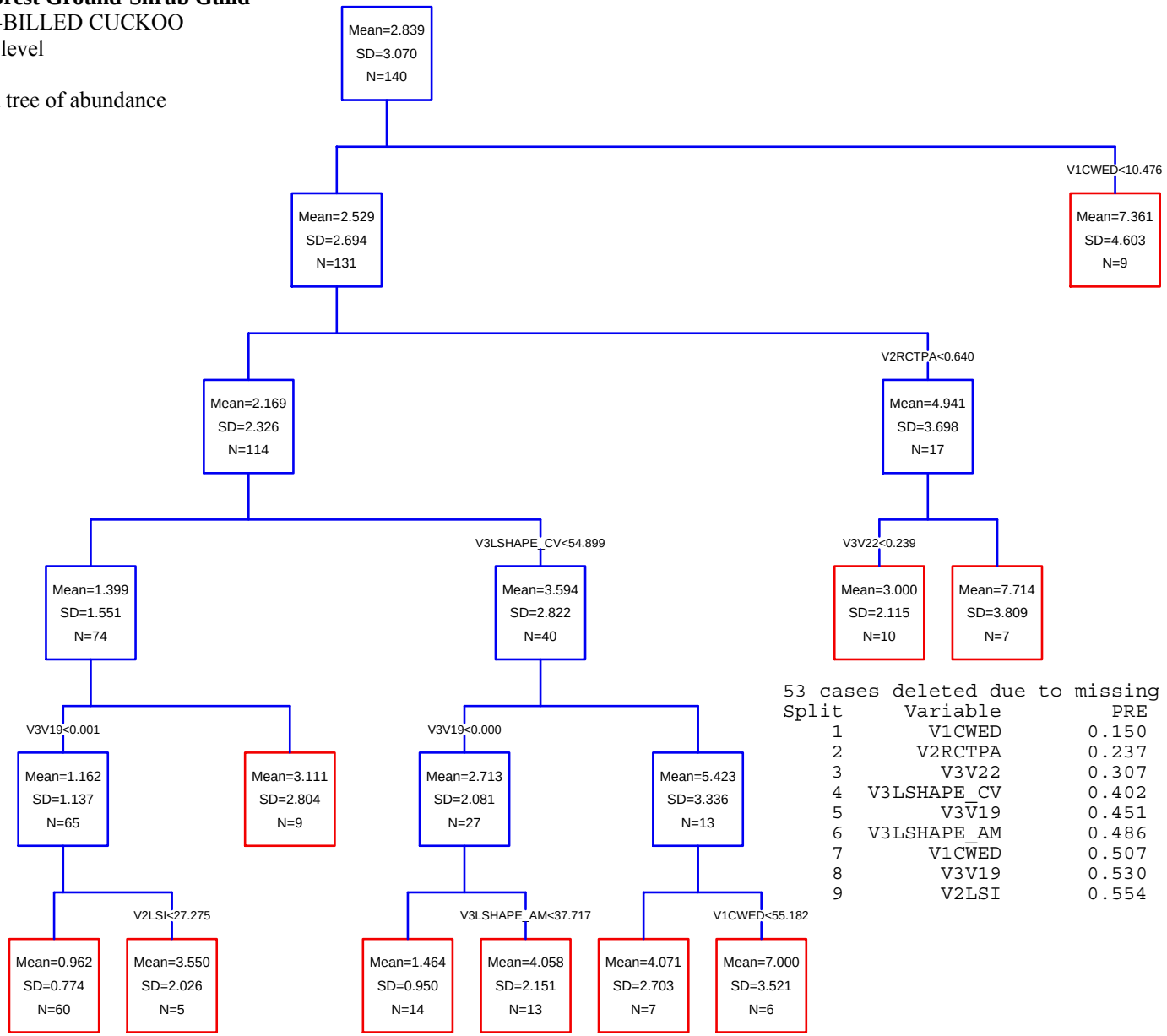
Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
Multiscale
Classification tree of presence-absence

57 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1DEADTPA	0.116	0.116
2	V2SHAPE_MN	0.184	0.069
3	V1V31	0.280	0.095
4	V1V22	0.332	0.052
5	V3LSHAPE_CV	0.369	0.037
6	V2LSI	0.410	0.041
7	V3V21	0.473	0.063



Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
BBS route level
Multiscale
Regression tree of abundance

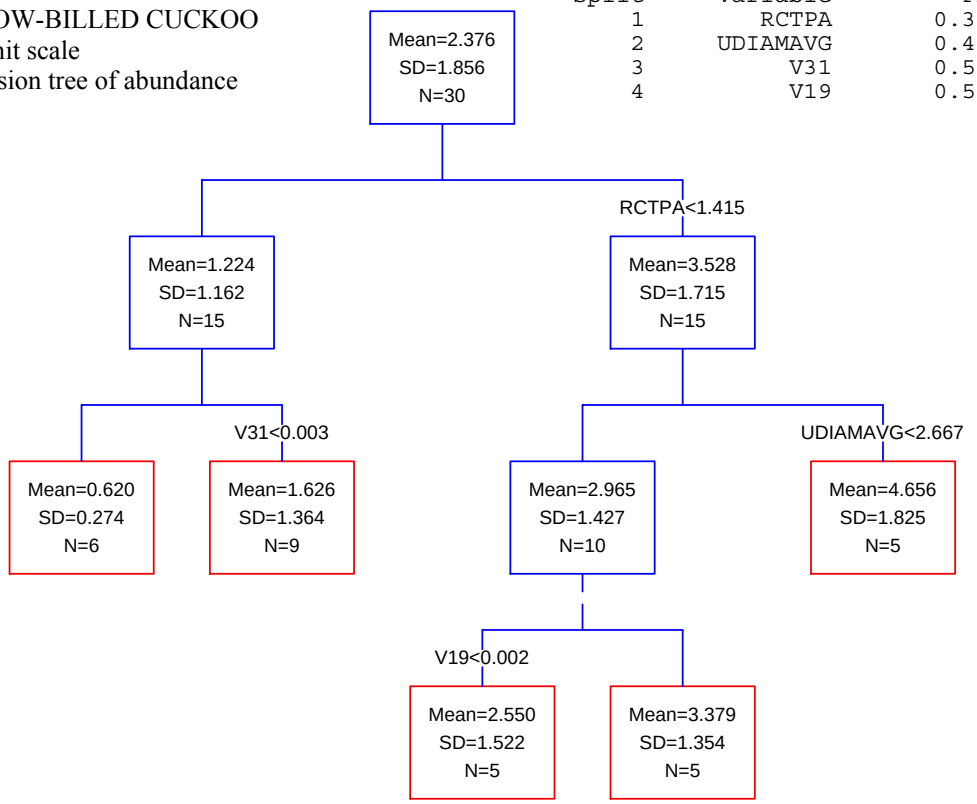


53 cases deleted due to missing data.

Split	Variable	PRE	Improvement
1	V1CWED	0.150	0.150
2	V2RCTPA	0.237	0.087
3	V3V22	0.307	0.070
4	V3LSHAPE_CV	0.402	0.096
5	V3V19	0.451	0.049
6	V3LSHAPE_AM	0.486	0.035
7	V1CWED	0.507	0.021
8	V3V19	0.530	0.023
9	V2LSI	0.554	0.024

Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
FIA Unit scale
Regression tree of abundance

Split	Variable	PRE	Improvement
1	RCTPA	0.399	0.399
2	UDIAMAVG	0.494	0.095
3	V31	0.531	0.037
4	V19	0.548	0.017



Mature Forest Ground-Shrub Guild
YELLOW-BILLED CUCKOO
Physiographic section scale
GLM of abundance

n	SSE	K	AICc	ΔAIC	w_i
15	0.544	4	-37.8	0.0	0.890
15	0.53	6	-27.6	10.2	0.006

K4		K6(GLOBAL)	
Parameter	Coefficient	Parameter	Coefficient
Constant		Constant	
UDIAMCV	-1.790	UDIAMCV	-1.862
ALLSW_N	0.060	ALLSW_N	0.062
		V22	-0.062
		SHAPE_CV	0.001

Appendix R. Descriptions of the physiographic class codes in the FIA database (USDA Forest Service 2006).

Xeric sites (normally low or deficient in available moisture)

- 11 Dry Tops - Ridge tops with thin rock outcrops and considerable exposure to sun and wind.
- 12 Dry Slopes - Slopes with thin rock outcrops and considerable exposure to sun and wind. Includes most mountain/steep slopes with a southern or western exposure.
- 13 Deep Sands - Sites with a deep, sandy surface subject to rapid loss of moisture following precipitation. Typical examples include sand hills, ridges, and flats in the South, sites along the beach and shores of lakes and streams.
- 19 Other Xeric - All dry physiographic sites not described above.

Mesic sites (normally moderate but adequate available moisture)

- 21 Flatwoods - Flat or fairly level sites outside of flood plains. Excludes deep sands and wet, swampy sites.
- 22 Rolling Uplands - Hills and gently rolling, undulating terrain and associated small streams. Excludes deep sands, all hydric sites, and streams with associated flood plains.
- 23 Moist Slopes and Coves - Moist slopes and coves with relatively deep, fertile soils. Often these sites have a northern or eastern exposure and are partially shielded from wind and sun. Includes moist mountain tops and saddles.

Appendix R continued

- 24 Narrow Flood plains/Bottomlands – Flood plains and bottomlands less than 1/4-mile in width along rivers and streams. These sites are normally well drained but are subjected to occasional flooding during periods of heavy or extended precipitation. Includes associated levees, benches, and terraces within a 1/4 mile limit. Excludes swamps, sloughs, and bogs.
- 25 Broad Floodplains/Bottomlands - Floodplains and bottomlands less than ¼ mile or wider along rivers and streams. These sites are normally well drained but are subjected to occasional flooding during periods of heavy or extended precipitation. Includes associated levees, benches, and terraces. Excludes swamps, sloughs, and bogs with year-round water problems.
- 29 Other Mesic - All moderately moist physiographic sites not described above.

Hydric sites (normally abundant or overabundant moisture all year)

- 31 Swamps/Bogs - Low, wet, flat, forested areas usually quite extensive that are flooded for long periods except during periods of extreme drought. Excludes cypress ponds and small drains.
- 32 Small Drains - Narrow, stream-like, wet strands of forest land often without a well-defined stream channel. These areas are poorly drained or flooded throughout most of the year and drain the adjacent higher ground.
- 33 Bays and wet pocosins - Low, wet, boggy sites characterized by peaty or organic soils. May be somewhat dry during periods of extended drought. Examples include sites in the Lake States with lowland swamp conifers.
- 34 Beaver ponds.

Appendix R continued

- 35 Cypress ponds.
- 39 Other hydric - All other hydric physiographic sites.

Vita

Todd M. Fearer

Research Interests

My research interests include conservation of oak forest ecosystems, modeling ecosystem dynamics at multiple spatial and temporal scales, landscape ecology, and geographic information systems. My focus is modeling oak ecosystem dynamics at multiple spatial and temporal scales and integrating these models into adaptive management programs that seek to enhance the health and conservation of Appalachian oak ecosystems.

Education

BS in Wildlife and Fisheries Science with minors in Forest Science and International Agriculture/Community Development – December 1995 from Penn State University, University Park, PA.

MS in Wildlife Science – May 1999 from Virginia Polytechnic Institute and State University, Blacksburg, VA. Thesis title: Relationship of Ruffed Grouse Home Range Size and Movement to Landscape Characteristics in Southwestern Virginia.

PhD in Wildlife Science – October 2006 from Virginia Polytechnic Institute and State University, Blacksburg, VA. Dissertation title: Evaluating Population-Habitat Relationships of Forest Breeding Birds at Multiple Spatial and Temporal Scales Using Forest Inventory and Analysis Data.

Honors and Awards

VA Tech Graduate Research and Development Grant, 2004. Received $125.

Phi Kappa Phi Honor Society, Virginia Tech Chapter, 1999

Gamma Sigma Delta Honor Society, Penn State Chapter, 1993