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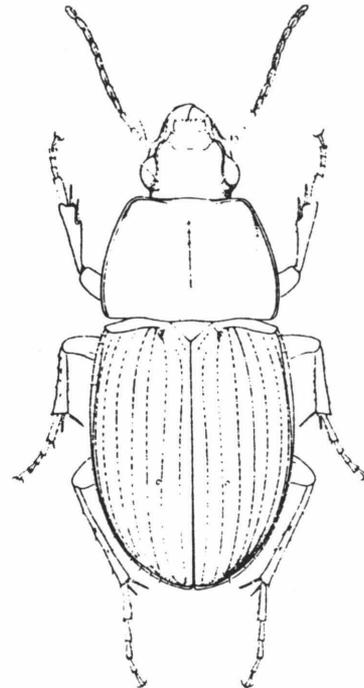
INSECT NOTES

GROUND BEETLES

Ground beetles or darkling beetles (Family Carabidae) are often found in and around houses this time of year. They are attracted to lights at night, and are often considered pests by homeowners. There are a great number of species of these beetles, and some of them are rather fierce looking. Regardless of what they may look like, ground beetles are rather harmless critters--well, to humans anyway. They are predators of other insects, so they may not look that harmless to a caterpillar or another beetle.

The ground beetles that wander into houses are usually shiny black, about one-half to one inch long and with well-developed mandibles (mouthparts). Because the mandibles are some prominent, homeowners consider these insects a threat--but not so. They use their mouthparts to grab and eat other insects. The larval stage of these beetles are also predators; they live in the soil (grassy areas usually), and attack the variety of insects that inhabit that environment.

Control of ground beetles in the house is best accomplished with a fly swatter or a roll of newspaper. An aerosol spray can dispatch beetles that are difficult to swat. There is no need for a general spray program inside or outside the house. These insects will not infest the house, and in a few weeks they will disappear.



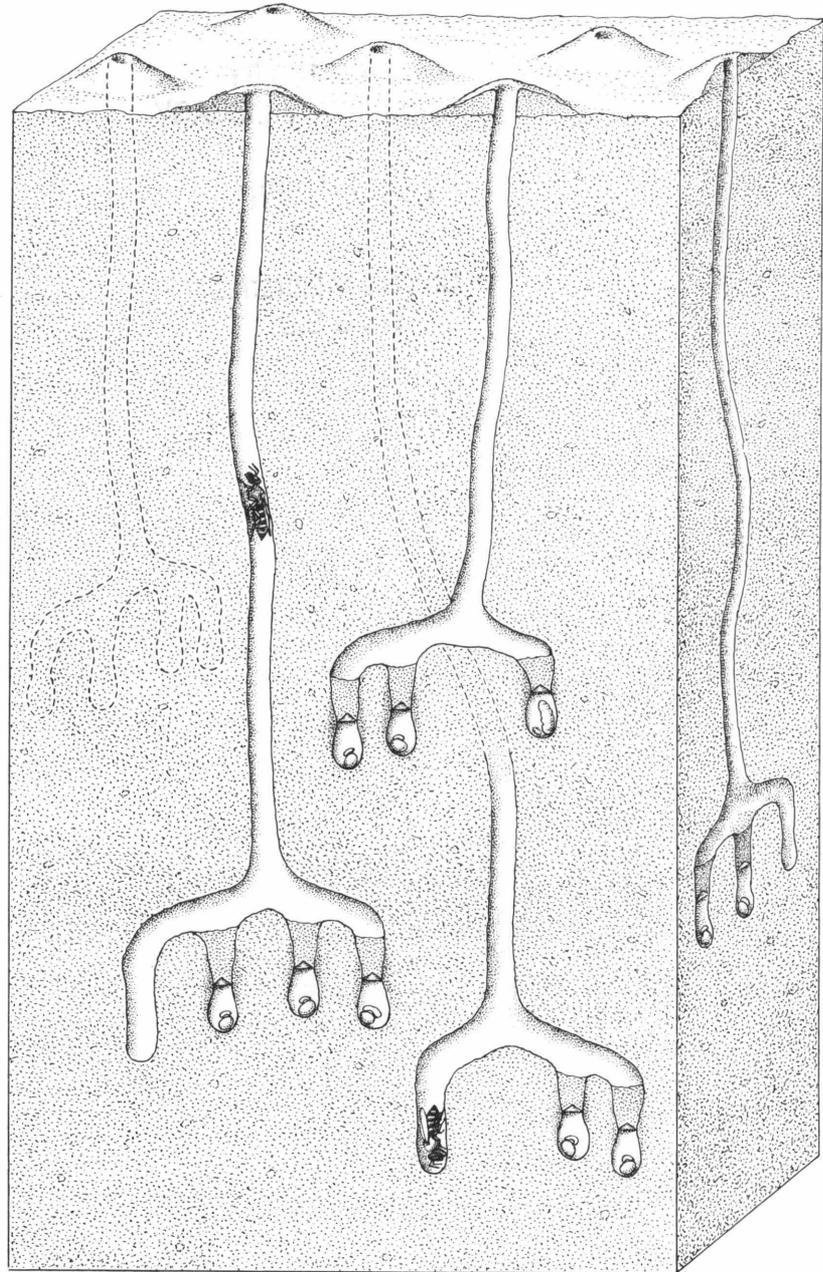
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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, and September 30, 1977, in cooperation with the U.S. Department of Agriculture. James F. Johnson, Director, Virginia Cooperative Extension, Virginia Polytechnic Institute and State University, Blacksburg, Virginia; Clinton V. Turner, Administrator, 1890 Extension Program, Virginia State University, Petersburg, Virginia

SOLITARY BEES

Solitary bees are a common problem in lawns, flower gardens, and vegetable gardens in the spring. At this time of year these bees are seen in large numbers flying over bare spots in lawns or gardens--they are in the process of establishing nests for the coming year. Unlike the traditional bees and wasps, these small bees do not belong to large nests of bees. They are solitary, the females build a small nest in the soil and raise just a few young. In some areas it may look as if there is a nest of bees in the soil, but actually it is just a large group of solitary bees using the same nest site.

While these bees can occur in large numbers, they rarely represent a health danger. Solitary bees are rather docile, and rarely sting. When they do sting, they are so small that the actual sting is not serious, and there is usually only a mild reaction. Many times they go unnoticed because they spend a great deal of time away from the nest collecting pollen and nectar. However, during some part of the day there can be large number of bees hovering over bare spots of soil. These bees often prefer to nest in hillsides that face south or west--to catch the benefits of the sun during the day.



Control of these bees is not difficult, but should only be done when there is a definite need. They serve many beneficial functions, as they help to pollinate fruit trees and other plants. The application of carbaryl (*Sevin*) to the soil during the late afternoon will provide adequate control of these bees. One application should be all that is necessary.

RASPBERRY CANE BORER

The larvae of the raspberry cane borer causes a reduction in the crops of raspberry and blackberry by damaging the canes. The adult beetle also does some damage by feeding on the leaves of these plants. The **adult** beetle is a small (about 1/4 inch), slender, black and red beetle. The region behind the head is usually copper-red in color. The **larva** is a small, fleshy grub with the first segment of the head enlarged.

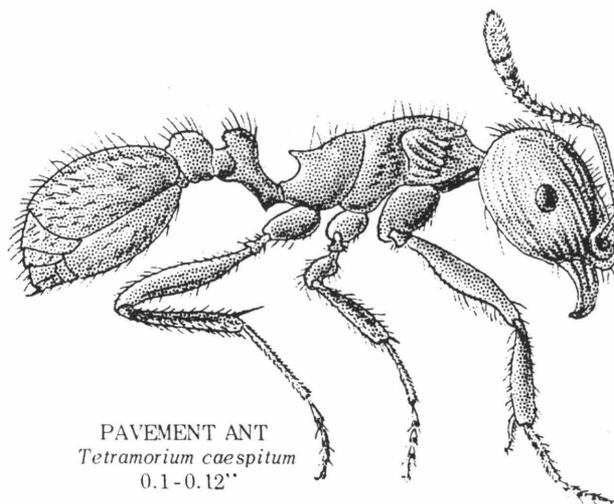
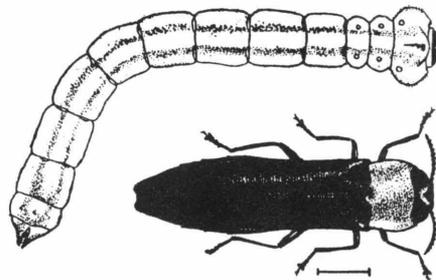
The injury caused by the larvae is from feeding within the cane. The larva mines through the cane and destroys the plant tissue. The portion of the cane above the feeding larvae usually die. The adult beetles can create holes in the leaves of the plants.

The adult beetles usually appear in early spring, sometime in May or June. They deposit their eggs along the main stem and branches or raspberry and blackberry--a favorite is the base of leaves. When the larvae hatch they penetrate the main stem and begin feeding. Damage is apparent in about three weeks.

Control of this pest is achieved by spraying plants early in the year (May and June), and removing infested canes. Those canes infested with larvae can be distinguished because they are slightly swollen or enlarged. These canes should be cut out and discarded.

PAVEMENT ANTS

Pavement ants are similar to yellow ants in their habit of being associated with concrete slabs, patios, and walkways around houses. This small, brownish-black ant was probably brought to the U.S. by the early colonists, and now is distributed in the metropolitan areas along the East coast. The nesting and feeding habits (almost any household goods) of this species make it a common and unwelcome pest. Nests of pavement ants usually produce swarms (winged



PAVEMENT ANT
Tetramorium caespitum
0.1-0.12"

ants) during June and early July, but swarms have also been recorded during other months.

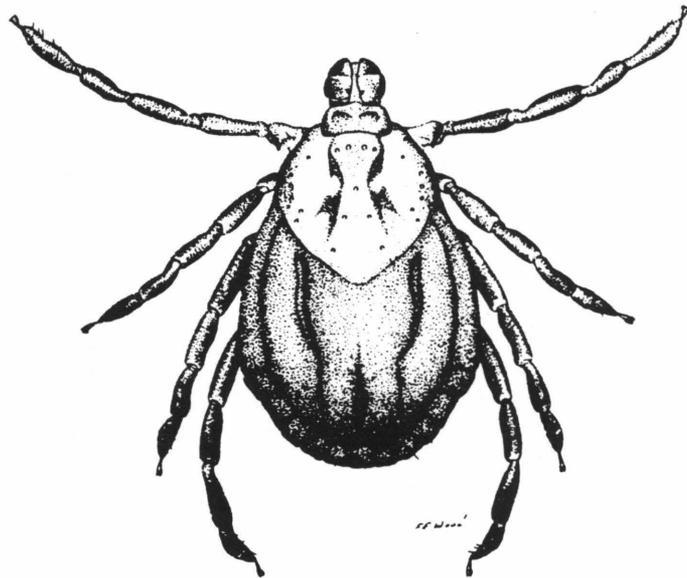
Control of these ants begins by locating the nest, and simply applying a liquid insecticide, *carbaryl*, *Sevin* works very well (as do other garden insecticides).

TICKS

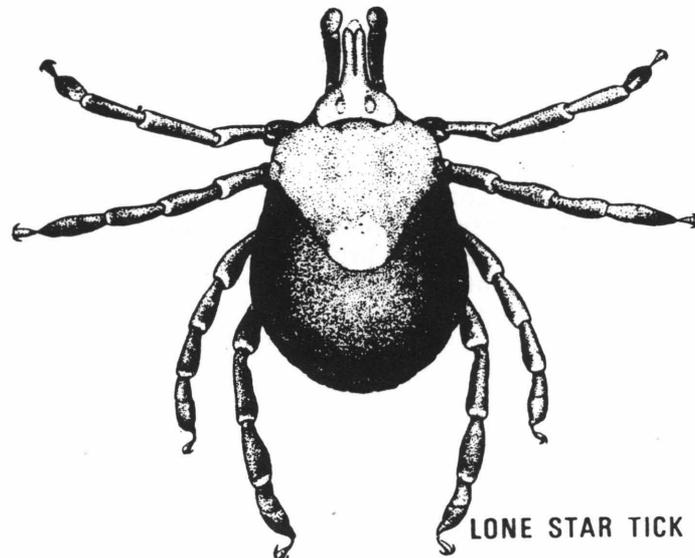
There are several species of ticks that are active in Virginia during the spring and early summer. Ticks are most commonly found in wooded or grassy areas, especially in "edge" environments--where woods and open areas join. These animals (actually not insects, they have 8 legs) require a blood meal to live and for females to produce eggs. Their normal hosts are small animals, such as mice, rabbits, and larger animals such as fox and deer. Ticks can and will take a blood meal from humans--and that is the problem! Ticks are most active in the spring, when the adults and immature stages are looking for hosts to feed on.

Two species of ticks in Virginia can carry and transmit Rocky Mountain Spotted Fever (RMSF)--the lone star tick and the American dog tick. These two species are very common in the state, but not every one of them carries this disease. Actually, only about 2% of the lone star and American dog ticks carry RMSF. The disease is transmitted to humans through the feeding of infected ticks. The ticks usually have to feed for several hours before the pathogenic organisms are transmitted. In spite of the name--"Rocky Mountain...", this disease is very common in Virginia and surrounding states.

The danger of ticks transmitting this or other diseases can be reduced, if people will avoid environments that are likely to have ticks, if they will use chemical repellents on their clothes when they go to areas known to have ticks, and if they will carefully inspect their clothes and body (especially the neck and head area) within 1 hour after leaving a known tick area. Ticks can be removed from the body by simply grasping it close to the skin and pulling gently and firmly out--forget the hot match, unscrewing to the right or the left, or using nail polish, or petroleum jelly! Just pull them off!



AMERICAN DOG TICK



LONE STAR TICK