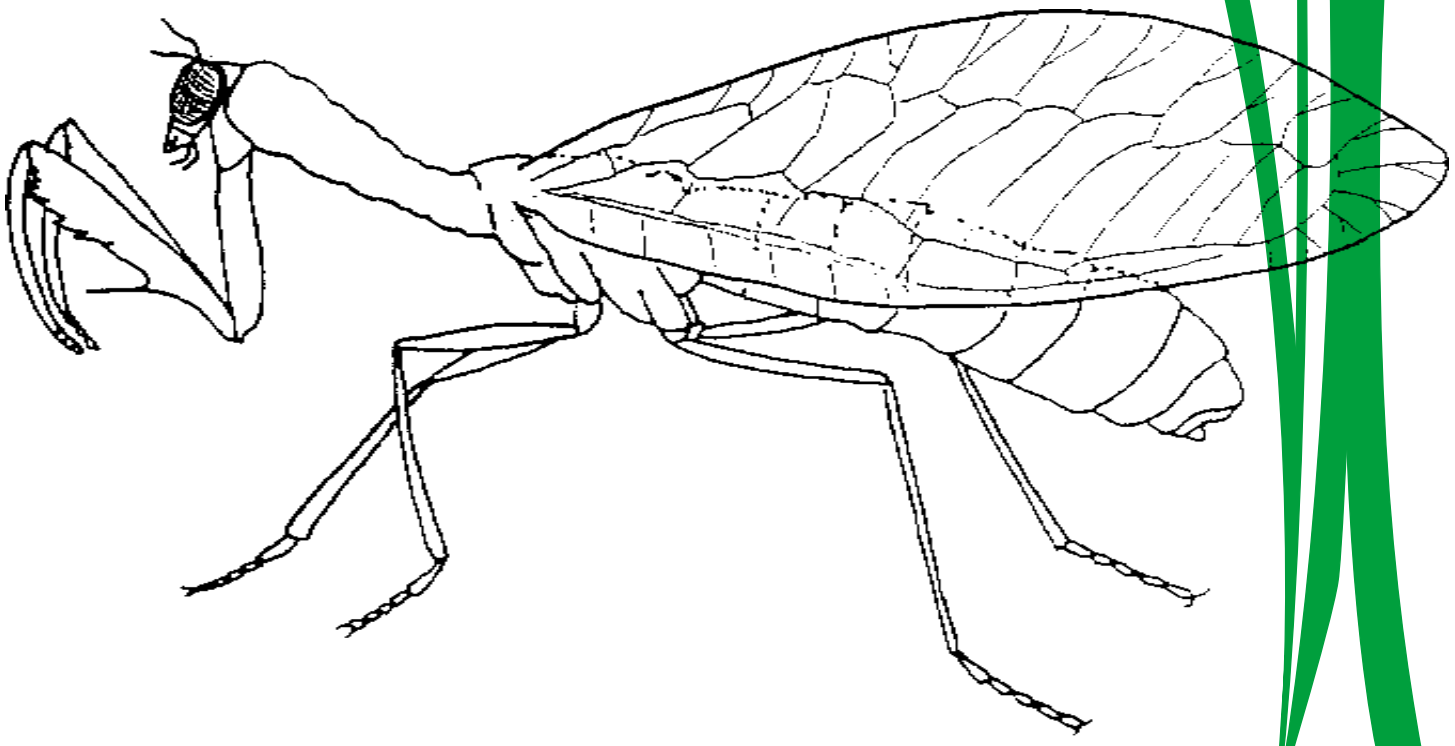
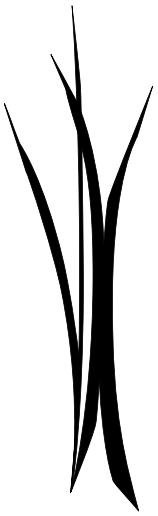
Let's Color Some Insects!



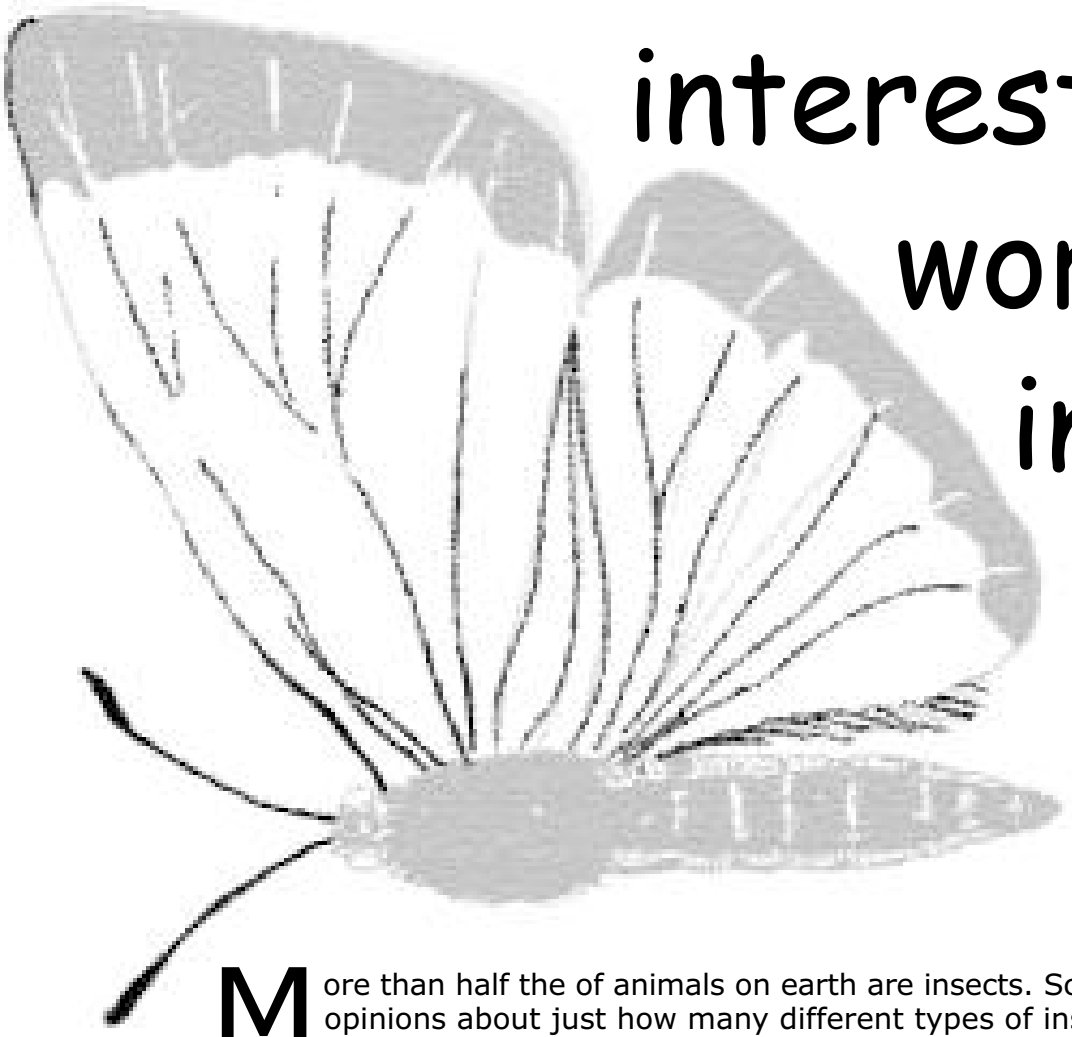
Written and illustrated by
Carol Sutherland, Extension Entomologist

Cooperative Extension Service • Circular 565
College of Agriculture and Home Economics



On the cover: Adult Mantispid. This is one of the more unusual looking insects found in New Mexico. The forelegs are modified for grasping and the first segment of the thorax is elongated like a praying mantis. But a mantispid isn't a mantis. The flying wings and body are shaped more like those of a green lacewing. The mantispid is much larger, with a wingspan of nearly an inch. Adults are predaceous, while larvae are parasitic in the egg sacs of certain spiders.

Welcome to the interesting world of insects!



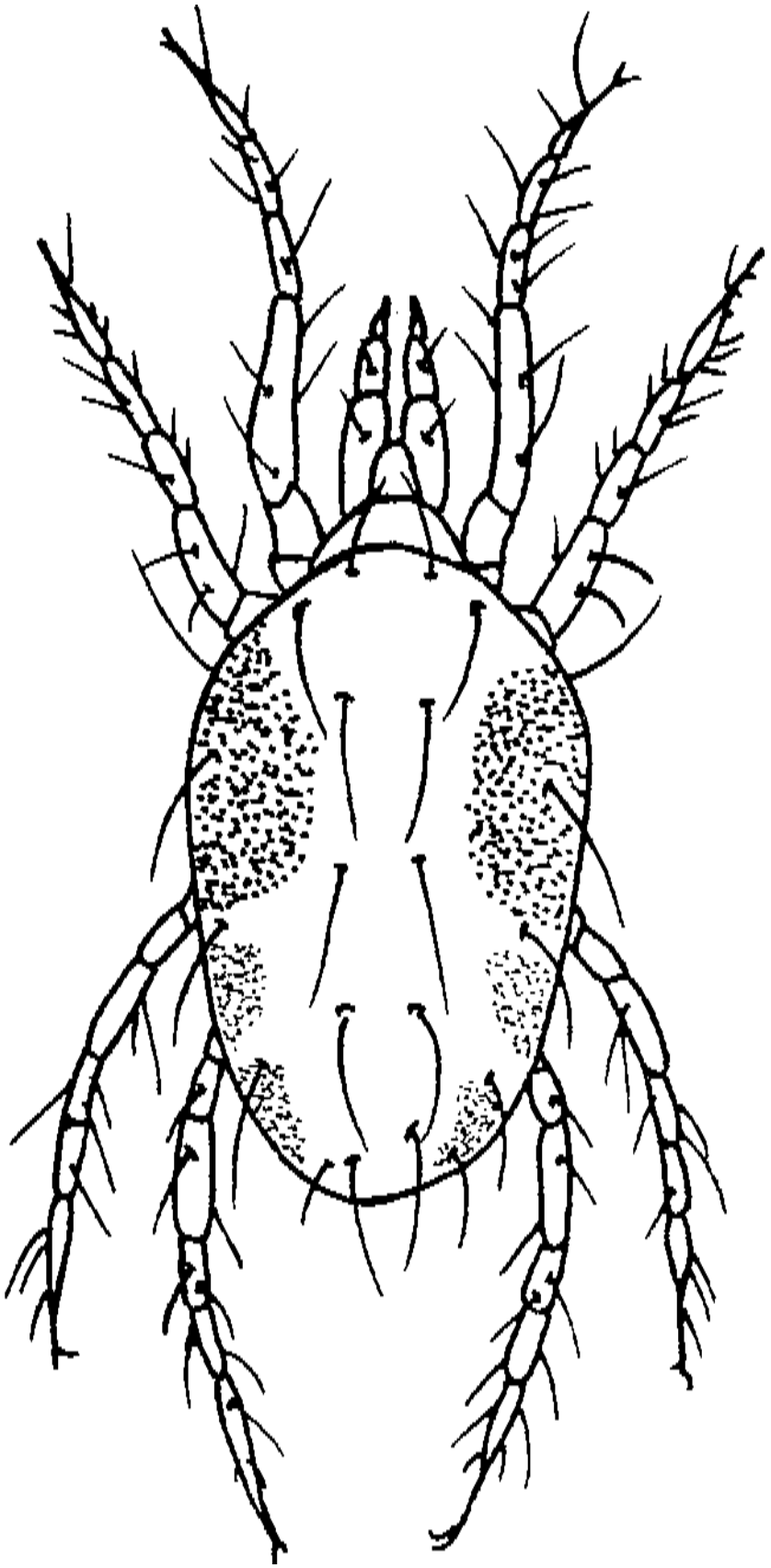
More than half the of animals on earth are insects. Scientists have different opinions about just how many different types of insects exist, but most agree that there are more than a million species. There are many different types of insects, and they can be found just about anywhere.

Some insects are helpful to humans because they attack and eat other insects that destroy crops. Some insects are parasites of insect pests. Among the harmful species are those that eat our crops, stored products, and clothing. Some can bite or sting and spread diseases, such as malaria, yellow fever, and plague. Most insect species are fairly harmless.

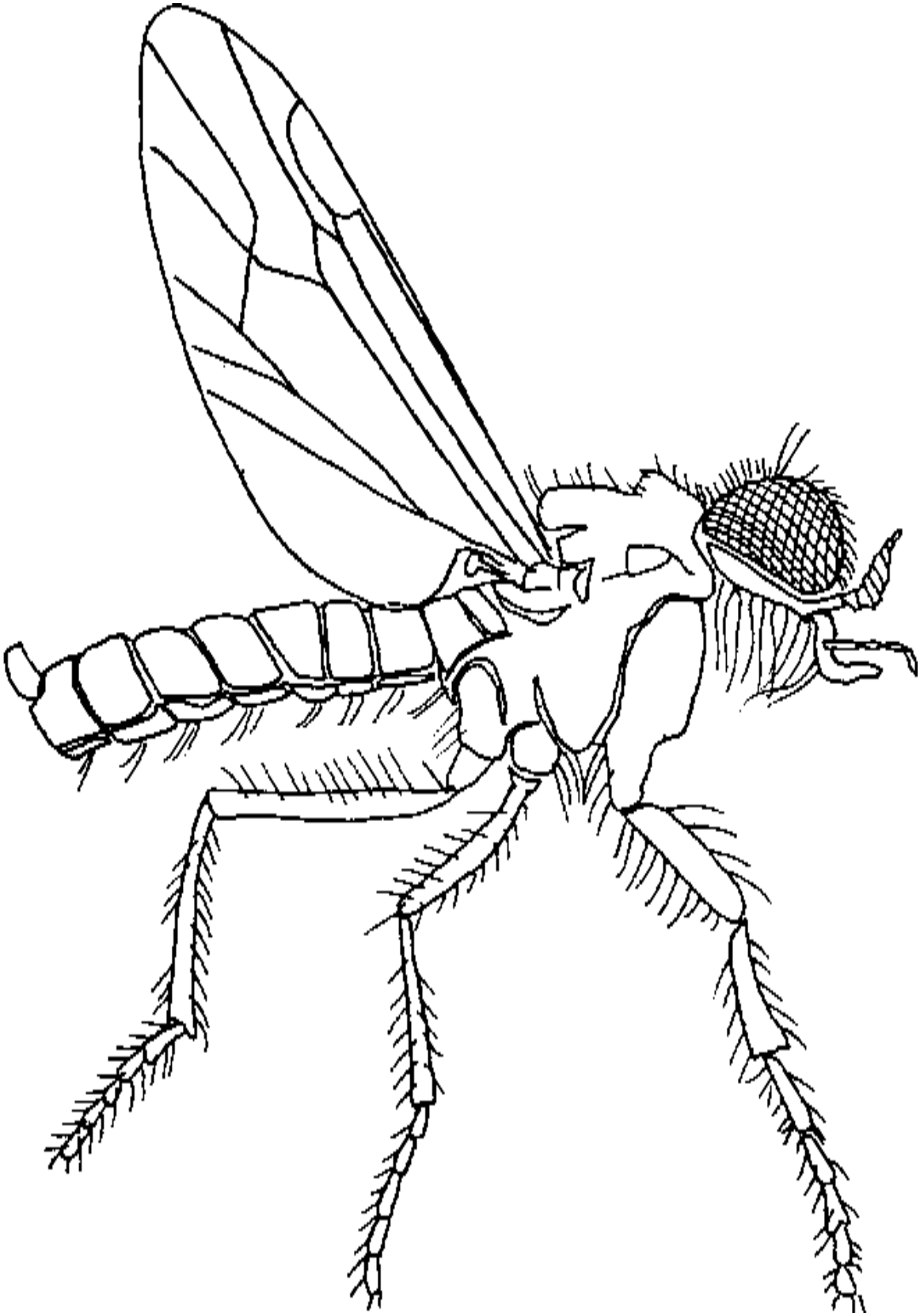
Because most insects are so small, few people know how common they really are. Keep your eyes open the next time you are in the woods, a field, or even your own yard. See how many different kinds of insects you can find.

You can recognize an insect by its six legs, three body parts (head, thorax, abdomen), and two antennae. Most insects have four wings, but sometimes they are modified wings. Some insects have only two wings, while others have no wings.

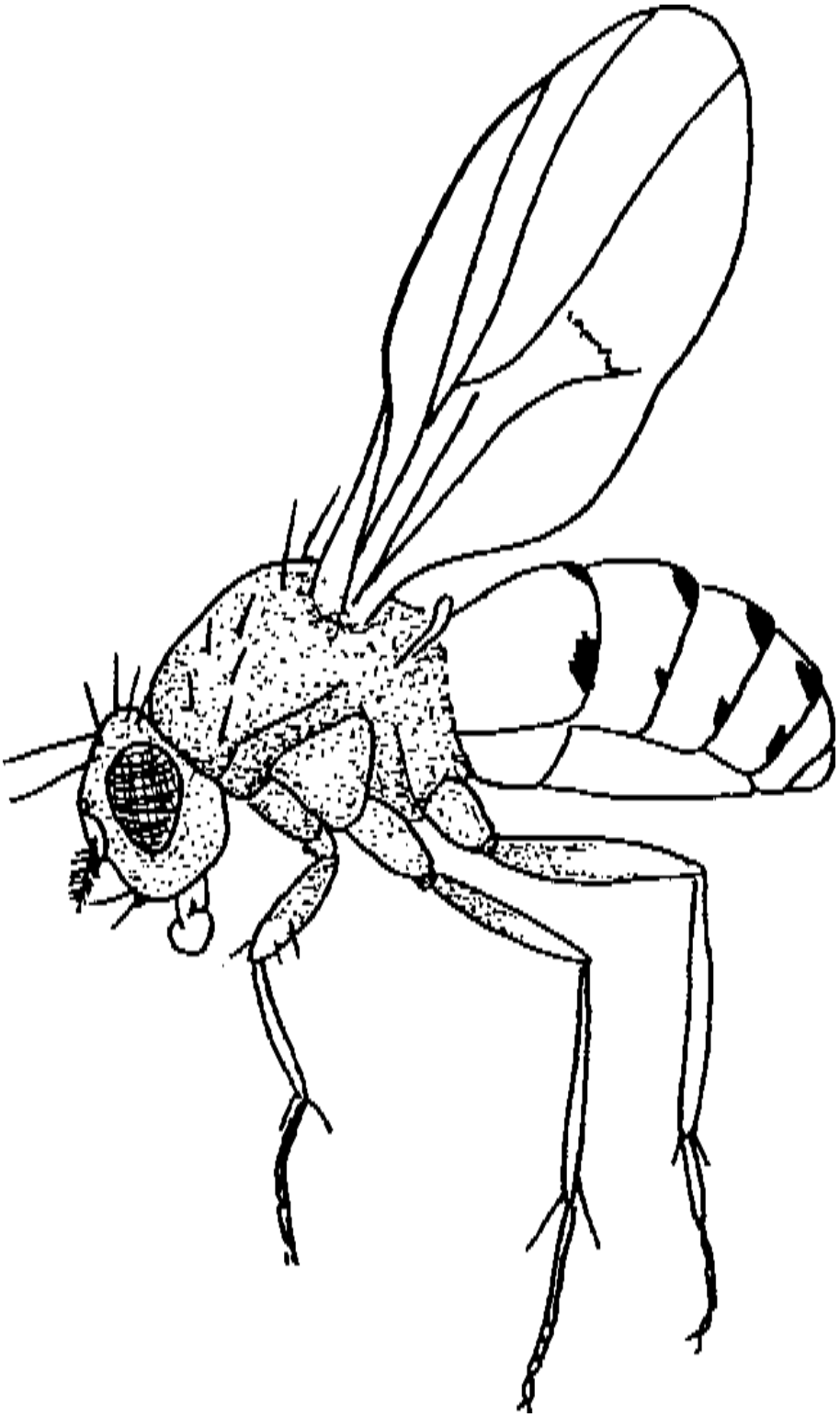
If you want to learn more about insects, ask your parents, teachers, or librarian to help you find books about *entomology*, or the study of insects. Contact your county Extension agent or New Mexico State University for more information.



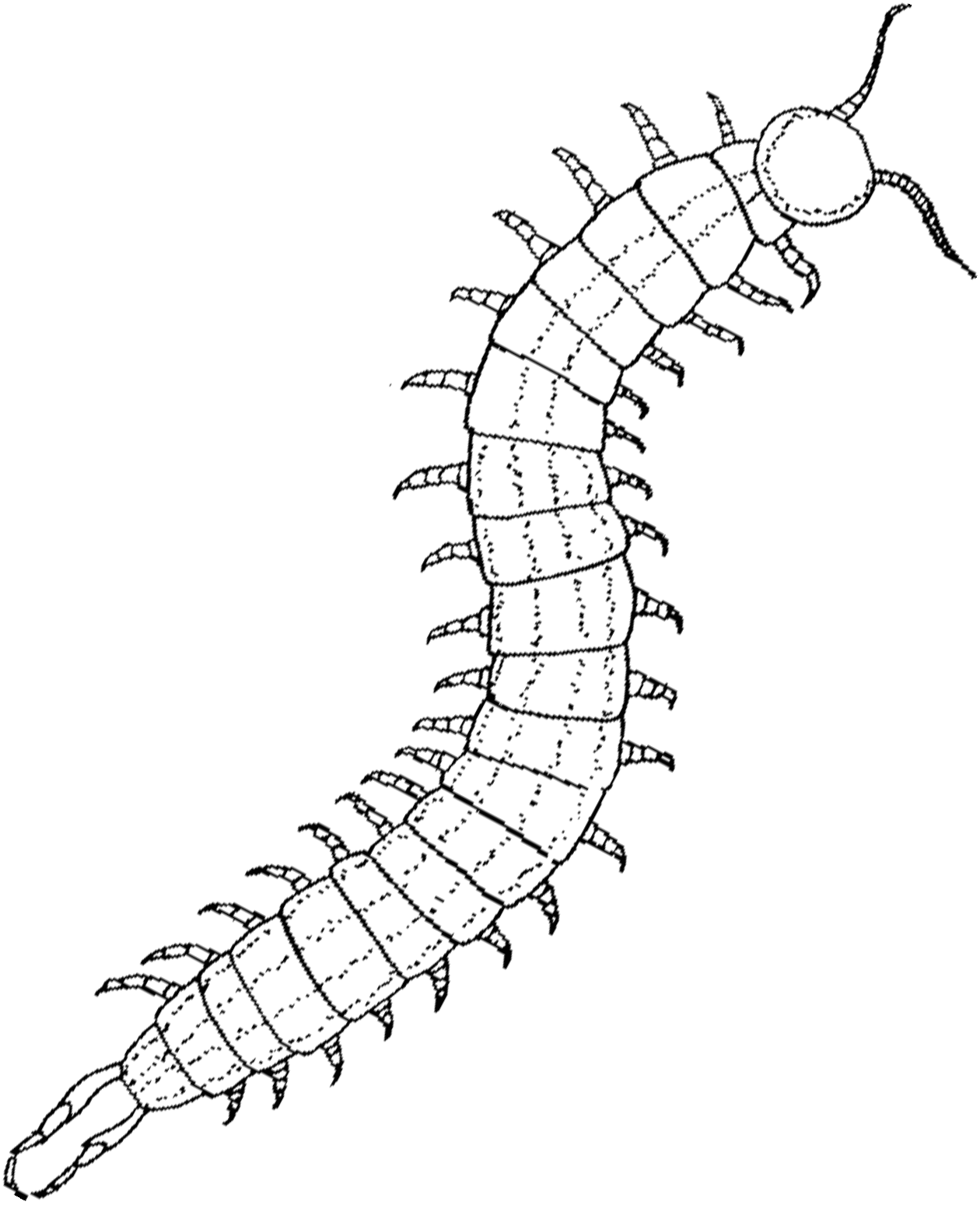
SPIDER MITE. Spider mites are more closely related to spiders than insects. Even as adults, most spider mites are barely visible to the naked eye. Most mites have four pairs of legs, only two body regions, and no antennae.



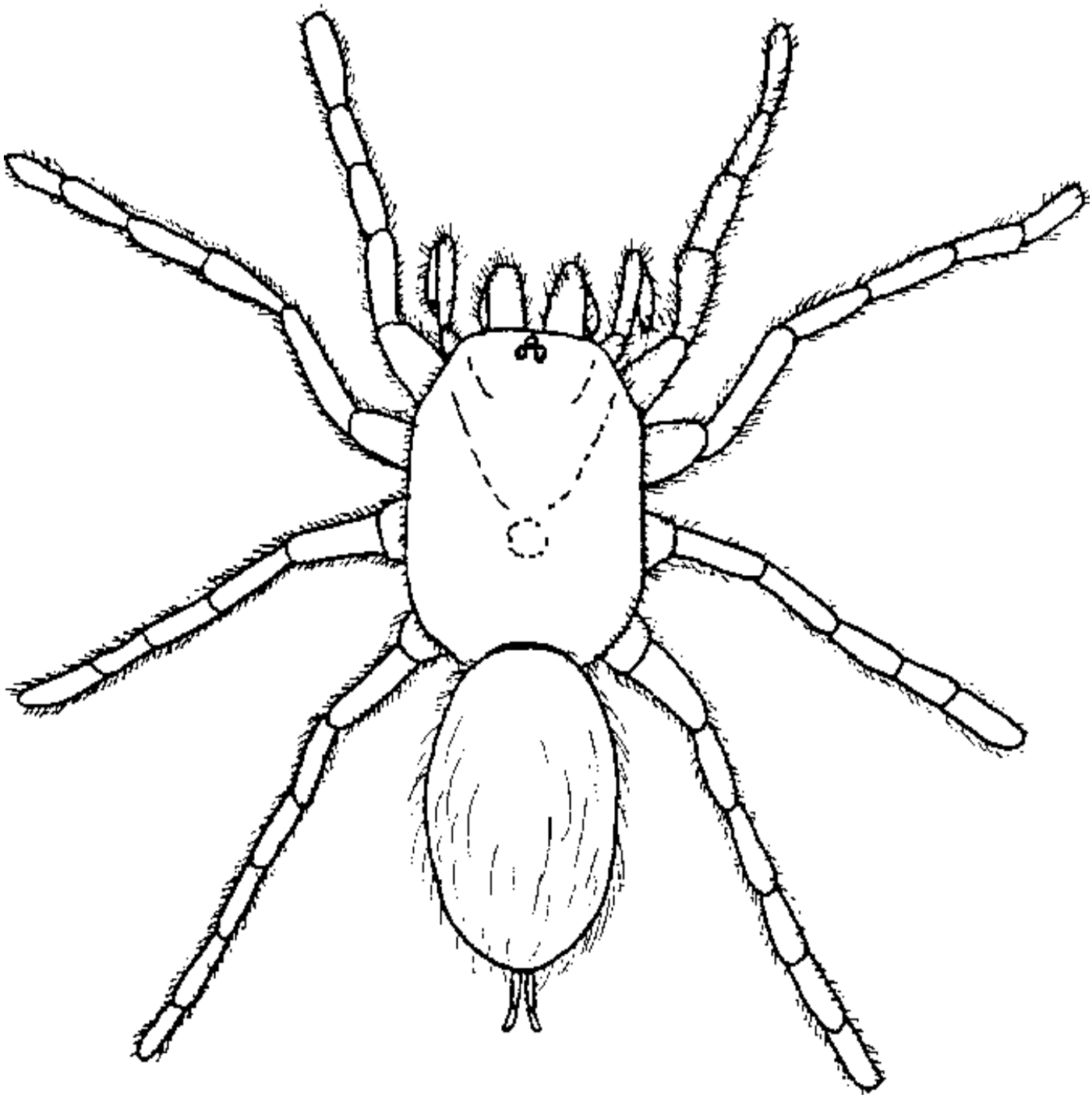
MARCH FLY. These flies are commonly seen flying in swarms over grassy areas in the early spring. Most are quite harmless. The eyes are brown or black, the body is black, and the wings are colorless.



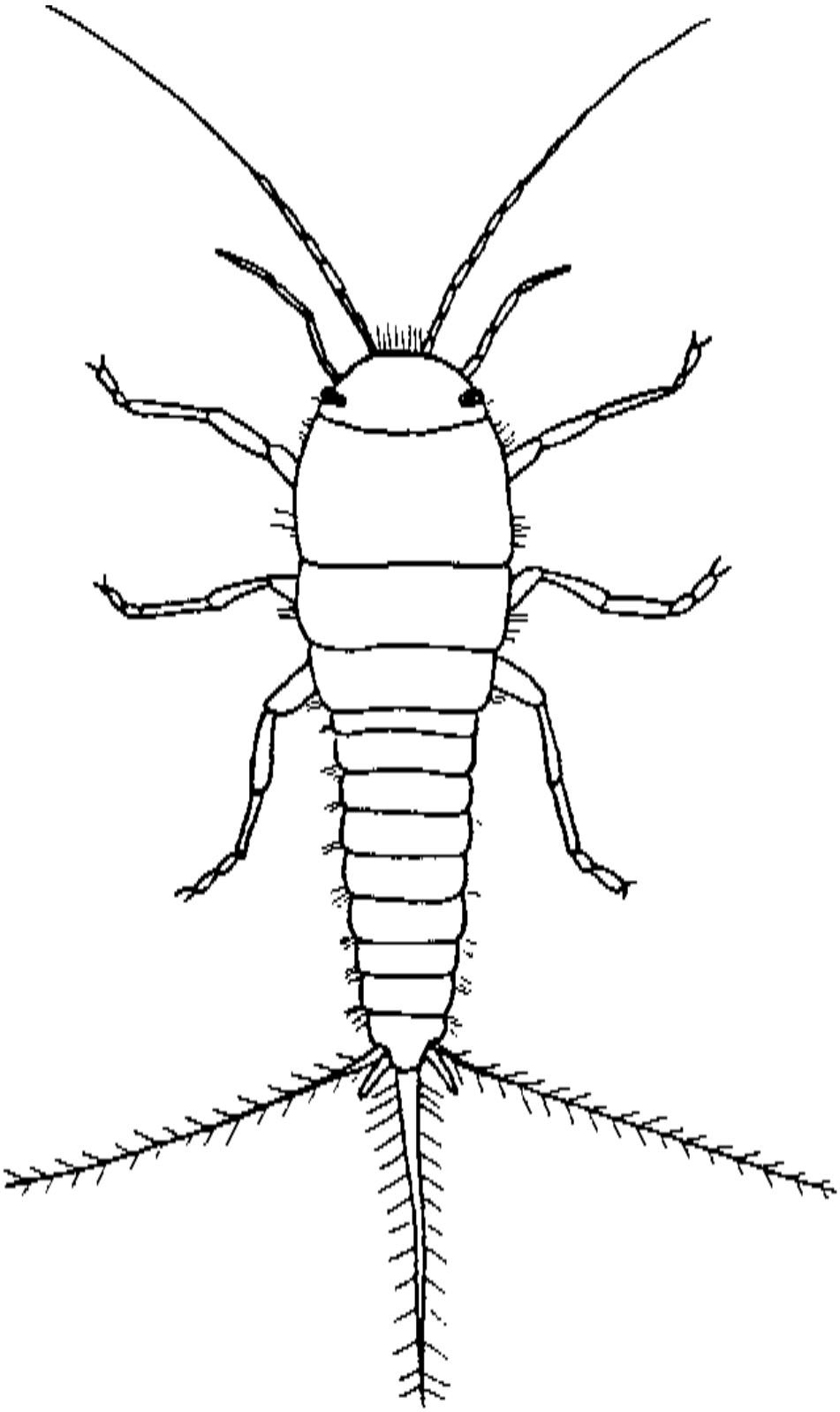
SMALL FRUIT FLY. These flies are fairly small insects (less than one-quarter inch long). You can find them flying around overripe fruit. Their eyes are usually red. The head and thorax are light brown. The abdomen has alternating bands of black and yellow. Scientists who study genetics study these flies.



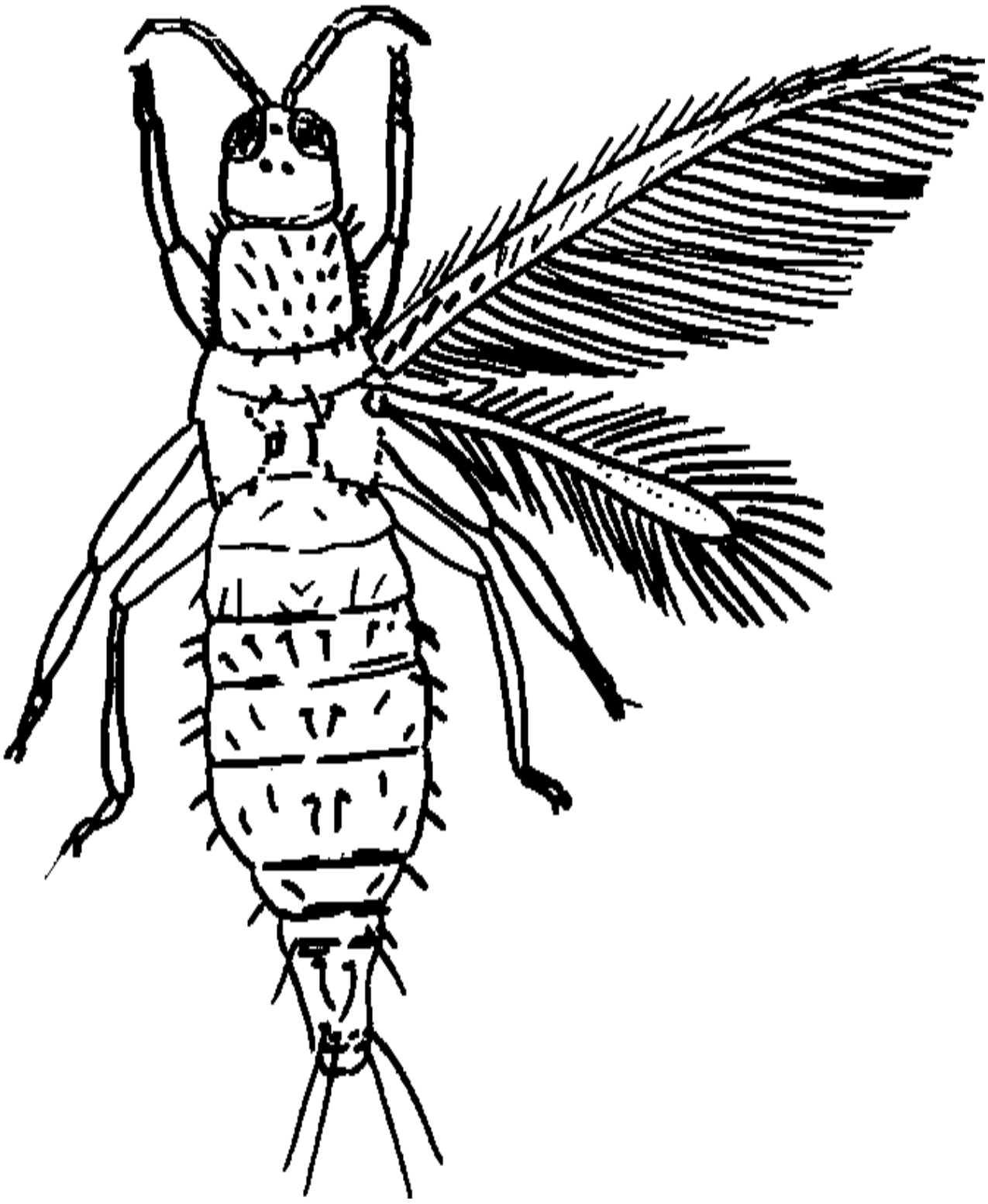
DESERT CENTIPEDE. Centipedes are only distant relatives of insects. Centipedes have many body segments with one pair of legs per segment. The common desert centipedes can reach six inches in length. Most are light brown with a darker brown stripe down the back. The larger centipedes can deliver a painful and slow-healing bite with their "poison jaws." Centipedes hide under things by day and search for insect prey at night.



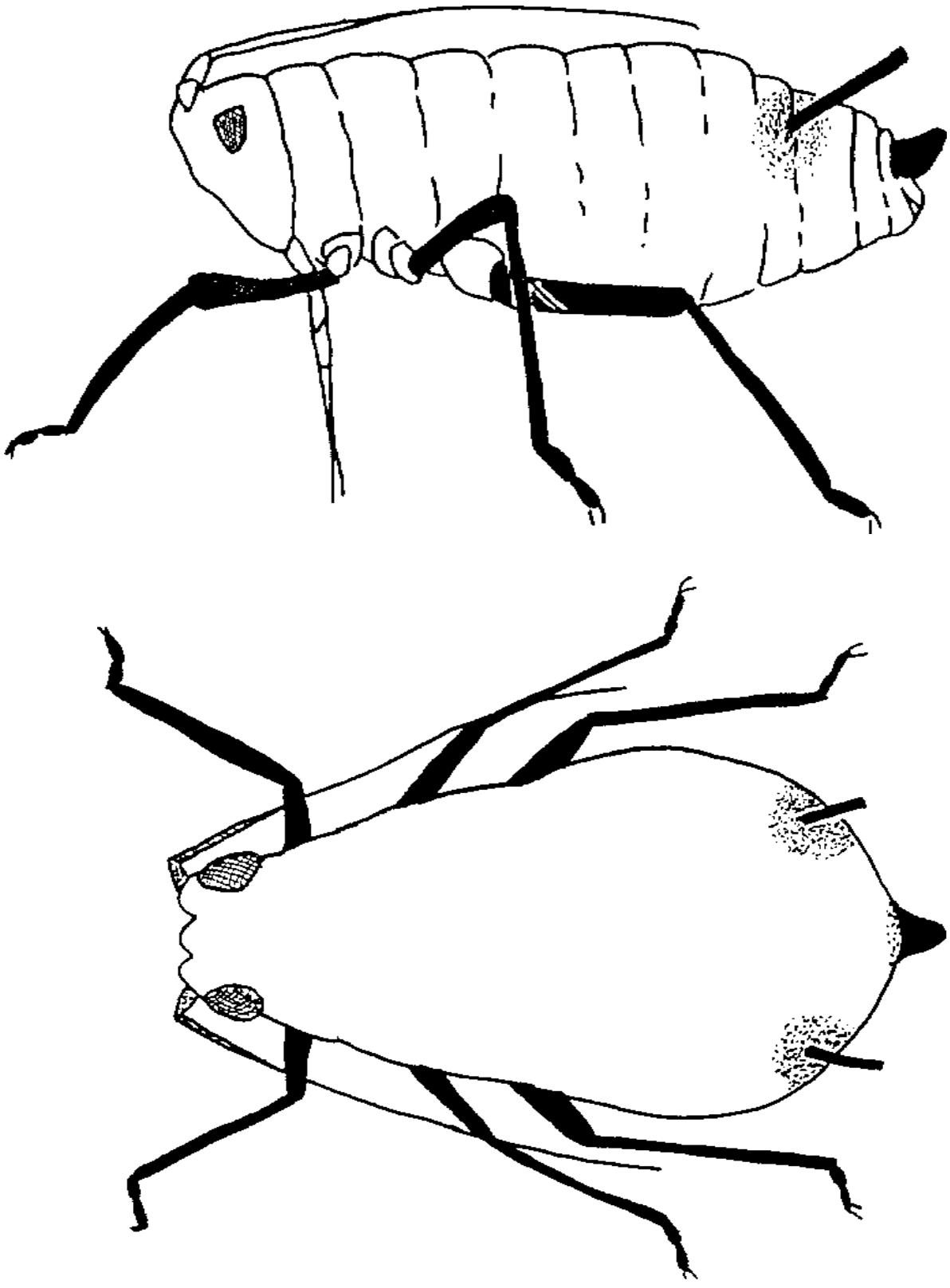
TARANTULA. Look for tarantulas in New Mexico just after a late afternoon thundershower. The large, black males and immature spiders wander over the ground when it is cool and moist or after dark. Female tarantulas are brown and rarely leave their underground nests.



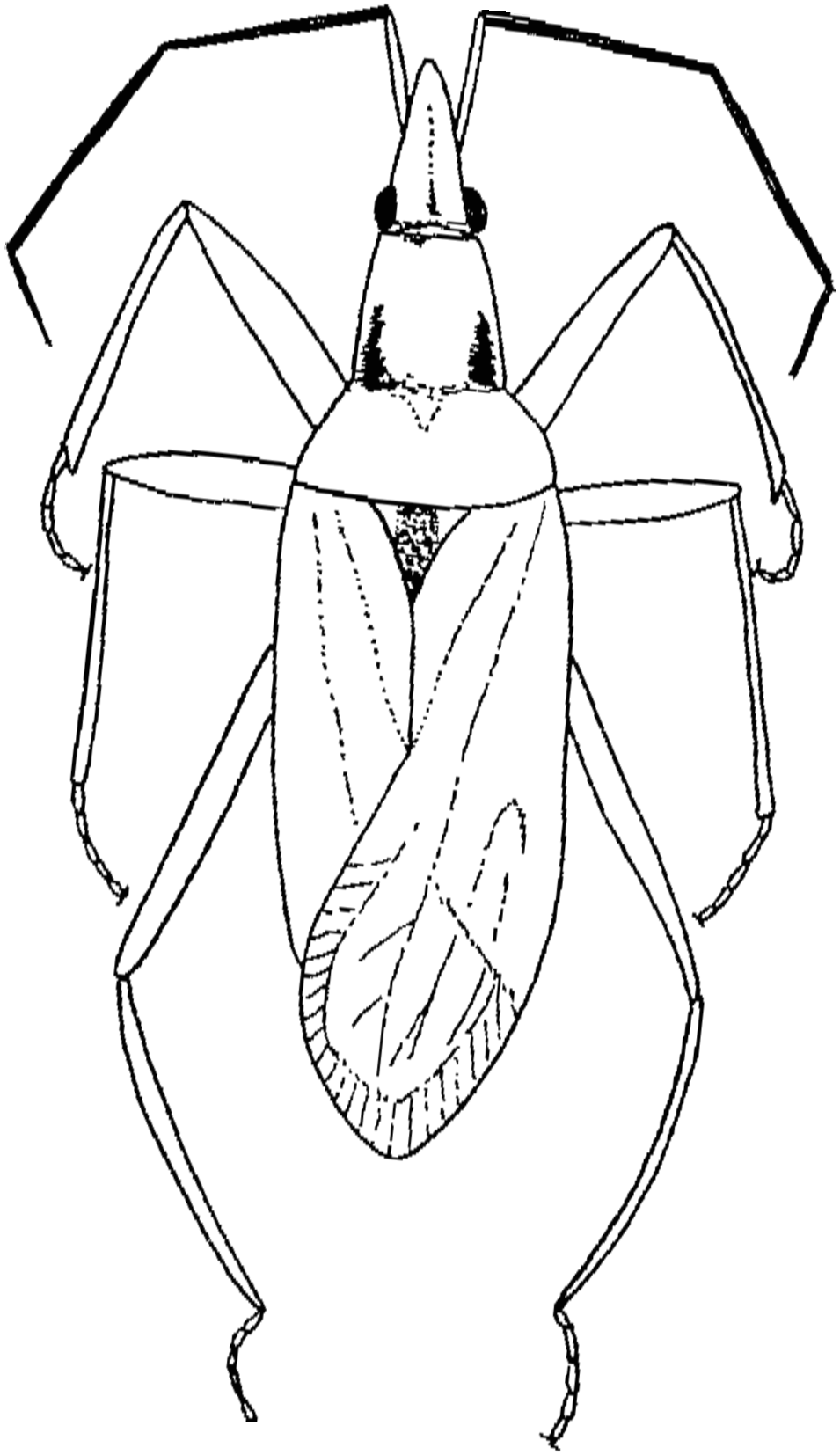
SILVERFISH. The silverfish is a shiny gray or aluminum-colored insect that is commonly found around sinks and drains. It never has any wings.



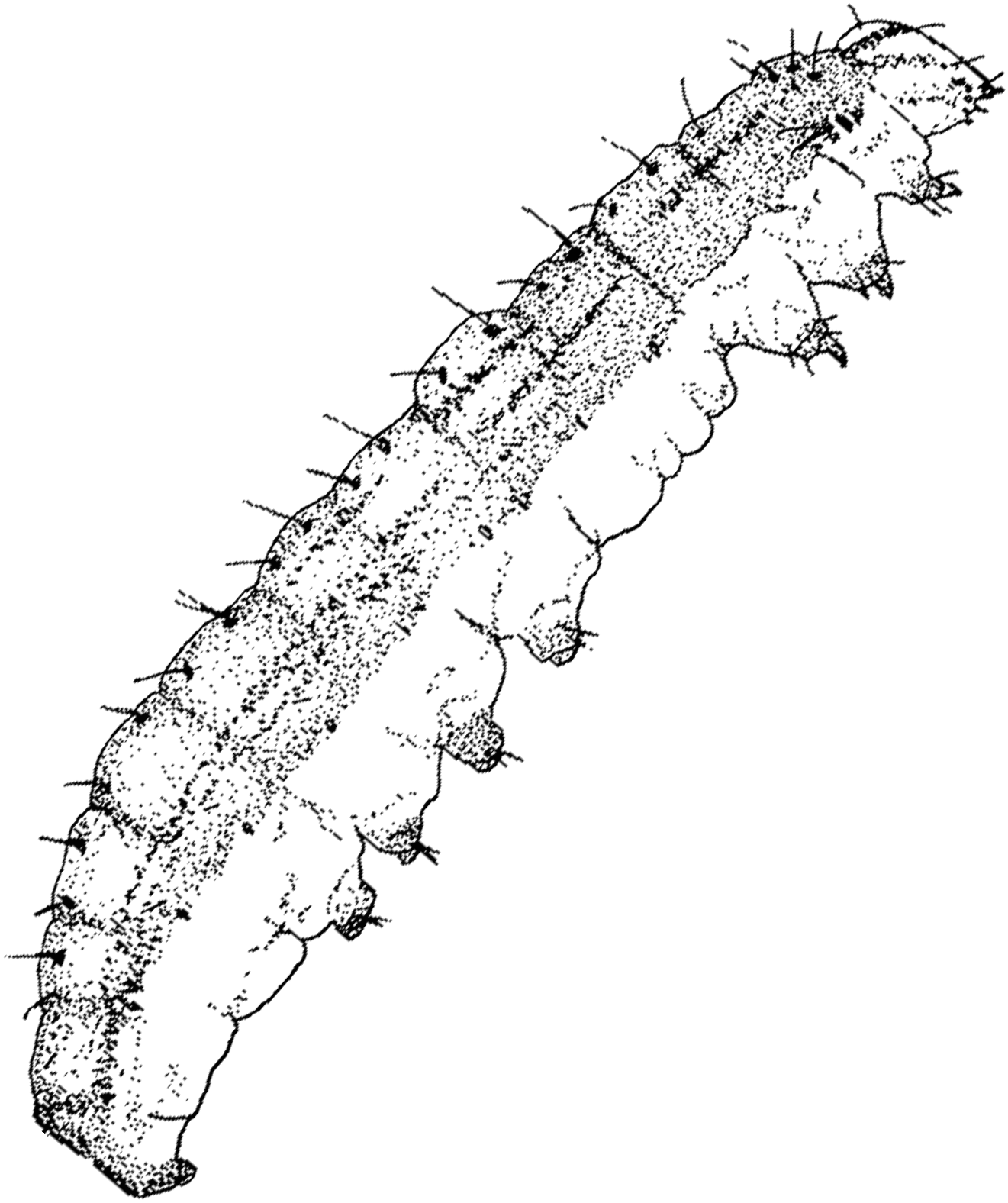
THRIPS. These tiny insects are barely visible, even as adults. Look for them in flowers, such as roses. Most of the common pest thrips are white, yellow, or brown. Predatory thrips often are dark brown or black.



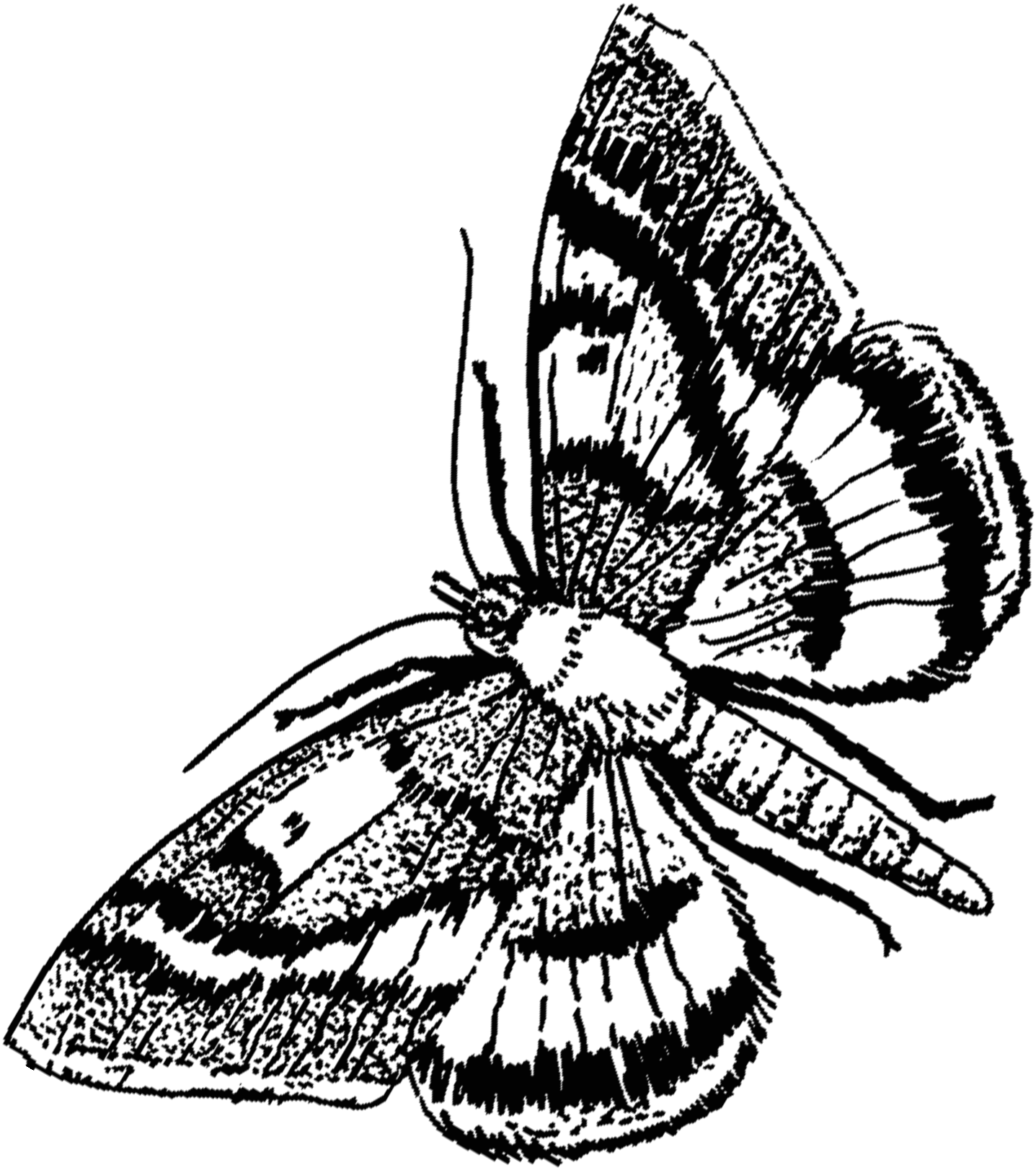
APHIDS. These common insects have soft, pear-shaped bodies and needlelike mouth parts that they use to feed on plant sap. Many common species are pale green; other types of aphids are white, pink, bright yellow, gray, or black. Some are common pests of crops.



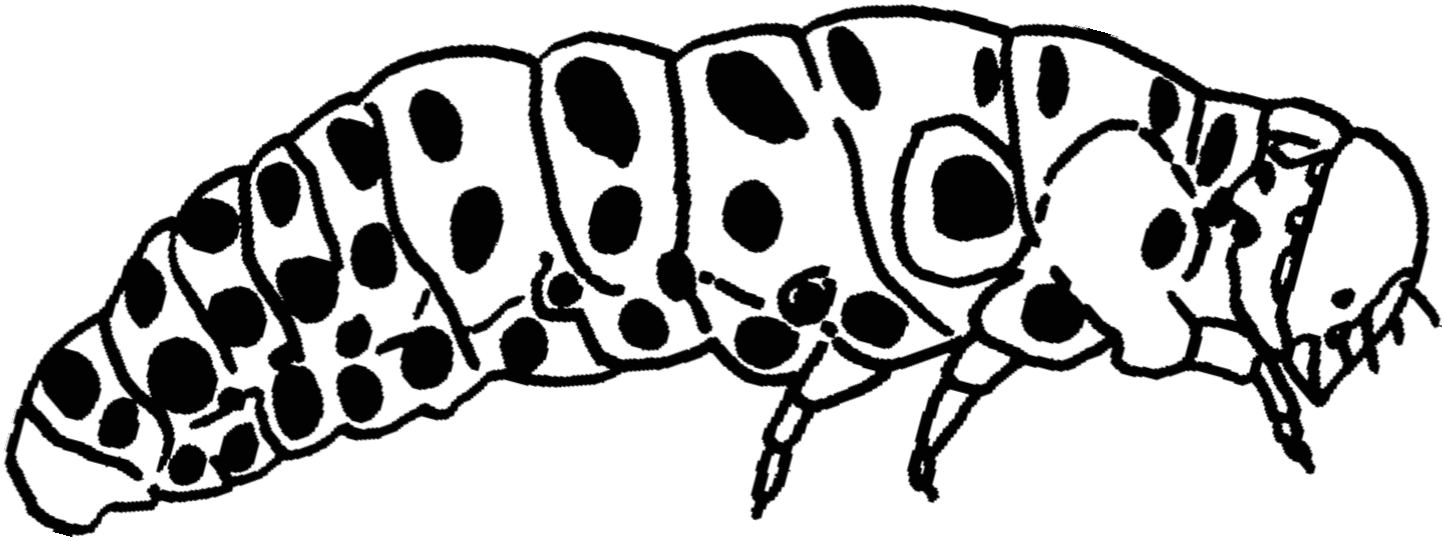
DAMSEL BUG. This gray or gray-brown bug is commonly found in alfalfa fields where it feeds on other insects.



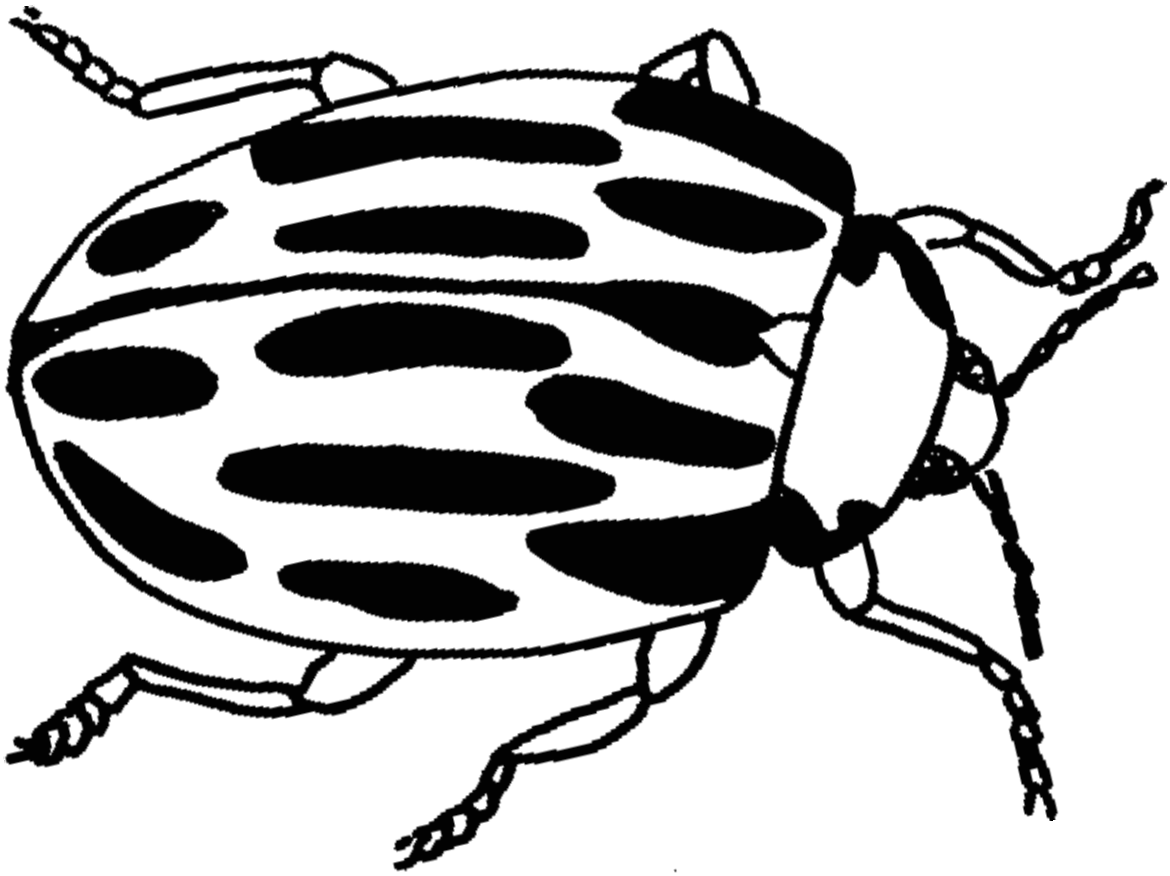
CUTWORM CATERPILLAR. These caterpillars are usually easiest to find in early spring. They hide by day in the soil around their host plants, then emerge at night to feed. Some species are common agricultural pests. Most are dull shades of green, brown, or gray.



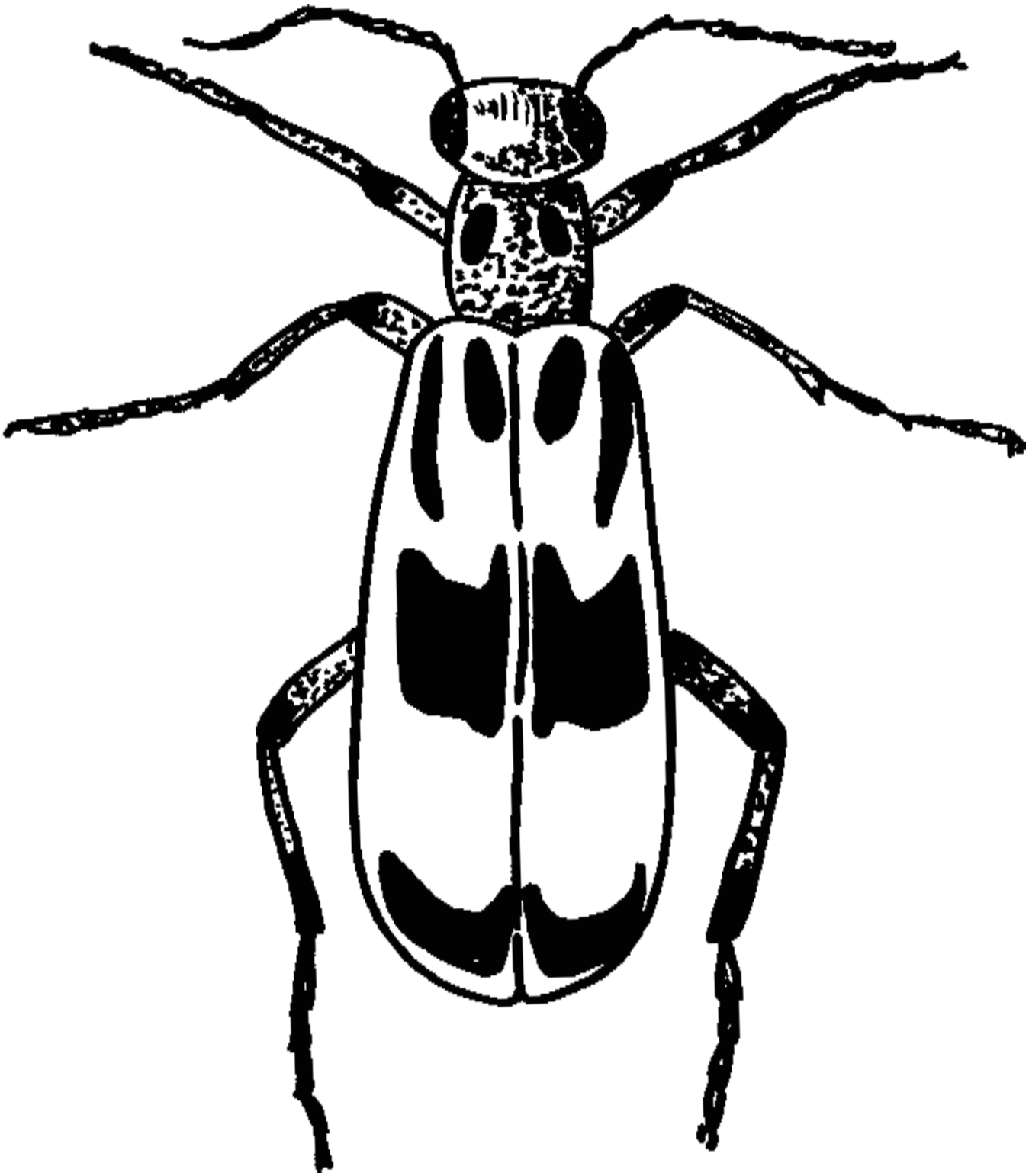
MILLER MOTHS. Some common pests of agriculture are included in this family of flying insects. The caterpillar stage is the most damaging of any of the four life stages: egg, larva or caterpillar, pupa, and adult. Adults of most species are shades of dull gray, brown, and black. These are the moths that are attracted to night lights.



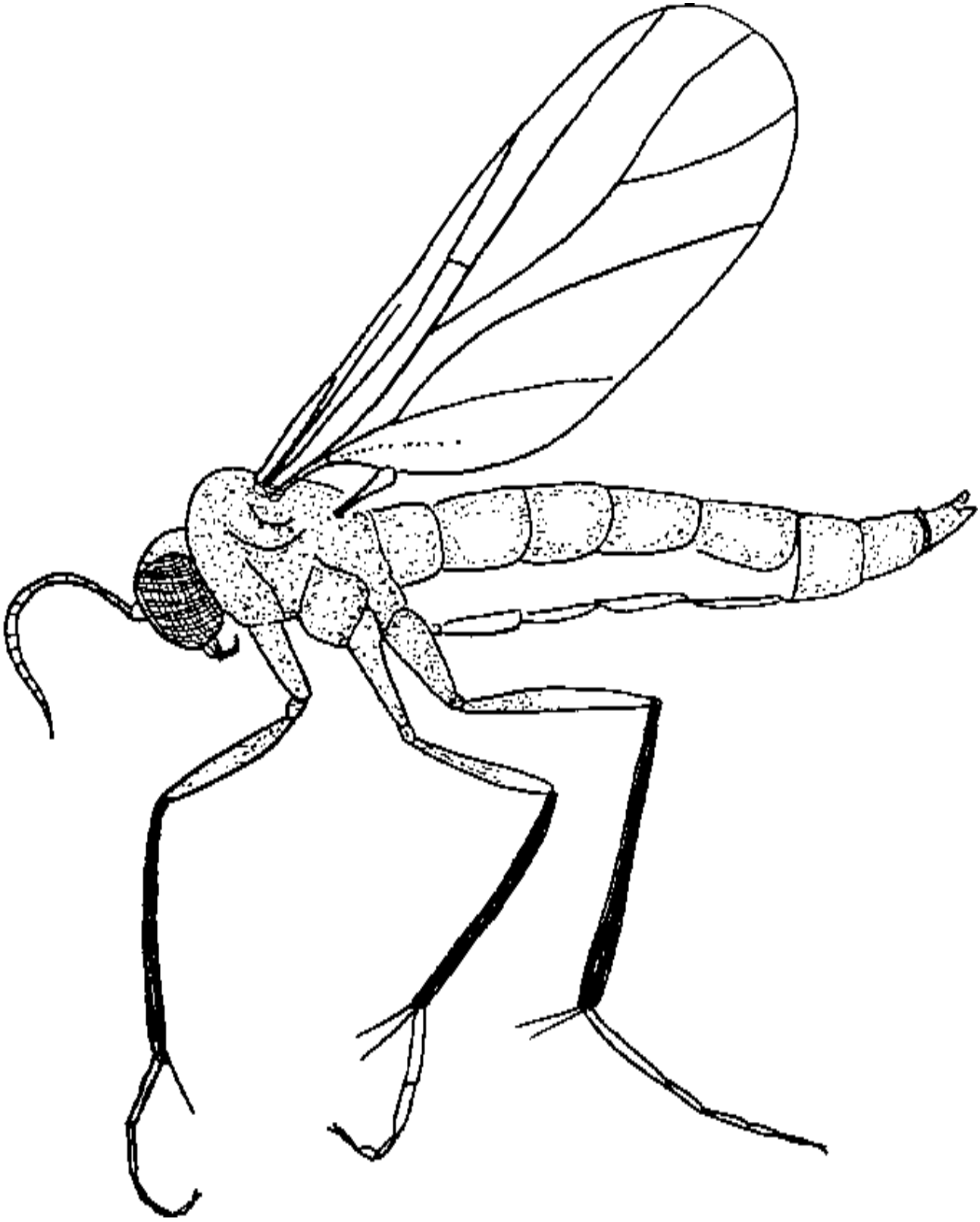
The cottonwood leaf beetle larva has a gray body, black head, and a lot of black spots on the thorax and abdomen. As you might guess, these insects feed on the leaves of cottonwood trees.



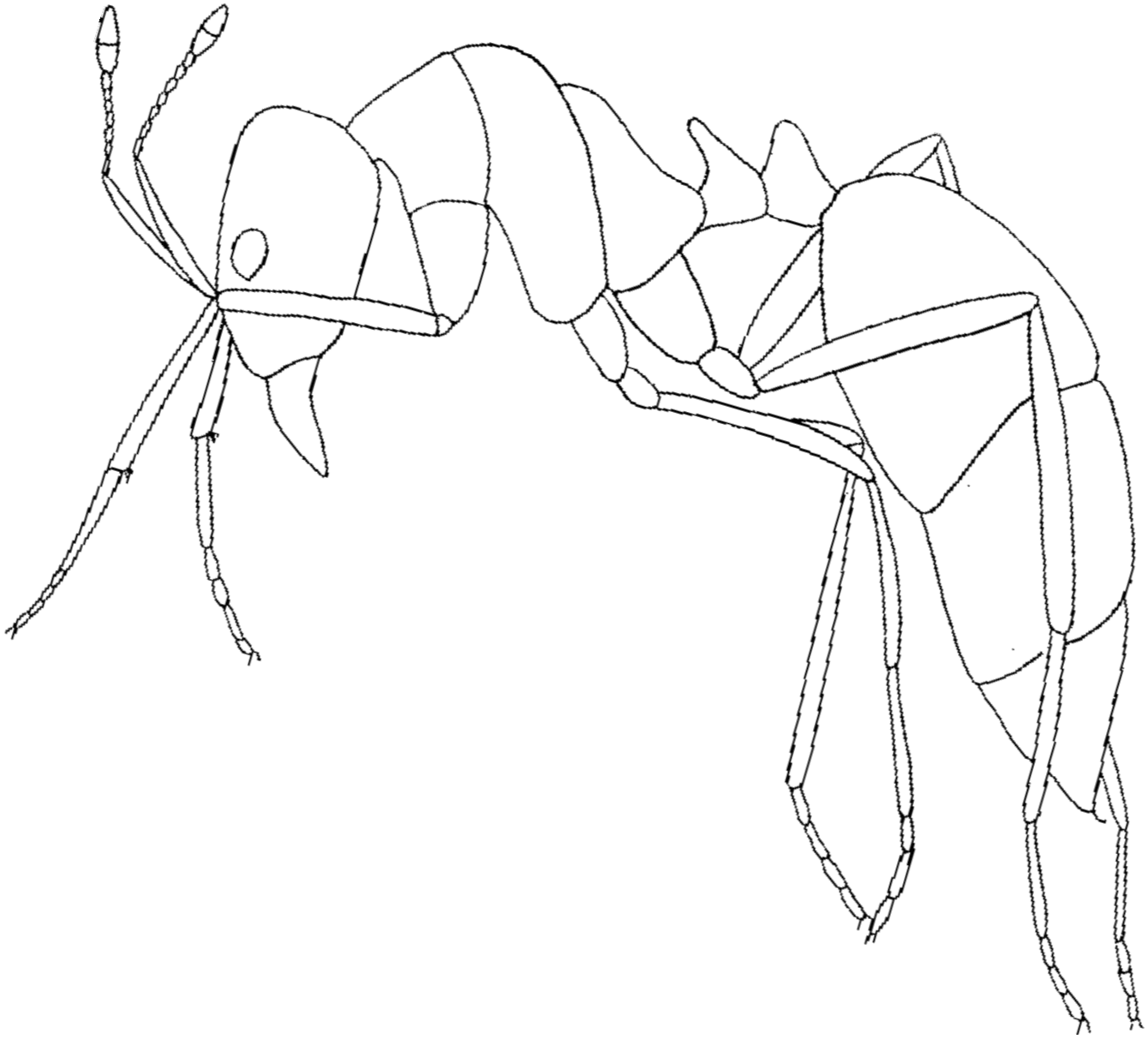
COTTONWOOD LEAF BEETLE. The adult is mostly light brown, with black lines and spots on parts of the thorax and wing covers. The edges of the wing covers are red.



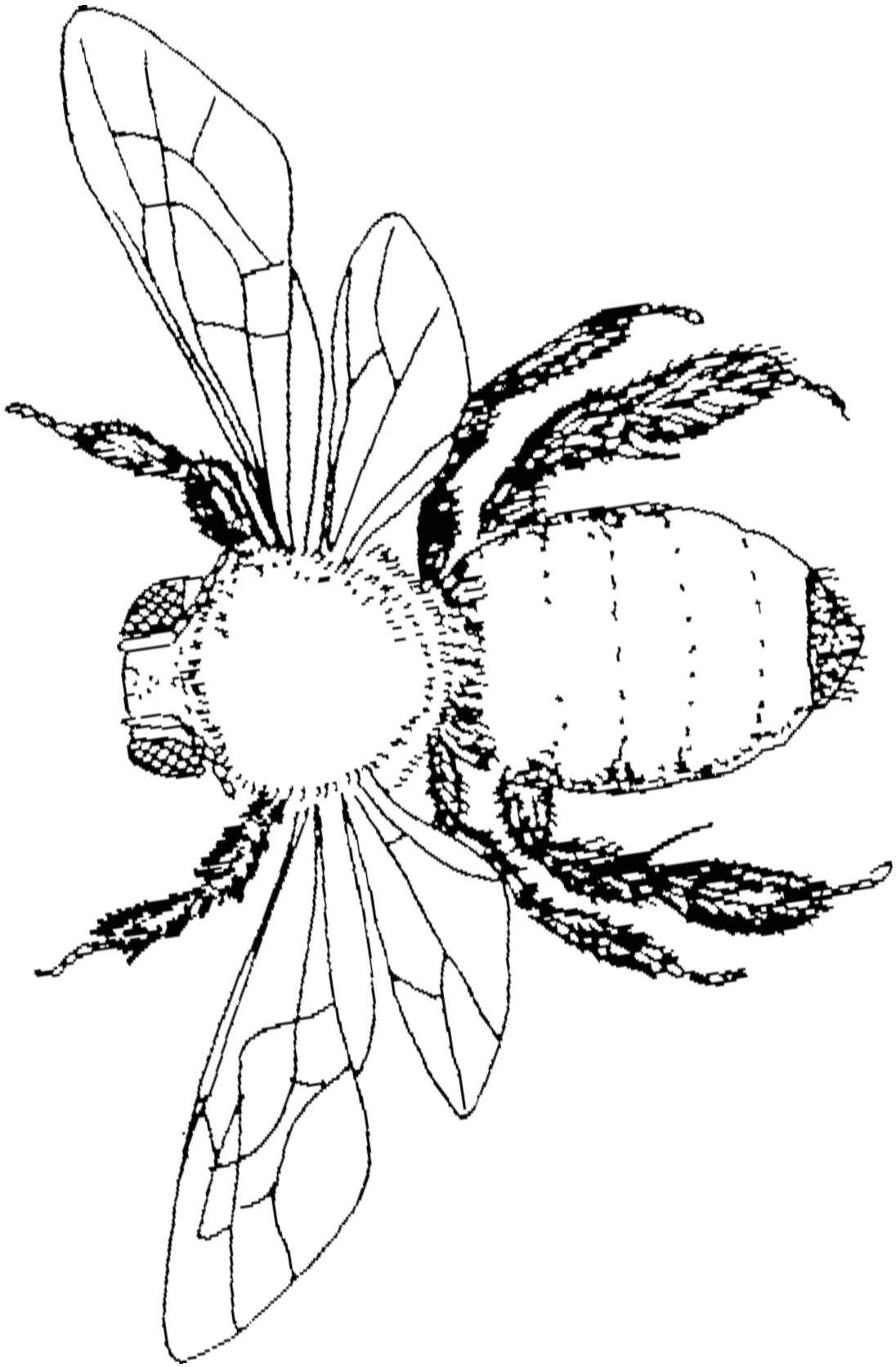
BLISTER BEETLE. New Mexico has more than 40 species of blister beetles. The insects get their common name from their ability to produce blisters on human and animal skin if the beetles are accidentally crushed or eaten. Color the head, legs, and thorax reddish brown. The wing covers are yellow or light brown.



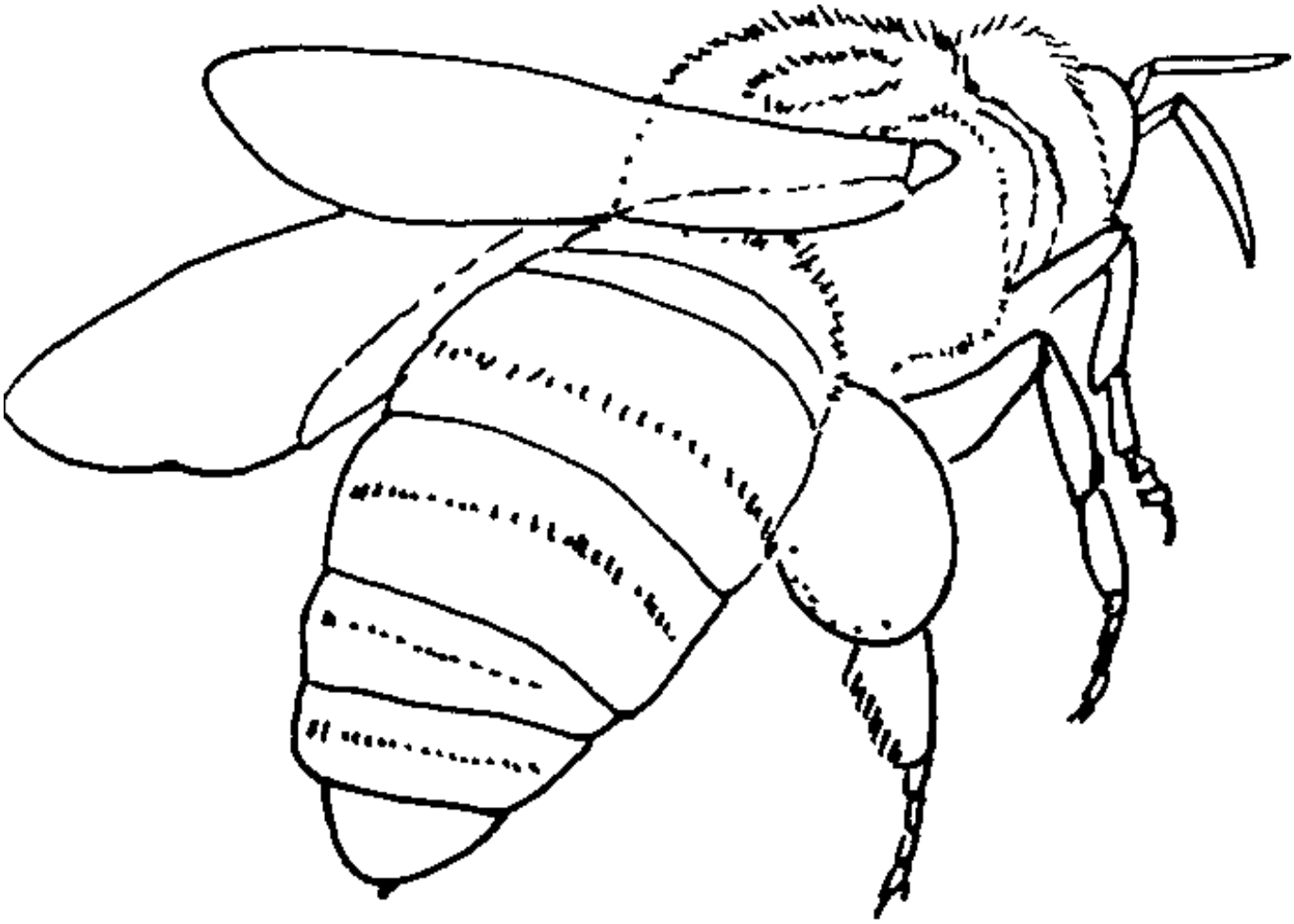
FUNGUS GNAT. This fragile-looking, long-legged fly commonly swarms around the moist soil of house plants. The wings are colorless or smoky gray. The body is either dark gray or black.



ANT. New Mexico has several hundred species of ants. Many of them either bite or sting, some painfully. All ants have elbowed antennae and wasp-thin waists between their thorax and abdomen.

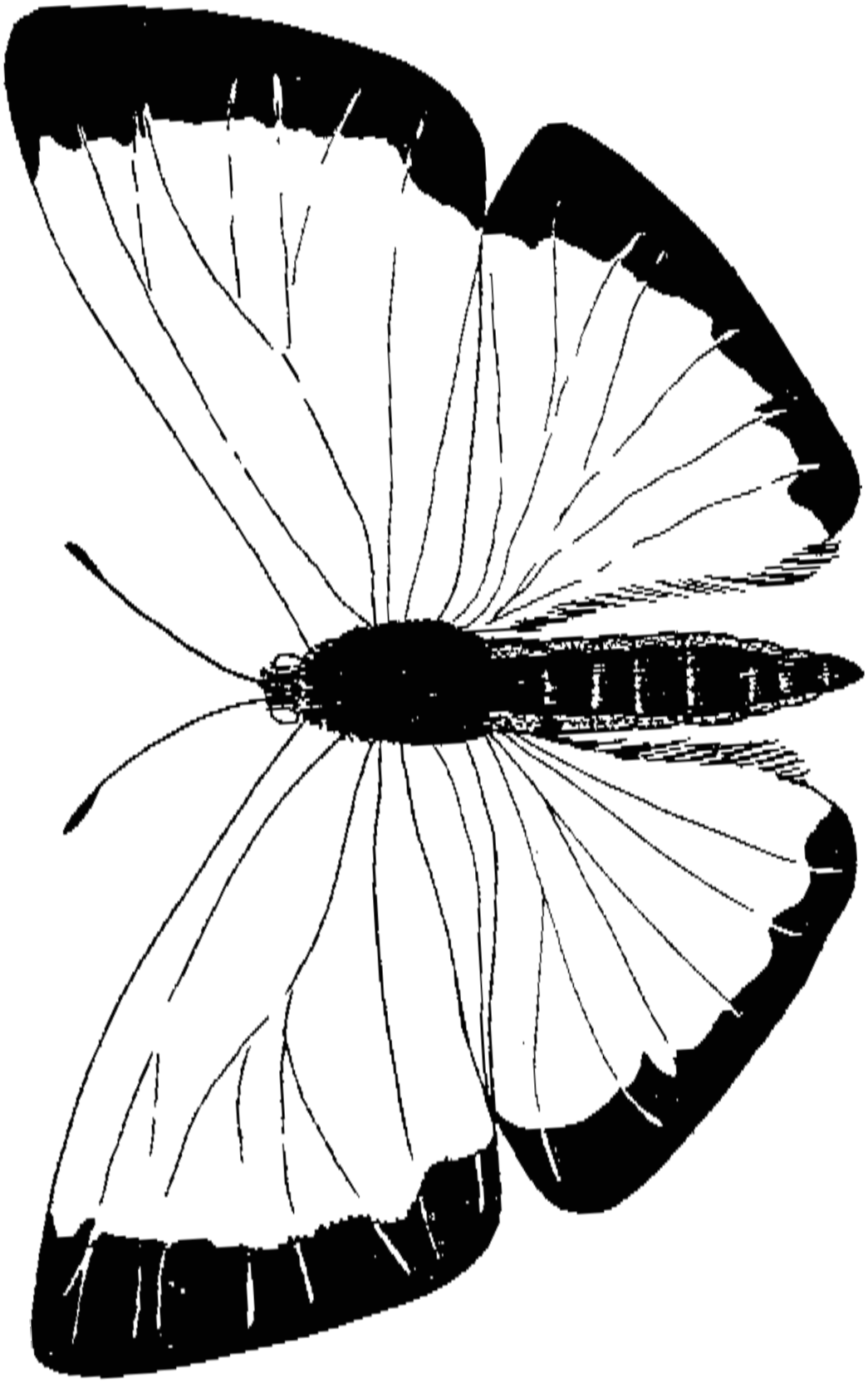


BUMBLEBEE. This bee often reaches three-quarters to nearly one inch in length. The wings may be colorless or smoky gray. The abdomen often has alternating black and yellow bands and a red, fuzzy spot at the tip. The thorax is often gray or brown. Bumblebees are valuable because they pollinate flowers, including the flowers of crop plants.

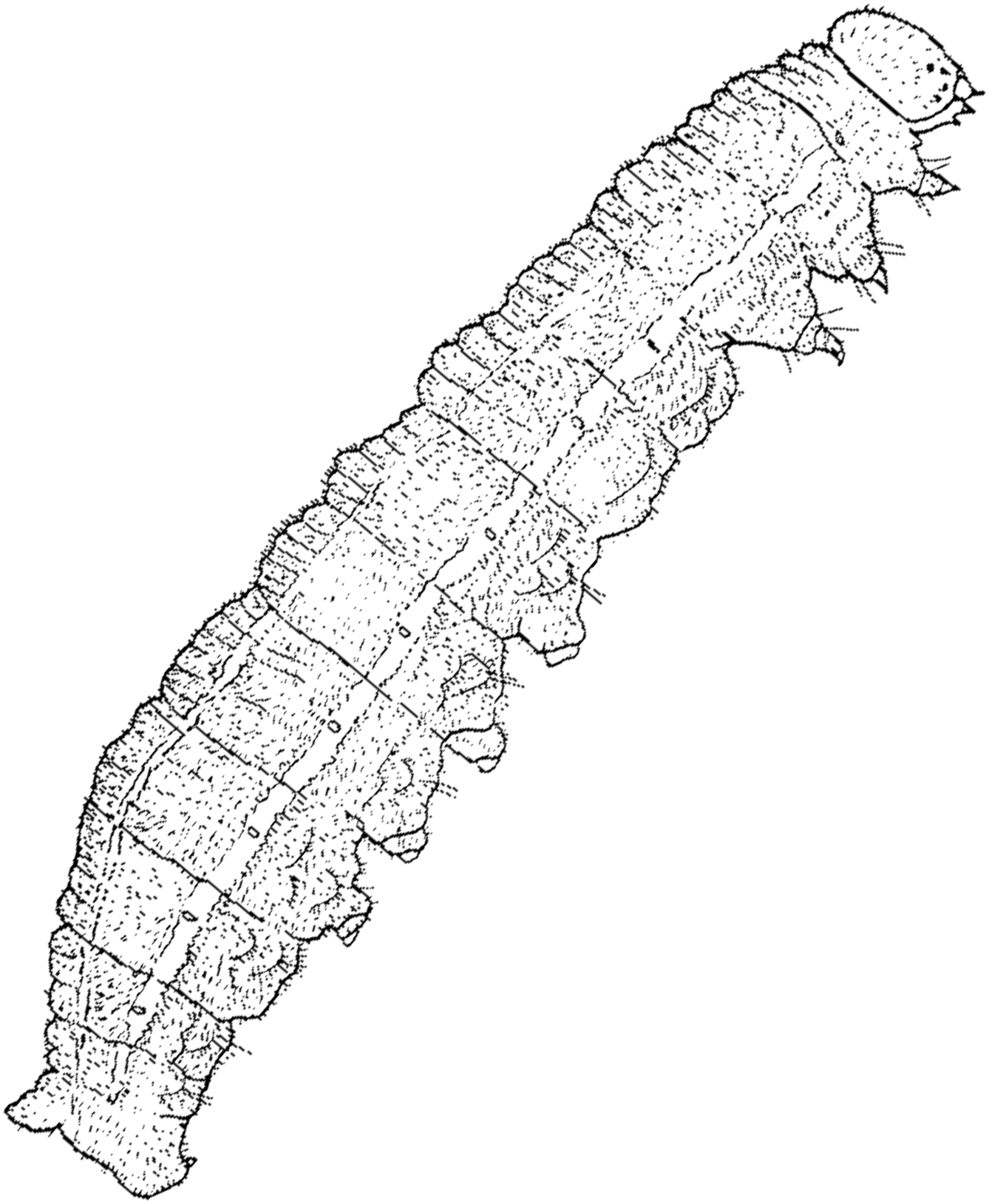


HONEY BEE. European colonists brought the first colonies of European honey bees to North America in the 1500s and 1600s. Not only did the bees pollinate familiar food plants, but they also produced honey and beeswax. Honey bees have complex social behavior and live in colonies. Only the queen can lay eggs. The males or drones usually can be found in the colony only during part of the year. Workers, who are all females**,** cannot lay eggs but do most of the work for the colony, including cleaning, tending the brood, foraging for food, carrying water, and defending the colony.

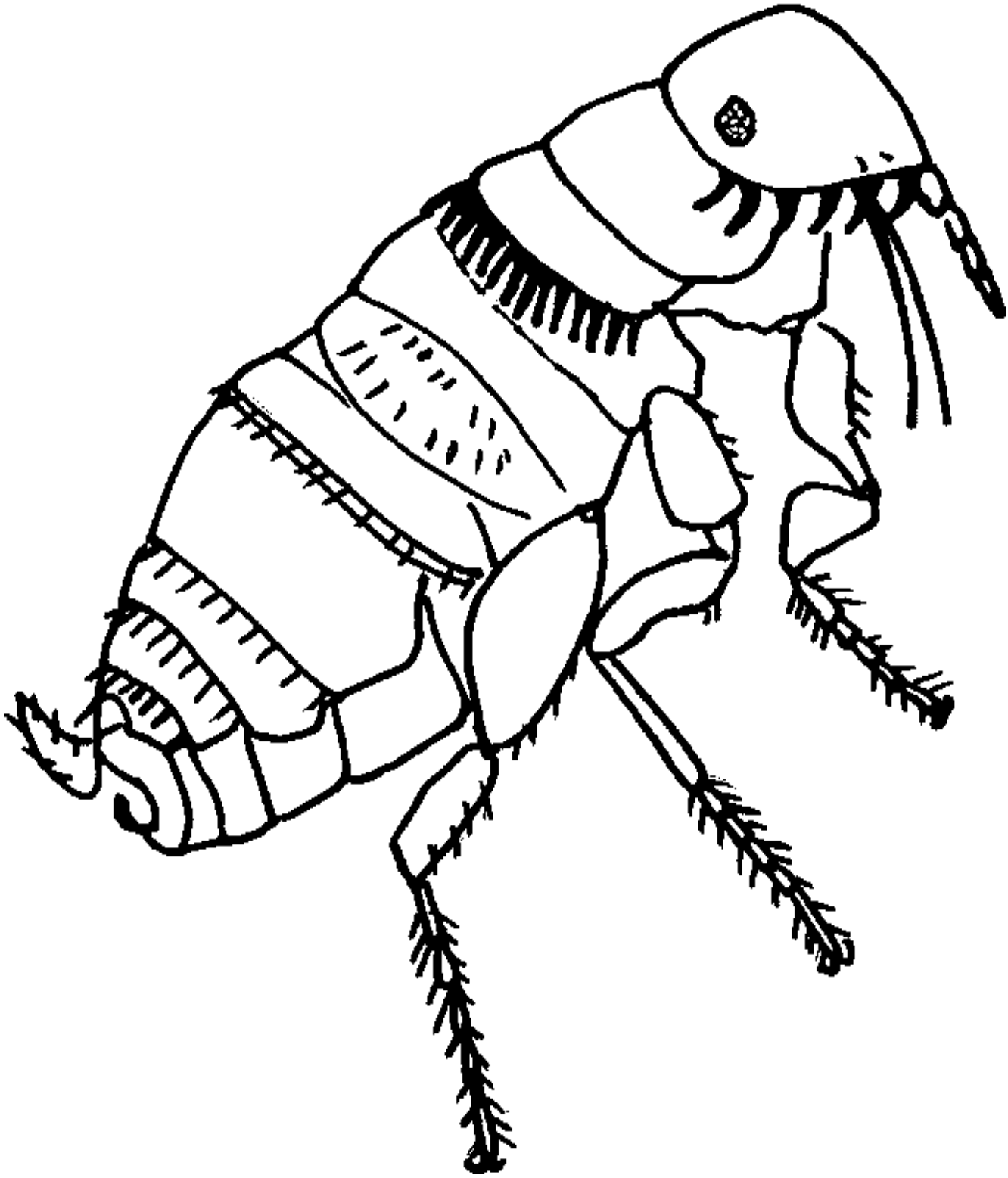
Never bother bees or their colonies because they sting! If you feel threatened by bees, run to safety.



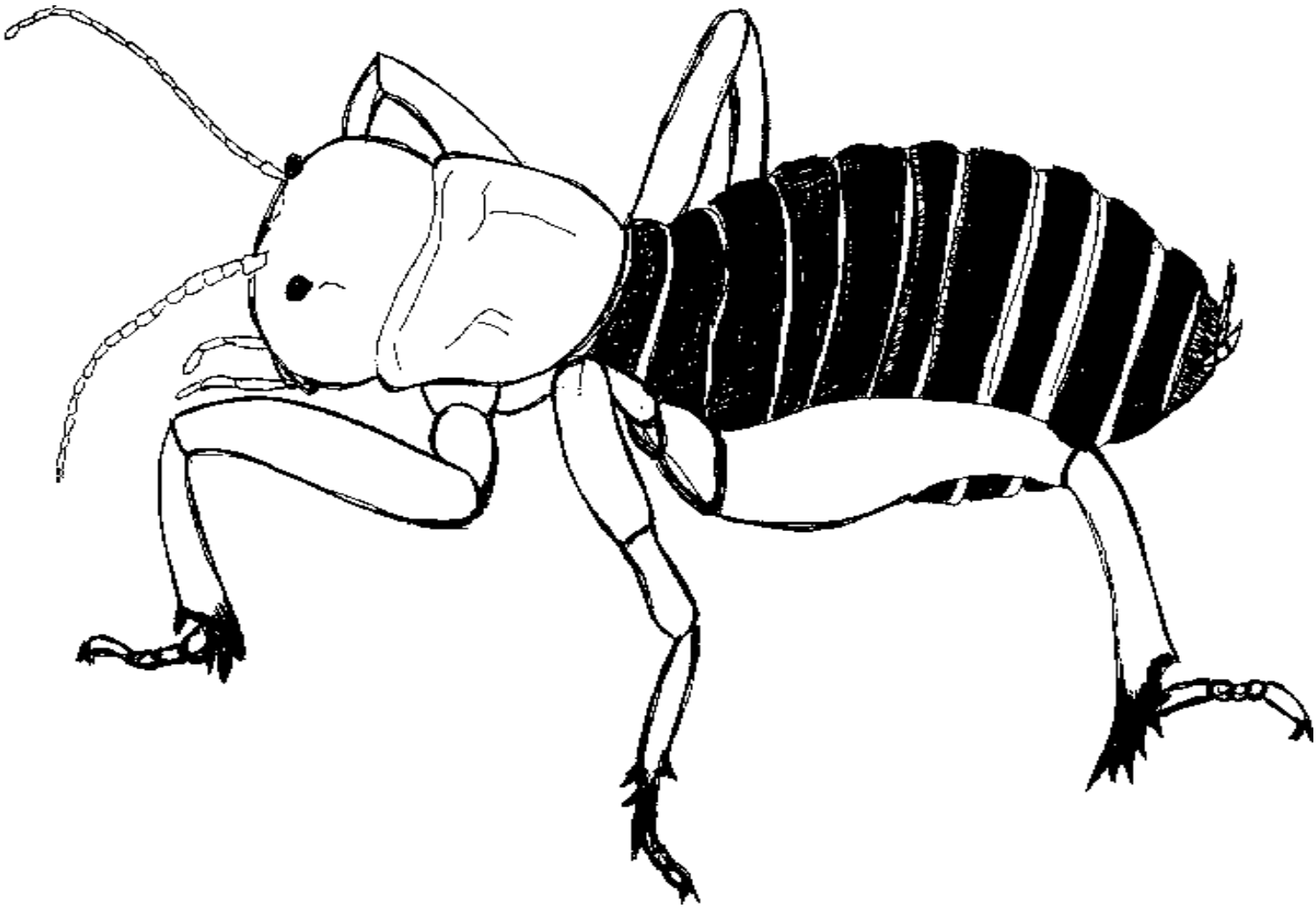
ALFALFA BUTTERFLY. This butterfly is the adult stage of the alfalfa caterpillar. The adult has bright yellow wings edged in black. Most of the body is black, too. The adult stage is harmless and feeds on blooming alfalfa nectar.



ALFALFA CATERPILLAR. This insect is commonly found in midsummer in alfalfa fields. The larva feeds on alfalfa leaves. The attractive yellow and black butterfly often is seen fluttering just above alfalfa fields. The larva is pale green with a narrow white or light yellow stripe on either side of the body.



FLEA. Fleas are annoying. They feed on the blood of an animal, which can make the animal sick. The flea's mouth parts can both pierce skin and suck blood, allowing them to feed quickly. The protein in their saliva is responsible for the itchy, red welts on our cats and dogs, and sometimes on ourselves (especially the ankles). The large "combs" near the flea's head help this pest avoid being removed by the host when it scratches. Some New Mexico fleas species carry plague, a serious and potentially fatal disease of humans and some mammals.



JERUSALEM CRICKET, CHILD OF THE EARTH, or LA NIÑA DE LA TIERRA. This stout-bodied, wingless relative of grasshoppers and katydids is fairly common in southern New Mexico. By day, it burrows under the soil, where it feeds on other insects with its powerful jaws. When it emerges at night, it accidentally may wind up in swimming pools or inside buildings. Its unusual appearance—a marblelike head and a plump, black-banded abdomen—combined with unfortunate sightings have made it the subject of quite a bit of folklore. Fortunately, these old sayings are not true. Jerusalem crickets are NOT poisonous, but they can bite if you handle them roughly.

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