

STINGING AND BITING PESTS

1. DEER FLY, *Chrysops* spp. The deer fly is an example of a fly that pierces the skin and sucks blood from man and other warm blooded animals. Other flies with similar habits include the large horse flies and stable flies. Flies belonging to this group are most likely to be troublesome in the vicinities of marshlands, lakes, streams, and beaches. This is because the larvae usually develop in water, mud, or wet organic matter. Each species breeds under a fairly narrow range of conditions. Other biting flies, which are much smaller in size, include black flies, sand flies, and punkies.

2. AMERICAN DOG TICK, *Dermacentor variabilis* (Say). The American dog tick is also called a "wood tick". It lives outdoors where there is uncut grass, weeds, and wild vegetation. The young ticks feed mainly on small wild rodents. It is only the adult ticks that attach themselves to the bodies of man and other large warm blooded animals. Once attached, they are unable to let loose until fully engorged with blood. The American dog tick can transmit Rocky Mountain spotted fever, but the disease is not common in Indiana. Single specimens of the tick may crawl off animals and be found indoors, but this is not their normal habitat. Another species, the brown dog tick, does breed indoors and can cause serious infestations in kennels and in homes where dogs are kept. For control, see E-71.

3. MOSQUITO, Family Culicidae. There are many kinds or species of mosquitoes. The larvae and pupae always develop in water. Each species has certain water preferences. For example, the eggs of some mosquitoes are laid on land subject to flooding. When the land is covered with water, the eggs hatch and the mosquitoes develop. Other species lay their eggs in permanent water bodies and still others in tree hole cavities and artificial containers. To control mosquitoes, it is essential to know the species, as this will indicate the breeding sites. Mosquitoes are vectors of several human diseases, but with the exception of occasional encephalitis, the mosquito problem in Indiana is largely one of annoyance. For control, see E-26. For general information, see E-26 and E-204.

4. WHEEL BUG, *Arlus cristatus* (Linnaeus). The wheel bug is an example of a group of insects commonly referred to as assassin or kissing bugs. They feed by sucking body fluids from other insects. They do this with sharp needle-like mouthparts which they can also use to inflict injury on humans. The wheel bug normally will not "bite" unless handled roughly or trapped in clothing. The bite is not serious, other than being quite painful. A few of the assassin bugs will intentionally bite people to obtain a meal of blood, but these species are not common in Indiana.

5. BROWN RECLUSE SPIDER, *Loxosceles reclus Gertsch and Mulaik.* The brown recluse spider is rarely found in Indiana. Only a few specimens have been reported, all from the southern part of the State. This spider, with legs extended, grows to be about 1 1/4 inches long. The brown recluse prefers to live in undisturbed places, for example, in old sheds, storage rooms, and "seldom used" parts of buildings. It rarely bites unless injured. This may happen if the spider is caught accidentally in clothing. The actual bite may or may not be painful at the time, but complications following a bite can be serious and require medical attention. The skin around the original puncture may turn black and the flesh sloughs away. The resulting wound may require several weeks to heal. Consult a physician. For control, see E-72.

6. BLACK WIDOW SPIDER, *Latrodectus mactans* (Fabricius). The female black widow spider is jet black with a red or yellow "hourglass" marking on the underside of the abdomen. The overall length with legs extended is about 1 1/2 inches. The black widow constructs its nest in out-of-the-way places such as wood piles, trash heaps, sheds, and basements. The spider is fairly common in southern Indiana. The black widow is shy and seldom bites except when injured or in defense of its web. People bitten by this spider experience spreading pain followed by muscle spasms and cramps. Other symptoms, such as nausea may also be present. A physician should be consulted immediately. For control, see E-72.

7. IO MOTH LARVA, *Automeris io* (Fabricius). The bodies of these caterpillars are covered with "stinging" or "nettling hairs" which produce a stinging sensation and temporary rash when the caterpillars come in contact with the skin. In this respect, they are similar to the saddleback caterpillar (illustration 11). Io moth larvae feed on a number of different kinds of plants and are most common during the late summer months.

8. YELLOW JACKET, *Vespa* spp. Yellow jackets normally build their nests underground. This is in contrast to hornets which make large paper-like nests in trees and shrubs and elsewhere above ground. Both yellow jackets and hornets are vicious stingers and defend their nests by making mass attacks against intruders. Yellow jackets commonly frequent picnic areas in search of food. Wasps stings, especially those of yellow jackets, can be very serious to persons who are sensitive to the venom. For control, see E-44.

9. SWEAT BEE, Family Halictidae. Sweat bees are small insects about the size of a grain of wheat. This family of bees contains several hundred species, but only about a dozen of these have adopted the "sweat bee habit". The sweat bees are strongly attracted to people who are perspiring freely. They sting only when injured. For example, stings commonly occur when the elbow is bent suddenly and the bee is trapped as it rests or crawls about on the arm. Sweat bees should not be confused with sweat flies (certain hover flies), which are attracted to perspiring people — but do not sting.

10. HONEY BEE, *Apis mellifera* Linnaeus. Honey bees are vicious stingers if their colonies are disturbed, or if they are injured, or required to defend themselves. Bees collecting pollen and nectar normally provide no hazard to people nearby. Swarms of bees hanging in trees or on other objects always arouse curiosity, but they will not sting if left alone. They will leave on their own accord as soon as a new home is located. Bumble bee stings are similar to those of the honey bee except a bumble bee can sting several times, whereas a honey bee can sting only once. Bumble bee nests can be located in the ground or in trash, buildings, and other places. For control, see E-44.

11. SADDLE BACK CATERPILLAR, *Sibine stimulea* (Clemens). These odd appearing caterpillars are so-named because the markings on their backs resemble a saddle. The caterpillars feed on many plants but are most commonly found on corn during the late summer months. Their bodies are covered with "nettling hairs" which can produce a temporary but painful rash when the insects come in contact with the skin. Other caterpillars with stinging hairs include the puss caterpillars and the larvae of the io moth (see illustration #7).

Current Control Information

The information and color illustrations present here are designed to help you correctly identify some of the more common stinging and biting pests. These pests and the problems they cause do not change, but methods of dealing with them do. Therefore, Purdue University Extension entomologists have prepared the following publications to keep you up to date on the latest recommended control methods and materials:

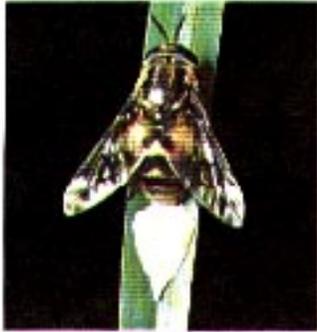
- E-26 Mosquito Control In and Around the Home
- E-44 Social Bees and Wasps
- E-63 Solitary Bees and Wasps
- E-71 Ticks
- E-72 Spiders
- E-204 Mosquito — Nuisance and Disease Carrier

Single copies of these publications, revised periodically, may be obtained by Indiana residents from their local county Cooperative Extension Service office or from Agricultural Communication Media Distribution Center, 301 South 2nd Street, Lafayette, IN 47901-1232, Phone: 765-494-6794.

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For safe and effective use of insecticides, always identify the problem correctly.



1. Deer fly



5. Brown recluse spider (*poisonous bite*) and close-up of "fiddle-shaped" marking on back



8. Yellow jacket (*stings*)



2. American dog tick (*attaches and sucks blood*)



6. Black widow spider (*poisonous bite*)



9. Sweat bee (*stings*)



3. Mosquito (*sucks blood*)



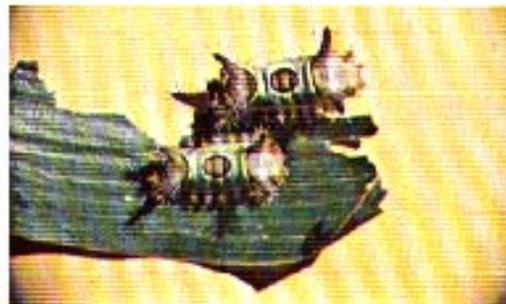
7. Lo moth larva (*stinging hairs*)



10. Honey bee (*stings*)



4. Wheel bug (*punctures skin*)



11. Saddleback caterpillar (*stinging hairs*)

Prepared by Extension Entomologists of the North Central States in cooperation with the Federal Extension Service, U.S. Department of Agriculture