C.P.R. PEST GUIDE

ANTS

Ants are social insects of the family Formicidae, and along with the related wasps and bees, they belong to the order Hymenoptera.

Ants evolved from wasp-like ancestors in the mid-Cretaceous period between 110 and 130 million years ago and diversified after the rise of flowering plants.

BEES

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BED BUGS

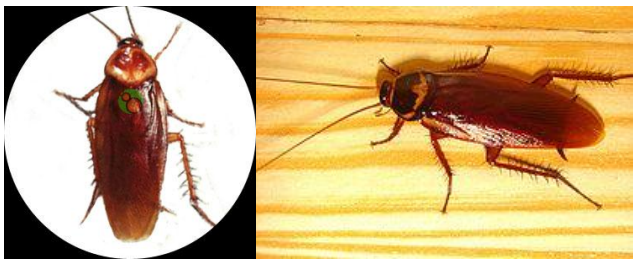
The common bedbug (Cimex lectularius) is the species best adapted to human environments. It is found in temperate climates throughout the world and feeds on human blood.

Other species include Cimex hemipterus, found in tropical regions, which also infests poultry and bats, and Leptocimex boueti, found in the tropics of West Africa and South America, which infests bats and humans. Cimex pilosellus and Cimex pipistrella primarily infest bats, while Haematosiphon inodora, a species of North America, primarily infests poultry.

Oeciacus, while not strictly a bedbug, is a closely related genus primarily affecting birds.

Adult bedbugs are reddish-brown, flattened, oval, and wingless, with microscopic hairs that give them a banded appearance. A common misconception is that they are not visible to the naked eye. Adults grow to 4–5 mm (1/8th – 3/16th of an inch) in length and do not move quickly enough to escape the notice of an attentive observer. Newly hatched nymphs are translucent, lighter in color and become browner as they moult and reach maturity. In size, they are often compared to lentils or apple seeds.

COCKROACHES



Cockroaches (or simply "roaches") are insects of the order Blattaria. This name derives from the Latin word for "cockroach", blatta.

There are about 4,000 species of cockroach, of which 30 species are associated with human habitations and about four species are well known as pests.

Among the best-known pest species are the American cockroach, Periplaneta americana, which is about 30 millimetres (1.2 in) long, the German cockroach, Blattella germanica, about 15 millimetres (1/2 in) long, the Asian cockroach, Blattella asahinai, also about 15 millimetres (1/2 in) in length, and the Oriental cockroach, Blatta orientalis, about 25 millimetres (1 in). Tropical cockroaches are often much bigger, and extinct cockroach relatives such as the Carboniferous Archimylacris and the Permian Apthoroblattina were several times as large as these.

CARPET BEETLES

The varied carpet beetle (Anthrenus verbasci) is a 3 mm-long beetle that can be a serious household pest. It feeds on natural fibres and can damage carpets, furniture and clothing. The larval form is known as a woolly bear, a name it shares with the larvae of Pyrrharctia isabella.

A. verbasci was the first insect to be shown to have an annual circadian rhythm and to date remains a classic example of circannual cycles in animals.

FLIES

True flies are insects of the Order Diptera (Greek: di = two, and pteron = wing), possessing a single pair of wings on the mesothorax and a pair of halteres, derived from the hind wings, on the metathorax.

The presence of a single pair of wings distinguishes true flies from other insects with "fly" in their name, such as mayflies, dragonflies, damselflies, stoneflies, whiteflies, fireflies, alderflies, dobsonflies, snakeflies, sawflies, caddisflies, butterflies or scorpionflies. Some true flies have become secondarily wingless, especially in the superfamily Hippoboscoidea, or among those that are inquilines in social insect colonies.

Diptera is a large order, containing an estimated 240,000 species of mosquitos, gnats, midges and others, although under half of these (about 120,000 species) have been described. It is one of the major insect orders both in terms of ecological and human (medical and economic) importance. The Diptera, in particular the mosquitoes (Culicidae), are of great importance as disease transmitters, acting as vectors for malaria, dengue, West Nile virus, yellow fever, encephalitis and other infectious diseases.

FLEAS

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Flea is the common name for any of the small wingless insects of the order Siphonaptera (some authorities use the name Aphaniptera because it is older, but names above family rank need not follow the ICZN rules of priority, so most taxonomists use the more familiar name). Fleas are external parasites, living by hematophagy off the blood of mammals and birds. Genetic and morphological evidence indicates that they are descendants of the Scorpionfly family Boreidae, which are also flightless; accordingly it is possible that they will eventually be reclassified as a suborder within the Mecoptera. In the past, however, it was most commonly supposed that fleas had evolved from the flies (Diptera), based on similarities of the larvae. In any case, all these groups seem to represent a clade of closely related insect lineages, for which the names Mecopteroidea and Antliophora have been proposed.

PIGEON REMOVAL

The Rock Pigeon (Columba livia), or Rock Dove, is a member of the bird family Columbidae (doves and pigeons).[2] In common usage, this bird is often simply referred to as the "pigeon".

The species includes the domestic pigeon, and escaped domestic pigeons have given rise to the feral pigeon.

Wild Rock Pigeons are pale grey with two black bars on each wing, although domestic and feral pigeons are very variable in colour and pattern. There are few visible differences between males and females.[4] The species is generally monogamous, with two squabs (young) per brood. Both parents care for the young for a time.

Habitats include various open and semi-open environments, including agricultural and urban areas. Cliffs and rock ledges are used for roosting and breeding in the wild. Originally found wild in Europe, North Africa,

and western Asia, feral Rock Pigeons have become established in cities around the world. The species is abundant, with an estimated population of 17 to 28 million feral and wild birds in Europe.

POSSUMS

A possum (plural form: possums) is any of about 64 small to medium-sized arboreal marsupial species native to Australia, New Guinea, and Sulawesi (and introduced to New Zealand and China).

The name derives from their resemblance to the opossums of the Americas. (The name is from Algonquian wapathemwa, not Greek or Latin, so the plural is possums, not possa.) Possum is also used in North America as a short form of Opossum. The possum's rank odour is due to its large musk glands located behind each ear.

Possums are small marsupials with brown or grey fur, ranging in size and weight from the length of a finger or 170 grams (6 ounces) (pygmy possums and wrist-winged gliders), to the length of 120 centimetres (four feet) or 14.5 kilograms (32 pounds) (brushtails and ringtails). In general, though, the larger possums are about the same size as a well-fed domestic cat. All possums are nocturnal and omnivorous, hiding in a nest in a hollow tree during the day and coming out during the night to forage for food. They fill much the same role in the Australian ecosystem that squirrels fill in the northern hemisphere and are broadly similar in appearance.

The two most common species of possums, the Common Brushtail and Common Ringtail, are also among the largest.

MILLIPEDES

Millipedes (Class Diplopoda, previously also known as Chilognatha) are arthropods that have two pairs of legs per segment

Millipedes (Class Diplopoda, previously also known as Chilognatha) are arthropods that have two pairs of legs per segment (except for the first segment behind the head which does not have any appendages at all, and the next few which only have one pair of legs). Each segment that has two pairs of legs is a result of two single segments fused together as one. Most millipedes have very elongated cylindrical bodies, although some are flattened dorso-ventrally, while pill millipedes are shorter and can roll into a ball, like a pillbug. Millipedes are detritivores and slow moving. Most millipedes eat decaying leaves and other dead plant matter, moisturising the food with secretions and then scraping it in with the jaws. However they can also be a minor garden pest, especially in greenhouses where they can cause severe damage to emergent seedlings. Signs of millipede damage include the stripping of the outer layers of a young plant stem and irregular damage to leaves and plant apices.

RODENTS

Rodentia is an order of mammals also known as rodents, characterised by two continuously growing incisors in the upper and lower jaws which must be kept short by gnawing.

Forty percent of mammal species are rodents, and they are found in vast numbers on all continents other than Antarctica. Common rodents include mice, rats, squirrels, chipmunks, gophers, porcupines, beavers, hamsters, gerbils, guinea pigs, degus, chinchillas, prairie dogs, and groundhogs.[1] Rodents have sharp incisors that they use to gnaw wood, break into food, and bite predators. Most eat seeds or plants, though some have more varied diets. Some species have historically been pests, eating stored human seeds and spreading disease.

SPIDERS

Spiders are air-breathing chelicerate arthropods that have eight legs, and chelicerae modified into fangs that inject venom.

In their bodies the usual arthropod segments are fused into two tagmata, the cephalothorax and abdomen, joined by a small, cylindrical pedicel. In all except the most primitive group, the Mesothelae, spiders have the most centralized nervous systems of all arthropods, as all their ganglia are fused into one mass in the cephalothorax. Unlike most arthropods, spiders have no extensor muscles in their limbs and instead extend them by hydraulic pressure.

SILVERFISH

Lepisma saccharina (commonly called the fishmoth, urban silverfish, or just silverfish) is a small, wingless insect typically measuring from a half to one inch (12–25 mm).

Its common name derives from the animal's silvery blue colour, combined with the fish-like appearance of its movements, while the scientific name indicates the silverfish's diet of carbohydrates such as sugar or starches. It belongs to the basal insect order Thysanura, a group estimated to have existed for over 300 million years, at least since the Paleozoic Era.

STORED PRODUCT INSECTS

The Clothing Moth (Tineola bisselliella) is a species of moths from the Tineidae moth family. The caterpillar (larva) of this moth is recognized as a serious pest.

It can (and will) derive nourishment not only from clothing - in particular wool - and also, like most moth caterpillars, from many other sources.

The Indianmeal moth (Plodia interpunctella), also spelled Indian meal moth, is a moth of the family Pyralidae. Its larva is a common grain-feeding pest found around the world, feeding on cereals and dry grain products (see waxworms).

WASPS

A wasp is a predatory flying stinging insect of the order Hymenoptera and suborder Apocrita that is neither a bee nor an ant.

A narrower and simpler but popular definition of the term wasp is any member of the aculeate family Vespidae. Wasps are critically important in natural biocontrol as almost every pest insect species has at least one wasp species that is a predator upon it. Parasitic wasps are increasingly used in agricultural pest control as they have little impact on crops.

TERMITES CASTES

Termite colonies are divided into distinct castes with clearly-defined divisions of labour. Together, they assure the colony's survival and growth.

Termite Castes

Termites are social insects whose colonies are divided into "castes." Each caste has specific duties within the colony, and together they assure the colony’s continued well-being.

The Queen

The Queen's main duty as the primary or sole reproductive female of the colony is to lay eggs, and in a year she may lay tens of millions of them. In mature colonies, supplemental reproductives may also lay eggs, making for a staggeringly rapid potential rate of colony growth.

The queen also secretes chemical messengers called pheromones that regulate various aspects of the colony's life. It is believed that these pheromones directly control

such things as the gender and caste of other members and their respective duties within the colony.

The King

The king is the male member of a termite marriage. Back before the colony was first established, he emerged from the parent colony with his bride in search of a suitable place to establish a nest of their own. Hundreds or thousands of other mating pairs did the same thing, but most of them perished in the attempt.

Once the king and queen found a cosy place of their own, he helped raise the first generation of offspring. But ever since that generation grew up and became workers, the king's life has consisted solely of his reproductive duties.

Worker Termites

The great majority of members of a given termite colony are workers. These harmless-looking, grub-like insects are also the ones who do all the damage.

Workers alone possess the mouthparts needed to chew wood, and they feed the rest of the colonies members from the wood that they forage. Their duties also include maintaining the colony's system of mud tubes, caring for young, and performing housekeeping duties.

Alates (or Swarmers)

Alates (commonly called swarmers) are sexually mature, winged termites of both sexes who will leave the parent colony in a swarm to establish colonies of their own. Most will perish in the attempt, their shed wings and carcasses the only memorial to their noble effort.

Quite often, a homeowner will first become aware that their home has a termite problem when they find dead swarmers or their shed wings along basement walls, in window frames, on sill plates, or in other areas in and around their homes. But by the time a colony has produced swarmers, it has been in existence for several years.

Soldier Termites

Like swarmers, soldier termites only exist in mature termite colonies. Their job is to protect the colony from predators (mainly other insects). Their large, hardened heads and powerful mandibles are adapted for fighting and are their most obvious identifying features.

Soldier termites are incapable of chewing wood and must be fed by workers. Their presence is nonetheless significant, however, as it indicates that the colony is a mature one that has been in existence for at least a few years.

BORER

Wood boring beetles are those that attack untreated timber. There are two types of borer: Green timber and seasoned timber borer. Borers attack timber because they need food and require sugar. The main pest borer to houses and structures are seasoned borers, mainly Anobuim (common house borer). Borers require a certain amount of moisture, so often show up on the cooler side of the house or in the subfloor area. Small holes appearing in timber, with fine saw dust (fass) at the exit point, is a good sign that borers are active. As the damage to the timber is being done in the larval stage, CO2 propellant gases and borer bombing to kill adult beetles does little in the way of controlling them. A long term treatment is required to achieve the desired result. In most instances timber replacement is recommended.