sealing all food containers, and locate garbage receptacles away from eating areas. Reduce available water for nest building and drinking, by repairing defective spigots and promote drainage in areas where water can accumulate.

Depletion Trapping

These types of devices will not produce consistent or reliable results. Some commercially available traps utilize a chemical lure to attract the insect to the trap. These chemicals attract not all yellowjacket species. Once the insect has entered the trap, they have difficulty in finding their way out and they usually die inside from exposure. Homemade traps can be constructed by suspending meat over open containers of soapy water. If the insect cuts off too large a piece of meat, it will fall into the water and drown. Traps should be placed away from people or food.

Note: *Inexperienced people should not attempt to destroy a yellowjacket nest. This should be left to a licensed pest control company or vector control agency. These trained professionals have the proper equipment to control the nest safely.*

OTHER STINGING INSECTS

There are a large number of solitary wasps and stinging ants in the environment. Most of these insects carry out their lives without being noticed by humans. Some of the most commonly encountered examples are:

Paper or umbrella wasps are social insects related to yellowjackets. They build circular exposed nests of wood pulp and are frequently seen in the eaves of houses and in trees. Most species are yellow and black, but some have a reddish brown color. These insects are beneficial and seldom sting humans. They can sting when mishandled or overtly provoked.

Mud daubers are solitary wasps who construct mud nests and provision them with paralyzed spiders. Our common two species are medium sized, and shiny blue/green or black and yellow. These insects are non-aggressive and stinging incidents are extremely rare.

If you discover a yellowjacket nest

AVOID THE AREA!

⇒ Mark the site and keep children or pets away from the nest.
⇒ Wear light colored clothing when nearby.
⇒ Do not disturb the nest area or operate heavy equipment.
⇒ Get professional help to exterminate the nest.

If you are attacked by yellowjackets

LEAVE THE AREA QUICKLY!

⇒ Most of the angry yellow jackets will remain behind to protect the nest.
⇒ Use loose clothing to cover your face, eyes and mouth.

First aid for yellowjacket stings

⇒ Wash the affected area with soap and water.
⇒ Apply topical anesthetic if available.
⇒ Know the symptoms, which indicate an allergic reaction.
⇒ Consult a physician if you have a history of sensitivity and
⇒ Obtain a specialized first aid kit for insect stings.

For more information call:

Alameda County Vector Control Services District
1131 Harbor Bay Parkway, STE 166
Alameda, CA 94502

(510) 567-6800

Yellowjackets

GENERAL INFORMATION

Yellowjackets are social insects that live in a colony. Most species are medium sized insects with black & yellow or black & white markings. Yellowjackets normally nest in abandoned rodent burrows in the ground, but some species builds aerial nests in trees, and others nest in buildings.

When a yellowjacket nest is disturbed, defending workers may attack in numbers and inflict enough stings to create a life threatening situation for individuals hypersensitive to the venom.

In late summer, the Yellowjacket population is at its highest level, and foraging workers may resort to scavenging to provide enough food for the colony. In addition expanding nests in structures may cause damage to walls and insulation. Most yellowjacket species are beneficial to man because they prey on insects and other yellow jacket species.

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YELLOWJACKET NESTS

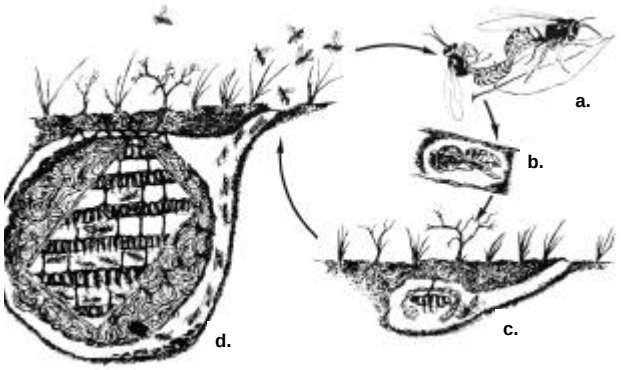
Yellow jackets use wood fibers from a variety of plants to produce a paper like material for nest construction. The nest consists of a series of suspended combs that contain cells where the young are reared. The combs are enclosed inside one or more layers of paper envelope. The surface of the envelope is textured with a gradient of color from gray to yellowish brown.

LIFE CYCLE

Yellowjackets have four life stages:

egg > larva > pupa > adult

(Eastern Yellowjacket Life Stages)



Yellowjacket life-cycle (*Vespula pensylvanica*):
a. Mating; b. fertilized queen in diapause during winter months; c. queen nest beneath soil surface; d. nest at peak of colony development.

YELLOWJACKET CASTS

Nests contain three types of yellowjacket casts:

Queens: establishes nest, lay eggs

Males: they have a reproductive role

(Queen and Male)

Workers: forage for food, protect the nest, construct nest, feed young and the queen.

COMMON CALIFORNIA YELLOWJACKETS

Western Yellowjacket (Vespula pensylvanica): This species is a major pest in California because it can develop large colonies, up to 5000 workers, which have an affinity to scavenge. In addition it tends to nest in the open near recreational areas, and is a common visitor to picnic areas and garbage receptacles. It is a ground nester, usually in abandoned rodent burrows. Its workers have been known to forage up to 1800 feet from the nest, but the normal foraging range is about 1100 feet. The number of workers in the nest will reach its highest population level in late summer, then the numbers begin to gradually decline until the onset of significant rainfall.

Common Yellowjacket (Vespula vulgaris): This species is found in the Holartic regions of Europe and North America. It is also a ground nester, and is also called the woodland yellowjacket, because it is commonly found in forested areas. It is less common at back yard barbecues than V. pensylvanica, but can be a major pest in campgrounds and picnic areas.

German Yellowjacket (Vespula germanica): This species was introduced into the United States approximately fifty years ago on the east coast. Since introduction it has expanded its range to the pacific coast states. This species is more inclined to build its nest in structures than V. pensylvanica and V. vulgaris, and colonies surviving more than one season has been documented. In some regions it will construct its' nest above ground in thick bushes, such as junipers and cypresses. Its reputation as a scavenging species on the East Coast is well documented. It is relatively rare in the Bay Area due to competition from other scavenging species.

Aerial Yellowjacket (Dolichovespula arenaria) This species is somewhat rare in the Bay Area, but is quite common throughout the coastal and montane portions of California. Nests are constructed above ground in trees and on buildings. The rarity of this species in urban areas may be related to the visibility of the nests and human apprehension about stinging insects in general. Even though typical nests include 100 to 700 workers, stinging incidents are rare because it is not known to scavenge. The preferred food of this species consists of nectar, small insects and caterpillars. As a result it is considered a beneficial insect, and control should not be necessary, unless the nest may become an attractive nuisance to children.

Other yellowjacket species: Occasional species which may be encountered in the Bay Area include the Bald Faced Hornet (Dolichovespula maculata), the Forest Yellowjacket (Vespula acadica), and the California Yellowjacket (Vespula sulphurea). The first two are typically found in deeply forested terrain and rarely interact with humans. The later is typically found in the Upper Sonoran Zones near creeks or reservoirs that are close to transitions from chaparral to oak woodland habitats.

YELLOWJACKET CONTROL

As the summer season progresses scavenging yellowjackets will increase in numbers, and become nuisances in parks, campgrounds and recreational areas. Elimination of the pests can only be effected by total destruction of the nest. Yellow jacket numbers can be reduced by:

Sanitation

This is the most effective method of avoiding these pests. Reduce available food by covering or tightly