

LAUSD PEST OF THE MONTH PROGRAM

SUBTERRANEAN TERMITES

INTRODUCTION

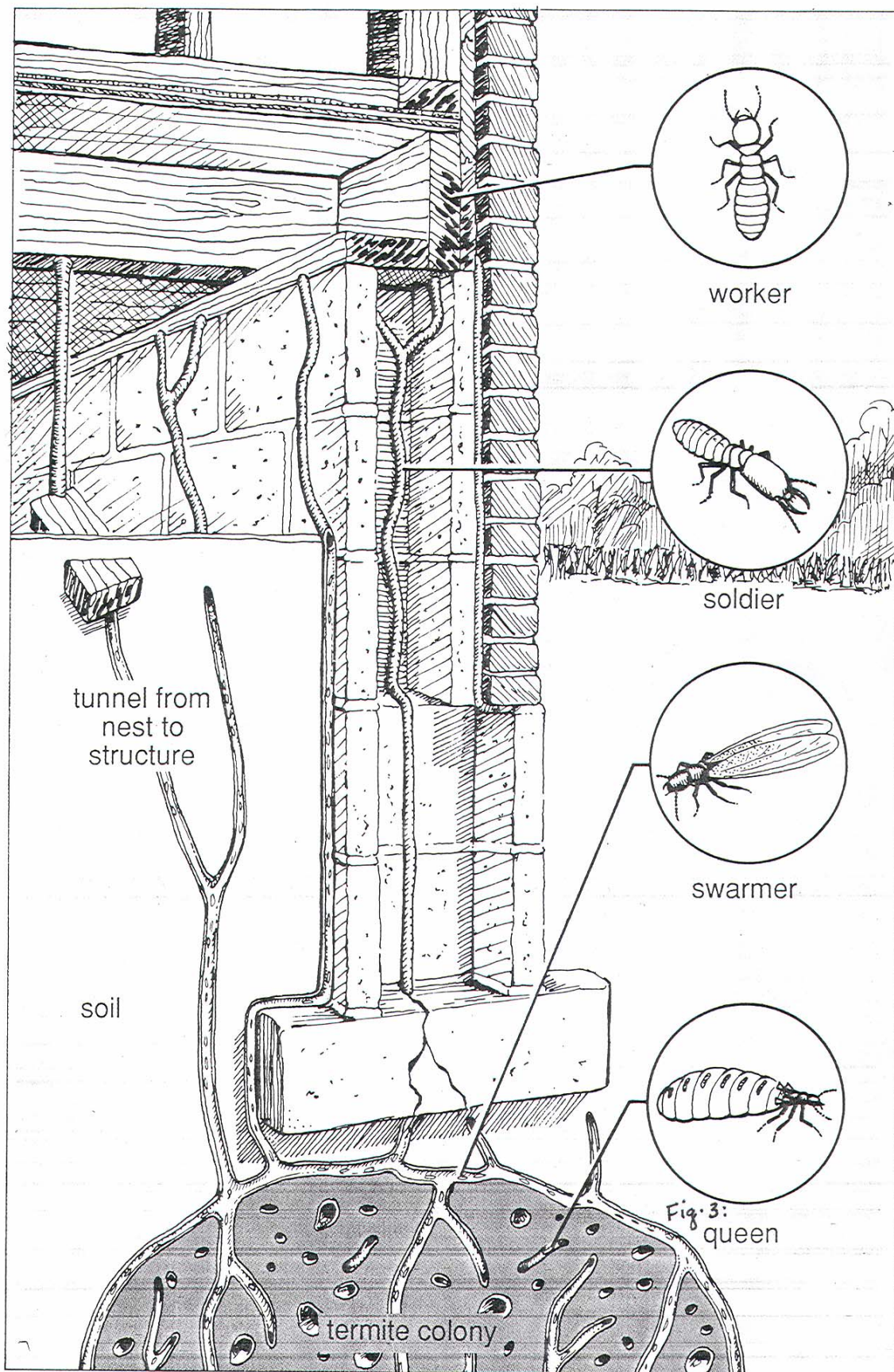
Termites are primitive insects which have been around for over 250 million years. They belong to the order Isoptera – iso means equal and ptera means wing. This means that swarmer termites have 4 wings which are equal in size. Termites are social insects which live in colonies that are usually located in the ground or in wood. Most termites feed on wood and wood products such as paper.

Termites are divided into three groups based on the location of their colony. These groups are subterranean, drywood, and dampwood termites. This program will address subterranean termites because these termites are likely to produce winged reproductives (swarmers) in March of this year in Los Angeles County. The word subterranean is derived from two words, namely, sub which means below and terra which means ground. So subterranean termites generally live below ground.

Subterranean termites have a caste system consisting of three types of individuals. These are workers, soldiers, and reproductives (king and queen – see Fig. 1). The workers are cream-colored, soft-bodied, maggot-like individuals which perform all the work in a colony and are the forms which cause all the damage to buildings (Fig. 2). The workers are blind and they avoid light. If you should open a piece of infested or damaged wood, you may find the cream-colored workers otherwise they stay hidden. The soldiers have large heads and mandibles (jaws) and their main function is to defend the colony against enemies such as ants. Each established subterranean termite colony usually has a king and a queen (Fig. 1) whose function is reproduction.

In the spring in Los Angeles County, after a rain followed by a clear, bright, warm, sunny day, many subterranean termite colonies will release swarmers. Swarmers are also called alates (the word alate means termite with wings) (Fig. 3). The western subterranean termite, which occurs in Los Angeles County, produces swarmers which have black bodies and four transparent wings of equal size. Including the wings, these swarmers are 8 to 9 mm long, and the body without the wings is about 5 mm long. The swarmers are potential kings and queens and their function is to leave their colony, fly away and start new colonies elsewhere. Less than 2% of the swarmers which leave a colony are successful in establishing new colonies. The rest are destroyed by natural enemies, such as ants, birds, lizards, etc. or fall victim to hostile environmental conditions.

When swarmers are released within a building, they usually fly towards visible daylight which is usually at a glass door or window because they are trying to go outside. The presence of many swarmers inside a structure is generally a good indication of a termite infestation. Another evidence of subterranean termite infestation is the presence of shelter tubes. Subterranean termites live in the soil and in order to gain access to wood above ground, they will build shelter tubes. These tubes are fragile, mud-built tunnels made of earth, sand, and minute pieces of wood, which are pasted together with a glue-like substance which they secrete.



DO I HAVE FLYING ANTS OR FLYING TERMITES?

The above question is the most frequent and common one asked by homeowners when they see flying insects in their home. In southern California, some ant species, including carpenter ants, release swarmers in the spring. These ant swarmers are often mistaken for swarming termites. There are three major, and easy to see, differences between termites with wings and flying ants. These differences are:-

Termite

Fig. 4. Antennae straight and beaded.

Fig. 5. Two pairs of wings of equal size.

Fig. 6. Has a thick waist.

Ant

Antennae distinctly elbowed.

Two pairs of wings of unequal size.

Has a thin and narrow waist.

WHAT CAN YOU DO TO HELP WHEN TERMITES SWARM INSIDE A STRUCTURE.

Swarming termites are fragile insects which do not bite or carry diseases. However, when they swarm indoors, they will scare and alarm occupants and create a nuisance problem. The quickest and easiest solution to a flying termite problem is to vacuum the swarmers and remove them from where they are causing a problem. If you can see the hole or crack from where the swarmers are emerging, you can seal off the opening with pieces of duct tape or non-toxic silicone caulking material as appropriate. This will prevent swarmers from continuing to emerge and creating an on-going nuisance situation. After you have done the above, you can place a trouble call for assistance from LAUSD Pest Management Department. We will send a technician out to assess and evaluate the situation and determine how best to take care of the termite problem.

Prepared by Dr. Hanif Gulmahamad, LAUSD IPM Coordinator

Date: 26 February, 2003

Issue: 03-2.



Fig. 3 : A winged termite.

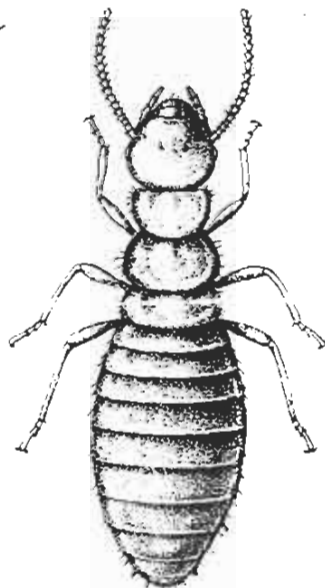
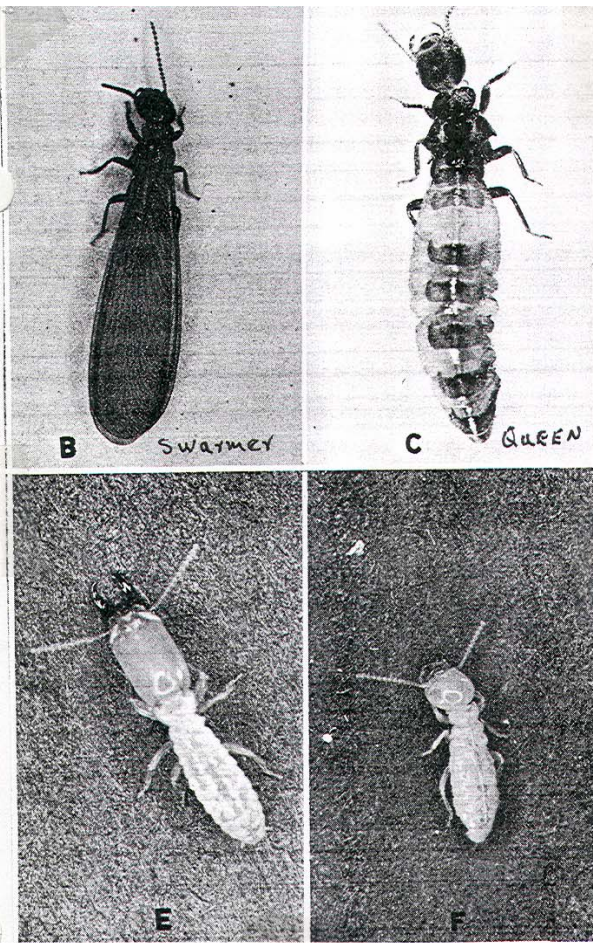


Fig. 2: A worker termite.



Alate carpenter ant (left) and alate subterranean termite. (right)



B SWARMEY

C QUEEN

E = SOLDIER

F = WORKER



FIG. 4.

Van Waters & Rogers Inc.
subsidiary of Univar

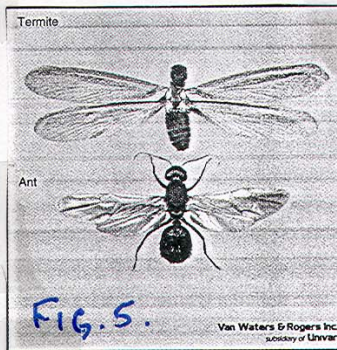


FIG. 5.

Van Waters & Rogers Inc.
subsidiary of Univar

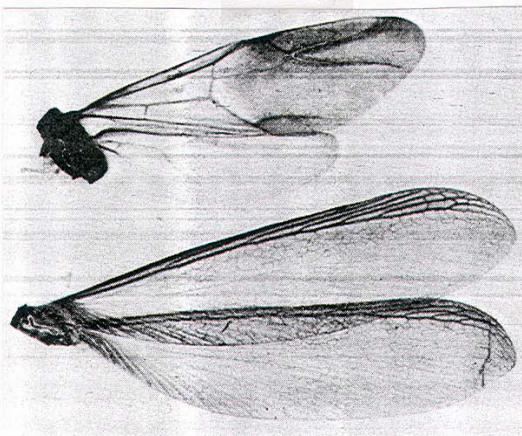


Fig. 5: Wings of a carpenter ant (top), and of a dampwood termite.

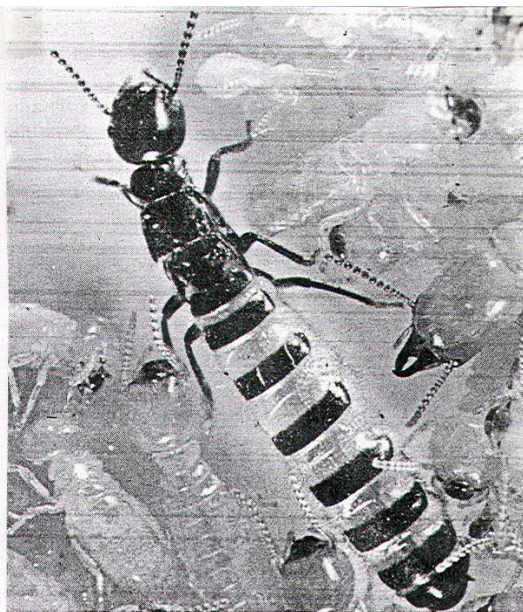


Fig. 1: Western subterranean termite, *Reticulitermes hesperus*. Queen surrounded by nymphs and a soldier.

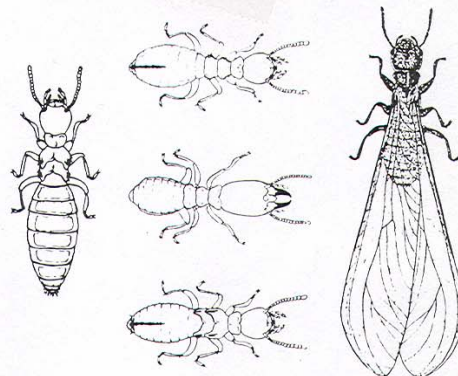


Figure 6: Representatives of the castes of the eastern subterranean termite *Reticulitermes flavipes* (Kollar).

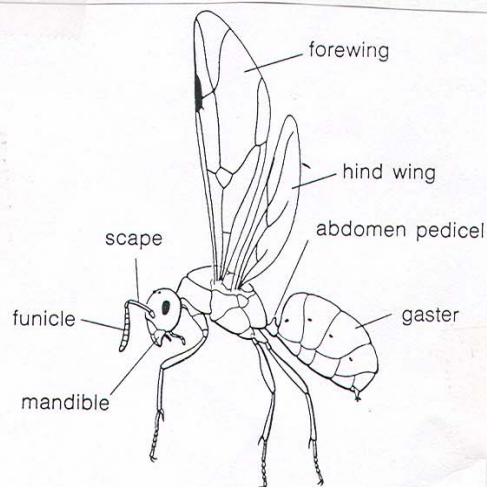


Figure 6: Illustration of an ant, showing body parts.