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Eastern (Common) Subterranean Termite

Reticulitermes flavipes



GENERAL INFORMATION

The Eastern Subterranean Termite is the most common termite found in North America. They are social insects that have a caste system where particular termites perform distinct functions: workers, soldiers, and the separate reproductives: primary, secondary, and tertiary. The Primary reproductives: developed from alate swarmers; queen is larger than the king; maintain their dark-brown to black coloring
Secondary reproductives: similar appearance to workers, but larger; may have small wing buds
Tertiary reproductives: wingless; similar appearance to workers, but larger

SIGNS OF INFESTATION

One distinct sign is the formation of various styles of tunnels or "mud tubes" that termites build to protect themselves from desiccation. Worker termites emerge from the ground and utilize the surrounding soil to create the tunnels. They are attracted to moist areas, usually around the perimeter of a structure. Good places to check for termite infestations are slabs, sidewalks, and chimney bases.

Termite alate "swarms" are also an indication of infestation; these are most active in the spring, between late morning and early afternoon, especially after large rainstorms. Shed termite wings and/or dead termite swarmers are also an indicator of an infestation. A good place to check for these are window sills and spider webs.



DIAGNOSTIC MORPHOLOGY

Winged Adults: Alates

- Dark-brown to black, 3/8" – 1/2" in length with two translucent wings of equal length; the wings break off after swarming

Soldiers:

- Elongated, enlarged heads with well-developed jaws, light-yellow in color, 1/8" - 1/4" in length, soft-bodied and prone to desiccation

Workers:

- Creamy white in color, 1/8" - 1/4" (3 – 6 mm) in length, soft-bodies and prone to desiccation; these are the termites that feed on wood and cause damage

Immature Stage: Nymph



- any newly-hatched termite can develop into a number of different caste levels of termite, depending on the needs of the colony



Termite damage is another obvious indicator of an infestation, but it is important to distinguish between old and recent damage, which can be more readily performed by an experienced pest expert.

Damage from termites -as opposed to carpenter ants - will appear often in the larger, softer wood areas of an object, and the "tunnels" will have wood debris and sawdust in them. Damage depends on the colony size, duration of feeding, and the type of termite.

FOOD SOURCES

The Eastern Subterranean termite's main source of food is cellulosic materials, including wood, paper, and cloth made of cotton or other plant-based materials. Damp wood sitting in soil is their preferred food source. They also can break through and damage non-cellulose materials including plaster and drywall, stucco, plastics, neoprene, rubber, lead, copper, aluminum, PVC, polystyrene, linoleum, and asphalt.

LIFE CYCLE

Termite colonies are self-propagating, due to the winged reproductive alates that mate and create new colonies elsewhere in areas where there is moist soil and wood available. These are the primary queen and king reproductive that start the colony. If the colony becomes large enough, secondary reproductive develop from nymphs to assist with the colony's reproductive needs. The primary queen and king are the primary reproductive for the main colony, and the secondary reproductives over time may become their own colony. Tertiary reproductives develop when part of a large colony is cut off from the primary queen.

Worker termites live underground and are the food-gatherers and care-givers for the colony; they care for the eggs and nymphs, feeding and grooming them, and also construct and repair nest tunnels. Soldier termites are found in mud tubes and the nest defending the colony; these are usually found in strong colonies.

Queens and kings of colonies can live a surprisingly long time – a decade or more – while termite workers tend to have an average life span of one to two years.

CONTROL & TREATMENT

Subterranean termites thrive in moist environments with plenty of food sources. It is essential to reduce areas of moisture buildup around building perimeters: reducing leaf litter and cutting back foliage around buildings and other structures, and sloping the ground away from edifices are recommended. Eliminating wood-to-soil contact for buildings and structures is essential. If the crawlspace of a building is damp, providing proper ventilation and installing a vapor barrier is recommended.

Freezing is an effective method for destroying termite infestations, as they cannot survive in temperatures below freezing. For books and paper-based infested materials, freeze drying would be a good solution since termites need moisture in order to survive. Insect Growth Inhibitors (IGR) are another solution for termite infestations, especially for structures in areas of the globe that are susceptible to termite attack. Please see our section on IGR for subterranean termites for more information.

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References

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