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## In This Issue

[PMU-Deltak Partnership](#)

[PMU Focus](#)

[Upcoming Training  
Opportunities](#)

[Learn More From IFAS](#)

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## Online Training Available

<https://pmu.ifas.ufl.edu/>

<https://eces.ifas.ufl.edu/>

## PMU-Deltak Partnership

We are off to an exciting New Year! We have been working with Deltak (<http://www.deltak-innovation.com/>) for over a year to professionally manage course registrations and CEU tracking for PMU attendees. What does this partnership mean?

- We can accept credit cards for registration
- Online registration and confirmations
- PMU CEUs tracked indefinitely for each PMU registrant
- Beautiful, new website with new possibilities for communication and training
- Same quality courses, same newsletter frequency, same access to instructors at the same URL

Please visit us at: <https://pmu.ifas.ufl.edu/>

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## PMU Focus - Termites

By Michael Bentley, [volcum1@ufl.edu](mailto:volcum1@ufl.edu)

It's hard to believe that January 2013 is already here! For some, a new year means finally having to face those dreaded new year resolutions. But for seasoned pest management

## Additional Resources

University of Florida  
Extension Publications

<http://edis.ifas.ufl.edu/>

Pest Management in  
and Around Structures

<http://www.eXtension.org/>

professionals (PMP's), January means termite swarming season is right around the corner. In the pest management industry, swarming termites can mean promising revenue sources, or missed financial opportunities. The name of the game this time of year is preparation. Never underestimate the importance of reviewing basic termite biology, identification tips, and equipment information before the time comes to responding to your first swarm call.

**Basic Termite Biology:** Termites can be found in every U.S. state with the exception of Alaska. The most commonly encountered termite is the Eastern subterranean termite (*Reticulitermes flavipes*), but several other species do regularly occur. Termites, like ants, are social insects. This means they have overlapping generations, cooperative brood care, and castes (Fig. 1). Termites are cryptobiotic (i.e., "hidden life-style") making infestations difficult to locate at times. They communicate using special chemicals called pheromones. Termites use a process known as trophallaxis in order to share resources. These feeding and behavioral traits are important in helping to shape the way we try to control termites today. Termite can be beneficial in the right context. They play a significant role in helping to break down cellulose (trees) and other organic matter.

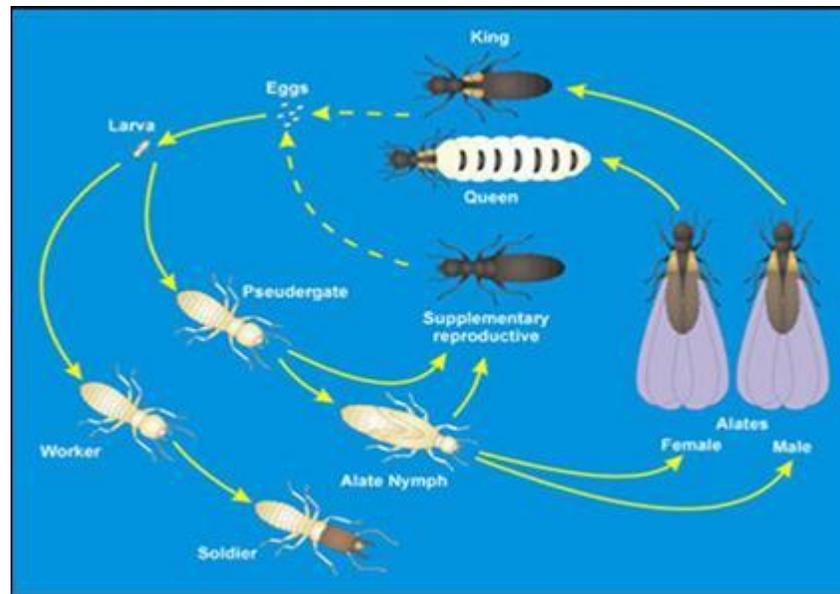


Fig 1. Termite life-cycle. Photo: Nan-Yao Su and Rudolf H. Scheffrahn, UF

Termite Identification: The first step when facing a potential termite issue is to be certain you are actually dealing with a termite. Ants and termites can look similar to those who are unfamiliar with them. There are three great tips to remember that should help to make field identification a bit less stressful. Each ID tip usually involves the use of a hand lens of some sort, so keep one in the field tool box at all times.

Ants and termites have uniquely different antennae. In ants, the antennae have a distinct bend or "elbow" (Fig. 2A, 2B). Ants have distinctly longer forewings (front wings) than hind wings (Fig. 2B). Also, ants have a "pinched" or constricted waist.

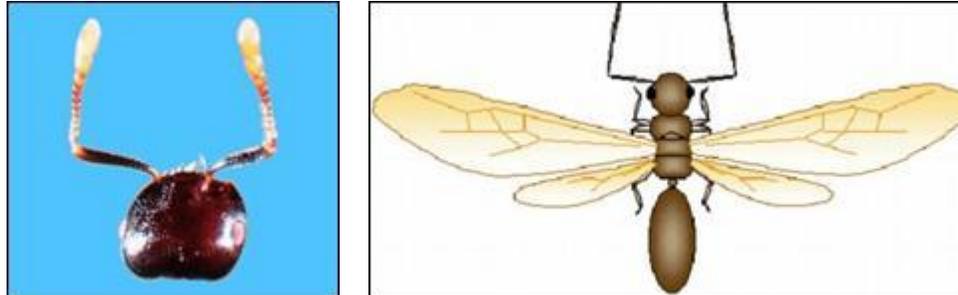


Fig. 2A. Ant; beaded antenna. Fig. 2B: Forewing longer than hind wing. Waist constricted. Photo credit: UF.

In contrast, termite antennae are straight and beaded (Fig. 3A, 3B). Termite wings are equal sized, and they have a broad waist (Picture 3B).

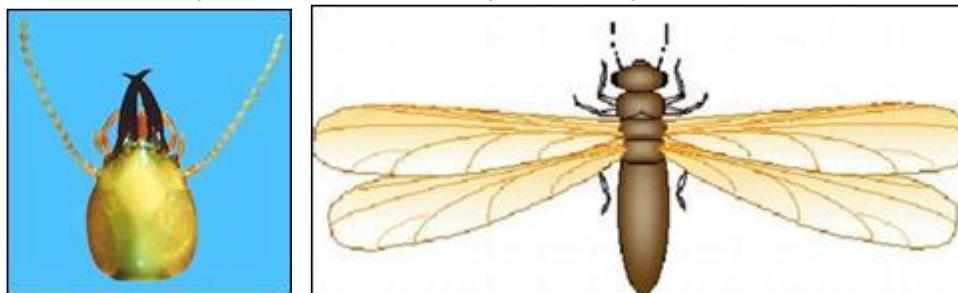


Fig. 3A: Termite; straight antenna. Fig. 3B: Wings equal length. Waist broad. Photo credit: UF.

It is also important to know whether you are dealing with subterranean or drywood termites. This distinction is paramount in determining your course of treatment. At this stage, it is necessary to collect soldier or alate ("winged") termites (Fig. 1 for caste ID). Drywood termites have three sclerotized (dark, thickened) veins coming from the attachment point of their wing (Fig. 4). Subterranean termite wings only have two sclerotized veins coming from the attachment point (Fig. 5).



Fig. 4. Drywood Termite wing, UF.



Fig. 5. Subterranean termite wing;  
University of Hawai'i.

Even without termites present, "frass" (termite droppings) or wood damage can be used as evidence of subterranean or drywood termites. Smoothly excavated wood or small pellet like frass will indicate the presence of drywood termites (Fig. 6a). Inversely, roughly excavated wood with evidence of mud confirms the presence of subterranean termites (Fig 7). This information is a brief review and barely represents the tip of the iceberg when dealing with termites. For more information on termites, click [here](#).



Fig. 6a. Drywood termite damage.  
Photo credit: Vernard R. Lewis, UC Berkeley



Fig. 6b. Drywood termite frass.



Fig 7. Subterranean termite damage.

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## Upcoming Training Opportunity:

### Foundations of Termite Management

Learn how termites exploit over 50 building construction elements and how to treat them in a hands-on environment in 2-days instead of 2 years.

- Practice doing a DACS vehicle inspection and spill drill with Paul Mitola from DACS before a crisis occurs.
- Hear about the top 10 reasons technicians get in trouble and how to avoid them from Mark Ruff, industry attorney.
- Get more in-depth information on termite biology and behavior as well as product label navigation. Class duration: 2.5 days.

**Date: Jan 30-Feb 1, 2013; W-F**

**Place: UF/IFAS Apopka MREC**

**Time: 8 AM-5 PM (W, TH); 8 AM-12 PM (F)**

**Cost: \$350**

[Register here](#)

### **Foundations of General Household Pest Management 101**

Foundations of General Household Pest Management 101: Pest control matters. Cockroach allergen mitigation can be achieved with IPM. Class duration: 2.5 days.

- Study domestic and peridomestic cockroach species and how to control them as well as rodent, small fly, filth fly, fire ant and nuisance ant management.
- Review the labels of commonly used GHP products, practice pest inspections at PMU's house and develop treatment strategies focused on IPM.
- Do a vehicle inspection and spill drill with Paul Mitola from DACS.

**Date: Feb. 20-22, 2013; W-F**

**Place: UF/IFAS Apopka MREC**

**Time: 8 AM-5 PM (W, TH); 8 AM-12 PM (F)**

**Cost: \$350**

[Register here](#)

### **WDO Inspections and Form 13645**

Improperly completed 13645 forms are a leading cause of litigation for pest control. Foundations recommended, but not required. Class duration: 1.5 days.

- Do an inspection at PMUs house for WDOs with Paul Mitola from DACS
- Learn the proper determination of "live, damage and evidence" and how to use DACS

13645.

- Learn from industry attorney Mark Ruff about the legal ramifications of an incomplete WDOI, using case studies and a mock trial video.
- Review WDO biology and behavior.

**Date: Mar 21-22, 2013; W-F**

**Place: UF/IFAS Apopka MREC**

**Time: 8 AM-5 PM (TH); 8 AM-12 PM (F)**

**Cost: \$195**

[Register here](#)

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## Learn more from IFAS



- UF/IFAS has Extension Offices in each of Florida's sixty-seven counties. We also have twelve Research and Education Centers (RECs) and Research and Demonstration Sites (RDSs).
- If you need help a great place to start is your local County Extension Office. With an office located in every county it has never been easier to partner with the University of Florida and your local County Government. To find an office near you please visit:  
<http://solutionsforyourlife.ufl.edu/map/>