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Contact Us

Faith Oi

foi@ufl.edu

Nancy Sanders

nsanders@ufl.edu

Entomology & Nematology

Twitter [@UFEntomology](#)

[Facebook UFEntomology](#)

Online Training Available

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

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

Additional Resources

University of Florida
Extension Publications

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

Pest Management in and
Around Structures

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

Stinging Insects

By Mike Bentley



Figure 1. Adult honey bee worker. Photo: M. Bentley, University of Florida.

Stinging insects such as bees (Fig. 1) and wasps are most active in Florida during the summer and fall. To help you avoid the painful “sting” of season, this newsletter will review the identification and behavior of Florida’s more common stinging insects.

PMU Focus -Bees and Wasps

Bees and Wasps

Most bees and wasps are considered beneficial because they serve as essential pollinators or because they prey on harmful pests found around homes and gardens. Therefore, bees and wasps should be preserved if they do not pose a direct hazard to humans. If disturbed, however, bees and wasps can sting. Knowing how to identify these insects can reduce the likelihood of a painful encounter.

- Commonly encountered bees include [European Honey Bees](#) (Fig. 1), [bumble bees](#) (Fig. 2A), and [carpenter bees](#) (Fig. 2B).
- Honey bees are eusocial bees that commonly nest in pre-existing enclosed spaces such as tree-holes or wall voids.
- Bumble bees are social bees with colonies (≤ 400 individuals) that nest underground.
- Carpenter bees are non-social bees that commonly construct nests in trees or in the frames of buildings.

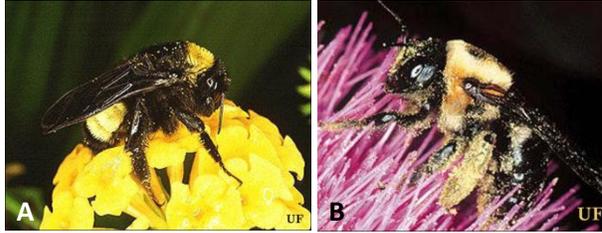


Fig 2. A.) Bumble bee. B.) Carpenter bee. Photos: UF, J. Castner.

- Commonly encountered wasps include yellow jackets (Fig. 3A), paper wasps (Fig. 3B), and mud daubers (Fig. 3C).
- Yellow jackets are social wasps with yellow and black markings that may construct nests above or below ground.
- Paper wasps are social wasps with a mix of red, yellow, and black markings that construct nests under eaves or within shrubbery.
- Mud daubers are non-social wasps that are black with a long thin waist, and construct nests made of mud that are typically located on the sides of structures or under eaves.
- For more information on the behavior and management of these wasps, click [here](#).



Fig 3. A.) Yellow jacket. B.) Paper wasp. C.) Mud dauber. Photos: UF, J. Castner.

Florida also is home to other stinging arthropods including several species of scorpions, spiders, ants, and caterpillars (the saddleback and the puss caterpillar). For more information on the identification and control of scorpions, spiders, wasps and ants, click [here](#).

For more information on the saddleback caterpillar, click [here](#).

For more information on the puss-moth (AKA: the Southern Flannel Moth) click [here](#).

Upcoming Training Opportunities:

If you plan on taking the [State Certified Operator examination](#) through PMU, you must take both the Foundations and Masters courses. These courses are open at the website:

<https://pmu.ifas.ufl.edu/courses>. State examinations will be

held on Friday, 1 PM, after the completion of the Masters courses. Click [here](#) for Masters courses.

Application packets are due to FDACS on **Sept 1**. Please write "PMU" across the top of your application.

These are the last Foundations courses for 2015!

Foundations of Termite Management 101 (Course full, waitlist available. Contact Faith: foi@ufl.edu)

Date: Sept 16-18, 2015; Wed-Fri

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

Place: UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

Registration fee: \$375

Foundations of L&O 101 NEW! (Please consider taking the new [L&O Masters](#), Dec 2-4!)

Date: Sept 23-25, 2015; Wed-Fri

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

Place: UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

Registration fee: \$375

- Learn about the general Florida licensing requirements for technicians and sales staff.
- Be able to pass DACS vehicle inspections, practice doing a spill drill, and learn the best ways to minimize risks before, during, and after an application.
- Learn to identify diseases, insects, and weeds in lawns and ornamentals and best management practices for their control.
- Gain hands on experience reading and understanding pesticide labels, calculating treatment areas, and calibrating application equipment for lawns, shrubs, and other ornamental plants.

[Register here](#)

Foundations of General Pest Management 101 (Course full, waitlist available. Contact Faith: foi@ufl.edu)

Date: Sept 30 – Oct 2, 2015; Wed-Fri

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

Place: UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

Registration fee: \$375

OCTOBER OFFERINGS

Master of Termite Management (6 seats remaining)

Date: Oct 14-16, 2015; Wed-Fri

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

Place: UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

Registration fee: \$375

Must have completed Foundations in order to advance. This course is only offered once a year. A special WDO State Examination is offered after the Masters course on Oct 16, 2015, if interested and qualified.

Review termite identification, biology and control and learn about wood-destroying beetles and wood-decaying fungi.

Learn how:

1. To do a proper borate application
 2. Baits work
 3. To use foam and application techniques to optimize the distribution of liquid termiticides in soil with the Bayer University toys
- Hear about the top 10 reasons that certified operators get in trouble and how to avoid them from Mark Ruff, industry attorney.
 -
 - Do an inspection for WDOs at PMU's house designed to challenge even experienced inspectors.
 -
 - Practice a licensee inspection with a DACS inspector and learn about the duties of a certified operator.

[Register here](#)

Master of General Household Pest Management (Course full, waitlist available. Contact Faith: foi@ufl.edu. GHP Expert, Dec 2-4, 2015. Next time will be 2017. [Sign up now!](#))

Date: Oct 28-30, 2015; Wed-Fri

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

Place: UF/IFAS Apopka MREC, 2725 S. Binion Rd, Apopka, FL 32703-8504

Registration fee: \$375

This fast-paced class is only offered once a year. Must have completed Foundations in order to advance.

- Learn about biting and stinging insects, stored product pests, and occasional invaders as well as how to recognize delusory parasitosis.
- Play with the tools of the trade, vacuums, steamers, foamers and practice spray patterns.
- Prepare for an introduction to vertebrate pests that carry disease causing organisms.
- Practice affidavit writing and working with DACS on licensee inspections.
Review labels of commonly used products including changes in pyrethroid and rodenticide labels.

Click on "Register here" for course descriptions or go to <http://pmu.ifas.ufl.edu/courses> for more information

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/>

