

In This Issue

- [Invasive Species](#)
- [PMU Focus – The Hybrid *Coptotermes* Termite](#)
- [Upcoming Training Opportunities](#)
- [PMU Proposed Schedule](#)
- [Learn More From IFAS](#)

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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/>

Invasive Species

By Mike Bentley

There are +50,000 [invasive species](#) established in the United States. Invasive species are responsible for nearly \$120 billion dollars in environmental and agricultural damage annually. To improve awareness and education of some of the top invasive pests inhabiting the U.S., this newsletter will be the first of a three-part series on invasive species. In this issue we highlight the recently discovered hybrid *Coptotermes* termite.

PMU Focus -The Hybrid *Coptotermes* Termite

The [Formosan subterranean termite](#) (*Coptotermes formosanus*) and the [Asian subterranean termite](#) (*Coptotermes gestroi*) are two of the world's most damaging invasive species that cause hundreds of millions of dollars in structural damage annually. While both species have spread to many areas of the world, South Florida is one of only three invasive regions where their distributions overlap (Fig. 1).

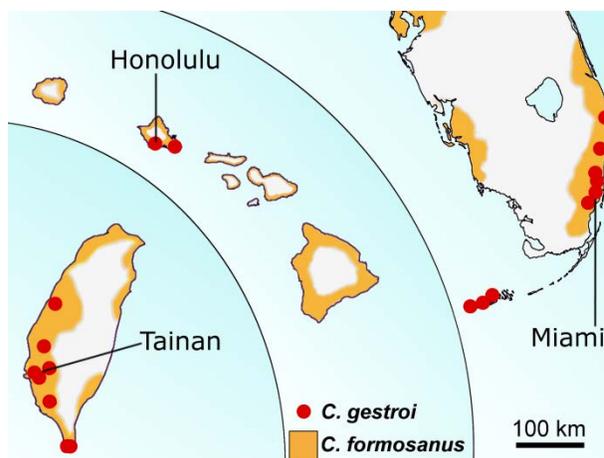


Fig. 1. Distribution of *C. formosanus* and *C. gestroi* in three areas of the world where their distributions overlap. DOI: 10.1371/journal.pone.0120745.g001.

It was previously thought that the Formosan and the Asian termite experienced distinct [swarming seasons](#) in South Florida

that prevented any interspecies interaction. In 2014, researchers observed [alates](#) of both species swarming simultaneously. In addition, Asian termite males appeared to prefer mating with Formosan termite females. When both species of termite were brought back to the laboratory for evaluation, researchers found that the Asian and Formosan termite were capable of producing hybrid offspring (Fig. 2).

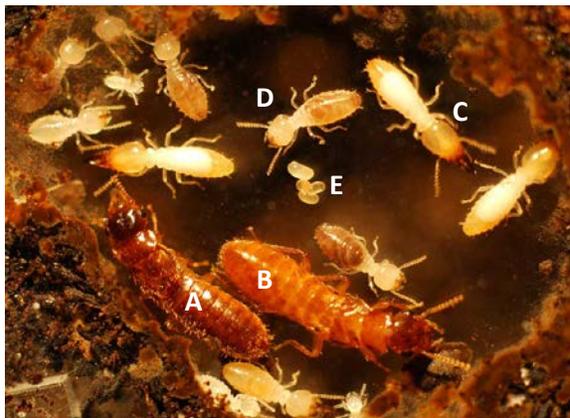


Fig. 2. Different caste members of hybrid *Coptotermes* species termites. A.) Male *C. gestroi* reproductive. B.) Female *C. formosanus* reproductive. C.) Hybrid offspring soldier. D.) Hybrid offspring worker. E.) Hybrid *C. species* eggs. Photo: UF/IFAS, T. Chouvinc.

A major concern among researchers is that overlapping swarm seasons and the preference for Asian termite males to mate with Formosan termite females could lead to the establishment of highly vigorous hybrid *Coptotermes* populations in South Florida that can develop twice as fast as either parental species. Theoretically, the establishment of hybrid *Coptotermes* populations could lead to a substantial increase in structural damage.

While these concerns are valid, researchers caution that they are still in the early stages of investigating the biology and behavior of this hybrid *Coptotermes* termite species. Furthermore, all laboratory observations must still be confirmed in the field before strong conclusions can be made about the destructive potential of this termite.

Currently, the hybrid *Coptotermes* species is only known to occur in select regions of South Florida (Fig. 1). To monitor the potential spread and distribution of this invasive pest, researchers ask that you capture any swarming termites you encounter and mail them in a sealed Ziploc bag to:

Ft. Lauderdale REC
3205 College Ave.
Davie, FL, 33314

To read the original published article describing the hybrid

species, click [here](#). To see a C. Gestroi swarm: click [here](#).

Upcoming Training Opportunities:

After the June courses, our next courses will be held at the end of August. Don't wait! The one-day courses are ideal for new employees and will help fulfill the 40 hour training requirement for new ID card holders.

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 Termite and GHP Masters courses.

Application packets are due to FDACS on:

- Sept 1 for the WDO exam
- Sept 15 for the GHP exam

Please write "PMU" across the top of your application.

General Household Pests Basics 100

Date: June 25, 2015

Time: 8 AM-5 PM (TH)

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

Registration fee: \$175

This one-day class is geared for the new technician, sales, or office staff. Additionally, this class will help fulfill the 40 hour training requirement for new ID card holders.

- Learn about the general Florida Statute 482 requirements for technicians and sales.
- Learn the basics concepts Integrated Pest Management.
- Learn how to monitor and make decisions about treatment.

[Register here](#)

Termite Basics 100

Date: June 26, 2015

Time: 8 AM-5 PM (F)

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

Registration fee: \$175

This one-day class is geared for the new technician, sales or office staff. Will help fulfill 40 hour training requirement for new ID card holders.

- Learn about the general Florida Statute 482 requirements for technicians and sales staff.
- Be introduced to basic termite biology and behavior in the context of structural infestations.
- Learn to determine different slab types in the field and the common ways termites enter structures
- Practice basic methods for treatment

[Register here](#)

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 (RDSSs).
- 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/>