

# Leatherleaf slugs: A Threat to Florida



Image Credit: David Robinson, Terrestrial Mollusc Tool. USDA-APHIS-PPQ



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# Introduction to Slugs



Image Credit: Bonsak Hammeraas, Bioforsk - Norwegian Institute for Agricultural and Environmental Research, Bugwood.org, #5393372



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# Life cycle of Slugs



Chain of eggs around a clutch



Loose clutch

Image Credit: Lyle Buss, University of Florida



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# Damage Caused by Slugs

- Cause ragged, irregular holes
- Can girdle saplings and branches
- Can reduce quality and yield of crops
- Can transmit nematodes that cause severe health issues in humans



Image Credit: John Capinera, University of Florida



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# Monitoring for Slugs

- Visual inspection is the best method for monitoring for slugs
- Traps also work
  - Platforms
  - Baited traps
  - Trap crops
  - Trash traps



Image Credit: Andrew Derksen, FDACS



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# Leatherleaf slugs of concern

- Cuban Slug (*Veronicella cubensis*)
- Sloan's Slug (*Veronicella sloanei*)
- Florida Leatherleaf (*Leidyula floridana*)

Cuban slug



Sloan's slug



Florida leatherleaf



Image Credit: Cuban slug - David Robinson, USDA –APHIS-PPQ , Terrestrial Mollusc Tool; Florida leatherleaf - Lyle J. Buss, University of Florida; Sloan's slug - Robert Pilla, Terrestrial Mollusc Tool



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# Cuban Slug



Image Credit: David Robinson, Terrestrial Mollusc Tool. USDA-APHIS-PPQ



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# Distribution of Cuban Slug

- This pest is found in the Caribbean and the Pacific Islands
- It has been intercepted but not considered established in Louisiana and Florida
- It was intercepted in Santa Barbara County, California in 2006 and may be established there now





# Hosts of Cuban Slug include...

- Soursop
- Breadfruit
- Star fruit
- Cabbage
- Papaya
- Yam
- Hibiscus
- Lantana
- Cassava
- Mango
- Lettuce
- Sweet potato
- Taro
- Citrus
- Coffee
- Banana



# Sloan's Slug (aka Pancake Slug)



Image Credit: Robert Pilla, Terrestrial Mollusc Tool



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# Distribution of Sloan's Slug

- This pest can be found in the Caribbean Islands
- It can also be found in some countries in Central and South America
- It has been reported in South Florida, BUT IS NOT CONSIDERED ESTABLISHED THERE



# Hosts of Sloan's Slug include....

- Peanut
- Papaya
- Carrot
- Yams
- Gardenia
- Plantain
- Hibiscus
- Eggplant
- Lettuce
- Tomato
- Bean
- Dasheen
- Pepper
- Pea
- Spinach
- Bougainvillea



# Florida Leatherleaf



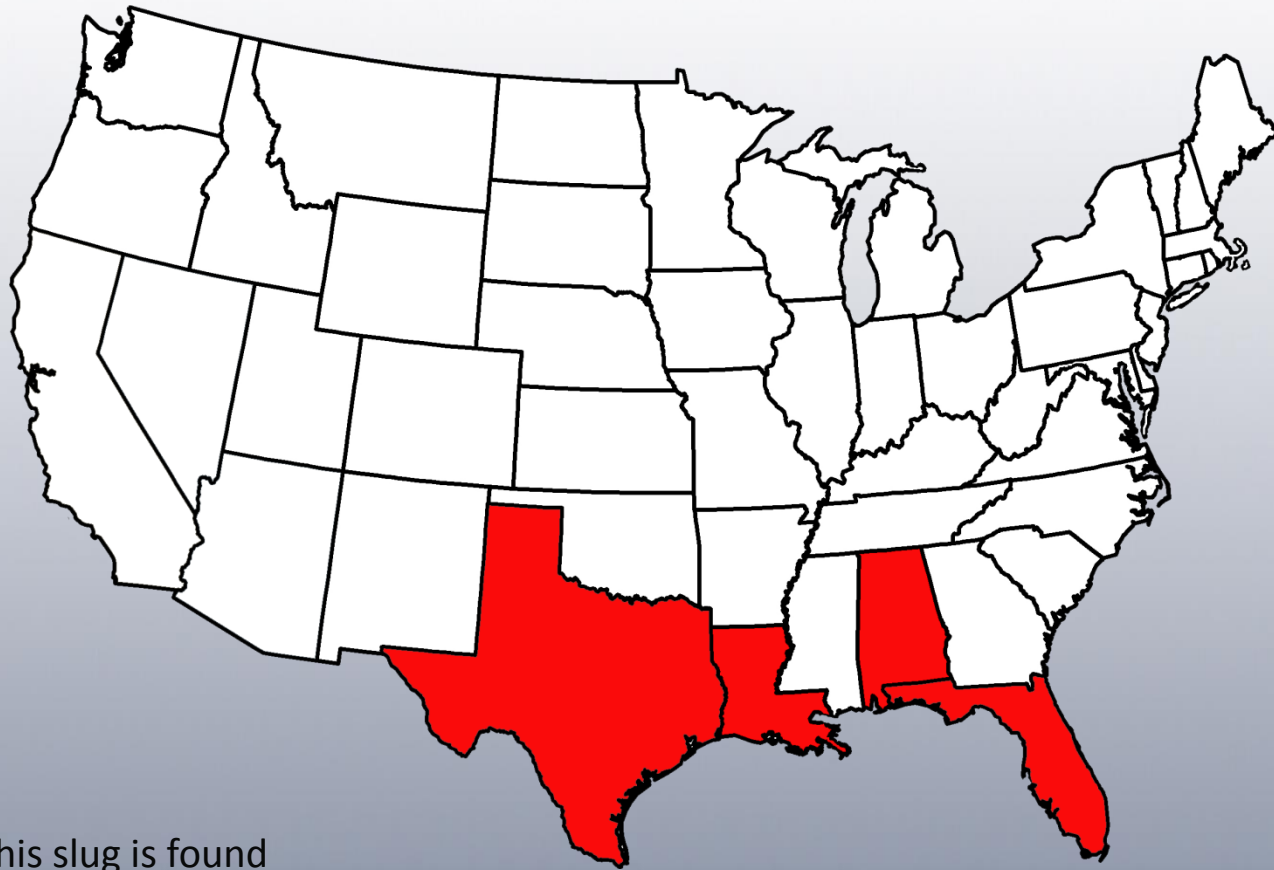
Image Credit: Lyle J. Buss, University of Florida



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# Distribution of Florida Leatherleaf in the U.S.



■ States where this slug is found



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# Hosts of Florida Leatherleaf

- An exact host list is not known, but it is a pest of pest of potatoes in Cuba and beans, tomatoes, and ornamental plants in some areas.
- Not known to cause economic damage in Florida.



# Authors

Stephanie Stocks, M.S.

Department of Entomology and Nematology,  
University of Florida.

Shweta Sharma, PhD.

Department of Entomology and Nematology,  
University of Florida.

Andrew Derksen, M.S.

Pest Survey Specialist, Florida Department of  
Agriculture and Consumer Services.



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# Reviewers

John Capinera, Ph.D.

Department of Entomology and Nematology,  
University of Florida.

Kevin Williams, Ph.D.

Florida Department of Agriculture and  
Consumer Services, Division of Plant Industry

Paul Skelley, Ph.D.

Florida Department of Agriculture and  
Consumer Services, Division of Plant Industry



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# Collaborating Agencies

- U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA-APHIS)
- Cooperative Agricultural Pest Survey Program (CAPS)
- Florida Department of Agriculture and Consumer Services (FDACS)
- National Plant Diagnostic Network (NPDN)
- Sentinel Plant Network (SPN)
- Protect U.S.
- University of Florida Institute of Food and Agricultural Sciences (UF-IFAS)



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