Cooperative Agricultural Pest Survey

A Program to Detect Plant Pests And Diseases of Regulatory Concern

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Mollusk Survey 2017 & 2018

Mollusk targets

Belocaulus spp.
Colosius spp.
Laevicaulus spp.
Sarasinula spp.
Semperula spp.
Veronicella spp.
Monacha spp.
Cernuella spp.
Cochlicella spp.
Lissachatina fulica
Meghimatium pictum

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Lissachatina fulica
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Leatherleaf Slugs

Bill Frank, http://www.jaxshells.org

Robinson and Hollingsworth, 2004

David Robinson, USDA-APHIS-PPQ

Michal Maňas, wikipedia.org

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Helicid snails, Maritime garden snails, & Pointed snails

Lŭboš R. Kolouch, Bugwood.org

David Robinson, USDA-APHIS-PPQ

L. Poggiani, HU www.lavalledelmetauro.itU

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Giant African Snail

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Chinese slug

Paulo Lenhard, Project AM, http://terrslugs.lifedesks.org/pages/31164

Mollusk survey rationale

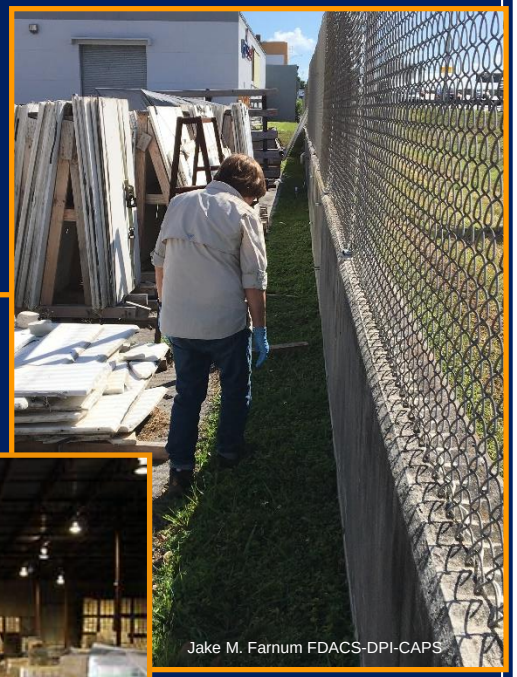
- 2012-2017
  - Total U.S. POE Interceptions of Target Genera: **6581**
    (AQAS, ARM 2017)
  - Total Florida POE Interceptions of Target Genera: **956**
    (AQAS,ARM 2017)
    - Port Everglades, Miami Seaport, Miami Airport, Miami PIS

*AQAS: Agriculture Quarantine Activity System

*ARM: Agricultural Risk Management

- Markets exist for snails and slugs as food, pets, medicinal purposes, and other niches

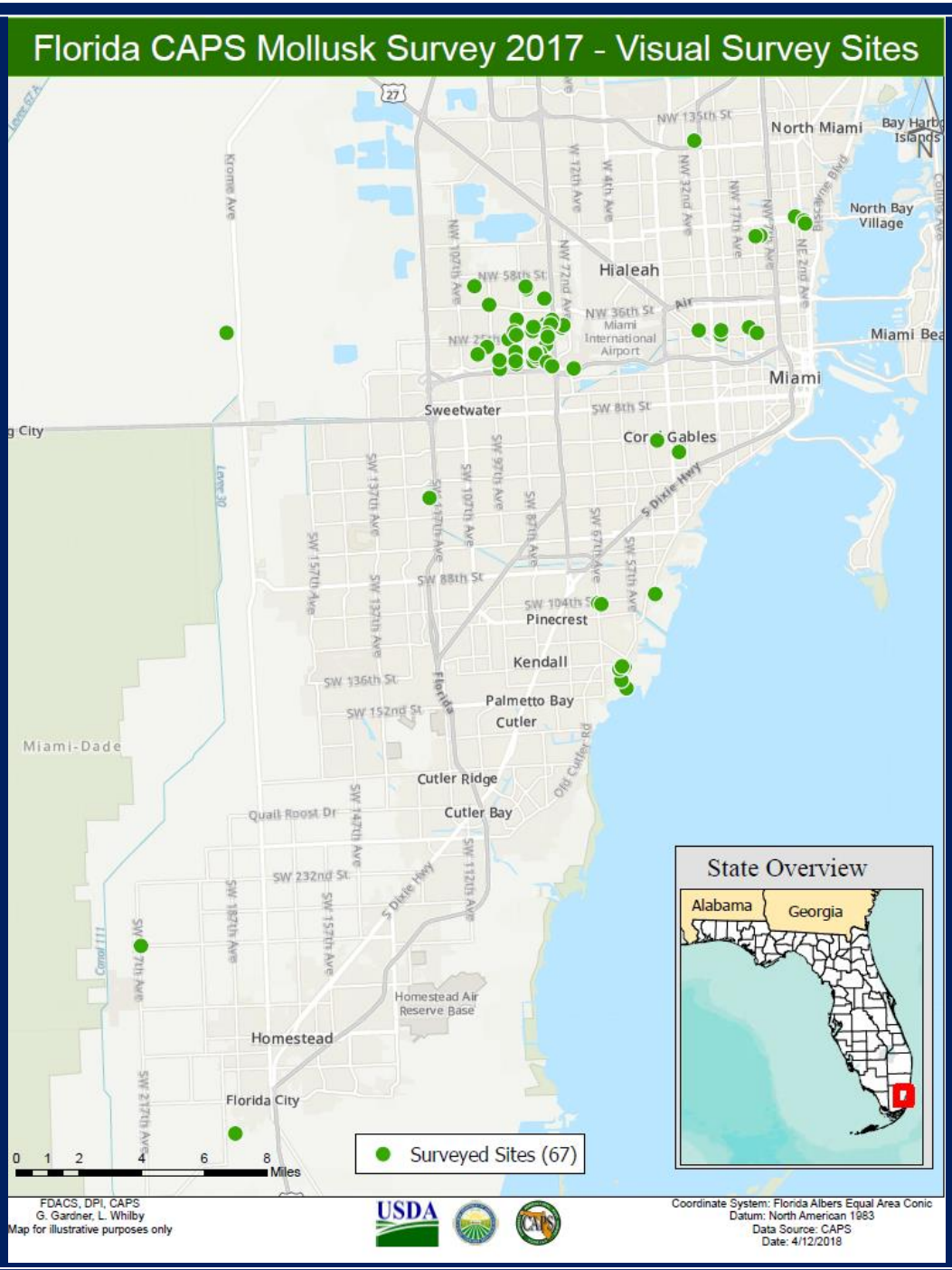
Mollusk survey methods


Jake M. Farnum FDACS-DPI-CAPS

- Visual & hand collection
- High Risk sites:
  - Tile import warehouses
  - Port of Entry environs
  - Nurseries, cut flowers
  - Machinery, military

Joe Beckwith USDA

- Targets prefer cool & damp environmental conditions
- Heavily vegetated areas, gardens, under objects that loosely contact the ground surface

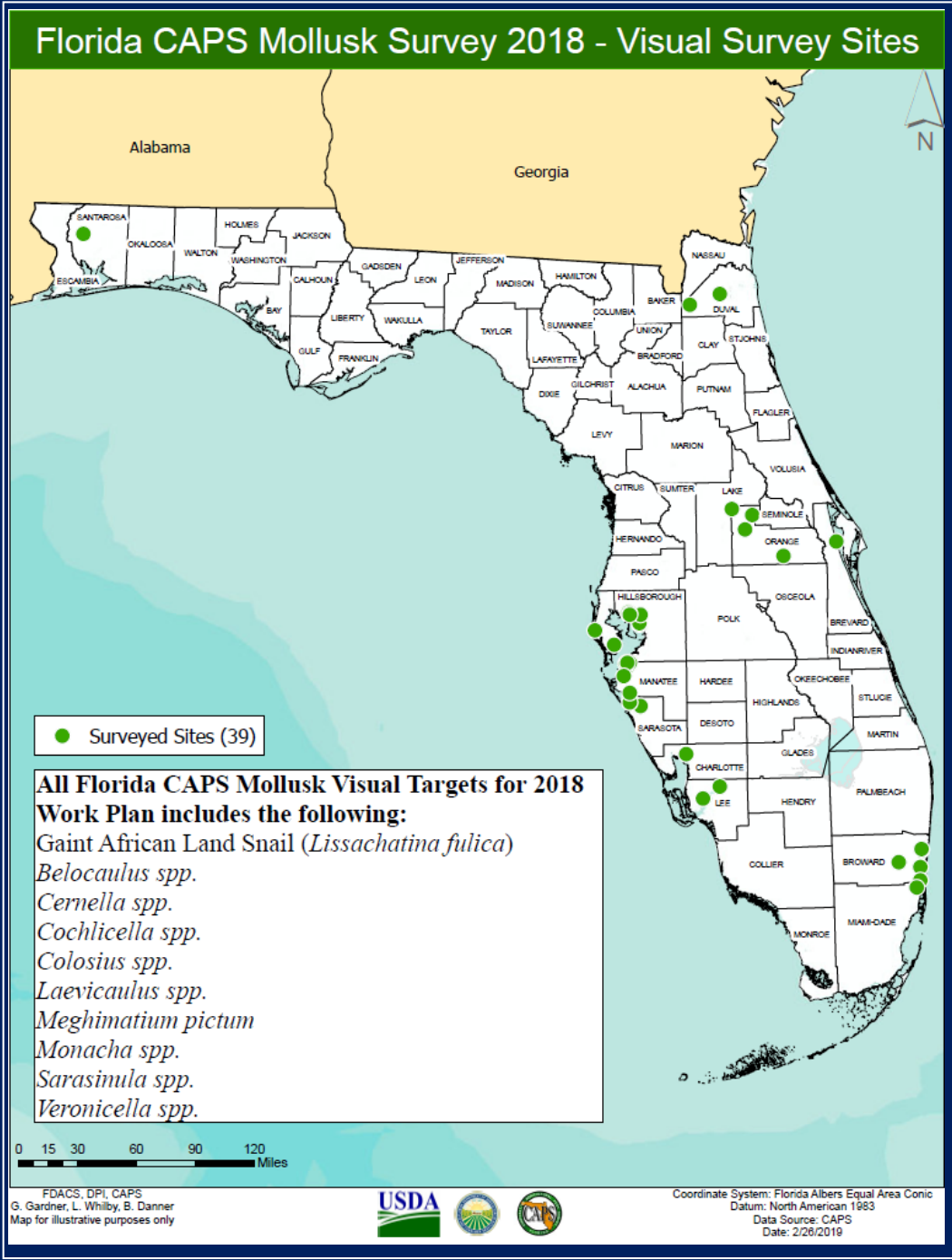


2017 Mollusk survey Blitz

Miami-Dade Co.

67 sites were surveyed

- Nurseries
- Produce importers
- Tile/stone
- Port environs



2018 Mollusk survey by Area

12 counties: Brevard, Broward, Charlotte, Duval, Hillsborough, Lee, Manatee, Miami-Dade, Orange, Pinellas, Santa Rosa, Sarasota

39 sites were surveyed

Mollusk survey results

2017	2018
40 samples collected	2 samples collected
214 specimens	21 specimens

<u>No targets were found</u>

Mollusk Survey 2019 Workplan

Target list 2018:

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Cernuella spp.
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- Added (for 2019):
  - *Cernuella varigata*
  - *Eobania vermiculata*

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Maritime garden snail

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Chocolate band snail

Cooperative Agricultural Pest Survey

What are your thoughts?

What other pests use these pathways?

Are there resources not being utilized?

How do we improve?

Thank You!

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