



The non-native flatworm *Platydemus manokwari* in Florida: Risks for Our Native Land Snails and Residents

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What is Platydemus?



Shinji Sugiura, Ogasawara Islands Japan

Appearance and Reproduction



Size



Hunting, Feeding, & Prey





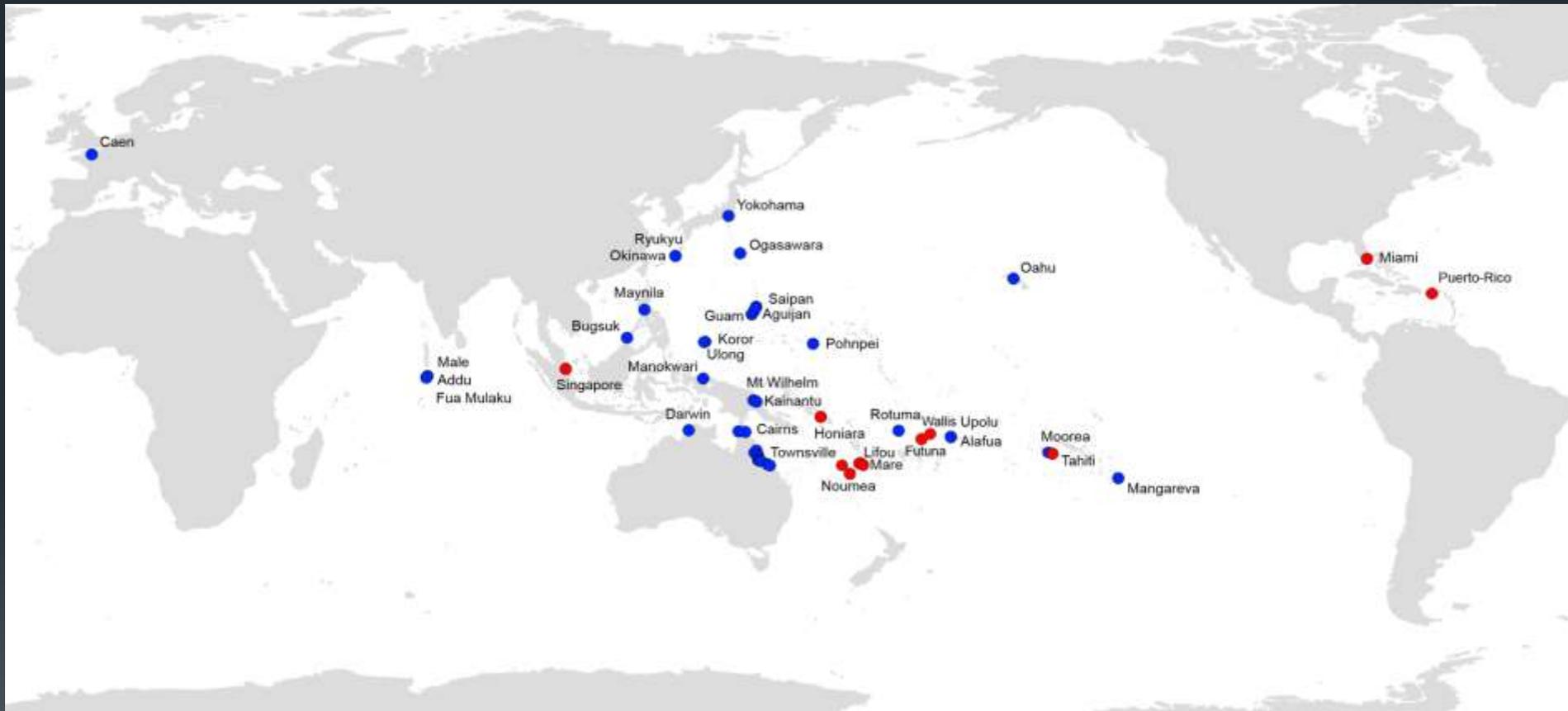
Concerns regarding *Platydemus*:

- In other regions where it has been introduced, it has been considered the cause of extinction and/or dramatic decline of native species, particularly snails (e.g. Cowie, 2008)
- Is considered one of the World's 100 worst invasive species (Global Invasive Species Database)
- Can carry *Angiostrongylus*, which infects humans

First report of *Platydemus manokwari*



Travels of *Platydemus manokwari*

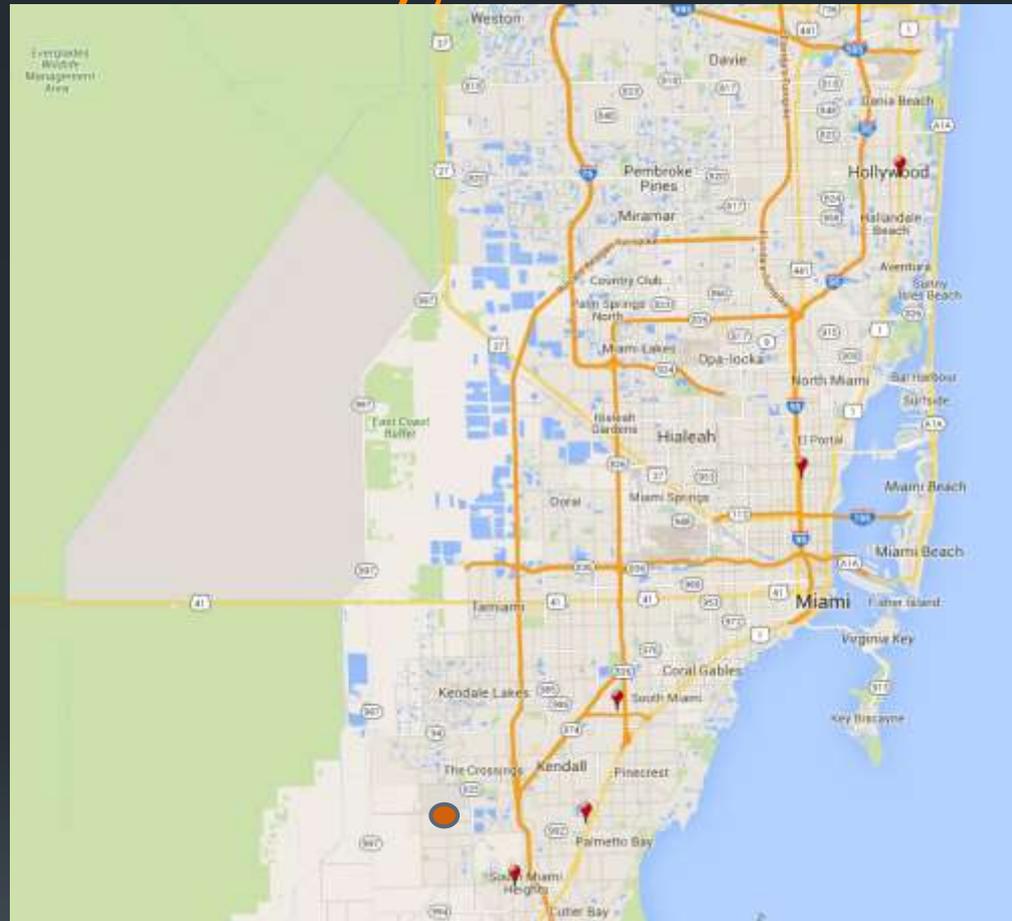


How is *Platydemus* spreading?

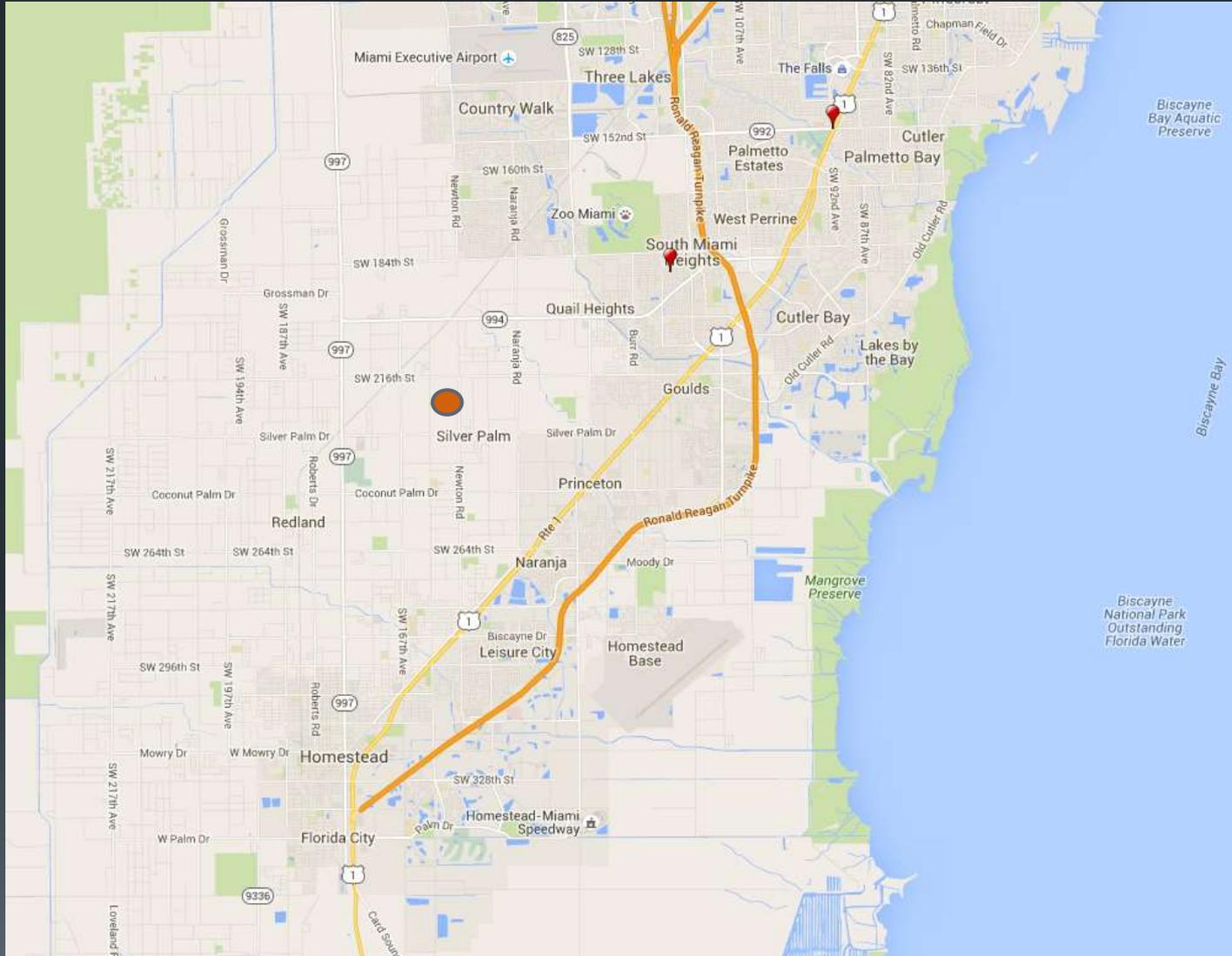
- Reported rate of natural dispersal limited, between 30 (Winsor, 1990) and 180 Meters per year (Muniappan, 1987) over suitable habitat/conditions
- Other routes are accidental or intentional introduction



Platydemus reported in South Florida January, 2015



Platydemus in Castellow Hammock



Castellow Hammock



Castellow 33 Aug.-Sept. 2015



Castellow 33 Aug.-Sept. 2015



Genetic Analysis confirms ID of Platydemus from Castellow 33



Camp Owaissa Bauer Addition



What needs to be done:

- Determine full extent and continuity of populations of *Platydemus*, especially near populations of species such as *Liguus* and *Orthalicus*.
- Determine precise human-mediated mechanisms of spread and intervene if possible (e.g. Phytosanitary measures).
- Halt movement of plants from infected areas to uninfected natural areas
- Assay population health of *Liguus* and *Orthalicus* in as many natural areas as possible
- Establish monitoring/bait stations in sensitive natural areas to assay presence of *Platydemus*
- Check *Platydemus* populations for presence of parasites/pathogens.



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