

# PEST PREVENTION TRAINING

An advanced education program for those on the front lines protecting Hawai'i

## Milk Snail

Otala lactea

# Not known to be present in Hawai'i

Milk snails are large fruit and plant feeding snails that do particularly well in Mediterranean climates. Due to their reproductive potential, they can spread quickly.



Photographer: Valerie Bugh Source: www.austinbugs.com Copyright: Valerie Bugh



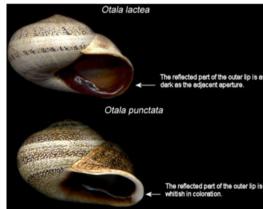
## **Impacts**

- Otala lactea is a fruit and plant feeding snail, which is more of a nuisance in small populations.
- In California, which has a Mediterranean climate similar to the snails native range, it is a more serious pest. This species can produce an average of 66 eggs per clutch, and two clutches per month, depositing them in loose soil. It is adapted to arid conditions, so it can aestivate on stones and shrubs until suitable conditions return.



### Identification

 Otala lactea, is a large, terrestrial ,and air-breathing snail that feeds on plants. The shell of Otala lactea can be quite variable in coloration but is usually light brown with dark brown lines that spiral along the shells whorls.



Comparison of Otala lactea (Müller, 1774) and Otala punctata(Müller, 1774). Photograph by Bill Frank, Jacksonville Shell Club.







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### **Vectors/Commodities**

- Potted plants
- Ceramic tiles, at a plant packed for export, attract numerous snails living in the adjacent waste ground. The snails are drawn into the high humidity environment within the plastic wrapping and under the wooden pallets.



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## Distribution

- This species is found throughout North America, Bermuda, and Spain. This species is known to thrive mainly in Mediterranean-like climates.
- Present in the varying distribution in CA, FL, GA, KY, LA, MD, MO, MS, NY, OH, PA, TX and VA



# **Best Managment Practices**

- This species is not known to occur in Hawaii. Prevention and early detection efforts protect Hawaii's nursery industry, environment, and community.
- Consider sourcing options and pest distribution when purchasing plants.
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- Survey: Inspect and survey imported ceramic tiles coming from the continental US and/ or European based points of origin.
- https://www.aphis.usda.gov/plant\_health/permits/downloads/snails\_containmen t\_guidelines.pdf



#### Selected References:

- Texas State University: http://www.tsusinvasives.org/home/database/otala-lactea
- $\bullet \quad \text{University of Florida: https://entnemdept.ufl.edu/creatures/misc/gastro/terrestrial\_snails.htm}\\$
- USDA Animal and Plant Health Inspection Service: https://www.npdn.org/system/files/WPDN%20Robinson%20two%20cases%202015.pdf
- UH College of Tropical Horticulture and Human Resources: https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-39.pdf

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