

PEST PREVENTION TRAINING

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

Chinese slug

Meghimatium pictum

Not known to be present in Hawaiʻi

The Chinese slug is an agricultural pest that reaches unusually high densities. This slug has the potential to carry the parasite that causes rat lungworm.



Meghimatium pictum specimen (Paulo Lenhard, Project AM



Impacts

- The slug feeds on more than 500 types of plants, including: peanuts, beans, peas, cucumbers, and melons.
- If fruits and vegetables are not available, the snails will eat a wide variety of ornamental plants, tree bark, and even paint and stucco on houses.
- M. pictum has the potential to carry the parasite that causes rat lungworm disease. A closely related species, Meghimatium bilineatum, which has been reported as a host of Angiostrongylus cantonensis (rat lungworm) Angiostrongylus cantonensis can cause symptoms similar to meningitis in humans, including headache, stiff neck, tingling or painful feelings in the skin, low grade fever, nausea, and



Identification

- The mantle covers the entire back of this family. "There is a large shell sac, but no shell, and the foot sole is undivided. (Runham and Hunter, 1970). This species is a relatively small and slender slug. The extended length is up to 6 cm (approx. 2 /8 in) long and 1.5 cm (approx. /16 in) wide.
- The color of the mantle ranges from yellowish to opaque beige, with two dark brown to black lateral stripes and one medial line, often lighter than the lateral ones. Below the lateral stripes (laterally) and surrounding the central medial stripe (dorsally) are scattered dark brown irregular spots or even short

lines.

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Vectors/Commodities

- This species is polyphagous and known to primarily feed on Vitis labrusca (fox grape) and Vitis vinifera (grape).
- Terrestrial mollusks do not show host specificity and can feed on multiple crops as well as other materials, like decaying organic matter.



Distribution

- Asia: China, Malaysia, Taiwan, and Thailand.
- South America: Argentina and Brazil. This species is possibly found in India as well



Best Managment Practices

- This species is not known to occur in Hawaii. Prevention and early detection efforts protect Hawaii's nursery industry and environment.
- Consider sourcing options and pest distribution when purchasing plants.
- BOLO: Be on the lookout! Carefully inspect all potted plants for slugs. Routine nursery surveys are a proactive way to detect the presence of new pests.
- Quarantine new plants: Like other invasive pests and diseases, this species could enter the new areas as hitchhikers.
- Search in heavily vegetated areas near where feeding damage has been observed, under debris, rocks, pots, and other areas where slugs/snails seek refuge.
- Trapping cannot be used alone but can be used to supplement visual surveying. Traps are not species-specific and will attract non-target species, including non-mollusks. Trap placement can occur in the same areas that visual surveys occur.
- Manage slug and snail populations by limiting the number of places slugs and snail can hide in. Remove unnecessary groundcover, cut back vegetation, and remove unnecessary items stored in contact with the ground.



Report any suspect slugs to 643pest.org or by phone 643-PEST (7378).

- UH College of Tropical Horticulture and Human Resources: Best On-Farm Food Safety Practices: Reducing Risks Associated with Rat Lungworm Infection and Human Eosinophilic Meningitis https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-39.pdf
- Invasive Species Compendium: https://www.cabi.org/isc/datasheet/121749
- Animal and Plant Health Inspection Service http://download.ceris.purdue.edu/file/2556
- https://www.scielo.br/j/cr/a/n7dt3MLptxqFmk4vNvvjq3d/?lang=en&format=html

This material was made possible, in part, by a Cooperative Agreement from the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). Itmay not necessarily express APHIS's views.



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Meghimatium pictum specimen (Paulo Lenhard, Project AM

