

### *Parmarion martensi*



Common name: Semi-slug  
High *A. cantonensis* infection prevalence. Found in wet areas on Oahu, Hawaii, and Maui. Cannot tolerate dry environments. Adults up to 50 mm in length. Can be found beneath the bark of coconut and banana trees, under loose wood and plastic. Also found inside discarded coconut shell halves on the ground. Color various shades of mottled gray. The yellowish shell is often visible under the mantle slit. Native range Southeast Asia.



Hatchlings very small (<1mm) and translucent.



### *Veronicella cubensis*



Common name: Cuban leatherleaf slug  
Relatively low *A. cantonensis* infection prevalence. Varies greatly in color: light cream to dark brown. A pale line sometimes runs down the back. Lays eggs in the soil. Often found huddled in groups under leaf litter or just below the soil surface. Closely related (same family) to *Laevicaulis alte*. Both widespread in Hawaii. Native range of *Veronicella cubensis* is Cuba.

Below is an example of the color variation in *Veronicella cubensis*. This photograph does not include the entire range of color and pattern variation.



### *Lissachatina fulica*



Common name: Giant African snail  
Commonly infected with *A. cantonensis*. Can be in wet and dry areas. Found at the base of trees, climbing buildings/structures, in leaf litter, among the fruit of papaya trees. Native range East Africa.

### *Laevicaulis alte*



Common name: Tropical leatherleaf slug  
High *A. cantonensis* infection prevalence. Closely related (same family) to *Veronicella cubensis*, with a similar body shape but almost always with a characteristic pale line down the back and a black to dark gray, almost velvety, appearance. Found in hot and dry locations in Hawaii under cardboard/logs or plastics left on the ground. Not as communal as *V. cubensis*, although can be found alongside them. Native range Central Africa.

## *Euglandina rosea*



Common name: Rosy wolfsnail  
High *A. cantonensis* infection prevalence. Found throughout Hawaii; on the ground, in the leaf litter and climbing trees. Carnivorous. They track down and feed on other snails by following their slime trails, consequently ingesting any *A. cantonensis* larvae in their prey. Introduced to Hawaii for biological control of invasive *Achatina fulica*. Native to southeastern U.S.

## *Bradybaena similaris*



Common name: Asian tramp snail  
Low *A. cantonensis* infection prevalence. Often found in plant pots and in domestic gardens. In Hawaii, *A. cantonensis* infection was only recently detected in this species. Native range Southeast Asia.

## Family: Subulinidae



Two species in photograph  
Relatively low *A. cantonensis* infection prevalence.

*Paropeas achatinaceum* (top right) adult shell height: 7-15 mm. Can be distinguished by the slightly more conical shell shape and the pointed shell tip. Native range Java, Sumatra, Borneo and Australasia.

*Subulina octona* (bottom left) adult shell height: <26 mm. Shell has rounder characteristics, less pointed. Native range Tropical America.

The bodies of both species are yellow. Both species found easily in the top soil layer and in leaf litter throughout much of Hawaii, usually in groups.



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# URBAN HAWAIIAN SNAIL & SLUG INTERMEDIATE HOSTS OF RAT LUNGWORM (*ANGIOSTRONGYLUS CANTONENSIS*)



Potentially most snail and slug species can serve as hosts for the rat lungworm parasite, a nematode known as *Angiostrongylus cantonensis*. In Hawaii, many non-native snail and slug species have been identified as carriers of this parasite. A few of these species are commonly found in urban and residential areas of Hawaii. These are included in this brochure, which serves as an aid for identifying the species, assisting in locating the species in urban and residential environments, and assessing the risk factors these common species pose. The hosts of rat lungworm are not limited to the species listed in this brochure. Please handle all snails and slugs with care.