

Garden Snails (*Zachrysia provisoria*, *Caracolus marginellus*)

Introduced: These two Cuban species were purposely introduced to Miami in the early 1900's.

Current Infestation: These are found throughout much of the tropics and are currently established in southern Florida.

Description/Biology: *Zachrysia provisoria*, sometimes called the Cuban land snail, Cuban brown snail, or the garden Zachrysia, has a medium size shell about one inch (25 to 30



mm) long, spherical in shape, 4 to 5 rapidly expanding whorls, and sometimes with light brown axial streaks.

Caracolus marginellus, called the banded caracol, has a large size shell about 1½ inches long (35 to 45 mm) with a light and dark brown banded color pattern. The shell is slightly flattened with 5 to 6 gradually expanding whorls.



Both of these snails are not usually confused with other species in south Florida due to their large size and ribbed or banded shell pattern. The garden

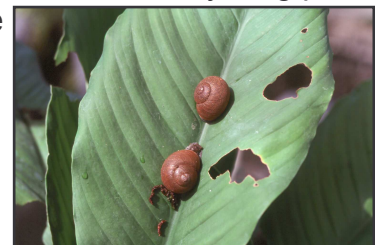
Zachrysia is more prevalent in south Florida than the banded caracol.

Seasonality: These snails can be found year-round but highest populations can be found during the warm, rainy season.

Hosts: The garden *Zachrysia* feeds on a variety of agricultural and horticultural crops which include ornamental plants and small fruits. Low growing plants, especially those with succulent leaves may be more prone to attack. The banded caracol feeds on decaying plants or algae, and is not considered an agricultural pest. It has been observed feeding on fallen calabash flowers and the algae growing on palm trunks.

Importance: The garden *Zachrysia* is of particular importance due to the extreme damage it can cause and the risk that it can be accidentally spread to new areas with infested plants.

Damage: Snails can cause devastating damage to the plants they feed on. Snails are often found on the foliage but can feed on all plant parts. They can chew irregular holes in leaves, clip soft plant parts, and also chew fruit and young plant bark. Be aware that not all feeding damage can be blamed on snails.



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(*Zachrysia provisoria*, *Caracolus marginellus*)

Look for other evidence of snails (slime trails, presence of the snail).



Management: A

good management program relies on a combination of methods. The first thing is to remove or reduce the habitats that they like to hide in such as under boards, bags, brush, and debris. Make it a regular practice to remove snails in habitats that cannot be



eliminated (ledges, undersides of wood decks, potted plants, etc). Snails may be a sign of an over-watered landscape. Most landscape plants do not need supplemental irrigation. Snails that are found on tree trunks or on buildings do not feed on plants. They feed on algae and lichens and should not be killed.

Homeowner - Look for slime trails or search for snails at night. Handpicking snails can be effective if done thoroughly on a regular basis. Water the infested area in the late afternoon and search out the snails after dark. Use gloves to handle the snails and discard them in a plastic bag, in a bucket with salty water, or a container of dilute rubbing alcohol.

Traps can be used to attract snails which makes collecting and discarding them easier. Traps are generally only effective for short distances. For example, slightly elevating a board overnight above the ground near damaged plants makes an attractive shelter for snails. The snails

can then be collected in the morning. Using attractive substances such as beer or decaying fruit will draw the snails out. Take a shallow saucer and sink it into the soil so that the edge is level with the ground. Place some beer and a few slices of banana in the saucer. They crawl in for a taste, but can't crawl back out--they keep slipping back in. Barriers such as copper flashing and screens can be used to keep snails out of plant beds or off benches or tables.

There are several snail baits that can be used effectively and will kill these snails. Baits containing pesticides such as metaldehyde and/or carbaryl can be hazardous, and should not be used around children and pets. Baits containing iron phosphate are safer for use around the home.

Professional and Grower - The use of a pesticide may be necessary for control. Methiocarb (Mesurol) and metaldehyde (Deadline, MPs) are useful for snail control. Timing is critical when using baits. Baits are less effective during hot, dry or cold times of the year. Irrigate before applying a bait to promote snail activity.

Websites:

<http://edis.ifas.ufl.edu/pdf/files/IN/IN27500.pdf>

http://www.doacs.state.fl.us/pi/enpp/ento/snail_slugs-pa.html

<http://miami-dade.ifas.ufl.edu/programs/commorn/publications/Snail-Slug-Factsheet.pdf>

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