Pest Alert

April 2011



Giant African Snails: A Foreign Threat to U.S Agriculture

Background

"Giant African snail" is the common name used to describe several foreign snail species that could become serious agricultural pests in the United States. The giant African snail (Lissachatina fulica, formerly Achatina fulica), the giant Ghana tiger snail (Achatina achatina), and the banana rasp snail (Archachatina marginata) are large, terrestrial snails native to Africa.

The Giant African Snail

Scientists consider Lissachatina fulica to be one of the most damaging land snails in the world. It is known to eat at least 500 different 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.

L. fulica is established throughout the Indo-Pacific basin, including the Hawaiian islands. This mollusk has also been introduced to several Caribbean islands. Giant African snails reached the island of Martinique in 1987 and spread throughout the islands of Basse-Terre and Grande-Terre in Guadeloupe by 1989. They were discovered in St. Martins and Marie-Galante in 1995. By 2000, L. fulica infestations had also been detected on Saint Lucia and Barbados.



Figure 1. A mature *Lissachatina fulica* maneuvers in its environment.



Figure 2. A penny is used to show the size of giant African snail eggs.

In 1966, a Miami, FL, boy smuggled three giant African snails into South Florida upon returning from a trip to Hawaii. His grandmother eventually released the snails into her garden. Seven years later, more than 18,000 adult snails were found, along with thousands of eggs. It took 10 years and cost \$1 million to eradicate the pest in Florida.

Description/Life Cycle

Reaching almost 8 inches (20 cm) in length and 5 inches (13 cm) in maximum diameter, *L. fulica* is one of the world's largest land snails—about the size of an average adult fist. When fully grown, the shell of *L. fulica* consists of seven to nine whorls, with a long and greatly swollen body whorl. The brownish shell with darker brown lengthwise stripes covers at least half the length of the snail.

Each snail contains both female and male reproductive organs. After a single mating, each snail can produce 100 to 500 eggs. These snails can reproduce several more times without mating again. They can generate clutches of eggs every 2 to 3 months.

Although this species thrives in tropical and subtropical areas, it can survive in cold conditions. In winter in the Northern United States, the snail would become slow and sluggish, almost hibernating until warmer weather returns.

Distribution

Like other invasive pests and diseases, giant African snails could enter the United States as hitchhikers on imported cargo. However, there have been recent reports of these snails being illegally imported by individuals for classroom exhibits, as pets, or for food.



Figure 3. Giant African snail infestation on the Caribbean island of Saint Lucia.

Figure 4. Shell of an immature giant African snail.

Damage

Giant African snails cause extensive damage to plants in tropical and subtropical agricultural systems as well as the environment. These snails are also known to carry organisms that can cause diseases in humans. These organisms can be transferred by ingesting improperly cooked snail meat or by handling live snails and allowing their mucus to contact human mucous membranes such as those in the eyes, nose, and mouth.

Control

Because several species of this snail family are capable of becoming agricultural pests, they are illegal in the United States. If you have a giant African snail, do not release it into the environment or give it away. Instead, immediately report it to your State department of agriculture or to the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) office in your State. For a list of APHIS offices, visit www.aphis.usda.gov/services/ report_pest_disease/report_ pest_disease.shtml.

Additional Information

For more information on giant African snails, visit the APHIS Web site at www.aphis.usda. gov/plant_health/plant_pest_info/gas/index.shtml.

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