



DNR News
[SC Dept. of Natural Resources](#)
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INVASIVE ISLAND APPLESNAIL FOUND IN HORRY COUNTY

The S.C. Department of Natural Resources [Aquatic Nuisance Species](#) team and its partner organizations are currently dealing with the highly invasive island applesnail, *Pomacea insularum*, which was recently discovered in a retention pond just southeast of Socastee in Horry County near the Grand Strand.

Scott Lamprecht, a DNR regional coordinator for the fisheries section was first contacted on May 5, 2008 concerning some large snails in the pond near Socastee. David Knott of the Southeastern Regional Taxonomic Center in DNR's Marine Division was first to affirmatively identify the snail as highly invasive, and he reported that on May 6 there were "lots of *P. insularum* egg clutches and three snails (two were copulating) in one of several ponds."

The Aquatic Nuisance Species Program of DNR's Land, Water, and Conservation Division was notified and a rapid response protocol was initiated. This protocol began on May 8 with an extensive survey of the site, along with repeated removal of any egg sacks and live specimens that were found. The Clemson Department of Plant Industry and the United States Department of Agriculture (USDA) were subsequently notified, and specimens that were shipped to USDA labs for morphological and genetic analyses have confirmed the identification.



Additional surveys in the area have confirmed another infestation in 2 ponds on Heron Point Golf Club approximately 1 mile from the original sighting. Surveys of the immediate surrounding areas of the 2 infestations have proven negative. Aquatic Nuisance Species (ANS) staff, Walter Meitzen and Chris Page, initiated control measures which include application of molluscicides and have shown promising results in the control of this species. Continued monitoring, physical removal, and chemical control methods will continue to be employed to ensure control of this species where possible.

These snails are a tropical/subtropical species, not normally known to withstand water temperatures much below 50°F. However, they can withstand short periods of cold by burrowing into the muddy bottom of a waterbody. They are the most commonly introduced species in the southeastern US, but they were originally thought to be *Pomacea canaliculata*, commonly called the channeled applesnail.

Their egg masses, about 1.5 to 2 inches in length with up to 1000 eggs not much greater than 1/16th of an inch in diameter, are easily distinguished from those of *P. canaliculata*. They are pink to almost red in color, and are found attached to various hard substrates above the water line, including pilings, concrete water control structures, tree trunks and many types of emergent vegetation. Three very closely related species in what is referred to as the "channeled applesnail complex" are considered to be among the world's 100 worst invaders, according to the Global Invasive Species Database.

Pomacea insularum is now found, or introductions have occurred, in Texas, Florida, Georgia and South Carolina. However, it is the channeled applesnail, *P. canaliculata*, which causes most concern to agriculturists. This species is known to cause serious problems as a rice pest in many countries. Fortunately, the channeled applesnail is known to occur in the US only in Arizona, California, Hawaii and possibly Alabama. Indications are that this latest occurrence in Socastee is a release of aquarium pets, and not the natural spread of the more notorious channeled applesnail.

Potential impacts of introduced populations of the island applesnail (IAS) are broad reaching and can even have human health implications. Because they eat such a wide range of aquatic plants, IAS are a potential threat to South Carolina aquatic ecosystems. Infestations can be very dense and cover large areas, causing harm to the aquatic environment by destroying native plant species and drastically affecting the food web through their ability to kill or out-compete native snail species. Human health threats are also associated with this species. It has been shown to be a vector for disease and parasites such as the rat lungworm, which can cause fatal eosinophilic meningoencephalitis disease in humans. Snails can also cause skin irritations, since they are also intermediate hosts to other associated trematodes (flukes). Please do not handle specimens without gloves.

Report suspected occurrences of the snail or its egg sacks to S.C. Department of Natural Resources (DNR), Aquatic Nuisance Species Program at invasiveweeds@dnr.sc.gov or (803) 755-2836.

DNR protects and manages South Carolina's natural resources by making wise and balanced decisions for the benefit of the state's natural resources and its people.
