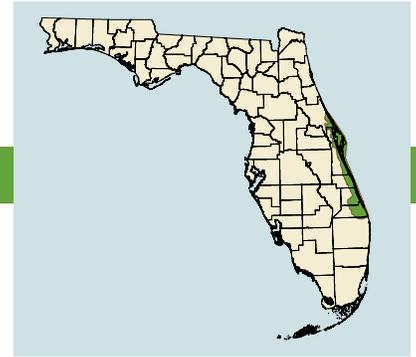


Invasive Mussel Alert

Mytella charruana Found in Indian River Lagoon



History

Mytella charruana, a tropical mussel native to Mexico and South America, first appeared in large numbers in the seawater intake pipes of a Jacksonville, Florida power plant in 1986. It never became established as the population died off that winter. In August 2004, *Mytella* was discovered in the Mosquito Lagoon portion of the Indian River Lagoon. Since this discovery, *Mytella* numbers have increased, suggesting the mussels are reproducing. As of April 2006, 578 individuals have been collected in Mosquito Lagoon.

What Is Being Done?

The Nature Conservancy has teamed up with the University of Central Florida to determine the potential invasiveness of this species. Starting in the summer of 2006, lagoon-wide surveys will be conducted to determine *Mytella charruana*'s distribution, and genetic tests will be conducted to learn more about its make-up.



Mytella charruana

Identification

Mytella charruana attaches to submerged hard surfaces, including oyster shells, driftwood and pilings. Specimens are usually less than 2 cm in length but may exceed 4 cm. At first glance the shell is black or dark brown in color and has visible, semicircular rings. Close inspection reveals a wavy dark (brown, purple, dark green) and light (cream) pattern. The shell's interior is iridescent purple. *Mytella* can be distinguished from other common native mussels (*Guekensia demissa* and *Brachiodontes spp.*) by the lack of distinct ridges (ribs) on the exterior of the shells (see photos below).

Why We Are Concerned

Mytella charruana has the potential to greatly increase in numbers, which may mean less food and space for native organisms, including commercially important native oysters. *Mytella charruana* can infest and clog intake

pipes at industrial plants and power utilities, decreasing efficiency and increasing costs for these services. This happened in Jacksonville in 1986.

What Are Invasive, Non-Native Species?

Invasive, non-native species are organisms that are introduced into new areas where they are not considered native and have the ability to form self-sustaining, free-living populations. These species have the ability to cause economic or environmental damage or harm to human health. They often go unnoticed until they have spread extensively, making eradication difficult and costly. The zebra mussel in the Great Lakes and the green mussel in Tampa Bay, Florida, are examples of invasive mussels that have had devastating impacts.

How You Can Help

Be on the look out for *Mytella charruana*. Collect all specimens that you find; record the date and precise location (including the nearest landmark, GPS coordinates if available, and substrate found on); and preserve specimens in rubbing alcohol. Please send this information to Dr. Linda Walters, Biology Department, UCF, Orlando, FL 32816, (407) 823-2148, ljwalter@pegasus.cc.ucf.edu.



Guekensia demissa



Brachiodontes spp.

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.