

## Focus on Community - Marine Science Center Studies Invasive Species

### Tybee Island Marine Science Center Asks for Your Help in its Study of Invasive Species!

The Tybee Island Marine Science Center has initiated a new project dealing with non-native, invasive marine species in our area, and the Science Center is asking for your help. The new project is a combination of research, education and outreach efforts, and it is supported by a grant from the Georgia Department of Natural Resources, Coastal Resources Division, Coastal Incentive Grants Program. Invasive marine species are those plants and animals that are not native to an area but have been accidentally introduced and become established.

Often invasive species pose potential ecological threats because they compete with native species for space, food, and habitat, but they do not have natural predators in their new ecosystems. They can also become economically damaging if their presence causes a reduction in the populations of economically important species. Invasive species can also cause further economic damage if they grow in such abundance to damage or reduce the efficiency of structures located in their new habitats (such as boats, docks, pipes).

The new marine invasive species project at the Marine Science Center will focus on the Giant Pink Barnacle (*Megabalanus coccopoma*) also known as the titan acorn barnacle. These bright pink barnacles are easily noticed because of their color and their size that dwarfs our common native inshore barnacles. The Giant Pink Barnacle is not only a non-native species to coastal Georgia, it doesn't even belong in the Atlantic Ocean. Its native distribution is in the eastern Pacific Ocean along the warm shorelines of Central and South America.

Dr. Joe Richardson, professor emeritus of marine sciences at Savannah State University and presently consultant for Coastal Environmental Analysis, is assisting the Tybee Marine Science Center with this project. "I first noticed these large pink barnacles on the North Beach jetty during spring 2005, and I knew that I wouldn't have overlooked something this big and evident for years," explained Dr. Richardson.

South Carolina marine scientists also reported finding the new large pink barnacle around their barrier islands during summer 2005. Dr. Richardson has seen giant pink barnacles on the Tybee Island jetty as large as 1.5-2 inches tall growing in the lower intertidal zone since spring 2006. The most common suggestion is that the giant pink barnacle was introduced to the southeast United States coasts by growing on the hulls of poorly maintained ships. The first report of it in the southeast US was from Louisiana in 2001.

With financial support from the Coastal Incentive Grant, the Tybee Island Marine Science Center will develop a new exhibit including live specimens of the Giant Pink Barnacle along with our native barnacles. Using the barnacle as a focal point, the exhibit will include information about other coastal Georgia invasive animals including the green mussel and lionfish. The new exhibit will update a listing of locations where the giant pink barnacle has been reported, and it is with this list that the Science Center is asking the public to help. "We will appreciate the help of the public in our efforts to document



the range of these barnacles by notifying us of locations where they have seen it growing. We plan to list these sightings and credit those reporting the information as part of invasive species exhibit," explained Maria Procopio, Director of the Tybee Island Marine Science Center.

Along with collecting this information for the Science Center, it will be sent to the University of Georgia Marine Extension Service Shellfish Laboratory. The Shellfish Lab has been collecting information about marine invasive species and has provided the Marine Science Center with brochures and pamphlets. The project goes beyond developing a new, interactive live exhibit, however. With Dr. Richardson's assistance, The Marine Science Center has already begun field studies measuring growth rates of the giant barnacles, and they have started investigating the settlement of new individuals. Dr. Richardson will be surveying up the Savannah River to determine how far upstream the barnacles are found on the Savannah River jetties. Lab studies will also be conducted at the Science Center to help determine the barnacle's lower salinity tolerance limit.

Observations of some barnacles already maintained in tanks suggest that they might even have a cyclic periodicity to their reproduction and release of larvae. Along with the new exhibit and research activities, the project will include a couple of new outreach activities for the Science Center. Already Dr. Richardson has made presentations at schools and for adult groups about marine invasive species. These presentations include pictures, video and a small portable tank of live giant pink barnacles and native barnacles.

Additionally, the Marine Science Center will soon be conducting weekend jetty field study trips for the public at the North Beach jetty. These trips will allow participants to see and hear about intertidal plants and animals, intertidal zonation, identification and adaptations of intertidal plants and animals. The Marine Science Center asks you to be on the lookout for its new exhibits, presentations, field study trips, and for you to be on the lookout for the Giant Pink Barnacle. If you know of some growing, please contact the Tybee Island Marine Science Center, or Dr. Joe Richardson (at [joe@ceasurf.com](mailto:joe@ceasurf.com)). They will appreciate your help and participation in this study of the invasive species distribution.

*Additional information: Along coastal Georgia, there are three common native barnacles that grow attached to jetties and docks. These three species are: the Ivory Barnacle (*Balanus eberneus*), the Striped Barnacle (*Balanus amphitrite*), and the Fragile Barnacle (*Chthamalus fragilis*). The Ivory and Striped Barnacles are most abundant in the middle and low intertidal zone, and the Fragile Barnacle grows in the high intertidal zone. In this region, the Ivory and Striped Barnacles are usually less than one-half inch tall, and the Fragile Barnacle is much smaller than this.*