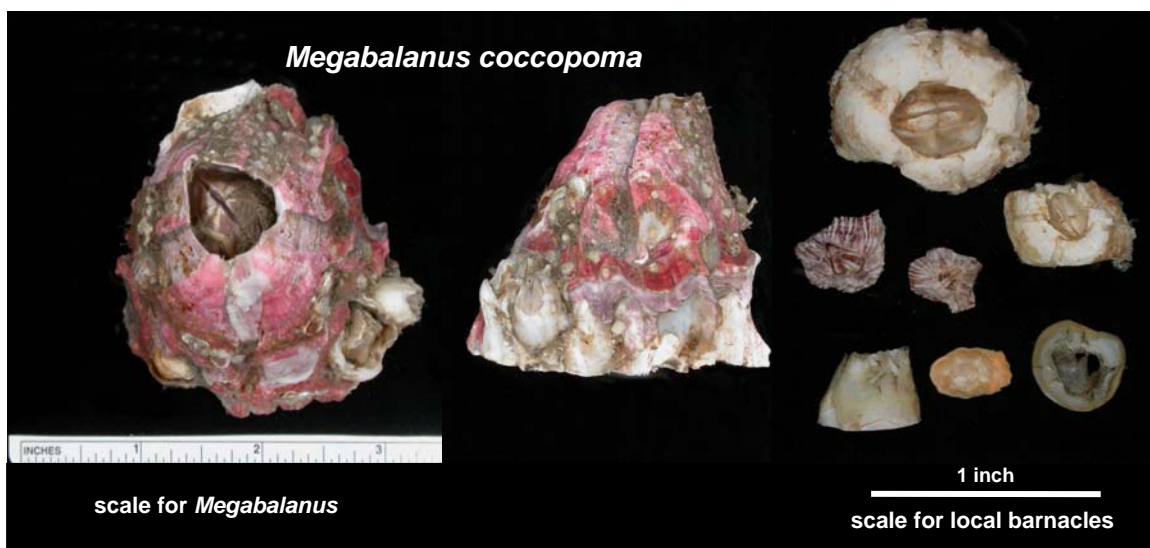


EXOTIC BARNACLE FOUND IN SOUTH CAROLINA

An exotic barnacle, a pesky filter-feeding crustacean that is the bane of boat owners and mariners worldwide, has been found in several locations in the Charleston area. The barnacle was first discovered in the Folly River at the same site where another invasive species, the Asian green mussel, was first found living in South Carolina several months ago. Since then, SERTC staff learned that the barnacle has been present but unreported as early as the summer of 2005. Following illustrated press coverage of this new exotic species, reports of its occurrence from Edisto, Kiawah, Folly and Sullivans Island beaches, and Wrightsville Beach in North Carolina, have expanded its known range on the Atlantic coast. Known by the scientific name of *Megabalanus coccopoma*, the gigantic barnacle from the Pacific coast of Central and South America grows to a massive size, compared with several different species of barnacles that are native to the South Carolina coast.



As for most newly introduced invasive species, virtually nothing is known about the probability that it will become a permanent resident of the South Carolina, or of the potential implications for the native fauna. The S.C. Department of Natural Resources (DNR) requests your help with the efforts to learn more about this species. If you find one of these barnacles, freeze it and contact David Knott, DNR biologist and invasive species specialist at the Marine Resources Division, at KnottD@dnr.sc.gov, with as many details about the circumstances of its collection as possible.

The novel find was made in late October 2006 by Sam Crickenberger, a student at the College of Charleston, who recognized the exotic barnacle from an informational flier produced by Dr. Alan Power of the Georgia Marine Extension Service. Crickenberger, who is conducting independent research on fouling communities in the Folly River under the supervision of Dr. Erik Sotka with the College of Charleston, reported his find to Knott and the DNR.

Knott has followed reports of this invasive species' spread along the southeast Atlantic coast during the past year, from St. Augustine, Florida, up to Savannah, Georgia, and has placed several specimens into the collection of the Southeastern Regional Taxonomic Center. Knott and Crickenberger have also reported specific details about the occurrence of this invasive species to biologists with the United States Geological Survey (USGS), who have organized a national database on species that have been introduced beyond their native range. For more information on their efforts, visit biology.usgs.gov/invasive/index.htm.

The USGS database shows that the barnacle turned up in Louisiana several years before it was first seen on the US Atlantic coast. It is also now found in other regions of the Atlantic, notably Belgium and Brazil. It most likely made its way to all of these locations from the Pacific Ocean on the hulls of poorly maintained ships, where it can grow and release larvae into waters wherever the salinity and temperature are suitable.

The larvae of this exotic barnacle prefer settling on recently disturbed surfaces or on areas that have been freshly exposed to seawater. More than two-dozen barnacles were found on the propeller of a fishing boat in Florida, when it was pulled from the water for maintenance. The large number of these barnacles that settled on a coastal navigation buoy near Savannah and on a beach groin on Sullivans Island illustrate the gregarious nature of its settling behavior.

The most troubling feature of this newcomer is its ability to turn a molehill into a mountain, figuratively speaking. Imagine the hull, propeller or drive shaft of a boat covered with barnacles the size of a tennis ball and you get an idea of the additional drag that a poorly cleaned vessel has to overcome when it's underway. To avoid the expense of reduced fuel efficiency, vessel owners are faced with the daunting task of scraping off the barnacles, a job that is particularly unpleasant due to the size of this species, its firm attachment to the surface, and its sharp beak-like opening.



Since it reaches a much larger size than native barnacles in South Carolina, significant settlement and growth of the barnacle would require greater maintenance efforts on surfaces exposed to coastal and high salinity estuarine areas of South Carolina, if it becomes established here.