

South Carolina Update on Non-indigenous Aquatic Invertebrates

South Eastern Regional Taxonomic Center
Marine Resources Research Institute
SC Department of Natural Resources

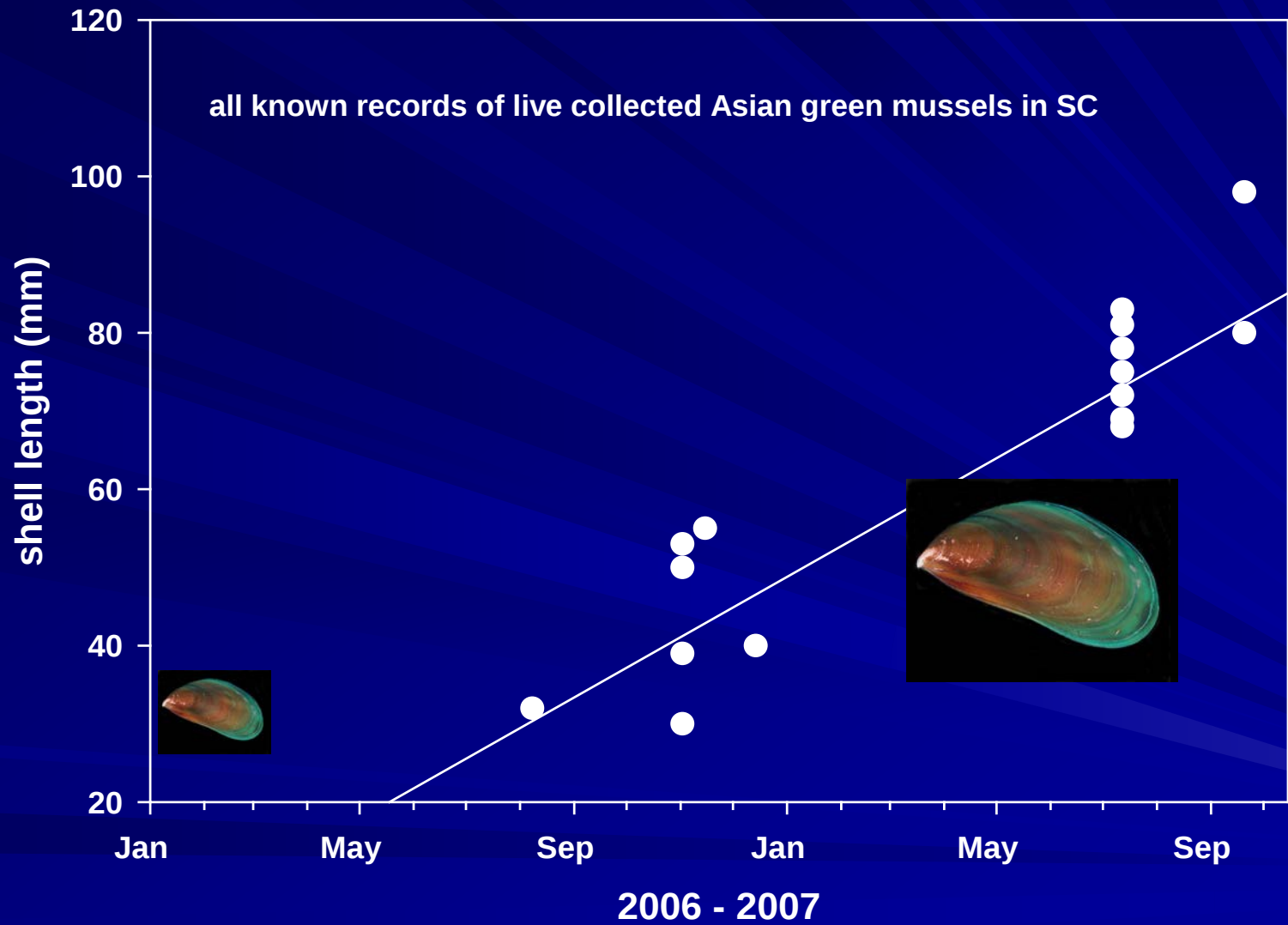


DNR

Perna viridis
(Asian green mussel)

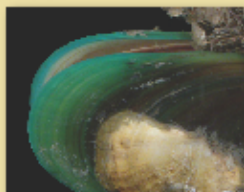


photos from USGS photo gallery

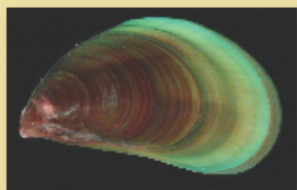


HOW TO RECOGNIZE THE ASIAN GREEN MUSSEL

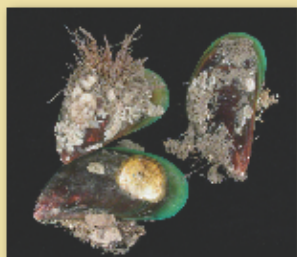
1. The posterior region (the region farthest from the beak) has a bright green color that continues along the top and bottom edges of the shell.



2. The shell has faint concentric growth rings extending from the dorsal to ventral margins of the shell, but lacks the longitudinal radial ribs like those that run from the beak to the shell margins in native mussels (see Similar Native Species, inside).



3. Mussels are often found in clusters, and they may be covered with other fouling organisms, such as bryozoans, tunicates, sponges, and other bivalves, which may nearly obscure the introduced mussel.



WHAT YOU CAN DO

If you see the Asian green mussel, please contact David Knott at the

Southeastern Regional Taxonomic Center
Marine Resources Research Institute
South Carolina Department of Natural Resources
Charleston, SC

KnottD@dnr.sc.gov or 843-953-9096

Please include as much of the following information as possible:

- Date of observation
- Locality (GPS; nearby geographic features)
- Description of attachment site (e.g. buoy)
- Abundance (e.g. single individual, cluster, densely overgrown)
- Approximate depth
- Size range of individuals (e.g. 1-4 inches in length)
- your name and contact information
- a digital photo, if possible



THANK YOU FOR YOUR HELP!



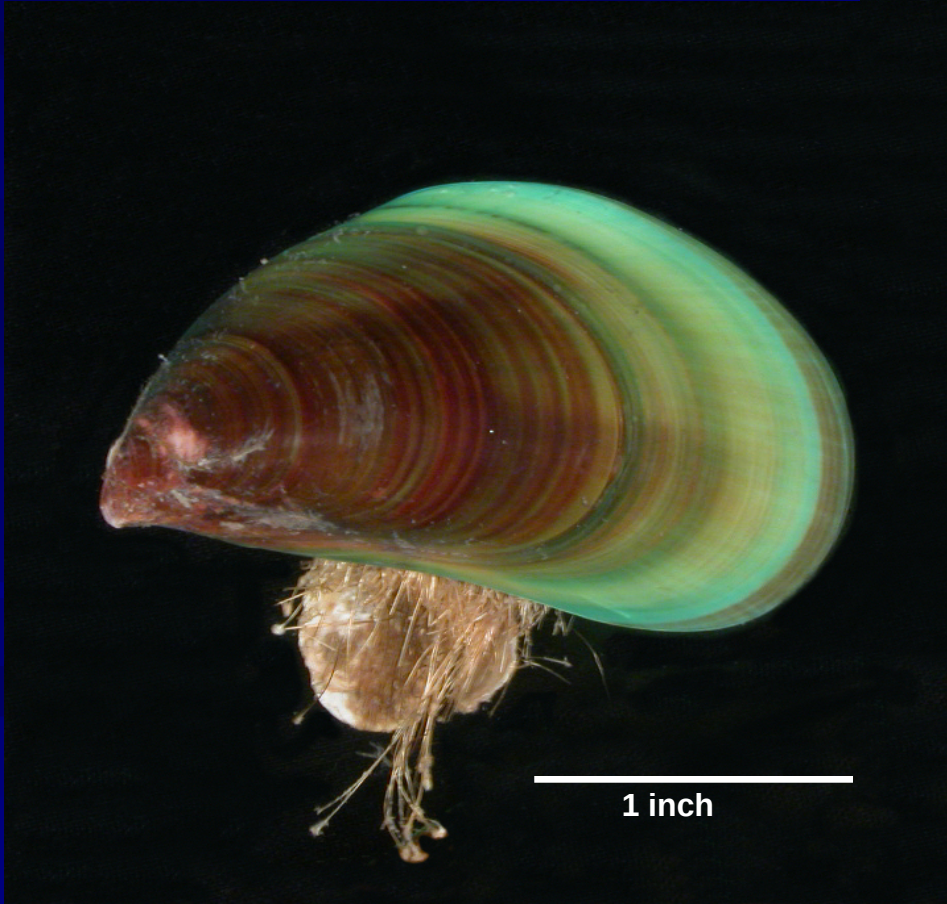
www.dnr.sc.gov/marine/serc

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THE ASIAN GREEN MUSSEL UNWELCOME ADDITION TO FOULING COMMUNITIES OF SOUTH CAROLINA



The Asian green mussel (*Perna viridis*) is a rapidly growing fouling species that has been found attached to floating docks, boat hulls, water intakes and other man-made structures in the southeastern U.S. Native to the Indo-Pacific, this mussel has been observed recently in the Gulf of Mexico, Florida, Georgia and in South Carolina as far north as Charleston Harbor.



Megabalanus coccopoma, the titan acorn barnacle





Megabalanus tintinnabulum



***Penaeus monodon*, the Asian tiger shrimp**



Penaeus monodon

10-08-07

Gull Rock, Pamlico Sound



***Ficopomatus enigmaticus*,**
a tube-building polychaete



***Phyllorhiza punctata*, the Australian spotted jellyfish**



42 non-indigenous aquatic invertebrates from SC reported at GSARP Charleston meeting in 2006

Cnidarians

- Anemones.....*Nematostella vectensis*
Haliplanella lineata
- Hydrozoans.....*Blackfordia virginica*
Cordylophora caspia
Maeotias inexpectata
Moerisia lyonsi
- Scyphozoans.....*Drymonema dalmatinum*

Annelids

- Polychaetes.....*Fabricia sabella*

Mollusks

- Est. Gastropods.....*Creedonia succinea*
Microtralia ovula
Myosotella myosotis
- Fresh. Gastropods.....*Bellamya japonica*
Viviparus georgianus
Viviparus subpurpureus
- Bivalves.....*Perna viridis*
Corbicula fluminea
Rangia cuneata

Crustaceans

- Cladocerans.....*Daphnia lumholtzi*
- Barnacles.....*Amphibalanus amphitrite*
Balanus trigonus
Loxothylacus panopaei
- Copepods.....*Eurytemora affinis*
Skistodiaptomus pallidus
Elaphoidella bidens bidens
- Tanaid.....*Sinelobus stanfordi*
- Isopods.....*Ligia exotica*
Paradella diana
Sphaeroma terebrans
Synidotea laevidorsalis
- Amphipods.....*Caprella scaura*
Stenothoe gallensis
- Fresh. Decapods.....*Macrobrachium olfersii*
Cambarus longirostris
Procambarus clarkii
- Est./Mar. Decapods.....*Litopenaeus stylirostris*
Litopenaeus vannamei
Penaeus monodon
Petrolisthes armatus
Callinectes bocourti
Callinectes exasperatus
Charybdis hellerii
Cardisoma guanhumi

Non-indigenous Aquatic Invertebrates in South Carolina

Algae

- Chlorophyceae.....*Codium* sp. (? *scandinavicum*)
Codium fragile var. *tomentosoides*
Rhodophyceae.....*Polysiphonia breviarticulata*

Protozoans

- Haplosporidians.....*Haplosporidium nelsoni*
(oyster disease MSX)

Cnidarians

- Hydrozoans.....*Garvia franciscana*
Scyphozoans.....*Craspedacusta sowerbyi*
Phyllorhiza punctata

- Monogeneans (flukes)...*Pseudodactylogyrus bini*
Pseudodactylogyrus anguillae
? *Gyrodactylus anguillae*

- Nematodes.....*Anguillicola crassus*

Annelids

- Polychaetes.....*Ficopomatus enigmaticus*
?? *Ficopomatus miamiensis*

Mollusks

- Fresh. Gastropods*Pomacea insularum*

- Bivalves.....*Mytella charruana*
Teredo navalis

- Barnacles.....*Megabalanus coccopoma*
Megabalanus tintinnabulum

- Ascidians.....*Styela plicata*
Styela conopus [was *S. partita*]
Molgula manhattensis
Diplosoma listerianum

added to list since last SC
update 1 year ago

anticipated future arrivals

Management Goals and Objectives of the draft SC AIS Plan that are already being addressed at the MRD

- Educate public and private stakeholders about impacts and how they can help
- Monitor occurrence and spread of AIS
- Identify and implement needed research
- Secure long-term funding for AIS activities