A Wild, Wild Life on the Mid-Texas Coast: Invertebrates

Presentation by Peggy Romfh, M.S.
January 2018

Photos by Pete and Peggy Romfh unless otherwise noted
Videos by Pete Romfh

Pete and Peggy Romfh are members of Texas Master Naturalist, Cradle of Texas Chapter

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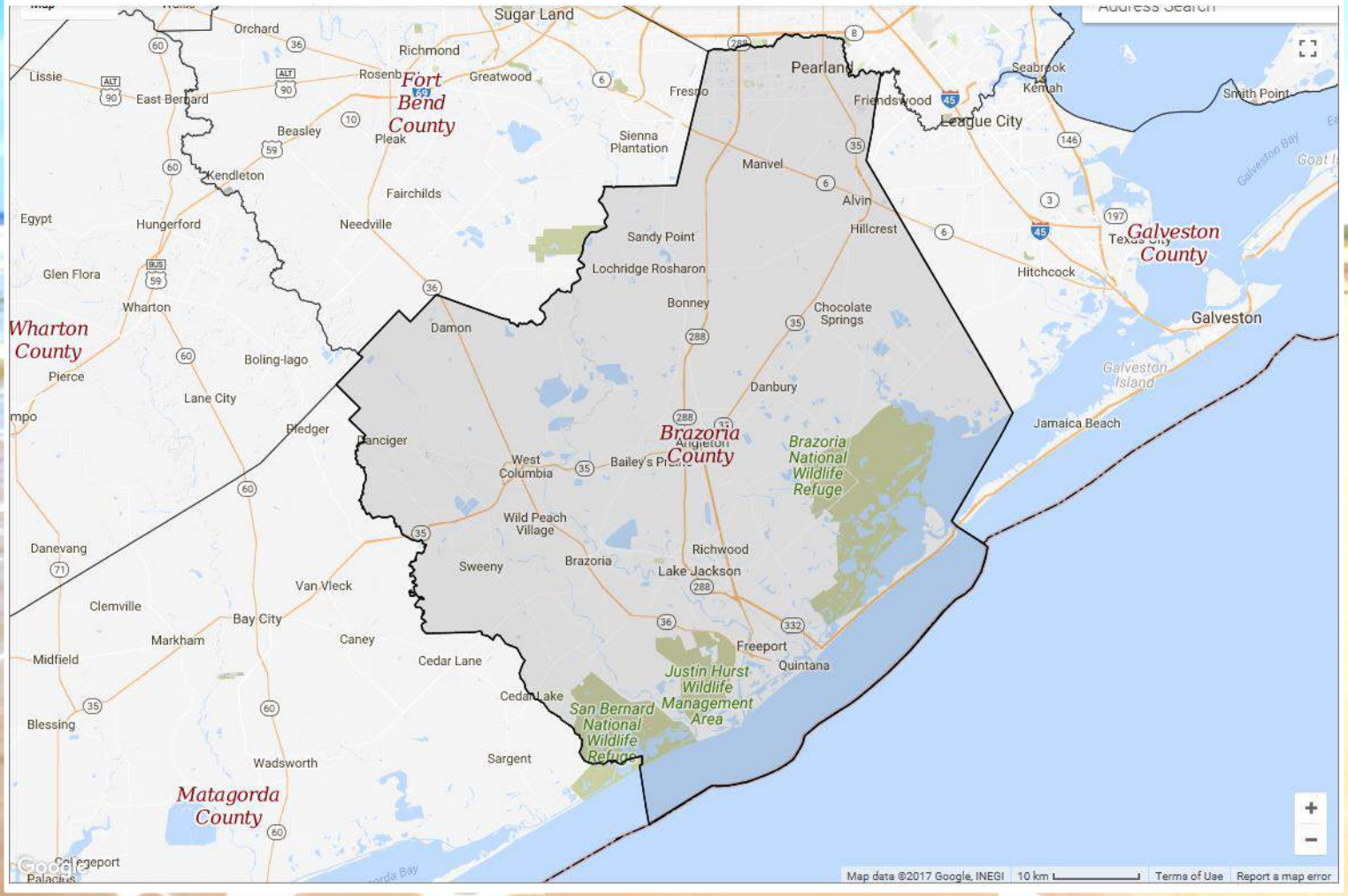
Intro to Brazoria County



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What We Will Cover

- Invertebrates we commonly see along the coastal waterways and beaches
  - Bryozoa (bryozoans)
  - Cnidaria (coral, jellies, hydrozoa, anemones)
  - Echinodermata and Annelida (sand dollar and worms)
  - Arthropoda (barnacles, shrimp, crabs, insects)
  - Mollusca (gastropods, bivalves, squid)

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Phylum Bryozoa

Moss Animals (Bryozoans)
Family Vesiculariidae

exhibit

Sauerkraut Bryozoan
(Zoobotryon verticillatum)

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Phylum Cnidaria
Class Anthozoa
Order Scleractinia

exhibit

Hard Corals

3-5 mm diameter
corallites
24 beaded septa

Northern Cup Coral
(Astrangia poculata)
on Oyster Shell

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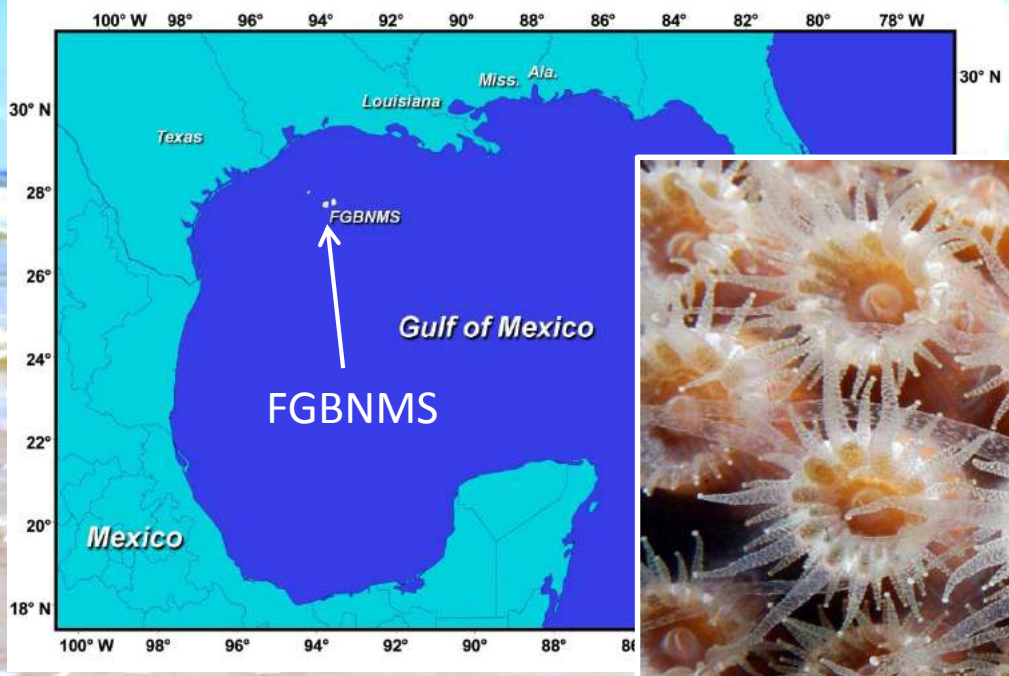
Phylum Cnidaria
Class Anthozoa
Order Scleractinia

Typical Coral Polyps



Source: G.P. Schmahl, NOAA Flower Garden Banks National Marine Sanctuary; used with permission

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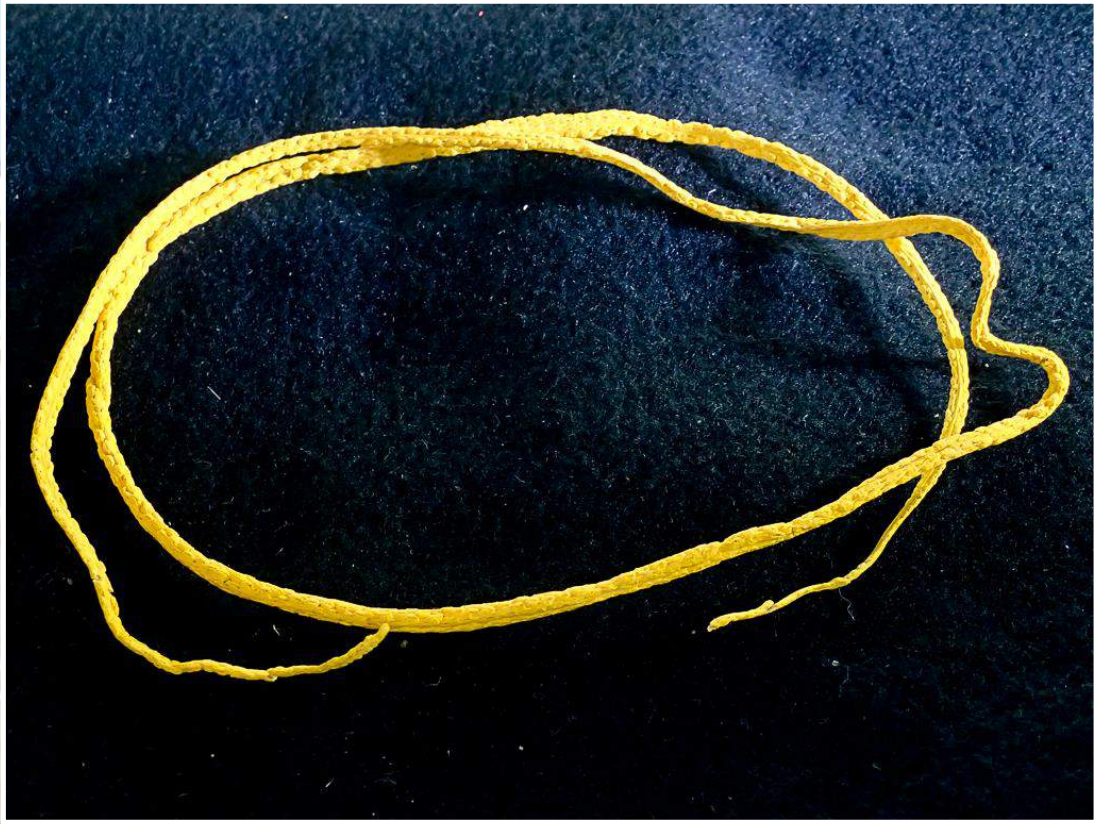
Phylum Cnidaria
Class Anthozoa
Order Alcyonacea

exhibit

Soft Corals



Specimen courtesy of TMN-COT member Phil Huxford

Sea Whip
(Leptogorgia setacea)

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Phylum Cnidaria

Anemones
Family Hormathiidae

Tricolor Anemone
Calliactis tricolor

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Phylum Cnidaria

Anemones
Family Actiniidae

Warty Anemone
(Bunodosoma cavernatum)

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Phylum Cnidaria

Jellies
Family Ulmaridae

Moon Jelly *(Aurelia aurita)*

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Phylum Cnidaria

Jellies
Family Rhizostomatidae

Cannonball Jelly (Cabbagehead)
(Stomolophus meleagris)

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Phylum Cnidaria

video

Jellies
Family Pelagiidae

Sea Nettle *(Chrysaora quinquecirrha)*

Purple-striped Jelly *(Pelagia noctiluca)*

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Video 1 – Sea Nettle

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Phylum Cnidaria

Hydroids
Family Physaliidae

Portuguese man o' war
(Physalia physalis)

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Phylum
Echinodermata

exhibit

Sand Dollar
Family Mellitidae

Sand Dollar
(Mellita quinquiesperforata)

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Phylum Annelida
Class Polychaeta

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Plumed Worm

Plumed Worm tube
(Diopatra cuprea)

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Phylum Annelida
Class Polychaeta

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Serpulid Worm

Serpulid Worm Reef in Whelk Shell

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SORRY! I JUST WOKE UP AND I'M KIND OF CRABBY!

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Phylum Arthropoda
Subphylum Crustacea

Box Crabs
Family Calappidae

Calico Box Crab
(Hepatus epheliticus)

Flecked Box Crab
(Hepatus pudibundus)

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Phylum Arthropoda
Subphylum Crustacea

Fiddler Crabs
Family Ocypodidae

Spined Fiddler Crab
(Uca spinacarpa)

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Phylum Arthropoda
Subphylum Crustacea

Fiddler Crabs
Family Ocypodidae

Mud Flat Fiddler Crab *(Uca rapax)*

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Phylum Arthropoda
Subphylum Crustacea

Ghost Crabs
Family Ocypodidae

Atlantic Ghost Crab
(Ocypode quadrata)

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Phylum Arthropoda
Subphylum Crustacea

Left-handed Hermit Crabs
Family Diogenidae

Surf Hermit
(Isocheles wurdemanni)

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Phylum Arthropoda
Subphylum Crustacea

Left-handed Hermit Crabs
Family Diogenidae

Thin-striped Hermit
Clibanarius vittatus

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Phylum Arthropoda
Subphylum Crustacea

Right-handed Hermit Crabs
Family Paguridae

Flatclaw Hermit *(Pagurus pollicaris)*

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Phylum Arthropoda
Subphylum Crustacea

Marsh Crabs
Family Sesarmidae

Squareback Marsh Crab *(Armases cinereum)*

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Phylum Arthropoda
Subphylum Crustacea

Mud Crabs
Family Panopeidae

Salt Marsh Mud Crab
(Panopeus obesus)

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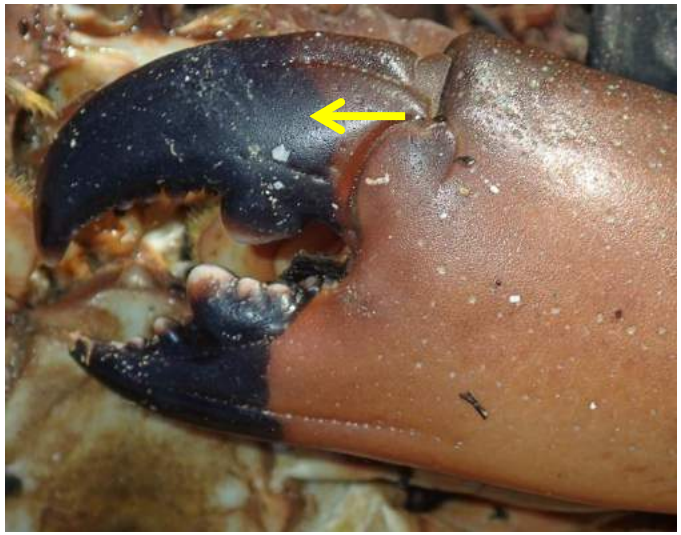
Phylum Arthropoda
Subphylum Crustacea

Mud Crabs
Family Menippidae



Stone Crab
(Menippe adina)

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Sand Sifter – A Crabbing Time

Pete sifting sand in the swash zone looking for mole and sand crabs

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Phylum Arthropoda
Subphylum Crustacea

Mole Crabs
Family Albuneidae

exhibit

Mole Crab
(Lepidopa benedicti)

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Phylum Arthropoda
Subphylum Crustacea

Sand Crabs
Family Hippidae

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Puerto Rican Sand Crab
(Emerita portoricensis)

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Phylum Arthropoda
Subphylum Crustacea

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Purse Crabs
Family Leucosiidae

Mottled Purse Crab
(Persephona mediterranea)

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Phylum Arthropoda
Subphylum Crustacea

Spider Crabs
Family Pisidae

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Portly Spider Crab
(Libinia emarginata)

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Phylum Arthropoda
Subphylum Crustacea

Swimming Crabs
Family Portunidae

exhibit

Blue Crab
(Callinectes sapidus)

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Phylum Arthropoda
Subphylum Crustacea

Swimming Crabs
Family Portunidae

exhibit

Photo by Dave Brandes, TMN-COT

Blue Crab *(Callinectes sapidus)*

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Phylum Arthropoda
Subphylum Crustacea

Swimming Crabs
Family Portunidae

exhibit

Speckled Swimming Crab
(Arenaeus cribrarius)

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Enjoy eating Brown, White, and Pink Shrimp from the Gulf!

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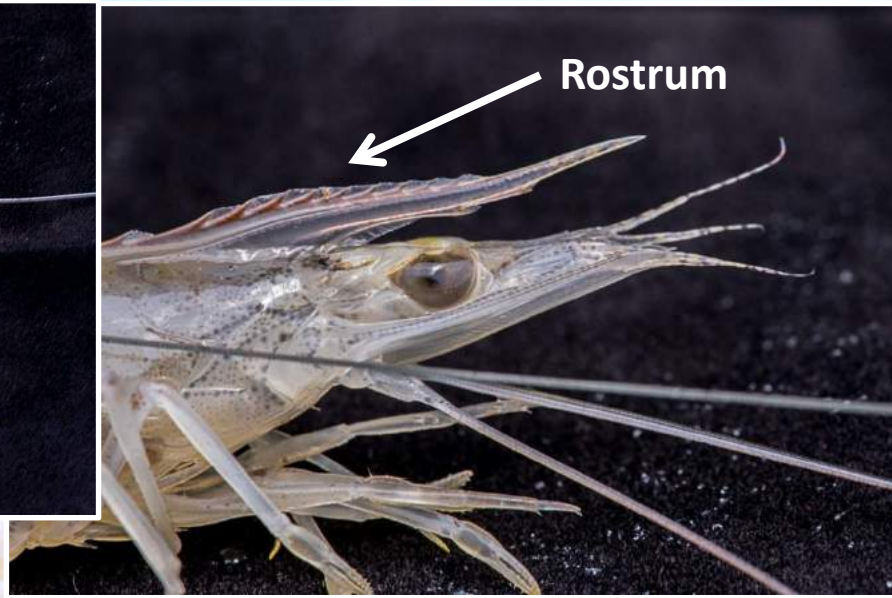
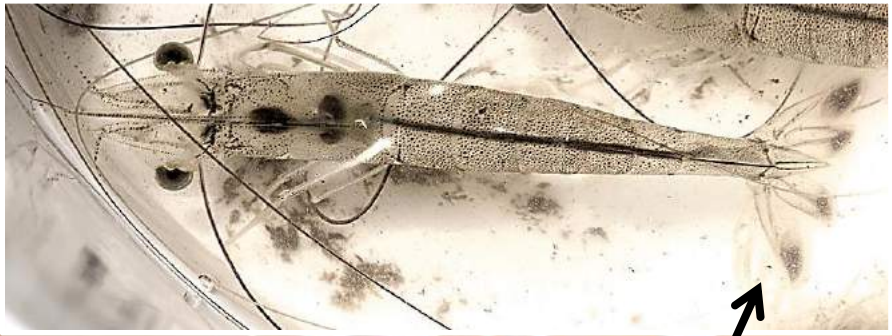
Phylum Arthropoda
Subphylum Crustacea

Shrimp
Family Penaeidae





White Shrimp
(Litopenaeus setiferus)

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Phylum Arthropoda
Subphylum Crustacea

Misc. Barnacles
Family Balanidae

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Photo by Kristine Rivers, TMN-COT

Giant Purple Barnacle
(Megabalanus tintinnabulum)

Bay Barnacle
(Balanus improvisus)

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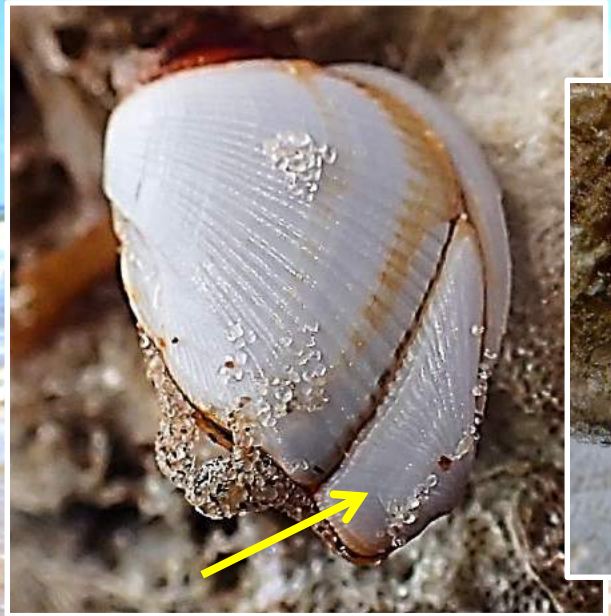
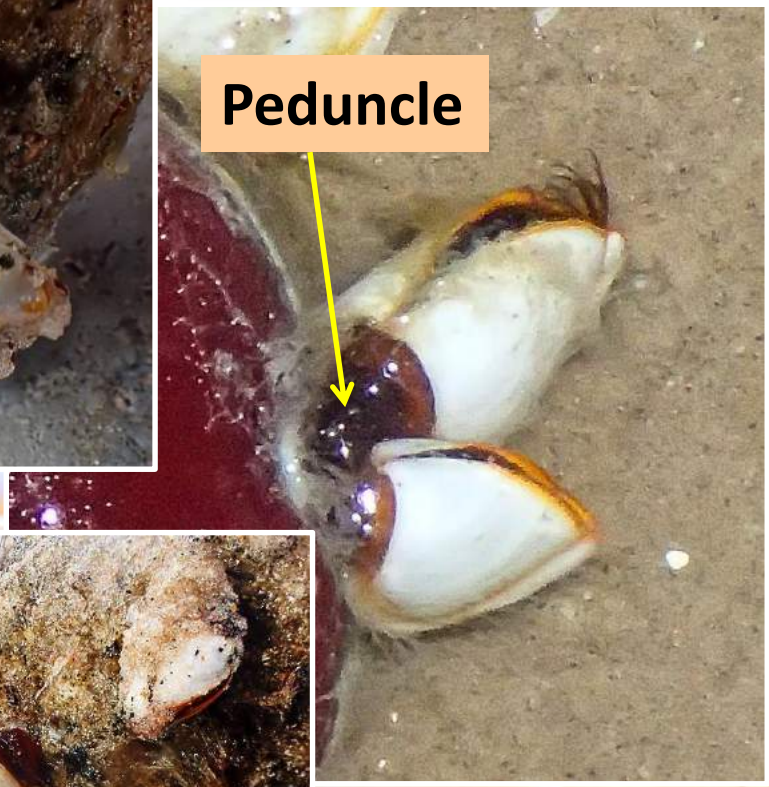
Phylum Arthropoda
Subphylum Crustacea

Goose Barnacles
Family Lepadidae





Goose Barnacle
(Lepas anserifera)

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Phylum Arthropoda
Subphylum Crustacea

Goose Barnacles
Family Lepadidae

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Smooth Goose Barnacle
(Lepas anatifera)

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Phylum Arthropoda
Subphylum Crustacea

Macroinvertebrates

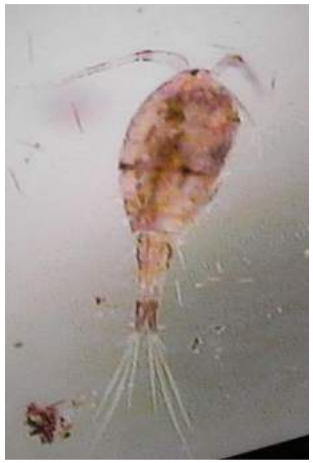

Photo by Dave Brandes, TMN-COT; Drum Bay

Copepods – adult and larval nauplius

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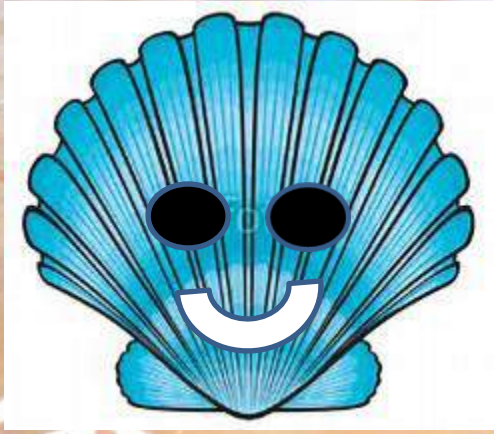
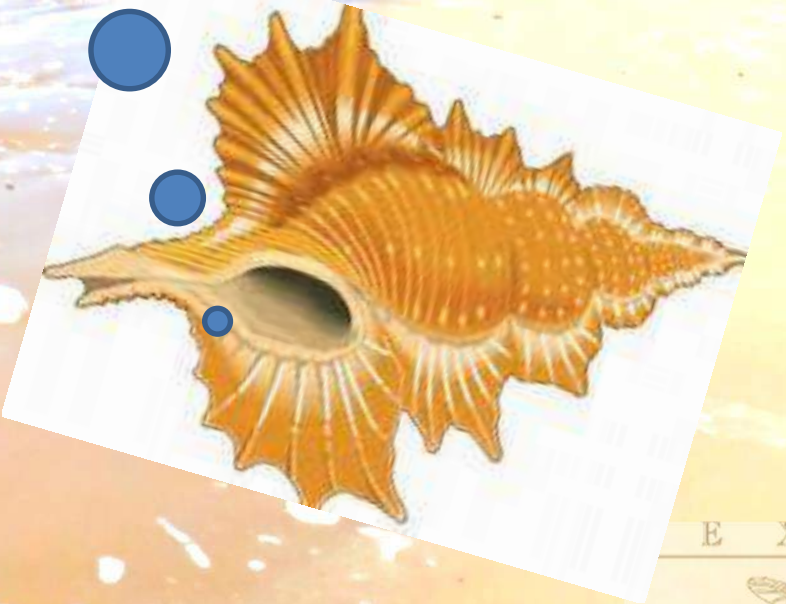
Would you stop clamming up when I am talking to you?





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Phylum Mollusca
Class Cephalopoda

exhibit

Squid

Courtesy Texas Parks and Wildlife Department (Brenda Bowling), http://txmarspecies.tamug.edu

Ram's Horn Squid
(Spirula spirula)

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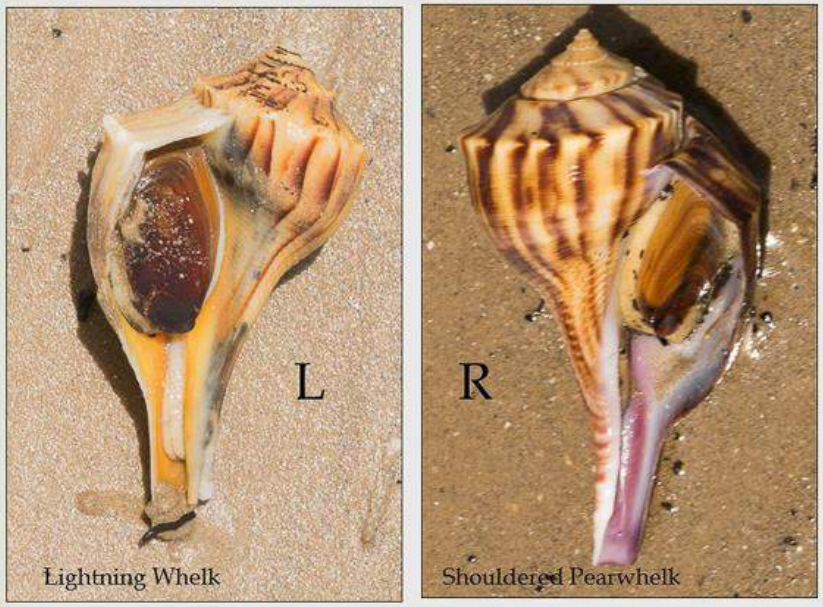
Phylum Mollusca
Class Gastropoda

Whelks
Family Melongenidae

exhibit



Lightning Whelk *(Busycon pulleyi)*
Shouldered Pearwhelk *(Busycotypus plagosus)*
Pearwhelk *(Busycotypus spiratus)*

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Phylum Mollusca
Class Gastropoda

Lightning Whelk and Egg Casings

exhibit

Lightning Whelk egg casing and baby whelks

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Phylum Mollusca
Class Gastropoda

exhibit

"Snails"

L-R: Hays' Rocksnail *(Stramonita canaliculata)*
Florida Rocksnail *(Stramonita haemastoma)*
Cancellate Cantharus *(Solenosteira cancellaria)*
Giant Eastern Murex *(Hexaplex fulvescens)*

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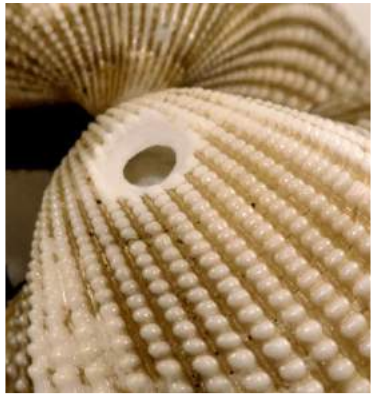
Phylum Mollusca
Class Gastropoda

Shark Eyes
Family Naticidae

exhibit



Shark Eye
(Neverita duplicata)

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Phylum Mollusca
Class Gastropoda

exhibit

Other Gastropods

Banded Tulip, Common Sundial, Marsh Periwinkle, Striped False Limpet, White Baby Ear, Lettered Olive

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Phylum Mollusca
Class Bivalvia

Oysters
Family Ostreidae

exhibit

Eastern Oyster (*Crassostrea virginica*)

Phylum Mollusca
Class Bivalvia

Coquina
Family Donacidae

exhibit
video

Variable Coquina (*Donax variabilis*)

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Video 2 – Coquina in Sand

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Video 3 – Coquina Siphon Action

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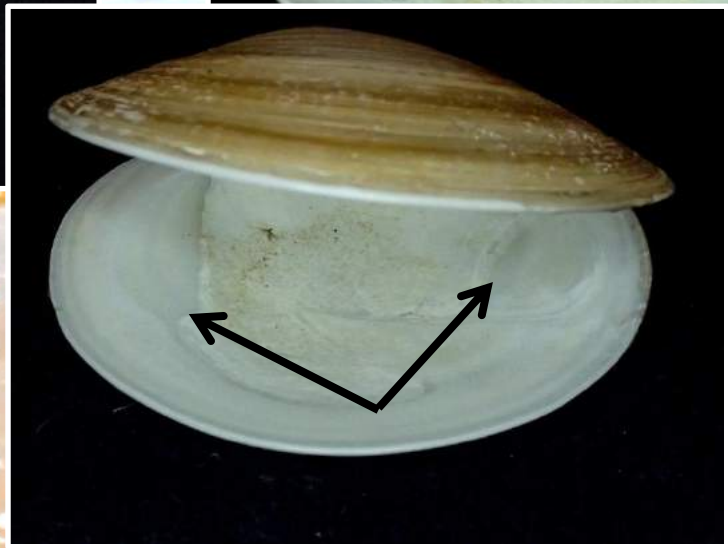
Phylum Mollusca
Class Bivalvia

Disk Dosinia
Family Veneridae

exhibit



Disk dosinia *(Dosinia discus)*

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Phylum Mollusca
Class Bivalvia

Disk Dosinia
Family Veneridae

exhibit

Disk dosinia *(Dosinia discus)*

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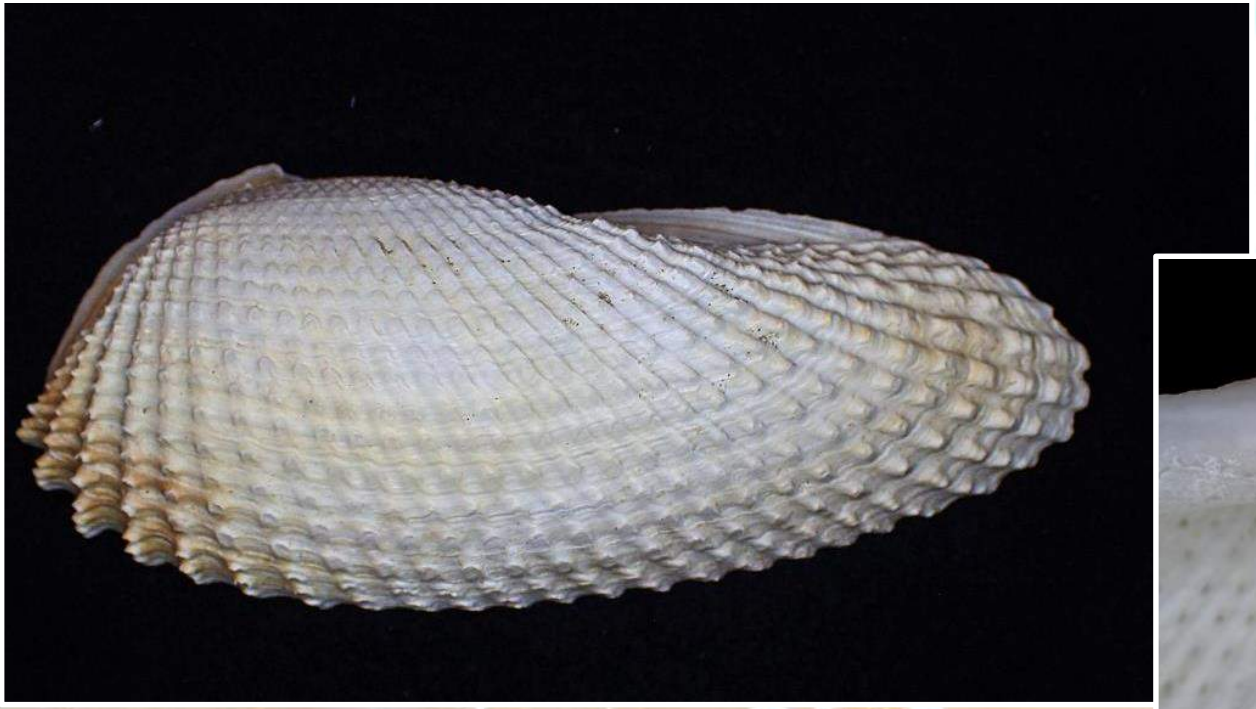
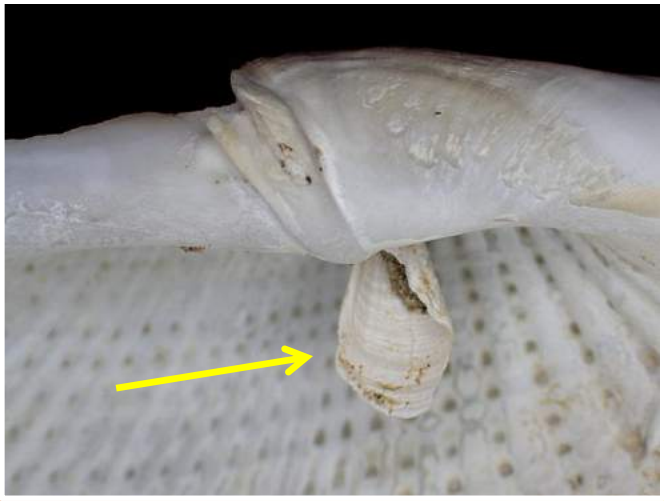
Phylum Mollusca
Class Bivalvia

Angelwing
Family Pholadidae

exhibit





Angelwing *(Cyrtopleura costata)*

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Phylum Mollusca
Class Bivalvia

Channeled Duck Clam
Family Mactridae

exhibit

Channeled Duck Clam
Raeta plicatella

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Phylum Mollusca
Class Bivalvia

Ark Clams
Family Arcidae

exhibit

Ark Clams with periostracum

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Phylum Mollusca
Class Bivalvia

exhibit

Other Bivalves

Top: Giant Atlantic Cockle; Unequal Spoonclam
Bottom: Stout Tagelus; Western Bay Scallop

Phylum Arthropoda
Class Insecta
Order Diptera

What About Insects?

Eastern Saltmarsh Mosquito
(Ochlerotatus sollicitans)

Deer Fly
(*Chrysops brunneus*)

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Phylum Arthropoda
Class Insecta
Order Odonata

Seaside Dragonlet (*Erythrodiplax berenice*)

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Phylum Arthropoda
Class Insecta
Order Coleoptera

Tiger Beetles

Coastal TB, White-cloaked TB, Cream-edged TB, Gulfshore TB
Right: Saltmarsh TB

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Phylum Arthropoda
Class Insecta
Order Coleoptera

Lady Beetles and Marsh Beetle

Seaside Lady Beetle
(*Naemia seriata seriata*)

Flea Marsh Beetle
(*Ora discoidea*)

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THANKS! Let's go look at some more specimens!

And remember, no trash on the beach!

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