Apple Murex
Phyllonotus pomum

The Apple Murex shell is easy to identify with its spiny vertical folds, ridges and fine encircling lines. It is white to pinkish white and has a large round aperture (opening). It is one of six Murex snail species found in Florida.

This gastropod lives on coral reefs, mangroves, rubble, rock, sand, seagrass and shell beds. It is carnivorous, drilling holes in bivalves to feed on their bodies.

The Apple Murex is a communal spawner. Multiple snails work together to build a shared egg casing that can be over a foot in diameter. The egg mass resembles a large sea sponge.

Live Animals should never be taken from any FL State Park

Common American Auger
Terebra dislocata

The Common American Auger shell may be off-white, tan, or gray with ladder-like ribs. These gastropods are small and have a pointed spire.

It is very mobile in chasing its prey. It has “teeth” that work like a harpoon to inject poison into marine worms. In some species the poison is a danger to humans but the Common American Auger’s is not.

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Common Atlantic Slipper
Crepidula fornicata

This gastropod is easy to identify as it has a shelf on its interior making it resemble a bedroom slipper. It can be smooth or wrinkled and grows to 1 ½ inches.

The Atlantic Slipper feeds by filtering out food brought into the mantle cavity by water currents. There, the food is covered by a mucous secretion and drawn into the stomach. It spends its entire life in one spot attached to a hard surface. This means that an opercula (door) or another half shell is not required.

The snail is often attached to other Slippers making reproduction convenient. They are hermaphroditic (a single individual alternates sexes) and lay 70 to 100 eggs in thin-walled capsules. The Atlantic Slipper has few predators and can become quite numerous. This can be a threat to Oysters, as they compete to filter from the same food source.

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White Baby Ear
Sinum perspectivum

This very white gastropod is a member of the Moon Snail Family. Its small (1" to 1 ½”) flattened shell has broad spiral grooves. The live animal’s body can completely envelop its shell and cannot be fully withdrawn.

To help with burrowing, the White Baby Ear produces copious amounts of slimy mucus. Despite its delicate appearance, this snail is carnivorous, using its foot to chase down bivalves in soft sediments. It then consumes its prey by softening the shell with acid secretions, then drilling through the shell with a rasping radula (small teeth). A proboscis is then inserted to suck up the dinner.

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Dwarf Cerith

Cerithium lutosum (on penny)

These gastropods are small and have a pointed spire.

The Ceriths are such good algae feeders that they are used by aquarium enthusiasts for cleaning their fish tanks.

The Dwarf Cerith is only ¼ to ¾ inches. Thousands of these can be found at low tide among the rocks on the South end of Honeymoon Island.

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Chestnut Turban Snail

Turbo castanea

The Chestnut Turban Snail is a common gastropod in Southwest Florida. The “turbo” in its Latin name means “spinning top”. And the “castanea” is the Latin name for “chestnut”.

The shell can grow to 1.5 inches. Although the shell is normally brown, there is a variety that is bright orange. It can be distinguished from other gastropods by the turban shape and a round shell opening (aperture).

Turban Snails are found in shallow water among and under rocks. These snails are popular with aquarium enthusiasts for their ability to clean large amounts of algae, green slime and diatoms (single-celled algae) from their fish tanks.

These snails are edible, but because of their tough flesh and small size, they are not often harvested.

Live Animals should never be taken from any FL State Park

Florida Cerith

Cerithium atratum

These gastropods are small and have a pointed spire.

The Ceriths are such good algae feeders that they are used by aquarium enthusiasts for cleaning their fish tanks.

The Florida Cerith is the most common Cerith found in Florida. It is whitish with brown markings and has raised points on its shell.

Live Animals should never be taken from any FL State Park

Common Nutmeg

Cancellaria reticulata

This gastropod’s shell has a cross-hatched texture and can be tan to creamy white with blurry brown streaks. The inner lip of the aperture (opening) has two white folds on the columella (axis of the shell).

Its habitat is in sand among turtle grasses from the low tide line to a depth of 50 feet. The snail has small teeth arranged on a radular ribbon which is most likely used to feed on soft bodied animals on the sea floor.

Live Animals should never be taken from any FL State Park

Crown Conch

Melongena corona

The Crown Conch's shell has spiny bumps on the spirals, making it look like a crown. The snail can grow up to five inches in length. They reside in shallow sea beds and salt marshes, typically no more than three feet deep. They are subtropical and have little tolerance for cold water.

These gastropods are carnivorous and feed on slow moving victims such as oysters, clams and snails as well as dead organisms. Crown Conchs are wary of others of their species, as they are cannibalistic. In some areas these gastropods eat oysters so extensively that they ruin oyster beds and destroy nearby reefs.

Predators of this conch include some whelks and murex which have the capability of penetrating the thick shells. Crown Conchs are not harvested for food, although their abundance can sometimes indicate the decline of nearby oyster and clam populations.

Live Animals should never be taken from any FL State Park

Horse Conch

Triplofusus papillosus

The Florida Horse Conch is Florida's State Shell. It is predatory and kills other gastropods and bivalves. It smothers them with its large bright orange foot. It is cannibalistic, eating smaller Horse Conches.

The shells have been used for drinking containers, anchors, art paint holders and musical instruments.

This Conch is the largest snail in the Western Hemisphere and second in the world. It grows up to 24 inches. The Horse Conch is edible.

Live Animals should never be taken from any FL State Park

Florida Fighting Conch

Strombus alatus

The Florida Fighting Conch is named after its pear-shaped operculum. An operculum is the snail's door that closes for protection. When the snail extends its foot to move around, the operculum extends out and looks like a sword.

Since they only eat algae, this greatly helps the sea grasses where they live, since unchecked algae can smother sea grass and kill it.

Be careful when collecting these shells, as the live animal can hide deep inside.

Live Animals should never be taken from any FL State Park

Alphabet Cone

Conus spurius

These snails are predatory and attack their prey with a hollow harpoon-shaped tooth filled with venom. Cone venom is made up of complex conotoxins that interfere with nerve impulses to the muscles, immobilizing or killing the victim.

These gastropods can adjust the chemistry of their venom for different uses such as defense. Many drugs have been developed using the venom for treatment of neurological diseases such as Alzheimer's, Parkinson's, depression, and epilepsy.

Cone Snails in Florida are not as deadly as are some species found in the South Seas. They live in deep water, so live specimens are rarely found on the beach.

The Alphabet Cone **i**s named for the letter-like markings on the cone shaped shell.

Live Animals should never be taken from any FL State Park

Florida Cone

Conus anabathrum

These snails are predatory and attack their prey with a hollow harpoon-shaped tooth filled with venom. Cone venom is made up of complex conotoxins that interfere with nerve impulses to the muscles, immobilizing or killing the victim.

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Cone Snails in Florida are not as deadly as are some species found in the South Seas. They live in deep water, so live specimens are rarely found on the beach.

The Florida Cone markings are not as bright as the Alphabet Cone and its spire is higher.

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Lettered Olive

Oliva sayana

The Lettered Olive snail is named for the dark markings that vaguely resemble letters. They can be found by looking for the grooves it makes in the sand at low tide. It hunts bivalves and crustaceans, capturing them with its foot and draging them back below the surface to consume.

Long ago Native Americans used these shells to make jewelry as do beach combers today. It is the state shell of South Carolina. The animal is large enough that it can extend its body out to cover the entire shell.

This gastropod lays 20 to 50 eggs which develop into larvae. These live in a planktonic form before they develop into adults.

Live Animals should never be taken from any FL State Park

Junonia

Scaphella Junonia

The Junonia is a distinctive gastropod with a cream-colored spiral shell spotted with square chestnut shaded spots. The body of this snail is mottled purple with a pattern somewhat like its shell. It grows to 4 ½ inches.

It lives far from the shore at depths of 40 to 250 feet of water, so the shells rarely get washed up on the beach. Most Junonia shells for sale have been dredged up by shrimp boats.

The Junonia does not have an operculum (door). They are carnivores/scavengers. The Junonia buries itself in the sand but does not extend its short siphon up to the sand's surface. Eggs are laid in masses of joined capsules. The young emerge as small shelled snails.

Live Animals should never be taken from any FL State Park

Shark Eye Snail

Neverita duplicata

Moon snails have a foot large enough to cover its entire shell. Normally most of the snail's body is out of its shell and the shell is filled with water. If threatened it must squirt out this water to retreat inside and close its operculum (door).

These gastropods are carnivorous and can smell their prey's body proteins. The victim often can detect the imminent slow-motion attack and flee. If caught, the moon snail envelops the clam with its foot. Then excretes an acidic solution to soften the victim's shell. Then a toothed radula (tongue) bores a circular beveled hole. Enzymes are injected to weaken the victim's adductor muscles and allow the snail to have its dinner.

Shark eyes have whorls that form an "eye", while the Colorful Moon is cream color with brown zigzags.

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Moon Snail

Naticarius canrena

Moon snails have a foot large enough to cover its entire shell. Normally most of the snail's body is out of its shell and the shell is filled with water. If threatened it must squirt out this water to retreat inside and close its operculum (door).

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Shark eyes have whorls that form an "eye", while the Colorful Moon is cream color with brown zigzags.

Live Animals should never be taken from any FL State Park

True Tulip

Fasciolaria tulipa

These gastropods are slow, aggressive predators that feed on clams and other snails including their own species. Using its radula, a "toothed" tongue, coated in an acidic solution, it bores a hole through the shell of its victim. The tongue is then inserted to devour the soft contents.

Tulips are edible and reported to taste like conch.

The True Tulip's dark brown and more mottled shell distinguish it from the related Banded Tulip's fine dark rings. The True Tulip grows to nine inches and lives in water to 30 feet.

Live Animals should never be taken from any FL State Park

Eastern Banded Tulip

Fasciolaria lillium

These gastropods are slow, aggressive predators that feed on clams and other snails including their own species. Using its radula, a "toothed" tongue, coated in an acidic solution, it bores a hole through the shell of its victim. The tongue is then inserted to devour the soft contents.

Tulips are edible and reported to taste like conch.

To attract females the Banded Tulip male ejects water that sets up vibrations felt by potential mates. The female lays oviger (egg) capsules attaching them to rock or other hard surfaces. Most of these ovigers are unfertilized. During the next month the normally developing snails feed on the non-developing unfertilized eggs within their capsule.

The Banded Tulip's fine dark rings distinguish it from the related True Tulip's dark brown and more mottled shell. The Banded Tulip grows to three inches long and lives in water 2 to 150 feet deep.

Live Animals should never be taken from any FL State Park

Lightning Whelk

Sinistrofulgur sinistrum

Whelk are carnivorous, finding their prey by sight and smell. They prefer bivalves, and eat about one clam-like animal a month. They hunt down prey, then insert the edge of their shell between the opening edges of the victim's shell, and pry it open. If that fails they use their shell to grind a hole. The radula (tiny teeth) and proboscis (nose) are used to scrape out the soft tissues.

The Lightning Whelk is named for the lightning strike patterns found on juveniles. This gastropod can grow up to 16 inches. They are unusual in that they have a left-handed whorl (see left photo) unlike other gastropods with right handed spiraling (right photos).

The Pear Whelk is smaller, growing to 5 ½ inches. Its color is yellowish, with brown axial streaks.

Live Animals should never be taken from any FL State Park

Pear Whelk

Fulguropsis spirata


Whelk are carnivorous, finding their prey by sight and smell. They prefer bivalves, and eat about one clam-like animal a month. They hunt down prey, then insert the edge of their shell between the opening edges of the victim's shell, and pry it open. If that fails they use their shell to grind a hole. The radula (tiny teeth) and proboscis (nose) are used to scrape out the soft tissues.

The Lightning Whelk is named for the lightning strike patterns found on juveniles. This gastropod can grow up to 16 inches. They are unusual in that they have a left-handed whorl (see left photo) unlike other gastropods with right handed spiraling (right photos).

The Pear Whelk is smaller, growing to 5 ½ inches. Its color is yellowish, with brown axial streaks.

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Eastern Banded Tulip Egg Case


The egg case (left) of the Eastern Banded Tulip (right) looks somewhat like a small bouquet. Close examination reveals little holes in the flat end of the capsule from which the small snails have emerged. The capsules are composed of a protein similar to that in our fingernails.

Tulip Snails are gonochoric in that individuals are either male or female. They move into shallow water in the winter to lay and fertilize their eggs after they've been attached to a hard surface. Most of the egg capsules "ovigers" are unfertilized. During the next month the normally developing snails feed on the unfertilized eggs within their capsules.

True Tulips have similar egg cases but with more frilly rims.

Worm Snail

Vermicularia

The Worm Snail is not a worm but a gastropod (meaning stomach foot) with a worm shaped shell. There are three species in Florida: The Variable Worm Snail, whose shells are fused into what looks like a porous rock (not shown), and the Fargo and Florida Worm Snails. These snails start making their shells by developing a tight spiral. Then after growing to ½" to 1", (depending on the species) the coil shape begins to straighten out and grow into a long wormlike shape.

Unlike most other gastropods, Worm Snails are sessile, meaning they cement themselves to a solid object and stay fixed there for life. To feed, they shoot out strings of mucus from the mantle, a foot-like appendage at the tube's opening. These strings stream out into the current forming a sticky web. Plankton and other debris stick to the mucus. As this is pulled back in by the mouth, it strains out food through barbs on its tongue (radulae) and devours the catch.

Live Animals should never be taken from any FL State Park

Horse Conch Egg Case



Horse Conchs copulate to reproduce. Mating groups can number in the thousands. The Female may lay hundreds of thousands of eggs. These egg masses are dozens of flat sacks clustered in a twisted clump. The cases are attached to a rock or other hard surface. Each pie-shaped segment contains several dozen eggs. The larvae emerge after five days and may ride ocean currents as plankton for a month before finding suitable habit and settling on the seabed.

The Horse Case is similar to the Tulip egg case but is larger and has ridges on its surface.

Shark Eye (Moon) Snail Egg Case


Shark Eye Snails reproduce by mating in the surf zone. Before laying her eggs, the female will excrete mucus around her shell and mix it with sand. She then uses her cilia (eye-lash like filaments on the foot) to deposit the eggs, forming a gelatin-like collar. A second layer of mucus and sand protects the eggs from above.

Close examination of the collar reveals thousands of transparent pockets, which are minute eggs imbedded in the case. Its hydrodynamic shape helps it remain upright in turbulent water. The eggs hatch in the summer as swimming larvae. Collars found on the beach likely have developing eggs since the collars harden and soon disintegrate after hatching.

Female Shark Eyes live up to 14 years.

Operculum


Operculum is a word derived from Latin that means lid or cover. This “door” is used to cover a gastropod’s aperture (opening). It is a corneous structure (made of a hard layer of protein).

The operculum is attached to the upper surface of the snail’s foot. In many cases the operculum has the exact shape of the aperture of the shell. This can be round, oval or pointed with the shape varying greatly depending on the species. When closed, it protects the animal from drying out if exposed to the air during low tides. It also provides protection from predation by animals like birds, raccoons and crabs.

The operculum pictured on the above left is 3 inches long and from a Lightning Whelk. The operculum on the right is 1 inch long and from a Florida Fighting Conch. The operculum's sword-like appearance gives this Conch its name. The Operculum can be dug into the sand and with a forceful push, propel the snail across the seabed. It is not used as a weapon.

Lighting Whelk Egg Case

Lightning Whelks, as do many other marine snails, have separate sexes and mate to reproduce. The female lays her eggs in a long spiral casing that can be three feet long. The egg casing is manufactured by a special gland under the female’s foot. The string can contain 200 pouches with each pouch having about 100 eggs.

Only about 10 percent of the eggs will hatch. This normally occurs in May. They then begin their predatory lives by consuming the unhatched eggs within their pouch.

Hatching Lightning Whelks escape through an opening near the edge of each capsule. They have shells that provide protection for the small juveniles.

A Lightning Whelk's egg case is often referred to as a “Mermaid’s Necklace”.