

South Florida (Miami-Dade County) is home to three species of seahorses (*Hippocampus* spp.) that live in the shallow coastal areas amongst seagrass, coral and mangrove habitat. To get you started, we wanted to share some quick and easy tips to identify these magical creatures. If you spot a small seahorse, less than one inch in length, then it is the dwarf seahorse, *H. zosterae*. If the seahorse is greater than one inch with a deep (fat) body, it is the lined seahorse, *H. erectus*. If the seahorse it is greater than one inch with a long snout and relatively skinny body it is the long snout or slender seahorse, *H. reidi*.

Masters of Disguise

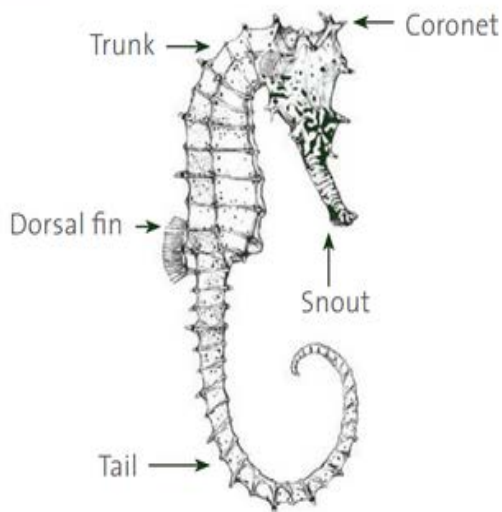
Seahorses are well-camouflaged, and individuals can be covered by seaweeds and sediments in the wild. **Color and lengths of skin filaments (“hairs”) can vary for individuals within the same species and so are NOT useful for identification.**

The Seahorses of South Florida is part of a series of guides developed by Project Seahorse to help identify seahorses around the world. For more information visit: <http://iseahorse.org/?q=id-guide>

All seahorse drawings courtesy of Laurence Richardson (<http://www.naturalhistoryartist.com/>)

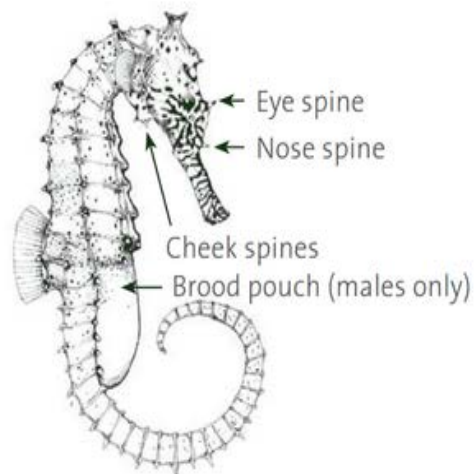
Seahorse Parts

Hippocampus barbouri



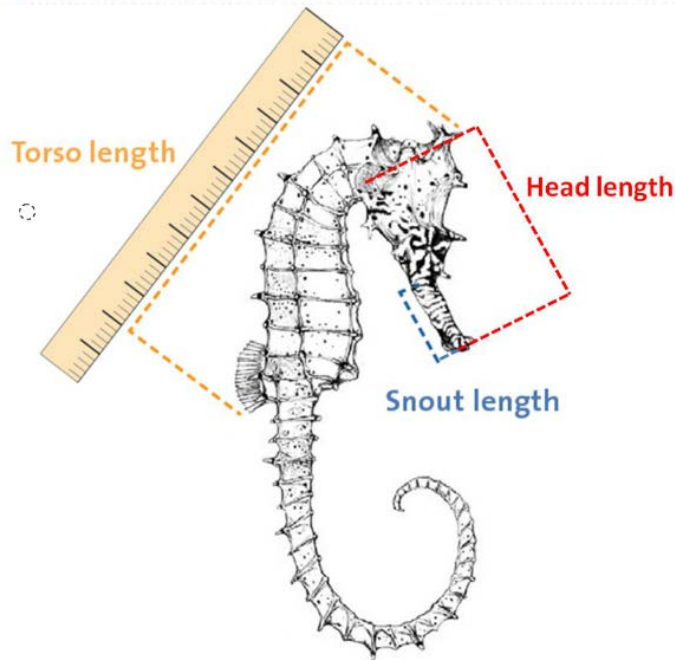
Female

In females, the belly does not extend past the **bottom of the dorsal fin**. If you are uncertain, it is likely male.



Male

Don't Know Which Seahorse Species? How to Photograph for ID



For unknown species, record the following characteristics:

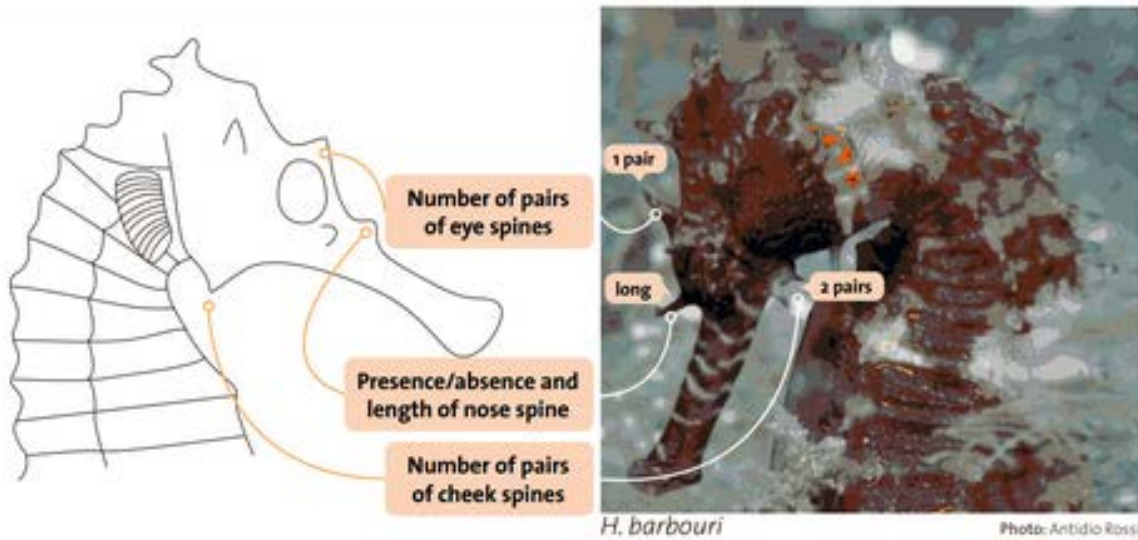
- **Torso length** (distance from top of coronet to base of dorsal fin)
- **Head length** (from base of coronet to tip of snout)
- **Snout length** (from eye to tip of snout)

or

Take a photo of the side profile of the seahorse with a ruler and calculate these measurements from the photo.

Also record and photograph a side view of the head showing

- All facial spines and coronet
- Number of pairs of cheek spines
- Number of pairs of eye spines
- Presence/absence of nose spine, and if present, whether it is long (prominent) or short (low)
- Any other distinguishing features, e.g., spines or bumps on body, stripes on snout/tail



Key to the Seahorses (*Hippocampus* spp.) of South Florida

Does the species have a large columnar, knob-like coronet?

Yes



H. zosterae

Short snout
High knob-like coronet.
Skin often covered in tiny warts.

No

Is the snout longer than the head?

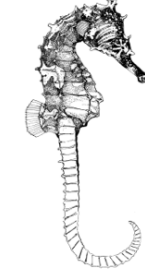
Yes



H. reidi

Large, low and convoluted coronet.
Double eye spines.
Narrow body (compared to *H. erectus*).

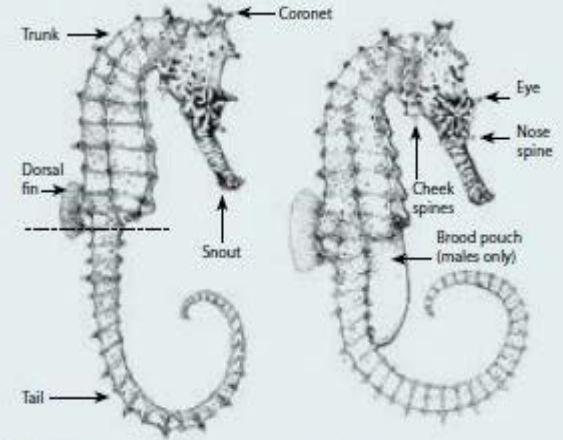
No



H. erectus

Coronet ridge-like, often with sharp spines.
Double or single cheek spines.

seahorse morphology



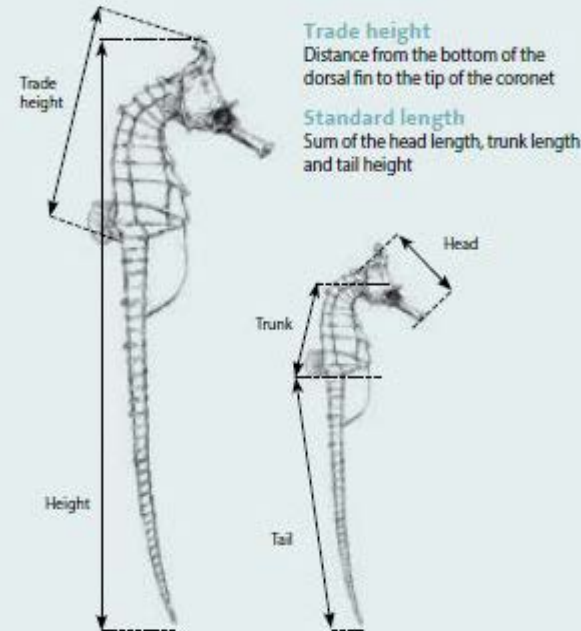
Female

In females, body does not extend past bottom of dorsal fin. If you are uncertain it is likely male.

Male

Unless marked, all diagrams on this page are male seahorses.

measuring seahorses



Trade height

Distance from the bottom of the dorsal fin to the tip of the coronet

Standard length

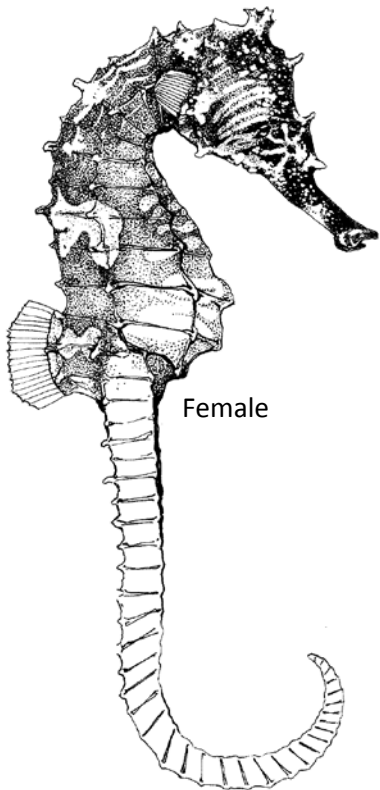
Sum of the head length, trunk length and tail height

SOUTH FLORIDA SEAHORSES

The Lined Seahorse

Hippocampus erectus

Line represents actual maximum size 7.4" (19cm)



Geographic range of *H. erectus*

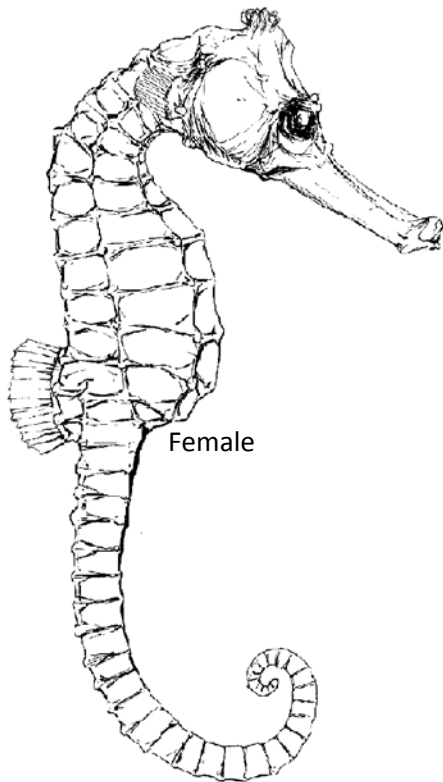


- Relatively short snout (compared to *H. reidi*)
- Coronet ridge-like, sometimes with sharp spines
- Double or single cheek spines
- Head and neck often with white lines
- May have blotchy saddles across back and sides
- Max height 7.5 inches (19cm)

The Slender or Longsnout Seahorse

Hippocampus reidi

Line represents actual maximum size 7" (17.5cm)



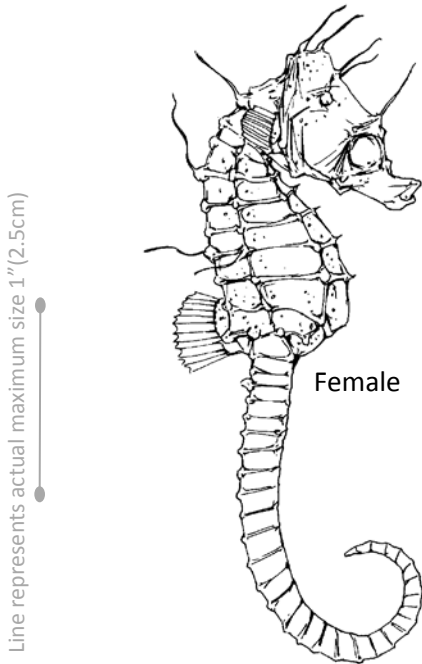
Geographic range of *H. reidi*



- Large, low and convoluted coronet
- Long snout compared to *H. erectus*
- Double eye spines
- Narrow body compared to *H. erectus*
- Often profusely spotted
- Max height 7 inches (17.5cm)

The Dwarf Seahorse

Hippocampus zosterae



Geographic range of *H. zosterae*

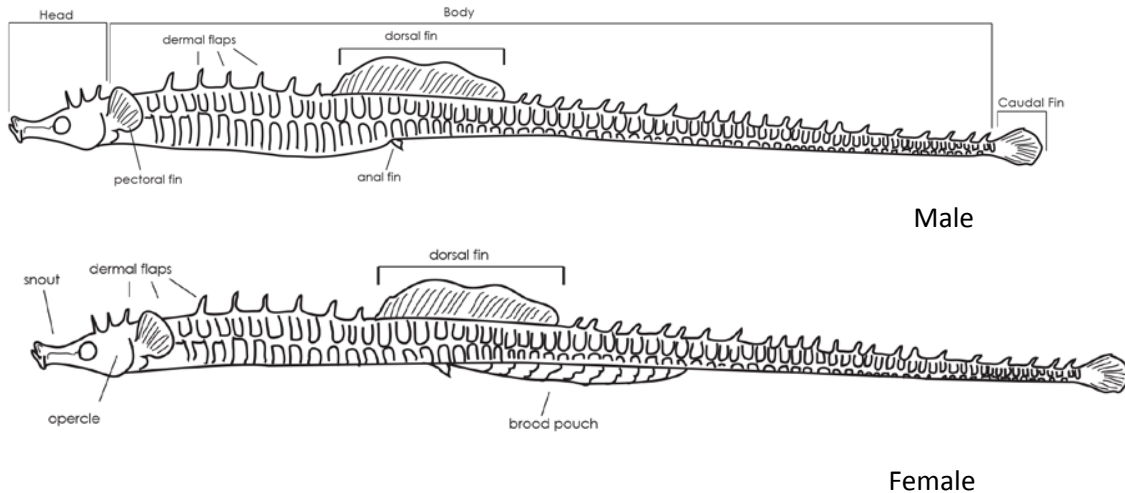


- Only grows to be ~1 inch (2.5cm) in height
- Short snout
- High knob-like coronet
- Skin often covered in tiny warts

Pipefish commonly observed in South Florida

There are currently twelve recognized species of pipefish found within Biscayne National Park in South Florida (Miami-Dade County). Here we will identify and discuss the six most commonly seen species of pipefish found in South Florida. All of these American pipefish tend to live in relatively shallow coastal areas associated with a variety of 3D-structured habitat, including seagrasses, corals, floating algae and *Sargassum* mats.

Pipefish, like seahorses, belong to the Family Syngnathidae meaning “fused jaw” and are unique among fish with their elongated bodies, long tube like snouts and lack of pelvic fins. Pipefish are well camouflaged and are often difficult to spot as they easily blend into their surroundings and are sometimes covered in seaweeds and sediments in the wild.

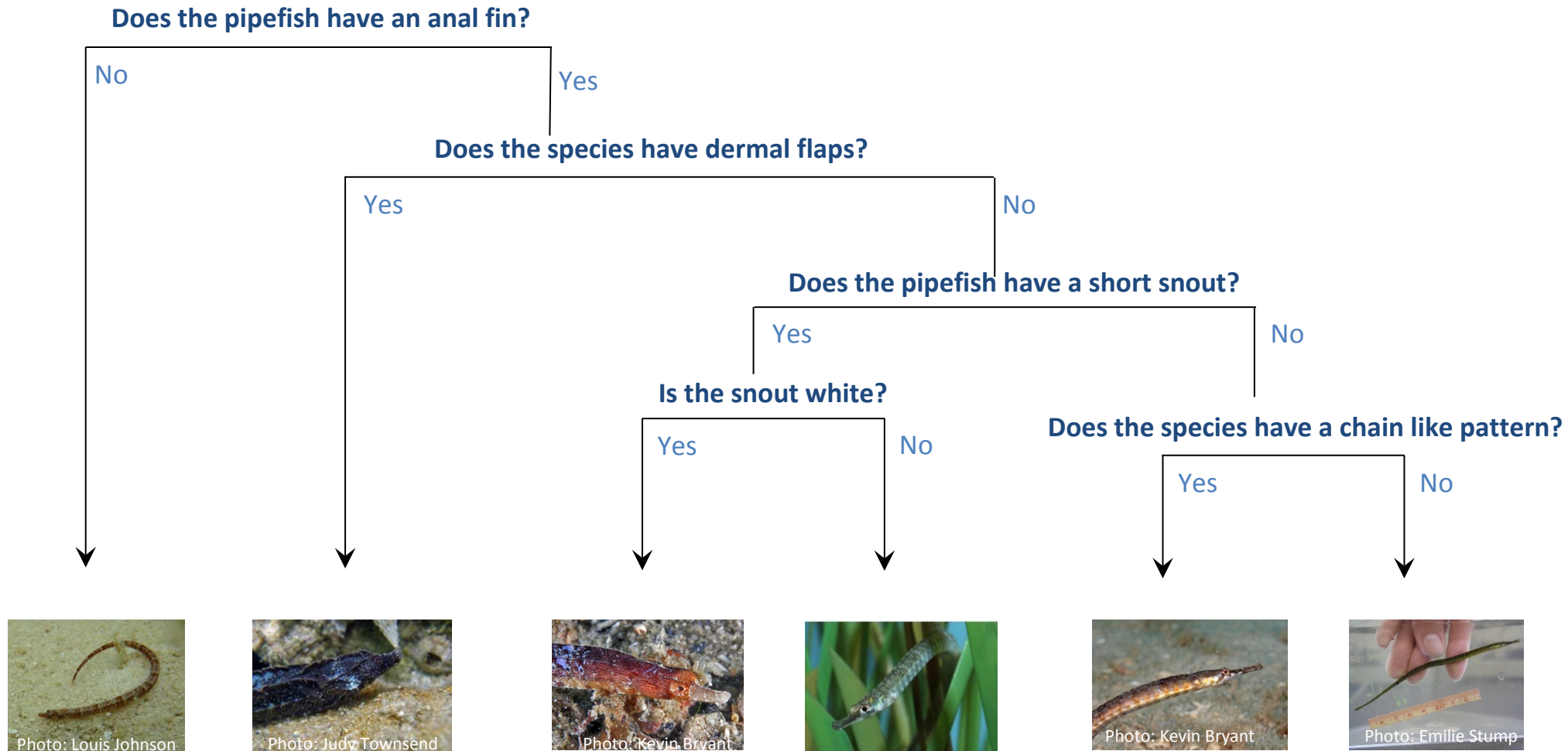


Chain-like pattern seen on *Syngnathus louisianae*



Drawings courtesy of Emilie Stump (<http://urchinblue.portfoliobox.me/graphic-design>)

Key to the commonly observed Pipefish in South Florida



Anarchopterus criniger

Lacks anal fin.
Distinct pattern of body ridges. Often with three spots behind head.

Cosmocampus brachycephalus

Dermal flaps along its head and body.

Cosmocampus albirostris

Prominent white snout. Fleshy knob-like ridges on side of snout (all *Cosmocampus* species).

Syngnathus scovelli

Short snout relative to the other *Syngnathus* spp.'s. Dorsal fin banded in females.

Syngnathus louisianae

Long snout. Distinct chain like pattern of bands (See figure on previous page).

Syngnathus floridae

Moderate length snout and stout body. Similar to *S. louisianae*, but lacking chain like pattern.

Fringed Pipefish

Anarchopterus criniger



Geographic range of *A. criniger*



- Lacks an anal fin
- Snout short, less than half head length
- Distinct pattern of body ridges
- Often with three iridescent spots behind head
- Max length 3.7 inches (9.5cm)
- Inhabits shallow water habitats, 0-16 feet (0-5m) in depth
- IUCN Red List Category-Least Concern

White Nose Pipefish

Cosmocampus albirostris



Photos: Kevin Bryant

Geographic range of *C.albirostris*



- Prominent white snout
- Fleshy knob-like ridges on sides of snout (all *Cosmocampus* species)
- Max length 7.8 inches (20cm)
- Found in coral, seagrass, rubble and sparse algal habitats up to 130 feet (40m) in depth
- IUCN Red List Category- Least Concern

American Crested Pipefish

Cosmocampus brachycephalus



Photos: Judy Townsend



Geographic range of *C. brachycephalus*



- Dermal flaps on head and body
- Max length 3.9 inches or (10cm)
- Inhabits shallow sub-tidal grass flats, 0-32 feet (0-10m) in depth
- IUCN Red List Category- Least Concern

American Gulf Pipefish

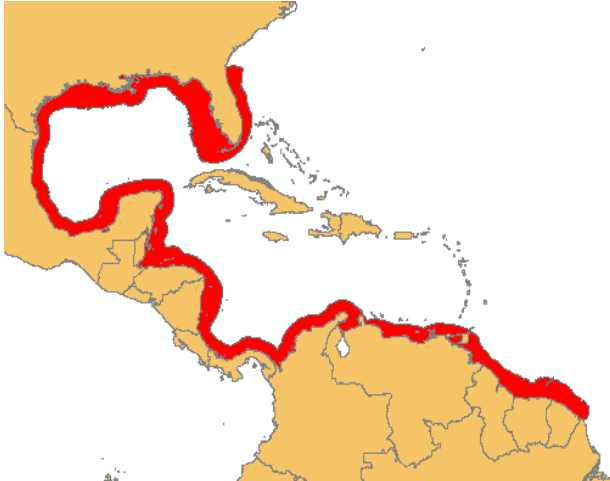
Syngnathus scovelli



Drawing: Joseph R. Tomelleri



Geographic range of *S. scovelli*



- Short snout relative to the other *Syngnathus* spp.'s
- Dorsal fin banded in females
- Max length 7.2 inches (18.5cm)
- Found in marine and freshwater habitats
- Common occurs in bays, estuaries and seagrass
- IUCN Red List Category- Least Concern

Chain Pipefish

Syngnathus louisianae



Geographic range of *S. louisianae*



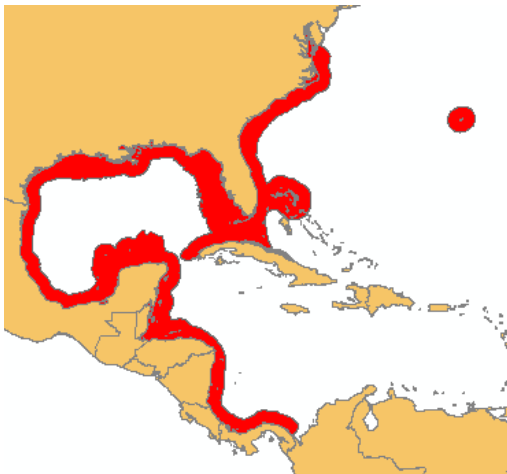
- Very long snout
- Distinct chain-like patterns on side of fish
- Max length 13.7 inches (35cm)
- Inhabits shallow seagrass and *Sargassum* in estuarine-marine habitats
- IUCN Red List Category- Data Deficient

Dusky Pipefish

Syngnathus floridae



Geographic range of *S. floridae*



- Moderate length snout compared to *S. louisianae*
- Stouter bodied fish
- Max length 10.6 inches (27cm)
- Occurs in coastal seagrass beds, up to 65 feet (20m) in depth
- IUCN Red List Category- Least Concern