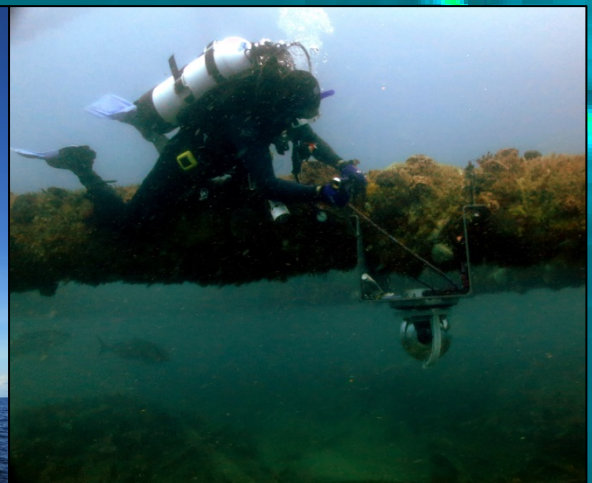


3rd Edition with 97 fish species
Images and videos

SharkCam Fishes

A Guide to Nekton at Frying Pan Tower

By Erin J. Burge, Christopher E. O'Brien, and jon-newbie





Trevor Mendelow, designer of SharkCam, on August 31, 2014, the day of the original SharkCam installation



SharkCam Fishes. A Guide to Nekton at Frying Pan Tower. 3rd edition by Erin J. Burge, Christopher E. O'Brien, and jon-newbie is licensed under the Creative Commons Attribution-Noncommercial 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>.



For questions related to this guide or its usage contact [Erin Burge](#). The suggested citation for this guide is:

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Guide version 3.0. 26 January 2018.

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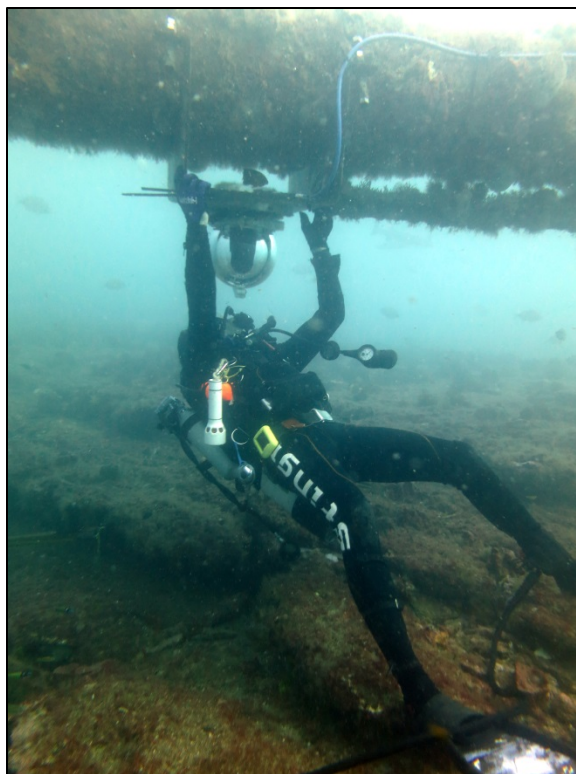
A tornado of [round scad \(*Decapterus punctatus*\)](#) around a beam of Frying Pan Tower. Screen capture by Richard Neal.

FOREWORD AND INTRODUCTION

Welcome to our third edition of the guide to fishes seen on the Cape Fear SharkCam.¹ SharkCam is a streaming video website hosted by Explore.org, a project of the Annenberg Foundation.² The video feed comes from a solar-powered underwater camera installed 50 feet (15 meters) below the surface of the Atlantic Ocean. The camera is mounted on the Frying Pan Tower,³ a former U.S. Coast Guard Light Station located atop a natural reef area approximately 35 miles (56 kilometers) off the coast of Cape Fear, North Carolina.⁴ The area supports a huge diversity of marine life including, as the camera and guide's names suggest, sharks.

Our purpose in presenting this guide is to help viewers attach names to the many species of fish (and some non-fish) seen on SharkCam. We expect that learning the names of the fishes seen will enhance the viewer's appreciation for the ocean's denizens in two ways. First, it will make a more personal connection to them. It will no longer be just a fish; it will be a blue angelfish. It won't be just a shark; it will be that sandbar shark with the notches on its dorsal fin that we've seen before. Second, the process of naming enables access to online and print information about the amazing lives of animals beneath the waves and, ultimately, their connections to our own. Besides, we find it fun to be able to name the fish as we see them and we hope you will, too!

"We" are Dr. Erin J. Burge, Christopher E. O'Brien, and jon-newbie (an online pseudonym). Erin is a Professor of Marine Science at Coastal Carolina University,⁵ was an installer of the original and current SharkCams, and is the originator of this guide. Chris was an undergraduate marine science major at CCU who completed his honors thesis research on the fish diversity at Frying Pan Tower, and he was author of many profiles in the guide. jon-newbie authored profiles, edited the guide, and contributed many of the guide's images and videos. Erin and jon-newbie are frequent contributors to discussions on the SharkCam website forum. Other contributors to the guide include additional undergraduates from Coastal Carolina University and some SharkCam viewers. Appendix 1 lists specifics on contributions to this guide. The authors very much appreciate all of the amazing screenshots submitted by SharkCam viewers.



Jim Atack inspecting the new high definition SharkCam 3.0 on September 10, 2016



Frying Pan Tower on a calm day on the Atlantic

¹ Watch the live feed from SharkCam at <http://explore.org/live-cams/player/shark-cam>.

² Learn more about Explore.org (http://explore.org/about/who_we_are/) and the Annenberg Foundation (<https://www.annenberg.org/>)

³ Frying Pan Tower is a private bed and breakfast destination with a website located at <http://www.fptower.com/>.

⁴ Google Maps location for Frying Pan Tower (<https://goo.gl/maps/3HKBBnDQpuK2>)

⁵ More information about Coastal Carolina University is available at <http://www.coastal.edu/>.

SharkCam Fishes

In addition to being useful for you, the typical viewers of SharkCam, this guide is also intended for use by undergraduate marine science students working to catalog data about the fishes that are found at Frying Pan Tower. For more details on the funders of this project and the many people involved with the day-to-day operation and maintenance of SharkCam see [Appendix 2](#). While some of the authors are scientists and scientists-to-be, this is primarily a non-scientific guide.

This guide is organized into three main sections. The [Identification Images section](#) contains pictures the reader can use to identify likely matches for a fish sighted on the streaming video. Each picture is an image taken from SharkCam⁶ or [archive footage](#)⁷ and is accompanied by the common and scientific names of the fish. We've also included images of some interesting non-fish passersby, like sea turtles and even a diving bird! This section is arranged into categories, or types, of fishes that are similar to each other in some important identification characteristics. The characteristics used are based heavily on the "Identification Groups" used in the book *Reef Fish Identification Florida Caribbean Bahamas*, by Paul Humann and Ned DeLoach.⁸ Two other guides are particularly useful for identifying fishes seen on SharkCam, the illustrated book *A Field Guide to Coastal Fishes From Maine to Texas* by Val Kells and Kent Carpenter⁹ and the online photographic guide [Florent's Guide to the Tropical Reefs](#), curated by Florent Charpin.¹⁰

Readers familiar with the technical details of groups of fishes will note that the evolutionary relationships between species, families, and orders get a little jumbled using this type of categorization approach. For example, the category "Swims with Pectoral Fins/Obvious Scales" includes many small-bodied wrasse species (Family Labridae), but does not contain the large bodied hogfish or tautog, both wrasses. The latter examples have been grouped with many of the groupers and sea basses as "Heavy Bodies/Large Lips." We feel that this approach works well for the casual viewer or interested layperson, but less well for a technical specialist.

We do need to include a little "technicalish" information to help viewers make their identifications. For example, the coloration of many fish seen on SharkCam may not match images seen in publications and on websites. This is because those images are from above the surface of the water, or in shallower water, or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam (50 feet or 15 meters) has filtered out most of the longer wavelengths of visible light, including nearly all of the red and much of the orange, leaving primarily shorter wavelengths in yellow, green, and blue. The camera "sees" the color of fishes based on the color spectrum available to illuminate them. For example, a vermilion snapper got its name from the brilliant red color it shows above or just under the water's surface. On SharkCam, the fish looks greenish-grey. On the other hand, there is still a lot of yellow light left at 50 feet, so on SharkCam a yellowtail snapper is true to its name. The current SharkCam video feed is partially colored corrected to more closely match natural sunlight illumination. Older images in this guide were created before color correcting was enabled, while more recent images (and newly discovered species) will appear more "true color." This is why some images in this guide are dominated by blues and green, while some orange and red may be obvious in more recent images.

The [Species Profiles section](#) contains detailed profiles of **97 fish species** and 8 other animals grouped into the categories mentioned previously and arranged roughly alphabetically by common name. We have broken with this convention when two species are very likely to be mistaken for each other, for example the [almaco jack](#) and [greater amberjack](#). Each category grouping also briefly lists the representatives by taxonomic family. Each profile describes characteristics that help the reader distinguish the profiled species from other species seen on SharkCam. The profiles also identify some confusing SharkCam look-alikes and describe how they differ from the profiled subject. Each entry contains information about the relative likelihood of seeing a given species during a viewing of SharkCam. These categories, and the values they represent, are based on the review of 388 video

⁶ See [Appendix 1](#) for credits for images provided by SharkCam viewers.

⁷ Archive video of approximately two weeks of streaming SharkCam video is available from <http://www.ustream.tv/exploreCapeFearSharkCam>.

⁸ Humann, P., DeLoach, N., 2014. Reef Fish Identification - Florida Caribbean Bahamas. 4th ed. New World Publications, Inc., Jacksonville, Florida, 548 pp. ISBN-13: 9781878348579

⁹ Kells, V.A., Carpenter, K., 2011. A Field Guide to Coastal Fishes from Maine to Texas. Johns Hopkins University Press. 448 pp. ISBN-13: 9780801898389

¹⁰ Available online at <http://reefguide.org/home.html>.

SharkCam Fishes

segments of 20 minutes each completed by undergraduate students. Certain species are likely to be more (or less) frequently seen on seasonal or year-to-year bases.

The third section, [Appendix 1](#), contains additional information, including web links to online resources that contain a wealth of images, and scientific and non-scientific information. For species for which we have SharkCam video clips that illustrate distinguishing characteristics, we have included links to postings we made to Youtube.¹¹ We encourage you to investigate these species further using these and other resources you discover. Ideally you will use this guide as a gateway to greater appreciation of all of the life the oceans harbor.

Guide users will notice that the guide is extensively hyperlinked as indicated by underlined text. Links under each [Identification Image](#) can be clicked to go to the [Species Profile](#) to check for a match with your observations from SharkCam. We have added short video clips taken from SharkCam of most of the species included in the guide and they can be accessed from each Species Profile. At the bottom of each profile is a link that will allow you to go the [Additional Information appendix](#). From there hyperlinks out to the web will help you confirm that you have correctly identified your “mystery” fish. If you find that a profile and its images aren’t confirming your identification, there are links to the major sections of the guide available at the bottom of each page. Failure to find a match for your fish might mean that it is a new SharkCam species!

A new species means that you can help us improve this guide! In addition to letting us know via the [SharkCam forum](#) about new species, you can always contact us by e-mail to [Erin Burge](#). Additionally, you will see we do not have crisp, clean images for many of the fishes identified so far. If you get a nice snapshot or video of a fish that would help others and improve the guide, please share it with us.

SharkCam is a real-time glimpse into a world that is largely foreign to most of us. Remember that the oceans are an incredibly dynamic, ever-changing environment. For example, frequent viewers will periodically see the water turn green or brown on SharkCam, reducing water clarity and limiting the number of fish seen. Green water is due to natural increases in the amount of microscopic algae, or phytoplankton, in the water. While the turbidity might be a minor irritation to viewers because of the diminished visibility, the algae feeds zooplankton and small fish, and they feed larger fish, and so on all the way up to the sharks. Be patient; an algal bloom will typically clear within a few days, visibility will return, and the fish will have greatly benefited from the additional food. Brown water is primarily due to sediments stirred up from the sea bottom, as after large storms and high waves, and will also clear up shortly.

Because of the water's effect on SharkCam fish colors, periodic turbidity, and the fact that many fish can change colors and patterns almost at will, our guide relies heavily on fish shape and color tone (e.g., light, dark) rather than true color. It also doesn't use fish size much. Everyone knows how big a mailbox or car is, so here on the surface it has meaning to say a thing is bigger or smaller than a mailbox or car. Underwater, there are no such familiar frames of reference. In addition, the camera is only one "eye," so depth perception is difficult. Saying a fish gets to be 6 or 36 inches long doesn't help much. Is it a big fish far away or a little fish close up? On SharkCam, they can appear to be the same size. To help with this, we have included relative size estimations for each species. These are based on *in situ* observations and personal experience of the authors. Some individual fish will not conform to these categorizations, but generally speaking, you, the viewers of SharkCam, should begin to incorporate the relative sizes of fish into your identifications.

So, sit back, watch SharkCam, use the guide, and enjoy. You are guaranteed to see something interesting, and maybe you will be the first to catch a glimpse of a new species that we can add to this guide!

¹¹ SharkCam video clips of most species are on the Youtube channel at [Cape Fear SharkCam Fishes](#).

IDENTIFICATION IMAGES

Sharks and Rays



Nurse Shark ● ●
Ginglymostoma cirratum ○ ○ ○ ○ ○



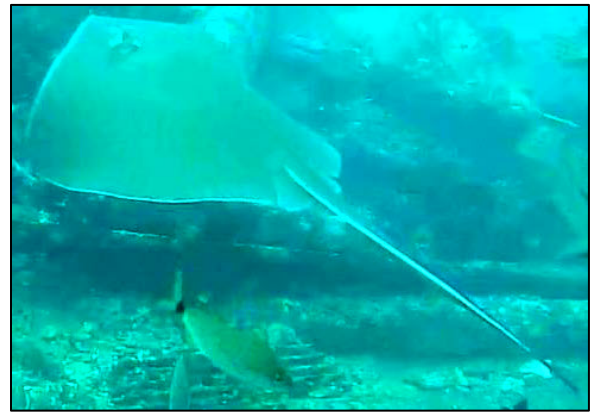
Sand Tiger Shark ● ● ● ●
Carcharias taurus ○ ○ ○ ○ ○



Sandbar Shark ● ● ●
Carcharhinus plumbeus ○ ○ ○ ○ ○



Giant Manta ● *Manta birostris* ○ ○ ○ ○ ○



Southern Stingray ● ● ●
Dasyatis americana ○ ○ ○ ○ ○

Relative frequency of occurrence

- ● ● ● ● Common = seen in greater than 50% of visits
- ● ● ● Frequent = seen in 50% to 20% of visits
- ● ● Occasional = seen in 10% to 20% of visits
- ● Uncommon = seen in 1% to 10% of visits
- Rare = seen in less than 1% of visits

Relative frequency of occurrence describes the likelihood of sighting a given species during a 20 minute viewing interval. Categories are based on the review of 388 video segments of 20 minutes in length. Note that seasonal and daily patterns of behavior may alter these likelihoods. Frequency of sightings on SharkCam does not necessarily reflect the actual abundance of fishes at FPT. Some species are much more (or less) likely to be seen than their actual abundance.

Relative size

- ○ ○ ○ ○ Very large (>1 m or >39 in)
- ○ ○ ○ ○ Large to Very large
- ○ ○ ○ Large (0.5–1 m or 20–39 in)
- ○ ○ ○ Medium to Large
- ○ ○ Medium (20 cm–0.5 m or 8–20 in)
- ○ ○ Small to Medium
- ○ Small (10–20 cm or 4–8 in)
- ○ Very small to Small
- Very small (<10 cm or 4 in)

Relative size is based on *in situ* observations and reported average sizes. Exceptional individuals may not conform to the expected relative size categories.

SharkCam Fishes

Silvery Fishes



African Pompano ● ●
Alectis ciliaris ○ ○ ○ ○



Crevalle Jack ● ● ● ●
Caranx hippos ○ ○ ○ ○ ○ ○



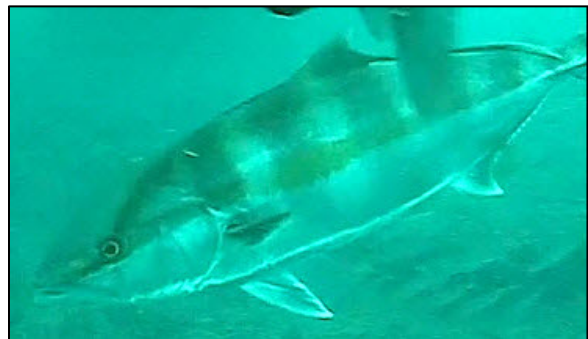
Permit ● ● ● ●
Trachinotus falcatus ○ ○ ○ ○ ○ ○



Almaco Jack ● ● ● ● ● ●
Seriola rivoliana ○ ○ ○ ○ ○ ○



Greater Amberjack ● ● ● ● ● ● ● ●
Seriola dumerili ○ ○ ○ ○ ○ ○ ○ ○



Banded Rudderfish ● ●
Seriola zonata ○ ○ ○ ○ ○ ○

SharkCam Fishes



Horse-eye Jack ●
Caranx latus ○○○○



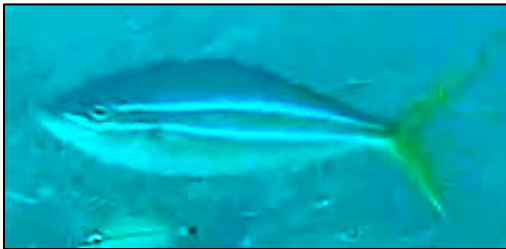
Bar Jack ●●●
Carangoides ruber ○○○



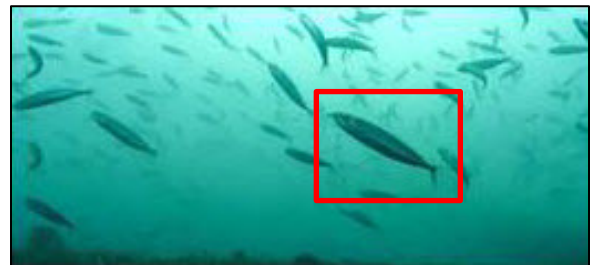
Blue Runner ●●●●
Caranx crysos ○○○



Bigeye Scad ●●
Selar crumenophthalmus ○○



Rainbow Runner ●●
Elagatis bipinnulata ○○○○



Round Scad ●●●●●
Decapterus punctatus ○○



Yellow Jack ●●
Carangoides bartholomaei ○○○

SharkCam Fishes



Scaled Herring ●
***Harengula jaguana* ○○**



Great Barracuda ● ● ● ●
***Sphyrna barracuda* ○ ○ ○ ○ ○**



King Mackerel ●
***Scomberomorus cavalla* ○ ○ ○ ○ ○**



Atlantic Bonito ● ●
***Sarda sarda* ○ ○ ○**



Little Tunny ● ●
***Euthynnus alletteratus* ○ ○ ○ ○ ○**



Atlantic Spadefish ● ● ● ●
***Chaetodipterus faber* ○ ○ ○ ○**



Bermuda Chub ● ● ● ● ●
***Kyphosus sectatrix* ○ ○ ○ ○ ○**
(top, normal phase; bottom, spotted phase)

SharkCam Fishes

Colorful Ovals



Blue Angelfish ● ● ● ● ●

Holacanthus bermudensis ○ ○ ○



Queen Angelfish ● ● ● ● ●

Holacanthus ciliaris ○ ○ ○



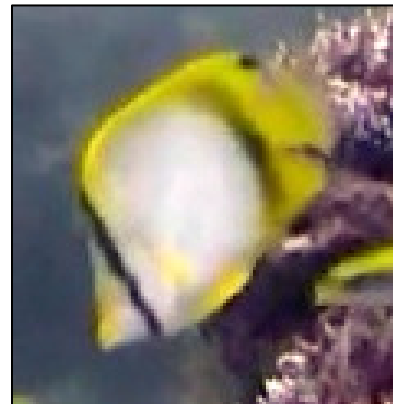
French Angelfish ●

Pomacanthus paru ○ ○ ○

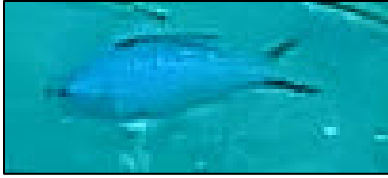


Spotfin Butterflyfish ●

Chaetodon ocellatus ○ ○ ○



SharkCam Fishes



Blue Chromis ● ●
Chromis cyanea ○



Purple Reeffish ● ● ●
Chromis scotti ○ (top, adult; bottom juvenile)



Bicolor Damselfish ● ●
Stegastes partitus ○



Cocoa Damselfish ● ● ● ●
Stegastes variabilis ○



Sergeant Major ● ● ● ●
Abudefduf saxatilis ○

SharkCam Fishes



Blue Tang ●●●●
Acanthurus coeruleus ○○ (juvenile)



Unidentified surgeonfish ●●
Acanthurus spp. ○○



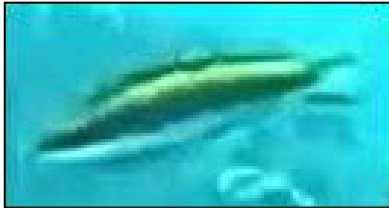
Doctorfish ●●
Acanthurus chirurgus ○○○

SharkCam Fishes

Swim with Pectoral Fins/Obvious Scales



initial phase,
all yellow
variation



initial phase,
midbody
stripe
variation



initial phase,
midbody
stripe
variation



initial to
terminal
phase
intermediate



initial to
terminal
phase
intermediate



terminal
phase

Bluehead ● ● ● ●

Thalassoma bifasciatum ○
(color, pattern and maturity variations)



Puddingwife ● ●
Halichoeres radiatus ○ ○



initial phase



terminal
phase

Clown Wrasse ●
Halichoeres maculipinna ○ ○



initial phase

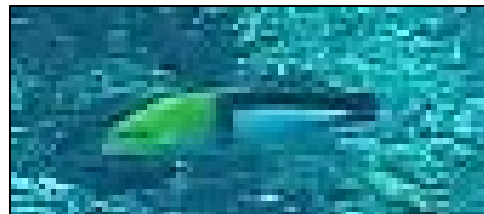


initial phase



terminal
phase

Slippery Dick ● ● ●
Halichoeres bivittatus ○ ○

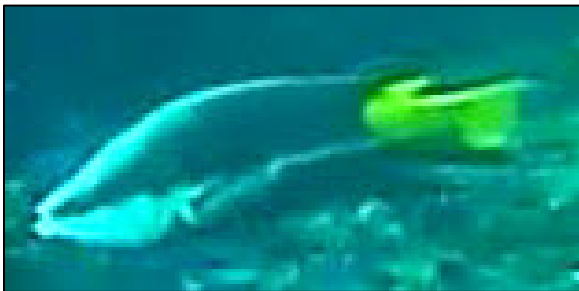


Yellowhead Wrasse ● ●
Halichoeres garnoti ○ ○

SharkCam Fishes



Spanish Hogfish ● ● ● ● ●
Bodianus rufus ○ ○ ○
(top, female; bottom, male)



Spotfin Hogfish ● ●
Bodianus pulchellus ○ ○ ○



Creole Wrasse ● *Clepticus parrae* ○ ○ ○



Princess Parrotfish ●
Scarus taeniopterus ○ ○ ○



Striped Parrotfish ●
Scarus iseri ○ ○ ○
(top, initial phase; bottom, terminal phase)



Yellowtail Parrotfish ● ●
Sparisoma rubripinne ○ ○ ○



Stoplight Parrotfish ● ●
Sparisoma viride ○ ○ ○
(initial phase)

SharkCam Fishes



Redband Parrotfish ● ●

Sparisoma aurofrenatum ○ ○ ○

(top, striped initial phase; middle, mottled initial phase; bottom, terminal phase)

Relative frequency of occurrence

- ● ● ● ● Common = seen in greater than 50% of visits
- ● ● ● Frequent = seen in 50% to 20% of visits
- ● ● Occasional = seen in 10% to 20% of visits
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Relative frequency of occurrence describes the likelihood of sighting a given species during a 20 minute viewing interval. Categories are based on the review of 388 video segments of 20 minutes in length. Note that seasonal and daily patterns of behavior may alter these likelihoods. Frequency of sightings on SharkCam does not necessarily reflect the actual abundance of fishes at FPT. Some species are much more (or less) likely to be seen than their actual abundance.

Relative size

- ○ ○ ○ ○ Very large (>1 m or >39 in)
- ○ ○ ○ ○ Large to Very large
- ○ ○ ○ ○ Large (0.5–1 m or 20–39 in)
- ○ ○ ○ ○ Medium to Large
- ○ ○ ○ Medium (20 cm–0.5 m or 8–20 in)
- ○ ○ Small to Medium
- ○ Small (10–20 cm or 4–8 in)
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Relative size is based on *in situ* observations and reported average sizes. Exceptional individuals may not conform to the expected relative size categories.

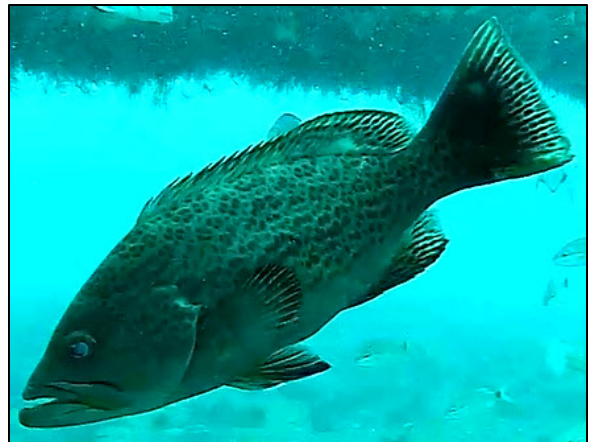
SharkCam Fishes

Heavy Bodies/Large Lips



Gag ● ● ● ●

Mycteroperca microlepis ○ ○ ○ ○
(color and pattern variation)



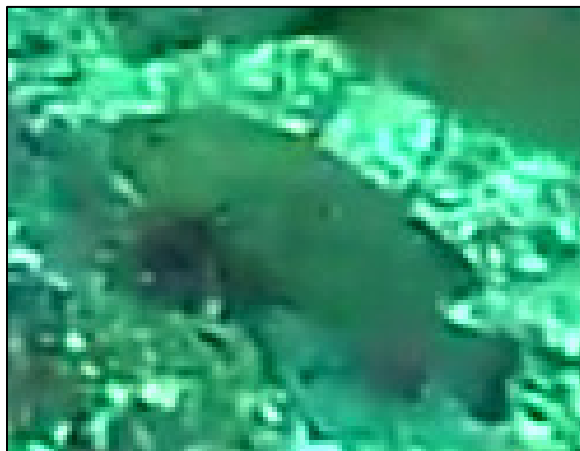
Scamp ● ● ●

Mycteroperca phenax ○ ○ ○ ○
(top, dark phase; middle, spotted phase;
bottom, cat's paw phase)



Goliath Grouper ●

Epinephelus itajara ○ ○ ○ ○ ○



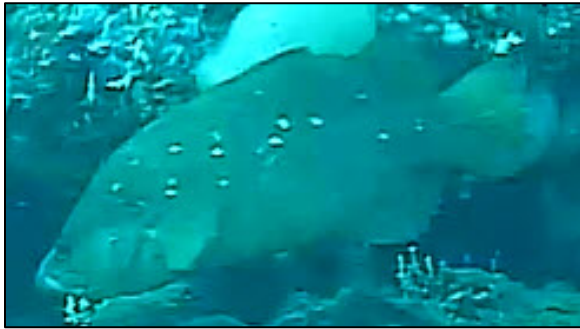
Graysby ●

Cephalopholis cruentata ○ ○ ○

SharkCam Fishes



Black Sea Bass ● ● ● ●
Centropristis striata ○ ○ ○
(top, female; bottom, male)



Whitespotted Soapfish ● ●
Rypticus maculatus ○ ○ ○



Hogfish ● ●
Lachnolaimus maximus ○ ○ ○ ○
(top, initial phase; middle, female; bottom, terminal phase male)



Tautog ● ●
Tautoga onitis ○ ○ ○ ○



Cobia ● ● ***Rachycentron canadum*** ○ ○ ○ ○ ○

SharkCam Fishes

Sloping Heads and Tapered Bodies



Cubera Snapper ● ●

Lutjanus cyanopterus ○ ○ ○ ○

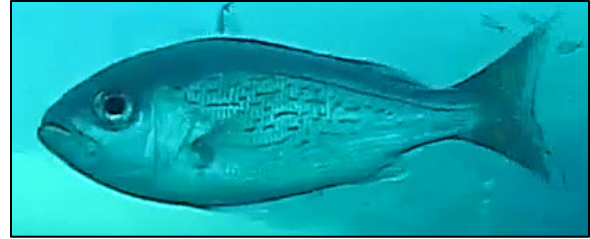
(top, typical color and pattern; bottom, barred phase)



Gray Snapper ● ●

Lutjanus griseus ○ ○ ○ ○

(top, nuchal bar; bottom, unmarked)



Vermilion Snapper ● ● ●

Rhomboplites aurorubens ○ ○ ○ ○

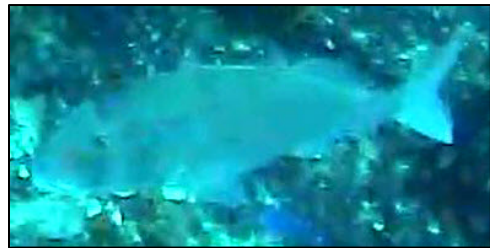


Yellowtail Snapper ● ● ●

Ocyurus chrysurus ○ ○ ○ ○



Knobbed Porgy ● ● *Calamus nodosus* ○ ○ ○ ○



Red Porgy ● ● *Pagrus pagrus* ○ ○ ○ ○



Saucereye Porgy ● ●

Calamus calamus ○ ○ ○ ○

SharkCam Fishes



Scup ● *Stenotomus chrysops* ○ ○



Striped Grunt ● ●
Haemulon striatum ○ ○



Sheepshead ● ● ● ●
Archosargus probatocephalus ○ ○ ○



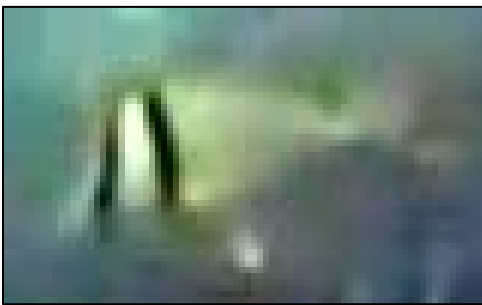
Tomtate ● ● ● ● ●
Haemulon aurolineatum ○ ○
(pattern variation)



Spottail Pinfish ● ● ● ● ●
Diplodus holbrookii ○ ○



White Grunt ● ● ●
Haemulon plumierii ○ ○ ○



Porkfish ● *Anisotremus virginicus* ○ ○ ○

SharkCam Fishes

Oddly-shaped Swimmers



Gray Triggerfish ● ● *Balistes capriscus* ○ ○ ○



Orangespotted Filefish ● ● ●
Cantherhines pullus ○ ○



Orange Filefish ● ●
Aluterus schoepfii ○ ○ ○
(top, male; bottom, female)



Planehead Filefish ● ●
Stephanolepis hispidus ○ ○ ○



Scrawled Filefish ● ● ● *Aluterus scriptus* ○ ○ ○
(top, typical coloration; bottom, blue phase)

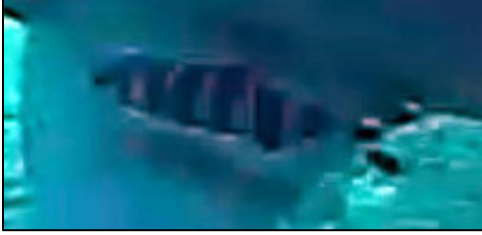


Bandtail Puffer ● ● *Sphoeroides spengleri* ○ ○ ○



Sharpnose Puffer ● ● *Canthigaster rostrata* ○ ○ ○

SharkCam Fishes



Pilotfish ● ● ● ● ● ● *Naucrates ductor* ○ ○



Sharksucker ● ● ● ● ● ● ● ● *Echeneis naucrates* ○ ○ ○
(top, juvenile; bottom, adult)



Whitefin Sharksucker ● ● ● ● ● ● ● ●
Echeneis neucratoides ○ ○ ○

Relative frequency of occurrence

- ● ● ● ● ● Common = seen in greater than 50% of visits
- ● ● ● ● Frequent = seen in 50% to 20% of visits
- ● ● ● Occasional = seen in 10% to 20% of visits
- ● Uncommon = seen in 1% to 10% of visits
- Rare = seen in less than 1% of visits

Relative frequency of occurrence describes the likelihood of sighting a given species during a 20 minute viewing interval. Categories are based on the review of 388 video segments of 20 minutes in length. Note that seasonal and daily patterns of behavior may alter these likelihoods. Frequency of sightings on SharkCam does not necessarily reflect the actual abundance of fishes at FPT. Some species are much more (or less) likely to be seen than their actual abundance.

Relative size

- ○ ○ ○ ○ ○ Very large (>1 m or >39 in)
- ○ ○ ○ ○ Large to Very large
- ○ ○ ○ ○ Large (0.5–1 m or 20–39 in)
- ○ ○ ○ ○ Medium to Large
- ○ ○ ○ Medium (20 cm–0.5 m or 8–20 in)
- ○ ○ ○ Small to Medium
- ○ Small (10–20 cm or 4–8 in)
- ○ Very small to Small
- Very small (<10 cm or 4 in)

Relative size is based on *in situ* observations and reported average sizes. Exceptional individuals may not conform to the expected relative size categories.

SharkCam Fishes

Bottom Fishes



Belted Sandfish ● ● *Serranus subligarius* ○



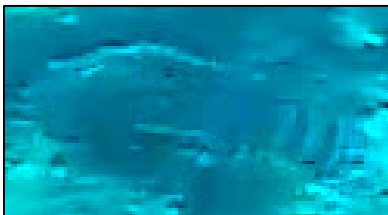
Harlequin Bass ● ● *Serranus tigrinus* ○ ○



Cubbyu ● *Pareques umbrosus* ○ ○ ○



Red Lionfish ● *Pterois volitans* ○ ○ ○
(non-native species)



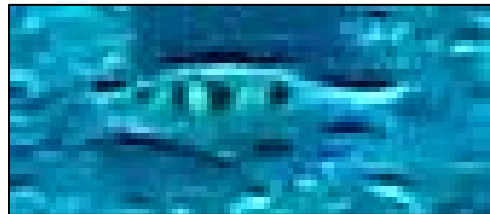
Spotted Scorpionfish ●
Scorpaena plumieri ○ ○ ○



Saddled Blenny ● ●
Malacoctenus triangulatus ○



Seaweed Blenny ●
Parablennius marmoratus ○



Spotted Goatfish ●
Pseudupeneus maculatus ○ ○ ○



Yellow Goatfish ●
Mulloidichthys martinicus ○ ○ ○



Squirrelfish ● ●
Holocentrus adscensionis ○ ○ ○

SharkCam Fishes



Southern Flounder ●
Paralichthys lethostigma ○ ○ ○



Green Moray ●
Gymnothorax funebris ○ ○ ○ ○ ○



Spotted Moray ●
Gymnothorax moringa ○ ○ ○ ○

Sharptail Eel ●
Myrichthys breviceps ○ ○ ○ ○



Relative frequency of occurrence

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Relative size

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- Very small (<10 cm or 4 in)

Relative size is based on *in situ* observations and reported average sizes. Exceptional individuals may not conform to the expected relative size categories.

SharkCam Fishes

Not Fishes



Caribbean Spiny Lobster ●
Panulirus argus ○○○○



Common Loon ● *Gavia immer* ○○○



Common Octopus ●
Octopus vulgaris ○○○

Loggerhead Sea Turtle ●
Caretta caretta ○○○○



Human Freediver ●
Homo sapiens aquaticus ○○○○



Human Scuba Diver ●
Homo sapiens scubica ○○○○



SharkCam Fishes



Moon Jelly ● ●
Aurelia aurita ○ ○ ○



Comb Jelly ● **Beroe ovata** ○



West Indian Sea Egg ● ●
Tripneustes ventricosus ○

Relative frequency of occurrence

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Frequency of sightings on SharkCam does not necessarily reflect the actual abundance of fishes at FPT. Some species are much more (or less) likely to be seen than their actual abundance.

Relative size

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- ○ ○ ○ ○ Medium to Large
- ○ ○ ○ Medium (20 cm–0.5 m or 8–20 in)
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SPECIES PROFILES

SHARKS AND RAYS

[Giant Manta](#)
[Nurse Shark](#)
[Sand Tiger Shark](#)
[Sandbar Shark](#)
[Southern Stingray](#)

SILVERY FISHES

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[Almaco Jack](#)
[Atlantic Bonito](#)
[Atlantic Spadefish](#)
[Banded Rudderfish](#)
[Bar Jack](#)
[Bermuda Chub](#)
[Bigeye Scad](#)
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[Greater Amberjack](#)
[Horse-eye Jack](#)
[King Mackerel](#)
[Little Tunny](#)
[Permit](#)
[Rainbow Runner](#)
[Round Scad](#)
[Scaled Herring](#)
[Yellow Jack](#)

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[Blue Angelfish](#)
[Blue Chromis](#)
[Blue Tang \(juvenile\)](#)
[Cocoa Damselfish](#)
[Doctorfish](#)
[French Angelfish](#)
[Purple Reefish](#)
[Queen Angelfish](#)
[Sergeant Major](#)
[Spotfin Butterflyfish](#)

[Surgeonfishes \(Blue Tang \(adult\), Doctorfish, Ocean Surgeon\)](#)

SWIM WITH PECTORAL FINS/OBVIOUS SCALES

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[Creole Wrasse](#)
[Clown Wrasse](#)
[Princess Parrotfish](#)
[Puddingwife](#)
[Redband Parrotfish](#)
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[Spanish Hogfish](#)
[Spotfin Hogfish](#)
[Stoplight Parrotfish](#)
[Striped Parrotfish](#)
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HEAVY BODIES/LARGE LIPS

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[Cobia](#)
[Gag](#)
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[Hogfish](#)
[Scamp](#)
[Tautog](#)
[Whitespotted Soapfish](#)

SLOPING HEADS AND

TAPERED BODIES

[Cubera Snapper](#)
[Gray Snapper](#)
[Knobbed Porgy](#)
[Red Porgy](#)
[Saucereye Porgy](#)
[Scup](#)
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ODDLY-SHAPED SWIMMERS

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BOTTOM FISHES

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[Yellow Goatfish](#)

NOT FISHES

[Caribbean Spiny Lobster](#)
[Comb Jelly](#)
[Common Loon](#)
[Common Octopus](#)
[Human \(Freediver and Scuba Diver\)](#)
[Loggerhead Sea Turtle](#)
[Moon Jelly](#)
[West Indian Sea Egg](#)

SHARKS AND RAYS

Nurse Sharks–Ginglymostomatidae

Nurse Shark

Ragged-tooth Sharks–Odontaspidae

Sand Tiger Shark

Requiem Sharks–Carcharhinidae

Sandbar Shark

Manta Rays and Devilfishes–Mobulidae

Giant Manta

Whiptail Stingrays–Dasyatidae

Southern Stingray

SharkCam Fishes

Nurse Shark

Ginglymostoma cirratum (Bonnaterre, 1788)

Ginglymostomatidae (Class Chondrichthyes)

Distinguishing characteristics:

A nurse shark is a long, moderately slender shark with a snakelike, sinuous style of swimming. It has a rounded, blunt snout when viewed from the side or above. Both its dorsal fins* are located relatively far back on the body towards the tail. The first dorsal fin typically begins at or behind the body mid-line and it is slightly taller than the second dorsal fin. The dorsal fins are moderately sized, about the same size as its pelvic and anal fins.* Its pelvic fins are located below the first dorsal fin. Coloration tends to be a shade of brown. Close up, two barbels (“whiskers”) can be seen hanging from the shark’s upper lip.

Relative frequency: Uncommon—seen in 1% to 10% of visits

NOTE: Due to the nurse shark’s tendency to take up short-term residency in areas before moving on, more frequent sightings over a short period of time could be of a single individual

Relative size: Very large (>1 m or >39 in)

Similar species: Sandbar Shark (*Carcharhinus plumbeus*),
Sand Tiger Shark (*Carcharias taurus*)

Swimming styles of sandbar and sand tiger sharks look stiff compared to the sinuous movement of a swimming nurse shark. They have pointed snouts; the nurse shark has a rounded snout.

The sandbar shark has a one very tall dorsal fin located forward on the body and one short one; the nurse shark’s first dorsal fin is only slightly taller than its second and both are comparatively short.

The sand tiger shark’s pelvic fins are located below the space between its dorsal fins; the nurse shark’s pelvic fins are located below its first dorsal fin. The sand tiger shark can hover almost motionless and sandbar sharks will be in constant motion but the nurse shark may sit motionless on the bottom or swim slowly through the camera view. Neither the sandbar nor the sand tiger shark has barbels like the nurse shark.

* Anal fin = bottom fin closest to tail

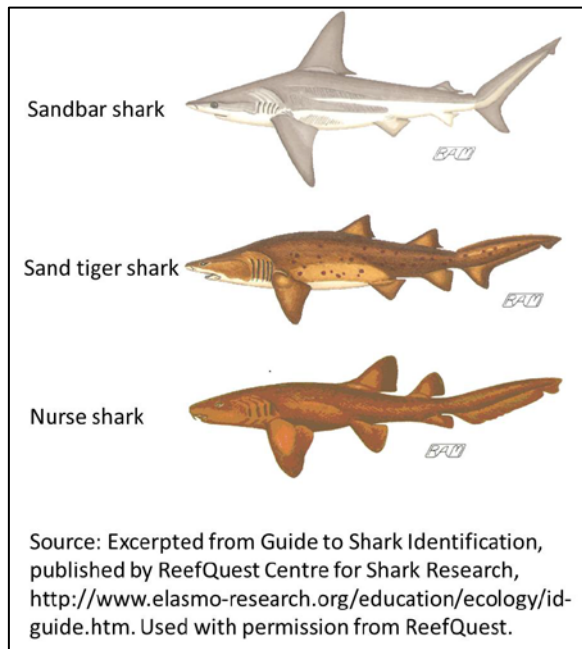
Dorsal fin = top fin

Pectoral fin = side fin

Pelvic fins = bottom fins closest to head

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Sand Tiger Shark

***Carcharias taurus* Rafinesque, 1810**
Odontaspidae (Class Chondrichthyes)

Distinguishing characteristics:

The sand tiger shark is the only shark seen on SharkCam that often hangs motionless or moves very slowly (stealthily) in the water. It has a thick torso and a long head that tapers to a pointed snout. Its two dorsal fins* sit rather far back on its body, towards the tail, and are roughly the same moderate size as its anal and pelvic fins.* Its pelvic fins are located below the space between the dorsal fins. On a clear close-up, dark blotches can be seen scattered about on the body and fins.

NOTE: Most sand tigers seen on SharkCam are large females.

Relative frequency: Frequent—seen in 50% to 20% of visits

NOTE: Sand tiger sharks are migratory, moving north for the warmer months and south for the cooler ones. They were absent from SharkCam from June until late October 2015, and were seen more often from then until early May 2016.

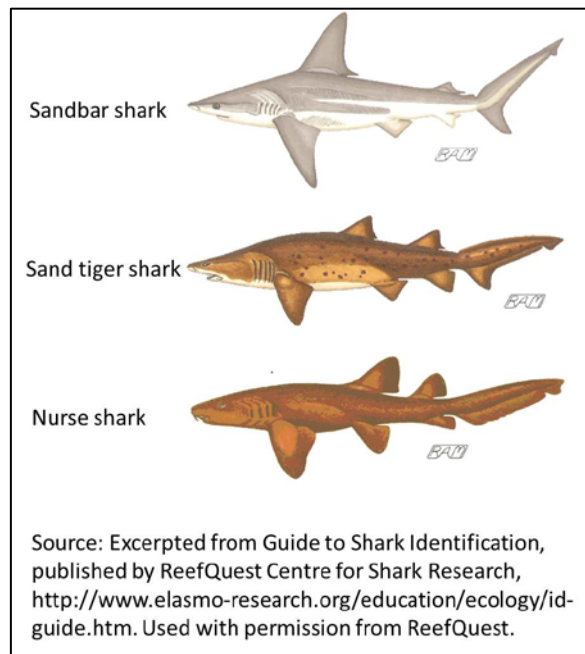
Relative size: Very large (>1 m or >39 in)

Similar species: Sandbar Shark (*Carcharhinus plumbeus*), Nurse Shark (*Ginglymostoma cirratum*)

Sandbar sharks and sand tiger sharks have similar body shapes but the sand tiger shark does not have a tall dorsal fin like the sandbar shark does. The sandbar shark first dorsal fin is roughly as tall as its body is deep and sits closer to its head than the sand tiger shark's does, just above its pectoral fins.* Its second dorsal fin is small and sits back near its tail. Sandbar sharks are constantly swimming or gliding on SharkCam, and do not hang motionless or move slowly (stealthily) like sand tiger shark can.

Nurse sharks swim much more sinuously than the sand tiger shark's swimming motion. The two species have similar body shapes except the nurse shark's rounded snout is a strong contrast to the sand tiger's pointed snout. The nurse shark's first dorsal fin is slightly but noticeable taller than its second dorsal fin, unlike the sand tiger's equally-sized dorsal fins. The nurse shark does not have blotches like the sand tiger shark and has barbels; the sand tiger shark has no barbels.

* Anal fin = bottom fin closest to tail
Dorsal fin = top fin
Pectoral fin = side fin
Pelvic fins = bottom fins closest to head



Sand tigers are often obscured by a large cloud of “attendants” that seem to function as a screen for the shark's movements. On at least one occasion on SharkCam a sand tiger was seen using this screen for predation.

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Sandbar Shark

Carcharhinus plumbeus (Nardo, 1827)
Carcharhinidae (Class Chondrichthyes)

Distinguishing characteristics:

The sandbar shark looks like what people think of when they think of sharks. It has a thick torso and a long head that tapers to a pointed snout. Its first dorsal fin* starts above the midline of its pectoral fins* and is tall, generally as tall as its body is deep. Its second dorsal fin sits way in the back by the tail and is very small. Sandbar sharks are constantly swimming or gliding on SharkCam (they sink if they stop swimming).

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Very large (>1 m or >39 in)

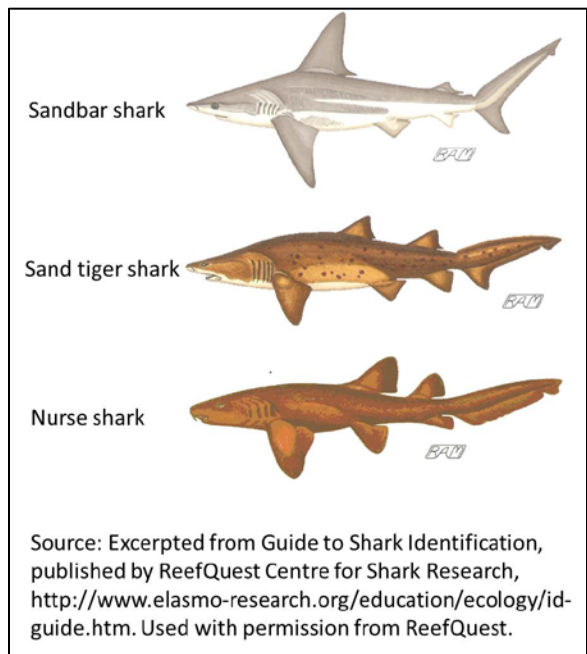
Similar species: Sand Tiger Shark (*Carcharias taurus*),
Nurse Shark (*Ginglymostoma cirratum*)

Sand tiger sharks and sandbar sharks have similar body shapes but a sand tiger does not have a tall dorsal fin.* Its dorsal fins are the same moderate size and are both located back by its tail. The sand tiger can hang motionless or move slowly (stealthily), something the sandbar does not do. The sand tiger has dark blotches; the sandbar has none.

Nurse sharks and sandbar sharks have similar body shapes but a nurse does not have a tall dorsal fin, is more slender, and its rounded snout is in contrast to the sandbar shark's pointed snout. The nurse shark's dorsal fins are roughly the same moderate size and both are back by the tail. The nurse shark swims much more sinuously than the sandbar shark's comparatively stiff style.

* Dorsal fin = top fin
Pectoral fin = side fin

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\) \(2\)](#)



Sharks are often accompanied by smaller fish. This behavior may be a way to be close at hand to grab tidbits from a shark's meal, to discourage in-between-sized predators from attacking, and/or make it easier for them to travel to other locations (like drafting behind another vehicle). In this image, a sandbar shark is shadowed by a school of round scad, a few blue runners, and a yellow jack.



SharkCam Fishes

Giant Manta

Manta birostris (Walbaum, 1792)
Mobulidae (Class Chondrichthyes)

Distinguishing characteristics:

The giant manta viewed from the side has a large head that transitions into a very wide body, large triangular pectoral wings* that arch backwards, and distinct cephalic fins on each side of the head that extend forward. Coloration is typically dark on top and white underneath. Pale patches on the dorsal surface, especially the trailing edge of the pectoral wings, and dark spots underneath are common. Large gill slits are found underneath and forward on the body. Giant manta “fly” through the water propelled by the pectoral wings,* similar to a bird in flight. The dorsal fin* is set at the extreme back of the body. It is small relative to the size of the animal and is shaped similarly to a shark’s. A thin, whip-like tail extends almost one body length.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Very large (>1 m or >39 in); the average disc width is 4.5 m (15 ft) making this the largest animal seen on SharkCam to date

Similar species: No other fish seen on SharkCam resembles the giant manta.

* Pectoral wings = side fins

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Southern Stingray

Dasyatis americana Hildebrand and Schroeder, 1928
Dasyatidae (Class Chondrichthyes)

Distinguishing characteristics:

A southern stingray looks like a horizontal disk “flying” through the water, propelled by rolling two sides (modified pectoral fins*) up and down, similar to a bird in flight. The top side (dorsal surface) is dark with a slightly pointed snout, two small protrusions that contain the eyes, no dorsal fins,* and a long, whip-like tail. At a distance, intermittent flashes of the white underside are often all that can be seen as a southern stingray “flies” by.

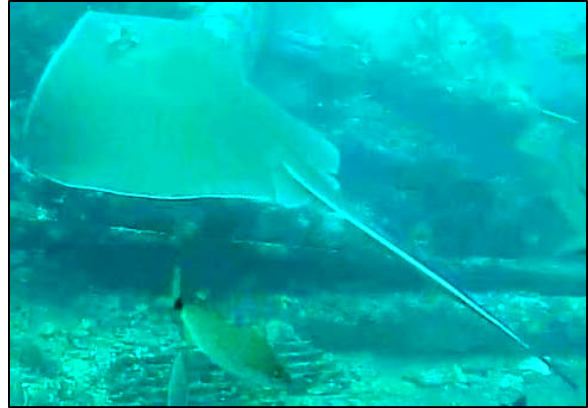
Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: No other fish seen on SharkCam resembles the southern stingray.

* Dorsal fin = top fin
Pectoral fin = side fin

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\) \(2\) \(3\)](#)



SharkCam Fishes

SILVERY FISHES

Jacks and Pompanos–Carangidae

African Pompano

Almaco Jack

Banded Rudderfish

Bar Jack

Bigeye Scad

Blue Runner

Crevalle Jack

Greater Amberjack

Horse-eye Jack

Permit

Rainbow Runner

Round Scad

Yellow Jack

Herrings, Shads, Sardines, and Menhadens–Clupeidae

Scaled Herring

Mackerels, Tunas and Bonitos–Scombridae

Atlantic Bonito

King Mackerel

Little Tunny

Barracudas–Sphyraenidae

Great Barracuda

Spadefishes–Ephippidae

Atlantic Spadefish

Sea chubs–Kyphosidae

Bermuda Chub

SharkCam Fishes

African Pompano *Alectis ciliaris* (Bloch, 1787) Carangidae

Distinguishing characteristics:

An African pompano shares several characteristics with other members of the jack family: a deeply forked tail, pointed fins (including both lobes of the tail), and a silvery-gray color. From the side, the body is broad, shaped roughly as an oval. The outline of the face and forehead form a straight line that rises steeply from the mouth to form a distinct bump where it joins the outline of the back. The dorsal and anal fins* are triangular and short. Overall, the African pompano has a metallic, mirror-like sheen. From the front, the fish is unusually thin.



Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Large (0.5–1 m or 20–39 in)

Similar species: Crevalle Jack (*Caranx hippos*), Permit (*Trachinotus falcatus*)

The crevalle jack and the permit share with the African pompano the several characteristics of the jack family.

From the side, the crevalle jack face and forehead outline forms a smooth arc with the back (no bump like the African pompano). The crevalle jack dorsal and anal fins are tall and scythe shaped (African pompano fins small and triangular) and on SharkCam are usually white (African pompano fins silvery gray). When close enough, crevalle jacks show a small black spot above the pectoral fin (African pompano lacks this).



The permit face and forehead also form a smooth arc with the back (no bump like the African pompano). Permit dorsal and anal fins are tall and thin (African pompano fins small and triangular) and on SharkCam are dark, especially the pectoral fin* (African pompano fins silvery gray). The permit has a darker blotch on its side and a white belly patch that, at close viewing, shows a mustard-yellow tint ahead of the anal fin (African pompano shows none of these features).

* Anal fin = bottom fin closest to tail

Dorsal fin – top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Crevalle Jack

Caranx hippos (Linnaeus, 1766)

Carangidae

Distinguishing characteristics:

Like other members of the jack family, a crevalle jack has a deeply forked tail, rather pointed fins (including both lobes of tail), and a silvery-gray color. From the side, the body is broad, shaped like an elongated oval with a blunt front. The face and forehead outline forms a smooth arc with the back. The dorsal, anal, and pectoral fins* are long, scythe shaped, and on SharkCam are usually white. There are two small black spots, one on the base of the pectoral fin* and one above the pectoral fin.

Seen face-on, the crevalle jack has unusually forward-facing eyes, relative to most other fish. They are often seen in loosely aggregated groups of a few individuals.

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: African Pompano (*Alectis ciliaris*), Permit (*Trachinotus falcatus*), Horse-eye Jack (*Caranx latus*)

Other large bodied jacks, like African pompano, permit, and horse-eye jack have body and fin shapes and colors that are similar to those of the crevalle jack.

The outline of the African pompano head is more angular, with a distinct bump, than the smooth arc of the crevalle jack head. The African pompano is noticeably thin, has shorter dorsal and anal fins,* lacks the crevalle jack's dark spots, and has a metallic, mirror-like sheen the crevalle jack lacks.

The permit also has a broad, oval-shaped body but it is rounder, less elongated, than the crevalle jack. The permit has a darker blotch on its side and a white belly patch that, at close viewing, shows a mustard-yellow tint ahead of the anal fin,* features the crevalle jack lacks. SharkCam permits have dark fins, especially the short pectoral fin, whereas those of the crevalle jack generally are white.

The horse-eye jack lacks the crevalle jack's dark spot and, unlike the crevalle, has large eyes and usually has a bright yellow tail and a narrow, dark stripe that runs from the tail about half way to the mouth.

A crevalle jack, with its elongated shape, deeply forked tail, and pointed fins and tail lobes, could be mistaken for some species of shark. This seems particularly true when viewed on a website called "SharkCam." SharkCam shark species, however, do not have symmetrical tails like the crevalle jack. Instead, the upper lobe of the sharks' tail is much larger than the lower lobe, being a significant portion of the sharks' length.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Permit

Trachinotus falcatus (Linnaeus, 1758)

Carangidae

Distinguishing characteristics:

Like other members of the jack family, the permit has a deeply forked tail, pointed fins (including both lobes of tail), a slender body cross section, and a silvery-gray color. From the side, most SharkCam permits look relatively round, with an occasional larger individual looking more elongated, or oval shaped. SharkCam permits have long, dark dorsal,* anal,* and tail fins and a short, dark pectoral fin,* The permit has a darker blotch on its side and a white belly patch that, at close viewing, shows a mustard-yellow tint ahead of the anal fin.* The white belly patch shows well under poor lighting conditions and when the fish is swimming rapidly.

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Large (0.5–1 m or 20–39 in)

Similar species: African Pompano (*Alectis ciliaris*), Crevalle Jack (*Caranx hippos*), Horse-eye Jack (*C. latus*)

The African pompano, crevalle jack, and horse-eye jack have body and fin shapes that are similar to those of the permit. From the side, the crevalle jack is shaped like an elongated oval, compared to the permit's typically round shape. The crevalle lacks the darker blotch on the side, the white belly patch, and the short, dark pectoral fin of the permit, and has a dark spot above its pectoral fin that the permit lacks. Typically, the crevalle's fins look white compared to the permit's fins that look dark.

The outline of the African pompano head is more angular, with a distinct bump, than the smooth arc of the permit head. The African pompano has shorter dorsal and anal fins, and has a metallic, mirror-like sheen. It lacks the permit's darker patch on the side, white belly patch, and short, dark pectoral fin.

From the side, the horse-eye jack is oval-shaped with large eyes, a narrow, dark stripe that runs from the tail about half way to the mouth, and a tail that is usually bright yellow. The horse-eye jack lacks the permit's darker patch on the side, white belly patch, and short, dark pectoral fin.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Additional information, web links, and contributions.

SharkCam video (1)



SharkCam Fishes

Almaco Jack

Seriola rivoliana Valenciennes in Cuvier and Valenciennes, 1833
Carangidae

Distinguishing characteristics:

An almaco jack shares several characteristics with other members of the jack family: a deeply forked tail, rather pointed fins (including both lobes of tail), and a slender body cross section. From the side, the body is oval shaped with a tall dorsal fin* shaped like a scythe blade. The almaco's body is about three times as long as it is tall. The body color ranges from silvery gray to a dark olive but the fins are dark colored. A distinct black band runs from the mouth through the eye and up to the front of the dorsal fin.* The band can lighten to be almost nonexistent or darken dramatically. It is typically fairly prominent in the almaco jack. From the front, the almaco is shaped like a slender oval.

Relative frequency: Frequent—seen in 50% to 20% of visits

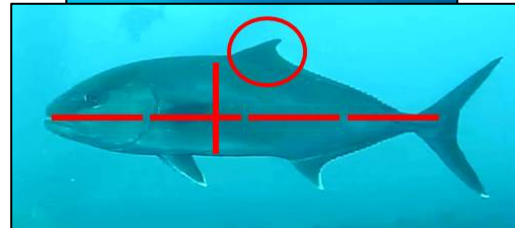
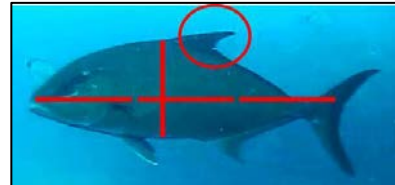
Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)

Similar species: Greater Amberjack (*Seriola dumerili*)

The greater amberjack looks like an elongated almaco jack with a short dorsal fin. The almaco's body is about three times as long as it is tall; the greater amberjack's body is about four times as long as it is tall. From the front, the greater amberjack is usually more circular in cross section than the almaco's slender oval.

* Dorsal fin = top fin

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#)



Comparative view of almaco jack (above), greater amberjack (below)

SharkCam Fishes

Greater Amberjack *Seriola dumerili* (Risso, 1810) Carangidae

Distinguishing characteristics:

A greater amberjack has a deeply forked tail and rather pointed fins (including both lobes of tail), characteristics it shares with other members of the jack family. From the side, the body resembles an elongated oval that is about four times as long as it is tall. The greater amberjack has a short dorsal fin* and a color that ranges from silvery gray to amber, with a darker pectoral fin.* A black bar, called a nuchal mark, runs from the mouth through the eye and up to the front of the dorsal fin.* The nuchal mark can lighten to be almost nonexistent or darken dramatically.

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: Almaco Jack (*Seriola rivoliana*)

The almaco jack is less elongated than the greater amberjack, looking more like an oval. The almaco's body is about three times as long as it is tall; the greater amberjack body is about four times as long as it is tall. The almaco has a taller, scythe-like dorsal fin,* and all fins are dark.

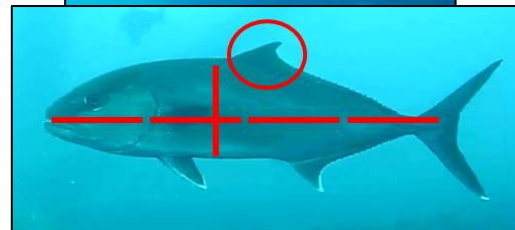
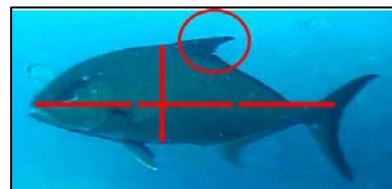
A greater amberjack, with its elongated shape, deeply forked tail, and pointed fins and tail lobes, can be mistaken for some species of shark. This seems particularly true when viewed on a website called the "SharkCam." SharkCam shark species, however, do not have symmetrical tails like the greater amberjack. Instead, the upper lobe of the sharks' tail is much larger than the lower lobe, being a significant portion of the sharks' length. No western Atlantic shark species has a nuchal mark like the greater amberjack.

* Dorsal fin = top fin

Pectoral fin = fin on side of body

Additional information, web links, and contributions.

SharkCam video (1)



Comparative view of almaco jack (above), greater amberjack (below)

SharkCam Fishes

Banded Rudderfish

Seriola zonata (Mitchill, 1815)

Carangidae

Distinguishing characteristics:

A juvenile banded rudderfish has a light-colored body shaped like an elongated oval, with six dark bars* spaced along its body. It has a dark band which runs from the mouth, across the eye, to the front of the dorsal fin.* The band can lighten to be almost nonexistent or darken dramatically. Adult banded rudderfish have not been seen on SharkCam.



NOTE: The fish in the lower image has part of the lower lobe of its tail missing.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)



NOTE: Juveniles lose their bars when they are about 28 cm (11 in) long.

Similar species: Greater Amberjack (*Seriola dumerili*), Almaco Jack (*S. rivoliana*), Sergeant Major (*Abudefduf saxatilis*), Sheepshead (*Archosargus probatocephalus*), Atlantic Spadefish (*Chaetodipterus faber*)

Greater amberjack and almaco jack have similar silhouettes and are generally about the same size as the banded rudderfish. The almaco jack body is deeper with a higher dorsal fin. Both will lack the bars of the banded rudderfish.

Three other fish seen on SharkCam have dark bars: sergeant majors, sheepsheads, and Atlantic spadefish. Sergeant majors and sheepsheads have bodies that are deeper (proportionately taller) than the banded rudderfish and the Atlantic spadefish has an unmistakable triangular shape. None of the three has a diagonal band that runs through the eye.

* Bar = vertical marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Horse-eye Jack

Caranx latus Agassiz in Spix and Agassiz, 1831
Carangidae



Distinguishing characteristics:

A horse-eye jack shares several characteristics with other members of the jack family: a deeply forked tail, rather pointed fins (including both lobes of tail), a slender body cross section, and a silvery-gray body color. From the side, its body is oval-shaped with a large eye that has a diameter that approximately equals the distance from the eye to the snout. The horse-eye jack has a narrow dark stripe* that runs from the tail about half way to the mouth, and its tail is usually bright yellow.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Large (0.5–1 m or 20–39 in)

Similar species: Blue Runner (*Caranx crysos*), Bar Jack (*Carangoides ruber*), Yellow Jack (*Carangoides bartholomaei*), Yellowtail Snapper (*Ocyurus chrysurus*), Vermilion Snapper (*Rhomboplites aurorubens*)

Several other jack species can be confused with the horse-eye jack but lack its large eyes and dark stripe, and have their own distinguishing features. The blue runner has a dark tip on the tail lobes and two short, bright white horizontal lines, one above the base of the pectoral fin* and one at the base. The bar jack has a dark stripe along the dorsal fin* and down to the lower lobe of the tail, accompanied by a bright blue or white line beneath it. The fins of the yellow jack have a yellow cast, especially the lower lobe of the tail. The crevalle jack has a dark spot just above the pectoral fin.

Although not a jack, the yellowtail snapper has a similar shape, light coloring, and a forked yellow tail with pointed lobes. Unlike the horse-eye jack, the yellowtail snapper also has a yellow stripe that runs from the tail towards the eye, turning dark as it goes.

A vermilion snapper also has a large eye, like the horse-eye jack, but its body is more slender with a tail that is more square, with only a shallow fork, and not yellow.

* Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

SharkCam Fishes

Blue Runner

Caranx crysos (Mitchill, 1815)

Carangidae

Distinguishing characteristics:

A blue runner shares several characteristics with other members of the jack a deeply forked tail, rather pointed fins (including both lobes of tail), and a slender body cross section. The body color ranges from a silvery-gray to a silvery blue. From the side, the body is oval-shaped and with dark tips to its tail. SharkCam blue runners show two short, bright white horizontal lines, one above the base of the pectoral fin* and one at the base. The white lines show up well even under poor lighting conditions and when the fish moves rapidly.

Relative frequency: Frequent—seen in 50% to 20% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Bar Jack (*Carangoides ruber*), Horse-eye Jack (*Caranx latus*), Yellow Jack (*Carangoides bartholomaei*), Yellowtail Snapper (*Ocyurus chrysurus*)

Several other jack species can be confused with the blue runner but lack the blue runner's bright white lines and have their own distinguishing features.

The bar jack has a dark stripe along its dorsal fin and down to the lower lobe of its tail, accompanied by a bright blue or white line beneath it.

The horse-eye jack has large eyes and usually has a bright yellow tail and a narrow, dark stripe that runs from the tail about half way to the mouth.

The fins of the yellow jack have a yellow cast, especially the lower lobe of the tail.

Although not a jack, the yellowtail snapper has a similar shape and light coloring but has a yellow tail and a yellow stripe that starts at the tail and becomes darker towards the eye.



* Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1)

SharkCam Fishes

Rainbow Runner

Elagatis bipinnulata (Quoy and Gaimard, 1825)
Carangidae

Distinguishing characteristics:

From the side, a rainbow runner is shaped like a slender oval with a rather pointed head. The tail is jack-like, deeply forked with pointed lobes, and is bright yellow. The body is light gray below and darker gray above, with two bright, light blue, almost white, stripes* down the middle.

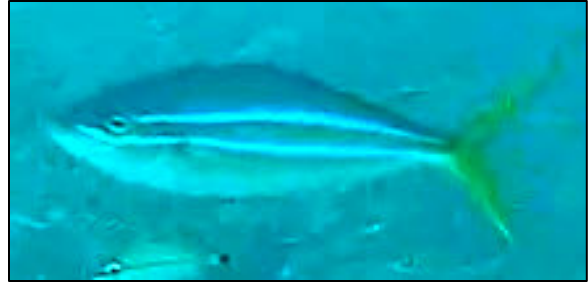
Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)

Similar Species: Cobia (*Rachycentron canadum*), Yellowtail Snapper (*Ocyurus chrysurus*)

The cobia has a similar body shape but with a flattened head, a large, shallowly forked tail with sharp tips, and a tall, triangular dorsal fin.* The cobia overall coloration is dark, although it may have some lighter tones underneath, and the tail is not yellow. All cobia seen on SharkCam have been substantially larger than a rainbow runner.

The yellowtail snapper has a forked yellow tail with pointed lobes, like the rainbow runner. Unlike the rainbow runner, the yellowtail snapper also has a stripe that starts as yellow at the tail and runs towards the snout, becoming darker towards the eye.



* Dorsal fin = top fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1)

SharkCam Fishes

Yellow Jack

***Carangoides bartholomaei* (Cuvier in Cuvier and Valenciennes, 1833)**
Carangidae

Distinguishing characteristics:

A yellow jack shares several characteristics with other members of the jack a deeply forked tail, rather pointed fins (including both lobes of the tail), a slender body cross section, and a silvery-gray color. From the side, the body is oval-shaped. The yellow jack's fins have a yellow cast, especially the lower lobe of the tail.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Horse-eye Jack (*Caranx latus*), Blue Runner (*Caranx crysos*), Bar Jack (*Carangoides ruber*), Yellowtail Snapper (*Ocyurus chrysurus*)

Other jack species share with the yellow jack the several characteristics of the jack family. The horse-eye jack usually has a yellow tail like the yellow jack but also has big eyes and a narrow, dark stripe* that runs from the tail about half way to the mouth.

The blue runner and the bar jack have no yellow color to their fins and have their own distinguishing characteristics. The blue runner has a dark tip on the tail lobes and two short, bright white horizontal lines, one above the base of the pectoral fin* and one at the base. The bar jack has a dark stripe along its dorsal fin and down to the lower lobe of its tail, accompanied by a bright blue or white line beneath it.

Although not a jack, the yellowtail snapper has a similar shape, light coloring, and a deeply forked tail that shows yellow. Unlike on the yellow jack, on the yellowtail snapper the yellow of the tail extends as a stripe towards the snout, turning darker towards the eye.



* Pectoral fin = side fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Bar Jack

Carangoides ruber (Bloch, 1793)

Carangidae

Distinguishing characteristics:

A bar jack shares several characteristics with other members of the jack a deeply forked tail, rather pointed fins (including both lobes of tail), and a slender body cross section. The body color ranges from a silvery-gray to a silvery blue. From the side, the body is oval-shaped, with a dark stripe* that runs along the dorsal fin* to the lower lobe of the tail, A bright, light blue, almost white stripe runs beneath the black stripe. A white “mustache” shows above the mouth. When swimming, a bar jack wriggles much of its body, a motion that is unlike the other jacks. Bar jacks seen on SharkCam are typically juveniles and often travel in small schools.

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Blue Runner (*Caranx crysos*), Horse-eye Jack (*Caranx latus*), Yellow Jack (*Carangoides bartholomaei*),



Several other jack species can be confused with the bar jack but lack the bar jack’s bright blue and black stripes and have their own distinguishing features.

The blue runner has a dark tip on the tail lobes and two short, bright white horizontal lines, one above the base of the pectoral fin* and one at the base.

The horse-eye jack has very large eyes and usually has a bright yellow tail and a narrow, dark stripe that runs from the tail about half way to the mouth.

The fins of the yellow jack have a yellow cast, especially the lower lobe of the tail.

* Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Bigeye Scad

Selar crumenophthalmus (Bloch, 1793)

Carangidae

Distinguishing characteristics:

Although small, generally 4 to 6 inches long, bigeye scad show several jack characteristics: silvery-gray coloration, deeply forked tail, rather pointed fins (including both lobes of tail), and a slender cross section. From the side it is shaped like an elongated oval and may show a small dark spot above the pectoral fin*. As its name implies, its eye is large, having a diameter as great as or greater than the distance between its eye and the end of its snout. Depending on lighting angles, the bigeye might show a metallic sheen. This is a schooling fish, often forming schools of thousands.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Very small (<10 cm or 4 in) to Small (10–20 cm or 4–8 in)

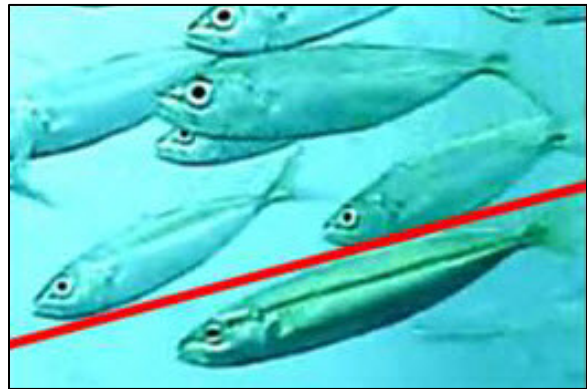
Similar species: Round Scad (*Decapterus punctatus*), Scaled Herring (*Harengula jaquana*), young Tomtate (*Haemulon aurolineatum*)

The round scad has the same jack characteristics as the bigeye scad and a similar elongated oval but its body is more slender. The eye is smaller on the round scad, the diameter being less than the distance between its eye and the end of its snout.

Often seen in and around schools of round scad, young tomtates have a dark blotch at the base of the tail, a feature the bigeye scad does not have.

* Pectoral fin = side fin

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#) [\(2\)](#)



Comparative view of bigeye scad (above), round scad (below)

SharkCam Fishes

Round Scad

Decapterus punctatus (Cuvier, 1829)
Carangidae

Distinguishing characteristics:

Although small, generally 6 to 8 inches long, a round scad shares several characteristics with other members of the jack silvery-gray coloration, deeply forked tail, rather pointed fins (including both lobes of tail), and a slender cross section. From the side it is shaped like a slender oval and shows a dark spot above the pectoral fin.* The diameter of its eye is less than the distance between its eye and the end of its snout. Occasionally it shows a yellow tail and a darkened stripe* mid-body. This is a schooling fish, often forming schools of thousands.

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Bigeye Scad (*Selar crumenophthalmus*), Scaled Herring (*Harengula jaguana*), young Tomtate (*Haemulon aurolineatum*)

The bigeye scad has the same jack characteristics as the round scad and the same general body shape but its body is deeper (proportionately taller). Its eye is larger, the diameter being equal to or greater than the distance between its eye and the end of its snout.

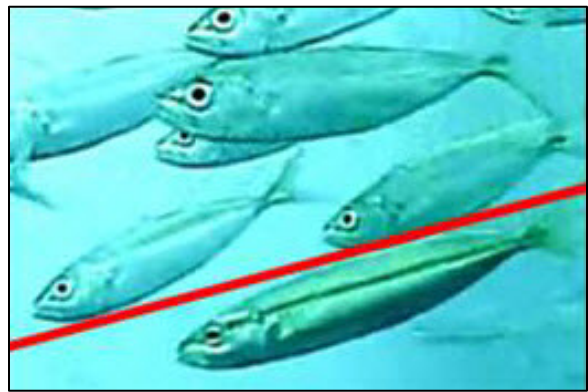
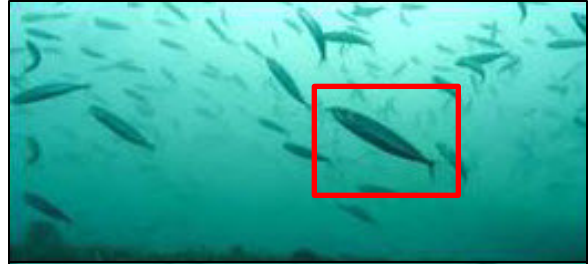
Often seen in and around schools of round scad, young tomtates have a dark blotch at the base of the tail, a feature the round scad does not have.

* Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1)



Comparative view of bigeye scad (above), round scad (below)

SharkCam Fishes

Scaled Herring

Harengula jaguana Poey, 1865

Clupeidae



Distinguishing characteristics:

Scaled herring are a small, generally 4 to 6 inches long, silvery schooling fish seen rarely on SharkCam. It is typically seen in large schools of similarly sized individuals.

Depending on lighting conditions the back is light blue, fading to silver or white on the flanks. The tail fin is deeply forked, although this may not be obvious given its clear color. The only distinguishing characteristic seen may be the flat, relatively large upper lip. This flattened upper lip is a characteristic of the herring and sardine family, Clupeidae. The eye is relatively large.

Images from the web of scaled sardines show that the species has relatively large, prominent scales, a feature not seen on SharkCam to date.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Round Scad (*Decapterus punctatus*), Bigeye Scad (*Selar crumenophthalmus*)

The scaled herring closely resembles a round or bigeye scad in body profile and size. It is distinguished from both by the relatively large, flattened upper lip, characteristic of its family. This is a feature neither round nor bigeye scad possess.

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)

SharkCam Fishes

Great Barracuda

***Sphyraena barracuda* (Edwards in Catesby, 1771)**
Sphyraenidae

Distinguishing characteristics:

The great barracuda is long and slender with a flattened head, a protruding lower lip, and a large, squared-off tail. Often only the second dorsal fin* shows, located far back on the body above the anal fin.* Individuals frequently hang motionless, or almost motionless, with the body tilted slightly lower at the head. The body may be all dark or silvery gray with a row of lighter-toned rectangular markings (“windows”) and indistinct dark to black blotches along the midline.

Relative frequency: Frequent—seen in 50% to 20% of visits

NOTE: May be seasonal, largely absent from SharkCam during winter of 2015-2016

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: King Mackerel (*Scomberomorus cavalla*)

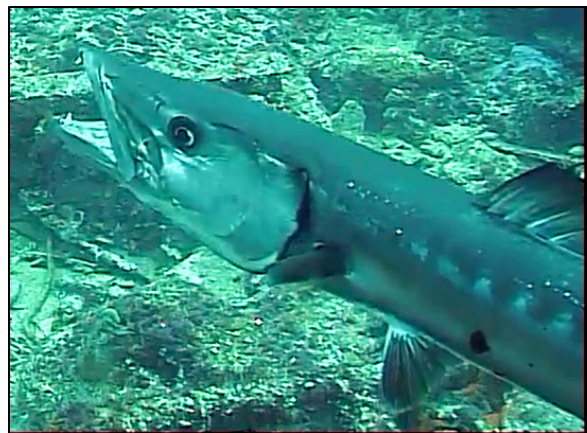
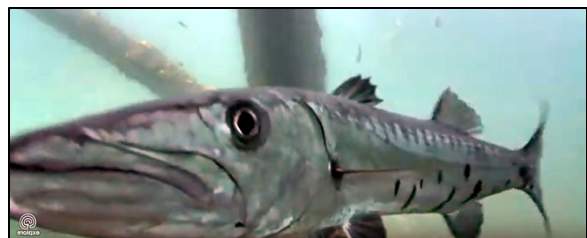
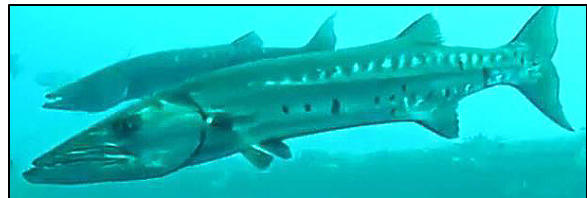
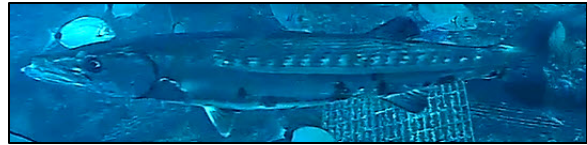
Although both the king mackerel and great barracuda are long and slender, the great barracuda is readily distinguished by the length of the head. The great barracuda head is approximately $\frac{1}{4}$ of the total body length, and the mouth is long, while the head length of the king mackerel is a small fraction of the body length and the mouth is short. The eye of the great barracuda is also significantly larger than the relatively small eye of the king mackerel. King mackerel lack obvious body markings, in contrast to the windows and indistinct black blotches of the great barracuda belly. Behaviorally great barracuda will frequently hang motionless or move slowly through the water. King mackerel will be in constant, usually straight line, motion.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Additional information, web links, and contributions.

SharkCam video (1)



SharkCam Fishes

King Mackerel

Scomberomorus cavalla (Cuvier, 1829)

Scombridae



Distinguishing characteristics: King mackerel are long, torpedo-shaped fish with a short head and a deeply forked tail fin. They appear very streamlined and will always be in motion. Symmetric, triangular dorsal and anal fins* are positioned just posterior of the mid-line of the body. The upper fin is the second dorsal. Most of the time the first dorsal fin is folded into a groove in the forward third of the body. Markings on the body are subtle, especially at a distance, and unlikely to be seen on SharkCam

NOTE: King mackerel are migratory with adult fish inhabiting SharkCam waters from late spring to early fall. They will winter off of south Florida.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: Great Barracuda (*Sphyraena barracuda*)

Although both the great barracuda and king mackerel are long and torpedo-shaped, the great barracuda is readily distinguished by the length of the head. The great barracuda head is approximately $\frac{1}{4}$ of the total body length, and the mouth is long, while the head length of king mackerel is a small fraction of the body length and the mouth is short. The eye of the great barracuda is also significantly larger than the relatively small eye of the king mackerel. Body markings of the great barracuda include a row of lighter-toned rectangular markings (“windows”) and indistinct dark to black blotches along the midline. King mackerel lack obvious body markings.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Atlantic Bonito *Sarda sarda* (Bloch, 1793) Scombridae



Distinguishing characteristics:

Atlantic bonitos show up on SharkCam when large schools of small prey fish are present. The bonitos swim through the schools so fast that the camera can only catch blurry images of them. Generally, all that is seen is some portion of the narrow black lines on the upper half of the light colored body and a hint of the body shape and fins. The lines are straight and slope up from front to back, especially towards the tail. From the side the body is a streamlined oval, with the halves above and below the midline about the same height. The dorsal fin* is rather short at the leading edge and slopes down gradually to the even shorter trailing edge of the fin. The bonito seems to zoom straight past the camera, seldom making quick turns.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Little Tunny (*Euthynnus alletteratus*)

Atlantic bonitos are often seen with little tunnies. The tunny is difficult to distinguish from the bonito on SharkCam. The tunny looks slightly deeper bodied, and its body lines are wavy and horizontal, as compared to the bonito's straight lines that slope up. The tunny's tall dorsal fin* shows a sharp curve down from the leading edge to the shorter rest of the fin, and the tunny noticeably erects its dorsal fin when making a quick turn at high speed. The bonito seldom makes quick turns at high speed and its dorsal fin is shorter and forms a more straight line from leading to trailing edges.

* Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Little Tunny

Euthynnus alletteratus (Rafinesque, 1810)

Scombridae

Distinguishing characteristics:

Little tunnies show up on SharkCam when large schools of small prey fish are present. They swim through the schools so fast that the camera only catches blurry images of them. Generally, all that is seen is a hint of the body shape and fins. The body silhouette is distinctly shaped like an American football. If the fish is even with or below the camera, the viewer might see some portion of narrow black lines on the upper part of the light colored body. From the side, the body is a streamlined oval that is slightly taller from the midline down than from the midline up. The lines are wavy (“worm-like”). At the head end, the lines are short and many go in different directions. From mid-body to the tail, the lines form a horizontal pattern. The dorsal fin* is rather tall at the leading edge and curves down sharply to the shorter rest of the fin. The dorsal fin is visibly erect when the tunny makes a quick turn at high speed.



NOTE: Little tunny have several frequently used alternate common names, including false albacore, little tuna, bonita, and albie.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)

Similar species: Atlantic Bonito (*Sarda sarda*)

The Atlantic bonito is difficult to distinguish from the little tunny on SharkCam. The bonito looks slightly more streamlined (less deeply bodied), and the lines on its body are straight and slope up from head to tail, as compared to the tunny’s wavy and horizontal lines. The bonito seldom makes quick turns at high speed, unlike the tunny. The bonito’s dorsal fin is noticeably shorter than the tunny’s and forms an almost straight line from the leading to the trailing edges, as compared to the sharp curve in the tunny’s dorsal fin.

* Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Atlantic Spadefish

Chaetodipterus faber (Broussonet, 1782)
Ephippidae

Distinguishing characteristics:

Atlantic spadefish have a unique shape among SharkCam fish. From the side, its outstretched dorsal and anal fins* give the fish an outline that is roughly triangular, like a spade with a rounded end. Body and fin coloration is gray to gray-green with dark borders on the fins and varying numbers of dark bars* on the body (the bars fade, one by one, with age).

Relative frequency: Frequent—seen in 50% to 20% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Sheepshead (*Archosargus probatocephalus*)

The sheepshead has dark bars like the Atlantic spadefish usually does. However, the sheepshead outline is oval shaped, unlike the spadefish's triangular shape. Also unlike the spadefish, the sheepshead body is lighter colored, generally white or off-white, with a gray head.



* Anal fin = bottom fin closest to tail

Bar = vertical marking

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Bermuda Chub

Kyphosus sectatrix (Linnaeus, 1758)
Kyphosidae

Distinguishing characteristics:

From the side, the Bermuda chub's body is oval shaped, with the dorsal and anal fins* giving the fish a slightly egg-shaped outline. A short white "mustache" shows above the mouth. Color is highly variable: body and fins all light; body light and fins varying degrees of dark, and body and fins varying degrees of dark. Close up, narrow alternating dark and light stripes* can be seen on the body. When a Bermuda chub gets excited, it becomes dark with large, contrasting light spots (spotted phase).

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Spottail Pinfish (*Diplodus holbrookii*)

Bermuda chubs and spottail pinfish are often seen together. The spottail pinfish is also oval shaped with a shallowly forked tail but it has a dark band around the base of its tail and its body is always light colored. When seen together, the Bermuda chub's larger size is apparent. In silhouette, the Bermuda chub's slightly egg-shaped outline distinguishes it from the spottail pinfish.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Stripes = horizontal markings

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\) \(3\)](#)



Normal coloration and pattern (top image), spotted phase variation (middle image), frequently seen color variations (bottom image)

SharkCam Fishes

COLORFUL OVALS

Angelfishes–Pomacanthidae

Blue Angelfish

French Angelfish

Queen Angelfish

Butterflyfishes–Chaetodontidae

Spotfin Butterflyfish

Damselfishes–Pomacentridae

Bicolor Damselfish

Blue Chromis

Cocoa Damselfish

Purple Reeffish

Sergeant Major

Surgeonfishes–Acanthuridae

Blue Tang (juvenile)

Doctorfish

Surgeonfishes (Blue Tang (adult), Doctorfish, Ocean Surgeon)

SharkCam Fishes

Blue Angelfish

Holacanthus bermudensis Goode, 1876

Pomacanthidae

Distinguishing characteristics:

From the side, a broad body and trailing tips of its dorsal and anal fins* give the blue angelfish a rectangular shape with a blunt face. The tail is rounded and the end has a light-colored band that is yellow in good light. Face-on, the fish has a roughly circular forehead blotch that is brighter blue than the surrounding area, and on the side of its face are several short, light blue lines arranged in a column. Body coloration ranges from deep blue to yellow-green. From far away, the broad body, the trailing fin tips, and the light-colored tail end make identification as a blue angelfish safe.

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Queen Angelfish (*Holacanthus ciliaris*), Hogfish (*Lachnolaimus maximus*)

The queen angelfish is nearly identical in shape to the blue angelfish but has a completely yellow tail and its bright blue forehead blotch has a darker center, making a ring (the crown). Hogfish also have similar silhouettes: broad bodies with trailing dorsal and anal fins that give the fish a roughly rectangular shape. Unlike the angelfish, the hogfish swims using primarily its pectoral fins* (angelfish use primarily their tails), has a large tail that has long tips, and has a long face.

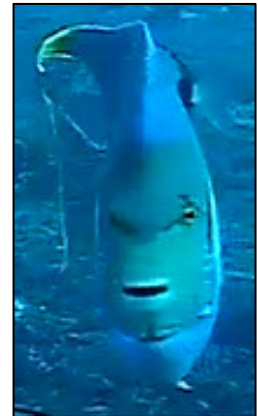
* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Additional information, web links, and contributions.

SharkCam video (1)



SharkCam Fishes

Queen Angelfish

Holacanthus ciliaris (Linnaeus, 1758)

Pomacanthidae

Distinguishing characteristics:

From the side, trailing tips of its dorsal and anal fins* give the queen angelfish a rectangular shape. The entire tail is light-colored (yellow in good light). Face-on, the fish has a roughly circular forehead blotch that is brighter blue than the surrounding area. The blotch has a darker center, making a ring (the queen's "crown"). From far away, the broad body, the trailing fin tips, and the light-colored tail make identification as a queen angelfish safe.

Relative frequency: Frequent—seen in 20% to 50% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Blue Angelfish (*Holacanthus bermudensis*),
Hogfish (*Lachnolaimus maximus*)

The blue angelfish is nearly identical in shape to the queen angelfish but only the rear edge of the tail is light colored (yellow) and its bright blue forehead blotch has no darker center (no "crown").

Hogfish and blue and queen angelfish have similar silhouettes; broad bodies with trailing dorsal and anal fins that give the fish a roughly rectangular shape. Unlike the angelfish, the hogfish swims using primarily its pectoral fins* (angelfish use primarily their tails) and has a large tail and a long face.

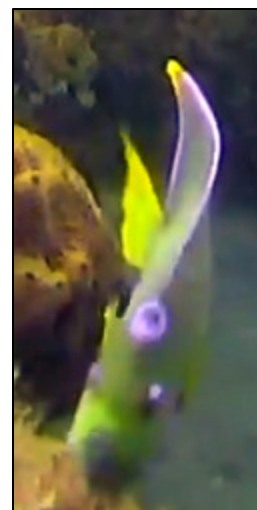
* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Additional information, web links, and contributions.

SharkCam video (1) (2)



SharkCam Fishes

French Angelfish

Pomacanthus paru (Bloch, 1787)

Pomacanthidae

Distinguishing characteristics:

From the side, the erect dorsal and anal fins* and their trailing tips give the French angelfish a spade shape (almost triangular). Except for its face, the scales on its body are dark with bright yellow edges, giving a speckled appearance. The face is dark with a yellow ring around the eye and white lips.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Blue Angelfish (*Holocanthus bermudensis*), Queen Angelfish (*H. ciliaris*), Atlantic Spadefish (*Chaetodipterus faber*)

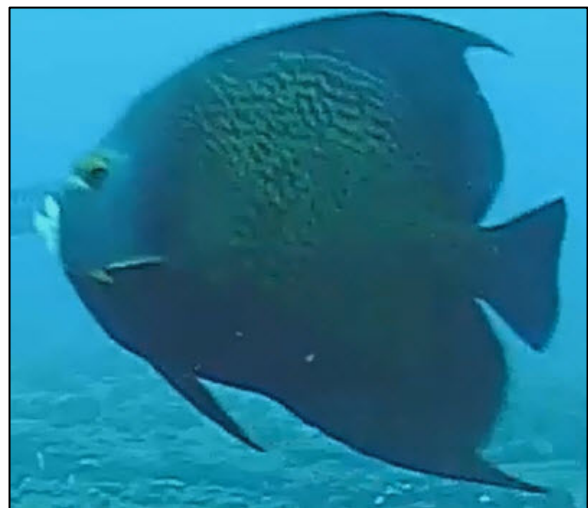
Blue angelfish and queen angelfish have shapes roughly like the French angelfish, but are typically more rectangular, and the French angelfish has no yellow on its tail. The Atlantic spadefish has a similar spade shape but is lighter colored with contrasting black bars and has no yellow coloration.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)



SharkCam Fishes

Spotfin Butterflyfish *Chaetodon ocellatus* Bloch, 1787 Chaetodontidae

Distinguishing characteristics:

From the side, spotfin butterflyfish have relatively round, white and yellow bodies, yellow fins, and a dark bar* that runs across the eye. The spot for which it is named is located at the trailing edge of its dorsal fin* but is small and is visible only very close to the camera.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in)

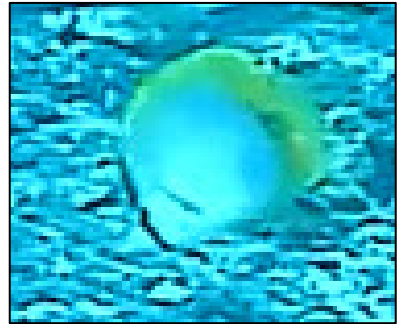
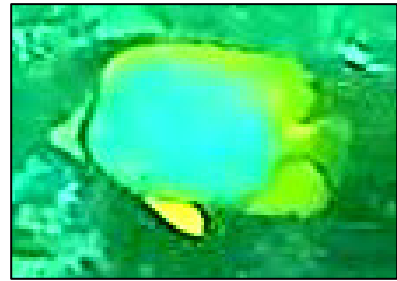
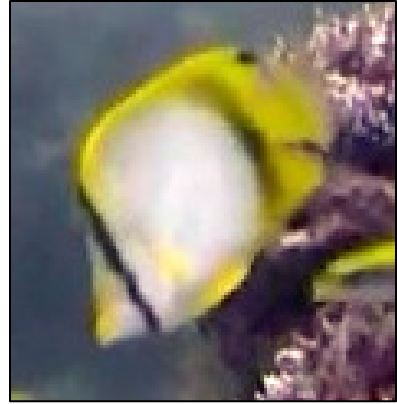
Similar species: No other fish seen on SharkCam resembles the spotfin butterflyfish.

* Bar = vertical marking

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

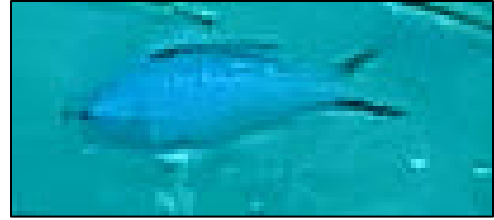


SharkCam Fishes

Blue Chromis

Chromis cyanea (Poey, 1860)

Pomacentridae



Distinguishing characteristics:

The blue chromis is brilliant blue with a deeply forked tail that has dark borders on the top and bottom. The body shape is a slender (elongated) oval. Like other damselfish, the blue chromis is a very active swimmer, constantly darting about.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: Juvenile Purple Reeffish (*Chromis scotti*)

Juvenile purple reeffish are difficult to distinguish from blue chromis. Both are brilliant blue. The blue chromis has dark borders on its tail edges. The juvenile purple reeffish can have dark edges on its tail, although sometimes this can be difficult to see. The main distinguishing characteristic is the tail shape; the blue chromis tail is deeply forked, while the purple reeffish tail is only shallowly forked. The absence of dark tail edges, or the presence of a shallowly forked tail, signifies a juvenile purple reeffish. As they grow, the juvenile purple reeffish becomes deeper bodied than the blue chromis, more round than oval, and eventually they darken like adult purple reeffish.

[Additional information, web links, and contributions.](#)

SharkCam Fishes

Purple Reeffish *Chromis scotti* Emery, 1968 Pomacentridae

Distinguishing characteristics:

SharkCam adult purple reeffish is a deep purple, almost black colored fish with an oval shape and a forked tail with rounded lobes. The chin and throat areas are a lighter color and a light blue line above the mouth forms a “mustache.” The fish swims using primarily its pectoral fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. The fish feed in loose aggregations in the water column, seemingly in constant motion, darting about like other members of the damselfish family. The juvenile purple reeffish are much more brilliantly colored bluish-purple fish that stay close to the bottom and show the same seemingly constant, quick motion as the adults.

Relative frequency: Occasional—seen in 10% to 20% of visits

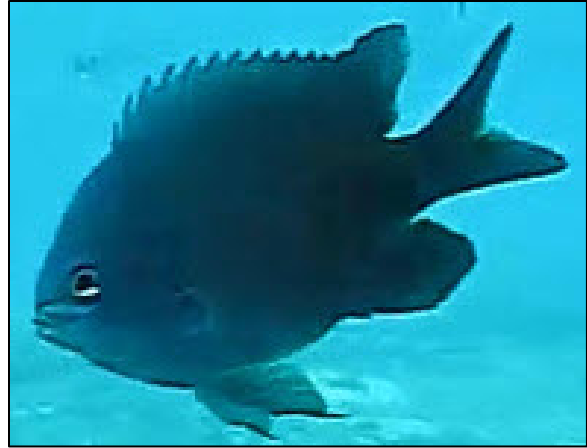
NOTE: Adults were not seen in 2015, and were seen frequently in 2016, while juveniles were seen frequently in 2015, but not in 2016.

Relative size: Very small (<10 cm or 4 in)

Similar species: Cocoa Damselfish (*Stegastes variabilis*), adult Blue Tang (*Acanthurus coeruleus*), Blue Chromis (*Chromis cyanea*)

The cocoa damselfish is another almost black colored fish having a forked tail with rounded lobes. Like the purple reeffish and other damselfishes, the cocoa damselfish seems to be in constant motion. However, unlike the purple reeffish’s oval shape, the cocoa damselfish’s large dorsal and anal fins* give it a slightly rectangular shape. Other differences are the cocoa damselfish’s use of its tail fin while swimming, and feeding primarily on algae-bearing substrates (i.e., not in the water column). Finally, under good lighting conditions, the cocoa damselfish coloration shows as a deep brown with yellow pectoral fins and a yellow wash in the chest area.

Blue chromis are difficult to distinguish from juvenile purple reeffish. Both are brilliant blue. The blue chromis has dark borders on its tail edges. The juvenile purple reeffish can have dark edges on its tail, although sometimes this can be difficult to see. The main distinguishing characteristic is the tail shape; the blue chromis tail is deeply forked, while the purple reeffish tail is only shallowly forked. The absence of dark tail edges, or the presence of a shallowly forked tail, signifies a juvenile purple reeffish. As they grow, the juvenile purple reeffish becomes deeper bodied than the blue chromis, more round than oval, and eventually they darken like adult purple reeffish.



Adult phase (top image), juvenile color and markings (bottom image)

* Pectoral fins = side fins

Additional information, web links, and contributions.
SharkCam video (1) (2)

SharkCam Fishes

Bicolor Damselfish

Stegastes partitus (Poey, 1868)

Pomacentridae

Distinguishing characteristics:

From the side, dorsal and anal fins* give the bicolor damselfish a somewhat rectangular shape. On SharkCam, the front half of juveniles is dark and the rear half is white. SharkCam adults also show the bi-coloration but the tones are more washed out than on juveniles, the front less dark and the rear not as white. Both age groups spend most of their time at the bottom. Like other damselfish, bicolor damselfish seem to be constantly moving and are aggressive about chasing even larger fish away from a favorite grazing area.

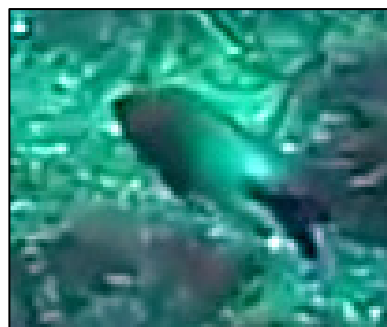
NOTE: Most damselfish species are very similar in silhouette, with a rounded body profile and often dark coloration in shades of brown, black, yellow, blue, or some combination.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: Cocoa Damselfish (*Stegastes variabilis*)

Cocoa and bicolor damselfish have similar shapes, are similarly sized, and both spend much of their time at the bottom. On SharkCam, the two species often interact with one another, chasing each other. Cocoa damselfish tend to be slightly larger and, so, tend to be the ones doing the chasing most often. Cocoa damselfish are more uniformly dark colored than bicolor damselfish, with some yellow showing in the chest area and on the pectoral fins.*



* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Additional information, web links, and contributions.

SharkCam video (1) (2) (3)

SharkCam Fishes

Cocoa Damsel fish

Stegastes variabilis (Castelnau, 1855)

Pomacentridae

Distinguishing characteristics:

From the side, dorsal and anal fins* give the cocoa damselfish a somewhat rectangular shape. At a distance, the fish looks dark with a hint of yellow towards the lower front. When closer, more yellow is visible together with narrow dark bars.* The pectoral fins* are yellow. Like other damselfish, cocoas seem to be constantly moving and are aggressive about chasing even larger fish away from a favorite grazing area.

NOTE: Most damselfish species are very similar in silhouette, with a rounded body profile and often dark coloration in shades of brown, black, yellow, blue, or some combination.

Relative frequency: Frequent—seen in 50% to 20% of visits

NOTE: One individual has established a territory within the camera base and is consistently seen, although often only the tail or fin edges are seen.

Relative size: Very small (<10 cm or 4 in)

Similar species: Bicolor Damselfish (*Stegastes partitus*), Blue Angelfish (*Holacanthus bermudensis*), Queen Angelfish (*H. ciliaris*).

Several species of benthic (bottom-dwelling) damselfishes are very common at Frying Pan Tower, as seen by divers. They may be seen in numbers at a distance too great to allow positive identification on SharkCam. These common but currently unconfirmed species include the beaugregory (*S. leucostictus*). Additionally, juveniles of benthic damselfishes are often visually distinct from adults, further complicating identification.

Cocoa and bicolor damselfish have similar shapes, are similarly sized, and both spend much of their time at the bottom. On SharkCam, the two species often interact with one another, chasing each other. Cocoa damselfish tend to be slightly larger and, so, tend to be the ones doing the chasing most often. Cocoa damselfish are more uniformly dark colored than bicolor damselfish, with some yellow showing in the chest area and on the pectoral fins.*

Although they are clearly different in size and silhouette, blue and queen angelfish often graze above the camera. As a result, as with the cocoa damselfish, fleeting glimpses of their tails and trailing parts of their dorsal and anal fins are often all that are visible. Yellow on the tail and tips of the dorsal and anal fins means the fish is an angelfish.

* Anal fin = bottom fin closest to tail

Bar = vertical marking

Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Sergeant Major

Abudefduf saxatilis (Linnaeus, 1758)

Pomacentridae

Distinguishing characteristics:

From the side, a sergeant major is oval shaped. It has a gray head, a lighter colored body that almost always has a yellow cast, and five dark bars.* The highest part of its back is roughly above the center of the fish's body, behind its pectoral fin.* Like other damselfish, sergeant majors seem to be constantly moving quickly, always busy.

Relative frequency: Frequent—seen in 50% to 20% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: Sheepshead (*Archosargus probatocephalus*), juvenile Banded Rudderfish (*Seriola zonata*), Atlantic Spadefish (*Chaetodipterus faber*)

A sheepshead also has a gray head, a lighter colored body, and dark bars. However, it never looks yellow, it usually has six or seven bars, the high point of its back is roughly over its pectoral fin,* and it acts more sedate than the busy sergeant major.

A juvenile banded rudderfish also has dark bars on a lighter colored body but the body is more elongated (not as deep) and does not have a darker head. Unlike the sergeant major, it has a dark bar, called a nuchal mark, which runs from the mouth, across the eye, to the front of the dorsal fin.

An Atlantic spadefish has dark bars on a lighter colored body but has an unmistakable triangular shape.

Individuals of these similar species will always be substantially larger than a sergeant major.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)



SharkCam Fishes

Blue Tang (juvenile)

Acanthurus coeruleus Bloch and Schneider, 1801
Acanthuridae

Distinguishing characteristics:

The blue tang swims using primarily its pectoral fins,* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. From the side, its body is oval shaped, almost round, with a small, protruding snout and mouth. The juvenile blue tang is all yellow. As it transitions to an adult it can be a mixture of yellow and darker colors, with the tail the last to darken. Young juveniles stay close to the bottom and are visible as small, yellow, darting spots. As they get bigger (and braver), they venture higher up the water column to SharkCam level.

There have been no confirmed sightings of adult blue tangs on SharkCam. An adult blue tang can vary its fin and body color tone from a light, almost white, powder blue, through various darker shades of blue, to black, with or without blue highlights. It can have a light colored band around the base of the tail of an otherwise dark body. Depending on proximity to the camera and lighting, the adult blue tang shows a single, short, light colored line on the side of the base of its tail. The mark is a spur, and is the only failsafe way to identify a blue tang on SharkCam. Occasionally on SharkCam, oval-shaped black fish are seen swimming using primarily their pectoral fins, usually in small groups of 3–6. Some of these might be adult blue tangs but identification as such has not been possible because no light colored spur has been visible and because other members of the family (surgeonfishes) are similarly shaped, exhibit the same swimming style, and can be darkly colored.

Relative frequency: Juveniles frequent—seen in 50% to 20% of visits

Relative size: Juvenile—Very small (<10 cm or 4 in) to Small (10–20 cm or 4–8 in). Adult—Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Doctorfish (*Acanthurus chirurgus*), Ocean Surgeon (*A. tractus*), see Surgeonfishes (*Acanthurus* spp.)

Because of its bright yellow color and round body, no other fish seen on SharkCam resembles a juvenile blue tang. See the Surgeonfishes profile for discussion of similarities between the adult blue tang, doctorfish, and ocean surgeon.



* Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#) [\(2\)](#)

SharkCam Fishes

Doctorfish

Acanthurus chirurgus (Bloch, 1787)

Acanthuridae

Distinguishing characteristics:

The doctorfish swims using primarily its pectoral fins,* with little or no tail movement. From the side, its body is oval shaped, almost egg shaped. It has 10 to 12 dark bars* on its side, and can have two, short, light colored lines, separated by a dark line (a spur), on the side of the base of its tail. On SharkCam, doctorfish have shown dark brown bodies, the two light colored lines, and, in good lighting, darker brown bars and blue highlights in the fins and tail.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Adult Blue Tang (*Acanthurus coeruleus*), Ocean Surgeon (*A. tractus*), see Surgeonfishes (*Acanthurus* spp.)

See the Surgeonfishes profile for discussion of similarities between the adult blue tang, doctorfish, and ocean surgeon.



* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\) \(3\)](#)

SharkCam Fishes

Surgeonfishes (Blue Tang (adult), Doctorfish, Ocean Surgeon)

Acanthurus coeruleus Bloch and Schneider, 1801,

Acanthurus chirurgus (Bloch, 1787)

Acanthurus tractus Poey, 1860

Acanthuridae



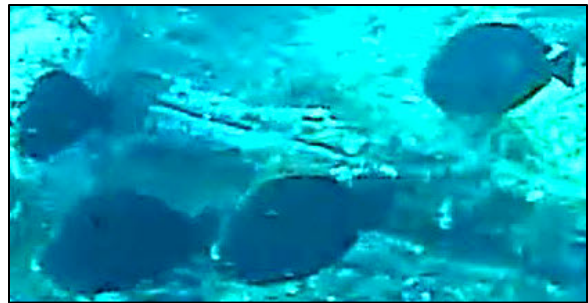
Distinguishing characteristics:

Occasionally on SharkCam, oval-shaped dark fish are seen, usually in small groups of 3 – 6. Coloration is typically dark, with or without a tinge of deep blue, or a dark brown.

They swim using primarily their pectoral fins.* Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. The fish are probably adult blue tang, doctorfish, or ocean surgeons, and are collectively referred to as surgeonfish. The three species are difficult to distinguish when dark colored and complicate identification by frequently schooling together.



Each species has a small (0.5 in or 1 cm), sharp spine, called a spur, on each side of its tail that it can erect like a thorn as a defense mechanism. The spur color is a distinguishing characteristic. The spur on a blue tang shows as a short white or yellow-white horizontal line on the base of the tail and is the key distinguishing characteristic for the adult of the species (see separate species entry for blue tang regarding juveniles). There have been no confirmed sightings of adult blue tangs on SharkCam.



Spurs on the doctorfish and ocean surgeon are dark colored and can have short white lines above and below the spurs. Doctorfish are distinguished from ocean surgeonfish by their 10 – 12 dark bars* on their sides (see separate species profile for doctorfish). Because dark bars are difficult to see on a dark body, an inability to see bars cannot be a safe distinguishing characteristic. An apparent absence of the bars can mean the fish is an ocean surgeonfish or is a doctorfish but the bars cannot be seen. There is no way to definitively identify an ocean surgeon on SharkCam.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Adult Blue Tang (*Acanthurus coeruleus*), Doctorfish (*A. chirurgus*), Ocean Surgeon (*A. tractus*)

See species descriptions and Distinguishing Characteristics above. No other fish seen on SharkCam have dark, oval-shaped bodies and swim using primarily their pectoral fins.

NOTE: Reference books and online resources have historically used the scientific name *Acanthurus bahianus* for the entire geographic range of the ocean surgeon. It was recently proposed that the northwestern Atlantic *A. bahianus* is actually *A. tractus*, and that *A. bahianus* be reserved for the Brazilian populations of the ocean surgeon. See Additional Information for more detail.

* Bar = vertical marking
Pectoral fin = side fin

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#)

SWIM WITH PECTORAL FINS/OBVIOUS SCALES

Wrasses–Labridae

Bluehead

Creole Wrasse

Clown Wrasse

Puddingwife

Slippery Dick

Spanish Hogfish

Spotfin Hogfish

Yellowhead Wrasse

Parrotfishes–Scaridae

Princess Parrotfish

Redband Parrotfish

Stoplight Parrotfish

Striped Parrotfish

Yellowtail Parrotfish

SharkCam Fishes

Bluehead

Thalassoma bifasciatum (Bloch, 1791)

Labridae

Distinguishing characteristics:

Blueheads, like all wrasses, swim using primarily their pectoral fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Their tails are kept closed except when needed for a burst of speed. Like other wrasses, blueheads are small and slender, and change color patterns as they go through juvenile, initial, and terminal maturation phases. Blueheads in the same phase can exhibit different color variations, and intermediate stages between phases can greatly alter their appearance. Juvenile and initial phase blueheads cannot be distinguished from one another and are discussed below as all initial phase.

Initial phase—SharkCam initial phase blueheads show three color variations, all with a white body. The “all-yellow variation” has a yellow head and back and black around the eye. The “mid-body-stripe variation with yellow back” looks like the “all-yellow variation” but with a dark stripe* on the side. The “mid-body-stripe variation with white back” shows no yellow, just a wide dark stripe. The last variation is the most common bluehead seen on SharkCam.

Intermediate stage—As SharkCam initial phase blueheads transition to a terminal phase, they develop a series of alternating light and dark bars.* The light-colored bars are white or greenish yellow; the dark-colored bars are black and may include lighter coloration above and below. On some individuals, the black obscures most of the light coloration. The top and bottom edges of the tail are dark colored.

Terminal phase—The terminal phase bluehead has a blue head and a rear body that is blue, green, or blue-green. The head and rear body are separated by two dark bars, which are separated by a white bar. The top and bottom edges of the tail are dark colored.

Relative frequency:

Initial phase—all-yellow variation; Rare—seen in less than 1% of visits

Initial phase—mid-body-stripe variation with yellow back; Occasional—seen in 10% to 20% of visits

Initial phase—mid-body-stripe variation with white back; Common—seen often, greater than 50% of visits

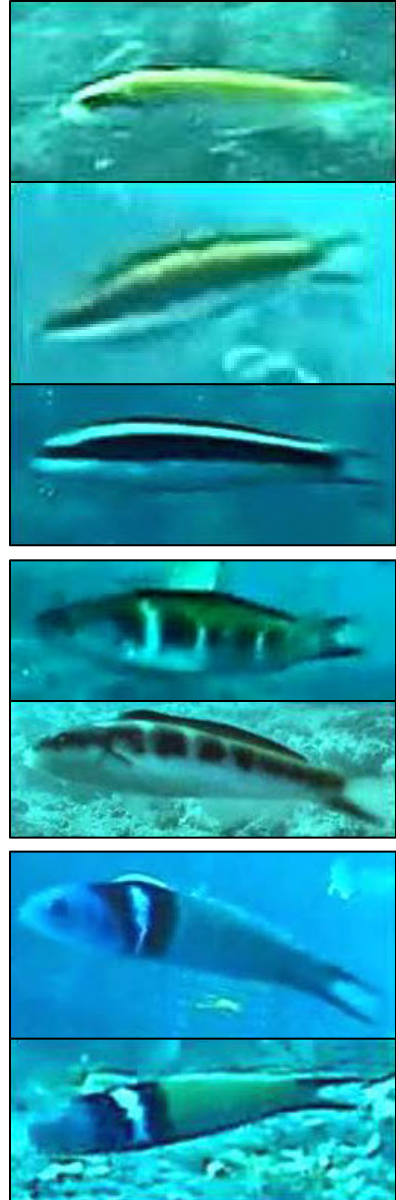
Intermediate stages—Frequent—seen in 50% to 20% of visits

Terminal phase—Occasional—seen in 10% to 20% of visits

Relative size: Very small (<10 cm or 4 in) to Small (10–20 cm or 4–8 in)

Similar species: Initial phase Puddingwife (*Halichoeres radiatus*), initial phase Slippery Dick (*H. bivittatus*)

White bars on an initial phase puddingwife and light-colored bars on an intermediate stage bluehead make the fish resemble one another. However, the puddingwife has black between only three white bars, while the bluehead has black between all its light-colored bars. In addition, the puddingwife is deeper bodied (taller) than the slender bluehead. SharkCam initial phase slippery dick also has white bars like the intermediate stage bluehead but the bars are more numerous than those on the bluehead, about 10 versus about 5.



Initial phase (top three images), intermediate stage (middle two), terminal phase (bottom two images)

* Bar = vertical marking
Pectoral fin = side fin

Stripe = horizontal marking
Additional information

SharkCam video (1) (2)

SharkCam Fishes

Clown Wrasse

Halichoeres maculipinna (Müller and Troschel in Schomburgk, 1848)
Labridae

Distinguishing characteristics:

Wrasses swim using primarily their pectoral fins,* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Clown wrasses seem to swim constantly, always going somewhere. Their bodies are small, two to four inches long, and slender as seen from the side. Like other wrasses, clown wrasses change color patterns as they go through juvenile, initial, and terminal maturation phases. The juvenile phase has not been seen on SharkCam.

Initial phase – A SharkCam initial phase clown wrasse is a moderate-toned green above and white below, with no dark spot on its side.

Terminal phase – SharkCam terminal phase clown wrasses are seen in two color variations, both having a black spot on the side. The typical variation looks like the initial phase (green above, white below) but with the spot and a yellow chin. The other variation, called “nuptial colors,” has a white back, a moderate-toned stripe, a white underside, and the spot.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Bluehead (*Thalassoma bifasciatum*), Puddingwife (*Halichoeres radiatus*), Slippery Dick (*H. bivittatus*)

Other SharkCam small wrasses have slender bodies and swimming styles like the clown wrasse: bluehead, puddingwife, slippery dick, and yellowhead. In silhouette, these fish can be difficult to distinguish from the clown wrasse. With good lighting, the dark spot on the side of the terminal phase clown wrasse distinguishes it from the other species. Light colored bars on the initial phase slippery dick distinguish it from the clown wrasse. With good lighting, the dark spot on the side of the terminal phase clown wrasse distinguishes it from the other species.

* Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



Initial phase variations (top two images), terminal phase variations (bottom two images)

SharkCam Fishes

Puddingwife

Halichoeres radiatus (Linnaeus, 1758)

Labridae

Distinguishing characteristics:

The puddingwife, like all wrasses, swims using primarily its pectoral fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Also like other wrasses, it changes color patterns as it goes through juvenile, initial, and terminal maturation phases. The only puddingwife seen on SharkCam have been initial phases. From the side the fish had a slender oval shape with five white bars* across the back and black areas between three of the bars.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Bluehead (*Thalassoma bifasciatum*)

Light-colored bars on an intermediate stage bluehead and white bars on an initial stage puddingwife make the fish resemble one another. However, the bluehead has black between all its light-colored bars, while the puddingwife has black between only three of its white bars. In addition, the bluehead is more slender than the oval-shaped puddingwife.



Initial phase variations

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Slippery Dick

Halichoeres bivittatus (Bloch, 1791)

Labridae

Distinguishing characteristics:

Slippery dicks, like all wrasses, swim using primarily their pectoral fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Slippery dicks seem to swim constantly, always going somewhere. Their bodies are small and, from the side, slender. Like other wrasses, slippery dicks change color patterns as they go through juvenile, initial, and terminal maturation phases. SharkCam juvenile and initial phases have two dark stripes* separated by a white stripe. The initial phase also has numerous (10 or so) white bars.* The terminal phase is rainbow striped with the top stripe typically green, a darker mid-body stripe in brown, yellows, and pink, and the lower belly stripe light.

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Bluehead (*Thalassoma bifasciatum*), Puddingwife (*Halichoeres radiatus*), Clown Wrasse (*Halichoeres maculipinna*)

Other initial phase, slim-bodied wrasses may be easily mistaken for the slippery dick. The light-colored bars on an intermediate stage bluehead and the white bars on an initial phase puddingwife resemble the white bars on the initial phase slippery dick. In addition, the dark bars on the bluehead can resemble the dark stripes on the slippery dick. However, the slippery dick has many more white bars than the other two fish, 10 compared to 5 or so. The initial phase clown wrasse can be distinguished from the slippery dick by dark over light stripes in the clown wrasse, compared to dark-light-intermediate stripes in the slippery dick.

A terminal phase slippery dick can be distinguishing from a terminal phase clown wrasse by the presence of a dark blotch mid-body on the clown wrasse.

* Bar = vertical marking

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1) (2)



Initial phase variations (top two images); terminal phase (bottom)

SharkCam Fishes

Yellowhead Wrasse

Halichoeres garnoti (Valenciennes in Cuvier and Valenciennes, 1839)

Labridae



Distinguishing characteristics:

Wrasses swim using primarily their pectoral fins,* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Yellowhead wrasses seem to swim constantly, always going somewhere. Seen from the side, their bodies are slender. Like other wrasses, the yellowhead changes color patterns as it goes through juvenile, initial, and terminal maturation phases. Only the terminal phase has been seen on SharkCam. True to its name, the terminal phase yellowhead has a yellow head. The rest of its body is white, partially framed by a black bar against the yellow, a black back, and a black tail.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: No other fish seen on SharkCam resembles the adult yellowhead wrasse.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Creole Wrasse

Clepticus parrae (Bloch and Schneider, 1801)

Labridae

Distinguishing characteristics:

Wrasses swim using primarily their pectoral fins,* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Creole wrasses seem to swim constantly, always going somewhere. They are normally seen in small groups of a few individuals. Creole wrasses have the elongated body shape typical of small-bodied wrasses, a symmetrically tapered head region, and are slender from the side. The tail fin appears shallowly forked.

On SharkCam creole wrasse appear as purplish-blue with lighter colored (white) lips and belly regions. A dark purple to blackish blotch on the face between the eyes extends onto the upper lip. In more mature individuals the anal and dorsal fins* may appear dark and have yellow tips.

Like other wrasses, the creole changes color patterns as it becomes more mature. Only the initial phase has been seen on SharkCam.

A search of reference books or the web will produce images of creole wrasse that are distinctly purple. These are pictures taken above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why creole wrasse may appear more blue than purple on SharkCam.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Blue Chromis (*Chromis cyanea*), juvenile Purple Reeffish (*Chromis scotti*)

Although the body shape and swimming style of the creole wrasse is clearly similar to other small-bodied wrasses, the bright purplish-blue coloration makes them unlikely to be confused for other wrasses.

Two other fishes on SharkCam, blue chromis and juvenile purple reeffish, share a blue to purplish overall coloration. Both are members of the damselfish family (Pomacentridae) and are noticeably deeper bodied, more rounded or oval fishes. Also similarly, both blue chromis and juvenile purple reeffish may appear to have a forked tail, but in each lobe of the tail in these damselfishes has a dark or black stripe along the outer margins. Both blue chromis and juvenile purple reeffish are quite a bit smaller than the typical creole wrasse, and so relative size along with the wrasse-like body and swimming style make identification as creole wrasse reasonably straightforward.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Spanish Hogfish

Bodianus rufus (Linnaeus, 1758)

Labridae

Distinguishing characteristics:

Spanish hogfish, like all wrasses, swim using primarily their pectoral fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. Spanish hogfish change patterns as they go through juvenile, initial, and terminal maturation phases. They start with a bright yellow body except for a dark “cape” covering their upper body from the nose almost to the end of the dorsal fin. As they age, the yellow coloration gives way to dark gray, until the mature terminal phase is almost all dark with little yellow remaining. The body shape remains generally the same as they age, with a pointed snout and long tips of the dorsal and anal fins* that give the fish an almost rectangular shape.

A search of reference books or the web will produce images of Spanish hogfish that show varying amounts of purple or pink coloration. These are pictures taken above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist’s rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why Spanish hogfish do not show any purple or pink coloration on SharkCam.

NOTE: Very small individuals may be seen engaging in cleaning behavior with larger, often predatory, fishes.

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Spotfin Hogfish (*Bodianus pulchellus*)

The spotfin hogfish and the Spanish hogfish have the same body shape and similar combinations of dark and yellow coloration. Only the spotfin shows white as a stripe* from the chin towards the tail.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)



Female (above) and male (below) coloration of the Spanish hogfish. Larger (male) individuals generally have less yellow.

SharkCam Fishes

Spotfin Hogfish *Bodianus pulchellus* (Poey, 1860) Labridae

Distinguishing characteristics:

Spotfin hogfish, like all wrasses, swim using primarily their pectoral fins* with little or no tail movement. They have a pointed snout and long tips on the dorsal and anal fins* that give the fish an almost rectangular shape. Also like other wrasses, spotfins change color patterns as they go through juvenile, initial, and terminal maturation phases. Only the terminal phase has been seen on SharkCam.

The terminal phase spotfin hogfish seen on SharkCam has a dark body with a white stripe* that starts wide at the chin and narrows towards the tail. The end of the dorsal fin, upper part of the tail base, and the tail are bright yellow. The fish may have a white stripe that runs from the mouth, up the nape, and across the back.



A search of reference books or the web will produce images of spotfin hogfish that show the body being bright red instead of dark. These are pictures taken above the surface of the water, or in water less than 15 feet deep (4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters), screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why spotfin hogfish bodies look dark and not red on SharkCam.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Spanish Hogfish (*Bodianus rufus*)

The Spanish hogfish and the spotfin hogfish have the same body shape and similar combinations of dark and yellow coloration. The Spanish hogfish shows no white, as the spotfin does in its stripe from the chin towards the tail.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Redband Parrotfish

Sparisoma aurofrenatum (Valenciennes in Cuvier and Valenciennes, 1840)

Scaridae

Distinguishing characteristics:

Parrotfish swim primarily using their pectoral fins* with little tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. From the side they are oval shaped. Parrotfish change color patterns as they go through juvenile, initial, and terminal maturation phases.

There has been no confirmed sighting of a juvenile-phase redband parrotfish on SharkCam.

Initial phase: Redband parrotfish on SharkCam show two basic color and marking variations. The first variation is dark with two white stripes* running the length of the body. The second variation looks mottled with dark and lighter tones of gray-green and no white stripes. As the fish transition from one variation to the other, various combinations of stripe intensity, length, and number occur. Regardless of the variation or transition, the white saddle is always visible and the lighter colored anal fin* always shows dark spots.

Terminal phase: Redbands on SharkCam show little color or marking variation. They generally appear gray above the midline and white below and around the base of the tail, masking the saddle. The tail is white with dark borders on the top, bottom, and end. There is some variability in the amount of gray the terminal phase shows underneath but at a minimum a wide band of white shows on the side. If the gray goes up the base of the tail, the white saddle will remain visible.

Relative frequency: Frequent—seen often, not every visit

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Stoplight Parrotfish (*Sparisoma viride*), Yellowtail Parrotfish (*Sparisoma rubripinne*)

The yellowtail parrotfish is the only other species on SharkCam that shows a white saddle across the base of its tail. As its name implies, this species has a yellow tail, a feature redbands do not have. The stoplight parrotfish has a similar swimming style and silhouette but, unlike the redband parrotfish, has a white bar* across the middle of its tail and three roughly horizontal rows of white spots on its body.

No other species seen on SharkCam shows gray above and white below and on the tail as the terminal phase redband does.

* Anal fin = bottom fin closest to tail

Bar = vertical marking

Pectoral fin = side fin

Stripe = horizontal marking



Initial phase variations (top two images), terminal phase variations (bottom two images)

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\) \(3\) \(4\)](#)

SharkCam Fishes

Princess Parrotfish

Scarus taeniopterus Desmarest in Bory de Saint-Vincent, 1831
Scaridae

Distinguishing characteristics:

Parrotfish swim primarily using their pectoral fins* with little tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. They are oval shaped from the side and change color patterns as they go through juvenile, initial, and terminal maturation phases. On SharkCam, there has been no confirmed sighting of a juvenile or terminal phase princess parrotfish.

Juvenile/initial phase: The body has three brownish-black stripes,* two white stripes and a white belly. Near the camera thin silver stripes may be visible on the belly. The borders of the tail will be dark. During the transition to initial phase the body has a brownish color with dark stripes that are less distinct than the juvenile phase.

During maturation stripes fade and become brown while the fins may become yellowish. The borders of the tail will be dark.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: initial phase Striped Parrotfish (*Scarus iseri*), initial phase Redband Parrotfish (*Sparisoma aurofrenatum*)

The initial phase striped parrotfish is very similar to initial phase princess parrotfish. They are distinguished by the lack of dark borders on the tail fin of striped parrotfish, and will often have a yellow smudge on the nose. Generally the fins and body will have a yellowish tint, relative to the “cleaner” dark brown and white of the initial phase princess parrotfish. Striped and princess parrotfishes of similar size often associate together in small groups. Late initial phase princess parrotfish stripes tend to fade and become less defined, similar to the initial phase redband parrotfish. Redband parrotfish, regardless of the variation or transition, will have a white saddle or spot visible just ahead of the tail and the lighter colored anal fin* always shows dark spots.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.



SharkCam Fishes

Striped Parrotfish *Scarus iseri* (Bloch, 1789) Scaridae

Distinguishing characteristics:

Parrotfish swim primarily using their pectoral fins* with little tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. They are oval shaped from the side and change color patterns as they go through juvenile, initial, and terminal maturation phases.

Juvenile/initial phase: The body has three brownish-black stripes,* two white stripes and a white to yellow belly. Near the camera thin, broken yellow to brown stripes may be visible on the belly. The borders of the tail will be clear. During the transition to initial phase the body has a brownish color with dark stripes that are less distinct than the juvenile phase. A yellow smudge is often present on the nose and the body and fins may have a yellowish tint.

Terminal phase: Mature male striped parrotfish are green to blue with indistinct pink on the face and ventral body. They will typically have a mid-body yellow blotch, beginning at the pectoral fin* and extending a short distance toward the tail. A black spot may be visible at the corner of the gill cover.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: initial phase Princess Parrotfish (*Scarus taeniopterus*), initial phase Redband Parrotfish (*Sparisoma aurofrenatum*)

The initial phase princess parrotfish is very similar to initial phase striped parrotfish. They are distinguished by the dark borders on the tail fin of princess parrotfish. Striped and princess parrotfishes of similar size often associate together in small groups. Late initial phase striped parrotfish stripes tend to fade and become less defined, similar to the initial phase redband parrotfish. Redband parrotfish, regardless of the variation or transition, will have a white saddle or spot visible just ahead of the tail and the lighter colored anal fin* always shows dark spots.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1)



Initial phase variations (top two images), terminal phase variations (bottom image)

SharkCam Fishes

Stoplight Parrotfish *Sparisoma viride* (Bonnaterre, 1788) Scaridae

Distinguishing characteristics:

Parrotfish swim primarily using their pectoral fins* with little tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. They are oval shaped from the side and change color patterns as they go through juvenile, initial, and terminal maturation phases.

On SharkCam, there has been no confirmed sighting of a juvenile- or terminal-phase stoplight parrotfish. SharkCam initial phase stoplight parrotfish is dark with a white bar* across the middle of its tail and three roughly horizontal rows of white spots on its body. The spots are similar in size to the large scales of the parrotfish. Depending on proximity and lighting, additional white spots may also show.

A search of reference books or the web will produce images of initial phase stoplight parrotfish that show varying amounts of red coloration. These are images made above the surface of the water, or in water less than 15 feet deep (4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why initial phase stoplight parrotfish show no red on SharkCam.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Redband Parrotfish (*Sparisoma aurofrenatum*), Yellowtail Parrotfish (*S. rubripinne*)

Other parrotfish seen on SharkCam, redband parrotfish and yellowtail parrotfish, have a similar swimming style and body silhouette as the stoplight parrotfish but no other species seen on SharkCam has a white bar across the middle of its tail like the stoplight parrotfish.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)



Initial phase variations

SharkCam Fishes

Yellowtail Parrotfish

***Sparisoma rubripinne* (Valenciennes in Cuvier and Valenciennes, 1840)**
Scaridae

Distinguishing characteristics:

Parrotfish swim primarily using their pectoral fins* with little tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. They are oval shaped from the side and change color patterns as they go through juvenile, initial, and terminal maturation phases. On SharkCam, there has been no confirmed sighting of a juvenile- or terminal-phase yellowtail parrotfish.

SharkCam initial phase yellowtail parrotfish is gray with a squared off yellow tail. There is a white marking, called a “saddle,” across the top of the base of the tail (the white saddle does not encircle the tail base), and there are three or four white spots along the top of the body, next to the dorsal fin.* Close up, the large scales on the side show rows of alternating dark and light gray tones. Occasionally, a yellowtail shows a white stripe on its side.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Redband Parrotfish (*Sparisoma aurofrenatum*)

The redband parrotfish is the only other SharkCam species that shows a white saddle across the base of its tail. The redband does not have a yellow tail. Other SharkCam species have yellow tails but do not swim like a parrotfish.



Initial phase variations

* Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

HEAVY BODIES/LARGE LIPS

Sea Basses and Groupers–Serranidae

Black Sea Bass

Gag

Goliath Grouper

Graysby

Scamp

Whitespotted Soapfish

Wrasses–Labridae

Hogfish

Tautog

Cobia–Rachycentridae

Cobia

SharkCam Fishes

Gag

***Mycteroperca microlepis* (Goode and Bean, 1879)**
Serranidae

Distinguishing characteristics:

From the side the gag has the typical grouper body shaped like an elongated oval with a protruding lower lip. The body has many dark markings that form no pattern and are often called “wormy.” The markings are difficult to see if the fish is dark colored or in silhouette. The tail is squared off or slightly convex, and the pectoral and anal fins* are rounded. Close up, short dark lines can be seen radiating from the eye. This is the grouper seen most frequently on SharkCam.

NOTE: Color and pattern differences in gag are related to social behaviors. See the Additional Information entry for further explanation.

Relative frequency: Frequent—seen in 50% to 20% of visits
Relative size: Large (0.5–1 m or 20–39 in)

Similar species: Goliath Grouper (*Epinephelus itajara*),
Scamp (*Mycteroperca phenax*), Cubera Snapper (*Lutjanus cyanopterus*)

The goliath grouper and scamp have similar body shapes and protruding bottom lips as the gag. The goliath grouper tail is rounded, while the gag tail is squared off or only slightly convex.

The adult scamp’s tail has elongated tips, called exserts, unlike the gag’s. The rear edge of the scamp anal fin* is straight with an elongated tip. The body of the adult scamp is covered with dark dots that tend to form lines on the lower part and roughly shaped rings on the upper, rings that are sometimes called “cat’s paws.” The markings are difficult to see if the fish is dark colored or in silhouette but the differently shaped tails and anal fins still distinguish the species at distance. Young scamps have squarer tails like the gag but have body markings and a straight rear edge of the anal fin like the adult scamp.

Cubera snappers have a similar body shape but do not have the protruding lower lip and their canine teeth are typically visible. They either have no body markings or they have bars.*

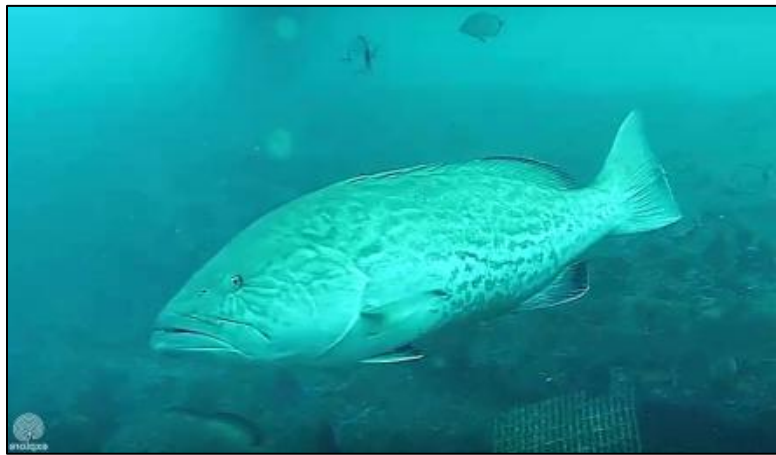
* Anal fin = bottom fin closest to tail

Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\) \(3\)](#)



SharkCam Fishes

Goliath Grouper

Epinephelus itajara (Lichtenstein, 1822)
Serranidae

Distinguishing characteristics:

The goliath grouper body is deep and wide, appearing oval shaped from the side, and shows the typical grouper protruding lower lip. The tail is rounded. Irregularly shaped dark bars show on the light-colored bodies and tails of smaller fish but lose their definition, becoming mottled blotches starting at the front, as the fish grows.

Relative frequency: Rare—seen in less than 1% of visits

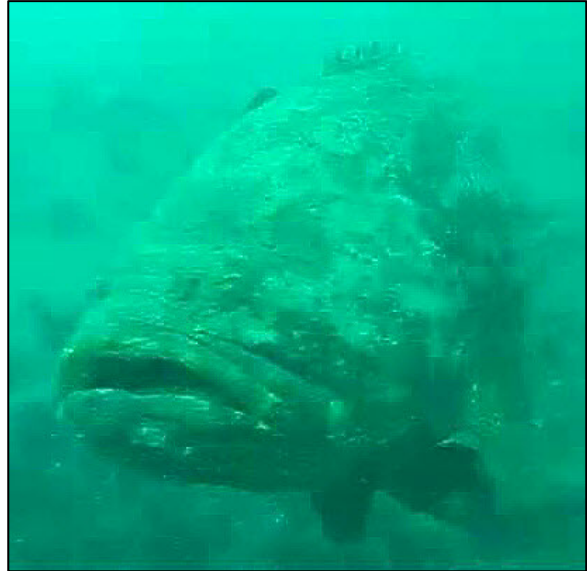
Relative size: Very large (>1 m or >39 in)

Similar species: Gag (*Mycteroperca microlepis*), Scamp (*M. phenax*), Cubera Snapper (*Lutjanus cyanopterus*)

Gags and scamps have the same body shape, but are substantially less deep bodied than the goliath grouper. All possess the protruding lower lip of the goliath grouper but neither gag nor scamp have a rounded tail. Cubera snappers have a similar body shape but do not have the protruding lower lip or rounded tail, and are more compressed in cross-section.

* Bar = vertical marking

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#)



SharkCam Fishes

Scamp

Mycteroperca phenax Jordan and Swain, 1884
Serranidae

Distinguishing characteristics:

From the side the scamp has the typical grouper body shaped like an elongated oval with a protruding lower lip. Young scamps have roughly squared-off tails but as they grow larger the tips of their tail become elongated. Elongated tail tips are called “exserts.” The tail’s trailing edge can be marginally scalloped, with the upper and lower portions slightly convex and the middle portion slightly concave. The rear edge of the scamp anal fin* is straight and develops an elongated tip as the fish grows.

On SharkCam, scamp bodies have been moderately dark, generally green, with darker markings and fins. The markings can be all dots, dots aggregated to form tightly spaced and irregular short lines, dots that form roughly shaped rings (called “cat’s paws”) or rectangles, or some combination. The markings are difficult to see if the fish is dark colored or is in silhouette.

NOTE: Color and pattern differences in scamp are related to social behaviors. See the Additional Information entry for further explanation.

Relative frequency: Occasional—seen in 10% to 20% of visits

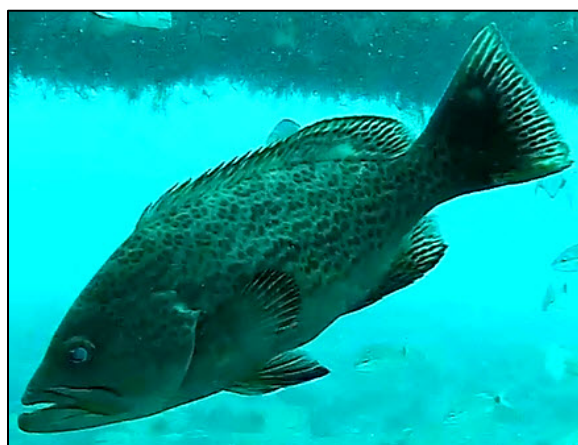
Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)

Similar species: Gag (*Mycteroperca microlepis*), Goliath Grouper (*Epinephelus itajara*), Cubera Snapper (*Lutjanus cyanopterus*)

The gag and the goliath grouper have similar body shapes and protruding lower lips as the scamp. The gag has a square tail and the goliath grouper has a rounded tail, neither tail having the elongated tips of the adult scamp.

Gags have square tails like the young scamp but “wormy” markings rather than the scamp’s “cat’s paw” markings, and a rounded anal fin with no straight edge like the scamp.

Cubera snappers have a similar body shape but do not have the protruding lower lip. Their canine teeth are typically visible, they have square tails with no elongated tips, and they lack body markings or they have bars.



Dark phase individual with tail exserts (top), spotted phase (middle), and cat’s paw phase (bottom)

* Anal fin = bottom fin closest to tail

Bar = vertical marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\) \(3\)](#)

SharkCam Fishes

Graysby

Cephalopholis cruentata (Lacepède, 1802)

Serranidae

Distinguishing characteristics:

The graysby shares the general characteristics of the groupers and sea basses, including an oval-shaped, stout body, a rounded body cross section, and a protruding lower lip. The mouth is large if opened and the eyes are set relatively high on the head and slightly protuberant. The tail is distinctly rounded relative to other groupers. Pectoral fins* are rounded and often held out away from the body. These are used for close maneuvering near the bottom.

Coloration on SharkCam has been very dark with little apparent body color or pattern. Three to five dark spots are present along the bottom of the dorsal fin.* Close approach to the camera will reveal a multitude of small, darker (orange-red in good light) spots completely covering the head, fins, and body. The body background can vary from light to dark.

Graysby are likely to only be seen in close association to the bottom, and typically near overhanging cover.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Black Sea Bass (*Centropristis striata*), Whitespotted Soapfish (*Rypticus maculatus*)

The graysby shares the grouper and sea bass characteristics with black sea bass and whitespotted soapfish, both also members of the Serranidae.

It differs from the black sea bass in that the bass will always show body patterning, frequently including light saddles across the back of the body, and white edges to the dorsal and tail fins. The black sea bass tail will be squared or display a scalloped pattern, never rounded like the graysby.

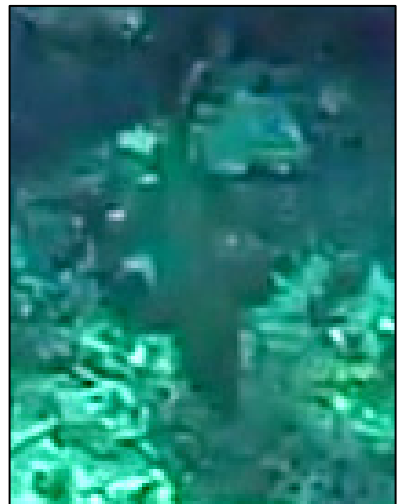
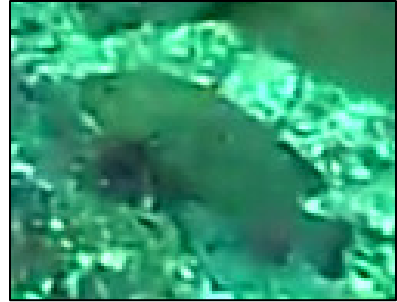
The whitespotted soapfish is similar in its dark coloration but will have numerous small, lightly colored spots or freckles along the flanks. The head appears small and pointed relative to the more symmetrical head of the graysby. When viewed from above or face-on the whitespotted soapfish is noticeably thin. Both frequently utilize overhanging cover.

* Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Whitespotted Soapfish *Rypticus maculatus* Holbrook, 1855 Serranidae

Distinguishing characteristics:

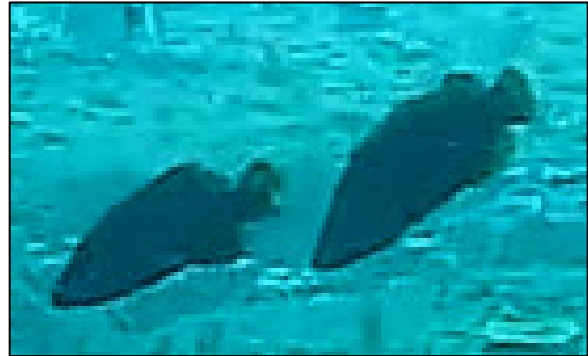
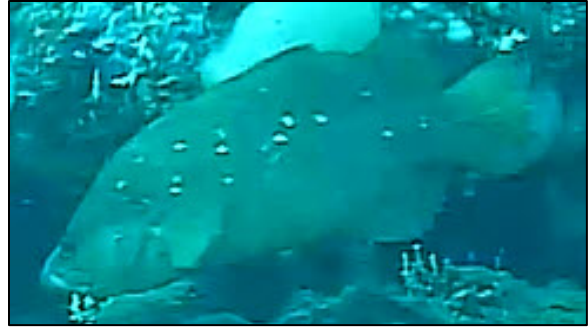
With their large dorsal and anal fins,* whitespotted soapfish are wedge shaped, like a door stop, with a rounded tail. They are dark colored, slightly paler underneath, and may have a light stripe that runs from the mouth, between the eyes, and up the back to the dorsal fin. Up close, randomly placed small white spots may be seen. Swimming, the fish looks sinuous, wriggling much of its body.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: *Cubbyu* (*Pareques umbrosus*)

The cubbyu is another all-dark fish that is frequently seen at the bottom. The cubbyu tends to be more of a schooling fish than the soapfish, often seen in groups of four to eight. The whitespotted soapfish lacks the distinctive first dorsal fin of the cubbyu.



* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Black Sea Bass

Centropristis striata (Linnaeus, 1758)

Serranidae

Distinguishing characteristics:

Black sea basses swim primarily using their large pectoral fins* with little or no tail movement. From the side, they are oval-shaped and mostly black. Their tails have white borders on the top and bottom and are rounded except for large individuals that start to develop caudal fin* extensions from the tips and center, giving the appearance of a three-lobed, or scalloped tail. They tend to swim with their tails relaxed, closed, and with a humped-back profile. Their dorsal fins have white tips. In the right lighting and proximity to the camera, they show narrow white stripes* that run from the head to the tail. Juveniles and smaller females may appear more dark brown than black and often have indistinct lighter saddles* across the dorsal surface. Close up, their bulging eyes are apparent.

The lips and especially the protruding lower jaw are prominent, a similarity with other members of family Serranidae, the groupers and sea basses. Adult males will often have a lighter gray head and, during breeding season, a noticeable forehead bump called a nuchal lump.

Relative frequency: Frequent—seen in 50% to 20% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Graysby *Cephalopholis cruentata*, Tautog (*Tautoga onitis*)

The graysby shares characteristics of the family Serranidae with the black sea bass and both will frequently be seen moving near the bottom. The graysby lacks white edges to the dorsal and tail fins and will never have light colored saddles across the back.

The tautog shares several characteristics with the black sea bass: swimming style, gray, brown or black body, and white highlights on the long dorsal fin and tail. The tautog is typically longer and stockier than the black sea bass and has prominent lightly colored lips and chin. The tautog does not have white stripes like the black sea bass.



Adult form showing slight nuchal lump (top image), juvenile or female showing light saddles (bottom image)

* Pectoral fin = side fin

Dorsal fin = top fin

Caudal fin = tail fin

Saddle = vertical marking that spans the back but not the entire side

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1) (2) (3)

SharkCam Fishes

Hogfish

Lachnolaimus maximus (Walbaum, 1792)

Labridae

Distinguishing characteristics:

Hogfish, like all wrasses, swim using primarily their pectoral fins* with little or no tail movement. Also like other wrasses, hogfish change color patterns as they go through juvenile, initial, and terminal maturation phases. No juvenile hogfish have been seen on SharkCam.

Initial and terminal phase hogfish are shaped similarly. Long tips to dorsal and anal fins* give hogfish a slightly rectangular shape. The body is broad with a face that comes to a point and slopes back to the dorsal fin in almost a straight line. The angle of the slope of the head is greater in smaller (typically female) fish, and becomes more acute as fish transition to terminal phase males. The tail is almost as tall as the body and has long tips. Although not always visible, the first three spines on the dorsal fin are very long. Coloration on SharkCam ranges from white in large, adult males to light brown in smaller fish, with or without mottling. Large individuals have a distinct dark brown snout and forehead that appears black. Darker coloration and mottling in smaller fish can make it difficult to see body markings that distinguish initial and terminal phases. In natural light hogfish are distinctly pink.

Initial phase—Initial phase hogfish have a black blotch on the rear base of the dorsal fin, and none of the terminal-phase markings.

Terminal phase—Terminal phase hogfish have a black bar* on the base of their tail and a black spot on their side. The black blotch from the initial phase fades and is replaced by a black stripe* at the base of the dorsal fin. On large individuals, the snout becomes elongated like a pig's, hence the name.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)

Similar species: Blue Angelfish (*Holacanthus bermudensis*), Queen Angelfish (*H. ciliaris*)

Hogfish and blue and queen angelfish have similar silhouettes: broad bodies with trailing dorsal and anal fins that give the fish a roughly rectangular shape, but the angelfishes have a small “face” that is clearly distinct from the much larger hogfish head. Unlike the hogfish, the angelfishes swim using primarily their tails, which are relatively small with no trailing tips.



Initial phase variations (top 2 images), terminal phase variations (bottom 2 images)

* Anal fin = bottom fin closest to tail
Bar = vertical marking

Dorsal fin = top fin
Pectoral fin = side fin
Stripe = horizontal marking

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Tautog

Tautoga onitis (Linnaeus, 1758)

Labridae

Distinguishing characteristics:

Like other wrasses, the tautog swims using primarily its pectoral fins* with little or no tail movement. From the side, the body is shaped like an elongated oval with a bluntly rounded head. SharkCam males have had gray-black bodies with contrasting light colored chin and lips. The dorsal fin* tips are white and the tail has white edges on the top and bottom. Some individuals have light colored underparts and some have a white spot in the middle of the sides.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in)

Similar species: Black Sea Bass (*Centropristis striata*)

The black sea bass shares several characteristics with the tautog: swimming style, dark body, and white highlights on the long dorsal fin and tail. The bass is not elongated like the tautog and does not have light colored lips and chin. The bass has narrow white stripes* on the body that run from the head to the tail and are visible close up; the tautog has none.

* Dorsal fin = top fin

Pectoral fin = side fin

Stripes = horizontal markings

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Cobia

***Rachycentron canadum* (Linnaeus, 1766)**
Rachycentridae

Distinguishing characteristics:

From the side, a cobia is shaped like an elongated oval with a rather pointed, flattened head. It has a large, shallowly forked tail with sharp tips, and a triangular dorsal fin.* The cobia body and fin coloration is dark, although it may have some lighter tones underneath. The cobia swims with its dorsal fin* erect and its large pectoral fins* outstretched and horizontal.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: Sharksucker (*Echeneis naucrates*), Whitefin Sharksucker (*Ec. neucratoides*), Rainbow Runner (*Elaagatis bipinnulata*), Greater Amberjack (*Seriola dumerili*)

A cobia could be mistaken for some species of shark, due to its elongated shape, forked tail, pointed fins and tail lobes, erect dorsal fin,* and outstretched, horizontal pectoral fins.* This seems particularly true when viewed on a website called “SharkCam.” SharkCam shark species, however, do not have symmetrical tails like the cobia. Instead, the upper lobe of the sharks’ tail is much larger than the lower lobe, being a significant portion of the sharks’ length.

Sharksuckers (genus *Echeneis*) resemble cobia in their elongated shape, typically dark coloration, and symmetrical tails. However, the forward portion of the dorsal fin on sharksuckers (the portion above the eyes) is modified into a sucking disc that allows them to attach to larger animals. Sharksuckers seen on SharkCam are typically much smaller than the typical cobia, and are most often seen attached to or in tight association with a larger fish or turtle. Cobia are sometimes seen associated with large rays or sharks and can be easily mistaken for a large sharksucker.

The rainbow runner and the greater amberjack have body shape similar to the cobia but their tails are more deeply forked, their heads are not flattened, and neither swim with outstretched pectoral fins.* The rainbow runner body coloration is lighter than the cobia, being shades of gray, and its tail is yellow. The greater amberjack nuchal mark also distinguishes it from the cobia.

* Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SLOPING HEADS AND TAPERED BODIES

Snappers–Lutjanidae

Cubera Snapper

Gray Snapper

Vermilion Snapper

Yellowtail Snapper

Porgies–Sparidae

Knobbed Porgy

Red Porgy

Saucereye Porgy

Scup

Sheepshead

Spottail Pinfish

Grunts–Haemulidae

Porkfish

Striped Grunt

Tomtate

White Grunt

SharkCam Fishes

Cubera Snapper

Lutjanus cyanopterus (Cuvier in Cuvier and Valenciennes, 1828)

Lutjanidae

Distinguishing characteristics:

From the side, the cubera snapper is shaped like an oval with a square tail. The lips are large and the lower lip does not protrude beyond the upper. SharkCam cubera bodies tend to be dark with darker fins. Usually there are no distinctive body markings. However, some lighter-toned individuals can show dark-toned bars* and some dark-toned individuals can show light-toned bars. These bars are generally confined to the upper half of the body. Up close, the cubera's large canine teeth often show even if the mouth is closed.

A search of reference books or the web will produce images of cuberas that show varying amounts of red coloration. These are images made above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters), screens out all of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why cuberas are not red on SharkCam.

Relative frequency: Unmarked individuals: Uncommon—seen in 1% to 10% of visits; Barred individuals: Rare—seen in less than 1% of visits

Relative size: Large (0.5–1 m or 20–39 in)

Similar species: Gag (*Mycteroperca microlepis*), Gray Snapper (*Lutjanus griseus*), Sheepshead (*Archosargus probatocephalus*)

The gag has a similar body and tail shape and large lips, and its body is often dark with darker fins. However, the grouper's protruding lip is a feature the cubera does not have. When lighter colored, the grouper's body shows short, dark, squiggly lines that the cubera does not have.

The gray snapper and the cubera have similar body and tail shapes consistent with their inclusion in the genus *Lutjanus*. SharkCam gray snappers have all had light gray colored bodies, unlike the darker cubera. They also often show a nuchal mark, a feature the cubera does not have.

The sheepshead resembles a cubera that has light colored bars. The sheepshead light-banded coloration extends across its abdomen, while the cubera light-banded coloration does not. The sheepshead side-on profile is asymmetrical, with the high point of the back above the pectoral fins. The highpoint the cubera is above the approximate center of its body.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Gray Snapper

Lutjanus griseus (Linnaeus, 1758)

Lutjanidae

Distinguishing characteristics:

From the side, the gray snapper is shaped like an oval with a sloped forehead and a square tail. On SharkCam, the body has been light gray. Fin coloration can vary between light gray like the body to a very dark tone. There is a dark ring around the eye which, against the light-colored body, makes the eye look large. Gray snapper often show a black band running from the mouth, through the eye, and up to the shoulder (above the base of the pectoral fin*). The band can lighten to be almost nonexistent or darken dramatically. When dark, the band obscures the eye ring.

NOTE: A frequently used alternative common name for the gray snapper is mangrove snapper. This usage is very prevalent in North and South Carolina.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Cubera Snapper (*Lutjanus cyanopterus*)

The cubera snapper and the gray snapper have similar body and tail shapes. SharkCam gray snappers have all had light gray colored bodies, unlike the darker cubera. Cubera lips are more prominent than the gray's, and the cubera does not show a nuchal mark. On SharkCam, cuberas look more robust, chunkier, than grays, and if close to the camera, may show protruding canine teeth.

* Pectoral fin = side fin

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#) [\(2\)](#)



SharkCam Fishes

Vermilion Snapper

Rhomboplites aurorubens (Cuvier in Cuvier and Valenciennes, 1829)

Lutjanidae

Distinguishing characteristics:

From the side a vermillion snapper is shaped like an elongated oval with a shallowly forked tail and a large eye. The diameter of the eye is equal to the distance between it and the snout. The body and fins are generally a dull grey-green color, with the occasional individual showing a faint copper tinge. Close up, a slightly protruding lower lip is visible.

A search of reference books or the web will produce images of vermillion snappers that show varying amounts of vermillion (brilliant red) coloration. These are pictures taken above the surface of the water, or in water less than 15 feet deep (4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why vermillion snappers are not vermillion colored on SharkCam.

Relative frequency: Occasional—seen in 10% to 20% of visits

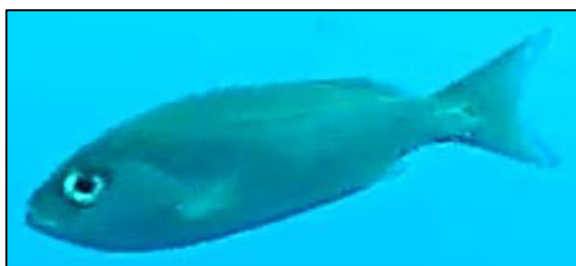
Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Bigeye Scad (*Selar crumenophthalmus*)

The bigeye scad has a similar body shape, apparent coloring, and large eye but has a deeply forked tail. When seen together, the vermillion snapper is noticeably larger.

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)



SharkCam Fishes

Yellowtail Snapper

Ocyurus chrysurus (Bloch, 1791)

Lutjanidae

Distinguishing characteristics:

From the side, the yellowtail snapper is oval shaped with a moderately forked tail that has pointed lobes. The body is light colored with a stripe* that starts as yellow at the tail and becomes darker towards the eye.

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Horse-eye Jack (*Caranx latus*), Yellow Jack (*Caranx bartholomaei*)

A horse-eye jack has a similar shape, light body coloring, and a forked yellow tail with pointed lobes. Unlike the yellowtail snapper, the horse-eye jack has no yellow stripe but has a narrow dark stripe that runs from the tail about half way to the mouth and has a large eye.

A yellow jack also has a similar shape, light body coloring, and a forked yellow tail with pointed lobes. Unlike the yellowtail snapper, the yellow jack has no yellow stripe.



* Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Knobbed Porgy

Calamus nodosus Randall and Caldwell, 1966
Sparidae

Distinguishing characteristics:

The knobbed porgy has a sharp hump between its face and back profiles where they join. The knobbed porgy has an oval-shaped body. The highest part of its body, the hump, is forward of the body's centerline, approximately above its pectoral fin.* The profile of its face is roughly a straight line from its mouth to the hump, and the profiles of the face and underside form an approximately 60-degree angle. On SharkCam, the body and fin color is a silvery light gray that can develop darker gray bars.* If seen close to the camera, small speckles and fine stripes of blue and yellow may be apparent, especially on the face.

Knobbed porgies, like other porgies, are often seen slowly swimming close to the bottom with frequent brief stops. This start and stop behavior is a hunting technique, and it helps distinguish porgies from other species.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Red Porgy (*Pagrus pagrus*), Saucereye Porgy (*Calamus calamus*), Scup (*Stenotomus chrysops*), White Grunt (*Haemulon plumierii*)

Three other porgies seen on SharkCam have somewhat similar body shapes and coloration, the red and saucereye porgies, and the scup. None has a back as sharply humped as the knobbed porgy. The profiles of the red porgy and scup faces are a gentle curve from mouth to back, and the profile of the saucereye porgy face is roughly a straight line from its mouth to a point even with its eye, where it makes a bend and continues straight across its nape to its back. These profiles differ from the steep, straight knobbed porgy profile. Finally, the red porgy is distinctly more elongated than the knobbed (and saucereye) porgy. Scup are the only porgy likely to be seen in a school. All others are typically alone, or seen with only a few companions of the same species.

White grunts and knobbed porgies have similar body shapes, both fish have a facial profile that is roughly straight from the mouth to the back, and the grunt is often silvery gray like the porgy. The angle formed by the underside and face is less steep on the grunt than on the porgy, more like 45 degrees than 60 degrees, and the grunt does not show a prominent hump. When the white grunt shows its dark coloration, or when the porgy shows its bars, it is easy to distinguish the species. When the fish is silvery gray, the hump and the angle formed by the underside and face are the distinctive differences.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)



SharkCam Fishes

Red Porgy

Pagrus pagrus (Linnaeus, 1758)

Sparidae

Distinguishing characteristics:

The red porgy has a slightly elongated oval-shaped body. The highest part of its back is forward of the centerline, approximately above its pectoral fin.* The profile of its face is a gentle curve from its mouth to its back, where it continues curving to the base of its tail. On SharkCam, its body and fin color is a silvery, light gray that can develop darker gray bars.*

Red porgies, like other porgies, are often seen slowly swimming close to the bottom with frequent brief stops. This start and stop behavior is a hunting technique, and it helps distinguish porgies from other species.

A search of reference books or the web will produce images of red porgies that show red coloration. These are images made above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or underwater using artificial lighting, or are an artist's rendering using such specimens. Water at the depth of SharkCam, about 50 feet (about 15 meters), screens out all of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why red porgies are not red on SharkCam.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar Species: Knobbed Porgy (*Calamus nodosus*), Saucereye Porgy (*C. calamus*), Scup (*Stenotomus chrysops*)

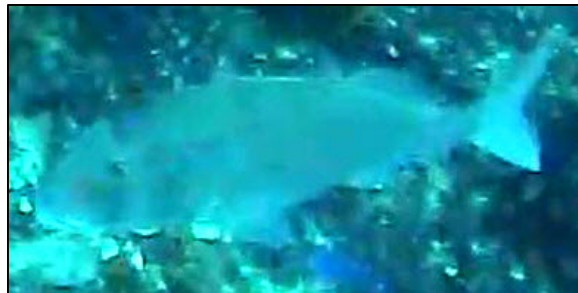
Three other porgies seen on SharkCam have somewhat similar body shapes and coloration, the knobbed and saucereye porgies, and the scup. The profile of the knobbed porgy face is a straight line from its mouth to its back. The profile of the saucereye face is a straight line from its mouth to a point even with its eye, where it makes a bend and continues straight across its nape to its back. Both these profiles differ from the smooth curve from the red porgy's mouth to its tail. The scup profile is most similar to the red porgy, but the scup body is less elongated. Unlike the red porgy, the knobbed porgy has a sharp hump where facial and back profiles meet, and the red porgy is more elongated than the saucereye porgy or scup species. Scup are the only porgy likely to be seen in a school. All others are typically alone, or seen with only a few companions of the same species.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)



SharkCam Fishes

Saucereye Porgy

Calamus calamus (Valenciennes in Cuvier and Valenciennes, 1830)
Sparidae

Distinguishing characteristics:

The saucereye porgy has an oval-shaped body. The highest part of its back is forward of the body's centerline, approximately above its pectoral fin.* The head profile is straight from its mouth to a point even with its eye, where it makes a bend and continues straight across its nape to its back. On SharkCam, the saucereye body and fin color is a silvery, light gray that can develop darker gray bars*. Despite its name, the saucereye eye is not larger than those of other porgies. Instead, a clear close-up will show a small, blue "saucer" (curved line) under the eye.

Saucereye porgies, like other porgies, are often seen slowly swimming close to the bottom with frequent brief stops. This start and stop behavior is a hunting technique, and it helps distinguish porgies from other species.

A search of reference books or the web will produce images of saucereye porgies that show pink coloration. These are pictures taken above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such specimens. Water at the depth of SharkCam, about 50 feet (about 14.5 meters), screens out all of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why saucereye porgies are not pink on SharkCam.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Knobbed Porgy (*Calamus nodosus*), Red Porgy (*Paqrus paqrus*), Scup (*Stenotomus chrysops*)

Three other porgies seen on SharkCam have somewhat similar body shapes and coloration, the knobbed and red porgies, and the scup. The profile of the knobbed porgy head is a straight line from its mouth to its back. The profile of the red porgy head is a smooth curve from its mouth to the base of its tail. Both these profiles differ from that of the saucereye, which is roughly straight from the mouth to the eye and, with a bend there, straight across its nape to its back. The scup profile is a gentler slope, compared to the saucereye porgy (or knobbed porgy). Unlike the red porgy, the knobbed porgy has a sharp hump where facial and back profiles meet, and the red porgy is more elongated than the saucereye, knobbed porgy, or scup. Scup are the only porgy likely to be seen in a school. All others are typically alone, or seen with only a few companions of the same species.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\) \(3\)](#)



SharkCam Fishes

Scup

Stenotomus chrysops (Linnaeus, 1766)

Sparidae



Distinguishing characteristics:

The scup has the classical sloping head and tapered body of the porgies. The head to back profile is a gentle slope to the deepest portion of the body located in-line with the origin of the pectoral and pelvic fins.* The body lacks distinguishing marks and will appear silvery-white in most light conditions. A close approach to the camera, or clear water, may reveal a blue patch over the eye. It shows up on the SharkCam as a white eyebrow that gives the fish a woebegone look.

Scup, like other porgies, are often seen slowly swimming close to the bottom with frequent brief stops. This start and stop behavior is a hunting technique, and it helps distinguish porgies from other species. All sightings of scup on SharkCam have been as parts of loosely aggregated schools of similarly sized individuals.

Relative frequency: Rare—seen in less than 1% of visits

NOTE: Scup are considered primarily northern and inshore fish that may undergo seasonal southward and deeper migration during the fall in order to overwinter offshore. This migration reverses in the spring. Scup have only been positively identified from SharkCam over a two-week period in May 2016.

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Knobbed Porgy (*Calamus nodosus*), Red Porgy (*Parus pagrus*), Saucereye Porgy (*Calamus calamus*), Spottail Pinfish (*Diplodus holbrookii*)

Three other porgies seen on SharkCam have somewhat similar body shapes and coloration, the knobbed, saucereye, and red porgies. The profile of the knobbed porgy head is a straight line from its mouth to its back. The profile of the red porgy head is a smooth curve from its mouth to the base of its tail, and both these profiles differ from that of the saucereye, which is roughly straight from the mouth to the eye and, with a bend there, straight across its nape to its back. The scup profile is a gentler slope compared to the saucereye porgy (or knobbed porgy). Unlike the red porgy, the knobbed porgy has a sharp hump where facial and back profiles meet, and the red porgy is more elongated than the saucereye, knobbed porgy, or scup. Scup are the only porgy likely to be seen in a school. All others are typically alone, or seen with only a few companions of the same species.

Scup may be mistaken for the spottail pinfish, as the head and back profile are similar between the species, however, spottail pinfish are more disc-shaped. Spottail pinfish will always have a distinctive dark blotch across the caudal peduncle composed of a wide, black band that encircles the base of the tail and a dark line that extends up the back and down the belly from the band.

* Pectoral fin = side fin

Pelvic fin = bottom fin closest to head

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#) [\(2\)](#)

SharkCam Fishes

Sheepshead

Archosargus probatocephalus (Walbaum, 1792)

Sparidae

Distinguishing characteristics:

From the side, a sheepshead has an oval-shaped body that is light colored with a gray head and six to seven silvery-gray and gray-black alternating bars* (zebra-like). The highest part of its back is forward of the body's centerline, approximately over its pectoral fins.* Sheepsheads move rather sedately through the water. A close approach to the camera may reveal the strangely human-like teeth, used for scraping hard shelled prey, like barnacles and molluscs, from the tower legs or bottom.

Relative frequency: Frequent—seen in 50% to 20% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Sergeant Major (*Abudefduf saxatilis*), Atlantic Spadefish (*Chaetodipterus faber*), juvenile Banded Rudderfish (*Seriola zonata*).

Three other fish seen on SharkCam have dark bars: sergeant majors, Atlantic spadefish, and juvenile banded rudderfish. A sergeant major differs from the sheepshead by having only five bars and the highest point of a sergeant major's back is over the body's center line, and it seems to be constantly moving quickly, always busy. The sergeant major is very small compared to the sheepshead.

The Atlantic spadefish differs by being spade-shaped (triangular) and having a gray body. In addition, spadefish bars fade one by one with age, so they have varying numbers of bars.

The juvenile banded rudderfish differs by having an elongated body shape and a dark band, which runs from the mouth, across the eye, to the front of the dorsal fin.



* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Spottail Pinfish

Diplodus holbrookii (Bean, 1878)

Sparidae

Distinguishing characteristics:

From the side, the spottail pinfish is shaped like an oval with a light colored silvery-gray body. When seen with ample light the body may have a golden sheen. A wide, black band encircles the base of the tail and a dark line extends up the back and down the belly from the band. Close up, narrow alternating dark and light stripes* can be seen on the body.

NOTE: This is the most frequently seen fish on SharkCam. It will be present in >95% of visits.

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Tomtate (*Haemulon aurolineatum*),
Bermuda Chub (*Kyphosus sectatrix*)

Two species are often seen with the spottail pinfish, the tomtate and the Bermuda chub. The tomtate has a large, dark blotch at the base of its tail, similar to the spottail pinfish, but no dark lines extend up the back and down the belly and its body shape is more elongated (less tall). The Bermuda chub can be light colored like the pinfish but has no dark band or blotch at the base of its tail, is larger than the pinfish, and is slightly egg-shaped with its tail at the wider end (helpful when in silhouette).

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1)



SharkCam Fishes

Porkfish

Anisotremus virginicus (Linnaeus, 1758)

Haemulidae

Distinguishing characteristics:

From the side, the porkfish is roughly oval shaped, with a somewhat flattened underside and a steep forehead profile that is straight from the mouth to its highest point where the back meets the dorsal fin. The porkfish is notably deep bodied for a grunt.

Other grunts have a yellow sheen to their bodies, but the porkfish is the only one where bright yellow dominates the coloration, especially on the belly and tail. Two black bars* run vertically and roughly demarcate the head from the body. The first is slightly diagonal and runs from the rear edge of the mouth, through the eye, to the forehead. The second black bar is vertically oriented and traces the rear edge of the opercula (gill openings) and extends to the back at the beginning of the yellow dorsal fin.* A bright white, slightly triangular, bar separates the black bars.

Finer body details have not been seen on SharkCam as occurrences of porkfish have all been distant from the camera.

Relative frequency: Rare—seen in less than 1% of visits

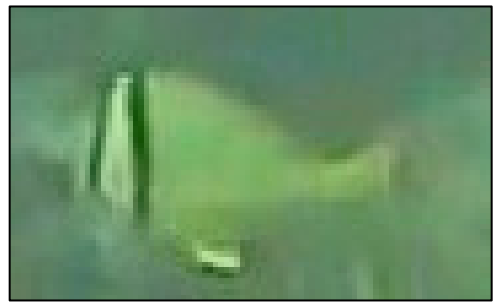
Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: No other fish seen on SharkCam resemble porkfish.

* Bar = vertical marking

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)



SharkCam Fishes

Striped Grunt

Haemulon striatum (Linnaeus, 1758)

Haemulidae

Distinguishing characteristics:

From the side, a striped grunt is shaped like an elongated oval with about five black stripes* on a light-colored body (4–6 stripes, depending on age and lighting angle). The lowermost stripe is the widest and runs from beneath the eye to the middle of the tail.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Tomtate (*Haemulon aurolineatum*)

Tomtates typically have a small to large and dark blotch at the base of the tail. Their bodies are deeper than the striped grunt with the maximum body depth occurring at the back of the head where the dorsal fin occurs.

Observed striped grunt on SharkCam have all been seen schooling with similarly sized fish of other species, usually tomtate.



* Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Tomtate

***Haemulon aurolineatum* Cuvier in Cuvier and Valenciennes, 1830**
Haemulidae

Distinguishing characteristics:

From the side, a tomtate is shaped like a slightly elongated oval. Its body is light colored with a dark spot at the base of its tail. It can have one or more dark, narrow stripes* or no stripe at all. On some tomtates, the dark coloration of the spot radiates out along the top and bottom edges of the tail.

Relative frequency: Common—seen often, greater than 50% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar Species: Spottail Pinfish (*Diplodus holbrookii*), Striped Grunt (*Haemulon striatum*), Bigeye Scad (*Selar crumenophthalmus*), Round Scad (*Decapterus punctatus*)

Tomtates are often seen with spottail pinfish but are distinguished by their elongated shape and lack of dark lines extending up the back and down the belly. Striped grunts occasionally school with tomtates but are distinguished by their more prominent and wider stripes and lack of a dark spot at the bases of their tails. Young tomtates occasionally school with bigeye scad and round scad but are always distinguishable by the dark spot at the base of their tails and a deeper body than the scads.

* Stripe = horizontal marking

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#)



SharkCam Fishes

White Grunt

Haemulon plumierii (Lacepède, 1801)

Haemulidae

Distinguishing characteristics:

From the side, a white grunt is roughly oval shaped, with a somewhat flattened underside and a head profile that is straight from the mouth to the back. The underside and face form an approximately 45-degree angle. On SharkCam, depending on the lighting angle, the white grunt usually looks like a dark or silvery white shape but occasionally will show a darker bluish gray below its midline or a bluish-gray tint to the head. Up close, the head is dark with horizontal light blue, almost white lines, and the body shows narrow rows of dark- and light-toned small rectangles. From a distance this is the only fish that tends to show a lighter back with a darker (gray) belly region

NOTE: The individual in the top image has a bump and notch where the head joins the dorsal surface, probably a deformity or healed wound. This individual has been seen on SharkCam many times.

Relative frequency: Occasional—seen in 10% to 20% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Knobbed Porgy (*Calamus nodosus*)

Knobbed porgies and white grunts have similar body shapes: oval with a somewhat flattened underside and a head profile that is straight from the mouth to the back. Unlike the white grunt, the knobbed porgy has a sharp hump (knob) to its back. The porgy facial profile is steeper, more of a 60-degree angle than the 45-degree angle of the grunt. When the grunt shows its dark coloration, it is easy to distinguish from the light colored porgy, but when the grunt shows its light coloration, the porgy's knobbed back and the angle of the head profile are distinctive differences.

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\) \(2\)](#)



ODDLY-SHAPED SWIMMERS

Triggerfishes–Balistidae

Gray Triggerfish

Filefishes–Monacanthidae

Orange Filefish

Orangespotted Filefish

Planehead Filefish

Scrawled Filefish

Pufferfishes–Tetraodontidae

Bandtail Puffer

Sharpnose Puffer

Jacks and Pompanos–Carangidae

Pilotfish

Remoras–Echeneidae

Sharksucker

Whitefin Sharksucker

SharkCam Fishes

Gray Triggerfish

Balistes capriscus Gmelin, 1789

Balistidae

Distinguishing characteristics:

The gray triggerfish swims using primarily its large, symmetric dorsal and anal fins,* “flapping” them like a sidewise bird. From the side the fish is oval shaped with extended tips on its tail. Its color can be gray, tan, or a greenish version of either. The underside and one or two bars* are lighter toned than the rest of the body. A robust spine may be present on the forehead. This spine is a modified dorsal fin spine, and it can be “triggered” defensively.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: No other fish seen on SharkCam swims or looks like the gray triggerfish.

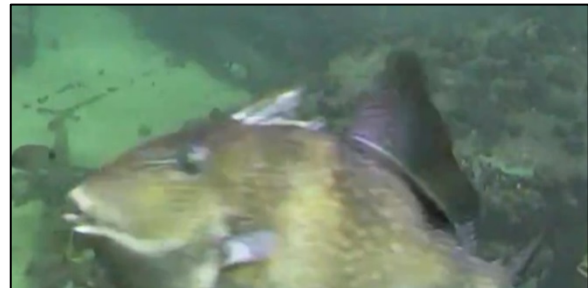
* Anal fin = bottom fin closest to tail

Bar = vertical marking

Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Orangespotted Filefish *Cantherhines pullus* (Ranzani, 1842) Monacanthidae

Distinguishing characteristics:

The orangespotted filefish swims using primarily its dorsal and anal fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. From the side, the orangespotted filefish is shaped like a diamond on its side, with the tail end slightly longer than its head end. The head end looks uniformly dark, while the tail end has alternating dark and light stripes.* At the top of the base of the tail is a white spot, and the tail itself is carried closed.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Scrawled Filefish (*Aluterus scriptus*), Orange Filefish (*Aluterus schoepfii*), Planehead Filefish (*Stephanolepis hispidus*)

The scrawled filefish is more elongate and typically much larger than the orangespotted filefish. Scrawled filefish lack alternating light and dark stripes, and their color and patterns are typically much more complex. Often blue will be a dominant color on the scrawled filefish.



* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Scrawled Filefish

Aluterus scriptus (Osbeck, 1765)
Monacanthidae

Distinguishing characteristics:

The scrawled filefish swims using primarily its dorsal and anal fins* with little or no tail movement. From the side, the scrawled filefish is shaped like a slightly elongated oval with a long face that tapers to a small, upward pointing snout. The tail end is also long, finishing with a long, dark tail that may be carried closed and limp. More often the tail is slightly open and looking like a broom, earning the fish the nickname “broomtail.” From the front or back, this filefish is very thin.

The scrawled filefish has an amazing ability to change colors and color patterns, often very quickly. On SharkCam the most common combination of color and pattern is a dark background covered by a series of short, bright blue lines that are roughly oriented to reflect the body’s outline. Interspersed among the lines are spots that may be very dark or very light toned. This combination includes white lips. Other combinations may include white edges to the blue lines, or a varying number of short, white, vertical lines, with or without any blue lines.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Orangespotted Filefish (*Cantherhines pullus*), Orange Filefish (*Aluterus schoepfii*), Planehead Filefish (*Stephanolepis hispidus*)

The orangespotted filefish has a similar shape and also swims with little or no tail movement. However, its body is distinctly diamond-shaped and its alternating dark and light stripes* are unlike any pattern the scrawled filefish shows.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Stripes = horizontal markings

Additional information, web links, and contributions.

SharkCam video (1) (2)



SharkCam Fishes

Orange Filefish

Aluterus schoepfii (Walbaum, 1792)

Monacanthidae

Distinguishing characteristics:

The orange filefish swims using primarily its dorsal and anal fins* with little or no tail movement. It often swims at an angle, with its tail up and head pointed down. From the side the orange filefish is deep-bodied with a rounded forehead and a flat oval shaped body, which is extremely compressed. The eyes of the orange filefish are set relatively lower than other members of its family. The dorsal spine is thin and located at the crown of the head, and it may not be carried in an erect position. The lower jaw protrudes past the upper jaw and the mouth is upturned. The caudal fin is narrower than other filefish and triggerfish.

The orange filefish seen on SharkCam have always occurred as members of a pair where the brightly colored, yellow to orange male is distinctly different from the primarily brown female. Male orange filefish often have a mottled brown to gray upper body and an earthy orange lower body. Females tend to be mottled light to dark brown with indistinct stripes* of darker coloration on the back half of the body. Like many filefishes orange filefish have an amazing ability to change colors and color patterns, often very quickly.

Relative frequency: Rare—seen in less than 1% of visits

Size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Scrawled Filefish (*Aluterus scriptus*), Orangespotted Filefish (*Cantherhines pullus*), Planehead Filefish (*Stephanolepis hispidus*)

Other filefishes swim with little or no tail movement, however their body shapes are different. The scrawled and orangespotted filefish bodies are distinctly diamond-shaped, with the scrawled body very elongated, and the orangespotted a more symmetric diamond shape. Color and pattern are distinctly different as well with the scrawled color being dominated by blues, and the orangespotted body typically very dark brown with alternating dark and light stripes that extend onto the tail fin. The planehead filefish shares the general filefish body shape, but adults seen on SharkCam have been fairly uniformly colored in shades of light brown and gray. The dorsal and anal fins* are much taller and more opaque than the typically short and indistinct fins of the others.

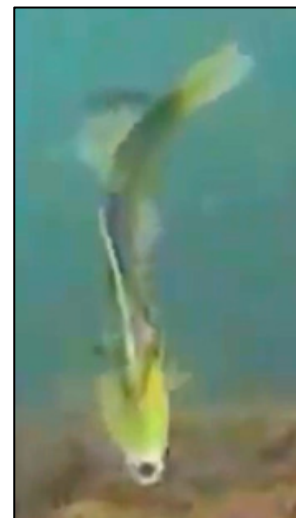
* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1) (2) (3)



SharkCam Fishes

Planehead Filefish

Stephanolepis hispidus (Linnaeus, 1766)
Monacanthidae

Distinguishing characteristics:

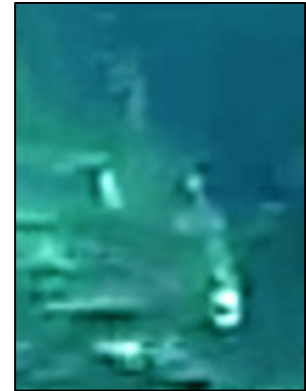
The planehead filefish swims using primarily its dorsal and anal fins* with little or no tail movement. From the side, the planehead filefish is shaped like a diamond on its side, with the tail end slightly longer than its head end. The mouth protrudes noticeably, is slightly upturned, and, on SharkCam, it has been white around the lips extending slightly onto the face. Coloration is dark to light brown, with no evident mottling. The relatively large eye for a filefish is set high on the head. On SharkCam a distinct white spot is located at the origin of the pectoral fin.* Planehead filefish have an elongated filamentous ray on the dorsal fin, and relatively tall dorsal and anal fins.



Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Scrawled Filefish (*Aluterus scriptus*), Orange Filefish (*Aluterus schoepfii*), Orangespotted Filefish (*Cantherhines pullus*), Gray Triggerfish (*Balistes capriscus*)



Other filefishes and the gray triggerfish also swim using their dorsal and anal fins with little to no tail movement. The gray triggerfish is distinguished from the planehead filefish by the terminal mouth, a scalloped tail fin that is held open, moderately thicker and more rounded body, and mottled gray coloration.

Other filefishes share the roughly diamond-shaped body and may be difficult to distinguish from a distance. The scrawled filefish is most distinctive because of its elongated profile, complex patterning, and long caudal peduncle. Orange and orangespotted filefishes can be distinguished from the planehead by shape, coloration, and pattern differences, and the elongated filamentous dorsal ray of the planehead filefish.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

SharkCam Fishes

Bandtail Puffer

Sphoeroides spengleri (Bloch, 1785)

Tetraodontidae

Distinguishing characteristics:

The banded pufferfish is a small, slender fish that swims using its dorsal and anal fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. The upper body is dark with small white markings and bumps. The lower body is white with a single dark stripe* that turns to a row of dots towards the tail. The tail has two dark bars* and is carried closed or relaxed.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Very small (<10 cm or 4 in) to Small (10–20 cm or 4–8 in)

Similar species: Bluehead (*Thalassoma bifasciatum*), Clown Wrasse (*Halichoeres maculipinna*), Slippery Dick (*H. bivittatus*)



Several SharkCam wrasses are small, slender, and swim with little or no tail movement like the banded pufferfish: bluehead, clown wrasse, slippery dick, and yellowhead wrasse. None have the bandtail puffer's combination of dark upper body and white lower body with a dark stripe except the slippery dick. The white markings on the upper body of the initial phase slippery dick are bars, not spots and short lines like the puffer's. The juvenile and terminal phase slippery dicks have no white markings on their upper bodies, and none of the slippery dick black lines turn into dots towards the tail.

* Anal fin = bottom fin closest to tail

Bar = vertical marking

Dorsal fin = top fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Sharpnose Puffer

Canthigaster rostrata (Bloch, 1786)

Tetraodontidae

Distinguishing characteristics:

The sharpnose puffer is a small fish, 2–3 inches long (3–8 centimeters), that swims using primarily its dorsal and anal fins* with little or no tail movement. Because they are small and move rapidly, the swimming fins are likely to be invisible on SharkCam except when a specimen approaches the camera closely. The body is stout, oval-shaped, with a pointed head and a sharp snout. The body is dark toned on top with a wide white stripe* that runs from the eye to the end of the tail. The tail is carried closed and has a dark edge on the top and bottom.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: No other fish seen on SharkCam is shaped or marked like the sharpnose puffer.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Pilotfish

Naucrates ductor (Linnaeus, 1758)

Carangidae

Distinguishing characteristics:

The pilotfish is shaped like an elongated oval and is silvery blue with blueish black bars on the body and fins. The tail lobes are rounded with white tips. Pilotfish are most frequently seen following a large shark.



Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: Juvenile Banded Rudderfish (*Seriola zonata*)

Like the pilotfish, the juvenile banded rudderfish has a series of dark bars across its body and a similarly shaped, jack-like (Carangidae) body. The most reliable distinguishing characteristic of the banded rudderfish is a dark band that runs from its mouth, across its eye, to the front of its dorsal fin,* a feature the pilotfish does not have. The band and bars coloration tends to be more brown on the rudderfish and they fade and disappear with age.

* Dorsal fin = top fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Sharksucker

Echeneis naucrates Linnaeus, 1758
Echeneidae

Distinguishing characteristics:

A sharksucker is a long, slender fish most often seen attached to or swimming alongside a larger fish, like a shark. The pectoral fins* are angled upward, making it look like the fish is swimming upside down. A young sharksucker's body and fins are dark gray with a wide, black stripe* the length of its body. It has a thin, white stripe above and below the black stripe, and white borders on the ends of the dorsal and anal fins* and on the top and bottom edges of the tail. As the fish grows older and larger, the dark gray, black, and white tones fade until the fish is light gray with only a white-bordered black mask across the mouth and eyes.



Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Whitefin Sharksucker (*Echeneis naucratoides*), juvenile Cobia (*Rachycentron canadum*)

Young whitefin sharksuckers are distinguished from young sharksuckers by the wider white borders on the sides of their tails.

Cobia are typically much larger and darker than the sharksucker. They too will associate with larger animals, typically rays or turtles, but will often be only loosely associated, as opposed to attached. They share the flattened head, but the sharksucker's head will be noticeably flattened relative to the cobia. No small cobia have been confirmed on SharkCam.

NOTE: In addition to the potential for confusion by having “sharksucker” and “whitefin sharksucker” be different species, the young are often referred to collectively as “sharksucker” because they are difficult to distinguish from each other.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam video (1) (2)

SharkCam Fishes

Whitefin Sharksucker

Echeneis neucratoides Zuiew, 1789

Echeneidae



Distinguishing characteristics:

A whitefin sharksucker is a long, slender fish most often seen attached to or swimming alongside a larger fish, like a shark. The pectoral fins* are angled upward, making it look like the fish is swimming upside down. The body and fins are dark gray with a wide, black stripe* the length of its body and white borders on the stripe, the ends of the dorsal and anal fins,* and the top and bottom edges of the tail.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Sharksucker (*Echeneis naucrates*), juvenile Cobia (*Rachycentron canadum*)

Young whitefin sharksuckers are distinguished from young sharksuckers (*Echeneis naucrates*) by the wider white borders on the sides of their tails. Sharksuckers tend to be more lightly colored, appearing more gray than the typical black of the whitefin sharksucker.

Cobia are typically much larger than the whitefin sharksucker. They too will associate with larger animals, typically rays or turtles, but will often be only loosely associated, as opposed to attached. They share the flattened head, but the whitefin sharksucker's head will be noticeably flattened relative to the cobia. No small cobia have been confirmed on SharkCam.

NOTE: In addition to the potential for confusion by having “sharksucker” and “whitefin sharksucker” be different species, the young are often referred to collectively as “sharksucker” because they are difficult to distinguish from each other.

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pectoral fin = side fin

Stripe = horizontal marking

Additional information, web links, and contributions.

SharkCam Fishes

BOTTOM FISHES

Basses–Serranidae

Belted Sandfish

Harlequin Bass

Drums–Sciaenidae

Cubbyu

Scorpionfishes–Scorpaenidae

Red Lionfish

Spotted Scorpionfish

Blennies–Labrisomidae

Saddled Blenny

Combtooth Blennies–Blenniidae

Seaweed Blenny

Lefteye Flounders–Paralichthyidae

Southern Flounder

Goatfishes–Mullidae

Spotted Goatfish

Yellow Goatfish

Squirrelfishes–Holocentridae

Squirrelfish

Moray eels–Muraenidae

Green Moray

Spotted Moray

Snake eels–Ophichthidae

Sharptail Eel

SharkCam Fishes

Belted Sandfish

Serranus subligarius (Cope, 1870)

Serranidae

Distinguishing characteristics:

From the side, the belted sandfish is triangular and dark colored with a strongly contrasting white belly patch. Depending on how dark the fish is, several darker bars* may be seen. The darkest bar is triangular, widest at the top, and is located behind the white belly patch. The fish has large pectoral fins* and all fins are finely spotted.

NOTE: A belted sandfish uses the camera base plate as its home.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Very small (<10 cm or 4 in)

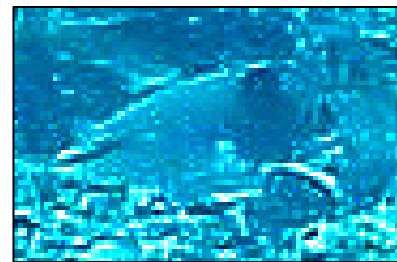
Similar species: No other fish seen on SharkCam resemble belted sandfish.

* Bar = vertical marking

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)



SharkCam Fishes

Harlequin Bass

Serranus tigrinus (Bloch, 1790)

Serranidae

Distinguishing characteristics

The harlequin bass is a small fish, typically less than 6 inches long, that generally stays near the bottom and will hover motionless for periods of time. The fish has an elongated (tubular) body and a sharply pointed head. The body is white, with the bottom half sometimes showing yellow, and has dark bars.* Bars on the bottom half often line up with the light-colored portions of the top half of the body.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Small (10–20 cm or 4–8 in)

Similar species: No other fish seen on SharkCam resemble harlequin bass.

* Bar = vertical marking

[Additional information, web links, and contributions.](#)



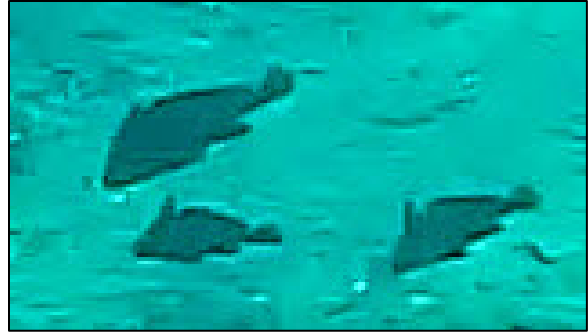
SharkCam Fishes

Cubbyu

***Pareques umbrosus* (Jordan and Eigenmann, 1889)**
Sciaenidae

Distinguishing characteristics:

The cubbyu is an all-dark, bottom-dwelling fish that is usually seen in small groups. The body shape is asymmetric, with the high point of the back forward of the body center (over pectoral fin*). The first dorsal fin, when raised, is distinctly taller than the second and is separated from the second by the width of the first. A group of cubbyu is frequently seen by SharkCam maintenance divers under the ledge below the camera installation.



NOTE: Identification as a cubbyu and not a dark variation of a highhat (*Pareques acuminatus*), another drum, is based on close observation during dives at Frying Pan Tower.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Whitespotted Soapfish (*Rypticus maculatus*)

The whitespotted soapfish is a similarly all-dark fish that is frequently seen at the bottom. The soapfish tends to be more solitary than the cubbyu and lacks the distinctive first dorsal fin of the cubbyu.

* Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Red Lionfish

Pterois volitans (Linnaeus, 1758)

Scorpaenidae

Distinguishing characteristics:

The red lionfish dorsal and pectoral fins* look like bunches of long, white feathers marked with dark bands across their width. The white-tipped “feathers” can spread out in all directions, obscuring and camouflaging the body. The fish is a bottom dweller and, when stationary, is almost impossible to distinguish on SharkCam from bottom vegetation. Only when the fish is swimming or being moved about by wave action (it is a weak swimmer) does the mobile collection of white-tipped “feathers” catch the eye. Glimpses of the body show a light-toned, elongated oval shape marked with narrow, dark bars.

The “red” in the red lionfish name comes from brownish-red markings on the light colored body and fins, as images in reference books and online will show. These are images made above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist’s rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters), screens out most of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why lionfish markings look dark, and not red, on SharkCam. Larger individuals tend to be darker and less patterned (an alternate common name for the red lionfish is zebrafish) than the small fish seen so far on SharkCam.

NOTE: Red lionfish are not native to the Atlantic Ocean and are considered an invasive species that poses a threat to native reef fishes. Please report SharkCam sightings of red lionfish by making a comment on the [SharkCam website](#). Two lionfish have been seen on SharkCam. One was removed from the camera view on 27 December 2015.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

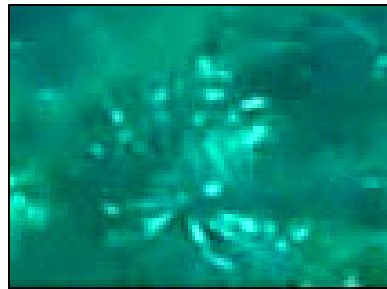
Similar species: Another species of invasive lionfish, *Pterois miles*, also occurs at very low frequencies in North Carolina waters. *Pterois volitans* and *P. miles* are visually indistinguishable and most researchers do not attempt to separate them within the invasive range. No other fish seen on SharkCam resembles the red lionfish.

* Bar = vertical marking

Dorsal fin = top fin

Pectoral fin = side fin

[Additional information, web links, and contributions.](#)



SharkCam Fishes

Spotted Scorpionfish *Scorpaena plumieri* Bloch, 1789 Scorpaenidae

Distinguishing characteristics:

The spotted scorpionfish is a heavy-bodied fish that spends most of its time lying on the bottom, blending in with its surroundings using a combination of dark and light bars, spots, and mottling, and an ability to change color. It has a large head and its light-colored tail has three dark bars. The inside base of its pectoral fins* have a black patch with brilliant white spots

A search of reference books or the web will produce images of spotted scorpionfish that show varying amounts of red, orange, and purple coloration. These are pictures taken above the surface of the water, or in water less than 15 feet deep (4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why spotted scorpionfish look dark on SharkCam.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: No other fish seen on SharkCam resembles the spotted scorpionfish.

* Pectoral fin = side fin

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Saddled Blenny

Malacoctenus triangulatus Springer, 1959

Labrisomidae

Distinguishing characteristics:

Blennies have modified pelvic fins* that enable them to “walk” on the bottom and climb things. A SharkCam saddled blenny uses its pelvic fins to cling head up or head down on the side of the camera cleaning bar and, less frequently, the camera glass housing.

Because it is so small, less than three inches long (about 7.5 centimeters), this is the only way a saddled blenny has been seen on SharkCam.

Its body tapers from a blunt, bulbous head down to its tail and is light colored with a series of dark blotches along its upper side and smaller, lighter toned blotches below. The dorsal fins* are continuous from above the operculum (gill cover) to just in front of the tail fin. The anal fin* is lightly speckled.

Close inspection, which is common because of the saddled blenny’s habit of clinging to the cleaning bar and dome, will reveal the lack of bristly combs (cirri) above the eyes.

Images in reference books and online will show that the saddled blenny body markings are often orange. These are images made above the surface of the water, or in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist’s rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters), screens out most of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why saddled blenny markings look dark, and not orange, on SharkCam.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: Seaweed Blenny (*Parablennius marmoratus*)

The seaweed blenny is very similar in size and silhouette to the saddled blenny. They can be readily distinguished by the cirri between the eyes of the seaweed blenny and thin bars, not spotting, on its anal fin.



Imaged rotated (top); typical natural position (bottom)

* Anal fin = bottom fin closest to tail

Dorsal fin = top fin

Pelvic fin = bottom fin closest to head

Additional information, web links, and contributions.

SharkCam video (1)

SharkCam Fishes

Seaweed Blenny

Parablennius marmoratus (Poey, 1876)
Blenniidae

Distinguishing characteristics:

Blennies have modified pelvic fins* that enable them to “walk” on the bottom and climb things. A SharkCam seaweed blenny uses its pelvic fins to cling head up or head down on the side of the camera cleaning bar and, less frequently, the camera glass housing. Because it is so small, less than three inches long (about 7.5 centimeters), this is the only way a seaweed blenny has been seen on SharkCam.

Its body tapers from a blunt, bulbous head down to its tail and checker boarded with a series of alternating dark and light patterns along its upper side, and smaller, often paired, spots below. The dorsal fins* are continuous from above the operculum (gill cover) to just in front of the tail fin. The anal fin* will often show closely spaced dots arranged in thin bars.*

Close inspection, which is common because of the seaweed blenny’s habit of clinging to the cleaning bar and dome, will reveal the presence of bristly combs (cirri) above the eyes.

NOTE: Seaweed blennies are often seen by maintenance divers at Frying Pan Tower. They often mimic the background color of the small spaces they inhabit, and they have been seen in color patterns that do not match the images shown.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: Saddled Blenny (*Malacoctenus trianqulatus*)

The saddled blenny is very similar in size and silhouette to the seaweed blenny. They can be readily distinguished by the lack of cirri between the eyes of the saddled blenny and spotting, not bars, on its anal fin.



Imaged rotated (top); typical natural position (bottom)

* Anal fin = bottom fin closest to tail

Bar = vertical marking

Dorsal fin = top fin

Pelvic fin = bottom fin closest to head

[Additional information, web links, and contributions.](#)

SharkCam Fishes

Spotted Goatfish

Pseudupeneus maculatus (Bloch, 1793)

Mullidae

Distinguishing characteristics:

From the side, the spotted goatfish is shaped like an elongated oval that is light colored, has a deeply forked tail, and has three large, dark blotches along its side (the dark eye can look like a fourth blotch). The goatfish is often seen rooting around on the bottom, stirring up sediments in the hopes of catching a hidden tidbit. Several species, including the bar jack, yellowtail snapper, and black sea bass, have been observed waiting to see whether rooted-up prey escapes the goatfish.

A search of reference books or the web will produce images of spotted goatfish that show varying amounts of pink coloration. These are pictures taken above the surface of the water, or in water less than 15 feet deep (4.5 meters), or underwater using artificial lighting, or are an artist's rendering using such specimens.

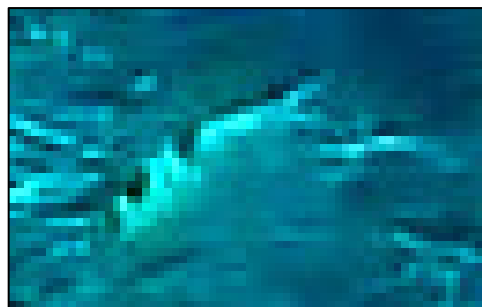
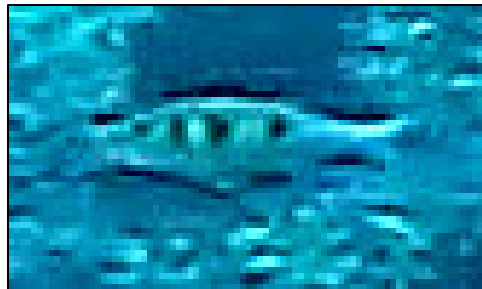
Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out most of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why spotted goatfish show no pink coloration on SharkCam.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Yellow Goatfish *Mulloidichthys martinicus*

The silhouettes of the yellow and spotted goatfish are nearly identical. However, the yellow goatfish is readily distinguishable from the spotted goatfish by the bright yellow tail and midbody stripe, and the lack of distinct blotches along the side of the spotted goatfish. Yellow goatfish will never show mid-body blotches, nor will spotted goatfish have an all yellow tail.



Additional information, web links, and contributions.

SharkCam video (1) (2)

SharkCam Fishes

Yellow Goatfish

Mulloidichthys martinicus (Cuvier and Valenciennes, 1829)
Mullidae

Distinguishing characteristics:

From the side, the yellow goatfish is an elongated oval with a deeply forked tail that has pointed lobes. The body is light colored with an entirely yellow tail and a yellow stripe* of uniform thickness that extends towards the eye. The eye is relatively large and set well forward on a relatively short head with a rounded forehead. Two long barbels, whisker-like fingers, can be seen on the chin and used to root in the bottom for food.

As seen by divers, yellow goatfish are frequently in small groups over sandy areas near SharkCam, however, sightings on SharkCam have thus far been only of single individuals.

A search of reference books or the web will produce images of yellow goatfish that show varying amounts of light pink coloration. These are pictures taken above the surface of the water, or in water less than 15 feet deep (4.5 meters), or underwater using artificial lighting, or are an artist's rendering using such specimens. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out most of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why yellow goatfish show no pink coloration on SharkCam.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Spotted Goatfish (*Pseudupeneus maculatus*), Yellowtail Snapper (*Ocyurus chrysurus*), Horse-eye Jack (*Caranx latus*)

The silhouettes of the spotted and yellow goatfish are nearly identical. However, the spotted goatfish is readily distinguishable from the yellow goatfish by the presence of distinct blotches along the side of the spotted goatfish. Yellow goatfish will never show mid-body blotches, nor will spotted goatfish have an all yellow tail.

The yellowtail snapper is superficially very similar to the yellowtail goatfish. Both possess an elongated oval-shaped body, a yellow tail, and a yellow stripe that extends up the body. However, the yellowtail snapper's mid-body yellow stripe narrows as it moves toward the head. The eye is medium sized, and the head ends in a pointed snout, unlike the rounded forehead of the yellow goatfish. Behaviorally, the yellowtail snapper will always be in motion and typically not closely associated with the bottom. In contrast the goatfish will be strongly bottom associated, and exhibit frequent starts and stops as it forages.

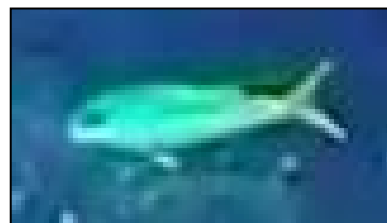
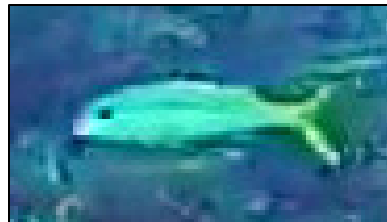
A horse-eye jack has a similarly deeply forked yellow tail with pointed lobes, like the yellow goatfish. In contrast, the horse-eye jack is much larger with a much deeper body, silver-gray body coloring, and no yellow stripe extending forward towards the eye. Instead the horse-eye jack has a narrow dark stripe that runs from the tail about halfway to the mouth, and it has a noticeably large eye.

Except for the spotted goatfish all similar species lack the two barbels that are seen on the chin.

* Stripe = horizontal marking

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#) [\(2\)](#)



SharkCam Fishes

Squirrelfish

Holocentrus adscensionis (Osbeck, 1765)*

Holocentridae

Distinguishing characteristics:

From the side, SharkCam squirrelfish is shaped like an oval with moderately long and wavy fins and lobes of a deeply forked tail. The body is dark, in good lighting showing light brown, and the fins and tail are light toned. A white saddle may show, extending down from the rear portion of the dorsal fin.* The eye is large, believed to be an adaptation for nighttime vision.

A search of reference books or the web will produce images of squirrelfish showing reddish-pink coloration. These are images made above the surface of the water, or in water less than 15 feet deep (4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out most of the red and much of the orange portions of sunlight, leaving whatever colors the rest of the spectrum shows. This is why on SharkCam squirrelfish looks brown.

Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: No other fish seen on SharkCam resembles the squirrelfish.



* Dorsal fin = top fin

Visual identification as *Holocentrus adscensionis* is considered provisional. Several other species of squirrelfish also occur in the SharkCam (North Carolina) area. Although there are visually distinguishing characteristics among the squirrelfishes, no individuals have been observed closely enough on SharkCam to allow a definitive identification.

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Southern Flounder

Paralichthys lethostigma Jordan and Gilbert in Jordan and Meek, 1884
Paralichthyidae



Distinguishing characteristics:

The southern flounder is a flatfish that is likely to only be seen if close to the camera and moving. Although it is relatively large its ability to mimic the background color and pattern of the bottom renders it nearly invisible when motionless. The upper (visible) side of the body appears dark with mottled light and dark spots, and if close to the camera, two protuberant eyes on a sharply triangular head may be visible. The tail fin is typically half as wide as the deepest part of the bottom and the tail edge will be relatively flat.

Relative frequency: Rare—seen in less than 1% of visits. Southern flounder are typically found in coastal and inshore waters until late fall when they migrate offshore to overwinter.

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: No other fish seen on SharkCam resembles the southern flounder.

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)

SharkCam Fishes

Green Moray

Gymnothorax funebris Ranzani, 1839
Muraenidae

Distinguishing characteristics:

The green moray is a long, slender fish, heavier bodied (bigger around) and longer than most eels. Color on camera is dark brown but may show a greenish tint under good lighting. The green moray rests and sleeps during the day in a crevasse or under a ledge, often with part of its body sticking out. The mouth opens and closes continually to pump water across its gills.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Large (0.5–1 m or 20–39 in) to Very large (>1 m or >39 in)

Similar species: Spotted Moray (*Gymnothorax moringa*),
Sharptail Eel (*Myrichthys breviceps*)

The only other eels seen on SharkCam have been the spotted moray and sharptail eel. The green moray lacks markings on its skin, while the “spots” of the spotted moray are indistinct, unlike the sharptail eel, which has white spots on a dark body. The body diameter of the sharptail eel is relatively uniform, unlike the tapered form of the spotted and green morays.

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Spotted Moray

Gymnothorax moringa (Cuvier, 1829)

Muraenidae

Distinguishing characteristics:

The spotted moray is a long, slender fish, heavier bodied (bigger around) and longer than most eels. The body is pale colored but is covered with so many dark colored spots and blotches that it almost like the reverse, a dark body covered with white blotches. The body is compressed laterally, meaning that from the front it is shaped like an oval. Close up it shows large white spots on its lower jaw. The mouth opens and closes continually to pump water across its gills.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Large (0.5–1 m or 20–39 in)

Similar species: Green Moray (*Gymnothorax funebris*), Sharptail Eel (*Myrichthys breviceps*)

The green and spotted morays have similar heavy bodies but the green moray has no obvious markings and appears more robust than the spotted moray. The sharptail eel is much more slender than the green or spotted moray and it has larger white spots arranged in a row along its body.



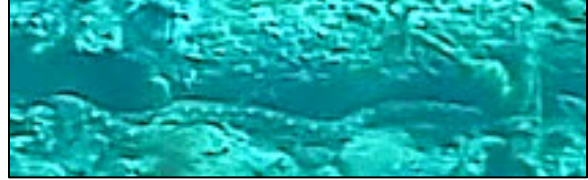
Additional information, web links, and contributions.

SharkCam video (1) (2)

SharkCam Fishes

Sharptail Eel

Myrichthys breviceps (Richardson, 1848)
Ophichthidae



Distinguishing characteristics:

The sharptail eel is snakelike in appearance; a long, slender, tube-shaped fish that crawls along the bottom. The eel has a gray or dark body and light-colored spots along its entire length. When seen it will be traveling, frequently stopping to poke its head into cracks and crevices in search of prey. The entire body may disappear and then reappear nearby.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Large (0.5–1 m or 20–39 in)

Similar species: Green Moray (*Gymnothorax funebris*), Spotted Moray (*G. moringa*)

The only other eels seen on SharkCam have been the green moray and spotted moray. The green moray lacks markings on its skin, while the “spots” of the spotted moray are indistinct, unlike the sharptail eel. Both morays are much more stoutly bodied than the sharptail eel, and much less likely to be seen out and moving away from their den. When under cover the opening and closing of the moray’s mouth is usually apparent.

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)

SharkCam Fishes

NOT FISHES

Lobsters–Palinuridae (Phylum Arthropoda, Class Malacostraca)

Caribbean Spiny Lobster

Loons–Gaviidae (Phylum Chordata, Class Aves)

Common Loon

Octopuses–Octopodidae (Phylum Mollusca, Class Cephalopoda)

Common Octopus

Apes–Hominidae (Phylum Chordata, Class Mammalia)

Human (Freediver and Scuba Diver)

Sea turtles–Cheloniidae (Phylum Chordata, Class Reptilia)

Loggerhead Sea Turtle

Jellyfishes–Ulmaridae (Phylum Cnidaria, Class Scyphozoa)

Moon Jelly

Cigar Comb Jellies – Beroidae (Phylum Ctenophora, Class Nuda)

Comb Jelly

Globular sea urchins–Toxopneustidae (Phylum Echinodermata, Class Echinoidea)

West Indian Sea Egg

SharkCam Fishes

Caribbean Spiny Lobster

Panulirus argus (Latreille, 1804)

Palinuridae (Phylum Arthropoda, Class Malacostraca)

Distinguishing characteristics:

Caribbean spiny lobsters look like what people think of when they think of lobsters, but without the big claws. They have a tube-shaped body, a flat tail, and two long, whip-like antennae, and two shorter, thinner antennae between the obvious ones. They crawl around on ten spindly legs.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in) to Large (0.5–1 m or 20–39 in).

Note: Caribbean spiny lobsters seen on SharkCam are likely to be very large relative to the diminutive lobster you may have eaten.

Similar species: Nothing else seen on SharkCam resembles a Caribbean spiny lobster.

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\)](#)



SharkCam Fishes

Common Loon

Gavia immer (Brunnich, 1764)

Gaviidae (Phylum Chordata, Class Aves)

Distinguishing characteristics:

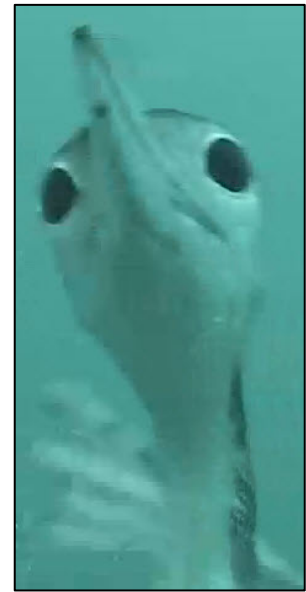
Common loons are diving birds that swim like ducks at the surface and can dive to considerable depths. They dive with their wings folded, using their large webbed feet to swim. Their bodies are torpedo shaped, with a long, snakelike neck and head with a long cone-shaped beak and large eyes. While diving, their feet stick out behind them to paddle them in quick bursts. Underwater, their feathers lay flat against their bodies and they can appear very slender, especially around the head and neck.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Nothing else seen on SharkCam resembles a common loon.

[Additional information, web links, and contributions.](#)



SharkCam Fishes

Common Octopus

Octopus vulgaris Cuvier, 1797*

Octopodidae (Phylum Mollusca, Class Cephalopoda)

Distinguishing characteristics:

An octopus has a bulbous head and eight thick arms. It moves by crawling with its arms or by swimming with its head in front and its arms trailing behind and held together. An octopus can be almost any color and any combination of colors, and can change its selection rapidly. It can change the texture of the body from a smooth profile to skin featuring many protrusions and bumps. These are used to mimic the texture of the surroundings

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Medium (20 cm–0.5 m or 8–20 in)

Similar species: Nothing else seen on SharkCam resembles an octopus.



Octopus crawling on the dome of SharkCam

* This is a tentative identification based on frequency of occurrence in North Carolina and the thick arms seen on SharkCam.

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)

SharkCam Fishes

Human (Freediver and Scuba Diver)

Homo sapiens "aquaticus" and *H. sapiens "scubica"*
Hominidae (Phylum Chordata, Class Mammalia)

Distinguishing characteristics:

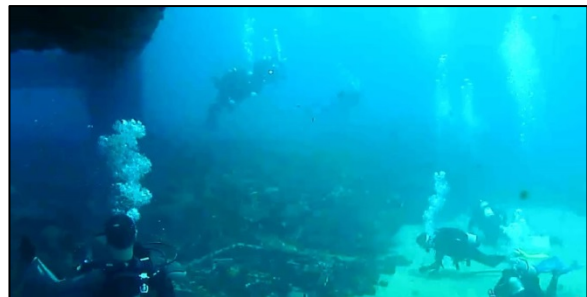
Human divers seen on SharkCam come in two types, scuba and free. Both types come in a variety of colors, although black is most common. Scuba divers can be distinguished by their blocky backs, due to one or two air tanks, and the bubbles that emanate from their head ends. Freedivers lack tanks and bubbles, and will be carrying less equipment. Frequently both types will carry a large speargun. Both types appear to be friendly, frequently waving at the camera. Scuba types can be further categorized as recreational or (camera) maintenance. Freedivers appear to be only recreational.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Very large (>1 m or >39 in)

Similar species: Human divers are unlikely to be mistaken for anything else swimming around on SharkCam.

[Additional information, web links, and contributions.](#)
[SharkCam video \(1\)](#)



SharkCam Fishes

Loggerhead Sea Turtle

Caretta caretta (Linnaeus, 1758)

Cheloniidae (Phylum Chordata, Class Reptilia)

Distinguishing characteristics:

Loggerhead sea turtles seen on SharkCam have all been adults larger than any of the fish except the sharks and rays. The domed upper part of their shells has varied from a mottled gray-green to almost black depending, in part, on the amount of marine growth such as algae and barnacles (lighter colored circular bumps). Skin color has ranged from the same mottled gray-green to almost white. Loggerheads are slow swimmers, using only their front flippers and letting their rear flippers trail behind.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Very large (>1 m or >39 in)

Similar species: Nothing else seen on SharkCam resembles a loggerhead sea turtle.

[Additional information, web links, and contributions.](#)

[SharkCam video \(1\) \(2\)](#)



SharkCam Fishes

Moon Jelly

Aurelia aurita (Linnaeus, 1758)

Ulmaridae (Phylum Cnidaria, Class Scyphozoa)

Distinguishing characteristics:

Moon jellyfish are translucent white upside-down bowl shapes with a brighter white rim. They swim by opening and closing like an umbrella, and are tumbled around by currents so may be sidewise or even upside down. They have short, trailing tentacles.

A search of reference books or the web will produce images of moon jellyfish that show varying amounts of pink coloration. These are images made in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why no moon jellyfish are pink on SharkCam.

Relative frequency: Rare—seen in less than 1% of visits

Relative size: Small (10–20 cm or 4–8 in) to Medium (20 cm–0.5 m or 8–20 in)

Similar species: Comb Jelly (*Beroe ovata*)

While both the moon jelly and the comb jelly are translucent and gelatinous, they have distinctly different shapes. The moon jelly is shaped like an upside down bowl with short, trailing tentacles underneath. *Beroe* comb jellies do not possess tentacles.

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)



SharkCam Fishes

Comb Jelly

Beroe ovata Bruguière, 1789

Beroidae (Phylum Ctenophora, Class Nuda)

Distinguishing characteristics:

Comb jellies are white to pink translucent, gelatinous marine invertebrates superficially similar to jellyfish. They typically have an ovoid or spheroid body with eight distinct stripes of elongated cilia arranged in rows and used for movement. They will generally be moving with the current and turbulence in the water. Light can refract along the closely spaced cilia resulting in a rainbow prismatic effect .

A search of reference books or the web will produce images of comb jellies that show varying amounts of pink coloration. These are images made in water less than 15 feet deep (about 4.5 meters), or in deeper water using artificial lighting, or are an artist's rendering using such images. Water at the depth of SharkCam, about 50 feet (about 15 meters) screens out all of the red and much of the orange portion of sunlight, leaving whatever colors the rest of the spectrum shows. This is why comb jellies do not appear pink on SharkCam.

Relative frequency: Rare— seen in less than 1% of visits

Relative size: Very small (<10 cm or 4 in)

Similar species: Moon Jelly (*Aurelia aurita*)

While both the moon jelly and the comb jelly are translucent and gelatinous, they have distinctly different shapes. The moon jelly is shaped like an upside down bowl with short, trailing tentacles underneath. *Beroe* comb jellies do not possess tentacles.

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)



SharkCam Fishes

West Indian Sea Egg

Tripneustes ventricosus (Lamarck, 1816)
Toxopneustidae (Phylum Echinodermata, Class
Echinoidea)

Distinguishing characteristics:

West Indian sea eggs are baseball-sized sea urchins covered with white spines that almost obscure the dark body. In natural lighting the sea egg body will show purple. A view of SharkCam bottom will usually show several individuals looking like stationary objects. They crawl around too slowly to see movement but a later return to the area will likely show them in different locations.



Relative frequency: Uncommon—seen in 1% to 10% of visits

Relative size: Very small (<10 cm or 4 in) to Small (10–20 cm or 4–8 in)

Similar species: Nothing else seen on SharkCam resembles a West Indian sea egg.

Additional information, web links, and contributions.

[SharkCam video \(1\)](#)

APPENDIX 1 – ADDITIONAL INFORMATION AND CONTRIBUTIONS

Alphabetical by common name

A

Common name: [African Pompano](#)
Scientific name: *Alectis ciliaris* (Bloch, 1787)
Family: Carangidae
Similar species: [Crevalle Jack \(*Caranx hippos*\)](#), [Permit \(*Trachinotus falcatus*\)](#)
SharkCam video: <https://youtu.be/6DObF95BfhU>
Authentication: [FishBase \(mirror\)](#)
Additional information:
https://en.wikipedia.org/wiki/African_pompano
http://www.championbass.com/encyclopedia/african_pompano.html
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-John Rainey, cynde, jon-newbie; video-jon-newbie

Common name: [Almaco Jack](#)
Scientific name: *Seriola rivoliana* Valenciennes in Cuvier and Valenciennes, 1833
Family: Carangidae
Similar species: [Greater Amberjack \(*Seriola dumerili*\)](#)
SharkCam video: <https://youtu.be/ssQENqUUOuE>
Authentication: [FishBase \(mirror\)](#)
Additional information:
<http://myfwc.com/wildlifehabitats/profiles/saltwater/jack/s/greater-amberjack/>
<http://www.eregulations.com/florida/fishing/flsw13a/keys-to-identifying-the-jacks/>
Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: [Atlantic Bonito](#)
Scientific name: *Sarda sarda* (Bloch, 1793)
Family: Scombridae
Similar species: [Little Tunny \(*Euthynnus alletteratus*\)](#)
SharkCam videos: https://youtu.be/4_vjJ5eQWUQ,
<https://youtu.be/gnnEuemL5o8>
Authentication: [FishBase \(mirror\)](#)
Additional information:
https://en.wikipedia.org/wiki/Atlantic_bonito
<http://www.stripersonline.com/surftalk/topic/297937-how-to-tell-apart-an-atlantic-bonito-from-a-false-albacore/>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: [Atlantic Spadefish](#)
Scientific name: *Chaetodipterus faber* (Broussonet, 1782)
Family: Ephippidae
Similar species: [Sheepshead \(*Archosargus probatocephalus*\)](#)
SharkCam videos: https://youtu.be/m_t756QvxCc,
<https://youtu.be/9Dn5X5xdncY>
Authentication: [FishBase \(mirror\)](#)

Additional information:

https://en.wikipedia.org/wiki/Atlantic_spadefish
<http://reefguide.org/carib/spadefish.html>
Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje; video-jon-newbie

B

Common name: [Banded Rudderfish](#)
Scientific name: *Seriola zonata* (Mitchill, 1815)
Family: Carangidae
Similar species: [Greater Amberjack \(*Seriola dumerili*\)](#),
[Almaco Jack \(*S. rivoliana*\)](#), [Sergeant Major \(*Abudefduf saxatilis*\)](#), [Sheepshead \(*Archosargus probatocephalus*\)](#),
[Atlantic Spadefish \(*Chaetodipterus faber*\)](#)
SharkCam videos: <https://youtu.be/tTai9lvzFUQ>,
<https://youtu.be/sryj-YJyRvI>
Authentication: [FishBase \(mirror\)](#)
Additional information:
<http://www.safmc.net/FishDandRegs/FishGallery/BandedRudderfish>
<http://nefsc.noaa.gov/publications/crd/crd1210/jacks.pdf>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-BetterThanWatchingWimbledon; video-jon-newbie

Common name: [Bandtail Puffer](#)
Scientific name: *Sphoeroides spengleri* (Bloch, 1785)
Family: Tetraodontidae
Similar species: [Bluehead \(*Thalassoma bifasciatum*\)](#),
[Clown Wrasse \(*Halichoeres maculipinna*\)](#), [Slippery Dick \(*H. bivittatus*\)](#)
SharkCam video: <https://youtu.be/CHOKXgNpRWo>
Authentication: [FishBase \(mirror\)](#)
Additional information:
<http://reefguide.org/carib/bandtailpuffer.html>
<http://www.snorkelstj.com/bandtail-pufferfish.html>
Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: [Bar Jack](#)
Scientific name: *Carangoides ruber* (Bloch, 1793)
Family: Carangidae
Similar species: [Blue Runner \(*Caranx crysos*\)](#), [Horse-eye Jack \(*Caranx latus*\)](#), [Yellow Jack \(*Caranqoides bartholomaei*\)](#)
SharkCam video: <https://youtu.be/daBJSDat1dE>
Authentication: [FishBase \(mirror\)](#)
Additional information:
https://en.m.wikipedia.org/wiki/Bar_jack
<http://reefguide.org/carib/barjack.html>
Credits: entry-Jordan Beckner; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Appendix 1 – Additional information

Common name: Belted Sandfish
Scientific name: *Serranus subligarius* (Cope, 1870)
Family: Serranidae
Similar species: None
SharkCam video: <https://youtu.be/DQ9a3kho4kE>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
<http://myfwc.com/research/saltwater/codes/marine-life-finfish/belted-sandfish-bass/>
<http://www.reefngom.org/beltsand.html>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Erin Burge, jon-newbie; video-jon-newbie

Common name: Bermuda Chub
Scientific name: *Kyphosus sectatrix* (Linnaeus, 1758)
Family: Kyphosidae
Similar species: Spottail Pinfish (*Diplodus holbrookii*)
SharkCam videos: <https://youtu.be/mJRSVrFjUt8>,
<https://youtu.be/b2EpyRSRwA0>
<https://youtu.be/TekdxKbjmGE>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
https://en.wikipedia.org/wiki/Bermuda_chub
<http://www.snorkelstj.com/chub.html>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-John Rainey, jon-newbie; video-jon-newbie, Erin Burge

Common name: Bicolor Damselfish
Scientific name: *Stegastes partitus* (Poey, 1868)
Family: Pomacentridae
Similar species: Cocoa Damselfish (*Stegastes variabilis*)
SharkCam videos: <https://youtu.be/kXkmsnr70vM>,
<https://youtu.be/H4d8JkwllBU>,
<https://www.youtube.com/watch?v=GWzu7mEFTVI>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
<http://reefguide.org/carib/bicolordamsel.html>
<http://eol.org/pages/203965/media>
Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie, Erin Burge

Common name: Bigeye Scad
Scientific name: *Selar crumenophthalmus* (Bloch, 1793)
Family: Carangidae
Similar species: Round Scad (*Decapterus punctatus*),
Scaled Herring *Harengula jaquana*, young Tomtate
(*Haemulon aurolineatum*)
SharkCam video: <https://youtu.be/6pMB0wZ4giM>,
<https://youtu.be/JqJxsDBsJU0>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
https://en.wikipedia.org/wiki/Bigeye_scad
<http://eol.org/pages/215191/details>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-meryltje, jon-newbie; video-jon-newbie

Common name: Black Sea Bass

Scientific name: *Centropristis striata* (Linnaeus, 1758)
Family: Serranidae
Similar species: Graysby Cephalopholis cruentata, Tautog
(*Tautoga onitis*)
SharkCam videos: <https://youtu.be/y3wGvomtAdU>,
<https://youtu.be/JOHI0t4SCPU>
<https://youtu.be/ooB9noh1A8w>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
https://en.wikipedia.org/wiki/Black_sea_bass
<http://www.asmfc.org/species/black-sea-bass>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen capture credit: jon-newbie, meryltje, John Rainey, Robin Lake; video-jon-newbie, Erin Burge

Common name: Blue Angelfish
Scientific name: *Holacanthus bermudensis* Goode, 1876
Family: Pomacanthidae
Similar species: Queen Angelfish (*Holacanthus ciliaris*),
Hogfish (*Lachnolaimus maximus*)
SharkCam video: <https://youtu.be/Pz3-4ldDABw>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
<http://www.flmnh.ufl.edu/fish/gallery/descript/angelblue/angelblue.htm>
https://en.wikipedia.org/wiki/Bermuda_blue_angelfish
<http://reefguide.org/carib/blueangel.html>
Credits: entry-Erin Burge; editing-jon-newbie; screen grab-Dillon King, meryltje, jon-newbie; video-jon-newbie

Common name: Blue Chromis
Scientific name: *Chromis cyanea* (Poey, 1860)
Family: Pomacentridae
Similar species: Juvenile Purple Reeffish (*Chromis scotti*)
Authentication: [FishBase](#) ([mirror](#))
Additional information:
<http://reefguide.org/carib/bluechromis.html>
<http://www8.nos.noaa.gov/onms/park/Parks/SpeciesCard.aspx?refID=2&CreatureID=1352&pID=9>
Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie

Common name: Blue Runner
Scientific name: *Caranx crysos* (Mitchill, 1815)
Family: Carangidae
Similar species: Bar Jack (*Carangoides ruber*), Horse-eye Jack (*Caranx latus*), Yellow Jack (*Carangoides bartholomaei*), Yellowtail Snapper (*Ocyurus chrysurus*)
SharkCam video: <https://youtu.be/8nmL1VBnhlw>
Authentication: [FishBase](#) ([mirror](#))
Additional information:
<http://myfwc.com/wildlifehabitats/profiles/saltwater/jack-s/blue-runner/>
<http://www.snorkelstj.com/blue-runner-jack.html>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Erin Burge, cynde, jon-newbie; video-jon-newbie

Common name: Blue Tang (juvenile)

SharkCam Fishes

Scientific name: *Acanthurus coeruleus* Bloch and Schneider, 1801

Family: Acanthuridae

Similar species: Doctorfish (*Acanthurus chirurgus*), Ocean Surgeon (*A. tractus*), see Surgeonfishes (*Acanthurus* spp.)

SharkCam video: <https://youtu.be/kv0rPprwoKs>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://www.flmnh.ufl.edu/fish/Gallery/Descript/BlueTang/BlueTang.html>

<http://reefguide.org/carib/bluetang.html>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-meryltje, cynde, jon-newbie; video-jon-newbie

Common name: Bluehead

Scientific name: *Thalassoma bifasciatum* (Bloch, 1791)

Family: Labridae

Similar species: Initial phase Puddingwife (*Halichoeres radiatus*), initial phase Slippery Dick (*H. bivittatus*)

SharkCam videos: <https://youtu.be/OZSGeewjR2U>, <https://youtu.be/ipCL6chbtl>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://www.flmnh.ufl.edu/fish/discover/species-profiles/thalassoma-bifasciatum/>

<http://eol.org/pages/213331/media>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-Erin Burge, jon-newbie; video-jon-newbie

C

Common name: Caribbean Spiny Lobster

Scientific name: *Panulirus argus* (Latreille, 1804)

Family: Palinuridae (Phylum Arthropoda, Class Malacostraca)

Similar species: None

SharkCam video: <https://youtu.be/ldlbo8F14WA>

Authentication: [SeaLifeBase \(mirror\)](#)

Additional information:

https://en.wikipedia.org/wiki/Panulirus_argus

<http://marinebio.org/species.asp?id=155>

<http://reefguide.org/carib/lobster.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-OKI, jon-newbie; video-jon-newbie

Common name: Clown Wrasse

Scientific name: *Halichoeres maculipinna* (Müller and Troschel in Schomburgk, 1848)

Family: Labridae

Similar species: Bluehead (*Thalassoma bifasciatum*), Puddingwife (*Halichoeres radiatus*), Slippery Dick (*H. bivittatus*)

SharkCam videos: https://youtu.be/l_rLXpE_Zbs, <https://youtu.be/VWcks5q5LLI>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/clownwrasse.html>

http://www.kilili.com/kilili/uwss/slides/Halichoeres_maculipinna.html

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Cobia

Scientific name: *Rachycentron canadum* (Linnaeus, 1766)

Family: Rachycentridae

Similar species: Sharksucker (*Echeneis naucrates*), Whitefin Sharksucker (*E. neucratoides*), Rainbow Runner (*Elaagatis bipinnulata*), Greater Amberjack (*Seriola dumerili*)

SharkCam videos: <https://youtu.be/np5gst6Oz7A>, <https://youtu.be/xEVt-O2izll>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://en.wikipedia.org/wiki/Cobia>

<http://www.flmnh.ufl.edu/fish/gallery/descript/cobia/cobia.html>

Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje, OKI, cynde, jangsara; video-jon-newbie

Common name: Cocoa Damselfish

Scientific name: *Stegastes variabilis* (Castelnau, 1855)

Family: Pomacentridae

Similar species: Bicolor Damselfish (*Stegastes partitus*), Blue Angelfish (*Holacanthus bermudensis*), Queen Angelfish (*H. ciliaris*)

SharkCam videos: <https://youtu.be/G-z6I0kUVKk>, <https://youtu.be/AXxkvl7RHKE>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://reefguide.org/carib/cocoadamselfish.html>

<http://www.reef.org/enews/articles/damselfish-revised>

https://sta.uwi.edu/fst/lifesciences/documents/Stegastes_variabilis.pdf

Credits: entry-Jordan Beckner; editing-jon-newbie and Erin Burge; screen grab-John Rainey, jon-newbie, meryltje; video-jon-newbie

Common name: Comb Jelly

Scientific name: *Beroe ovata* Bruguère, 1789

Family: Beroidae (Phylum Ctenophora, Class Nuda)

Similar species: Moon Jelly (*Aurelia aurita*)

SharkCam video: <https://youtu.be/fbZpJcoH5IQ>

Authentication: [SeaLifeBase](#)

Additional information:

<https://www.montereybayaquarium.org/animal-guide/invertebrates/comb-jelly>

http://animaldiversity.org/accounts/Beroe_ovata/

Credits: entry-Olivia Bertelsen and Erin Burge; editing-Erin Burge; screen grab-Olivia Bertelsen; video-Olivia Bertelsen

Common name: Common Loon

Scientific name: *Gavia immer* (Brunnich, 1764)

Family: Gaviidae (Phylum Chordata, Class Aves)

Similar species: None

Appendix 1 – Additional information

Authentication:

http://www.allaboutbirds.org/guide/common_loon/id

Additional information:

[http://animals.nationalgeographic.com/animals/birds/co](http://animals.nationalgeographic.com/animals/birds/common-loon/)
[mmon-loon/](http://animals.nationalgeographic.com/animals/birds/common-loon/)

<https://www.audubon.org/field-guide/bird/common-loon>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Ryan Bono

Common name:

Common name: Common Octopus

Scientific name: *Octopus vulgaris* Cuvier, 1797

Family: Octopodidae (Phylum Mollusca, Class

Cephalopoda)

Similar species: None

SharkCam videos: <https://youtu.be/KAKelcHn2kY>,

<https://youtu.be/XkCZOJUpIgl>

Authentication: SeaLifeBase (mirror)

Additional information:

https://en.wikipedia.org/wiki/Common_octopus

[http://animals.nationalgeographic.com/animals/inverte](http://animals.nationalgeographic.com/animals/invertebrates/common-octopus/)
[brates/common-octopus/](http://animals.nationalgeographic.com/animals/invertebrates/common-octopus/)

<http://reefguide.org/carib/commonoctopus.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name:

Common name: Creole Wrasse

Scientific name: *Clepticus parrae* (Bloch and Schneider, 1801)

Family: Labridae

Similar species: Blue Chromis (*Chromis cyanea*), juvenile

Purple Reeffish (*Chromis scotti*)

SharkCam videos: <https://youtu.be/Eka1KgC30Eg>

<https://youtu.be/XRz0me08CDg>

Authentication: FishBase (mirror)

Additional information:

<http://www.whatsthatfish.com/fish/creole-wrasse/1589>

[http://species-](http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=254)
[identification.org/species.php?species_group=caribbea](http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=254)
[n_diving_guide&id=254](http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=254)

[http://thedivingblog.com/fish-identification-creole-](http://thedivingblog.com/fish-identification-creole-wrasse/)
[wrasse/](http://thedivingblog.com/fish-identification-creole-wrasse/)

Credits: entry-Gary Sturm; editing- Erin Burge; screen grab-BearBell, Gary Sturm, jon-newbie; video-jon-newbie

Common name:

Common name: Crevalle Jack

Scientific name: *Caranx hippos* (Linnaeus, 1766)

Family: Carangidae

Similar species: African Pompano (*Alectis ciliaris*), Permit

(*Trachinotus falcatus*), Horse-eye Jack (*Caranx latus*)

SharkCam videos: <https://youtu.be/l5SwqMgrenY>,

<https://youtu.be/a5CNKGfUloE>

Authentication: FishBase (mirror)

Additional information:

https://en.wikipedia.org/wiki/Crevalle_jack

[https://igfa.org/species/147-jack-](https://igfa.org/species/147-jack-crevalle.aspx?CommonName=147-jack-crevalle.aspx)
[crevalle.aspx?CommonName=147-jack-crevalle.aspx](https://igfa.org/species/147-jack-crevalle.aspx?CommonName=147-jack-crevalle.aspx)
[http://myfwc.com/wildlifehabitats/profiles/saltwater/jack](http://myfwc.com/wildlifehabitats/profiles/saltwater/jacks/crevalle-jack/)
[s/crevalle-jack/](http://myfwc.com/wildlifehabitats/profiles/saltwater/jacks/crevalle-jack/)

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Ryan Bono, pinebutte, meryltje, jon-newbie; video-jon-newbie

Common name:

Common name: Cubbyu

Scientific name: *Pareques umbrosus* (Jordan and

Eigenmann, 1889)

Family: Sciaenidae

Similar species: Whitespotted Soapfish (*Rypticus*

maculatus)

SharkCam videos: <https://youtu.be/FZzQ61kiZZg>,

<https://www.youtube.com/watch?v=GWzu7mEFTVI>

Authentication: FishBase (mirror)

Additional information:

<http://eol.org/pages/211227/media>

<http://www.iucnredlist.org/details/47148229/0>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie, Erin Burge

Common name:

Common name: Cubera Snapper

Scientific name: *Lutjanus cyanopterus* (Cuvier in Cuvier and Valenciennes, 1828)

Family: Lutjanidae

Similar species: Gag (*Mycteroperca microlepis*), Gray Snapper (*Lutjanus griseus*), Sheepshead (*Archosargus probatocephalus*)

SharkCam videos: <https://youtu.be/XjJg9NzAIEY>,

<https://youtu.be/yKLEQYwQEeUQ>

Authentication: FishBase (mirror)

Additional information:

[https://www.flmnh.ufl.edu/fish/Gallery/Descript/CuberaS](https://www.flmnh.ufl.edu/fish/Gallery/Descript/CuberaSnapper/CuberaSnapper.html)
[napper/CuberaSnapper.html](https://www.flmnh.ufl.edu/fish/Gallery/Descript/CuberaSnapper/CuberaSnapper.html)

[http://animals.nationalgeographic.com/animals/fish/cube](http://animals.nationalgeographic.com/animals/fish/cubera-snapper/)
[ra-snapper/](http://animals.nationalgeographic.com/animals/fish/cubera-snapper/)

Credits: entry-John Rainey and Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje, cynde; video-jon-newbie

D

Common name:

Common name: Doctorfish

Scientific name: *Acanthurus chirurgus* (Bloch, 1787)

Family: Acanthuridae

Similar species: Adult Blue Tang (*Acanthurus coeruleus*), Ocean Surgeon (*A. tractus*), see Surgeonfishes

Acanthurus spp.

SharkCam videos: <https://youtu.be/ikiWFA26iqs>,

<https://youtu.be/ZTbzf1oFIWc>,

<https://youtu.be/ytG3P5kbFKE>

Authentication: FishBase (mirror)

Additional information:

[https://www.flmnh.ufl.edu/fish/Gallery/Descript/DrFish/D](https://www.flmnh.ufl.edu/fish/Gallery/Descript/DrFish/Doctor.htm)
[octor.htm](https://www.flmnh.ufl.edu/fish/Gallery/Descript/DrFish/Doctor.htm)

<http://reefguide.org/carib/doctorfish.html>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, cynde, pinebutte; video-jon-newbie

E

SharkCam Fishes

F

Common name: French Angelfish
Scientific name: *Pomacanthus paru* (Bloch, 1787)
Family: Pomacanthidae
Similar species: Blue Angelfish (*Holacanthus bermudensis*),
Queen Angelfish (*H. ciliaris*), Atlantic Spadefish
(*Chaetodipterus faber*)
SharkCam video: <https://youtu.be/p2uCzu-gXZM>
Authentication: [FishBase \(mirror\)](#)
Additional information:
[http://animal-world.com/encyclo/marine/angels/
FrenchAngelfish.php](http://animal-world.com/encyclo/marine/angels/FrenchAngelfish.php)
<http://reefguide.org/carib/frenchangel.html>
Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

G

Common name: Gag
Scientific name: *Mycteroperca microlepis* (Goode and Bean, 1879)
Family: Serranidae
Similar species: Goliath Grouper (*Epinephelus itajara*),
Scamp (*Mycteroperca phenax*), Cubera Snapper
(*Lutjanus cyanopterus*)
SharkCam videos: <https://youtu.be/4Ku5CLtU-a4>,
<https://youtu.be/UKs3krWhQeA>
<https://youtu.be/HQzT443BxEY>
Authentication: [FishBase \(mirror\)](#)
Additional information:
[http://myfwc.com/wildlifehabitats/profiles/saltwater/gro-
uper/gag-grouper/](http://myfwc.com/wildlifehabitats/profiles/saltwater/gro-uper/gag-grouper/)
<http://www.seafoods.com/product/396-scamp-florida>
Note: Social interactions and their relationship to color and pattern are discussed in Gilmore and Jones (1992).
Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-John Rainey, meryltje, jon-newbie; video-jon-newbie

Common name: Giant Manta
Scientific name: *Manta birostris* (Walbaum, 1792)
Family: Mobulidae
Similar species: None
SharkCam videos: <https://youtu.be/T1KckEpKTE4>
<https://youtu.be/s2fGPtwVyac3>
Authentication: [FishBase \(mirror\)](#)
Additional information:
[https://www.floridamuseum.ufl.edu/fish/discover/species-
profiles/manta-birostris/](https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/manta-birostris/)
<http://marinebio.org/species.asp?id=49>
Credits: entry-Tyler McKee; editing-Erin Burge; screen grab- Zeba Knight, Tyler McKee; video-Tyler McKee

Common name: Goliath Grouper
Scientific name: *Epinephelus itajara* (Lichtenstein, 1822)
Family: Serranidae
Similar species: Gag (*Mycteroperca microlepis*), Scamp (*M. phenax*), Cubera Snapper (*Lutjanus cyanopterus*)
SharkCam video: <https://youtu.be/a7uqeX7XTqc>
Authentication: [FishBase \(mirror\)](#)

Additional information:

https://en.wikipedia.org/wiki/Atlantic_goliath_grouper
[http://www.flmnh.ufl.edu/fish/gallery/descript/goliathgrouper.html](http://www.flmnh.ufl.edu/fish/gallery/descript/goliathgrouper/goliathgrouper.html)

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, getyasome, s_TpAman; video-jon-newbie

Common name: Gray Snapper
Alternate common name: Mangrove Snapper
Scientific name: *Lutjanus griseus* (Linnaeus, 1758)
Family: Lutjanidae
Similar species: Cubera Snapper (*Lutjanus cyanopterus*)
SharkCam videos: <https://youtu.be/O9dHTTqh0IU>,
<https://youtu.be/2Jk49L1q0AM>
Authentication: [FishBase \(mirror\)](#)

Additional information:
<http://reefguide.org/carib/graysnapper.html>
[https://www.flmnh.ufl.edu/fish/discover/species-
profiles/lutjanus-griseus](https://www.flmnh.ufl.edu/fish/discover/species-profiles/lutjanus-griseus)
<http://reefguide.org/carib/graysnapper.html>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Gray Triggerfish
Scientific name: *Balistes capriscus* Gmelin, 1789
Family: Balistidae
Similar species: None
SharkCam videos: https://youtu.be/P5qPFPh_nbY,
<https://youtu.be/mWIM9YGFkGE>
Authentication: [FishBase \(mirror\)](#)
Additional information:
[https://www.flmnh.ufl.edu/fish/discover/species-
profiles/balistes-capriscus](https://www.flmnh.ufl.edu/fish/discover/species-profiles/balistes-capriscus)
<http://myfwc.com/fishing/saltwater/recreational/triggerfish/>
Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Graysby
Scientific name: *Cephalopholis cruentata* (Lacepède, 1802)
Family: Serranidae
Similar species: Black Sea Bass *Centropristis striata*,
Whitespotted Soapfish (*Rypticus maculatus*)
SharkCam videos: <https://youtu.be/k415u4W0mQM>
<https://youtu.be/xc-5A4XskY>
Authentication: [FishBase \(mirror\)](#)
Additional information:
[http://safmc.net/regulations/regulations-by-
species/graysby-2/](http://safmc.net/regulations/regulations-by-species/graysby-2/)
<https://reefguide.org/graysby.html>
Credits: entry-Theresa Hegarty; editing-Erin Burge; screen grab-Erin Burge; video-Erin Burge

Common name: Great Barracuda
Scientific name: *Sphyrna barracuda* (Edwards in Catesby, 1771)
Family: Sphyrnaenidae
Similar species: None

Appendix 1 – Additional information

SharkCam video: <https://youtu.be/J3NMOJ9FIJw>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://reefguide.org/carib/barracuda.html>

<https://www.flmnh.ufl.edu/fish/discover/species-profiles/sphyraena-barracuda/>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-Ryan Bono, meryltje, jon-newbie; video-jon-newbie

Common name: [Greater Amberjack](#)

Scientific name: *Seriola dumerili* (Risso, 1810)

Family: Carangidae

Similar species: [Almaco Jack](#) (*Seriola rivoliana*)

SharkCam video: <https://youtu.be/vXDznChmUY0>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://myfwc.com/wildlifehabitats/profiles/saltwater/jack-s/almaco-jack/>

<http://www.eregulations.com/florida/fishing/flsw13a/keys-to-identifying-the-jacks/>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-John Rainey, meryltje, jon-newbie; video-jon-newbie

Common name: [Green Moray](#)

Scientific name: *Gymnothorax funebris* Ranzani, 1839

Family: Muraenidae

Similar species: [Spotted Moray](#) (*Gymnothorax moringa*), [Sharptail Eel](#) (*Myrichthys breviceps*)

SharkCam video: <https://youtu.be/wlXfb58KXE>

<https://youtu.be/CugmypcgFvI>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<https://www.flmnh.ufl.edu/fish/discover/species-profiles/gymnothorax-funebris>

<https://sublimecreatures.wordpress.com/2012/08/08/the-not-so-green-moray-eel/>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie, Nicholas Coleman

H

Common name: [Harlequin Bass](#)

Scientific name: *Serranus tigrinus* (Bloch, 1790)

Family: Serranidae

Similar species: None

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://www.aquariumdomain.com/viewSpeciesMarine.php?id=108>

<http://reefguide.org/carib/harlequinbass.html>

<http://www.snorkelstj.com/harlequin-bass.html>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screen grab-jon-newbie

Common name: [Hogfish](#)

Scientific name: *Lachnolaimus maximus* (Walbaum, 1792)

Family: Labridae

Similar species: [Blue Angelfish](#) (*Holacanthus bermudensis*), [Queen Angelfish](#) (*H. ciliaris*)

SharkCam videos: <https://youtu.be/Q1T4wg20ZoU>, <https://youtu.be/ybSZuW01ldI>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<https://www.flmnh.ufl.edu/fish/Gallery/Descript/Hogfish/Hogfish.html>

<http://reefguide.org/carib/hogfish.html>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje, BearBell; video-jon-newbie

Common name: [Horse-eye Jack](#)

Scientific name: *Caranx latus* Agassiz in Spix and Agassiz, 1831

Family: Carangidae

Similar species: [Blue Runner](#) (*Caranx crysos*), [Bar Jack](#) (*Carangoides ruber*), [Yellow Jack](#) (*Carangoides bartholomaei*), [Yellowtail Snapper](#) (*Ocyurus chrysurus*), [Vermilion Snapper](#) (*Rhomboplites aurorubens*)

Authentication: [FishBase](#) ([mirror](#))

Additional information:

https://en.wikipedia.org/wiki/Horse-eye_jack

<http://reefguide.org/carib/horseeyejack.htmlhttps://igfa.org/species/148-jack-horse-eye.aspx?CommonName=148-jack-horse-eye.aspx>

Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-jon-newbie

Common name: [Human](#) (Freediver and Scuba Diver)

Scientific name: *Homo sapiens* "aquaticus" and *H. sapiens* "scubica"

Family: Hominidae (Phylum Chordata, Class Mammalia)

Similar species: None

SharkCam video: <https://youtu.be/CGAGeJd-1jc>

Additional information:

https://en.wikipedia.org/wiki/Scuba_diving

<https://en.wikipedia.org/wiki/Freediving>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie

I

J

K

Common name: [King Mackerel](#)

Scientific name: *Scomberomorus cavalla* (Cuvier, 1829)

Family: Scombridae

Similar species: [Great Barracuda](#) (*Sphyraena barracuda*)

SharkCam video: https://youtu.be/TO2YVRr_z1c

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://www.dnr.sc.gov/marine/species/kingmackerel.html>

<https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/scomberomorus-cavalla>

<https://www.igfa.org/species/157-mackerel-king.aspx?CommonName=157-mackerel-king.aspx>

Credits: entry-Erin Burge; editing-??; screen grab-jon-newbie; video-jon-newbie

Common name: [Knobbed Porgy](#)

SharkCam Fishes

Scientific name: *Calamus nodosus* Randall and Caldwell, 1966

Family: Sparidae

Similar species: Red Porgy (*Pagrus pagrus*), Saucereye Porgy (*Calamus calamus*), Scup (*Stenotomus chrysops*), White Grunt (*Haemulon plumieri*)

SharkCam video: <https://youtu.be/tUPi11OgJR4>

Authentication: [FishBase](#)

Additional information:

<http://myfwc.com/wildlifehabitats/profiles/saltwater/porgy/knobbed-porgy/>

<http://eol.org/pages/211202/overview>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-cynde, jon-newbie; video-jon-newbie

L

Common Name: Little Tunny

Alternate common names: False Albacore, Little Tuna, Bonita, Albie

Scientific Name: *Euthynnus alletteratus* (Rafinesque, 1810)

Family: Scombridae

Similar species: Atlantic Bonito (*Sarda sarda*)

SharkCam videos: <https://youtu.be/a2-8OHFyTvc>, <https://youtu.be/B3Cjtj7YNUM>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/descript/littletunny/littletunny.html>

https://en.wikipedia.org/wiki/Little_tunny

<http://www.stripersonline.com/surftalk/topic/297937-how-to-tell-apart-an-atlantic-bonito-from-a-false-albacore/>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Christine Casterline, jon-newbie, OKI; video-jon-newbie

Common name: Loggerhead Sea Turtle

Scientific name: *Caretta caretta* (Linnaeus, 1758)

Family: Cheloniidae (Phylum Chordata, Class Reptilia)

Similar species: None

SharkCam videos: <https://youtu.be/jdioHXAErsl>, <https://youtu.be/uXpiSq0uKPU>

Authentication: [SeaLifeBase \(mirror\)](#)

Additional information:

http://www.ncwildlife.org/Portals/0/Conserving/documents/FactSheets/nongame_seaturtle_hires.pdf

<http://www.fws.gov/northflorida/seaturtles/turtle%20fact%20sheets/loggerhead-sea-turtle.htm>

<http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screen grab-Jim, jon-newbie, OKI, Erin Burge, cynde; video-jon-newbie

M

Common name: Moon Jelly

Scientific name: *Aurelia aurita* (Linnaeus, 1758)

Family: Ulmaridae (Phylum Cnidaria, Class Scyphozoa)

Similar species: None

SharkCam video: <https://youtu.be/vXFazByVKDg>

Authentication: [SeaLifeBase \(mirror\)](#)

Additional information:

https://en.wikipedia.org/wiki/Aurelia_aurita

<http://reefguide.org/carib/moonjelly.html>

Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, OKI; video-jon-newbie

N

Common name: Nurse Shark

Scientific name: *Ginglymostoma cirratum* (Bonnaterre, 1788)

Family: Ginglymostomatidae

Similar species: Sandbar Shark (*Carcharhinus plumbeus*), Sand Tiger Shark (*Carcharias taurus*)

SharkCam videos: <https://youtu.be/ridzanZk0is>, <https://youtu.be/9Ek0UUkygAw>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/nurses shark.html>

<http://www.flmnh.ufl.edu/fish/gallery/descript/nurses shark/nurses shark.htm>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

O

Common name: Ocean Surgeon

Scientific name: *Acanthurus tractus* Poey, 1860

Family: Acanthuridae

Similar species: Adult Blue Tang (*A. coeruleus*), Doctorfish (*A. chirurgus*), see Surgeonfishes (*Acanthurus* spp.)

Authentication:

<http://www.mapress.com/zootaxa/2011/f/z02905p068.pdf>

Additional information:

<http://reefguide.org/carib/surgeonfish.html>

http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=207

Credits: No ocean surgeons have been definitively identified from SharkCam.

Common name: Orange Filefish

Scientific name: *Aluterus schoepfii* (Walbaum, 1792)

Family: Monacanthidae

Similar species: Scrawled Filefish (*Aluterus scriptus*), Orangespotted Filefish (*Cantherhines pullus*), Planehead Filefish (*Stephanolepis hispidus*)

SharkCam videos: <https://youtu.be/GzzV2WHGV18>, <https://youtu.be/vLlLiV7cQl>

<https://youtu.be/VC3VF4vJCOA>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/aluterus-schoepfii/>

http://www.gma.org/fogm/Alutera_schoepfii.htm

Appendix 1 – Additional information

Credits: entry-Gary Sturm and Erin Burge; editing- Erin Burge; screen grab-jon-newbie, Gary Sturm; video-jon-newbie, Devon Carey

Common name: [Orangespotted Filefish](#)

Scientific name: *Cantherhines pullus* (Ranzani, 1842)

Family: Monacanthidae

Similar species: [Scrawled Filefish \(*Aluterus scriptus*\)](#), [Orange Filefish \(*Aluterus schoepfii*\)](#), [Planehead Filefish \(*Stephanolepis hispidus*\)](#)

SharkCam video: <https://youtu.be/OHsYubufhPM>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/orangespottedfile.html>

<http://www.snorkelstj.com/orangespotted-filefish.html>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-Devon Carey

P

Common name: [Permit](#)

Scientific name: *Trachinotus falcatus* (Linnaeus, 1758)

Family: Carangidae

Similar species: [African Pompano \(*Alectis ciliaris*\)](#), [Crevalle Jack \(*Caranx hippos*\)](#), [Horse-eye Jack \(*C. latus*\)](#)

SharkCam videos: <https://youtu.be/TY6fvZ1wk9Y>
<https://www.youtube.com/watch?v=S8zXrTQvjuE>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/Descript/permit/permit.html>

[https://en.wikipedia.org/wiki/Permit_\(fish\)](https://en.wikipedia.org/wiki/Permit_(fish))

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje; video-jon-newbie

Common name: [Pilotfish](#)

Scientific name: *Naucrates ductor* (Linnaeus, 1758)

Family: Carangidae

Similar species: [Banded Rudderfish \(*Seriola zonata*\)](#)

SharkCam video: <https://youtu.be/5Tobm8mKvkQ>

Authentication: [FishBase \(mirror\)](#)

Additional information:

https://en.wikipedia.org/wiki/Pilot_fish

<http://renotonna.volasite.com/fanfru.php>

<https://www.thedodo.com/how-one-genius-little-fish-con-672797576.html>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: [Planehead Filefish](#)

Scientific name: *Stephanolepis hispidus* (Linnaeus, 1766)

Family: Monacanthidae

Similar species: [Scrawled Filefish \(*Aluterus scriptus*\)](#), [Orange Filefish \(*Aluterus schoepfii*\)](#), [Orangespotted Filefish \(*Cantherhines pullus*\)](#), [Gray Triggerfish \(*Balistes capricus*\)](#)

SharkCam videos: <https://youtu.be/D7JNjneY6sg>

<https://youtu.be/UY51uuJngZw>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://txmarspecies.tamug.edu/fishdetails.cfm?scinameID=Stephanolepis%20hispidus>

<http://www.redorbit.com/reference/planehead-filefish-stephanolepis-hispidus/>

Credits: entry-Gary Sturm; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: [Porkfish](#)

Scientific name: *Anisotremus virginicus* (Linnaeus, 1758)

Family: Haemulidae

Similar species: None

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/anisotremus-virginicus/>

https://sta.uwi.edu/fst/lifesciences/documents/Anisotremus_virginicus.pdf

Credits: entry-Gary Sturm; editing-Erin Burge; screen grab-Erin Burge

Common name: [Princess Parrotfish](#)

Scientific name: *Scarus taeniopterus* Desmarest in Bory de Saint-Vincent, 1831

Family: Scaridae

Similar species: initial phase [Striped Parrotfish \(*Scarus iseri*\)](#), initial phase [Redband Parrotfish \(*Sparisoma aurofrenatum*\)](#)

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://reefguide.org/carib/princessparrot.html>

https://sta.uwi.edu/fst/lifesciences/documents/Scarus_teniopterus.pdf

Credits: entry-Gary Sturm and Erin Burge; editing-Erin Burge; screen grab-jon-newbie, BearBell, Elaine T; video-??

Common name: [Puddingwife](#)

Scientific name: *Halichoeres radiatus* (Linnaeus, 1758)

Family: Labridae

Similar species: [Bluehead \(*Thalassoma bifasciatum*\)](#)

SharkCam videos: <https://youtu.be/LWnsTMaykh8>,
<https://youtu.be/dcnWD6sX3aQ>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/puddingwife.html>

<http://www.snorkelstj.com/puddingwife.html>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screen grab-meryltje, jon-newbie; video-jon-newbie

Common name: [Purple Reeffish](#)

Scientific name: *Chromis scotti* Emery, 1968

Family: Pomacentridae

Similar species: [Cocoa Damsel \(*Stegastes variabilis*\)](#), [adult Blue Tang \(*Acanthurus coeruleus*\)](#), [Blue Chromis \(*Chromis cyanea*\)](#)

SharkCam videos: <https://youtu.be/ZO5NS1Ox1Uw>,

<https://youtu.be/Ys5UAO-BEXU>

Authentication: [FishBase \(mirror\)](#)

SharkCam Fishes

Additional information: No additional good internet sources found.

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

Q

Common name: Queen Angelfish

Scientific name: *Holacanthus ciliaris* (Linnaeus, 1758)

Family: Pomacanthidae

Similar species: Blue Angelfish (*Holacanthus bermudensis*), Hogfish (*Lachnolaimus maximus*)

SharkCam videos: <https://youtu.be/wK7kBBEY4b4>, <https://youtu.be/Xv3yz5eVjjs>

Authentication: FishBase (mirror)

Additional information:

https://en.wikipedia.org/wiki/Queen_angelfish

<http://reefguide.org/carib/queenangel.html>

Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-Christine Casterline, jon-newbie; video-jon-newbie

R

Common name: Rainbow Runner

Scientific name: *Elagatis bipinnulata* (Quoy and Gaimard, 1825)

Family: Carangidae

Similar species: Cobia (*Rachycentron canadum*), Yellowtail Snapper (*Ocyurus chrysurus*)

SharkCam video: <https://youtu.be/Jh2IWL0A1zc>

Authentication: FishBase (mirror)

Additional information:

<http://www.fao.org/fishery/species/3122/en>

<http://myfwc.com/fishing/saltwater/recreational/cobia/>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, OKI; video-jon-newbie

Common name: Red Lionfish

Scientific name: *Pterois volitans* (Linnaeus, 1758)*

Family: Scorpaenidae

Similar species: None. Another species of invasive lionfish, *Pterois miles*, also occurs at very low frequencies in North Carolina waters. *Pterois volitans* and *P. miles* are visually indistinguishable and most researchers do not attempt to separate them within the invasive range.

Note: Two lionfish have been seen on SharkCam. One was removed from the camera view on 27 December 2015. Please report any sightings of red lionfish on the SharkCam forum. Be sure to include the date and time of observation.

Authentication: FishBase (mirror)

Additional information:

<http://www.flmn.h.ufl.edu/fish/gallery/descript/redlionfish/rlionfish.html>

<http://nas.er.usgs.gov/queries/factsheet.aspx?speciesid=963>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screengrab: Erin Burge, OKI, jon-newbie

Common name: Red Porgy

Scientific name: *Pagrus pagrus* (Linnaeus, 1758)

Family: Sparidae

Similar species: Knobbed Porgy (*Calamus nodosus*), Saucereye Porgy (*Calamus calamus*), Scup (*Stenotomus chrysops*), White Grunt (*Haemulon plumierii*)

SharkCam video: <https://youtu.be/ZxJaCnQKvh4>

Authentication: FishBase (mirror)

Additional information:

<http://myfwc.com/wildlifehabitats/profiles/saltwater/porgy/red-porgy/>

<http://www.safmc.net/FishIDandRegs/FishGallery/RedPorgy>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Redband Parrotfish

Scientific name: *Sparisoma aurofrenatum* (Valenciennes in Cuvier and Valenciennes, 1840)

Family: Scaridae

Similar species: Stoplight Parrotfish (*Sparisoma viride*), Yellowtail Parrotfish (*Sparisoma rubripinne*)

SharkCam videos: <https://youtu.be/TLPQjaZY-u0>

<https://youtu.be/uycyQzXCztU>

https://youtu.be/_I_3y-XyMuA

<https://youtu.be/hD2amYCZJIY>

Authentication: FishBase (mirror)

Additional information:

<http://species->

identification.org/species.php?species_group=caribbean_diving_guide&id=252

<http://reefguide.org/carib/redbandparrot.html>

Credits: entry-Kyle Gallion; editing-jon-newbie and Erin Burge; screen grab-Erin Burge, jon-newbie, meryltje, cheri-herald; video-jon-newbie

Common name: Round Scad

Scientific name: *Decapterus punctatus* (Cuvier, 1829)

Family: Carangidae

Similar species: Bigeve Scad (*Selar crumenophthalmus*), Scaled Herring *Harengula jaquana*, young Tomtate (*Haemulon aurolineatum*)

SharkCam videos: https://youtu.be/7_i8hoQXeAU

<https://youtu.be/-vWOUTiHNek>

Authentication: FishBase (mirror)

Additional information:

https://en.wikipedia.org/wiki/Round_scad

<http://eol.org/pages/205453/overview>

Credits: entry-Jordan Beckner; editing-jon-newbie and Erin Burge; screen grab-John Rainey; video-jon-newbie

S

Common name: Saddled Blenny

Scientific name: *Malacoctenus triangulatus* Springer, 1959

Family: Labrisomidae

Similar species: Seaweed Blenny (*Parablennius marmoratus*)

SharkCam video: https://youtu.be/qk_XLDLxTaQ

Authentication: FishBase (mirror)

Appendix 1 – Additional information

Additional information:

<http://www.snorkelstj.com/saddled-blenny.html>

<http://eol.org/pages/207875/overview>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screen grab-Erin Burge, cynde, jon-newbie; video-jon-newbie

Common name: Sand Tiger Shark

Scientific name: *Carcharias taurus* Rafinesque, 1810

Family: Odontaspidae

Similar species: Sandbar Shark (*Carcharhinus plumbeus*), Nurse Shark (*Ginglymostoma cirratum*)

SharkCam videos: <https://youtu.be/DNJF2kHte9s>,

<https://youtu.be/a09rcDVNdas>

Authentication: FishBase (mirror)

Additional information:

<http://animals.nationalgeographic.com/animals/fish/sandtiger-shark.html>

<http://www.flmnh.ufl.edu/fish/gallery/descript/sandtiger/sandtiger.html>

https://en.wikipedia.org/wiki/Sand_tiger_shark

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Ryan Bono, meryltje, jon-newbie; video-jon-newbie

Common Name: Sandbar Shark

Scientific Name: *Carcharhinus plumbeus* (Nardo, 1827)

Family: Carcharhinidae

Similar species: Sand Tiger Shark (*Carcharias taurus*), Nurse Shark (*Ginglymostoma cirratum*)

SharkCam videos: https://youtu.be/uohc_PkWc-g,

<https://youtu.be/FIczhOoVQnI>

Authentication: FishBase (mirror)

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/descript/sandbarshark/sandbarshark.htm>

https://en.wikipedia.org/wiki/Sandbar_shark

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Christine Casterline, jon-newbie, meryltje; video-jon-newbie

Common name: Saucereye Porgy

Scientific name: *Calamus calamus* (Valenciennes in Cuvier and Valenciennes, 1830)

Family: Sparidae

Similar species: Knobbed Porgy (*Calamus nodosus*), Red Porgy (*Pagrus pagrus*), Scup (*Stenotomus chrysops*), White Grunt (*Haemulon plumieri*)

SharkCam videos: https://youtu.be/hyt_3hfe4ks,

<https://youtu.be/i5iSK-08wQM>,

<https://www.youtube.com/watch?v=GWzu7mEFTVI>

Authentication: FishBase (mirror)

Additional information:

<http://eol.org/pages/213698/overview>

<http://safmc.net/Fish/DandRegs/FishGallery/SaucereyePorgy>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie, Erin Burge

Common name: Scaled Herring

Scientific name: *Harengula jaguana* Poey, 1865

Family: Clupeidae

Similar species: Round Scad (*Decapterus punctatus*), Bigeye Scad (*Selar crumenophthalmus*)

SharkCam video: <https://youtu.be/6VGFkop86Yg>

Authentication: FishBase (mirror)

Additional information:

http://www.sms.si.edu/irlspec/harengula_jaguana.htm

https://en.wikipedia.org/wiki/Scaled_sardine

Credits: entry-Erin Burge; editing-??; screengrab-jon-newbie; video-jon-newbie

Common name: Scamp

Scientific name: *Mycteroperca phenax* Jordan and Swain, 1884

Family: Serranidae

Similar species: Gag (*Mycteroperca microlepis*), Goliath Grouper (*Epinephelus itajara*), Cubera Snapper (*Lutjanus cyanopterus*)

SharkCam videos: <https://youtu.be/pVSNak9CxtY>,

https://youtu.be/ymkaQXvyr_M,

<https://youtu.be/T2KtkG3cRtA>

Authentication: FishBase (mirror)

Additional information:

<http://myfwc.com/wildlifehabitats/profiles/saltwater/grouper/scamp/>

https://en.wikipedia.org/wiki/Scamp_grouper

Social interactions and their relationship to color and pattern are discussed in Gilmore and Jones (1992).

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje, OKI, John Rainey; video-jon-newbie

Common name: Scrawled Filefish

Scientific name: *Aluterus scriptus* (Osbeck, 1765)

Family: Monacanthidae

Similar species: Orangespotted Filefish (*Cantherhines pullus*)

SharkCam videos: <https://youtu.be/TpNkqc9b1HQ>,

<https://youtu.be/MobFDeGoIlg>

Authentication: FishBase (mirror)

Additional information:

https://en.wikipedia.org/wiki/Aluterus_scriptus

<https://www.flmnh.ufl.edu/fish/Gallery/Descript/ScrawledFilefish/ScrawledFilefish.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, cynde, meryltje, Tyler McKee; video-jon-newbie

Common name: Scup

Scientific name: *Stenotomus chrysops* (Linnaeus, 1766)

Family: Sparidae

Similar species: Knobbed Porgy (*Calamus nodosus*), Red Porgy (*Pagrus pagrus*), Saucereye Porgy (*Calamus calamus*), Spottail Pinfish (*Diplodus holbrookii*)

SharkCam videos: <https://youtu.be/6xd22m2ugDc>

<https://youtu.be/BTvJ7Q9hGus>

Authentication: FishBase (mirror)

Additional information:

SharkCam Fishes

<https://www.nefsc.noaa.gov/publications/tm/tm149/tm149.pdf>

<https://en.wikipedia.org/wiki/Scup>

Credits: entry-Erin Burge; editing-??; screen grab-jon-newbie; video-jon-newbie

Common name: Seaweed Blenny

Scientific name: *Parablennius marmoratus* (Poey, 1876)

Family: Blenniidae

Similar species: Saddled Blenny (*Malacoctenus triangulatus*)

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/parablennius-marmoratus/>

https://www.sms.si.edu/irlspec/Parabl_marmor.htm

Credits: entry-Erin Burge; editing-??; screengrab-BearBell, Zeba Knight

Common name: Sergeant Major

Scientific name: *Abudefduf saxatilis* (Linnaeus, 1758)

Family: Pomacentridae

Similar species: Sheepshead (*Archosargus probatocephalus*), juvenile Banded Rudderfish (*Seriola zonata*), Atlantic Spadefish (*Chaetodipterus faber*)

SharkCam video: <https://youtu.be/8xsbh-K1zRk>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/sergeantmajor.html>

http://www.sms.si.edu/irlspec/Abudefduf_saxatilis.htm

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-Ryan Bono, jon-newbie; video-jon-newbie

Common name: Sharksucker

Scientific name: *Echeneis naucrates* Linnaeus, 1758

Family: Echeneidae

Similar species: Whitefin Sharksucker (*Echeneis naucratoides*), juvenile Cobia (*Rachycentron canadum*)

SharkCam videos: <https://youtu.be/LW6sX2EDzes>, https://youtu.be/_3i5JFpfNKA

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/sharksucker.html>

<https://www.flmnh.ufl.edu/fish/Gallery/Descript/LiveSharksucker/LiveSharksucker.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Sharpnose Puffer

Scientific name: *Canthigaster rostrata* (Bloch, 1786)

Family: Tetraodontidae

Similar species: None

SharkCam videos: <https://youtu.be/Z2XHkVPELFE>, <https://youtu.be/1F-LUFIM9rs>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/sharpnosepuffer.html>

<http://www.snorkelstj.com/sharpnose-pufferfish.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Sharptail Eel

Scientific name: *Myrichthys breviceps* (Richardson, 1848)

Family: Ophichthidae

Similar species: Green Moray (*Gymnothorax funebris*), Spotted Moray (*G. moringa*)

SharkCam video: <https://youtu.be/ejgB1fmL3To>

Authentication: [FishBase \(mirror\)](#)

Additional information:

http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=155

<https://daniellesdives.wordpress.com/2012/04/29/creature-feature-sharptail-eel/>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-Pine Butte, jon-newbie; video-jon-newbie

Common name: Sheepshead

Scientific name: *Archosargus probatocephalus* (Walbaum, 1792)

Family: Sparidae

Similar species: Sergeant Major (*Abudefduf saxatilis*), Atlantic Spadefish (*Chaetodipterus faber*), juvenile Banded Rudderfish (*Seriola zonata*)

SharkCam videos: <https://youtu.be/YTHdk4G3NZA>, <https://youtu.be/HswiOteXxQk>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/descript/sheepshead/sheepshead.html>

<http://myfwc.com/fishing/saltwater/recreational/sheepshead/>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-John Rainey, meryltje, jon-newbie; video-jon-newbie

Common name: Slippery Dick

Scientific name: *Halichoeres bivittatus* (Bloch, 1791)

Family: Labridae

Similar species: Bluehead (*Thalassoma bifasciatum*), Puddingwife (*Halichoeres radiatus*), Clown Wrasse (*Halichoeres maculipinna*)

SharkCam videos: <https://youtu.be/77iGHxIcbl>, <https://www.youtube.com/watch?v=GWzu7mEFTVI>

Authentication: [FishBase \(mirror\)](#)

Additional information:

http://www.boldsystems.org/index.php/Taxbrowser_Taxo?page?taxid=24973

<http://eol.org/pages/220796/media>

Credits: entry-jon-newbie; screen grab-jon-newbie, meryltje; video-jon-newbie, Erin Burge

Common name: Southern Flounder

Scientific name: *Paralichthys lethostigma* Jordan and Gilbert in Jordan and Meek, 1884

Family: Paralichthyidae

Similar species: None

SharkCam video: <https://youtu.be/dxjHIEi5Wk>

Appendix 1 – Additional information

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://gcr1.usm.edu/public/fish/flounder.php>

<http://www.dnr.sc.gov/marine/species/southernflounder.html>

http://portal.ncdenr.org/web/mf/flounder_southern

Credits: entry-Erin Burge; editing-??; screen grab-Dave Klett, Erin Burge; video-Dave Klett

Common name: [Southern Stingray](#)

Scientific name: *Dasyatis americana* Hildebrand and Schroeder, 1928

Family: Dasyatidae

Similar species: None

SharkCam videos: <https://youtu.be/BzRw65IDhaw>,

<https://youtu.be/IL0wztk2UQ>

<https://youtu.be/QvAFOqKqsAU>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<https://www.flmnh.ufl.edu/fish/Gallery/Descript/SouthernStingray/SouthernStingray.html>

https://en.wikipedia.org/wiki/Southern_stingray

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje; video-jon-newbie, Erin Burge

Common name: [Spanish Hogfish](#)

Scientific name: *Bodianus rufus* (Linnaeus, 1758)

Family: Labridae

Similar species: [Spotfin Hogfish \(*Bodianus pulchellus*\)](#)

SharkCam video: <https://youtu.be/0Xhtmx7s05I>

Authentication: [FishBase \(mirror\)](#)

Additional information:

https://en.wikipedia.org/wiki/Spanish_hogfish

<http://eol.org/pages/212988/media>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-Samantha Lungari, meryltje, jon-newbie

Common name: [Spotfin Butterflyfish](#)

Scientific name: *Chaetodon ocellatus* Bloch, 1787

Family: Chaetodontidae

Similar species: None

SharkCam video: <https://youtu.be/VF8SzLK3LeU>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/descript/spotfin/spotfin.html>

<http://reefguide.org/carib/spotfinbutter.html>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: [Spotfin Hogfish](#)

Scientific name: *Bodianus pulchellus* (Poey, 1860)

Family: Labridae

Similar species: [Spanish Hogfish \(*Bodianus rufus*\)](#)

SharkCam videos: <https://youtu.be/kYLMjJ2QbR8>,

<https://youtu.be/prFhO-98A-I>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://eol.org/pages/212987/media>

<https://www.georgiaaquarium.org/animal-guide/georgia-aquarium/home/galleries/ocean-voyager/gallery-animals/spotfin-hogfish>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screen grab-meryltje, jon-newbie; video-jon-newbie

Common name: [Spottail Pinfish](#)

Scientific name: *Diplodus holbrookii* (Bean, 1878)

Family: Sparidae

Similar species: [Tomtate \(*Haemulon aurolineatum*\)](#), [Bermuda Chub \(*Kyphosus sectatrix*\)](#)

SharkCam video: <https://youtu.be/eKzO1ymc2vc>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.marinefishesofgeorgia.org/reef-fish/spottail-pinfish.html>

<http://www.wilmingtondiving.com/spottailpinfish.shtml>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-John Rainey; video-jon-newbie

Common name: [Spotted Goatfish](#)

Scientific name: *Pseudupeneus maculatus* (Bloch, 1793)

Family: Mullidae

Similar species: [Yellow Goatfish *Mulloidichthys martinicus*](#)

SharkCam videos: <https://youtu.be/8J9ivo9lxr4>,

<https://www.youtube.com/watch?v=GWzu7mEFTVI>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.eoearth.org/view/article/156224/>

<http://reefguide.org/carib/spottedgoat.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-jon-newbie, Erin Burge

Common name: [Spotted Moray](#)

Scientific name: *Gymnothorax moringa* (Cuvier, 1829)

Family: Muraenidae

Similar species: [Green Moray \(*Gymnothorax funebris*\)](#), [Sharptail Eel \(*Myrichthys breviceps*\)](#)

SharkCam videos: <https://youtu.be/Xi7l4n56vUs>,

<https://www.youtube.com/watch?v=GWzu7mEFTVI>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/spottedmoray.html>

<http://www.snorkelstj.com/spotted-moray-eel.html>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie, Erin Burge

Common name: [Spotted Scorpionfish](#)

Scientific name: *Scorpaena plumieri* Bloch, 1789

Family: Scorpaenidae

Similar species: None

SharkCam videos: <https://youtu.be/PTW7LiFMSfQ>,

<https://youtu.be/Dzk19XvuBC8>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/scorpion.html>

SharkCam Fishes

<https://www.flmnh.ufl.edu/fish/discover/species-profiles/scorpaena-plumieri/>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Squirrelfish

Scientific name: *Holocentrus adscensionis* (Osbeck, 1765)

Family: Holocentridae

Similar species: None

SharkCam video: <https://youtu.be/tMuTSxsZ20U>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/descript/squirrelfish/squirrelfish.html>

https://en.wikipedia.org/wiki/Holocentrus_adscensionis

Credits: entry-Christopher O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie; video-Erin Burge

Common name: Spotlight Parrotfish

Scientific name: *Sparisoma viride* (Bonnaterre, 1788)

Family: Scaridae

Similar species: Redband Parrotfish (*Sparisoma aurofrenatum*), Yellowtail Parrotfish (*S. rubripinne*)

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<https://www.flmnh.ufl.edu/fish/Gallery/Descript/SParrotfish/SParrotfish.html>

<http://www.snorkelstj.com/stoptlight-parrotfish.html>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screen grab-pine-butte, jon-newbie

Common name: Striped Grunt

Scientific name: *Haemulon striatum* (Linnaeus, 1758)

Family: Haemulidae

Similar species: Tomtate (*Haemulon aurolineatum*)

SharkCam videos: <https://youtu.be/ZQPXlrCgVEk>, <https://youtu.be/Mtf3PXq1ORw>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://biogeodb.stri.si.edu/caribbean/en/thefishes/species/3729>

<http://www.fishdb.co.uk/findpicture.php?exact=true&picid=2359>

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

Common name: Striped Parrotfish

Scientific name: *Scarus iseri* (Bloch, 1789)

Family: Scaridae

Similar species: initial phase Princess Parrotfish (*Scarus taeniopterus*), initial phase Redband Parrotfish (*Sparisoma aurofrenatum*)

SharkCam video: <https://youtu.be/UWvlgqK-zsw>

Authentication: [FishBase](#) ([mirror](#))

Additional information:

http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=251

https://sta.uwi.edu/fst/lifesciences/documents/Scarus_iseiri.pdf

Credits: entry-Gary Sturm and Erin Burge; editing-Erin Burge; screen grab-BearBell, s_TpaMan; video-jon-newbie

Common name: Surgeonfishes

Scientific name: *Acanthurus* spp.

Family: Acanthuridae

Similar species: Adult Blue Tang (*Acanthurus coeruleus*), Doctorfish (*A. chirurgus*), Ocean Surgeon (*A. tractus*). Reference books and online resources have historically used the scientific name *Acanthurus bahianus* for the entire geographic range of the ocean surgeon. It was recently proposed that the northwestern Atlantic *A. bahianus* is actually *A. tractus*, and that *A. bahianus* be reserved for the Brazilian populations of the ocean surgeon.

SharkCam video: <https://youtu.be/AxdPr1oVzbo>

Authentication:

Blue tang, [FishBase](#) ([mirror](#))

Doctorfish, [FishBase](#) ([mirror](#))

Ocean surgeon,

<http://www.marinespecies.org/aphia.php?p=taxdetails&id=301914>

<http://www.mapress.com/zootaxa/2011/f/zt02905p068.pdf>

Additional information:

Blue tang, <http://reefguide.org/carib/bluetang.html>
http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=208

Doctorfish, <http://reefguide.org/carib/doctorfish.html>
http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=209

Ocean surgeon, <http://www.mapress.com/zootaxa/2011/f/zt02905p068.pdf> for discussion of the differences between *Acanthurus tractus* and *A. bahianus*, <http://reefguide.org/carib/surgeonfish.html>
http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=207

Credits: entry-jon-newbie; editing-Erin Burge; screen grab-jon-newbie; video-jon-newbie

T

Common name: Tautog

Scientific name: *Tautoga onitis* (Linnaeus, 1758)

Family: Labridae

Similar species: Black Sea Bass (*Centropristis striata*)

SharkCam videos: <https://youtu.be/upxDjQBzD0>, https://youtu.be/tWYN_k8REok

Authentication: [FishBase](#) ([mirror](#))

Additional information:

<http://www.mass.gov/eea/agencies/dfg/dmf/recreational-fishing/species-profiles-tautog.html>

<http://www.saltwatersportsman.com/species/fish-species/tips-catching-trophy-tog>

Appendix 1 – Additional information

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-John Rainey, cynde, jon-newbie; video-jon-newbie

Common name: Tomtate

Scientific name: *Haemulon aurolineatum* Cuvier in Cuvier and Valenciennes, 1830

Family: Haemulidae

Similar species: Spottail Pinfish (*Diplodus holbrookii*), Striped Grunt (*Haemulon striatum*), Bigeye Scad (*Selar crumenophthalmus*), Round Scad (*Decapterus punctatus*)

SharkCam video: <https://youtu.be/--lvoDD8oW4>

Authentication: FishBase (mirror)

Additional information:

http://www.sms.si.edu/irlspec/Haemul_auroli.htm

<http://www.dto.com/swfishing/speciesProfile/487>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-John Rainey, jon-newbie; video-jon-newbie

U

V

Common name: Vermilion Snapper

Scientific name: *Rhomboplites aurorubens* (Cuvier in Cuvier and Valenciennes, 1829)

Family: Lutjanidae

Similar species: Bigeye Scad (*Selar crumenophthalmus*)

SharkCam video: <https://youtu.be/l3RxV7fYnVE>

Authentication: FishBase (mirror)

Additional information:

<http://myfwc.com/wildlifehabitats/profiles/saltwater/snapper/vermilion-snapper/>

Guide to South Carolina Saltwater Fishes, page 76, <http://saltwaterfishing.sc.gov/pdf/SaltwaterFishPocketGuide.pdf>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje, SusannMesna; video-jon-newbie

W

Common name: West Indian Sea Egg

Scientific name: *Tripneustes ventricosus* (Lamarck, 1816)

Family: Toxopneustidae (Phylum Echinodermata, Class Echinoidea)

Similar species: None

SharkCam video: <https://youtu.be/CGAGeJd-1jc>

Authentication: SeaLifeBase

https://en.wikipedia.org/wiki/Tripneustes_ventricosus

Additional information:

<http://species->

[identification.org/species.php?species_group=caribbean_diving_guide&id=386](http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=386)

<http://reefguide.org/carib/westindianseaegg.html>

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, UWStig; video-jon-newbie, UWStig

Common name: White Grunt

Scientific name: *Haemulon plumierii* (Lacepède, 1801)

Family: Haemulidae

Similar species: Knobbed Porgy (*Calamus nodosus*)

SharkCam videos: <https://youtu.be/5vQB0SgkVVw>, <https://www.youtube.com/watch?v=GWZu7mEFTVI>

Authentication: FishBase (mirror)

Additional information:

<http://myfwc.com/wildlifehabitats/profiles/saltwater/white-grunt/>

https://en.wikipedia.org/wiki/Haemulon_plumierii

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, cynde, OKI; video-jon-newbie, Erin Burge

Common name: Whitefin Sharksucker

Scientific name: *Echeneis neucratoides* Zuiew, 1789

Family: Echeneidae

Similar species: Sharksucker (*Echeneis naucrates*), juvenile Cobia (*Rachycentron canadum*)

Authentication: FishBase (mirror)

Additional information:

<http://reefguide.org/carib/whitefinsharksucker.html>

<http://www.iucnredlist.org/details/16440083/0>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie

Common name: Whitespotted Soapfish

Scientific name: *Rypticus maculatus* Holbrook, 1855

Family: Serranidae

Similar species: Cubbyu (*Pareques umbrosus*)

SharkCam videos: <https://youtu.be/9IMc7l-gwxY>,

<https://youtu.be/fzpsBdp4pqg>,

<https://www.youtube.com/watch?v=GWZu7mEFTVI>

Authentication: FishBase (mirror)

Additional information:

<http://www.wilmingtondiving.com/whitespotsoap.shtml>

http://biogeodb.stri.si.edu/caribbean/resources/img/images/species/3540_1252.jpg

Credits: entry-Christopher O'Brien; editing-jon-newbie and Erin Burge; screen grab-Erin Burge, jon-newbie; video-jon-newbie, Erin Burge

X

Y

Common name: Yellow Jack

Scientific name: *Carangoides bartholomaei* (Cuvier in Cuvier and Valenciennes, 1833)

Family: Carangidae

Similar species: Horse-eye Jack (*Caranx latus*), Blue Runner (*Caranx crysos*), Bar Jack (*Carangoides ruber*), Yellowtail Snapper (*Ocyurus chrysurus*)

SharkCam video: <https://youtu.be/efGxoc9yAK4>

Authentication: FishBase (mirror)

Additional information:

https://en.wikipedia.org/wiki/Yellow_jack

<https://www.flmnh.ufl.edu/fish/discover/species-profiles/carangoides-bartholomaei/>

SharkCam Fishes

Credits: entry-Chris O'Brien; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje; video-jon-newbie

Common name: Yellow Goatfish

Scientific name: *Mulloidichthys martinicus* (Cuvier in Cuvier and Valenciennes, 1829)

Family: Mullidae

Similar species: Spotted Goatfish (*Pseudupeneus maculatus*), Yellowtail Snapper (*Ocyurus chrysurus*), Horse-eye Jack (*Caranx latus*)

SharkCam videos: <https://youtu.be/6tPRI72Nq80>
https://youtu.be/hDkAL9x_nA

Authentication: [FishBase \(mirror\)](#)

Additional information:

http://species-identification.org/species.php?species_group=caribbean_diving_guide&id=173

<http://thewebsiteofeverything.com/animals/fish/Perciformes/Mullidae/Mulloidichthys-martinicus>

Credits: entry-Gary Sturm; editing-Erin Burge; screen grab-jon-newbie. Erin Burge; video-jon-newbie, Erin Burge

Common name: Yellowhead Wrasse

Scientific name: *Halichoeres garnoti* (Valenciennes in Cuvier and Valenciennes, 1839)

Family: Labridae

Similar species: None

SharkCam video: <https://youtu.be/PWSZKlk5bQ8>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.eoearth.org/view/article/157184/>

<http://reefguide.org/carib/yellowheadwrasse.html>

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screengrab- jon-newbie, lingo13; video-Erin Burge

Common name: Yellowtail Parrotfish

Scientific name: *Sparisoma rubripinne* (Valenciennes in Cuvier and Valenciennes, 1840)

Family: Scaridae

Similar species: Redband Parrotfish (*Sparisoma aurofrenatum*)

SharkCam videos: <https://youtu.be/68Z8E5eXCeE>,
<https://youtu.be/MFcSRBRT1pc>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://reefguide.org/carib/yellowtailparrot.html>

<http://www.snorkelstj.com/redfin-yellowtail-parrotfish.html>

Credits: entry-Randy Fink; editing-jon-newbie and Erin Burge; screengrab- Erin Burge, jon-newbie, meryltje, tis-me; video-jon-newbie

Common name: Yellowtail Snapper

Scientific name: *Ocyurus chrysurus* (Bloch, 1791)

Family: Lutjanidae

Similar species: Horse-eye Jack (*Caranx latus*), Yellow Jack (*Caranxoides bartholomaei*)

SharkCam video: <https://youtu.be/YUkxORMZuPM>

Authentication: [FishBase \(mirror\)](#)

Additional information:

<http://www.flmnh.ufl.edu/fish/gallery/descript/yellowtailsnapper/yellowtailsnapper.html>

https://en.wikipedia.org/wiki/Yellowtail_snapper

Credits: entry-John Rainey; editing-jon-newbie and Erin Burge; screen grab-jon-newbie, meryltje, pinebutte; video-jon-newbie

Z

APPENDIX 2 – HISTORY OF SHARKCAM

For both avid viewers and relative newcomers to SharkCam, we thought you might like to know a little history about the changes that have occurred since the original camera installations in August of 2014.

Participants at the initial installation included Trevor Mendelow, Richard Neal, Jim Attack, Erin Burge, Zach Hart, and David Wood. Trevor is the designer of the pan-tilt-zoom underwater streaming webcams, self-cleaning apparatus, and transmission infrastructure¹² used in this project. Richard is the owner and operator of Frying Pan Tower¹³ which hosts the camera and infrastructure offshore of North Carolina. Jim is captain of the vessel “In Sea State” which was used for camera installation and he directs diving operations for the project. Erin Burge is a Professor of Marine Science at Coastal Carolina University, and he was responsible for photo and video documentation of the installation. Zach Hart served as boat tender and dive assistant and David Wood assisted with topside engineering and logistical support for the original SharkCam installation.

On August 31, 2014 two cameras were installed. “BarracudaCam” on a shallow horizontal support of the tower in about 15 feet (5 meters) of water and the original SharkCam, also on a horizontal support at 50 feet. Both cameras faced out from on top of the horizontal pipe.

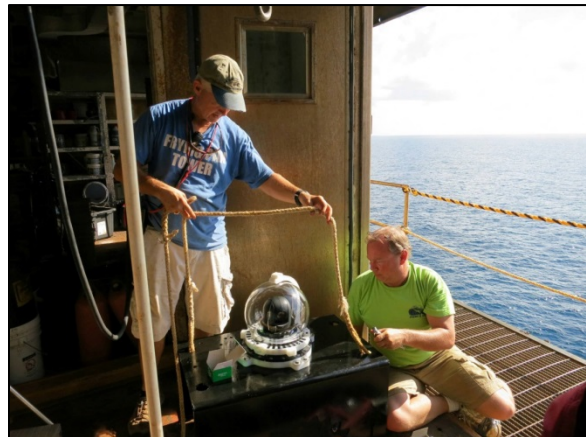
In some ways the divers that maneuvered the two cameras into position, chained them to the tower supports, and connected the data and power cables had the easy jobs. On the other hand, they did have to contend with curious visitors to the aptly named installation¹⁴. Much more above-water work involved running cable from atop Frying Pan Tower, positioning solar panels and transmission dishes for landward transfer of the video streams, and securing the rights to install transmission hardware atop the 1,955 foot (600 meter) Winnabow Cosmos Broadcasting Tower onshore in North Carolina.

Both cameras went live on Explore.org in September 2014 after installation, tower infrastructure, and the land-side hardware were completed.

The onset of winter 2014–2015 brought storms and large waves to Frying Pan Tower and both cameras went offline in late January 2015. A camera reboot revealed that BarracudaCam was hanging upside-down and swinging from the tower horizontal. SharkCam was also loose on its mooring. BarracudaCam ceased transmission soon after.



Trevor Mendelow (left) and Jim Attack (right) discuss the installation of SharkCam from the living area on Frying Pan Tower.



Richard Neal (left) and David Wood (right) prep SharkCam for deployment from the deck of Frying Pan Tower 80 feet above the ocean.

¹² For details on the technical specifications and applications of these cameras visit <http://viewintothelblue.com/>.

¹³ For more information on Frying Pan Tower, including a history of the structure, and links to book a stay on the tower, see <http://www.fptower.com/>.

¹⁴ See <https://www.youtube.com/watch?v=EahO0qFmvII> for sharks and other visitors seen during installation activity.

SharkCam Fishes

Once sea conditions allowed, a diver maintenance team (Atack, Burge, and Frederick Farzanegan) traveled to Frying Pan Tower on March 8, 2015, and discovered that BarracudaCam was completely destroyed and SharkCam needed a thorough cleaning and replacement of the data and power cable. The cable was damaged by chafing against the hard structure of the tower during storms. SharkCam and its cabling were removed during this visit.

A team was able to return to Frying Pan Tower (Atack, Burge, Farzanegan, and Adam Greene) on March 22 and the now thoroughly cleaned and repaired SharkCam was reinstalled at 50 feet. During reinstallation, maintenance divers were also tasked with rotating SharkCam to an upside-down position beneath the tower horizontal¹⁵. This was done to reduce the possibility of damage and to allow the camera to better “see” the bottom where much of the fish activity takes place. Routine underwater maintenance by those previously mentioned and others (Matt Davin, Steve Luff, Reed Winn, and Sondra Vitols) continued through the rest of 2015 and into 2016.

During the spring of 2016 SharkCam 2.0 was damaged and the cleaner bar assembly ceased functioning correctly. Video evidence showed an octopus crawling on the camera housing, and the cleaning bar malfunction became apparent shortly thereafter. Octopuses are curious and strong, and it is possible that this Frying Pan Tower visitor is to blame for the malfunction. Consequently, algae and other organisms built up quickly on the transparent dome enclosing the camera. Several maintenance trips by boat or with divers deployed directly from Frying Pan Tower during the spring and early summer attempted to keep up with the growth, but the view was obstructed for much of the summer season.

On August 12, 2016, Jim Atack, Erin Burge, Steve Luff, and Sondra Vitols participated in a removal of SharkCam 2.0, and installation of a new and upgraded high definition (HD) SharkCam 3.0. The HD camera installation was accompanied by installation above and below water of an enclosed conduit that runs along the vertical leg of the tower to the depth of SharkCam. The power and data cabling is now routed through this conduit and the conduit is strongly attached to the tower leg. This should reduce or eliminate chafing on the data cable and further protect the installation. Above water installation of the conduit was accomplished by Richard Neal and Saylor Vann.

Early September 2016 saw the arrival of Tropical Storm Hermine to the Carolina coast. Although SharkCam 3.0 was not yet broadcasting online because of maintenance needed at the Winnabow tower onshore, the underwater data and power cable were damaged again. On September 10, 2016, Jim Atack and Erin Burge, below water, and Richard Neal and Brooke Briza, above water, swapped out the damaged data cable. In water activities included tightening all of the fittings and hardware from the water line to the bottom, and surveying the footprint of Frying Pan Tower for future hazards to SharkCam. Communication between SharkCam 3.0 and Winnabow tower was briefly reestablished on October 3, 2016. Unfortunately, the arrival of Hurricane Matthew shortly thereafter again



March 22, 2015. Jim Atack works to remove the stand from the broken Barracuda Cam.



Erin Burge inspects the final installation of SharkCam 2.0

¹⁵ For video footage of the March 22, 2015, SharkCam 2.0 installation visit <https://www.youtube.com/watch?v=VZ9IVPUNRKY>.

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damaged the communications infrastructure and transmission ceased. Footage from atop Frying Pan Tower showed that sea conditions were perilous during the storm.¹⁶

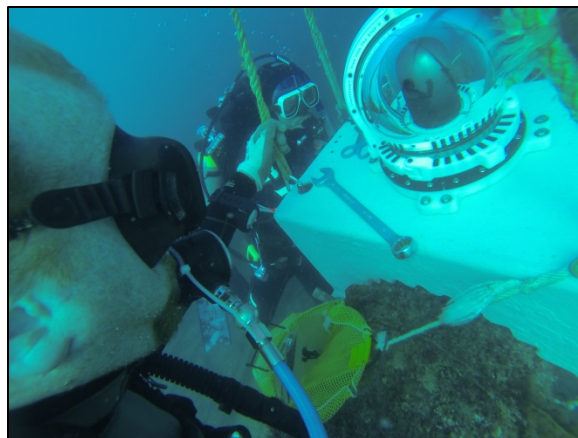
Continued poor weather and logistical issues delayed a reconnaissance trip to FPT to assess damage until January 15, 2017. During that trip David Wood and Richard Neal handled top-side logistics while Jim Attack and Erin Burge removed the undamaged, but nonfunctional SharkCam 3.0.¹⁷ A new camera was ready for installation on this trip, but short daylight and high currents precluded completing the work. Shark activity at the tower was also problematic during the removal of the camera and contributed to delays in reinstallation.¹⁸ Finally, a reinstallation trip was scheduled for April 9, 2017, where a newly mounted camera was readied for deployment. Jim Attack and Erin Burge positioned the camera and reinstalled it with the help of boat tenders Dan Madigan and Doug Noble.¹⁹ The camera was reinstalled closer to the vertical tower leg and rotated to an upright position because of a shortened data and power cable. Richard Neal and Saylor Man completed the tower work. Live streaming was reestablished that same day.

Over the next month the video stream was tinkered with to recreate more surface-natural light conditions. As a result SharkCam videos now appeared as closer to natural sunlight conditions. This dramatically reduces the blue-green effect of the water and displays animals in more vibrant, full-spectrum color. One side effect of this color filtering is that still images are no longer as clear as they once were.

SharkCam continued broadcasting through the rest of the spring and into late summer of 2017. Unfortunately lightning strikes on the Winnabow tall tower that happened on August 13 or 14, 2017, damaged the radio receiver/transmitter that sends the video stream to Explore. The receiver transmitter was replaced on Winnabow tower on November 19, with battery and solar panel work scheduled for Frying Pan Tower on December 3. Winter storms precluded diving activities to re-enable live streaming through the end of the year.



Richard Neal examines the fouling on SharkCam after the camera was removed in January 2017. Photo by David Wood.



Jim Attack (background) and Erin Burge maneuver SharkCam into position for secure attachment in April 2017.



Lightning over Wilmington, NC, as seen from the Explore.org camera mounted on the Winnabow tall tower. Photo taken in August 2017 and posted by EAV.

¹⁶ Hurricane footage from the Tower Cam mounted above FPT <https://www.youtube.com/watch?v=GGCjPJ-Y4b4> and media coverage <http://www.cnn.com/videos/us/2016/10/08/shirtless-man-lounges-in-ocean-during-storm-orig.cnn>

¹⁷ SharkCam maintenance during January 2017 on Youtube <https://youtu.be/5AHmYS5qnBc>

¹⁸ A tagged sand tiger shark seen during January 2017 maintenance <https://youtu.be/EbdFTXpf41g>

¹⁹ Summary of in water activities during April 2017 reinstallation https://youtu.be/aJ_5mdtnQb0

SharkCam Fishes

On January 21, 2018, Jim Atack, Erin Burge, Steve Luff, and Cody Sweitzer made the cold boat ride out to Frying Pan Tower to join Richard Neal who had arrived on the tower on January 20. This team was successful in removing the existing SharkCam, wrestling the new unit into position in heavy currents and cold water, and running the data/power cable from atop FPT to the bottom. Neal and Sweitzer handled top-side work while Atack and Burge, later joined by Sweitzer and Luff, installed the new SharkCam and ran cable underwater. It began broadcasting online on January 23. The first snapshot posted with the cam back up and running was of a sand tiger shark (*Carcharias taurus*)!



The first posted screengrab from the January 2018 SharkCam reboot. A sand tiger shark (*Carcharias taurus*) by OKI January 23, 15:38 EST

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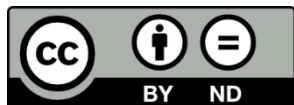
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