Florida Sea Base - Reef Fish Identification

Table of Contents (By Common Name)

Section 1: Table of Contents (1) Foreword (2) Introduction (3)	Jawfish – (17-18)	Dolphins – (32)
	Lionfish – (18)	Eels – (33)
	Lizardfish – (19)	Flamingo Tongue – (35)
Section 2:	Parrotfish – (20)	Jellyfish – (34)
Reef Fish (3-29)	Porkfish – (21)	Lobsters – (34-35)
Angelfish – (3-6)	Puffers – (21_22)	Manatee – (36)
Barracuda – (6-7)	Rays – (22-23)	Octopus – (36)
Blennies – (7)	Scorpionfish – (23)	Sea Urchins - (37)
Butterflyfish –(8)	Seabass – (24)	Shrimp – (37)
Chromis – (9)	Sharks – (24-25)	Starfish – (38)
Chub – (10)	Snappers – (25)	Squid- (39)
Cowfish – See Trunkfish	Squirrelfish – (26)	Turtles – (40)
Damselfish – (11)	Surgeonfish – (26-27)	Section 4: FSB RFI Six Years In The
Drums – (12)	Triggerfish – (13)	Making (41-42)
Filefish/Triggerfish – (12-13)	Trumpetfish – (27)	Section 5: About The Author (43)
Gobies – (13)	Trunkfish/Cowfish – (28)	
Goatfish – (14)	Wrasse – (28-29)	Section 6: Contact Information (44)
Grouper – (14-15)		Section 7:
Grunts – (15-16)	Section 3: Reef Creatures (30-40)	References and Thanks(45)
Hogfish – (16)	Anenome – (30)	Section 8: Index (46-48)
Jack — (17)	Crabs – (31)	

Section One – A Few Words

Foreword

This project started because of inspiration that was given to me by my first seabase divermasters. I hope that during your seabase adventure you are as inspired as I was on my first adventure. Good luck, and happy diving.

-Brian

Introduction

The following is a collection of images captured on Florida Sea Base dives between 2007 and 2011 by scuba instructor Brian Sevald. These photographs are all original and taken just off the coast of Islamorada, Florida. The purpose of this book is to give the scouts and scouters of Florida Sea Base a basic reference of marine life they may encounter on their one week Sea Base adventure. Best of luck to you on your adventure. Remember to go slow, pay attention and look for the small things on the reef as well as the large things. Keep your eyes open or you might miss something. And remember "Take only pictures, leave only bubbles."



Golden Descent

Keys sunset just before descending on a night dive.

Alligator Reef, Islamorada, Florida Keys

Section Two – Reef Fish

The Atlantic Ocean that is home to the Florida Keys contains over 70 coral species and 500 fish species. Contained in this book are the common fish and creatures you may encounter in the Florida Keys. While this book is nowhere near a complete reference to all Florida Keys fish, it should serve as a decent guide.

Angelfish

Angelfish are usually darker in color, have rounded foreheads, and have long dorsal fins. They come in a variety of colors. There are five main types of Angelfish in the Florida Keys: Grey, French, Queen, Rock Beauty and Townsend (Hybrid). They are some of the few fish that eat sponges. You may often see angelfish in pairs. Juvenile angelfish resemble adults, but may have very different coloration.



Queen AngelfishUsually a vibrant yellow and blue, with a dark blue/light blue crown on their forehead.



Juvenile Queen Angelfish
While they haven't developed the crown, juveniles share the vibrant colors, in a different pattern.



Grey Angelfish

Tend to have a more sloping forehead and much less vibrant than the others. Usually a light grey/ black pattern.



Juvenile Grey Angelfish
Slightly different coloration than the adult and very similar to a Juvenile French Angelfish.

Angelfish – Continued

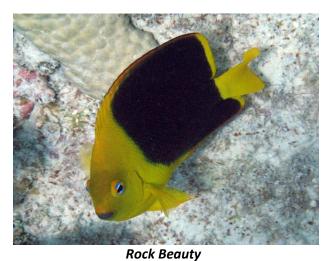


French Angelfish

Very similar to Grey Angelfish, but have yellow mixed in with the black. They are named French Angels, because they are said to resemble the lights of Paris



Intermediate French Angelfish
The intermediate has a disctinct set of yellow stripes not present in the adult's coloration



"If it has a black booty, it's a Rock Beauty" – Scuba Instructor Matt Standal. Rock Beauties share the angelfish's shape but have a more uniform coloration.



Juvenile Rock Beauty
The Juvenile Rock Beauty can be identified by its'
growing black spot. The younger the fish generally
the smaller the spot.

Angelfish – Continued

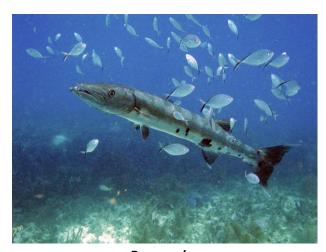


Townsend Angelfish

The Townsend Angelfish bears great similarity to the Queen Angelfish. However you can tell the difference by the lack of the distinctive blue crown on its forehead, and a more yellow or grey coloration throughout.

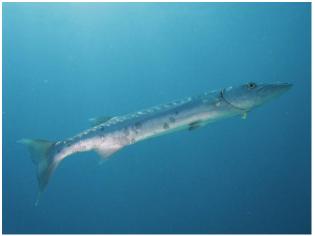
Barracuda

Barracudas have long cylindrical silver bodies with faint markings or black blotches. They are usually identified by their big mouths full of sharp looking teeth. Large barracudas may swim alone and are often very curious. Smaller species may gather into huge schools.



Barracuda

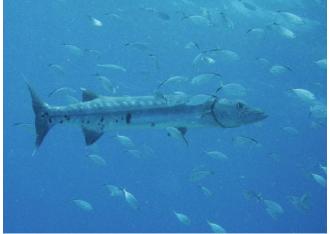
Barracuda are fast and mysterious. This Barracuda is hovering motionless among a small school, possibly stalking prey.



Barracuda

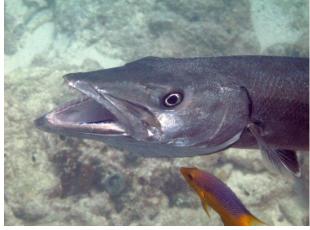
A lone Barracuda in the water column above the reef.

Baracuda - Continued



Barracuda

Another Barracuda among a school of smaller fish.



Barracuda

This Barracuda is being cleaned by a Neon Goby, and a small Spanish Hogfish. These animals have a mutual relationship and the barracuda will not eat the goby even if it ventures into its jaws to clean between its teeth.

Blennies

Blennies generally perch themselves up on their pectoral fins and appear to be looking about curiously. One of their most distinguishing features are the fleshy appendages, called cirri, above their eyes that look like little horns or bushy eyebrows. Blennies come in a variety of colors. These guys are small and you have to look hard to spot them on the reef.



Red Lip Blenny

This Blenny got its' name from the reddish coloration around its face and lips.



Saddled Blenny

This Blenny got its' name from the saddle like blotches along its back.

Butterflyfish

Butterflyfish usually are round, thin bodied and have concave foreheads. Many have elongated mouths that allow them to pick out tiny invertebrates from crevices. They can often be seen in pairs. "If there's a stripe through the eye it's a Butterfly"



Banded ButterflyfishIts name is derived from it's obvious striped markings.



Foureye Butterflyfish
The Foureye has a defense mechanism, it appears to have another larger eye marking. If a predator tries to eat the Foureye the wrong way, the fish's spiny dorsal fin will make it harder to swallow.



Reef Butterflyfish

The Reef Butterflyfish can be identified by it's more golden color, and it's stripes through the eye, and at the end of its body.



Spotfin Butterflyfish

The Spotfin is identified by the spot located on the top corner of the end of its dorsal.

Chromis

Chromis are closely related to Damselfish, but have a slightly different appearance. They tend to feed on plankton and are less territorial than Damsels. Their bodies are usually more elongated and have deeply forked tails.



Blue ChromisChromis are usually seen darting around close to the reef like this one.

Blue ChromisSome may venture further away from the safety of the reef



Brown ChromisBrown chromis look very similar to blue chromis, except for their color, and slightly smaller eyes.

Chub

Chubs, or rudderfish, have elongated oval shaped bodies and are usually solid silver in color. It's likely that you'll see chubs higher up in the water column off the reef. Like many other fish chub have the ability to change color slightly. If you watch a color changing fish travel from coral to sand, or vis versa, you can see in seconds how their pigmentation may change according to their environment. Their color changing ability is fascinating.



Bermuda ChubA Chub cruising over the reef.



Bermuda Chub (Displaying Color Variation)
Many fish have the ability to change colors in a
few seconds.

Damselfish

Many Damselfish are algae-eaters that tenaciously defend their territory. It's common for a damselfish to charge a larger fish or even a diver that ventures too close to its algae patch or nest. I have been charged, and bitten by these little guys. They can be quite aggressive if you intrude on their territory. So watch your buoyancy and don't touch or you might lose a bit of skin to one of these guys.



Bicolor Damselfish

Can be white and black, or white yellowish orange and black.



Dusky DamselfishUsually a solid black or a dark brown color



Yellowtail Damselfish (Jewelfish)
Named for its yellow tail. Also known as a
Jewelfish, because of its' jewel like spots.



Juvenile Yellowtail Damselfish
Same jewel like spots as the adult, however lacking the yellow tail as a juvenile.

Drums

Drums are easily identified by their extremely long foredorsal fin and striking black and white coloring. These fish are often seen under ledges.



Spotted Drum

Has distinctive black and white markings, white spots and black and white stripes. Has a long foredorsal.



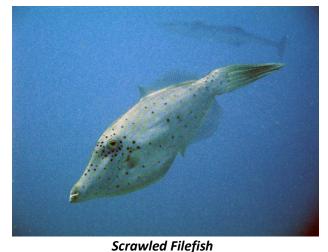
Juvenile Spotted Drum

Foredorsal and tail are even longer as a juvenile.

The younger the fish, generally the longer the foredorsal/tail. These guys can be absolutely tiny.

Filefish/Triggerfish

Filefish and Triggerfish are oddly shaped and flat bodied. You may see them nosing around in the sand adjacent to the reef, or higher in the water column. Their odd shape and unique patterns give them away.



Scrawled Filefish have a pattern similar to scrawled cowfish, the light blue markings and dark spots.



Scrawled FilefishAnother example of a Scrawled Filefish.

Filefish/Triggerfish - Continued



Gray TriggerfishNamed for its' Gray Coloration.



Orange Spotted Filefish
Named for its orange/brown coloration.

Gobies

Gobies tend to rest on their pectoral fins in a straight, flat and motionless position. Some species are referred to as cleaner fish for their behavior of picking parasites from larger species. They come in a variety of color variations.



Resting on a coral head. Gobies can be found in small groups on coral heads along the reef.



Neon Goby
Cleaning a Barracuda's teeth. These animals have a mutual relationship and the Goby is unharmed even when it ventures into the Barracuda's mouth to clean.

Goatfish

Goatfish have long, cylindrical bodies and barbels that hang down from their chins. They are often observed feeling around the bottom with their barbels for food. Goatfish have many color variations and may gather in schools or roam around in small groups.



Spotted GoatfishNamed for the spots on it's side.



Yellow GoatfishNamed for its' yellow coloration.

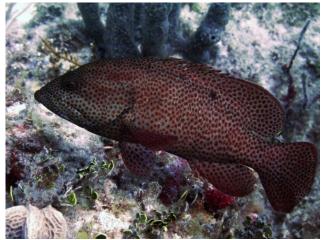
Grouper

Groupers are often dark brown, black or reddish in color with splotchy markings. However, they have the ability to change colors and markings, making it difficult to determine the exact species. To go with their large stocky bodies, groupers have a short spiny dorsal fin that softens as it tapers down to the tail.



Black Grouper

Has the ability to change colors and patterns in a few seconds. May be skiddish in the vicinity of spearfishing as these guys are a prized catch.



Rock Hind (Graysby Grouper)Smaller, and generally perched on the reef.

Grouper – Continued



Goliath Grouper (Jewfish)

Can be absolutely enormous. Can be found on the shallow inshore reefs as well as on deep wrecks. Endangered because of overfishing.



Goliath Grouper (Jewfish)
This Goliath was found hanging out on one of the deep wrecks, The Eagle.

Grunts

Grunts were named because they emit a grunting sound when caught. They often congregate in small groups or large schools on the reef during the day then at night move off singly along the sand flats or grass beds to feed. Grunts may be colorful with various striped markings. In some areas, the family is known as sweetlips.



Blue Striped GruntNamed for its' vibrant blue markings.



French Grunt
Has strong yellow and white markings.

Grunts - Continued



Spanish Grunt
Has darker and more silvery markings. Usually bigger than the other grunts.



White Grunt

Has a more white/bluish coloration. Its' blue markings are not as vibrant as the Blue Striped Grunt.

Hogfish

Hogfish are also members of the wrasse family although they are a different shape than most wrasse.



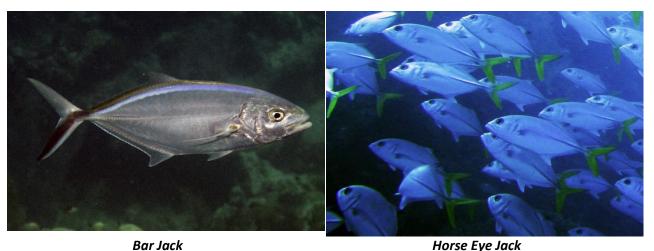
Hogfish can often be seen nosing around in the sand in and around the reef. May be skiddish in the vicinity of spearfishing as these guys taste good.



Spanish Hogfish
Similar body shape but different coloration than the Hogfish. Usually smaller.

Jack

Jacks, sometimes called Trevally, are large silver or bluish fish that swim in open water often near outer reefs or over the reef fringe. Some Jacks are solitary fish while others may congregate in small groups or schools. They are strong swimming predators.



One of the more common jack. Can be seen on the reef. May also be free swimming in open water.

This is a school of Horse Eye Jack, Jack may school or be solitary.

Jawfish

Jawfish have long bodies and large jaws, which is how they got their name. They are often spotted in holes that they have constructed by moving stones and sand with their mouths.



Yellowhead Jawfish
Yellowhead Jawfish looking curiously about.



Yellowhead JawfishYellowhead Jawfish displaying its' jaws

Jawfish - Continued



Yellowhead Jawfish
Yellowhead Jawfish in one of the holes they
construct by moving sand around with their jaws.



Yellowhead Jawfish
Usually a white body with a yellow coloration on the head.

Lionfish (Venemous)

Native to the Pacific, Lionfish were introduced into the Atlantic most likely by being released from aquariums whether due to hurricane damage or discarded pets, Lionfish have taken hold and have spread all along the Atlantic coast as far as New England. They have venomous spines on their dorsal fins as well as pectoral and anal fins. DO NOT TOUCH these animals as a sting from one of these fish will not be pleasant.



Lionfish
Lionfish are not always in the open and may
hide in cracks or crevices, so don't stick your
hand in any unknown holes.



LionfishClose up of a Lionfish. They get the name for their "mane" looking fins.

Lizardfish

Lizardfish have elongated bodies with large, upturned mouths. They often rest on the bottom blending in well with their surroundings. Lizardfish are often pale and mottled in colors that match the sandy bottom.



Lizardfish

Lizardfish demonstrating its' ability to blend in with its' surroundings. You have to look hard to spot these guys. Sometimes you only spot them because you catch them moving.

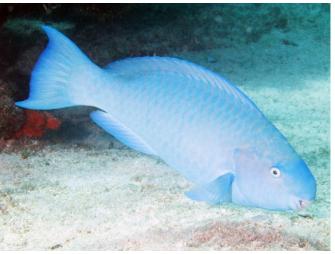
Parrotfish

Parrotfish are often observed using their bony beaks to scrape hard surfaces for algae. Often juvenile, adult and terminal phase parrotfish will have completely different coloration. They swim using their pectoral fins, while their tails are used for burst of speed.



Rainbow Parrotfish

Named for its' rainbow coloration. Can be pretty big.



Blue ParrrotfishNamed obviously for its' blue coloration.



Redband Parrotfish (Initial Phase)

Parrotfish go through phases according to their age. Each phase may have a totally different coloration.



Princess ParrotfishOne of the prettier Parrotfish, perhaps why it received the name.

Porkfish

Porkfish, are members of the snapper family and similar to snapper in body shape, are usually oval shaped with steep sloping heads. Have distinctive yellow and black markings They are often found nosing around in sandy areas adjacent to the reef.



PorkfishNamed for its' resemblance to a pig.



Juvenile Porkfish
Like other juveniles, this porkfish is displaying the slightly different coloration.

Puffers

Puffers get their name from the ability to draw water in to puff up their bodies. Some puffers have spines that become erect when they puff up while others have smoother textures. All puffers have powerful jaws and most species have dark spots or blotches.



BalloonfishThe medium size puffer, has visible spines protruding from its' body. Usually tan/brown.



Sharpnose Puffer
Smaller puffer. Does not have visible spines.
Usually grey/green/white.

Puffers – Continued



PorcupinefishLarger puffer, can be seen out and about or hiding under ledges.



BalloonfishClose up of a balloonfish.

Rays

Sharks and Rays are scientifically classified as cartilaginous fish, which means that their structure is made of flexible cartilage. Spying a large shark or ray cruising over a reef is not common in most areas. However, smaller shark and ray species sightings are possible. Sharks use their tails to propel them while rays have modified pectorals they use to swim in a flying motion.

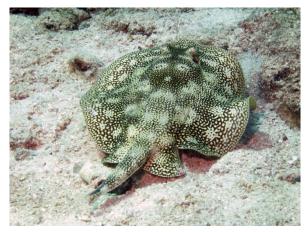


Southern Stingray
Can be found around the reef, careful not to drop down on one, they have a powerful spine on their tail.



At times the southern may bury itself in sand, leaving only its' eyes visible, be aware of this.

Rays - Continued



Yellow Stingray

Can be seen in the sandy areas around the reef.

More of a round shape, yellow coloration.



Spotted Eagle Ray
A little more unusual to see, but can be seen over the sandy area's adjacent to the reef. Can be huge.

Scorpionfish (Venemous)

Scorpionfish are often camouflaged to match their surroundings. Many species have fleshy appendages that resemble local flora. These fish have stocky bodies and spiny dorsal fins that carry venom. Scorpionfish, including the stonefish, are difficult to spot because they remain motionless when approached, only raising their venomous spines in defense. DO NOT TOUCH these animals.



ScorpionfishWatch out for these guys as they are very hard to spot.



ScorpionfishStay off the bottom and don't touch any coral and you won't bump into one of these guys.

Seabass

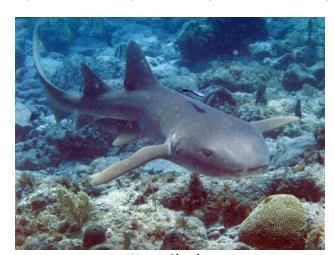
Other members of the Seabass family tend to be smaller and have more elongated bodies than Groupers. They are often dark in color with lighter spots and varied markings. Most Seabass stay on or near the bottom.



Harlequin Seabass
Usually small, sometimes hard to spot as they can blend in well with their surroundings.

Sharks

Sharks and Rays are scientifically classified as cartilaginous fish, which means that their structure is made of flexible cartilage. Spying a large shark or ray cruising over a reef is not common in most areas. However, smaller shark and ray species sightings are possible. Sharks use their tails to propel them while rays have modified pectorals they use to swim in a flying motion.



Nurse SharkNot aggressive, usually sleeping under ledges during the day.



Nurse SharkNurse sharks feed on crustaceans and have powerful crushing jaws.

Sharks Continued



Reef SharkA little less likely to spot, but majestic. Can be seen cruising over the reef. You are lucky if you spot one of these guys.



Reef SharkUsually not aggressive but it wouldn't hurt to give it some space.

Snappers

Snappers have upturned snouts and mouths, with visible canine teeth, that often snap open and shut when caught, which is how they got their name. Snappers often gather in small or loosely grouped schools and swim along the reef. Yellowtail Snapper and others are on the menu in many Keys restaurants.



Yellowtail Snapper
Named for their yellow tail.



Glass Eye SnapperNamed for their eyes' glassy appearance.

Squirrelfish

Squirrelfish have a pronounced rear dorsal fin that sticks up similar to a squirrel's tail, thus the name. During the day, you're most likely to see groups of fish hiding under ledges and in crevices.



Longspine Squirrelfish

Named for the longer fin on its rear behind its' dorsal. This fin is longer on this species than on others.



Big Eye SquirrelfishNamed for its' larger looking eyes.

Surgeonfish

Surgeonfish, also called tangs, are usually a solid color with minor color accents. They can be identified by the spines that stick out from each side the tail base. Surgeonfish are herbivores that help to control algae growth.



Named for its color, has the sharp bone on its' tail that is distinctive of the Surgeonfish family.

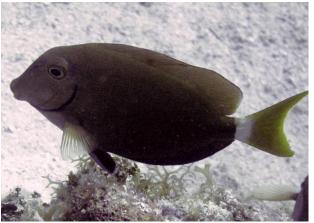


Juvenile Blue Tang
Different coloration than the adult. This one has a little of the blue on the outer fringes of its' dorsal and other fins.

Surgeonfish Continued



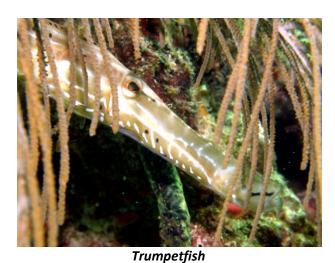
Ocean Surgeonfish (Displaying Light Colors)
Like the Blue Tang, the Ocean Surgeonfish has the sharp bone on its' tail that it can use for defense.



Ocean Surgeonfish (Displaying Dark Colors)
A color variation for the Ocean Surgeonfish.

Trumpetfish

Trumpetfish have tubelike bodies and long mouths that can flair open to suck in prey. They are often observed stalking by hanging head-down and waiting for small fish to swim near enough to slurp up. Trumpetfish may either be brown to blue-grey or bright yellow with shades in between.



This Trumpefish looks as if he is trying to blend in.



TrumpetfishThese Trumpetfish look as if they may be dancing.

Trunkfish/Cowfish

Trunkfish and cowfish make up the boxfish named for their triangular shape and bony scales. These fish move slowly using sculling fin motions. They come in a variety of colors, many with spots or repetitive patterns.



Smooth Trunkfish

You may see one of these guys digging around in the sand, or in and around ledges on the reef.



Scrawled CowfishHas similar coloration to the Scrawled Filefish.

Wrasse

Wrasses are generally smaller than parrotfish and have more elongated bodies. You are likely to see wrasse foraging for small invertebrates, such as shrimp and crustaceans living in the sand. Wrasse often go through several color and pattern changes as they develop from juveniles into adults.



BlueheadNamed for, guess what.... its' blue head.



Juvenile Bluehead

The juvenile doesn't quite fit the description, as it hasn't developed its' blue head yet.

Florida Sea Base - Reef Fish Identification

Wrasse - Continued



Yellowhead Wrasse (Initial Phase)
Usually bigger than the Bluehead, can be seen picking at the coral on and around the reef.



Puddingwife Wrasse
Interesting coloration, usually a white/tan with orange stripes.

Section Three – *Reef Creatures*

The reef is as full of creatures as it is fish. Every nook, cranny, and out in the open is full of life. Here are some examples of what you may find.

Anenome

Anenomes can be seen clinging to coral heads. You might expect a clownfish to be playing in one, but clownfish are native to the Pacific, not the Atlantic.



Sea Anenome Sorry, no clownfish here.

Crabs

There are many types of crustaceans you may find on the reef here are some examples of some. You may see them picking algae off the coral, or scuttling around on the bottom. You may see tiny hermit crabs or giant ones. Resist the urge to pick up shells, it probably has an animal in it.



Arrow Crab
Its' body has an arrow like shape.



Florida Stone Crab

Has a dark grey coloration and interesting pattern
on its' shell.



Saltwater Hermit CrabSimilar to land hermit crabs, but live on the reef.



Giant Saltwater Hermit Crab

A hermit that has made a large conch shell home.

Dolphins

Bottlenose dolphins are the most familiar dolphin species. They normally swim in open water, but may venture into shallower inshore waters. While it is unlikely you will see dolphins underwater during a dive, you may hear their squeaks underwater if they venture near the reef. Bottlenose dolphins sometimes follow the dive boats and play in the boat's wake.



Bottlenose DolphinPlaying in the boat's wake.



Bottlenose DolphinRiding the waves behind the boat.



Bottlenose Dolphin Playing in the wake.



Bottlenose DolphinMom and calf.



Bottlenose DolphinPod of dolphins caught on a dive.



Bottlenose DolphinAgain, playing in the wake.

Eels

Eels are fish that have long snakelike bodies. Most eels spend the day in crevices, holes or under ledges, and are more likely to be seen free-swimming at night. Some eels are dark and solid colored, while many are uniquely patterned.



Juvenile Viper Moray
Tan/white coloration.



Green MorayGreen coloration throughout. Can be large.



Goldentail Moray

Named for its golden coloration, which is most noticeable on its' tail.



Spotted MorayBlack/white spotted coloration.

Jellyfish

Jellyfish have stinging tentacles so make sure to keep your distance. Look up before you ascend as all good divers do, and it might save you from bumping in to one. Turtles can sometimes be seen munching on these guys.



Moon Jelly
Always look up!

Lobsters

Lobsters can be seen in crevices and holes during the day, and may come out at night. There are two main types of lobster, the spiny lobster, and the spotted spiny lobster. The more elusive and prehistoric slipper lobster is a rare find.



Spiny Lobster
These guys taste good. Order some on your way home especially if it is lobster season!



Spiny LobsterTheir natural defense is to swim backward.

Lobsters – Continued



Spotted Spiny LobsterSimilar to the Spiny Lobster but has a spotted coloration.



Slipper Lobster

Named for its' resemblance to footwear. I have only ever seen one of these in the wild, this one.

Sea Snail (Flamingo Tongue)

Flamingo Tongues are a type of Sea Snail. They can come in sizes from an inch or two, to six inches or more. They can be seen clinging to sea fans or other types of coral. You have to look close to see these guys.



Flamingo Tongue

Small, orange and uniquely patterned,
Flamingo Tongues are a very interesting sight.

Manatee

While not on the reef, manatees can sometimes be seen in the Sea Base Harbor. They are vegetarians and are sometimes called sea cows. Manatees venture into harbors in search of fresh water. While they may get some, it actually puts them in danger from being run over by a boat. Manatees are slow moving and cannot always get out of the way of boats.



Manatee
When just their noses are sticking up I think
manatees resemble dogs.



ManateeThis guy needs a shave.

Octopus

Octopus often can only be seen at night. Their camouflage makes them very hard to spot. You may find an octopus by spotting a pile of discarded shells, claws or other parts of crustaceans they have been feeding on.



OctopusBlending in well and only coming out at night makes for a hard find. Look very closely.



OctopusOctopus slinking away from my lens.

Sea Urchins

Sea Urchins have long needle like appendages and can be found in coral crevices and hold. Watch your bouyancy and stay off the bottom to avoid getting stuck by one of these guys



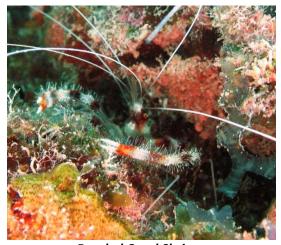
Their long appendages are sharp. Be carefull.

Shrimp

Shrimp can be found on coral heads and also at cleaning stations cleaning other fish, turtles, eels and other animals. There are many types of shrimp, look closely and you may spot these small guys.



Banded Coral ShrimpNamed for the bands in their coloration.



Banded Coral Shrimp
Banded coral shrimp are usually under ledges
and in holes.

Starfish

Starfish are more elusive during the day, and tend to come out more at night. Basket Stars can be seen clinging to sea fans and look like a basket during the day, and open up to feed at night.



Basket Star

Looks like a basket during the day, and opens up to feed at night.



Can be seen under ledges, tend to be more active at night.

Squid

Squid are usually only seen at night, cruising around the reef. They can be as small as your pinky finger, or as big as your forearm. Do your best to go slow and not spook them with your light and you make get a closer look.



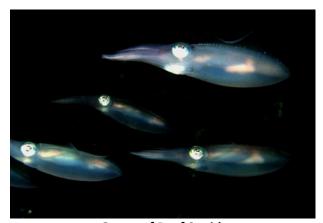
Reef SquidThis one appeared to be posing for me.



Reef SquidHovering along the bottom.



Reef SquidA smaller Squid caught just off the sand. Squid are sometimes attracted to light at night.



Group of Reef SquidSnapped a quick one as this group was going by.

Turtles

Sea turtles can sometimes be seen on the reef. Three main types you may encounter are Greens, Hawksbills, and Loggerheads. Greens have rounder heads and round shells. Hawksbills have bird like beaks and tend to have jagged edges on the back edge of their shells. Loggerheads have thick necks and large heads.



Loggerhead Sea Turtle This Loggerhead was scooting along the bottom on a night dive. Loggerheads have thick necks



Green Sea Turtle Swimming sleepily at night. Another example of a larger Green



Green Sea Turtle This little Green was going up for air when I found him. Greens have rounder shells and less pronounced beaks.



Hawksbill Sea Turtle Swimming by to check things out. Hawksbills have more pronounced, sharper looking shells, and beaks.

Section Four – Behind The Scenes

FSB RFI – Six Years In The Making

Photography has always been one of my passions, and more than a hobby. Like photography, so has scuba diving. In the summer of 2007 I first worked at Seabase as a divemaster. It was then that I truly started to learn and appreciate underwater photography and the skill that it requires to obtain truly good shots. First, I was taking photos of everything I saw, or trying to anyway. I was inexperienced, and had only had a few chances to photograph underwater in Michigan, Ohio, Mexico and Hawaii. It was new territory for me. I was and am an avid photographer, but it is a whole new set of challenges to photograph underwater. It wasn't until a little later, Christmas season 2008, that I came up with the idea of making a Reef Fish Identification book or packet for the scouts, scouters, instructors and divemasters to use. It was then that I specifically started targeting the most common fish and creatures to include in the book. The project was coming along, and I was collecting many images. Two more summers at Seabase passed, 2010 and 2011, and I hadn't started writing or formatting the actual book yet.

The summer of 2011 I worked as an instructor and had much less spare time for the project. Between 2007 and 2011 I flooded two cameras, and learned much about underwater photography. A friend once told me, "There are two kinds of underwater photographers. Ones who have had a flood, and ones who haven't." When he first told me that, I hadn't had a flood yet. He was right, and now I am on my third setup, the other two sacrificed to the sea. In the off season I served as a photographer and eventually the Photo Editor for my university newspaper. Shooting football games, hockey games, basketball games, events and other things are all easier than shooting underwater, especially if the conditions aren't perfect. Lighting, buoyancy, currents, surge, temperature, visibility, depth and many other things affect your photograph in the end. Truthfully, practicing on land and underwater is the only way to get better. Taking advantage of the privilege of the four Seabase seasons to practice was time consuming but in the end totally worth it. Every day off I had, I was shooting. I collected thousands of images and my collection was looking more and more complete. It wasn't until this past winter that I decided to rejuvenate my creative spirit and continue working on the project. I started going through the thousands of images sorting them by common name. I then took all of the best photographs and edited them for print. The powerpoint to be used in night program was the first thing I created, combining my photographs and some parts of the style from previous night program presentations.

In the beginning of March I finished the first version of the book, which contained the same information as the powerpoint slides, but was organized by common name, and included a table of contents. As soon as I was finished and began printing copies I already had a vision for version II. Having the book the same format of the powerpoint slides saved time, but I didn't

Florida Sea Base - Reef Fish Identification

like how it looked. I then used the same photographs but formatted them more uniformly and included a little more information about each fish or creature. I also added squid to the collection. I had inadvertently omitted this creature from the book previously. When I realized that I hadn't included squid I had already printed more than several copies of the first edition. Hopefully this second edition will better illustrate my hard work. I hope that this book serves as a good guide for the basic types of wildlife you will encounter on the reef. This summer I will continue to capture images and plan on making a third, more complete edition by the end of the summer. Thank you for reading, and enjoy your Seabase adventure. This may be one of the best weeks of your life.

-Brian Sevald

Photographer

Scuba Instructor

Section Five - Brian Sevald

About The Author



Being involved in the Boy Scouts of America is what brought me to the Florida Seabase for the first time in the summer of 2004. I was a relatively new diver, with only about 50 or so dives under my belt mostly in the lakes and quarries of Michigan and Ohio. The ocean was a new adventure for me. Coming down to the keys opened up a new chapter in my curiosity and love for the water. I had the privilege of coming back on another scuba adventure the next summer in 2005. It was on those scuba adventures that I decided that I wanted to work at Sea Base. The experience that my

diversaters gave me during those summers is what truly inspired me to come back and give the scouts that same great experience. Finally in the summer of 2007 I got to serve as a diversater. I used some of my graduation money to buy my first underwater housing for a point and shoot camera. Photography had always been a passion of mine, but the equipment can be expensive. My first setup was not high

end, but it did the trick, and many of the photographs in this book were taken with that trusty old Canon Powershot A620. I got four years of learning and shooting with it before I finally flooded it and it was sacrificed to the sea. I quickly obtained another camera and housing through a trade of some scuba gear and was back in business. During the school year I worked for my university news paper in Michigan and learned even more about photography, cameras, lighting and absorbed as much of it as I could. I eventually became the Photo Editor of



the newspaper in my senior year at the university. The summer of 2007 was my first summer as a diversity. I then spent the summers of 2008 and 2009 out at Philmont as a ranger, where I got to practice more photography. There was plenty to take photos of, majestic views, landscapes, bears, elk,



deer, and more. It was a completely different environment, and it had its own set of challenges to go with it. With an already heavy pack, camera gear only added to the pounds. However, no matter how heavy my pack was, I always made room for my camera. With all its beauty, it still wasn't the same as drifting in the warm Florida Keys ocean currents with wildlife everywhere you look. So in the summers of 2010 and 2011 I came back. This summer will mark my 5th season at Seabase and I am looking forward to a great summer. I hope that you can utilize this book, and that you are inspired by the beauty of the Florida Keys the same way I am on every single dive, no matter if it is your 1st, or 100th dive in the keys. Happy Diving.

Section Six – If You Want To Know More

Contact Information

To request a copy of this work, or if you have questions or comments? Feel free to contact me.

Brian B. Sevald

Photographer Scuba Instructor

248.721.2845 - Phone

<u>Brian.Sevald@gmail.com</u> - Email

<u>www.BrianSevald.com</u> - Official Website

Section Seven – For Those Whose Previous Work Helped Me

References and Thanks

Humann, Paul - Reef Fish Identification Florida, Carribbean, Bahamas, 1994 2nd Edition

I would like to thank my parents for always supporting me and driving me to be the best that I can be, through thick and thin. I would like to thank my girlfriend for putting up with me while spending time on this project which has spanned many months. I would like to thank my first Divemasters as a participant at Sea Base, Luke and Lou, who gave me the inspiration to work at the best place in the whole world.

Section Eight – Being More Specific

Index - Alphabetical

Angelfish (4-6)

Anenome (30)

Arrow Crab (31)

Balloonfish (21-22)

Banded Coral Shrimp (37)

Bar Jack (17)

Barracuda (6-7)

Basket Starfish (38)

Bermuda Chub (10)

Bicolor Damselfish (11)

Big Eye Squirrelfish (26)

Black Grouper (14)

Blenny (7)

Blue Chromis (9)

Blue Parrotfish (20)

Blue Striped Grunt (15-16)

Blue Tang (26)

Bluehead (28)

Bottlenose Dolphin (32)

Brittle Starfish (38)

Brown Chromis (9)

Butterflyfish (8)

Chromis (9)

Chub (10)

Cowfish (28)

Crabs (31)

Damselfish (11)

Dolphin (32)

Drum (12)

Dusky Damselfish (11)

Filefish (12-13)

Flamingo Tongue (35)

Foureye Butterflyfish (8)

French Angelfish (5)

French Grunt (15)

Glass Eye Snapper (25)

Goatfish (14)

Goby (13)

Goldentail Moray (33)

Goliath Grouper (15)

Gray Triggerfish (13)

Florida Sea Base - Reef Fish Identification

Graysby Grouper (14)

Green Moray (33)

Green Sea Turtle (40)

Grey Angelfish (4)

Grouper (14-15)

Grunt (15-16)

Hawksbill Sea Turtle (40)

Hermit Crab (31)

Hogfish (16)

Horse Eye Jack (17)

Jack (17)

Jawfish (17)

Jellyfish (34)

Jewfish (15)

Lionfish (18)

Lizardfish (19)

Lobster (34)

Loggerhead Sea Turtle (40)

Longspine Squirrelfish (26)

Manatee (36)

Moon Jelly (34)

Moray Eel (33)

Neon Goby (13)

Nurse Shark (24)

Ocean Surgeonfish (27)

Octopus (36)

Orange Spotted Filefish (13)

Parrotfish (20)

Porcupinefish (22)

Porkfish (21)

Princess Parrotfish (20)

Puddingwife Wrasse (29)

Puffers (21-22)

Queen Angelfish (4)

Rainbow Parrotfish (20)

Rays (22-23)

Red Lip Blenny (7)

Redband Parrotfish (20)

Reef Butterflyfish (8)

Reef Shark (25)

Reef Squid (39)

Rock Beauty (5)

Rock Hind (14)

Saddled Blenny (7)

Saltwater Hermit Crab (31)

Scorpionfish (23)

Scrawled Cowfish (28)

Scrawled Filefish (12)

Florida Sea Base - Reef Fish Identification

Sea Cow (36)

Sea Snail (35)

Sea Urchin (37)

Seabasss (14, 15, 24)

Sharks (24, 25)

Sharpnose Puffer (21)

Slipper Lobster (35)

Smooth Trunkfish (28)

Southern Stingray (22)

Spanish Grunt (16)

Spanish Hogfish (16)

Spiny Lobster (34)

Spotfin Butterflyfish (8)

Spotted Drum (12)

Spotted Eagle Ray (23)

Spotted Goatfish (14)

Spotted Moray (33)

Spotted Spiny Lobster(35)

Squid (39)

Squirrelfish (26)

Starfish (38)

Stone Crab (31)

Stonefish (23)

Townsend Angelfish (6)

Trumpetfish (27)

Trunkfish (28)

Turtles (40)

Urchin (37)

Venemous (18, 23)

Viper Moray (33)

White Grunt (16)

Wrasse (28)

Yellow Goatfish (14)

Yellow Stingray (23)

Yellowhead Jawfish (17-18)

Yellowhead Wrasse (29)

Yellowtail Damselfish (11)

Yellowtail Snapper (25)