

# GOT Fish ID

South Carolina  
**Aquarium**<sup>®</sup>



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# Arnold Postell

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# Mission Statement

It is the mission of the South Carolina Aquarium (SCA) Dive Team to provide excellence in animal care and husbandry, to actively support both the educational and conservation endeavors of the SCA, and to provide a memorable, positive guest experience to all those who visit our facility.

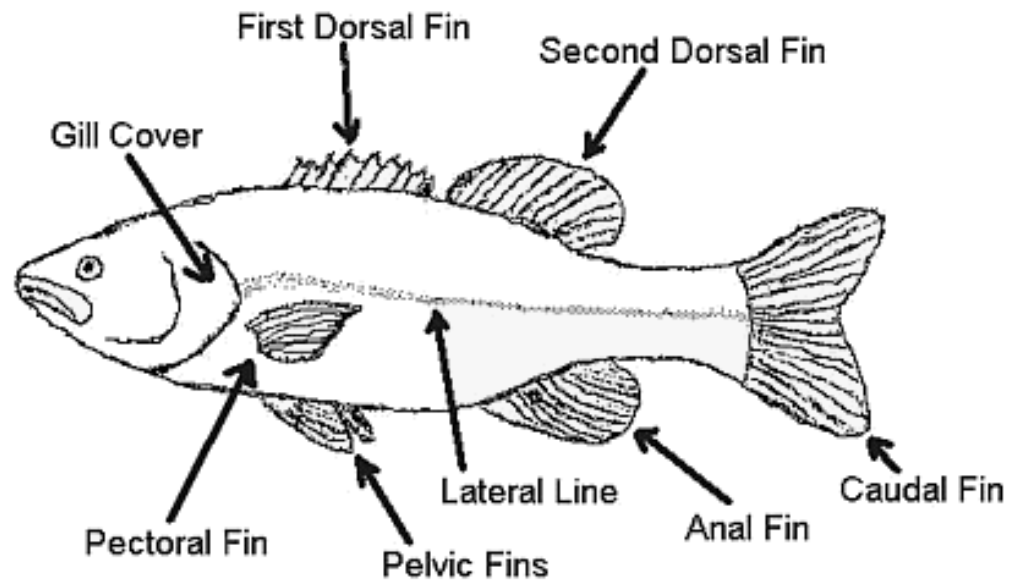
# Training Schedule

1. PowerPoint Presentation
2. Statement of Understanding
3. Quiz

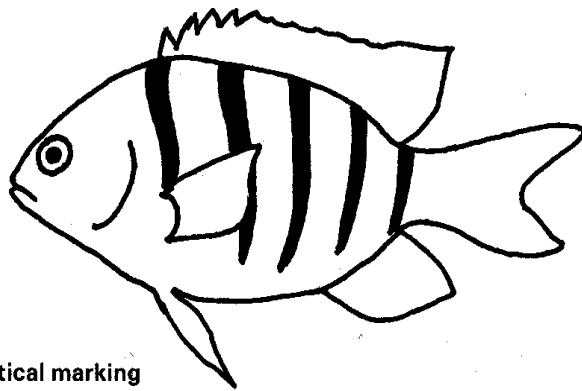
# Fish Anatomy Overview

## Define:

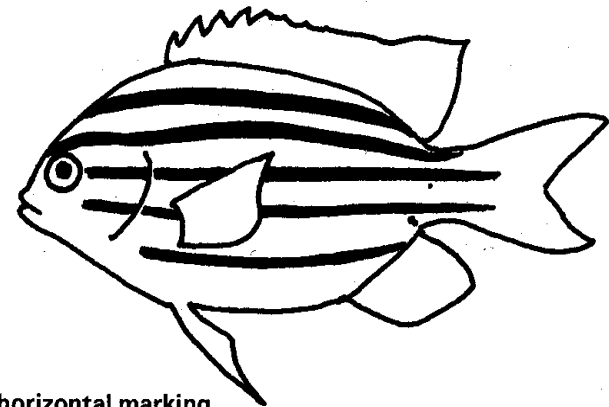
- Anterior/Cephalic
- Posterior/Caudal
- Dorsal
- Ventral



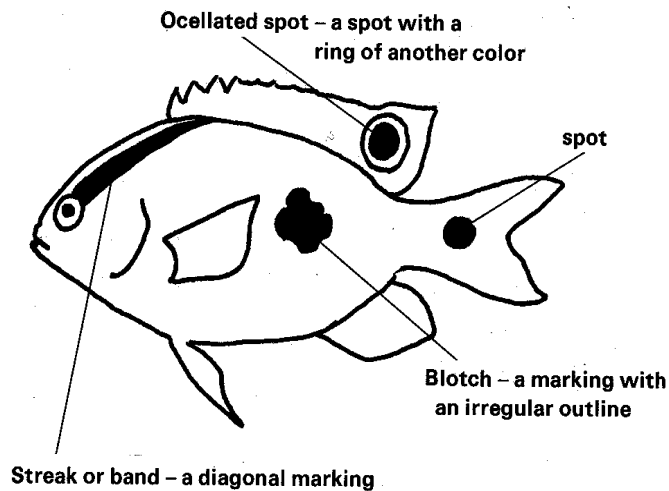
# Fish Anatomy Overview



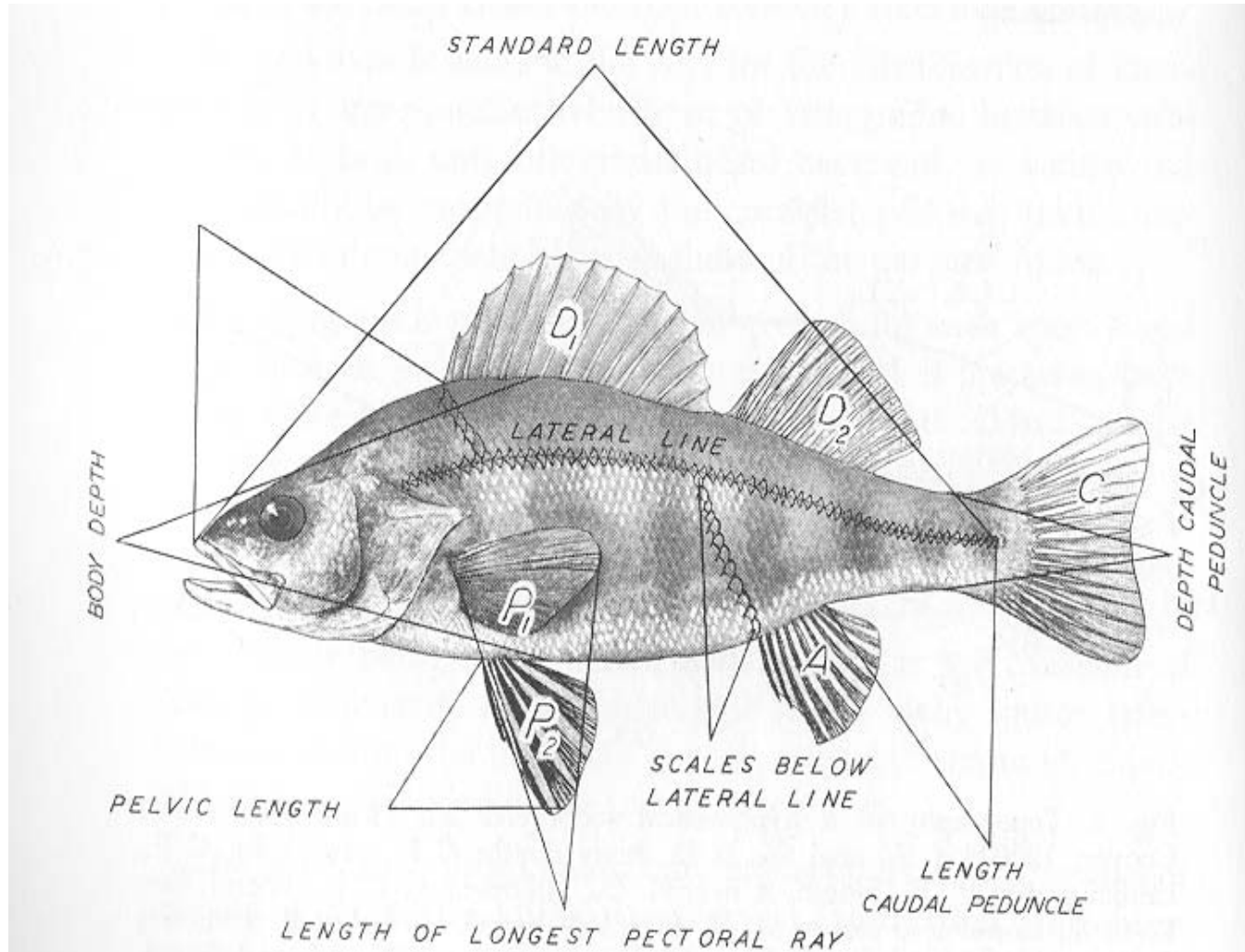
Bar – any vertical marking



Stripe – any horizontal marking



# Fish Anatomy Overview



# Loggerhead Sea Turtle

## *Caretta caretta*

- Relatives: member of family Cheloniidae
- Description:
  - > Carapace reddish brown
  - > Large head
  - > Usually 5 costal (along the center of the carapace) plates with the first one touching the nuchal (along the nape of neck) scute
- Size: Up to 5 ft
- Habitat: open ocean and in shallow coastal waters; hatchlings in *Sargassum*
- GOT Habitat: throughout GOT
- GOT Diet: target; will also eat from broadcast & drop buckets





# Blacktip Shark

## *Carcharhinus limbatus*

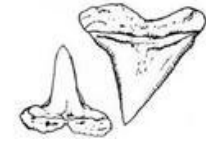


- Relatives: family Carcharhinidae (requiem sharks)
- Description:
  - > Grey/brown/blue dorsally; pale ventrally
  - > Dorsal, pectoral, ventral lobe of caudal fin tipped black with adjacent white patches
  - > Pelvic & anal fins sometimes blackish
- Size: Up to 5 ft
- Habitat: worldwide in warm, shallow seas
- GOT Habitat: Throughout water column
- GOT Diet: target
- Fun Fact: ours is named Blacktip



# Sandbar (Brown) Shark

## *Carcharhinus plumbeus*



- Relatives: family Carcharhinidae (requiem sharks)
- Description:
  - > Grey dorsally; white ventrally
  - > Snout broad, rounded, short  
Eyes small  
Body medium-sized & stout
  - > Interdorsal ridge present
  - > 1<sup>st</sup> dorsal fin tall, pectoral fins long
- Size: Up to 7.8 ft
- Habitat: over sandy or muddy bottoms, mostly near shore
- GOT Habitat: throughout water column
- GOT Diet: target
- Fun Fact: ours are named Yellow, Scar, Clean, & Patches



# Sand Tiger Shark

## *Carcharias taurus*

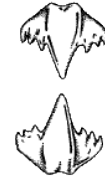


- Relatives: family Odontaspidae (tiger sharks)
- Description:
  - > Grey/brown dorsally; pale below
  - > Upper body & fins have irregular dark spots & blotches
  - > Snout pointed
  - > Teeth: narrow, pointed, protrude from mouth
  - > Dorsal fins nearly equal in size
- Size: Up to 10.4 ft
- Habitat: shallow, inshore waters on or near bottoms from surf zone to continental shelf
- GOT Habitat: upper, middle water column
- GOT Diet: target
- Fun Fact: ours are named Red & Green



# Nurse Shark

## *Ginglymostoma cirratum*



- Relatives: family Ginglymostomatidae (nurse sharks)
- Description:
  - > Dorsally brown/grey/yellow; paler ventrally
  - > 2 nasal barbels
  - > Short, rounded snout
  - > Dorsal fins closely spaced
- Size: Up to 10.5 ft
- Habitat: Over sand flats, around mangroves, channels, coral reefs; social & nocturnal
- GOT Habitat: Caves, bottom
- GOT Diet: target
- Fun Fact: ours are names Dot & Dash



# Permit

## *Trachinotus falcatus*

- Relatives: family Carangidae (jacks, pompanos)
- Description:
  - > Silvery with metallic blue/green sheen
  - > Abdomen silvery, often with golden areas
  - > Anal & caudal fin lobes blackish
  - > +/- black smudges on sides
  - > Head profile & snout rounded; body deep, compressed
  - > 1<sup>st</sup> dorsal fin spines small, separate; 2<sup>nd</sup> with 17-21 rays
- Size: Up to 2.6 ft
- Habitat: coastal waters to ~ 118ft, pelagic, near bottom in channels & over seagrass flats & reefs
- GOT Habitat: Upper/middle water column
- GOT Diet: broadcast, will feed from drop buckets



# Crevalle Jack

## *Caranx hippos*

- Relatives: family Carangidae (jacks, pompanos)
- Description:
  - > Green/blue/black dorsally; silver/gold ventrally
  - > Small black spot on opercular margin
  - > Black blotch on lower pectoral-fin rays
  - > Jaws extend to below or just beyond caudal margin of eyes
- Size: Up to 5 ft
- Habitat: Brackish to marine waters, 0-1100 ft
- GOT Habitat: Upper & middle water column
- GOT Diet: broadcast feed



# Horse-Eye Jack

## *Caranx latus*

- Relatives: family Carangidae (jacks, pompanos)
- Description:
  - > Dorsally metallic blue; ventrally silver to golden
  - > Small black spot at upper opercular margin
  - > Posterior scutes silver/black
  - > Upper dorsal fin lobe may be black
  - > Caudal fin yellowish, upper margin may be blackish
  - > Eyes comparatively large; jaws extend to rear margin of eyes
- Size: Up to 22 in
- Habitat: Pelagic; inshore, offshore, along sandy beaches
- GOT Habitat: Upper water column
- GOT Diet: broadcast



# Bar Jack

## *Caranx ruber*

- Relatives: family Carangidae (jacks, pompano)
- Description:
  - > Gray/blue above, silvery below
  - > Black band overlying iridescent blue band runs along dorsum through caudal peduncle into lower lobe of caudal fin
- Size: Up to 22 in
- Habitat: Clear shallow waters around reefs
  - > Juveniles associate with *Sargassum* seaweed rafts
- GOT Habitat: Upper/middle water column
- GOT Diet: Broadcast
- Fun Fact: grunt when distressed, flesh is toxic





# Blue runner

## *Caranx crysos*

- Relatives: family Carangidae (jacks, pompanos)
- Description:
  - > Blue/green with metallic sheen dorsally; silver/gold ventrally
  - > Small black dot on opercular margin
  - > Tips of caudal fin black
  - > Upper and lower body profiles almost identically shaped
- Size: Up to 2.2ft
- Habitat: Inshore & offshore schools
- GOT Habitat: Upper water column
- GOT Diet: broadcast



# Rainbow runner

## *Elagatis bipinnulata*

- Relatives: family Carangidae (jacks, pompano)
- Description:
  - > Dark blue/olive/green dorsally; white ventrally
  - > Midbody has green/yellow stripe bordered by 2 narrow blue stripes
  - > 2 separate rays form finlets behind dorsal & anal fins
  - > Small mouth
  - > Dorsal & ventral profiles similarly shaped
- Size: Up to 3.6 ft
- Habitat: Pelagic, near surface over reefs & offshore
- GOT Habitat: Upper/middle water column
- GOT Diet: broadcast



# Greater Amberjack

## *Seriola dumerili*

- Relatives: family Carangidae (jacks, pompano)
- Description:
  - > Blue/brown/olive dorsally; Silver ventrally
  - > Diagonal band runs from eyes to dorsal fin origin
  - > Body elongate, shallow compared with other Carangidae
  - > Often have yellowish stripe along mid body
  - > Color may lighten when in feeding mode
- Size: Up to 5 ft; 40-140 lbs
- Habitat: open-water fish; often in large schools
- GOT Habitat: Upper/middle water column
- GOT Diet: Broadcast; will feed from all methods



# Almaco Jack

## *Seriola rivoliana*

- Relatives: family Carangidae (jacks, pompano)

- Description:

- > Blue/brown/olive dorsally; paler ventrally
- > Dorsal & ventral fins dark brown
- > First dorsal & anal fins elongated and pointed with sickled outer edges
- > Upper jaw angular, very broad posteriorly
- > Body deep compared to other Carangidae



- Size: Up to 2.7 ft; 132 lbs
- Habitat: Small groups on slopes and off of reefs
- GOT Habitat: Upper/middle water column
- GOT Diet: Broadcast

# Banded Rudderfish

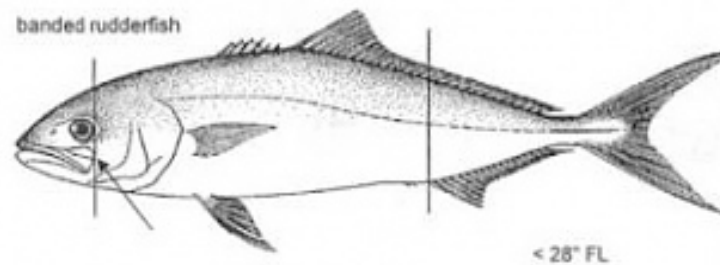
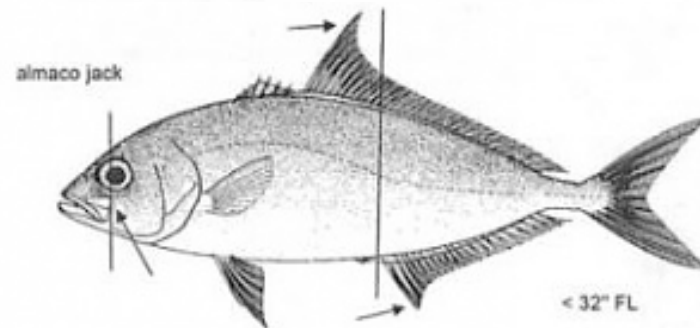
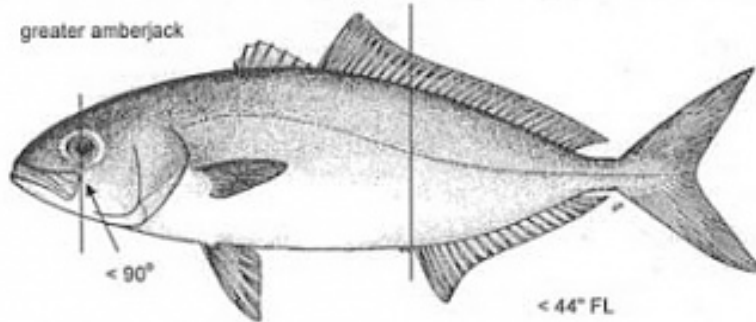
## *Seriola zonata*

- Relatives: family Carangidae (jacks, pompano)
- Description:
  - > Gray/green/blue dorsally, silvery white ventrally
  - > +/- Dark band from eyes to first dorsal fin, amber stripe on sides
  - > Second dorsal & caudal fins have pale margins
  - > Body elongate, comparatively shallow; pointed snout
  - > Juveniles: six bars on sides, dark band from eyes to dorsal fin
- Size: Up to 2 ft
- Habitat: Pelagic or near bottom
- GOT Habitat: Upper/middle water column
- GOT Diet: Broadcast



# You don't know Jack

SPECIES	DORSAL SPINES	2ND DORSAL	< 9" FL GILL RAKERS	> 9" FL GILL RAKERS
GREATER AMBERJACK	VII	I + 29-34	5-8, 15-16 (18 - 24)	(11 - 19)
LESSER AMBERJACK	VIII	I + 28-33	6-8, 16-18 (23 - 26)	6-8, 16-18 (23 - 26)
ALMACO JACK	VII	I + 27-33	6-9, 18-20 (24 - 29)	(18 - 25)
BANDED RUDDERFISH	VIII	I + 33-39	(20 - 25)	2-4, 11-13 (12 - 17)



# Barracuda

## *Sphyraena barracuda*

- Relatives: family Sphyraenidae (barracuda, sennet)

- Description:

- > Dorsally: blue/grey with slanted bars
- > Ventrally: silver with dark patches
- > Large head with protruding jaw and large teeth
- > Caudal fin slightly forked



- Size: Up to 6.5 ft
- Habitat: warm water inshore & offshore over structures and reefs
  - > Adults solitary; juveniles schooling
- GOT Habitat: Middle water column
- GOT Diet: broadcast, target

# Graysby Grouper

## *Cephalopholis cruentata*

- Relatives: family Serranidae (Sea basses)
- Description:
  - > Body & fins Grey/blue/brown with small, evenly-spaced orange/brown/red spots
  - > Four black or white spots along back under dorsal-fin base
  - > Dorsal, caudal, anal fins have reddish inner margin
  - > May pale or darken in color
- Size: Up to 13 in
- Habitat: Over seagrass beds and coral reefs
- GOT Habitat: Rockwork, caves
- GOT Diet: drop buckets





# Red Grouper

## *Epinephelus morio*

- Relatives: family Serranidae (sea basses)
- Description:
  - > Red/brown with diffuse blotches & spots
  - > Bars often radiate from eyes
  - > Inside of mouth bright red/orange
  - > Dorsal, caudal, anal fins have dark margins
  - > Dorsal fin spiny has tall 2<sup>nd</sup> spine & nearly straight margin
- Size: Up to 3 ft
- Habitat: around reefs, in crevices, under ledges, over sandy or mud bottoms
- GOT Habitat: caves, rockwork
- GOT Diet: drop buckets



# Gag Grouper

## *Mycteroperca microlepis*

- Relatives: family Serranidae (sea basses)
- Description:
  - > Dark grey with darker posterior vermiculations
  - > +/- dark ventral or dorsal areas, females with saddles or bars
  - > Dorsal, anal fins margins rounded
- Size: Up to 4 ft
- Habitat: offshore over rocky or reef bottoms
- GOT Habitat: Bottom
- GOT Diet: Broadcast, drop buckets
- Fun Fact: hermaphroditic, form spawning aggregations



# Scamp

## *Mycteroperca phenax*

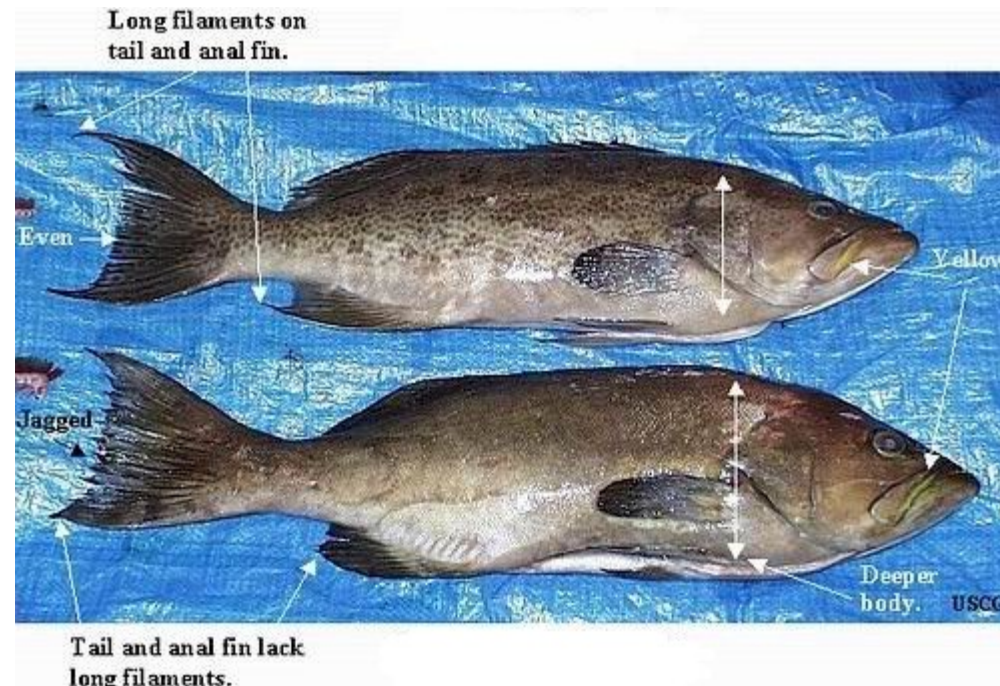
- Relatives: family Serranidae (sea basses)
- Description:
  - > Usually grey/brown
  - > Small, close-set, darker spots may form clusters or overlie diffuse vermiculations
  - > Corners of mouth yellowish
  - > Pectoral fins have dark inner margins, pale outer margins
  - > Caudal fin concave, unevenly serrated
  - > Larger fish pale anteriorly, dark posteriorly
- Size: Up to 3 ft
- Habitat: over rocky & live bottoms
- GOT Habitat: caves, rockwork
- GOT Diet: drop buckets
- Fun Fact: also known as Broomtail



# Gag vs. Scamp Grouper

Gag grouper

Scamp grouper



# Black Sea Bass

## *Centropristis striata*

- Relatives: family Serranidae (sea bass)
- Description:
  - > Black/grey on body & fins; center of scales white
  - > Unpaired (dorsal, anal) w/ white streaks & margins
  - > Sides have obscure bars, may have dark stripes
  - > Caudal fin rounded/trilobed with trailing filaments
  - > Adult males develop hump on nape
- Size: Up to 2 ft
- Habitat: shore to 250 ft; rock jetties, shallow rocky & soft bottoms
- GOT Habitat: Rockwork
- GOT Diet: drop buckets
- Fun Fact: hermaphroditic, eat invertebrates



# Black Drum

## *Pogonias cromis*

- Relatives: family Sciaenidae (drums)
- Description:
  - > Silvery bronze to almost black dorsally and on sides; silvery ventrally
  - > Dorsal fin deeply notched; caudal fin nearly straight
  - > Arched dorsal profile, nearly straight ventral profile
  - > 10-13 barbels on chin
  - > Juvenile: silvery gray with 4-5 black bars on sides
- Size: Up to 5.6 ft
- Habitat: Over coastal sandy & mud bottoms, near river mouths, in estuaries, in surf
- GOT Habitat: bottom
- GOT Diet: drop buckets



# Red Drum

## *Sciaenops ocellatus*

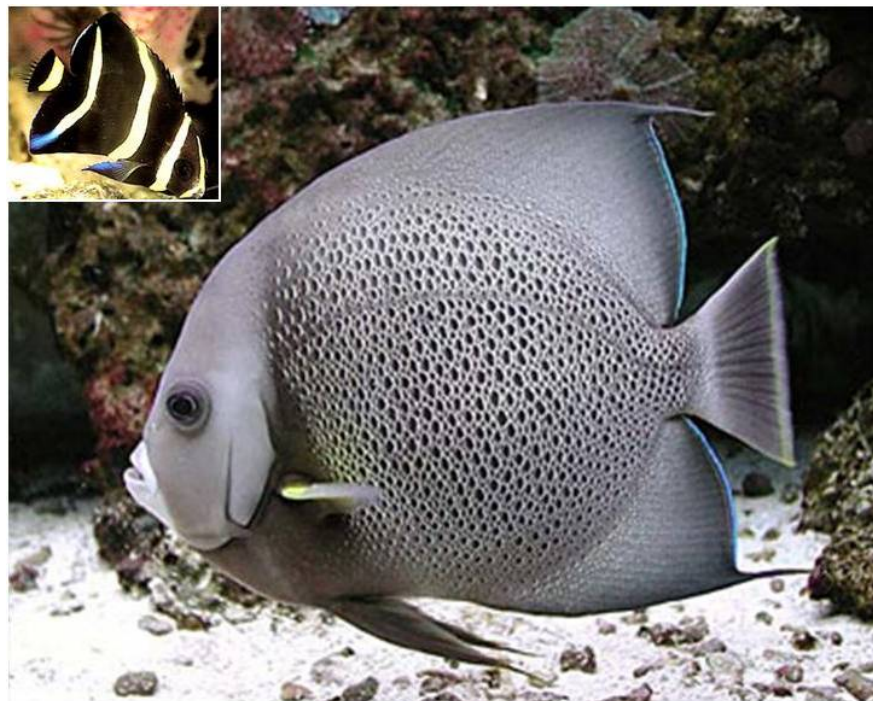
- Relatives: family Sciaenidae (drums)
- Description:
  - > Iridescent copper/brass/grey dorsally; silver ventrally
  - > Scales darker at center
  - > ≥1 oscillated spot at upper caudal fin base
  - > Snout bluntly rounded
  - > Mouth small, nearly horizontal
- Size: Up to 5.2 ft
- Habitat: along coastal waters over sandy & mud bottoms and in estuaries and surf zone
- GOT Habitat: Upper water column
- GOT Diet: broadcast, drop buckets



# Gray Angelfish

## *Pomacanthus arcuatus*

- Relatives: family Pomacanthidae (Angelfish)
- Description:
  - > Body & fins grey/brown; jaws & chin white
  - > Head pale grey; chest dark grey
  - > Inner face of pectoral fin yellow
  - > Scales with dark centers & pale edges
  - > Preopercle has small spines on margin & prominent spine at corner
  - > Middle rays of dorsal & anal fins long & trailing
- Size: Up to 14 in
- Habitat: Over shallow coral reefs & around hard structures
- GOT Habitat: Rockwork
- GOT Diet: Drop buckets





# Cobia

## *Rachycentron canadum*

- Relatives: family Rachycentridae (Cobia)
- Description:
  - > Dark brown dorsally & on sides; whitish ventrally
  - > +/- 2 white stripes on sides
  - > Dorsal, caudal, pectoral fins dark brown
  - > Pelvic, anal fins dusky
  - > Snout broad, head compressed
  - > First dorsal fin has 7-9 spines; caudal fin tall, forked
- Size: Up to 6.5 ft
- Habitat: worldwide in warm seas
- GOT Habitat: Upper & middle water column
- GOT Diet: target; broadcast



# Gray Snapper

## *Lutjanus griseus*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Dark olive/grey/green dorsally; pale with reddish cast ventrally & on sides
  - > Snout long & pointed; dorsal profile of head slightly concave
  - > Large pair of canine teeth in upper jaw
  - > Centers of scales on sides reddish
  - > Pale bars on juveniles fade with age
- Size: Up to 2 ft
- Habitat: Shore to 590ft; around mangroves, rocky areas, coral reefs, estuaries, tidal creeks, river mouths
- GOT Habitat: Rockwork, upper/middle water column
- GOT Diet: drop buckets, broadcast
- Fun Fact: also known as Mangrove snapper



# Vermillion Snapper

## *Rhomboplites aurorubens*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Deep red above lateral line, pale pink/silver below
  - > Fine, bluish lines follow scales above lateral line
  - > Sides have fine, oblique yellowish lines
  - > Irises silvery red
  - > Dorsal fin reddish with orange margin
  - > Caudal fin red
  - > Anal fin broadly rounded
- Size: Up to 2 ft
- Habitat: over rocky bottoms of edges of continental shelves
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Green Moray Eel

## *Gymnothorax funebris*

- Relatives: family Muraenidae (moray eels)
- Description:
  - > Head & body uniform shade of green/brown
  - > Head pores, gill openings, anus may be dark
  - > Eyes may be reddish
  - > Dorsal fin begins between eye & gill opening
  - > Stout body
- Size: Up to 6.2 ft
- Habitat: Shallow tide pools, rocky crevices, coral reefs
- GOT Habitat: Cave, feeding tube
- GOT Diet: Mackerel in feeding tube
- Fun Fact: Green color comes from yellow mucous overlying grey/blue skin



# Porkfish

## *Anisotremus virginicus*

- Relatives: family Haemulidae (grunts)
- Description:
  - > Body has alternating silvery white & yellow stripes
  - > 2 black bands on head
    - 1<sup>st</sup> extends thru eye to nape
    - 2<sup>nd</sup> from rear gill margin to anterior base of dorsal fin
  - > All fins yellow
  - > Body deep, compressed; head profile slopes steeply
- Size: Up to 15 in
- Habitat: Over coral reefs and hard bottoms
- GOT Habitat: Rockwork
- GOT Diet: drop buckets



# Margate

## *Haemulon album*

- Relatives: family Haemulidae (grunts)
- Description:
  - > Dorsally pearl grey; ventrally silver
  - > Scales on upper body have dark margins
  - > Dorsal & caudal fins dark grey
  - > Inside of mouth pale red
  - > Body oblong, compressed; head profile almost straight
- Size: Up to 2.5 ft
- Habitat: Over coral reefs & hard bottoms
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Tomtate

## *Haemulon aurolineatum*

- Relatives: family Haemulidae (grunts)
- Description:
  - > Silvery white/tan throughout
  - > 2 dark yellow stripes on body
    - 1<sup>st</sup> runs from nape to rear base of soft dorsal fin
    - 2<sup>nd</sup> runs from snout to caudal peduncle
  - > +/- narrow, faint yellow stripes on body
  - > Black blotch often present at base of caudal fin
  - > Body oblong, compressed
  - > Head profile slightly convex
- Size: Up to 10 in
- Habitat: Over natural & artificial bottoms
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Bermuda chub

## *Kyphosus sectator*

- Relatives: family Kyphosidae (sea chubs)
- Description:
  - > Silver/blue/grey with yellow stripes
  - > Two yellow strips on sides of heads
  - > Blackish opercular membrane
  - > +/- pale spots on head & body
  - > Bumped dorsal profile anterior to eyes
  - > 11-13 rays in dorsal fin; 10-11 rays in anal fin
- Size: Up to 2.5 ft
- Habitat: Shallow water over seagrass beds, sandy & rocky bottoms, around coral reefs
- GOT Habitat: Rockwork
- GOT Diet: Drop buckets





# Spottail Pinfish

## *Diplodus holbrookii*

- Relatives: family Sparidae (Porgies)
- Description:
  - > Iridescent golden dorsally & on sides, silvery ventrally
  - > Opercular membrane black
  - > ~9 faint bars on upper sides that fade with age
  - > Large black saddle on upper caudal peduncle
  - > Dorsal fin membranes have brownish cast
  - > Pectoral, caudal, anal fins have brownish cast
  - > Teeth in front of jaw protrude
- Size: Up to 18 in
- Habitat: shallow coastal waters over reefs and in bays & harbors, prefer vegetative bottom
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Sheepshead

## *Archosargus probatocephalus*

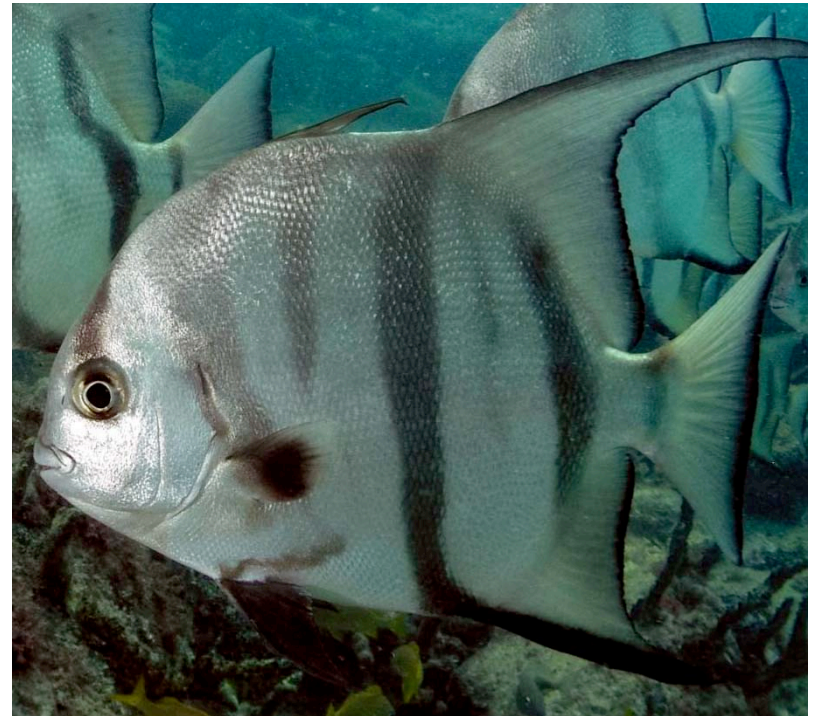
- Relatives: family Sparidae (Porgies)
- Description:
  - > Grey/brown dorsally fading to silvery below; may have golden cast
  - > 5-6 black/brown bars on sides
  - > Head & fins grey/dusky
  - > Anterior teeth incisor-like
  - > Pectoral fins long; caudal fin forked
- Size: Up to 3 ft
- Habitat: Along coast in estuaries around muddy & rocky bottoms, and over hard substrates
- GOT Habitat: rockwork, middle water column
- GOT Diet: drop buckets, broadcast



# Spadefish

## *Chaetodipterus faber*

- Relatives: family Ehippidae (Spadefishes)
- Description:
  - > Silvery with black/brown bars on sides
  - > Snout very short, mouth small
  - > Preopercular margin finely serrated, lacks spine at corner
  - > Opercle has blunt spine at posterior margin
  - > 2<sup>nd</sup> dorsal & anal fins have elongate anterior rays
  - > Body profile disk-shaped
- Size: Up to 3 ft
- Habitat: Coastal, over wrecks, reefs, pilings
- GOT Habitat: Upper, middle water column
- GOT Diet: broadcast



# Sergeant major

## *Abudefduf saxatilis*

- Relatives: family Pomacentridae (damselfishes)
- Description:
  - > Upper head & nape blue/green
  - > Dorsally bright yellow, ventrally blue/white
  - > 5 black bars on sides
  - > Body deep, laterally compressed
  - > Males darken when spawning or guarding eggs
- Size: Up to 7 in
- Habitat: shallow water around jetties and over coral & rocky reefs
- GOT Habitat: rockwork, especially barrel sponges
- GOT Diet: drop buckets



# Gray triggerfish

## *Balistes capriscus*

- Relatives: family Balistidae (triggerfishes)
- Description: Somewhat variable
  - > Green/grey with ~3 obscure to very dark irregular bars on upper sides; whitish below
  - > Bright blue spots or lines along dorsal profile & on dorsal and upper caudal fins
  - > 2<sup>nd</sup> dorsal & anal fins have spots that form lines/rows
  - > Upper & lower rays of caudal fin trailing in adults
- Size: Up to 12 in
- Habitat: Over coral reefs & rocky, sandy, grassy bottoms
- GOT Habitat: Rockwork, middle water column
- GOT Diet: Drop buckets



# Ocean Triggerfish

## *Canthidermis sufflamen*

- Relatives: family Balistidae (triggerfishes)
- Description:
  - > Dorsally brown/grey; paler ventrally
  - > May be very pale overall
  - > Usually with black/brown blotch at pectoral fin base
  - > Margins of dorsal, caudal, anal fins may be dark
  - > Dorsal- & anal-fin lobes very tall
  - > Caudal fin upper & lower margins slightly elongate
- Size: Up to 2 ft
- Habitat: Pelagic, over offshore reefs in clear water
- GOT Habitat: Throughout water column
- GOT Diet: drop buckets



# Queen Triggerfish

## *Balistes vetula*

- Relatives: family Balistidae (triggerfishes)
- Description:
  - > Green/blue/grey/yellow dorsally; head & abdomen yellow
  - > 2 curved blue bands on cheeks
  - > Dark lines radiate from eyes
  - > Upper body has dark diagonal lines
  - > Dorsal, caudal, anal fins have blue inner margins
  - > Larger specimens have trailing anterior dorsal fin & both caudal fin rays
- Size: Up to 20 in
- Habitat: Reef associated
- GOT Habitat: Rockwork, middle water column
- GOT Diet: drop buckets



# Porcupinefish

## *Diodon hystrix*

- Relatives: family Diodontidae (porcupinefishes)
- Description:
  - > Pale brown/yellow/olive dorsally; whitish abdomen
  - > Small, dark spots on head, upper body, fins
  - > Spines: long, those on body longer than those on forehead
  - > Spines present on peduncle
- Size: Up to 2.5 ft
- Habitat: Reef associated in tropical to warm temperate seas
- GOT Habitat: middle water column, rockwork
- GOT Diet: drop buckets





# Snook

## *Centropomus undecimalis*

- Relatives: family Centropomidae (Snooks)

- Description:

- > Yellow/brown/green dorsally, silvery on sides & ventrally
- > Lateral line dark
- > Fins dusky/yellow
- > Pelvic fins do not reach anus
- > Anal fin spines do not reach caudal fin base



- Size: Up to 4.3 ft
- Habitat: along coast and in estuaries, marshes, lagoons, mangroves, river mouths, fresh streams
- GOT Habitat: middle water column
- GOT Diet: drop buckets, broadcast

# Tarpon

## *Megalops atlanticus*

- Relatives: family Megalopidae (Tarpons)
- Description:
  - > Blue/green dorsally, silvery below
  - > Snout short, upturned
  - > Large mouth juts forward
  - > Posterior dorsal fin ray thin, trailing
  - > Anal fin long-based with concave margin
- Size: Up to 7.2 ft
- Habitat: in inshore, marine, brackish, fresh waters and offshore
- GOT Habitat: upper/middle water column
- GOT Diet: broadcast



# Atlantic Tripletail

## *Lobotes surinamensis*

- Relatives: family Lobotidae (triple tails)
- Description:
  - > Brown/olive; variably mottled, flecked, blotched
  - > Head profile steep, concave above eyes
  - > Snout short, jaws large
  - > Spiny dorsal fin low
  - > Soft dorsal, caudal, anal fins broad, rounded, overlapping
- Size: Up to 3.6 ft
- Habitat: Offshore near surface, often associated with *Sargassum*
- GOT Habitat: Upper water column
- GOT Diet: target, broadcast





**Animals not currently in GOT**

**... but could be in the future!**

# Blacknose Shark

## *Carcharhinus acronotus*

- Relatives: family Carcharhinidae (requiem sharks)
- Description:
  - > Yellow/green-grey/brown/bronze dorsally; white/pale ventrally
  - > Tip of snout has dusky blotch, paler on adults
  - > Tip of caudal fin dusky
- Size: Up to 4.6 ft
- Habitat: Inshore to continental slopes & on sandy or coralline bottoms
- GOT Habitat: Throughout water column
- GOT Diet: target



# Lemon Shark

## *Negaprion brevirostris*

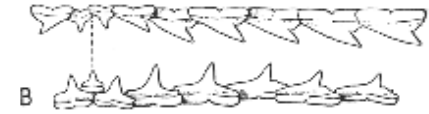


- Relatives: family Carcharhinidae (requiem sharks)
- Description:
  - > Pale yellow/brown throughout
  - > Snout short; body large & stocky
  - > Dorsal fins almost equal in size
  - > Pectoral fins broad & short
  - > Caudal fin low
- Size: Up to 11 ft
- Habitat: around coral, mangroves, docks, bays, river mouths; inshore & coastal to ~300 ft
- GOT Habitat: throughout water column
- GOT Diet: target



# Bonnethead Shark

## *Sphyrna tiburo*



- Relatives: family Sphyrnidae (hammerheads)

- Description:

- > Grey/brown dorsally, +/- small dark spots; pale/white ventrally
- > Head flattened, convex; front edge lacks notches
- > 2<sup>nd</sup> dorsal & anal fins similar in size



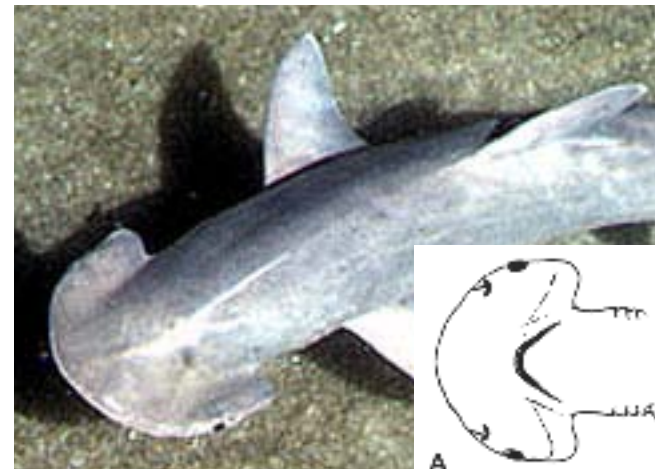
- Size: Up to 5 ft

- Habitat: warm, shallow coastal waters over sand & mud, in river mouths, around reefs

- GOT Habitat: Throughout water column

- GOT Diet: target

- Fun Fact: sluggish, preyed upon by larger sharks, common bycatch of shrimpers



# Bullnose Ray

## *Myliobatis freminvillei*

- Relatives: family Myliobatide (eagle rays)
- Description:
  - > Red/brown/grey dorsally with numerous irregular pale spots; white ventrally
  - > Snout protruding
  - > Pectoral fin tips pointed, trailing edges slightly concave
  - > Dorsal fin located close to pelvic fins
- Size: Up to 2.8 ft
- Habitat: shallow coastal waters & estuaries
- GOT Habitat: upper/middle water column
- GOT Diet: broadcast

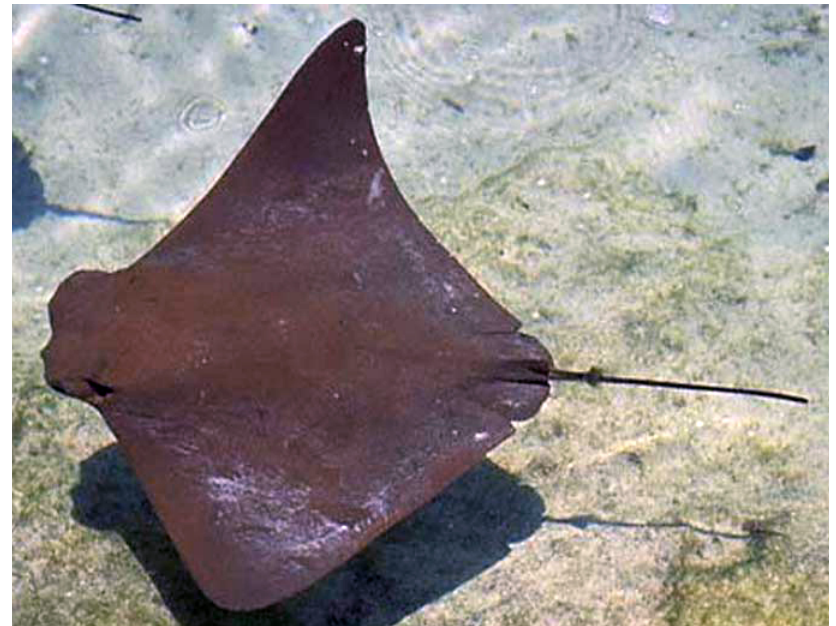




# Cownose Ray

## *Rhinoptera bonasus*

- Relatives: family family Myliobatide (eagle rays)
- Description:
  - > Uniformly red/brown dorsally; white/yellow ventrally
  - > Snout bilobed, indented
  - > Pectoral fins pointed, trailing edges concave
  - > Dorsal fin located between pelvic fins
- Size: Up to 3 ft
- Habitat: at bottom or near surface from shore to over continental shelves
- GOT Habitat: throughout water column
- GOT Diet:



# Southern Stingray

## *Dasyatis americana*

- Relatives: family Dasyatidae (whiptail stingrays)
- Description:
  - > Color varies with bottom substrate; green/brown/olive dorsally, white with darker margins ventrally
  - > Small pale spot between eyes
  - > Snout continuous with almost-straight anterior fin margins
  - > Anterior pectoral margins almost straight
  - > Denticles: series on shoulder, row down back to base of tail
  - > Tail has ventral skin fold



- Size: Up to 5 ft
- Habitat: bury in sandy bottoms near shore in shallow water
- GOT Habitat: bottom
- GOT Diet: drop buckets

# Lane Snapper

## *Lutjanus synagris*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Silvery pink to reddish dorsally; silvery below
  - > Narrow, yellow stripes on head & sides
  - > May display pale bars on sides
  - > +/- dark spot below anterior portion of soft dorsal fin
  - > Dorsal fin has yellow margin
  - > Caudal fin rosy with narrow dark margin
  - > Anal fin rounded
- Size: Up to 2.3 ft
- Habitat: in shallow coastal waters over a variety of bottoms
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Cubera Snapper

## *Lutjanus cyanopterus*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Dark to pale red/grey with silvery reflections dorsally; paler below
  - > Pale bars on upper body, fade with age
  - > Pectoral fins grayish to translucent
  - > Anal fin rounded
  - > Body comparatively shallow
  - > Teeth in upper & lower jaws equally developed
- Size: Up to 5.2 ft
- Habitat: over rocky bottoms, ledges, reefs
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Yellowtail Snapper

## *Ocyurus chrysurus*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Grey/blue/red dorsally with yellow spots
  - > Bright to dusky yellow strip from snout to caudal fin becomes broader posteriorly, merges with yellow caudal fin
  - > Ventral area silver/white/pink
  - > Dorsal fin yellow
  - > Anal fin broadly rounded
- Size: Up to 2.6 ft
- Habitat: Coastal & around reefs, in water column
- GOT Habitat: rockwork, middle water column
- GOT Diet: drop buckets, broadcast



# Mutton Snapper

## *Lutjanus analis*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Olive with reddish tinge dorsally; whitish ventrally
  - > Sides reddish, uniformly colored or with pale bars
  - > Blue lines below & behind eyes
  - > Small, black spot on upper sides
  - > Caudal fin has thin, black margin
  - > Anal fin angular
- Size: Up to 2.6 ft
- Habitat: over sandy bottoms, in bays & estuaries, over coral reefs
- GOT Habitat: rockwork, lower water column
- GOT Diet: drop buckets



# Red Snapper

## *Lutjanus campechanus*

- Relatives: family Lutjanidae (snappers)
- Description:
  - > Scarlet/brick red dorsally & on sides; pinkish below
  - > Irises red
  - > Caudal fin usually has narrow black margin
  - > Small specimens have black blotch on posterior upper sides that fades with age
  - > Anal fin angular with elongate inner rays
- Size: Up to 3.3 ft
- Habitat: over rocky bottoms & reefs
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# White Grunt

## *Haemulon plumieri*

- Relatives: family Haemulidae (grunts)
- Description:
  - > Head & area above pectoral fins have narrow, alternating, blue & yellow wavy lines
  - > Scales on upper body have silver/blue centers, bronze margins
  - > Abdomen silver/white
  - > Spiny dorsal fin chalky/yellow/white
  - > Soft dorsal, caudal, anal fins pale bronze
- Size: Up to 17.7 in
- Habitat: variety of bottoms & reefs
- GOT Habitat: rockwork
- GOT Diet: drop buckets, broadcast





# Pigfish

## *Orthopristis chrysoptera*

- Relatives: family Haemulidae (grunts)
- Description:
  - > Green/grey dorsally with iridescent highlights; silvery on sides; pearly below
  - > Dark orange spots & irregular lines on head & body
  - > Upper body may have pale to dark grayish bars
  - > Fins dusky to yellowish, may have dusky margins
  - > Upper caudal-fin lobe slightly longer than lower lobe
- Size: Up to 13 in
- Habitat: near shore in shallow waters over soft bottoms
- GOT Habitat: rockwork, lower water column
- GOT Diet: drop buckets



# Squirrelfish

## *Holocentrus adscensionis*

- Relatives: family Holocentridae (squirrelfishes)
- Description:
  - > Body has alternating red & silver stripes
  - > +/- pale blotches or bars
  - > Snout red
  - > White, diagonal streak from jaw to corner of preopercle
  - > Dorsal fin spiny, yellow; Other fins pale pink
  - > Jaws extend to rear margin of pupil
  - > Dorsal & upper lobe of caudal fin elongate
- Size: Up to 12 in
- Habitat: over shallow coral reefs to offshore
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Bank Sea bass

## *Centropristis ocyurus*

- Relatives: family Serranidae (sea basses)
- Description:
  - > Cream/yellow/white dorsally
  - > 6-7 dark bars on upper sides merge with dark patch at lateral line
  - > Head yellowish with pale blue flaps
  - > Caudal fin trilobed or double-concave
- Size: Up to 12 in
- Habitat: over hard & sandy-shell bottoms near reefs
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Rock Sea Bass

## *Centropristis philadelphica*

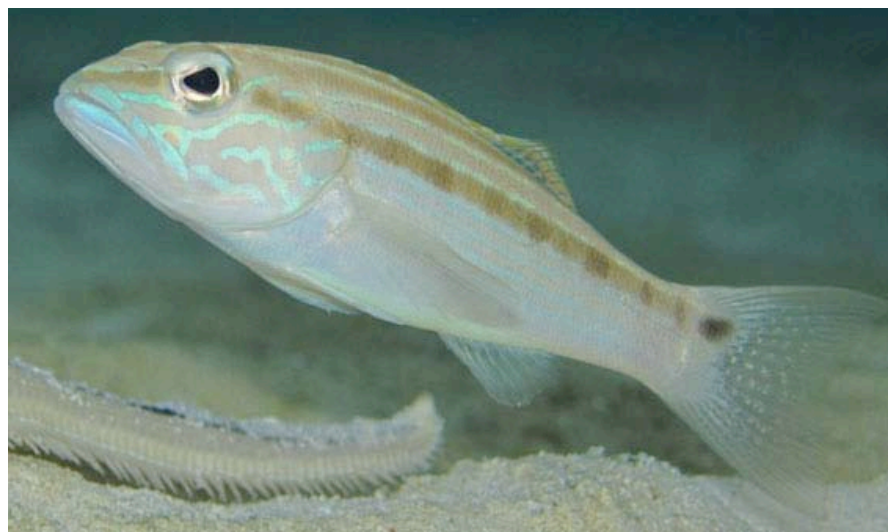
- Relatives: family Serranidae (sea basses)
- Description:
  - > Brown/olive/gray dorsally
  - > ~7 dark oblique bars on upper sides
  - > Midbody bar merges with dark spot at base of dorsal fin
  - > Head has blue & rusty lines
  - > Dorsal & caudal fins spotted
  - > Spiny dorsal fin has trailing flaps
  - > Caudal fin trilobed or double-concave
- Size: Up to 12 in
- Habitat: over soft mud & sandy bottoms
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Sand Perch

## *Diplectrum formosum*

- Relatives: family Serranidae (sea basses)
- Description:
  - > Brown dorsally, fading to white below
  - > Narrow, wavy blue lines on snout & head merge with narrow blue stripes on body
  - > Dark mid-lateral stripe may run from head to a dark spot at caudal-fin base
  - > 5-7 diffuse dark bars on sides
  - > Dorsal & caudal fins tannish with blue lines
  - > Caudal fin usually forked with upper lobe longer than lower
- Size: Up to 12 in
- Habitat: over sandy/shelly bottoms
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Belted Sandfish

## *Serranus subligarius*

- Relatives: family Serranidae (sea basses)
- Description:
  - > Head sloping with irregular, reddish brown spots
  - > Dark band through eye; pointed snout
  - > Scales outlined in reddish brown; banded fins
  - > Large black blotch on anterior portion of dorsal fin merging with dark bar below
  - > Abdomen abruptly silver white
- Size: Up to 3 in
- Habitat: 3-60ft near bottom over rocky/  
mixed bottoms
- GOT Habitat: Reef
- GOT Diet: drop buckets



# Black Grouper

## *Mycteroperca bonaci*

- Relatives: family Serranidae (sea basses)
- Description:
  - > Head & body grey/dark brown with dark grey/brown/reddish spots that blend into streaks & rectangular, chain-like patterns
  - > Soft dorsal, caudal, anal fins have broad, dark inner margins & narrow, whitish outer margins
  - > Pectoral fins have yellowish/orange margins
  - > Corner of preopercle evenly rounded, lacks notches
- Size: Up to 4.4 ft
- Habitat: Over rocky bottoms & coral reefs and around jetties
- GOT Habitat: Rockwork
- GOT Diet: drop buckets



# French Angelfish

## *Pomacanthus paru*

- Relatives: family Pomacanthidae (angelfishes)
- Description:
  - > Body & fins blackish; Head dark blue/grey
  - > Jaws & chin whitish; Eyes circled with yellow
  - > Opercular margin, pectoral-fin base, scale margins yellow
  - > Middle soft rays of dorsal & anal fins long and trailing
  - > Preopercle has small spines at margin, prominent yellow spine at corner
- Size: Up to 12 in
- Habitat: over shallow reefs and hard structures
- GOT Habitat: rockwork, throughout water column
- GOT Diet: drop buckets





# Blue Angelfish

## *Holacanthus bermudensis*

- Relatives: family Pomacanthidae (angelfishes)
- Description:
  - > Tannish green/blue throughout body; nape and chest pale blue; dark spots on scales
  - > Dorsal & anal fins have yellow inner margin & blue outer margin; caudal fin has yellow margin
  - > Preopercular margin is spiny with spine at corner
- Size: Up to 15 in
- Habitat: coral reefs in Caribbean
- GOT Habitat: Rockwork & lower water column
- GOT Diet: drop buckets



# Mahi Mahi / Dolphinfish

## *Coryphaena hippurus*

- Relatives: family Coryphaenidae (dolphinfishes)
- Description:
  - > Bright green/blue dorsally, silvery below with golden highlights
  - > Small dark spots scattered on sides
  - > Body comparatively deep, dorsal & ventral profiles comparatively convex
  - > Dorsal fin tall, long-based; has 52-59 rays
  - > Caudal fin deeply forked
  - > Pectoral fins  $\sim\frac{1}{2}$  of head length
  - > Anal fin convex, lacks deep anterior notch
- Size: Up to 6.5 ft
- Habitat: offshore, oceanic, may enter coastal waters; associated with *Sargassum*
- GOT Habitat: upper/middle water column
- GOT Diet: broadcast



# Oyster Toadfish

## *Opsanus tau*

- Relatives: family Batrachoididae (toadfishes)
- Description:
  - > Color variable, changes with surroundings
  - > Brown/green/yellow with irregular, dark spots, mottling, bars
  - > Head broad, flattened, speckled; fins banded
  - > Mouth large
  - > Fleshy tabs around jaws & cheeks and over eyes
  - > Pectoral fins have 19-20 rays
- Size: Up to 15 in
- Habitat: demersal on sandy & muddy bottoms
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Palometa

## *Trachinotus goodei*

- Relatives: family Carangidae (jacks, pompano)

- Description:

- > Silvery with metallic blue sheen dorsally
- > Abdomen may have golden tint
- > Usually has narrow bars on upper sides
- > 2<sup>nd</sup> dorsal & anal-fin lobes elongate, blackish
- > Upper & lower margins of caudal fin blackish
- > Head comparatively small



- Size: Up to 20 in
- Habitat: in beach surf zone & around reefs & rocky areas
- GOT Habitat: upper/middle water column
- GOT Diet: broadcast

# (Florida) Pompano

## *Trachinotus carolinus*

- Relatives: family Carangidae (jacks, pompanos)
- Description:
  - > Silvery with metallic blue/green sheen
  - > Abdomen silvery to golden
  - > Anal & caudal fin lobes yellowish
  - > Head profile somewhat rounded, snout blunt; body deep, compressed
  - > 1<sup>st</sup> dorsal fin spines small, separate; 2<sup>nd</sup> with 22-27 rays
- Size: Up to 2 ft
- Habitat: Pelagic; along sandy beaches and in brackish bays & inlets from shore to ~130ft
- GOT Habitat: Upper, middle water column
- GOT Diet: broadcast



# Pinfish

## *Lagodon rhomboides*

- Relatives: family Sparidae (porgies)
- Description:
  - > Body has alternating iridescent blue & yellow/bronze stripes that intersect grayish bars
  - > Stripes & bars form checkerboard pattern
  - > Black spot on lateral line origin
  - > Dorsal fin has yellowish bands
  - > Anal fin has yellowish inner band
  - > Body oval & laterally compressed with upper & lower profiles similarly shaped
- Size: Up to 14 in
- Habitat: near bottom in shallow coastal habitats
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Spanish Hogfish

## *Bodianus rufus*

- Relatives: family Labridae (wrasses)
- Description:
  - > Color & pattern varies with age
  - > Purple/blue to red on upper anterior portion of body (margins may be distinct or diffuse, may extend into dorsal fin)
  - > Lower body & fins yellow with areas of blue
    - Blue areas may be small or may extend over ventral area & fins
  - > Become more mottled & blue with age
- Size: Up to 16.7 in
- Habitat: over coral reefs & offshore banks
- GOT Habitat: rockwork
- GOT Diet: drop buckets



# Spotfin Hogfish

## *Bodianus pulchellus*

- Relatives: family Labridae (wrasses)
- Description:
  - > Red on anterior 2/3 of body
  - > White area on lower head – may blend with a faint to distinct white streak on lower body
  - > Posterior dorsal fin, upper caudal peduncle, caudal fin yellow
  - > 2 dark red/black streaks behind eyes
  - > 1<sup>st</sup> two dorsal-fin spines & tips of upper pectoral-fin rays black
- Size: Up to 8 in
- Habitat: over coral reefs & slopes
- GOT Habitat: rockwork
- GOT Diet: drop buckets





# Slippery Dick

## *Halichoeres bivittatus*

- Relatives: family Labridae (wrasses)
- Description:
  - > All stages variable
  - > Greenish with pinkish wavy stripes on head & body
  - > Purplish stripe on sides follows scale rows
  - > Bicolored spot on opercular margin
  - > Fins have pinkish stripes & bands
- Size: Up to 9 in
- Habitat: over shallow reefs, rocky bottoms, and seagrass beds
- GOT Habitat: rockwork
- GOT Diet: drop buckets



