

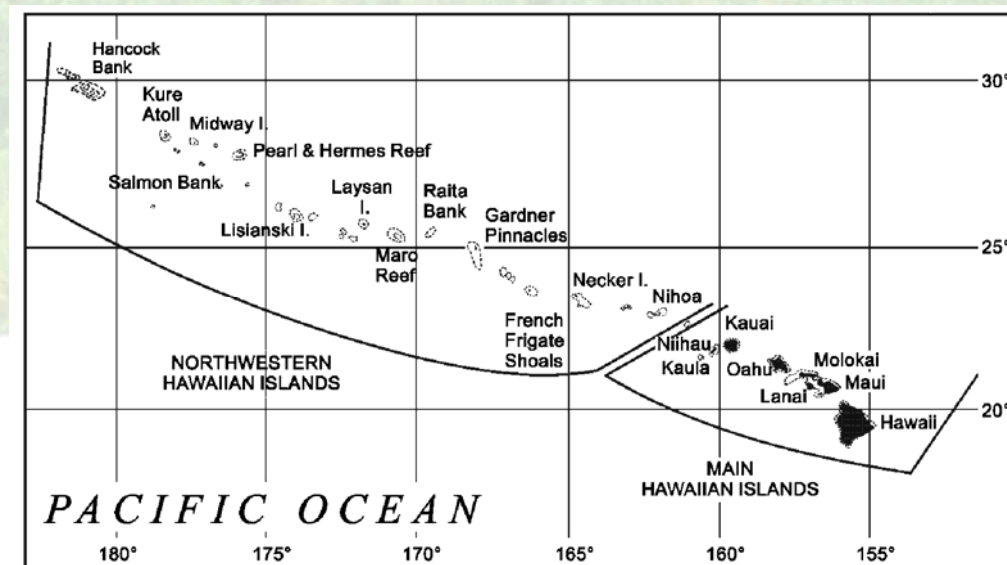
Hawaiian Island Archipelago

Beginner's Field Guide to the Commercial Deepwater Bottomfish Species

“The Deep 7”

Easy to use Field Characteristics

By Kurt Kawamoto, PIFSC, NMFS



State of Hawaii - US Federal Government

Protected “Deep 7” Bottomfish Species

Snappers -- Family Lutjanidae

<u>Common name</u>	<u>Scientific name</u>	<u>Color</u>
Onaga	<i>Etelis coruscans</i>	Red
Ehu	<i>Etelis carbunculus</i>	Red
Opakapaka	<i>Pristipomoides filamentosus</i>	Brown
Kale kale	<i>Pristipomoides sieboldii</i>	Brown
Lehi	<i>Aphareus rutilans</i>	Brown
Gindai	<i>Pristipomoides zonatus</i>	Barred

Grouper/Sea Bass -- Family Serranidae

<u>Common name</u>	<u>Scientific name</u>	<u>Color</u>
Hapuupuu	<i>Epinephelus quernus</i>	Black

State of Hawaii - US Federal Government Protected “**Deep 7**” Bottomfish Species

6 - Snappers

2 – RED

**Onaga
Ehu**

1 – Barred

Gindai

3 – BROWN

**Opakapaka
Kalekale
Lehi**

1 - Grouper

1 - BLACK

Hapuupuu

Snappers

Family – Lutjanidae

Subfamily – *Etelinae*

Genera – *Aphareus*, *Aprion*, *Etelis*, *Pristipomoides*, *Randallichthys*.

General Characteristics:

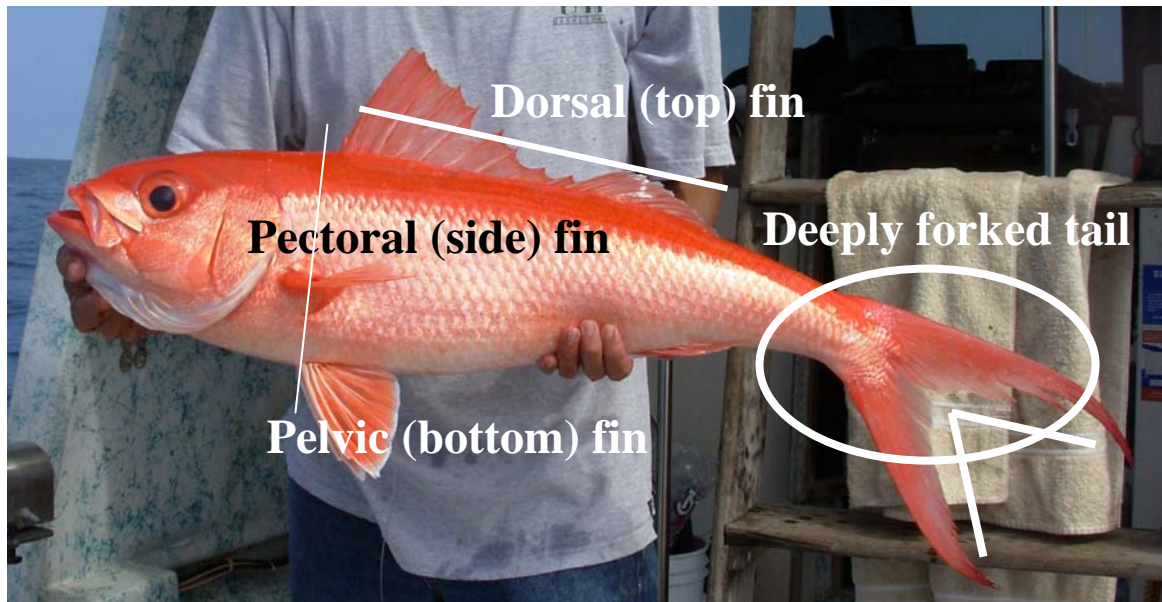
dorsal (top) fin continuous or with shallow notch

pelvic (bottom) fins starts behind pectoral (side) fin base

tail fin deeply forked for most species

mouth at the front of head, moderate to large

most with canine teeth on jaws



Local name – **Onaga**, ula ula koae

(Deep 7 – BMUS)

Common name – Scarlet or red snapper

Scientific name - *Etelis coruscans*

Size restriction for sale – <1 pound illegal

Size – up to 30 pounds

Similar species - ehu



Upper lobe of tail may be elongated in large fish

RED

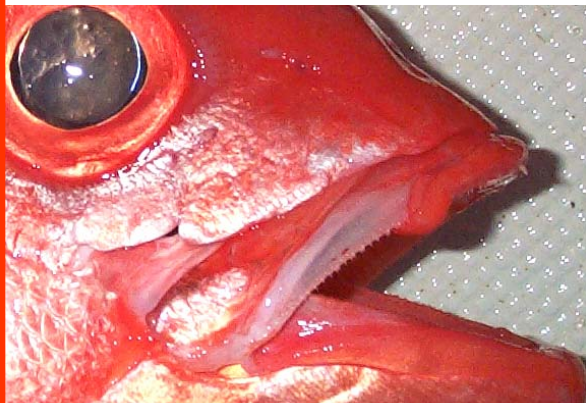
Tail fin tips may be red or black but not white

RED



<1 lb

Tail fin ends in slender points
Tail deeply forked



Teeth are small but visible



Iris color is usually brilliant red

RED

Local name – **Ehu**, ula ula
(Deep 7-BMUS)

Common name – Squirrelfish snapper

Scientific name - *Etelis carbunculus*

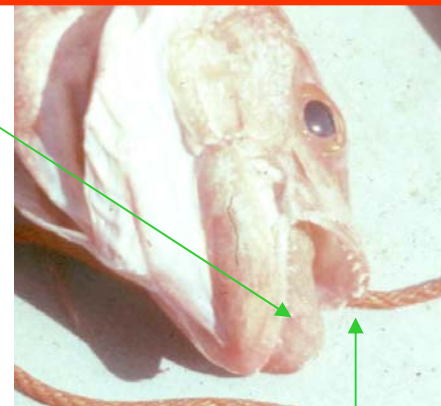
Size restriction for sale – none

Size – up to 12-15 pounds, more commonly in
the 1-6 pound range

Similar species – onaga

Tail fin lobes are short
without filaments

Stomach, not its
tongue that is
sticking out here



RED

Body color orangy
more so than scarlet

Mouth is large with big
teeth



Lower lobe of the tail fin and pelvic fins
are **tipped with white**



RED

RED

Local name – **Opakapaka** (Deep 7 - BMUS)

Common name – Pink snapper, looks brown/bronze

Scientific name – *Pristipomoides filamentosus*

Size restriction for sale – <1 pound illegal

Size – up to 20 pounds

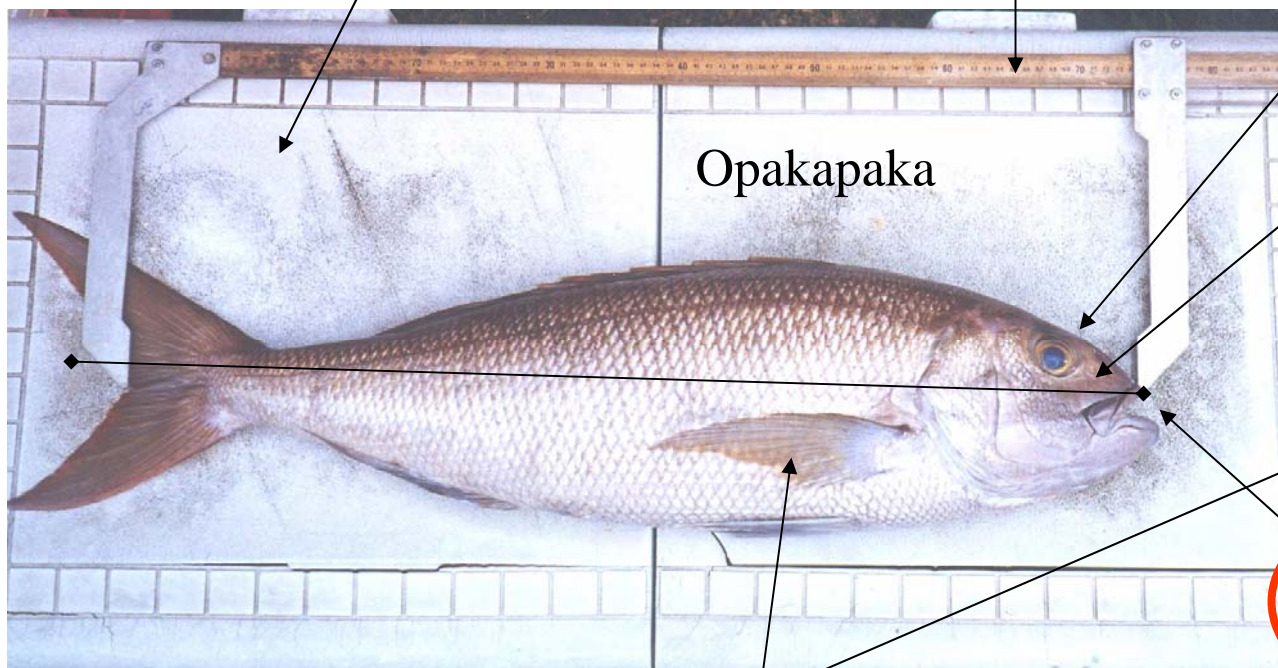
Similar species – Kale kale

BROWN



172 quart cooler

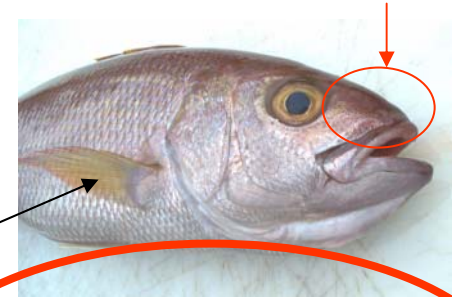
Meter stick



Opakapaka

Iris is yellow in color

Color between eye and snout generally diffuse



Line drawn through top of upper jaw goes **below the eye**

BROWN Pectoral (side) fin is yellow or brownish in color

BROWN

Local name – **Kale kale** (Deep 7 - BMUS)

Common name – Von Siebold's snapper

Scientific name – *Pristipomoides sieboldii*

Size restriction for sale – none

Size – up to 6 pounds, more commonly 1 - 4 lbs.

Similar species - Opakapaka

Body color in small specimens may have lavender hue, larger specimens may be brownish

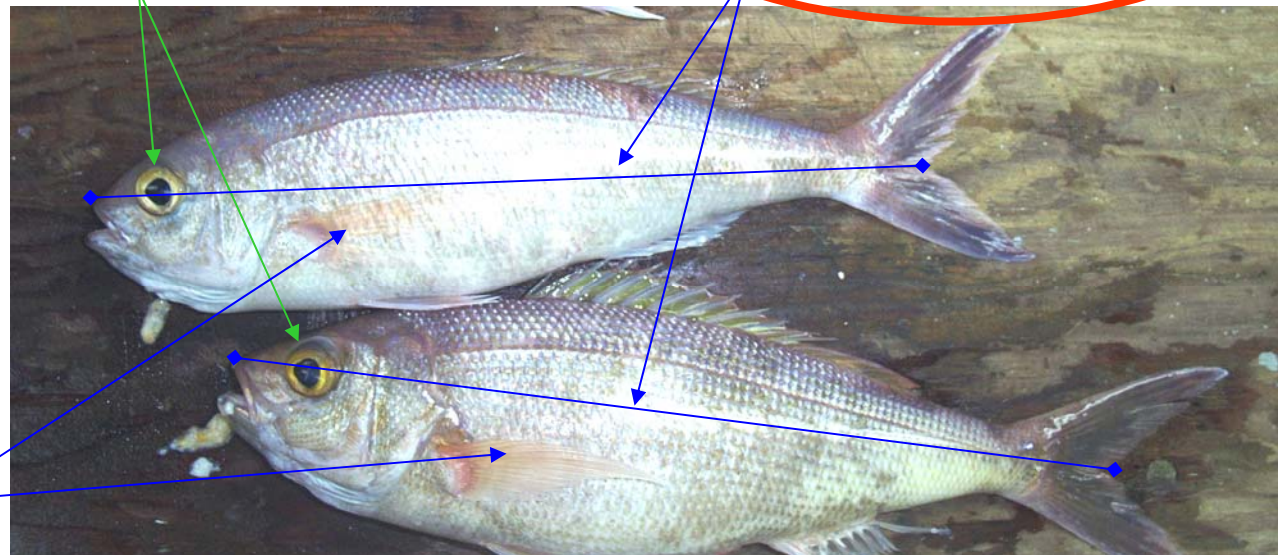
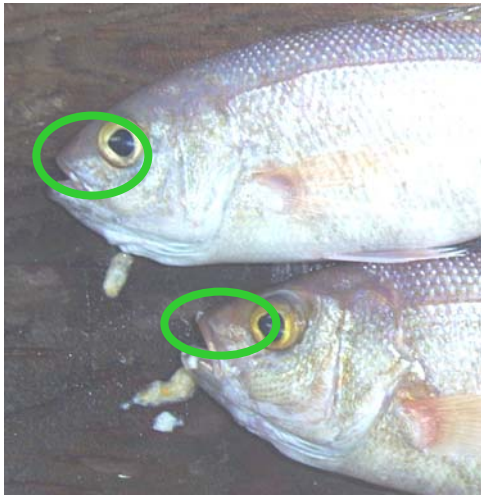
BROWN

BROWN

Color change between the eye and snout may be abrupt

Line drawn through top of upper jaw to the fork of the tail goes **through the eye**

Iris is amber or orangy in color rather than yellow



Pectoral fin orangy rather than yellow

Local name – **Lehi** (Deep 7 - BMUS)

Common name – Iron/silver jaw snapper

Scientific name – *Aphareus rutilans*

Size restrictions – none

Size – to 20 lbs, usually 5-12 lbs

Caught while fishing for opakapaka

Similar species - wahanui

Large mouth
with silvery
interior



BROWN

Dorsal (top) fin
with yellowish
boarder

Outer layer of gills
silver in color

Fins and iris
reddish brown
in color



**Thick
robust
bottom
jaw**

Tail similar to
Onaga but no
long filaments



BROWN

Local name – **Gindai** (Deep 7 - BMUS)

Common name – Flower snapper, Brigham's snapper

Scientific name – *Pristipomoides zonatus*

Size restriction for sale – none

Size – up to 6 lbs, usually 1-4 lbs

BARRED

Eyes bulging due to pressure changes



BARRED

Yellow saddle shaped bars

Top lobe of caudal fin is orangy in color

Body color orangy

Large sized gindai



Gindai

BARRED

Bottom lobe of caudal fin is yellow in color

Sea Bass/Grouper

Family – Serranidae

Subfamily – *Epinephelinae*, *Anthiinae*

Tribe - *Epinephelini*

Genera – *Epinephelus*, *Cephalopholis*

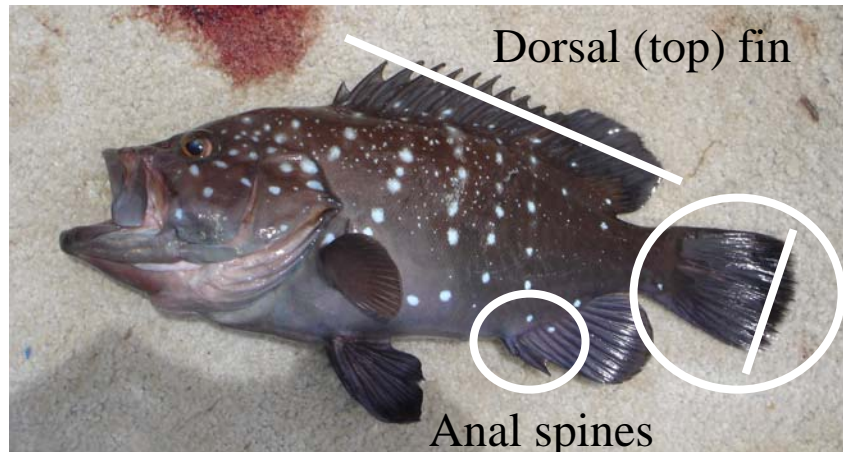
General Characteristics:

dorsal (top) fin generally contiguous

3 thick anal fin spines

tail fin usually rounded, truncate, or lunate

large mouth



Tail fin like a spatula

Local name – **Hapuupuu** (Deep 7 - BMUS)

Common name – Black sea bass

Scientific name – *Epinephelus quernus*

Size restriction for sale – none

Size – up to 70 pounds

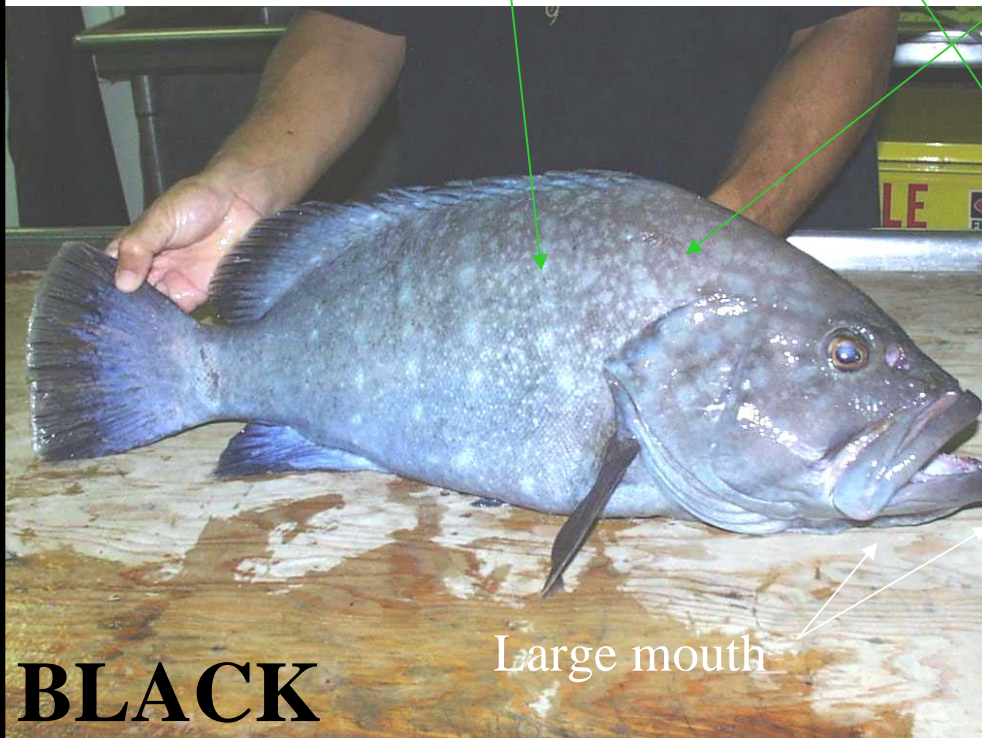


BLACK

BLACK Eyes bulge from pressure differences

Color and spot patterns vary

Color and spot patterns vary



Large mouth

BLACK



A common non-Deep 7 bottomfish species that will be caught by commercial and non-commercial fishermen during the closed summer season (May 15 – September 30) is the uku, gray snapper. Although the beginning of summer is the start of the pelagic trolling season for large ahi (yellowfin tuna) and marlin it also signals the start of the summer run of uku, grey snapper.

The MHI uku fishery historically occurs during the summer to late summer months. The summer uku fishery targets these large snappers in much shallower depths than those inhabited by the Deep 7. This separation by depth enables the MHI summer fishery to target uku with minimal or no incidental or bycatch of any of the Deep 7.

Local name – **Uku** (BMUS)—not DEEP 7.

Common name – Grey snapper, green jobfish

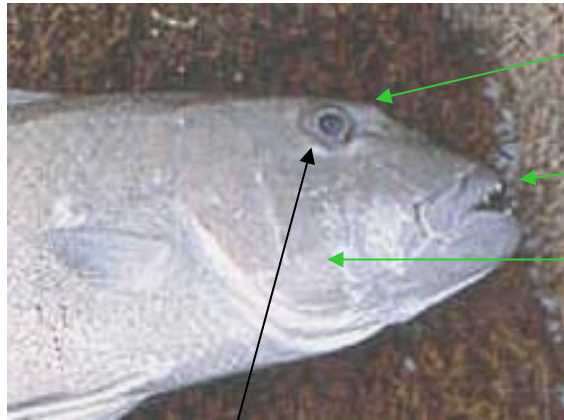
Scientific name – *Aprion virescens*

Size restriction for sale – none

Size – up to 45 lbs



Also caught while trolling

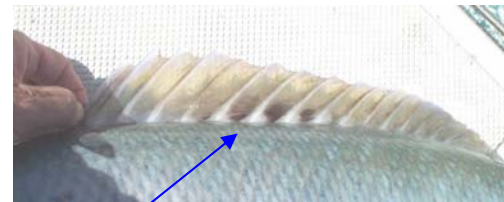


Brow ridges become enlarged with age/size

Enlarged canine teeth

Body color may be bluish gray, gray, or greenish

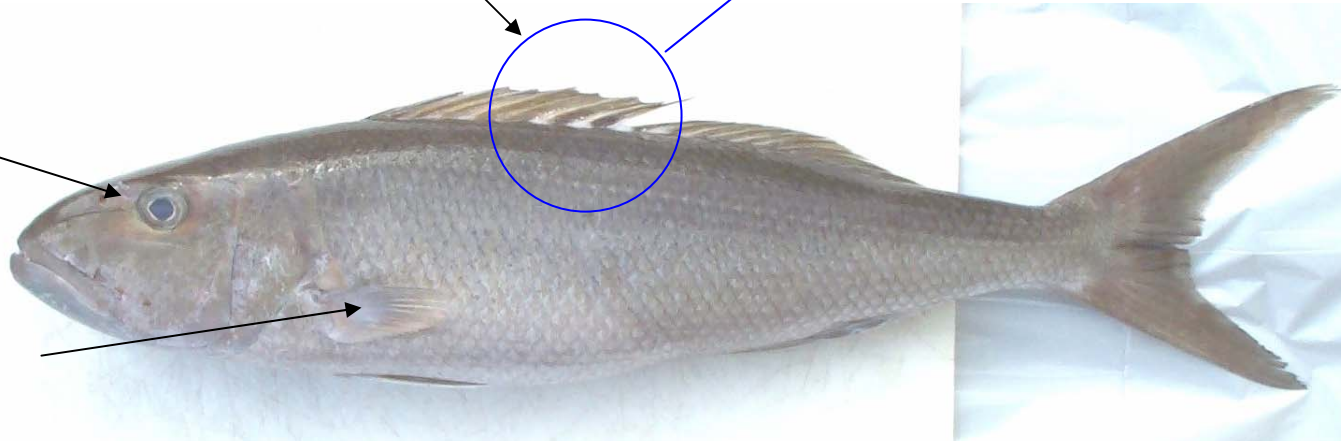
Black dots on dorsal fin membranes



Eyes high on head

Jaws very robust

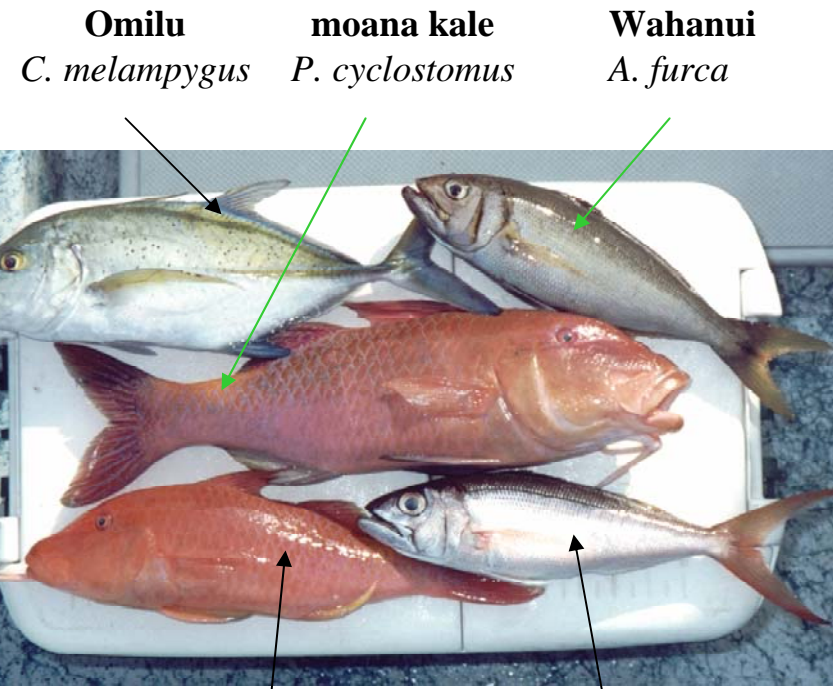
Short stubby pectoral fins



Another popular fishery that is done all year round is the shallow water bottomfish fishery. This fishery is very popular with non-commercial and to a lesser extent commercial fishermen. It provides the local fishermen with lots of shallow water species for home consumption.

Generally the fishing is done using rod and reel tackle suited to the shallow reef fish fishing depths. The species composition is typical of the non-herbivorous reef fish assemblages. The catch is varied in color and do not usually contain any of the Deep 7 species of concern.

Typical shallow-water bottomfishing catch for inshore to outer reef areas. These species may be caught when fishing in shallower than normal deepwater bottomfishing depths.



moana kale
P. cyclostomus

lehi
A. rutilans

Aawa-B. *B. bilunulatus*
Female
Male

Taape
L. kasmira

Malu
P. pleurostigma

Moana
P. multifasciatus

moana kale
P. cyclostomus

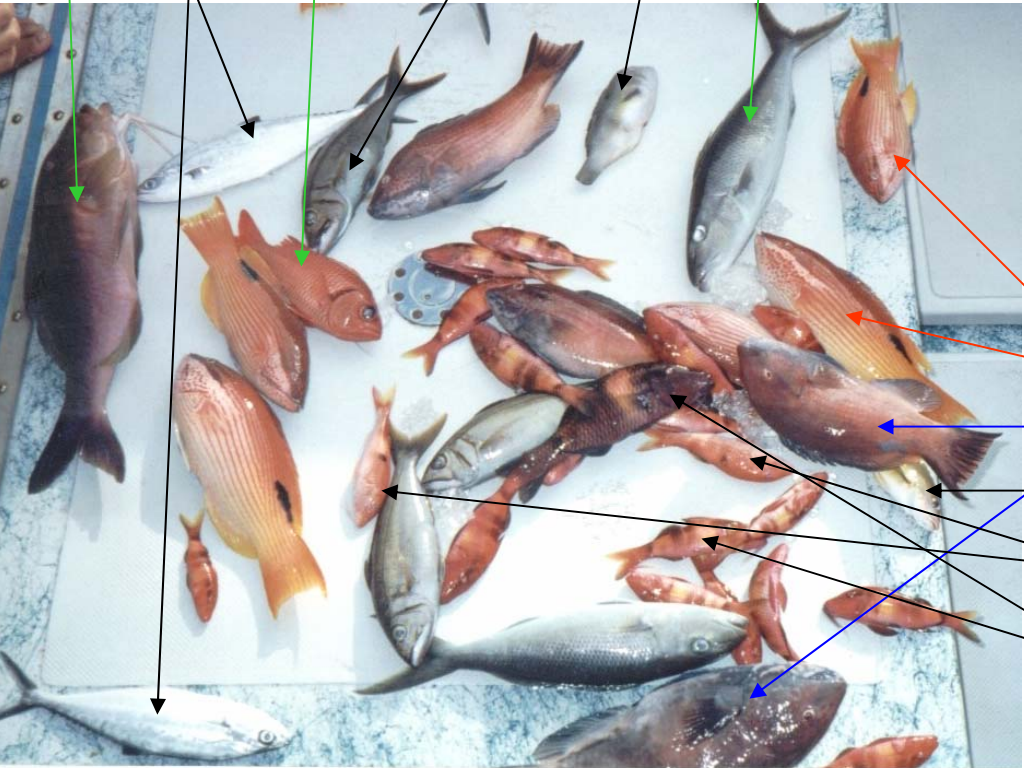
Wahanui
A. furca

Squirrelfish
Myripristis sp.

Lae
S. laysan

Nabeta
I. pavo

uku
A. virescens



Comparison of similar looking deep-water snappers

Deep 7 species and their look alike.

Fish caught on research cruise in the NWHI on bottom longline gear

Onaga – *Etelis coruscans*

Red color, tail lobes may be long and tipped with black

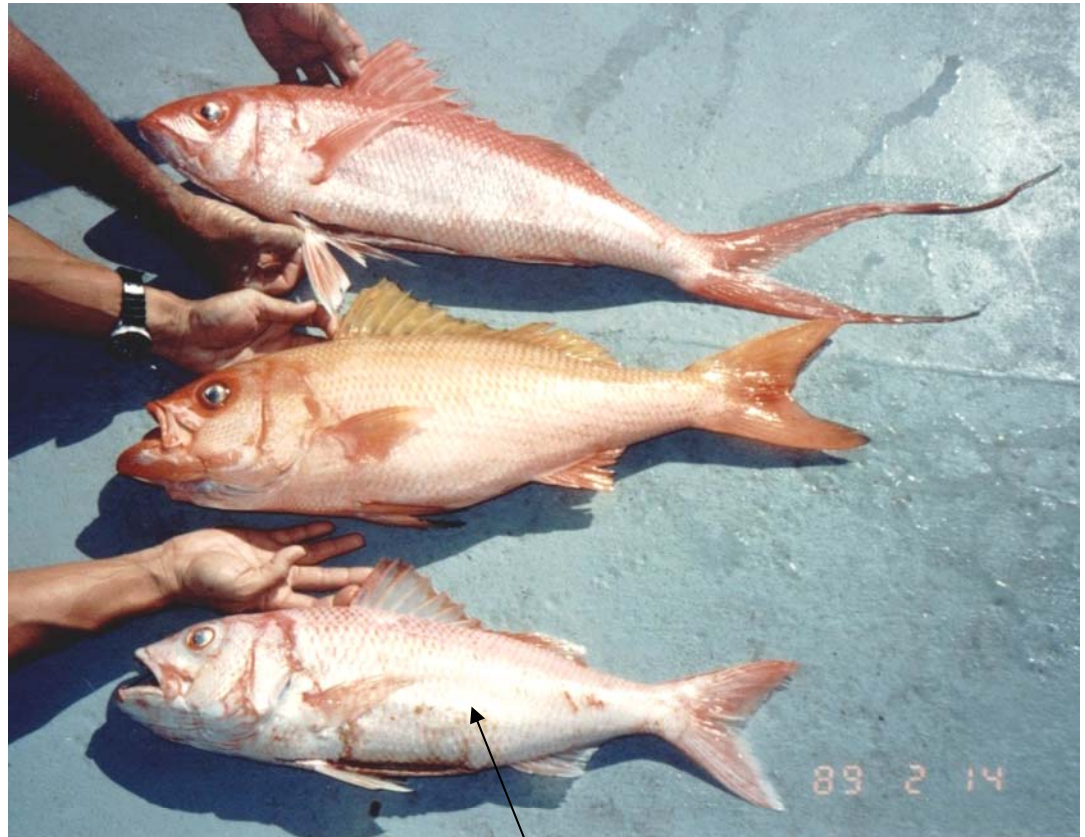
Randall's snapper –

Randallichthys filamentosus

Orange coloration, short tail lobes edged with black

Ehu – *Etelis carbunculus*

Short tail lobes, lower lobes of caudal/pelvic fins tipped with white



Fish freshly dead – color appears very washed out in this specimen

RED

RED

Comparison of **Opakapaka** and **Kalekale** ID features

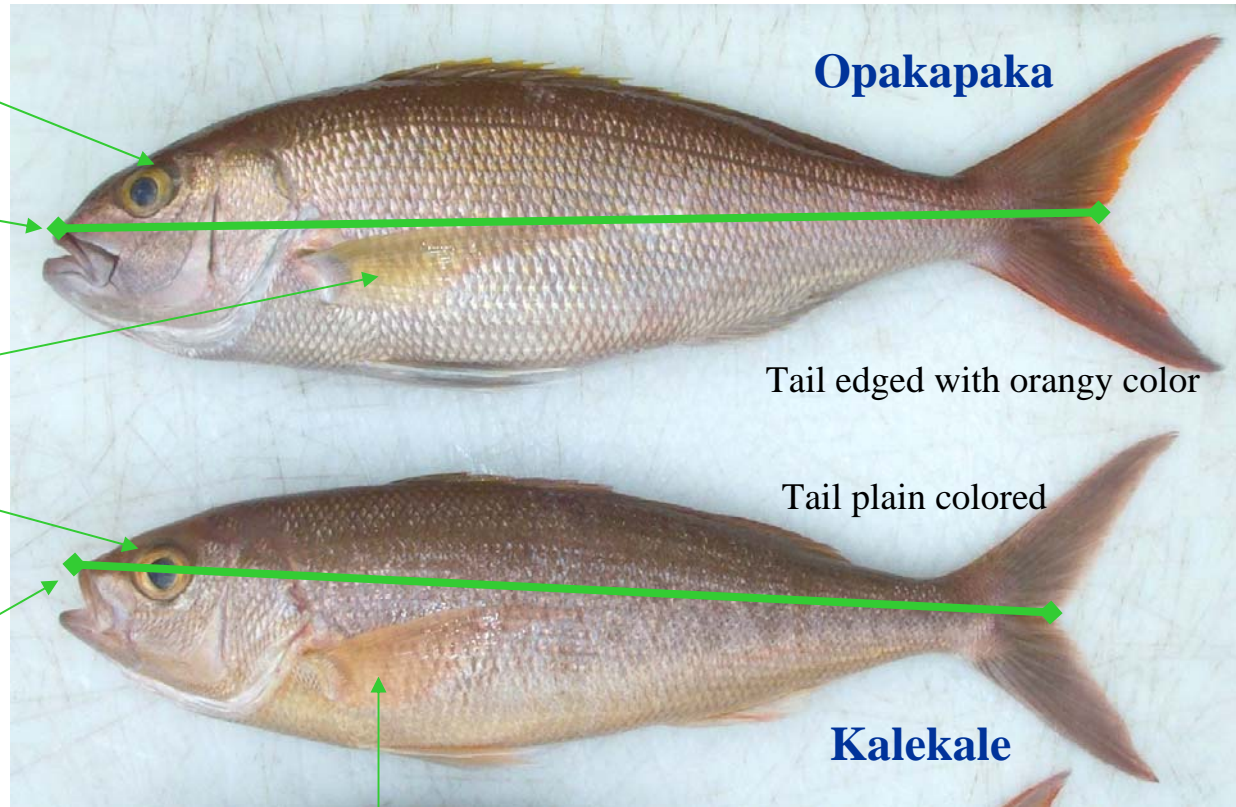
Iris is yellow in color

Line drawn through top of upper jaw goes **below the eye**

Pectoral fin is yellow or brownish in color

Iris is amber or orangy in color

Line drawn through top of upper jaw **goes through the eye**



Opakapaka

Tail edged with orangy color

Tail plain colored

Kalekale

BROWN

BROWN

Pectoral fin is orangy in color not yellow



Opakapaka

Kalekale



Opakapaka

Kalekale

Comparison of **Opakapaka** and **Kalekale** size

The average sized opakapaka(3 lb-20 lbs) that is caught in this fishery is on average much larger than the average size kalekale(1lb-4 lbs). The opakapaka mouth is more underslung and the bottom jaw is more robust than that of the kalekale that has its smaller more delicate mouth located at the tip of its snout.

BROWN

Opakapaka

Pectoral fin is yellow or brownish in color

Iris is yellow in color

Line drawn through top of upper jaw through the tail fork goes below the eye

Kalekale

Pectoral fin is orangy in color not yellow

Line drawn through top of upper jaw through the tail fork goes through the eye



BROWN

BROWN

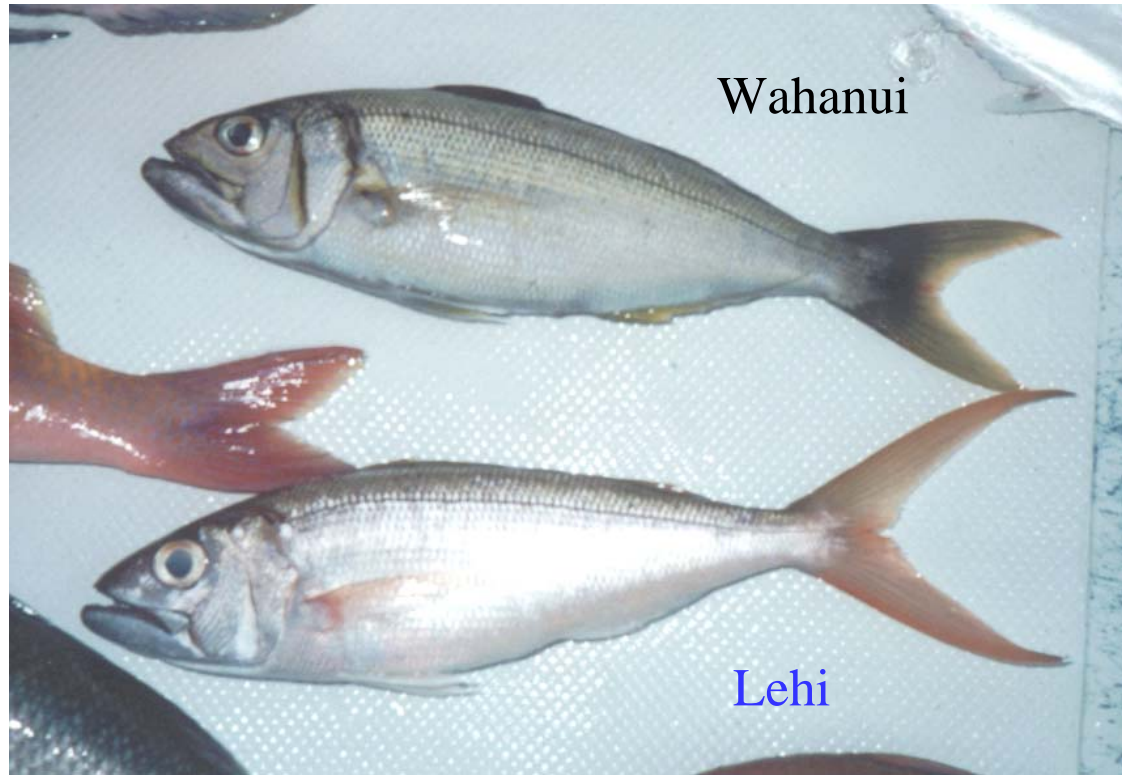
Comparison of similar species – **Lehi** and Wahanui

Wahanui – *Aphareus furca*

Shallow water species –
Shoreline to 30 fathoms, brown
to blue/purplish body, anal fin
has yellow boarder. Max size 5
lbs, commonly <2 lbs.

Lehi – *Aphareus rutilans*

Deep water species -
Brownish red color, long
deeply forked tail, brownish
red color fins.



These 1 lb fish were caught in 10-20 fathoms of water. The wahanui is average sized but the lehi is a juvenile. Adult lehi (to 20 lbs) usually inhabit deeper water and are caught while fishing for opakapaka.

BROWN

