

Field Guide to the Rockfishes (Scorpaenidae) of Alaska

Extracted from:

Orr, J. W., M. A. Brown, and D. C. Baker. 2000. Guide to rockfishes (Scorpaenidae) of the genera *Sebastes*, *Sebastolobus*, and *Adelosebastes* of the Northeast Pacific Ocean, second edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-117, 47 p.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Alaska Fisheries Science Center
Alaska Groundfish Observer Program

2002

ABSTRACT

The rockfishes (family Scorpaenidae) of the northeast Pacific Ocean north of Mexico comprise five genera, three of which are included in this guide: *Sebastes*, *Sebastolobus*, and *Adelosebastes*. *Sebastes* includes some 100 species worldwide; 33, including one to be described, are presently recognized from Alaskan waters. *Sebastolobus* (commonly known as the thornyheads) includes only three species worldwide; all three are found in Alaskan waters. The single species of *Adelosebastes* (the Aleutian scorpionfish, *A. latens*) is known only from the Aleutian Islands and Emperor Seamounts. Of the three genera treated here, *Sebastes* poses the most difficulties in identification, both because of the numbers of species and because of their morphological similarity and variability. This guide includes color images of 37 species photographed under natural and electronic flash conditions in the field. Most specimens were photographed immediately after collection.

CONTENTS

Abstract.....	iii
Introduction.....	1
Methods and Data Sources.....	1
Using the Guide.....	2
Acknowledgments.....	4
Citations.....	4
Illustrated Glossary.....	6
List of Species.....	7
Guide to the Rockfishes.....	8-27
Sources of Species Account Figures.....	28
Index to Common and Scientific Names.....	29

The rockfishes (family Scorpaenidae) of the northeast Pacific Ocean north of Mexico comprise five genera, three of which are included in this guide: *Sebastes*, *Sebastolobus*, and *Adelosebastes*. *Sebastes* includes some 100 species worldwide; 33, including one to be described, are presently recognized from Alaskan waters. *Sebastolobus* (commonly known as the thornyheads) includes only three species worldwide; all three are found in Alaskan waters. The single species of *Adelosebastes* (the Aleutian scorpionfish, *A. latens*) is known only from the Aleutian Islands and Emperor Seamounts. This version of the guide does not include species of the genus *Sebastes* not known from Alaskan waters. Of the three genera treated here, *Sebastes* poses the most difficulties in identification, both because of the numbers of species and because of their morphological similarity and variability.

Primarily designed as an aid in field identification, this guide follows the basic format of Hitz's (1965) "Field identification of the northeastern Pacific rockfish (*Sebastodes*)," the first guide to successfully use color as a major character to identify species of *Sebastes*. Since Hitz (1965), significant advances in our knowledge of the diversity of northeast Pacific rockfishes have been made. The genus *Sebastodes* has been recognized as synonymous with the genus *Sebastes*, which originally contained only Atlantic species. Ten additional species of *Sebastes* have been described. This guide also updates species ranges based on the numerous documented significant range extensions. We have also expanded this guide to include the genera *Sebastolobus*, a genus commonly encountered and misidentified with *Sebastes* species, and *Adelosebastes*, recently reported from the Aleutian Islands (Orr and Baker 1996). This revised edition of the guide now includes color photographs of all species encountered in National Marine Fisheries (NMFS) Groundfish surveys and by fishery observers in Alaskan waters.

METHODS AND DATA SOURCES

This guide is limited to rockfishes distributed in the 200-mile territorial waters of the state of Alaska, including the Aleutian Islands. Distributions include areas outside Alaskan waters in which included species are found, and are described by major political boundaries (i.e., state and country borders) or bodies of water (e.g., Gulf of Alaska, Bering Sea). In addition, Alaska and California are further divided into general regions. California is broken down into three regions: northern (the California-Oregon border to Point Arena), central (Point Arena to Point Conception), and southern (Point Conception to the Baja California border). Alaska is divided into the Gulf of Alaska (British Columbia border to Unimak Pass), Aleutian Islands (Unimak Pass to Attu Island), and Bering Sea (Aleutian Islands to the Chukchi Sea).

Meristic data were compiled from various sources, including Chen (1971, 1986), Miller and Lea (1972), Matarese et al. (1989), Hart (1973), and original species descriptions. Abbreviations follow Chen (1986), with dorsal-fin (D) spines (in roman numerals) followed by soft rays (arabic numerals; last two rays counted as one). Anal-fin rays (Ar) alone are listed, as all scorpaenids possess three anal-fin spines. The last two rays of both dorsal and anal fins are counted as one. All pectoral-fin rays (P1) from the left side are listed. Total gillraker (GR) counts include all rakers, including rudiments. Lateral line pores (LLp) include all pores from the neurocranium to the caudal fin, without noting the

caudal-fin base; lateral line scales (LLs) include the scale rows just below the lateral line. Vertebral (V) counts include the ural centrum, bearing the caudal fin.

The range of this data was verified from specimens archived in several collections including the University of Washington Fish Collection (UWFC), Los Angeles County Natural History Museum (LACM), California Academy of Sciences (CAS), Scripps Institute of Oceanography (SIO), U. S. Natural History Museum (USNM), University of British Columbia (UBC), and Oregon State University (OSU). Distributions were compiled from the literature (same sources as above, as well as Allen and Smith, 1988) and updated from the RACEBASE database of the Resource Assessment and Conservation Engineering Division, which includes data from surveys conducted by the Alaska Fisheries Science Center from 1948 to 1999. For each species, we attempted to verify unusual records by tracing voucher specimens and examining original haul data.

USING THE GUIDE

Species are grouped into five color categories: Red, Black, Red/Black, Banded (“Striped” of Hitz, 1965), or White-Spotted Red. Within these categories, species are sorted by head spine strength (weak or strong). Finally, species are grouped together based on the authors’ ideas of externally similar species. However, because species are first sorted by color and head spine strength, the most similar species may not be grouped together.

1. Determine the color category, using the following guidelines:

Red category rockfishes (28 species: 18 in Alaska) possess a light background coloration of orange, yellow, or, most commonly, red. Typically, dark blotches are present on the back and often extend from the base of the dorsal fin to below the lateral line; these blotches may be diffuse or relatively discrete. The infrequent dark phase of some typically red rockfishes is noted under the description of body color. In general, dark red-category rockfishes have a much redder body than black category rockfishes.

Black category rockfishes (18 species: 11 in Alaska) have a predominantly dark background coloration. Most are a uniform dark color, ranging from black to brown with darker blotching or pale areas on the dorsum and lightening to white, gray, or pink ventrally. Others, often more shallow water species, may display strongly contrasting colors such as black and yellow.

Red/black category rockfishes (7 species: 5 in Alaska) possess almost equal proportions of light and dark colors, as the label suggests, which makes selecting either the red or black category difficult. No unifying color pattern is apparent among these fishes; however, a characteristic color combination (e.g., horizontal green striping in greenstriped rockfish, *Sebastes elongatus*, and the pink pectoral-fin slash in northern rockfish, *S. polyspinis*) is often sufficient for identification.

Banded category rockfishes (4 species: 2 in Alaska) possess 4-6 discrete vertical bands of dark color (red to black) on a light background of white, pink, or yellow.

White-spotted red category rockfishes (13 species: 1 in Alaska) possess a light

colored body with 2-5 pale areas (i.e., spots) above the lateral line.

2. Determine head spine strength:

After placing the fish in a color category, visually estimate the prominence of the eight pairs of head spines (see page 6 for positions and numbers of spines). Generally if the spines, especially those nearest the orbit (numbers 2-5), are easily visible at about elbow's length, the spines are considered strong. Otherwise, the spines should be considered weak.

3. Count head spines:

Head spines should be counted to determine which pairs of the eight possible are present. For each species, a diagrammatic dorsal view of the rockfish's head is provided. A number with a line to the head indicates that the spine is typically present in large juveniles and adults; if a number has no line, the spine is typically absent. A number in parentheses indicates that the spine may be present or absent. Variation in the presence of head spines has not been quantified for most species, thus parentheses may indicate that the spine is typically present but often absent or vice versa. Often spines are lost with body growth, and juveniles typically have more and stronger spines than adults. For example, the dusky rockfish, *S. variabilis*, is known for having a smooth head with spines reduced or absent, yet small juveniles possess head spines 1, 2, 4, 5, and 7 that are moderately strong. Thus this guide is primarily for adults and large juveniles that have developed the adult morphology. To identify smaller and pelagic juveniles, use the following guides to early life history stages: Matarese et al. (1989) or Moser et al. (1996).

With the information from these three characters, choices should be narrowed to two or three rockfishes. Around most of the figures in the guide, a combination of characters are highlighted that, when present, distinguish the species from all others. Along with these specific characters, two additional features depicted in the figure are often useful in distinguishing similar species: second anal-fin spine length relative to third and mouth size, as reflected in maxilla length relative to the orbit. The second anal-fin spine is noted on the figure when it is always obviously longer than the third. Previous guides have noted finer distinctions in the relative length of the second and third spines but these differences have not been found to be useful for identification. Many of these characters are subjective as well as variable and, therefore, depend on the experience of the user to be used properly. To confirm the identification, use the similar species section to check particular characters. Next to the name of each similar species, characters are listed based on the relative ease of determination and the usefulness of the feature to clearly distinguish between the two species. Finally, check the specimen against other characters provided, such as peritoneum color and shape between the eyes, and habitat information, such as depth and distribution.

The photographs and figures themselves should only be used as a guide to the appearance of the fish. Photographs in species accounts are generally taken from trawl

caught specimens with fresh coloration. Line drawings have been drawn from photographs and accurately represent the dark and light patterns and body shape of that specimen. However, many of these features often vary among populations and, in many species, among individuals of a given population. Because this version of the guide includes only species known from Alaskan waters, NMFS observers using this guide should retain all specimens that do not match the included species accounts. Questionable specimens should be brought back for positive identification at the time of debriefing.

ACKNOWLEDGMENTS

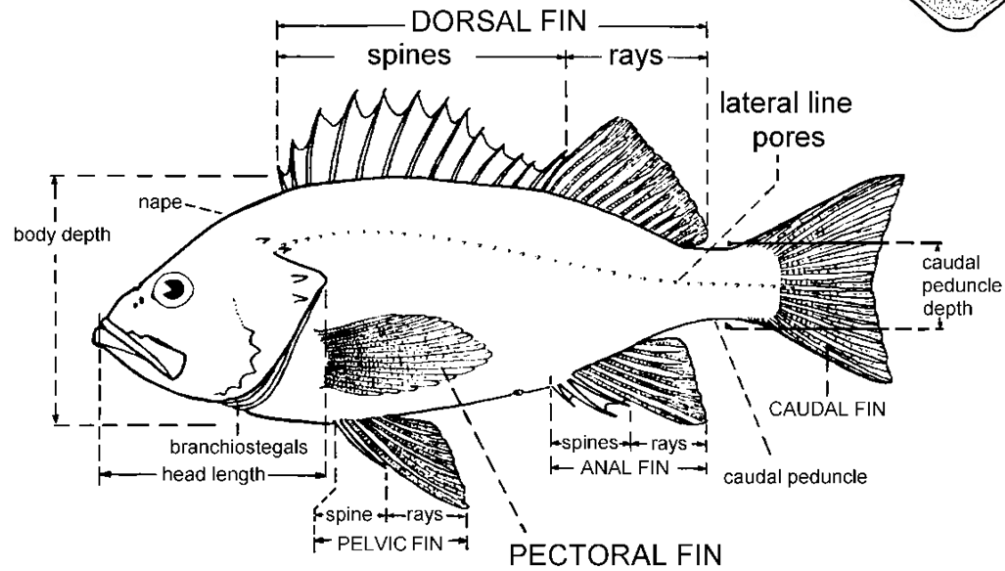
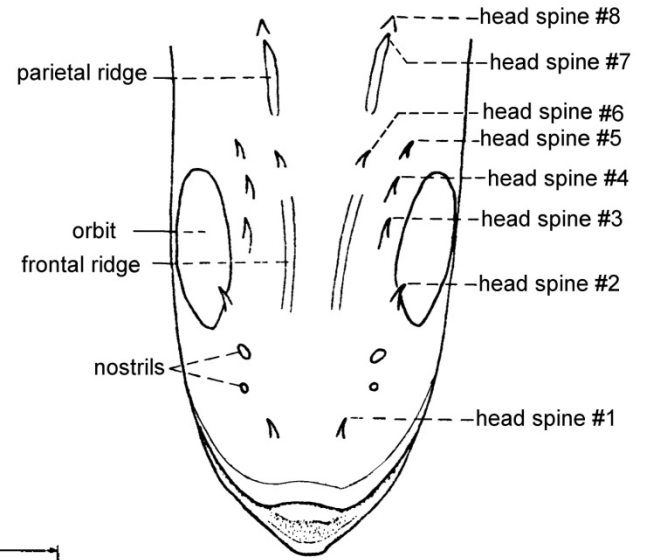
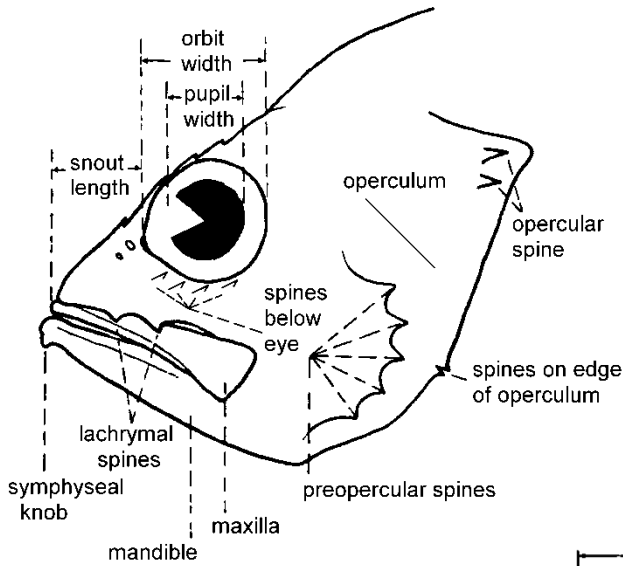
The authors extend their appreciation to C. R. Hitz, who encouraged the publication of this guide, an expansion of his previous prodigious efforts. Financial support was provided by the Rockfish Working Group of the Alaska Fisheries Science Center. Trainers and debriefers of the Observer Program of the Resource Ecology and Fisheries Management Division, including especially S. Corey, K. Krieger, N. Raring, K. Teig, E. Chilton, J. Ferdinand, provided helpful criticisms and suggestions. Many fisheries observers shared their criticisms and frustrations with early drafts of the guide; we hope their concerns were addressed. R. R. Lauth, G. R. Hoff, T. W. Pietsch, D. Stevenson, F. R. Shaw and C. Mecklenburg provided critical reviews that greatly improved the manuscript. R. R. Lauth, D. W. Kessler, A. Rocha-Olivares, M. S. Love, A. J. Gharrett, H. J. Walker, C. Kimbrell, and B. Eitner provided many photographs and G. Sprague produced several of the illustrations incorporated in early versions. We thank the curators and their respective institutions for providing loans and making space available to examine material under their care: T. W. Pietsch, B. K. Urbain, A. M. Snyder (UWFC); R. J. Lavenburg and J. A. Siegel (LACM); S. Jewett (USNM); J. D. McPhail, G. Hass, E. Keeley (UBC); R. H. Rosenblatt, H. J. Walker, C. Klopek (SIO); W. N. Eschmeyer, D. Catania (CAS); D. F. Markle (OSU).

CITATIONS

- Allen, M.J., and G.B. Smith. 1988. Atlas and zoogeography of common fishes in the Bering Sea and northeastern Pacific. U.S. Dep. Commer., NOAA Tech. Rep. NMFS 66, 151 p.
- Chen, L. 1971. Systematics, variation, distribution, and biology of rockfishes of the subgenus *Sebastomus* (Pisces, Scorpaenidae, *Sebastes*). Bull. Scripps Inst. Oceanog., Univ. Calif. Press, Berkeley, CA.
- _____. 1986. Meristic variation in *Sebastes* (Scorpaenidae), with an analysis of character association and bilateral pattern and their significance in species separation. U.S. Dep. Commer., NOAA Tech. Rep. NMFS 45, 17 p.
- Lea, R. N. and J. N. Fitch. 1972. *Sebastes rufinanus*, a new scorpaenid fish from California waters. Copeia 1972:423-427.
- _____ and _____. 1979. A new species of rockfish, genus *Sebastes* (Scorpaenidae), from the eastern North Pacific off Mexico and California. Contrib. Sci. Natur. Hist. Mus. Los Angeles County 320:1-7.
- Hart, J. L. 1973. Pacific fishes of Canada. Fish. Res. Board Canada, Bull. 180, 740 p.

- Hitz, C. R. 1965. Field identification of the northeastern Pacific rockfish (*Sebastes*). U.S. Fish Wildl. Serv. Circ. 203.
- Masuda, H. D., K. Amaoka, C. Araga, T. Uyeno, and T. Yoshino (eds.). 1984. The fishes of the Japanese Archipelago. Tokai Univ. Press, Tokyo, Japan, 437 p.
- Matarese, A. C., A. W. Kendall, Jr., D. M. Blood, and B. M. Vinter. 1989. Laboratory guide to early life history stages of northeast Pacific fishes. U.S. Dep. Commer., NOAA Tech. Rep. NMFS 80, 652 p.
- Miller, D. J., and R. N. Lea. 1972. Guide to the coastal marine fishes of California. Cal. Dep. Fish Game, Fish Bull. 157, 249 p. (Addendum added in 1976.)
- Moser G. (ed). 1996. The early stages of fishes in the California Current Region. CalCOFI Atlas, No. 33.
- Orr, J. W., and D. C. Baker. 1997. New North American records of the Northeast Pacific scorpaenids *Adelosebastes latens* and *Sebastes glaucus* (Teleostei: Scorpaenidae). Alaska Fish. Res. Bull. 3(2):94-102.

ILLUSTRATED GLOSSARY



LIST OF SPECIES

RED CATEGORY

WEAK HEAD SPINES

Pacific ocean perch	<i>Sebastes alutus</i>	8
Redstripe rockfish	<i>Sebastes proriger</i>	8
Yellowmouth rockfish	<i>Sebastes reedi</i>	9
Bocaccio	<i>Sebastes paucispinis</i>	9

STRONG HEAD SPINES

Darkblotched rockfish	<i>Sebastes crameri</i>	10
Sharpchin rockfish	<i>Sebastes zacentrus</i>	10
Harlequin rockfish	<i>Sebastes variegatus</i>	11
Stripetail rockfish	<i>Sebastes saxicola</i>	11
Splitnose rockfish	<i>Sebastes diploproa</i>	12
Yelloweye rockfish	<i>Sebastes ruberrimus</i>	12
Rougeye rockfish	<i>Sebastes aleutianus</i>	13
Shortraker rockfish	<i>Sebastes borealis</i>	13
Vermilion rockfish	<i>Sebastes miniatus</i>	14
Canary rockfish	<i>Sebastes pinniger</i>	14
Shortspine thornyhead	<i>Sebastolobus alascanus</i>	15
Longspine thornyhead	<i>Sebastolobus altivelis</i>	15
Broadbanded thornyhead	<i>Sebastolobus macrochir</i> ...	16
Aleutian scorpionfish	<i>Adelosebastes latens</i>	16

RED/BLACK CATEGORY

WEAK HEAD SPINES

Northern rockfish	<i>Sebastes polyspinis</i>	17
-------------------	----------------------------------	----

STRONG HEAD SPINES

Greenstriped rockfish	<i>Sebastes elongatus</i>	18
Copper rockfish	<i>Sebastes caurinus</i>	18
Pygmy rockfish	<i>Sebastes wilsoni</i>	19
Puget Sound rockfish	<i>Sebastes emphaeus</i>	19

BLACK CATEGORY

WEAK HEAD SPINES

Dusky rockfish	<i>Sebastes variabilis</i>	20
Dark rockfish	<i>Sebastes ciliatus</i>	20
Blue rockfish	<i>Sebastes mystinus</i>	21
Black rockfish	<i>Sebastes melanops</i>	21
Silvergray rockfish	<i>Sebastes brevispinis</i>	22
Gray rockfish	<i>Sebastes glaucus</i>	22
Yellowtail rockfish	<i>Sebastes flavidus</i>	23
Widow rockfish	<i>Sebastes entomelas</i>	23

STRONG HEAD SPINES

Brown rockfish	<i>Sebastes auriculatus</i>	24
Quillback rockfish	<i>Sebastes maliger</i>	24
China rockfish	<i>Sebastes nebulosus</i>	25

BANDED CATEGORY

STRONG HEAD SPINES

Redbanded rockfish	<i>Sebastes babcocki</i>	26
Tiger rockfish	<i>Sebastes nigrocinctus</i>	26

WHITE-SPOTTED RED CATEGORY

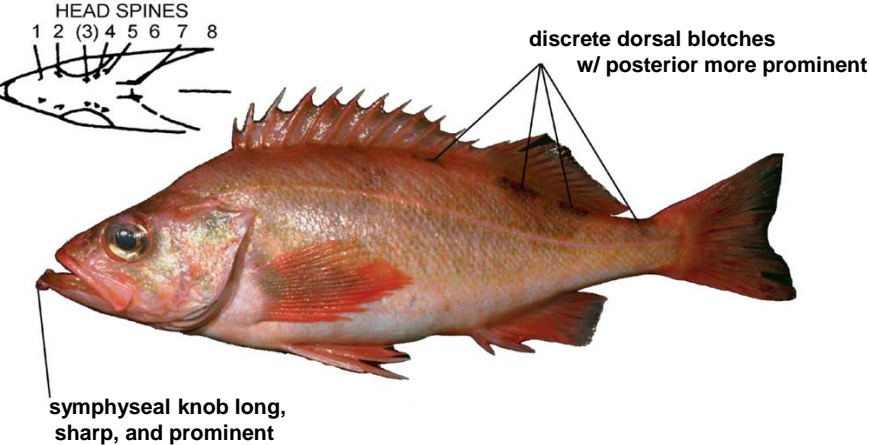
STRONG HEAD SPINES

Rosethorn rockfish	<i>Sebastes helvomaculatus</i> ...	27
--------------------	------------------------------------	----

Body color: Light red, including fins; dark olivaceous areas on back under soft dorsal fin and on caudal peduncle.

Maximum length: 22 in (55 cm)
Maximum depth: 451 fm (825 m)
Common depth: 55-192 fm (100-350 m)

Peritoneum color: dark
Shape between eyes: convex to flat
Counts: D:XIII-XIV,13-17, Ar:6-9, P1:15-19, GR:30-39, LLp:44-55, LLs:43-55, V:27



PACIFIC OCEAN PERCH

Sebastes alutus

Similar species:
Yellowmouth RF - symphyseal knob weaker, rounded; yellow, red, and black blotches inside mouth; specimens <40 cm w/ discrete opercular blotch, diffuse dorsal blotches; 57-67 scales below lateral line (43-55 in POP).
Sharpchin RF - dorsal blotches large w/ at least one extending across lateral line; forked bar radiates from eye; head spines strong and count differs; anal spine 2 longer than 3; dorsal rays typically 14 (typically 15 in POP); anal rays typically 7 (typically 8 in POP); pectoral rays typically 17 (typically 18 in POP).
Redstripe RF - lateral line light, contrasted by dark mottling above and below; head spine count typically differs.
Northern RF - dorsal spines typically 14; dark bars radiate posteriorly from eye; pectoral fin w/ oblique pink slash on ventral portion; head spine count differs.

Distribution: Bering Sea - Baja California

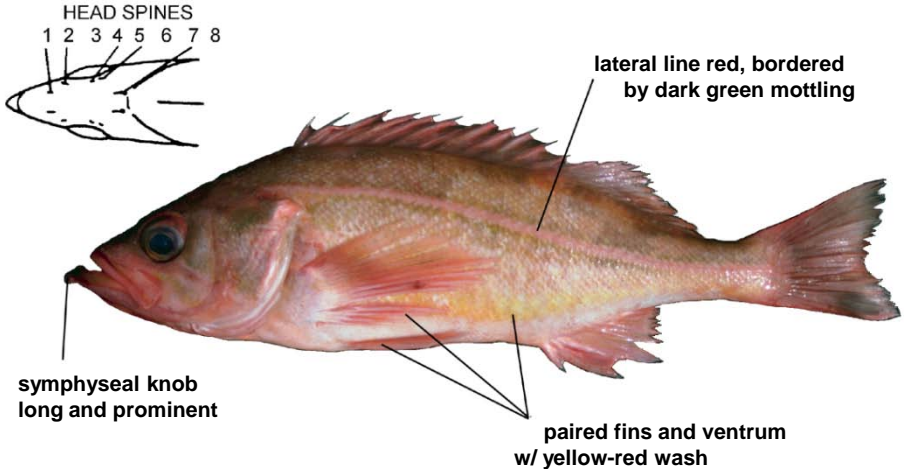
WEAK HEAD SPINES **RED**

PACIFIC OCEAN PERCH

Body color: Light red, mottled w/ olive dorsally and flushed w/ yellow on lower sides; lateral line in a clear, light-red zone, bordered by dark olivaceous mottling; lips blackened.

Maximum length: 20 in (52 cm)
Maximum depth: 233 fm (425 m)
Common depth: 55-164 fm (100-300 m)

Peritoneum color: dark
Shape between eyes: convex
Counts: D:XIII,13-15, Ar:6-7, P1:16-18, GR:36-43, LLp:47-55, LLs:55-60, V:27



REDSTRIPE ROCKFISH

Sebastes proriger

Similar species:
Yellowmouth RF - symphyseal knob weaker, rounded; yellow and black blotches inside pinkish mouth; diffuse dark dorsal blotches (green mottling in Redstripe RF).
Northern RF - dorsal spines typically 14 (13 in Redstripe RF); dark bars radiate posteriorly from eye; pink slash on ventral portion of pectoral fin; head spine count differs.
Sharpchin RF - dorsal blotches large w/ at least one extending across lateral line; forked bar radiates posteriorly from eye; head spines strong and count differs; anal spine 2 longer 3 (equal in length in Redstripe RF).
Pacific Ocean Perch - lateral line not bordered by mottling; head spine count typically differs.

Distribution: Bering Sea - Baja California

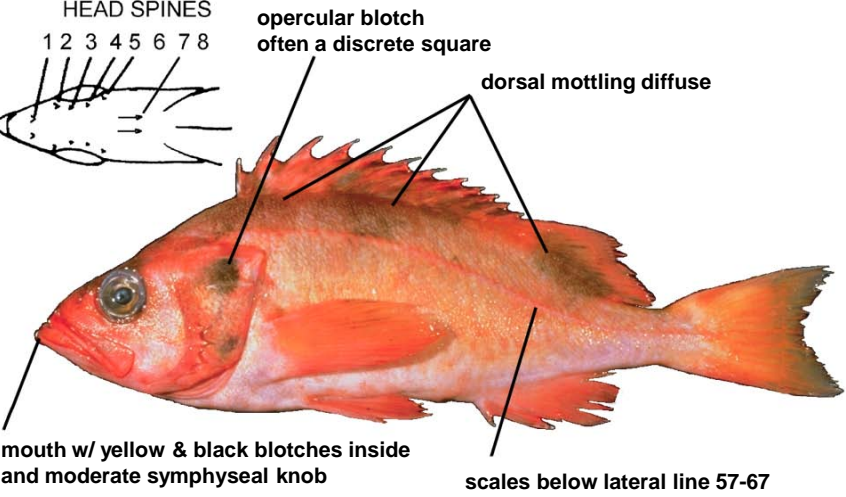
WEAK HEAD SPINES **RED**

REDSTRIPE ROCKFISH

Body color: Red intermixed w/ yellow-orange (or black in individuals < 40 cm); diffuse olivaceous mottling on back; mouth w/ yellow, red and black blotches on whitish background.

Maximum length: 23 in (58 cm)
Maximum depth: 200 fm (366 m)
Common depth: ? fm (? m)

Peritoneum color: silver w/black dots
Shape between eyes: convex to flat
Counts: D:XIII,13-15, Ar:7-8, P1:18-20, GR:30-36, LLp:47-55, LLS:57-67, V:26



YELLOWMOUTH ROCKFISH *Sebastes reedi*

Similar species:
Pacific Ocean Perch - symphyseal knob sharp, elongate; no yellow blotches inside mouth; dorsal blotches discrete, opercular blotch diffuse; 49-55 scales below lateral line.
Redstripe RF - lateral line light, contrasted by dark mottling above and below; head spine count differs; gill rakers 36-43 (30-36 in Yellowmouth RF).
Sharpchin RF - dorsal blotches large w/ at least one extending across lateral line; forked bar radiates posteriorly from eye; head spines strong and count differs; 43-50 scales below lateral line; anal spine 2 longer than 3.
Rougheye RF, Shorttraker RF, and Blackgill RF - head spines strong and count differs; 32-55 scales below lateral line; 0-8 spines below eye.

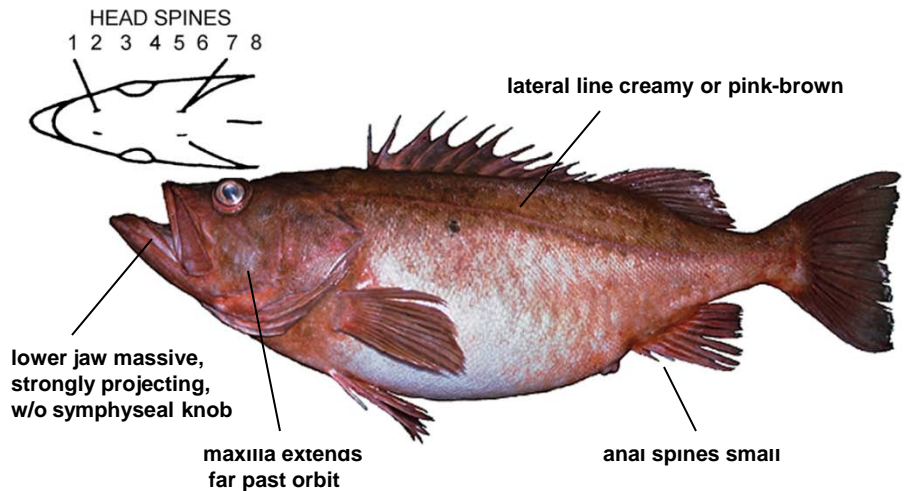
Distribution: Gulf of Alaska - Central California

WEAK HEAD SPINES **RED**
YELLOWMOUTH ROCKFISH

Body color: Olive-brown dorsally becoming pink to red ventrally; specimens less than 10 inches (25 cm) w/ small brown spots on sides.

Maximum length: 36 in (91 cm)
Maximum depth: 260 fm (475 m)
Common depth: 27-137 fm (50-250 m)

Peritoneum color: light
Shape between eyes: convex
Counts: D:XII-XV,13-15, Ar:8-10, P1:14-16, GR:27-32, LLp:51-70, LLS:72-90,V:26



BOCACCIO *Sebastes paucispinis*

Similar species:
Silvergray RF - body dark gray dorsally, light ventrally; gill rakers 33-36 (28-31 in Bocaccio); dorsal rays 15-17 (13-15 in Bocaccio); scales below lateral line 58-70 (72-90 in Bocaccio); symphyseal knob present; anal spines not small.

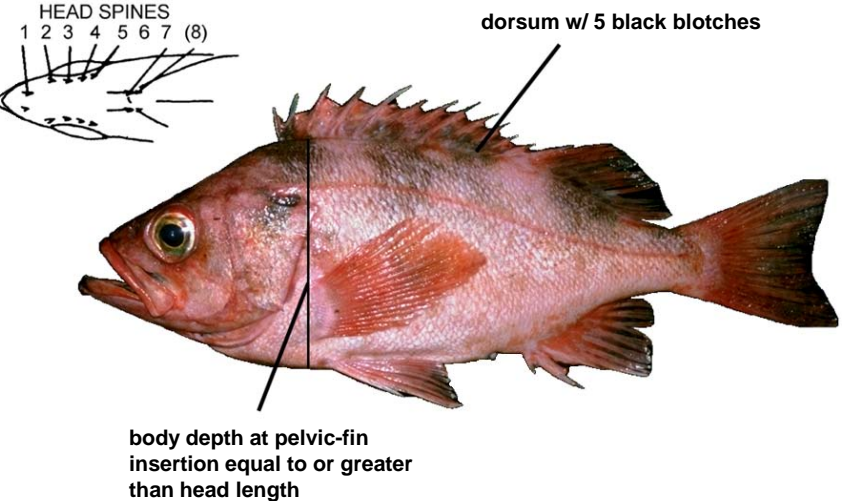
Distribution: Gulf of Alaska - Baja California

WEAK HEAD SPINES **RED**
BOCACCIO

Body color: Reddish w/ five discrete black blotches on back, extending across lateral line.

Maximum length: 22 in (58 cm)
Maximum depth: 328 fm (600 m)
Common depth: 55-192 fm (100-350 m)

Peritoneum color: dark
Shape between eyes: convex
Counts: D:XII-XIII,12-15, Ar:5-7, P1:18-20, GR:29-34, LLp:40-51, LLs:48-62, V:26



DARKBLOTCHED ROCKFISH *Sebastes crameri*

Similar species:
Sharpchin RF - symphyseal knob prominent; edge of operculum smooth (1-2 spines in Darkblotched RF); anal spine 2 longer than 3; head spines stronger and count differs.
Harlequin RF - posterior two-thirds of lateral line clear; dorsal fin blackish; anal spine 2 longer than 3; head spines stronger and count differs.
Pacific Ocean Perch - dorsal blotches do not extend below lateral line; symphyseal knob elongate, sharp; head spines weaker and count typically differs.
Yellowmouth RF - yellow blotches inside mouth; dorsal blotches diffuse and do not extend below lateral line; head spines stronger and count differs.

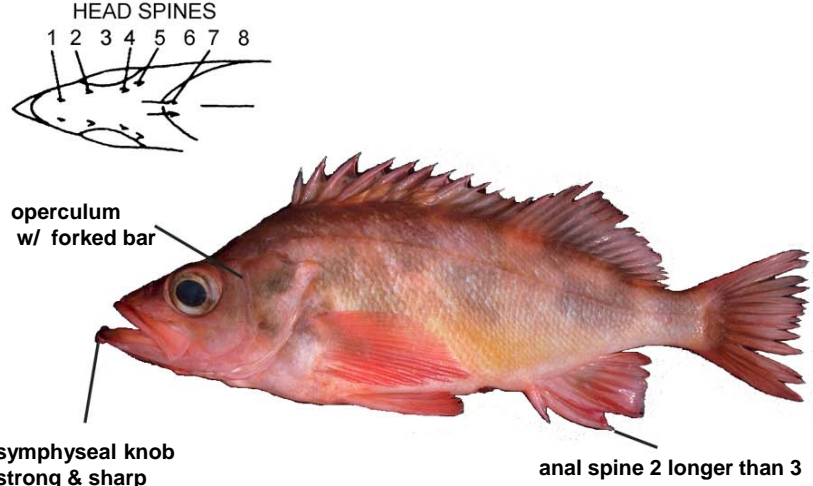
Distribution: Bering Sea - Southern California

STRONG/WEAK HEAD SPINES **RED**
DARKBLOTCHED ROCKFISH

Body color: Light red w/ several vague, dark brown blotches on back w/ at least one blotch extending below lateral line.

Maximum length: 18 in (45 cm)
Maximum depth: 243 fm (444 m)
Common depth: 82-164 fm (150-300 m)

Peritoneum color: dark
Shape between eyes: convex to concave
Counts: D:XIII,13-15, Ar:7-8, P1:16-18, GR:31-41, LLp:39-47, LLs:43-59,V:27



SHARPCHIN ROCKFISH *Sebastes zacentrus*

Similar species:
Harlequin RF - symphyseal knob moderate; dorsal fin black; posterior two-thirds of lateral line clear.
Darkblotched RF - symphyseal knob weak; head spine count differs; anal spine 2 shorter than 3.
Pacific Ocean Perch - head spines weak and typically differ in count; dorsal blotches do not extend below lateral line; blotch on operculum; operculum edge w/ spines.
Yellowmouth RF - symphyseal knob weaker; yellow blotches inside mouth; dorsal blotches diffuse, do not extend below lateral line; operculum edge w/ spines; blotch on operculum.

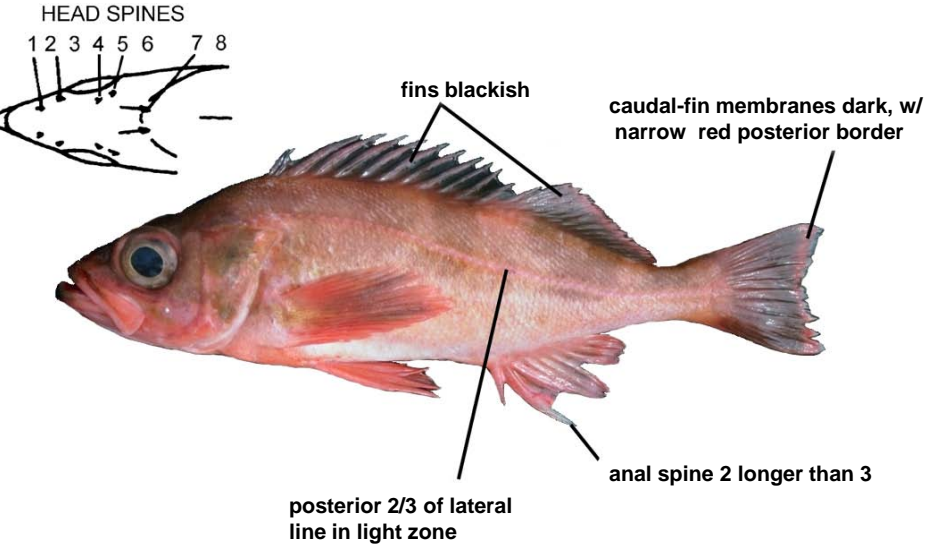
Distribution: Aleutian Islands - Southern California

STRONG HEAD SPINES **RED**
SHARPCHIN ROCKFISH

Body color: Pink to dark red, w/ dark blotches; posterior two-thirds of lateral line clear.

Maximum length: 15 in (37 cm)
Maximum depth: 305 fm (558 m)
Common depth: 55-192 fm (100-350 m)

Peritoneum color: dark
Shape between eyes: flat to convex
Counts: D:XIII,13-15, Ar: 6-7, P1:17-19, GR:36-41, LLp:42-52, LLs:46-58, V:27



HARLEQUIN ROCKFISH *Sebastes variegatus*

Similar species:
Sharpchin RF - lateral line pigmented, dorsal blotches cross w/o break; symphyseal knob prominent; dorsal and caudal fin membranes reddish.
Redstripe RF - lateral line clear for its entire length, olive mottling dorsally and ventrally; anal spine 2 equal to or shorter than 3; head spines weak.
Darkblotched RF - body w/ 4 or 5 distinct dark blotches crossing lateral line; body deep, depth > head length; head spine count differs; anal spine 2 shorter than 3.
Pacific Ocean Perch - body w/ small discrete dorsal blotches at base of fin; head spines weak and count differs; symphyseal knob prominent (moderate in Harlequin RF).

Distribution: Bering Sea - Oregon

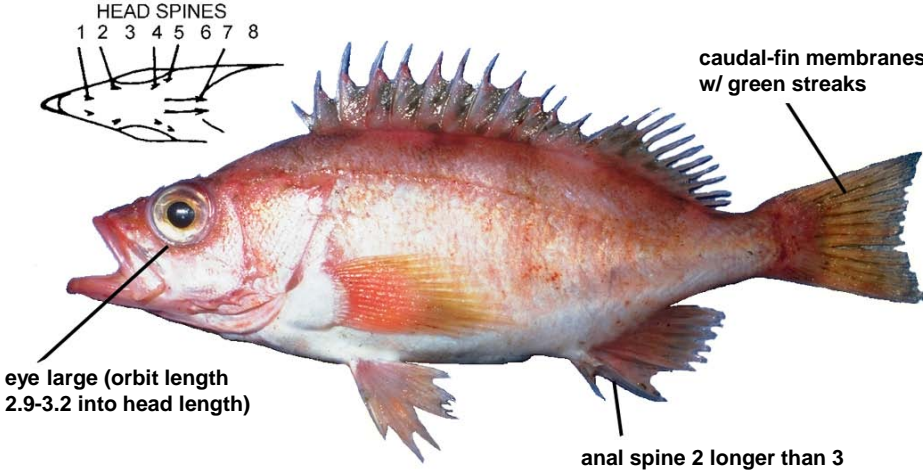
STRONG HEAD SPINES **RED**

HARLEQUIN ROCKFISH

Body color: Yellow-pink w/ light green; several vague, dusky blotches on back, these darker in young; green streaks on membranes of caudal fin, at least on upper portion.

Maximum length: 16 in (41 cm)
Maximum depth: 299 fm (547 m)
Common depth: 55-192 fm (100-350 m)

Peritoneum color: dark
Shape between eyes: flat to concave
Counts: D:XIII,11-14, Ar:5-8, P1:15-18, GR:30-35, LLp:35-43, LLs:43-53, V:26



STRIPETAILED ROCKFISH *Sebastes saxicola*

Similar species:
Sharpchin RF - body w/ discrete blotches; operculum w/ forked bar; caudal fin w/ dusky streaks (broken green streaks in Stripetail RF).
Splitnose RF - strong notch in upper jaw; green streaks in caudal fin absent; body uniform rose-red.

Distribution: Gulf of Alaska - Baja California

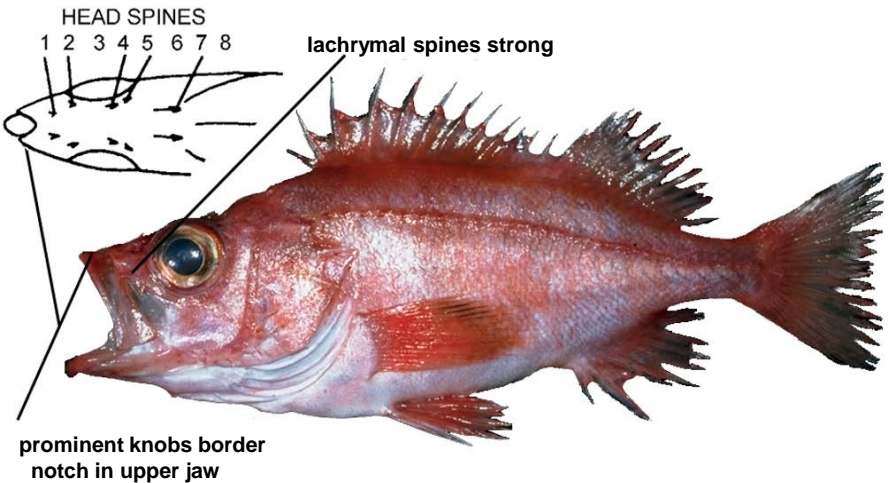
STRONG HEAD SPINES **RED**

STRIPETAILED ROCKFISH

Body color: Uniform rose-red.

Maximum length: 18 in (45 cm)
Maximum depth: 438 fm (800 m)
Common depth: 82-246 fm (150-450 m)

Peritoneum color: dark
Shape between eyes: concave
Counts: D:XIII,11-14, Ar:5-8, P1:17-19,
GR:32-37, LLp:32-43, LLs:53-57,V:26



SPLITNOSE ROCKFISH

Sebastes diploproa

Similar species:
Stripetail RF - body yellow-pink w/ green; dorsal blotches present; notch in upper jaw absent.

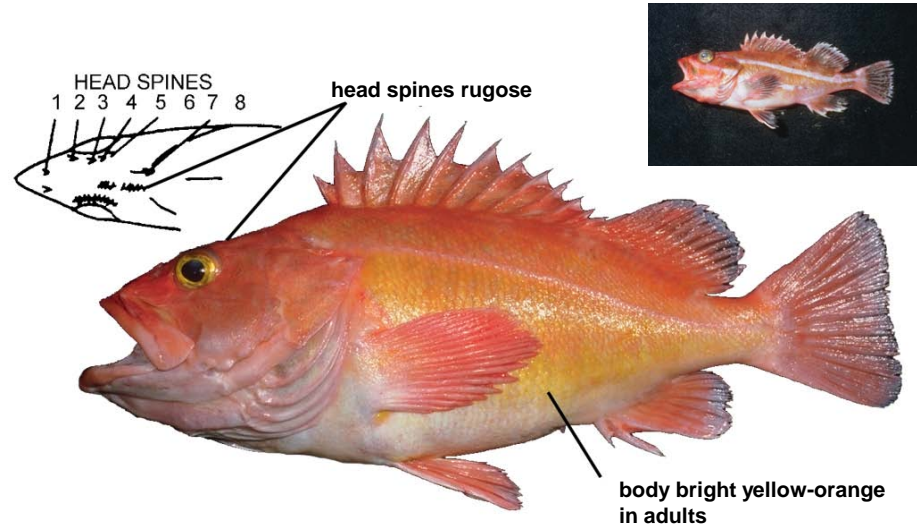
Distribution: Gulf of Alaska - Baja California

STRONG HEAD SPINES **RED**
SPLITNOSE ROCKFISH

Body color: Red on back, bright orange-yellow on sides, most fins w/ black on tips. Young <28 cm red w/ whitish stripe along lateral line, another shorter stripe between lateral line and belly surface, fins w/ blackened tips (see inset photo).

Maximum length: 36 in (91 cm)
Maximum depth: 260 fm (475 m)
Common depth: 27-219 fm (50-400 m)

Peritoneum color: light
Shape between eyes: concave
Counts: D:XIII,13-16, Ar:5-8, P1:18-20,
GR:25-30, LLp:39-46, LLs:45-50, V:26



YELLOWEYE ROCKFISH

Sebastes ruberrimus

Similar species:
Canary RF - body mottled gray dorsally w/ orange; anal fin pointed w/ strong anterior slant (rounded w/ posterior slant in Yelloweye RF); gill rakers 40-45 (25-30 in Yelloweye RF).
Vermilion RF - body mottled gray dorsally w/ red; anal fin pointed w/ strong anterior slant (rounded w/ posterior slant in Yelloweye RF); gill rakers 35-43 (25-30 in Yelloweye RF).
Rougheye RF, Shorttraker RF - body red w/ various dark mottling; 0-8 spines below eye.

Distribution: Aleutian Islands - Baja California

STRONG HEAD SPINES **RED**
YELLOWEYE ROCKFISH

Body color: Red on back, becoming pink on sides, often w/ vague spots and traces of dusky bars; fins reddish, w/ black on tips; inside of mouth red-black to red-white; posterior part of lateral line often light. (See occasional dark phase in inset photo.)

Maximum length: 38 in (97 cm)

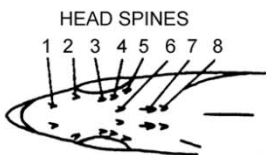
Peritoneum color: light w/ dots

Maximum depth: 479 fm (875 m)

Shape between eyes: convex to flat

Common depth: 55-246 fm (100-450 m)

Counts: D:XIII-XIV,12-15, Ar:6-8, P1:17-19, GR:28-33, LLp:29-37, LLs:47-55, V:27



ROUGHEYE ROCKFISH

Sebastes aleutianus

Similar species:

Shortraker RF - 0 or rarely 1 eye spine; body pink to orange-pink, typically w/o dark color on body; specimens >40 cm w/ gill rakers on first arch 3 times longer than width (5-6 times in Rougheye RF); head spine 6 typically absent.

Pacific Ocean Perch - head spines weak and differ in count; discrete dark blotches at base of dorsal fin; symphyseal knob prominent.

Sharpchin RF - discrete dorsal blotches w/ at least one crossing lateral line; prominent symphyseal knob; head spines differ in count; anal spine 2 longer than 3.

Yelloweye RF - body bright yellow-orange (reddish in young <28 cm); head spines rugose w/ multiple points and count differs.

Distribution: Bering Sea - Southern California

STRONG HEAD SPINES

RED

ROUGHEYE ROCKFISH

Body color: Pink to orange-pink; fins reddish, typically edged w/ black; dusky red bars may be present on dorsum, these may be prominent in young specimens.

Maximum length: 43 in (108 cm)

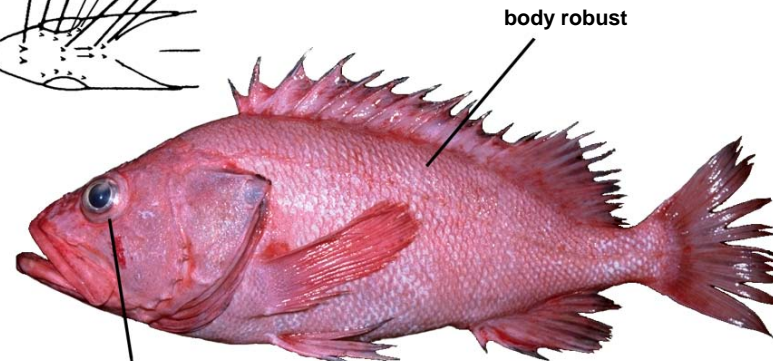
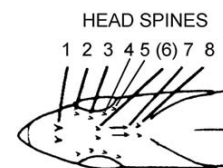
Peritoneum color: light w/ black dots

Maximum depth: 479 fm (875 m)

Shape between eyes: convex to flat

Common depth: 55-328 fm (100-600 m)

Counts: D:XIII,12-15, Ar:6-8, P1:17-20, GR:27-31, LLp:28-32, LLs:36-46, V:27-28



orbital spines 0-1

body robust

SHORTRAKER ROCKFISH

Sebastes borealis

Similar species:

Rougheye RF - 2-10 spines below eye; body typically red w/ black mottling; gill rakers on first arch longer in individuals > 40 cm.

Pacific Ocean Perch - head spines weak and differ in count; prominent symphyseal knob; discrete dorsal blotches at base of dorsal fin; body shape slender.

Sharpchin RF - symphyseal knob prominent; discrete blotches w/ at least one crossing lateral line; head spines differ in count; anal spine 2 longer than 3.

Redbanded RF - body w/ five bands crossing lateral line; head spine count differs; anal spine 2 longer than 3; peritoneum dark.

Distribution: Bering Sea - Southern California

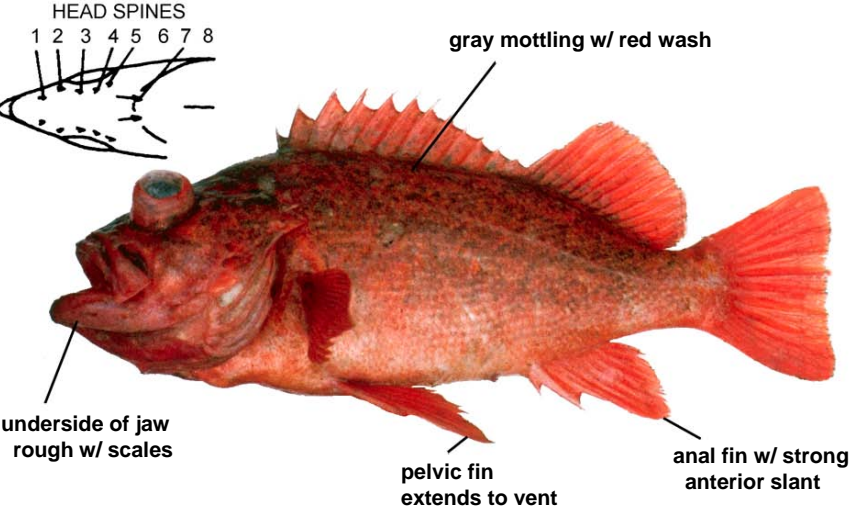
STRONG HEAD SPINES

RED

SHORTRAKER ROCKFISH

Body color: Dark red, mottled w/ gray on back and sides; fins red.

Maximum length: 30 in (76 cm)
Maximum depth: 150 fm (274 m)
Common depth: 100-150 fm (183-274 m)
Peritoneum color: light
Shape between eyes: convex
Counts: D:XIII,13-15, Ar:6-8, P1:16-18, GR:35-43, LLp:40-48, LLs:45-48, V:26-27



VERMILION ROCKFISH

Sebastes miniatus

Similar species:
Canary RF - body orange w/ olive-gray, orange fins; underside of lower jaw smooth w/ embedded scales; gill rakers 40-45 (35-43 in Vermilion RF); lateral line highlighted in gray.
Yelloweye RF - head spines rugose; body orange-red to orange-yellow w/o olive-gray mottling; lateral line highlighted in gray; anal-fin margin rounded.
Rougheye RF, Shortraker RF - head spine count differs; anal-fin margin perpendicular; 0-8 spines below eye.

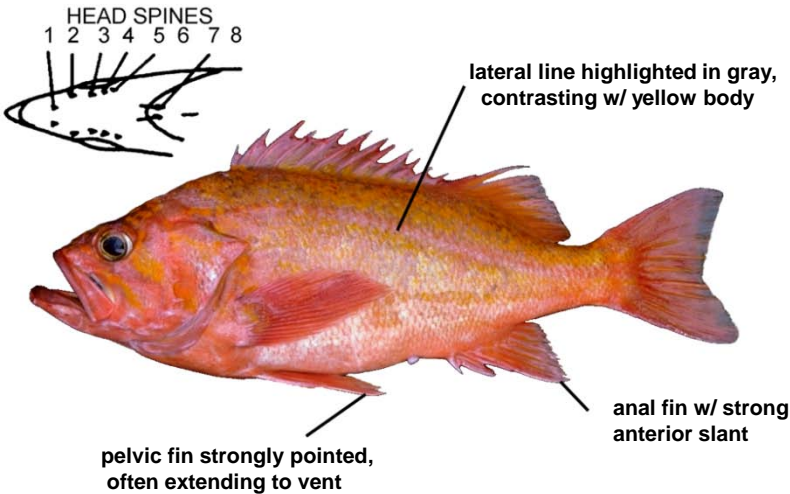
Distribution: Gulf of Alaska - Baja California

STRONG HEAD SPINES **RED**

VERMILION ROCKFISH

Body color: Olive-gray w/ bright orange, fins orange.

Maximum length: 30 in (76 cm)
Maximum depth: 233 fm (425 m)
Common depth: 27-137 fm (50-250 m)
Peritoneum color: light
Shape between eyes: convex
Counts: D:XIII,13-16, Ar:7, P1:16-18, GR:40-45, LLp:39-47, LLs:43-50, V:26



CANARY ROCKFISH

Sebastes pinniger

Similar species:
Vermilion RF - body and fins red; underside of lower jaw rough w/ exposed scales (jaw smooth in Canary RF); gill rakers 35-43 (40-45 in Canary RF).
Yelloweye RF - head spines rugose; body orange-red to orange-yellow w/o olive-gray mottling; anal-fin margin rounded.
Rougheye RF, Shortraker RF - body red w/ various black mottling; 0-8 spines below eye; anal-fin margin perpendicular.

Distribution: Gulf of Alaska - Baja California

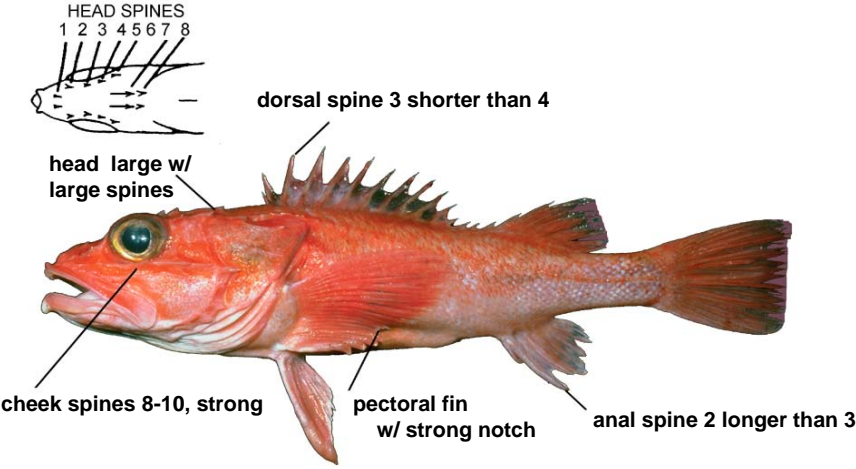
STRONG HEAD SPINES **RED**

CANARY ROCKFISH

Body color: Bright red to pink, often w/ dusky to black areas on fins and body, dark spot on posterior part of spinous dorsal fin.

Maximum length: 30 in (75 cm)
Maximum depth: 834 fm (1524 m)
Common depth: 55-465 fm (100-850 m)

Peritoneum color: light w/ spots
Shape between eyes: concave
Counts: D:XV-XVIII,8-9, Ar:4-5, P1:22-23, GR:18-23, LLp:29-33, LLs:35-46, V:29-31



SHORTSPINE THORNYHEAD *Sebastolobus alascanus*

Similar species:
Longspine Thornyhead - dorsal spine 3 longer than 4; pectoral fin w/ slight notch; gill chamber mostly black; dorsal spines typically 15 (typically 16 in Shortspine Thornyhead).
Broadbanded Thornyhead - ventral pectoral rays highly branched, lobe-like; body deeper.
Aleutian Scorpionfish (genus *Adelosebastes*) - cheek spines 1-2, weak; lower pectoral rays fingerlike; head spines very large; body deep.
Other Rockfishes (genus *Sebastes*) - cheek spines absent; pectoral fin wedge-shaped w/out notch; body deep; dorsal spines 12-15 (15-18 in Shortspine Thornyhead).

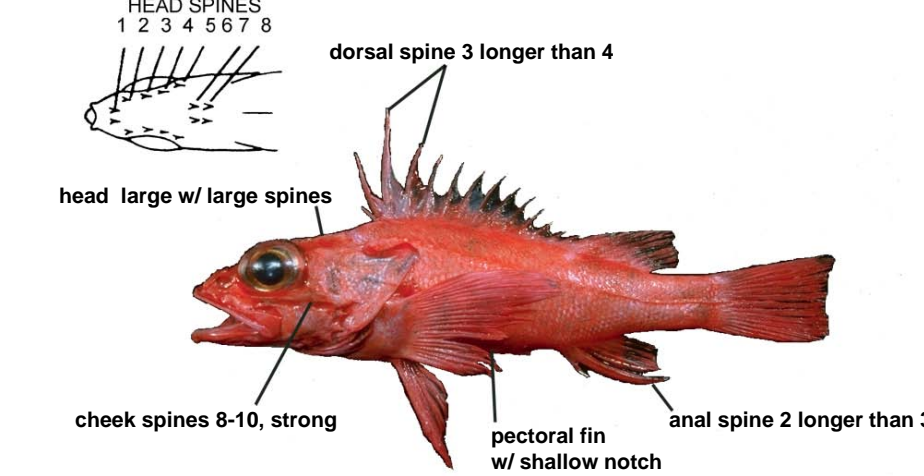
Distribution: Bering Sea - Baja California

STRONG HEAD SPINES **RED**
SHORTSPINE THORNYHEAD

Body color: Bright red w/ black areas on fins and body, dark spot on posterior part of spinous dorsal fin; gill chamber mostly dark.

Maximum length: 15 in (38 cm)
Maximum depth: 960 fm (1755 m)
Common depth: 167-971 fm(305-1775 m)

Peritoneum color: light w/ spots
Shape between eyes: concave
Counts: D:XV-XVII,8-10, Ar:4-6, P1:22-24, GR:21-26, LLp:28-32, LLs:32-38, V:29



LONGSPINE THORNYHEAD *Sebastolobus altivelis*

Similar species:
Shortspine Thornyhead - dorsal spine 3 shorter than 4; pectoral fin w/ strong notch; gill chamber mostly pale; dorsal spines typically 16 (typically 15 in Longspine Thornyhead).
Broadbanded Thornyhead - ventral pectoral rays highly branched, lobe-like; body deeper.
Aleutian Scorpionfish (genus *Adelosebastes*) - cheek spines 1-2, weak; lower pectoral rays fingerlike; head spines very large; body deep.
Other Rockfishes (genus *Sebastes*) - cheek spines absent; pectoral fin wedge-shaped w/out notch; body deep; dorsal spines 12-15 (15-17 in Longspine Thornyhead).

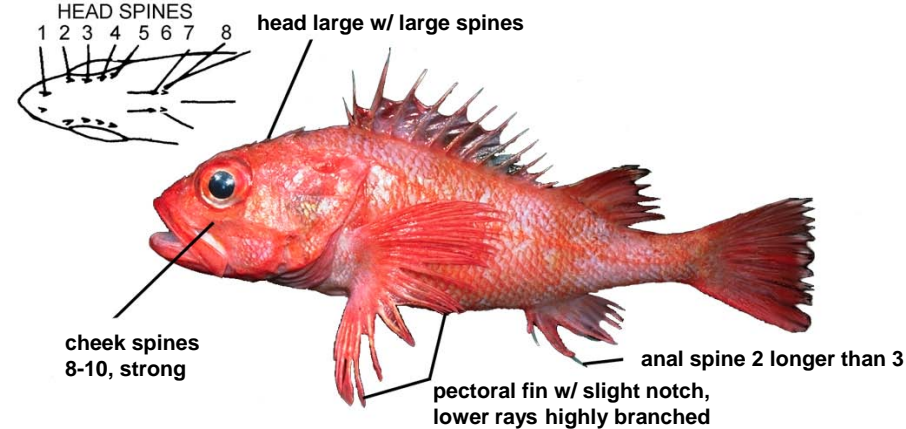
Distribution: Gulf of Alaska - Baja California

STRONG HEAD SPINES **RED**
LONGSPINE THORNYHEAD

Body color: Bright red-orange to pink; membranes between posterior-most dorsal spines black.

Maximum length: 14 in (35 cm)
Maximum depth: 438 fm (800 m)
Common depth: 82-274 fm (150-500 m)

Peritoneum color: light
Shape between eyes: concave
Counts: D:XIV-XVI,8-10, Ar:5, P1:21-23, GR:18-21, LLp:30-34, LLs:35-38, V:27-30



BROADBANDED THORNYHEAD *Sebastolobus macrochir*

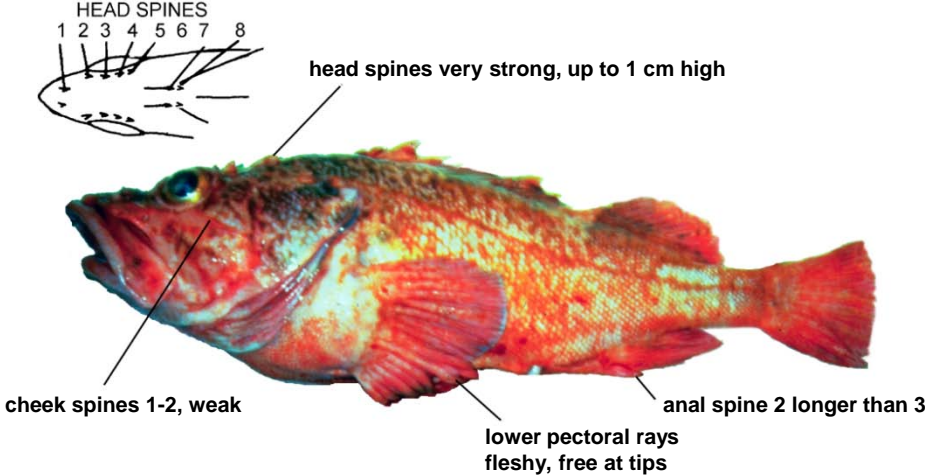
Similar species:
Shortspine Thornyhead - pectoral fin deeply notched, lower rays not highly branched; body less deep w/ caudal peduncle depth >45% body depth at anal-fin origin (<45% in Broadbanded Thornyhead).
Longspine Thornyhead - lower pectoral rays not highly branched; body less deep.
Aleutian Scorpionfish (genus *Adelosebastes*) - cheek spines 1-2, weak; lower pectoral rays fingerlike; head spines very large; body deep.
Other Rockfishes (genus *Sebastes*) - cheek spines absent; pectoral fin rounded, lacking notch; dorsal spines 12-15 (14-16 in Broadbanded Thornyhead).

Distribution: Aleutian Islands

STRONG HEAD SPINES **RED**
BROADBANDED THORNYHEAD

Body color: Bright crimson red; dusky mottling on back forming 3 faint saddles; ventral pectoral rays pink; dusky area on dorsal-most pectoral rays.

Maximum length: 16 in (41 cm) **Peritoneum color:** gray w/ black spots
Maximum depth: 657 fm (1200 m) **Shape between eyes:** concave
Common depth: >356 fm (>650 m) **Counts:** D:XII-XIII,12-13, Ar:5, P1:18-23, GR:24-25, LLp:28-29, LLs:74-100, V:26



ALEUTIAN SCORPIONFISH *Adelosebastes latens*

Similar species:
Thornyheads (genus *Sebastolobus*) - cheek spines 5-10, strong; dorsal spines 15-17 (12-13 in Aleutian Scorpionfish).
Other Rockfishes (genus *Sebastes*) - cheek spines absent; pectoral fin rounded, lacking notch, wedge-shaped (slightly notched in Aleutian Scorpionfish); lower jaw equal to or longer than upper jaw (shorter than upper jaw in Aleutian Scorpionfish).

Distribution: Aleutian Islands

STRONG HEAD SPINES **RED**
ALEUTIAN SCORPIONFISH

Body color: Dark gray-green on reddish background; red-orange flecks and fine green spots on body; red-orange to white ventrally; oblique light band on lower portion of pectoral fin.

Maximum length: 16 in (49 cm)

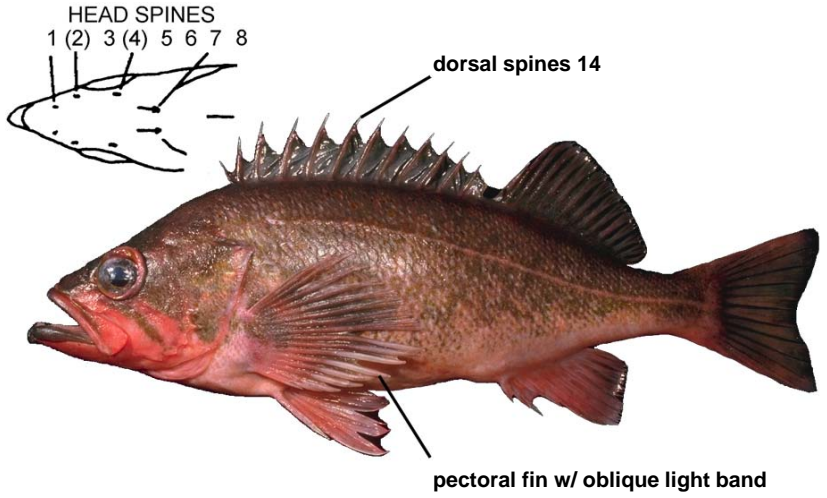
Maximum depth: 342 fm (625 m)

Common depth: 27-164 fm (50-300 m)

Peritoneum color: dark

Shape between eyes: convex

Counts: D:XIV,13-16, Ar:7-9, P1:17-19, GR:35-39, LLp:43-53, LLs:69-70, V:28



NORTHERN ROCKFISH

Sebastes polyspinis

Similar species:

Dusky RF - body gray to greenish-brown; light patch on pectoral fin faint; dorsal spines typically 13.

Pacific Ocean Perch - body red w/ discrete dorsal blotches; symphyseal knob sharp, elongate (moderate in Northern RF); head spine 5 present; dorsal spines typically 13.

Redstripe RF - mottled olive-green stripes above and below light red lateral line; head spine count differs; dorsal spines typically 13; head spine 5 present.

Harlequin RF - head spines strong and spine 5 is present; anal spine 2 longer than 3 (shorter in Northern RF); dorsal blotches prominent; posterior two-thirds of lateral line light; dorsal spines typically 13.

Sharpchin RF - body red w/ dorsal blotches; head spines strong and differ in count; anal spine 2 longer than 3; dorsal spines typically 13.

Distribution: Bering Sea - British Columbia

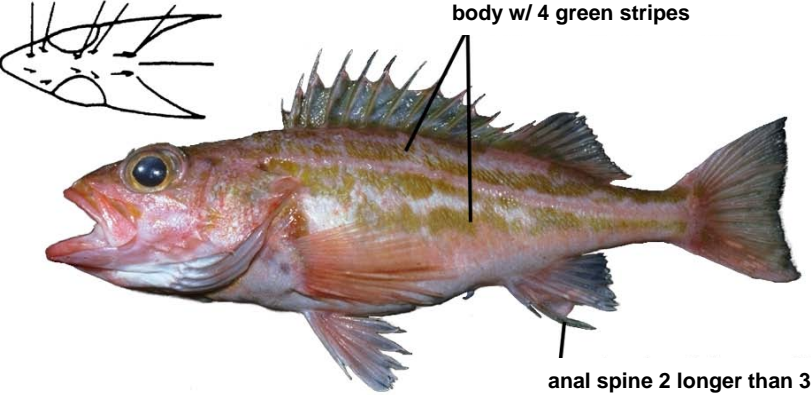
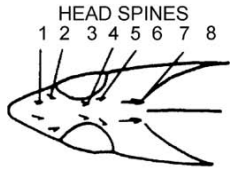
WEAK HEAD SPINES **RED/BLACK**

NORTHERN ROCKFISH

Body color: Pink w/ four mottled, horizontal green stripes on sides of pinkish body.

Maximum length: 17 in (43 cm)
Maximum depth: 269 fm (491 m)
Common depth: 55-137 fm (100-250 m)

Peritoneum color: dark
Shape between eyes: concave
Counts: D:XIII,12-14, Ar:5-7, P1:16-18, GR:28-33, LLp:37-47, LLs:42-55, V:26



GREENSTRIPED ROCKFISH

Sebastes elongatus

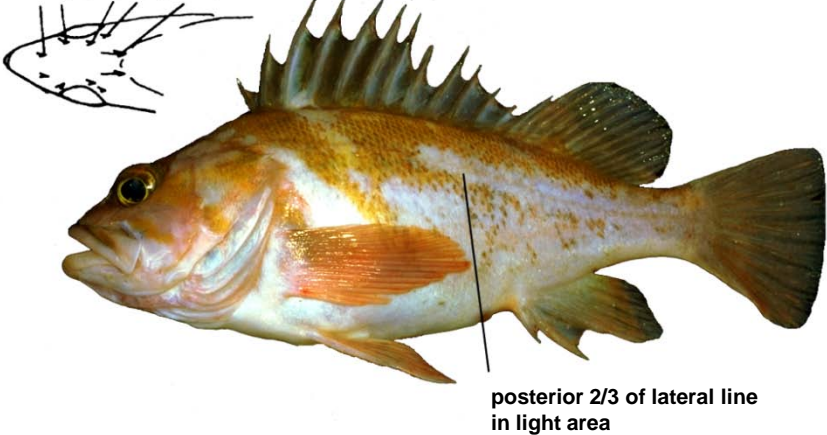
Similar species:
Redstripe RF - lateral line light red bordered by two mottled green stripes; anal spine 2 shorter than 3; head spines weak.

Distribution: Gulf of Alaska - Baja California

STRONG HEAD SPINES **RED/BLACK**
GREENSTRIPED ROCKFISH

Body color: Dark brown to olive, washed w/ copper-pink and often splashed w/ dull yellow; posterior lateral line and lower sides usually white in fresh specimens, becoming copper-pink on prolonged exposure. (See inset.)

Maximum length: 22 in (58 cm) **Peritoneum color:** light
Maximum depth: 100 fm (183 m) **Shape between eyes:** concave
Common depth: >100 fm (>183 m) **Counts:** D:XIII,11-14, Ar:5-7, P1:16-18, GR:26-32, LLp:37-47, LLs:39-45, V:25-26



COPPER ROCKFISH

Sebastes caurinus

Similar species:
Brown RF - head spine count differs; body color light brown w/ darker brown mottling; operculum w/ dark blotch.
Quillback RF - anal rays typically 7 (typically 6 in Copper RF); cheeks and breast w/ small spots.

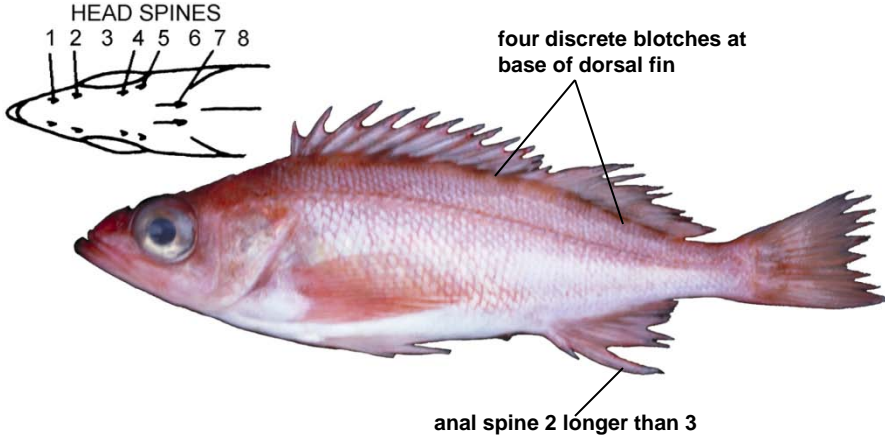
Distribution: Gulf of Alaska - Baja California

STRONG HEAD SPINES **RED/BLACK**
COPPER ROCKFISH

Body color: Light brown, flushed w/ red; about 4 dark blotches along base of dorsal fin; a brownish-red stripe below lateral line.

Maximum length: 9 in (23 cm)
Maximum depth: 150 fm (274 m)
Common depth: 16-150 fm (30-274 m)

Peritoneum color: dark
Shape between eyes: flat
Counts: D:XIII-XIV,13-15, Ar:5-7, P1:16-18, GR:37-43, LLp:37-46, LLs:45-50, V:27-28



PYGMY ROCKFISH *Sebastes wilsoni*

Similar species:
Puget Sound RF - body color differs, brownish-red stripe absent below lateral line; anal rays typically 7 (6 in Pygmy RF).
Sharpchin RF - dorsal blotches extend below lateral line; symphyseal knob sharp and prominent; strong dark stripes extend posterior to eye.
Pacific Ocean Perch - symphyseal knob sharp, elongate; head spines weak and count differs; anal spine 2 shorter than 3.

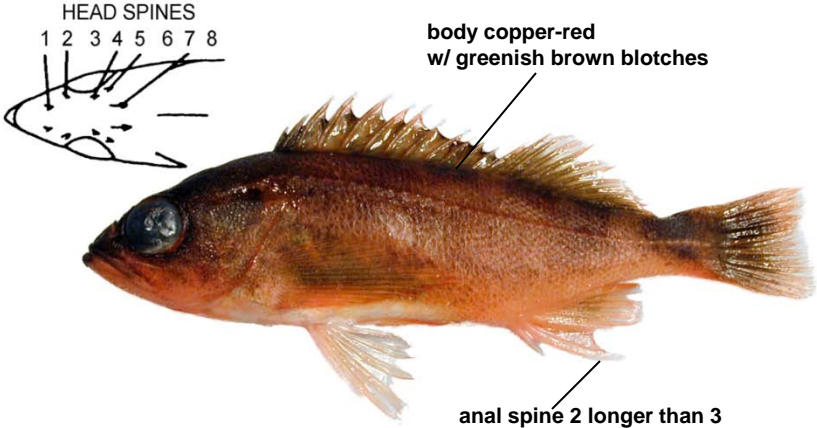
Distribution: Gulf of Alaska - Southern California

STRONG HEAD SPINES **RED/BLACK**
PYGMY ROCKFISH

Body color: Copper-red w/ indefinite olivaceous blotches; green bands radiate from eye; spinous dorsal green, w/ bright red at tips of spines; outer soft dorsal bright red, base of fin dark; paired and anal fins clear, brilliant red.

Maximum length: 7 in (18 cm)
Maximum depth: 200 fm (366 m)
Common depth: 6-200 fm (10-366 m)

Peritoneum color: dark
Shape between eyes: convex
Counts: D:XIII,13-15, Ar:6-7, P1:16-18, GR:37-41, LLp:40-46, LLs:41-46, V:27-28



PUGET SOUND ROCKFISH *Sebastes emphaeus*

Similar species:
Pygmy RF - brownish-red stripe below lateral line, squared blotches at base of dorsal fin; anal rays typically 6 (7 in Puget Sound RF).
Sharpchin RF - dorsal blotches extend below lateral line; symphyseal knob sharp and prominent; strong dark stripes extend posterior to eye.
Pacific Ocean Perch - symphyseal knob sharp, elongate; head spines weak and count typically differs; anal spine 2 shorter than 3.

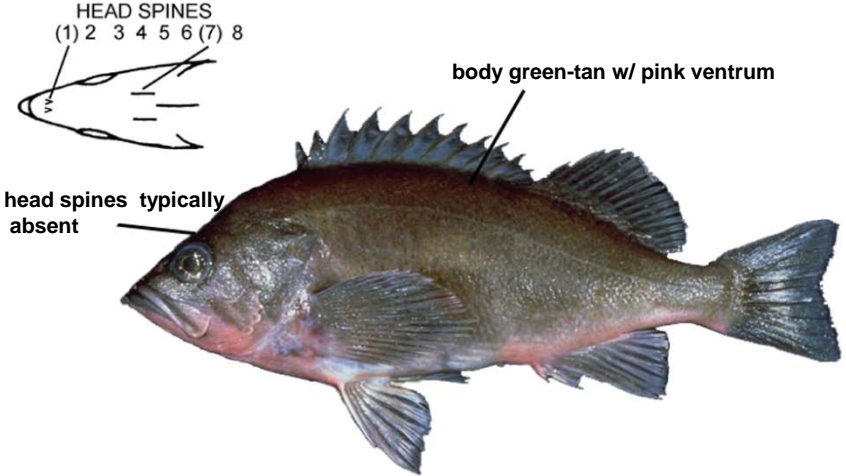
Distribution: Gulf of Alaska - Northern California

STRONG HEAD SPINES **RED/BLACK**
PUGET SOUND ROCKFISH

Body color: Gray to greenish brown on back and sides, darker blotches under soft dorsal fin; ventral sides and pectoral and pelvic fins tinged w/ pink; orange-red-brown flecks on sides.

Maximum length: 21 in (56 cm)
Maximum depth: 287 fm (525 m)
Common depth: 55-164 fm (100-300 m)

Peritoneum color: light to dark
Shape between eyes: convex
Counts: D:XIII,13-16, Ar:7-9, P1:17-19, GR:32-36, LLp:45-52, LLs:47-58, V:28



DUSKY ROCKFISH *Sebastes variabilis*

Similar species:
Dark RF - symphyseal knob small; peritoneum jet black; body uniform black or dark blue.
Black RF - anal-fin margin rounded w/ anterior slant; peritoneum light; spinous dorsal fin often w/ black spots; mandibular pores reduced (evident in Dusky RF); head spine count differs, spine 4 typically present.
Yellowtail RF - peritoneum light; head spine count differs; body w/ brassy wash; fins dusky yellow; dorsal rays typically 14 (typically 15 in Dusky RF).
Northern RF - typically 14 dorsal spines (typically 13 in Dusky RF); oblique light band on lower portion of pectoral fin (faint in Dusky RF).
Widow RF - anal-fin margin w/ strong posterior slant; head spine count differs; maxilla extends anterior to midorbit (maxilla extends to beyond midorbit in Dusky RF).

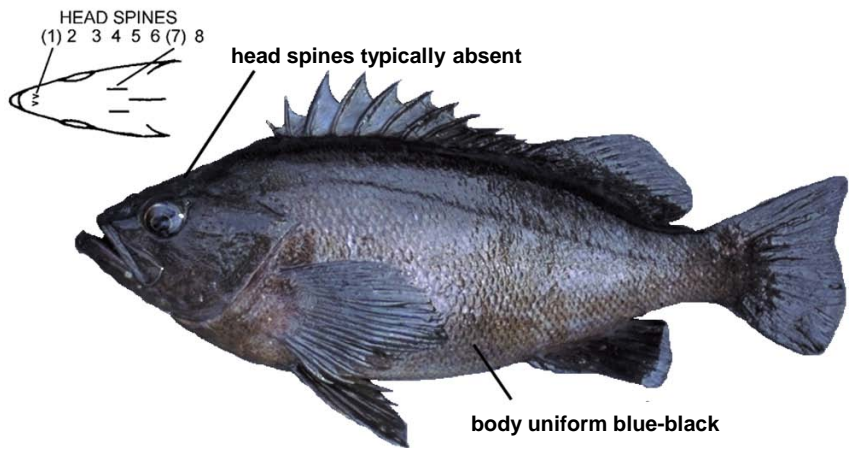
Distribution: Bering Sea - British Columbia

WEAK HEAD SPINES **BLACK**
DUSKY ROCKFISH

Body color: Uniform black to dark blue on back and sides, darker mottling below posterior spinous dorsal and anterior soft dorsal fins; slightly lighter on belly.

Maximum length: 18 in (46 cm)
Maximum depth: 84 fm (153 m)
Common depth: <55 fm (<100 m)

Peritoneum color: dark
Shape between eyes: convex
Counts: D:XIII,13-16, Ar:7-8, P1:18-19, GR:32-36, LLp:41-54, LLs:46-53, V:28



DARK ROCKFISH *Sebastes ciliatus*

Similar species:
Black RF - symphyseal knob obsolete; peritoneum white; body with light blotches at dorsal base and white belly; head spine count differs, spine 4 typically present; anal fin rounded (typically perpendicular in Dark RF).
Dusky RF - symphyseal knob larger; peritoneum light to dark; body typically tan, always light pink on belly.
Blue RF - body blue gray w/ dark bars across head and nape; head spine count differs.

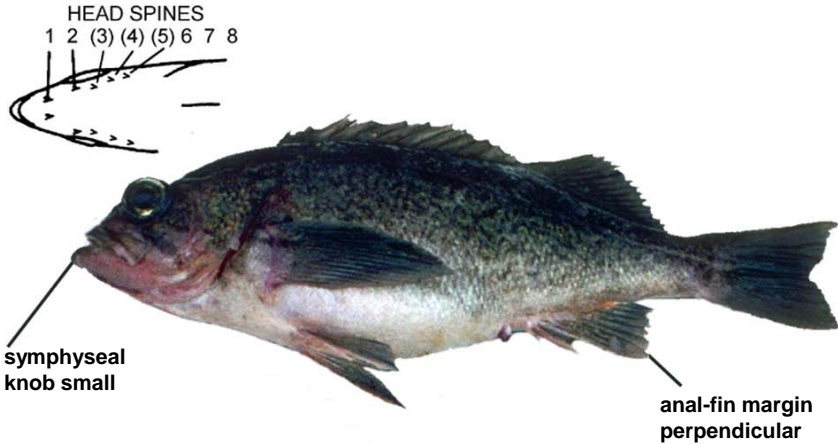
Distribution: Aleutian Islands - British Columbia.

WEAK HEAD SPINES **BLACK**
DARK ROCKFISH

Body color: Bluish-black w/ darker mottling on back, paler color on sides, and grayish ventrally; fins dark.

Maximum length: 21 in (53 cm)
Maximum depth: 300 fm (549 m)
Common depth: 0-300 fm (0-549 m)

Peritoneum color: light or dark
Shape between eyes: convex
Counts: D:XIII,15-17, Ar:8-10, P1:17-19, GR:32-38, LLp:47-53, LLs:50-56, V:26-27



BLUE ROCKFISH

Sebastes mystinus

Similar species:

Black RF - anal-fin margin rounded w/ slight anterior slant; mouth larger, maxilla extends beyond midorbit; eye larger; head spine count differs; anal rays typically 7-8 (typically 9 in Blue RF); dorsal rays typically 15 (typically 16 in Blue RF).

Dusky and Dark RF - body gray or greenish brown in Dusky RF, uniform dark blue in Dark RF; head spines typically absent; mouth larger, maxilla extends beyond midorbit; eye larger; anal rays typically 7-8 (typically 9 in Blue RF); dorsal rays typically 15 (typically 16 in Blue RF).

Yellowtail RF - body dark olive; mouth larger, maxilla extends beyond midorbit; eye larger; head spine count differs.

Widow RF - anal-fin margin w/ strong posterior slant; head spine count typically differs; body dusky brown.

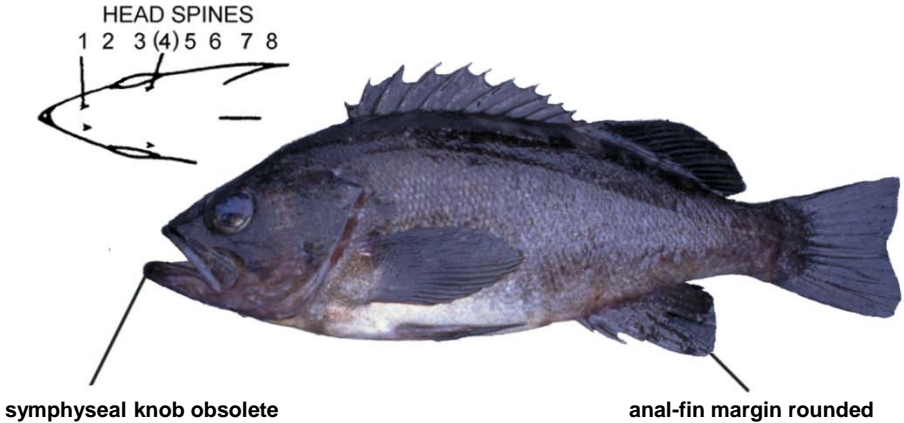
Distribution: Gulf of Alaska - Baja California

WEAK HEAD SPINES **BLACK**
BLUE ROCKFISH

Body color: Black on back, becoming gray mottled w/ black on sides, whitish ventrally; pelvic fins light, other fins dark.

Maximum length: 25 in (64 cm)
Maximum depth: 200 fm (366 m)
Common depth: <200 fm (<366 m)

Peritoneum color: light
Shape between eyes: convex
Counts: D:XIII-XIV,13-16, Ar:7-9, P1:18-20, GR:32-39, LLp:46-55, LLs:50-55, V:26



BLACK ROCKFISH

Sebastes melanops

Similar species:

Blue RF - mouth smaller, maxilla extends anterior to midorbit; eye smaller; anal-fin margin perpendicular; head spine count differs.

Dusky and Dark RF - body color gray to greenish brown in Dusky RF, uniform dark onto belly in Dark RF; anal-fin margin perpendicular; symphyseal knob present; mandibular pores evident (reduced in Black RF); head spines typically absent.

Yellowtail RF - body color brassy; fins washed w/ yellow; anal-fin margin perpendicular; head spine count differs.

Widow RF - body color dusky brown; anal-fin margin w/ strong posterior slant; head spine count differs; mouth smaller, extending anterior to midorbit (beyond midorbit in Black RF); pectoral rays typically 18 (typically 19 in Black RF).

Distribution: Aleutian Islands - Southern California

WEAK HEAD SPINES **BLACK**
BLACK ROCKFISH

Body color: Dark gray-green to black on back becoming silver on sides and abruptly red-orange to white ventrally; lips blackened; lower portions of pectoral, anal, and pelvic fins washed w/ red-orange to pink.

Maximum length: 28 in (71 cm)

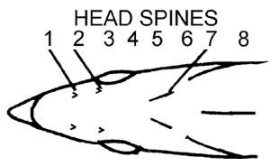
Maximum depth: 205 fm (375 m)

Common depth: 55-164 fm (100-300 m)

Peritoneum color: light

Shape between eyes: convex

Counts: D:XII,13-17, Ar:7, P1:16-18, GR:33-36, LLp:44-53, LLs:58-70, V:26



lower jaw massive and strongly projecting w/ symphyseal knob

SILVERGRAY ROCKFISH

Sebastes brevispinis

Similar species:

Bocaccio - body reddish; head spine count differs; gill rakers 27-32 (33-36 in Silvergray RF); anal rays typically 8 (7 in Silvergray); symphyseal knob absent; anal spines small.

Dusky RF - head spines typically absent; body deeper; body brown to tan.

Yellowtail RF - body brassy w/ yellow fins; head spine count differs; body deeper.

Distribution: Bering Sea - Southern California

WEAK HEAD SPINES

BLACK

SILVERGRAY ROCKFISH

Body color: Black to gray w/ yellow mottling; three dark bars radiate posteriorly from eye.

Maximum length: 20 in (50 cm)

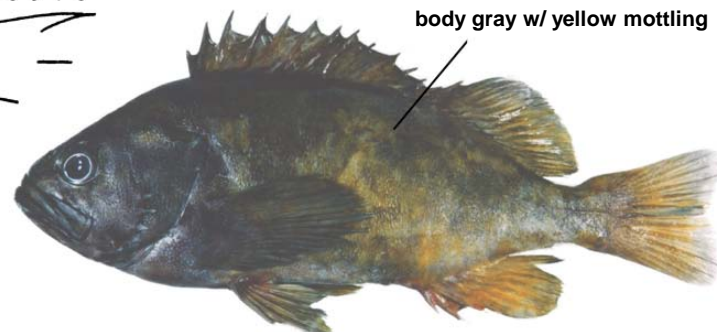
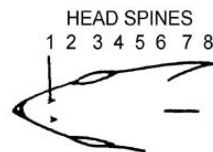
Maximum depth: 301 fm (550 m)

Common depth: ? fm (? m)

Peritoneum color: dark

Shape between eyes: convex

Counts: D:XIV,14-17, Ar:7-9, P1:18-20, GR:34-41, LLp:37-52, LLs:48-78, V:29-30



body gray w/ yellow mottling

GRAY ROCKFISH

Sebastes glaucus

Similar species:

Light and Dark Dusky RF - body tan to dark blue-black; symphyseal knob moderate to small (symphyseal knob absent in Gray RF); pectoral rays typically 18 (typically 19 in Gray RF).

Black RF - body black to gray, white ventrally; body slender (robust in Gray RF); head spine count differs; peritoneum typically light; head spine count typically differs.

Yellowtail RF - symphyseal knob strong (absent in Gray RF); peritoneum light.

Distribution: Aleutian Islands

WEAK HEAD SPINES

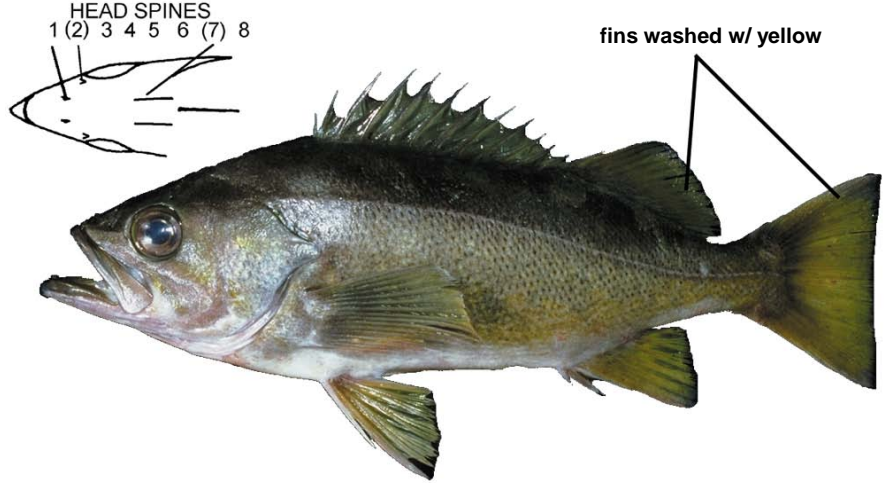
BLACK

GRAY ROCKFISH

Body color: Grayish brown w/ brassy yellow wash becoming light gray on side and white ventrally; sides finely speckled w/ brown; several vague light blotches on back; fins dusky yellow.

Maximum length: 26 in (66 cm)
Maximum depth: 300 fm (549 m)
Common depth: 27-137 fm (50-250 m)

Peritoneum color: light
Shape between eyes: convex
Counts: D:XII-XIII,14-16, Ar:7-9, P1:17-19, GR:33-39, LLp:49-60, LLs:55-60, V:26



YELLOWTAIL ROCKFISH

Sebastes flavidus

Similar species:
Widow RF - anal fin w/ strong posterior slant (perpendicular in Yellowtail RF); body color dusky brown; pectoral, pelvic, and anal fins w/ black membranes (dusky in Yellowtail RF); mouth small, maxilla to midorbit (well past midorbit in Yellowtail RF).
Dusky and Dark RF - peritoneum typically gray to black; dorsal rays 15-16 (typically 14 in Yellowtail RF); fin membranes dark.
Black RF - anal-fin margin rounded; body color black to blue-black, white ventrally; pectoral rays typically 19 (typically 18 in Yellowtail RF).

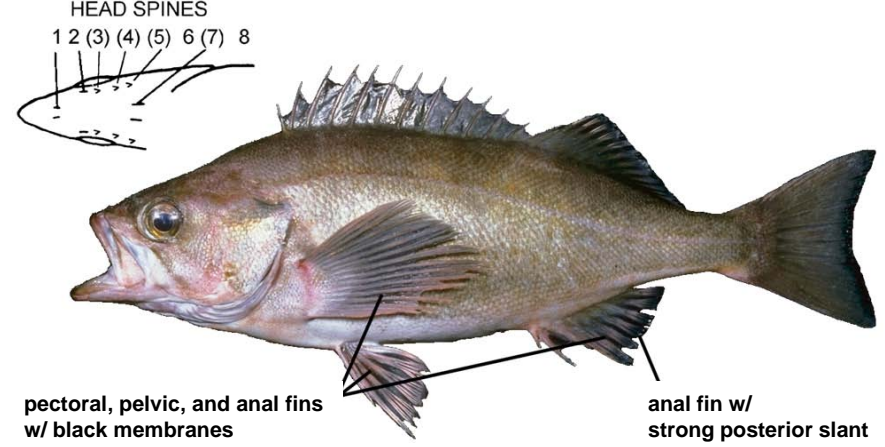
Distribution: Gulf of Alaska - Southern California

WEAK HEAD SPINES **BLACK**
YELLOWTAIL ROCKFISH

Body color: Uniform dusky-brown w/ traces of light yellow-red; fins brown to black, membranes of pectoral, pelvic, and anal fins black. Specimens < 10 in (25cm) w/ vague streaks of orange.

Maximum length: 23 in (59 cm)
Maximum depth: 205 fm (375 m)
Common depth: 55-192 fm (100-350 m)

Peritoneum color: dark
Shape between eyes: convex
Counts: D:XIII,14-16, Ar:7-10, P1:17-19, GR:34-38, LLp:52-60, LLs:58-66, V:26-27



WIDOW ROCKFISH

Sebastes entomelas

Similar species:
Yellowtail RF - mouth large, maxilla extends beyond midorbit (maxilla extends anterior to midorbit in Widow RF); body brassy w/ yellow fins; anal-fin margin perpendicular; peritoneum light.
Black RF - mouth large, maxilla extends beyond midorbit (maxilla extends anterior to midorbit in Widow RF) body dusky gray to black; anal-fin margin rounded; pectoral rays typically 19 (typically 18 in Widow RF).
Blue RF - body blue to black w/ stripes on nape; body deep; dorsal rays typically 16 (typically 15 in Widow RF).
Dusky and Dark RF - mouth large, maxilla extends beyond midorbit (maxilla anterior to midorbit in Widow RF); body deep; anal-fin margin perpendicular.

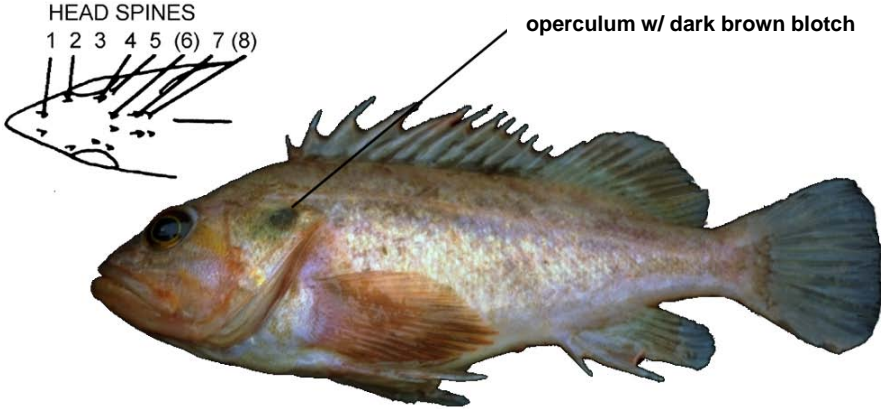
Distribution: Gulf of Alaska - Baja California

WEAK HEAD SPINES **BLACK**
WIDOW ROCKFISH

Body color: Light brown mottled w/ dark brown; a dark blotch on upper portion of opercle, fins dusky-pink.

Maximum length: 22 in (56 cm)
Maximum depth: 70 fm (128 m)
Common depth: >70 fm (>128 m)

Peritoneum color: light
Shape between eyes: convex to flat
Counts: D:XIII,12-15, Ar:5-8, P1:15-19,
GR:25-29, LLp:40-50, LLs:45-52, V:26-27



BROWN ROCKFISH

Sebastes auriculatus

Similar species:
Quillback RF - body mottled yellow anteriorly w/ freckles on breast; dorsal-fin membranes deeply incised; head spine count typically differs.

Distribution: Gulf of Alaska - Baja California

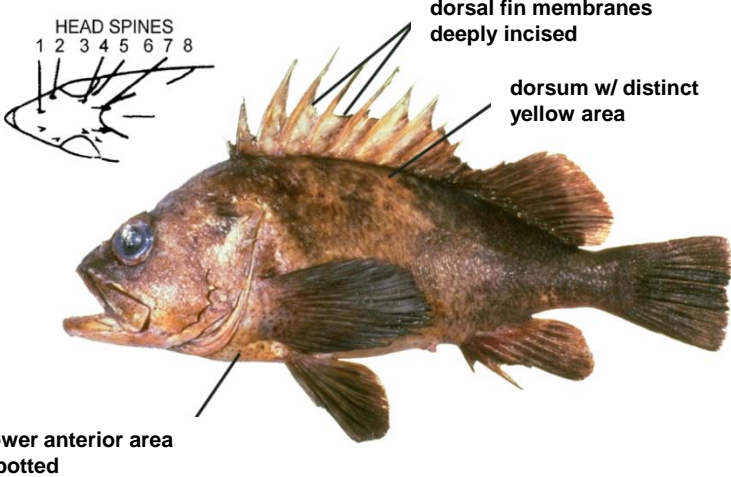
STRONG HEAD SPINES **BLACK**

BROWN ROCKFISH

Body color: Gray to brown mottled w/ yellow on anterior portion of body, and w/ orange-brown spotting on lower anterior of body; fins dark, except anterior portion of spinous dorsal fin, which is splashed w/ yellow.

Maximum length: 24 in (61 cm)
Maximum depth: 150 fm (274 m)
Common depth: 5-80 fm (9-147 m)

Peritoneum color: light
Shape between eyes: convex to concave
Counts: D:XIII,12-14, Ar:6-7, P1:16-18,
GR:29-33, LLp:34-48, LLs:39-45, V:26



QUILLBACK ROCKFISH

Sebastes maliger

Similar species:
Brown RF - body brown w/ dark mottling; dorsal-fin membranes not deeply incised; head spine count typically differs.
China RF - body black w/ yellow stripe along lateral line and across nape; dorsal-fin margin not deeply incised.

Distribution: Gulf of Alaska - Southern California

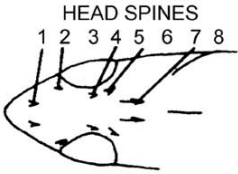
STRONG HEAD SPINES **BLACK**

QUILLBACK ROCKFISH

Body color: Blue-black mottled w/ yellow; a broad, irregular yellow stripe present, whitish or bluish-white spotting on body; fins dark.

Maximum length: 17 in (44 cm)
Maximum depth: 70 fm (128 m)
Common depth: 10-50 fm (18-92 m)

Peritoneum color: light
Shape between eyes: concave
Counts: D:XIII,12-14, Ar:6-8, P1:17-19,
GR:26-31, LLp:37-48, LLs:43-48, V:26



body w/ distinct yellow stripe on lateral line



CHINA ROCKFISH

Sebastes nebulosus

Similar species:
Quillback RF - body brown w/ yellow mottling; dorsal-fin margins deeply incised.
Brown RF - body brown w/ dark brown mottling; head spine count typically differs.

Distribution: Gulf of Alaska - Southern California

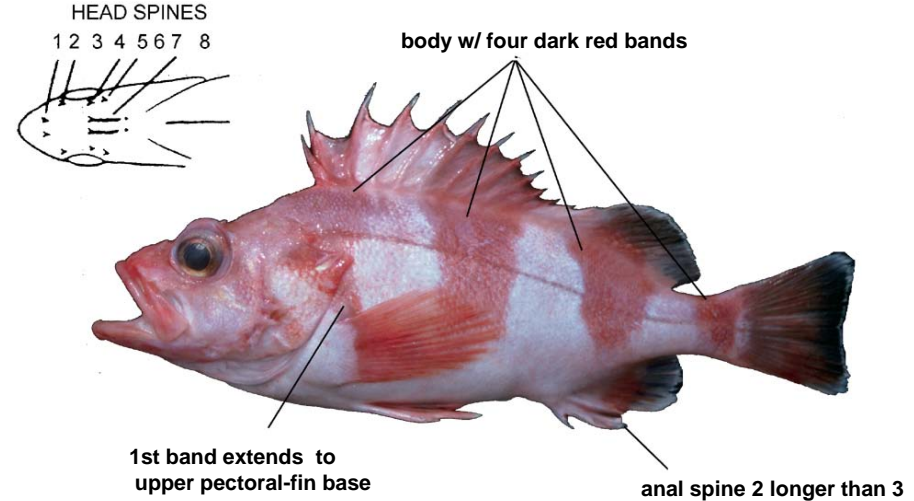
STRONG HEAD SPINES **BLACK**

CHINA ROCKFISH

Body color: Light pink w/ several broad vertical dark-red bands on body; bands faded in large specimens.

Maximum length: 22 in (56 cm)
Maximum depth: 343 fm (625 m)
Common depth: 82-219 fm (150-400 m)

Peritoneum color: dark
Shape between eyes: concave to flat
Counts: D:XIII,13-15, Ar:6-8, P1:17-20, GR:29-33, LLp:41-51, LLS:??, V:26



Redbanded rockfish

Sebastes babcocki

Similar species:
Tiger RF - all head spines present; body red w/ black or crimson bars; anal spine 2 equal to or shorter than 3.
Shortraker RF - body typically uniform pink to orange-pink occasionally w/ faint darker red bands above lateral line; head spine count differs; anal spine 2 shorter than 3; peritoneum light w/ black dots; pored lateral line scales 28-32 (42-51 in Redbanded RF).

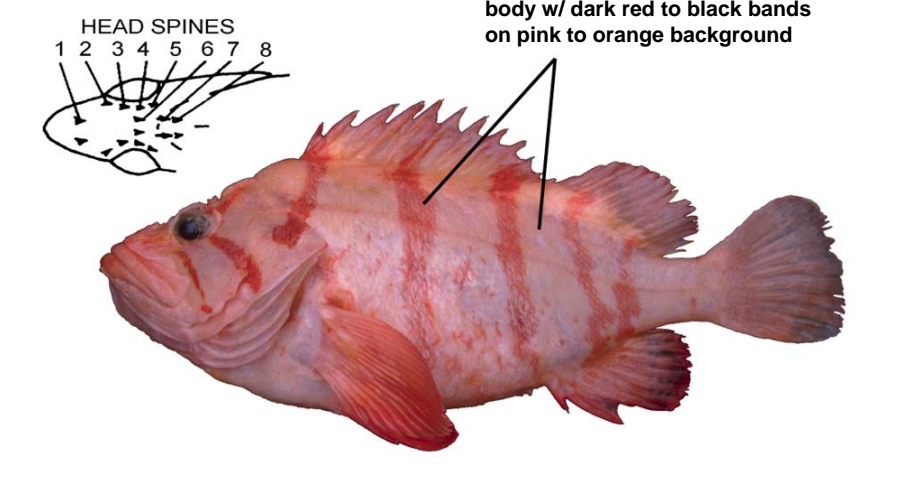
Distribution: Bering Sea - Southern California

STRONG HEAD SPINES **BANDED**
REDBANDED ROCKFISH

Body color: Light red to orange w/ several broad, vertical black-red bands on body; in young specimens, tips of ventral and anal fins blackened.

Maximum length: 24 in (61 cm)
Maximum depth: 150 fm (274 m)
Common depth: 30-150 fm (55-274 m)

Peritoneum color: light
Shape between eyes: concave
Counts: D:XII-XIV,12-15, Ar:6-7, P1:18-20, GR:27-32, LLp:36-50, LLS:44-53, V:26



TIGER ROCKFISH

Sebastes nigrocinctus

Similar species:
Redbanded RF - red bands on light pink background; head spine 6 and 8 absent.

Distribution: Gulf of Alaska - Southern California

STRONG HEAD SPINES **BANDED**
TIGER ROCKFISH

Body color: Orange-yellow w/ light olivaceous mottling on back; 4 or 5 clear, white blotches, bordered w/ light pink or orange on upper part of body; dusky area on opercle; fins pink, w/ some yellow-green.

Maximum length: 16 in (41 cm)

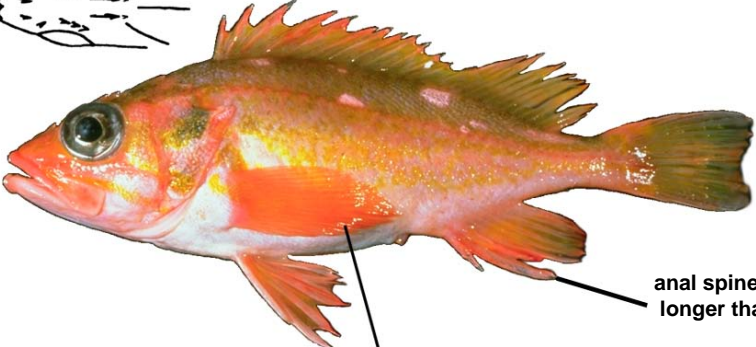
Maximum depth: 300 fm (549 m)

Common depth: 55-192 fm (100-350 m)

Peritoneum color: dark to gray w/ spots

Shape between eyes: concave

Counts: D:XII-XIV,12-14, Ar:6-7, P1:15-18, GR:28-33, LLp:34-45, LLs:42-48, V:26



pectoral rays typically 16

anal spine 2 longer than 3

ROSETHORN ROCKFISH

Sebastes helvomaculatus

Similar species:

None in Alaskan waters.

Distribution: Gulf of Alaska - Baja California

**STRONG HEAD SPINES WHITE-SPOTTED RED
ROSETHORN ROCKFISH**

Sources of Species Account Figures

- Sebastes alutus* — Photo by R. R. Lauth, UW 040216, Gulf of Alaska, 58.75°N 150.35°W, 146 m, 4 Aug 93.
- Sebastes proriger* — Photo by R. R. Lauth, UW 040217, southeastern Gulf of Alaska, 55.64°N 135.0°W, 202 m, 26 Jul 96.
- Sebastes reedi* — Photo by D. W. Kessler, UW 040219, southeastern Gulf of Alaska, 54.76°N 134.0°W, 212 m, 27 Jul 93.
- Sebastes paucispinis* — Photo by R. R. Lauth, UW 040221, off Vancouver Island, British Columbia, 49.1°N, 126.60°W, 255 m, 1 Sep 95.
- Sebastes crameri* — Photo by R. R. Lauth, UW 040222, off Washington, 48.83°N 126.60°W, 390 m, 31 Aug 95.
- Sebastes zacentrus* — Photo by R. R. Lauth, UW 040223, southeast Gulf of Alaska, 55.64°N 134.97°W, 202 m, 26 Jul 96.
- Sebastes variegatus* — Photo by R. R. Lauth, UW 040224, southeast Gulf of Alaska, 55.64°N 134.97°W, 202 m, 26 Jul 96.
- Sebastes saxicola* — Photo by R. R. Lauth, off Washington, Nov 92.
- Sebastes diploproa* — Photo by R. R. Lauth, UW 040225, off Oregon, 44.78°N 124.68°W, 274 m, 21 Oct 93.
- Sebastes ruberrimus* — Photo by R. R. Lauth, UW 040228, northern Gulf of Alaska, 58.90°N 151.56°W, 3 Aug 93. Inset photo by Lauth, northern Gulf of Alaska, 1993.
- Sebastes aleutianus* — Photos by R. R. Lauth, UW 040229, central Aleutian Islands, Alaska, 51.45°N 178.61°W, 399 m, 18 Jul 94. Inset photo UW 040232, northern Gulf of Alaska, 57.26°N 150.76°W, 357 m, 27 Jul 93.
- Sebastes borealis* — Photo by R. R. Lauth, UW 040230, Gulf of Alaska, 59.69°N 148.91°W, 178 m, 13 Jul 96.
- Sebastes miniatus* — Photo by R. R. Lauth, 28 Jul 92, off Monterey, California, 37.33°N 122.52°W, 60 m, 28 Jul 92.
- Sebastes pinniger* — Photo by R. R. Lauth, UW 040233, southeastern Gulf of Alaska, 56.68°N 135.66°W, 163 m, 25 Jul 96.
- Sebastolobus alascanus* — Photo by R. R. Lauth, UW 040234, northern Gulf of Alaska, 55.93°N 154.16°W, 293 m, 24 Jul 93.
- Sebastolobus altivelis* — Photo by R. R. Lauth, UW 040235, off Oregon, 43.38°N 124.93°W, 293 m, 2 Nov 93.
- Sebastolobus macrochir* — Photo by R. R. Lauth, UW 040236, central Aleutian Islands, Alaska, 51.92°N 176.66°W, 349 m, 24 Jul 94.
- Adelosebastes latens* — Photo by A. Cleveland, UW 22685, 335 mm SL, male, Aleutian Is., SW of Ilak Is., Alaska, 51.35°N 178.81°W, 687 m.
- Sebastes polyspinis* — Photo by R. R. Lauth, UW 040237, northern Gulf of Alaska, 56.80°N 152.74°W, 71 m, 19 Jul 93.
- Sebastes elongatus* — Photo by R. R. Lauth, UW 040239, off Oregon, 44.41°N 124.77°W, 76 m, 11 Jun 98.
- Sebastes caurinus* — Photos by J. W. Orr, UW 040240, off Monterey, California, 35.38°N 120.97°W, 82 m, 11 Jun 98. Inset photo, UW 040254, Neah Bay, Washington, Sep 98.
- Sebastes wilsoni* — Photo by R. R. Lauth, UW 040241, northern Gulf of Alaska, 59.52°N 148.59°W, 96 m, 10 Jul 96.
- Sebastes emphaeus* — Photo by J. W. Orr, UW 044030, off Shaw Island, San Juan Islands, Washington, 9 Jan 00.
- Sebastes variabilis* — Photo by D. W. Kessler, northern Gulf of Alaska, 56.35°N 152.42°W, 101 m, 23 Apr 86.
- Sebastes ciliatus* — Photo by J. W. Orr, UW 040243, Southeast Alaska, Soapstone Cove, 58.10°N 136.50°W, 10 m, 14 Jul 98.
- Sebastes melanops* — Photo by J. W. Orr, UW 043489, Southeast Alaska, Soapstone Cove, 58.10°N 136.50°W, 10 m, 14 Jul 98.
- Sebastes mystinus* — Photo by R. R. Lauth, N of Monterey, California, 37.33 N 122.52 W, 60 m, 28 Jul 92.
- Sebastes glaucus* — Photo courtesy of A. J. Gharrett.
- Sebastes brevispinis* — Photo by R. R. Lauth, UW 040245, eastern Aleutian Islands, Alaska, 53.67°N 165.39°W, 208 m, 27 May 96.
- Sebastes entomelas* — Photo by R. R. Lauth, UW 040246, off Cape Blanco, Oregon, Nov 93.
- Sebastes flavidus* — Photo by R. R. Lauth, UW 040247, off Oregon, 44.08°N 124.96°W, 386 m, 28 Oct 93.
- Sebastes auriculatus* — Photo by J. W. Orr, UW 040248, off Monterey, California, 37.56°N 122.74°W, 54 m, 18 Jun 98.
- Sebastes maliger* — Photo by D. W. Kessler, UW 040249, Gulf of Alaska, off Kodiak Is.
- Sebastes nebulosus* — Photo by R. R. Lauth, UW 040250, Neah Bay, Washington.
- Sebastes babcocki* — Photo by R. R. Lauth, UW 040251, southeastern Gulf of Alaska, 54.53°N 133.53°W, 343 m, 29 Jul 96.
- Sebastes nigrocinctus* — Photo by R. R. Lauth, UW 040252, northern Gulf of Alaska, 59.24°N 148.33°W, 112 m, 10 Jul 96.
- Sebastes helvomaculatus* — Photo by D. W. Kessler, UW 040253, southeastern Gulf of Alaska, 54.71°N 134.02°W, 216 m, 24 Jul 93.

INDEX TO COMMON NAMES

A	Q
Aleutian scorpionfish..... 16	quillback rockfish..... 24
B	R
black rockfish..... 21	raspead (see yelloweye RF)
blue rockfish..... 21	redbanded rockfish..... 26
bocaccio..... 9	redstripe rockfish..... 8
broadbanded thornyhead..... 16	rosethorn rockfish..... 27
brown rockfish..... 24	rougheye rockfish..... 13
C	S
canary rockfish..... 14	sharpchin rockfish..... 10
China rockfish..... 25	shorttraker rockfish..... 13
copper rockfish..... 18	shortspine thornyhead..... 15
D	silvergray rockfish..... 22
darkblotched rockfish..... 10	splitnose rockfish..... 12
dark dusky rockfish..... 20	stripetail rockfish..... 11
G	T
greenstriped rockfish..... 18	tiger rockfish..... 26
gray rockfish..... 22	V
H	vermilion rockfish..... 14
harlequin rockfish..... 11	W
L	widow rockfish..... 23
light dusky rockfish..... 20	Y
longspine thornyhead..... 15	yelloweye rockfish..... 12
N	yellowmouth rockfish..... 9
northern rockfish..... 17	yellowtail rockfish..... 23
P	
Pacific ocean perch..... 8	
Puget Sound rockfish..... 19	
pygmy rockfish..... 19	

INDEX TO SCIENTIFIC NAMES

<i>Adelosebastes latens</i> 16
<i>Sebastes aleutianus</i> 13
<i>Sebastes alutus</i> 8
<i>Sebastes auriculatus</i> 24
<i>Sebastes babcocki</i> 26
<i>Sebastes borealis</i> 13
<i>Sebastes brevispinis</i> 22
<i>Sebastes caurinus</i> 18
<i>Sebastes ciliatus</i> 20
<i>Sebastes crameri</i> 10
<i>Sebastes diploproa</i> 12
<i>Sebastes elongatus</i> 18
<i>Sebastes emphaeus</i> 19
<i>Sebastes entomelas</i> 23
<i>Sebastes flavidus</i> 23
<i>Sebastes glaucus</i> 22
<i>Sebastes helvomaculatus</i> 27
<i>Sebastes maliger</i> 24
<i>Sebastes melanops</i> 21
<i>Sebastes melanostomus</i> 17
<i>Sebastes miniatus</i> 14
<i>Sebastes mystinus</i> 21
<i>Sebastes nebulosus</i> 25
<i>Sebastes nigrocinctus</i> 26
<i>Sebastes paucispinis</i> 9
<i>Sebastes pinniger</i> 14
<i>Sebastes polyspinis</i> 17
<i>Sebastes proriger</i> 8
<i>Sebastes reedi</i> 9
<i>Sebastes ruberrimus</i> 12
<i>Sebastes saxicola</i> 11
<i>Sebastes variabilis</i> 20
<i>Sebastes variegatus</i> 11
<i>Sebastes wilsoni</i> 19
<i>Sebastes zacentrus</i> 10
<i>Sebastolobus alascanus</i> 15
<i>Sebastolobus altivelis</i> 15
<i>Sebastolobus macrochir</i> 16