

SEA BASSES, Family Serranidae, GROUPERS, Family Epinephelidae,
 TEMPERATE BASSES, Family Moronidae, and
 WRECKFISHES, Family Polyprionidae

NOTE: The Serranidae, formerly encompassing both sea basses and groupers, are now limited to sea basses and their allies. The subfamily Epinephelinae was raised to family status (Craig and Hastings, 2007; Smith and Craig, 2007).

STRIPED BASS, *Morone saxatilis* (Walbaum, 1792). Family MORONIDAE

Atlantic and Pacific; Barkley Sound, British Columbia to just south of U.S.-Mexican border. Introduced to West Coast. Common in San Francisco Bay, northern California and central California. Small breeding population in Coos Bay, Oregon. Length to about 122 cm (48 in) TL in eastern Pacific; 183 cm (72 in) TL in Atlantic. Anadromous; depth: when in ocean, in nearshore waters. Greenish on back, silvery on sides, with black stripes. D VII–XII + I–II, 8–14; A III, 7–12; Pect. 13–19; LLs 53–65; GR 8–11 + 14–17 = 22–28; Vert. 25. (Formerly *Roccus saxatilis* (Walbaum, 1792), Serranidae: M&L).

GIANT SEA BASS, *Stereolepis gigas* Ayres, 1859. Family POLYPRIONIDAE

Humboldt Bay, northern California to Oaxaca, southern Mexico, including Gulf of California. Common from southern California southward along Baja California and into Gulf of California (however, population along Baja California and in Gulf of California likely severely reduced). Length to 2.7 m (8.9 ft) TL. Depth: 5–55 m (18–180 ft). Older juveniles and adults dark gray, often with dark spots on sides. Newly settled juveniles black with white caudal fin; somewhat older juveniles bright red or orange, with black spots. D XI–XII, 9–10; A III, 8–9; Pect. 18–19; Pelvic I, 5; GR 2 + 7–8 = 9–10; Vert. 25–26. (Formerly Serranidae: M&L) (Alternative name BLACK SEA BASS).

KEY TO THE SEA BASSES, GROUPERS, TEMPERATE BASSES, and
 WRECKFISHES:

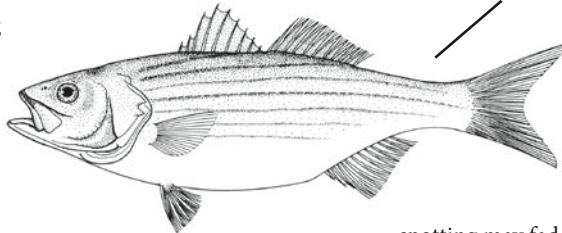
Revised by Daniel J. Pondella II and Jonathan P. Williams
 (Principal sources: Rosenblatt & Johnson, 1974; Heemstra & Randall, 1993;
 Pondella, 1999, 2001)

1a Posterior margin of operculum with 3 spines..... 3 (next page)

1b Posterior margin of operculum with 2 spines..... 2

2a Body with 6–9 black stripes;
 dorsal fin soft-rays 11–12:

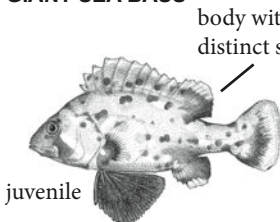
STRIPED BASS



body with black stripes

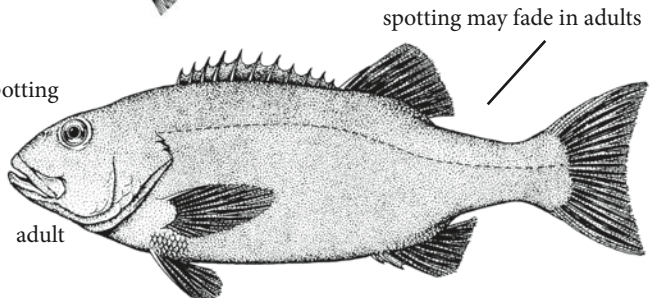
2b Body without stripes;
 dorsal fin soft-rays 9–10:

GIANT SEA BASS



juvenile

body with
 distinct spotting



adult

spotting may fade in adults

3a (next page)

SEA BASSES, GROUPERS, TEMPERATE BASSES, and WRECKFISHES
(continued)

PACIFIC CREOLEFISH, *Cephalopholis colonus* (Valenciennes, 1846). Family EPINEPHELIDAE

San Diego, southern California to Islas Lobos de Afuera, Peru, including Gulf of California and such offshore islands as Islas Galápagos. Rare in southern California; common in tropical waters. Length to 43 cm (16.9 in) TL. Depth: surface to 120 m (394 ft). After death, dark red on back and fins, lighter red on sides; 4–5 white, light-blue, or dark spots on back. Young juveniles bright yellow to pink-yellow with blue or dark spots; red spot on pectoral fin. Older juveniles salmon-colored and similarly spotted. Underwater, back and sides of adults olive. D IX,18–21; A III,9–11; Pect. 19–23; GR 12–15 + 24–29; Vert. 24. (Recently as *Paranthias colonus* Valenciennes, 1846).

GULF CONEY, *Hyporthodus acanthistius* (Gilbert, 1892). Family EPINEPHELIDAE

El Capitan (north of Santa Barbara), southern California to Isla Lobos de Tierra, Peru, including Gulf of California. Rare in southern California; common in tropical waters. Length to 130 cm (51 in) TL. Depth: 12–256 m (40–840 ft). Red, rosy-red or brown body and fins (fins sometimes dark); body sometimes with white blotches. D IX,17; A III,9; Pect. 18–19; GR 10–11 + 14–17 = 25–27. (Formerly *Epinephelus acanthistius* (Gilbert, 1892)) (Alternative names ROOSTER HIND, ROSE CONEY).

THREADFIN BASS, *Pronotogrammus multifasciatus* Gill, 1863. Family SERRANIDAE

Off east end of Anacapa Island, southern California and south of Point Mugu (34°00'N, 119°00'W), southern California to Talara, Peru, including Gulf of California and Islas Galápagos. Usually uncommon in southern California (catches increase after some El Niños); common from southern Baja California into tropics. Length to 35.9 cm (14.1 in) TL. Depth: 14–300 m (45–984 ft). Red or red-pink, with dark mottling or crosshatching on upper body; yellow striping on head; some or all (but particularly caudal) fin membranes yellow; chin and ventral areas often yellow. D X–XI,14–15; A III,6–8; Pect. 16–20; Pelvic I,5; GR 10–12 + 25–30; Vert. 26.

LEATHER BASS, *Dermatolepis dermatolepis* (Boulenger, 1895). Family EPINEPHELIDAE

El Segundo, southern California to northern Peru and such offshore islands as Islas Galápagos. Rare in southern California; common in tropical waters. Length to 100 cm (39.4 in) TL. Depth: 2–82 m (8–269 ft). Adults with alternating dark-gray to black and light-gray to white bars with many light blotches and sometimes dark spots; margin of fins yellow. A specimen off southern California was light brown with only very faint bars (Moore, 1991). Juveniles white with numerous dark bars on body and fins. D XI,18–20; A III,9–10; Pect. 19–20; GRt 21–24; Vert. 24.

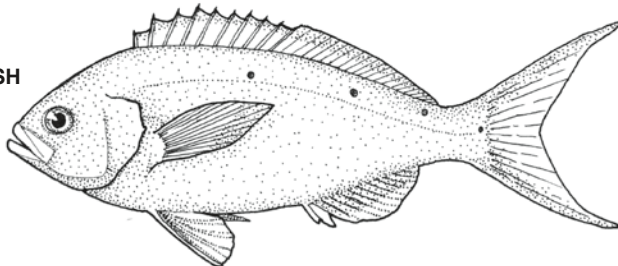
3a From 1a: operculum with 3 spines

Dorsal fin with 10–11 spines..... 5 (next page)

3b Dorsal fin with 9 spines..... 4

4a Head small, HL into SL 3.3–4.0; caudal fin lunate; 2nd–4th dorsal fin spines similar in size; dark moustache streak above maxilla absent:

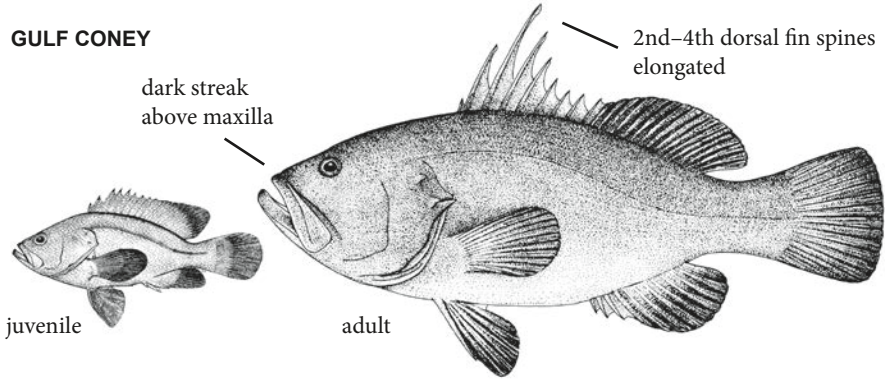
PACIFIC CREOLEFISH



4b (next page)

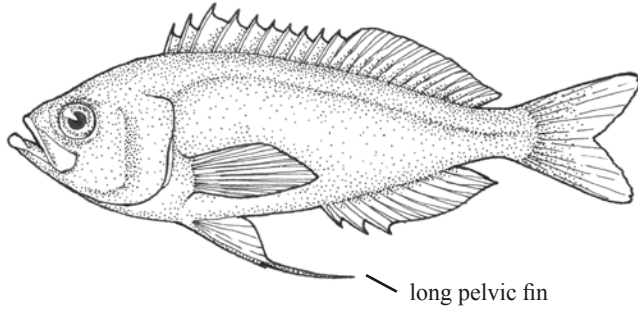
4b Head large, HL into SL less than 3; caudal fin slightly rounded; 2nd–4th dorsal fin spines elongated (adults only); prominent dark moustache streak above maxilla (not in juveniles):

GULF CONEY



5a From 3a: dorsal fin with 10–11 spines
Long filamentous pelvic fin:

THREADFIN BASS



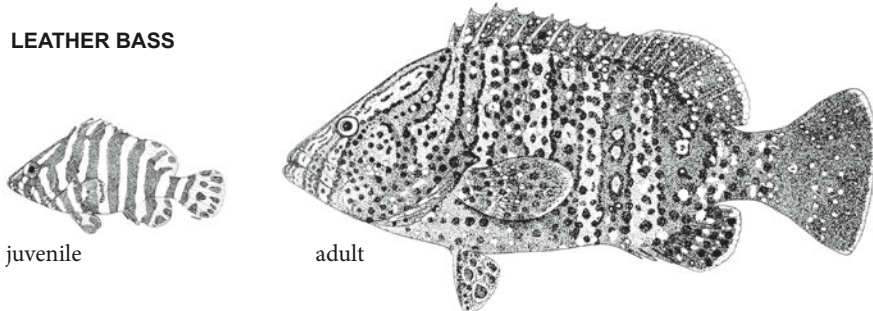
5b Pelvic fin normal..... 6

6a Dorsal fin with 10 spines..... 12 (page 224)

6b Dorsal fin with 11 spines..... 7

7a Body deep and compressed, BD distinctly greater than HL and into SL 2.1–2.7; dorsal fin soft-rays 18–20; body scales smooth and covered by skin:

LEATHER BASS



7b Body elongate, robust to deep and compressed, BD usually less than HL and into SL 2.3–4.1; dorsal fin soft-rays 18 or fewer; body scales not covered by skin..... 8 (next page)

SEA BASSES, GROUPERS, TEMPERATE BASSES, and WRECKFISHES
(continued)

FLAG CABRILLA, *Epinephelus labriformis* (Jenyns, 1840). Family EPINEPHELIDAE

Mission Bay, southern California to Paita, Peru, including upper Gulf of California and Islas Galápagos. Rare in southern California; common from Bahía Magdalena, southern Baja California into tropics. Length to 60 cm (23.6 in) TL. Depth: intertidal to at least 50 m (164 ft). Olive-green to reddish-brown with white spots and blotches; soft dorsal, anal, and caudal fins reddish, greenish, or brownish, sometimes with red margin; black saddle on caudal peduncle. D XI,16–18; A III,8; Pect. 18–19; GR 7–9 + 15–17; Vert. 24. (Alternative name STARRY GROUPER).

STAR-STUDDED GROUPER, *Hyporthodus niphobles* (Gilbert & Starks, 1897). Family EPINEPHELIDAE

Central California (36°21'N, 121°40'W) (SIO 95-24) to Islas Lobos de Afuera, Peru, including Gulf of California and Islas Galápagos. Uncommon off California; common in tropical waters. Length to 121 cm (47.6 in) TL. Depth: 1–450 m (3–1,476 ft). Reddish-brown sometimes with white spotting; white spotting may fade after death. D XI,13–15; A III,8–9; Pect. 17–21; GR 8–9 + 15–17 = 22–27. (Formerly SNOWY GROUPER, *Epinephelus niveatus* (Valenciennes, 1828), Serranidae: M&L; also previously as *Epinephelus niphobles* (Gilbert & Starks, 1897)).

LEOPARD GROUPER, *Mycteroperca rosacea* (Streets, 1877). Family EPINEPHELIDAE

Islas Coronados, northern Baja California to Bahía Banderas, Jalisco, Mexico, including Gulf of California and Isla Guadalupe, central Baja California (LACM 44237-1). Common in Bahía Magdalena and in the Gulf of California. Length to 100 cm (39.4 in) TL. Depth: 1–100 m (4–328 ft). Adults greenish to gray-brown, covered in brown spots with series of dark saddles (edged in white) on back; juveniles tan to whitish with more widely spaced small brown or reddish-brown spots. Few individuals golden. D XI,16–18; A III,10–11; Pect. 15–17; GRt 37–43.

GULF GROUPER, *Mycteroperca jordani* (Jenkins & Evermann, 1889). Family EPINEPHELIDAE

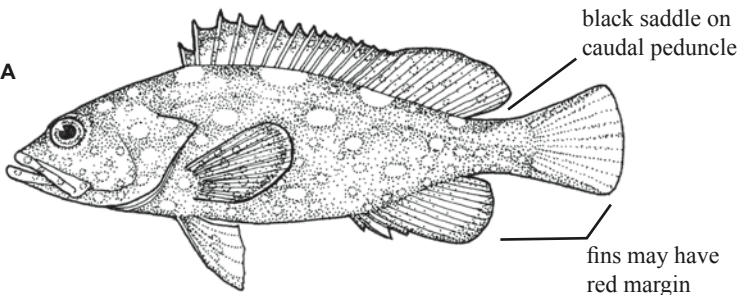
La Jolla, southern California to Mazatlán, Mexico, including Gulf of California. Currently rare in California, but likely more common before overfishing. Common off southern Baja California and into tropics. Length to 198 cm (78 in) TL. Depth: 2–50 m (5–164 ft). Brown or gray-brown, often with dark blotches on body and dark streaks under eye; margin of some fins may be white. D XI,16–17; A III,10–11; Pect. 16–18; GRt 21–26; Vert 24. (Formerly Serranidae: M&L).

8a Anal fin soft-rays 10–11..... 10 (next page)

8b Anal fin soft-rays 9 or fewer..... 9

9a Anal fin soft-rays 8; dorsal fin soft-rays 16–18; body reddish-brown with irregular white spots or blotches (juveniles with pale reticulations); 3rd or 4th dorsal fin spines longest; lateral line scales 84–100:

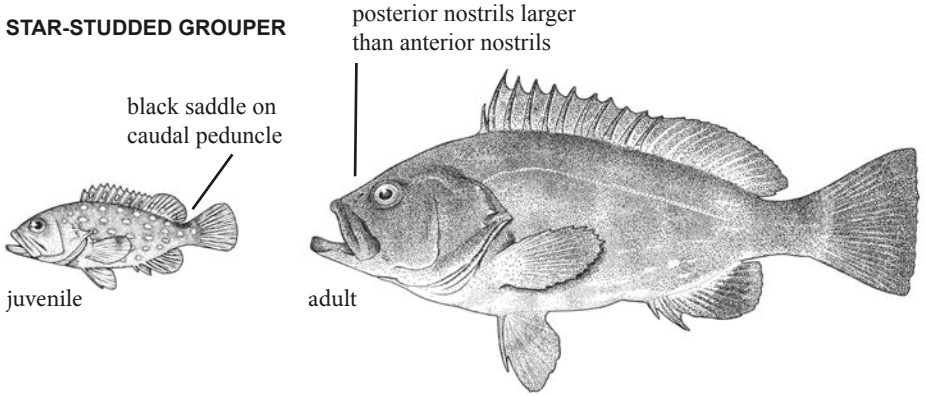
FLAG CABRILLA



9b (next page)

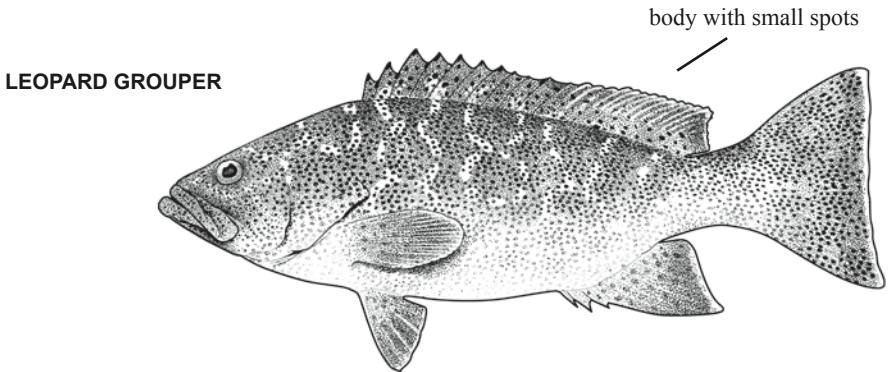
9b Anal fin soft-rays 9; dorsal fin soft-rays 13–15; body reddish-brown usually without spots (juveniles with white spots in vertical series and horizontal rows); 2nd dorsal fin spine longest; lateral line scales 100–106:

STAR-STUDED GROUPE



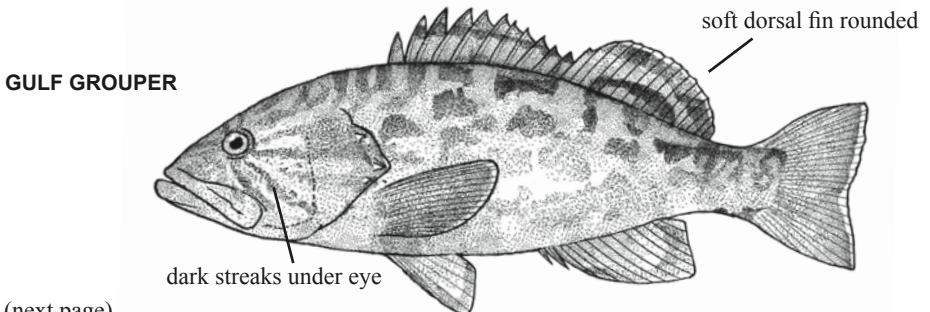
10a From 8a: anal fin soft-rays 10–11

Body with small brown spots and dark saddles; total gill rakers 37–43:



10b Body with large blotches or vermiculations; total gill rakers fewer than 33..... 11

11a Caudal fin soft-rays not exerted (not protruding); total gill rakers 21–26; soft dorsal fin rounded; anal fin margin angular (pointed in large adults, rounded in small juveniles):



11b (next page)

SEA BASSES, GROUPERS, TEMPERATE BASSES, and WRECKFISHES
(continued)

BROOMTAIL GROUPER, *Mycteroperca xenarcha* Jordan, 1888. Family EPINEPHELIDAE

San Francisco, northern California to Callao, Peru, including Gulf of California and Islas Galápagos. Currently rare in California, but likely more common before overfishing. Common off southern Baja California and into tropics. Length to 150 cm (59 in) TL. Depth: intertidal to 70 m (230 ft). Brown, gray, or greenish, often with dark brown or gray-green vermiculations or blotches; often dark lines radiating from eye. Juveniles with dark saddle on top of caudal peduncle. D XI,15–16; A III,10–11; Pect. 16–18; GR 9–12 + 18–23 = 29–33; Vert. 24. (Formerly Serranidae: M&L).

SPOTTED CABRILLA, *Epinephelus analogus* Gill, 1863. Family EPINEPHELIDAE

San Pedro, southern California to Pucusana, Peru, including Gulf of California and Islas Galápagos. Rare in southern California; historically common from southern Baja California southward. Length to 114 cm (44.9 in) TL. Depth: less than 1 m (3 ft) to 107 m (353 ft). Reddish-brown with dark brown spots over body. D X,16–18; A III,8; Pect. 19–20; GR 8–10 + 15–18 = 26–28; Vert. 24. (Formerly Serranidae: M&L).

HOOKTHROAT BASS, *Hemanthias signifer* (Garman, 1899). Family SERRANIDAE

Playa del Rey, southern California to Talara, Peru, including Gulf of California. Rare in southern California. Length to 42 cm (16.5 in) TL. Depth: 23–305 m (75–1,000 ft). Red-orange with yellowish and dark speckling; fins tipped in orange-red or yellow. D X,13–14; A III,7–9; Pect. 18–21; Pelvic I,5; LLs 56–58; GR 9–11 + 23–27. (Formerly SPLITTAIL BASS, *Hemanthias peruanus* (Steindachner, 1875): M&L).

GREATER SAND PERCH, *Diplectrum maximum* Hildebrand, 1946. Family SERRANIDAE

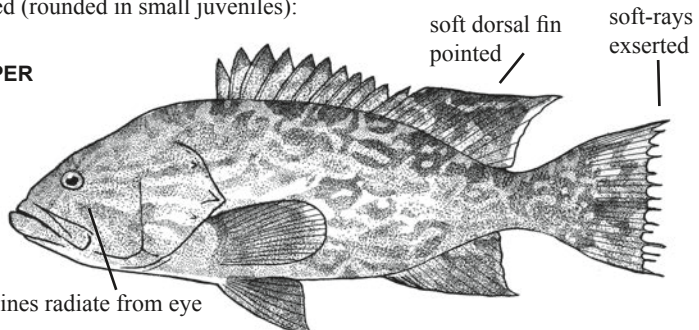
Newport Beach, southern California to northern Peru, including Gulf of California. Rare in southern California; common from about Bahía Magdalena, southern Baja California to tropics. Length to 45 cm (17.7 in) TL. Depth: 1–130 m (3–426 ft). Back and upper sides dark gray-brown, white below; dark blue-gray blotch on upper operculum; dorsal fin with 3 bands: lowermost blue-gray, middle red-brown, upper blue-gray, with red-brown margin. D X,12; A III,7; Pect. 17; GR 6–6 + 13–14; LLs 48–50. (Alternative name TORPEDO SAND PERCH).

DEEPWATER SERRANO, *Serranus aequidens* Gilbert, 1890. Family SERRANIDAE

White Point, southern California to western Gulf of California; central Mexico to western Panama, including Isla Galápagos. Rare in southern California; common at least in the southern Gulf of California. Length to 24.5 cm (9.6 in) TL. Depth: 75–486 m (246–1,594 ft). Back and sides dusky-brown, tan, or gray, white below; operculum with dusky or dark blotch; 6–7 irregular dusky or dark saddles on body (last 1 on base of tail); spinous dorsal fin with yellowish margin, center of membrane between spines blackish; soft dorsal fin with blackish margin and blackish stripe along its base. D X,11–12; A III,7; Pect. 17–18; GR 16–17 (lower limb).

11b Caudal fin soft-rays exerted (protruding); total gill rakers 29–33; soft dorsal fin pointed; anal fin margin pointed (rounded in small juveniles):

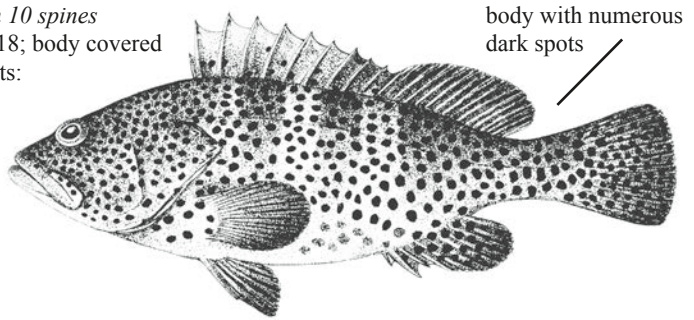
BROOMTAIL GROUPER



12a (next page)

12a From 6a: dorsal fin with 10 spines
Dorsal fin soft-rays 16–18; body covered with numerous dark spots:

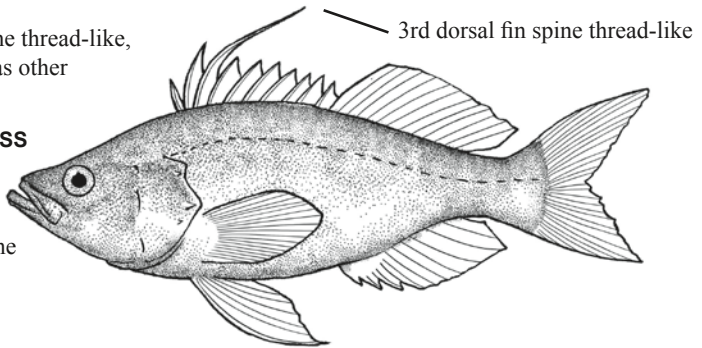
SPOTTED CABRILLA



12b Dorsal fin soft-rays 15 or fewer; body not covered with numerous dark spots (except SPOTTED SAND BASS has black spots and GOLDSPOTTED SAND BASS has orange spots)..... 13

13a Third dorsal fin spine thread-like, over twice as long as other dorsal fin spines:

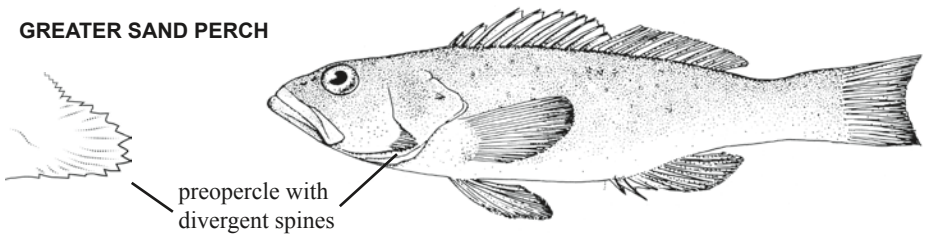
HOOKTHROAT BASS



13b Third dorsal fin spine not as in 13a..... 14

14a Preopercle with bony flap armed with strong cluster of divergent spines:

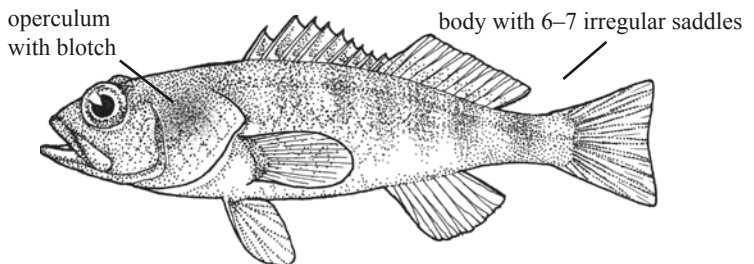
GREATER SAND PERCH



14b Preopercle without strong cluster of divergent spines..... 15

15a Operculum with dusky or dark blotch; spinous dorsal fin with yellowish margin, centers of membranes between spines blackish; soft dorsal fin with blackish margin and blackish stripe along base:

DEEPWATER SERRANO



15b Operculum without dusky or dark blotch; dorsal fin not as in 15a..... 16 (next page)

SEA BASSES, GROUPERS, TEMPERATE BASSES, and WRECKFISHES
(continued)

KELP BASS, *Paralabrax clathratus* (Girard, 1854). Family SERRANIDAE

Columbia River, Washington to Todos Santos (23°25'N, 110°14'W), southern Baja California and Rocas Alijos, southern Baja California. Historically, common from Point Conception, California to at least Isla Asuncion, southern Baja California; common into central California during some warm-water intrusions. Length to 72.1 cm (28.4 in) TL. Depth: surface and surf zone to 61 m (200 ft); juveniles occasionally intertidal. Dark brown, gray-brown, green, or olive on back and sides; whitish angular blotches and spotting on back; ripe males with orange snouts. D X,13–14; A III,7–9; Pect. 14–16; Pelvic I,5; LLp 64–74; GR 11–13 + 20–24 = 32–36; Vert. 24–25. (Alternative name CALICO BASS).

GOLDSPOTTED SAND BASS, *Paralabrax auroguttatus* Walford, 1936. Family SERRANIDAE

One record from off Santa Barbara (34°21'N, 119°37'W), southern California; Islas Guadalupe (SIO 71-107) and just north of Punta Rosalia (28°40'N, 114°16'W) and Isla Cedros, central Baja California to Gulf of California and to central Mexico. Common from southern Baja California into Gulf of California. Length to 71 cm (28 in) TL. Depth: 2–183 m (5–600 ft). Body of adults profusely covered in large orange, red, or brown spots; head covered in smaller orange spots; back with 2–3 thin, light, yellow, or greenish stripes, with brightest stripe along lateral line; gill cavity orange. Juveniles light with 2–3 dark brown stripes and series of large brown or dark spots between stripes. D X,13–14; A III,7; Pect. 14–16; GR 6 + 17 (1st 3 on lower arch may be rudimentary); LLs 71–81. (Alternative name GOLDEN SPOTTED ROCK BASS).

SPOTTED SAND BASS, *Paralabrax maculatofasciatus* (Steindachner, 1868). Family SERRANIDAE

Monterey, central California to Acapulco, Mexico, including Gulf of California. Reported from San Francisco Bay in late 1800s. Common from Newport Bay, southern California to Gulf of California. Length to 38.1 cm (15 in) TL. Depth: surface and intertidal to 90 m (295 ft). Brown, green, olive, or white body with black spots and bars. Females often yellow-flushed, males often whiter. Juveniles with several dark stripes on sides and row of dots near belly. D X,13–15; A III,6–8; Pect. 14–17; Pelvic I,5; LLp 58–64; LLs 92–120; GR 6 + 13; Vert. 24.

BARRED SAND BASS, *Paralabrax nebulifer* (Girard, 1854). Family SERRANIDAE

Santa Cruz, central California to Todos Santos (23°23'N, 110°12'W), southern Baja California (SIO 08-11) and perhaps in La Paz area in Gulf of California and southern Mexico in region around Acapulco. Common from the Santa Barbara Channel, southern California to Bahía Magdalena, southern Baja California. Length to 65 cm (25.6 in) TL. Depth: surf zone to 183 m (600 ft). Dark gray and greenish; faint crossbars on sides, bars fading after death; freckles on snout. D X,13–15; A III,7–9; Pect. 17–18; Pelvic I,5; LLs 71–76; GR 8–9 + 14–18 = 22–27; Vert. 24.

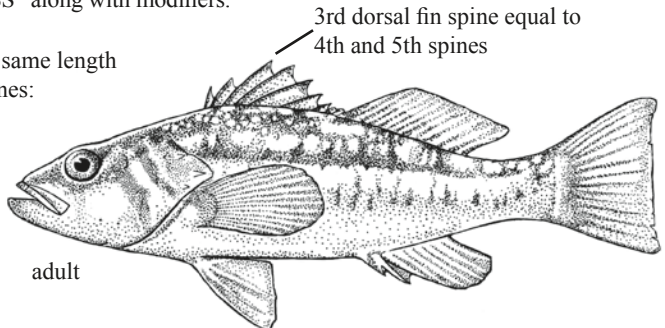
NOTE: We suggest that the common name “SAND BASS” for 3 of the *Paralabrax* species is a misnomer as all of these species, to a greater or lesser degree, inhabit rocky sea floors. More appropriate would be the name “ROCK BASS” along with modifiers.

16a Third dorsal fin spine about same length
as 4th and 5th dorsal fin spines:

KELP BASS



juvenile

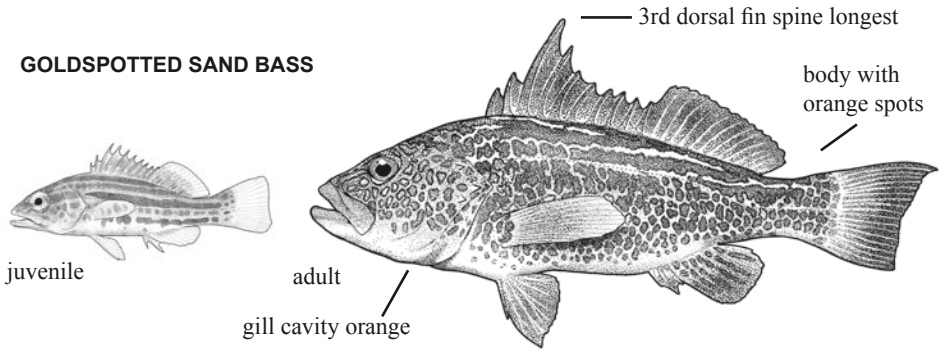


adult

16b (next page)

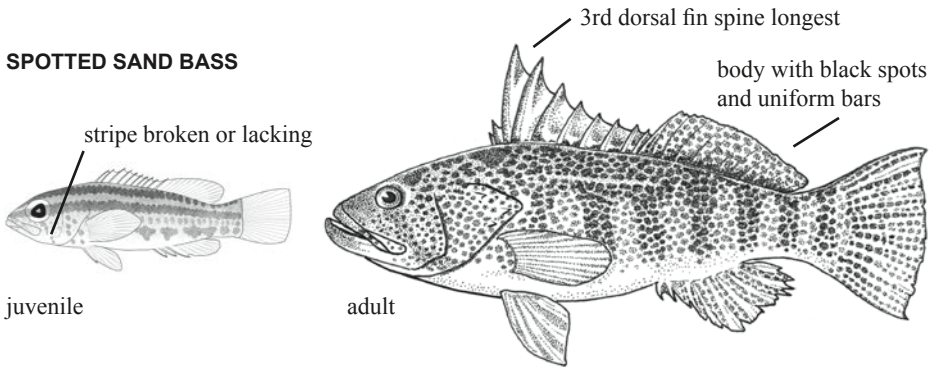
16b Third dorsal fin spine much longer than 4th and 5th dorsal fin spines..... 17

17a Distinctive orange spots on body and head; 2-3 white stripes on back:



17b Black spots on body or head; no white stripes on back..... 18

18a Body covered with black spotting, especially around base of pectoral fin; distinct uniform bars on body; in juveniles and young adults, stripe from orbit to isthmus often diffuse, broken or absent:



18b Body with minimal black spotting; irregular bars on body; in juveniles and young adults, stripe from orbit to isthmus solid:

