

Measurements.

	<i>Miniatus.</i> (Monterey.)	<i>Pinniger.</i> (Monterey.)
Extreme length, in inches.....	11.00	16.80
Length to base of caudal = 100	9.10	13.50
Body:		
Greatest depth	35.	37.5
Least depth of tail	12.3	11.8
Head:		
Length	35.	37.5
Length of snout .....	.085	.09
Diameter of eye .....	.095	.095
Width of interorbital area .....	.08	.085
Occipital spine .....	.07	.07
Supraocular spine .....	.025	.04
Least width of preorbital .....	.017	.023
Maxillary	17.5	17.
Longest gill-raker .....	.05	.063
Dorsal:		
Highest (fifth) spine	15.5	16.5
Longest soft ray	17.3	18.
Anal:		
Length of base	15.5	
Second spine	13.5	11.
Third spine	14.8	11.5
Longest ray	21.	21.5
Caudal, middle ray	17.	15.
Pectoral:		
Width of base	9.5	
Length	23.5	20.
Ventral, length	27.	26.
Dorsal rays	XIII, 14	XIII, 14
Anal rays	III, 7	III, 7
Scales in lateral line	42	48

DESCRIPTION OF A NEW SPECIES OF "ROCK-FISH" (*SEBASTICHTHYS CARNATUS*), FROM THE COAST OF CALIFORNIA.

By DAVID S. JORDAN and CHARLES H. GILBERT.

Sebastichthys carnatus sp. nov.

Allied to *Sebastichthys nebulosus* Ayres.

Body rather short and deep, tapering rapidly to a rather slender caudal peduncle. Head short, bluntish, the profile straight and steep. Mouth low and rather short, the maxillary extending to rather behind the posterior edge of the eye, which is rather small and elevated. Pre-maxillary entirely below the level of the eye, which is rather small and elevated. Mouth nearly horizontal, the jaws about equal, the lower jaw slightly shortest in the closed mouth. No prominent symphyseal knob.

Scales on the head rather rougher than in *S. nebulosus*; the lower jaw, maxillary, space in front of eye, and nasal region naked, as in *nebulosus*.

Top of head with the spinous ridges well developed, but somewhat lower than in *S. nebulosus*; otherwise very similar. The following pairs are present: Nasal, preocular, supraocular, tympanic, and occipital, five in all. The occipital spines especially are lower and narrower than in *nebulosus*.

Preopercular spines small and bluntish, the uppermost rather broader than the second, which is the longest. Opercular and suprascapular spines two each, rather short and broad. A slight spine on interopercle and subopercle.

Gill-rakers, as in *nebulosus*, short, compressed, somewhat clavate, the middle ones longer and somewhat crooked.

Spinous dorsal always higher than in *nebulosus*, the highest spines rather higher than the soft rays, the membranes more deeply incised than in *nebulosus*, but less than in *maliger*. Caudal fin truncate. Anal fin moderately high, the second spine stronger and slightly longer than the third, about two-thirds the height of the soft rays. Pectoral fins rather short, about reaching to the vent, their bases very broad, as in related species, and the lower rays thickened and fleshy. Ventrals reaching vent.

Scales in 53 transverse rows; the accessory scales rather numerous.

Dorsal, XIII, 12; anal III, 7; pyloric cœca 8; vertebrae 12 + 15.

Pattern of coloration almost exactly identical with that of *S. nebulosus*, but the shade of color very different.

In *S. carnatus* the light ground color is clear flesh color or pinkish, often tinged with grayish purple; the light shades on the head purplish. The dark shades are yellowish-brown, usually tinged with greenish.

In *S. nebulosus* the light ground color is more restricted, and its hue is usually a clear warm brownish-yellow with orange mottlings, varying to dusky orange-brown, below often tinged with olive. The dark shades are olive-black, varying to olive-brown. The light shades of *S. nebulosus* are often nearly identical with the dark shades of *S. carnatus*.

In both species the pattern is a light ground color, with dark blotches, the dark color predominating above. Membrane between third and fourth spines always pale, this color forming a blotch at the base of these spines, and then extending obliquely downwards and backwards, joining the ventral color. In front of this light area on the sides is a narrow oblique dark one, in front of which in turn is a light one, which begins at the angle of the opercle and divides, passing around the pectorals and uniting below them.

A light blotch under the eighth dorsal spine extending up on the fin; also another at the junction of the two dorsals, and still another under the last ray. Under each of these blotches irregular undulating light areas extend down the sides, either continuous or as detached blotches. The pale dorsal blotches correspond in position to the pink dorsal spots of *rosaceus*, *constellatus*, *oculatus*, and *chlorostictus*, and to pale areas found in *fasciolaris*, *rextillaris*, *maliger*, and other species.

Head above with cross-shades and bands radiating from the eye. Fins with the general pattern of color of neighboring parts of the body.

This species is very closely related to *S. nebulosus*, and from it cannot always be readily distinguished except by the color. Like *S. nebulosus*, it is one of the smaller species, seldom reaching a length of much over a foot. It is very abundant in the Bay of Monterey, forming a large proportion of the "rock-fish" shipped from Monterey to the San Francisco market. *S. nebulosus* occurs in the same waters, and the examination of great numbers of examples of both sexes and all ages has

convinced us that, although closely related, the two forms are permanently distinct. Whether hereafter to be regarded as a species or as a "subspecies," the form is a peculiar one, and as such worthy of a name.

Measurements.

	<i>Carnatus.</i> (Monterey.)	<i>Nebulosus.</i> (Monterey.)
Extreme length, in inches	10.50	11.50
Length to base caudal = 100	8.90	9.85
Body:		
Greatest depth	38.	36.5
Least depth	11.5	11.5
Head:		
Length	36.	36.
Diameter of eye	8.5	9.
Length of snout	9.5	10.
Length of preocular ridge	3.5	3.5
Length of supraocular ridge	5.	5.
Length of occipital ridge	6.	6.
Least width of preorbital	2.5	3.
Width of interorbital space		6.3
Length of maxillary	18.	18.
Length of longest gill-raker	2.8	2.
Dorsal:		
Length of base	57.	63.
Height of fifth spine	20.	16.
Height of membrane between fourth and fifth spines	11.	11.2
Height of longest soft ray	15.8	15.5
Anal:		
Length of base	14.	13.7
Height of second spine	16.5	13.
Height of third spine	14.5	13.1
Height of longest ray	20.	17.5
Caudal, length of middle rays	20.5	16.3
Pectoral:		
Length	25.	26.8
Width of base	11.	10.5
Ventral, length	24.	21.
Dorsal rays	XIII, 13	XIII, 14
Anal rays	III, 7	III, 7
Number of transverse rows of scales	43	45

APRIL 2, 1880.

CHECK-LIST OF DUPLICATES OF NORTH AMERICAN FISHES DISTRIBUTED BY THE SMITHSONIAN INSTITUTION IN BEHALF OF THE UNITED STATES NATIONAL MUSEUM, 1877-1880.

Prepared by TARLETON H. BEAN.

LOPHIID.E.

1. *Lophius piscatorius* Linn.

Lophius americanus Storer, Hist. Fish. Mass., 1867, p. 101, pl. xviii, fig. 2.

22311. Gloucester, Massachusetts.

ANTENNARIID.E.

2. *Pterophryne histrio* Linn.

Pterophryne levigata (Cuv.) Gill, Cat. Fish. E. Coast N. A., 1873, p. 14.

20662. Wood's Holl, Massachusetts (3).

DIODONTID.E.

3. *Diodon hystrix* Linn.

23779. Bermuda.

4. *Chilomycterus geometricus* (Linn.) Kaup.

9448. East coast of United States.
14752. Noank, Connecticut.
19460. Eastern shore of Virginia.
19674. Beaufort, North Carolina.
19719. Fort Macon, North Carolina.

19767. Eastern shore of Virginia.
20074. Coast of New England.
21634. Newport, Rhode Island.
22911. Eastern coast of United States.
22912. " "