

SCIENTIFIC RESULTS OF EXPLORATIONS BY THE U. S. FISH COMMISSION STEAMER ALBATROSS.

[Published by permission of Hon. Marshall McDonald, Commissioner of Fisheries.]

No. XI.—NEW FISHES COLLECTED OFF THE COAST OF ALASKA AND THE ADJACENT REGION SOUTHWARD.

BY

TARLETON H. BEAN,

Ichthyologist, U. S. Fish Commission.

The fishes herewith described were obtained by the U. S. Fish Commission steamer *Albatross* during the summer of 1888, chiefly in August, in the waters of Alaska. Eight of the genera are among the common forms of the Atlantic. Four genera are apparently new to science.

Chalinura serrula, new species.

Three individuals were trawled August 29, 1888, at station 2859, north latitude $55^{\circ} 20'$, west longitude $136^{\circ} 20'$, in a depth of 1,569 fathoms, east of Prince of Wales Island. The type of the description is $12\frac{1}{2}$ inches long. The head is contained nearly $5\frac{1}{2}$ times in the total length. The eye is somewhat shorter than the snout and equals one-fifth length of head. A median serrated keel on the nose. The maxilla is two-fifths as long as the head and extends to below the end of the eye. Checks and opercles scaly. The barbel equals the snout in length and two-ninths of the head. The mandible is about one-half as long as the head. A row of five pores on its under surface and six pores on the edge of the suborbitals.

The branchiostegal membrane is narrowly free from the isthmus. The first gill-opening is restricted, as in *Macrurus*. The gill-rakers are small tubercles, eleven below the angle of the first arch and only one or two above the angle.

The pectoral equals the post-orbital part of the head in length. The ventral is about as long as the head. The longest dorsal spine is strongly serrated and nearly equals the head without the snout. The dorsals are separated by an interspace two-fifths as long as the head. B. 6; D. ii, 9-76 (?); scales, 7 or 8-130-17.

Body brown; head, abdomen, and inside of mouth purple; the purple areas less marked in the type specimen, which is $12\frac{1}{2}$ inches long.

Antimora microlepis, new species.

Two examples of this *Antimora* were taken August 31, 1888, at a depth of 876 fathoms in north latitude $51^{\circ} 23'$, west longitude $130^{\circ} 34'$, station 2860, off Cape St. James, Queen Charlotte Islands.

The one from which the illustration was made is $9\frac{1}{2}$ inches long to the base of the caudal, $10\frac{3}{8}$ inches in total. The eye is nearly equal to the snout in length, and is about one-fourth as long as the head, which is nearly one-fourth of the length, including the caudal. The depth is contained $5\frac{2}{3}$ times in the total without caudal, and equals two-thirds of the length of the head. The maxilla reaches nearly to below the end of the eye. The barbel is very slender and about one-half as long as the eye. Gill-rakers short, slender, 4 + 11 on first arch.

The longest ray of the first dorsal is about one-half as long as the head. The anal is deeply emarginate; it begins under the twentieth ray of the second dorsal. The second ray of the ventral is six-sevenths as long as the head. D. 4 or 5, 51; A. 41.

The scales are very small and absent from the individuals before me. I count about nine impressions between the origin of the second dorsal and the lateral line, and about one hundred and thirty in the lateral line.

Color violaceous, deeper on the opercles and branchiostegal membrane and on the inside of the mouth.

Lycodes brevipes, new species.

Many specimens were trawled, July 31, 1888, at station 2848, in north latitude $55^{\circ} 10'$, west longitude $160^{\circ} 18'$, at a depth of 110 fathoms, between Unga and Nagai islands.

The eye is as long as the snout and one-quarter as long as the head, which is one-fifth of total length. The depth of body equals one-half length of head. The pectoral equals one-ninth of the total length. Ventrals minute, scarcely more than one-third length of eye. Head naked. Body covered with large scales except immediately behind pectoral. Dorsal and anal fins minutely scaled. Lateral line single, abruptly decurved and becoming obsolete over about the tenth anal ray. Dorsal origin nearly over middle of pectoral. Anal origin under the eighteenth ray of the dorsal. D. ca. 85; A. ca. 74; P. 21.

A narrow light band across the nape and from nine to eleven across the back extending downward about to median line and becoming obscure in adults. Dorsal and anal with a narrow dark margin.

Bothrocara, new genus *Lycodidae*.

This genus resembles *Maynea*, but the vomer and palate are toothless. Weak teeth in the jaws in narrow bands. The lower jaw is barely included. Pseudobranchiae present. Branchiostegals six. Gill-membranes narrowly attached to the isthmus. Large pores along the jaws

and extending back to the opercle. Scales about as in *Maynea*, not evident on anterior part of the body in my specimens. Ventrals wanting. No pyloric cœca. Intestine short. Vent at the end of the first third of length. Dorsal beginning over base of pectoral, continuous with anal, the rays high.

Bothrocara mollis, new species.

A single example, $5\frac{1}{4}$ inches long, was trawled August 31, 1888, at station 2860, off Cape St. James, Queen Charlotte Islands, in 876 fathoms.

The eye is as long as the snout and three-elevenths as long as the head. Length of the head is contained $5\frac{1}{4}$ times in the total length; the depth $9\frac{1}{3}$ times. The maxilla reaches nearly to below middle of eye. The longest dorsal ray equals the orbit in length. A space as long as the head will include the first eighteen dorsal rays. The anal begins under the fifteenth ray of the dorsal; the longest ray is half as long as the longest dorsal ray. The pectoral extends to beneath the twelfth ray of the dorsal.

Color, uniform light brown.

Maynea pusilla, new species.

The specimen described was obtained July 31, 1888, at station 2848, north latitude $55^{\circ} 10'$, west longitude $160^{\circ} 18'$, at a depth of 110 fathoms.

The length of the type is $6\frac{1}{2}$ inches. The depth is one-ninth of the total length; head one sixth of the same length. The eye equals $1\frac{1}{2}$ times the length of the snout and one-third the length of the head. The maxilla extends to below the front of the pupil. The low dorsal begins nearly over the axil of the pectoral. The pectoral is nearly two-thirds as long as the head. The vent is as far from the end of the head as the dorsal origin from the tip of the snout. D. ca 95; A. ca 81; P. 17.

Color, light brown. Dorsal and anal with a narrow dark margin.

Maynea brunnea, new species.

A single large example, 18 inches long, was obtained May 8, 1888, at station 2839, in north latitude $33^{\circ} 08'$, west longitude $118^{\circ} 40'$, off San Clemente Island, Southern California, at a depth of 414 fathoms.

D. 105; A. ca. 95; P. 17.

The eye equals width of interorbital space and is three-fourths length of snout and one-fifth head. The maxilla extends to below the middle of the pupil. Vomer and palate with villiform teeth in broad bands; intermaxilla and mandible with broad bands of teeth, the outer row not greatly enlarged.

The length of the head is contained $4\frac{2}{3}$ times in total length. The depth equals two-thirds length of head.

Dorsal and anal finely scaled almost to their margins. The upper lateral line begins in front of the upper axil of pectoral and extends to above the third anal ray.

The lower line begins under about the seventeenth ray of the dorsal and continues to the root of the caudal.

Color, brown; margins of dorsal and anal bluish.

Poroclinus, new genus, *Blenniidae*.

Body elongate, moderately compressed, covered with small scales; lateral line obsolete. Head moderately long; snout short; eyes large; interorbital space narrow. Mouth small, lower jaw slightly included; teeth on vomer and palate; narrow bands of teeth in jaws, the outer series enlarged. Gill openings slightly prolonged forward below, narrowly attached to the isthmus anteriorly. Dorsal composed of many sharp, flexible spines, diminished in length anteriorly. Caudal long, pointed. Anal with three spines and many rays. Pectorals large, the middle rays longest. Ventrals jugular, with one spine and three rays. Intestine short; pyloric cæca one or two; no air bladder.

Poroclinus rothroeki, new species.

A single individual, 7 inches long, was taken August 4, 1888, at station 2852, north latitude $55^{\circ} 15'$, west longitude $159^{\circ} 37'$, at a depth of 58 fathoms, between Nagai and Big Koniushi Islands.

B. VI; D. LXI; A. III, 44; V. I, 3.

The eye is a little longer than the snout, and about one-fourth length of head. The maxilla extends a little beyond front of eye. The length of the head is contained $6\frac{1}{2}$ times in total without caudal; the depth 11 times. The dorsal origin is distant from tip of snout a space equal to length of head. The pectoral is about two-thirds as long as the head, and is distant from the vent a space equal to its own length. The ventral equals two-thirds depth of body. The caudal is nearly as long as the head.

Ten narrow pale bands on the sides extending downward about to the median line. Caudal with a double crescent-shaped pale marking. General color, light yellowish brown. Dedicated to Dr. J. T. Rothrock, professor of botany, University of Pennsylvania.

Careproctus spectrum, new species.

Twenty-six specimens were obtained, July 31, 1888, at station 2848, in north latitude $55^{\circ} 10'$, west longitude $160^{\circ} 18'$, 110 fathoms, between Unga and Nagai Islands.

The example figured and diagnosed is $3\frac{9}{16}$ inches long. The ventral disk is small, two-thirds as long as the eye, which is one-third as long as the head. The head is one-fourth of the total length to base of caudal. The mouth is large, the maxilla extending to about below the

middle of the eye. The greatest depth is about equal to the length of the head. The pectoral reaches to above the anal origin. The dorsal begins over the axil of the pectoral. D. 52; A. 47. Color along back of some examples light brown, elsewhere uniformly pale.

Icelus scutigera, new species.

Three individuals were collected, August 9, 1888, at station 2853, in north latitude 56° , west longitude $154^{\circ} 20'$, depth 159 fathoms, off Trinity Islands.

D. IX, 19; A. 18; V. I, 3; lateral line 41.

The eye is twice as long as the snout and two-fifths as long as the head. The head is one-third as long as the total without caudal. The maxilla extends to below the middle of the eye, and is broadly expanded behind. The interorbital space is extremely narrow, less than one fourth the length of the eye. The depth equals one-fifth of the total without caudal. The pectoral extends to above the sixth ray of the anal. The pre-operculum has a weak, simple spine hooked upward, and three weak ones pointing backward and downward. Teeth on vomer and palate.

The head has minute spiny scales most abundant on the upper half. All of the back above the lateral line is densely covered with small spiny scales. The lateral line is made up of raised tubes. There are a few rough scales under the lateral line in the second half of the body.

The branchiostegal membranes are broadly united and well freed from the isthmus. Slit behind fourth gill obsolete.

The spinous dorsal is very high, its longest spine two-thirds as long as the head. About four large, dark blotches across the back and several smaller ones between them.

The type is $3\frac{1}{2}$ inches long.

Icelus euryops, new species.

Three examples were obtained August 9, 1888, off Trinity Islands, at station 2853, with *Icelus scutigera*.

D. IX, 23; A. 18; V. I, 3; lateral line, 43.

The eye is about twice as long as the snout and two-fifths as long as the head. The head is one-third of the total length to base of caudal. The maxilla scarcely extends to below the middle of the eye. The interorbital space is about one-fourth length of eye. The depth of body is contained $5\frac{2}{3}$ times in total without caudal. The pectoral extends to above the second ray of anal. The preopercle is armed as in *Icelus scutigera*. Vomer and palate well toothed.

The head is scaled as in *I. scutigera*. The lateral line is composed of raised tubes. A single series of spiny scales on the back along the bases of the dorsals. Branchiostegal membranes broadly united, free from the isthmus. Slit behind last gill obsolete.

The spinous dorsal is low, its longest spine less than one-third length of head. Four dark bands across the back, the first over the end of the spinous dorsal, two on the soft dorsal and one at the base of the caudal. General color, light brown.

Dasycottus, new genus.

Related to *Cottunculus*, which it resembles in shape. Head large, with large bony tubercles and numerous filaments. Mouth wide; jaws equal, or lower jaw slightly projecting. Teeth minute, in villiform bands in the jaws. Vomerines in two patches, separated by an interspace. Palate toothless. Preopercle with two spines at its angle and two rudimentary ones on each edge of its lower limb. Gills $3\frac{1}{2}$, no slit behind the last. Gill-rakers short, tubercular, in moderate number. Gill-membranes free from the isthmus. Pseudobranchiæ present. Skin smooth, except on nape and along dorsal base, where it bears a few small, bony tubercles. Spinous dorsal well developed and separated from the soft dorsal by a deep notch. Pectorals moderately long, their rays procurrent below. Ventrals with a spine and three rays. Caudal rounded.

Dasycottus setiger, new species.

Four individuals were trawled August 10, 1888, at station 2855, north latitude 57° , west longitude $153^{\circ} 18'$, at a depth of 69 fathoms, off Sitkalidak Island.

D. IX, 15; A. 13; V. I, 3; pores in lateral line, 11 or 12.

The depth equals about two thirds length of head, which is nearly one-half of total length of base of caudal. The eye is nearly equal to the snout and is two-ninths of the length of head. The maxilla is expanded behind; its length equals that of the snout and eye combined; it extends to a little behind the middle of the eye.

The pectoral extends to above the anal origin. The ventral is one-half as long as postorbital part of head. The longest dorsal spine is about equal to the eye in length. Spinous dorsal with two dusky bands extending down on the sides; soft dorsal with two bands. A similar one at caudal base and three narrow bands on second half of caudal. Pectoral indistinctly banded. Head speckled with brown dots.

Malacocottus, new genus.

Shape similar to that of *Cottunculus*. Head large; body tapering rapidly to the slender tail; mouth terminal; jaws subequal. Minute villiform teeth in broad bands on maxilla and mandible; vomer and palate toothless. Preoperculum armed with short, stout, simple spines. Bones of the skull thin. Gills $3\frac{1}{2}$; no slit behind the last. Gill-openings wide, the membranes broadly attached to the isthmus. Gill-rakers tubercular, in moderate number. Spinous dorsal low, separated by a deep

notch from the soft dorsal. Pectorals procurent in front. Ventrals small. Caudal rounded. Vent distant from the anal origin. Head and body naked. Lateral line consisting of a series of large pores.

Malacocottus zonurus, new species.

D. IX, 14; A. 11; V. I, 3; pores in lateral line, about 14.

The eye is about equal to the snout in length and is two-sevenths as long as the head. Interorbital space less than one-half length of eye. The maxilla extends to below the middle of the eye. The pectoral reaches to a vertical through the anal origin, or a little beyond. The ventral is scarcely as long as the eye. The depth equals length of head without snout. Spinous dorsal low; its base one-half as long as the head; its longest spine two-thirds as long as the eye. The beginning of the dorsal is immediately above the upper angle of the gill-opening. The least height of the tail is scarcely two-thirds length of eye. Four spines on the preopercle, the largest less than one-half as long as the eye and with a supplementary spine at its base.

A dark-brown saddle-shaped band over the end of the spinous dorsal and two on the soft dorsal. A brown band at the base of the tail and three on the caudal. Pectoral with several indistinct dark bands intermingled with pale areas. Tips of pectoral in its lower half exerted, milky white.

Seven examples were taken August 9, 1888, at station 2853, in north-latitude 56° , west longitude 154° , at a depth of 159 fathoms, off Trinity Islands. The type of the description and figure is $4\frac{3}{4}$ inches long.

Hemitripteris marmoratus, new species.

Two small examples, each about $2\frac{3}{4}$ inches long, were trawled at a depth of 69 fathoms August 10, 1888, at station 2855, off Sitkalidak Island, north latitude 57° , west longitude $153^{\circ} 18'$.

D. XIV, 12; A. 13; V. I, 3; 44 tubes in lateral line.

The eye is about as long as the snout and one-quarter as long as the head, which is three-eighths of the total without caudal. The depth is three-elevenths of the total without caudal. The pectoral reaches to the vertical through the anal origin. The ventral is scarcely longer than the eye. The gill membrane is free from the isthmus. The maxilla reaches beyond the end of the eye. The first dorsal base is as long as the head without the snout; the first four species are less elevated and differentiated than is usual in the genus.

Sides dark gray, intermingled with whitish reticulations.

Psychrolutes zebra, new species.

Many individuals were secured July 31, 1888, at station 2848, north latitude $55^{\circ} 10'$, west longitude $160^{\circ} 18'$, at a depth of 110 fathoms, between Unga and Nagai Islands.

The first dorsal contains nine weak spines and is entirely concealed under the skin. D. IX, 15; A. 12; V. I, 3. The eye is nearly one-fourth as long as the head and about equals snout and also width of interorbital space. The maxilla extends to below middle of eye. The head is three-eighths of total length to base of caudal. Depth equals head without snout. The pectoral reaches to above origin of anal. Ventral small, one-third length of head. Vent about midway between ventral and anal origin. The second dorsal begins nearly over the tip of the pectoral. Light chocolate-brown above, whitish below. Several narrow dark-brown bands across the first dorsal and a dark saddle over second dorsal, the markings extending down on sides. Pectoral with two, sometimes three, dark bands. A band at caudal base and several narrow bands on second half of caudal.

Sebastolobus alascanus, new species.

Several individuals were obtained August 9, 1888, at station 2853, off Trinity Islands, north latitude 56° , west longitude 154° , at a depth of 159 fathoms. The largest one is $4\frac{7}{10}$ inches long.

D. XV, I, 9; A. III, 5; V. I, 5; P. 20; lateral line 32 or 33.

The lower five rays of the pectoral are lengthened and project beyond the membrane. The eye is twice as long as the snout and two-fifths the length of the head. The maxilla extends nearly to below end of eye. The length of the head is contained $2\frac{2}{3}$ times in total length without caudal. The depth is one-quarter of total without caudal. The first dorsal spine is one half as long as the second, one-quarter as long as the fourth, which is about one-third of length of head. The first anal spine is two-fifths of the second, which is one-fifth of total without caudal.

A dark blotch on membranes between first and third dorsal spines, and a large one from sixth to eleventh spine.

Chauliodus macouni, new species.

An individual $3\frac{2}{3}$ inches long was trawled August 31, 1888, at station 2860, north latitude $51^{\circ} 23'$, west longitude $130^{\circ} 34'$, at a depth of 876 fathoms off Cape St. James, Queen Charlotte Islands.

D. VI; A. 11; V. 7; P. 13; scales 56.

The eye is equal to the snout in length, and two-ninths of length of head. The longest mandibular tooth is nearly one-half length of head. The head equals about one-sixth of total length without caudal.

The dorsal begins over the fifth row of scales; its first ray equals two-ninths of total without caudal; its base equals one-third length of head. The adipose dorsal-base equals two-thirds anal base. The ventral is under the seventeenth row of scales; its length one-fifth of total without caudal. The anal base equals one-half length of head; its longest ray nearly one-fourth length of head.

Dedicated to Prof. John C. Macoun, of the Geological Survey of Canada.

Labichthys gilli, new species.

An example $18\frac{1}{2}$ inches long was taken, August 29, 1888, at station 2859, east of Prince of Wales Island, north latitude $55^{\circ} 20'$, west longitude $136^{\circ} 20'$, depth 1569 fathoms.

The eye is one-half as long as the post-orbital part of head, and about two-thirds length of pectoral. The post-orbital part of the head is one-fourth length of upper jaw, and three-elevenths of lower jaw from angle of mouth. The dorsal begins nearly over the end of the pectoral. The vent is distant from the head a space equal to four times post-orbital part of head. The depth of body equals length of head without the snout, and about one-thirty-ninth of total. Dorsal rays very short. The longest anal ray equals one-fifth length of head. The lateral line is made up of a single series of large pores. This species resembles *L. carinatus*, but in that species the dorsal begins over the pectoral origin and the vent is close behind the pectorals. Color uniform black. The species is named for Dr. Theo. Gill, the discoverer of the genus *Labichthys*.