

DESCRIPTIONS OF TWO NEW SPECIES OF FISHES, FROM
HONOLULU, HAWAII.

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In a recent visit to Honolulu, two new species of fishes were obtained and placed in the United States National Museum. These species are described in this paper.

HOLACANTHUS POTTERI Jordan and Metz, new species.

Plate 71, fig. 1.

Dorsal XIV, 19; anal III, 18 or 19; scales about 45; transverse series between anal and dorsal 20. Measurements in hundredths of length: Head 32; depth 58; eye 11; snout 11; postorbital part of head 11; interorbital 10; depth of caudal peduncle 14; snout to dorsal 40; snout to anal 63.

Body short, ovate, deep, greatly compressed, deepest through base of ventrals; dorsal outline more convex than ventral; snout bluntly conic, or rounded; profile from snout to dorsal gently, evenly curved; dorsal fin rather high, last spine equal to depth of caudal peduncle; first spine short, inserted above posterior margin of opercle; spines 1 to 5 graduated, remainder about equal, slightly shorter than first ray; soft dorsal evenly rounded, middle rays longest; caudal rounded; anal similar to soft dorsal, but tapering more rapidly in front; anal spines graduated, third the longest; ventrals inserted slightly behind pectorals, outer ray of each somewhat filamentous, reaching to third anal spine; pectoral reaching to above second anal spine. Eye rather large, high, almost entering profile; interorbital slightly convex; nostrils near eye, anterior with small flaps on posterior border; lower margin of preopercle with three spines, the upper one large, equal to diameter of eye, and reaching nearly to base of pectoral; margin of preopercle above with a series of 8 to 10 small, spine-like serræ; opercle unarmed; suborbital with three or four very small spines on posterior margin; gill-rakers numerous, slender; teeth fine, setiform, in single series.

Body scales fairly large, becoming smaller ventrally; unpaired fins entirely scaled; paired ones scaled mainly at base; head, including snout, cheeks, and orbitals entirely covered with small scales; all scales roughly ctenoid.

Color in spirits: Ground color white, broken by many narrow, dark bands, or reticulations. On the body behind the head are about 21 of these running transversely; those on the posterior half extend entirely across, while those back of the pectoral turn abruptly in a horizontal direction; head covered with numerous similar stripes, confluent above, and joining others on the breast below; four or five of these cross the interorbital area, while between the dorsal fin and the snout are 13 or 14, one of which forms a complete ring around the mouth on the lips. Spinous dorsal pale, broken by extensions of the body stripes; soft dorsal darker, with reticulations and three or four horizontal wavy dark bars, tip edged with black; caudal dark; anal similar to soft dorsal, but markings largely obliterated by general dark color; pectorals and ventrals white, except for ventral filaments. On each side, behind and above the pectoral base, is a large, black blotch, of irregular outline, conspicuous in fresh specimens, but possibly fading with age.

Color in life: The light spaces on the body were pale pink or flesh color, the darker cross-streaks were of carnelian or dull red-orange. The soft parts of the vertical fins were blackish, the edges bright lustrous blue.

This species is quite distinct from other Hawaiian species in color and form, as well as many less conspicuous characters.

This little fish was seen alive by Doctor Jordan in the Waikiki aquarium at Honolulu. It was recognized as a new species and one of exquisite delicacy of coloration.

Type.—The type was presented to the United States National Museum by Mr. Frederic A. Potter, director of the aquarium, for whom the species is named. The specimen was taken from the coral reef at Honolulu. It is numbered 73911 in the United States National Museum. It is 2.9 inches in length.

CHROMIS VERATER Jordan and Metz, new species.

Plate 71, fig. 2.

Head 3.75 in length to base of caudal, depth 1.80. Dorsal rays XIV, 13; anal 11, 14; scales 4-27; pores 18; eye 3 in head; snout 4.25; maxillary 3; interorbital space 2.80.

Body short, very deep, ovate, much compressed; dorsal outline evenly curved, except for a slight interorbital depression; ventral outline slightly less curved; head as deep as long, snout short, blunt; mouth small, inclined upward; maxillary reaching to below anterior margin of eye; teeth in two series, the outer rather strong, bluntly

conic, inner series small, somewhat irregular; interorbital area rather broad, convex with a transverse depression, snout, suborbital, lower jaw and opercles scaled; opercle and preopercle entire; caudal peduncle stout, deep, compressed, nearly twice as deep as long; caudal shallow-emarginate, upper lobe a trifle the longer; spinous dorsal nearly uniform in height from third to last spine, 1.8 in head, about two-thirds height of soft dorsal which is somewhat pointed, with fourth to eighth rays longest; anal similar to soft dorsal but longer, first spine small, second very large, three times first; base of pectorals below origin of dorsal; base of ventrals below posterior base of pectoral; ventrals rather long, reaching anal; scales large, ctenoid, regular; lateral line following outline of back, ending below origin of soft dorsal, beginning again on caudal peduncle, base of fins scaled; spinous dorsal depressible into groove of scales and with row of scales on membrane between each two spines; body scales somewhat angular at apex, not evenly curved.

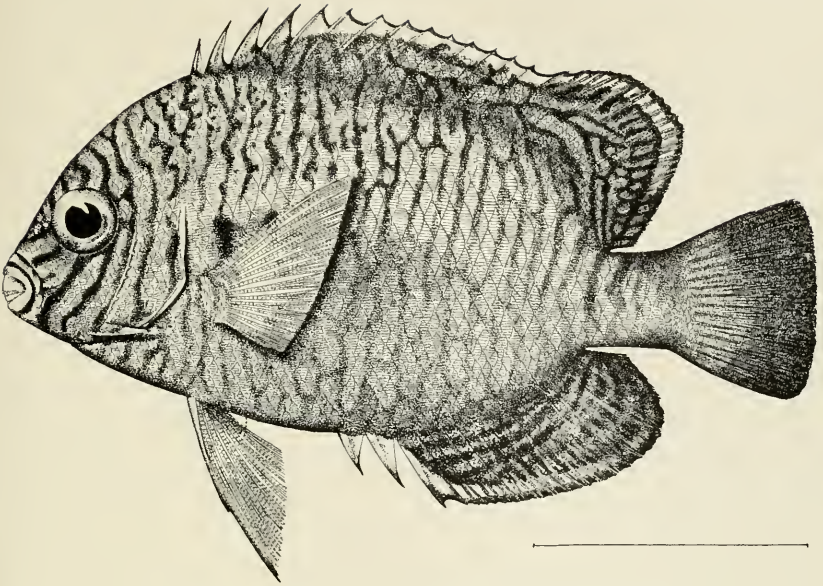
Color in alcohol: Very dark chocolate brown, slightly lighter below, and darker on head; all fins except the pectoral uniform blackish; pectoral translucent, axil black, a large obscure round pale light spot at base of last rays of dorsal and of anal; scales of body margined, this giving a latticework impression.

Type.—Of this species we have two specimens obtained by the senior writer at Honolulu, the type 7 in. long, in the United States National Museum (No. 73912), and a cotype a little smaller, sent to the Carnegie Museum in Pittsburgh, the two found at the same time in the market of Honolulu, in company with *Chromis ovalis*.

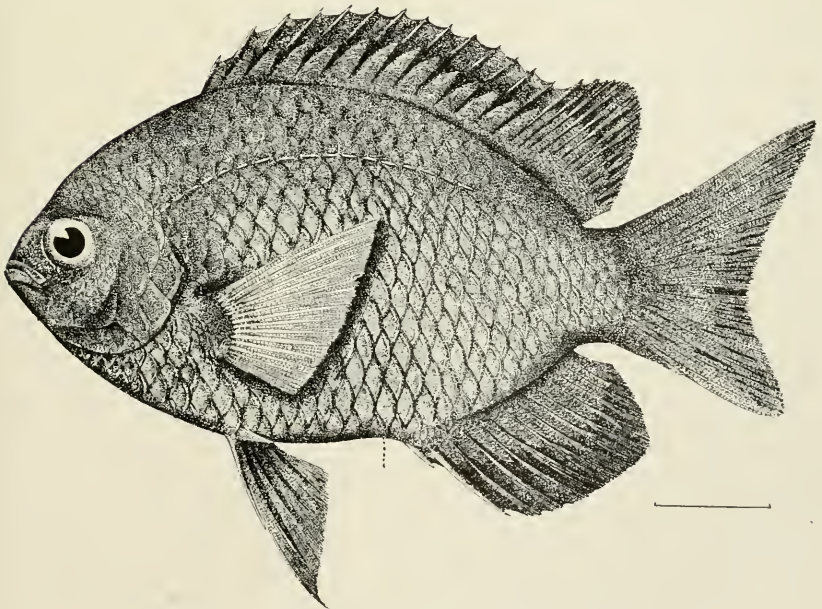
This is the deepest in body of all the species of *Chromis*. Its nearest relative seems to be *Chromis axillaris* Bennett from Mauritius.

It is well separated from the other two Hawaiian species. *Chromis ovalis* Steindachner has a deeply forked caudal, and is more elongate. *Chromis elaphrus* Jenkins is more elongate, and differs in various details of form and color.

In this connection, we may note that *Myripristis berndti* Jordan and Evermann from Honolulu is not distinct from *Myripristis murdjan*. Most of the specimens referred by Jordan and Evermann to *Mulloides samoensis* seem to belong rather to *Mulloides preorbitalis* (Smith and Swain) (not a *Pseudupeneus*). *Mulloides samoensis* occurs at Honolulu and was obtained at this time. The snout in *M. preorbitalis* is longer and less decurved. The figure of "*Dascyllus albisella*," reproduced by Jordan and Evermann from Bleeker, belongs to *Dascyllus trimaculatus* of the East Indies.



1. *HOLACANTHUS POTTERI*. (PAGE 525.) FROM THE TYPE.



2. *CHROMIS VERATER*. (PAGE 526.) FROM THE TYPE.

