
DESCRIPTION OF A NEW DARTER FROM MARYLAND



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By LEWIS RADCLIFFE and WILLIAM W. WELSH.

There are about 15 known species of darters belonging to the genus *Hadropterus*. Of these only two (*H. peltatus* and *roanoka*) have been reported east of the Alleghenies and north of the Carolinas. In North Carolina, *H. evides*, which is common west of the Alleghenies, here occurs on the Atlantic slope. The range of *H. nigrofasciatus* extends from South Carolina to Louisiana. The remaining species are found in the Mississippi Basin, Great Lakes, and southwestern streams. The members of this genus are active, graceful, and usually of brilliant coloration.

The examples of the new species herein described were seined in Swan Creek, near Havre de Grace, Md., in water 6 inches deep, on a long, stony riffle, where the bottom was comparatively free from boulders and the current so swift that one would not have expected to find fishes of any kind.

Hadropterus sellaris, new species.

Dorsal XI-11,i; anal II,8,i; pectoral 14; scales 5+6-46 (+3).

Head 3.66, considerably broader than deep, parietal region rather depressed; body slender, fusiform, not markedly compressed, greatest depth 5.09; caudal peduncle slender, as long as head, its depth 2.75 in its length; eye 3.67, subcircular, dorso-lateral; snout 3.14; interorbital very narrow, 2.4 in diameter of eye; mouth rather wide, terminal, lower jaw included; maxillary 2.82, reaching nearly to vertical from anterior margin of pupil, premaxillaries not protractile, the broad frenum connecting them with the skin of the forehead without groove; teeth small, vomerine and palatine teeth present.

Spinous dorsal low, fourth spine longest, 2.20 in head; second dorsal somewhat higher, second ray longest, 1.80; distal edge of caudal emarginate, anal low, sixth ray longest, 1.83; ventrals 1.21, rather widely separated at base, tips of spine and anterior rays expanded, adipose; pectorals broad, slightly longer than head, reaching to behind the vent, tips of lower rays expanded, adipose.

Opercle and cheeks to below middle of eye scaled, rest of head naked, back in front of dorsal, breast, and belly naked; scales large, regular in arrangement, about as deep as long, the free portion with a submarginal row of well-developed spinules; lateral line nearly straight, not arched anteriorly.

Color in alcohol: Ground color light smoke-gray, becoming white on ventral surface; back crossed by four black saddles with light margins, broadest dorsally, narrower than interspaces, the first extending across back in front of spinous dorsal downward to base of pectoral, the second, lying between base of next to last dorsal spine and origin of second dorsal, extends downward and forward below lateral line; the third, from sixth to last dorsal ray, extends downward and forward to within two scales of base of anal; the fourth, crossing back in front of base of caudal, extends downward and slightly forward to

ventral surface of caudal peduncle. Lying below the lateral line, and alternating with the black saddles are four black quadrate blotches, the last being on base of caudal. Several scales on either side of base of spinous dorsal between first and second saddle black. Dorsal spines with a few dusky or black markings; the soft dorsal crossed by three rows of blackish spots, these confined to the rays; caudal with dusky mottlings; anal and ventrals white; pectoral crossed by five more or less concentric rows of blackish spots; axil white. Opercle and top of head dusky, a black spot behind eye, a black bar in front of eye, a second below eye, and a third from upper margin of pupil to interorbital, apparently a continuation of the second.

In life the reddish-brown ground color and jet-black saddle markings present a very striking appearance.

Type: Catalogue no. 74346, United States National Museum, 4.9 cm. in length, from Swan Creek, Md., May 2, 1912.

The cotype, 4.9 cm. long, agrees with the type in the form of fins, scaling, and coloration; and has dorsal x-11,i; anal 11,8,i, pectoral, 14, scales, 5+9-50 (+3), head, 3.66; depth, 5.17; length of caudal peduncle equal to maxillary, 2.82, interorbital, 2.38 in eye.

The differences between *H. sellaris* and *H. peltatus*, the only other species whose range coincides, may be seen from the following comparative table, based on the type and cotype of the new species and on 6 specimens of *H. peltatus* from Mattapony River, Va. (No. 69716, U. S. National Museum).

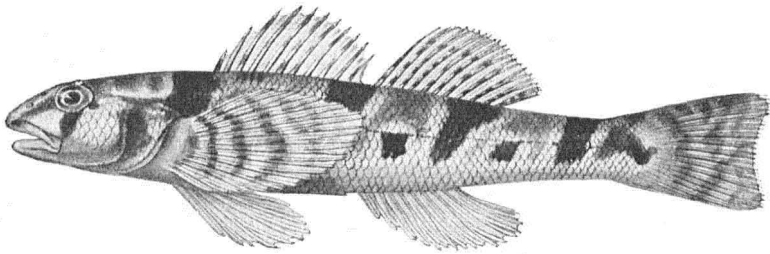
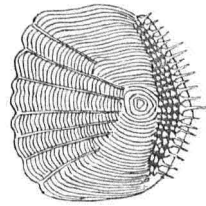
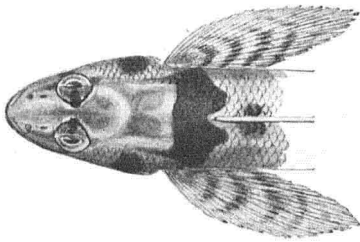
COMPARISON OF MEASUREMENTS OF HADROPTERUS SELLARIS AND H. PELTATUS.

Items.	Hadropterus peltatus.						H. sellaris.	
	6.55 cm....	5.5 cm....	5.0 cm....	5.0 cm....	4.9 cm....	4.7 cm....	4.9 cm....	4.9 cm.
Total length.....	6.55 cm....	5.5 cm....	5.0 cm....	5.0 cm....	4.9 cm....	4.7 cm....	4.9 cm....	4.9 cm.
Dorsal formula.....	XIV-12,i	XIII-13,i	XIII-12,i	XV-11,i	XIII-12,i	XIII-11,i	XI-11,i	X-11,i
Anal formula.....	11,9	11,9	11,8,i	11,8,i	11,8,i	11,8,i	11,8,i	11,8,i
Scales.....	6+9-56	5+8-57	6+10-52	6+10-53	5+9-55	6+8-57	4+6-46	5+7 ^a right-50
Eye in head.....	3.47	3.47	3.12	3.37	3.31	3.43	3.67	3.55
Snout in head.....	3.47	3.90	3.86	3.93	3.87	4.48	3.14	3.14
Maxillary in head.....	3.12	3.20	3.05	3.11	3.05	3.22	2.82	2.82
Interorbital in head.....	6.24	6.25	5.50	5.90	5.52	5.15	8.80	8.46
Interorbital in eye.....	1.80	1.80	1.62	1.75	1.66	1.50	2.40	2.38
Interorbital in snout.....	1.80	1.60	1.43	1.50	1.43	1.15	2.80	2.69
Pectoral in head.....	1.27	1.10	1.16	1.12	1.16	1.03	.92	.92

^a Left side, 9.

BULL. U. S. B. F., 1912.

PLATE XVIII.



Hadropterus sellaris, new species.