

**DESCRIPTION OF A NEW SPECIES OF FISH, APOGON PANDIONIS,
FROM THE DEEP WATER OFF THE MOUTH OF CHESAPEAKE
BAY.**

BY G. BROWN GOODE AND TARLETON H. BEAN.

Among the fishes collected in October, 1880, by Capt. Z. L. Tanner, on the Fish Commission steamer Fish Hawk, off the entrance to Chesapeake Bay, is a single specimen of a species of *Apogon*, apparently new to science. The specimen being somewhat mutilated, this description is necessarily incomplete.

Apogon pandionis, new species. Goode and Bean.

Body oblong, rather robust, its greatest width (behind the gills) being equal to half the length of the head, and contained six times in the length of body without caudal; its greatest height contained about thrice and two-thirds in the body length. Least height of tail almost equal to half the greatest height of the body. Scales, small cycloid, forty-five in the lateral line; three longitudinal rows above and nine below the lateral line; lateral line complete.

Length of head one-third of standard length of body, its greatest width equal to greatest width of body. Length of snout four and one-half times in length of head. Maxilla extends to a point a very little behind the anterior margin of the pupil, the mandible to the vertical from the middle of the eye. Length of maxilla equal to long diameter of the eye. Preoperculum apparently unarmed. Operculum with two flexible points near its upper posterior angle. Gill-rakers very long and slender.

Eye nearly circular, its longest diameter nearly equals half the length of the head and is contained seven times in the standard body length nearly horizontal. Width of interorbital space equals two-thirds the diameter of the eye. Mouth oblique, the lower jaw projecting. Dentition in jaws hardly perceptible. Feeble teeth on the head of the vomer and on the palatine bones.

Distance of dorsal from snout equal to twice the greatest width of the body; its longest spine (fourth) equal in length to three-fourths the diameter of the eye. Distance from origin of first dorsal to origin of second dorsal equal to twice the length of the base of the latter

Distance of anal from snout equal to twice the length of the head; the length of its base is equal to two-thirds the length of the eye; of its longest ray to the length of the maxilla. First anal spine minute, its length equal to one-fourth of the least height of the tail; the second anal spine at least twice as long as the first. Caudal deeply furcate, scaled upon the lower portions of the lobes.

Distance of pectoral from snout equal to length of head; its length equal to that of the maxilla.

Distance of ventral from snout slightly greater than one-third of the standard body length.

Radial formula.—D. VII, I, 9; A. II, 7½; P. 16; V, I, 5.

Scales, in lateral line, 45; above lateral line, 3; below, 9.

Color nearly uniform light, reddish brown, with no blotches. Scales finely punctulate with black. —/e

Our description is based upon museum specimen No. 26228.

Among the other interesting forms collected in the same locality is a young specimen of *Hoplostethus mediterraneus*, and also a species of *Scorpaena*, soon to be described.

METALLIC CASTINGS OF DELICATE NATURAL OBJECTS.

[Translated.]

The following process is recommended by Abbass for producing metallic castings of flowers, leaves, insects, &c. The object, a dead beetle for example, is first arranged in a natural position, and the feet are connected with an oval rim of wax. It is then fixed in the centre of a paper or wooden box by means of pieces of fine wire, so that it is perfectly free, and thicker wires are run from the sides of the box to the object, which subsequently serve to form air-channels in the mold by their removal. A wooden stick, tapering toward the bottom, is placed upon the back of the insect to produce a runner for casting. The box is then filled up with a paste of three parts of plaster of Paris, and one of brick-dust, made up with a solution of alum and sal ammoniac. It is also well first to brush the object with this paste to prevent the formation of air bubbles. After the mold thus formed has set, the object is removed from the interior by first reducing it to ashes. It is therefore dried slowly, and finally heated gradually to a red heat, and then allowed to cool slowly to prevent the formation of flaws or cracks. The ashes are removed by pouring mercury into the cold mold and shaking it thoroughly before pouring it out, and repeating this operation several times. The thicker wires are then drawn out, and the mold needs simply to be thoroughly heated before it is filled with metal in order that the latter may flow into all portions of it. After it has become cold it is softened and carefully broken away from the casting.

THE OCCURRENCE OF THE CANADA PORCUPINE IN MARYLAND.

By OTTO LUGGER.

Referring to the paper on the occurrence of the Canada Porcupine in West Virginia by Mr. Goode, in Vol. I, Proceedings U. S. National Museum, page 264, I wish to mention that this Porcupine, *Erethizon dorsatus*, is still, though rarely, found in Maryland. In the museum of the Maryland Academy of Sciences is a specimen from Alleghany