

ERIDACNIS RADCLIFFEI. FROM THE TYPE.

FOR EXPLANATION OF PLATE SEE PAGE 599.

DESCRIPTION OF A NEW CARCHARIOID SHARK FROM  
THE SULU ARCHIPELAGO.

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Among the deep-water sharks collected by the United States Bureau of Fisheries steamer *Albatross* on the Philippine cruise is a small, undescribed species representing a new genus of Carchariidæ, obtained off the island of Jolo (Sulu).

ERIDACNIS, new genus (Carchariidæ).

Small, deep-water, viviparous sharks with nictitating membrane; well-developed spiracle behind eye; wide, angular mouth, without labial grooves; small, erect, pluricuspid teeth of somewhat variable shape but similar in two jaws; rather narrow gill openings of which the last 2 or 3 are above pectoral base; subequal dorsal fins, the first entirely anterior to ventrals; anal fin opposite second dorsal and much smaller; elongate, nearly straight caudal, with notch near tip of basal lobe; no pit at root of tail; no caudal keel; closely imbricated shield-shaped dermal denticles which are finely reticulate on base and sides.

*Type of genus.*—*Eridacnis radcliffei*, new species.

This genus is related to *Triakis* Müller and Henle, but differs in shape of mouth, absence of labial grooves, shape of teeth, form of dermal denticles, etc.

ERIDACNIS RADCLIFFEI, new species.

Plate 47.

Form elongate, rather slender, body compressed, depth at origin of first dorsal about 0.5 length of head (to posterior gill opening); head broad, depressed, its width equal to distance from pupil to posterior gill opening, its length contained 5.2 times in total length of fish; eye equal to snout, its anterior margin in line with middle of

upper jaw; interorbital space convex, broad, 1.66 diameter of eye; spiracle rather large, functional; snout semicircular in outline, the preoral space greater than diameter of eye; nostrils large, with square flaps; mouth large, its width twice eye, angular, the two sides forming an angle of  $45^{\circ}$ ; teeth small, similar in two jaws, about 28 in first

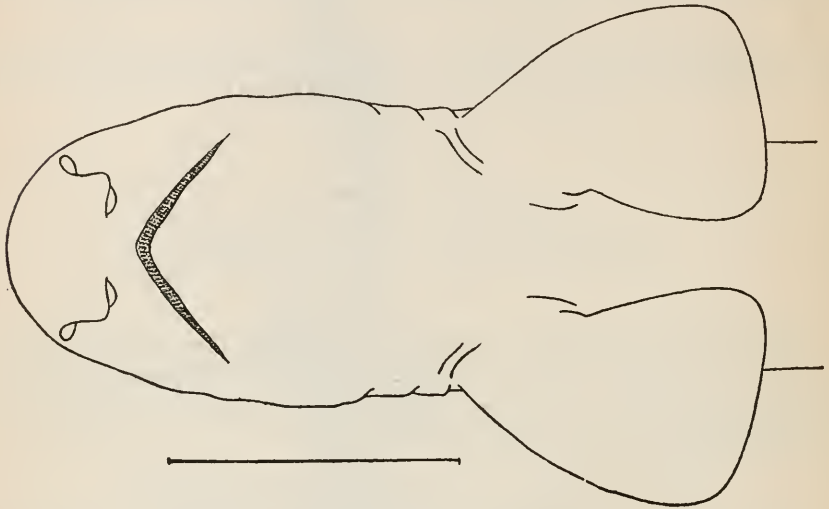


FIG. 1.—ERIDACNIS RADCLIFFEI. UNDER SIDE OF HEAD.

row in each side of each jaw, pluricuspid, the central cusp rather larger in upper jaw, with 2 or 3 proximal cusps and 1 distal cusp on each tooth except 3 teeth nearest symphysis, which have a middle cusp and 2 lateral cusps on each side; 3 teeth nearest symphysis in lower jaw with middle cusp and 1 lateral cusp on each side, the number of cusps on proximal side increasing to 2, 3, and 4, while the distal side has only 1 cusp; gill apertures rather narrow, the last two posterior to anterior margin of the pectoral, the fourth slit widest;

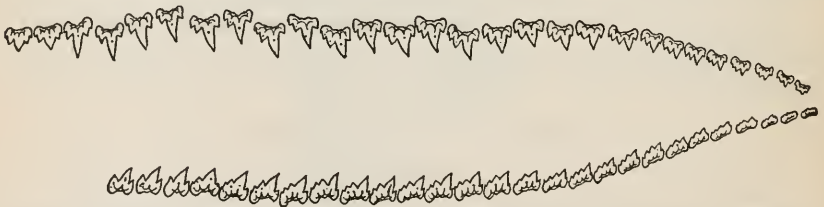


FIG. 2.—ERIDACNIS RADCLIFFEI. TEETH OF UPPER AND LOWER JAWS, GREATLY ENLARGED.

dermal denticles with rounded base, a central sharp point, and a short rectangular shoulder on each side, a central groove flanked by lateral keels extending from base to sides of the pointed extremity, and another groove on the outer side of each keel, the sides and base of denticles having several rows of minute reticulations (not shown in figure).

Dorsal fins well developed, subequal, origin of first midway between tip of snout and origin of second, the first dorsal directly over space between pectorals and ventrals; caudal long, nearly straight, a deep notch near tip, its length equal to distance from tip of snout to origin of first dorsal, upper lobe low, and rounded lower lobe deeper than anal; anal under second dorsal but less than half its size; ventrals small, about size of anal; pectorals broad, rounded, their length slightly less than breadth of head.

Color: Light brown above, whitish below; posterior half of body with several faint, irregular, dark brown cross bands.

*Type*.—Cat. No. 74604, U.S.N.M., a female specimen 23.0 cm. long, taken with a beam trawl at station 5135 (lat.  $6^{\circ} 11' 50''$  N.; long.  $121^{\circ} 08' 20''$  E.), off Jolo light, island of Jolo, February 7, 1908, at a depth of 161 fathoms.

This fish was taken aboard the fisheries steamer *Albatross* alive, and contained 2 large embryos inclosed in thin membranous sacs. One of the sacs was opened, and the young, when placed in a dish of

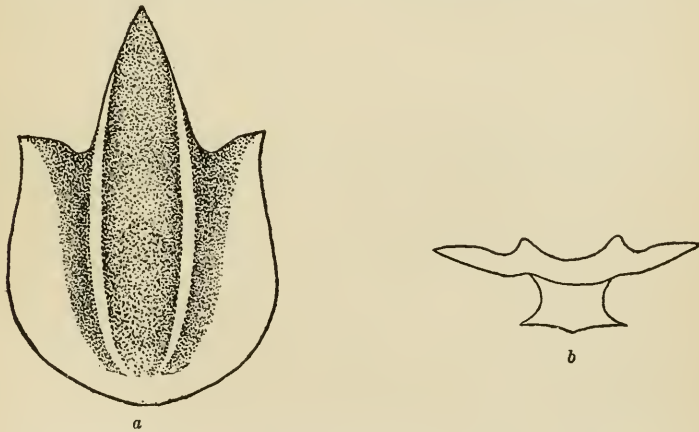


FIG. 3.—ERIDACNIS RADCLIFFEI. *a*, A DERMAL DENTICLE FROM SIDE; *b*, CROSS SECTION OF DERMAL DENTICLE, THROUGH MIDDLE, SHOWING ATTACHMENT.

salt water, swam actively. When in the sac, which was 4.7 cm. long and 1.7 cm. wide at its widest part, the body of the embryo was bent sharply to the left, just posterior to the ventral base, and the end of the tail was curved around the snout. The length of the embryo was 11.3 cm., or nearly half that of the mother.

This species is named for Mr. Lewis Radcliffe, scientific assistant of the Bureau of Fisheries and a member of the *Albatross* Philippine expedition.