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REGALECUS GLESNE, ASCANIUS.—AN ADDITION TO
THE FAUNA OF NEW SOUTH WALES.

By EDGAR R. WAITE, F.L.S., Zoologist.

IN his article—"On a species of *Regalecus* or Great Oar-fish, caught in Okain's Bay,"* H. O. Forbes mentions that the example there recorded is the tenth known from New Zealand waters, the records being as follows:—(1) Nelson, Oct. 1860; (2) Jackson's Bay, 1874; (3) New Brighton, May 1876; (4) Little Waimangaroa Beach, 1877; (5) Cape Farewell, 1877; (6) Moeraki, 1881; (7) Moeraki, June 1883; (8) Otago, June 1887; (9) Nelson Harbour, September 1890; (10) Okain's Bay, May 1891.

Two examples have been recorded from Australian seas. McCoy† figures and describes under the name *Regalecus banksi*, Cuvier, a specimen taken in May 1878, between Victoria and Tasmania. The second occurrence was near the Tweed River, in Queensland waters, and C. W. De Vis publishes a description of the fish under the new name *Regalecus mastersii*.‡ In his Catalogue§ Macleay includes *Regalecus gladius*, Cuv. & Val., with the remark, "said to have been seen on the Tasmanian Coast. Johnston, possibly on this authority, places it in his list of Tasmanian species.|| The example described by Ramsay as *Regalecus jacksoniensis*¶ is really a *Trachipterus*.

I have now to record a third Australian example. On August 12th last, a very fine specimen was discovered by a fisherman cast up on Shark Beach, within Port Jackson. It was obtained by Mr. Fitzwilliam Wentworth, of Greycliff, Vaucluse, who presented it to the Trustees.

Examples of the genus have never been obtained perfect, due to the extreme fragility of their members. The portions missing in our specimen were the lower parts of the head, including the branchiostegals, the cephalic and nuchal crests, one of the ventral filaments, and the end of the caudal. The body was cut almost in halves, by, it is presumed, a boat: otherwise it was in fair

* Forbes—Trans. New Zeal. Inst., xxiv., 1891, p. 192.

† McCoy—Prod. Zool. Vict., Dec. xv., 1887, pl. 145.

‡ De Vis—Proc. Roy. Soc. Qd., viii., 1892, p. 109.

§ Macleay—Proc. Linn. Soc. N.S.W., vi., 1882, p. 55.

|| Johnston—Proc. Roy. Soc. Tasmania, 1890, p. 34.

¶ Ramsay—Proc. Linn. Soc. N.S.W., v., 1881, p. 631, pl. xx.

condition and the appended notes were made while the taxidermists were engaged upon their work, no time having to be lost in its preparation. It proved to be a female, as with every other specimen of *Regalecus* sexually examined.

REGALECUS GLESNE, *Ascanius*.

D. 340+? V. 1. P. 12.

Height of body 15·46, length of head 20·1 in the total length. Eye 5·0 and maxilla 28·5 in the length of the head. Teeth absent. The head and body together are much shorter than the tail, being contained therein 3·5 times. The gill rakers of the first arch are very long, the longest measuring 28 mm.; they are slender and tapering and are furnished with short stiff hairs on their inner margins; there are five rakers on the hinder and thirty-four on the lower limb—there is also a very small raker between each of the larger ones, it may easily be overlooked. A second set occurs on the inner side of the arch, these rakers are comparatively small and are arranged in three series, the largest not more than 6 mm. in length. The first series consists of a rather broad triangular plate, surmounted by a thickened head which bears a number of hairs. The second series is alternate with the first one, and the rakers are similar, but only half their size. The third series is formed of rakers less than half the size of those of the second series, they occur between each of the others and are therefore twice as numerous, these are comparable with the small alternate rakers described on the outer set of the first arch. The rakers on the other arches (there are four and a half in all) are very small and are similar to the inner set of the first arch. The tail is possibly incomplete, but I do not think very much has been lost, the membrane extends to its tip. Of the cephalic rays the first is the only one now perfect, it is very stout basally but tapers to a thread, it measures two and a quarter times the length of the head; the four following are slender, close together but are broken off at about one-third the length of the first one, the others are broken short, all were connected by membrane. The dorsal fin is tolerably perfect but broken away at intervals, its height is one-half more than the diameter of the eye. The only pectoral fin remaining is broken, but it has not the vertical aspect ascribed to some forms, and exhibits the bases of twelve rays. One of the ventral filaments is complete and extends nearly to the vent, it terminates in a fleshy tag. The lateral line arises above the operculum, passes obliquely downwards and runs along the lower half of the body at about one-fourth its height from the ventral surface.

The skin is very thin and is marked by five longitudinal rows of tubercles, where these tubercles exist the skin is attached to

the flesh beneath, but the spaces between are quite free and a pencil or penholder may be passed under the skin along the entire length of the body.

Colour—The general colour is silvery-grey, the upper surface is quite silvery and the five tubercular rows are equally so. The body is marked with irregularly oval black spots, those in front being as large as half a crown, while those towards the end of the tail are much smaller—about the size of a shilling piece. On the lower surface the spots are more widely spaced, and narrow black vertical bars are placed at intervals and directed obliquely from before backwards. The fins including the ventral filaments, are flaming red; the dorsal is variegated with a series of opal coloured spots, one to each ray, placed nearer the body than the edge of the fin; mouth within black. The vertebræ are 136 + ? in number.

Dimensions.

Total length...	...	...	...	...	4020 mm.
Length of head	...	...	...	...	200 "
Height do.	...	...	...	...	190 "
Diameter of eye	...	...	...	...	40 "
Length of maxilla	...	...	...	...	70 "
Height of body	...	...	...	...	260 "
Head to vent	...	...	...	...	1150 "
Length, cephalic filament	...	...	...	...	450 "
Ventral filament, including tag	...	...	...	...	280 "
Ventral terminal tag	...	...	...	...	60 "
Height of dorsal fin	...	...	...	...	65 "

The general inclination is to now regard all the described examples as referable to one species, *R. glesne*, and although this name is adopted for our example, it is to be borne in mind that specimens exhibit very great diversity in proportionate height and length. It has, on the other hand, been pointed out that the proportions of head to body and the number of fin rays differ greatly at different ages. Parker* has drawn up a key to the species of *Regalecus*, from this our specimen appears to be referable either to *R. banksii* or *R. grillii*, having more than two hundred and fifty dorsal rays, no teeth, and no caudal fin. In the former species the height is one-thirteenth of the length and the dorsal rays two hundred and seventy-six to three hundred and five. In the latter the height is one-eighteenth of the length and the dorsal rays four hundred and six. In McCoy's example, named *R. banksii*, the height is one-twenty-third of the length and the dorsal rays four hundred and six. De Vis' species (*R. mastersii*) is the least elongate known, its height being but one-ninth of its length; the number of dorsal rays is not given.

* T. J. Parker—Trans. N. Zeal. Inst., xvi., 1883, p. 296.