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ANTHROPOIDS

CAPE OF GOOD HOPE.
STEBBING, T. R. R. 1898

DEPARTMENT OF AGRICULTURE.

REPORT

OF THE

MARINE BIOLOGIST

South Africa FOR THE

YEAR 1898.

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Stebbing, T.R.R.

Genus *Sphyrion* Cuvier

Date 14.6.76

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of the head; preopercular spine curved upward, unicuspid, not $\frac{1}{2}$ diameter of eye. Dorsal III., 10; first dorsal very small, longest ray measuring $\frac{1}{3}$ length of head; first ray of soft dorsal longest $\frac{3}{4}$ length of head. Anal 10. Ventral reaching beyond vent. Lateral line single, much developed sending off perpendicular branches above and below, the upper branches, 35 in number extending to the middle line of the back, giving the body a ribbed appearance. Yellowish grey, black finely speckled with brown; small blackish spots above and below the lateral line; spinous dorsal blackish.

Total length 55 millimetres.

This new species is described from two of four specimens (probably young) procured in trawl 11 miles off Cape St. Blaize in June, 1898, 40 fathoms.

b. GENUS SPHYRION CUVIER, BY THE REV. THOMAS R. R. STEBBING, M.A., F.R.S., F.L.S., F.Z.S.

1830. "*Zes Sphyrions*," Cuvier in: *Le Règne Animal*, v. 3, p. 257.

1829-1843. *Sphyrion*, Guérin-Méneville in: *Iconographie du Règne Animal, Zoophytes*, p. 11.

1840. *Sphyrion*, Milne-Edwards, *Hist. Nat. des Austacés*, v. 3, p. 525.

1861. *Sphyrion*, Steenstruys and Lütken in: *Kong. Danske Vid. Selsk. skrifter*, ser. 5, v. 5, znyltekrebs og Lernaer, p. 347 (7), 432 (92).

18—. *Lestes*, Kröyer in: *Danmarks Fiske*, v. 2, p. 517.

1864. *Lesteira*, Kröyer in: *Naturhistorisk Tidsskrift*, ser. 3, v. 2, pt. 3, p. 402.

1868. *Lesteira*, Heller, *Reise der Novara, Crust.*, p. 228.

1890. *Lesteira*, G. M. Thomson in: *Trans. New Zealand Institute*, v. 22, p. 370.

In adult female cephalothorax transversely expanded, connected by a very narrow, smooth, cylindrical "neck" with a large and smooth, somewhat bulb-like genital segment, which carries behind two large clusters of tubules and two long and narrow ovisacs, the mouth very small, and apart from its obscure constituents no appendages present on

head or trunk. Male unknown. Young with eight pairs of appendages.

The generic name is obviously derived from σφύριον, a little hammer. Cuvier, founding the genus upon the "*Condracanthe lisse*" of Quoy and Gaimard, defines *Sphyrion* as having "la tête élargie des deux côtés, comme un marteau, de petits crochets à la bouche, un cou mince, suier d'un corps déprimé et en forme de coeur, qui, entre les deux longs cordons, porte de chaque côté un gros faisceau de poils." There is little fault to be found with this definition, except that the word "poils" is inappropriate to the blunt-ended, often bifid and trifid, branchlets, which in two great bunches are appended to the genital segment, probably with a branchial function.

Sphyrion laevigatum Guérin-Ménéville.

1824. *Chondracanthe lisse*, Quoy et Gaimard, in Freycinet's Voyage autour du Monde, Zoologie, Atlas, pl. 86, fig. 10.

1830. *Sphyrion lisse*, Cuvier, Le Règne Animal, Zoophytes (Intestinaux cavitaires), vol. 3, p. 257.

1829-1843. *Sphyrion laevigatus*, Guérin-Ménéville, Iconographie du Règne Animal, Zoophytes, p. 11, pl. 9, fig. 4.

1840. *Sphyrion laevigatus*, Milne-Edwards, Hist. nat. des Crustacés, vol. 3, p. 526.

1836-1849. "*Sphyrion laevigatus*, Cuv.," Le Règne Animal, Edit. i., Austree, Zoophytes (Intestinaux, Cavitaires), p. 62, 63, pl. 32, fig. 4, 4A.

1890. *Lesteria Kroyeri*, G. M. Thomson, Trans. New Zealand Inst., vol. 22, p. 370, pl. 28, fig. 4, 4A.

The soft cephalothorax which is wholly embedded in the tissues of the host in this species, distinguished by its great width, being not as in *Sphyrion lumpi* (Kröyer) narrower, but much wider than the genital segment. It is also very nodulose, and somewhat variably so, the extremities in Thomson's New Zealand specimen being simply rounded, but in that from the Cape forming three nodules. On the front margin of the upper side are two very prominent bosses, one of which in the Cape specimen has a subsidiary nodule at its base; on the hind margin of this same side are

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0; first dorsal very
of head; first ray of
Anal 10. Ventral
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ng to the middle line
ribbed appearance.
with brown; small
lateral line; spinous.

two of four specimens
1 miles off Cape St.

REV. THOMAS R. R.
L.S., F.Z.S.

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es, p. 11.

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two much smaller bosses, much closer together. Between the front part there is a shallow quadrilobate process, and just below this projects the minute mouth, consisting presumably of upper and under lips and rudimentary manibles. Of anything like antennae I see no trace either in Thomson's figure or in the Cape specimen.

From the middle of the under side of the great cephalothoracic expansion starts the smooth, narrow chitinous "neck," which has a smaller relative length than in *Sphyrion lumpi*, but which cannot, perhaps, be depended upon as affording a specific character by its dimensions, there being, in my opinion, reason to suppose that it varies with the age and size of the specimen, becoming relatively smaller as the specimen grows larger. In Quoy and Gaimard's figure this section of the animal is very elongate, but very short in the figure given by Guérin-Ménéville.

The genital segment, which also has a firm, smooth integument, is broader than long, and longer than thick. Its upper and lateral margins are curved, the hinder is almost straight, with a slight median projection, explained as the rudimentary tail part. On either side of the latter are bunches of vesicles, which in the Cape specimen together exceed the size of the genital segment itself. The ovisacs are long and narrow, containing several rows of minute eggs.

The Cape specimen is rather less than two inches long, 47 mm.; the head, 30 mm. wide. Thomson's New Zealand specimen, "taken from the abdomen of a ling (*Genypterus blacodes*)," was about 70 mm. long, with the head 59 mm. wide. In both specimens the "neck" measured 12 mm. Kröyer's *Sphyrion lumpi* was found burrowing in the tail fin of a *Cyclopterus lumpus* from Iceland. It was two inches long. The difference in the proportionate sizes of its parts, the much less nodulose head, and the northern habitat, make it at least possible that it may be a distinct species.

It may be noted that Quoy and Gaimard and Cuvier only give the specific name "*lisse*" in French, Quérin-Ménéville being the first to give the Latin *laevigatus*, so that to him the name of the species must be attributed. Milne-Edwards in 1840 refers to the part of the "Iconographie" here in question, thus showing that that work ante dates his own.