breadth in the anterior third, and with two lobes with large pointed processes on the anterior part of the pulp: Ascaris gallinulæ and Ascaris philomelæ from Gallinula chloropus and Luscinia philomela¹ (probably to be united with Ascaris ensicaudata); Ascaris spiralis, Zed.,² from Bubo maximus and other Owls (with an upper lip, with the finger-shaped, anterior, terminal lobes of the pulp converging inwards, and not expanding outwards). In Ascaris microcephala, Rud.,³ from Ardea comata, the accessory lips are as long as the principal lips, the upper lip and its aperture are quadrangular.

It would thus appear that the Challenger form described above is a new species, and it is to be regretted that the host—doubtless some marine Vertebrate—is unknown.

4. Ascaris diomedex, n. sp. (Pl. I. figs. 12, 13).

Specimen labelled : "From the stomach of *Diomedea brachyura*, No. 344, June 1875." The vessel contained two specimens. The length measured 35, the breadth 0.78 mm.; the wrinkling of the cuticle is 0.013 mm. broad; the contour of the body is saw-like. The lips bear tooth-plates, and there are no accessory lips. The upper lip is broad and inconspicuous, and rounded off laterally. It exhibits anteriorly a small round protrusion, and to the inside of the latter a projection with tooth-plates. At a distance of 0.49 mm. from the end of the body, to right and left in the lateral lines are two large, semiconical nuchal papillæ, measuring 0.046 mm. The œsophagus lies rather towards the dorsal side, and at its passage into the intestine bends round at right angles, extending backwards along the ventral side. At the point of union with the intestine a cæcum is given off, 0.12 mm. in breadth. This extends forwards on the ventral side of the œsophagus for 1.8 mm., while a second and broader, 0.24 mm. in diameter anteriorly, runs backwards for 2.7 mm. along the dorsal surface of the intestine. The œsophagus occupies r_{3}^{1} , the rounded tail r_{224} of the total length. The specimens are not sexually mature.

Ascaris arctica, von Linstow,⁴ from the Kiel Zoological Museum, discovered in Diomedea leucops, in the North Pacific, bears no resemblance to the form described above from Diomedea brachyura, Temm.⁵ The upper lip is semicircular with an anterior point, the œsophagus is proportionately much larger, for it occupies $\frac{1}{8\cdot6}$ of the entire length. The upper lip of Ascaris diomedeæ most resembles that of Ascaris tiara, von Linstow,⁶ from Varanus ornatus, in which the œsophagus occupies $\frac{1}{4\cdot8}$ of the entire length. The differences in the structure of the head make a union of the two forms impossible, and the two hosts also certainly hint at two distinct species.

¹ Württemb. naturw. Jahresh., xxv., 1879, pp. 321, 322, pl. v. figs. 4, 5.

² Archiv f. Naturgesch., Jahrg. xli. Bd. i., 1875, pp. 203, 204, pl. iv. figs. 30, 31, A.

³ Von Linstow, op. cit., Jahrg. xlix. Bd. i., 1883, pp. 276, 277, pl. iv. figs. 1, 2.

⁴ Archiv f. Naturgesch., Jahrg. xlvi. Bd. i., 1880, p. 42, pl. iii. figs. 2, 3.

⁶ Report on the Birds, Zool. Chall. Exp., part viii. pp. 147, 148.

⁶ Württemb. naturw. Jahresh., 1879, p. 320, pl. v. fig. 1.