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Antarctic and subantarctic fishes

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BIBLIOGRAPHICAL NOTICE.

Antarctic and Subantarctic Fishes.

1. E. R. WAITE. *Fishes. Australasian Antarctic Expedition.* Scientific Reports, Series C, Vol. III. Pt. 1. Pp. 1-92, pls. i.-v., maps i., ii.
2. W. F. THOMPSON. *Fishes collected by the 'Albatross' during 1888 between Uruguay and Chile, on the Voyage through the Straits of Magellan.* Proc. U.S. Nat. Mus. L. 1916, pp. 401-476, pls. ii.-vi.

MR. E. R. WAITE'S important and finely illustrated memoir on the fishes of the Australasian Antarctic Expedition is especially valuable in that it gives the first account of the fishes of Adelie Land, Queen Mary Land, and Macquarie Island.

Of 28 species obtained off the coasts of Antarctica 23 are Nototheniiformes; 4 of these are new, but the majority of the remainder were already known from Victoria Land, and it is evident that the fish-fauna of Adelie Land and Queen Mary Land is essentially the same as that of Victoria Land. Two species, *Gerlachea australis* and *Dolloidraco longidorsalis*, hitherto known only from Graham Land, were taken off Queen Mary Land, adding to the number of fishes with a circumpolar distribution. *Cryodraco antarcticus* is also recorded from Queen Mary Land, but there can be little doubt that the example obtained was *C. atkinsoni*, and I am disinclined, on the present evidence, to accept Mr. Waite's view that these two species are identical.

Of the four new species, three belong to the family Bathydraconidæ; one of these is a *Bathydraco*, the second belongs to a new genus—*Aconichthys*—distinguished from *Bathydraco* by the presence of three lateral lines, and the third is made the type of a new genus—*Cygnodraco*—which is doubtfully distinct from *Parachænichthys*, since actual examination of specimens shows that in the last-named genus the lateral line has no bony plates, and it is principally on their absence that Mr. Waite relies in defining his new genus. The fourth new species is a new generic type in the family Chænichthyidæ; the reduced spinous dorsal fin and the presence of a lower lateral line at the base of the anal fin distinguish it from *Champscephalus*.

Of the five species that are not Nototheniiformes, two are Macrurids that were obtained by the 'Scotia' off Coats Land, two are Zoarcids first described from the collection made by the 'Gauss' at Wilhelm Land, and the fifth is a *Paraliparis* that will probably prove, if actual comparison can be made, to be specifically identical with *P. antarcticus*, taken by the 'Terra Nova' to the south of the Balleny Islands.

Of the ten species recorded from Macquarie Island, five are

pelagic or bathypelagic. A large shark appears to be the southern representative of the arctic *Somniosus microcephalus*; the Myctophidæ are *Myctophum antarcticum*, a widely distributed species, and *Lampanyctus braueri*, previously known from off Coats Land and from N.E. of the Falklands. A new genus and species, *Notosudis hamiltoni*, is of doubtful position, but seems to have much in common with *Scopelosaurus*, Bleek., and *Idiacanthus aurora*, described as new, appears to be a synonym of *I. niger*, Regan. Examination of the type of the last-named species shows that it has the number of vertebrae and of branchiostegals given by Waite; of the supposed differences the backward position of the ventrals and more forward position of the anal relatively to the ventrals are discounted by the statement that "having floated off with the skin the actual position of the ventral fins cannot be ascertained with certainty"; differences in the preservation of the specimens and in method of measurement may account for the apparently larger eye of *I. aurora*, and the fact that the barbel is attached to the basihyal and has no fixed point of origin in relation to the mandible explains an apparent difference in its position.

The coast-fishes of Macquarie Island are of much greater interest than the pelagic or bathypelagic species that happened to be taken near it. The determination of four of the five species listed by Waite cannot be questioned, but the other, which he calls *Nothenia coriiceps*, var. *macquariensis*, appears to differ from *N. coriiceps* in the fewer dorsal rays and broader interorbital region—just the characters used to define *N. rossii* in my synopsis of the genus. Comparing the fish described and figured by Waite with examples of *N. rossii*, of which there is now a large series from South Georgia in the Natural History Museum, I conclude that it belongs to that species, the type of which is from an unknown locality, but was quite likely taken at Kerguelen.

The known distribution of the five species from Macquarie Island may be shown in tabular form:—

	Magellan.	Graham Land and S. Georgia.	Kerguelen.	Antipodes.
<i>Nothenia rossii</i>	+	?	..
— <i>macrocephala</i>	+	..	+	+
— <i>colbecki</i>	+
<i>Harpagifer bispinis</i>	+	+	+	..
<i>Zanclorhynchus spinifer</i>	+	..

It is very interesting to find that the relationship with Kerguelen, more than 3000 miles distant, but on nearly the same isotherm, appears to be closer than with the subantarctic islands of New Zealand, only some 400 miles to the north-east.

A new genus and species of Bovichthyidæ—*Aurion effulgens*—is described from a specimen taken in 50° 60' S., 165° E. This has many features in common with *Bovichthys decipiens*, Günth., also taken in the open sea (50° S., 170° W.); but re-examination of the

type of the latter reveals no trace of the curious leaf-like luminous organs on the snout that characterize the new genus.

Mr. Thompson's paper includes a revision of the species of *Notothenia* found in the Magellan district. He describes as new *N. longicauda*, *gilberti*, *latifrons*, and *jordani*, which will probably prove to be synonyms of *N. brevicauda*, *tessellata*, *microlepidota*, and *ramsayi* respectively; but as the types of two of the supposed new species measure only about 60 mm. in total length, it is difficult to place them with certainty. Mr. Thompson separates *N. squamiceps* from *N. sima*, and unites *N. wiltoni* with *N. longipes*; re-examination of the specimens in the Natural History Museum does not lead me to accept these conclusions. It may be noted that if I am correct in regarding *N. latifrons* as the young of *N. microlepidota*, the number of species of this genus common to the Magellan and Antipodes districts is increased to three, *N. microlepidota*, *macrocephala*, and *cornucola*; records of *N. coriiceps* in these districts appear to refer to the last-named.

There can be little doubt that *Idiacanthus retrodorsalis* is another synonym of *I. niger*, so that this species, first described in 1914 from off Cape North, New Zealand, has since been redescribed from near Macquarie Island and off Lota, Chile. C. TATE REGAN.

MISCELLANEOUS.

New South-American Arctiadæ (Joicey & Talbot, Ann. & Mag. Nat. Hist. ser. 8, vol. xviii. pp. 53-62).

EXPLANATION OF PLATE XIV.

- Fig. 1. *Thyrarctia semivitreæ*, ♂, p. 53.
 Fig. 2. *Prumala sulphuræa*, ♀, p. 54.
 Fig. 3. *Neonerita yahuae*, ♂, p. 54.
 Fig. 4. *Aræomolis hæmatoneura*, ♂, p. 55.
 Fig. 5. — *guianensis*, ♀, p. 56.
 Fig. 6. *Parævia guianensis*, ♀, p. 56.
 Fig. 7. *Automolis metallica*, ♂, p. 57.
 Fig. 8. *Melese costimacula*, ♀, p. 57.
 Fig. 9. — *signata*, ♂, p. 58.
 Fig. 10. — —, ♀.
 Fig. 11. — *nebulosa*, ♀, p. 58.
 Fig. 12. *Hyperthæma reducta*, ♂, p. 59.
 Fig. 13. — —, ♀.
 Fig. 14. *Carathis tabaconas*, ♂, p. 59.
 Fig. 15. *Pelochyta suffusa*, ♂, p. 60.
 Fig. 16. *Sychesia omisus*, Roths., ♂.
 Fig. 17. *Elysium mediofasciata*, ♂, p. 60.
 Fig. 18. *Hemihyalea hampsoni*, ♂, p. 61.
 Fig. 19. *Neritos flavimargo*, ♂, p. 61.
 Fig. 20. *Emilia castanea*, ♂, p. 62.
 Fig. 21. *Hyponerita hamoia*, ♂, p. 62.