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A LIST OF AUSTRALIAN STARFISHES.

By the Rev J. E. Tenison Woods, F.G.S., F.L.S., President of the Linnean Soc., N.S.W., Hon. Member of the Adelaide Phil. Soc., &c., &c.

A list of Australian Starfishes has long been a desideratum amongst naturalists. It has been rather difficult to obtain. because of the scattered way in which the various species peculiar to our coasts have been described. The British Museum Catalogue of Gray is very imperfect, and the same may be said of Müller & Troschel's System der Asteriden (Braunshweig, 4to., 1842, with twelve copper plates.) Agassiz's Memories on the subject have never been completed, and at the present day there is no good general work on Starfishes. Quite recently (1878), M. Edmond Perrier, Professor of Zoology (Mollusca and Zoophytes) at the Museum of Natural History in Paris since 1876, has published a very interesting memoir on the geographical distribution of Starfishes (Nouvilles Archives du Museum, 2nd series, vol. 1, p. 1.) The nature of the essay does not permit of any definition of species or genera, but he gives lists of names which will be found very useful to the inquirer. It is pleasing to observe also that he makes flattering mention of the work of Captain Hutton, of New Zealand, the only naturalist who has dealt with the subject in Australasia. In dividing the Pacific region into four provinces Professor Perrier makes the Australian region one and gives us credit for 46 species. I am enabled to increase the number to some extent in the list which I subjoin, but I am fully aware how imperfect it must be since more than 70 have been determined by me in the various Australian collections, public and private, and from specimens found by myself. It will be seen also that I am able to afford information as to the habitat of a very few of the species named, but I propose to follow this brief paper with a much more detailed one, in which I shall furnish bibliographical references. I venture, however, to hope that this very brief enumeration will give some help to students and naturalists who may desire to deal with the subject. I shall be very glad to receive further communications from any one on the subject, who may know of Australian species not enumerated here, so as to make my future list as complete as possible.

FAMILY ASTERIADÆ.

GENUS-ASTERIAS, Linné, 82 species.

1. A. CALAMARIA, Gray.

Common in Port Jackson, Twofold Bay, and probably on all the South-East coast of Australia. Tasmania; also in the Mauritius and New Zealand.

2. A. FUNGIFERA, E. Perrier.

3. A. GLOBIFERA, Gray. Tasmania.

4. A. GRANIFERA, Lamarck.

Australia.

With five subterete rays, reticulately granular, longer granules, shot-like. The back is covered with a network of round grains, with granular, smooth-like points, some small, some large, with a small pedicel.

5. A. POLYPLAX, Muller and Troschel.

Tasmania.

6. A. SINUSOIDEA, E. Perrier. Storm Bay, Tasmania.

7. A. TENUISPINA, Lamarck.

This is a Mediterranean species, and its occurrence in Australia is doubtful. Von Martens is the authority. It has, however, a very wide range, and occurs in Mauritius.

GENUS CALVASTERIAS, Perrier.

8. C. ASTERINOIDES, E. Perrier.
Cape Grenville, Torres Straits, North Australia.

FAMILY ECHINASTERIDÆ.

GENUS SOLASTER, Forbes, 8 species.

9. S. DECANUS, Muller and Troschel. S. W. Australia.

FAMILY LINCKIADÆ.

GENUS NECTRIA, 2 species.

10. N. ocellifera, Lamarck.

It may help to its identification to give its diagnosis. Unarmed, pentagonal angles extended, corniculate; back convex, tesselated with rounded granular, nearly spherical plates.

FAMILY GONIASTERIDÆ.

GENUS ANTHENEA, Gray, 7 species.

11. A. ACUTA, E. Perrier.

12. A. TUBERCULOSA, Gray. Port Essington. GENUS CULCITA, Gray, 8 species.

13. C. PENTANGULARIS, Gray.

N. E. Australia. Chevert expedition. West Australia (Gray).

C. Nove Guiner, Muller and Troschel.
 N. E. Australia. Chevert Expedition.

GENUS GONIODISCUS, Muller and Troschel, 9 species.

15. G. SERIATUS, Muller and Troschel... South-West Australia.

GENUS PENTACEROS, Linck, 31 species.

16. P. Australis, Lütken.

17. P. Franklinii, Gray.

18. P. GRACILIS, Lütken. East Australia.

19. P. Granulosus, Gray. West Australia.

20. P. NODULOSUS, E. Perrier.

21. P. VALVULATUS, Muller and Troschel.
South-West Australia.

22. P. TURRITUS, Linck.
N.E. coast, Cape Grenville; Port Essington (Tate).

GENUS PENTAGONASTER, Linck, 94 species.

23. P. PAXILLOSUS, Gray. Port Essington.

24. P. INÆQUALIS, Gray. Endeavour River.

25. P. SPINULOSUS, Gray.

Port Denison, Cleveland Bay. 26. P. (DORIGANA) DUBENI, Gray.

West Australia. South Australia (Tate.)

27. P. (DORIGONA) GUNNII, E. Perrier, Who gives the locality George Town, Australia, probably meaning George Town at Port Dalyrmple, Tasmania. The species is found on the Victorian coasts also.

28. P. (Dorigona) pulchellus.

New South Wales coast, Tasmania, and New Zealand.

29. P. (STELLASTER) BELCHERI, Gray. North-East Australia, New Guinea.

30. P. (STELLASTER) CHILDRENI, Gray. Port Darwin, Cape Cleveland.

31. P. (STELLASTER) GRANULOSUS, E. Perrier. New South Wales.

32. P. (STELLASTER) INCEI, Gray.
South Australia, King's Island, Cape York.

- 33. P. (Tosia) Astrologorum, Muller and Troschel.
- 34. P. (Tosia) Auratus, Gray.
- 35. P. (Tosia) Australis, Gray. West Australia. South Australia and Tasmania (Tate).
- 36. P. (Tosia) grandis. West Australia.
- 37. P. (Tosia) Magnificus, Muller and Troschel.
 Tasmania and Bass' Straits. Apollo Bay?
- 38. P. (Tosia) nobilis, Muller and Troschel.

 Manly Beach, New South Wales? South-West
 Australia.

39. P. (Tosia) Ornatus, Muller and Troschel.
Port Stephens or Moreton Bay?

- 40. P. (Tosia) Ruber, Gray. South Coast?
- 41. P. (Tosia) Tubercularis, Gray.
 Swan River and Champion River, West Australia.

FAMILY ASTERINIDE.

GENUS ASTERINA, Nardo, 28 species.

- 42. A. CALCAR, Lamanarck.

 This species is very common all along the south coast, and in N. S. Wales as far as Port Jackson. Tasmania?
- 43. A. EXIGUA, Lamarck.

 The same localities, and extending into Tropical Australia. It is also found at the Cape of Good Hope, Java, the Mollucas. Very small; pentagonal, convex, with very minute pores: concave papillose below.
- 44. A. Gunnii, *Gray*.

 All the south coast and Tasmania.
- 45. A. REGULARIS, Verrill.
 Australia, and in New Zealand.

GENUS PATRICIA, Gray, 2 species.

- 46. P. CRASSA, Gray. West Australia.
- 47. P. OCELLIFERA, Gray. West Australia.

FAMILY ASTROPECTENIDÆ.

GENUS ASTROPECTEN, Linck, 62 species.

- 48. A. POLYACANTHUS, Muller and Troschel. Very common in Port Jackson.
- 49. A. TRISERIATUS, Philippi.
 South-West Australia.
- 50. A. Pressii, Muller and Troschel.
 West Australia; South-West Australia (M. and T)

51. A. VAPPA, Muller and Troschel.

South-West Australia (M. and T.). Port Jackson.

I am not certain of this identification; it may be an undescribed species.

GENUS ARCHASTER, Muller and Troschel, 9 species.

- 52. A. Angulatus, Muller and Troschel. Port Darwin. Torres Straits.
- 53. A. TYPICUS, Muller and Troschel.

 Cape Grenville, Endeavour River, Port Darwin.