

SOME ECHINODERMS FROM TONGATABU ISLAND AND THE SOUTH MINERVA REEF

D. G. MCKNIGHT

New Zealand Oceanographic Institute, Department of Scientific and
Industrial Research, Wellington

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SUMMARY

Five species of echinoderms are recorded from Nukualofa, Tongatabu Island, and eight species from the South Minerva Reef; all are widespread in the warmer shallow seas of the Indo-Pacific region.

INTRODUCTION

The material recorded below is from two stations at Nukualofa, Tongatabu Island, at approximately 21°S and one station from the South Minerva Reef at approximately 24°S, almost midway between the Tongan Islands and the Kermadec Group, to the north and east of New Zealand. Apart from one New Zealand Oceanographic Institute shore collection, the material from Nukualofa and the South Minerva Reef was collected by Dr C. B. Kensler, New Zealand Marine Department.

STATION DETAILS

N.Z.O.I. Sta. B 76a: Nukualofa, shore.

N.Z.O.I. Sta. Z 2088: Nukualofa, shore (coll. Dr C. B. Kensler).

N.Z.O.I. Sta. Z 2090: South Minerva Reef, shore and shallow lagoon (coll. Dr C. B. Kensler).

ASTEROIDEA

Family ASTROPECTINIDAE

Astropecten monocanthus (Sladen)

Sladen 1889: 216-7, Pls 33 (7, 8), 37 (10-12); Clark, H. L. 1946: 76.

MATERIAL EXAMINED: Sta. Z 2088, 1 specimen.

Family OPHIDIASTERIDAE

Linckia laevigata (Linnaeus)

Linnaeus 1758: 662; Livingstone 1932: 254, Pls 3 (1), 4 (2, 5); Clark, H. L. 1946: 117.

N.Z. Jl mar. Freshwat. Res. 2: 712-15

MATERIAL EXAMINED: Sta. Z 2090, 2 specimens (1 is 4-rayed).

Linckia multiflora (Lamarck)

Lamarck 1816: 254; Fisher 1919: 400-1; Ely 1942: 19-20, Pls 2, 3.

MATERIAL EXAMINED: Sta. B. 76a, 1 specimen; Sta. Z 2088, 5 specimens.

Family PORANIIDAE

Asteropsis carinifera (Lamarck)

Lamarck 1816: 556; Ely 1942: 24-5, Pl 7A (3); Clark, H. L. 1946: 109-10.

MATERIAL EXAMINED: Sta. Z 2090, 1 specimen.

Family MITHRODIIIDAE

Mithrodia clavigera (Lamarck)

Lamarck 1816: 562; Sladen 1889: 539.

MATERIAL EXAMINED: Sta. Z 2090, 1 specimen.

OPHIUROIDEA

Family OPHIURIDAE

Ophiolepis cincta Muller and Troschel

Muller and Troschel 1842: 90; Clark, H. L. 1946: 273.

MATERIAL EXAMINED: Sta. Z 2088, 1 specimen.

Family OPHIUCOMIDAE

Ophiocoma brevipes Peters

Peters 1851: 463; Koehler 1922: 319-22, Pl. 72 (6-9); Ely 1942: 56-7, text-fig. 16, Pl. 13 (c).

MATERIAL EXAMINED: Sta. Z 2090, 3 specimens.

Ophiocoma scolopendrina Lamarck

Lamarck 1816: 544; Clark, H. L. 1915: 293, Pl. 14 (10, 11); Ely 1942: 52.

MATERIAL EXAMINED: Sta. Z 2088, 1 specimen; Sta. Z 2090, 2 specimens.

ECHINOIDEA

Family DIADEMATIDAE

Echinothrix diadema (Linnaeus)

Linnaeus 1758: 664; Mortensen 1940: 290-5. Pls 43 (2), 44 (1), 45, 46 (4);

Clark, H. L. 1946: 300.

MATERIAL EXAMINED: Sta. Z 2090, 1 specimen.

Family TOXOPNEUSTIDAE

Tripneustes gratilla (Linnaeus)

Linnaeus 1758: 664; Mortensen 1943a: 500-8, Pls 33 (1-3), 34 (2-6), 35 (3-4), 37 (1-2, 4-10), 38 (1-4), 56 (11).

MATERIAL EXAMINED: Sta. Z 2090, 2 specimens.

Family ECHINOMETRIDAE

Echinometra mathaei (Blainville)

Blainville 1825: 94; Mortensen 1943b: 381-93, Pls 42 (1-10), 47 (1-4), 65 (16-26).

MATERIAL EXAMINED: Sta. Z 2088, 1 specimen; Sta. Z 2090, 2 specimens.

CRINOIDEA

Family COMASTERIDAE

Comatella maculata (P. H. Carpenter)

Carpenter, P. H. 1888: 307, Pls 5 (1a-d), 55 (2); Clark, A. H. 1931: 112, Pl. 20 (50).

MATERIAL EXAMINED: Sta. Z 2090, 4 specimens.

DISCUSSION

While the concept of a wide ranging Indo-Pacific fauna has received considerable support from previous collecting, the two localities examined here considerably extend the geographic range of available material.

All 11 species recorded are widespread in shallow waters of the warmer Indo-Pacific region. Four of the species have been recorded from the Kermadec Islands although more may be expected to occur there.

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