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## ADDITIONS TO THE ECHINODERM FAUNA OF GREAT NICOBAR ISLAND, BAY OF BENGAL

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### INTRODUCTION

Great Nicobar is the southernmost island of the Andaman and Nicobar Islands located in the Bay of Bengal. Sastry (1999) gave an account of 18 species of echinoderms known till then from this Island. During the recent intensive explorations one of us (SP) collected material of 33 species of asteroids, ophiuroids echinoids and holothurians. Of these, only six species namely, *Dactylosaster cylindricus* (Asteroidea), *Ophiocoma dentata*, *Ophiocoma erinaceus*, *Ophiocoma scolopendrina*, *Ophiomastix annulosa* (Ophiuroidea), and *Echinometra mathaei* (Echinoidea), have been reported earlier. The present report adds 27 species to the echinoderm fauna of the Great Nicobar Island. Thus the echinoderm fauna of the Great Nicobar Island comprises of 45 species. Clark and Rowe (1971) gave details of distribution in the Indo-West Pacific region and keys for the identification (up to genus only in case of holothurians). Details of description, distribution and keys for the holothurians reported herein can be found in James (1987a,b,c, 1995a,b). Since all the species are already known from other islands, these have been briefly listed below, with details of localities of collection. The material is deposited in the collections of the Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai-608 502. Though all the species are already known from Andaman and Nicobar Islands, with only a few new to Nicobar group, the present report is considered necessary keeping in view the requirement of faunal diversity of individual islands for declaration and management of Protected Areas.

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Phylum ECHINODERMATA

Class ASTEROIDEA

Order PAXILLOSIDA

Family ASTROPECTINIDAE

1. *Astropecten polyacanthus* Mueller and Troschel

*Material* : Poonam Nalla, 22.02.2002, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

Order VALVATIDA

Family ARCHASTERIDAE

2. *Archaster typicus* (Mueller and Troschel)

*Material* : Chingen, 02.02.2003, one spec.; Pigeon Island, 12.02.2003, one spec.

Family OPHIDIASTERIDAE

3. *Dactylosaster cylindricus* (Lamarck)

*Material* : Trinket Choplong Bay, 28.02.2002, one spec.; Indira Point, 03.02.2003, one spec.

4. *Linckia guildingi* Gray

*Material* : Galathea Bay, 11–13.02.2002, one spec.; Vijaya Nagar, 02.03.2002, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

5. *Linckia laevigata* (Linnaeus)

*Material* : Trinket Choplong Bay, 28.02.2002, one spec.; Pigeon Island, 17.03.2002, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

6. *Linckia multifora* (Lamarck)

*Material* : Alexandra Bay, 17.02.2003, one spec.

Family ASTEROPSEIDAE

7. *Asteropsis carinifera* (Lamarck)

*Material* : Prem Nalla, 20.02.2002, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

## Class OPHIUROIDEA

## Family OPHIOTHRICIDAE

8. *Macrophiothrix longipeda* (Lamarck)

*Material* : Swarup Nalla, 27.01.2003, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

## Family OPHIOCOMIDAE

9. *Ophiarthrum elegans* Peters

*Material* : Alexandra Bay, 17.02.2003, one spec.; Inhengloi, 14.02.2003, one spec.; Kopenheat, 17.02.2003, four specs.; Pilo Bet, 16.02.2003, arm bits; Pilo Bhabi, 17.02.2003, one spec.; Sastry Nagar, 27.01.2003, four specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

10. *Ophiarthrum pictum* Mueller and Troschel

*Material* : Sastry Nagar, 27.01.2003, one spec.

11. *Ophiocoma dentata* Mueller and Troschel

*Material* : Poonam Nalla, 26.01.2003, one spec.

12. *Ophiocoma erinaceus* Mueller and Troschel

*Material* : Chingen, 02.02.2003, arm bits, Indira Point, 03.02.2003, two specs.; Inhengloi, 14.02.2003, one spec.; Keechad Nalla, 16.02.2003, two specs.; Lakshmi Nagar, 07.03.2002, one spec.; Pigeon Island, 17.03.2002, one spec.; Pilo Bet, 16.02.2003, one spec.; Poonam Nalla, 22.02.2002, four specs.; Sastry Nagar, 27.01.2003, three specs.; Vijaya Nagar, 25.01.2003, two specs.

13. *Ophiocoma scolopendrina* (Lamarck)

*Material* : Alexandra Bay, 17.02.2003, seven specs.; Chingen, 02.02.2003, four spec.; Dongi Nalla, 20.01.2003, one spec.; Galathea Bay, 11–13.02.2002, two specs.; Galathea Bay, 01.02.2003, seven specs.; Indira Point, 03.02.2003, eight specs.; Inhengloi, 14.02.2003, one spec.; Keechad Nalla, 16.02.2003, two specs.; Kopenheat, 17.02.2003, one spec.; Magar Nalla, 21.01.2003, three specs.; Pigeon Island, 17.03.2003, one spec.; Pigeon Island, 12.02.2003, three specs.; Pilo Bet, 16.02.2003, two spec.; Pilo Bhabi, 17.02.2003, three specs.; Poomam Nalla, 26.01.2003, four specs.; Prem Nalla, 20.02.2002, one spec.; Prem Nalla, 23.01.2003, three spec.; Sastry Nagar, 27.01.2003, one spec.; Sippy Nalla, 22.01.2003, three specs.; Swarup Nalla, 27.01.2003, one spec.; Vijaya Nagar, 25.01.2003, three specs.

14. *Ophiomastix annulosa* (Lamarck)

*Material* : Chingen, 02.02.2003, one spec.; Indira Point, 03.02.2003, two specs.; Inhengloi, 14.02.2003, one spec.; Keechad Nalla, 16.02.2003, one spec.; Kopenheat, 17.02.2003, one spec.; Lakshmi Nagar, 07.03.2002, one spec.; Pigeon Island, 17.03.2002, an arm only; Pilo Bet, 16.02.2003, one spec.; Poonam Nalla, 22.02.2002, one spec.; Prem Nalla, 20.02.2002, one spec.; Prem Nalla, 23.01.2003, arm bits; Sastry Nagar, 27.01.2003, one spec.; Swarup Nalla, 27.01.2003, one spec.; Vijaya Nagar, 02.03.2002, one spec.; Vijaya Nagar, 25.01.2003, one spec.

Family OPHIURIDAE

Subfamily OPHIOLEPIDINAE

15. *Ophioplocus imbricatus* (Mueller and Troschel)

*Material* : Galathea Bay, 11–13.02.2002, one spec.; Sippy Nalla, 22.01.2003, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

Class ECHINOIDEA

Order DIADEMATOIDA

Family DIADEMATIDAE

16. *Diadema savignyi* Michelin

*Material* : Galathea Bay, 11–13.02.2002, one spec.; Magar Nalla, 21.01.2003, one spec.; Poonam Nalla, 22.02.2002, one spec.; Prem Nalla, 20.02.2002, one spec.; Vijaya Nagar, 02.03.2002, one spec.; Vijaya Nagar, 25.01.2003, one spec.

*Remarks* : The differentiating characters of *Diadema savignyi* and *D. setosum* are not easy to observe in preserved specimens. The tridentate pedicellariae are very few and presence or absence of a red ring around anal region cannot be ascertained in preserved specimens. As such, the material of *D. setosum* reported earlier (Sastry, 1999) could belong to the species reported here or *vice versa*.

17. *Echinothrix calamaris* (Pallas)

*Material* : Pigeon Island, 17.03.2002, one spec.; Prem Nalla, 20.02.2002, two specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

18. *Echinothrix diadema* (Linnaeus)

*Material* : Lakshmi Nagar, 07.03.2002, two specs.; Poonam Nalla, 22.02.2002, one spec.

## Order ECHINOIDA

## Family ECHINOMETRIDAE

19. *Echinometra mathaei* (de Blainville)

*Material* : Galathea Bay, 11–13.02.2002, two specs.; Prem Nalla, 20.02.2002, two specs.; Poonam Nalla, 22.02.2003, two specs.; Vijaya Nagar, 02.03.2002, two specs.; Lakshmi Nagar, 07.03.2002, one spec.; Pigeon Island, 17.03.2002, one spec.; Alexandra Bay, 17.02.2003, one spec.; Dongi Nalla, 20.01.2003, one spec.; Keechad Nalla, 16.02.2003, one spec.; Magar Nalla, 21.01.2003, three specs.; Pigeon Island, 12.02.2003, one spec.; Poonam Nalla, 26.01.2003, one spec.; Prem Nalla, 23.01.2003, three specs.; Sippy Nalla, 22.01.2003, one spec.; Swarup Nalla, 27.01.2003, one spec.; Vijaya Nagar, 25.01.2003, two specs.

20. *Echinostrephus molaris* (de Blainville)

*Material* : Vijaya Nagar, 25.01.2003, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

## Order CLYPEASTEROIDA

## Family ARACHNOIDIDAE

21. *Arachnoides placenta* (Linnaeus)

*Material* : Campbell Bay, 12.01.2003, three specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

## Class HOLOTHUROIDEA

## Order ASPIDOCHIROTIDA

## Family HOLOTHURIIDAE

22. *Actinopyga echinites* (Jaeger)

*Material* : Sastry Nagar, 31.12.2000, two specs.; Near Dillon Nalla, 06.01.2001, one spec.; Indira Point, 15.01.2001, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

23. *Holothuria (Acanthotrapeza) pyxis* Selenka

*Material* : Galathea Bay, 12.01.2001, one spec.; Vijaya Nagar, 24.01.2001, three specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

24. *Holothuria (Lessonothuria) pardalis* Selenka

*Material* : Near Prem Bahadur Nalla, 04.02.2001, two specs.

25. *Holothuria (Metriatyla) scabra* Jaeger

*Material* : Sastry Nagar, 31.12.2000, one spec.

*Remark* : The species is newly recorded from Nicobar group of islands.

26. *Holothuria (Microthele) nobilis* (Selenka)

*Material* : Vijaya Nagar, 24.01.2001, two specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

27. *Holothuria (Platyperona) difficilis* Semper

*Material* : Near Prem Bahadur Nalla, 02.02.2001, two specs.

28. *Holothuria (Thymiosycia) arenicola* Semper

*Material* : Near Dillon Nalla, 06.01.2001, two specs.

29. *Holothuria (Thymiosycia) hilla* Lesson

*Material* : Galathea Bay, 14.01.2001, two specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

Family LABIDODEMATIDAE

30. *Labidodemas rugosum* (Ludwig)

*Material* : Near Magar Nalla, 05.01.2001, three specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

Family STICHOPODIDAE

31. *Stichopods variegatus* Semper

*Material* : Near Magar Nalla, 23.01.2001, two specs.; Vijaya Nagar, 24.01.2001, two specs.; Indira Point, 15.01.2001, three specs.

Order DENDROCHIROTIDA

Family PHYLLOPHORIDAE

32. *Afrocucumis africana* (Semper)

*Material* : Near Magar Nalla, 23.01.2001, two specs.

*Remark* : The species is newly recorded from Nicobar group of islands.

## Order APODIDA

## Family SYNAPTIDAE

33. *Synapta maculata* (Sluiter)

*Material* : Sastry Nagar, 31.12.2000, one spec.; Near Dillon Nalla, 24.01.2001, one spec.

## SUMMARY

Recent collections from the Great Nicobar Island consisted of 33 species of echinoderms including seven species of Asteroidea, eight species of Ophiuroidea, six species of Echinoidea and 12 species of Holothuroidea. Of these, only six species, namely *Dactylosaster cylindricus* (Asteroidea), *Ophiocoma dentata*, *Ophiocoma erinaceus*, *Ophiocoma scolopendrina*, *Ophiomastix annulosa* (Ophiuroidea), and *Echinometra mathaei* (Echinoidea), are among the 18 species known from earlier reports. The total number of echinoderm species is 45. The 33 species collected recently have been briefly reported with details of localities. Some of these are recorded for the first time from Nicobar group of islands.

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