

ON A COLLECTION OF MOSSES FROM GREAT NICOBAR ISLAND

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A B S T R A C T

37 species of mosses have been collected from Great Nicobar Island. Among them *Taxithelium vernieri* (Dub.) Besch., is a new record for India, *Leucophanes nicobaricum* C. Muell. ex Gangulee and *Trichosteleum punctipapillosum* Gangulee, endemic to the Islands and so far represented by the type material only, have been collected after more than a century. 17 species occurring on the main land, are new additions to the Island flora, noteworthy among them are: *Acanthorrhynchium papillatum* (Harv.) Fleisch., *Exodictyon blumei* (Hamp.) Fleisch., *Leucobryum bowringii* Mitt., and *Wilsoniella decipiens* (Mitt.) Alst. Family Pottiaceae, represented by *Hyophila involuta* (Hook.) Jaeg., and *Semibarbula orientalis* (Web.) Wijk. et Marg., is reported for the first time.

INTRODUCTION

Nicobar Islands are the least explored among the Andaman & Nicobar group of Islands. The only collection available in the herbarium so far, and also referred to in the literature is by Kurz, who between 1867 and 1871, collected in Andamans as well as Nicobars, (Gangulee 1969). Our existing knowledge of the mosses of these Islands, therefore, is largely based on these collections only. A thorough survey of these Islands was therefore much needed.

The Great Nicobar Island is located between 6-7° N and 93° 45' - 55" E. It is situated at the southern most extremity of almost vertical chain of Islands in the Bay of Bengal. It is also the largest in size in comparison to other Islands. Its maximum length from North to South is 40 km and East to West 15 km. It is sparsely populated and enjoys an equatorial climate.

In March - April 1994, the co-author of the paper visited Great Nicobar Island exclusively for

the collection of mosses. During the month long stay, the entire width from Campbel Bay in the East Coast, to Kopen Heat in the west was covered. Forested areas and other suitable habitats from Murray Point in the North to Indira Point in South were also visited. Altogether 110 numbers representing 37 species were collected. The collections though small, were valuable.

Among the species collected 18 taxa are new additions to the Island flora. This includes *Taxithelium vernieri* (Dub.) Besch., a new record for India. Other noteworthy additions include *Acanthorrhynchium papillatum* (Harv.) Fleisch., *Exodictyon blumei* (Hamp.) Fleisch., *Leucobryum bowringii* Mitt., and *Wilsoniella decipiens* (Mitt.) Alst., *Leucophanes nicobaricum* C. Muell. ex Gangulee and *Trichosteleum punctipapillosum* Gangulee, endemic to the Islands and so far represented by the type material only, have been collected after 130 years. Another interesting feature is that the family Pottiaceae is reported for the first

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time. It is represented by *Hyophila involuta* (Hook.) Jaeg., and *Semibarbula orientalis* (Web.) Wijk. et Marg.

In this paper all the species collected in the present tour are enumerated, with field notes and distribution data. The taxa reported for the first time from Andaman & Nicobars are preceded by asterisk. The families are arranged according to Brotherus (1924, 1925). Genera under each family are arranged alphabetically.

The material is deposited in Central National Herbarium, Howrah, (CAL).

DITRICHACEAE

***Garckea phascoides* (Hook.) C. Muell.**

Shompen Hut, 30 kms from Campbel Bay, on ground, 15.3.1994, *Kar* 63659.

Distrib.: Widely distributed in S. & E. India, Andaman Isles., from plains to 2000 m; Sri Lanka, S.E. Asia, Central America, Australia, Madagaskar. (new to Nicobar).

DICRANACEAE

****Wilsoniella decipiens* (Mitt.) Alst.**

Campbel Bay, 10.3.1994, *Kar* 63606.

Distrib.: Orissa, S. India; Sri Lanka, Indonesia, New Guinea, Philippines (new to Andaman & Nicobar).

FISSIDENTACEAE

***Fissidens javanicus* Doz. et Molk.**

Galathea National Park, East West Road., 10 - 20 kms from Campbel Bay, on ground, 12.3.1994, *Kar* 63622, 63624.

Distrib.: Himalayas, Andaman Isles. (new to Nicobar).

***F. sylvaticus* Griff.**

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on clay soil, 11.3.1994, *Kar* 63617, 63618, 63620.

Distrib.: Throughout India; Asia, North & Central Africa, Madagaskar, New Zealand.

LEUCOBRYACEAE

****Exodictyon blumei* (Hamp.) Fleisch.**

On way to Pilova, 41 kms from Campbel Bay, on tree trunk, 23.3.1994, *Kar* 63682.

Distrib.: Arunachal., (new to Nicobar); Malaya, Indonesia, Celebes, Philippines, New Guinea, China, Oceania.

****Leucobryum bowringii* Mitt.**

East-West Road, 16 kms from Campbel Bay, on tree trunk, 13.3.1994, *Kar* 63645.

Distrib.: Arunachal, Maghalaya, Palnis (new to Nicobar); Sri Lanka, S.E. Asia.

***Leucophanes glaucescens* C. Muell. ex Fleisch.**

Shompen Hut, 30 kms from Campbel Bay, on tree trunk, 15.3.1994, *Kar* 63654; On way to Navy Doda, on tree trunk, 29.3.1994, *Kar* 63690.

Distrib.: Andaman Isles. (new to Nicobar); Sri Lanka, Vietnam, Indonesia.

***L. nicobaricum* C. Muell. ex Gangulee**

North-South Road, 39 kms from Campbel Bay, on tree trunk, 24.3.1994, *Kar* 63689.

Distrib.: Endemic to Nicobar Island.

***Octoblepharum albidum* Hedw.**

East-West Road, 16 - 20 kms from Campbel Bay, on tree trunk, 12.3.1994, *Kar* 63626.

Distrib.: East and South India, Andaman Isles. (new to Nicobar); Sri Lanka, throughout the tropical regions of Asia, Africa, America and Australia.

SYRRHOPODONTACEAE

***Mitthyridium manii* Fleisch.**

On way to Pilova, 41 kms from Campbel Bay, on tree trunk, 23.3.1994, *Kar* 63685.

Distrib.: Andaman Isles., S. India (new to Nicobar); Malacca, Amboina, Borneo.

***Syrrhopodon* sp.**

East-West Road, 16 kms from Campbel Bay, on tree trunk, 13.3.1994, *Kar* 63647; North-South Road,

16 kms from Campbel Bay, on tree trunk, 1.4.1994, *Kar* 63691.

POTTIACEAE

***Hyophila involuta** (Hook.) Jaeg.

East-West Road, 16 - 20 kms from Campbel Bay, on rock, 12.3. 1994, *Kar* 63634.

Distrib.: Throughout India (new to Nicobar Isles.); S.E. Asia, America, Europe (except Britain).

***Semibarbula orientalis** (Web.) Wijk. et Marg.

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on soil, 11.3.1994, *Kar* 63609.

Distrib.: Throughout India, from plains to 2000 m (new to Nicobar); S.E. Asia, Central and South Africa, Oceania.

BRYACEAE

***Bryum cellulare** Hook.

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on ground, 11.3.1994, *Kar* 63610.

Distrib.: Garhwal, Kumaon, Arunachal, (new to Nicobar); E. Nepal, S. E. Asia, E. Mediterranean, North and Central Africa, Australia.

B. coronatum Schwaegr.

Kopen Heat, on tree trunk, 18.3.1994, *Kar* 63669, 63672, 63676.

Distrib.: Throughout India, from plains to 1500 m; widely distributed in S.E. Asia, Central and South Africa, North, Central and South America, Australia, Oceania.

Bryum sp.

Shompen Hut, 30 kms from Campbel Bay, on ground, 15.3.1994, *Kar* 63650.

BARTRAMIACEAE

Philonotis mollis (Doz. et Molk.) Mitt.

Galathea National Park, East-West Road, 16 - 20 kms from Campbel Bay, on wet ground and boulders near water, 11 - 12.3.1994, *Kar* 63613, 63614, 63629, 63630; Kopen Heat, on tree trunks, 19.3.1994, *Kar* 63675.

Distrib.: Sikkim, Kanara, Coorg, Andaman Isles., (new to Nicobar); Bhutan, Sri Lanka, S.E. Asia, Madagaskar.

***P. thwaitesii** Mitt.

Shompen Hut, 15.3.1994, *Kar* 63651.

Distrib.: Simla, Sikkim, Orissa, Palnye, (new to Nicobar); E. Nepal, S. E. Asia, New Guinea.

NECKERACEAE

Neckeropsis andamana (C. Muell.) Fleisch.

Kopen Heat, on tree trunks, in forest, 18.3.1994, *Kar* 63670.

Distrib.: Western Ghats, Andaman & Nicobar Isles.; Sri Lanka, Burma, Thailand, Vietnam, Singapur, Java, Philippines.

THUIDIACEAE

***Thuidium meyenianum** (Hamp.) Doz. et Molk.

East-West Road, 16 kms from Campbel Bay, on tree trunk, 12.3.1994. *Kar* 63632; on way to Pilova, 41 kms from Campbel Bay, on tree trunk, 23.3.1994, *Kar* 63677.

Distrib.: Dehra Dun, Eastern Himalaya, South India, from 200 to 1000 m, (new to Nicobar); Bangladesh, S. E. Asia, Australia.

Thuidium sp.

Kopen Heat, on boulder, 19.3.1994, *Kar* 63674.

SEMATOPHYLLACEAE

***Acanthorrhynchium papillatum** (Harv.) Fleisch.

East-West Road, 16 kms from Campbel Bay, on tree trunk, 13.3.1994, *Kar* 63642, 66119.

Distrib.: Eastern India; S. E. Asia, Australia. (new to Nicobar).

Meiothecium jagorii (C. Muell.) Broth.

Mt. Harriet, 4 kms from sea, on tree trunk, 9.4.1994, *Kar* 66120.

Distrib.: S. India, Andaman Isles.; Sri Lanka, Myanmar, Malaysia, Philippines, Oceania.

Sematophyllum phaenicum (C. Muell.) Fleisch.

Shompen Hut, 15.3.1994, *Kar* 63652.

Distrib.: South India, Andaman Isles. (new to Nicobar); Bangladesh, Thailand, Vietnam, S. China.

***Taxithelium kerianum** (Broth.) Broth.

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on tree trunk, 11.3.1994, *Kar* 63615.

Distrib.: Arunachal, (new to Nicobar); Java, New Guinea, E. Australia.

***T. nepalense** (Schwaegr.) Broth.

Shompen Hut, 27 kms from Campbel Bay, on tree trunk, 16.3.1994, *Kar* 63661; Port Blair, Mt. Harriet, 8 - 9.4.1994, *Kar* 63697, 63700.

Distrib.: Eastern and South India, from sea level to 350 m, (new to Andaman & Nicobar Isles.); S.E. Asia, Tasmania, Central Africa.

***T. vernieri** (Dub.) Besch.

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on ground, among humus, 11.3.1994. *Kar* 63616; North-South Road, 16 kms from Campbel Bay, on tree trunk, 1.4.1994, *Kar* 63692; Port Blair, Mt. Harriet, on soil, 9.4.1994, *Kar* 63698.

Distrib.: (new to India); Bangladesh, Sri Lanka, Thailand, Malaysia, New Guinea, Philippines.

***Trichosteleum boschii** (Doz. et Molk.) Jaeg.

East-West Road, 16 - 20 kms from Campbel Bay, on tree trunks, 12 - 13.3.1994, *Kar* 63625, 63639, 63641, 63644.

Distrib.: Assam, (new to Nicobar); E. Nepal, Malaysia, Fiji.

T. punctipapillosum Gangulee

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on tree trunk, 11.3.1994. *Kar* 63608; North-South Road, 16 kms from Campbel Bay, on tree trunk, 1.4.1994, *Kar* 63695.

Distrib.: Andaman Isles. (new to Nicobar).

HYPNACEAE

***Ctenidium lychnites** (Mitt.) Broth.

Shompen Hut, 30 kms from Campbel Bay, on tree twigs, 15.3.1994, *Kar* 63657; on way to Pilova, 41 kms from Campbel Bay, on tree trunk, 23.3.1994, *Kar* 63683.

Distrib.: East and South India (new to Nicobar); Sri Lanka, Philippines.

***Ectropothecium buitenzorgii** (Bel.) Mitt.

Shompen Hut, 30 kms from Campbel Bay, 15.3.1994, *Kar* 63649, 63660.

Distrib.: E. Himalaya; Indonesia, Amboina, Celebes (New to Nicobar).

***E. cygnicollum** (Mitt.) Jaeg.

East-West Road, 16 - 20 kms from Campbel Bay, on tree trunk, and rocks, 12 - 13.3.1994, *Kar* 63635, 63637; Shompen Hut, 30 kms from Campbel Bay, 15.3.1994, *Kar* 63653.

Distrib.: Sikkim, Darjeeling, (new to Nicobar).

E. manii Broth.

East-West Road, 16 - 20 kms from Campbel Bay, on ground, stones and tree trunks, 11 - 12.3.1994, *Kar* 63619, 63621, 63623, 63627, 63628; on way to Pilova, 41 kms from Campbel Bay, 23.3.1994, *Kar* 63684; North-South Road, 39 kms from Campbel Bay, 24.3.1994, *Kar* 63688.

Distrib.: Andaman Isles., S. India, (new to Nicobar).

Isopterygium microplumosum (C. Muell.) Broth.

On way to Pilova, 41 kms from Campbel Bay, 23.3.1994, *Kar* 63680.

Distrib.: Andaman Isles., (new to Nicobar); Brazil.

***Taxiphyllum maniae** (Ren. et Par.) Broth.

Galathea National Park, East-West Road, 16 kms from Campbel Bay, on wet ground, 11.3.1994, *Kar* 63680.

Distrib.: Western Himalaya, (new to Nicobar); E. Nepal, Madagaskar, Java, New Guinea.

***Taxiphyllum taxirameum** (Mitt.) Fleisch.

Shompen Hut, 27 kms from Campbel Bay, on ground, 16.3.1994, *Kar* 63666, 63668.

Distrib.: Throughout India (new to Nicobar); S. E. Asia, Australia.

Vesicularia kurzii (Lac.) Broth.

Campbel Bay, on tree trunks, 10.3.1994, *Kar* 63602 ; Galathea National Park, East-West Road, 16 kms from Campbel Bay, on ground, among humus, 11.3.1994, *Kar* 63611.

Distrib.: Andaman Isles., (new to Nicobar) ; Java.

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