

ON A COLLECTION OF *PSILOTUM* SW. FROM THE GREAT NICOBAR ISLAND

The genus *Psilotum*, a member of the primitive Pteridophyta is known by a single species *P. nudum* (Linn.) Beauv. from India. It is fairly well distributed in Arunachal Pradesh, Assam, Madhya Pradesh, South and Western India, West Bengal and also in Bhutan and Sikkim Himalayas.

During an extensive botanical exploration tour in Great Nicobar Island in 1966, 2 species of *Psilotum* were collected. A careful study of these collections revealed that *P. complanatum* Sw. and *P. nudum* (Linn.) Beauv. occur in the above island. The former is a rare and interesting species, so far reported from Malaysia, South Australia, Hawii and Fiji Islands, Mexico and South America. It has hitherto been unrecorded from either the Indian mainland or the Andaman and Nicobar Islands. The occurrence of *P. complanatum* Sw. in Great Nicobar Island is therefore a new addition to the Pteridophytic flora of India. A short description with an illustration is presented here.

P. nudum (Linn.) Beauv. is the other species, collected from the Great Nicobar Island. It is fairly well distributed in the Indian mainland. David Prain (1893) reported the occurrence of this species in Barren Island, an isolated one in the Andaman group of islands. Apart from this single collection, *Psilotum* was unknown in the Andaman and Nicobar Islands till it was collected in 1966 by the authors. Further Great Nicobar Island is far from the Barren Island, separated by a sea space of 600 km. *P. nudum* (Linn.) Beauv. is reported for the first time from the Nicobar group of Islands. A brief description of this species, based on the present collection is presented here. The specimens are deposited in the Central National Herbarium (CAL).

***Psilotum* Swartz, Schrad. Journ. Bot. 1800 (2):8, 109. 1801.**

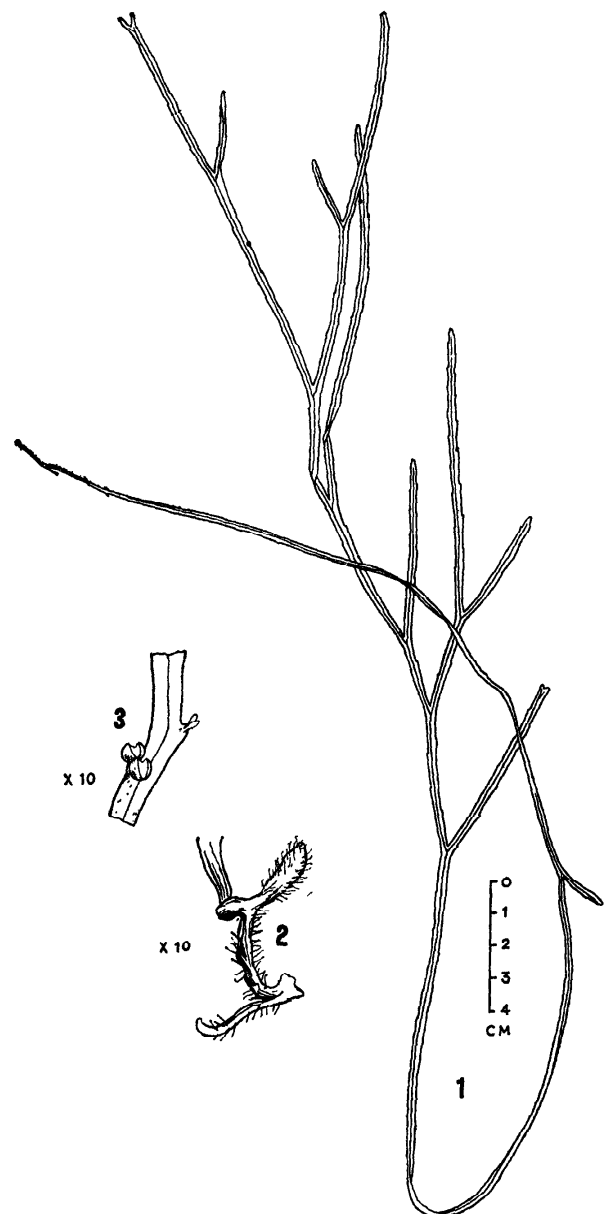
KEY TO THE SPECIES

- A. Stem and branches flattened; leaves in 2 rows *P. complanatum*
 AA. Stem and branches triquetrous; leaves in 3 rows *P. nudum*

***Psilotum complanatum* Sw. Syn. Fil 188, 414, t. IV, fig. 5. 1806; Schk. Krypt. t. 165b. 1804-1809; Baker, Fern All. 30. 1887; Pichi Sermolli in Webbia 26:185. 1971. *P. flaccidum* Wall Cat. 45. 1823 (nomen).**

Epiphytic, pendulous herb; whole plant 10-75 cm long, laxly branched; rhizome slender, covered with brownish hair like rhizoides. Stem and branches

1.5-2 mm wide with a distinct midrib. *Leaves* scale like, ± 1 mm long, lanceolate. *Sporangia* globose, ± 1 mm in diam., 2 each in the axil of a filiform, scaly, sporophyll, arranged distichously; sporangia 3 lobed 3-locular. (Figs. 1-3).



Psilotum complanatum Sw.

Figs. 1-3 : 1. Entire plant. 2. Rhizome with rhizoides. 3. Sporangia with sporophylls.

Distribution: Malaysia (Malayan Peninsula, Java, Sumatra, Borneo), South Australia, Hawii and Fiji Islands, Mexico and South America.

Specimen examined: Galathea Bay, Great Nicobar Island, 23-3-1966—*Thothathri and Banerjee* 1477 (CAL).

Field notes: The plant was found to grow on trunks of *Barringtonia speciosa* Forst. as well as on coconut palms, hanging downwards. The slender rhizome creeps on the tangled black base of *Asplenium nidus* Linn.

Psilotum nudum (Linn.) Beauv. Prodr. Fam. Aetheog. 112. 1805. *Lycopodium nudum* Linn. Sp. Pl. 2:1100. 1753. *P. triquetrum* Sw. Schrad. Journ. Bot. 1800:109. 1801.

Epiphytic herb, perennial, erect or suberect. Plants 15-35 cm long, rootless; rhizome dichotomous, slender; aerial shoots dichotomously branched; basal portion of the shoots cylindrical, distal portion radially symmetrical, longitudinally ribbed; branchlets triquetrous. *Leaves* scale like and irregular in distribution, minute, coriaceous. *Sporangia* in triads on short stalks, in the axils of minute, bifid sporophylls towards the apices of aerial shoots.

Distribution: India, Burma and Malaysia.

Specimen examined: Pulobaha Bay, Great Nicobar Island, 26.3.1966—*Thothathri and Banerjee* 11529 (CAL).

Field notes: The plant often grows epiphytically on the trunks of trees and coconut palms. The

rhizome grows spreading amidst the adventitious roots of coconut palm. The sporangia are bilobed and yellow in colour.

The binomial is often ascribed to Grisebach but it had been established many years before by Palisot de Beauvois (Pichi Sermolli, 1971).

ACKNOWLEDGEMENT

The authors express their sincere thanks to Dr. K. Subramanyam, Director, Botanical Survey of India for facilities and encouragement.

K. THOTHATHRI, S. P. BANERJEE,
P. K. HAZRA AND G. D. PAL
Botanical Survey of India, Calcutta

REFERENCES

- ALDERWERELT VAN ROSENBURGH, C. R. W. K. *Malayan fern allies*. Batavia, Landsdrukkerj, 1915.
BAKER, J. G. *Handbook of fern allies*. London, 1887.
BIERHORST, D. W. On the stromatopteridaceae and the Psilotaceae. *Phytomorphology* 18: 232-268, 1968.
—Observations on the aerial appendages in the Psilotaceae. *Ibid.* 6: 176-184, 1956.
PICI SERMOLLI RODOLFO, E. G. Types of the genera of fern allies—Lycopodiaceae, Selaginellaceae, Isoetaceae, Equisetaceae, Tmesitpteridaceae. *Webbia* 26: 129-194, 1971.
PRAIN, D. On the flora of Narcondam and Barren Island. *J. Asiat. Soc. Beng.* 62: 39-86, 1893.
STRIBES, W. The structure of aerial shoots of *Psilotum flaccidum* Wall. *Ann. Bot.* 24: 373-387, 1910.
SWARTZ, O. *Synopsis Filicium*. Kiliae, 1806.