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ADDITIONS TO THE INDIAN FLORA FROM GREAT NICOBAR ISLAND

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ABSTRACT

The paper presents 10 plant species from the Great Nicobar Island which are additions to the Indian flora.

INTRODUCTION

Recent Botanical explorations on the Great Nicobar Island and the accumulation of specimens in Port Blair Herbarium (PBL) during the period 1976-1981, reflecting the intensive efforts of the Andaman and Nicobar Circle of the Botanical Survey of India resulted in the discovery of several interesting plants from this southernmost Island of India. With emphasis laid on acquiring new knowledge on island floras it is to be expected that new discoveries will continue to be made. The explorations were initiated to prepare a botanical inventory of the island to complete our knowledge on the Flora of India.

The present paper discusses 10 new records of plants (1 pteridophyte, 7 dicotyledons and 2 monocotyledons) not previously known from India, two of which are apparently also their first generic records.

Recent herbarium studies (in CAL, DD and PBL) and several field studies made, have led to the discovery of several specimens representing new records, strictly conforming to the post 1947 political boundary of India. Although a few taxa were included by Hooker (1872-1897) in his works (marked with asterisk*), they were based either on the relevant earlier literature or from specimens collected from outside the present political boundary of India.

During the course of these studies, the botanical results of the previous workers like Kurz (1875, 1876), Beddome (1883), Prain (1891), Parkinson (1923), Sahni (1953), Thothathri (1961, 1962, 1973a, 1973b, 1978) and Balakrishnan (1977) on these islands along with the Wallich's remarks (1849) on flora of the Nicobar Islands have been consulted. A conspectus of the recorded species together with brief descriptions, habitat, frequency and distribution of each species is given below. The location of herbarium materials studied, have been indicated by the Index Herbariorum abbreviations.

PTERIDOPHYTE

ASPLENIACEAE

1. **Asplenium tenerum** Forst. var. **retusum** C. Chr. in Gard. Bull. S. S. 7 : 277. 1934.

Herb, 20-30 cm. Rhizome bearing numerous branching roots, short. Stipe 10-20 cm long. Lamina 20-30 cm long and 6-10 cm wide, simply pinnate, pinnae 20-25 pairs, 2-5 × 1-1·3 cm, almost oblong ; edge thoothed like, truncate or retuse tips. Sori obliquely arranged in two rows on each side of the midrib, not reaching either midrib or margin.

Habitat & Frequency : Hilly inland forests, interior areas, sandy loam, on rocks or shaded places ; rare.

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Distribution : INDIA : Great Nicobar Island, 20 km, North-south Road, *Balakrishnan* 3837 (PBL, CAL). WORLD : Malaya.

DICOTYLEDONS

ANNONACEAE

2. **Anaxagorea javanica** Bl., Fl. Jav. Anon. 66. f. 32. et 36A. 1830.

Small tree, *ca* 2.5-3 m. Bark greyish white. Leaves 12-18 × 4-7 cm, elliptic-oblong, acute to acuminate, glabrous, nerves 8-10 pairs ; petiole *ca* 1 cm. Inflorescence axillary. Pedicel *ca* 1 cm long, flowers greenish outside, fragrant. Sepals glabrous to minutely puberulous, oblong, obtuse, adpressed to petals ; petals 6, in two whorls, outer greenish, inner reddish ; stamens many, white ; stigma cone shaped, ovaries angled. Follicles red.

Habitat & Frequency : Inland moist forest ; scarce.

Distribution : INDIA : Great Nicobar Island, Laful Forest, *D. K. Hore* 7547 (PBL). WORLD : Borneo, Java and Singapore.

Note : The species differs from its closely allied species *A. luzonensis* A. Gray in having 8-15 carpels and elongated inner stamens.

SAURAUIACEAE

3. **Saurauia bracteosa** DC. in Mem. Soc. Phys. Hist. Nat. Geneve 1 : 423. t. 6A. 1822.

Small tree, 2-4 m ; apical leaf bud reddish. Leaves alternate, 30-45 × 12-14 cm, elliptic-oblong-obovate, acuminate, cordate at base, densely clothed with brown tomentum, rough. Petiole 4-8 cm, densely brownish hairy. Cymes densely pubescent and scaly, stalk *ca* 4 cm ; calyx green, densely pubescent ; corolla connate at base, white, fragrant ; stamens yellow. Fruits unknown.

Habitat & Frequency : Dense evergreen wet forest edges ; rare or a few.

Distribution : INDIA : Great Nicobar Island, 31 km, East-west Road, *D. K. Hore* 7213 (PBL) ; Laful Forest, *D. K. Hore* 7773 (PBL). WORLD : Java.

LINACEAE

*4. **Indorouchera griffithiana** (Planch.) Hall. f. in Beih. Bot. Centralbl. 39 (2) : 50. 1923. *Roucheria griffithiana* Planch. in Hook. Lond. J. Bot. 6 : 143. 1847 et 7 : 527. 1848 ; Hook. f. Fl. Brit. India 1 : 414. 1874.

Subscandent large shrub to woody lianas, spreading over the canopy of the trees on which it climbs. Branches alternate with woody, revolute hook like tendrils at base of the side branches, perfectly glabrous. Leaves alternate, lanceolate, caudate, acuminate, glossy green. Flowers axillary fascicled, condensed, yellow, fragrant, pentamerous. Petals caducous. Young fruits greenish-white but become orange-red when mature.

Habitat & Frequency : Mixed or dense inland hilly forest, rocky loam ; few or scarce.

Distribution : INDIA : Great Nicobar Island, 6 km, East-west Road, *Balakrishnan* 2963 (PBL, CAL) ; Galathea river bank, *N. G. Nair* 7142 (PBL) ; Laful Forest, *D. K. Hore* 7770 (PBL). WORLD : Java, Malaysia.

Note : An ornamental liana with beautiful dazzling yellow, fragrant flowers. A plant suitable for introduction into gardens.

CONNARACEAE

5. **Connarus planchonianus** Schellenb. in Kew. Bull. 375. 1927. *C. grandis* (*non* Jack) Hook. f. Fl. Brit. India 2 : 53. 1876.

Large twining liana. Leaves 1-2 jugate, usually 5-foliate, imparipinnate, leaflets oblong to lanceolate, base cuneate or rounded, apex obtuse-acuminate. Inflorescence terminal or axillary, in panicle. Fruit in follicles, 4-6 × 2-2.2 cm, little compressed, ellipsoid to obovoid, beak inconspicuous, pendulous ; young fruits green but yellowish-orange when ripe and ultimately brownish when dry.

Habitat & Frequency : Beach forest, roadside rocky hill slopes, sandy loam ; not frequent.

Distribution : INDIA : Great Nicobar Island, Campbell Bay, *Balakrishnan* 2790 (PBL, CAL) ; Alexandra river bank forest, *D. K. Hore* 7965 (PBL) ; 36.5 km, East-west

Road, *D. K. Hore* 8270 (PBL). WORLD : Burma, Sumatra, Malay Peninsula and Singapore.

Note : According to Leenhouts in Fl. Males. Ser. I. 5(4) : 528. 1958, *C. planchonianus* Schellenb. (*C. grandis non* Jack), *C. semidecandrus* Jack, *C. gibbosus* Wall. ex Hook. f. are three distinct species.

THYMELAEACEAE

6. **Phaleria macrocarpa** (Scheff.) Boerl. Handl. 3 : 111. 1900. *Drimyspermum macrocarpum* Scheff. in Ann. Bot. Gard. Btzg. 1 : 46. 1876. (Plate I)

Small tree, *ca* 5-8 m. Leaves simple, opposite, elliptic-oblong, lanceolate, 17-20 × 5.5-7.5 cm, apex acute to acuminate, base cuneate to rounded, dark green above, pale below. Inflorescence cauliflorus or on old wood, 1-5-flowered, shortly peduncled. Flowers 2-3 cm long, white ; calyx lobes reflexed ; corolla lobes 4 ; stamens exerted beyond corolla tube ; ovary glabrous, style longer than the corolla tube. Fruits 1.5-1.8 × 1.4-1.5 cm, globose, obovoid, narrowed towards base, green but purplish or reddish when mature.

Habitat & Frequency : Marshy or damp inland forest areas ; rare.

Distribution : INDIA : Great Nicobar Island, Galathea river mouth, *N. G. Nair* 7128 (PBL) ; Navy Dera, *D. K. Hore* 7286 (PBL). WORLD : Java, Malaysia and New Guinea.

Note : This is the first generic record from India, although Beddome (1873), Hooker (1886) have described its related species *P. cauliflora* Bedd. from Srilanka which is a synonym of *P. capitata* Jack (Ding Hou in Fl. Males. Ser. I. 6 : 22. 1960).

URTICACEAE

7. **Cypholophus moluccanus** (Bl.) Miq. in Ann. Mus. Bot. Lugd.-Bat. 4 : 303. 1869. *Urtica moluccana* Bl., Bijdr. 491. 1825. (Plate II)

Undershrub, *ca* 1 m, erect, branches hairy. Leaves opposite, 12-23 × 6-8.5 cm, ovate to ovate-oblong, base oblique on one side, rounded or subcordate on the other side, crenate-serrate, scabrous, densely hirsute on both surfaces, interstitial spaces very prominent especially when dry, nerves 3, diverging from base, stipulate. Petiole 1-6 cm. Flowers monoecious, clustered (in verticillasters) around axis leaving certain gaps, white. Fruits unknown.

Habitat & Frequency : In evergreen damp forested ravines at low altitude ; rare.

Distribution : INDIA : Great Nicobar Island, humid forests of Laful, *D. K. Hore* 7588 (PBL). WORLD : Sumatra, Java, Taiwan, Philippines to Micronesia and Hawaii.

Note : The genus is recorded from India for the first time.

MORACEAE

8. **Ficus magnoliaefolia** Bl., Bijdr. 448. 1825.

Large tree ; stem with milky juice. Leaves ovate-oblong or oblong-obovate, base rounded, acuminate, nerves 3. Figs globose, 1-2 cm across. Very near to *F. nervosa* Heyne.

Habitat & Frequency : Evergreen fores ; rare.

Distribution : INDIA : Great Nicobar Island, Valdora bay, *B. S. Chengappa* 22946 dated 4.3.1952 (DD). WORLD : Java.

MONOCOTYLEDONS

ARACEAE

*9. **Homalomena nutans** Hook. f. Fl. Brit. India 6 : 535. 1893.

Terrestrial herb, *ca* 30 cm. Rhizome as small as a little finger, elongated rooting. Lamina 12-15 × 6-7 cm, elliptic, acuminate, nerves inconspicuous, glossy green. Petiole arises from base, *ca* 15-16 cm long, little slender. Spathe pale pinkish.

Habitat & Frequency : Dense humid forest along the stream course ; uncommon.

Distribution : INDIA : Great Nicobar Island, Galathea river bank forest, *D. K. Hore* 6787 (PBL) ; 36 km, North-south Road, *N. G. Nair* 7150 (PBL). WORLD : Malaysia.

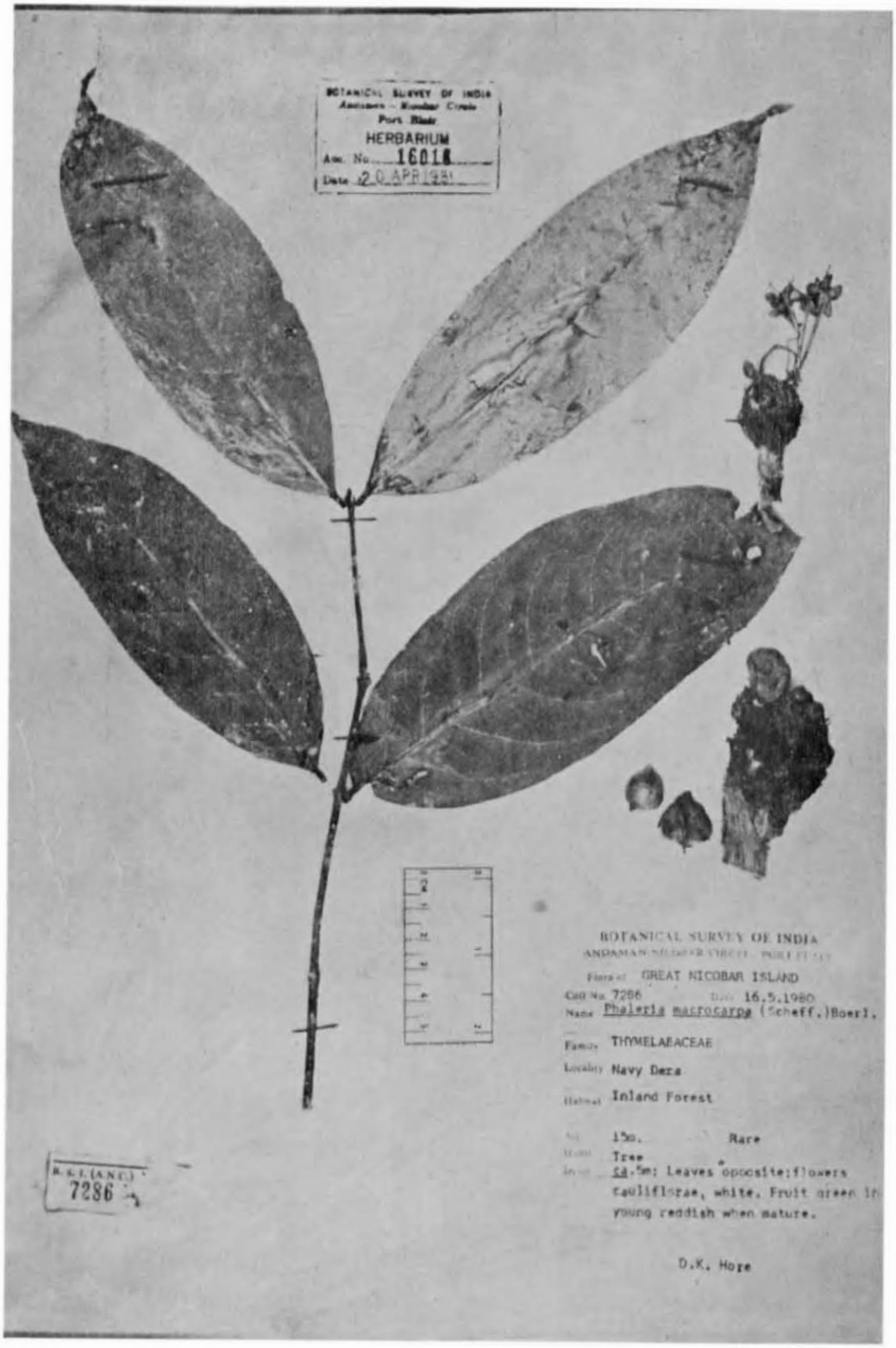


Plate I : *Phaleria macrocarpa* (Scheff.) Boerl.

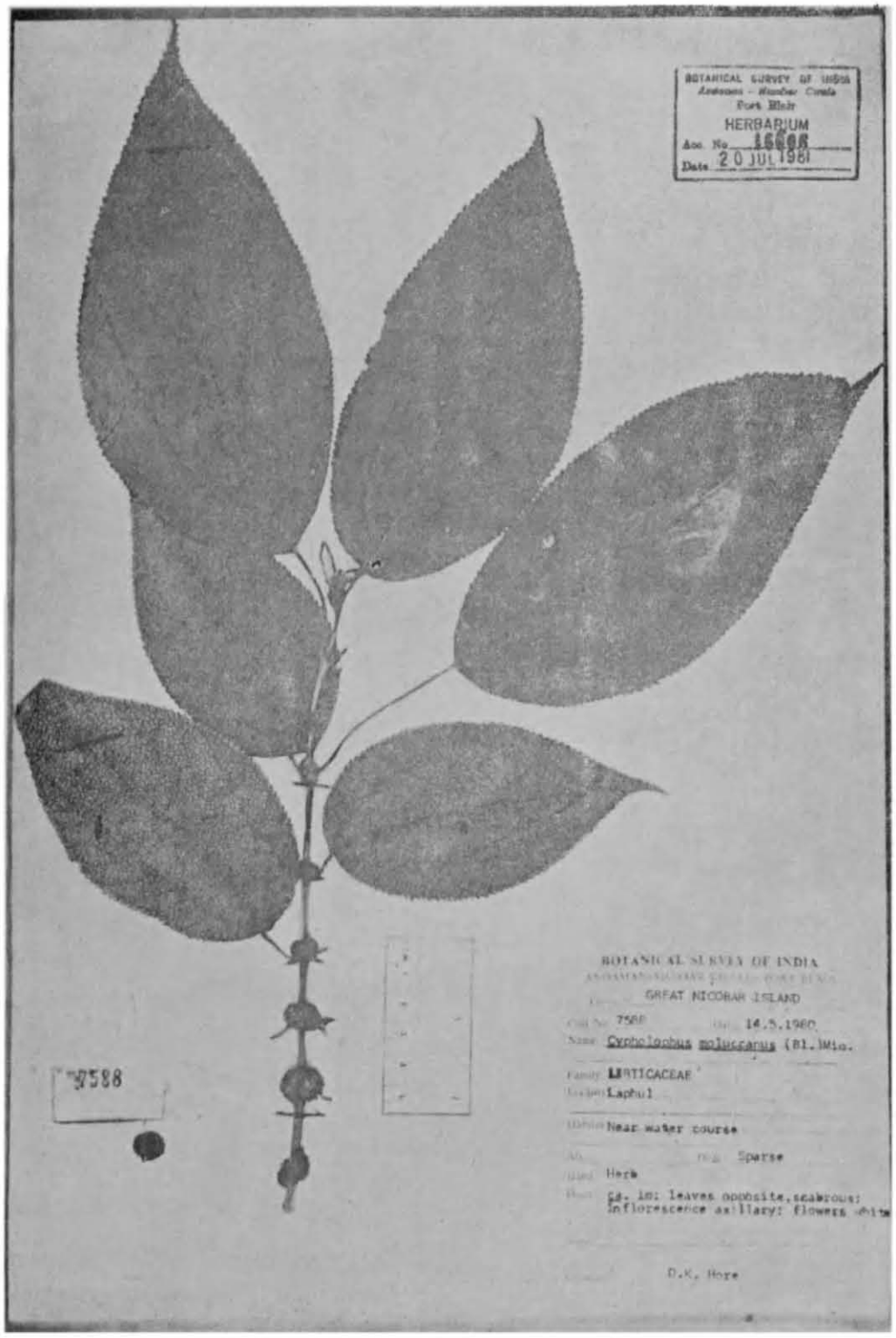


Plate II ; *Cyphelophus moluccanus* (Bl.) Miq.

ZANNICHELLIACEAE

10. **Halodule uninervis** (Forsk.) Aschers in Boiss., Fl. Orient. 5 : 24. 1882. *Zostera uninervis* Forsk., Fl. Aegypt. Arab. 120 : 157. 1775.

Semiaquatic herb. Rhizome creeping through sand or coral reefs. Roots 1-6. Short, erect stem from each node. Leaves distichous, 2-3 leaves together from each node, 13-14 cm long and 4-6 mm wide, leaf blade linear, flat, gradually narrowed at base, tips tridentate, median tooth obtusely rounded, nerves inconspicuous ; leaf sheath *ca* 3-4 cm long. No flowers or fruits seen.

Habitat & Frequency : Intertidal zone, rocky submerged sea-shore or coral reefs, mudbanks or in shallow water ; abundant.

Distribution : INDIA : Great Nicobar Island, Koshindon, *Balakrishnan* 4034 (PBL, CAL) ; Kopenheat submerged sea-shore, *D. K. Hore* 8215 (PBL). WORLD : Kuwait, Sri Lanka, Thailand, Indonesia, Malay Peninsula, Vietnam, Philippines, Japan, West Australia and New Caledonia.

Note : Den Hartog (1970) though reported the species on the basis of the specimens *Prain's collector* s. n. (CAL) from Andaman in March 1899, it is untraceable in CAL.

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