

tely arose; sterile pinnae with incisions of crenate lobes; upper pinnules gradually reduced and upper ones confluent veins immersed, but evident, 1-2 times formed, free or with a few anastomoses but row of the areoles rarely complete in one pinnule. Sori interrupted by the incisions, 1-4 mm long, indusium greenish-brown, subentire, reflexed.

Specimen examined : INDIA : (Nicobar Islands) on slopes of hills between 46-48 km 29.6.1984. *Sanjappa & Chatterjee* 17756 (CAL).

Distribution : India (Nicobar Islands), According to Kramer (1971) S. Thailand, in Malesia-Malay Peninsula (Perak).

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EMBELIA MACROCARPA KING & GAMBLE (MYRSINACEAE)—A NEW RECORD FOR INDIA FROM ANDAMAN ISLANDS

The genus *Embelia* Burm. f. is accredited with about 16 species in India (Santapau & Henry, 1973) of which only *E. microcalyx* Kurz was hitherto recorded for Andaman and Nicobar Islands (Vasudeva Rao, 1986). In the present paper, the occurrence of another species, *E. macrocarpa* King & Gamble in N. Andaman group of islands is recorded which is incidentally an addition to the Indian Flora also.

E. macrocarpa was described (1906) from Penang, Malay Peninsula where the species was reported to be very rare and little known (Ridley, 1923). In the Bay Islands too, the occurrence of the species is extremely rare, hence vulnerable to habitat destruction. The species is characterised by its large size fruits which distinguish it from other species of the genus. Interestingly, the climber is not seen in flowering in spite of several efforts by

the author in different seasons. The only floral parts that could be seen are the persistent sepals along with the fruits. It is assumed that the taxon flowers very rarely which could be one of the reasons for its rare occurrence and reproduction. It is worth mentioning here that Ridley (1923) indicated that *E. ridleyi* King & Gamble to have possibly been extinct in the Malay Peninsula flora.

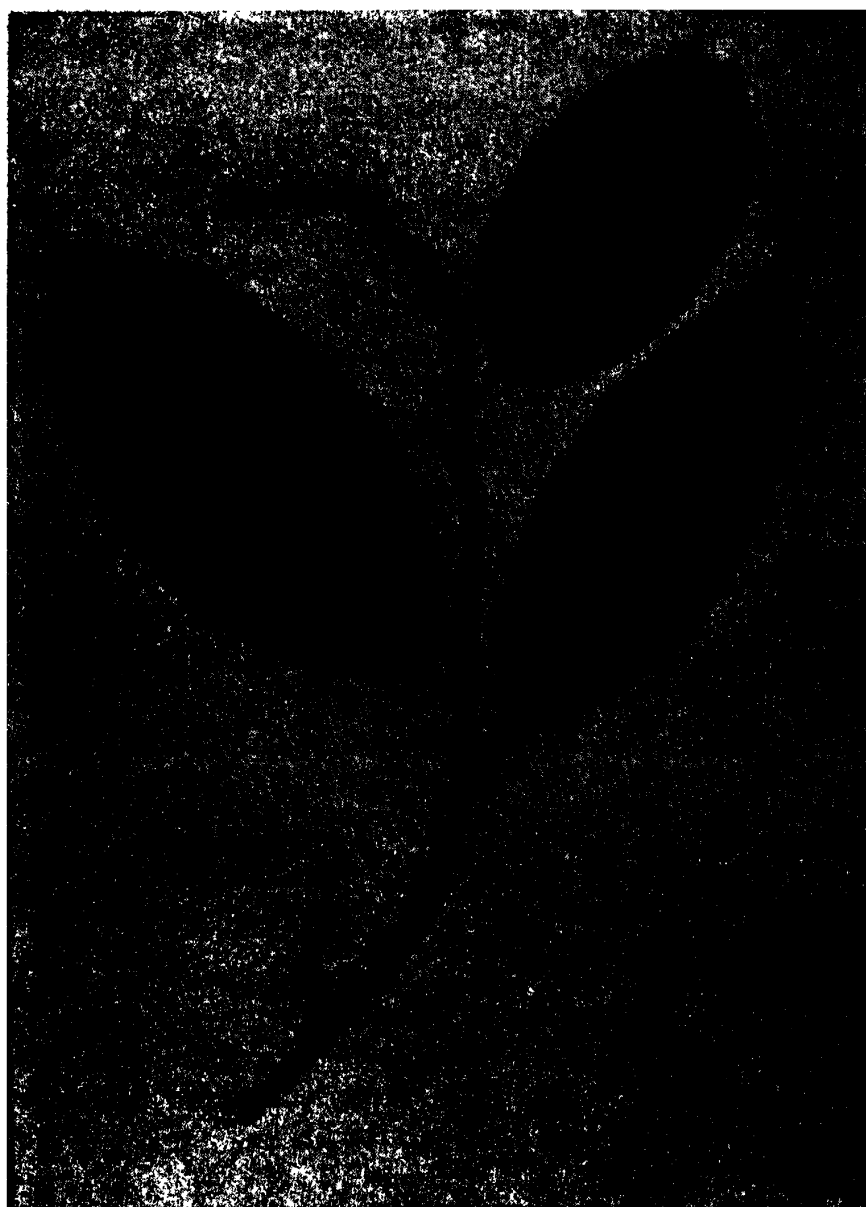
A brief account of the taxon along with a plate is given here to facilitate the collection of this extremely rare and uncommon species especially in flowering condition in the field.

***Embelia macrocarpa* King & Gamble** in Jour. As. Soc. Beng. 74(2) : 110. 1906; Ridley, Fl. Malay Penins. 2 : 234. 1923.

A stout climbing shrub. Stem and branches

thick, terete, jointed, with triangular projections in 1-3 whorls around the joints, leaf scars much dilated, bark peeling when dry. Leaves simple, 13-19 × 6-8 cm, coriaceous, translucent, gland dotted, obovate-elliptic, acuminate, base equi-lateral, sometimes shortly narrowed, entire, lateral nerves *ca* 20 pairs, anastomosing below margins : petioles *ca* 2.0 cm long. Flowers in thick

racemes below the branches (Ridley). Sepals 4, minute, membranous, triangular, acute, persistent. Fruits 2.0 × 1.5 cm, globular or ovoid, in bunches on the short peduncle in leaf axils, light green, fleshy : exocarp sometimes blotched with red spots but prominently on the inner surface, wrinkled when dry : endocarp fibrous with acute tip. Seed deep-pitted : endosperm ruminant.



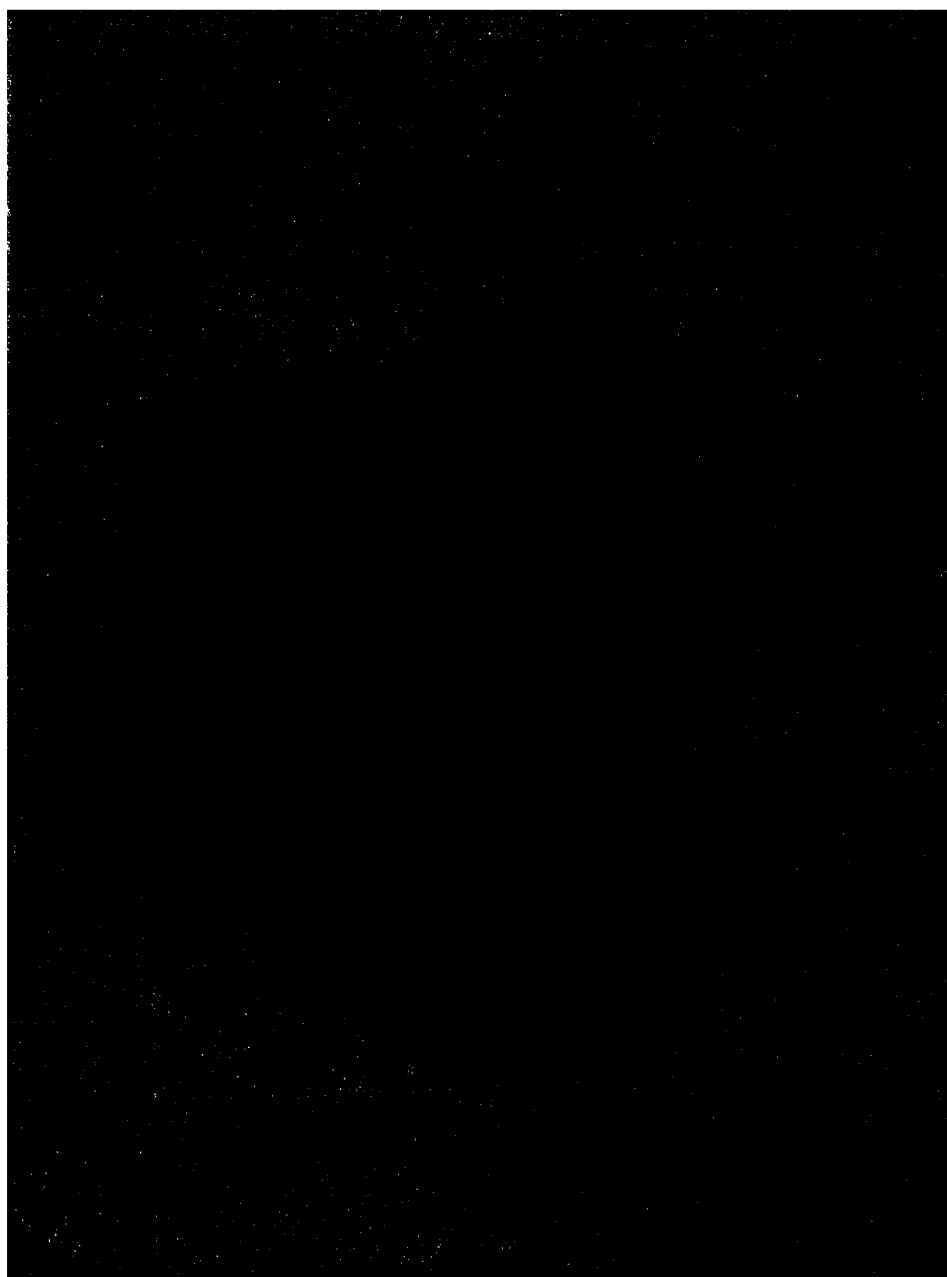
Embelia macrocarpa King & Gamble : Branch, Wrinkled fruits and endocarp

Distribution : Malay Peninsula ; India ; North Andaman main island.

Specimen examined : Kalpong reserved forests (along a stream), Kalra, North Andaman, 12.7.90, P. S. N. Rao 20647.

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Embellica macrocarpa King & Gamble ; Fleshy fruit bunch showing persistent style.

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MILIUSA MUKERJEEANA D. MITRA & P. CHAKRAB. (ANNONACEAE)—A NEW SPECIES FROM ANDAMAN & NICOBAR ISLANDS

While revising the family Annonaceae for Flora of India, the authors came across several unidentified materials from Andaman & Nicobar Islands deposited at CAL. There were also some living plants at Indian Botanic Garden, introduced from Andaman Islands. Recently a fresh collection has been made from the same area. On critical study, all these materials were found to be conspecific and reported here as a new species. The species is closely allied to *M. roxburghiana* (Wall. ex Griff.) Hook. f. & Thoms.

***Miliusa muckerjeeana* D. Mitra et P. Chakrab., sp. nov.**

M. roxburghianae (Wall. ex Griff.) Hook. f. et Thoms. proxime affinis, sed differt floribus semper bisexualibus, sepalis petalisque 3 exterioribus, ovatis acutis, ca 1 × 1 mm, 3 petalis interioribus liberis, per crassis, ca 5 × 4 mm, stipitibus carpellorum maturorum parvioribus, 4-5 mm longis.

Typus : Alimusjid Hill Jungle, S. Andaman Island, 14 Oct. 1895, *King's Collector s.n.* (Holo. et Iso. in CAL).

M. muckerjeeana is closely related to *M. roxburghiana* (Wall. ex Griff.) Hook. f. & Thoms. differing always in having bisexual flowers, sepals and the 3 outer petals ovate-acute and about 1 × 1 mm, the 3 inner petals free, very thick, about 5 × 4 mm and the stalk of ripe carpels shorter, 4-5 mm long.

Small trees, 3-8 m tall; young branches puberulous. Leaves simple, alternate, exstipulate, glabrous, oblanceolate to lanceolate,

base cuneate, apex obtuse to acuminate, 9-16.5 × 4-5 cm; main lateral nerves 10-12 pairs; petioles 2-3 mm long. Flowers bisexual, solitary or 2-3 together, axillary, greenish to yellow; pedicels slender, 1.5-2 cm long; bracts 2, minute, basal and submedian, caducous. Sepals 3, valvate, ovate, acute, ca 1 × 1 mm, pubescent outside. Petals 6 (3+3), valvate; outer 3 like sepals in size and shape; inner 3 ovate, acute, free, very thick, ca 5 × 4 mm, pubescent outside. Torus conical. Stamens ca 1 mm long; filaments short, flattened; connectives small, apiculate, not concealing the anther-locules. Carpels many, ca 2 mm long, strigose; ovary oblong, ovules 3-4; style absent; stigma capitate. Ripe carpels many, berries, globose to oblong, 0.5-1 cm long, red when ripe; stalks 4-5 mm long. Seeds 1-3, transversely ridged, convex above.

Specimens examined : SOUTH ANDAMAN ISLANDS. Rangachang hill jungle, 10.7.1895, *Dr. King's Collector s.n.*; Herb. Hort. Bot. Cal. Andaman group, 21 April, 1894; Herb. Hort. Bot. Cal., 1.7.1892, *R. L. Proudlock* 11; Ind. Bot. Gdn., *D. Das* 10, 21 Nov. 1963. NICOBAR ISLANDS : Car Nicobar, *N. G. Nair* 903; 1 March 1974, Karchal, 22 April 1976, *P. Chakraborty* 1142 (all paratypes deposited in CAL & PBL).

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