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**Research Article**

**GARCINIA NERVOSA MIQ. A NEW RECORD FROM MAINLAND INDIA**

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**ABSTRACT**

The occurrence of *Garcinia nervosa* Miq. (Clusiaceae) is recorded for the first time from Assam in mainland India. Detail description of the taxa with relevant information and distribution are provided.

**Keywords:** *Garcinia Nervosa*, New Record, Mainland India

**INTRODUCTION**

The genus *Garcinia* L. belongs to the family Clusiaceae and comprising of about 200 species native to South Asia ranging from southern parts of Thailand and Peninsular Malaysia to Indonesia but mainly distributed in South East Asian region (Sharma *et al.*, 1993; Mabberly, 2005). It is estimated that 240 species (Stevens, 2007) or 350 species (Whitemore, 1973) of *Garcinia* are occurring worldwide. Anderson reported 30 species in Flora of British India (Hooker, 1874). Of the 35 species reported by Maheswari (1964), 15 species are from northeast India.

During a recent floristic study undertaken in cacher and Karimganj districts of Assam the authors collected certain specimens belonging to the genus *Garcinia* L. After critical study and scrutiny of literature and herbarium materials the collected specimens were identified as *Garcinia nervosa* Miq. In Flora of British India (Hooker, 1874) the species was described from Malacca in Malay Peninsula as *G. andersoni* Hook (1915) described the species for the first time from Philippines. Nair (1977) reported the species from Car Nicobar Island for the first time from India. Scrutiny of literature and herbarium specimens reveals that the species has not been reported from any part of mainland India and hence it is a new record for mainland India. Even Kanjilal *et al.*, (1934) have not reported the species among the nine species reported from erstwhile Assam. A detail description of the species along with distribution is provided here. The voucher specimens on which this study is based has been deposited in the Herbarium of Botany Department, Gauhati University, Assam (GUHB) for future reference.

***Garcinia nervosa*** Miq. Ann.Mus. Lugd. Bat.I. 208,1863-64; Miq.Fl. Ind. suppl.496, 1861; King in Journ. As. Soc. Beng. 59:169,1890; Merr. in Philip. Journ. Sci. 10:325, 1915; N.G. Nair in Geobios 4:221.1977; Singh in Fl.India 3:121,1993.***G. andersoni*** Hook. f. in Fl.Br.Ind. 1: 270, 1874.

**Common Name:** Pear Mangosteen.

**Vernacular Name:** Indonesia: Angalu, Asam Garam,Kabal, Buradgis, Gatatan, Kandis Gajah, Pokok Lapan Taun, Selapan; Malaysia: Kandis Gajah (Peninsular), Kundis Daun Besar (Sabah); India (Nicobar): Kintul (Shopmen Tribe), Payuh, Deofal (Bengali); Thailand: Cha Muang Nam, Ma Phutpa.

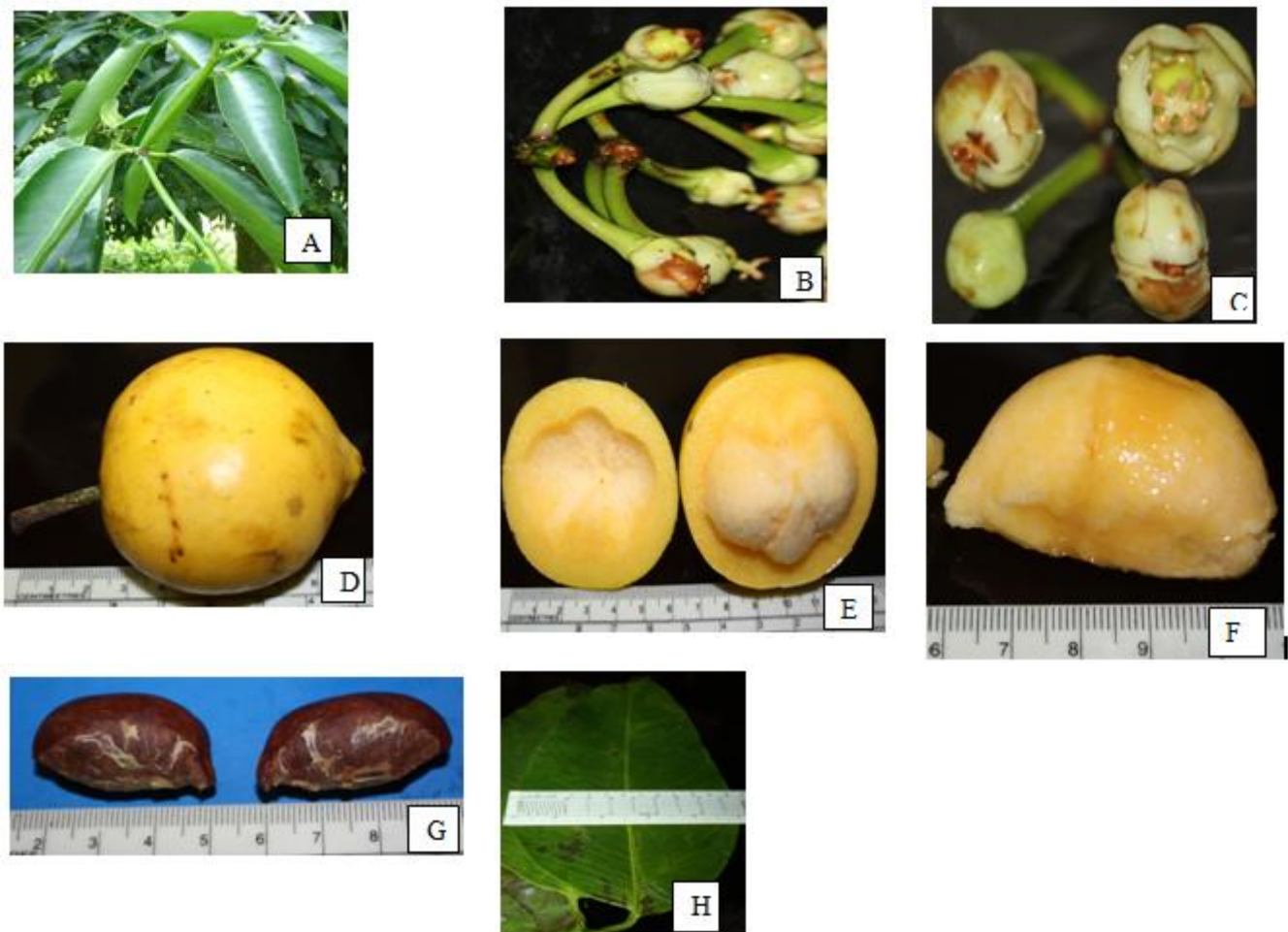
Tree, 6 to 12m height; young branches stout, compressed, 4-angled, 2 of the angles winged. Leaves large, 22-50 x 8.9-17.8 cm., petiolate, petiole 3.2 cm, glabrous, very coriaceous, oblong-oblongate or oblong-ovate, sub-acute or obtuse, slightly narrowed below the rounded or minutely cordate base; upper surface shining; the lower dull, pale; main nerves bold, numerous, anastomosing 0.25cm within the margins with the bold intra-marginal nerve; secondary nerves and reticulations rather prominent. Male flowers unknown. Female flowers 1.9 cm. in diam., in axillary fascicles of 8 - 10; pedicels thickened upwards, 2.5 - 3.17cm long (longer in the fruit). Sepals 5, unequal, orbicular, much imbricate and very concave, very coriaceous, pubescent externally. Petals 5, much larger than the sepals, orbicular, concave, thin. Disk of 5 thick, fleshy, pitted glands with 5 minute staminodes between them each bearing 4-5 minute imperfect anthers. Ovary ovoid, narrowed into a distinct 5-rayed style, 5-celled. Ripe fruit ovoid or obovoid, yellow with red blotches, 5.1cm long and 3.8cm. in diam., with a large eccentric mammilla crowned by the persistent 5-lobed stigma. Seeds about 2, elongated ovoid (Figures A-I).

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**FLOWERING:** March-Aug., **FRUITING:** April-Oct.

**Specimen Examined:** INDIA. Assam. Cachar, Bhubandar Forest Village in Sonai RF of Hawaitang Range under Cachar Forest Division ( $24^{\circ}33'59.6''$  N, and  $92^{\circ}52'20.0''$  E) 90m, 5 April 2013, J.Sarma 1814 (GUBH) ; Assam. Cachar, Baroitoli Part I Forest village adjacent to the North Cachar RF. under Karimganj Forest Division ( $24^{\circ}57'23.6''$  and  $92^{\circ}34'07.9''$ ) 74 m. August 2013, J.Sarma 2964 (GUBH) ; Assam. Hailakandi Katlichera tilla near Kuki nullah (Kuki stream) of Inner line RF under Hailakandi Forest Division. Sept. 2013, J.Sarma 3691 (GUBH); Peninsular Malaysia, August 1882, King's Collector 3197 (K); Peninsular Malaysia, A.C.Maingay 157(K); Indonesia ? s.n. HB647 (U).

**Distribution:** Thailand, Peninsular Malaysia, Sumatra, Rhiau, Borneo (Sarawak, Brunei, Sabah, South and East-Kalimantan), Philippines, Singapore, India.



**Figure 1: Photo plates of *Garcinia nervosa* Miq. A: A Flowering Twig. B: Inflorescence. C: Close view of Flowers. D: Ripe Fruit. E: Fruit with Pulp and Seed. F: Seed. G: Seed after Removing the Pulp. H: A Single Leaf.**

**Occurrence:** Occur in undisturbed mixed forests usually on hillslopes, on ridges and on alluvial rivers banks.

**Uses:** The pulp is edible but sour in taste. The present authors recorded that the ripe fruits are used to cure dysentery and the leaves are used as laxative for cattle.

**Notes:** The species is closely related to *G. dulcis* and *G. xanthochymus*. A key to *G. nervosa* and closely related species is provided below:

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- 1a. Leaves sparsely hairy, fruits globose.....*G. dulcis*  
1b. Leaves glabrous, fruits ovoid or sub-globose.  
2a. Stamens modified into staminodes, anthers imperfect..... *G. nervosa*  
2b. Stamens distinct, anthers 2-celled..... *G. xanthochymus*

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