



Eight Angiosperm Species, Additions to Flora of Andaman & Nicobar Islands, India

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Abstract

Eight Angiosperm species: *Alpinia calcarata* (Haw.) Roscoe, *Alternanthera ficoidea* (L.) Sm., *Datura innoxia* Miller, *Euphorbia deccanensis* V.S. Raju, *Ipomoea triloba* L., *Leucascephalotes* (Roth) Spreng., *Rothia indica* (L.) Druce, *Solanum sisymbriifolium* Lam., are being reported as new distributional records for Andaman and Nicobar Islands.

INTRODUCTION

During our recent floristic explorations in different localities of South Andaman Islands, we could collect and identify eight angiosperm species which were found additions to the flora of Andaman and Nicobar Islands after Pandey & Diwakar (2008) and updated literature review (including Sinha, 1999; Prasad, PRC et al., 2009; Prasad et al., 2013; Naik et al., 2014; Bheemalingappa et al., 2015). The species are *Alpinia calcarata* (Haw.) Roscoe, (Zingiberaceae), *Alternanthera ficoidea* (L.) Sm. (Amaranthaceae), *Datura innoxia* Miller (Solanaceae), *Euphorbia deccanensis* V.S. Raju (Euphorbiaceae), *Ipomoea triloba* L. (Convolvulaceae), *Leucas cephalotes* (Roth) Spreng. (Lamiaceae), *Rothia indica* (L.) Druce, (Fabaceae) and *Solanum sisymbriifolium* Lam. (Solanaceae). All these taxa are enumerated family-wise in alphabetical order and update nomenclature (The Plant List, 2013), brief description, phenology, habitat and distribution are provided for all the species. Representative specimens of all the species were deposited in S.K. University Herbarium

(SKU). Field Photographs of the species are presented in Plate 1. Abbreviations used for collectors are: BR, B. Ravi Prasad Rao and MCN, M. Chennakesavulu Naik.

TAXONOMIC TREATMENT

Alternanthera ficoidea (L.) Sam., Mem. Acad. Sli. Terime 33:131. T.9.1820. *Gomphrena ficoidea* L., Sp.Pl. 1: 225.1753., nom. cons. (Plate-1) (Fig.1: a) AMARANTHACEAE

Prostrate perennial herb; stems to 1 m long. Leaves lanceolate, spatulate, elliptic-oblongate or ovate-suborbicular, to 5 × 1.2 cm, narrowed at base into petiole. Spikes, sessile, axillary, usually solitary, globose or ovoid, white; bracts less than half of tepals. Tepals 5, lanceolate-acute; outer 3, 3-nerved, inner 1-2-nerved, pungent; margins chartaceous, pilose or hispid. Pseudostaminode margins fimbriate; stamens 5, anthers 5; seeds 1 mm.

Fl. & Fr.: July- January.

Distribution: India, Tropical America; introduced elsewhere. India-Throughtout.

Habitat: Naturalised. Common in sandy soils, along road sides and in waste lands.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman -Wandoor 47529 MCN & BR, 21.03.2014 (SKU).

***Ipomoea triloba* L.** Sp. Pl. 1: 161. 1753. (Plate-1) (Fig. 1: b) CONVOLVULACEAE

Annual prostrate or twining herbs, to 50 cm. Stems glabrous or sparsely pubescent. Leaves broadly ovate to circular outline, to 7 × 6 cm, glabrous or sparsely pilose, margin entire, deeply 3-lobed, base cordate; petiole to 6 cm. Flowers in dense umbellate cymes or rarely solitary; peduncle to 5 cm. Sepals unequal, margins fimbriate; corolla pink or pale purple, funnel form, glabrous; limb obtusely 5-lobed; stamens and pistil within. Capsules globular, bristly pubescent, apiculate, 2-loculed, 4-valved. Seeds to 4 mm, glabrous, dark brown.

Fl. & Fr.: Oct - December. Common name: Little Bell

Distribution: India, Indonesia, Japan, Malaysia, Philippines, New Guinea, Sri Lanka, Thailand, Vietnam, North America, Pacific Islands; Introduced elsewhere (Roskov *et al.*, 2014). India: Throughout

Habitat: Rare, along roadsides and wastelands.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman - Dhanikhari 48021 MCN, 19.09.2014 (SKU).

***Euphorbia deccanensis* V.S. Raju** in Taxon 34: 519. 1985. (Plate-1) (Fig. 1: c) EUPHORBIACEAE

Decumbent erect herbs, entirely glabrous. Leaves oblong-lanceolate, oblique at base, distantly serrate to entire, acute to acute-mucronate at apex, up to 3 × 0.5 cm. Cyathia terminal or in axils of upper leaves, solitary or in pairs; glands 4, transversely oblong or cupular, red; white or pink with ared spot. Male florets: pedicels to 1.5 mm long; anthers subglobose; female florets: gynophores 3 mm long. Fruits subglobose, glabrous; seeds smooth, pale brown.

Fl & Fr.: Aug - Apr.

Distribution: India to Indo-China (Roskov *et al.*, 2014). India-South India

Habitat: Rare, on hill tops in open areas.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman-Mundapahad 47606 BR & MCN 24.08.2014 (SKU).

***Rothia indica* (L.) Druce**, in Bot. Exch. Club Soc. Brit. Isles. 3:423.1914. (Plate-1) (Fig. 1: d) FABACEAE-FABOIDEAE

Annual diffuse herb, to 30 cm; branchlets hirsute; stipules lanceolate. Leaves 3-foliolate, to 4 cm; leaflets oblanceolate, 2-2.5 × 0.5-0.7 cm, pilose, base attenuate, apex acute, entire. Flowers solitary or in pairs, leaf-opposed or extra-axillary. Sepals to 6 mm, lobes triangular; corolla yellow, standard petal abaxially pilose on midline. Pods linear-narrowly oblong, to 6 × 0.2 cm, compressed, densely hairy, spine-tipped; many-seeded; seeds brown, D-shaped.

Fl. & Fr.: June-Nov.

Distribution: Asia-Australia. India-Throughout
Habitat: Rare, in waste lands and along seashores.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman, Hutbay, 48161 MCN 27.12.2014 (SKU).

***Leucas cephalotes* (Roth) Spreng.** In L., Syst. Veg. 2:743. 1825. (Plate-1) (Fig. 1: e) LAMIACEAE

Annual erect herb, to 75 cm; branchlets quadrangular, hispid. Leaves ovate-lanceolate, to 8 × 3 cm, membranous, pubescent, base cuneate, apex obtuse, crenate-serrate; petiole to 1 cm. Flowers in dense terminal globose heads, white; heads to 4 cm across; bracts narrowly lanceolate, overlapping. Calyx tubular, pubescent, mouth slightly oblique. Corolla white. Nutlets ovoid-trigonal.

Fl & Fr.: Jul- Oct.

Distribution: Afghanistan, India to China.

Habitat: Rare waste lands and sandy areas.

Associated with *Commelina benghalensis* and *Micrococca mercurialis*.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman- Neil Island 47734 BR & MCN 12.9.2014 (SKU).

***Datura innoxia* Miller**, Gard. Dict. (ed. 8). No. 5. 1768. (Plate-1) (Fig. 1: g) SOLANACEAE

Annual erect herb, to 1 m; branchlets green, densely pubescent. Leaves broadly ovate, to 18 × 11 cm, pubescent, base oblique-cuneate, apex acuminate, sinuate-dentate; petiole to 6 cm. Flowers solitary, axillary or terminal, white; pedicel to 2.5 cm long, reflexed in fruit with brownish tomentum. Calyx 5-lobed, inflated towards base. Corolla tube to 18 cm long and limb, 9 cm across. Capsules globose, to 5 cm across, dense spiny; many-seeded; seeds reniform, compressed, brown, reticulate.

Fl & Fr.: May- Oct. **Common Name:** Downy Thorn Apple

Distribution: More or less throughout the world except high latitudes.

Habitat: Rare in waste lands. Associated with *Senna occidentalis* and *Stachytarpheta*

jamaicensis.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman Islands – Neil Island 47732 MCN 7.9.2014 (SKU).

PLATE-1



Fig. 1: a) *Alternanthera ficoidea* b) *Ipomoea triloba* c) *Euphorbia deccanensis*
d) *Rothia indica* e) *Leucas cephalotes* f) *Datura innoxia*
g) *Solanum sisymbriifolium* h) *Alpinia calcarata*

Solanum sisymbriifolium Lam., Tabl. Encycl. 2: 25. 1794. (Plate-1) (Fig.1: g) SOLANACEAE

Shrubs, to 1.5 m; stems and branches with sticky glandular hairs; spines very sharp, bright orange-red to brown-yellow. Leaves alternate; lamina ovate-oblong, to 20 × 10 cm, deeply pinnatisect or pinnatifid with prominent spines on midrib and veins, sparsely stellate-hairy above, densely beneath. Inflorescence internodal, racemes with 1-10 flowers. Calyx to 6 mm long, hairy; corolla white, creamish or blue, rotate, to 5 cm across. Berries globose, to 2 cm across, with enlarged and reflexed calyx, greenish, bright red when ripe; seeds many, reniform.

Fl. & Fr.: Throughout the Year. **Common name:** Sticky Night-shade

Habitat: Rare along roadsides and in waste lands.

Distribution: India, China, Central and South America, Africa, Australia. India: throughout

Specimens studied: India, Andaman & Nicobar Islands, South Andaman (PBR- Chatham) 17.12.2014, MCN & BR 48110 (SKU).

Alpinia calcarata (Haw.) Roscoe, *Trans. Linn. Soc. London* 8: 347 1807. (Plate-1) (Fig. 1: h) ZINGIBERACEAE

Rhizomatous herbs; pseudostems to 1.5 m. Leaves sessile, simple, alternate, to 32 × 5 cm, lanceolate, acuminate, long-pointed, glabrous, hairy along the margins. Flowers in 5-10 cm long terminal panicles; rachis velvety; bracteoles to 1.5 cm. Calyx split one-side, apex 3-toothed. Corolla tube white, segments free tinged with pink, oblong-spathulate, pubescent outside; staminodes 3, reduced to minute filaments, the larger one petaloid, emarginated, glabrous and shining on both surfaces; Anther filaments to 1.2 cm. Capsules globose, red, 3-locules.

Fl & Fr.: Feb - May.

Distribution: India to Indochina, Sri Lanka.

Habitat: Rare in waste lands. Associated with *Annona glabra* and *Lantana camara*.

Specimens studied: India, Andaman & Nicobar Islands, South Andaman Islands-Bathubasti 46510 MCN & BR 08.02.2014 (SKU).

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