

The genus *Acanthus* L. (Acanthaceae) in Bhitarkanika National Park, Kendrapara District of Odisha, India

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Abstract

An account of three species of *Acanthus* L. (Acanthaceae) occurring in Bhitarkanika National Park, Odisha is presented in this paper. *Acanthus ebracteatus* Vahl turned out to be a new distributional record for the Flora of Bhitarkanika National Park and as well as for Odisha state.

Introduction

Exhaustive plant collection and survey tours was conducted to different areas of Bhitarkanika National Park, Bhitarkanika Wildlife Sanctuary, Kendrapara district of Odisha state considering the rich biodiversity of mangroves and their associates. Bhitarkanika is endowed with a very rich and diverse mangrove flora (total 73 species of mangroves and associates under several genera and families). Under the mangroves the family Acanthaceae is represented by a single genus *Acanthus* L. representing two species namely *Acanthus ilicifolius* L. and *Acanthus volubilis* Wall. Out of the two species the later was reported by Choudhury (1984) from Mahanadi delta and as well as Bhitarkanika. However, after number of attempts by the authors and other subsequent workers this species could not be relocated. So, its present occurrence and status is doubtful; it is only represented in this communication on the authority of Choudhury (*loc. cit.*). During the current exploration of different areas of Bhitarkanika *Acanthus* L. species were collected in flowering. After perusal of literatures, the taxa turned out to be *Acanthus ebracteatus* Vahl which is an addition to the Flora of Bhitarkanika National Park and as well as for Odisha state. The earlier workers Banerjee (1984), Haines (1921-25), Matthew (1983), Mooney (1950) and Saxena and Brahmam (1994-96) did not report this species in their respective treaties. The correct nomenclature, diagnostic characters, phenology, ecology, distribution etc. of the species are highlighted in brief along with a dichotomous key for identification.

ACANTHUS L.

Armed shrubs or twiners. Leaves pinnatifid, entire, coriaceous. Inflorescence axillary or terminal strobilate or interrupted spike. Calyx divided almost to the base; lobes 4. Corolla 2-lipped; upper lip obsolete, lower-lip blue or white. Stamens 4, didynamous; anthers oblong, 1-celled, bearded. Disk absent. Ovary 2-celled; ovules 2 in each cell. Capsules ellipsoid, 4-seeded.

Key to species

1. Twinning shrubs. Leaves entire, not spinous.
..... *A. volubilis*



Fig 1. *Acanthus ebracteatus* Vahl is in full blooming

1. Armed shrubs. Leaves pinnatifid, spinous.
2. Flowers blue or blueish violet; bracteoles conspicuous, persistent; mature fruits 2.5-3.0 cm long
.....*A. ilicifolius*
2. Flowers white; bracteoles inconspicuous, early deciduous; mature fruits less than 2 cm long
.....*A. ebracteatus*

1. *Acanthus ebracteatus* Vahl, Symb. Bot. 2. 75. t. 40. 1791; C.B. Clarke in Hook.f., Fl. Brit. India. 4: 481. 1884; C.E. Parkinson, For. Fl. Andam. 217. 1923; Naskar, Manual of Indian Mangroves 124. 2004.

Erect shrubs up to 1.5 m tall; stem stout with stilt roots at base. Leaves opposite, oblong or elliptic, 3.5-10.5 x 2.3-7.0 cm, with marginal spines, always with an apical spine, glabrous, coriaceous, petiolate. Flowers arranged in many flowered terminal spikes, bracts shorter than calyx; bracteoles inconspicuous; calyx deeply 4-lobed, lobes glabrous, anterior and posterior lobes larger, green; corolla white, tube short, on the inside top with hairy ring, 2-lipped, lower lip large, ovate-obovate; stamens 4; filaments thick, anthers bearded; style bidentate. Capsule

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Fig.2. Flowering of *Acanthus ilicifolius* L.

ovoid-oblong, up to 3-cm. long, compressed, coriaceous. Seeds tuberculate-rugose, glabrous.

Flowering & Fruiting: March-August.

Specimen examined: Bhitarkanika National Park.

Distribution: Andaman Islands only.

Illustration: Vahl, *Symb. Bot.* 2: 75, t. 40.1791.

Notes: Common along tidal streams, inland borders of mangrove swamps under the influence of salt or brackish water.

2. *Acanthus ilicifolius* L., *Sp.Pl.* 639.1753; C.B. Clarke in *Hook.f., Fl. Brit. India* 4:481. 1884; C.E. Parkinson, *For. Fl. Andam.* 217. 1923; Haines, *Bot. Bihar and Orissa* 2:737.1961; Matthew, *Fl. Tam. Carnatic* 2:1146.1983; Saxena & Brahmam, *Fl. Orissa* 3:1326.1995; Naskar, *Manual of Indian Mangroves* 122. 2004.

Armed shrubs. Leaves pinnatifid, 8-12 x 2-6 cm, coriaceous, base alternate, apex acuminate; lobes spine-tipped. Inflorescence axillary or terminal interrupted spike. Bracts 2, coriaceous, oblanceolate.

Calyx-lobes imbricate, ciliate. Corolla bluish or violet, cartilaginous; throats villous. Stamens attached to the throat of the tube; anther cells oblong, bearded, one celled, sterile. Capsules ellipsoid-oblong. Seeds wrinkled.

Flowers & Fruits: March-June.

Locality: Bhitarkanika. Very common in the mangrove forests.

Distribution: Sundarbans (West Bengal); False Point, Jambu, Bhitarkanika (Odisha); Godavari and Krishna delta (Andhra Pradesh); Tamil Nadu; Kerala; Karnataka; Pernem, Bicholim, Ilhas, Ponda, Salcete (Goa); Maharashtra; Gujarat and Andaman and Nicobar Islands.

Note: Gregarious in brackish swamps along the seashore and tidal streams.

Illustration: Matthew, *Illus. Fl. Tam. Carnatic* f. 518.1982.

3. *Acanthus volubilis* Wall., *Asiat. Rar.* 2: 56. 1831; C.B. Clarke in *Hook.f., Fl. Brit. Ind.* 4:481.1885; Choudhury in *Ind. Bot. Rep.* 3(2):123.1984; Naskar & GuhaBakshi, *Mangrove Swamps Sundarbans* 81.1987; C.E. Parkinson, *For. Fl. Andam.* 217. 1923; Naskar, *Manual of Indian Mangroves* 123. 2004.

Twinning shrubs. Leaves oblong, elliptic, entire, glabrous, obtuse, 5-8 x 1-3 cm, base attenuate. Inflorescence interrupted spike. Calyx-segments elliptic, acute, glabrous, inner shorter. Corolla white, tinged with yellow, fading rose.

Flowering & Fruiting: June-December.

Locality: Bhitarkanika, on the authority of Choudhury, 1984.

Distribution: Sundarbans (West Bengal); Mahanadi delta and Bhitarkanika (Odisha) and Andaman and Nicobar Islands.

Illustration: Wallich, *Pl. Asiat. Ar.* 2: 56, t. 172. 1831.

Notes: Rare in tidal forests and swamps. Growing in sheltered mangrove areas, climbing on mangrove trees.

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Announcement

WORLD ANIMAL DAY, OCTOBER 4

Why celebrate World Animal Day?

MISSION OF WORLD ANIMAL DAY

To raise the status of animals in order to improve welfare standards around the globe. Building the celebration of World Animal Day unites the animal welfare movement, mobilising it into a global force to make the world a better place for all animals. It's celebrated in different ways in every country, irrespective of nationality, religion, faith or political ideology. Through increased awareness and education we can create a world where animals are always recognised as sentient beings and full regard is always paid to their welfare.

To achieve this, we encourage animal welfare organisations, community groups, youth and children's clubs, businesses and individuals to organise events in celebration of World Animal Day. Involvement is growing at an astonishing rate and it's now widely accepted and celebrated in a variety of different ways in many countries, with no regard to nationality, religion, faith or political ideology.

Events are organised under the World Animal Day Umbrella by being publicised on this website and advertised using the World Animal Day brand and logo. Global branding effectively ties all events together and, over the years we have found this approach to be particularly helpful to grass roots groups who struggle to attract media attention in order to raise awareness of their work and fundraise. This draws attention to animal issues and makes them front page news – a vital catalyst for change. Each year the logo becomes more widely recognised as a global brand for animals. A brand that unites the animal welfare movement - firmly establishing itself as a platform for raising the status of animals.

Participation in World Animal Day will continue to grow until it reaches and connects animal advocates in all corners of the world. It's something that everyone can join in with, whether they are part of an organisation, group, or an individual.

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