

### ADDITION TO THE FLORA OF ORISSA-III

H.N. SUBUDHI\*, S. MISRA, D. SAHA\*\* & B.P. CHOUDHURY

P.G. Department of Botany, Utkal University, Bhubaneswar- 751 004

\*Div. of Soil & Water Environment Studies, Central Institute Freshwater Aquaculture,  
Bhubaneswar- 751 002

Cuttack, one of the coastal districts of Orissa lies between 21° N and 21° 10' N latitudes and 84° 58' E and 87° 03' E longitudes. The total forest cover is ca 1056 sq kms out of total landmass of 11,142 sq kms (Mishra 1980-81). Haines (1921-25) the then Conservator of Forest for Bihar and Orissa reported very scanty and fragmentary information about the plant resources of the district in his treatise "The Botany of Bihar and Orissa". Subsequently Mooney (1950) made a supplement to the above treatise where he mentioned chiefly the plants from Western Orissa. Thereafter, there is no exhaustive floristic work on this district except few sporadic report by Patnaik (1956), Patnaik and Chaypatnaik (1956). Realising the unexploredness of the district, the authors started botanisation since 1987. A total of 1017 angiospermic species have been collected, identified and housed in the Herbarium of P.G. Department of Botany, Utkal University, Bhubaneswar. After survey of available literature and herbarium specimens available at CNH (CAL), 3 taxa turned out to be new record for the

state of Orissa. Correct nomenclature, brief diagnostic character, phenology, locality of collection, field number, notes on ecology and distribution of these taxa have been provided.

**Fimbristylis griffithii** Boeck, Flora 43. 241. 1860;  
Van Steenis, Fl. Malay. 7 : 584. 1976. *Fimbristylis aestivalis* Clarke, Fl. Brit. Ind. 6 : 637. 1893 (non. Vahl). *Fimbristylis dichotoma* Camus, Fl. Gen. 1-c. 7. 102. 1912. (non. vahl.).

#### CYPERACEAE

Glabrous annuals, growing in marshy places, with fibrous roots. Stems densely tufted, rigid, smooth, 10-30 cm with 2-3 cm long sheath. Leaves shorter than the stems, scabrid, involute margin; ligules absent. Inflorescence compound or subdecompound loose with many spikelet, 5-8 cm long. Involucral bracts up to 6, filiform, much dilated at base, scabrid; primary rays several, obliquely erect, smooth, spikelets solitary ovoid, angular, densely many flowered, stramineous, narrowly winged. Glumes spiral, triangular, ovate, sharply keeled. Stamens 1 or 2; anthers oblong; style slender, flat, glabrous; stigma 2, shorter than style. But bi convex with acute edges, smooth, shining brown.

*Fls. & Frts.* : April-September.

\* Present address : Indian Grassland & Fodder Research Institute, (ICAR), Jhansi- 284 003

*Specimen examined:* Banki, near Mahanadi river bank, 9489.

*Ecology:* Commonly grow in marshy places, river banks, edges of lakes and ditches

*Distribution:* Bengal, Andamans, Thailand, N. Guinea.

*Azima sarmentosa* (Bl.) B. & H. Gen. Pl. 2: 681. 1876; Van Steenis, Fl. Males. 4: 225. 1954. *Actegeton sarmentosum* Bl. Bijdr. 11: 44. 1826. *Azima nova* Blanco, Fl. Filip. 68. 1837. *Monetia sarmentosa* Baill. Adoms. 9: 289-1870.

#### SALVADORACEAE

Erect, glabrous shrubs with drooping branches. Leaf axils with 1-2 patent thin straight, very sharp 2-15 cm long spines; stipules 2, minute. Leaves elliptic, ovate, acute, rounded at base, abruptly tipped with minus point, thinly coriaceous. Fls. in racemes or panicles, 5-20 cm long. Petals exceeding the calyx, oblong, serrate. Filaments exceeding the corolla; staminodes not exceeding the corolla, barren anther sagittate. Ovary imperfectly 4-lobed; stigmatic arms broad, widely divaricating. Berry globose. Seeds 2-3.

*Fls. & Frts.:* April-July.

*Specimens examined:* Haldia (Khurda), 10,000

*Ecology:* Dry plain forests, wastelands.

*Illustration:* Van Steenis, Fl. Males. 4: 224. f. 1. 1854.

*Distribution:* Malaysia, Continental South East Asia.

*Notes:* There are two species of *Azima*. *Azima tetracantha* mostly grows in sea coast area whereas, *A. sarmentosa* grows in dry waste forest areas. This plant differs from *A. tetracantha* due to presence of narrow, strongly spine tipped leaves, 4-nate, strong axillary spine, drooping habit.

*Salsola baryosma* (Roem. & Schult.) Dandy in Andrews Fl. Pl. Anglo-Egypt. Sudan 1: 111. 1950; Bhandari, Fl. Ind. Desert 298. 1990. *Chenopodium baryosmum* Roem. & Sch. Syst. Veg. 6: 269. 1820. *Salsola foetida* Del. Fl.

Aegypt. 57: 310. 1813 (nom. nud.)

#### CHENOPODIACEAE

An erect, as ascending or spreading hoary under shrubs. Branches crowded or horizontal. Leaves minute, broad, ovate to subglobose, fleshy with membranous margin. Fls. in short cylindrical spike, solitary in the axil of the leaves. Perianths silvery white, accrescent with broad membranous wings; wings horizontal, 2.5 mm long. Disc membranous, 10-ribbed. Ovary ovoid or subglobose; stigma 2, exserted, recurved.

*Fls. & Frts.:* May-October.

*Specimen examined:* Mahanadi river bank, Banki, 9497.

*Ecology:* Commonly found in marshy, saline and sandy tracts, associated with *Suaeda fruticosa*.

*Illustration:* Bhandari, Fl. Ind. Desert 95. 1990.

*Distribution:* N. Africa, Pakistan, Arab, Iran, India (Punjab, W. Peninsula, N.W. Rajasthan).

#### ACKNOWLEDGEMENTS

The authors express their deep sense of gratitude to Prof. and Head, P.G. Department of Botany, Utkal University for providing necessary laboratory facilities and to the authorities of Department of Science, Technology and Environment, Government of Orissa for financial help.

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