

NEW RECORDS OF ASTERACEAE FROM WEST BENGAL

ARTI GARG

Botanical Survey of India, Central National Herbarium, Howrah 711 103

e-mail : kad_arti396@yahoo.com

ABSTRACT

The present work elucidates eleven taxa belonging to ten species of Asteraceae as new records for the state of West Bengal.

INTRODUCTION

The family Asteraceae constitutes the largest family of vascular plants with c. 30,000 species and over 1100 genera in the world. Most of the members of this family are well adapted to survive in varied ecological conditions. In India the family is represented by c. 900 species under 167 genera and 240 species under 105 genera are reported from West Bengal. While scrutinizing the specimens housed in CAL, some interesting specimens were encountered, which were not reported earlier from West Bengal. These were critically examined and correctly identified. Literature perusal evidenced thirteen such taxa from different districts of West Bengal which were new to the state, two of which have been reported earlier (Garg, 2006). Eleven taxa belonging to ten species are now described and reported here for the first time from the state of West Bengal.

The species have been listed alphabetically, complete nomenclatural citations, synonyms, brief description, flowering and fruiting time, distribution, ecology, habitat, uses, status, local names, specimens examined, with notes and infraspecific identification keys are provided to facilitate easy identification.

Adenostemma lavenia (L.) Kuntze, var. **rugosum** (DC.) Ram Lal in Bull. Bot. Surv. India 9: 262. 1968; Uniyal in Fl. India 12: 347. 1995; *Adenostemma rugosum* DC. in Wight, Contrib. Bot. Ind. 8. 1834. *A. viscosum* J. R. & G. Forst. var. *rugosum* (DC.) C. B. Clarke, Comp. Ind. 29. 1876; Hook.f., Fl. Brit. India. 3 : 243. 1881.

Herbs; stems often rooting at nodes. Leaves rhombic-parabolic in shape, petiolate. Heads corymbose. Involucral bracts sub 2-seriate. Corollas white or pink. Achenes lightly muricate. Pappus hairs 4-5, ending in a knob.

Fl. & Fr. : October - January.

Distribution : Maharashtra, Karnataka, Tamil Nadu and West Bengal.

Specimen examined : India: West Bengal, Jalpaiguri district. BD-6, Kodalbusti, 6.12.95, S. Chandra & S.K. Mondal 1042 (CAL).

Anaphalis subumbellata C.B.Clarke, Comp. Ind. 108. 1876; Hook.f., Fl. Brit. India 3: 281. 1881; P.C. Pant in Hajra & al. Fl. India 13: 76. 1995. Grierson & Springate in Grierson & Long, Fl. Bhutan 2 (3): 1520.2001.

Herbs; stems white cottony tomentose. Leaves sessile, tomentose, with whitish tomentum. Heads few, peduncled, woolly tomentose. Involucral bracts white, brownish below. Florets predominantly male or predominantly female. Ray florets with filiform corolla. Disc florets with campanulate corolla. Achenes papillose. Pappus white.

Fl. & Fr.: October.

Distribution : Eastern Himalayas, 3400-4000 m, Sikkim and West Bengal.

Status : Rare.

Specimen examined : India: West Bengal, Darjeeling: Sandakphu, 8.10.41, 4100 m, Dr. K. Biswas 5740 (CAL).

Amberboa ramosa (Roxb.) Jafri in Scientist 3: 29. 1959; Rao & al., Fl. Ind. Enum. Aster. 2. 1988; Hajra in Fl. India 12: 153. f. 44. 1995. *Carduus ramosus* Roxb., Fl. Ind. 3: 407. 1832. *Voluterella ramosa* (Roxb.) Sant., Pl. Saurashtra 22. 1953. *V. divaricata* (DC.) Benth. & Hook. f., Gen. Pl. 2: 416. 1873; Hook.f., Fl. Brit. India 3: 383. 1881; Prain, Bengal Pl. 1: 460. 1963. *Microlonchus divaricatus* DC., Prodr. 6: 562. 1838. *Tricholepis procumbens* Wight, Ic. t. 1139. 1846.

Straggling herb, dichotomously branched. Leaves usually entire, toothed or pinnatifid. Involucral bracts awned. Corolla pale purple. Achenes grooved. Pappus silvery brown.

Fl. & Fr.: April December. January March.

Local name : Badaward (Hindi); Sakaji (Marathi).

Distribution : Uttar Pradesh, Bihar, Orissa, Madhya Pradesh, Rajasthan, Andhra Pradesh, Karnataka, Tamil Nadu and West Bengal.

Habitat : On dry stony ground and sandy river banks, up to 1000 m.

Uses : The plant is used as a tonic, aperients, deobstruent, febrifuge, slightly mucilaginous and used in coughs.

Specimen examined : India: West Bengal, Purulia district. Kalma, 6.3.1964, S.N. Biswas 108 (CAL).

Centaurea cyanus L., Sp. Pl. 911. 1753. *C. lanata* Roxb., Fl. Ind. 3: 644. 1832; Hook.f., Fl. Brit. India 3: 384. 1881; Hajra in Fl. India 12: 165.1995.

Herb. Lower leaves petiolate. Heads ovoid. Involucral bracts cottony, florets bluish. Achenes grey, silky. Pappus present.

Fl. & Fr.: March – June.

Distribution : Uttar Pradesh, Tamil Nadu and West Bengal.

Habitat: often met with as an escape in waste places and roadsides. Usually cultivated.

Specimens examined : India: West Bengal, Bankura, 28.12.66, M.N. Sanyal 919 (CAL); around Burdwan, 20 May 65, A.K.Dutt 796 (CAL).

Dyssodia tenuifolia Loes. in Bull. Herb. Boiss. Ser. II, 6: 866. 1906; Rao & al., Fl. Ind. Enum. Aster. 44. 1988; Rao in Hajra & al. Fl. India 13: 325. f. 99. 1995. *Hymenanthemum tenuifolium* Cass., Dict. 22: 313. 1821-22; Randeria in J. Bombay nat. Hist. Soc. 53: 216. 1956.

Herb; stems pubescent. Leaves deeply pinnatisect. Heads heterogamous. Involucral bracts uniseriate, 3-lobed at apex. Female florets ligulate. Disc florets tubular. corolla yellow-creamy. Achenes black. Pappus uniseriate, setose.

Fl. & Fr.: July- October.

Distribution: Delhi, Rajasthan, Madhya Pradesh, Maharashtra, Karnataka and West Bengal.

Specimens examined : India: West Bengal, Birbhum, Sriniketan, 26.2.1986, M.C.Biswas 19601 (CAL); Herb. Sulp. Kurz – Cult in Horto Botanico Calcuttensis, s.n., (Acc. No. 241557, CAL); 8.3.89, Cult. in H. B. R. Calcuttensis, s.l. s.n. (Acc. No. 241558, CAL).

Notes: The species is native of Central America; now naturalized in West Bengal.

Gynura lycopersicifolia DC., Prodr. 6: 300. 1838; Hook.f., Fl. Brit. India 3: 334. 1881. R. Mathur in Hajra & al. Fl. India 13: 220. 1995.

Herb fleshy; stems hollow. Leaves petiolate. Capitula discoid, bracteolate. Involucre campanulate; bracts dark-tipped or purplish. Florets orange. Achenes black. Pappus white.

Fl. & Fr. : December - March.

Distribution : South India and West Bengal. The pattern of distribution indicates a disjunct distribution of the species.

Specimens examined : India: West Bengal, Cooch Behar district, Purba Guihati, 3.3.84, *B. C. Banerjee* 15250 (CAL); Purba Ghugumari, 4.3.1984, *B. C. Banerjee* 15276 (CAL); Paschim Ghugumari, 4.3.1984, *B. C. Banerjee* 15273 (CAL).

Notes : The Old-World tropical genus *Gynura* Cas. (Davies, 1978-81), is characterized by the presence of subulate style-arm appendages and druses in the ovary wall. It is closely related to *Kleinia* Mill., often scandent species, at present distributed between *Senecio* and *Crassocephalum* (Jeffrey & Yi-ling, 1984).

Helichrysum bracteatum (Vent.) Andr., Bot. Repos. Sub.t. 428. 1805. P.C.Pant in Hajra & al. Fl. India 13: 98. 1995. *Xeranthemum bracteatum* Vent. Jard. Mal. 1: t. 2. 1803. *Helichrysum chrysanthium* Pers., Syn. 2: 414. 1807.

Herbs; stems greenish or brownish. Leaves sessile. Heads peduncled. Involucral bracts many. Ray florets with filiform corolla. Disc florets 5-toothed. Achenes quadrangular. Pappus hairs yellow-white.

Notes : There are two sheets in CAL bearing the same collection number. The specimens on the two sheets belong to the two different varieties of *Helichrysum* now designated separately as A and B.

Key to Varieties

- | | |
|--|----------------------------|
| 1a. Stems brownish; involucral bracts charred brown-sulphur yellow;
pappus hairs yellow | ... var. <i>bracteatum</i> |
| 1b. Stems greenish; involucral bracts white; pappus hairs white | ... var. <i>albidum</i> |

1a. var. *bracteatum*

Fl. & Fr. : May – December; June – February.

Distribution : Up to 2100 m. Tamil Nadu and West Bengal.

Specimen examined : India: West Bengal, Darjeeling, Kalimpong, 2.6.59, 1167m, *Dr. S.K. Mukerjee* 5099 B (CAL).

1b. var. *albidum* DC., Prodr. 6: 189. 1838. *H. niveum* Grah. in Bot. Mag. t. 3857. 1841. P.C.Pant in Hajra & al. Fl. India 13: 98. 1995.

Fl. & Fr. : May – December; June – February.

Distribution : Nilgiri hills, Tamil Nadu and West Bengal. Cultivated in most of the hill stations.

Uses : The yellow, shining papery bracts are quite attractive.

Specimen examined : India: West Bengal, Darjeeling, Kalimpong, 2.6.59, 1167 m, *Dr. S.K. Mukerjee* 5099 A (CAL).

Notes : It is a well known hardy ornamental annual popularly known as “Everlasting straw flower”

Ligularia retusa DC., Prodr. 6: 314. 1838; Grierson & Springate in Grierson & Long, Fl. Bhutan 2 (3): 1574. 2001. *Cremanthodium retusum* (DC.) R. Good in J. Linn. Soc. Bot. 48: 278. 1929; Rao & al., Fl. Ind. Enum. Aster. 31. 1988; Mathur in Hajra & al. Fl. India 13: 317. 1995. *Senecio retusus* (Wall. ex DC.) C. B. Clarke, Comp. Ind. 206. 1876; Hook. f., Fl. Brit. India 3: 350. 1881. *Ligularia nigropilosa* Kitam. In Act. Phyt. Geobot. 15: 107. 1954.

Herbs, araneose with blackish hairs. Leaves both radical and cauline. Capitula nodding, bracteolate. Involucre green; bracts dark coloured, covered with blackish hairs. Ray florets ligulate, orange yellow. Achenes smooth. Pappus white, unequal.

Fl. & Fr. : August – October.

Distribution : Eastern Himalaya, Sikkim and West Bengal.

Specimens examined : India: West Bengal, Darjeeling: Phalloot, 4000 m, 15.9.84, *G. Kings collector* 188 (CAL); Singalelah: 3900 m, 7 Oct. 1870, *s.l.* 12543 D (CAL); Singalelah, 3900 m, 7 Oct. 1870, *s.l.* 12543 E (CAL); Singalelah, 3900 m, 7 Oct. 1870, *s.l.* 12543 F (CAL).

Tagetes minuta L., Sp. Pl. 887. 1753; Rao & al., Fl. Ind. Enum. Aster. 76. 1988; Rao in Hajra & al. Fl. India 13: 327. f. 100. 1995; Grierson & Springate in Grierson & Long, Fl. Bhutan 2 (3): 1601. 2001.

Herbs, strongly aromatic. Leaves glabrous. Heads numerous in crowded cymes. Involucral bracts 3. Florets whitish yellow. Ray florets ligulate. Disc florets tubular. Achenes black, densely shiny hairy. Pappus of 5 unequal scales.

Fl. & Fr. : September – November.

Habitat : Naturalized in Himalayan and sub Himalayan regions, waste places and roadsides, rocky hill slopes, cultivated fields.

Uses : Suggested as fly and vermin repellent and also an effective larvicide killing maggots in wounds. Plant extracts reveal antiviral activity against Ranikhet disease virus (Maheshwari in J. Bombay nat. Hist. Soc. 69: 451. 1972).

Specimen examined : India: Darjeeling, 26.11.1926, *J. Bhattacharya & party* 24352 (CAL).

Vernonia arborea Buch.-Ham. in Trans. Linn. Soc. London 14: 218. 1825; Hook.f., Fl. Brit. Ind. 3: 239. 1881; Uniyal in Hajra & al. Fl. India 13: 359. 1995.

Trees, middle sized. Leaves petioled. Heads 4-6 flowered. Involucral bracts 5-6-seriate. Achenes glandular. Pappus white or pale, uniseriate.

Fl. & Fr. : September – March.

Local name : “Mas-Koita” (Asm.); “Somkhari-Phang” (Kach.); “Pacher” (Naga).

Distribution : Assam, Nagaland, Manipur, Meghalaya, Karnataka, Tamil Nadu, Kerala, Andamans and West Bengal.

Uses : Bark chewed by Nagas as “PAN” (Kanjilal, 1939).

Specimen examined : India: West Bengal, Darjeeling district: Mahananda Wild Life Sanctuary, *S. Chandra & party* 21537 (CAL).

ACKNOWLEDGEMENTS

I am thankful to the Director, Botanical Survey of India (BSI), Kolkata, and the Additional Director, Central National Herbarium, BSI, Howrah, for providing facilities.

REFERENCES

- DAVIES, F. G. 1978. The genus *Gynura* (Compositae) in Africa. *Kew Bull.* 33: 335-342
 DAVIES, F. G. 1979. The genus *Gynura* (Compositae) in eastern Asia and the Himalayas. *Kew Bull.* 33: 629-640
 DAVIES, F. G. 1980. The genus *Gynura* (Compositae) in India, Sri Lanka and the Seychelles. *Kew Bull.* 35: 363-367
 DAVIES, F. G. 1981. The genus *Gynura* (Compositae) in Malesia and Australia. *Kew Bull.* 35: 711-734
 GARG, A. 2006. New records on Two taxa of Asteraceae from West Bengal. *Rheedea* 16: 69-70.
 JEFFREY, C AND YI-LING, C. 1984. Taxonomic studies on the tribe Senecioneae (Compositae) of Eastern Asia. *Kew Bull.* 39(2): 213.

पश्चिम बंगाल के लिए ऐस्टेरसी के नये अभिलेख

आरती गर्ग

सार संक्षेप

प्रस्तुत शोध पत्र में पश्चिम बंगाल राज्य के लिए नये अभिलेख के रूप में ऐस्टेरसी की दस जातियों के ग्यारह टैक्सा के विवरण हैं।