

ADDITIONS TO THE FAMILY ASTERACEAE IN FLORA OF ALLAHABAD

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This paper gives an enumerative account of 12 species belonging to 10 genera of family Asteraceae which are new addition to the Flora of Allahabad (U.P.). The paper provides nomenclature, description, locality and field number of each species collection from the Allahabad district.

Keywords : Allahabad; Asteraceae; Flora.

Introduction

Allahabad, the district of Uttar Pradesh lies between 24°47' and 25°47' latitude and 81°9' and 82°21' E longitudes. The district is bounded on North by Pratapgarh and Jaunpur; Sant Ravi Das Nagar on the East; Mirzapur on the South-East; the district of Kaushambi on the West and the state of Madhya Pradesh on the South. A perusal of literature¹⁻¹⁴ shows that the plants listed in this paper were not found in this region. During the reinvestigation of family Asteraceae from Eastern Uttar Pradesh, we identified 12 species of 10 genera as new addition to the Flora of Allahabad. All these specimens are provided with upto date nomenclature, description, phenology, ecology, locality of collection and field number. All the specimens collected by the authors have been deposited in the Duthie Herbarium, Botany Department, University of Allahabad, Allahabad.

List of the plants

Bidens L.

B. pilosa L., Sp. Pl. 832. 1753. *B. chinensis* auct. non Wild. Hook. f., Fl. Brit. India 3 309. 1881.

Erect, simple or branched annual herbs. Leaves opposite, imparipinnate. Ray florets 4-5, white, 3-dentate ligules. Disc florets with 4 mm long corolla. Cypsela about 1 cm long, glabrous. Pappus setae 2-4, retrorsely bristly, 2-3 mm long.

Fl. & Fr. : November-January

Common : on gardens, roadsides, waste places and agricultural fields.

Allahabad, 19095.

Blumea DC.

B. eriantha DC. in Wight, Contrib. Bot. India 15. 1834; Hook. f., Fl. Brit. India 3 : 266. 1881; Duthie, FUGP. 1 : 452. 1903.

Erect herbs. Leaves alternate. Heads axillary or terminal, Florets numerous with usually abortive anthers in central

florets. Cypsela minute, silky, shining. Pappus white, 3.5 mm long.

Fl. & Fr. : October-April

Occasional : in open forest and fields.

Allahabad, 19153.

Carthamus L.

C. tinctorius L., Sp. Pl. 830. 1753. Hook. f., Fl. Brit. India 3 : 386. 1881.

Erect, glabrous, thistle like herbs, white. Leaves shortly spinous toothed, half amplexicaul. Heads discoid, terminal. Involucral bracts spinous; outer ones leaf like.

Flowers orange red. Cypsela 4-angled, glabrous, shining. Pappus absent.

Fl. & Fr. : February-April

Occasional : found as an escape in waste places.

Allahabad, 19105.

Centaurea L.

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

Erect, branched, herbs. Heads white to pink or violet on thin, cottony peduncles. Ray florets blue, inner bluish-violet. Corolla of disc florets about 1.5 cm long. Cypsela grey, silky, thinly pubescent. Pappus-bristles plumose.

Fl. & Fr. : March-June

Rare : cultivated and often met as an escape in waste places and roadsides.

Allahabad, 19053.

Cirsium Mill.

C. verutum (D. Don) Spreng., Syst. Veg. 3 : 370. 1826.

Cnicus verutus D. Don, Prodr. Fl. Nepal. 167. 1825. *Cirsium involucreatum* ex DC., Prodr. 6 : 639. 1838. *C. involucreatum* DC. var. *horridum* (Hook. f.) Balakr., Fl. Jowai 1 : 256. 1981.

Cnicus involucreatus (DC.)

Hook. f. var. *horrida* Hook. f., fl. Brit. India 3 : 362. 1881.

Erect, herbs, stout, branched above. Leaves setulose above, white tomentose beneath, teeth and lobes

spinescent. Heads solitary or fascicled, involucrate. Corolla glabrous.

Cypselas obovoid-oblong. Pappus brown, 1.5 cm long.

Fl. & Fr.: September-January

Common : In open wastelands and grasslands.

Allahabad, 19434.

Cotula L.

C. anthemoides L., Sp. Pl. 891. 1753; Hook. f., Fl. Brit. India 3: 316. 1881. Duthie, FUGP. 1: 476. 1903

Prostrate or decumbent-ascending, often multicauline, annual herbs. Leaves 2-pinnatisect or pinnatifid. Heads yellow, terminal and leaf-opposed. Ray florets devoid of ligule. Disc florets with yellow corolla. Cypselas of ray florets broad and flat. Cypselas of disc florets ovate, with thick narrow wings.

Fl. & Fr.: December-April

Common : in most places, ditches and along roadsides.

Allahabad, 19319.

Emilia Cass.

E. sonchifolia (L.) DC. in Wt. Contrib. Bot. India 24, 1834; Prodr. 6: 302. 1838; Hook. f., Fl. Brit. India 3: 336. 1881; Duthie, FUGP. 1: 478. 1903.

Annual-perennial, erect, herbs, often multicauline, glabrous. Leaves sessile. Heads combined into corymbs. Corolla purple or reddish-purple. Cypselas with 5 hairy ribs alternating with glabrous ribs, about 3-4 mm long. Pappus hair white, about 6 mm long.

Fl. & Fr.: July-October

Common : in fields, gardens, agriculture fields and forest edges.

Allahabad, 19345

Eupatorium L.

E. adenophorum Spreng., Syst. 3: 420. 1826. *Ageratina adenophora* (Spreng.) King & Robinson in Phytologia 20: 204. 1970

Erect, branched, annual or perennial tall herbs. Heads terminal or axillary, corymbose. Florets white, 2-3 mm long. Cypselas black, about 2 mm long, 5-angular. Pappus hairs white, 5 mm long.

Fl. & Fr.: January-June

Less common : in grassy localities, gardens and ravine slopes.

Allahabad, 19001

E. odoratum L., Syst. Nat. Ed. 10. 1205. 1759. *Chromolaena odorata* (L.) King & Robinson in Phytologia 20: 204. 1970. *Eupatorium conyzoides* Vahl, symb. Bot. 3. 96. 1794; Hook. f., Fl. Brit. India 3: 244. 1881. *E. repandum* Willd., Sp. Pl. 3: 1767. 1803.

Erect or scrambling, perennial herbs. Head in terminal corymbs, 3-4 mm across. Corolla pale-violet, 5 mm long.

Cypselas 5-angular, glabrous, 4 mm long. Pappus hairs white, many, 5 mm long.

Fl. & Fr.: November-May

Common : Cultivated, rarely met as an escape in waste places.

Allahabad, 19016

Spilanthes Jacq.

S. ciliata H.B.K., Now. Gen. et Sp. Pl. 208. 1820.

Herbs diffuse, rooting at nodes. Heads yellow, rayed, conical, axillary, and solitary. Ray florets 8-12, ligule 3-dentate. Cypselas black, trigonous, glabrous, ciliate along the margins. Pappus of 2-unequal bristles.

Fl. & Fr.: October-March

Common : in wet or marshy places

Allahabad, 19129

S. radicans Jacq., Collect. Bot. Chem. Hist. Nat. 11(3): 1714. 1804; Sivraj. & Matthew in Anc. Sci. Life 3: 169. 1984.

Erect herbs. Heads white, discoid, axillary. Corolla 4-5 lobed, lobes papillose. Cypselas dimorphic, marginal ones trigonous, others brownish black, ellipsoid, obcordate, laterally compressed margins densely ciliate. Pappus of subequal bristles.

Fl. & Fr.: October-January

Common : in wet places.

Allahabad, 19059.

Vernonia Schreb.

V. elliptica DC. in Wight, contrib. Bot. India 5. 1834. *V. elaeagnifolia* DC., Prodr. 5: 22. 1836; Hook. f., Fl. Brit. India 3: 237. 1881.

Shrubs, climbing, branches pendulous. Leaves oblong or elliptic-lanceolate. Heads aggregated in axillary or terminal corymbs. Cypselas about 2 mm long, glabrous, 5-8 ribbed. Pappus hairs white, outer few.

Fl. & Fr.: January-April

Common : mostly planted.

Allahabad, 19419.

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