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Some Angiosperms as new record for Uttar Pradesh, India

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ABSTRACT

The paper deals with an account of eleven species of angiosperms viz., *Coelachne simpliciuscula* (Wight & Arn. ex Steud.) Munro ex Benth., *Cyperus cephalotes* Vahl, *Cyperus pulcherrimus* Willd. ex Kunth, *Echinochloa picta* (J.König) P.W.Michael, *Eragrostis patula* (Kunth) Steud., *Fimbristylis aphylla* Steud., *Flemingia praecox* C.B.Clarke ex Prain, *Illicium griffithii* Hook.f. & Thomson, *Oryza minuta* J.Presl, *Scleria annularis* Steud. and *Scleria terrestris* (L.) Fassett which are reported as new record for the state of Uttar Pradesh.

Key words: Angiosperms, New record, Uttar Pradesh, India.

INTRODUCTION

While working on flora of terai region, Uttar Pradesh, the authors came across with eleven species of angiosperms which have not been described from Uttar Pradesh and thus are new record for the state. Although Khanna (2017, 2018) has earlier included these plants in the check-list of the state but has provided only names and not full data of the species. Hence, in the present paper, the correct nomenclature of all the species with full citation as per The Plant List (<http://www.theplantlist>), brief description of the plant, habitat, flowering and fruiting periods and distribution alongwith collection number are provided. The distribution of all eleven species in various districts of the state has also been given in Fig. 1. All the species are arranged alphabetically under enumeration.

ENUMERATION

Coelachne simpliciuscula (Wight & Arn. ex Steud.) Munro ex Benth. in J. Linn. Soc., Bot. 19:

93. 1881; Bor, Grass. Burma Ceyl. Ind. Pak. 576. 1960; V.Prakash & Jain, Fasc. Fl. Ind. 14: 6. 1984. (Poaceae) (Fig. 2).

Panicum simpliciusculum Wight & Arn. ex Steud., Syn. Pl. Glumac. 1: 96. 1854.

Coelachne pulchella auct. non R.Br., 1810: Hook.f., Fl. Brit. India 7: 270. 1896.

Annual herbs. Culms slender, decumbent, 20–30 cm tall. Leaves linear or lanceolate, rough on surface, with striate nerves; ligules hairy. Inflorescence a panicle. Spikelets globose or ovoid, sessile or shortly pedicellate. Lower glume ca 1 mm long, with obscure nerves; upper glume herbaceous, ca 1.5 mm long, with obscure nerves. Lower lemma coriaceous, ca 2 mm long; upper lemma shorter, pubescent. Upper floret neuter. Stamens 2; anthers yellow. Caryopsis ellipsoid, ca 0.5 mm long.

In marshy places. *Fl. & Fr.*: December – March. *Specimen examined*: Balrampur, K.K. Khanna 68718 (BSA).

Cyperus cephalotes Vahl, Enum. Pl. Obs. 2: 311. 1805; C.B. Clarke in Hook.f., Fl. Brit. India 6: 597. 1893. (Cyperaceae).

Perennial, aquatic herbs. Stems compressed-trigonus, 20–50 cm long. Leaves greyish green, rigidulous, keeled. Inflorescence of 1–4 capitately contracted spikes; bracts purple striate, foliaceous. Spikelets congested. Glumes ovate, subcoriaceous, 3–4 mm long, mucronate;

keel narrowly winged, smooth or scabrid. Stamens 3. Style entire or 3-notched, inflated at base, trigonus. Nuts ovoid, brown, triquetrous, stipitate; stipe corky thickened.

Along lake banks. *Fl. & Fr.*: March – April. *Specimen examined*: Sant Kabir Nagar, K.K. Khanna 67983 (BSA).

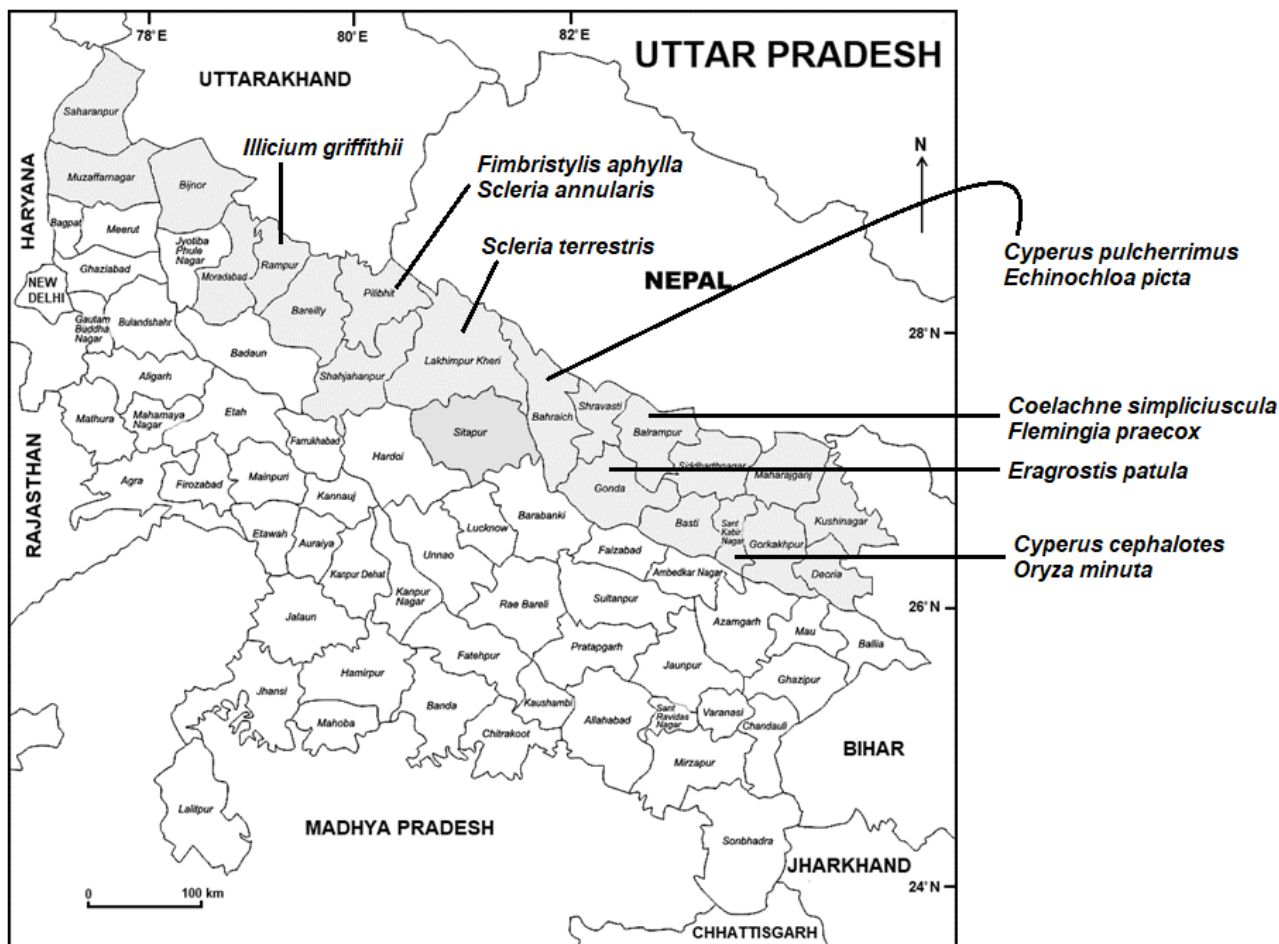


Fig. 1. Distribution of eleven species of angiosperms in Uttar Pradesh.

Cyperus pulcherrimus Willd. ex Kunth, Enum. Pl. 2: 35. 1837; C.B. Clarke in Hook.f., Fl. Brit. India 6: 600. 1893. (Cyperaceae) (Fig. 3).

Erect, tufted perennials, 10–30 cm tall. Leaves basal, linear, 10–15 × 0.2–0.4 cm, gradually acuminate; sheaths 2–6 cm long, straw-coloured. Inflorescence compound, dense; branches ending in digitately arranged spikelets; bracts 4–6. Spikelets 5–20 in clusters, linear-oblong, compressed, stramineous. Glumes distichous, ovate-obtuse, ca 1 × 0.6–0.8 mm, strongly keeled; keels 3-nerved, sides nerveless with broad stramineous to red-purple broad bands. Stamen 1. Nuts stramineous,

ovate, trigonus, 0.4–0.5 × ca 0.3 mm, shortly apiculate, broadly stiptate. In moist places. *Fl. & Fr.*: August – October. *Specimen examined*: Bahraich, K.K. Khanna & Ram Saran 38595 (BSA).

Echinochloa picta (J.König) P.W. Michael in Philipp. J. Weed Sci. 5: 18. 1978. (Poaceae).

Panicum pictum J.König, Naturforscher (Halle) 23: 204. 1788.

Echinochloa stagnina (Retz.) P. Beauv., Ess. Agrostogr. 53, 161, 171. 1812; Bor, Grass. Burma Ceyl. Ind. Pak. 311. 1960.

Panicum crusgalli sensu Hook.f., Fl. Brit. India 7: 30. 1896 p.p., non L., 1753.

Annuals or perennials. Culms usually 50–80 cm tall. Leaves linear–lanceolate, ca 26 × 0.5 cm, acuminate at apex, narrowly rounded to truncate at base. Inflorescence of racemes. Spikelets paired, elliptic, 5–6 mm long. Lower glume elliptic, 1.4–2.4 mm long. Lower lemma male or barren; upper lemma fertile, straw-coloured, 3.5–4 mm long. Caryopsis yellowish white, broadly ellipsoid, ca 3 mm long.

In water logged and marshy places. *Fl. & Fr.*: September – December. *Specimens examined*: Bahraich, G. *Panigrahi* 3012 (BSA); Gonda, Ram Pher 16805 (LWG); Pilibhit, *Sri Ram s.n.* (DD).

Eragrostis patula (Kunth) Steud., *Nomencl. Bot. ed. 2, 1: 564 1840.* (Poaceae).

Poa patula Kunth, *Nov. Gen. Sp. 1: 158. 1816.*

Annuals or perennials. Culms tufted, 20–60 cm high, erect. Leaves linear, 15–25 × 0.2–0.5 cm, rounded at base; sheaths rounded; ligule a rim of membrane. Panicle 10–20 cm long, effuse, glabrous. Spikelets linear–oblong, 0.5–1.3 cm long, serrate. Glumes similar, ovate-lanceolate, 1-nerved; florets 10–18, all bisexual; lemmas greyish black, broadly ovate, ca 2.2 × 1.5 mm, mucronate; palea curved, truncate at apex, persistent. Anthers ca 1 mm long.

In irrigated fields. *Fl. & Fr.*: August–November. *Specimen examined*: North Oudh, R. Thompson Acc. No. 542119 (DD).

Fimbristylis aphylla Steud., *Syn. Pl. Glumac. 2: 114. 1855.* (Cyperaceae).

Fimbristylis quinquangularis Kunth var. *crassa* C.B. Clarke in Hook.f., *Fl. Brit. India 6: 644. 1893.*

Tufted perennials; rhizome creeping, woody. Culms 60–90 cm tall, acutely 4–5-angled; sheaths rounded, restricted at the base of the stem, very rarely short-bladed. Umbels globose, 7–10 cm across; bracts filiform; rays many, spreading. Spikelets 4–6 × ca 3 mm, mostly pedicellate, 50–60 in an inflorescence. Glumes reddish brown, ca 2.2 × 1.7 mm, obtuse, 3-nerved. Nuts obovate, ca 0.5 × 0.3 mm, trabeculate, minutely tubercled.

In moist places. *Fl. & Fr.*: August – November. *Specimen examined*: Pilibhit, C.L. Malhotra 50507 (BSD).

Flemingia praecox C.B. Clarke ex Prain in *J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 66: 439. 1897.* (Fabaceae) (Fig. 4).

Erect undershrubs with woody glabrous

triquetrous stem and terete branches. Leaves digitately 3-foliolate; petioles 7–10 cm long, deeply grooved, winged; leaflets oblong, 10–16 cm long, acuminate at apex, glabrous except on nerves beneath. Racemes axillary, dense, 5–8 cm long, ciliate at margins with silky hairs. Calyx ca 6 mm long, ribbed; teeth silky hairy, lowest longest. Corolla bluish–white, equalling longest calyx-tooth. Pods 20–25 mm long.

In mixed forests. *Fl. & Fr.*: February – April. *Specimen examined*: Balrampur, K.K. Khanna 54956A (BSA); Shrivasti, K.K. Khanna 48011 (BSA).

Illicium griffithii Hook.f. & Thomson, *Fl. Ind. 1: 74. 1855*; Hook.f. & Thomson in Hook.f., *Fl. Brit. India 1: 40. 1872*; Raju, Rao & Hajra in Sharma et al. (eds.), *Fl. India 1: 186. 1993.* (Illiciaceae).

Glabrous shrubs or small trees. Leaves oblong–elliptic, 7–13 × 2–5 cm, acuminate at apex, cuneate at base, coriaceous; petioles 0.5–2 cm long. Flowers on 1–2.5 cm long pedicels. Perianth parts ca 25; outer ones papery, broadly ovate to suborbicular, 3.5–10 × 2.5–8 mm, ciliate; inner ones fleshy, oblong–obovate, 4–5 × 2.5–3 mm. Stamens in 2 series, 2–2.5 mm long.

Cultivated. *Fl. & Fr.*: April – October. *Specimen examined*: Rampur, K.N. Kaul 66862 (LWG).

Oryza minuta J. Presl, *Reliq. Haenk. 1: 208. 1830*; Bor, *Grass. Burma Ceyl. Ind. Pak. 605. 1960.* (Poaceae) (Fig. 5).

Perennial, tufted herbs. Culms erect, up to 1 m tall. Leaves lanceolate, 50–80 × 2–3 cm, acute at apex, scabrous on margins, rough with short hairs on both surfaces; sheaths loose, glabrous; ligules with fimbriate margins. Inflorescence a loosely contracted panicle. Spikelets light green or sometimes yellowish brown, oblong. Glumes cup-shaped, ca 0.5 mm long; sterile lemma lanceolate, 1.3–2 mm long, less than a half length of the spikelet; fertile lemma oblong or elliptic, coriaceous, awned or awnless. Palea boat-shaped, ca 6.5 mm long.

In marshy places. *Fl. & Fr.*: August – November. *Specimens examined*: Sant Kabir Nagar, K.K. Khanna 68518, 68530, 68569 (BSA); Shrivasti, K.K. Khanna 65606 (BSA).

Scleria annularis Steud., *Syn. Pl. Glumac. 2: 176. 1855*; C.B. Clarke in Hook.f., *Fl. Brit. India 6: 687. 1894.* (Cyperaceae).

Annual, tufted herbs. Culms triquetrous. Leaves linear, scabrid on margins; sheaths narrowly winged, often ciliate. Inflorescence a panicle; lateral partial panicles solitary or 2-nate;

peduncles hairy, 1–3 cm long. Spikelets male and bisexual, 3–4 mm long. Glumes stramineous, acute or mucronate. Stamens 2–3. Disk short, triangular.

Nuts glistening white, oblong, trigonous, slightly laterally compressed, smooth, apiculate.

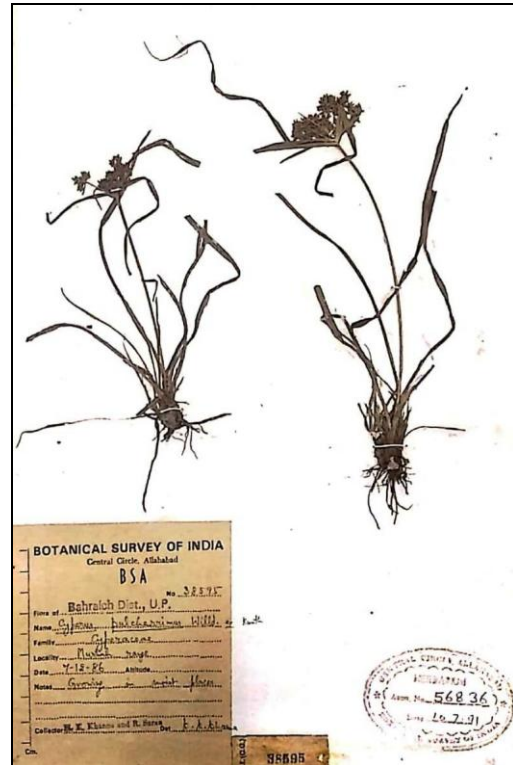
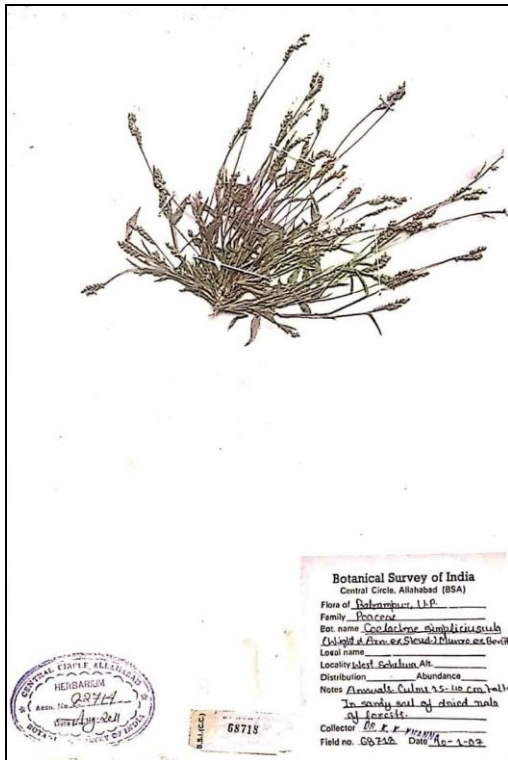


Fig. 2. *Coelachne simpliciuscula* (Wight & Arn. ex Steud.) Munro ex Benth.

Fig. 3. *Cyperus pulcherrimus* Willd. ex Kunth

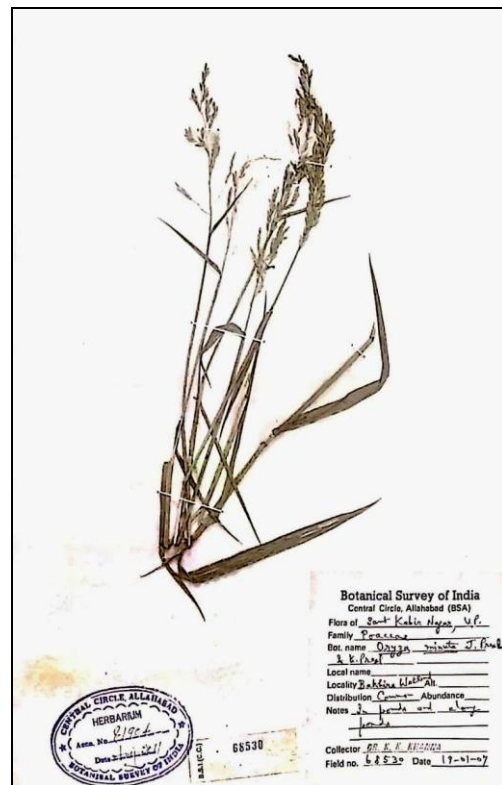
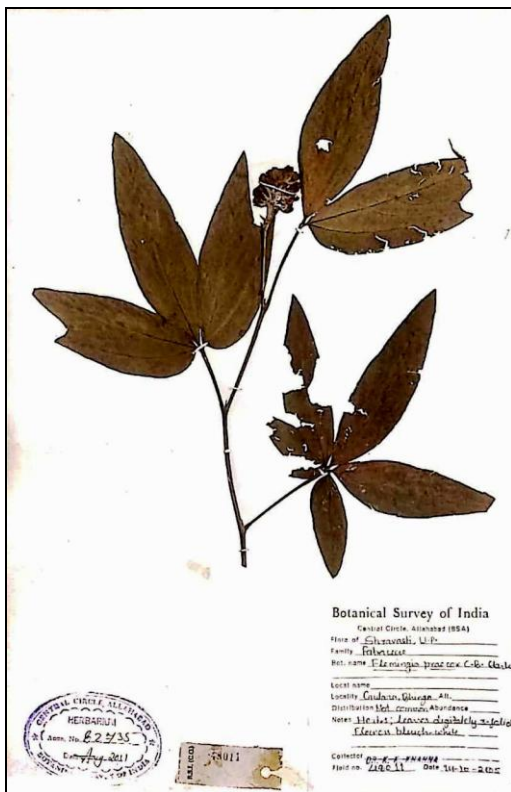


Fig. 4. *Flemingia praecox* C.B. Clarke ex Prain

Fig. 5. *Oryza minuta* J. Presl

In moist places. *Fl. & Fr.*: August – December.
Specimen examined: Pilibhit, C.L. Malhotra 50989 (BSD).

Scleria terrestris (L.) Fassett in Rhodora 26: 159. 1924. (Cyperaceae).

Zizania terrestris L., Sp. Pl. 991. 1753.

Perennials; rhizomes horizontal. Culms 90–150 cm tall, 2–4 together. Leaves linear, 30–60 × ca 1.2 cm, 3–costate; mouth of sheath with a hemispherical dark brown flap. Panicle 15–20 cm long; bracts foliaceous. Male spikelets pedicellate, shorter than female ones; glumes oblong; stamens 3; anthers ca 1.5 mm long. Female spikelets broadly ovate, 5–6 × ca 3.5 mm; glumes 4; the upper most ovate, aristate, dark brown, carries nut. Nuts ca 3.5 × 2.5 mm, obtuse, scrobiculate, minutely hispid.

In dried up ditches. *Fl. & Fr.*: August – December.
Specimen examined: Kheri, U. Shukla 70054 (BSD).

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