



Notes on the distribution of *Cyperus ohwii* and lectotypification of *C. elatus* var. *macronux* (Cyperaceae)

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Abstract

Cyperus ohwii Kuk. is excluded from the flora of India and its distribution in Bangladesh is confirmed based on the specimens in CAL and K. The correct nomenclature citation, description and distribution range of the species are provided. Its synonym *C. elatus* var. *macronux* is also lectotypified.

Keywords: Cyperaceae, *Cyperus elatus* var. *macronux*, Indian subcontinent, Bangladesh, lectotypification

Introduction

While revising the genus *Cyperus* L. (Cyperaceae) for the Flora of India, the author came across one specimen in CAL kept in a folder marked as *Cyperus elatus* L. This specimen (C.B. Clarke 14188, CAL0000026083) was collected by Clarke in 1871 from Ibrahimpur, near Comilla, presently in Bangladesh. It was described by him (Clarke, 1884) as *C. elatus* var. *macronux* and subsequently included in the *Flora of British India* (Clarke, 1893). Kern (1952) treated it as a synonym of *C. ohwii* Kuk. while Govaerts *et al.* (2014) considered it as a synonym of *C. elatus*. The present study corroborates Kern's (*l.c.*) view and treated here as a synonym of *C. ohwii*.

While describing *C. elatus* var. *macronux*, Clarke (*l.c.*) did not designate any nomenclature type, but mentioned one CAL specimen in the protologue. Besides this single specimen in CAL, there are two more specimens of the same collection in K (14188 A, K000592529 and 14188 E, K000592530) and one in BO mentioned by Kern (1952). Since Clarke referred to at least 2 specimens (CAL and K), the CAL specimen is here selected as the lectotype of *C. elatus* var. *macronux* C.B. Clarke and the duplicates at K and BO as isolectotypes.

It is noticed that the above mentioned collection created some confusion about the distribution of *C. ohwii* in the Indian subcontinent, because the locality of collection is in the undivided

Bengal, prior to the partition of India. Also Prain (1903) with doubtful identity included *C. elatus* var. *macronux* in *Bengal Plants* with the locality 'Tippera' (assumed to be Tripura). Incidentally the locality Comilla in Bangladesh is adjacent to the Indian state of Tripura. Karthikeyan *et al.* (1989) reported *C. ohwii* from eastern India, may be based on the reports from undivided Bengal by Clarke (*l.c.*) and Prain (*l.c.*). Incidentally the plant is not included in the recently published *Encyclopedia of Flora and Fauna of Bangladesh* by Uddin (2007). But based on the specimens examined at CAL and K, it is confirmed here that in Indian subcontinent it is restricted to Bangladesh and should be excluded from the flora of India. However, it is likely to found in the Indian Territory adjacent to the type locality of *C. elatus* var. *macronux* in Bangladesh. The correct nomenclature citation, description and the distribution range of *C. ohwii* are provided here.

***Cyperus ohwii* Kuk.**, Repert. Spec. Nov. Regni Veg. 29: 197. 1931; Karthik. *et al.*, Fl. Ind. Enum. Monocot. 46. 1989.

C. elatus var. *macronux* C.B. Clarke, J. Linn. Soc. Bot. 21: 190. 1884, in Hook.f., Fl. Brit. India 6: 618. 1893; Prain, Bengal Pl. 2: 1145. 1903.

Lectotype: BANGLADESH, Ibrahimpur, Comilla, 04.09.1871 C.B. Clarke 14188 (CAL!, designated here); 14188 A & 14188 E (isolectotypes - K!). **Fig. 1**

Perennial with short, thick rhizome. Culms tall, trigonous, often with concave sides towards apex, 5-8 mm thick towards apex. Leaves c. 15 mm wide, with prominent mid-rib and 2 side nerves. Inflorescence compound to decompose, up to 30 cm long. Involucral bracts c. 5, leafy, lowest much overtopping the inflorescence, up to 68 cm long and c. 1.5 cm wide, scabrous on the margins. Cladophylls prominent, up to 5.8 cm long, with almost smooth keel. Primary rays c. 5, unequal, longest up to 22 cm long; secondary rays slender, up to 5 cm long. Spikes digitate, cylindrical, 3-5.5 cm long and 8-11 mm thick; spikelets numerous, spicately arranged, obliquely patent, 5-7 × 0.8-1.2 mm, 12-14-flowered; rachilla winged; wings lanceolate, c. 0.7 mm long, caducous. Glumes imbricate, membranous, elliptic to ovate, c. 1.5 × 1 mm, with 3-nerved keel and nerveless sides. Stamens 3; anthers linear, c. 0.4 mm long, with a prominent setulose connective appendage. Style 0.8-1 mm long; stigmas 3. Nut trigonous,

with somewhat concave ventral surface, oblong-ellipsoid, c. 1.2 × 0.5 mm, ash-grey coloured, minutely reticulate on the surface.

Flowering & Fruiting: September (based on a single collection).

Distribution: Indian subcontinent (Bangladesh), Indo-China, Malasia, Eastern Asia (Japan) and Queensland.

Notes: *C. ohwii* can be separated from *C. elatus* by its stouter culms (5-8 mm thick towards apex) and broader leaves (c. 15 mm wide), spikes (8-11 mm thick) and spikelets (0.8-1.2 mm wide). Also the Cladophylls are with almost smooth keel and the nuts are bigger (c. 1.2 × 0.5 mm).

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Fig. 1. Lectotype of *Cyperus elatus* var. *macronux* C.B. Clarke

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