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Authors: Jana, Bikash, and Srivastava, Ramesh C.

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Lectotypification of six species of *Kobresia* Willd. (Cyperaceae)

Bikash Jana & Ramesh C. Srivastava

Abstract

JANA, B. & R. C. SRIVASTAVA (2014). Lectotypification of six species of *Kobresia* Willd. (Cyperaceae). *Candollea* 69: 109-113. In English, English abstract.

Six species of *Kobresia* Willd. (Cyperaceae) are lectotypified here: *Kobresia curticeps* (C. B. Clarke) Kük. (= *Carex curticeps* C. B. Clarke), *Kobresia duthiei* C. B. Clarke, *Kobresia fissiglumis* C. B. Clarke, *Kobresia nitens* C. B. Clarke, *Kobresia pygmaea* (C. B. Clarke) C. B. Clarke (= *Hemicarex pygmaea* C. B. Clarke) and *Kobresia uncinoides* (Boott) C. B. Clarke (= *Carex uncinoides* Boott).

Key-words

CYPERACEAE – *Kobresia* – *Carex* – *Hemicarex* –
Lectotypification

Address of the authors: Botanical Survey of India, Kolkata-700064, India.

E-mail (BJ): bikash.janadp@rediffmail.com

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During the course of a taxonomic study on the genus *Kobresia* Willd. (Cyperaceae) in India under the “Flora of India Project” of Botanical survey of India, we found that some of the names are yet to be lectotypified. After consultation of pertinent literature (NOLTIE, 1994; SRIVASTAVA, 1996; GOVAERTS & al., 2007; SHUREN & NOLTIE, 2010) and type specimens in different Indian and foreign herbaria, we have lectotypified six species of *Kobresia*.

1. *Carex curticeps* C. B. Clarke in Hook. f., Fl. Brit. India 6: 729. 1894.

= *Kobresia curticeps* (C. B. Clarke) Kük. in Engl., Pflanzenr. 38(IV, 20): 47. 1909.

Lectotypus (designated here): Sikkim Himalaya, Singalelah, 3000-3700 m, 25.X.1875, C. B. Clarke 25644 (K [K000794670]!, photo, arrow; iso-: K [K000794671]!, photo) (Fig. 1).

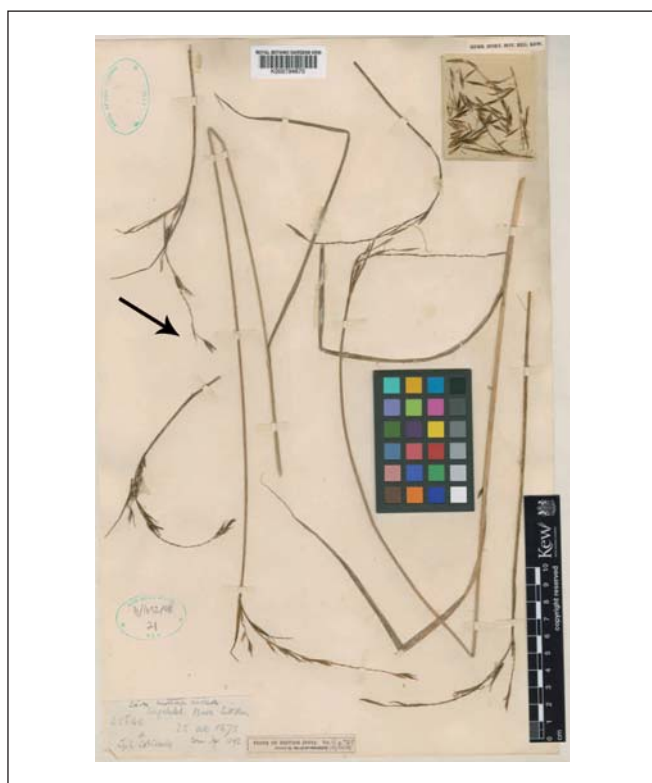


Fig. 1. – Lectotype of *Carex curticeps* C. B. Clarke (designated by an arrow). [C. B. Clarke 25644, K] [© The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with permission]

The protologue of *Carex curticeps* cited the collection of Clarke from Sikkim Himalaya. Two relevant collections of C. B. Clarke are available at K. The two specimens of barcode [K000794670] [K000794671] are closest to the description of Clarke.

2. *Kobresia duthiei* C. B. Clarke in Hook. f., Fl. Brit. India 6: 697. 1894.

Lectotypus (designated here): Kumaun, Palang Gadh, Byans, 3400-3700 m, 20.VII.1886, J. F. Duthie 6093 (CAL [0000001899]!, arrow; iso-: K [K000794656]!, photo, DD!) (Fig. 2).



Fig. 2. – Lectotype of *Kobresia duthiei* C. B. Clarke (designated by an arrow). [J. F. Duthie 6093, CAL] [© Central National Herbarium. Reproduced with permission]

The protologue of *K. duthiei* cited the following collections “KUMAON, alt. 11-16 000 ft., Duthie (nn. 3461, 6093, 6094) and Gurhwal, Duthie (n. 5016)”. We have examined the images of relevant specimens at K (*J. F. Duthie* 3461, *J. F. Duthie* 5016, *J. F. Duthie* 6093, *J. F. Duthie* 6094) and the specimens at CAL (*J. F. Duthie* 6093, *J. F. Duthie* 3461), DD (*J. F. Duthie* 3461, *J. F. Duthie* 5016, *J. F. Duthie* 6093, *J. F. Duthie* 6094) and MCIH (*J. F. Duthie* 6093). CAL specimens consist of two plants in same sheet and CAL [0000001899] has been designated here as a lectotype.

3. *Kobresia fissigulumis* C. B. Clarke in Hook. f., Fl. Brit. India 6: 696. 1894.

Lectotypus (designated here): Western Nepal, Nampa Gadh, 3700–4000 m, 25.VII.1886, *J. F. Duthie 6092* (K [K000794669]!, arrow, photo; iso-: DD!) (Fig. 3).



Fig. 3. – Lectotype of *Kobresia fissigulumis* C. B. Clarke (designated by an arrow). [*J. F. Duthie 6092*, K] [© The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with permission]

The protologue of *K. fissigulumis* cited the collection of *J. F. Duthie 6092* from Western Nepal. We have examined image of the relevant collection at K [K000794669] and the specimens at CAL and DD. The sheet at K has two plant specimens with the same field data in two different labels and both of them are from female plant with a determinative slip of C. B. Clarke in his own handwriting. There are four herbarium sheets of *Duthie 6092* at DD, one of them is a male plant and three others of female plants but the label data of all these specimens are written by pen and it has now become invisible due to the ageing. There is a herbarium specimen of a male plant at CAL collected from Kumaun, Palang Gadh Byans, Western Nepal. *Duthie's* collection at BM with the same field number i.e. *Duthie 6092* collected from Kumaun, Palang Gadh, Byans, 11 000–12 000 ft. has been annotated as “*Hemicarex trinervis* Benth. & Hook. f. forma? *Spicisnigrescentibus*”. According to RAJBHANDARI & OHBA (1991), it is *Kobresia trinervis* Boeck. *Kobresia fissigulumis* has been described on the base of the female plant deposited

at K also the male plant of *Duthie's* specimen is cited bearing the same collection number at K. The characters of the female spikelet are most important in identifying the different species of *Kobresia* and hence a female specimen at K is being designated here as the lectotype.

4. *Kobresia nitens* C. B. Clarke in J. Linn. Soc., Bot. 20: 379. 1883.

Lectotypus (designated here): Kashmir, Buyans, 4400 m, 1.VIII.1876, *C. B. Clarke 29840* (K [K000794652]!, arrow, photo; iso-: K [K000794653]!) (Fig. 4).



Fig. 4. – Lectotype of *Kobresia nitens* C. B. Clarke (designated by an arrow). [*C. B. Clarke 29840*, K] [© The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with permission]

The protologue of *K. nitens* cited the specimens as follows: “Kashmir borealis, alt. 3500–4000 m. (*C. B. Clarke*, nn. 29697, 29840)”. We have examined the image of these specimens at K and for lectotypification.

5. *Hemicarex pygmaea* C. B. Clarke in J. Linn. Soc., Bot. 20: 383. 1883.

≡ *Kobresia pygmaea* (C. B. Clarke) C. B. Clarke in Hook. f., Fl. Brit. India 6: 696. 1894.

Lectotypus (designated here): Sikkim, 4300–5200 m, s.d., *J. D. Hooker s.n.* (CAL [0000001900]!) (Fig. 5).

The protologue of *Hemicarex pygmaea* cited the following collections: “*Elyna* sp.n. 7, *Herb. Ind. Or.*, *Hook f. et T. Thoms.*; KUNAWUR: *Jacquemont*, n. 1783; LADAK: in jugo Lanak (*T. Thomson*); SIKKIM: prope Momay et Kongra Lama, alt. 4,400 metr. (*J. D. Hooker*)”.

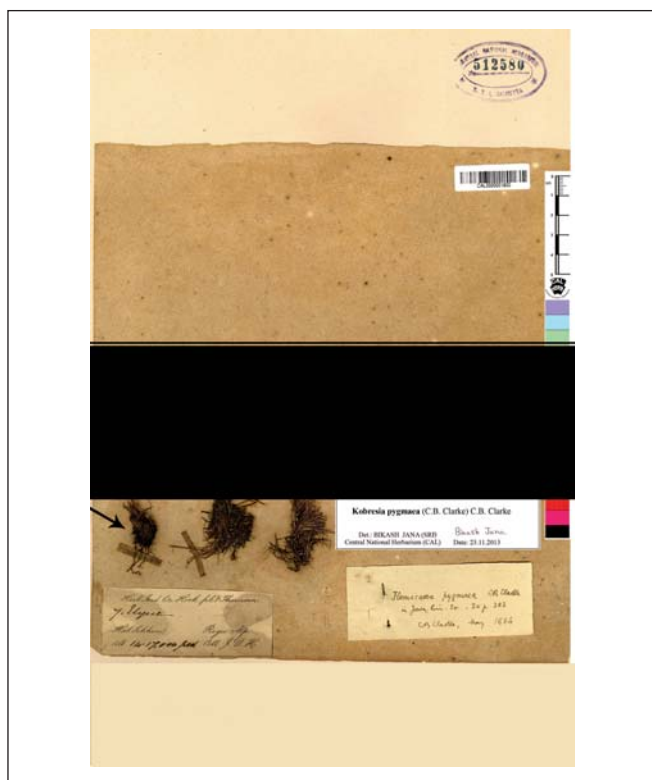


Fig. 5. – Lectotype of *Hemicarex pygmaea* C. B. Clarke (designated by an arrow). [J. D. Hooker s.n., CAL] [© Central National Herbarium. Reproduced with permission]

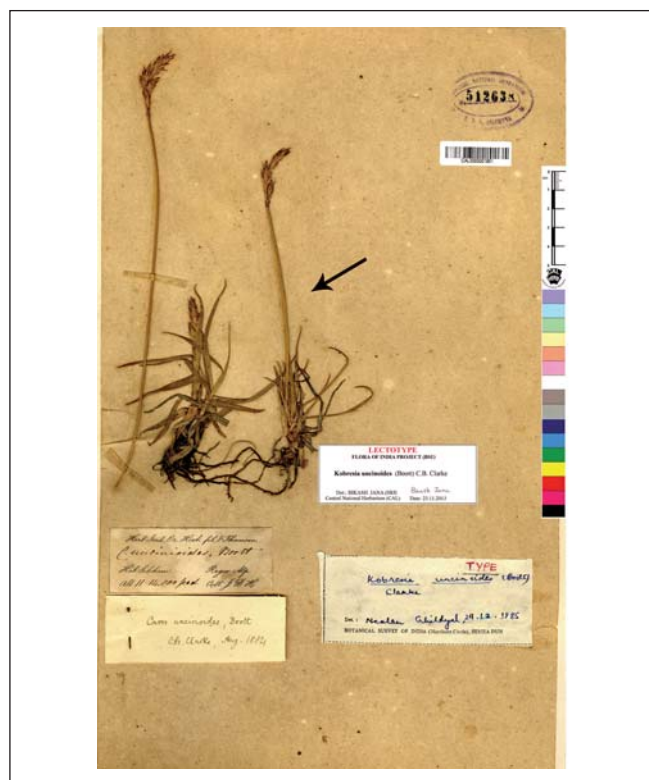


Fig. 6. – Lectotype of *Carex uncinoides* Boott (designated by an arrow). [J. D. Hooker s.n., CAL] [© Central National Herbarium. Reproduced with permission]

We examined the images of the relevant specimens deposited at K (*Jacquemont 1783*, *J. D. Hooker s.n.*, *Thomson s.n.*), BM (*J. D. Hooker s.n.*), P (*J. D. Hooker s.n.*) and the specimen at CAL (*J. D. Hooker s.n.*). There are four herbarium sheets *J. D. Hooker*'s collection at CAL [0000001900], identified by C. B. Clarke in May 1884 as *Hemicarex pygmaea* C. B. Clarke.

6. *Carex uncinoides* Boott, Ill. Gen. *Carex* 1: 8. 1858.

≡ *Kobresia uncinoides* (Boott) C. B. Clarke in Hook. f., Fl. Brit. India 6: 698. 1894.

Lectotypus (designated here): Sikkim, 3400–4300 m, *J. D. Hooker s.n.* (CAL [0000001901]!) (Fig. 6).

The protologue of *Carex uncinoides* cited the specimens as follows: “In Himalaya orientali temperata, ad Sikkim, alt. 10–15,000 ped., *J. D. Hooker*” and also provided an illustration. We have examined the images of the relevant specimens at K (*J. D. Hooker s.n.*) and a specimen at CAL (*J. D. Hooker s.n.*). One of the sheets at K has five collections of *J. D. Hooker*

collected mostly from Lachen in North East Sikkim with five labels. Authors have examined the specimen at CAL that bears a determinative slip of C. B. Clarke in his own handwriting (mentioned as “*Carex uncinoides* Boott”). One earlier worker Neelam Ghildyal has also put determinative slip as a type of *Kobresia uncinoides*, without mentioning any type status. This herbarium sheet consists of 3 plant parts; one of them (nearest to determinate slip) is designated as a lectotype, one is incomplete and one is a dwarf specimen.

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References

- GOVAERTS, R., D. A. SIMPSON, P. GOETGHEBEUR, K. L. WILSON, T. EGOROVA & J. BRUHL (2007). *World checklist of Cyperaceae*. The Board of Trustees of the Royal Botanic Gardens, Kew.
- NOLTIE, H. J. (1994). *Kobresia* Willdenow. In: GRIERSON, A. J. C (ed.), *Fl. Bhutan* 1: 333-352. Royal Botanic Garden Edinburgh.
- SHUREN, Z. & H. J. NOLTIE (2010). *Kobresia* Willd. In: ZHENG YI, Wu & al. (ed.), *Fl. China* 23: 269-285. Science Press.
- SRIVASTAVA, R. C. (1996). Cyperaceae In: HAZRA, P. K. & D. M. VERMA (ed.), *Fl. Sikkim* 1: 198-237. Botanical Survey of India, Calcutta.