

Fig. 1. *Delphinium altissimum* Wall.
1. Whole plant; 2. Single flower; 3. Dorsal sepal;
4-5. Lateral sepal; 6. Posterior petal;
7. Sectional view of posterior petal;
8. View of petal and stamen; 9. View of anterior petal;
10. Pistil and ovary; 11. Stamen.

with a small ochraceous patch at the tip; upper two sepals 1.35-1.4 x 0.7-0.18 cm, lower two sepals 1.48-1.5 x 0.55-0.6 cm. Petals 4, in equal pairs; anterior pair hairy; obtusely 2-lobed, 1.1-1.2 x 0.35-0.4 cm with narrow stalk behind, posterior pair linear 2 toothed infront, whitish blue with dark blue patch at the tip *c* 2.5 cm long. Stamens many, *c* 6 mm long, curved with dark blue bithecal anthers. Staminodes many, enclosed. Pistil 4 mm long, green, glabrous; stigma simple; ovary single celled.

Flowering time: September
Altitudinal Zones: 1220-1525 m.
Distributional status: Rare.
Ecology: It grows on rock crevices along with, *Didymocarpus* sp., *Setaria* sp., *Arundinella* sp. and *Begonia* sp.

ACKNOWLEDGEMENTS

I am grateful to Mr. N. C. Shengha, Principal Chief Conservator of Forest-cum-Secretary, Forest Department, Government of Sikkim for allowing me to conduct my field survey. I especially thank Dr P.M. Singh, Scientist SB, Botanical Survey of India (Gangtok) for valuable suggestions.

August 1, 1995

S.Z. LUCKSOM
Divisional Forest Officer,
Land Use & Environmental Cell,
Forest Department,
Gyalshing,
Govt. of Sikkim,
West Sikkim.

31. *PYCNOPLINTHOPSIS BHUTANICA* (HARA) JAFRI (BRASSICACEAE): A NEW RECORD FROM WEST HIMALAYA

(*With a text-figure*)

Pycnoplinthopsis bhutanica (Hara) Jafri (Brassicaceae) has been considered endemic to Eastern and Central Himalayas, confined to the alpine zones of Bhutan, Sikkim and Nepal (Hara 1968, 1971, 1979; Jafri 1972, Grierson and Long 1984, Polunin and Stainton 1984, Ohba 1988). How-

ever, Sharma and Balakrishnan (1993) have not described it from India. Polunin and Stainton (1984) have also quoted it as "rare but remarkable plant locally abundant en route to Anapurna South base camp, Nepal." The recent discovery of this species from Garhwal, West Himalaya in Indian territory is of considerable phytogeographical interest. A short description of the species is included in this communication along with illustration.

Voucher specimens after proper documentation are deposited and maintained in Herbarium, Department of Botany, HNB Garhwal University,

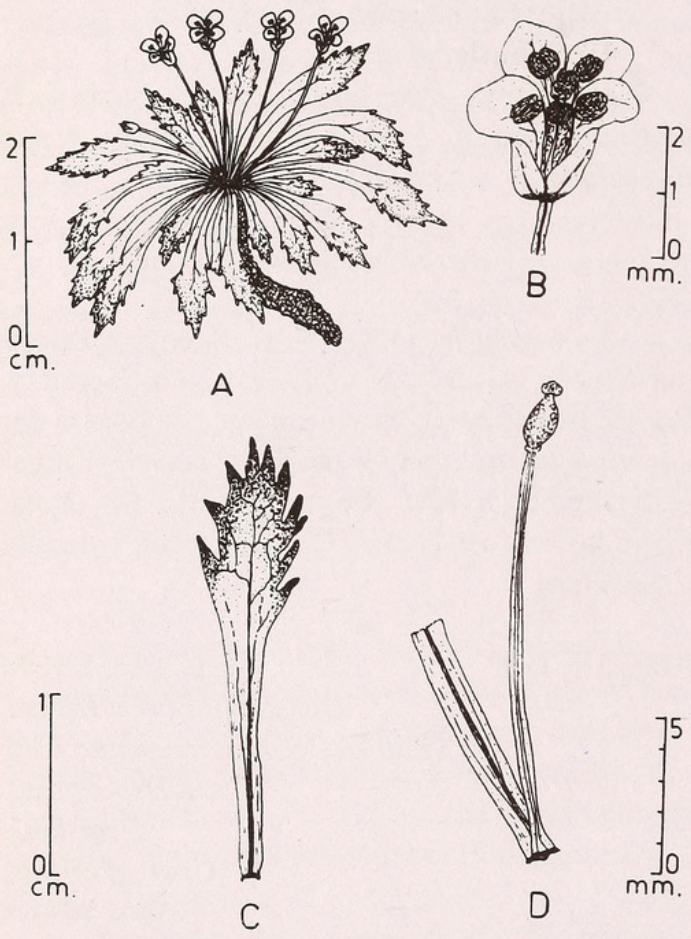


Fig. 1. *Pycnoplinthopsis bhutanica* (Hara) Jafri
A. Flowring plant; B. Flower; C. Leaf; D. Scape and Ovary.

Srinagar-Garhwal (GUH).

Pycnoplinthopsis bhutanica (Hara) Jafri (Brassicaceae) in Pak. J. Bot. 4:74.1972; Hara, En.Fl.Pl. Nepal 2:44. 1979; Grierson and Long, Fl. Bhutan 1(2):440. 1984; Polunin and Stainton, Fl. Himalaya. 40.1984; Ohba, The Himalayan Pl. 1:37.1988. *Pegeophyton bhutanicum* Hara in J. Jap. Bot. 43:45.1968; *Pycnoplinthopsis minor* Jafri in Pak. J. Bot. 4:76.1972.

Perennial herbs with short unbranched rootstock up to 0.5 cm thick. Leaves all radical, densely rosultate at the apex of rootstock, rosette of radical leaves 2.0-4.0 cm across, leaves spathulate, gradually narrowing down to base, with several (usually 8-12) sharp teeth at the proximal end, 2.0-2.5 x 0.4-0.75 cm, mid vein distinct and much branched in proximal part, basal part translucent. Scapes filiform, glabrous, translucent, up to 2.0 cm long, arising from the axil of leaves, slightly connate to leaves at the base, much shorter than the leaves. Flowers small, 2.0-3.0 mm across, white. Sepals 2.5-3.0 mm x 2.0-2.5 mm, ovate, rounded, one nerved. Petals spathulate, shortly clawed, 3.0-4.0 x 2.0-3.0 mm, much larger than the sepals. Nectariferous gland not distinct. Stamens 6 (4±2), 2 mm long including anthers, filament linear, flat, one nerved, anthers blackish, rounded. Ovary short, stigma broad, capitate, slightly lobed. Seeds (immature) compressed, rounded to reniform, 0.25 mm across, (mature fruits not seen). (Fig. 1, A-D).

Flowering: July-August.

Distribution: Bhutan, Sikkim, Nepal in alpine zones. Recently collected by the senior author from Garhwal Himalaya, at an elevation of 4800 m.

Specimens Examined: INDIA, U.P., Chamoli dist., Shilla Samudra, 4,850 m a.s.l., July, 1991, *D.S. Rawat* 19,790 (GUH); INDIA, U.P., Chamoli dist., Roopkund area, August, 1993, *D.S. Rawat* 21,007 (GUH). A small population at both the sites were observed.

ACKNOWLEDGEMENTS

We thank the authorities of BSI, Northern circle, Dehra Dun for providing Herbarium and Library facilities. Sincere thanks are also expressed to Prof. M. Quiser, Karachi Univ.,

Pakistan and Dr. H. Ohashi, Tohoku University, Japan for providing literature on the species. Financial assistance to the senior author (DSR) from UGC New Delhi is also thankfully acknowledged.

April 8, 1995

D.S. RAWAT
L.R. DANGWAL
R.D. GAUR
Dept. of Botany, HNB Garhwal University
Srinagar-246 174, U.P., India.

REFERENCES

Hara, H. (1971): Flora of Eastern Himalaya. Second Report. University of Tokyo Press, Tokyo.

Sharma, O. & N.P. Balakrishnan (1993): Flora of India. Vol. 2. Botanical Survey of India, Calcutta.

32. *KOSTELETZKYA VITIFOLIUS* (LINN.) COMB. NOV.

(*With a text-figure*)

Borssum (1966) places *Hibiscus vitifolius* Linn. under genus *Hibiscus* section *Pterocarpus* Garcke (1849). He mentions *H. vitifolius* Linn. as the type of the section *Pterocarpus* Garcke (1849).

Borssum (1966), has not mentioned the type species of *Kosteletzkya* Presl.

Mattei (1917), in fact had suggested separating Garcke's section *Pterocarpus* into a separate genus. After publication of *Kosteletzkya* Presl. (1835), Kearney (1955), thought perhaps *H. vitifolius* L. can be considered as belonging to a separate genus (sect. *Pterocarpus* Garcke), intermediate between *Hibiscus* and *Kosteletzkya.*

Bentham and Hooker (1862), listed 26 species under *Kosteletzkya.* After considering facts it is clear that Hochreutiner (1955) was correct considering sect. *Eucosteletzkya* Hochr. as identical with herbaceous species of sect. *Pterocarpus* and can be separated on the basis of alate or angular capsules.

Genus *Kosteletzkya* Presl. (1835) was originally described and accepted by Hochr. (1955) with respect to the alate or angular capsules.

However, Borssum (1966) emphasised the character of single ovule per carpel in 5-carpellate ovary. This differentiation on the basis of 1-seeded carpels in *Kosteletzkya* in comparison to 2-5 seeds per carpel in *Hibiscus* is definitely an artificial generic segregation. If *Kosteletzkya* is segregated on the basis of single seed, then genus *Hibiscus* L. will have to be divided at least into 3 more genera on the basis of the number of seeds per carpel. Seeds in various species of *Wissandia* Medik. vary from 1-3 per carpel. Similarly *Abutilon* Gaertn. also contains species with 1 to many seeds. With the segregation character adopted by Borssum, these genera will require to be divided into more genera. Hochreutiner (1955), included species with alate and angular seeds under genus *Hibiscus* sect. *Eucosteletzkya* Hochr. including species resembling *Hibiscus* sect. *Pterocarpus* Hochr.

Therefore the genus *Kosteletzkya* should be restricted to the species with angular capsules and not to the species with single seeded capsules as suggested by Borssum.

Therefore, the following new combination has been proposed:

Kosteletzkya vitifolius (Linn.) Almeida & Patil.

March 9, 1995

NEELAM PATIL
M. R. ALMEIDA
Bombay Natural History Society, Hornbill House, Shaheed Bhagat Singh Road, Bombay-400 023.

REFERENCES

BENTHAM, G. & J.D. HOOKER (1862): Genera Plantarum *1*: 206.

BORSSUM, WAALKES J.V. (1966): Malaysian Malvaceae. Revised in Blumea *14(1)*: 95 & 198.

* GARCKE, A. (1849): Kristische Bemerkungen Zuder familae der Mavaceen nebst Benschreibung neuer Artenaus derselben. *Bot. Zeit. 7:* 836.



Rawat, D S, Dangwal, L R, and Gaur, R D. 1996. "Pycnoplinthopsis bhutanica (Hara) Jafri (Brassicaceae): A new record from West Himalaya." *The journal of the Bombay Natural History Society* 93, 109–111.

View This Item Online: https://www.biodiversitylibrary.org/item/189680
Permalink: https://www.biodiversitylibrary.org/partpdf/156053

Holding Institution
Smithsonian Libraries and Archives

Sponsored by
Biodiversity Heritage Library

Copyright & Reuse
Copyright Status: In Copyright. Digitized with the permission of the rights holder
License: http://creativecommons.org/licenses/by-nc/3.0/
Rights: https://www.biodiversitylibrary.org/permissions/

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.

This file was generated 18 August 2024 at 06:08 UTC