

NOMENCLATURAL TRANSFERS IN INDIAN UMBELLIFERAE

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A B S T R A C T

Six new combinations and three changes of status from varietal to the species rank are proposed. In addition, notes are added for some new synonyms.

A resume of Indian Umbellifers was presented by the author at the Second International Symposium on the Umbelliferae, held at Perpignan, France in May '77 and this was subsequently published (Mukherjee, 1978). In the accompanying check list six new combinations and three changes of status at the species level were proposed, but these were not in accordance with article 33 of the International Code of Botanical Nomenclature (ed. 1978). This note is presented to satisfy this requirement as also to explain the reduction of several taxa to synonyms.

NEW COMBINATIONS

1. **Acronema bellum** (Clarke) P. K. Mukh. *comb. nov.*

Pimpinella bella Clarke in Hook. f. Fl. Brit. Ind. 2: 686. 1879. Based on: "Sikkim; alt. 10,000-12,000 ft; Thomson, C. B. Clarke, N. Gamble; on the watershed between Sikkim and Nepal."

The genus *Acronema* Edgw. is differentiated from *Pimpinella* by the possession of tuberous root, plane acute petals and the general dwarf habit. The species shows great variations in leaf form and is particularly abundant on the Syngaleleh range which forms a boundary between Sikkim-Darjeeling Himalaya and Nepal.

2. **Angelica nubigena** (Clarke) P. K. Mukh. *comb. nov.*

Heracleum nubigenum Clarke in Hook. f. Fl. Brit. Ind. 2: 713. 1879. Based on: "Sikkim, alt. 10,000-14,000 ft; Chola Pass, J. D. H.; Yakla Pass, C. B. Clarke."

At Herb. CAL there is a sheet with label matching with that of one of the syntypes housed in the Kew Herbarium (*Heracleum diversifolium* Wall. Hab. Sikkim. Regio temp. alt. 6-11000 ped, Coll. J.D.H. also with a label 'Chola, 11000 pds.', annotated by C. B. Clarke as *Heracleum nubigenum*—photo compared). This sheet, having foliage and fruits agrees well with the Kew specimen as well as with the protologue, however, it lacks annotations by C. B. Clarke.

The species is referable under *Angelica* L. because of the absence of characteristic *Heracleum* type of abbreviated vittae. The thin lateral wings are broader than the body of the mericarp and emarginate at both the ends, the mericarps dissociating freely at maturity. The concept of the genus follows that of Hiroe and Constance (1958). Resemblance of the fruit to *Angelica dahurica* (Fisch.) Benth. & Hook. and *Selinum cortioides* (*Cortia hookeri* Clarke partly) is marked, but the general form of foliage and the absence of calyx teeth excludes it either from *Selinum* or *Cortia*.

3. ***Angelica sikkimensis*** (Clarke) P. K. Mukh. *comb. nov.*

Peucedanum sikkimensis Clarke in Hook. f. Fl. Brit. Ind. 2: 710. 1879. Based on: "Sikkim, alt. 3000-7000 ft; frequent, J. D. H., C. B. Clarke."

I had the opportunity to examine two syntypes at Herb. CAL: (a) Sikkim, Lingdam, 12.10.70. C. B. Clarke 13065H and (b) Rishee, 5.10.75. C. B. Clarke 244987 B, both with Clarke's annotations but I could not see Hooker's specimen(s?).

The recognition of this species under *Angelica* follows the same reasons stated for fruit characters for *A. nubigena*.

4. ***Bunium nothum*** (Clarke) P. K. Mukh. *comb. nov.*

Carum nothum Clarke in Hook. f. Fl. Brit. Ind. 2: 681. 1879. Based on: "Ceylon?" Collector not indicated (Type-K).

Bunium nilghirens Wolff in Fedde Repert. 27: 334. 1930. Based on: "Nilghiri, above Sirpaca, Nov. 1883, J. S. Gamble 13442" (Type-DD).

Conspicificity of *Carum nothum* and *Bunium nilghirens* was indicated on the specimen at Herb. DD by Late C. Norman and this was later confirmed by Herb. K (personal communication). The species, with its tuberous root, is referable under *Bunium*.

5. ***Pimpinella evoluta*** (Clarke) P. K. Mukh. *comb. nov.*

P. tenera (DC.) Clarke var. *evoluta* Clarke Journ. Linn. Soc. Bot. 25: 27. t. XIV. 1899. Based on: "Jakpho, alt. 9500 ft, 41227, 41329, 42015"—C. B. Clarke!

Acronema evoluta (Clarke) Wolff in Engler. Pflanzenr. 90: 322. 1927.

This species is placed under *Pimpinella* L. because the lack of tuberous root, characterising and separating *Acronema* Edgw. It differs from *P. tenera* [*Acronema tenera* (DC.) Edgw.] in leaf and fruit. I have examined one of the syntypes: "Naga hills,

Jakpho, 25.10.1885, C. B. Clarke 41329 E" at CAL.

6. ***Vicatia achilleifolia*** (DC.) P. K. Mukh. *comb. nov.*

Ptychotis achilleifolia DC. Prodr. 4: 109. 1830. Based on: "*Athamantha achilleifolia* Wall. mss. Nepalea ad Kamaon, Wallich. 568".

Pimpinella achilleifolia (DC.) Clarke in Hook. f. Fl. Brit. Ind. 2: 684. 1879; Wolff in Engler. Pflanzenr. 90: 286. 1927.

At Herb. CAL, Wall. cat. 568A from Nepal, and 568B from Kumaon, look similar to those preserved at Herb. G and K. The sheets at Geneve bear annotations by De Candolle. The Calcutta specimens are with immature fruits. Neither De Candolle nor Wolff had seen mature fruits as is evident from their remarks. But C. B. Clarke must have seen them mature. Plants similar to types collected by the present author (Nepal, Dhunche, P. K. Mukherjee 237-CUH) and others (Nainital, Gillett, Pangtey & Gupta 2614-CUH & UC) and bearing mature fruits, however, indicate that the species should be recognised under *Vicatia* DC. The characteristic features are the prominent ribs of the mericarps, the lateral ones being placed on the commissural face which is grooved. The leaves also resemble those of other species of *Vicatia*.

NEW STATUS

1. ***Bupleurum khasianum*** (Clarke) P. K. Mukh. *stat. nov.*

B. tenue Buch.-Ham. ex D. Don var. *khasiana* Clarke in Hook. f. Fl. Brit. Ind. 2: 678. 1879 p.p. Based on: "Khasia Mts., alt. 4000-6000 ft; common" excl. "Tenasserim; Martaban Hills, alt. 7000 ft, Kurz".

B. falcatum L. ssp. *marginatum* (Clarke) Wolff var. *verum* Wolff in Engler. Pflanzenr. 43: 133 p.p. Based on: "Khasia, Griffith 2608" excl. "Shillong, C. B. Clarke 38450".

B. hamiltonii Balak. var. *khasiana* (Clarke) Balak. Journ. Bomb. nat. Hist. Soc. 63: 328. 1968 p.p.

While describing this as a variety, Clarke (*l. c.*) had not mentioned collectors for the types from Khasia; moreover Kurz's specimens were not seen by him. At Herb. CAL, the specimen from Tenasserim by Kurz bearing annotations by Kurz himself as *B. tenue* has been found to differ from a specimen: 'Khasia, Nongram, 5.8.1871, C. B. Clarke 16708' having annotation by Clarke as "*Bupleurum tenue* var. *khasiana* Clarke" in characters of leaf, bracts and bracteoles and also fruits. As this last mentioned specimen (Clarke 16708) agrees well with the protologue of Clarke's *B. tenue* var. *khasiana*, this is selected as the lectotype. Tenasserim, Kurz has already been described as a new species *B. kurzii* P. K. Mukh. The differences already mentioned by Clarke (*l. c.*) between *B. tenue* (*B. hamiltonii* Balak.) and *B. khasianum*, are sufficient to accord it a specific rank.

2. *Chaerophyllum orientalis* (Clarke) P. K. Mukh. *stat. nov.*

C. reflexum Lindl. var. *orientalis* Clarke, Journ. Linn. Soc. Bot. 25: 28. pl. 16. 1899. Based on: "Jakpho, Naga hills, alt. 7000 ft—*C. B. Clarke* 41861!"

Clarke himself (*l. c.*) hinted at recognising this as a separate species. This has very different fruits from those of typical *C. reflexum*, which are ovate lanceolate rather than oblong. Also the evident calyx teeth and the numerous bracts and bracteoles are peculiar to this species. *C. reflexum* has its distribution mainly in Himalaya, from Kashmir to Kumaon.

The specimen seen at Herb. CAL is *C. B. Clarke* 41861 D with Clarke's annotation, but this was collected by him from Kegwima Edgè in Nagaland instead of Jakpho as cited in the protologue.

3. *Pleurospermum erosa* (DC.) P. K. Mukh. *stat. nov.*

Hymenolaena dentata DC. var. *erosa* DC. Prodr. 4: 245. 1830. Based on: "Nepalia, Wallich" (Type-G! microfiche). *Pleurospermum dentatum* (DC.) Clarke var. *erosa* (DC.) Clarke in Hook. f. Fl. Brit. Ind. 2: 704. 1879.

Though the type at Herb. G is mixed with that of *P. dentata* (DC.) Cl. (Nipal, Wallich 547), Wallich 547A from Nipal at Herb. CAL is not mixed and matches with the type of *P. erosa* (microfiche compared). In fact, all the other specimens from Sikkim and Nepal at Herb. CAL matches with this Wallichian sheet. They differ from the typical *P. dentata*, which appears to be a West Himalayan plant, by more compound nature of leaf, irregularly incised leaflets and in greater number of rays and bracteoles which are erose serrate at margins and long apiculate.

REDUCTIONS

1. *Chamaesciadium garhwalicum* (Wolff) Norman, Journ. Bot. 76: 232. 1938.

Trachydium garhwalicum Wolff in Fedde Repert. 27: 124. 1929. Based on: "N. W. Himalaya: Tehri Garhwal (*Duthie* n. 1136); West ground near Mandraola, 9-10000' (*Duthie* n. 1136/a); Tanlea under Grihanta, 11-13000' VIII (*Kluthie*)".

Trachyspermum wolffianum Wolff *l. c.* 180. Based on: "N. W. Himalayas: Tihri & Garhwal, near Mandraola, 9-10000' *Duthie* 1136; Tanlea under Grihanta, 12-13000' *Duthie* 1136a".

At Herb. DD there are the following sheets: (a) Tihri Garhwal, wet ground near Mandraola under Bunderpunch, 9-10000', 24.8.83. *J.F.D.* 1136 and (b) Tihri Garhwal, Tanlea under Grihanta, 12-13000', 7.8.83. *J. F. Duthie* 1136a and (c) Tihri Garhwal, Tanlea under Grihanta, 12000', 7.8.83. *J. F. Duthie* 1136. On the first two specimens Wolff had annotated "*Trachyspermum garhwalicum* Wolff n. sp." and the last one was determined by C. Norman (1939) as the 'Cotype' of *Trachydium garhwalicum* Wolff

[*Chamaesciadium garhwalicum* (Wolff) Norman]. Evidently, Wolff misquoted the specimens and created two homotypic synonyms.

2. ***Ferula ovina*** (Boiss.) Boiss. Fl. Or. 2: 986. 1872. Based on: "Iran, Persepolis, Kotschy 283" (Type—G.-Boiss., Isotype-CAL). *Peucedanum thomsonii* Clarke in Hook. f. Fl. Brit. Ind. 2: 711. 1879. Based on: "Kashmir; alt. 5000-9000 ft, Kishtawar and Banahal, Thomson" (Syntype: Kishtawar, 15.6.48. J. D. Hooker & T. Thomson—CAL).

The type specimens are quite identical and hence both are merged under *Ferula*.

3. ***Peucedanum nepalense*** P. K. Mukh. Ind. For. 95: 567. 1969.

P. glaucum DC. Prodr. 4: 179. 1830 non Link, 1821. Based on: "Nepal, Wallich, 580 and Deyra Dhoon, Wallich 580 (Syn-types-G, photo seen).

P. dehradunensis Babu, Ind. For. 96: 535. 1970. p.p. Based on: "Bindal ravines, Dehra Dun, C. R. Babu 35058" (Type-CAL), excl. paratypes: "Tibet. Lhasa hills, Walton s.n.; Dochea hills, Stewart s.n.; Khambajong, Younghusband 253 (CAL)."

The paratypes mentioned by Babu are now referable to *Cyclorhiza waltonii* (Wolff) Sheh et Shan.

4. ***Pimpinella wallichiana*** (Hoenck.) Gandhi in Fl. Hassan Dist. 417. 1976.

Helosciadium wallichianum Hoenck. Bot. Zeit. 7: 775. 1849. Based on: "Pl. e territoris Canara, Maharattarum australiori et Malayalim" Collector not indicated (Miquel?).

Pimpinella monoica Dalz. in Hook. Journ. Bot. 3: 212. 1851. Based on: "Bombay, Dalzell."

P. duthei Wolff in Fedde Repert. 27: 330. 1930. Based on: "India orientalis, near the Bee Falls, Panchmarhi, 18.2.1891, J. F. Duthie 10408" (Isotype-DD).

P. katrajensis Rao & Hemadri, Ind. For. 102: 232. 1976. Based on: "Hemadri 108794 A, dated 20.9.1971" (Holotype-CAL). *syn. nov.*

From a large number of herbarium specimens examined from different Indian herbaria, as well as from field experiences, it appears that characters like monoecious flowers, circumference of an umbellule, basal simple leaves and glabrous rays and pedicels do not appear to occur constantly. The species is very variable as to leaf forms etc. but all these can be linked when seen through its whole distributional range, from Bihar and Orissa in the east to Bombay (Maharashtra) in the west and Mt. Abu in the north to Calicut and Mysore in the south.

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