

THE STATUS OF *CORYDALIS LONGIBRACTEATA* LUDLOW (FUMARIACEAE) DESCRIBED FROM THE HIMALAYAS

Ludlow's new species, *Corydalis longibracteata*, described from amongst the collections made between 1936 and 1947 in south east Tibet has been effectively published only in 1975 through the efforts of W. T. Stearn [in Bull. Brit. Mus. (Nat. Hist.) Bot. 5(2) : 56, 1975]. Ludlow (*l.c.*) characterises the new species : "...folium caulinum unum racemo fere contiguum, petiolo 1-2 cm longo, 1 mm lato, lamina ut videtur 5-foliolata segmentis linearibus 1.5-4 cm longis, 1-3 mm latis sed vero trifoliolata foliola mediano indiviso sed foliolis lateralibus fere ad basin bipartitis. ...", and further on (p. 57) says : "With its linear bracts, its small inflorescence of 2-4 flowers and its solitary cauline leaf the present species is not unlike *C. pseudojuncea*, a new species from Nepal..." Apparently the latter species, a new one by Ludlow himself, is different. Interestingly though, had the comparison of *C. longibracteata* with *C. cashmeriana* Royle been made it would perhaps correctly have indicated its affinity with the latter if not of conspecificity. Royle (Ill. Bot. Himal. Mts. 69, 1833) has spoken of the leaves of *C. cashmeriana* thus : "...foliis caulinis subsessilibus pinnatisectis, segmentis lineari-lanceolatis integris rarissime subdentato, terminali cuneato trilobato,..."

Prain (in Journ. Asiat. Soc. LXV : 20-22, 1896) has described two varieties under *C. cashmeriana* Royle, viz. var. *brevicornu*, and var. *ecristata*, mainly dependent on the presence or absence of wings on the outer petal, the former with short, horny wing and the latter without. The herbarium specimens of both the varieties at CAL, several of which have been annotated by Prain himself, reveal an array of characters which imperceptibly merge with one another, indicating towards caution one has to take in segregating the two taxa. This becomes all

the more apparent by the herbarium specimens present in the folders of var. *cashmeriana* CAL which may fit into any of the varieties. It seems possible that of one species is involved and that all the varieties recognised are but variable taxon, the differences, if any, becoming rather apparent dependent on the kind of habitat on which the particular population is growing. Interestingly, Prain (*op. cit.* p. 18) himself is of the opinion that the presence or absence of wings on the petals is another character that, taken by itself, appears to fail. This is evident in the herbarium specimens on which Ludlow bases his new species : Deyang, Kongbo Province, 8-6-1947, *Ludlow, Sherriff and Elliot 15199* (holotype) with specimens up to 12 cm high ; Lusha Chu, Kongbo Province S. E. Tibet, 8-6-1938, *Ludlow, Sherriff & Taylor 4698* (paratype) with specimens up to 25 cm high, and Kashong La, Chayul Chu, S. Tibet, 19-7-1936, *Ludlow & Sherriff 2394* (paratype) with specimens averaging 14 cm in height. The length of bracts varies from 1.2 to 2.5 cm. It is unfortunate that none of the herbarium specimens has radical leaves except in the holotype where almost a depauperated specimen affixed at the top of the left corner has none too well developed radical leaf.

Further on he emphasises this by speaking of the unreliability of floral characters like the relative length of spur and dimensions of the lamina of the larger outer petal, and presence or absence of wings on the petals as in *C. cashmeriana* and *C. tibetica*, and the unreliability of colour of the flower as in *C. ophiocarpa*, *C. flaccida*, *C. meifolia*, and *C. crispa*. The correlating characters like fusiform rootstock and 1-seriate seeds in fruits, as in *C. flabellata* and *C. adiantifolia*, and fusiform roots and ovoid fruits as in

C. laelia are indicative of the unreliability of correlating characters. He advocates reconsideration of some of the sections in Prantl's treatment in Engler's *Nat. Pflanzenfamilien* because of the increased opportunity of examining a number of herbarium specimens, thereby indirectly hinting at the desirability of studying the plants in the field and in greater number of populations in arriving at the conclusions. Fedde (in second edition of Engler's *Pflanzenf.* 2, 17b : 128, 1936) treats *C. cashmeriana* Royle under the section, *Rapiferae* : plants with turnip-shaped roots.

It, therefore, seems logical to take into account all the factors mentioned and to conclude that Ludlow's species, albeit with rather distinct robustness in habit, falls within the ambit of *Corydalis cashmeriana* Royle, as also are varieties, *brevicornu* and *ecristata* of Prain.

Corydalis cashmeriana Royle, Ill. Himal. Pl. 69, t. 16, f. 1. (1839) (type : LIVU ; Hook. f. & Thom. Fl. Ind. 263. (1855) ('*kashmiriana*') ; Hook. f. & Thom. Fl. Brit. Ind. 1 : 123. (1872) ('*cashemiriana*') ; Prain in Journ. Asiat. Soc. LXV : 22. (1896) ; Blatter, Beaut. Pl. Kash. 1 : 33, t. 9, f. 5. (1927) ('*cashemiriana*') ; Fedde in Engler, *Pflanzenf.* 17b : 128. (1936) (rep. ed. 1960). *C. cashmeriana* var. *brevicornu* Prain, l.c. 22, syn. nov. (type : CAL). *C. cashmeriana* var. *ecristata* Prain, l.c. 22, syn. nov. (type : CAL). *C. longibracteata* Ludlow in Bull. Brit. Mus. (Nat. Hist.) Bot. 5(2) : 56. 1975, syn. nov. (type : BM).

In the following list of exsiccatae, several of the herbarium specimens collected before the last decade of the nineteenth century have been designated either as type specimens or authenticated by Prain himself.

Kashmir : Above Kainmul, Liddar Valley, 4000 m, 21-7-1893, J. F. Duthie 18114 ; Badzulkodnullah, Liddar Valley, 4333 m, 1-8-1893, J. F. Duthie 14132 ; Ledwas, Pehal-

gaum, 3140 m, 20-6-1974, Uppendra Dhar 634. Himachal Pradesh : In pratis alpestribus, 4000 m, Kulu Dt., 5-6 Jun. Ram Bakshi 8349 ; Above Swajni, 3600 m, Paosatti Valley, Kulu, 9-6-1934, C. E. Parkinson 4079 ; Manali, 4000 m, Lahul, 23-5-1941, N. L. Bor 12624 ; below Rohtang pass, 23-6-1941, K. C. Sahni s.n. ; Satrond, 3475 m, 13-7-1962, N. C. Nair 32418 ; Satrond, 14-7-1964, 3500 m, N. C. Nair 32425 Rohtang pass, Lahul-Spiti Dt., 3900 m, 13-7-1979, Aswal 10175. Sikkim : Nathong, 13-7-1879, G. King 4360 ; Tookoo la, 22-6-1878, Dungboo s.n. (type) ; Patang la, 3333 m, G. King 4193 (type) ; Tookoo la, 14-7-1877, G. King's nat. coll. 4326 ; Kay la, 5000 m, July 1888, Dr. King's collector s.n. ; Johgri 4333 m, June 1881, Collector ? s.n. ; Bijan, 1888, Dr. King's collector s.n. ; Kapoop, 28-7-1884, Dr. King's Collector 61 (type) ; Neysola Mt., Jongri, July 1887, Dr. King's Collector s.n. (type) ; Singale la Range, 4500 m, 18-6-1891, G. A. Gammie 148 ; Jongri, 4333 m, July 1896, Mr. Pantling's collector s.n. ; Sikkim Himalaya, Sept. 1905, Dr. Prain's collector s.n. ; Zemu Valley, 5666 m, 16-7-1909, Smith & Cave 1574 ; Eumtso la, 5000 m, 12-7-1909, Smith & Cave 1298 Llonok. 4666 m, Chhortenima la valley, Llonok, 5500 m, 9-8-1909, Smith & Cave 2332 ; W. of Changu, 4333 m, June 1910, W. W. Smith 3310 ; Chamnago, 4333 m, 24-7-1910, W. W. Smith 3770 ; Ninghil, 4666 m, 3-8-1910, W. W. Smith 4089 ; Tosa, 4833 m, 30-7-1910, W. W. Smith 3954 ; Aluthung to Chunthang, 5000-5333 m, 2-6-1954, S. N. Mitra 9593. Uttar Pradesh : Kedarnath, 5000 m, Chamoli-Garhwal, 25-7-1981, J. L. Ellis & M. Sanjappa 5985. Tibet : Loonderdunga Valley, 4000 m, 27-5-1857, T. Anderson s.n. ; Do lep, Thibet-Bhutan Frontier, 3-7-1882, G. King's Collector s.n. ; Chorm La Ree, 4333 m, Aug. 1885, G. King's collector (Gyalur) s.n. ; Thieppa, 4333 m, Aug. 1885, G. King's collector s.n. ; Hill behind Tanu Banglow,

5000 m, 5-7-1903, *Major F. E. Younghusband T 57*; Nuku la, 29-7-1903, *Major F. E. Younghusband T 230*; Jhangkarchhu Valley and up to the Ghang Kar la pass, Tibet Frontier Commission, 1904, *E. H. Walsh 101*; Gantna, Chumbi valley, August 1912, *B. J. Gould 165*; Koshong la, 4666 m, Chagul Can, S. Tibet, 19-7-1936, *F. Ludlow-G. Sherriff 2394* (paratype); Lusha Chu, 3888 m, *F. Ludlow, G. Sherriff & G. Taylor 4698* (paratype); Deyang la, Kongbo Province, 8-6-1947, *Ludlow, Sherriff and Elliot*

15199 (Holotype). Nepal : Khaptar Forest, West Nepal, 4-6-1929, *Bis Ram 531*.

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A NEW VARIETY OF *MAESA* FORSK. (MYRSINACEAE) FROM ANDAMAN

During the course of revisionary studies on the family Myrsinaceae of India the authors came across an interesting specimen collected by R. L. Heinig from S. Andaman which apparently comes closer to *Maesa andamanica* Kurz, but can be easily distinguished from it by several characters and deserves a separate status. The same is described here as a new variety under *M. andamanica* Kurz with illustration.

Maesa andamanica* Kurz var. *longipedicellata
Nayar et Giri, var. nov.

A typo differt, foliis ellipticis vel elliptico-oblongis, ad basin cuneatis, margine distincte denticulatis, infrutescentis 4.5 cm longis, pedicellis 5.0-5.5 mm longis.

Typus : South Andaman without precise locality, 15 Nov., 1901, *R. L. Heinig 451* (Holotypus, CAL).

Small tree, branches glabrous, densely verrucose. Leaves elliptic or elliptic-oblong, 6-13 cm long, 2.5-5.0 cm broad, base cuneate, apex acuminate, margin distantly denticulate, primary nerves 6-12 on each side of the midrib, obscure on upper surfaces of leaves, prominent and raised beneath, reticulations obscure, both surfaces glabrous,

chartaceous or membranous, turn brownish on drying; petioles 6-15 mm long, deeply channelled, glabrous. Infructescence axillary racemes, 4-5 cm long, glabrous; bracts narrowly triangular, 1 mm long, glabrous, persistent; fruiting pedicels 5.0-5.5 mm long, glabrous, longitudinally striate; bracteoles 2, remain at the base of fruits, narrowly triangular, 1 mm long, glabrous, persistent. Flowers not seen. Berry nearly globose with persistent calyx and style, 3 mm long, 2.0-2.5 mm across, glabrous, longitudinally striate, verrucose. Calyx 5 toothed, tooth triangular, 1 mm long, 0.75-1.0 mm broad at base, glabrous. Style conical, 1.0-1.5 mm long, glabrous, stigma capitate. Seed globose, black, 1 mm across.

Type : South Andaman without precise locality, 15 Nov. 1901, *R. L. Heinig 451* (Holotype, CAL).

The var. *longipedicellata* differs from var. *andamanica* by elliptic or elliptic-oblong leaves with cuneate base, margin distinctly denticulate, infructescence long (4-5 cm) and longer fruiting pedicels (5.0-5.5 mm); whereas in var. *andamanica* leaves elliptic to ovate-elliptic with rounded or subrounded base, margin entire or rarely obscurely