

down to Martaban. It was collected in Sylhet in 1889 by Tara Kishore Gupta for G. Mann (leaves and sheath only). It was also collected in Chittagong by Dr. Schlich in 1875 (leaf only). In Burma, it was collected first in Martaban and then in the Karen Hills by Kurz in 1871 with flowers. Gamble's figure (l.c., t. 84), based on that of Kurz (1876) is the type for *Melocalamus compactiflorus*. So far this is the only record of this species in flower.

The author collected this species in flower on the way from Jakuradhar to Gotaikhal in Manipur during November, 1973 (Malick

942 *BSIS). Present collection of this species of bamboo in flower is the second record after one hundred years of its first collection from Burma and incidentally the first in India.

While examining the Indian specimens, some interesting points were observed such as spikelet bearing only one fertile floret without the rudiments of second and third florets as reported from Burmese specimens and apex of anther being penicillate (Fig. 1).

This reduction in number of floret to one and complete absence of second and third floret appears to support the contention of McClure (1936) that *Melocalamus* should be merged with *Dinochloa*.

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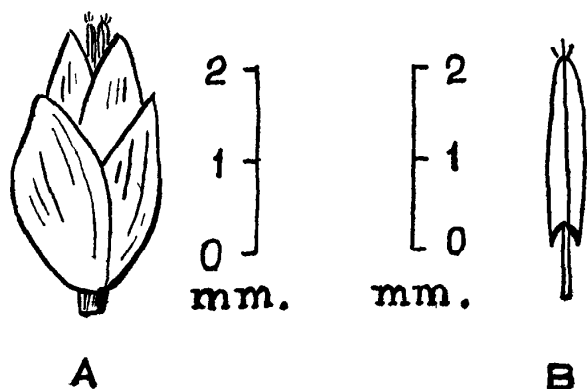


Fig. 1(A-B) : A. Spikelet. B. Stamen.

NOMENCLATURAL NOTE ON THE INDIAN *ARCHANGELICA*

In the year 1879, Clarke described the genus *Archangelica* in the 'Flora of British India' and referred the gigantic Himalayan umbellifer to var. *himalaica* under *A. officinalis* Hoffm., differing from the European type by larger fruits. With the transfer of the genus *Archangelica* to *Angelica*, the European plant is placed under *Angelica archangelica*. However, taxonomic combination does not occur for the Himalayan plant, under *Angelica*. Wolff (1929-33) carried out considerable work on the Umbelliferae and published a number of new taxa under *Angelica*. Unfortunately, he did not survive to publish on the tribe of Umbelli-

ferae which contains *Angelica*. Even his posthumous papers published in Fedde's Repertorium carry no reference to Clarke's taxon.

But it appears that Wolff studied the Himalayan taxon, for the herbarium specimens available to the authors are identified as *Angelica himalaica* Clarke by Wolff in April, 1928. He appears to have erred somewhere, because Clarke did not publish this taxon. Had Wolff lived long to monograph this genus, the discrepancy would have been settled.

In the absence of a suitable nomenclature of this Himalayan taxon, the Indian litera-

ture deals with it vaguely. Though *Archangelica officinalis* Hoffm. is now universally regarded as a synonym of *Angelica archangelica* L., the Himalayan plant has been recorded under *Archangelica officinalis* var. *himalaica* Clarke till recently by Suwal (1969) and Nasir (1972). Wealth of India (1948) and Chopra *et al.* (1969) retain *Angelica archangelica* L. Rao (1960) lists it under *Archangelica himalaica* Clarke, a name never published by Clarke! Hiroe's (1958) work is silent regarding this Himalayan plant, and thus the taxon has remained poorly known.

Incidentally, the specimens of Himalayan *Archangelica* have been often erroneously identified with *Pleurospermum angelicoides*, and probably all specimens of this species from Kashmir belong to the taxon considered here. Nasir (1972) also points out the Falconer's specimen of *Pleurospermum angelicoides* was immature and probably *Archangelica*.

J. F. M. Cannon (1968) of the British Museum (Nat. Hist.), London, describing *Angelica archangelica* L. for the European region recognises two subspecies: subsp. *archangelica* with bracteoles about as long as pedicels, fruit 6.8 × 4.5 mm, nearly oblong, dorsal rib prominent and acute and subsp. *littoralis* (Fries) Thell with bracteoles about half as long as pedicels, fruit 5.5 × 3.5-4.5 mm, elliptic, dorsal rib not prominent, obtuse. The Himalayan plant differs in bracteoles half to three-fourth as long as pedicels, fruit 9.12 × 7.9 mm, oblong, dorsal rib prominent and acute, and it appears advisable to rank it as a distinct subspecies under the same species. As no valid name under *Angelica* appears for the Himalayan plant, a new one is proposed here:

***Angelica archangelica* L. subsp. *himalaica* (Clarke) Singh & Oza comb. nov.** *Archangelica officinalis* Hoffm. var. *himalaica* Clarke in Hook. f. Fl. Brit. India 2: 707, 1879; Suwal, Bull. Dept. Medic. Pl. Nep.

2: 46, 1969; Nasir in Fl. West Pak. 511, 1972. *A. himalaica* Clarke; Rao in Rec. bot. Surv. India 18(2): 33, 1960. *Angelica archangelica sensu* Wealth of India 1: 79, 1948 (non L.); Chopra *et al.* Suppl. Gloss. Indian Medic. Pl. 6, 1969.

Specimens examined: In DD: Above Kamri nulla, Kashmir: Duthie 13099 as *Pleurospermum angelicoides* Benth.; Bangas, Muzzafrabad: Duthie's collector 21799 as *P. angelicoides*; Sonamarg, Kashmir: Duthie 11525 as *P. angelicoides*; Phakrian pass, Lolab forests, Kashmir: Keshavanand 492 as *P. angelicoides*; Kunpatri in Tilel, Kashmir: Keshavanand 1506 as *Pleurospermum*; Dras: Gammie as *P. angelicoides*. All these were identified as *Angelica himalaica* Clarke by H. Wolff; Deosai plains: R. R. Stewart 20189 as *Archangelica*; Gulmarg, Kashmir: Gammie as *Angelica*.

In BSD: Pahalgam Tulin lake, Kashmir: T. A. Rao 9660 as *Angelica himalaica*; Desu, Kashmir: T. A. Rao 9838 as *Angelica himalaica*.

In KASHMIR UNIVERSITY HERBARIUM, SRINAGAR: Gulmarg, Kashmir: Gurcharan 2130; Ferozpur nullah, Kashmir: Gurcharan 5149; Dachigam, Kashmir: Gurcharan 5160; Duksum, Kashmir: Gurcharan 5133; Ahrabal, Kashmir: Gurcharan 5133; Sonamarg, Kashmir: Gurcharan 2433 a.

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NOTES ON SOME INTERESTING PLANTS FROM JOWAI, MEGHALAYA

During the course of investigations into the flora of Jowai District, Meghalaya state in N-E India between 1968 and 1972, the author has come across several interesting plants which are new records for India or for the phytogeographical area, including a new variety from the area. Relevant notes, short descriptions and key to some species are given below. Unless otherwise stated the specimens are all deposited in Kanjilal Herbarium of Botanical Survey of India, Shillong (ASSAM).

ARALIACEAE

1. ***Aralia chinensis*** L. Sp. Pl. 273. 1753; Li in *Sargentia* 2: 109. 1942.

Shrubs, 2-7 m, sparsely prickly; leaves 40-80 cm long, 2 or 3 pinnate, usually with a pair of leaflets at each division of rachis; leaflets ovate to oblong-ovate, narrowly rounded at base, acute at apex, closely ciliate-serrate at margins, 5-12 cm long, 3-8 cm broad; lateral nerves 6-8 pairs; panicles terminal, 25-35 cm long; peduncles 1-4 cm long; pedicels 2-5 mm long; flowers \pm 3 mm across, yellowish-green; fruits globose, 5-angled, 3-4 mm diam.

Evergreen subtropical forests, 1200-1500 m; Jarain, *Balakrishnan* 46807 (det. at K).

This species previously known only from S & S-E China is a new record for India. This and the following species are closely related to the already known *A. thomsonii* of the area and differ as follows:

1. Flowers pedicelled:
 2. Inflorescence pubescent towards apices only; pedicels 8-15 mm long .. *A. thomsonii*
 2. Inflorescence pubescent throughout; pedicels 2-5 mm long .. *A. chinensis*
1. Flowers sessile .. *A. dasycphylla*

2. ***Aralia dasycphylla*** Miq. Fl. Ind. Bat. 1(1): 751. 1855; Li in *Sargentia* 2: 114. 1942.

Prickly shrubs or small trees, up to 6 m; innovations densely brown pubescent; leaves up to 70 cm, bipinnate, with 2 accessory leaflets on each pair of pinnae at base; leaflets 7-9 per pinna, ovate to oblong-lanceolate, rounded to subcordate at base, acuminate at apex, 5-14 cm long, 2-6 cm broad; lateral nerves 7-10 pairs; panicles up to 20 cm long; peduncles 5-14 mm long; flowers \pm 2-5 mm across, sessile, capitate; fruits sessile, globose, 5-angled, \pm 3.5 mm diam.

Subtropical evergreen forests, 1000-1400 m, Umtapoh, *Balakrishnan* 42723 (det. at K).

This species was previously known to occur in S. China, Indo-China, Malaysia and Java. This is the first record for India.

3. ***Schefflera arboricola*** (Hayata) Merr. in *Lignan. Sci. J.* 5: 139. 1927. *Heptapleurum arboricolum* Hayata, Ic. Pl. Formosa 6: 23, t. 4. 1916.

Shrubs, sometimes scandent, 3-4 m high; petioles 10-15 cm long; leaflets 7-9, obovate to oblong-ovate, acute or obtuse at apex, 8-10 cm long, 3-5 cm broad; lateral nerves 5-6 pairs; petiolules 2-4 cm long; inflorescence