

# A NOTE ON THE STATUS OF *ELSHOLTZIA STACHYODES* VAR.

## MAJOR (LAMIACEAE)

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### A B S T R A C T

*Elsholtzia stachyodes* (Link) Raiz. & Saxena var. *major* (Hook.f.) Raiz. & Saxena is raised to the rank of a species and the name is lectotypified. A description of hitherto unknown flowers is provided with a key to the allied species.

Hooker f. (1885:644) described *Elsholtzia incisa* Benth. var. *major* based on two fruiting materials collected in Uttar Pradesh and Sikkim. He distinguished this variety from the typical *E. incisa* by the plant being taller and stout, stem beset with soft spreading hairs, fruiting spikes stout (ca 1.3 cm thick) and calyx longer.

Raizada and Saxena (Raizada, 1966:309) adopted an earlier specific name *Elsholtzia stachyodes* based on *Hyptis stachyodes* Link for *Elsholtzia incisa* and treated variety *major* as distinct thereunder.

While revising the family Lamiaceae for the flora of India, some flowering specimens determined either as *E. incisa* Benth. or as *E. pilosa* Benth., in Indian herbaria were found to represent the long-unknown flowering material of *E. stachyodes* var. *major*.

After a careful study, it is found that var. *major* can be distinguished from var. *stachyodes* on the basis of some floral characters also. The overall differences between the two varieties are tabulated below :

	var. <i>stachyodes</i>	var. <i>major</i>
1. Vegetative parts	with minutely adpressed pubescence.	with soft and spreading hairs.
2. Petioles	1-2 (-3) cm long.	(1-) 2-5 cm long.
3. Spikes	4-10 by ca 0.5 cm, slender, interrupted.	5-9 by ca 0.9 cm, stout, usually uninterrupted.
4. Stamens	The low 2 mostly imperfect.	All the 4 perfect.
5. Style	less than 2 cm long.	2-3 mm long.
6. Nutlets	0.6-0.8 by ca 0.5 mm, oblong-ellipsoid.	0.7-1.0 by ca 0.7 mm, broadly ellipsoid to suborbicular.

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Date of receipt : 4.3.93. Date of acceptance : 21.8.96.

The above differences warrant treating var. *major* as a distinct species.

***Elsholtzia major*** (Hook. f.) V.S. Kumar et B.D. Sharma, *stat. & comb. nov.* *Elsholtzia incisa* Benth. var. *major* Hook.f., Fl. Brit. India 4:644. 1885; Duthie, Cat. Pl. Kumaon 140. 1906; Mukerjee in Rec. Bot. Surv. India 14 (1): 89. 1940 - Lectotype (selected here): [Uttar Pradesh] Kumaon, near Dol, 1975 m, *Strachey & Winterbottom* 8 (K, photo !). Syntype: Sikkim, Ryang, 1825 m, 11 Nov. 1870 *Clarke* 13653B (CAL!).

*Elsholtzia pilosa* sensu Duthie, Cat. Pl. Kumaon 140. 1906.

*Elsholtzia incisa* auct. non Benth. 1833: T.A. Rao in Bull. Bot. Surv. India 2:84, 1960; M.A. Rau in Bull. Bot. Surv. India 3: 238. 1961.

*Elsholtzia stachyodes* (Link) Raiz. & Saxena var. *major* (Hook.f.) Raiz. & Saxena in Indian Forester 92:309. 1906 (as "*stachyodia*"); Bennet; Name Changes Fl. Pl. India 208. 1987.

Erect aromatic herbs, 20-100 cm high, branched; stems obtusely 4-angular, grooved with soft and spreading hairs. Leaves opposite-decussate; lamina 3-8 by 2-5 cm, broadly ovate, acuminate at apex, cuneate at base and narrowed or decurrent into petioles, crenate-dentate or irregularly dentate, membranous, soft-hairy on both surfaces, gland-dotted beneath; midnerve and lateral nerves prominent beneath; lateral nerves 5-7 pairs, ascending, subopposite to alternate; petioles (1-) 2-5 cm long, slender, hairy. Inflorescence of axillary and terminal spikes, 5-9 cm by 8-10 mm (infructescence up to 15 mm thick), uninterrupted or rarely interrupted; whorls few-flowered, loose, compact in fruit; bracts 2-4 (-5) mm long, linear-lanceolate, acute, hairy; bracteoles up to 2 mm long, linear, hairy. Flowers subsessile, 3-4 mm long. Calyx 2-2.5 mm long, tubular, prominently 5-nerved, hairy outside, 5-toothed; teeth unequal, up to 1 mm long, linear-lanceolate, densely hairy just above throat; fruiting calyx 3-5 (-6) by ca 1.5 mm, urceolate or ovoid, with teeth closing the mouth. Corolla white

or pinkish purple, 2-3 mm long, bilabiate; tube barely exerted, minutely hairy outside; upper lip emarginate; lower lip 3-lobed; midlobe broader than the lateral lobes, obtuse; lobes hairy outside. Stamens 4, didynamous; anterior pair 1-1.5 mm long; posterior pair 1.5-2 mm long and scarcely exerted; filaments naked. Disc much produced behind ovary. Ovary 4-partite; style 2-3 mm long, slender, scarcely exerted, bifid; lobes unequal, subulate. Nutlets 4, dark brownish, subequal, 0.7-1 by 0.6-0.8 mm, broadly ellipsoid to suborbicular, smooth with a prominent basal scar.

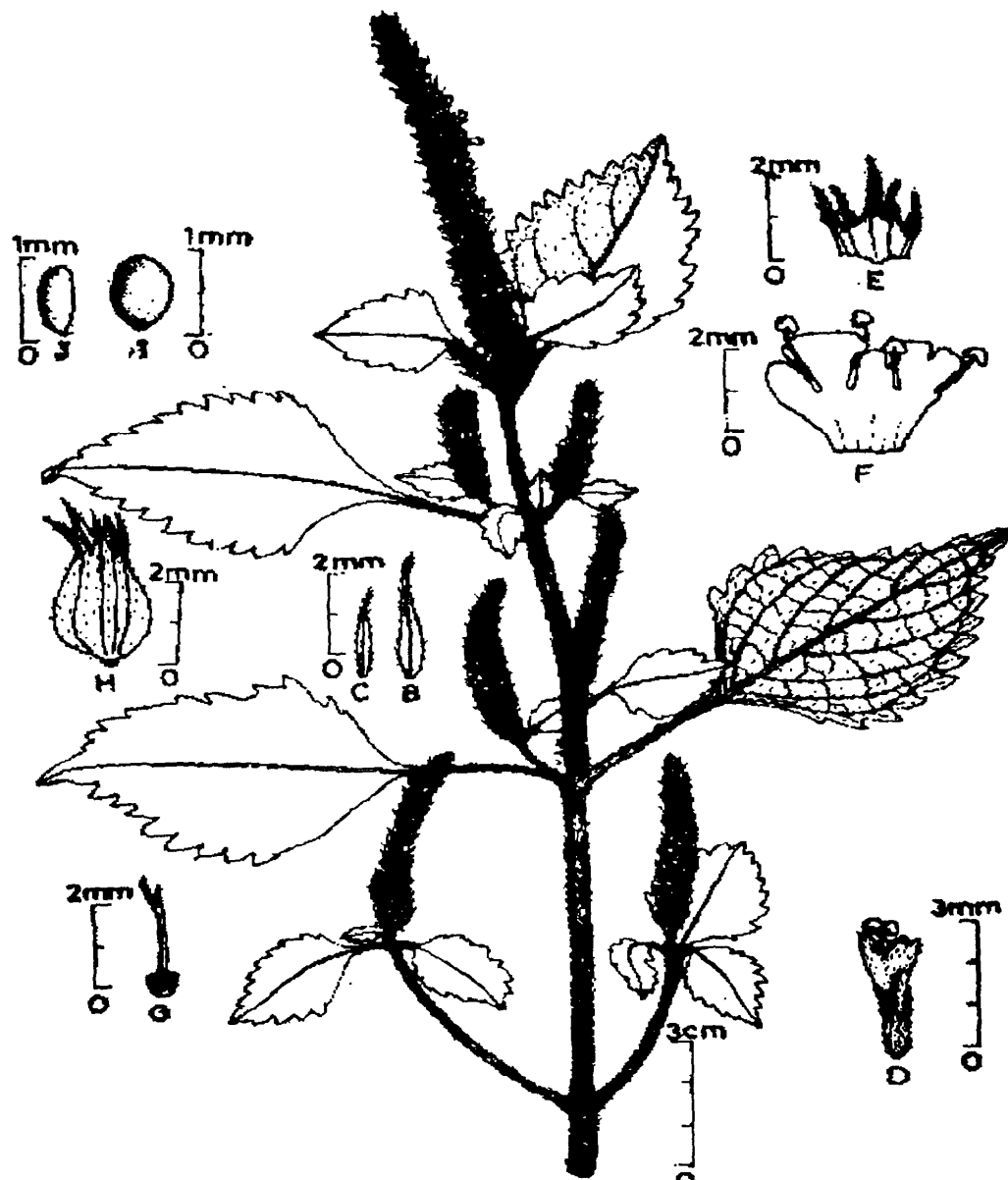
*Fl. & Fr.* : August to November.

*Habitat* : On shady slopes or along roadsides between 1500 to 3200 m.

*Specimens examined* : UTTAR PRADESH, Garhwal, Chipaldeghat, Sept. 1875, *Davidson s. n.* (DD); without precise locality, 1520-1825 m, 22 Sept. 1885, *Duthie* 4299 (DD); Gaurikund (Trijanganarayan), 2000 m, 24 Sept. 1958, M.A. RAU 8574 (BSD); Goidal, 1800 m, 26 Sept. 1963, *U.C. Bhattacharya* 30807 (BSD); Loharjung, 2400 m, 27 Sept. 1963, *U.C. Bhattacharya* 30856 (BSD); Kumaon, Surju Valley, 1215 m, *Strachey & Winterbottom* 8 (GH-not the lectotype); Loharkhet-Kathi (Dakuri pass), 2000-3000 m, *T.A. Rao* 4260 (BSD). SIKKIM, Rungbee, 1216 m, 31 Oct. 1870, *C.B. Clarke* 13651B (CAL); Ryang, 1825 m, Aug. 1891, *Gammie s.n.* (Acc.Nos. 354829, 354831-32, CAL, whorls interrupted); Ryang, *ann.* 1892, *Gammie s.n.* (L).

*E. major* is restricted to the Western Himalaya (Garhwal and Kumaon) and Sikkim whereas *E. stachyodes* is a widespread species occurring in the Western to Eastern Himalayas, Bihar, Bangladesh, Myanmar through northeastern India and China.

Hooker f. (*l.c.*) described this taxon based on two specimens, one collected by Strachey and Winterbottom and the other by Clarke. Though Winterbottom's name was not cited in the protologue, it is clear from Strachey's Catalogue (*Duthie*, 1906:140), the collection was made jointly with Winterbottom.



Figs. A-J : *Elsholtzia major* (Hook.f.) V.S. Kumar & B.D. Sharma

A. Habit ; B. Bract; C. Bracteole; D. Flower; E. Calyx; F. Corolla and Stamens;  
G. Disc, Ovary and Style; H. Fruiting calyx; I-J. Nutlets proximal side and profile.  
(A-H, T.A.Rao 4260; I-J, Clarke 13653B).

Since the specimen Strachey and Winterbottom 8 bears the manuscript name "*E. incisa* Bth. var. ? *major*", in Hooker's hand it is selected here as lectotype. Besides it is a better specimen compared to that of Clarke's.

The following key may be of help in determining *E. major* and its allied viz. *E. stachyodes* and *E. pilosa*.

- 1a. Leaves acute at apex; bracts longer than flowers (4-6 mm long) ... *E. pilosa*
- b. Leaves acuminate at apex; bracts shorter than or as long as flowers (2-3 mm long) ... 2
- 2a. Vegetative parts with minutely adpressed pubescence; spikes 3-5 mm thick, interrupted; calyx 1-1.5 mm long, fruiting ones 2.5-3.5 mm long; corolla 1.5-2 mm long; nutlets oblong-ellipsoid, ca 0.5 mm across.  
... *E. stachyodes*
- b. Vegetative parts with soft spreading hairs; spikes 8-10 mm thick, usually uninterrupted; calyx 2-2.5 mm long, fruiting ones 3-5(-6) mm long; corolla 2-3 mm long; nutlets broadly ellipsoid to suborbicular, ca 0.7 mm across  
... *E. major*

#### ACKNOWLEDGEMENTS

The senior author is grateful to the Officers-in-Charge of BSD and DD for the facilities and the Director, Botanical Survey of India for a research fellowship. The authors thank the Directors of L and GH for loan of specimens.

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