

SALVIA REFLEXA HORNEM. (LAMIACEAE) – A NEW RECORD FOR INDIA

P. K. PUSALKAR, D. K. SINGH*, P. LAKSHMINARASIMHAN** AND SURENDRA SINGH

Botanical Survey of India, Northern Circle, Dehradun-248 195

**Botanical Survey of India, Kolkata-700 064*

***Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, U.K.*

Salvia L. with 900 species (Mabberley, 1997), is distributed in tropics as well as temperate regions of the world. In India the genus is represented by about 24 species (Santapau & Henry, 1973), distributed mainly in Himalayas. Critical studies on the specimens collected from Jageshwar Almora road, Uttaranchal, revealed the presence of a North and Central American weed *Salvia reflexa* Hornem. (Corett & Johnston, 1970; McGregor & Barkley, 1986), hitherto unknown in India flora. This report of the species, probably first from Asia, thus gives new distributional record of the species. It has been described and illustrated here to facilitate its easy identification.

***Salvia reflexa* Hornem.** Enum. Pl. Hort. Hafn. 34. 1807. 'Rocky mountain sage' or 'Lance leaved sage'. (Figs. A-K)

Annual herbs, up to 2 m high; stems much branched, erect, pubescent. Leaves opposite, petiolate; lamina lanceolate to narrowly elliptic or oblong, apex acute, rarely mucronulate, base cuneate or attenuate, margins remotely, often irregularly serrate, surfaces glabrous above, pubescent below. Flowers in 2-flowered verticillasters forming interrupted, spiciform inflorescence; bracts leafy, sessile or short petiolate, lanceolate to narrowly elliptic, 2-6 mm long, pedicels up to 2 mm long, minute hairy. Flowering calyx tubular, 4-6 × 1.5-3 mm, 13-veined, bi-lipped, cleft about halfway, upper lip entire, lower with two teeth; teeth acute, minutely hairy on the nerves and margins. Fruiting calyx campanulate, 5-7 × 3-4.5 mm. Corolla tubular, shorter or equaling the calyx, puberulent outside, bi-lipped; upper lip erect, 2.5-3 mm long, hairy on outer face; lower lip 4.5-5 mm long, reflexed, light blue or purplish. Stamens 2; filaments short and articulating with often much elongated connective, bearing fertile anther lobes at upper end, the lower end sterile and flattened. Style simple, flattened. Fruits of 4 dry, 1-seeded nutlets at the base of calyx; nutlets oblong-obovoid, trigonous, 2-2.5 mm long, dull-yellow with irregular brown spots, glabrous.

Fl. & Fr. : August September.

Growing in open ground along roadside. Not common. Uttaranchal, Almora, Jageshwar-Almora road, September 16, 1985, *H.J. Chowdhery & Surendra Singh* 78183 (BSD); Kumaon, Hawalbagh, ca 1200 m, *R. Strachey & J.E. Winterbottom* No. 1 (K!); Kumaon, Hawalbagh, 1845, *T. Thomson* 1067, p.p. (K!).

**Present Address : Central National Herbarium, Botanical Survey of India, Howrah-711 103.

Date of receipt 12.05.2004. Date of acceptance : 14.03.2005.



Figs. A-K.: *Salvia reflexa* Hornem. A. Habit; B. A flower; C. V. S. of the flower; D. Flowering calyx; E. Fruiting calyx; F. Androecium; G. Stamen; H. Carpel; I. Nutlet.

Distrib.: India : Uttaranchal (Kumaon); North and Central America,

Salvia reflexa is an adventive weed of Central and North America. In India, however, both its area of occupancy and extent of occurrence is very small as it is apparently confined to only a few places in Kumaon region of Uttaranchal.

ACKNOWLEDGEMENTS

The authors are grateful to the Director, Botanical Survey of India, Kolkata for facilities and encouragement, and to Dr. Sandy Atkins, Royal Botanic Gardens, Kew for confirming the identity of the specimens. PKP and SS are also thankful to the Ministry of Environment and Forests, New Delhi and Indian Institute of Remote Sensing (DOS), Dehradun respectively for financial assistance.

REFERENCES

- CORETT, D. S. AND M. C. JOHNSTON. Manual of the Vascular Plants of Texas. Texas Research Foundation. Renner Texas. p. 1369. 1970.
- MABBERLEY, D. J. The Plant Book, II. Cambridge University Press, Cambridge. 1997.
- MCGREGOR, R. L. AND T. M. BARKLEY (eds.) Flora of the Great Plains. The Great Plains Flora Association, Univ. Press, Kanas. P. 732. 1986.
- SANTAPAU, H. AND A. N. HENRY. A Dictionary of the flowering plants of India. P.I.D., C.S.I.R., New Delhi. 1973.