EURYSOLEN PRAIN (LAMIACEAE) - A NEW GENERIC RECORD FOR INDIA

V. SAMPATH KUMAR AND B. D. SHARMA

Botanical Survey of India, Dehra Dun

ABSTRACT

EURYSOLEN PRAIN, a monotypic genus represented by E. gracilis PRAIN, is reported for the first time in India and the name is lectotypified. Affinities of the genus are discussed.

In the course of revisionary studies of the family Lamiaceae the authors came across some interesting specimens at ASSAM, CAL, and DD, identified as Pogostemon wattii C.B. Clarke, collected in northeastern India. The specimens differed from the genus Pogostemon Desf., in corolla annulate within and the lower lip 3-lobed (in Pogostemon the corolla lacks the annular nature and the lower lip is entire). Subsequently, it was found that the specimens in fact represent EURYSOLEN gracilis PRAIN, i.e., the sole species of the genus, so far known to occur in south-eastern Asia (Myanmar, Thailand and Malesia) and south-western China (Yunan). Thus, the present report of the occurrence of EURYSOLEN forms a new generic record for the country.


Herb or undershrub, 30-100 cm high; stems erect with cylindric slender branches, rigid, densely adpressed tawny puberulous; nodes slightly swollen; internodes (2-) 4-9 cm long. Leaves opposite-decussate; lamina 3-9 (-11) by 2-3.5 cm, ovate-elliptic to rhomboid, base decurrent into petiole, acute or subacute at apex, serrate, membranous, sparsely adpressed-hirtellous; dense on nerves beneath; midrib raised beneath, impressed above; petioles 1-2(-3) cm long, slender, densely hirtellous. Inflorescence of axillary and terminal spikes, 4-8 (-15) by ca 1.5 cm; verticillasters usually few-flowered, not compact; bracts up to 4 mm long, oblong-elliptic to broadly elliptic, acute, hirtellous; pedicels up to 1 mm long, sparsely tawny hirtellous. Calyx 3-4 (-5) mm long., tubular-campanulate, 10- or rarely 12-nerved; sparsely tawny hirtellous outside especially on nerves; teeth 5, the 3 upper teeth shorter than the 2 lower ones, triangular, acute, hirtellous outside. Corolla white, 5-6 mm long; tube exserted, annulate inside, usually gibbous below the annulus; upper lip erect, retuse or rarely entire; lower lip 3-lobed, spreading; midlobe larger than the lateral ones, rounded; lobes puberulous outside. Stamens 4, didynamous, exserted; filaments puberulous; upper ones ca 2 mm long; ones ca 3 mm long; anthers ovate-reniform, unilocular, lower ones larger. Disc uniform. Ovary subtrumpette; style slender, 5-7 mm long, exserted, bifid; lobes subequal,
Figs. 1. A-M: *Eurysolen gracilis* Prain: A. habit; B-C. bracts; D. flower; E. calyx at anthesis; F-O. corolla; H. disc, ovary and style; I-J. nutlets inner and outer face; K-L. corolla; M. disc, ovary and style.

acute. Nutlets 4, subequal, ca 1 mm long, obovoid, dry, glandular at the angled face, basal scar small.

*Flowering and fruiting:* December to February.

*Habitat:* Occurs on slopes, clayey soils, recorded between 750-1500 m.

*Distribution:* India (Manipur, Mizoram, Nagaland); Myanmar, Thailand, S. W. China and Malesia (Sumatra, Java and the Lesser Sunda Islands).

*Typification:* The type material of *E. gracilis* consisting of 6 specimens, 5 located at CAL and one at K (perhaps in other herbaria too) all collected by Shaik Mokin in Kachin hills (Myanmar). Of these one specimen (Acc. No.363566, CAL) bears a generic description in pencil in Prain's hand (on a paper attached to the sheet) along with an illustration of the dissected floral parts. Since the same description was subsequently published, this particular sheet is chosen here as the lectotype.

It may be interesting to note that in 1891 Prain came across two specimens (*Watt* 5079, 6613) collected in Manipur, NE India, identified and treated by him as *Pogostemon watii* actually belonged to *Eurysolen*. Mukherjee (1940 : 75) also erred in following Prain and provided a description of *E. gracilis* rather than *P. watii*. Similarly, Deb and Dutta (1987) also misidentified the specimens (*Deb* 30501, 30662) collected in Mizoram, NE India by comparing it with Watt's. It is thus evident that the Material of *E. gracilis* had been collected in India prior to Myanmar, but had remained wrongly determined.

Prain (1898) while establishing the genus *Eurysolen*, tentatively placed it near *Gomphostemma* Benth., in the tribe Prasieae. Briquet in a personal communication to Prain (see Prain, 1901) stated "I am very puzzled as to its place and must frankly confess that I do not dare to place it precisely in any of the tribe without knowing the ripe fruit". However, he suggested that the genus might be placed in the Prasieae and Ajugeae (as "Ajugoideae") respectively.

Wu (1950) although placed *Eurysolen* in the Ajugeae (as "Ajugoideae"), noted an apparent relationship with *Pogostemon* Desf. Unfortunately, he did not discuss in detail. Chermisirivathana (1963) was the first author who described the mature fruits as dry and with a small basal attachment scar. On this basis, he placed it with *Colebrookea* Smith, *Dysophylla* Blume, *Esholtzia* Willd., and *Pogostemon* in her subfamily Stachyoidae, which was subsequently supported by Keng (1969, 1978). Press (1982) confirmed Chermisirivathana's observations (dry rather than fleshy as in Prasieae and attachment scar small and basal rather than large and lateral as in Ajugeae) and placed it in the tribe Pogostemonaceae and stated, "in general habit and inflorescence *E. gracilis* resembles some species of *Pogostemon*, in floral structure resembles species of *Esholtzia* and *Rostrinucula* Kudo and possess unilocular anthers as in *Comanthosphace S. Moore, Dysophylla, Pogostemon and Rostrinucula.*" Recently Cantino and Harley (1991) and Cantino et al. (1992) suggested that the *Eurysolen* belongs to either the subfamily Pogostemonoideae or Lamioideae. Abu-Asab and Cantino (1994) after studying the pollen morphology indicated that the genus cannot be clearly assigned to any of the subfamilies as its pollen sculpturing resembles some species of *Achyropermum* Bl. (Lamioideae), *Ajugula L.* (Ajugoideae) and *Comanthosphace* (Pogostemon-oideae).

A noteworthy specimen to be mentioned is *Watt* 5079 (Acc. No.354271, CAL), which lacks the gibbous nature in corolla and upper lip entire rather than reise. This deviating character was also noticed in Malesian example (*van Steenis* 11118).

hills, sakok, 1500 m, Dec.1907, Meebold 7175 (CAL).
MALESIA: Java, Besokki, Jang plateau east, Djeloewang, 1800 m, 18-19 July 1939, van Steenis 11118 (CAL).

ACKNOWLEDGEMENTS

We are grateful to the Officers-in-Charge of ASSAM, CAL, DD and L for facilities. We thank Prof. Philip D. Cantino, Ohio University, Athens, U.S.A. for sending reprints.

REFERENCES


