

SHORT COMMUNICATION

Hygrophila ringens (L.) R. Br. ex Spreng.— A new record from Rajasthan

K L Meena

Herbarium and Laboratory of Plant Taxonomy,
Department of Botany, MLV Government College,
Bhilwara-311 001, Rajasthan, India

Received 21 November 2014; Accepted 12 June 2015

Hygrophila ringens (L.) R. Br. ex Spreng., was collected for the first time from Bhilwara Rajasthan. The detailed information on taxonomic account of this species has been presented here.

Keywords: Flora, *Hygrophila ringens* (L.) R. Br. ex Spreng., Rajasthan.

IPC code; Int. cl. (2014.01)—A 61K 36/00

Introduction

Family Acanthaceae is pantropical and subtropical with a few species in temperate regions and growing understory in rain forests. The genus *Hygrophila* R. Br. comprises of 100 species, widely distributed in tropical and subtropical regions of the world¹ and in India, about 16 species² are found in warmer parts of the country and only 2 species have been reported from Rajasthan³.

During botanical explorations few interesting specimens belonging to the family Acanthaceae were collected from Bhilwara. The district lies in between 24° 04' to 24° 23' N latitude and 74° 25' to 74° 40' E longitude. The perusal of literature revealed that *Hygrophila ringens* (L.) R. Br. ex Spreng. has not been reported by earlier workers from Rajasthan^{4,5}.

The present paper deals with distribution and taxonomic description of this species.

Observations

Taxonomical citation, detailed morphological description, phenological data of the species have been mentioned here for easy identification in the field and further reference. A short description of the plant is given below:

Hygrophila ringens (L.) R. Br. ex Spreng. Syst. Veg. 2: 828. 1825; Nicols. *et al*, Interpr. Hort. Malab.

39. 1988; *Ruellia ringens* L. Sp. Pl. 635. 1753; *R. erecta* Burm.f. Fl. Ind. 138, pl. 41, f. 3. 1784; *R. salicifolia* Vahl, Symb. 3: 84. 1794; *R. obovata* Roxb. ex Hornem, Suppl. Hort. Bot. Hafrin. 144. 1819; *R. quadrivalvis* Buch.-Ham. in Trans. Linn. Soc. Lond. 14: 219. 1824; *Hygrophila erecta* (Burm.f.) Hochr in Candollea 5: 230. 1934; *H. salicifolia* (Vahl) Nees in Wall. Pl. As. Rar. 3: 81. 1832; *H. obovata* (Rox. ex Hornem) Nees in Wall. Pl. As. Rar. 3: 81. 1832 et in Wight, Ic. t. 1489. 1849; Naik in Ind. For. 96 (6): 414. 1969; *H. quadrivalvis* (Buch.-Ham.) Nees in Wall. Pl. As. Rar. 3: 80. 1832; C.B. Clarke in Hook.f. Fl. Brit. India 4: 407. 1884; *H. angustifolia* T. Cook, Fl. Pres. Bombay 2: 354. 1804 [2: 430. 1958 (Repr.)] non R. Br. 1810.

An erect or ascending annual herb, up to 1.0 m high. Stems 4-angled, grooved, slightly pubescent. Petiole pubescent, up to 0.5-1.0 cm. Leaves- blade narrowly lanceolate to oblanceolate, 3-12 × 0.5-1.5 cm, both surfaces pubescent, base attenuate, decurrent on petiole, margin entire or slightly undulate, serrulate, acute to obtuse. Flowers- 2-12 clustered in leaf axils, sessile, purplish; Bracts ovate, margins and outer surface pubescent, inner surface glabrous; bracteoles narrowly ovate, 3-5 mm, margin and outer surface pubescent, apex obtuse. Calyx narrowly campanulate, ca. 11 mm, 5-lobed to middle; lobes linear-lanceolate, grayish pubescent or fulvous strigose, apex acuminate. Corolla purple, 1-2.5 cm; tube ca. 7 mm long, ca. 2 mm wide, glabrous; limb 2-lipped; lower lip obovate, ca. 3 mm, 3-lobed to middle, lobes ovate with an obtuse apex; upper lip elliptic, ca. 3 mm, shallowly 2-lobed, outside puberulent. Stamens 4, included; filaments base hairy and terminating glabrous, longer pair ca. 5 mm, shorter pair ca. 3 mm; anther thecae 1-2 mm. Ovary glabrous; style filiform, ca. 8 mm, included; stigma pubescent. Capsule narrowly oblong, 0.6-2.5 cm, glabrous, 12-24-seeded. Seeds ca. 2 mm, pubescent. (Plate 1a-o).

Flowering & fruiting : August - December.

Ecological notes : Rare along streams and wet places.

Distribution : India (Assam, Maharashtra) and Sri Lanka to South East Asia.

*Correspondent author

E-mail: kanhaiyameena211@yahoo.com

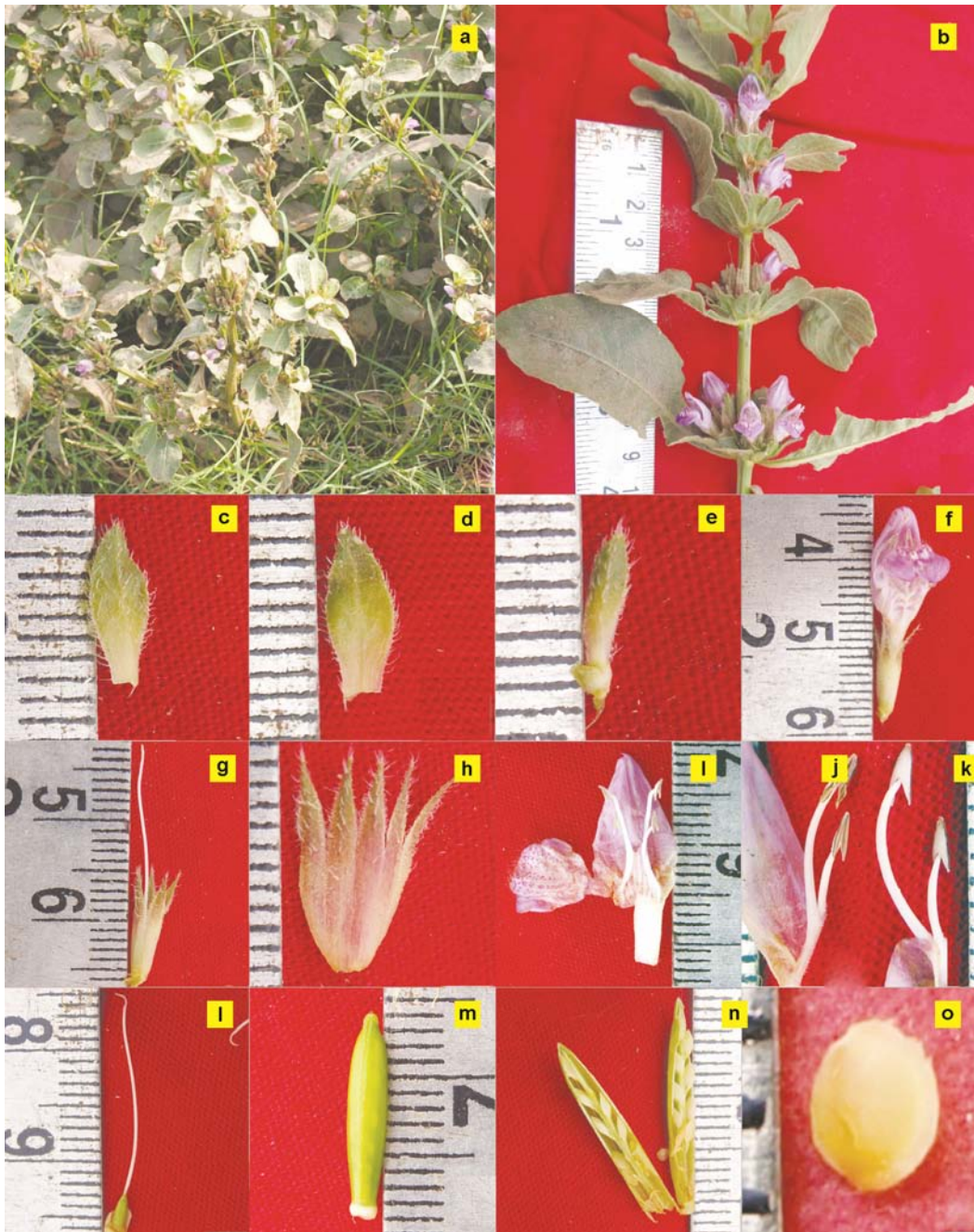


Plate 1-*Hygrophila ringens* (L.) R. Br. ex Spreng. (a) habitat, (b) Inflorescence, (c) Dorsal view of bracts, (d) Ventral view of bracts, (e) Dorsal view of bracteoles, (f) Flower, (g) Gynoecium and sepals, (h) Sepals, (i) Opened corolla showing stamens, (j) Stamens dehiscing pollens, (k) Dorsal view of stamens, (l) Gynoecium, (m) Capsule, (n) Opened capsule, (o) Seed

Specimens examined : India, Rajasthan, Bhilwara, Dr. S L Meena M-632 (MLVGCB Herbarium).

Key to the species

- 1a. Plants armed, calyx 4-partite ...*H. auriculata*
- 1b. Plants unarmed, calyx 5-partite ...2
- 2a. An erect herb, leaves large ...*H. ringens*
- 2b. Procumbent herbs, leaves small ...*H. serpyllum*

Acknowledgement

I am grateful to Dr. S L Meena, Scientist, BSI, Jodhpur and to Principal, Vice Principals and Head-Department of Botany, MLV Government College, Bhilwara for providing the facilities. Financial assistance received from UGC, New Delhi (F.30-1/2013 (SA-II) RA-2012-14-STRJ-88 dt. 20.12.2013) is gratefully acknowledged.

References

- 1 Khanna K K, Tripathi A K and Mudgal V, Acanthaceae, *In* Flora of Madhya Pradesh, Vol II, V Mudgal, K K Khanna and P K Hajra, Eds, BSI, Calcutta, 1997, 279-362 .
- 2 Samvatsar S, The Flora of western tribal Madhya Pradesh, Scientific publishers, Jodhpur, 1996, 219-232.
- 3 Pandey R P and Singh V, Acanthaceae (incl. Thunbergiaceae), in Flora of Rajasthan, Vol II, B V Shetty and V Singh, Eds, BSI, Calcutta, 1991, 626-675.
- 4 Bhandari M M, Flora of the Indian Desert, MPS Repros, Jodhpur, 1978, 1-435.
- 5 Sharma S and Tyagi B, Flora of North-East Rajasthan, Kalyani Publishers, New Delhi, 1979, 1-540.