

A NEW SPECIES OF *DUBYAEA* (ASTERACEAE) FROM THE BURMA/CHINA BORDER

S. K. MAMGAIN¹ & R. R. RAO²

A new species of *Dubyaea* (Asteraceae), *D. forrestii* Mamgain & R.R.Rao, from the Burma/China border is described, illustrated and compared with *D. atropurpurea*. The affinities of the new species to *Dubyaea atropurpurea* are discussed.

Keywords. Burma, *Dubyaea atropurpurea*, *Dubyaea forrestii*.

INTRODUCTION

During the course of a study of *Compositae* tribe *Lactuceae* specimens in the herbarium of the British Museum of Natural History, London, UK (BM), the senior author (S.K.M.) encountered an interesting specimen, *G. Forrest* 29660, collected from the N'Maikha–Salwin divide, northeast Burma (although possibly from just over the Chinese border in Yunnan), and labelled as *Lactuca macrantha* C.B. Clarke. However, after a critical examination and study of the specimen at LWG, the authors concluded that it is a new species of the Sino-Himalayan *Dubyaea* DC. The genus consists of up to 17 species (Stebbins, 1940; Ludlow, 1956; Shih, 1993, 1995, 1997) and is represented in India by *Dubyaea hispida* DC. *sensu lato* and both subspecies of *D. oligocephala* (Sch.Bip.) Stebbins, mostly in subalpine and alpine habitats.

The new species is allied to *Dubyaea atropurpurea* (Franch.) Stebbins in its general morphology but differs from the latter in the glabrous nature, size and shape of the leaves, which are more pinnatisect and distinct than in other species of *Dubyaea*, and in having much smaller capitula (heads), with 2–3 series of glabrous involucre bracts, much longer, glabrous, peduncles, and truncate achenes which are finely ribbed on both faces. The new species is described and illustrated here.

Dubyaea forrestii Mamgain & R.R.Rao, sp. nov. Fig. 1.

Herba perennis. Caulis 60–90 cm altus. Folia c.14–16.5 cm longa, subglabra, 5-vel 6-lobata, lobo terminali longo acuto. Capitula c.1.3–1.5 cm diametro, pedunculis c.7–10 cm longis, glabris. Achaenia c.5–6 mm longa, anguste rectangularia, compressa, costata, truncata. – Type: NE Burma [possibly actually from China, Yunnan Province], Flank of the N'Maikha–Salwin divide, lat. 26°30'N, alt. 11,000' [3700 m], vi 1931, *Forrest* 29660 (holo BM; iso E).

¹ Environment and Forests Division, Planning Commission, Government of India, Sansad Marg, Yojana Bhavan, New Delhi 110011, India. E-mail: skmamgain@rediffmail.com

² Central Institute of Medicinal and Aromatic Plants (CIMAP), Allalassandra, GKVK Post, Bangalore 560065, India.

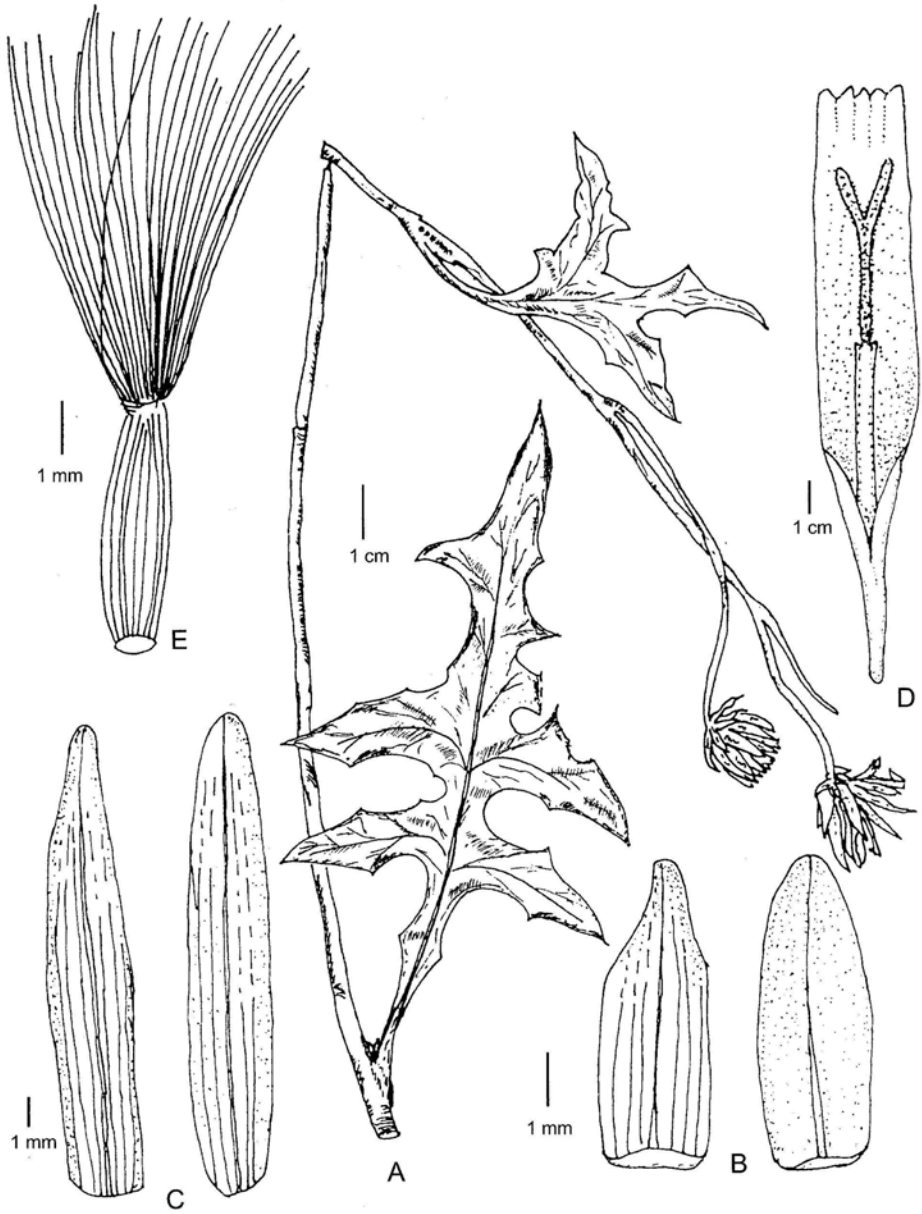


FIG. 1. *Dubyaea forrestii* Mamgain & R.R.Rao. A, habit; B, outer involucral bracts; C, inner bracts; D, corolla; E, achene with pappus.

Perennial. *Stems* 60–90 cm high, leafy throughout, striate, glabrous. *Leaves* c.14–16.5 cm long, 8.5–9.5 cm broad, mostly cauline, deeply pinnatisect, ovate in outline, with the largest lateral lobes in the lower half, 5–6-lobed with long terminal lobe, acute, subglabrous or glabrescent, green above, pale pruinose below, sparsely hairy

on veins beneath; petiole short, more or less broadened at base. *Heads* 3–4, terminal on long peduncles, cymosely arranged, c.1.3–1.5 cm across; peduncle c.7–10 cm long, apices crisped-puberulous; involucre nodding, narrowly campanulate, glabrous, bracts in 2–3 series; outer c.4–6 × 2.5–3 mm, ovate-lanceolate, glabrous with pale yellow margins; inner c.11–16 × 2–3 mm, glabrous, oblong-lanceolate or broadly lanceolate, yellowish at margins and dark at centre. *Ligules* 1.8–2.1 cm, c.4.5–5 mm broad, grey-blue; stigma bifid, stigmatic branches c.1.5–2 mm long, more slender, shorter than ligules; anthers c.5.2 mm. *Achenes* c.5–6 mm long, truncate across almost the full width, strongly compressed, 3 or more fine ribs on each face, yellowish. *Pappus* c.8–9 mm long, unequal, pluriseriate, bristly, forming a ring at apex of achenes, yellowish-white.

A duplicate of the type (at RBGE) was examined by the referee Mr L. S. Springate who commented that 'it consists of two shoots, one much folded with much of the stem concealed but apparently 2.1 m long (despite field note 2–3½ ft.) reaching down to upper rootstock and originally bearing five capitula (only four left *in-situ*) on long slender simple peduncles with few squamiform bracts. Only the top 30 cm of a second shoot is present, curved below (? from a decumbent stem) bearing nine capitula on shorter leafy axes that usually branch once towards the apex. Mature flowers and somewhat immature fruits are present'.

Distribution and ecology. Known only from the type collection, on rocky alpine slopes.

Notes. A letter dated 1 March 1961 from the Royal Botanic Garden Edinburgh to Mr Ludlow regarding the identity of the specimen (*G. Forrest* 29660) states thus: 'much narrower in the leaf and all together a finer plant than *Forrest* 27229, which Stebbins cited as a *Dubyaea atropurpurea* from the same locality. It would indeed be an interesting plant to find'. While critically reviewing the manuscript as a referee, Mr L. S. Springate states: 'I can see nothing in Shih (1993, 1995, 1997) that threatens the novelty of *D. forrestii* and believe it remains known only from the type collection'.

TABLE 1. A comparison of *Dubyaea forrestii* and *D. atropurpurea*

<i>Dubyaea forrestii</i>	<i>Dubyaea atropurpurea</i>
Stem glabrous	Stem glandular, hirsute
Cauline leaves broadly pinnatisect, subglabrous	Cauline leaves lyrate-pinnatifid, hirsute
Peduncles glabrous	Peduncles densely blackish hirsute
Involucres 13–15 mm long, narrowly campanulate, glabrous	Involucres 18–22 mm long, broadly campanulate, hirsute
Involucral bracts in 2–3 series, inner bracts 2–2.5 mm broad	Involucral bracts in several series, inner bracts 4–5 mm broad
Achenes oblong, compressed, proportionately greater width	Achenes oblong or fusiform, not compressed

Although the new species is quite distinct within *Dubyaea* it is perhaps closest to *Dubyaea atropurpurea*. A comparison of the two is given in Table 1.

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