FABACEAE

THE IDENTITY OF *MELOLOBIUM LAMPOLOBUM* (PAPILIONOIDEAE)

The genus *Melolobium* is currently being revised and a comprehensive survey of the literature and herbarium specimens has revealed a poorly known species that was recently re-collected. The species was listed by Bentham (1844) as a synonym of *M. collinum* Eckl. & Zeyh. and by Harvey (1862) as a variety of *M. microphyllum* Eckl. & Zeyh., but our studies have shown it to be distinct. The identity of the plant became quite apparent when the original material was discovered in the Paris Herbarium. One of Drège's types clearly shows the diagnostically different pods of the species. When E. Meyer (Feb.1836) described the genus *Sphingium*, it had already been described a month earlier as *Melolobium* by Ecklon & Zeyher (Jan.1836). In subsequent publications some of Meyer's names appear to have been overlooked.

There are two Drège's specimens in the Paris Herbarium. *Drège 6463* (Figure 15A) is a flowering specimen with no locality label, *Drège s.n.* (Figure 15B) is a fruiting specimen with the locality label 'Kendo' in

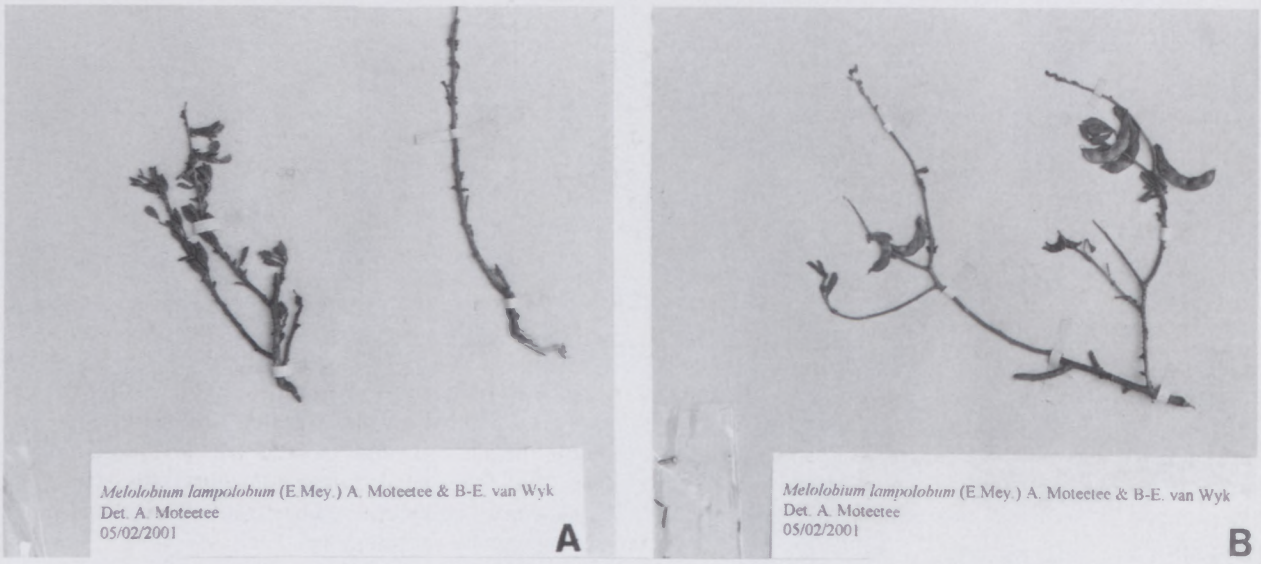

FIGURE 15.—Type specimens of *Melolobium lampolobum* in the Paris Herbarium. A, flowering specimen, *Drège 6463* (syntype); B, fruiting specimen *Drège s.n.* (lectotype).

Drège's handwriting. Because of the diagnostic importance of the fruit and the unambiguous type locality details, the latter is here chosen as lectotype.

Melolobium lampolobum (*E.Mey.*) *A.Moteetee & B-E.van Wyk*, comb. nov. Type: Western Cape, 3322 (Oudtshoorn): 'Kendo', (–BD), *Drège s.n.* (P!, specimen with pods, lectotype, here designated); *Drège 6463* (P!, specimen with flowers, syntype).

Sphingium lampolobum E.Mey.: 67 (Feb. 1836). *M. microphyllum* L. var. *lampolobum* (E.Mey.) Harv.: 79 (1862).

Woody, strongly spinescent shrublet up to 0.6 m high. *Leaves* stipulate; leaflets oblong to broadly obovate, (3–)5–9 × 2–4 mm, glabrous, apex somewhat mucronate to emarginate; petiole 2–5 mm long; stipules semi-cordate to auriculate, 1–4 × 1–2 mm. *Inflorescence* slender, terminal, 40–60 mm long, many-flowered raceme (10–16 flowers); flowers 7–10 mm long; bracts ovate-lanceolate, 2–3 × 0.5–1.0 mm; bracteoles narrowly ovate to lanceolate, 2–3 × 0.5–0.7 mm. *Calyx* shortly bilabiate, glandular with sessile glands, very sparsely hairy; upper lobes acute, 5–6 mm long, apices obtuse, upper sinus 2–3 mm deep; lower lobes acute, 6–7 mm long, apices obtuse, lower sinuses 0.2–1.0 mm deep. *Corolla* yellow; standard suborbicular, 6–8 × 4–5 mm, with well-developed, channelled claw, 2–3 mm long; wing petals oblong, sculptured, 7–8 × 2–3 mm, with linear claw 3–4 mm long; keel petals shortly half-oblong, apically rounded, 3–4 × 2–3 mm, with linear claw 3–4 mm long. *Androecium* monadelphous, split on its upper side, consisting of four long, basifixed anthers and six short, dorsifixed anthers (alternating with the carinal, intermediate one). *Gynoecium* narrowly oblong, 3.0–3.5 mm long, hairy, with 4 or 5 ovules; style curved, 3–4 mm long. *Fruit* broadly falcate, strongly compressed, 12–18 × 2–4 mm, without glands, almost glabrous, surface distinctly shiny, 2–4-seeded; seeds discoid, light brown, 2.3–2.5 mm diam. (side view). Figure 16.

Diagnostic characters: the shiny pod of the aptly named *M. lampolobum* is a very useful diagnostic feature. Unlike many other related species, the pods are devoid of both sessile and stalked glands. The glabrous, obcordate leaflets and general morphology indicate an affinity to *M. exudans* Harv., the only other species in the entire genus with glabrous leaves. *M. lampolobum* differs from the latter in the strongly spiny, curved branches (slightly spiny in *M. exudans*), pubescent stems (glabrous in *M. exudans*) and glabrescent pods (glandular and hairy in *M. exudans*). Because of its branching pattern and the rigid spines, this species can be confused with *M. candicans* (E. Mey.) Eckl. & Zeyh., from which it differs in the dark brown and pubescent branches (distinctly white-tomentose in most forms of the latter), larger leaves, falcate, shiny pods (straight and densely hairy in *M. candicans*) and longer inflorescences with more flowers.

Distribution and habitat: the known distribution of *M. lampolobum* is shown in Figure 17. It occurs at lower altitudes near Robertson and further northeast in the mountains of the Little Karoo in the southern part of Western Cape, extending from the western end of Anysberg along the Klein and Groot Swartberg Mountains as far east as Oudtshoorn. The plants grow in mountain karoo scrub and on rocky slopes, at altitudes of 900 to over 1 500 m.

Additional specimens examined

WESTERN CAPE.—3319 (Worcester): Vrolijkheid, Robertson, (–DD), *Van der Merwe 3001* (PRE). 3320 (Montagu): Karoo Garden, Whitehill, (–BA), *Compton 11213* (NBG); western end of Anysberg at Booplaas Farm, (–BC), *C.M. van Wyk 1080* (PRE); 16.6 km SSE of Laingsburg, (–BD), *B-E. van Wyk 2143, 2145* (JRAU). 3321 (Ladismith): Ladismith, (–AD), *Bayliss 2817* (NBG); Groot Swartberg, (–BD), *Marshall 234* (JRAU, PRE); Swartberg Mountains next to Gamkaskloof, (–BD), *Vlok 1489* (PRE); range N of Sandberg, (–DA), *Wurts 1393* (NBG).

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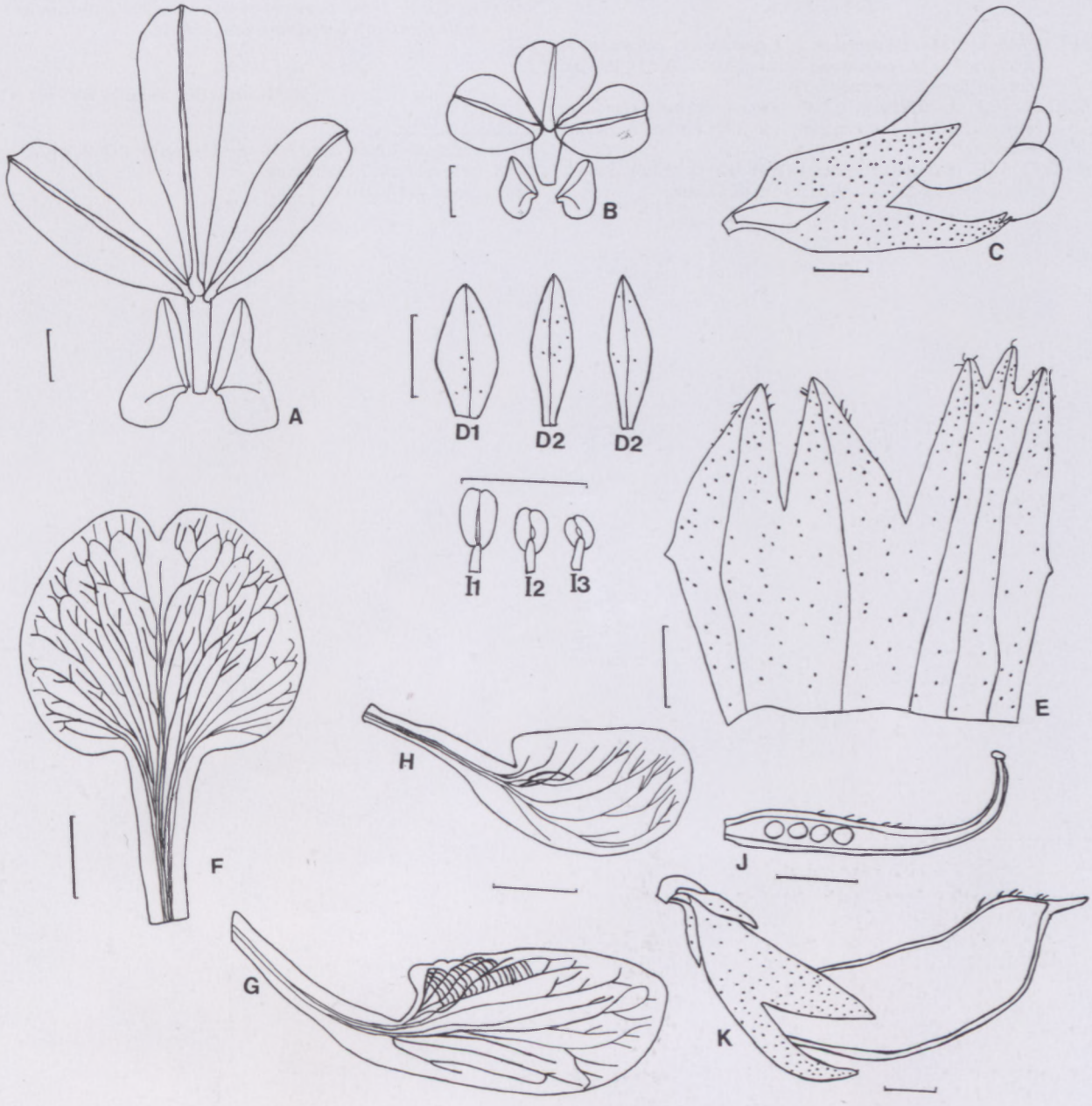

FIGURE 16.—*Melolobium lampolobum*. A, abaxial view of leaf with stipules; B, adaxial view of young leaf with stipules; C, lateral view of flower; D1, abaxial view of bract; D2 abaxial view of bracteoles; E, calyx opened out with upper lobes to left; F, standard petal; G, wing petal; H, keel petal; I1, long, basifixed anther; I2, carinal (intermediate) anther; I3, short, dorsifixed anther; J, pistil; K, lateral view of pod. Scale bars: A–K, 1 mm.

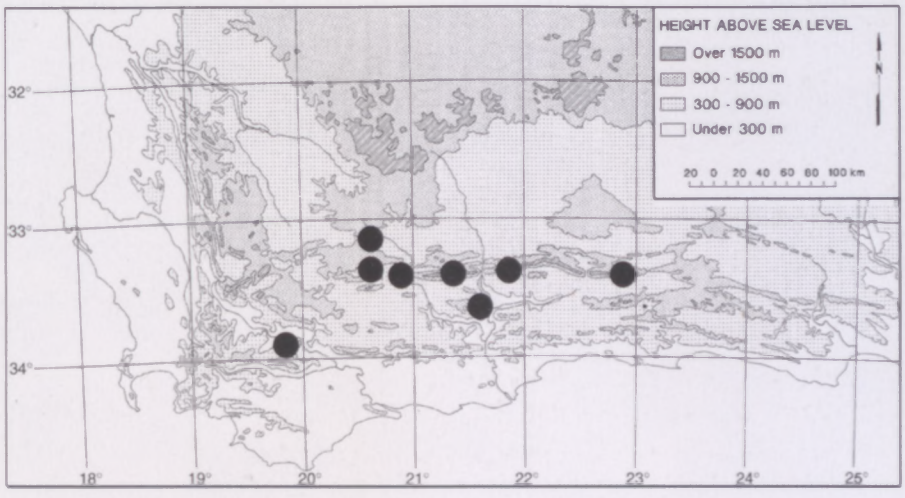

FIGURE 17.—The known distribution of *Melolobium lampolobum*.

REFERENCES

BENTHAM, G. 1844. Enumeration of Leguminosae, indigenous to southern Asia and central and southern Africa. In J.D. Hooker, *London Journal of Botany* 3: 350–353.

ECKLON, C.F. & ZEYHER, C.L.P. 1836. *Enumeratio plantarum Africae australis extratropicae*: 188–190. Perthes & Besser, Hamburg.

HARVEY, W.H. 1862. Leguminosae. In W.H. Harvey & O.W. Sonder, *Flora capensis* 2: 77–81. Hodges Smith, Dublin.

MEYER, E.H.F. 1836. *Commentariorum de plantis Africae australioris*: 65–67. Leopoldum Voss, Leipzig.

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