THYMELAEACEAE

THE TRUE IDENTITY OF SYNAPTOLEPSIS KIRKII

INTRODUCTION

Synaptolepis kirkii was originally described by Oliver (1870) in Hooker's *Icones Plantarum* 11, and the type locality of *Kirk* 37 given as Zanzibar. Subsequently, *S. oliveriana* was described by Gilg (1894a) from a specimen, *Monteiro 45*, collected in Delagoa Bay [Maputo] in Mozambique in 1876. In a second publication in the same year, Gilg (1894b) does not mention *S. oliveriana*, but the illustration of the flowers (fig. 81), represents *S. oliveriana*. Peterson (1959) in his revision of *Synaptolepis* in Mozambique recognizes *S. oliveriana* and refers to *S. kirkii* as occurring in Tanzania.

Peterson (1978) mentions under the distribution of *Synaptolepis kirkii*, that besides occurring in Kenya and Tanzania, it also occurs in Mozambique and South Africa (Natal). Bredenkamp & Beyers (2003) and Bredenkamp (2006) also mention *S. kirkii* occurring in South Africa. However, Peterson & Verdcourt (2006) bring clarity to this taxonomic confusion by stating that all the Mozambique material referred to in the above-mentioned publications, has proved to be *S. oliveriana*. *S. oliveriana* grows in sand forest or thicket on coastal dunes in sandy soil at low altitudes in the far northern parts of KwaZulu-Natal and Mozambique, mainly in the Maputaland Centre of Endemism (Van Wyk & Smith 2001). In Mozambique it occurs in Maputo, on the Inhaca and Bazaruto Islands, Xi-Xai and as far north as Quelimane, Pemba and Moçímboa da Praia, north of the Zambezi River.

A third species, *Synaptolepis alternifolia* Oliv. (including *S. longiflora* Gilg) occurs in Zimbabwe, Malawi, central and northern Mozambique and Tanzania. It differs mainly from *S. kirkii* and *S. oliveriana* by its terminal, 3–10-flowered cymose inflorescences. The first-mentioned species has inflorescences comprising axillary, solitary flowers or flowers in 2–4-flowered axillary fascicles. *Synaptolepis* therefore comprises five species on the African continent (two more in West Africa and Sudan) and one species in Madagascar (Herber 2003; Peterson & Verdcourt 2006; Mabberley 2008).

Therefore, *S. kirkii* is considered as a misapplied name in the FSA region and only occurs along the coast of Somalia (Thulin 2006), Kenya and Tanzania, including the island of Zanzibar.

DIAGNOSTIC CHARACTERS

Distinctive characters among members of the genus are the transversely elongated lenticels of older stems that become wart-like (Figure 5A) and the pedicels are sometimes glandular (Figure 5B). These characters are present in all three southern and tropical African species which are very closely related. However, the main morphological differences between *Synaptolepis kirkii*, *S. oliveriana* and *S. alternifolia* are given in Table 2 and a key is provided.

Key to species of *Synaptolepis*

1a Leaves usually shorter than 24 mm; South Africa and Mozambique ................................................. *S. oliveriana*

1b Leaves usually longer than 24 mm:

2a Inflorescences axillary, solitary or few-flowered fascicles; petals comprise lobed ring without hairs; Somalia, Kenya and Tanzania ................................................................. *S. kirkii*

2b Inflorescences terminal, 3–10-flowered cymes; petals comprise lobed ring with stiff white hairs; Zimbabwe, Malawi, Mozambique, Tanzania ................................................. *S. alternifolia*
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TAXONOMY

Specimens seen on the Aluka Library website, http://www.aluka.org/ are distinguished by the code e! in the citations. For flowers and fruits see Figure 5C, D.

Synaptolepis oliveriana Gilg in Botanische Jahrbücher 19: 276 (1894a); Gilg: 231, fig. 81 F-J (1894b); C.H.Wr.: 80 (1915); B.Peterson: 218 (1959); B.Peterson & Verde.: 87 (2006). Type: Mozambique, Delagoa Bay [Maputo], Monteiro 45 [B, holo.†; K, lecto. e!, designated by Peterson & Verdcourt (2006); P, isolecto. e!].

S. kirkii sensu C.H.Wright: 80 (1915) quoad Bolus 9762.

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Erect, straggling or scrambling shrub up to 1 m high or a woody climber up to 3 m, occasionally up to 5 m tall, much-branched; branches divaricate, longitudinal ribbed, brown or blackish, hairless, young branches sometimes glandular, covered with numerous rounded lenticels, becoming horizontally elongated, very prominent and wart-like on older stems (Figure 5A). Bark dark brown, rough, flaky, fibrous. Stipules lanceolate, 1.0–1.5 mm long; margin ciliate. Leaves simple, opposite or subopposite, leathery, dark glossy green above, paler below, hairless, bundles of fibrous vessels in blade visible when torn apart, especially along midrib; lamina elliptic or ovate, 8–20(–24) × 5–15(–17) mm, apex obtuse, acute or abruptly acuminate, base cuneate, rounded to truncate, margin entire, thickened; midrib sunken above, prominently raised below, with parallel lateral veins running straight into margin or disappearing before reaching margin, inconspicuous above, prominent below, reticulate venation obscure; petiole 1–2 mm long, transversely wrinkled and grooved above. Inflor-
esence axillary, of solitary or paired flowers; bracts with ciliate margins, 1–2 mm long. Flowers white, sweetly scented (Figure 5C); pedicels ± 3–4 mm long, often glandular (Figure 5B). Hypanthium funnel-shaped, 10–15 (–19) mm long, hairless on outer surface; lobes elliptic, 3.5–5.0 × 1.0–2.0 mm, apex obtuse, hairless. Petals forming a ring with membranous lobes, margin ciliate. Stamens 10, in 2 whorls in throat of calyx, included. Disc cup-shaped with small lobes, ± 0.5 mm long. Ovary ovoid, sessile, hairless. Fruit a drupe, oblong-ellipsoid, ± 12 × 10 mm, enclosed in persistent, ± fleshy base of hypanthium, yellowish to orange, turning blackish, smooth (Figure 5D).

Selected specimens examined

MOZAMBIQUE.—1140 (Moçimba da Praia): Cabo Delgado Prov., Moçimba da Praia, (-AD), Mendes 151 (PRE), 1340 (Pemba): Porto Amelia [Pemba], (-BA), Gerstner 2717 (PRE). 1737 (Quelimane): Zambézia, 20 miles [32 km] N of Quelimane, (-CA), Wild 5870 (PRE, SRGH), 2135 (Bazaruto Island): Bazaruto Island, (-CB), Gerstner 5068 (PRE); Ubombo Dist., Mpangazi, (-DA), Macedo & Balsinhas 1102 (PRE). 2532 (Maputo): Inhaca Island, (-BB), Gerstner 7171 (PRE, NH, PRE); Mbazwana Forest Reserve, Mobola veld, (-BC), Ross & Moll 1809 (PRE): Kosi Bay, at NW corner of Sifungo, (-DD), Ward 9502 (PRE), 9070 (PRE); Maputaland, Tembe-Nduma corridor, (-CD), Burrows 7015 (PRE); Rikatla, (-DC), Mogg 27211, 27624, 27645, 27692 (PRE).

KWAZULU-NATAL.—2632 (Bela Vista): Inhaca Island, (-BB), Mogg 27211, 27624, 27645, 27528, 27530 (PRE).

TABLE 2.—Main differences between Synaptolepis kirkii, S. oliveriana and S. alternifolia

<table>
<thead>
<tr>
<th>Species</th>
<th>Distribution</th>
<th>Habitat</th>
<th>Young branches</th>
<th>Leaves</th>
<th>Inflorescence</th>
<th>Pedicel</th>
<th>Pedicel length from 2nd bract to base of hypanthium</th>
<th>HYPANTHIUM</th>
<th>Petals</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. kirkii</td>
<td>Kenya, Somalia, Tanzania</td>
<td>Miombo woodland and riverine forest</td>
<td>Glandular, often with short, stiff hairs</td>
<td>Broadly ovate, usually longer than 24 mm</td>
<td>Axillary, solitary or few-flowered fascicles</td>
<td>Glandular</td>
<td>5–6 mm</td>
<td>Hairly or glabrous on outer surface</td>
<td>Glabrous on outer surface</td>
</tr>
<tr>
<td>S. oliveriana</td>
<td>Mozambique, South Africa (KwaZulu-Natal)</td>
<td>Sand forest, coastal dunes or thicket</td>
<td>Glabrous or glandular, rarely with short, stiff hairs</td>
<td>Elliptic to broadly elliptic, or ovate, usually shorter than 24 mm</td>
<td>Axillary, solitary or in pairs</td>
<td>Glabrous, often with few long white hairs</td>
<td>3.0–4.5 mm</td>
<td>Glabrous on outer surface</td>
<td>Glabrous on outer surface</td>
</tr>
<tr>
<td>S. alternifolia</td>
<td>Malawi, Mozambique, Tanzania, Zimbabwe</td>
<td>Miombo woodland, riverine and sand forest</td>
<td>Glabrous or often with few long white hairs</td>
<td>Elliptic, usually longer than 24 mm, sometimes shorter</td>
<td>Terminal, 3–10-flowered cymes</td>
<td>Usually glabrous, sometimes with few long white hairs, occasionally glandular</td>
<td>3.5–6.0 mm</td>
<td></td>
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</tr>
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REFERENCES


