The Thorn Pears

(Scolopia spp.)


The genus Scolopia was founded by Schreber in 1789, and the following year Loudon established the genus Phoberos for the same group of plants. It is under the latter name that the species are described in the "Flora Capensis." The genus is included by Bentham and Hooker under the natural order Bicincae, but Engler only includes the genus Bixa in this family and places Scolopia in the family Flacourtiaeae. Gilg in Engler's "Botanische Jahrbücher," vol. 40, p. 481, gives a list of the African species, and describes a new species from the Transvaal, viz. Scolopia Engleri. Sim ("Forests and Forest Flora," p. 126) recognized three South African species only, viz. S. Mundii, S. Zeyheri, and S. Flanaganii, and regards S. Ecklonii and E. Gerrardii as co-specific with S. Zeyheri. My examination of herbarium material has led me to recognize S. Zeyheri and S. Ecklonii as specifically distinct, and to regard S. Gerrardii and S. Engleri as varieties of S. Ecklonii. A very distinct species of the genus, collected at Barberton by Mr. G. Thorncroft, is described here.

The presence or absence of thorns is evidently not a constant character as Sim notes, as specimens sent in by Mr. A. O'Connor from the Woodbush Forest, Transvaal, are stated to be sometimes thorny and sometimes thornless. Though this may be the case, yet my examination of the genus does not confirm Sim's suggestion that S. Zeyheri and S. Ecklonii are the same species. Both the character of the leaves and the presence or absence of hairs on the inflorescence can be used to distinguish them. In herbarium material thorns were present on some specimens of S. Zeyheri, and it is only from information supplied by Mr. O'Connor that we can be certain of the presence of thorns in S. Ecklonii, as this character was not observed in any of the herbarium specimens. Mr. O. B. Miller, commenting on specimens collected by him in the Amanzamnyama and Buffalo Neck Forests, Mount Frere District, writes: "Yesterday I found a very large old 'red pear' with several sucker shoots growing from the stem at a height of 3 ft. 6 in. from ground-level. So far as I could see the rest of the tree was quite unarmed. It is the first time I have ever observed a thorned tree of this species, except in the seedling stage, when it is always armed. I have since seen another 'red pear' with armed suckers, and the native guard says they are fairly common in this district."

I have not seen authentic specimens of S. Engleri, but have examined Transvaal plants which agree with Gilg's description of this species. In some respects it appears to be an intermediate form between S. Zeyheri and S. Ecklonii, having the pubescent inflorescence of the former and the leaves of the latter, but the specimens are so similar to S. Ecklonii and the distribution limited to the bushveld that I prefer keeping it as a variety of this species. I have also decided to place S. Gerrardii as a variety of S. Ecklonii, as though while the specimens hitherto placed under the former species have a distinctive appearance owing to the size of the leaves, yet the examination of a large series of specimens of S. Ecklonii indicated that this species merges into S. Gerrardii.

I have to thank the Chief Conservator of Forests, Dr. Schönländ, the Directors of the Transvaal and South African Museums, for the loan of the material in their respective herbaria.
KEY TO SPECIES.

Inflorescence a dense cylindric spike about 1 cm. in diameter.......................... Thorncroftii.
Inflorescence a lax raceme.

Leaves small, usually about 2 cm. long and 1 cm. broad; fruit minutely pubescent
Leaves usually over 2 cm. long and 1 cm. broad; fruit glabrous.

Inflorescence pubescent.

Leaves usually ovate in outline................................. Zeyheri.
Leaves usually obovate or oblanceolate in outline (Transvaal species) Ecklonii, var. Engleri.

Inflorescence glabrous.

Leaves usually abruptly acuminate and distinctly serrated............ Mundii.
Leaves not abruptly acuminate, entire or sometimes remotely serrated........................... Ecklonii.

S. Thorncroftii, Phillips.

Arbor 6-7 mm. altus. Rami glabri. Folia 5-5-9-5 cm. longa, lanceolata vel obovata, aliquando subacuminata, apice obtusa, glabra. Inflorescentia densa, cylindrica, circa 1 cm. lata, pubescentia. Petala 1-25 mm. longa, linearia, apice acuta. Filamenta 6 mm. longa. Ovarium 1-5 mm. latum, globosum; stylus 2 mm. longus, apice pacillo bifidus.

Transvaal.—Barberton Div.: Barberton, 2900 ft., flowers white, Thorncroft 811, and in Natal Herbarium 14245.

Tree 20 ft. high. Branches glabrous, with the epidermis peeling off in membranous flakes. Leaves petioled; petioles 1-1.5 cm. long; lamina 4-5-8 cm. long, lanceolate or obovate, sometimes subacuminate, obtuse, entire, sometimes with wavy margins and with the veining distinct above and beneath, glabrous. Inflorescence in dense cylindric axillary spikes about 1 cm. in diameter. Axis pubescent. Flowers sessile. Sepals 1-5 mm. long, ovate, obtuse, ciliate, pubescent. Petals 1-25 mm. long, linear, acute. Glands 0-5 mm. long, arranged in a continuous row on the receptacle. Stamens numerous; filaments 6 mm. long, surrounded at the base with long hairs; anthers ovate in outline, somewhat apiculate. Ovary 1.5 mm. in diameter, globose; style 2 mm. long, subterete, faintly bilobed at the apex.

This is a very distinct species and easily recognized by the dense cylindric inflorescence.

S. Flanaganii (Sim, "Forest and Forest Flora," p. 127, Pl. 111.)

A small tree. Branches glabrous with raised lenticels. Leaves subsessile, 1-1.3 cm. long, 0.5-1.5 cm. broad, elliptic, rarely obovate, obtuse, sparsely serrated on the upper half, with distinct veining, glabrous. Flowers not seen. Fruit 0.5 mm. in diameter, subglobose, finely pubescent.—Xylosma Flanaganii, Bolus, in "Journ. Bot.," Jan., 1896.

Cape Province.—Kingwilliamstown Div.: Kingwilliamstown, Sim 2571, and in Natal Govt. Herb. 8616.

This species is easily distinguished from the rest of the genus by the sessile leaves and the pubescent fruits.

S. Zeyheri [Szyszy in Pl. Rehmann (1887), 19].

A thorny shrub 8-10 ft. high (ex Galpin). Youngest branches minutely pubescent or glabrous, sometimes armed with spines 1.5-17 cm. long. Leaves petioled; petioles 0.5-1.5 cm. long; lamina 1.3-7 cm. long (usually 2.5-4 cm. long), 1-5 cm. broad (usually 2-3 cm. broad), ovate, ovate-elliptic, elliptic, elliptic-lanceolate, or obovate, more rarely subrotund or obcordate, obtuse or rounded at the apex, more rarely subacuminate or retuse, rounded or cuneate at the base, with entire margins, more rarely subcrenate, with the veining distinct beneath, glabrous. Inflorescence an axillary raceme, 2.8-6.5 cm. long, usually lax, but sometimes more or less dense, though never broadly cylindric. Axis of inflorescence and pedicels finely but densely pubescent. Sepals 0.75-2 mm. long, 0.75-1.5 mm. broad, ovate, oblong, elliptic or suborbicular, obtuse or acute.
sometimes subacuminate, usually shortly ciliate, pubescent without. Petals when present 1 mm. long, 0.7-5 mm. broad, ovate. Glands 0.25-0.5 mm. long, arranged in a continuous row on the receptacle. Stamens numerous; filaments 1.5-3 mm. long, surrounded at the base by long hairs; anthers 0.5-1 mm. long, ovate, or suborbicular in outline. Ovary 0.3-1.25 mm. in diameter, globose or ellipsoid, glabrous; style 1.5-2 mm. long, subterete, faintly bilobed at the apex (sometimes each lobe again faintly lobed). Fruit (mature?) 5 mm. in diameter, globose, glabrous, tipped with the persistent style.—Sim, "Forest and Forest Flora," p. 126, pl. ii; Gilg in Engl. "Bot. Jahrb," 40, p. 481; Phoberos Zeyheri, Arn., "Flora Capensis," I, 68.


EAST GRIJNVALD.—Maclear Div.: In wooded kloofs, Pot River Berg, 5500 ft., Galpin 6830.


S. Mundii (Warb. in Engl. and Prantl. Pflanzenfam. iii, 6a, 29).

Branches glabrous. Leaves petioled; petioles 0.5-1 cm. long; lamina 1.5-7.5 cm. long, 0.7-4 cm. broad (usually 4-5 cm. long and about 2 cm. broad), abruptly acuminate, rarely not acuminate, acute or subacute, more rarely rounded or obtuse, cuneate at the base, with sharply serrated margins, veining distinct beneath, glabrous. Inflorescence a lax axillary raceme, 2-3 cm. long. Axis of inflorescence and pedicels quite glabrous. Sepals 1.5-2.5 mm. long, 1.5-2.5 mm. broad, ovate or subrotund, sometimes subacuminate, acute, obtuse or sometimes rounded at the apex, glabrous. Glands 0.5-1 mm. long, usually quadrate in outline, somewhat fleshy and arranged in a continuous row on the receptacle. Stamens numerous; filaments 3.5-5 mm. long, surrounded at the base with long hairs; anthers 0.75-1 mm. long, oblong, elliptic or orbicular in outline, usually apiculate at the apex. Ovary 1-3 mm. in diameter, globose or ellipsoid, glabrous; style 2.5-3 mm. long, subterete, divided at the apex into two short lobes, sometimes each lobe again faintly lobed. Fruit about 1 cm. in diameter, globose, glabrous.—Sim, "Forest and Forest Flora," p. 126, pl. i; Gilg in Engl. "Bot. Jahrb," 40, p. 481; Phoberos Mundtii, Arn., "Flora Capensis," I, 68.


TRANSKEI.—Tembuland, towards reservoir, near Cala, Rouffe 204; Pondoland, Engcobo Div.: Manina Forest, Zahn in Herb. Forest Dept. 2040; Amamzaminyama Forest, Mount Frere Dist., Miller in Herb. Forest Dept., 3208, 3223.


ZULULAND.—Qudeni Forest, 6000 ft., Davis 122, and in Natal Govt. Herb. 8897.

TRANSVAAL.—Ermelo Div.: Nooitgedacht, Pott 5097, and in Herb. Transvaal Mus. 14932.
S. Ecklonii [Szyszlo, Pl. Rehmann (1887)].

Branches glabrous with raised lenticels. Leaves petioled; petioles 0.5–1 cm. long; lamina 2.5–11 cm. long, 0.7–3.6 cm. broad, mostly elliptic-lanceolate, more rarely lanceolate, oblanceolate or obovate, rounded or obtuse at the apex, more rarely subacute, cuneate at the base, with entire margins, rarely with a few teeth, with distinct veining, glabrous. Inflorescence a lax axillary raceme. Axis and pedicels quite glabrous. Sepals 1–2 mm. long, 0.75–1 mm. broad, ovate or oblong, obtuse, acute, or subacute, labrous. Petals when present 1–1.5 mm. long, linear or oblong. Glands forming a rim on the receptacle. Stamens numerous; filaments 2–5 mm. long, surrounded at the base with long hairs; anthers oblong or ovate in outline. Ovary 1.5 mm. in diameter, subglobose; style 1.5–3 mm. long, faintly or distinctly 2–4-lobed at the apex. Fruit 4.5 mm. in diameter, globose.—Sim, "Forests and Forest Flora," p. 127; Gilg in Engl. "Bot. Jahrb.," 40, p. 481; Phoberos Ecklonii, Arn., "Flora Capensis," 1, 68.

Cape Province.—Uitenhage Div.: Van Staaden's Mountains, Zeyher 782. Albany Div.: In woods near Grahamstown, Macowan 1324.

Natal.—Near Tugela River, 500 ft., Wood 3951, and in Natal Govt. Herb. 4578.

Zululand.—Qudeni Forest, 6000 ft., Davis 99, and in Natal Govt. Herb. 8806; swamp, Umhlatuzi Forest, Ballenden in Herb. Forest Dept. 2559.


Leaves up to 8 cm. long and 5 cm. broad, with usually undulate margins and sometimes remotely serrated.—Seolopia Gerrardii, Harv., "Flora Capensis," II, 548.

Natal.—Westville, near Durban, 4000–5000 ft., Wood 8597, and in Natal Govt. Herb. 9320; Sydenham, 300–400 ft., Wood 11402.

Pondoland.—Engeobo Div.: Manina Forest, Zahn in Herb. Forest Dept. 2041.

Var. Engleri, Phillips.

Agrees with the type, but the inflorescence is slightly pubescent.—S. Engleri, Gilg in Engl. "Bot. Jahrb.," 40, 481.