

FLACOURTIACEAE

A NEW SPECIES OF DOVYALIS

Dovyalis revoluta Thom, sp. nov., foliorum forma et nervatura *D. zeyheri* similis sed praecipue lobis calycibus revolutis, baccis subrotundis papillois, seminibus lanatis differt.

Arbor vel frutex 5.4 m altus, saepe armatus, dioecius interdum floribus polygamis. *Folia* alterna, petiolata; lamina coriacea obovata, 1.5—5 cm longa, 1—3 cm lata, glabra, e basi triplinervia. *Flores* feminei solitarii, lobis calycibus revolutis, persistentibus. *Fructus* suborbiculatus, papillosus. *Semina* lanata.

Type: Natal. — 2832 (Mtubatuba): False Bay Park, *Moll 5112* (PRE, holo.).

Tree or shrub up to 5.4 m tall, deciduous; dioecious or rarely polygamous, often armed with glabrous spines up to 6 cm long, bark light grey to black, lenticellate. *Leaves* exstipulate, alternate, petiolate; blade coriaceous, obovate, 1.5—5 cm long, 1.3 cm broad, glabrous, 3-veined from the base; apex obtuse, base cuneate, margin light green, entire or faintly serrate; petiole 3—5 cm long, glabrous. *Male flowers* light green, pedicellate, in fascicles of 2—6; pedicels surrounded at the base by small hairy scales, 3—4 cm long. *Calyx* 4—5 lobed; lobes 3—5 mm long, ovate-elliptic, pubescent. *Corolla* 0. *Stamens* 15—25, 3 mm long; filaments surrounded at the base by glabrous nectaries which form a honeycomb structure; anthers bilocular, dehiscing by means of longitudinal slits. *Female flowers* yellow-green, pedicellate, solitary; pedicels surrounded at the base by small pubescent scale-like bracts, 4—7 mm long. *Calyx* 5—7 lobed; lobes 4 mm long, linear-elliptic, pubescent, revolute. *Ovary* unilocular, surrounded at the base by a glutinous, sparsely hairy, lobed annulus, with 2 parietal placentas, each placenta with one ovule; styles 2, channeled. *Fruit* a subglobose berry, 2 cm in diam., minutely papillose, orange when ripe. *Seeds* 2, embedded in fleshy pulp, 13 mm long, densely woolly.

Recorded from Zululand in sand forests.

NATAL. — 2732 (Mtubatuba): False Bay, *Edwards 3199*; *Gerstner 4735*; *Moll 2823*; *5112*; *Ward 4781*.

The *Dovyalis* species in South Africa can be divided into two distinct sections. *D. caffra* is the only representative of the one section and all the other species, including *D. revoluta*, form the other section. *D. caffra* is charac-

terised by: (1) the leaves being fascicled on cushion-like abbreviated shoots; (2) the ovary having 5—7 placentas, each placenta bearing two ovules; and (3) the fruit being 3—4 cm in diameter with many seeds. All the other species have the following characteristics: (1) the leaves are alternate, not fascicled; (2) the ovary has 2—3 placentas, each placenta bearing one ovule; and (3) the fruit is 0.6—2 cm in diameter with 1—3 seeds.

Although *D. revoluta* and *D. caffra* are placed in different sections, they have a character in common, namely, their suborbicular fruits, whereas the remaining species have oblong fruits.

D. revoluta and *D. lucida* are the only species in which the exocarp of the fruit is papillose. The exocarp in the other species is either glabrous or hairy. The leaves of these two species are, however, very distinct. *D. revoluta* has obovate leaves with an obtuse apex, while the tertiary veins are not as prominent as the primary and secondary veins. *D. lucida*, on the other hand, has rhomboid, acuminate leaves and the tertiary veins are as prominent as the primary and secondary veins.

The leaf shape and venation of *D. revoluta* and *D. zeyheri* are very similar and the two species might be confused in the vegetative state. *D. revoluta*, however, possesses one unique character which distinguishes it from all the other species: the calyx lobes of the female flower are revolute before and at the fruiting stage. In all the other species they are either erect or bent outwards, not revolute. The seed testa in *D. revoluta* is densely woolly while in all the other species the testa is glabrous or hairy.

Fruiting specimens of *D. revoluta* have been collected by various collectors near False Bay in Zululand over several years. It was only in October 1970 that Mr. Moll of the Botanical Research Institute, who is engaged on a botanical survey of the area, succeeded in finding male and female flowers.

A fruiting specimen, *Galpin* 8074, collected in 1911 near the Zwart Kei River in the Eastern Cape, may belong in *D. revoluta*, though the fruits are somewhat smaller. Further investigation is necessary to establish with certainty whether *D. revoluta* does in fact also occur in the Eastern Cape Province.