A new species of Aneilema (Commelinaeae) from South Africa

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ABSTRACT
A new species, Aneilema longirrhizum Faden, is described from Transvaal and is contrasted with its closest relative, A. hockii De Wild.

RÉSUMÉ
UNE ESPÈCE NOUVELLE D'ANEILEMA (COMMELINACEAE) D'AFRIQUE DU SUD
Une espèce nouvelle, Aneilema longirrhizum Faden, est décrite du Transvaal et contrastée avec le parent le plus près, A. hockii De Wild.

Aneilema is a primarily tropical African genus of about 60 species (Faden, 1975). Among them, eight occur in the Republic of South Africa, including A. aequinoctiale (P. Beauv.) Kunth (eastern Cape, Natal, Transvaal), A. hockii De Wild. (Transvaal), A. dregeanum Kunth (eastern Cape, Natal) and A. schlechteri K. Schum. (Natal, Transvaal). Aneilema zebrinum Chiov., placed in the genus Ballya by Brenan (1964), but a true Aneilema according to Faden (1975), was added to the South African flora in 1963 by Mr R. G. Strey, who found it in northern Natal, 2400 km (1500 miles) from its nearest locality in northern Tanzania. The following previously undescribed species, the sole Aneilema wholly confined to South Africa, plus two further undescribed species from Natal and Transvaal, which will be described elsewhere, complete the list of South African species.

Aneilema longirrhizum Faden, sp. nov. Herba perennis rhizomatosa. Folia laminis sessilibus, lineari-lanceolatis usque angustae lanceolato-ellipticas, 3-13 cm longas, 0,6-2 cm latis, marginis papillosa haud scabrida. Inflorescentia thyrsi ovoidi laxi 4-13(-18) cm longi 4-8(-13) cm lati cincinnis pro parte maxima alternis composita. Pedicelli fructiferi recurvati plurumque c. 270°. Flores basibus filamentorum discretae, filamentis staminum lateralibus undulatis, ovario loculis dorsalisibus 2(raro 1)-ovulatis. Capsulae 8-11 mm longae, 4-5 mm latae, apice rotundatae vel truncatae, loculis 2(-l)-seminalibus. Semina 3,4-4,2(-4,9) mm longa, 2-2,5 mm lata, testa dense albo-farinosa. Type.—Transvaal, Burgersfort—Pietersburg road, 3,4 km towards Pietersburg from crossing of the Olifants River, c. 150 m north of the road, 24°16'S, 29°46'E, 850 m, 24 February 1974, Faden & Faden 74/217 (K, holotype; B; BOL; BR; C; EA; F; FI; G; HBG; M; MO; NH; NU; P; PRE; S; SRGH; UPS; WAG).

Perennial, rhizomatous herb. Roots thick, fleshy, of uniform diameter, to 75 cm long. Shoots stiffly erect to ascending, to c. 75 cm tall. Leaves distichous or spirally arranged, sheaths 0,3-6 cm long, leaf-blades sessile, linear-lanceolate to narrowly lanceolate-elliptic, 3-13 cm long, 0,6-2 cm wide, apex acute to acuminate, margins papillosis, not scabrid, both surfaces lustrous, puberulous-scabrid. Inflorescence a terminal, lax, ovoid thyrs 4-13(-18) cm long, 4-8(-13) cm wide, with (6-8)-15(-24) mostly alternate, ascending cincinni; peduncle 3-8,5 cm long, puberulous; cincinnus bracts ovate to ovate-elliptic, 2-7 mm long; cincinni up to 7,5 cm long and 19-22 mm wide, cincinnus peduncles uniform in length within the inflorescence, 6-18 mm long, puberulous; bracteoles spaced 1,5-5,5 mm apart, eccentrically cup-shaped, perfoliate, 2-3 mm long, not evidently glandular, puberulous. Flowers perfect and staminate, fragrant, 13,5-18 mm wide; pedicels 6-7 mm long and erect to ascending in flower, to 9 mm long and recurved usually c. 270° in fruit, puberulous; sepals puberulous, entirely green or suffused with maroon, glandular subapically, medial 4-4,4 mm long, 2,6-3,4 mm wide, lateral 3,7-4,5 mm long, 2,4-3 mm wide; paired petals 7,5-10(-11,5) mm long, 6-8(-9) mm wide, limb ovate, pale lavender, apex slightly hooded, claw whitish, 2-3(-3,5) mm long; medial petal elliptic to ovate-elliptic or lanceolate-elliptic, 5,5-6,5,5(-7) mm long, 2,5-3,8 mm wide, slightly paler than the paired petal limb, glabrous; filaments free, glabrous; medial staminode with filament 2-2,5 mm long, antherode bilobed, lobes stipitate, ovate to subreniform or transverseely ellipsoid, stalks 0,3-0,6 mm long; lateral staminodes with filaments 4,2-6 mm long, antherodes bilobed, lobes stipitate, similar in shape and size to the medial antherode lobes, stalks 1-1,3 mm long; lateral stamens with filaments 8,5-9,5 mm long, undulate, anthers ovate to elliptic, 1,4-1,7 mm long, pollen dirty yellow; medial stamen with filament 6-6,5 mm long, anther ovate, saddle-shaped, 1,4-1,9 mm long, pollen yellow to orange-yellow; ovary sessile, oblong-elliptic, 2,5-3 mm long, 1,5-1,8 mm wide, green, densely covered with patent, glandular hairs except along the sutures where subglandular, apex rounded, ventral cell usually not developed, dorsal cells 2(rarely 1)-ovulate; style 8,5-12 mm long; stigma capitate. Capsules subsessile (within the sepals), oblong-elliptic, bivalved, bilocular, 8-11 mm long, 4-5 mm wide, lustrous, puberulous, apex rounded to truncate, locules 2(-l)-seeded, cells of the capsule wall transversely elongate. Seeds oblong-elliptic, 3,4-4,2(-4,9) mm long, 2-2,5 mm wide, testa scrobiculate, densely white-farinose in all the depressions and around the embotyga and hilum. Fig. 1.

Aneilema longirrhizum occurs in very dry habitats. At the type locality I have recorded it in level to gently sloping Blerpharis—Commiphora—Schmidtia bushland on red loamy soil with the dominant species being Commiphora pyracanthoides, Blerpharis subvolubilis, Euphorbia enormis and E. aeruginosa in the grassy areas. Mogg on the label of Mogg 1156 has recorded this species from "outcrops and residual soils of the Old Granite."

Aneilema longirrhizum—2429 (Zebediela): Maritsi's Drift (probably Malopo scenic)—(BB), c.760 m, 3 January 1939, Mogg 1156 (PRE); Olifants River—Molosat—(BC), 26 January 1931, Bremerkamp & Schweickerdt 404 (PRE); near Olifants River—(BD), Faden & Faden 74/217 (K, etc.).

A. longirrhizum is closely related to A. hockii De Wild. (cf. illustrations in Brenan, 1952, p. 191, and Van Druten, 1959, as A. aequinoctiale), which ranges...
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from South West Africa, Botswana and South Africa north to Uganda and Ethiopia. The flowers of the two species are particularly similar, with those of *A. hockii* differing in their larger size, striped sepals, differently shaped staminodes and fused stamen filament bases. *A. hockii* may further be distinguished by its usually non-rhizomatous habit, long hook-hairs (terminology of Tomlinson, 1966, 1969) on the leaf sheaths (in addition to short ones), scabrid leaf margins, mainly subopposite or subverticillate cincinni in the inflorescence, erect fruiting pedicels, and emarginate capsules with more numerous, smaller seeds which lack farinose granules. Despite these differences, there is no doubt about the affinites of *A. hockii* and *A. longirrhizum*, which have the same chromosome number (*2n* = 64 in South African and Zambian *A. hockii*, *2n* = c.64 in *A. longirrhizum*), which is otherwise unknown in the genus (Faden, 1975).

Superficially, *A. longirrhizum* resembles *A. brenanitum* Faden of southern Kenya and northern Tanzania and *A. obbiadense* Chiov. of Somalia. They differ in their scabrid leaf margins, usually more numerous cincinni in the inflorescences, erect fruiting pedicels (fruits unknown in *A. obbiadense*), and many floral characters. Their similarity to *A. longirrhizum* is probably more indicative of like adaptations to similarly dry habitats than of close evolutionary relationship.

UITTREKSEL

‘n Nuwe species, Aneilema *longirrhizum* Faden, word van die Transvaal beskryf en met *A. hockii* De Wild., die spesies naaste daaraan verwant, vergelyk.

REFERENCES


