

Wormskioldia lacerata Oberm., sp. nov., *W. longipedunculata* Mast., affinis sed foliis profunde laceratis echinulatis flavo-viridibus; caulibus sine setis purpureis differt.

Planta perennis tota dense echinulata. *Radix* lignescens crassa. *Caules* annui erecti vel ascendentes. *Folia* linearia ad 12 cm longa profunde lacerata lobis patentibus marginibus dentatis costa mediana inferiore juventute albo-pubescentia. *Racemus* demum folia longe superans; pedunculus erectus accrescens ad 20 cm longus. *Flores* majores ad 4 cm longi; petala rubro-aurantiaca (capucina). *Capsula* reflexa teretia ad 7 cm longa breve echinulata, rostrata.

TYPE: TRANSSVAAL, 2431 (Acornhoek): Newington (-CD), *Rogers 22578* (PRE, holo.).

Chamaephyte with a long, strong, thick, woody tap-root, soboliferous, the annual, erect or ascending, densely leafy stems up to about 30 cm long; plant echinulate all over, the patent sclerotic setae up to 3 mm long, not swollen below. *Leaves* pale green, linear-lacerate, up to 12 cm long, 2-3, 5 cm broad, the narrow patent lobes unequal in size and shape, up to c. 2 cm long, diminishing in size towards the acuminate apex, margin dentate, the teeth with a scabrid tip, the wide midrib setiferous below and, at least when young, covered with a white, curly pubescence which may also extend to the side nerves and margin. *Inflorescence* erect in upper leaf axils, 1-4-flowered, the buds close together; the rhachis at first bent to one side, lengthening during anthesis and straightening in fruit, the raceme with the reflexed capsules then much overtopping leaves. *Flowers* developing one at a time, opening in the morning, closing at night, on short, erect pedicels which reflex in fruit, bracts minute. *Calyx-tube* narrowly tubular, c. 12 mm long, the lobes short, acute, erect, echinulate and sparsely pubescent. *Corolla* rotate, with broadly obovate

orange-red petals narrowed into a claw below, which is adnate to the calyx-tube above and fused to it below, where the tube is woolly-pubescent around the ovary; the claw bears a minute ligule or pustule just above the fused area. *Stamens* 5, equal or with 2 shorter, anthers just exerted from mouth of corolla. *Ovary* terete, densely pubescent with erect hairs, styles 3, just overtopping the stamens, stigmas apical, small, minutely multipartite. *Capsule* reflexed, silique-like, terete, up to 7 cm long, echinulate, rostrate, many-seeded; seeds straight, oblong-terete, 4 mm long, reticulate, pale yellow, aril about half as long as seed, unilateral. FIG. 9.

Recorded from the eastern Transvaal Lowveld in open spaces or in disturbed areas.

TRANSSVAAL.—2330 (Tzaneen): Hans Merensky Nature Reserve (-DA), *Oates 77*; 5 km S. of Gravelotte (-DC), *Leach 11559*; *Werdermann & Oberdieck 1922*. 2430 (Pilgrims Rest): 10 km from Mica on the road to Hoedspruit (-BB), *Ihlenfeldt 2313*; 16 km from Mariepkop on the road to Klaserie, (-DB), *Coetzer 151*. 2431 (Acornhoek): Klaserie (-CA), *Killick & Strey 2511*; Newington (-CD), *Rogers 22578* (PRE, holo.); *Buitendag 909*; Skukuza (-DC), *Cholmondeley s.n.* 2531 (Komatipoort): Pretoriuskop (-AB), *Van der Schijff 1075, 1217, Codd & Winter 4918*; Malelane (-BC), *Lang sub TRV 31644*; De Kaap Valley (-CB), *Thorncroft 54*; Barberton (-CC), *Galpin 747*.

SWAZILAND.—2531 (Komatipoort): Tshaneni, near Sand River reservoir (-DC), *Edwards 213*.

This species was incorrectly identified as *Wormskioldia schinzii* Urb., (e.g. Burt Davy, Fl. Transv. 1: 119, 1926) which is a western species based on a plant collected by Newton in Angola. Urban in his original description erroneously placed Newton's locality (Gambos, Caculovar River) in Mozambique. *W. juttiae* Dinter & Urban may prove to be a subspecies of *W. schinzii*, as suggested by Schreiber in the Prodrum of S.W. Africa, 88: 4 (1968). *W. lacerata* is confined to the Lowveld of the eastern Transvaal



FIG. 9.—*Wormskioldia lacerata* Oberm. (Rogers 22578, holotype, in PRE).

(with one record from northern Swaziland). It can be distinguished from the western *W. schinzii* by the long, echinulate setae (c. 2 mm long), the lacerated leaves and the long capsules. In *W. schinzii* the plants are scabrid and glandular-pubescent with the short setae swollen below; the leaves are coarsely, doubly serrate and the capsules about 3 cm long.

W. lacerata is closely related to *W. longipedunculata*, but apart from a more southern, fairly restricted distribution, it is readily distinguished by its lacerate, more yellow-green (not glaucous) leaves and its coarse, echinulate pubescence present on stem, leaves, peduncle, calyx and capsule. However, the long, red to purplish setae found on the stems of *W. longipedunculata* are absent.



FIG. 10.—*Turnera oculata* Story var. *paucipilosa* Oberm. (Giess 9377, holotype, in PRE).

These perennial species with their deep, strong root systems and soboliferous habit are not easily eradicated from ploughed lands and road verges and may persist in these surroundings for many years, the bright orange-red flowers attracting attention. *W. lacerata* appears to possess the largest flowers of the seven species found in southern Africa. Unfortunately little is known about the suspected heterostyly in the genus. Field observations on stamen- and style-lengthening are needed to throw light on this phenomenon*.

Turnera oculata Story var. *paucipilosa* Oberm., var. nov., a var. typica planta pauce pilosa dentibus foliis profunde serratis bracteis 1,5–2 cm longis differt.

TYPE: South West Africa, 1713 (Swartbooisdrift): 32 km W. of Etengua near Otjitanda (—AC), Giess 9377 (PRE, holo.; WIND).

* In February 1974 Mr J. P. Nel, of the National Botanic Garden, Nelspruit, collected a number of flowers of *Wormskioldia lacerata* at the Lekasi Township, 24 km E. of Nelspruit (2531 CC, Komatipoort). From these it could be established that heterostyly does occur for in some the styles were exerted above the stamens, in others they were shorter than the stamens, reaching only about halfway. In the long styled flowers the styles were 9 mm long, the stamens 4 mm. In flowers with short styles these were 4 mm long and the stamens 8 mm.

Shrublets 30–60 cm high, with a sparse, stellate, appressed pubescence and white, simple strigose hairs on younger parts and leaf-veins, the epidermis clearly visible (in the typical variety it is hidden by the dense pubescence). Leaves glaucous, variable, ovate to obovate, up to 3 cm long, acute to obtuse, margin coarsely serrate. Bracts linear c. 1,5–2 cm long. Flowers similar to the typical variety. Capsules unknown.

SOUTH WEST AFRICA.—1712 (Posto Velho): Otjinungua, 12 km S. of Kunene River (—AB), De Winter & Leistner 5751. 1713 (Swartbooisdrift): 32 km W. of Etengua near Otjitanda (—AC), Giess 9377 (PRE, holo.; WIND); 8 km W. of Otjitanda (—AC), Kotze 118.

This taxon is mentioned in the Prodrum Flora of South West Africa 88: 3 (1968) by Schreiber, but no decision was reached about its status. The three collections mentioned above come from three different localities, close to one another and close to localities where the typical variety occurs. In the material available the two taxa can be easily distinguished. A study of the South African representatives of this family (Turneraceae) gives one the impression that the species have become well stabilized and this, I believe, supports the recognition of this taxon as a variety. When more material and results of research become available, its status can be reviewed.

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