

Notes on African plants

VARIOUS AUTHORS

ACANTHACEAE

SIPHONOGLOSSA AND AULOJUSTICIA IN SOUTHERN AFRICA

The genera *Siphonoglossa* Oerst. and *Aulojusticia* Lindau were recently revised for the southern African region. As a result it is necessary to describe a new species and make two new combinations. *Aulojusticia* is sunk under *Siphonoglossa* which is now represented in southern Africa by three species which are keyed out below. It should be noted that corolla lengths are measured from the base of the tube to the apex of the upper lip throughout.

Key to species

- 1a Corolla (35–)40–58 mm long; leaves 2–6 mm broad; restricted to Barberton area 3. *S. linifolia*
- 1b Corolla 13–35(–45) mm long; leaves usually broader than 6 mm; Natal, Transkei, eastern and southern Cape:
 - 2a Corolla 34–45 mm long, lower lip 0,5–0,6 times as long as tube 2. *S. nkandlaensis*
 - 2b Corolla 13–31 mm long, lower lip 0,2–1,2 times as long as tube 1. *S. leptantha*

1. *Siphonoglossa leptantha* (Nees) Immelman, comb. nov. Type: Cape, 3326 (Grahamstown): Uitenhage, Olifantshoek, by Boesmans River (–C or –D), Ecklon s.n. (S, lecto.!).

Gendarussa leptantha Nees in Linnaea 15: 372 (1841). *Adhatoda leptantha* (Nees) Nees: 390 (1847). *Justicia leptantha* (Nees) Lindau: 349 (1893).

Two subspecies are recognized:

- Corolla 13–22 mm long, lower lip (0,3–)0,6–1,2 times as long as the tube, tube 1,5–2 mm in diameter; Knysna-Tsitsikamma area, rarely as far east as Grahamstown 1b. *S. leptantha* subsp. *late-ovata*
- Corolla 15–31 mm long, lower lip 0,2–0,5 times as long as the tube, tube 0,5–1,5 mm in diameter; from Grahamstown through the Transkei to Ngoye Forest (Natal) 1a. *S. leptantha* subsp. *leptantha*

1a. subsp. *leptantha*

Adhatoda tubulosa Nees: 392 (1847). *Justicia tubulosa* (Nees) T. Anders.: 41 (1864). *Siphonoglossa tubulosa* (Nees) Benth. ex Lindau: 38 (1893); Benth. in Benth. & Hook. f.: 1110 (1896); Clarke in Thiselton-Dyer: 74 (1901). Syntypes: Natal, 3129 (Port St Johns): Umzimvubu, 500 ft. (–CB), *Drège s.n.* (G–DC, microfiche in PRE!); S. Africa (Olifantshoek?), Ecklon & Zeyher s.n. (MEL!).

Siphonoglossa nummularia S. Moore: 40 (1880); C.B. Cl. in Thiselton-Dyer: 75 (1901). Type: Cape, 3227 (Stutterheim): Keiskamma Hoek (–CA), Cooper 370 (not found).

1b. subsp. *late-ovata* (C.B. Cl.) Immelman, comb. nov. Types: Cape, 3325 (Port Elizabeth): on the rocks of Swartwaterpoort (–BB), Burchell 3405 (K, lecto.!, here designated); Burchell 3364 (K!).

Justicia pulegioides subsp. *late-ovata* C.B. Cl. in Thiselton-Dyer, Fl. Cap. 5,1: 62 (1901).

In the length of the corolla tube this subspecies resembles *Justicia*, but it has the pollen and non-recurving stamens of *Siphonoglossa* (Table 1).

2. *Siphonoglossa nkandlaensis* Immelman, sp. nov., *S. leptantha* subsp. *leptantha* affinis, sed floribus longioribus distributioque differt.

Herba perennis; rami costati, nodis incrassatis. *Folia* lanceolata vel ovata, 33–44 × 15–20 mm, venae paginae inferae et margo pilis indutae, apex extensus obtusus, basis cuneata; petioli graciles, 6–17 mm longi, hirsuti. *Inflorescentiae* cymis remotis axillaribus compositae. *Bractea* foliis similes sed minores. *Calyx* lobis anguste lanceolatis acuminatis hirsutis. *Corolla* (tubus et labium superum) 34–45 mm longa, purpurea vel flavovirens, labium inferum 0,6–0,6-plo longitudo tubi; stigma bilobatum. *Antherae* thecis elongatis angustatis, ad altitudines dissimiles insertis, uterque breve mucronatis; pollen bicolporatum, lenticulare, exino reticulato, area laevi utrinque colpi areolis elevatis triseriatis. *Capsulam* non vidi.

TYPE. — Natal, 2831 (Nkandla): Nkandla (–CD), Wood 9000 (NH, holo.!).

Perennial herb, branches ribbed, swollen at nodes. *Leaves* lanceolate to ovate, 33–44 × 15–20 mm, hairs present along veins of undersurface and on margin, apex drawn out into a long blunt tip, base cuneate; petiole slender, 6–17 mm long, hirsute. *Inflorescence* of axillary cymes. *Bracts* similar to leaves but smaller. *Calyx* lobes narrowly lanceolate, acuminate, hirsute. *Corolla* 34–45 mm long (tube and upper lip), purple or yellow-green, lower lip 0,5–0,6 times as long as the tube; stigma bilobed. *Anther* thecae elongate, narrow, inserted at different

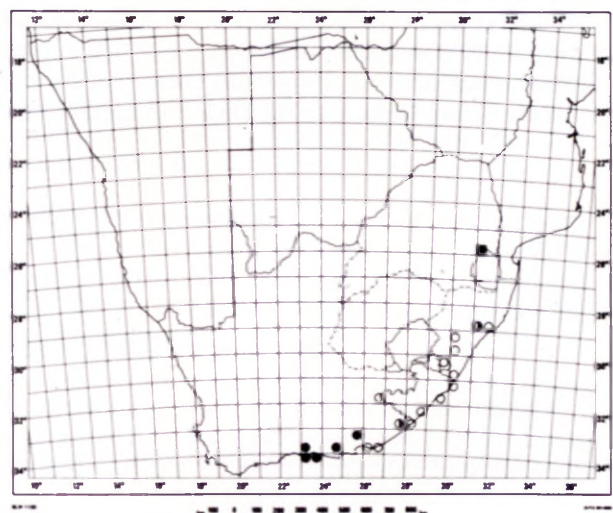


FIGURE 1.—Distribution of *Siphonoglossa* spp. in South Africa: *S. leptantha* subsp. *leptantha*, ○; *S. leptantha* subsp. *late-ovata*, ●; *S. nkandlaensis*, ▴; *S. linifolia*, ■.

TABLE 1.—Comparison of *Siphonoglossa linifolia* with other *Siphonoglossa* spp. and *Justicia* spp.

<i>S. linifolia</i>	<i>Siphonoglossa</i> (all other spp.)	<i>Justicia</i> (all spp.)
1. lower theca tailed	both thecae mucronate	lower theca tailed
2. pollen with 2–3 rows areoles	pollen with 2–3 rows areoles	pollen with 1–2 rows areoles
3. corolla tube long and narrow	corolla tube usually long and narrow	corolla tube usually short and broad
4. stamens not recurving with age	stamens not recurving with age	stamens recurving with age

heights, both shortly mucronate; pollen 2-colporate, lenticular, exine reticulate with the smooth area on either side of the colpi studded with 3 rows of raised areoles. *Capsule* not seen.

Five specimens of this species have been seen, two from the eastern Cape and three from Zululand (Figure 1). This distribution is similar to that of a species of the closely-related genus *Justicia* L., *J. capensis* Thunb., which also occurs in Zululand and the eastern Cape, but has never been recorded in the intervening areas of southern Natal and the Transkei. *S. nkandlaensis* is found associated with forest, either on its margin or along forest paths.

NATAL.—2831 (Nkandla): Nkandla Forest Reserve, in grassveld next to forest (–CA), *Venter* 3486 (PRE); Nkandla, forest path (–CA), (in high forest near road, just before turnoff to Nkandla Forest Station—fide Wells pers. comm.), *Wells* 2495 (PRE).

CAPE.—3227 (Stutterheim): Kei Bridge (–DB), *Schonland* s.n. (GRA); Komgha (–DB), *Flanagan* 675 (GRA).

The very long flowers and the length of the lower lip relative to the tube distinguish this species from *S. leptantha* subsp. *leptantha*. The flowers are most similar to *S. linifolia* which, however, is quite different vegetatively, as well as in habitat and distribution.

3. *Siphonoglossa linifolia* (Lindau) C.B. Cl. in Thiselton-Dyer, *Flora capensis* 5,1: 75 (1901). Type: Transvaal, 2531 (Komatiport): Barberton, Saddleback Mountain, 1 300–1 700 m (–CC), *Galpin* 825 (B†; PRE, lecto.!, here designated).

Aulojusticia linifolia Lindau: 325 (1897); Lindau: 209 (1908).

Siphonoglossa linifolia, when originally described, had been placed in a monospecific genus, *Aulojusticia* Lindau. C.B. Clarke later removed the species to *Siphonoglossa*. After careful examination of the specimens in the major South African herbaria, the present author has decided to follow Clarke because no significant differences were

noted in the pubescence of the corolla, in the stigma or in the pollen, all of which have at various times been used to distinguish the genera.

In some respects, e.g. leaves, habit, habitat and anthers, *Siphonoglossa linifolia* resembles *Justicia* rather than *Siphonoglossa*. However, the differences in leaves and habit are probably an adaptation to its more exposed habitat, and it was decided that *S. linifolia* would be better placed in *Siphonoglossa*. The similarities and differences considered significant are tabulated in Table 1.

This note is based on a thesis presented for the degree of Ph.D. at the University of Natal, Pietermaritzburg.

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