

# The South African species of *Teucrium* (Lamiaceae)

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## ABSTRACT

While writing up the three South African species of *Teucrium* for the Flora of Southern Africa it became necessary to replace two well-known names as follows: *T. trifidum* Retz. (1779) (= *T. capense* Thunb., 1800) and *T. kraussii* Codd (= *T. riparium* Hochst., 1845, non Rafin., 1838).

## RESUME

### LES ESPECES SUD-AFRICAINES DE TEUCRIUM (LAMIACEAE)

En étudiant les trois espèces sud-africaines de *Teucrium* pour inclusion dans la Flore d'Afrique australe, il s'est avéré nécessaire de remplacer comme suit deux noms largement connus: *T. trifidum* Retz. (1779) (= *T. capense* Thunb., 1800) et *T. kraussii* Codd (= *T. riparium* Hochst., 1845, non Rafin., 1838).

*Teucrium* is a large genus of perhaps 300 species widely distributed over the temperate and warmer regions of the world, chiefly in the northern hemisphere, but with a few species in Australia, South America and Africa, mainly on the mountains of north-east tropical Africa and into South Africa. Three species are recognized in South Africa and, because the small white flowers are very similar and provide no diagnostic characters, the species are distinguished on vegetative and inflorescence characters. As may be expected, misidentifications have occurred in herbaria, resulting in misconceptions regarding distribution.

Considering the fact that the names commonly applied to these three species have been in use for

well over a century, it came as a surprise to find that two name changes were required: (1) *T. trifidum* Retz. (1779) must replace *T. capense* Thunb.; and (2) *T. riparium* Hochst. (1845) is a later homonym of *T. riparium* Rafin. (1838), an American species, and is replaced by a new name, *T. kraussii* Codd.

All three species are used medicinally for stomach disorders and haemorrhoids, as well as for treating snake-bite, while meat suspected of being infested with anthrax is boiled with the plant to render it harmless to eat. Common names such as Aambeibossie and Maagbossie refer to these properties, while Paddaklou and Akkedispoot refer to the variously lobed leaves.

## Key to species

- Peduncles usually 1-flowered (rarely 3-flowered) and much shorter than the internodes; shrub-lets 10-30 cm tall; leaves narrowly 3-fid, 0,5-2,5 cm long.....1. *T. africanum*
- Peduncles 3-7-flowered, often as long as or longer than the internodes; soft shrubs 30-110 cm tall; leaves 3-5-fid or -lobed, or subentire with a few teeth towards the apex, 2-6 cm long:
  - Leaves more or less 3-5-fid or -lobed, if subentire then drying greyish.....2. *T. trifidum*
  - Leaves entire or few-toothed towards the apex, usually drying dark brown.....3. *T. kraussii*

1. *Teucrium africanum* Thunb., Prodr. 2: 95 (1800); Fl. Cap. ed Schult. 445 (1823); Benth., Lab. 669 (1835); in E. Mey., Comm. 243 (1837); in DC., Prodr. 12: 577 (1848); Skan in Fl. Cap. 5, 1: 384 (1910). Type: Cape, without locality, *Thunberg* s.n. (UPS, holo.).

*Ajuga africana* (Thunb.) Pers., Syn. Pl. 2: 109 (1807).

Greyish, bushy shrublet 10-25 (-30) cm tall, branching freely from the base; stems erect to decumbent, simple or sparingly branched, rather densely leafy, greyish glandular-tomentose. *Leaves* 3-fid, 0,8-3 cm long, grey-green; lobes linear to linear-oblong, 0,5-2,5 cm long, 1-3 mm broad, occasionally the median lobe again 3-fid; basal portion of leaf narrow, up to 3 mm broad. *Inflorescence* simple, occupying the upper third of half of the stem; flowers solitary or rarely 2 or 3 per peduncle; peduncles 3-8 mm long, usually distinctly shorter than the internodes.

Found under fairly arid conditions in macchia, karoo, coastal or thorn scrub from Bredasdorp to near Grahamstown and, inland, to Middelburg and Graaff Reinet.

May be separated from the next species, *T. trifidum*, by its smaller stature, rarely exceeding 30 cm tall, and the usually solitary flowers on short peduncles.

Benth., Lab. 670 (1835) and in DC., Prodr. 12: 577 (1848) placed *T. trifidum* Retz. (1779) as being possibly conspecific, while Skan in Fl. Cap. 5, 1: 384 (1910) added *T. trifidum* Wendl. (1798) with a question mark. These names are discussed under the next species.

2. *Teucrium trifidum* Retz., Obs. 1: 21 (1779). Type: Cape, without locality, right-hand specimen on sheet in Hb. Retzius (LD, lecto.).

*T. trifidum* Wendl., Bot. Beobacht. 50 (1798); nom. illegit. Type: not indicated. *T. capense* Thunb., Prodr. 95 (1800); Fl. Cap. ed Schult. 445 (1823); Benth., Lab. 667 (1835); in E. Mey., Comm. 243 (1837); in DC., Prodr. 12: 577 (1848); Skan in Fl. Cap. 5, 1: 385 (1910); Wilman, Checklist Griq. W. 231 (1946); Jacot-Guill., Fl. Lesotho 236 (1971); Ross, Fl. Natal 302 (1972). Type: Cape, near "Zeekoerivier" (Humansdorp district), *Thunberg* s.n. (UPS, holo.). *T. africanum* sensu Wilman, l.c. (1946).

*Ajuga capensis* Pers., Syn. Pl. 2: 109 (1807).

An erect soft undershrub 30-110 cm tall, branching freely from the base; stems virgate, branching freely in the upper half or third, woody below, herbaceous above, thinly and shortly greyish tomentose. *Leaves* usually deeply 3-fid or 3-5-partite, rarely almost entire or shortly toothed towards the apex, 2-6 cm long, drying greyish-green to grey-brown, thinly tomentose to almost canescent; lobes linear to lanceolate, 1-3,5 cm long, 3-8 mm broad, often again shortly lobed or toothed; basal portion of leaf 3-8 mm broad. *Inflorescence* a leafy panicle occupying the

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FIG. 1.—Type of *Teucrium trifidum* in the Retzius Herbarium, LD (right-hand specimens selected as the lectotype).

upper third of the stem; flowers usually in 3–7-flowered pedunculate cymes, rarely solitary; peduncles 5–20 (25) mm long, usually longer than the internodes.

Common in the central and south-western Transvaal, apparently not extending beyond the Soutpansberg, but extending westwards to the northern Cape Province and just entering Botswana, southwards to northern Natal, central Orange Free State and eastern Cape Province, reaching its south-westerly limit about Humansdorp. Characteristically found in dry woodland where it is often gregarious under thorn trees or in bush groups, particularly on overgrazed or disturbed places.

The leaves of *S. trifidum* vary considerably from lanceolate and almost entire to deeply 3–5-partite. It overlaps with *T. africanum* in the southern Cape from about Grahamstown inland to Queenstown and occasional specimens, from the latter area particularly, may be difficult to place with certainty. *T. africanum* can usually be separated on the basis of the shorter stature, rarely exceeding 30 cm tall, and the usually solitary flowers on short peduncles. In the northern Cape, under semi-arid conditions, *T. trifidum* tends to

produce plants shorter than usual with somewhat shorter, but 3-flowered, peduncles. These have often in the past been identified as *T. africanum*, e.g. in Wilman, Checklist Griq. W. 231 (1946), but their affinity lies with *T. trifidum*.

In eastern Cape, about Komga, *T. trifidum* overlaps with *T. kraussii* and here again occasional specimens may need careful study to be sure of their identity. In such cases, specimens of *T. trifidum* with subtire leaves can be recognized by the leaves being somewhat smaller and greyish-green, as against the longer and broader leaves of *T. kraussii*, which tend to dry dark brown.

As mentioned under the previous species, the names *T. trifidum* Retz. (1779) and *T. trifidum* Wendl. (1798) were tentatively included in *T. africanum* by earlier authors. The type of *T. trifidum* Retz. is present in the Retzius Herbarium, Lund, and was kindly sent on loan to me by the Curator, Dr Ove Almborn, whose assistance is gratefully acknowledged. This was examined in relation to the two names published by Thunberg in 1800, *T. africanum* Thunb. and *T. capense* Thunb.

The type sheet, annotated as *Teucrium trifidum* N. by Retzius on the reverse side, has two specimens mounted on it (see Fig. 1). The left-hand specimen corresponds with *T. africanum* Thunb. and the right-hand specimen with *T. capense* Thunb. It is, therefore, necessary to scrutinise the protologue carefully and a copy of the significant parts is given below:

65. TEUCRIUM *trifidum* foliis lanceolatis trifidis, pedunculis axillaribus trifloris.

*Habitat* ad Cap. B. Spei, unde habui, dono D. BLADH.

*Caulis* tetragonus, hirtus, ramosus, foliosus.

*Folia* opposita, lanceolata, majora lobo, minora dente utrinque acuto incisa, ceterum integra, supra scabra, subtus tomentosa; tomento flavescens vix conspicuo.

*Pedunculi* oppositi, axillares, triflori, longitudine internodiorum.

The epithet *trifidum* would apply more correctly to the left-hand specimen, but the short diagnosis is applicable mainly to the right-hand specimen. The rest of the protologue describes the significant characteristics of the right-hand specimen, eg.: "*Caulis* . . . ramosus . . ."; "*Folia* lanceolata, majora lobo, minora dente utrinque acuto inciso, ceterum integra . . ."; "*Pedunculi* . . . triflori, longitudine internodiorum." In fact no mention is made of the characters exclusive to the left-hand specimen (the deeply trifid leaves and single flowers on short peduncles), while all the characteristics mentioned above apply exclusively to the right-hand specimen.

There is thus nothing in the description to compel one to the view that it is based on a mixture of the two specimens but, assuming that Retzius had both before him, it is considered advisable to make the right-hand specimen the lectotype. This means that *T. capense* Thunb. goes into synonymy.

One may speculate how the specimens were acquired by Bladh, who was a "supercargo" in the Swedish East Indian Company from 1766 to 1784 and sent plants from China, India and South Africa to several Swedish botanists. He is not known to have travelled at all in South Africa, but might have obtained specimens from Thunberg, who had undertaken an expedition together with Masson in 1773-74

to the Sundays River area, where both species are found.

*T. trifidum* Wendl. is an illegitimate homonym. No specimen is cited but the description suggests that it is conspecific with *T. trifidum* Retz.

3. *Teucrium kraussii* Codd, nom. nov. Type: Natal, Umlaas River, *Krauss* 153.

*T. riparium* Hochst. in *Flora* 66 (1845); Benth. in DC., *Prodr.* 12: 576 (1848); Skan in *Fl. Cap.* 5.1: 385 (1910); Compton, *Fl. Swaz.* 66 (1966); Ross, *Fl. Natal* 302 (1972); nom. illegit., non *T. riparium* Rafin. (1838). Type: as above.

An erect soft undershrub 50-110 cm tall, branching from the base; stems simple below, branched in the upper half or third, softly woody below, herbaceous above, finely to fairly densely tomentose, usually with spreading hairs. *Leaves* narrowly lanceolate to oblong-lanceolate or oblanceolate, 2.5-6 cm long, remotely 1-few toothed towards the apex or entire, subglabrous or sparingly hispidulous above, sparingly to fairly densely hispid and minutely gland-dotted below; apex obtuse to acute, base narrowly cuneate. *Inflorescence* a leafy panicle occupying the upper third of the stem, often diffusely branched; flowers in 2-7-flowered pedunculate cymes; peduncles 6-20 mm long, usually longer than the internodes.

Distributed from Swaziland through semi-coastal and midland Natal to King William's Town district in the Cape, in open bush and grassland.

*T. kraussii* overlaps with *T. trifidum* in the eastern Cape Province and occasional intermediate specimens may be difficult to place with certainty. The main distinguishing characters are discussed under *T. trifidum*.

#### UITTREKSEL

*Tydens die beskrywing van drie Suid-Afrikaanse soorte Teucrium vir die Flora of Southern Africa, het dit nodig geblyk om twee goeiebekende name as volg te vervang: T. trifidum Retz. (1779) (=T. capense Thunb., 1800) en T. kraussii Codd (=T. riparium Hochst., 1845, non Rafin., 1838).*