

## BORAGINACEAE

**252. *Cynoglossum spelaeum* Hilliard & Burt, species nova e subgenere *Paracynoglossum* (M. Pop.) Riedl; inter species austro-africanas nulli arcte affinis; habitu caulibus foliis radicalibus axillaribus, rosula centrali persistente, foliis pro genere molliusculis pubescentibus, floribus albis distincta.**

Syn.: [*Cynoglossum basuticum* [Weim. ex] Guillardmod, Fl. Lesotho 233 (1973)—nomen nudum].

Herba perennis radice palari 10 mm usque diametro; caules foliis radicalibus axillares, 1 mm usque alti, inferne simplices, superne ramosi, herbacei, pilosi, foliati. *Folia* radicalia rosulata (rosula centrali persistente), usque ad 40 × 5 cm; lamina elliptica utrinque angustata regioni petiolari aequalis vel ea paulo brevior, apice acuto vel subacuto mucronato, marginibus integris vel obscure serrulatis, utrinque pilis basi leviter bulbosis praedita; caulina similia sed sursum mox sessilia et magnitudine cito decrescentia. *Inflorescentia* paniculam magnam laxam patentem corymbosam formans; pedicelli filiformes, anthesi 5 mm longi, sub fructu usque ad 20 mm et reflexi. *Calyx* fere ad basin 5-lobus; lobi c. 2 × 1.5 mm, sub fructu ad 5 × 3 mm ampliati, lanceolato-oblongi vel ovato-oblongi, apice acuto vel subacuto mucronato, dorso et marginibus asperiter pilosi, intus glabri. *Corolla* alba, tubo cylindrico c. 2 × 2 mm; fornice leviter bilobi, obtusi, dense papilloso; lobi 5, c. 3 × 3 mm, patentes, suborbiculares. *Stamina* e medio tubo orientia, inclusa, filamentis minus quam 0.5 mm filiformibus, antheris 0.75 mm obtusis. *Ovarium* 4-lobum, in receptaculo plano; stylus 0.75 mm, crassiusculus, stigmatibus subcapitato. *Nuculae* c. 5 × 4 mm, plus minusve pyriformes, supra vix convexae carina media et margine elevato praeditae, infra plus minusve rotundatae cicatrici triangulari in dimidio superiore, carina margine et pagina inferiore glochidiatis, ceterum supra pilis basi bulbosis praeditae.

Type: Natal, Underberg distr., Cobham Forest Reserve, Polela valley, in loose sandy soil at edge of overhang, flowers white, 20 iii 1977, *Hilliard & Burt* 9728 (holo. E; iso. NU).

LESOTHO. Mafeteng distr., Maboloka Mt, slope, small white flower, 12 iii 1915, *Dieterlen* 1093 (PRE); Likhaele Mission Station, cave on slope of Lai Kopile Mt, white flowers, i 1918, *Dieterlen* "better specs. of 1093" (PRE); *ibidem*, slope above mission, under damp rock, iii 1918, *Dieterlen* 1354 (PRE).

NATAL. Lion's River distr., "Allandale", at foot of sandstone cliffs (Molteno beds) 24 i 1978, *Hilliard & Burt* 11258 (E, NU). Mpendhle distr., Vergelegen Nature Reserve, 1860 m, foot of Cave Sandstone overhang and cliffs, white flowers, 2 i 1978, *Hilliard & Burt* 11172 (E, NU). Underberg distr., Bamboo Mt, N face, c. 2010 m, few rather poor plants under sandstone overhang, white flowers, 9 iv 1977, *Hilliard & Burt* 10104 (E, NU); Bamboo Mt, S side above Restmount, c. 1800 m, under sandstone overhang at top of forest, white flowers, 10 iv 1977, *Hilliard & Burt* 10120; Garden Castle Nature Reserve, track towards Bushman's Nek, c. 1860 m, amongst rocks under sandstone overhang, flowers white, 2 ii 1975, *Hilliard & Burt* 7920 (E, NU); Bushman's Nek, Thamathu Cave, 2150 m, coarse herb in damp spots under overhang, white flowers, 3 ii 1976, *Hilliard & Burt* 8904 (E, NU).

CAPE. Albert distr., Broughton, near Molteno, 1980 m, xii 1892, *Flanagan* 1632 (PRE, K).

*Cynoglossum spelaeum* is a characteristic plant of sandstone caves and overhangs in the southern Natal Drakensberg. It likes to grow in the loose sandy soil at the edge of an overhang, often slightly within the drip-line but obviously drawing its water from this. It forms untidy patches up to 1 m high and is clearly a perennial (though perhaps a short-lived one) with a persistent central rosette. This habit, the white flowers and the large radical leaves that are, for its genus, somewhat more softly hairy than usual, mark it off sharply from the other South African species. Only in one locality, on the farm "Allandale" near Kamberg in Lion's River district, have we found it at the foot of cliffs in very wet ground mixed with other vegetation. Mrs Dieterlen's notes show that in Lesotho it occupies similar habitats to those where we have seen it in the southern Drakensberg.

Within the genus, *C. spelaeum* should probably be placed in subgen. *Paracynoglossum* (M. Pop.) Riedl (see Riedl in *Österr. Bot. Zeit.* 109:390-393. 1962). However it differs from Riedl's description in the fornicies being distinctly notched at the top and the nutlets being 5 mm (not up to 3 mm) long. In subgen. *Eleutherostylum* it would be out of place because of the papillose fornicies and the full complement of nutlets.

*Paracynoglossum*, based on *Cynoglossum denticulatum* DC., was segregated as a distinct genus by M. Popov (in *Fl. U.R.S.S.* 19:715, 673. 1953). It was reduced to a subgenus of *Cynoglossum* by Riedl (*loc. cit.*) and this status was accepted by S. K. Czerepanov (in *Add. & Corrig. Fl. U.R.S.S.*, 109. 1973).

**253. *Lappula squarrosa* (L.) Dumort. subsp. *heteracantha* (Ledeb.) Chater** in *Bot. Journ. Linn. Soc.* 64:380 (1971), et in Tutin & al., *Fl. Europ.* 3:118 (1972).

Syn.: *Echinosperrum heteracanthum* Ledeb., *Suppl. Ind. Sem. Hort. Dorpat.* 3 (1823)—n.v.

*Lappula echinata* Gilib. var. *heteracantha* (Ledeb.) O. Kuntze in *Acta Hort. Petrop.* 10:214 (1887); Brand in *Pflanzenr. Heft 97* (Borrag.—Borrag.—Cryptanth.) 139 (1931).

*Echinosperrum lappula* (L.) Lehm.; Wright in *Fl. Cap.* 4(2):15 (1904).

*Lappula echinata* Gilib.; Henderson & Anderson, *Common weeds in S Africa* (Bot. Surv. Mem. No. 37) 254 (1966).

NATAL. Underberg distr., Sani Pass, 2400-2640 m, loose soil at roadside, pale blue flowers with white central boss divided by yellow lines, 23 iii 1977, *Hilliard & Burt* 9802 (NU).

C. H. Wright (*op. cit.*) cited "Natal, *Cooper* 2801", but the species is not in Ross's Flora, and no localized record seems to have been published. The opportunity is taken to bring the nomenclature up to date. Brand (*op. cit.*) remarks that subsp. *heteracantha* is the exclusive form of the species found in South Africa, where it has long been established.

*L. squarrosa* is distinguished from the two native species of the genus by having the fruit spines in two rows round the margins of the nutlets; they