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State Herbarium of South Australia  
PO Box 2732  
Kent Town SA 5071  
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Board of the  
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*EREMOPHILA LINSMITHII*,  
A NEW SPECIES OF MYOPORACEAE FROM QUEENSLAND

R.J.F. Henderson

Queensland Herbarium, Meiers Road, Indooroopilly, Queensland 4068

**Abstract**

A new species of *Eremophila* is described from Queensland. *E. linsmithii* R.J. Henderson, sp. nov., belongs to section *Amphichilus* and is related to *E. gibsonii* and *E. gilesii*.

An account of the species of *Eremophila* R.Br. from Queensland by L.S. Smith has recently been published posthumously (Smith, 1975). At the time of his death (1970), Smith considered his treatment of the genus incomplete and not worthy of publication at that stage. He had not accounted for at least one undescribed species he recognized from herbarium material and plants in the field.

In editing his manuscript for publication, I refrained from inserting additional material such as the description of a new species, so that the treatment when published, would be solely his.

In his honour, I now formally describe the species, material of which was segregated by Smith in the Queensland Herbarium. The species is that referred to in my footnote on page 12 of the above account.

***Eremophila (Amphichilus) linsmithii*** R.J. Henderson, sp. nov. aff. *E. gilesii* F. Muell. sed floribus lilacinis pallidis ad fere albis, lobis corollae adaxialibus duobus  $\pm$  connatis omnino, ovario glabro sed minute papilloso, fructu calyce conspicue breviori differt. Typus — 30 miles S.E. of Quilpie, 9 Sep. 1967. *Pedley* 2452 (holotypus BRI 094002; isotypi distribuendi K, CANB, AD, NSW).

*Frutex* erectus  $\pm$  turbinatus, c.0.5-1.75 m altus, ramosus prope basin; rami ascendentes vel patentes. *Ramuli* sub-glabri pilis minutis dispersis brevibus simplicibus curvis, conspicue viscidis. *Folia* alternata lineares plana, usque ad 6.5 cm longa et 1-3 mm lata, glabra ad subglabra pilis minutis dispersis brevissimis simplicibus curvis, viscida, ad apicem acuta vel obtusa sed extremum  $\pm$  breviter apiculata, basin versus attenuata petiolis brevibus. *Flores* solitarii, axillares, viscidis praecipue in alabastro; pedicelli  $\pm$  sigmoidei, recti vel ascendentes, viscidis, sub-glabri pilis brevissimis simplicibus curvis; pili infra dispersi sed  $\pm$  densiores subter calycem. *Calyx* ad basim in 5 segmenta imbricata fere divisus; segmenta glabra praeter pilos aliquot breves simplices vel 1-furcatis in marginibus, papillis minutis densis utrinque obiecta, ovata ad anguste ovata vel obovata, acuta ad acuminata, 0.7-1.2 cm longa et 3-5.5 mm lata, crustacescentia et reticulatim nervatescentia, pallide-brunnescentia et usque ad 1.5 cm longa et 8 mm lata subter fructus. *Corolla* lilacina pallida ad fere albida, extrinsecus maxime sparsim pubescens, intra in partibus mediis et infernis loborum adaxialium et lobi abaxialis medii et tubum floccosa: lobi 5, dispaes; par adaxiale connatum formans lobum singularem  $\pm$  semicircularem reflexum apice apiculato vel minute emarginato, 1-1.2 cm longum et 1.2-1.5 cm latum; lobi laterales oblique oblongi ad anguste ovati, acuti, 0.7-1.3 cm longi et 3.5-5.5 mm lati; lobus abaxialis semi-ellipticus obtusus apice breviter apiculatus vel truncatus et minute emarginatus, longistrorsum  $\pm$  plicatus ( $\pm$  semicircularis in sectione), 0.7-0.9 cm longus et 5-6.5 mm latus. *Stamina* inclusa; fila  $\pm$  pubescentia, in paginis interioris infernis floccosa; par infernum c.7.5-10 mm longum, par supernum c.11-13 mm longum; antherae reniformes, c.2.75-3.5 mm latae; pollen  $\pm$  globosum, 24-29  $\mu$ m latum. *Ovarium* glabrum sed minute papillosum papillis densioribus in 2/3 supero, cylindricum breve, truncatum, 4-5 mm longum et 1.5 mm latum, 2-loculatum ovulis 6-8 in quoque loculo; stylus filamentosus, 1-1.5 cm longus, sparsim pubescens. *Drupa* (exsiccata) ampulliformis, glabra sed papillis dispersis, viscida, c.7 mm longa et 5 mm lata,

longistrorsum nervosa, 4-loculata seminibus 2-3 in quoque loculo. Semina matura non vidi. Chromosomatum numerus  $2n=36$  (BRI 225898; BRI 225899).

*E. linsmithii* sect. *Amphichili* (DC.) L.S. Smith pertinet.

An erect  $\pm$  turbinate *shrub* about 0.5-1.75 m high, branched from near the base, the branches ascending or spreading. *Branchlets* sub-glabrous with scattered short simple curved hairs, conspicuously viscid. *Leaves* alternate, linear, flattened, up to 5 cm long and 1-3 mm wide, glabrous to sub-glabrous with scattered very short simple curved hairs, viscid, towards the tip acute or obtuse but ultimately  $\pm$  shortly apiculate, towards the base tapered to the very short petiole. *Flowers* solitary, axillary, viscid particularly in bud; pedicels  $\pm$  sigmoid, erect or ascending, viscid, sub-glabrous with very short curved simple hairs; hairs scattered below but somewhat denser beneath the calyx. *Calyx* divided almost to the base into 5  $\pm$  equal imbricate segments; segments glabrous except for a few short simple or once bifurcate hairs on the margins, covered on both surfaces with dense, minute papillae, ovate to narrowly ovate or obovate, acute to acuminate, 0.7-1.2 cm long and 3-5.5 mm broad, becoming  $\pm$  crustaceous and reticulately veined, pale brown and up to 1.5 cm long and 8 mm wide under the fruit. *Corolla* pale lilac to almost white, very sparsely pubescent outside, inside floccose on the mid and lower portions of the adaxial lobes and the central abaxial lobe and in the tube: tube 1.2-1.4 cm long; lobes 5, unequal; adaxial pair fused to form a single  $\pm$  semicircular reflexed lobe with an apiculate or minutely notched tip, 1-1.2 cm long and 1.2-1.5 cm across; lateral lobes obliquely oblong to narrowly-ovate, acute, 0.7-1.3 cm long and 3.5-5.5 mm wide; abaxial lobe semi-elliptic, obtuse with a short apiculate tip or truncate and minutely emarginate, longitudinally folded ( $\pm$  semi-circular in cross-section), 7-9 mm long and 5-6.5 mm across. *Stamens* included; filaments  $\pm$  pubescent, floccose on the lower inner surfaces; lower pair c.7.5-10 mm long, upper pair c.11-13 mm long; anthers reniform, c.2.75 mm wide; pollen  $\pm$  spherical, 24-29  $\mu$ m across. *Ovary* glabrous but minutely papillose with papillae more dense in the upper  $2/3$ , shortly cylindrical, truncate, 4-5 mm long and 1.5 mm across, 2-celled with 6-8 ovules in each cell; style filamentous, 1-1.5 cm long, sparsely pubescent. *Drupe* (when dried) ampulliform, glabrous, with scattered papillae, viscid, c.7 mm long and 5 mm wide, longitudinally ribbed, 4-celled with 2-3 seeds in each cell. Mature seed not seen. Chromosome number  $2n=36$ . (Fig. 1.)

*E. linsmithii* belongs to sect. *Amphichilus* (DC.) L.S. Smith.

#### *Specimens examined*

WARREGO DISTRICT: Quilpie, Oct. 1948, *G.W. Althofer* 34; Quilpie, Nov. 1952, *D.M. Gordon* 117; 30 miles SE of Quilpie, on brown loam with *Dodonaea adenophora*, *Cassia* spp. and *Acacia microsperma*, 9 Sep. 1967, *L. Pedley* 2452, 31 Aug. 1977, *R.J. Henderson* H2513, H2514; 27°09'S, 144°25'E, c. 10 km NNE of Toompine (62 km S of Quilpie), 20 Aug. 1976, *R.E. Isaacson* 17. GREGORY SOUTH DISTRICT: Pinkilla Ridge. [Grey Range] Quilpie to Thylungra road, 27 Nov. 1952, *D.M. Gordon* 4, 31 Aug. 1977, *R.J. Henderson* H2517; ca. 51 miles W of Adavale, brown clay loam with mulga [*Acacia aneura*], 9 Sep. 1960, *S.L. Everist* 6251. CULTIVATED: Cultivated at "Myall Grove", Glenmorgan, from seed collected at Pinkilla Ridge by D.M. Gordon, 4 Apr. 1960, *L.S. Smith* 10978.

This species occurs over a wide area of south-west Queensland on remnants of dissected residuals locally known as "Jump-ups" or "Break-aways". Plants are not widely distributed in any one locality, but may form dense narrow stands extending for some distance along drainage lines where there is a comparatively better class of soil and a higher supply of moisture than on adjacent flats and ridges. The species may extend into the north-western areas of New South Wales.

It has been in cultivation at "Myall Grove" Station in the western Darling Downs district and in Adelaide, South Australia according to R.J. Chinnock of the Adelaide Herbarium.

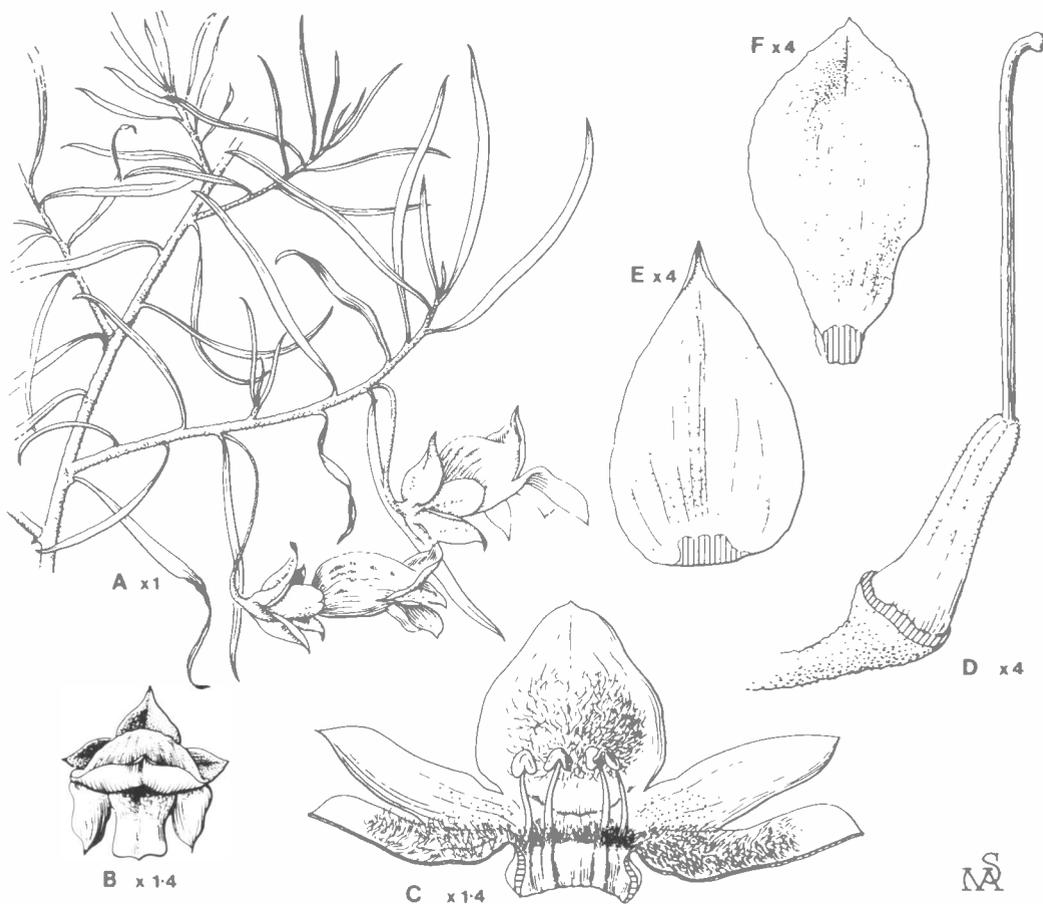


Fig. 1. *Eremophila linsmithii* R.J. Henderson. A, portion of a terminal flowering twig; B, flower looking into throat; C, corolla opened along the middle of the central abaxial lobe to show zones of floccose hairs and stamens; D, gynoecium with corolla and calyx segments removed; E and F, extremes in shape of calyx segments; E, an outer segment; F, an inner segment.

Though the species is most like *E. gilesii* F. Muell. in floral characteristics, it is clearly distinguished from it by the pale lilac to almost white flowers, the upper pair of corolla lobes fused almost completely, the glabrous but minutely papillose ovary and the fruit noticeably shorter than calyx lobes which are ovate rather than lanceolate or narrowly lanceolate. Because of their habit of growth plants may be mistaken for small plants of *E. mitchellii* Benth. in the absence of flowers.

*E. linsmithii* is closely related to *E. gibsonii* F. Muell., a species described from Central Australia but which also occurs in South Australia and Western Australia. From the little material available to me it apparently differs from *E. linsmithii* principally in the minutely serrulate (not entire) leaves, in the presence of sparse to moderately dense multicellular hairs and small stipitate glands on the calyces and outer surfaces of the corolla, and in the stiffly hairy and glandular (not minutely papillose) ovary.

Chromosome numbers were determined in two plants represented by *Henderson H2513* and *Henderson H2514*. The voucher sheets are BRI 225898 and BRI 225899 respectively.

### Acknowledgements

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### Reference

Smith, L.S. (1975). The Genus *Eremophila* (Myoporaceae) in Queensland with notes on the genus *Myoporum*. *Contr. Qd Herb.* 19:1-49.