

# JOURNAL of the ADELAIDE BOTANIC GARDENS

AN OPEN ACCESS JOURNAL FOR AUSTRALIAN SYSTEMATIC BOTANY

[flora.sa.gov.au/jabg](http://flora.sa.gov.au/jabg)

Published by the

**STATE HERBARIUM OF SOUTH AUSTRALIA**

on behalf of the

**BOARD OF THE BOTANIC GARDENS AND STATE HERBARIUM**

© Board of the Botanic Gardens and State Herbarium,  
Adelaide, South Australia

© Department of Environment, Water and Natural Resources,  
Government of South Australia

All rights reserved

State Herbarium of South Australia  
PO Box 2732  
Kent Town SA 5071  
Australia



Board of the  
Botanic Gardens and  
State Herbarium



## A NEW SPECIES OF *SWAINSONA* (FABACEAE)

J.Z. Weber

State Herbarium of South Australia, Botanic Gardens, North Terrace, Adelaide 5000

### Abstract

*Swainsona leeana* J. Weber is described and its similarities with other species as well as its distinguishing features are discussed.

During the preparation of *Swainsona* for the new "Flora of South Australia", an undescribed species was isolated. One collection made by A.J.A. Sikkes at Mt Lyndhurst, Flinders Ranges, had previously been annotated by A.T. Lee in 1974 as being an undescribed *Swainsona*, and since then further material has become available so that the species is here formally described. The specific name honours Mrs Alma Lee for her contribution to our knowledge of this genus.

***Swainsona leeana* J. Weber, spec. nov.**

Herba annua, pubescens pilis basifixis; *ramis* radiatis, ad 20 cm longis; *folia* 10-25 mm longa, 5-7 foliata, foliolis oblongo-ovatis, 5-10 x 2.5-4 mm; *stipulae* foliosae, angusto-triangulares, 3-4 mm longae; *pedunculi* filiformi, 20-35 mm longi; *flores* lutei, 4-5 mm longi, in pedicello circa 1 mm longo, bracteis paulo longioribus, bracteolis minutis, in pubescentia calycis occultantibus; *calyx* 2.5-3 mm longus, pubescens, tubo et dentibus subaequilongus; *vexillum* cordiformum, cucullatum, ecallosum, ungue circa 0.5 mm longo, triangulare; *alae* ovato-oblongae; *carina* obovato-cuneata, apice subacuto, asinuato, ungue fere 2 mm longo; *ovarium* adpresse cano-pubescens, stylo barbato, gracile apice, inflexo, post stigman caespitosus; *legumen* oblongus, 9-12 x 5-7 mm, leviter dorso-ventraliter compressus, adpresse cano-pubescens; *semina* ad 20, cordiformia, circa 2 mm longa. Fig. 1.

*Type: A.J.A. Sikkes 1109, 26.ix.1973, Mount Lyndhurst, 35 km NE of Lyndhurst, northern Flinders Range, South Australia (AD 97850151, holo!; CBG 054494!, K, NSW, iso.).*

Apparent annuals, prostrate slender. *Stems* to 20 cm long, radiating from central tap root; *indumentum* of soft white basifixed hairs, moderately appressed, sparse on stems and peduncles, denser on leaves. *Leaves* 10-25 mm long, with 5-7 leaflets; leaflets oblong-ovate, 5-10 x 2.5-4 mm, more densely pubescent underneath; stipules narrow-triangular, 3-4 mm long, leafy, pubescent on both sides. *Flowers* 4-5 mm long, on 1 mm long pedicels, covered with white and brown hairs, in 1-3-flowered terminal racemes on filiform peduncle 20-35 mm long, awned terminally, prostrate when pods are mature; bract ovate-lanceolate, slightly exceeding pedicel, pubescent; bracteoles filiform, at base of calyx, pubescent. *Calyx* 2.5-3 mm long, densely covered with white and brown long spreading hairs, teeth narrow-triangular acuminate, almost equalling the tube in length. *Petals* yellow; *standard* cordiform hooded, as broad as long, not suddenly attenuated into triangular 0.5 mm long claw; lamina with radiating veins, without calli or thickenings, remaining folded during flowering; *wings* ovate-oblong, obtuse, shortest, distinctly auriculate above the filiform 0.7 mm long claw; *keel* obovate-cuneate; tip subacute, more or less at right angles, without folds or pouches. *Ovary* subsessile, semilunar in outline, densely pubescent with appressed white hairs; style slender, curved, unevenly bearded in basal two-thirds densely bearded in upper part, with hair tufts behind inflexed stigma; *legume* subsessile, oblong, obtuse at both ends, 9-12 x 5-7 mm, slightly incurved, dorsiventrally flattened, walls thin but firm, often brown, pubescent with white appressed hairs, c. 20-seeded; seed cordiform, c. 2 mm across, olive-green, mottled dark.

The species is restricted to the upper Flinders Ranges in South Australia except for a single collection from Wingellina in Western Australia close to the South Australian and Northern Territory border.

Plants were found on rocky slopes and in semi-arid tussock grassland with a *Ptilotus* sp., and saltbush. A plant in cultivation in Canberra from seed obtained from the type specimen was slightly larger and more vigorous, but apparently with less indumentum on the leaves (*A. & C. Tyrrel 209*).

The species shows similarities with *S. oroboides* F. Muell. ex Benth. in having a prostrate habit and at maturity the legumes lying on the ground. *S. oroboides* has stouter peduncles with flowers 7-9 mm long, a style abruptly inflexed into a geniculate tip, and without any ring or hair tufts behind the stigma. It can be easily distinguished from *S. flavicarinata* J. Black which also has yellow flowers, but these are 8-10 mm long and the legumes are borne on upright peduncles at maturity.

The species may be keyed out by adding the following couplet after lead 28 in the key by A. Lee, *Contr. N.S.W. Natn. Herb.* 1 (4): 263 (1948).

28. Flowers very small (4-5 mm long), the wings minute; style tip incurved or coiled with very short hairs behind the stigma ..... 28a  
 28a. Leaflets 9-13; peduncle continued into an awn; legume fusiform ..... (47.) *S. oliveri*  
 28a. Leaflets 5-7; peduncle not continued into an awn; legume oblong-obtuse ..... *S. leeana*

*Specimens seen:*

SOUTH AUSTRALIA: *A.J.A. Sikkes 1109 & 1125*, 26.ix.1973, Mount Lyndhurst, 30°07'S, 138°35'E, (CBG); *A. & C. Tyrrel 209*, 24.x.1978, (cultivated at CBG from the seed of the type specimen) (CBG); *D.J.E. Whibley 4040*, 13.ix.1973, Moro Gorge, 30°41'S, 139°13'E, (AD; duplicates n.v., CHR, PRE, SYD.).

WESTERN AUSTRALIA: *R.H. Kuchel 62B*, 31.vii.1962, Wingellina, 26°03'S, 128°56'E, (AD).