

# *Scaevola archeriana* (Goodeniaceae), a new species from the Esperance Plains bioregion of Western Australia

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## Abstract

*Sage, L.W. (Swan Coastal District, Department of Conservation and Land Management, 5 Dundee Road, Wanneroo WA 6065) 2004. Scaevola archeriana (Goodeniaceae), a new species from the Esperance Plains bioregion of Western Australia. Telopea 10(4): 777–779. A new species, Scaevola archeriana from Western Australia, is described and illustrated. A comparison to the related species, S. depauperata and S. basedowii, is provided and conservation status discussed. The species requires listing as Priority 1 with the Conservation and Land Management Codes and 2K- with ROTAP (Briggs & Leigh 1996).*

## Introduction

Two unusual plant collections related to *Scaevola depauperata* and *S. basedowii* from the Esperance Plains bioregion were made by William R. Archer in the 1990s. The collections were found to differ enough from these taxa to warrant recognition at the species level.

These collections differ from *Scaevola depauperata* in the absence or reduction of a beard under the indusium, a smaller corolla, smaller bracteoles, simple-hairy stems and cauline leaves that are sometimes obovate and toothed.

***Scaevola archeriana* L.W. Sage, sp. nov.**

*Scaevola depauperata* barba sub indusio reducta vel absenti, corolla minore, foliis caulinis interdum obovatis dentatis recedit.

Type: Australia, Western Australia. Esperance Plains bioregion [precise locality withheld for conservation purposes], *W.R. Archer 2512952*, 25 December 1995 (holo PERTH; iso MEL, not seen).

[*Scaevola* sp. Esperance (*W.R. Archer 2512952*)]

Erect resprouting, multi-stemmed, clonal herb to c. 45 cm tall; stems striate with stiff, antrorse, simple hairs, becoming scattered above and adpressed. Basal leaves obovate, dentate, c. 8 × 3 mm (few seen), apparently glabrous. Cauline leaves ± triangular and usually dentate or obovate and serrate or toothed, to c. 10 mm long and c. 5 mm wide; hairs simple, stiff, antrorse. Flowers in thyses or racemes; bracts and bracteoles triangular, to c. 2 mm long; peduncle 12–22 mm long; hairs simple, stiff, antrorse. Sepals ± triangular, to c. 1.3 mm long, connate below lower third; hairs simple, stiff, antrorse, and minute and glandular. Corolla mauve, 12–16 mm long, densely bearded inside with thin barbulae and with simple, non-adpressed hairs outside; lobes c. 5 mm long; wings 0.2–0.9 mm wide. Stamen filaments linear. Anthers without hairs at apex. Ovary 2.5–3.9 mm long, with simple, stiff and glandular hairs. Indusium c. 2.5 mm wide, beard significantly reduced or absent, long simple hairs below not equalling lips, lips with short bristles. Fruit obovoid to ellipsoidal, tuberculate, ribbed below sepals, c. 6.5 mm long, with stiff simple and glandular hairs. Seeds not seen.

Table 1. Comparison of *Scaevola archeriana*, *S. depauperata* and *S. basedowii*.

	<i>S. archeriana</i>	<i>S. depauperata</i>	<i>S. basedowii</i>
<b>Indumentum on stems</b>	simple, becoming scattered higher up	mostly glabrous, sometimes some glandular hairs	glandular and few simple or glabrous
<b>Cauline leaves</b>	triangular or obovate	triangular	triangular
<b>margin</b>	mostly dentate or serrate	entire	entire
<b>Sepals</b>	triangular	triangular	widely triangular
<b>apex</b>	acute	acute	rounded
<b>outside indumentum</b>	glandular & simple	glandular & simple	glandular
<b>separation</b>	connate below ½	connate below ½	connate ½–½
<b>Beard under indusium</b>	reduced or absent	stiff, ± equalling mouth	stiff, ± equalling mouth
<b>Distribution</b>	south-west WA	All southern states except WA	Central Australia

**Specimens examined:** Western Australia: Esperance Sandplain bioregion: NNE of Mount Heywood, [precise locality withheld for conservation purposes], W.R. Archer 103924, 1 March 1992 (MEL, PERTH).

**Distribution and habitat:** known only Western Australia, *S. archeriana* is recorded from sandy and sand-clay loam soils north east of Esperance. Research into the habitat preference of this species is essential.

*Scaevola depauperata* is found in all southern mainland states except Western Australia (Carolin 1992). *Scaevola basedowii* is known from central Australia (Carolin 1992).

**Notes:** distinguished from *S. depauperata* by a significantly reduced or absent beard under the indusium not equalling the lips, a smaller corolla (to 16 mm compared to a minimum of 20 mm), stems that have scattered hairs and cauline leaves that are sometimes obovate and toothed (compared to only ± triangular). The new species is distinguished from *S. basedowii* by sepals that have an acute apex, simple and glandular indumentum on the outside sepal surface and stems that have only a simple indumentum.

**Etymology:** the specific epithet honours the only collector to date of the new species, William R. Archer, of WA Nurseries in Merivale, Western Australia.

**Conservation status:** apparently uncommon and not known from any conservation reserves. This species, like many *Scaevola* species, spreads by underground roots and is most likely fire responsive (L.W. Sage, unpublished data). This is supported by the label of W.R. Archer 103924, '...after fire'. In the absence of fire or an appropriate fire regime the true abundance of *S. archeriana* may be hard to determine. Research into the longevity of soil stored seed and the reproductive biology of the species may be required.

Because it has a highly restricted distribution and is currently known from only two populations, the new species requires a Priority One listing under the CALM Conservation Codes for Western Australian Flora and coding as 2K- under Briggs & Leigh (1996). Urgent surveys are required to gain a better understanding of the true conservation status of *S. archeriana*.

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### **References**

- Carolin, R.C. (1992) *Scaevola*. Pp. 8–146. in *Flora of Australia* Volume 35, *Brunoniaceae, Goodeniaceae*. (Australian Government Publishing Service: Canberra).
- Briggs, J.D. and Leigh, J.H., (1996) *Rare or threatened Australian Plants*. (CSIRO: Collingwood, Victoria).

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