

# 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**

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## NOTES & SHORT COMMUNICATIONS

### New combinations in *Pterostylis* and *Caladenia* and other name changes in the Orchidaceae of South Australia

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#### Abstract

Combinations are provided in *Pterostylis* and *Caladenia* (Orchidaceae) for new species initially described in the segregate genera *Arachnorchis*, *Bunochilus* and *Oligochaetochilus*. Recircumscription of existing species has led to some new species being recognised for South Australia and *Prasophyllum* sp. West Coast (*R. Tate AD96945167*) is now known as *Prasophyllum catenemum* D.L.Jones.

#### Introduction

In the past, when there have been disagreements between botanists about the level at which species should be recognised, the arguments have not impinged particularly on the outside community. Today, with botanical names increasingly being added to databases and databases being much more readily available to users through the internet, there is often a need for practical purposes for the recognition of a single name for a particular species, i.e. a 'preferred' name for each taxon. Herbaria, amongst other institutions, tend to adopt a conservative approach in the adoption of new names, preferring to wait until there has been sufficient testing of new concepts and hence greater stability and acceptance of these names (Entwistle & Weston 2005). Rushing in and adopting name changes as they occur can lead to a later reversal of a decision and an unnecessary confusion of names. For instance, within the segregate genera of *Caladenia* R.Br., earlier combinations made in both *Calonema* (Lindl.) D.L.Jones & M.A.Clem. (Jones et al. 2001) and *Calonemorchis* Szlach. (Szlachetko 2002) were subsequently found to be superfluous or to contravene the rules of the *International Code of Botanical Nomenclature* (McNeill et al. 2006). Another example within orchids is the transfer of species from *Corunastylis* Fitzg. to *Genoplesium* R.Br. and then back again (Jones et al. 2002; see below).

Presently, the decision has been made by the Council of Heads of Australasian Herbaria (CHAH) that the many segregate genera being proposed by Jones et al. (2001) within *Caladenia*<sup>1</sup> and by Jones & Clements (2002b)

within *Pterostylis*<sup>2</sup> R.Br. will not be adopted. Both genera in the wider sense are recognised as monophyletic (Hopper & Brown 2004; Jones & Clements 2002b) and for the practical purpose of running Australia's Virtual Herbarium (2008) the broader generic concept will continue to be applied (Entwistle 2003; Entwistle & Weston 2005).

The issue of the segregate orchid genera has yet to be addressed by the CHAH committee of the Australian Plant Census (2008), whose role it is to agree on a 'preferred name' for each Australian taxon. It should be stressed that alternative taxonomies are still available to those who wish to use them and just because one name has been chosen for use in the major databases supported by the Australian herbaria this does not imply that alternatives are incorrect or scientifically unsupported.

#### New combinations in *Caladenia* and *Pterostylis*

A number of new names applying to South Australian species have been published by Jones in the genera *Arachnorchis* D.L.Jones & M.A.Clem. (Jones 2006a) and *Bunochilus* D.L.Jones & M.A.Clem. (Jones 2006b). Alternative names are not available in *Caladenia* and *Pterostylis*, respectively, and the necessary new combinations are made in this paper. This follows similar publications by Backhouse (2007) and Thiele & Brown (2007), who made the relevant combinations for Victoria and Western Australia, respectively. Other unpublished phrase or manuscript names which have also been used for the species have been listed where

<sup>1</sup> *Arachnorchis* D.L.Jones & M.A.Clem., *Petalochilus* R.S. Rogers, *Jonesiopsis* Szlach. and *Stegostyla* D.L.Jones & M.A.Clem. for South Australia

<sup>2</sup> *Diplodium* Sw., *Oligochaetochilus* Szlach., *Bunochilus* D.L. Jones & M.A.Clem., *Taurantha* D.L.Jones & M.A.Clem., *Linguella* D.L.Jones & M.A.Clem., *Urochilus* D.L.Jones & M.A.Clem., *Specularantha* D.L.Jones & M.A.Clem. and *Plumatichilos* Szlach. for South Australia

appropriate. The International Plant Names Index (2008) and the Australian Plant Name Index (2008) have been used to check that the epithets in the new combinations have not already been used in the genus.

***Caladenia aurulenta* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis aurulenta* D.L.Jones, Orchadian 15(2): 90–91 (2005). — **Type:** South Australia, Gawler Ranges, Scrubby Creek Station, 9 Sep. 2000, *D.L.Jones 17452* & *M.Garratt* (holo: CANB; iso: AD, BRI, MEL, NSW, PERTH).

***Caladenia ensigera* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis ensigera* D.L.Jones, Austral. Orchid Res. 5: 59 (2006). — **Type:** South Australia, Mt Remarkable National Park, Circle Track, 5 Sep. 1999, *D.L.Jones 16698* & *M.Garratt* (holo: CANB; iso: AD, MEL).

***Caladenia flindersica* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis flindersica* D.L.Jones, Austral. Orchid Res. 5: 60 (2006). — **Type:** South Australia, Alligator Gorge, 4 Sep. 2005, *C. & M.Houston 41* (holo: CANB; iso: AD, MEL).

*Caladenia patersonii* auct. non R.Br.: Weber & Bates (1986), partly.

*Caladenia* sp. Inland (*F.A.Mason 300*) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 194 (2005), partly (only with respect to FR and NL records).

*Arachnorchis* aff. *arenaria* 'Flinders': R.J.Bates, Orchids S. Austral. CD-ROM (2007), pro syn.

***Caladenia fuliginosa* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis fuliginosa* D.L.Jones, Austral. Orchid Res. 5: 61 (2006). — **Type:** South Australia, Yorke Peninsula, Corny Point–Marion Bay Road, 2 Sep. 2000, *D.L.Jones 17230* & *M.Garratt* (holo: CANB; iso: AD, MEL).

*Caladenia patersonii* var. *suaveolens* Nicholls.

*Caladenia fragrantissima* D.L.Jones & G.W.Carr subsp. *fragrantissima*, partly.

*Caladenia patersonii* auct. non R.Br.: Weber & Bates (1986), partly.

***Caladenia interanea* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis interanea* D.L.Jones, Orchadian 15(2): 91–92 (2005). — **Type:** South Australia, W end of the Gawler Ranges, Mt Granite, 9 Sep. 2000, *D.L.Jones 17455* & *M.Garratt* (holo: CANB; iso: AD, MEL).

*Caladenia tensa* auct. non G.W.Carr: Barker et al. (2005), partly.

*Caladenia tentaculata* auct. non Schldt.: Bates & Weber (1990), partly.

*Caladenia dilatata* auct. non R.Br.: Weber & Bates (1986), partly.

***Caladenia intuta* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis intuta* D.L.Jones, Orchadian 14(12): 561–562 (2005). — **Type:** South Australia, Yorke Peninsula, near Hardwicke [Bay], 2 Sep. 1999, *D.L.Jones 16648* & *M.Garratt* (holo: CANB; iso: AD, MEL, NSW).

*Caladenia* sp. Brentwood (*R.J.Bates 53510*) R.J.Bates, Electronic Flora of South Australia Census Database (listed since April 2005).

***Caladenia leptochila* subsp. *dentata* (D.L.Jones) R.J. Bates, comb. nov.**

**Basionym:** *Arachnorchis leptochila* subsp. *dentata* D.L.Jones, Austral. Orchid Res. 5: 62 (2006). — **Type:** South Australia, Alligator Gorge National Park, 9 Oct. 1988, *D.L.Jones 2966* & *M.Garratt* (holo: CANB; iso: AD, MEL).

***Caladenia saxatilis* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis saxatilis* D.L.Jones Austral. Orchid Res. 5: 63 (2006). — **Type:** South Australia, Eastern outskirts of Mt Remarkable National Park, Alligator Gorge side, 5 Sept. 1999, *D.L.Jones 16711* & *M.Garratt* (holo: CANB).

*Caladenia* aff. *fitzgeraldii*: Bates & Weber, pl. 44 (1990).

*Caladenia stellata* auct. non D.L.Jones: Barker et al. (2005), partly.

***Caladenia strigosa* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis strigosa* D.L.Jones, Austral. Orchid Res. 5: 57 (2006). — **Type:** South Australia, Ruakkan, 25 Sep. 2005, *R.Bates 65973* (holo: CANB 673104; iso: AD).

*Caladenia australis* auct. non G.W.Carr: Barker et al. (2005), partly.

***Caladenia zephyra* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Arachnorchis zephyra* D.L.Jones, Austral. Orchid Res. 5: 65 (2006). — **Type:** South Australia, Carrappee Hill Conservation Park, *D.T.Rouse 186*, *M.Duncan*, *G.Backhouse* & *P.McCauley* (holo: CANB).

*Caladenia* sp. Inland (*F.A.Mason 300*) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 194 (2005), partly (only with respect to specimens from EP).

*Caladenia arenaria* auct. non Fitzg.: Jessop (1993), partly.

*Caladenia patersonii* auct. non R.Br.: Bates & Weber (1990), partly.

***Pterostylis flavovirens* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Bunochilus flavovirens* D.L.Jones, Austral. Orchid Res. 5: 132 (2006). — **Type:** South Australia, Port Lincoln, coastal reserve towards Lincoln Cove, 7 Aug. 1995, *D.L.Jones 14110* & *B.E.Jones* (holo: CANB).

*Pterostylis* sp. Coastal (*R.Bates 37621*) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 201 (2005), partly.

*Pterostylis longifolia* auct. non R.Br.: Weber & Bates (1986), partly.

***Pterostylis littoralis* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Bunochilus littoralis* D.L.Jones, Austral. Orchid Res. 5: 133 (2006). — **Type:** South Australia, Bog Road, near Sunland, opposite Lake St Clair, 7 July 1999, *D.L.Jones 16461*, *M.Garratt* & *R.Bates* (holo: CANB; isotype AD).

*Pterostylis* sp. Coastal (*R.Bates 37621*) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 201 (2005), partly.

***Pterostylis viriosa* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Bunochilus viriosus* D.L.Jones, Austral. Orchid Res. 5: 129 (2006). — **Type:** South Australia, Belair National Park, NW boundary, 8 Aug. 1993, *D.L.Jones 11846* & *B.E.Jones* (holo: CBG 9706956 at CANB; iso: AD).

*Pterostylis smaragdina* auct. non D.L.Jones & M.A.Clem.:  
Barker et al. (2005), partly.  
*Pterostylis longifolia* auct. non R.Br.: Bates & Weber, pl.  
171 (1990).

***Pterostylis mirabilis* (D.L.Jones) R.J.Bates, comb. nov.**

**Basionym:** *Oligochaetochilus mirabilis* D.L.Jones,  
Orchadian 15(9): 394–395, Fig. 1 (2007). — **Type:** South  
Australia. Eyre Peninsula: Cowell to Kimba Road, 23 Nov.  
1983, *R.Bates 3645* (holo: AD).

*Oligochaetochilus* aff. *despectans* 'Eyre Peninsula':  
R.J.Bates, Orchids S. Austral. CD-ROM (2007).

*Pterostylis* sp. Eyre Peninsula (*R.Bates 19474*) R.J.Bates in  
W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 201  
(2005).

***Pterostylis psammophilus* (D.L.Jones) R.J.Bates,  
comb. nov.**

**Basionym:** *Oligochaetochilus psammophilus* D.L.Jones,  
Orchadian 15(9): 396–397, Fig. 2 (2007). — **Type:** South  
Australia. Cockatoo Valley, 9 Sept. 1995, *R.Bates 41985*  
(holo: CANB).

*Pterostylis* 'Sandy Creek' R.J.Bates, Orchids S. Australia  
CD-ROM (2007).

*Oligochaetochilus* 'Sandy Creek' R.J.Bates, Orchids S.  
Australia CD-ROM (2007).

*Pterostylis biseta* auct. non Blackmore & Clemesha: Bates &  
Weber (1990).

***Corunastylis* vs *Genoplesium***

All species previously treated as *Genoplesium* have  
been changed back to *Corunastylis* since *Genoplesium*  
is now treated as a monotypic genus confined to the  
Sydney region (Jones *et al.* 2002).

One species, *Corunastylis tepperi* (F.Muell. ex  
Tepper) D.L.Jones & M.A.Clements, treated at species  
level by Jones & Clement (2002a) was treated as a  
synonym of *Genoplesium nigricans* (R.Br.) D.L.Jones  
& M.A.Clem. in the last census (Barker et al. 2005).  
It is now considered to be distinct from that species by  
its green flowers with a dark labellum compared to the  
uniformly purple-brown flowers of *G. nigricans* (Jones  
2006c; Bates 2007). *Corunastylis tepperi* is distributed  
from Bendigo in Victoria to Corrigin in Western  
Australia and is considered to be very common in South  
Australia.

**Replacement name for an existing phrase name**

***Prasophyllum catenemum* D.L.Jones**

Austral. Orchid Res. 5: 146 (2006).

*Prasophyllum* sp. West Coast (*R.Tate AD96945167*)  
R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard.  
Suppl. 1: 199 (2005), partly.

*Prasophyllum odoratum* auct. non R.S.Rogers: Jessop  
(1993), partly.

*Prasophyllum patens* auct. non R.Br.: Bates & Weber (1990),  
partly.

*Prasophyllum patens* var. *patens* auct. non R.Br.: Weber &  
Bates (1986).

*Prasophyllum* 'West Coast' R.Tate: R.J.Bates, J. Native  
Orchid Soc. of S. Australia 29(7): 69 (2005).

**New species for South Australia**

***Prasophyllum praecox* D.L.Jones**

Austral. Orchid Res. 5: 153 (2006).

*Prasophyllum odoratum* auct. non R.S.Rogers: Barker et al.  
(2005), partly.

***Prasophyllum collinum* D.L.Jones**

Austral. Orchid Res. 5: 147 (2006).

*Prasophyllum odoratum* auct. non R.S.Rogers: Barker et al.  
(2005), partly.

***Pterostylis cucullata* R.Br. subsp. *sylicola***

Austral. Orchid Res. 5: 86 (2006).

*Pterostylis cucullata* auct. non R.Br.: Bates & Weber (1990),  
partly.

***Pterostylis lustra* D.L.Jones**

Austral. Orchid Res. 5: 87 (2006).

*Pterostylis falcata* auct. non R.S.Rogers: Barker et al. (2005),  
partly.

*Pterostylis furcata* auct. non Lindl.: Weber & Bates (1986),  
partly.

***Pterostylis prasina* (D.L.Jones) G.N.Backh.**

Victorian Naturalist 124: 124 (2007).

*Bunochilus prasinus* D.L.Jones, Austral. Orchid Res. 5: 133  
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