



SHORT COMMUNICATION

Validation of two names of Australian orchids

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During work on the Australian Plant Census lists for Orchidaceae (APC 2021), two currently used names (*×Glossadenia tutelata* and *Cadetia maideniana*) were found not to have been validly published. We rectify the situation in this paper by validating and typifying these names and discuss their taxonomic history.

×Glossadenia Kavulak

Austral. Nat. Orch. Hybr. Guide 7 (1986). — Stated parentage: *Glossodia* R.Br. × *Caladenia* R.Br.

×*Calassodia* M.A.Clem. ex D.L.Jones, *Nat. Orchids Austral.* 621 (1988). — Stated parentage: *Caladenia* R.Br. × *Glossodia* R.Br.

×*Calassodia* M.A.Clem., *Austral. Orchid Res.* 1: 33 (1989), isonym. — Stated parentage: *Caladenia* R.Br. × *Glossodia* R.Br.

×*Glossadenia* Jeanes in Jeanes & G.N.Backhouse, *Wild Orchids Vic. Austral.* 124 (2006), non Kavulak (1986) [later homonym]. — Stated parentage: *Glossodia* R.Br. × *Pheladenia* D.L.Jones & M.A.Clem.

×*Glossadenia* J.M.H.Shaw, *Quart. Suppl. Int. Reg. Orchid Hybr. (Sander's List)* 122(1305): 16 (2014), non Kavulak (1986) [later homonym]. — Stated parentage: *Glossodia* R.Br. × *Pheladenia* D.L.Jones & M.A.Clem.

×Glossadenia tutelata (R.S.Rogers) Kellermann, **comb. nov.**

Caladenia ×tutelata R.S.Rogers, *Trans. Proc. & Rep. Roy. Soc. South Australia* 31: 211 (1907), *pro sp.* — ×*Calassodia tutelata* (R.S.Rogers) M.A.Clem., *Austral. Orchid Res.* 1: 33 (1989). — **Type citation:** “discoveries on August 24 of this year” [1907]. **Lectotype (here designated):** Blackwood, 24 Aug. 1907, *E. Ashby s.n.* (AD97522357). **Isotype:** Blackwood, 24 Aug. 1907, [*E.*] *Ashby s.n.* (AD97522358A; mounted with another specimen of the same taxon, collected on 23 Sep. 1912).

×*Glossadenia tutelata* Kavulak, *Austral. Nat. Orch. Hybr. Guide* 7 (1986), *nom. nud. & inval.*

×*Calassodia tutelata* D.L.Jones, *Nat. Orchids Austral.* 621 (1988), *nom. inval.*

Glossodia ×tutelata M.W.Harrison & M.J.G.Corrigan, *Checkl. Austral. Nat. Orch. Hybr. Ed. 5*, 24, 61 (1993), *nom. inval.*

×*Glossadenia tutelata* Jeanes in Jeanes & G.N.Backhouse, *Wild Orchids Vic. Austral.* 124 (2006), *nom. inval.*

Note. Kavulak (1986) published a list of Australian orchid hybrids, in which he proposed the name of a hybrid genus, ×*Glossadenia* Kavulak, with one species, ×*Glossadenia tutelata* Kavulak. The name of this nothogenus was published validly, via the statement that it is a hybrid between *Glossodia* R.Br. and *Caladenia* R.Br. However, the name of the nothospecies was not validly published according to the rules of the *International Code of Nomenclature for algae, fungi, and plants* (ICN; Turland *et al.* 2018). While the use by Kavulak (1986) of the epithet of an existing species name may indicate that he intended to base his nothospecies on *Caladenia ×tutelata* R.S.Rogers (Rogers 1907), he did not give a full and direct reference to a basionym as required by ICN Art. 41.5 for new combinations. He also did not provide a description or diagnosis of the hybrid species, or other information required for the publication of the name of a new taxon. Hence ×*Glossadenia tutelata* is a *nomen nudum* and not validly published. In subsequent editions of this hybrid list, as well as some other works (e.g. Clements 1989; Bates & Weber 1990; Mayfield 2006), the designation “×*Glossadenia tutelata*” is also used but in none of them is the name validly published.

A few years after Kavulak (1986), Jones (1988) published the hybrid genus ×*Calassodia* M.A.Clem. ex D.L.Jones (this time with the parent genera listed in alphabetical order), but as this nothogenus contained the same hybrid taxon as the earlier ×*Glossadenia* Kavulak, it is to be treated as a synonym (ICN Art. H.4.1). Clements (1989) was the first to publish the

new combination \times *Calassodia tutelata* (R.S.Rogers) M.A.Clem., based on *Caladenia* \times *tutelata* R.S.Rogers.

Harrison & Corrigan (1993) list this hybrid taxon as *Glossodia* \times *tutelata* M.W.Harrison & M.J.G.Corrigan, apparently unaware that two nothogeneric names had been published for the taxon, and that the valid name *Caladenia* \times *tutelata* existed. Since they did not provide a full and direct reference to the intended basionym and its place of publication they did not validly publish a combination in *Glossodia*.

Jeanes (Jeanes & Backhouse 2006) published a nothogenus for hybrids between *Glossodia* R.Br. and *Pheladenia* D.L.Jones & M.A.Clem., as at this time, *Caladenia deformis* R.Br. had been transferred to a new genus as *Pheladenia deformis* (R.Br.) D.L.Jones & M.A.Clem. However, as he used the same name, \times *Glossadenia* Jeanes is a later homonym of Kavulak's (1986) name.

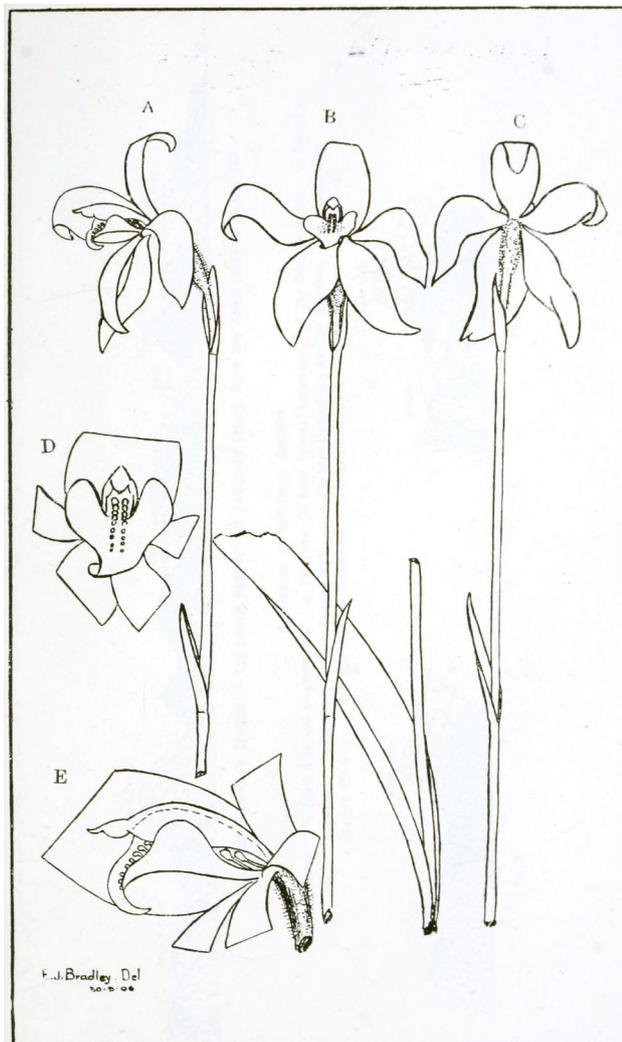


Fig. 1. \times *Glossadenia tutelata* (R.S.Rogers) Kellermann. **A** Side view; **B** front view; **C** back view; **D** enlargement to show the front view of column and labellum; **E** side view of column and labellum. Line drawing by F.J. Bradley, first published in Rogers (1906).

The new combination \times *Glossadenia tutelata* (R.S.Rogers) Kellermann is validated here for the name of this hybrid taxon, following the rules of the ICN.

Typification. Rogers (1906) described and illustrated (Fig. 1) a new *Caladenia* in detail, but because he was unsure about its status, he refrained from naming it. A year later, after receiving new material, Rogers (1907) published the name *Caladenia tutelata*, validating it by referring to his original description and adding some further notes on the plant. The first material of the taxon was provided to Rogers by “Mr. E. Ashby” and was “collected at Blackwood on September 16 of this year (1906)” (Rogers 1906: 225). However, in Rogers (1907) it is stated that the 1906 collection was provided by “Mr. A. Keith Ashby”, the son of Edwin Ashby. Rogers may have confused the identity of the original collector. The type collection mentioned in the protologue was made “on August 24 [1907]” (Rogers 1907: 211) but the collector’s name is not mentioned. It can be assumed that this material was also gathered by members of the Ashby family in Blackwood.

There are two specimens originally labelled as *Caladenia tutelata* in Rogers’ herbarium, both collected by Edwin Ashby on 24 Aug. 1907. One of these was annotated by Rogers as being the type. No specimens of a 1906 collection of the species by either Ashby could be traced at AD, where Rogers’ herbarium is stored. The sheet that Rogers annotated as “Type specimen” (AD 97522357) is here designated as the lectotype of the name.

Etymology. “The name *tutelata* (under protection) refers to the sentinel calli which appear to guard the entrance of the column” (Bates & Weber 1990).

***Cadetia maideniana* Schltr. ex Kellermann, sp. nov.**

Based on this previously published description in English: Dockrill, *Austral. Indig. Orchids Ed. 2*, 1: 426 & 427 (line drawing) (1993). — **Holotypus:** Queensland, Cook District: Mossman Gorge, W of Mossman, 13 June 1972, J. Wrigley & I. Telford NQ1103 (CBG43131 at CANB).

Dendrobium maidenianum Schltr., *Nachtr. Schutzgeb. Südsee* 156 (1905), *nom. nud. & inval.*

Cadetia maideniana Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 1: 424 & *adnot.* (1912), *nom. nud. & inval.*

Dendrobium hispidum auct. non A.Rich.: F.Muell., *Fragm.* 7(51): 30 (1869); Benth., *Fl. Austral.* 6: 283 (1873); Bailey, *Syn. Queensl. Fl.* 511 (1883); *Queensl. Fl.* 5: 1532 (1902).

Dendrobium taylorii auct. non (F.Muell.) F.M.Bailey: Fitzg., *Austral. Orchids* 2(3): pl. 7 (1888).

Cadetia hispida auct. non (A.Rich.) Schltr.: Dockrill, *J. Orchidol.* 2(3): 92 (1961).

Cadetia hispidula M.A.Clem., *Prelim. Checkl. Austral. Orch.* 24 (1982), *orth. var.* [in error for the misapplied name *Cadetia hispida*].



Fig. 2. *Cadetia maideniana* Schltr. ex Kellermann, holotype (CBG43131 at CANB).

Note. Schlechter (1905) proposed the names *Dendrobium maidenianum* Schltr. and later *Cadetia maideniana* Schltr. (Schlechter 1912) for northern Australian specimens to which the name *D. hispidum* A.Rich. had previously been misapplied. However, in neither case did Schlechter provide a description or diagnosis of the species or a reference to a previously published description or diagnosis, but merely mentioned the new names. This is insufficient for valid publication of the name of a new taxon (see ICN Art 41 Note 3).

Although it had not been validly published, other authors used the name *Cadetia maideniana* in their publications for over a hundred years. Presumably because they believed that it had been published previously, they did not give a Latin description or diagnosis (as required from 1935–2012; ICN Art. 39.1), provide a direct reference to an already published valid description or diagnosis, or mention other information required for valid publication (e.g. citing a type specimen). As a result, the name has not been validated.

Typification. When it became apparent during the preparation of the APC list for Orchidaceae that this taxon did not have a validly published name available, a specimen was selected from the CANB collections to serve as a voucher for a phrase name in the format outlined by Barker (2005). To retain the species concept the phrase name *Cadetia* sp. Maideniana (*J. Wrigley NQ1103*) Australian National Herbarium was proposed, but never used in the APC. We have chosen to use the same specimen as the type specimen of the species (Fig. 2). It contains three small, well-preserved flowering plants.

A Dallachy specimen was cited by Clements (1989) as “Type”; this material had been examined by Ferdinand von Mueller when preparing his description of *Dendrobium hispidum* A.Rich. from Australian collections (Mueller 1869). However, since the name *Cadetia maideniana* is validated here, the Dallachy collection is not original material.

Etymology. The epithet honours the eminent New South Wales botanist Joseph Henry Maiden (1859–1925; Gilbert 2001) and was coined by Schlechter (1905).

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References

- Australian Plant Census* [APC] (continuously updated). IBIS database. (Centre for Australian National Biodiversity Research & Council of Heads of Australasian Herbaria: Canberra). <https://biodiversity.org.au/nsl/services/APC> [accessed: 10 May 2021].
- Barker, W.R. (2005). Standardising informal names in Australian publications. *Australian Systematic Botany Society Newsletter* 122: 11–12.
- Bates, R.J. & Weber, J.Z. (1990). *Orchids of South Australia*. (Government Printer: Adelaide).
- Clements, M.A. (1989). Catalogue of Australian Orchidaceae. *Australian Orchid Research* 1: 1–160.
- Gilbert, L.A. (2001). *The little giant: The life & work of Joseph Henry Maiden, 1859–1925*. (Kardoorair Press: Sydney).
- Harrison, M.W. & Corrigan, M.J.G. (1993). *A checklist of Australian native orchid hybrids* (5th edition). (Australasian Native Orchid Society: Sydney).
- Kavulak, J. (1986). *Australian native orchid hybrid guide*. (Jodi Enterprises: East Ryde, N.S.W.).
- Jeanes, J. & Backhouse, G. (2006). *Wild orchids of Victoria, Australia*. (Aquatic Photographics: Seaford).
- Jones, D.L. (1988). *Native orchids of Australia*. (Reed: Frenchs Forest).
- Mayfield, E. (2006). *Flora of the Otway Plain and Ranges*, Vol. 1: *Orchids, irises, lilies, grass-trees, mat-rushes and other petaloid monocotyledons*. (Linton Press: Geelong).
- Mueller, F. (1869). Orchideae. *Fragmenta Phytographiae Australiae* 7: 29–31.
- Rogers, R.S. (1906). Description of a new *Caladenia*. *Transactions and Proceedings and Report of the Royal Society of South Australia* 30: 225–226, plate XI.
- Rogers, R.S. (1907). Three new species of orchid. *Transactions and Proceedings and Report of the Royal Society of South Australia* 31: 209–212, plate XXVI.
- Schlechter, R. (1905). Orchidaceae. In: Schumann, K. & Lauterbach, K. (eds.), *Nachträge zur Flora der deutschen Schutzgebiete der Südsee (mit Ausschluss Samoa's und der Karolinen)*, pp. 75–234. (Gebrüder Borntraeger: Leipzig).
- Schlechter, R. (1912) [1914]. Die Orchidaceen von Deutsch-Neu-Guinea. *Repertorium Specierum Novarum Regni Vegetabilis Beihefte* 1(27).
- Turland, N.J., Wiersema, J.H., Barrie, F.R., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T.W., McNeill, J., Monro, A.M., Prado, J., Price, M.J. & Smith, G.F. (eds.) (2018). *International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017*. (Koeltz Botanical Books: Glashütten). [Regnum Vegetabile 159].



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