NOTES ON AUSTRALASIAN ORCHIDACEAE 7: UPDATES ON THE NOMENCLATURE OF SULLIVANIA (DIURIDEAE: DRAKAΕINAE)

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ABSTRACT. Sullivania F.Muell. (Orchidaceae) is recognised as a validly published genus having priority over Paracaleana Blaxell, and thirteen species (eleven described) in Paracaleana are here transferred to it.

KEY WORDS/PALABRAS CLAVE: Australia, Caleana, Caleya, flora, nomenclatural adjustments, ajustes nomenclaturales, orchid, orquídea, Paracaleana

Introduction. Sullivania F.Muell. and Caleana R.Br. are sister genera within the subtribe Drakaeinae and molecular studies have confirmed their close ancestral relationship (Miller & Clements 2014, Peakall et al. 2021). Differences in their morphology (Blaxell 1972) and pollination syndromes (Cady 1965, Bower 2014) support their status as distinct genera. The same molecular studies also confirm that within Sullivania there are two distinct groups of species, those with narrowly linear leaves and those with ovate to ovate-lanceolate leaves. These two groups were formally recognised respectively as subgenera: Sullivania subg. Sullivania and Sullivania subg. Tanychila (D.L.Jones & M.A.Clem.) D.L.Jones & M.A.Clem. (Jones et al. 2002, Jones & Clements 2005).

There has been debate about the use of the generic name Sullivania as compared to Paracaleana Blaxell (Hopper & Brown 2006). In the Australian Plant Name Index (APNI 2021) the following definitive statement is provided about the status of the genus Sullivania: Mueller cites this name as “Sullivania, F. v. Mueller, inedited” and provides a brief diagnosis. This was interpreted by Hopper & Brown, Austral. Syst. Bot. 19(3): 215 (2006), as being a provisional name and thus not validly published. However, as Mueller provided the place of publication for all other generic names in this work, his use of “inedited” is here interpreted as an indication that the name had not been previously published. The diagnosis provided is sufficient for valid publication of the name under ICN Art. 38.1 (Shenzhen Code, 2018). The key interpretation here for validity of the name is the interpretation of ‘inedited’, which appears to indicate simply that the name was previously unpublished by Mueller, rather than an expression of taxonomic non-acceptance by Mueller. This is consistent with other usage of the word by Mueller.

On this basis, Sullivania (Mueller 1882) is the earliest validly published generic name available for the group of species included by some authors under the name Paracaleana (Blaxell 1972). Paracaleana is therefore considered a taxonomic synonym of Sullivania as first proposed by Jones and Clements (2005). Those species described in Paracaleana, but lacking combinations in Sullivania, require nomenclatural adjustments to facilitate their recognition and conservation by Federal and State agencies and are therefore transferred to Sullivania in this paper.

TAXONOMIC TREATMENT


Sullivania subgen. Sullivania

Sullivania lyonsii (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., comb. nov.


Note: Developmental embryological research on plants of *S. minor* revealed that this species is a facultative apomict (Clements 1995). It is capable of producing seed through sexual or apomictic reproductive means, even in the same capsule. Seed produced through apomixis facilitates the production of potential new plants, even in the absence of suitable pollinators. Apomixis can also lead to the development, and possible continuance, of mutational forms, and it is thought both *S. nublingii* and *S. sullivanii* originated in this manner. Of the two, *S. nublingii* is the rarest – a small population having been found only once, in the Blue Mountains, New South Wales. However, *S. sullivanii* occurs in two main populations, approximately 400 km apart, one in the Grampians, Victoria and the second in the Mt Lofty Ranges, South Australia.

*Sullivania nublingii* (Nicholls) D.L.Jones & M.A.Clem., *comb. nov.*

Basionym: *Caleana nublingii* Nicholls, Victorian Naturalist 48(1): 15, 17, plate (1931). Fig. 1a.

*Sullivania sullivanii* (F.Muell.) D.L.Jones & M.A.Clem., *comb. nov.*

Basionym: *Caleya sullivanii* F.Muell., Chem. & Druggist, Austral. Suppl. 4(45): 68-69 (1882). Fig. 1b.

Clements & Jones — Updates on the nomenclature of Sullivania

Type species: *Paracaleana nigrita* (J.Drummond ex Lindl.) Blaxell

**Sullivania alcockii** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**
Basionym: *Paracaleana alcockii* Hopper & A.P.Br., Aust. Syst. Bot.19(3): 222-223, Fig. 2, 6, 7 (map) (2006). Fig 2c.

**Sullivania brockmanii** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**


**Sullivania dixonii** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

**Sullivania ferricola** (A.P.Br. & G.Brockman) D.L.Jones & M.A.Clem., **comb. nov.**
Basionym: *Paracaleana ferricola* A.P.Br. & G.Brockman, Nuytsia 30: 287-289, Fig. 1 (2019). Fig 2g.

**Sullivania gracilicordata** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

**Sullivania granitica** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

**Sullivania hortiorum** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

**Sullivania nigrita** (J.Drummond ex Lindl.) D.L.Jones & M.A.Clem., The Orchadian 15(1): 36 (2005). Fig 2k.

**Sullivania parvula** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

**Sullivania terminalis** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

**Sullivania triens** (Hopper & A.P.Br.) D.L.Jones & M.A.Clem., **comb. nov.**

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Literature Cited


