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Nomenclatural adjustments in Caladeniinae (Orchidaceae, Thelymitroideae)

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Recent nomenclatural changes in Caladeniinae (Orchidaceae, Thelymitroideae) are briefly discussed. *Caladenia* R. Br. sect. *Caladeniastrum* Szlach. is elevated to generic rank and six new combinations at species level are proposed.

Key words: Magnoliophyta, Orchidaceae, Thelymitroideae, Caladeniinae, Australia

I recently published a paper dealing with nomenclatural changes in the orchid subfamily Thelymitroideae (Szlachetko 2001a). I separated a new monotypic genus, erected three sections of the broadly defined Australian genus *Caladenia* to generic rank and also described a new section within *Caladenia s. stricto* (sect. *Caladeniastrum* with *C. flava* as the type). These combinations were criticized by Jones *et al*. (2001).

In the cited article I described the monotypic genus *Jonesiopsis* with *J. multiclavia* (= *Caladenia multiclavia*) as the generitype. According to Jones *et al*. (2001) the name *Jonesiopsis* was not validly published because at the same time I proposed an alternative generic name for the type species, namely *Jonesyella*. Indeed, due to a typographic error, the new combination was created as *Jonesyella* instead of *Jonesiopsis*. However, I do not mention the alternative name for *Jonesiopsis* anywhere else in my paper. Hence, the name *Jonesiopsis* was validly published (cf. Greuter *et al*. 2000: Art. 32.5 & 60).

Jones *et al*. (2001) noticed that *Caladenia carnea*, which was selected as the lectotype of *Caladenia* by Clements (1989) must be rejected because Pfitzer (1889) lectotypified section *Eucaladenia* by *Caladenia flava*. However, Pfitzer did not mention at all that his intention was to typify any of the taxa he was writing about (*see* Greuter *et al*. 2000: Art. 7.2). He simply, after short descriptions of sections, cited the species which he placed in them. If the rationale of Jones *et al*. (2001) was right, then Pfitzer typified in the same manner also the sections *Phlebochilus* by *Caladenia multiclavia* and *Calonema* by *Caladenia patersonii*, which however were not mentioned by Jones *et al*. (2001). Therefore the lectotype of *Caladenia* chosen by Clements is the correct one. It also means that the genus *Petalochius* should be treated as a synonym of *Caladenia* including the 40 new combinations proposed by Jones *et al*. (2001).

Here I propose to elevate a group of species, which I have earlier recognized as section *Caladeniastrum*, to generic level. Using the name *Caladenia* subgen. *Elevata* (Hopper & Brown 2000) at generic level would violate Greuter *et al*. (2000: Art. 20.2).

Caladeniastrum (Szlach.) Szlach., *comb. & stat. nova*

Caladenia R. Br. sect. *Caladeniastrum* Szlach., Polish Bot. J. 46(1): 15. 2001. — Generitype: *Caladeniastrum flavum* (R. Br.) Szlach. (*Caladenia flava* R. Br.)

Caladeniastrum flavum (R. Br.) Szlach., *comb. nova*

Caladenia flava R. Br., Prodr.: 324. 1810.

Caladeniastrum latifolium (R. Br.) Szlach., *comb. nova*

Caladenia latifolia R. Br., Prodr.: 324. 1810.

Caladeniastrum marginatum (Lindl.) Szlach., *comb. nova*

Caladenia marginata Lindl. *in* Edward's Bot. Reg. 1–23: Swan Riv. App. 51. 1840.

Caladeniastrum nanum (Endl.) Szlach., *comb. nova*

Caladenia nana Endl. *in* Lehm., Pl. Preiss. 2: 7. 1846.

Caladeniastrum reptans (Lindl.) Szlach., *comb. nova*

Caladenia reptans Lindl. *in* Edward's Bot. Reg. 1–23: Swan Riv. App. 52. 1840.

Caladeniastrum unitum (Fitzg.) Szlach., *comb. nova*

Caladenia unita Fitzg., Gard. Chron. 17: 461. 1882.

Jones *et al*. (2001) stated that according to Greuter *et al*. (2000: Art. 37.1) the genera *Phlebochilus* and *Calonema* were invalidly published by Szlachetko (2001a). However, that article applies only to new taxa and not to new combinations or new names that are based on previously and validly published names. I did not describe new genera but only proposed nomenclatural combinations based on sections (Greuter *et al*. 2000: Art. 7.4), which already had been described and lectotypified by other authors.

The name *Calonema*, however, is a later homonym and must be changed (Szlachetko 2001b; W. Greuter pers. comm.). The lectotype for *Phlebochilus* is *Caladenia cairnsiana* (Hopper & Brown 2000). In both cases Art. 33.3 and 41.2 of Greuter *et al*. (2000) are relevant. Hence, the revalidation of *Calonema* by Jones *et al*. (2001) is nomenclaturally superfluous.

Jones *et al*. (2001) also criticized me for proposing a new section *Imberborkis* for *Calochilus imberbis*, a species which, according to them, is a "pelorial freak". However, Jones (1997) went one step further and described the genus *Cocktownia* based on plants with a non-functional gynostemium and peloric flowers. This phenomenon is often encountered, for example, in many species of *Habenaria*, where the petals produce pollen sacs with massulae or even pollinia inside. Further examples are *Corunastylis apostasioides* (*Genoplesium apostasioides*) from Australia and *Synanthes bertonii* (*Eurystyles bertonii*) from South America.

In most autogamous species the gynostemium and often the perianth are simplified. In my opinion it is not justified to create new genera for such species. Infrageneric classifications only reflect relationships between the different groups of congeneric species. *Calochilus imberbis*, in my opinion, occupies an isolated position within the genus, and it was my intention to emphasize just that.

The genus *Glycorchis*, described by Jones *et al*. (2001), is illegitimate, since the authors did not designate a type species.

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References

Clements, M. A. 1989: Catalogue of Australian Orchidaceae. — *Austral. Orchid Res.* 1: 1–160.

Greuter, W., McNeill, J., Barrie, F. R., Burdet, H. M., Demoulin, V., Filgueiras, T. S., Nicolson, D. H., Silva, P. C., Skog, J., Trehane, P., Turland, N. J. & Hawksworth, D. L. 2000: International code of botanical nomenclature (Saint Louis Code). — *Regnum Vegetabile* 138: 1–474.

Hopper, S. D. & Brown, A. P. 2000: New genera, new combinations and species in the *Caladenia* alliance (Orchidaceae, Diurideae). — *Lindleyana* 15: 120–126.

Jones, D. L. 1997: *Cocktownia robertsii*, a remarkable new genus and species of Orchidaceae from Australia. — *Austrobaileya* 5: 71–78.

Jones, D. L., Clements, M. A., Sharma, I. K. & Mackenzie, A. M. 2001: A new classification of *Caladenia* R. Br. (Orchidaceae). — *Orchadian* 13: 389–417.

Pfitzer, E. H. 1889: Orchidaceae. — In: Engler, A. & Prantl, K. (eds.), *Die natürlichen Pflanzenfamilien* 3: 52–220. Wilhelm Engelmann Verlag, Leipzig.

Szlachetko, D. L. 2001a: *Genera et species Orchidalium*. 1. — *Polish Bot. J.* 46: 11–26.

Szlachetko, D. L. 2001b: Nomenclatural adjustments in the Thelymitroideae (Orchidaceae). — *Polish Bot. J.* 46: 137–144.