

## NOMENCLATURAL NOTES ON LAELIINAE—II. ADDITIONAL COMBINATIONS AND NOTES<sup>1</sup>

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**ABSTRACT:** Following on from previous phylogenetic studies and publication of new combinations for the Brazilian species of *Laelia* in *Sophranitis*, additional combinations are presented here for natural hybrids involving taxa in *Sophranitis* and  $\times$ *Soprocattleya*. A new nothogenus,  $\times$ *Soprocyclia*, is named, and *Sophranitella* and *Neolauchea* are combined with *Isabelia*.

BASED ON van den Berg et al. (2000) and additional plastid data (van den Berg et al., in prep.), *Neolauchea* and *Sophranitella* can be combined with *Isabelia*, requiring three new combinations. Some additional combinations for hybrid taxa in *Sophranitis* and  $\times$ *Soprocattleya* are necessary after the Brazilian species of *Laelia* were moved to *Sophranitis* (van den Berg and Chase, 2000; Table 1). Although there are many named artificial hybrids in *Laelia* and  $\times$ *Laeliocattleya*, we only make new combinations for naturally occurring entities. It is noteworthy that there are many natural hybrids between *Cattleya* and species of *Sophranitis* previously assigned to *Laelia* sect. *Cattleyodes* and sect. *Hadrolaelia*, but there are no hybrids between *Cattleya* and species formerly placed in *Laelia* sect. *Parviflorae* or *Sophranitis sensu stricto*. The last two groups have many members pollinated by hummingbirds, whereas *Sophranitis* from sections *Cattleyodes* and *Hadrolaelia* and *Cattleya* are reported to be pollinated by bees (Dodson and Frymire, 1961; van der Pijl and Dodson, 1966).

**ISABELIA** Barb.Rodr., *Orch. Nov.* 1: 75. 1877.

*Neolauchea* Kränzl., *Bull. Herb. Boiss.* 5: 110. 1897.

*Sophranitella* Schltr. in *Feddes, Repert., Beih.* 35: 76. 1925.

***Isabelia pulchella*** (Kränzl.) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Neolauchea pulchella* Kränzl., *Bull. Herb. Boiss.* 5: 110. 1897.

Synonym: *Isabelia pulchella* Senghas & Teusch., *Amer. Orchid Soc. Bull.* 37: 502, *nom. illeg.*

***Isabelia pulchella*** (Kränzl.) Van den Berg & M.W.Chase forma **alba** Nunes ex Van den Berg & M.W.Chase **forma nov.** TYPE: BRAZIL. Rio Grande do Sul: Município de Terra de Areia, localidade de Sanga Funda; *Espanhol s.n.*, floruit in cult. Jul. 1990 (holotype: ICN 89204).

Formae typicae speciei similis, sed racemis, bracteis, pedicellis et pseudocalcaribus viridis clarissimis, sepalis viridis claris et petalis, labelis, columnis anterisque totis albis.

[*Isabelia pulchella* f. *alba* Nunes, *Boletim CAOB* 3: 41. 1991, *nom. illeg.*]

***Isabelia violacea*** (Lindl.) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Sophranitis violacea* Lindl., *Bot. Reg.* 26: misc. 18. 1840.

***Isabelia*  $\times$  *pabstii*** (Leinig ex Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym:  $\times$ *Isanitella*  $\times$  *pabstii* Leinig ex Pabst, *Bradea* 2: 63. 1976.

Parentage: *I. (pulchella*  $\times$  *violacea)*

Teuscher (1968) combined *Neolauchea* Kränzl. and *Isabelia* Barb.Rodr., but in making the new combination he did not give a direct reference to the publication, year, and page number of the basionym as required by the International Code of

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TABLE 1. Some natural hybrid names in *Sophronitis*.

<i>Species</i>	<i>Crossed with</i>	<i>Hybrid name</i>
<i>Sophronitis lobata</i>	× <i>C. intermedia</i>	<i>Sc. amanda</i>
	× <i>C. forbesii</i>	<i>Sc. verelii</i>
<i>S. grandis</i>	× <i>C. warneri</i>	<i>Sc. albanensis</i>
	× <i>C. amethystoglossa</i>	<i>Sc. pittiana</i>
<i>S. perrinii</i>	× <i>C. loddigesii</i>	<i>Sc. amoena</i>
	× <i>C. harrisoniana</i>	<i>Sc. occhioniana</i>
<i>S. pumila</i>	× <i>C. bicolor</i>	<i>Sc. binotii</i>
	× <i>C. loddigesii</i>	<i>Sc. leeana</i>
	× <i>C. dormaniana</i>	<i>Sc. porphyritis</i>
	× <i>C. schilleriana</i>	<i>Sc. rigbyana</i>
	× <i>C. warneri</i>	<i>Sc. sgarbii</i>
<i>S. purpurata</i>	× <i>C. forbesii</i>	<i>Sc. cypheri</i>
	× <i>C. tigrina</i>	<i>Sc. elegans</i>
	× <i>C. intermedia</i>	<i>Sc. schilleriana</i>
<i>S. crispa</i>	× <i>C. velutina</i>	<i>Sc. dayana</i>
<i>S. tenebrosa</i>	× <i>C. warneri</i>	<i>Sc. gottoiana</i>
<i>S. crispata</i>	× <i>C. loddigesii</i>	<i>Sc. lambari</i>
<i>S. sincorana</i>	× <i>C. elongata</i>	<i>Sc. reginae</i>

Botanical Nomenclature (Greuter et al., 2000), and therefore his combination is invalid. Dressler (1993) listed *Sophronitella* Schltr. as congeneric with *Isabelia* Barb.Rodr., although the combination was never made. The existence of a natural hybrid between *I. pulchella* and *I. violacea* (Leinig, 1971), ITS data (van den Berg et al., 2000), and a combined analysis (van den Berg et al., in prep.) all provide support for combining the three genera. A new combination is also necessary for the natural hybrid *I. ×pabstii* (Leinig, 1971). Because *I. pulchella* f. *alba* was illegitimately described (Nunes, 1991) under a combination that was not validly published, we take this opportunity to validate it here, assigning the same type as the original publication.

**SOPHRONITIS** Lindl., *Bot. Reg.* 14: sub t. 1147. 1828.

***Sophronitis ×espírito-santensis*** (Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia ×espírito-santensis* Pabst, *Bradea* 2: 14. 1975.

Parentage: *S. (pumila × xanthina)*

Synonym: *Laelia ×kautskyi* Dungs & Pabst, *Orchidee (Hamburg)* 19: 190. 1968, *nomen.*

***Sophronitis ×gerhard-santosii*** (Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia ×gerhard-santosii* Pabst, *Bradea* 2: 16. 1975.

Parentage: *S. (harpophylla × kautskyi)*

This combination was proposed in van den Berg and Chase (2000) but was based on an invalid basionym that lacked a Latin description. Because Pabst (1975) had validated the name we make the combination with his basionym.

***Sophronitis ×lilacina*** (Philbrick ex Veitch) Van den Berg & M.W. Chase, **comb. nov.**

Basionym: *Laelia ×lilacina* Philbrick ex Veitch, *Man. Orch. Pl.* 2: 89. 1887.

Parentage: *S. (crispa × perrinii)*

***Sophronitis ×wyattiana*** (Rchb.f.) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia ×wyattiana* Rchb.f., *Gard. Chron.*, n.s., 20: 426. 1883.

Parentage: *S. (lobata × crispa)*

***Sophronitis ×zaslawskii*** (L.C.Menezes) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia ×zaslawskii* L.C.Menezes, *Orchidee (Hamburg)* 47: 259. 1996.

Parentage: *S. (praestans × harpophylla)*

***Sophronitis alaorii* f. *dietliana*** (Gruss) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia alaorii* f. *dietliana* Gruss, *Orchidee (Hamburg)* (Supplement 3): 12. 1996.

**×SOPHROCATTLEYA** Rolfe, *J. Linn. Soc. (Bot.)* 24: 169. 1887.

**×*Sophrrocattleya ×amanda*** (Rchb.f.) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia* × *amanda* Rchb.f., *Gard. Chron.*, n.s., 18: 776. 1882.

Parentage: *S. lobata* × *C. intermedia*

×**Sophrocattleya** × **albanensis** (Rolfe) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *albanensis* Rolfe, *Gard. Chron.*, ser. 3, 14: 584. 1893

Parentage: *S. grandis* × *C. warneri*

×**Sophrocattleya** × **amoena** (Bleu) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *amoena* Bleu, *Lindenia* 8: 65, t. 367. 1892.

Parentage: *S. perrinii* × *C. loddigesii*

×**Sophrocattleya** × **binotii** (Cogn.) Van den Berg & M.W.Chase **comb. nov.**

Basionym: ×*Laeliocattleya* × *binotii* Cogn., *Gard. Chron.*, ser. 3, 28: 370. 1900.

Parentage: *S. pumila* × *C. bicolor*

×**Sophrocattleya** × **cypheri** (Rolfe) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *cypheri* Rolfe, *Orchid Rev.* 5: 313. 1897.

Parentage: *S. purpurata* × *C. forbesii*

×**Sophrocattleya** × **dayana** (Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *dayana* Pabst, *Bradea* 2: 68. 1975.

Parentage: *S. crispa* × *C. velutina*

×**Sophrocattleya** × **elegans** (C.Morren) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Cattleya elegans* C.Morren, *Ann. Gard.* 4: 93, t. 185. 1848.

Parentage: *S. purpurata* × *C. tigrina*

×**Sophrocattleya** × **gottoiana** (Rolfe) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *gottoiana* Rolfe, *Gard. Chron.*, ser. 3, 18: 467. 1895.

Parentage: *S. tenebrosa* × *C. warneri*

×**Sophrocattleya** × **lambari** (Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *lambari* Pabst, *Bradea* 2: 14, fig. C. 1975.

Parentage: *S. crispata* (syn. *flava*) × *C. loddigesii*

×**Sophrocattleya** × **leeana** (Rchb.f.) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia* × *leeana* Rchb.f., *Gard. Chron.* 17: 492. 1882.

Parentage: *S. pumila* × *C. loddigesii*

×**Sophrocattleya** × **occhioniana** (Brade) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *occhioniana* Brade, *Orquídea* 6: 133. 1944.

Parentage: *S. perrinii* × *C. harrisoniana*

This hybrid name has sometimes been considered a synonym of ×*Sophrocattleya* × *amoena* if one does not consider *C. loddigesii* distinct from *C. harrisoniana*. However, we maintain the two species as distinct, and plants from the type locality are referable to *C. harrisoniana*. Therefore a separate name should be used for this natural hybrid.

×**Sophrocattleya** × **pittiana** (O'Brien) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *pittiana* O'Brien, *Gard. Chron.*, ser. 3, 15: 264. 1894.

Parentage: *S. grandis* × *C. amethystoglossa*

×**Sophrocattleya** × **porphyritis** (Rchb.f.) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia* × *porphyritis* Rchb.f., *Gard. Chron.*, n.s., 25: 72. 1886

Parentage: *S. pumila* × *C. dormaniana*

×**Sophrocattleya** × **reginae** (Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *reginae* Pabst, *Bradea* 2: 280. 1978.

Parentage: *S. sincorana* × *C. elongata*

×**Sophrocattleya** × **rigbyana** (Pabst) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *rigbyana* Pabst, *Orchid Rev.* 83: 212. 1975.

Parentage: *S. pumila* × *C. schilleriana*

×**Sophrocattleya** × **schilleriana** (Rolfe) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: *Laelia schilleriana* Rchb.f., *Allg. Gartenz.* 23: 323. 1855.

Parentage: *S. purpurata* × *C. intermedia*

×**Sophrocattleya** × **sgarbii** (Ruschi) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* × *sgarbii* Ruschi, *Orquídea* 12: 48. 1950.

Parentage: *S. pumila* × *C. warneri*

×**Sophrocattleya** ×**verelii** (Rolfe) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Laeliocattleya* ×*verelii* Rolfe, *Orchid Rev.* 7: 340. 1899.

Parentage: *S. lobata* × *C. forbesii*

×**SOPHROCYCLIA** Van den Berg & M.W.Chase, **nothogen. nov.**

(*Sophronitis* Lindl. × *Encyclia* Hook.)

×**Sophrocyclia** ×**intermedia** (F.E.L.Miranda) Van den Berg & M.W.Chase, **comb. nov.**

Basionym: ×*Encyclaelia* ×*intermedia* F.E.L.Miranda, *Albertoa* 3: 94. 1991.

Parentage: *E. duveeni* × *S. mirandae*

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