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TRANSFERS TO *EPIDENDRUM* L. FROM *OERSTEDELLA* RCHB. F.

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ABSTRACT. A cladistic analysis of *Epidendrum*, its segregates, and of the entire subtribe Laeliinae, based on DNA nucleotidic sequences, has shown that *Oerstedella* is embedded in *Epidendrum*. Five new combinations are made and 2 new names are established in order to transfer all *Oerstedella* species to *Epidendrum*.

RESUMEN. Un análisis cladístico de *Epidendrum* y taxa afines, basado en estudios de secuencias de ADN, ha revelado que *Oerstedella* es un grupo de *Epidendrum*. Este género tiene tres clados principales: uno mexicano, uno andino y uno ampliamente distribuido. *Oerstedella* pertenece a este último clado, que es basal en un subclado mayormente centroamericano. Aquí se realizan 5 combinaciones nuevas y se establecen 2 nombres nuevos, para poder transferir todas las especies de *Oerstedella* a *Epidendrum*.

KEY WORDS / PALABRAS CLAVE: Orchidaceae, *Epidendrum*, *Oerstedella*.

The genus *Oerstedella* was established by H.G. Reichenbach (1852) for the Central American *Epidendrum centropetalum* Rchb.f. Hágsater (May 1981) and Hamer & Garay (Hamer, October 1981) independently recognized the genus *Oerstedella* as different from *Epidendrum*. *Oerstedella* is distinguished from *Epidendrum*, with which it shares the fusion of the lip claw to the apex of the column and the presence of a cuniculus-type of nectary, because it has a rostellum perpendicular to the longitudinal axis of the column, which after the removal of the pollinarium is widely sinuate, instead of parallel and slit. Additionally, the lateral lobes of the stigma are not protruding and it lacks a semiliquid viscidium. The presence of a very long clinandrium of the column (in some species) and of warty sheaths clothing the stems (in most species) are also characteristic, although neither one is a synapomorphy of the group. Long clinandria are found in the *Physinga* group and the *Epidendrum albertii* Schltr. group of *Epidendrum*, and warty sheaths may be found, if less conspicuous, in *E. propinquum* A. Rich. & Galeotti.

A cladistic analysis of *Epidendrum*, its segregates (Hágsater & Soto, in press, Hágsater *et al.*, in prep), and of the entire subtribe Laeliinae (van den Berg *et al.* 2000, van den Berg 2000), based on nucleotidic sequences of different genomic regions (Internal Transcribed Spacers of nuclear ribosomal DNA, ITS, and the plastid *matK* and *trnL* regions) has shown that *Oerstedella* is embedded in *Epidendrum*. *Epidendrum* has three main lineages, a Mexican, an Andean, and a widely distributed clade. *Oerstedella* belongs to the widely distributed clade and it is basal to a mostly Central American subclade with species bearing distichous inflorescences, including the segregates *Auliza* (based on *Epidendrum*

ciliare L.), *Coilostylis* (based on *C. emarginata* Raf. = *E. ciliare* L.), *Didothion* (based on *E. clavatum* Lindl. = *E. purpurascens* H.Focke), *Epidanthus* (based on *Epidendrum paranthicus* Rchb.f.), *Neowilliamsia* (based on *N. epidendroides* Garay), the *E. ramosum* Jacq. group, and the *Spathiger* group (based on *E. rigidum* Jacq.).

Instead of recognizing the twenty-eight segregated genera and proposing some forty new ones in order to make the already existing segregates monophyletic groups, we have decided to recognize only one large, single genus *Epidendrum*, which is easily set apart in the Laeliinae by the fusion of the column with the lip (though some odd species may have them partially or totally free). Our circumscription of *Epidendrum* is basically that of Dressler (1984) and Hágsater (1985), except that *Oerstedella*, *Epidanthus*, and *Neowilliamsia* must be included in it. These three taxa have relatively few species compared with the size of *Epidendrum* (more than 1500 species).

It thus becomes necessary to transfer those *Oerstedella* taxa for which there are no previous combinations in *Epidendrum*:

***Epidendrum cancanae* (P.Ortiz) Hágsater, comb. nova**
Basionym: *Oerstedella cancanae* P.Ortiz, Orquideología 22(1): 4. 2001.

TYPE: Colombia: Antioquia, Mpio. Amalfi, Quebrada La Cancana, afluente del Río Porce, 900 m, marzo 2000, L.G. Arango sub P. Ortiz 1121, holo. COL.

***Epidendrum fuscinum* (Dressler) Hágsater, comb. nova**
Basionym: *Oerstedella fuscina* Dressler, Orquidea (Méx.) 8(2): 347. 1982.

TYPE: Panamá: Coclé, comprado en el mercado de

El Valle de Antón, 29 marzo 1981, *R. L. Dressler 6010*, holo. US, iso. AMO!, MO, PMA.

***Epidendrum macdougalli* (Hágsater) Hágsater, comb. nova**

Basionym: *Oerstedella macdougalli* Hágsater, *Orquídea* (Méx.) 13 (1-2): 222. 1994.

TYPE: México: Chiapas, km 2 camino Ocozocuautila-Laguna Bélgica, detrás del INI, 900 m, 19 abril 1989, *M. A. Soto y E. Martínez 5429*, holo. AMO!, clono. AMES!, K!

***Epidendrum stolidium* Hágsater, nom. nov.**

Based on: *Oerstedella ornata* Dressler, *Orquídea* (Méx.) 8(2): 346. 1982.

TYPE: Panamá: Chiriquí, “La Chumbada” arriba de Guadalupe (cerca del Cerro Punta), 2300 m, 18 octubre 1980, *R. L. Dressler 5930*, holo. US, iso. AMO!, MO!, PMA, U.

Not *Epidendrum ornatum* Lem., *Fl. des Serres* Ser. 1: 4: 334 b. 1848.

The new name is derived from the Greek *στολίδι*, *stolidi*, ornament.

***Epidendrum parviexasperatum* (Hágsater) Hágsater, comb. nova**

Basionym: *Oerstedella parviexasperata* Hágsater, *Orquídea* (Méx.) 13 (1-2): 219. 1994.

TYPE: Costa Rica: San José, Fila de la Cordillera de Talamanca, 1950 m, 2 mayo 1982, *E. Hágsater & C. Horich 6333*, holo. AMO!

***Epidendrum misasii* Hágsater, nom. nov.**

Based on: *Oerstedella viridiflora* Hágsater, *Orquideología* 16(2): 192. 1984.

TYPE: Colombia: Antioquia, Mpio. Valdivia, 21 abril 1983, *G. Misas sub E. Hágsater 7234*, holo. AMO! Not *Epidendrum viridiflorum* (Hook.) Lindl., *Bot. Reg. Misc.* 30, 1842. (= *Encyclia viridiflora* Hook.), nor *Epidendrum viridiflorum* Sessé & Mociño, *Fl. Mexic.* 2nd ed.: 203. 1894.

In honor of Guillermo Misas of Medellín, Colombia who has illustrated numerous orchids for the Chocó region, and provided the pretype material.

***Epidendrum x monteverdense* (Pupulin & Hágsater) Hágsater, comb. nova**

Basionym: *Oerstedella x monteverdensis* Pupulin & Hágsater, *Lankesteriana* 8: 32. 2003.

TYPE: Costa Rica: Puntarenas, Monteverde, Cerro Plano, finca Beeche, 1550 m, col. G. Barboza, cult. Orchid Garden in Monteverde, 2 June 2001, *F. Pupulin 3216*, holo. USJ.

The following taxa do not need a new combination, because there is an earlier published name for these species available in *Epidendrum*:

Epidendrum cuneatum Schltr., *Repert. Spec. Nov. Regni Veg.* 10(81): 456. 1912.

Bolivia: Bei Espíritu Santo, [Río] Antahuacana, ca. 750 m, Juni 1909, *O. Buchtien s.n.* holo. B, destroyed.

Synonyms: *Oerstedella vasquezii* Dodson, *Icon. Pl. Trop.* 6: pl. 563. 1982. Type: Bolivia: Cochabamba, Mpio. Chapare, km 90 [Cochabamba] a Villa Tunari, 1800 m, diciembre 1978, *R. Vásquez 80*, holo. SEL 36072!, iso. Herb. Vasq.!, LPB, SEL 53394!

Oerstedella thurstoniorum Dodson & Hágsater, *Orquideología* 17(3): 139. 1988 [“thurstonorum”]. Type: Ecuador: Hacienda San Antonio Barón von Humboldt, 2.5 km al norte de Mera, en la carretera de Baños a Puyo, 1050-1300 m, 27 febrero 1985, *C. Dodson 15605*, holo. QCNE!, iso. MO!, RPSC!

Not *Epidendrum thurstoniorum* Hágsater, *Icon. Orch.* (Méx.) 3: pl. 386. 1999 [“thurstonorum”], a member of the *E. difforme* group.

Epidendrum centropetalum Rchb.f., *Bot. Zeit.* (Berlin) 10(42): 732. 1852 (October).

TYPE: Panamá: Chiriquí, Vulkan, *Warszewicz*, holo. W! Not *E. centropetalum* Rchb.f., *Bonplandia* 3(5): 68. 1855 = *E. viridibrunneum* Rchb.f.

Synonyms: *Oerstedella centropetala* (Rchb.f.) Rchb.f., *Bot. Zeit.* (Berlin) 10(53): 932. 1852 (December).

Oerstedella centradenia Rchb.f., *Bot. Zeit.* (Berlin) 10(53): 932. 1852 (December). *Epidendrum centradenia* (Rchb.f.) Rchb.f., *Walp. Ann.* 6: 1163. 1865.

Epidendrum tenuiflorum Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 3: 49. 1906. *Oerstedella tenuiflora* (Schltr.) Hágsater, *Orquídea* (Méx.) 8(1): 24. 1981.

Not *Epidendrum tenuiflorum* hort. ex Lindl., *Folia Orch. Epidendrum* 88. 1853.

This species has been widely known under the name *O. centradenia* Rchb.f., but *E. centropetalum* Rchb.f. was published two months earlier. A careful revision of the types indicates that they are conspecific.

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