

NEW SPECIES AND COMBINATIONS IN COSTA RICAN ORCHIDS. II

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ABSTRACT. *Govenia viaria*, from Monteverde to the Dota area, and *Palmorchis eidae*, from the area of Golfito, are described and illustrated, and *Dichaea elliptica*, from Panama and southern Costa Rica, is described. A new combination is published for *Chondroscaphe endresii*, a distinct species that has been confused with *C. bicolor*; a broader concept of *Scaphyglottis* calls for the following new combinations: *Scaphyglottis bidentata*, *S. cuniculata*, and *S. imbricata*. The new name *Pleurothallis grammata* is published, based on *Myoxanthus vittatus* Pupulin & M.A.Blanco.

RESUMEN. Se describen e ilustran *Govenia viaria*, de Monteverde hasta el área de Dota, y *Palmorchis eidae*, del área de Golfito, y se describe *Dichaea elliptica*, de Panamá y del sur de Costa Rica. Se publica una nueva combinación para *Chondroscaphe endresii*, una especie distinta que se ha confundido con *C. bicolor*. Un concepto más amplio de *Scaphyglottis* requiere de nuevas combinaciones: *Scaphyglottis bidentata*, *S. cuniculata* y *S. imbricata*. Se publica el nombre nuevo *Pleurothallis grammata*, basado en *Myoxanthus vittatus* Pupulin y M.A.Blanco.

The preparation of the orchid treatment for the Manual de las Plantas de Costa Rica has brought to light a number of new species (Dressler 1995, 1997, among others). The publication of the Monocotyledon volumes is planned for the near future. The present paper will describe three unnamed species for which adequate material is at hand, and publish a few new combinations needed for the Manual.

Dichaea elliptica Dressler & Folsom, *sp. nov.*

TYPE: PANAMA. Coclé, Aserradero El Copé, ca. 8 km N of El Copé, 800-900 m; 9, 10 April 1977; *Dressler 5641* (holotype MO, isotype PMA).

Dichaeae brachypodae similis, foliis ellipticis et ovario muricato dignoscenda.

Epiphytic, erect or pendent, roots 0.5-0.8 mm in diameter, puberulent; stems 9-22 cm; leaves distichous, sheathing bases appressed to stem, blades 1.3-2.8 x 0.3-0.7 mm, elliptic or lanceolate-elliptic, acuminate, apices hispid-ciliate for 5-8 mm. Inflorescence axillary, 1-flowered, peduncle 7-12 mm; floral bract 3-5 x 3-4 mm, basally clasping, broadly ovate, carinate, acute or apiculate; ovary and pedicel 0.8-1 mm, muricate; flowers cream

speckled with red or violet; sepals 6-8 x 2.3-3.5 mm, lanceolate, apiculate; petals 6-8 x 1.8-2.5 mm, elliptic-obovate to lanceolate, acute; lip 5.5-7 x 6.5-7 mm, claw cuneate, 3.5 x 3-4 mm, blade lunate to subtriangular, with acute, recurved basal angles, apiculate; column stout, 2.5-3 mm.

OTHER MATERIAL SEEN: COSTA RICA. Puntarenas: Las Alturas, above las Cruces, flowered in cult. 11 Sept. 1995, *J. Luer s.n.* (MO). PANAMA. Chiriquí: Camp Hornito, Fortuna dam site, 8°44'N 82°10'W, to Cerro Fortuna, 1200-1500 m, 16 Aug. 1976, *Dressler 5399* (MO); Coclé: S. of Cascajal along continental divide, 80° 25'W, 8° 45'N, 7 Nov. 1981, *S. Knapp 1986* (MO); Darién: Cerro Sapo, elev. 700-900 m, 1-2 Feb. 1978, *Dressler 5779* (MO); Panamá: Cerro Campana, 10 July 1968, *Dressler 3535* (MO); 10 May 1969, *Dressler 3627* (MO); La Eneida, 10 May 1969, *Dressler 3626* (MO); 8 July 1969, *Dressler 3650* (PMA); Veraguas: First branch of Río Santa María, about 8 km NW of Santa Fé, elev. ca. 650 m, 4 Aug. 1975, *Dressler 5063* (MO); Proyecto Arizona (Buenos Aires), N. slope of ridge E. of Cerro Arizona, 950 m, 12 Oct. 1975, *Dressler 5190* (MO, PMA); Cerro Arizona (Tute) NW of Santa Fé, 10-11 Feb. 1976, *Dressler 5531* (MO).

Dichaea brachypoda Rchb.f. was based on *Wendland 809* (W-R!), from San Miguel, Costa Rica. The name has been used quite widely by

Reichenbach, himself, and was applied to *D. camaridioides* Schltr. by Dunsterville & Garay (1965). We confidently used the name for a common species in Panama, until we looked at the type, which is a *Dichaea* with a smooth ovary. We have seen nothing like the type from Costa Rica. Though *Wendland 809* was apparently collected in the field, its aspect is more typical of specimens prepared from cultivated plants, a scrap of vegetative material with one or two flowers. Until such a plant is (again) found in Costa Rica, we remain a bit sceptical as to its origin. *Dichaea elliptica* differs from *D. camaridioides* in that it has a distinct, strap-like ligule, rather than a triangular projection of the ventral margin of the stigma.

Govenia viaria Dressler, *sp. nov.*

FIG. 1.

TYPE: COSTA RICA. San José, Panamerican Highway south of Cartago, about km. 46, 21 July 1994, *R. L. Dressler & D. E. Mora 6168* (holotype MO, Isotype USJ).

Herba terrestris mediana cormis ovoideis, foliis duobus, racemo pedunculato, floribus parvis, flavis, sepalis petalisque brunneo suffusa; labelo ovato apiculato.

Terrestrial, roots 1-2 mm in diameter; corms ovoid, 3.5-4 x 2.5-3.5 cm; leaves 2 (-3), petioles 18-22 cm, tubular below, blades elliptic, acute or acuminate, 25-40 x 6.5-10 cm, leaves basally surrounded by tubular sheaths 10-17 cm; inflorescence lateral, peduncle 30-70 cm, with 1-2 tubular bracts 1.5-5 cm, raceme 14-20 cm; floral bracts linear or sublinear, acuminate, 15-20 (30) x 2-3 (4) mm; ovary and pedicel 16-20 mm; flowers pale yellow, sepals flushed red-brown within, petals barred with red-brown within, lip basally red-brown, apically with 5 brown spots; dorsal sepal oblong-elliptic or oblanceolate-elliptic, concave, subobtuse or acute, 12-15 x 3.5-4.6 mm; lateral sepals oblong-elliptic, falcate, acute or apiculate, 9.5-10 x 3.5-5.5 mm; lip unguiculate, ovate or subquadrate-ovate, abruptly apiculate, 7 x 4 mm; column 6-7 mm, arcuate, column wings rounded or subtriangular, ca. 1.5 x 2 mm.

This species is distinctive in its small flowers with relatively narrow parts. Though the flowers are

basically yellow, this species does not appear to be a member of the *G. superba* complex. The anther has a subulate beak, rather than a wide, triangular beak as in *G. superba* and its close allies. *Govenia viaria* is locally common along the Interamerican highway south of Cartago, thus the epithet *viaria*, from Latin *via*, road or highway.

OTHER MATERIAL SEEN: COSTA RICA, Alajuela: Palmira, alt. 5800 ft, Sept. 1937, *Austin Smith 272* (AMES); Cartago: road from Cartago to Cerro de la Muerte, Aug. 1963, *R. L. Dressler 2872* (FLAS); Puntarenas: Monteverde, *J. T. Atwood 89-211* (SEL); San José: Cedral de Dota, 1700-2000 m, 23 July 1969, *L. D. Gómez P. 2318* (F, SEL).

Palmorchis eidae Dressler, *sp. nov.*

FIG. 2.

TYPE: COSTA RICA. Puntarenas: Cantón de Golfito, Reserva Forestal Golfo Dulce, Serranía de Golfito, sendero a San Josecito; 8°40'21"N 83°14'38"W, 30 m. Hierba creciendo en bosque primario, flores moradas; 17 oct. 1996; *Eida Fletes 414* (holotype INB, Isotype MO).

Plant caespitose, ca. 20 cm; roots 0.5-1 mm in diameter; vegetative stem ca. 10 cm, covered by leaf-sheaths; sheath with petiole 3.5-4.5 cm; blades plicate, elliptic or elliptic-lanceolate, acuminate, 4.5-12.5 x 1-2.3 cm; peduncle ca. 5 cm, with 1 or 2 lanceolate bracts 1.5-5 x 0.2-0.5 cm; raceme short, flowers successive; floral bracts narrowly triangular-ovate, acute, heavily veined, ca. 4 x 1.2 mm; flowers purple; ovary and pedicel ca. 9 mm; sepals linear-oblanceolate, acute or apiculate, carinate, ca. 17 x 2.3 mm; petals linear-oblanceolate, obtuse, 17 x 2 mm; lip 3-lobed, lateral lobes connate over column, tubular, ca. 12.5 mm, midlobe obcordate, unguiculate, 4.5 x 7 mm, with high keel in throat and on base of blade, ca. 0.3 mm high; column ca. 12 mm.

This remarkable little *Palmorchis* has the lateral lobes of the lip connate over the column and the flowers are described as purple. Only a single flower is known but it is in quite good condition. I have not dared dissect it but it is clearly very distinct from all known species of *Palmorchis*. The species is named for the collector, Eida Fletes. Careful work in the region of Golfito and Peninsula

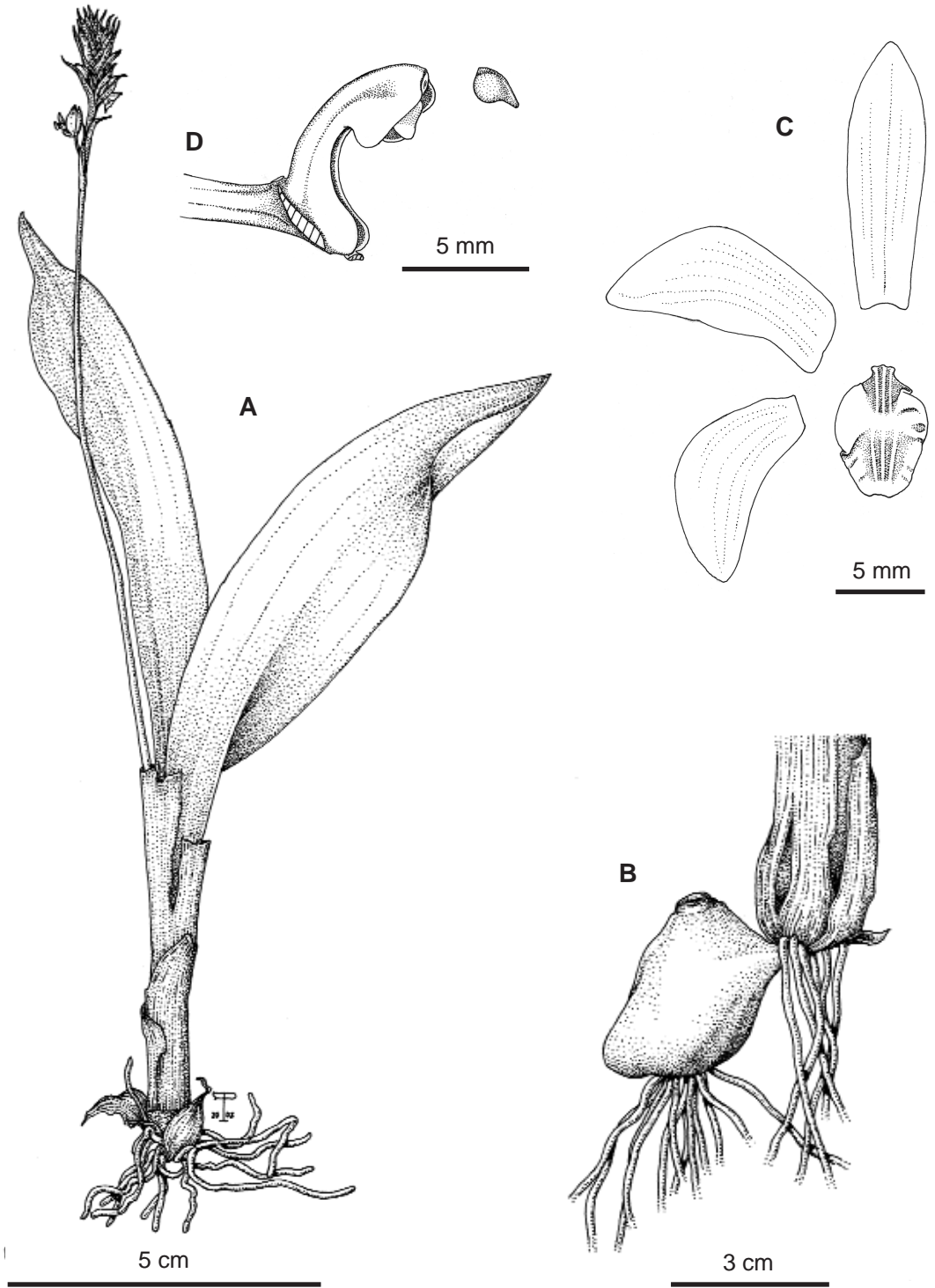


FIGURE 1. *Govenia viaria* Dressler. A - Habit. B - Corm. C - Perianth parts flattened. D - Lateral view of column and anther. ILLUSTRATION VOUCHER: *Dressler & Mora 6168* (MO and USJ). Drawn from the type.

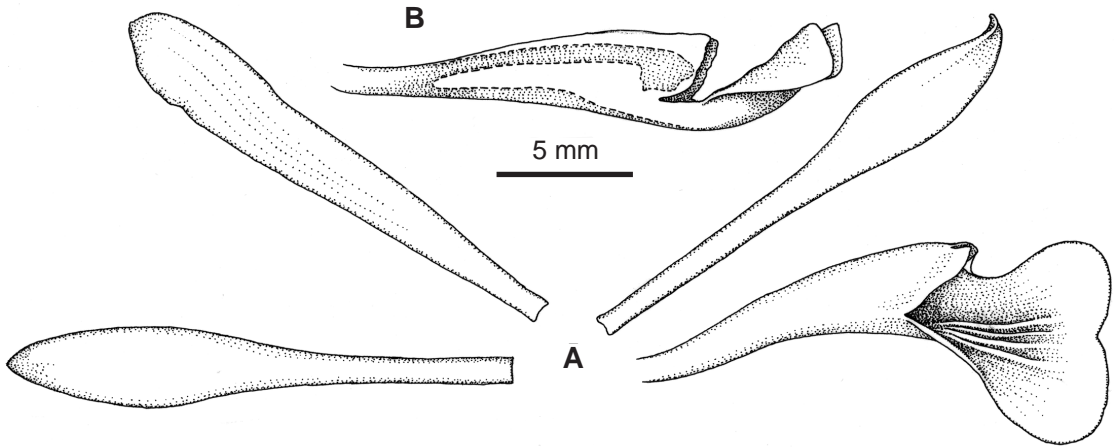


FIGURE 2. *Palmorchis eidae* Dressler. A - Perianth parts flattened. B - Lip shown from side, to show relationship between column and lip. ILLUSTRATION VOUCHER: *Fletes 414* (MO). Drawn from the type.

de Osa will surely turn up other undescribed species. There is already material clearly not of any described species, but the material is too poor to permit description.

Chondroscaphe endresii (Schltr.) Dressler, *comb. nov.*

Basionym: *Chondrorhyncha endresii* Schltr., Repert. Spec. Nov. Regni Veg. 17: 14. 1921. Holotype: Costa Rica, *Endres 166* (W-R!).

A molecular analysis of the Zygopetalinae is in process at the University of Florida (Whitten, Williams & Dressler), of which preliminary results have been given in *Orquideología* 21: 233-255. 2000, and 22: 12-22. 2001. At that time, I had not studied the type of *Chondrorhyncha bicolor* Rolfe, the most commonly used name in Costa Rica, and I assumed that it was the same as *C. endresii* Schltr. Now, I have studied both type specimens. The type of *C. bicolor* is poorly preserved and does not match any species that I know from Central America. Hopefully, further collecting will permit the identification of this taxon with a known species, but, at present, I can only say "It's not that." *Chondrorhyncha endresii*, however, is definitely the species most often identified as *C. bicolor*. Thus, a new combination is needed in *Chondroscaphe* for *C. endresii*.

Pleurothallis (Sect. *Selenia*) ***grammata*** (Pupulin & Blanco) Dressler, *comb. nov.*

Basionym: *Myoxanthus vittatus* Pupulin & M.A. Blanco, *Lankesteriana* 2: 16. 2001.

This last-minute addition to the orchid flora of Costa Rica is clearly a member of the Section *Selenia*, which has been assigned to both *Pleurothallis* and *Myoxanthus*. Thus, to place it with its close allies in the Manual treatment, it is here transferred to *Pleurothallis*.

Scaphyglottis bidentata (Lindl.) Dressler, *comb. nov.*

Basionym: *Hexisea bidentata* Lindl., Hook. Journ. Bot. 1: 8 (1834).

Scaphyglottis cuniculata (Schltr.) Dressler, *comb. nov.*

Basionym: *Fractiunguis cuniculatus* Schltr., Repert. SP. Nov. Regni. Veg. Beih. 19: 31. 1923. TYPE: *C. Wercklé 83* (B, destroyed?); *Reichenbachanthus cuniculatus* (Schltr.) Pabst.

Scaphyglottis imbricata (Lindl.) Dressler, *comb. nov.*

Basionym: *Diothonaea imbricata* Lindl., Sert. Orch. t. 40 (1841). *Hexisea imbricata* (Lindl.) Rchb.f., Walp. Ann. Bot. Syst. 6: 470 (1862).

A molecular analysis of the *Scaphyglottis* complex has been completed, though the paper to present these results is still in preparation. For our purposes, the most important result is that both *Hexisea*

and *Reichenbachanthus* are embedded in one of the major clades of *Scaphyglottis*. Thus new combinations are offered here. The other Central American species of *Reichenbachanthus* already have valid names in *Scaphyglottis*.

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