

2b. *Dichaea fragrantissima* subsp. *eburnea* Dressler & Pupulin, subsp. nov. TYPE: Costa Rica. Alajuela: San Ramón, Res. Biol. A. M. Brenes, fl. in cult. at Jard. Bot. Lankester, 13 June 2000, *M. Blanco 513* (holotype, USJ). Figure 3.

A subspecies *fragrantissima* floribus eburneis, apicibus sepalorum petalorumque viridibus, labelli lobulis lateralibus brevioribus obtusis recedit.

Roots 0.7–1 mm diam.; stems with leaf bases 13–19 cm wide. Leaves 3.5–7.3 × 0.6–1.6 cm. Flowers ivory, with greenish ivory apices, margins of all perianth segments hispid-ciliate; dorsal sepal 14–16 × 4–6.5 mm; lateral sepals 14–15 × 5.5–7 mm; petals 12–14 × 4–5 mm; lip 10–14 × 5–6 mm, claw ca. 5.5 × 2–4 mm, dorsally keeled or not, with or without a rounded callus at base; midlobe 5–6 × 5–6 mm, lateral lobes from rounded angles to oblong, to 1.2 mm long; sometimes with a rounded callus between column foot and lip. Capsule ca. 18 × 15 mm, oblong, globose, muricate.

This newly described subspecies is the most common large *Dichaea* in Costa Rica and Panama, especially in wet forests on the Caribbean slope. In this subspecies the flowers are ivory in color, or occasionally with short reddish streaks at the bases of the sepals and petals, the sepals with greenish apices. The subsp. *eburnea* is much more widespread than subsp. *fragrantissima*, but we suspect that subsp. *fragrantissima* is closer to the ancestral form of the species, the ivory coloring of the flowers in subspecies *eburnea* representing floral albinism and some degree of autogamy. The plants of subsp. *eburnea* commonly bear large capsules and some are clearly self-pollinated, as in *Blanco 513* (Blanco, pers. comm.), but we do not know how frequent this may be.

Etymology. The name *eburnea* (from the Latin “eburneus,” ivory white) was first suggested by A. R. Endres for a plant he collected in Costa Rica around 1867 (W 18375).

Distribution, habitat, and phenology. Nicaragua (1 specimen known), Costa Rica, and western Panama at 600–1500 m elevation; flowering all year.

Paratypes. COSTA RICA. **Alajuela:** San Ramón: Res. For., *A. Carvajal 347* (MO); Res. A. M. Brenes, ca. del Río Lorencito, fl. en cult., Jard. Bot. Lankester, *M. Germani 131* (USJ); Bajo la Balsa, *A. Carvajal 479* (MO); rd. from San Ramón through Balsa, Río Balsa at bridge, *W. D. Stevens 13802* (MO); Monteverde Res., S side Río Peñas Blancas Valley, near Refugio Alemán, *W. Morris & L. Obando 4042* (CR, MO, SEL). **Cartago:** Res. Tapantí, vertiente arriba de Quebrada Seca, *R. L. Dressler & Biología 350, No. 195* (USJ); Taus, *C. Todzia 3041994b* (CR). **Heredia:** Sarapiquí, along Río San Fernando betw. Cariblanco & Colonia del Socorro, *K. Barringer, E. Christenson, B. Pérez 3672* (MO).

Puntarenas: Monteverde Res., Peñas Blancas Valley, *J. T. Atwood 89-314* (SEL). **San José:** P. N. Braulio Carrillo, trail from hwy. to Río Hondura/Bajo La Hondura, ca. 5 km after tunnel, *S. Ingram & K. Ferrell 812* (CR); Braulio Carrillo N. P., *J. P. Folsom 11,010* (CR); without specific locality, *A. R. Endrés 161* (W). NICARAGUA. **Zelaya:** Cerro El Hormiguero, W range, elfin forest, *J. H. Pipoly 5156* (MO). PANAMA. **Chiriquí:** Camp Hornito, Fortuna dam site, *R. L. Dressler 5338* (PMA). **Veraguas:** third branch of Río Santa María to drop-off to Calovéhora, 12–15 km NW of Santa Fé, *R. L. Dressler 5144* (PMA); *R. L. Dressler 4838* (MO).