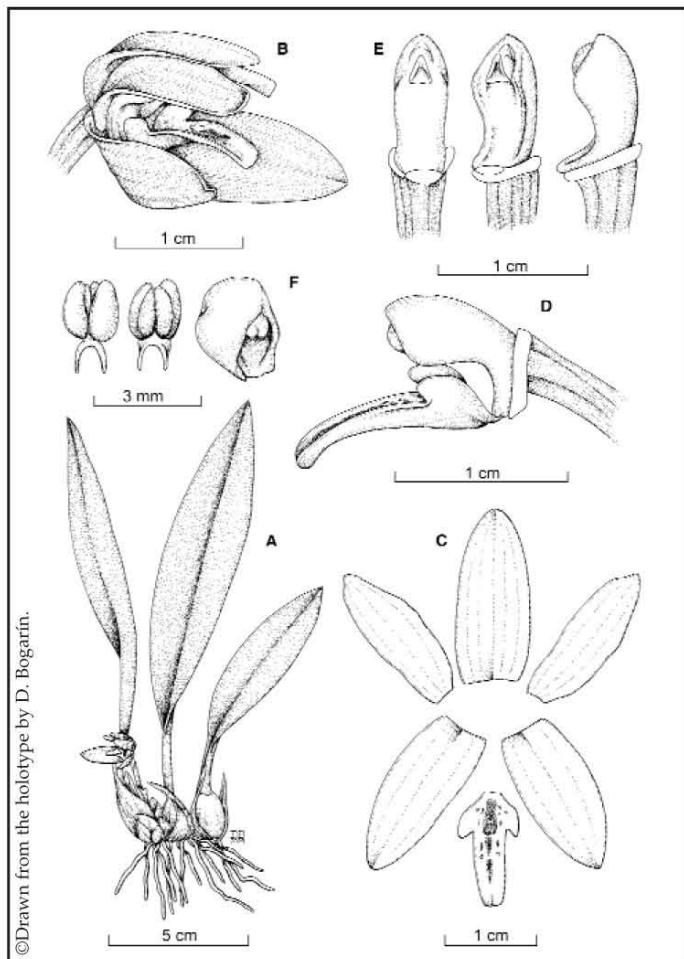




Mormolyca fumea is endemic to Costa Rica. Plants grow in lower montane rain forest along the Caribbean watershed of Talamanca range. Plants flower from January to February.



Mormolyca fumea Bogarín & Pupulin. A: Habit. B: Flower in natural position. C: Dissected perianth. D: Column and lip, lateral view. E: Column, front and lateral views. F: Pollinarium (front and dorsal view) and anther cap.

Mormolyca fumea Bogarín & Pupulin, sp. nov.

TYPE: COSTA RICA. Cartago: Jiménez, Pejivalle, Tucurrique, Bajos del Humo, between rivers Humo and Vueltas, eastern slopes of Cerros Duán, 9°48'36.7" N 83°45'16.2" W, 1396 m, lower montane rain forest, epiphytic on trees in pastures and forest edges, 24 November 2008, D. Bogarín 5729, R.L. Dressler, R. Gómez & R. Trejos, (Holotype, CR; isotype, JBL-spirit).

Species habitu cum Mormolyca moralesii (Carnevali & J.T. Atwood) M.A. Blanco congruens, petiolis vaginisque longioribus, sepalis petalisque luteolis viridulis (vs luteos brunneolos), labello longiore ovato (vs. oblongum), callo labelli puberulo purpureo (vs. farinaceum album), apice labelli luteo (vs. purpureum maculatum) differt.



Known from Honduras to Costa Rica, *M. moralesii* presents a broad elevational range, spanning elevations from tropical wet forests close to sea level up 1100 m. Collected in the A.M. Brenes Biological Reserve along the Caribbean watershed of the Cordillera de Tilarán in Costa Rica, this plant was photographed at Jardín Botánico Lankester.

Plant epiphytic, caespitose, to 23 cm tall. **Roots** brownish to orange, produced from the base of the pseudobulb and the rhizome, 0.9-1.0 mm in diameter. **Pseudobulbs** clustered, ovoid to subpyriform, 3 x 2 cm, unifoliate apically, surface rugose, longitudinally many-ridged, subtended by scarious sheaths becoming shredded and leafless with age, 4-6.5 cm long. **Leaves** elliptic-oblong, acute, petiolate, conduplicate, coriaceous, 17-20 x 2-3 cm; petiole 2.5-4.0 cm long. **Inflorescence** erect, larger or as long as the pseudobulb, produced from the rhizome, up to 6.5 cm; peduncle 4 cm long. **Floral bracts** 1.6 x 1.0 cm, broadly obovate, obtuse, shorter than the ovary. **Ovary** terete, ridged, 2 cm long. **Flowers** resupinate, ringent, scented, the sepals and petals yellowish to pale green, the lip yellowish, blotched with purple towards the apex. **Sepals** subsimilar, concave at base, the margins slightly revolute. **Dorsal sepal** ovate, subacute, 1.9 x 0.8 cm. **Lateral sepals** oblong, acute to subacute, 1.9 x 0.8 cm. **Petals** oblong, subacute, slightly crenate, concave at base, the mar-

gins somewhat revolute, 1.6 x 0.5 cm. **Lip** three-lobed, adnate to the column foot, the lateral lobes erect, perpendicular to the midlobe in natural position, 1.3-1.6 cm long, 0.7 cm wide between the expanded apices of the lateral lobes, mid-lobe 1.3 cm long, oblong, the apex subtruncate, shallowly emarginate; lateral lobes 5 mm long, ca. 1 mm wide at the base, acute or subacute, emerging just below the middle portion of the lip; disk bearing a sticky purplish callus reaching the middle of midlobe, thicker at the base and at the insertion of the lateral lobes. **Column** 1 cm long, arcuate, wide near the apex, slightly winged, hemiterete, the foot 2 mm long, the anther apical, the stigma ventral. **Pollinarium** with four ovoid pollinia in pairs, the two pairs subequal and attached to a horseshoe-shaped stipe. **Anther cap** cucullate, smooth.

DISTRIBUTION. Known only from Costa Rica.

HABITAT. Plants grow in lower montane rain forest in disturbed secondary vegetation and scattered trees in pastures, along the Caribbean watershed of Talamanca range at 1400 m elevation.

ETYMOLOGY. From the Latin *fumeus*, "of the smoke" (*humo* in Spanish), in reference to the type locality of El Humo in Tucurrique, Cartago, Costa Rica.

PHENOLOGY. Plants have been recorded in flower from January to February.

This species closely resembles *M. moralesii* but differs in having sepals and petals yellowish-greenish (vs. yellow suffused with brown), a larger lip up to 1.3 cm long (vs. 1 cm) with the midlobe ovate, narrowing towards the apex (vs. oblong), and sticky callus, minutely haired, stained with purple and running up to the middle of the lip (vs. farinose, white and running up to 3/4 of the lip). Moreover, the apex of the lip is spotted with purple in *M. moralesii*, while in *M. fumea* there are only a few red spots at the base and purple blotches towards the callus apex. Plants of *M. fumea* are somewhat larger than those of *M. moralesii*. The petioles are larger in *M. fumea*, varying from 2.5-4.0 cm long (vs. up to 1.5 cm). The sheaths enveloping the pseudobulb are twice the length of the pseudobulb rather than as long as the pseudobulb in *M. moralesii*.