

A New *Oncidium* from Costa Rica

A Showy Species in the Oncidiinae: Orchidaceae/By Franco Pupulin and Diego Bogarín

IN THE LAST 10 YEARS OR SO, WE have been busy at Lankester Botanical Garden (JBL, the acronym in Spanish for Jardín Botánico Lankester) in describing new



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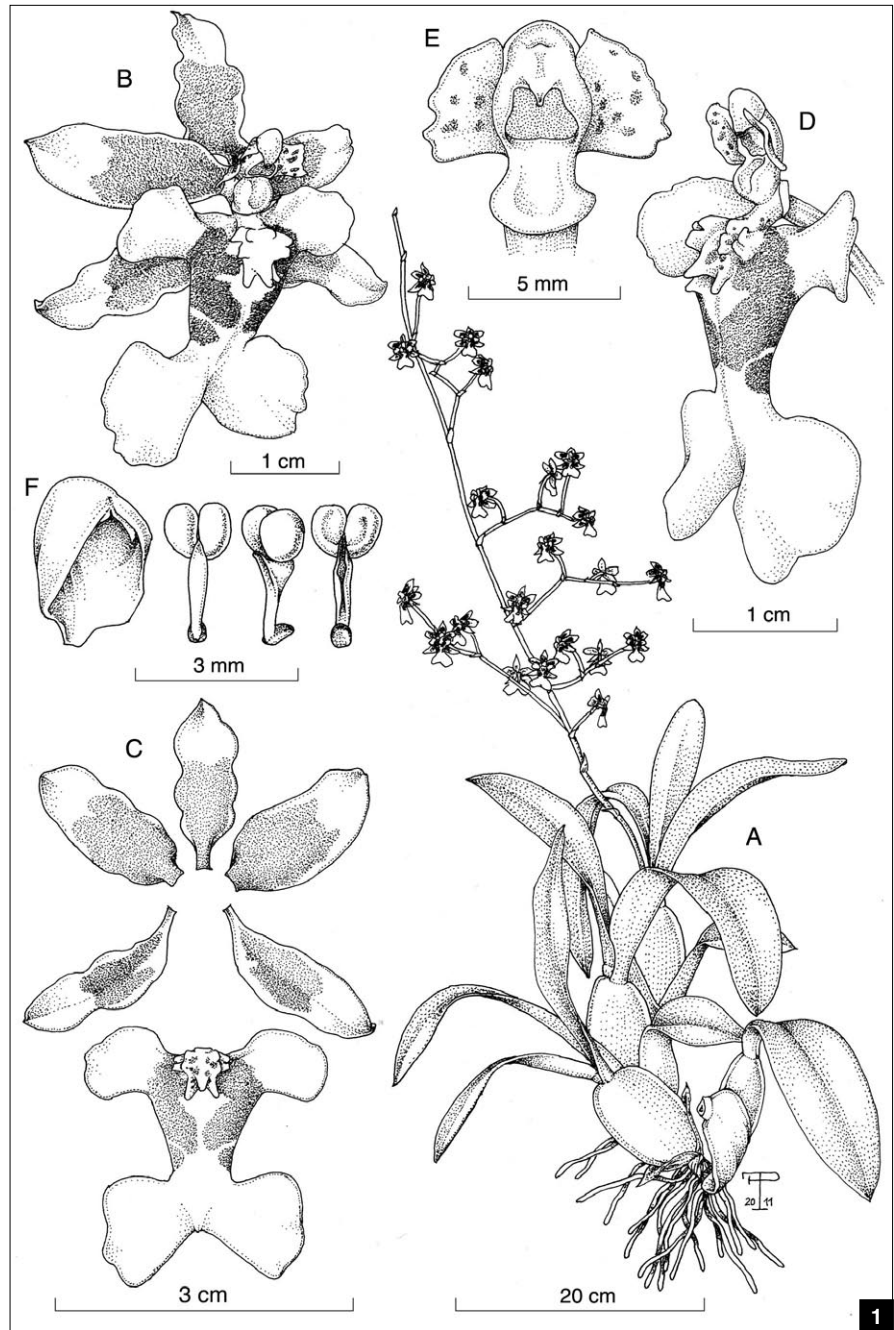
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orchid species from Costa Rica (and a few from abroad) and reporting new additions to the rich orchid flora of the country. Looking back, our “taxonomic task force” disclosed to the orchid world 105 new species from Costa Rica, and more than 40 novelties from other parts of the Neotropics (for a review of the latest discoveries, see Bogarín 2011). This would have been

impossible without the continuous support from our university, Universidad de Costa Rica, and the personal concern of our vice presidents of research, who through the last decade have strongly propelled development of botanical activities at JBL.

Of course, most of the orchid novelties that emerge from this botanically well-explored country are in the range of the small things, such as the diminutive *Lepanthes* (25 species) and other Pleurothallidinae (15 species), as well as others of reduced size (10 species of *Telipogon* and *Stellilabium*, six species each of *Dichaea*, *Macroclinium* and *Trichocentrum*, and five species of *Sigmatostalix* and *Oncidium*); others are large but have ephemeral flowers (16 species of *Sobralia*). We also described some showy new orchids, such as *Dracula inexperata* (Pupulin 2001a), *Brassia suavissima* (Pupulin and Bogarín 2005), *Chondroscaphe yamilethae* (Pupulin 2005), *Trichopilia punicea* (Dressler and Pupulin 2006) and *Lycaste bruncana* (Bogarín 2007), but eye-catching novelties are only rarely found because people in Costa Rica have paid close attention to showy orchids for more than two centuries.

In particular, the last species of *Oncidium* new to the Costa Rican flora was *Oncidium maduroi*, recorded 10 years ago (Pupulin 2001b), and the last species of the genus described from Costa Rican material,



the distinctive *Oncidium imitans*, was published almost 15 years ago (Dressler 1997). It was, therefore, a particularly pleasant surprise when, in April 2010, a new species of *Oncidium* opened its showy flowers for the first time in the research greenhouses of JBL. The plant had been confiscated from an orchid poacher by the officers of MINAET (the acronym in Spanish for the Ministry of Environment, Energy and Telecommunications) in July 2009 and was still

[1] *Oncidium henning-jensenii* Pupulin & Bogarín. A. Habit. B. Flower. C. Perianth, flattened. D. Column and lip, lateral view. E. Column, ventral view. F. Anther cap and pollinarium. Drawn by the authors from the holotype.

growing on the original trunk (the tree was cut to collect the plant). We describe it here as new to science as: *Oncidium henning-jensenii* Pupulin & Bogarín, *sp. nov.*



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TYPE Presumably Costa Rica. Puntarenas-San José: Zona Sur, without further locality data, a plant confiscated by MINAET officers along the southern Pan-American Highway in the Cerro de la Muerte region. Flowered in cultivation at Lankester Botanical Garden, University of Costa Rica, April 27, 2010, *JBL-21878* (holotype, CR; isotype, JBL-spirit).

Species *Oncidium ansifero* Rchb.f. et *Oncidium stenoglossa* Kraenzl. pseudobulbis similis, sed habito repente floribus multo majoribus luteis sepalis subbrunneis maculatis (vs. atrobrunneum vel brunneum punctatum maculatum) et labello magis lato inter lobulos laterales; ab *Oncidium ansifero* praeterea recedit lobulis lateralibus labelli subflabelliformi-transverse ellipticis et ab *Oncidium stenobulbo* isthmo labelli multo latiore et alis columnae magnis dolabriformis praecipue distinctum est.

Epiphytic, caespitose, repent herb to 60 cm tall. Roots slender, flexuous, 1.1–1.3 mm in diameter. Rhizome elongate, repent-ascending, 8–10 mm thick, producing roots from internodes, the pseudobulbs 4.0–5.2 cm apart. Pseudobulbs ovate-elliptic, smooth, green with yellowish margins, homoblastic, with two to three internodes, strongly ancipitous and flattened, subtended at the base by one to two foliaceous sheaths, elliptic, acute, conduplicate, different in size, the larger 17.0–22.0 × 7.0–8.0



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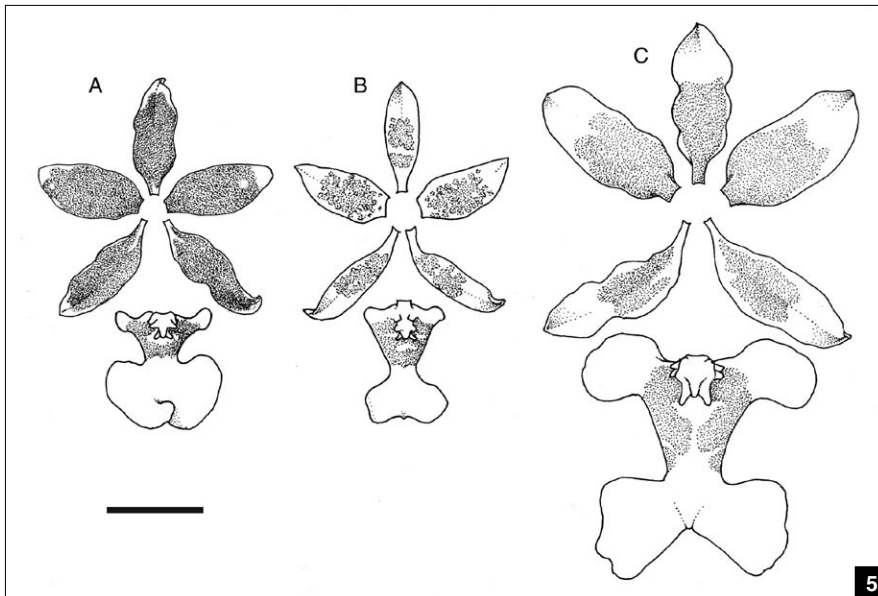


cm, the smaller 10.0–14.0 × 4.5–6.5 cm, the margins hyaline, articulate with the sheath, often becoming dry-papyraceous with age; the basal node 12.0–15.0 × 6.0–9.0 cm, the second node obovate, 2.2–2.5 × 2.2–2.5 cm, the third node (when present) subreniform, 0.7–0.9 × 1.0–1.2 cm. Leaves two to three, narrowly elliptic to lanceolate, conduplicate-subpetiolate, smaller toward the apex of the pseudobulb, 13.5–30.0 × 4.0–8.5 cm, constricted into a conduplicate petiole up to 2.5 cm long. Inflorescence basal, one to two per

[2] *Oncidium henning-jensenii*, a detail of the inflorescence from the plant that served as the holotype. The flowers of the new species are among the largest in Costa Rica.

[3] Don Henning, for whom *Onc. henning-jensenii* is named.

[4] *Oncidium henning-jensenii*, flower from the plant (holotype) flowered in cultivation at Lankester Botanical Garden, University of Costa Rica, and photographed in April 2010.



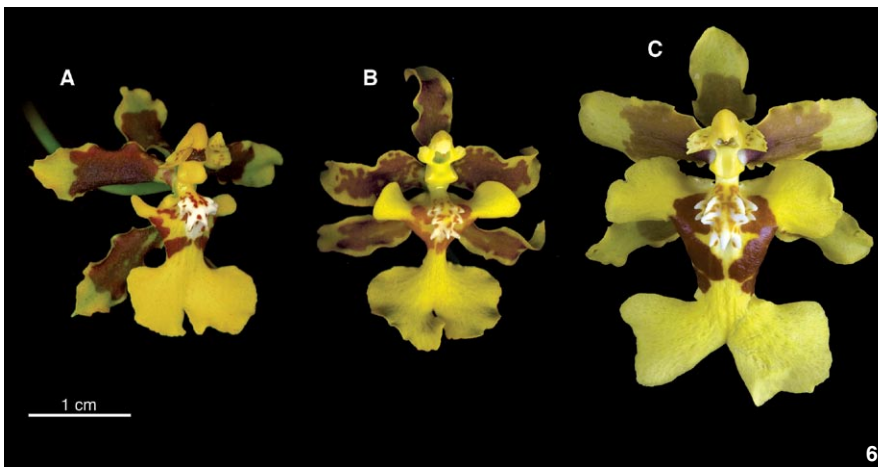
DRAWN BY THE AUTHORS

the central one slightly longer; entire callus 7.0×6.0 mm. Column subterete, $0.9\text{--}1.0$ cm, provided with a transversely elliptic, channeled tabula infrastigmatica and two large, subapical, dolabriform, erose-denticulate wings 3×5 mm, the stigma transversely subrectangular, ventral, the anther incumbent. Anther cap elliptic, deeply cucullate, two-celled. Pollinia two, subglobose, cleft, on a narrow tubularized stipe with an apical saddle on which the pollinia are attached, viscidium oblong.

DISTRIBUTION Known only from the type specimen and likely endemic to Costa Rica.

HABITAT AND ECOLOGY Unknown. The single plant (also the holotype) was not associated with specific locality data. As the plant was confiscated by the officers of MINAET along the southern Pan-American Highway in the vicinity of the Cerro de la Muerte, we argue that it was likely collected in the region of Dota or Pérez Zeledón, on the Pacific watershed of the Talamanca mountain range in central Costa Rica. Presumably the plant was collected in a humid warm area shortly before it was confiscated because it was brought attached to a trunk covered by mosses together with several plants of *Trichocentrum ascendens* (Lindl.) M.W. Chase & N.H. Williams; the latter is known from lower elevations (up to ca. 1,000 m or 3,280 feet) on the Pacific side of Costa Rica. Two other species of *Oncidium* with strongly flattened, ancipitous pseudobulbs have been recorded from Costa Rica: *Oncidium ansiferum* Rchb.f. and *Oncidium stenobulbon* Kraenzl. They are known locally as “caite” (sandal) and “galleta,” (cookie), respectively, in allusion to the unusual flatness of the pseudobulbs in both species. *Oncidium ansiferum* mostly grows in wet forests at elevations of 1,300–2,200 m (4,260–7,220 feet), whereas *Onc. stenobulbon* is found at lower elevations in seasonal forest along the Pacific coast at elevations of 0–1,000 m (0–3,280 feet).

PHOTOGRAPHS BY THE AUTHORS



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growth, a branched raceme, simultaneously many-flowered (to 30+) to 80 cm long, the peduncle terete, erect, to 15 cm long, with two to three triangular, acute-acuminate, brown, adpressed bracts 2 cm long; lateral branches horizontal-ascending, slightly fractiflex, progressively shorter toward the apex, three- to six-flowered, 7.5–15.0 cm long. Floral bracts glumaceous, broadly triangular-ovate, $5\text{--}9 \times 4\text{--}7$ mm. Ovary pedicellate, terete, narrowing toward the apex, 5.5–7.0 cm long. Flowers spreading, yellow with chestnut maculations, sepals and petals yellow, basally pale brown with a yellow margin, reflexed, the lip yellow, the callus yellow marked with chestnut, the apex of the teeth white, the isthmus yellow with a brown blotch, the column yellow, sparsely spotted with chestnut on the wings. Sepals subsimilar, shortly clawed, lanceolate-elliptic, acute, keeled dorsally, the apices abaxially shortly mucronate-reflexed, the margins undulate-wavy, marked with brown in the basal two thirds, $1.6\text{--}2.0 \times 0.5\text{--}0.6$ cm. Petals unguiculate, elliptic,

[5] Comparison of the dissected perianths of: A. *Onc. ansiferum*, B. *Onc. stenobulbon* and C. *Onc. henning-jensenii*. Illustration vouchers: A. *Bogarín 5500*; B. *Pupulin 303*; C. *JBL-21878*.

[6] Comparison of the flowers of: A. *Onc. ansiferum*, B. *Onc. stenobulbon* and C. *Onc. henning-jensenii*. Vouchers: A. *Pupulin 2663*; B. *Pupulin 7001*; C. *JBL-21878*.

acute, slightly reflexed, the margins weakly undulate, $1.7\text{--}1.9 \times 0.8\text{--}0.9$ cm, blotched in the basal two thirds, the claw longitudinally reflexed. Lip trilobed, up to 2.5 cm across the lateral lobes, the basal lobes transversely subflabelliform-elliptic, 0.9×0.7 mm, the isthmus subrectangular-cuneate, the margins reflexed, 11×9 mm, the midlobe deeply emarginate-bilobed, transversely subrectangular in outline, 1.1×2.1 cm, each lobe obliquely broadly elliptic-rounded, the margins undulate; disc with a multidigitate callus, composed of two parallel series of two teeth on each side, and three apical teeth,

Table 1: Comparison of characteristics of the different taxa.

Character	<i>Onc. ansiferum</i>	<i>Onc. stenobulbon</i>	<i>Onc. henning-jensenii</i>
Color of sepals and petals	Blotched dark brown	Spotted pale brown	Blotched pale brown
Petals	15 × 7 mm	13 × 5 mm	17 × 9 mm
Lateral lobes of lip	Oblong, 4 × 3 mm	Transversely elliptic, 4 × 4 mm	Subflabelliform-transversely elliptic, 9 × 7 mm
Isthmus	5 × 4 mm	6 × 3 mm	11 × 9 mm
Across basal lobes of lip	12 mm	15 mm	25 mm
Callus	5 × 4 mm	5 × 3 mm	7 × 6 mm
Midlobe in natural position	Superposed	Superposed	Spread, flat
Column wings	2 × 4 mm	1 × 2 mm	3 × 5 mm

the long, paniculate, many-flowered inflorescences and the flowers yellow, spotted or stained with red-brown. Among its relatives, *Onc. henning-jensenii* differs in its yellow sepals and petals with pale brown blotches at base (vs. dark brown in *Onc. ansiferum* and with spotted sepals and petals in *Onc. stenobulbon*) and the larger floral segments, with the lip up to 2 cm long (vs. up to 1.3 cm) (see Table 1). The basal lobes of its lip are wider and larger, and the midlobe is retuse without superposed lobes at apex. *Oncidium ansiferum* is unmistakable with its dark brown, blotched sepals and petals with yellow apex, and its lip is distinctly broader across the midlobe than across the small, oblong basal lobes. *Oncidium stenobulbon* is also similar but has small column wings, a much narrower isthmus and smaller floral parts.

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Acknowledgments

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