Masdevallia lankesterana Luer, *sp. nov*. TYPE: COSTA RICA. Without collection data, flowered in cultivation at Lankester Gardens, Cartago, Costa Rica, 7 May 1995, *C. Luer 17383* (Holotype: CR; Isotype: MO). Fig. 4.

Species haec *M. striatellae* Rchb.f. persimilis, sed habitu majore, pedunculo folio plus minusve aequilongo, flore majore cum caudis crassis elongatis quam laminis aequilongis, et apice labelli decurvato distinguitur.

Plant medium in size, caespitose; roots coarse. Ramicauls erect, 1-1.5 cm long, enclosed by 2-3 loose, tubular sheaths. Leaf erect, coriaceous, 8-12 cm long including the petiole 2.5-3 cm long, the blade narrowly obovate, subacute to obtuse, 1.2-1.5 cm wide, narrowly cuneate below into the petiole. Inflorescence a single flower produced successively in a congested, few-flowered raceme by a slender, erect peduncle 9-11 cm long, with a bract near the base, from low on the ramicaul; floral bract tubular, 10 mm long; pedicel 15 mm long; ovary 5 mm long; sepals fleshy, glabrous, dull rose with dark purple stripes, the dorsal sepal 3-striped, obovate, 15 mm long, 9 mm wide, connate to the lateral sepals for 12 mm to form a cylindrical, sepaline tube, the apex subacute or obtuse, contracted into an antrorse, purplish tail 23 mm long, 1.5 mm thick, the lateral sepals rose, each 3-striped with dark purple, connate 14 mm into an obovate, bifid lamina, 18 mm long, 18 mm wide, the apices subacute, contracted into thick tails 15 mm long; petals white with purple midvein, oblong, 6 mm long, 3 mm wide, the apex rounded, the labellar margin with a low, longitudinal callus ending in a thick angle below the middle, the base subunguiculate; **lip** pale rose, dotted with purple above and below the middle, oblong-subpandurate, 6 mm long, 3 mm wide, the apex rounded, acutely decurved, the disc with a pair of low, longitudinal calli, obtusely angled above the middle, the base cordate, each side concave with thin erect margins, hinged beneath; column white, semiterete, 5.5 mm long, the foot 3 mm long with an incurved extension.

ETYMOLOGY: Named in honor of Charles Lankester whose garden eventually became the Lankester Gardens at Cartago, Costa Rica.

Although in appearance this species appears very distinct from the usual *M. striatella*, which is frequent and morphologically variable in the central valley of Costa Rica, the two taxa are very similar in many details. They are members of the nearly exclusively Costa Rican section *Reichenbachianae*. The sepaline tubes of both species are prominently striped in purple, and the petals and lip, except for the acutely deflexed apex of *M. lankesterana*, are very similar. *Masdevallia lankesterana* is distinguished by the larger habit, much longer peduncles, and larger flowers with well-developed, thick, sepaline tails as long as or longer than the blades.