Masdevallia fimbriata A. & S. sp. nov. Herba perparva, caespitosa. Caules minuti, monophylli. Folium oblongum vel peranguste ellipticum, acutum, valde carnosum et in sectione triquetrum. Pedunculi diffusi, valde pubescentes. Flos extus longe et laxe pubescens. Sepala caudata, lateralia alte connata, nervis extus carinatis. Petala lanceolata, fimbriata. Labellum obovatum, marginibus basi excepta valde fimbriatis; discus ultra basim dense papillosus.

Plant very small, caespitose, up to 2.8 cm. high. Roots numerous, fibrous, flexuous, filiform, glabrous. Stems minute, about 2 mm. long or less, concealed with the base of the jointed petiole by a scarious tubular sheath. petioled; lamina linear to narrowly oblong-elliptic, up to 2 cm. long and 2.5 mm. wide, very fleshy and triquetrous in section in the fresh specimen, acute and minutely tridenticulate at the tip, longitudinally sulcate on the upper surface and angled beneath; petiole indistinct, about 5 mm. long. Inflorescence few-flowered (in one case 4 remote pedicels are present), up to 4 cm. long. Peduncle and rachis prominently spreading-pubescent. Lateral sepals 11.6 mm. long, abruptly caudate, connate to a point beyond the middle into a deeply concave lamina which is 4-nerved with nerves deeply carinate on the outer surface, loosely long hairy dorsally especially on the margins, oblique at the base; free part excluding the tails ovate, oblique, 3.6 mm. long; tails nearly 4 mm. long, thickened. Dorsal sepal apparently free from the lateral sepals (as in M. picturata Reichb. f.), lanceolate, long caudate, 8.7 mm. long, about 2.5 mm. wide across the basal concave portion. 3-nerved with nerves carinate dorsally, outer surface with sparse long hairs. Petals long for the genus, lanceolate, long caudate above, 6.5 mm. long, about 1.9 mm. wide near the base, central margins irregularly fimbriate, prominently 1-nerved. Labellum obovate in outline, deeply and densely fimbriate except near the base, about 6 mm. long and 4.5 mm. wide, broadly rounded in front, cuneate at base with smooth margins, slightly constricted below the Thus the labellum might be called obscurely 3lobed. Disc 3-nerved with the mid-nerve long and thickened near the apex, divided into 2 portions; basal part minutely biauriculate, entirely without hairs or papillae, bounded in front by concave converging keels which extend retrorsely to each side, smooth at the very base, then abruptly callosethickened through the center, the thickening soon dividing into 2 branches which extend to the tips of the converging keels; anterior portion much larger, suborbicular, densely studded with pointed papillae. Column about 3.3 mm. long, rather broadly winged above the base, a pair of thin longitudinal keels near the center. Anther 2-celled.

Masdevallia fimbriata was described from a little plant preserved in formalin. It appears to be most nearly allied to M. triaristella Reichb.f., and to M. linearifolia Ames, but it has markedly dissimilar petals and lip from those species.

Costa Rica, "52 Miles" (the new forest opened up across the Reventazón River by the bridge built at that mile-post on the F. C. C. R.), C. H. Lankester 1176. 900–1700 feet altitude. (Type in Herb. Ames No. 34219.)