## Stelis latipetala Ames sp. nov.

Herba epiphytica. Caules monophylli, vaginis tubularibus vestiti. Folium coriaceum, ligulatum, apice bilobulatum. Racemi multiflori, erecti. Flores pusilli. Sepala orbiculari-ovata, trinervia, intus glanduloso-papillosa. Petala flabellata, uninervia. Labellum infra medium constrictum, superne plus minusve cordatum, callo glanduloso-papilloso prope basim instructum. Columna apice dilatata.

Epiphytic herb up to 2.1 dm. tall. Roots coarsely fibrous, about 2 mm. in diameter, whitish. Secondary stems caespitose, monophyllous, up to 7 cm. long, concealed by elongated tubular sheaths. Leaf 10–13.5 cm. long, up to 1 cm. wide in dried specimens (probably wider when alive), coriaceous, ligulate, bilobed at the apex. Peduncles 1 or 2, erect, with several infundibuliform bracts below the raceme, including the raceme 13–15 cm. long. Raceme about 7 cm. long, less than 3 mm. in diameter, bearing about seventy flowers. Sepals forming a tubular base; the lateral sepals about 1.5 mm. long, up to 2 mm. wide, orbicular-ovate, 3-nerved, minutely glandular-papillose on the inner surface. Dorsal sepal

similar. Petals 1 mm. long, 1.5 mm. wide, flabelliform, thickened at the broad apex along the margin, 1-nerved. Labellum 1 mm. long, 1 mm. wide, constricted below the middle, cordate, obtuse at the apex, with a pulvinate glandular-papillose callus below the middle. Column equalling the petals, lightly 3-lobed at the tip or almost entire, stigmas confluent on the anterior surface near the summit beneath the triangular rostellum. Pollinia two.

In the broad petals and in the structure of the column *Stelis latipetala* is closely allied to *S. crescentiicola* Schltr. but is much larger in all of its parts.

If the labellum is viewed directly from above, two rounded calli are discovered, one on each side of the disc, with their apices retrorse or convergent and almost contiguous. These calli are coalescent with the glandulose basal callus from which they are clearly differentiated by their deeper color. The basal callus becomes abruptly narrowed at its distal end and fills the space between the lateral calli forming with them a more or less well-defined transverse septum. This remarkable peculiarity characterizes several other species of the genus, but is by no means prevalent. That it is associated with the phenomena of pollination by insects seems highly probable. When this peculiarity is represented in a drawing there appears to be a circular hole at the centre of the disc, almost closed at the top. This is well shown in figure 4.

Costa Rica, Cachi. Flowers maroon, seventy or more in each raceme. September, 1925. C.H. Lankester 1101 (Type in Herb. Ames No. 31109).

## EXPLANATION OF ILLUSTRATION

Stells latipetala Ames. Plant natural size. 1, a part of the raceme much enlarged. 2, flower enlarged about sixteen times. 3, petals and column with the anther in situ, much enlarged. 4 & 5, labellum much enlarged. The circular area which appears to be a hole is made up of the paler tissues characteristic of the basal callus.

Drawn from dried specimens with the aid of the camera lucida by Blanche Ames

