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### STUDIES IN STELIS. III.

BY

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THREE NEW SPECIES of *Stelis* are described and illustrated in this paper. Two of these species belong to the section of the genus that is characterized by stigmatiferous lateral lobes at the apex of the column. The third species, *Stelis latipetala*, belongs to that section in which the species have the stigmas confluent on the anterior surface of the column beneath the triangular rostellum.

#### ***Stelis crystallina* Ames sp. nov.**

Caules secundarii dense caespitosi, erecti vel adscendentes, monophylli, vaginis tubularibus vestiti. Folium anguste oblongum, utrinque attenuatum, apice tridenticulatum. Racemus gracilis, folium excedens, multiflorus. Bracteae racemi infundibuliformes, acutae. Sepala valde convexa, elliptica, obtusa, trinervia, intus dense glandulosa, glandulis crystallinis oblecta. Petala suborbicularia, uninervia, apice vix incrassata. Labellum a latere visum semiglobosum, in circuitu orbiculare, valde incrassatum, apice denticulatum, basi callosum. Discus leviter furcato-carinatus, supra medium excavatus. Columna carnosae, petala aequans, antice utrinque lobo carnosae obtuso stigmatifero instructa, rostello late triangulo.

Leaf-bearing stems densely caespitose, up to 5 cm. long, unifoliate, clothed with several closely appressed tubular sheaths, the uppermost one 2.5 cm. long, 3 mm.

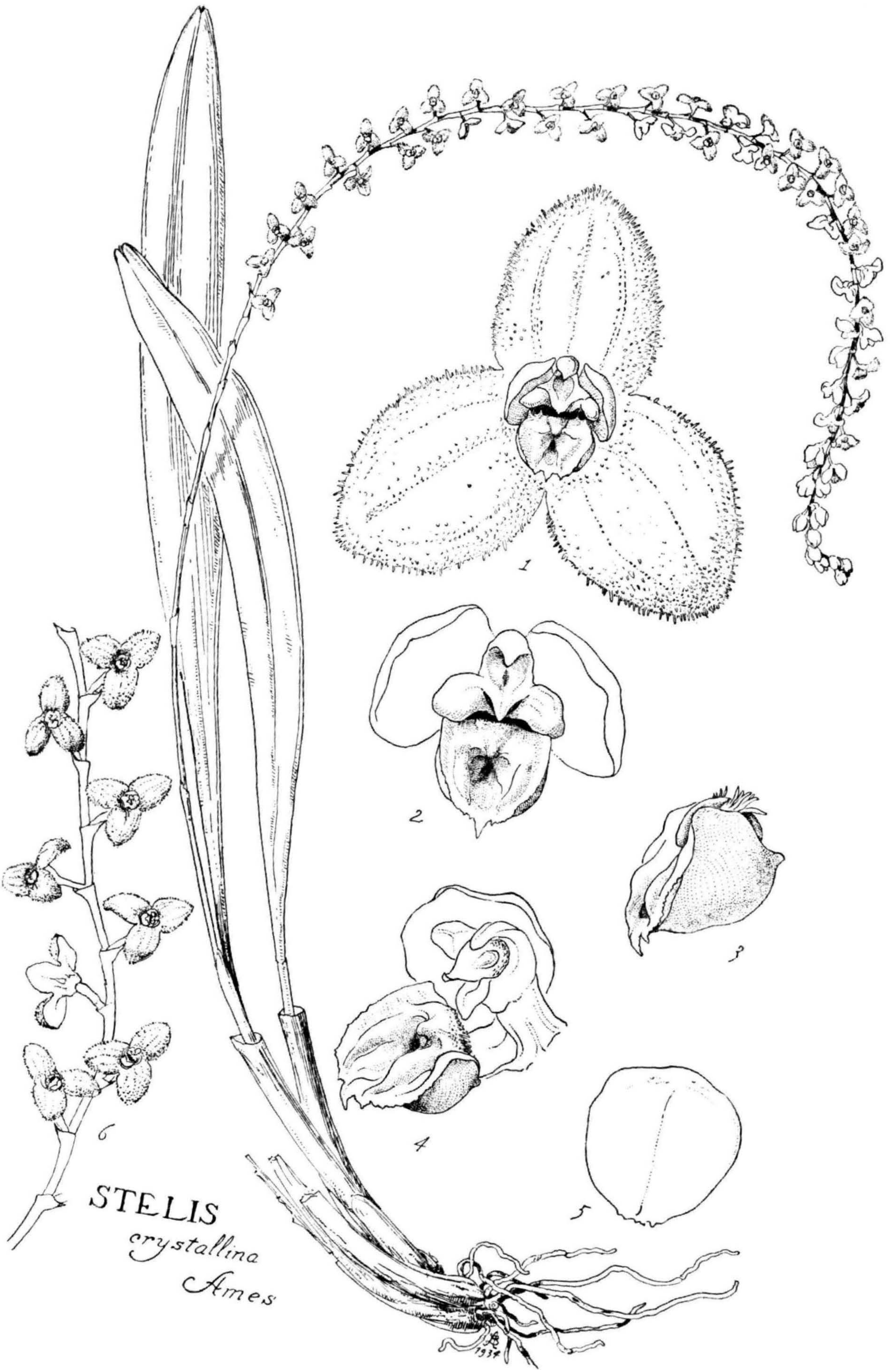


## EXPLANATION OF ILLUSTRATION

STELIS CRYSTALLINA *Ames*. Plant natural size. 1, flower enlarged about nine times. 2, labellum, petals and column much enlarged, anther removed to reveal the stigmatiferous lobes of the column separated by the triangular rostellum. 3, labellum, much enlarged, side-view. 4, petal, labellum and column showing anther *in situ* with the stigmatiferous lobes extending on either side. 5, petal much enlarged. 6, a part of the raceme, slightly enlarged.

*Drawn with the aid of the camera lucida, the analytical details having been drawn from material preserved in alcohol, by* BLANCHE AMES.





STELIS  
*crystallina*  
Ames



in diameter in dried specimens. Leaf about 12 cm. long, 1–1.7 cm. wide, oblong, tapering gradually from about the middle to the tridenticulate tip and to the slender petiole-like base, mid-nerve prominent beneath. Peduncle slender, up to 9 cm. long below the raceme, bearing several closely appressed tubular sheathing bracts and terminating in a slender many-flowered raceme. Raceme exceeding the leaves, about 12 cm. long. Bracts of the raceme infundibuliform, about 2 mm. long to the acute apex, about 3 mm. apart. Sepals fleshy, elliptical, obtuse, 3-nerved, about 3 mm. long, 2 mm. wide, strongly convex, densely covered on the inner surface with erect crystalline glands, united at base forming a shallow cup which is about 1 mm. deep, the lateral sepals somewhat larger than the dorsal sepal. Petals about 1 mm. long, about 1 mm. wide, suborbicular, slightly concave, hardly thickened at the apex, 1-nerved, usually equalling the column. Labellum about 1 mm. long, suborbicular, fleshy, semi-globose when viewed from the side, with the anterior margin minutely denticulate, the terminal tooth larger than the others and sharply deflexed; disc with a basal posteriorly glandulose rounded more or less porrect callus, thickened in front of the basal callus laterally to form a pair of carinae which extend almost to the apex of the labellum bounding a well-marked depression. Column about 1 mm. long, conspicuously trilobed at the dilated summit with the posterior lobe triangular-obtuse and sharply inflexed, and with the lateral lobes stigmatiferous, rounded and divaricate; rostellum broadly triangular, deflexed. Pollinia two, narrowly pyriform.

There are two sets of specimens of this species made by C. H. Lankester in 1925. No. 1010 from La Estrella de Cartago is characterized by having the petals orbicular and about equal to the column in length. No. 1051 from Cachi is characterized by elliptical-oblong petals that are



conspicuously longer than the column. Except for this difference the specimens of the two sets are similar and surely represent variants of a single species. A third set of specimens collected by A. M. Brenes at San Ramon agrees in detail with Lankester's 1010.

COSTA RICA, La Estrella de Cartago. At 6,000 feet altitude. Flowers up to fifty; sepals frontally pale buffy vinaceous, white-hairy, externally flushed with dusky purple on the central vein and near the margin; petals, lip and column pale oil-green. July 24, 1925. *C. H. Lankester 1010* (TYPE in Herb. Ames No. 31194): Cachi. At 4,000 feet altitude. Flowers buffy. September 27, 1925. *C. H. Lankester 1051*: San Ramon. Epiphyte, 1.5–2.5 dm. tall. At 975 meters altitude. October 10, 1922. *A. M. Brenes (28) 323*.