## NOMENCLATORIAL NOTES AMONG SOUTH AMERICAN ORCHIDS

## BY

## CHARLES SCHWEINFURTH

During my intensive studies of the orchids of Peru, I have found the following nomenclatorial transfers to be necessary.

Malaxis carnosa (HBK.) C. Schweinfurth comb. nov.

Stelis carnosa Humboldt, Bonpland & Kunth Nov. Gen. et Sp. 1 (1816) 362.

Dienia calycina Lindley Gen. & Sp. Orch. Pl. (1830) 23.

Ophrys monophyllos Pavon ex Lindley Gen. & Sp. Orch. Pl. (1830) 23, in synon.

Microstylis gracilis Ridley in Journ. Linn. Soc. 24 (1888) 321.

Microstylis calycina Ridley in Journ. Linn. Soc. 24 (1888) 331.

Serapias parasitica Pavon ex Ridley in Journ. Linn. Soc. 24 (1888) 331, in synon.

Malaxis calycina O. Kuntze Rev. Gen. Pl. 2 (1891) 673.

Malaxis gracilis O. Kuntze Rev. Gen. Pl. 2 (1891) 673.

Microstylis monticola Schlechter in Fedde Repert. 3 (1906) 17.

Microstylis microtoides Schlechter in Beihefte Bot. Centralbl. 36, Abt. 2 (1918) 381.

Malaxis monticola Ames in Proc. Biol. Soc. Wash. 35 (1922) 84.

A photograph of the type of *Stelis carnosa* together with two flowers from the specimen in the Muséum d'Histoire Naturelle at Paris show that this concept rep-

resents the widely distributed Middle American species of Malaxis which has borne the several names cited above, as discussed in Bot. Mus. Leafl. Harv. Univ. 3 (1935) 114.

Stelis carnosa was cited from Prov. Jaen de Bracamoros near Sondorillo and Mandor Rock, at about 6000 feet altitude, Bonpland s.n. As Microstylis calycina, it was cited from Peru (Pavon) by Ridley (l.c.) Furthermore, it was listed from the Department of Amazonas (Peru) by Schlechter in Fedde Repert. Beihefte 9 (1921) 135.

Malaxis termensis (Kränzl.) C. Schweinfurth comb. nov.

Microstylis termensis Kränzlin in Fedde Repert. 1 (1905) 91.

This Peruvian species should be referred to the earlier genus Malaxis.

It is apparently widely distributed in Peru, being found in the departments of Ayacucho, Cuzco, Huánuco and Junín.

Liparis elegantula Kränzlin in Engler Bot. Jahrb. 37 (1906) 382.

Liparis Millei Schlechter in Fedde Repert. 15 (1917) 53.

After a careful comparison of the original descriptions of these concepts, supplemented by an excellent photograph of the type of L. elegantula and a floral analysis of L. Millei made under the direction of Dr. Schlechter, it is certain that they are conspecific. Indeed, the only significant difference is that the leaves of L. Millei from Ecuador are described as broadly elliptic, while those of the Peruvian L. elegantula are broadly ovate or triangular-ovate and attain a slightly greater width.

Liparis ramosa Poeppig & Endlicher Nov. Gen. ac Sp. 2 (1837) 9, t. 112.

Liparis Rusbyi Rolfe in Bull. N. Y. Bot. Gard. 4 (1907) 454.

A comparison of the Bolivian species L. Rusbyi, as represented by a photograph of the type, with the Peruvian L. ramosa, as shown by the plate of the type (l.c.), indicates that the two concepts are inseparable. Liparis Rusbyi appears to have somewhat larger flowers than those of the Peruvian collections referred to L. ramosa.

Masdevallia auropurpurea Reichenbach filius et Warscewicz in Bonpl. 2 (1854) 115—Woolward The Genus Masdevallia pt. 8 (1896) t.

Masdevallia Herzogii Schlechter in Fedde Repert. Beihefte 10 (1922) 42—Schlechter ex Mansfeld in Fedde Repert. Beihefte 57 (1929) t. 137, nr. 536. Masdevallia wanthura Schlechter in Fedde Repert. 27 (1929) 39.

A comparison between M.auropurpurea, of which we have authentic material, and the Bolivian M.Herzogii (illustrated by a floral analysis of the type) shows that the concepts are synonymous. Kränzlin, in his monograph of Masdevallia (in Fedde Repert. Beihefte 34 (1925) 123), regards this concept as a synonym of Masdevallia brachyura Lehm. & Kränzl. which he keeps separate from M.auropurpurea. We have seen no good material of M.brachyura. However, it seems probable that it may prove to be merely a small form of M.auropurpurea.

Furthermore, it appears that M. xanthura differs from M. auropurpurea only in having longer tails to the sepals and in having yellow and violet, instead of yellow and brown, flowers. The bilobulate apex to the petals found in this concept also occurs in M. auropurpurea. It therefore seems unjustifiable to maintain M. xanthura as a distinct species.

The range of M. auropurpurea consequently extends from Colombia, through Ecuador to Bolivia.

Stelis Endresii Reichenbach filius in Gard. Chron. (1870) 1373.

Stelis parvibracteata Ames in Orchidaceae 7 (1922) 131.

Stelis glandulosa Ames in Sched. Orch. 3 (Jan. 30, 1923) 3.

Stelis propinqua Ames in Sched. Orch. 6 (Nov. 3, 1923) 55.

Stelis praesecta Schlechter in Fedde Repert. Beihefte 19 (Nov. 25, 1923) 175.

Stelis violascens Schlechter in Fedde Repert. Beihefte 19 (Nov. 25, 1923) 176.

Stelis Huebneri Schlechter in Beihefte Bot. Centralbl. 42, Abt. 2 (1925) 88.

Stelis Endresii appears to be a widely variable species which extends through Middle America from Mexico and Guatemala to Panama, and in South America in Brazil and Peru. Its variability appears in vegetative size (plants up to about 24 cm. high), in the form of the leaf which ranges from elliptic-ligulate with a distinct petiole to oblanceolate with a gradually narrowed base, and in the size of the flowers. Of these the sepals appear to be either equal or slightly unequal in size and to be more or less distinctly papillose within. Sometimes the flowers are pinkish, as in S. parvibracteata (instead of the typical shade of greenish or whitish). The sepals are often conspicuously glandular within, as in S. glandulosa. Sometimes the flowers appear to be larger than usual with the dorsal sepal 5-nerved, as in S. propinqua. Stelis praesecta and S. violascens are described as having glabrous flowers which are wine-red or red-violet. The South American S. Huebneri has a leaf that is oblanceolate and gradually

narrowed below, without the distinct petiole often seen in Central American specimens.

Stelis floribunda HBK. Nov. Gen. et Sp. 1 (1816) 362.

Stelis apiculata Schlechter in Fedde Repert. Beihefte 7 (1920) 84; Schlechter ex Mansfeld in Fedde Repert. Beihefte 57 (1929) t. 28, nr. 105, non Lindl. 1858. Stelis insignis Ames in Sched. Orch. 1 (1922) 5.—C. Schweinfurth in Bot. Mus. Leafl. Harv. Univ. 3 (1934) 43.

The receipt of an excellent photograph of the type of Stelis floribunda and some of the dried flowers of this specimen from the Muséum d'Histoire Naturelle at Paris show beyond question that it includes the concept described as S. insignis Ames.

The latter species diverges from *S. floribunda* in its somewhat greater vegetative size—the stems are up to about 19 cm. tall (contrasted with a maximum of about 10 cm. in *S. floribunda*); the leaf-blade is up to about 13 cm. long and 3.5 cm. wide (contrasted with a length of about 8.2 cm. long and a width of about 2.9 cm. wide in *S. floribunda*). Its sepals also vary from obtuse to subacute.

It appears that the shape of the typical leaf of S. flori-bunda is oblong-elliptic, but a Colombian collection (Lehmann 6921), which is correctly referred to that species by Kränzlin, has leaves varying from narrowly elliptic-oblong to narrowly oblong.

A series of Peruvian collections referable to S. floribunda differ from the typical form in having leaves which sometimes attain a width of 4 cm., in having commonly but a single inflorescence instead of two to four in a cluster, and in having flowers which are described as greenish white instead of violet (as cited for S. floribunda). In addition to the Colombian specimens mentioned, the following Peruvian collections should be cited:

Dept. Ayacucho: Ccarrapa, between Huanta and Río Apurimac, at 1000 meters altitude, epiphyte on wooded hillside, May 5, 6, 17, 1929, E. P. Killip & A. C. Smith 22484; Aina, between Huanta and Río Apurimac, at 750-1000 meters altitude, epiphyte in dense forest, May 7, 17, 1929, Killip & Smith 22773, 22776.—Dept. Junín: Huacapistana, at about 1800 meters altitude, epiphyte in densely forested valley, June 6, 1929, Killip & Smith 24295.

Stelis purpurea (Ruiz & Pav.) Willdenow Sp. Pl. 4 (1805) 140.

Humboldtia purpurea Ruiz & Pavon Syst. Veg. (1798) 235.

Stelis truncata Lindley in Hooker Comp. Bot. Mag. 2 (1836) 353; Fol. Orch. Stelis (1858) 15, no. 115. Stelis Huancabambae Kränzlin in Engler Bot. Jahrb. 54, Beibl. 117 (1916) 20.

Stelis cordibractea Schlechter in Fedde Repert. Beihefte 8 (1921) 51; Schlechter ex Mansfeld in Fedde Repert. Beihefte 57 (1929) t. 80, nr. 310.

Stelis phaeantha Schlechter in Fedde Repert. Beihefte 9 (1921) 68; Schlechter ex Mansfeld in Fedde Repert. Beihefte 57 (1929) t. 111, nr. 435.

Recently there came to hand an apparently authentic specimen of *Humboldtia purpurea* (=Stelis purpurea) from the Ruiz & Pavon collection preserved in Madrid. While this specimen has very imperfect inflorescences, it is otherwise in a serviceable condition and has good flowers.

Stelis truncata, exemplified by a photograph of the type collection, differs from S. purpurea only in having proliferous or branched stems and usually (but not always) smaller leaves. However, in the specimen of Stelis purpurea above mentioned, there are in the axil of one

of the leaves the fragments of two peduncles of which the much stouter one might well represent a proliferous stem.

Stelis Huancabambae, of which we have seen isotype specimens, has usually slightly narrower leaves than those of S. purpurea, while the dorsal sepal is commonly somewhat triangular-ovate and more narrowed above than that of S. purpurea,—differences which are inconsequential. Contrary to the description of S. Huancabambae, its dorsal sepal is 5- to 7-nerved as in S. purpurea and the neuration of the lateral sepals is similar.

Stelis cordibractea, of which we have seen a specimen of the type number, seems to differ from S. purpurea only in having shorter stems entirely covered by the sheaths and often thicker leaves.

Stelis phaeantha, represented by the description supplemented by a floral analysis made under the direction of Dr. Schlechter, differs from S. purpurea, in having narrower leaves with a longer petiole.

Thus it would seem that the concept Stelis purpurea should be considered, like the variable S. Endresii Reichb.f. of Central America, as a polymorphic species. Besides Peru, it occurs in Colombia and Ecuador.

The color of the flowers is noted as greenish, greenish red with a greenish yellow center, reddish brown, or dark red.