

## ASARCA.

CHAR. GEN. Pollinia duo pulverea bipartita, granulis triplicibus angulatis, caudiculâ glandulâque nullis. Anthera terminalis opercularis bilocularis. Stigma rotundatum anticum convexum. Columna arcuata libera membranaceo-marginata apice dilatata. Labellum anticum liberum unguiculatum trilobum, membranaceum: lobis lateralibus venosis intermedio elongato obtuso cristato. Sepala subæqualia membranacea venosa; interioribus paulo brevioribus; inferioribus labello suppositis, anamorphose nullâ.—*Herba terrestris* (Americæ Australis temperatæ). *Scapus foliosus non squamosus. Flores colorati?*

### 1. *Asarca speciosa.*

Serapias Gavilú. *Pavon. in herb. Lamb.*

Habitat in *Chile*. *Pavon.* (v. s. sp. in h. Lamb.)

*Stem* about a foot high, leafy. *Leaves* oblong, sheathing and amplexicaul at the base, becoming smaller by degrees till they assume the habit, but not the texture, of the squamæ of *Chloræa* and *Bipinnula*. *Spike* lax, about eight-flowered. *Bracteæ* oblong-lanceolate, shorter than the ovarium. *Sepals* of the same figure, ovate-oblong, acuminate, veiny, in no degree fleshy; the two interior more obtuse and shorter.

The only specimen of this plant which I have seen exists in the Herbarium of Mr. Lambert, where it is marked in Pavon's

writing "*Serapias Gavilú de Chile* sp. nov. ined." It is probably from the north of Chile, and is very different from the *Gavilú* of Feuillée, which is a species of *Chloræa*.

The three genera, *Chloræa*, *Bipinnula*, and *Asarca*, represent the form of Chilean *Orchideæ* under the three modifications to which it is probable that they are subject. Collectively they constitute a tribe of *Arethuseæ* with distinct sepals, having an expansion which is always more or less ringent, with a columnæ having membranous margins, and with a cucullate, crested labellum. Individually they are recognised by the particular state of the lower sepals, and the condition of their parenchymatous matter. *Chloræa* and *Bipinnula* are distinguished from *Asarca* by a tendency in the anterior parts of the flower to anamorphosis, or an excessive production of parenchyma, while *Asarca* is characterised by the want of such a tendency, except in the labellum, in which anamorphosis exists in no greater degree than in many other *Orchideæ*. That the peculiarities of the anterior sepals of both *Chloræa* and *Bipinnula* depend upon the condition I have stated, may, I think, be easily shown, notwithstanding their apparent difference of anatomical structure. In the species of *Chloræa* the sepals are entire, and the excess of parenchyma is insufficient to overcome the resistance or power of expansion of the cuticle; while in *Bipinnula*, in which the sepals are plumose, the anamorphosis is so much increased as to overcome the resistance of the cuticle, and the parenchyma is consequently no longer confined within a narrow space forming a sort of succulent bag, but pushes forth on all sides with nearly equal power, in the form of a membranous feathery fringe of the most beautiful symmetry. That these two forms do in fact depend upon such a power of parenchymatous development as I have assumed, seems to be in some measure proved by this circumstance; that while the anterior sepals are entire (and the power of developement therefore weak), they bear the same proportion to the other parts of the flower as is usual in *Orchideæ*; but as soon as the anterior sepals become feathery (and the power of developement therefore excessive), they no longer bear the usual proportion to the posterior sepals, but become elongated in the same degree as they become fringed or laterally developed and membranous.