

A New Species of *Encyclia* Hooker From The Guanahacabibes Peninsula of Western Cuba

June 30, 2013

## **A New Species of *Encyclia* Hooker From The Guanahacabibes Peninsula of Western Cuba**

Ruben P. Sauleda<sup>1</sup> and Pablo Esperon<sup>2</sup>

<sup>1</sup>22585 S. W. 187 Avenue, Miami, Fl 33170  
<sup>2</sup>6442 SW 107 Ct, Miami, Fl 33173

**ABSTRACT:** A new species of *Encyclia* Hooker from the Guanahacabibes Peninsula of Cuba is described and compared with the species it has been confused with and two other similar species. The holotype of *Encyclia ochrantha* (A. Rich.) Withner is established.

William Osment of Osment Orchids, Hollywood, Florida, made numerous trips to Cuba from the early 1940's thru the late 1950's, to collect orchids. Osment collected live plants and made herbarium specimens, deposited at AMES, during trips to most of the Cuban provinces (Pinar del Rio, Matanzas, Camaguey, Oriente). Osment's collections were the first Cuban species brought into the United States since they were originally introduced into cultivation and described in Europe during the 1800's. These included *Encyclia phoenicea* (Lindl.) Neuman, *Encyclia triangulifera* (Rchb. f.) Acuña, *Encyclia fucata* (Lindl.) Schltr. and *Encyclia plicata* (Lindl.) Schltr. He also introduced *Encyclia acutifolia* Schltr. and *Encyclia howardii* (Ames & Correll) Hoehne that had just been recently described. In addition, Osment introduced several new species that had not been described. These included what is being called *Encyclia moebusii* H. Dietr., what is being called *Encyclia navarroi* Vale & Rojas, *Encyclia bocourtii* Muj. Benitez & Pupulin and what was identified as *Encyclia ochrantha* (A. Rich.) Withner. Almost sixty years later many of the plants he imported still survive in private collections.

Dr. Martin Motes of Motes Orchids, Redlands, Florida, purchased two plants from Osment that were labeled *Epidendrum* "guanahacabibes" (pers. comm.). One of the plants received an award from the American Orchid Society and was identified as *Encyclia ochrantha* (A. Rich.) Withner. Higgins & Hamilton (2012) again used the name *E. ochrantha* when they cleared up a confusion that occurred involving the transfer of *E. ochrantha* to the genus *Prosthechea* Knowles & Westcott (Shaw, 2011).

An examination of the neotype of *E. ochrantha*, designated by Nir (2000), sheds serious doubt that this species is *E. ochrantha*. Nir designated the plate in Sagra (Vol. 12: t. 78. 1850) as the neotype. This plate shows a flower with a disc that is apiculate and has three lines. However, there is a specimen in Paris (P) (P00410654) that is labeled *Epidendrum ochranthum* and *E. virens*. There is a color drawing attached to the sheet that matches Richard's description and Sagra's plate of *E. ochrantha*. The specimen does not match the description of *E. virens*. This is the holotype of *E. ochrantha*.

*Encyclia ochrantha* appears to be one of the many localized species with very restricted distribution. This is due to the existence of many small geologically distinct areas in Cuba that have resulted in a wide range of habitats. These habitats are sometimes just a few kilometers apart and have been isolated from each other for a long time. Geology provides discontinuity and isolation, prime conditions for speciation (Kruckeberg, 2004). Another example of a localized species with restricted distribution is *Encyclia havanensis* Bello, Esperon & Sauleda. It only occurs in a few isolated tree islands in the mangrove forests along the northwestern coast of Cuba. *Encyclia havanensis* was only known from the type collection in Paris (P) until Oscar Bello rediscovered it in an almost inaccessible location.

The plants identified as *E. ochrantha* that were originally labeled *Epi.* “guanahacabibes” do not match Richard’s description, Sagra’s plate or the specimen at Paris labeled *E. ochrantha* type. After a careful study of the literature we could not find any published name that this species corresponds to. We are here describing it as a new species.

### ***Encyclia guanahacabibensis* Sauleda & Esperon, sp. nov.**

**TYPE:** Ex hort., 22 June 2013, *Osment, s.n.* (Holotype: FTG).

**LOCALITY:** Originally collected by William Osment on the Guanahacabibes Peninsula of Cuba.

#### **DIAGNOSIS**

*Encyclia guanahacabibensis* differs from *E. ochrantha* in the shape of the labellum. The mid lobe of *Encyclia ochrantha* is apiculate, *E. guanahacabibensis* has a rounded apex. *Encyclia guanahacabibensis* differs from *E. bocourtii* in the shape and color of the labellum. *Encyclia bocourtii* is variable but usually has a mid lobe with an emarginate apex and has three lines on the mid lobe, the mid lobe is smooth without ridges, where *E. guanahacabibensis* has minute narrow radiating ridges and purple radiating lines and small spots towards the edge of the mid lobe. The purple radiating lines and spots are on the minute raised ridges on *E. guanahacabibensis*, on *E. bocourtii* the mid lobe is smooth. The lateral lobes of the labellum of *E. guanahacabibensis* have minute spots that are lacking in *E. bocourtii*.

#### **DESCRIPTION**

**Plants** caespitose. **Roots** many, white, produced from rhizome and base of pseudobulbs. **Stems** short, stout, modified into rhizomes; pseudobulbs ovoid, enclosed by scarious sheaths, to 9 cm long, 5 cm wide. **Leaves** 1-3, from apex of pseudobulbs, erect, coriaceous, linear-lanceolate, acute, to 40 cm long, 2 cm wide. **Inflorescences** terminal, erect, stout, branched, to 55 cm long, bracts scarious, tightly sheathing, ovate, acute, to 12 mm long; to 45 flowers. **Flowers** resupinate; sepals oblanceolate, yellow with dark brown overlay becoming darker towards apex, dorsal sepal acute, 2.6 cm long, 5 mm wide, lateral sepals slightly oblique, 2.5 cm long, 5 mm wide; petals spatulate to narrowly lanceolate, acute, yellow with dark brown overlay becoming darker towards apex, 2.4 cm long, 5 mm wide; labellum deeply three-lobed, 2.2 cm long, lateral lobes basally green with parallel reddish-purple lines fading out before apex and apex becoming yellow, erect, basally clasping the column, flaring out near the apex, oblong, obtuse, 1.0 cm long, 5 mm wide, mid lobe round, entire, yellow with many minute radiating narrow ridges, with radiating reddish-purple lines on the minute ridges, becoming spots on the ridges towards apex of mid lobe, 1.5 cm long, 1.5 cm wide; column yellow, 1.2 cm long, 5 mm wide, with membranaceous incurved rounded auricles, anther yellow; ovary pedicelate, slender, 2.6 cm long

*Encyclia guanahacabibensis* Sauleda & Esperon may be extinct or be another one of the species with very restricted distribution and its location may not have been found yet. The only reference to the location where Osment found it originally was the name on the label “guanahacabibes” when Motes purchased it. The literature (Sauleda, 1984) and herbarium specimens at AMES show that Osment visited Guanahacabibes on June-July 1959. Although most of this area is currently a National Park, developments at the Eastern boundaries of Guanahacabibes after Osment’s last collecting trip could have lead to the subsequent destruction of habitats that may have brought about the demise of this species or made it exceedingly rare.

*Encyclia guanahacabibensis* is similar to *Encyclia ambigua* (Lindl.) Schltr., a Central American species. They differ in the shape of the petals and the mid lobe of the labellum has more spots in *E. ambigua*. *Encyclia guanahacabibensis* tends to have more lines than spots on the mid lobe of the labellum. In addition, the side lobes tend to flare out from the base of the labellum in *E. ambigua*, where in *E. guanahacabibensis* the side lobes tend to flare out near the apex. *Encyclia guanahacabibensis* is also similar to *Encyclia virens* Schltr. from Central America. It differs in the color of the labellum and sepals and petals. *Encyclia virens* has green sepals and petals and a white labellum.



***Encyclia guanahacabibensis* Sauleda & Esperon.**



**Illustration of *Encyclia guanahacabibensis* Sauleda & Esperon.**



Illustration of *Encyclia guanahacabibensis* Sauleda & Esperon.



*Encyclia guanahacabibensis* Sauleda & Esperon



*Encyclia bocourtii* Muj. Benitez & Pupulin.



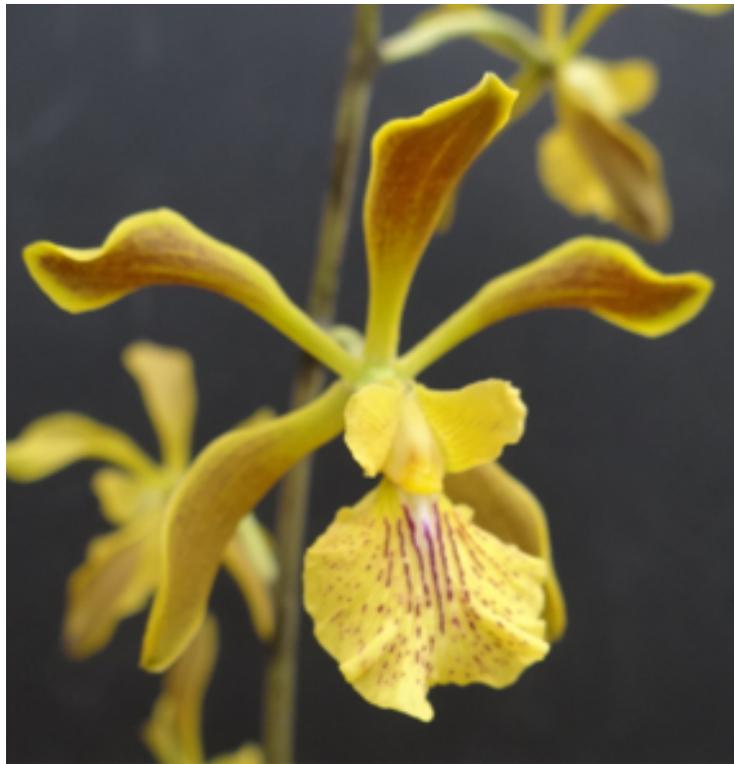
Labellum of *Encyclia guanahacabibensis* Sauleda & Esperon demonstrating the minute ridges and the spotting on the ridges.



Labellum of *Encyclia bocourtii* Muj. Benitez & Pupulin demonstrating the smooth mid lobe.



*Encyclia guanahacabibensis* Sauleda & Esperon.



*Encyclia guanahacabibensis* Sauleda & Esperon.



*Encyclia guahacabibensis* Sauleda & Esperon.



*Encyclia ambigua* (Lindl.) Schltr.



*Encyclia ambigua* (Lindl.) Schltr. and *Encyclia guanahacabiensis* Sauleda & Esperon side by side for comparison.



*Encyclia bocourtii* Muj. Benitez & Pupulin.



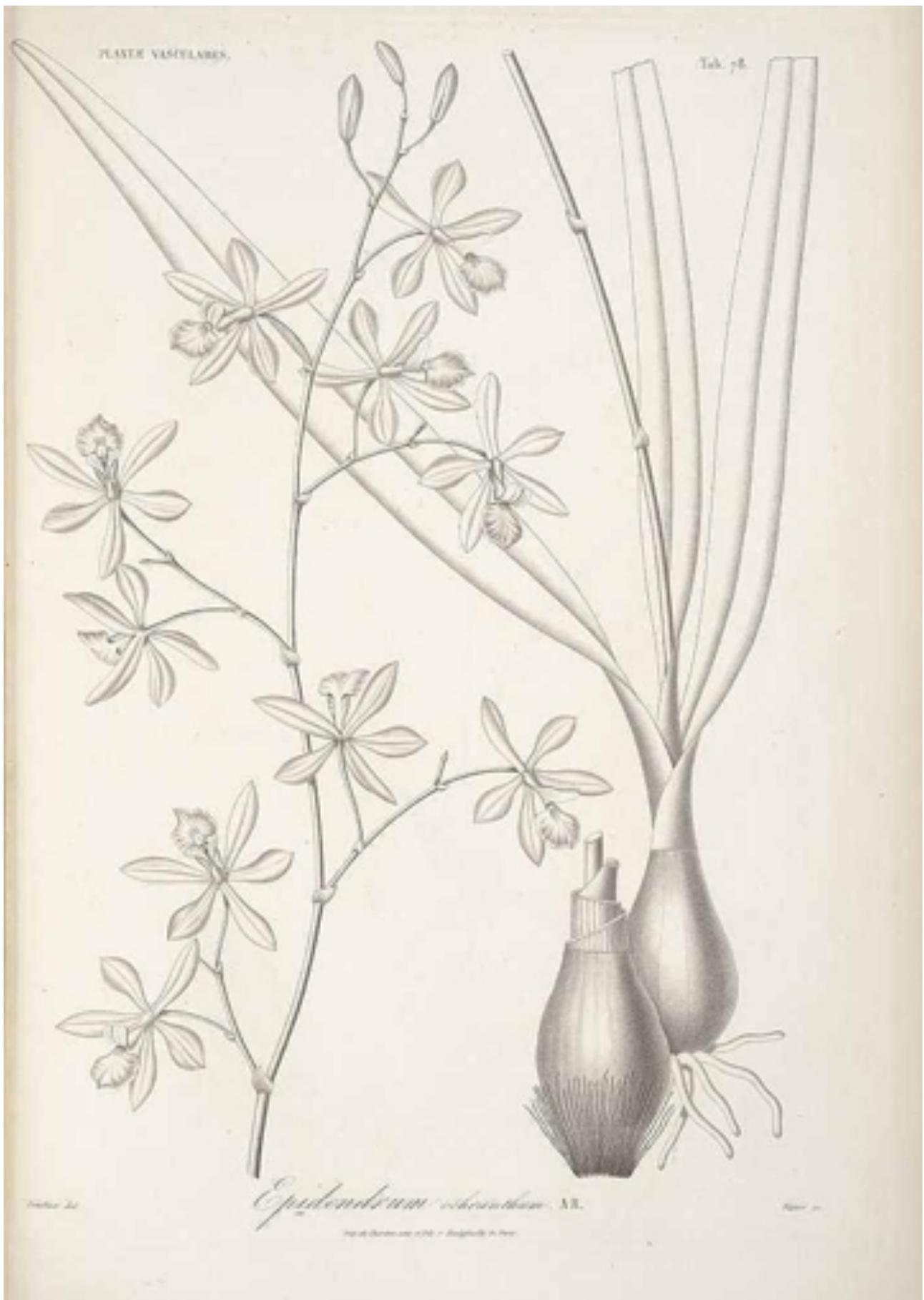
*Encyclia virens* Schltr.



*Encyclia ochrantha* (A. Rich.) Withner, TYPE (P).



Detail of drawing on TYPE (P) of *Encyclia ochrantha* (A. Rich.) Withner.



Ramon de la Sagra, 1850. Historia Fisica, Política y Natural de la Isla de Cuba, Vol. 12: t. 78.

## ACKNOWLEDGEMENTS

We wish to thank Dr. Martin Motes, who originally purchased the plants from William Osment and has grown them so well for all these years, for his generosity in making these plants available to us to use in this study. Also special thanks to Patricia Harding for permission to publish the picture of *E. virens*. In addition, we give thanks to Caroline Loup, Herbier - Muséum National d'Histoire Naturelle, Responsable du Service de Conservation / Collection Manager for permission to publish the type specimen of *E. ochrantha* and to Gustavo A. Romero, Orchid Herbarium of Oakes Ames, Harvard University Herbaria for answering our requests for information concerning the Osment collections.

## BIBLIOGRAPHY

Higgins, W. and C. Hamilton, 2012. Orchids (The Bulletin of the American Orchid Society), Vol. 18, No. 12: 753. Nomenclature Notes – A Misapplication of *Prosthechea*.

Kruckeberg, Arthur R. 2004. Geology and plant life: the effects of landforms and rock types on plants. University of Washington Press, Seattle, WA.

Sagra, Ramon de la, 1850. Historia Fisica, Politica y Natural de la Isla de Cuba. A. Bertrand. Paris.

Sauleda RP, Adams RM. 1984. A reappraisal of the orchid genera *Broughtonia* R. Br., *Cattleyopsis* Lem. and *Laeliopsis* Lindl. Rhodora, 86. (848): 445-467

Shaw, J.M.H. 2011. *Prosthechea ochrantha* (A. Rich.) J.M.H. Shaw. The Orchid Rev. 119 (Suppl.):62.