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A New Species of *Triphora* Nuttall is Described From Isla de La Juventud, Cuba.

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Abstract

A new species of *Triphora* Nuttall is described from Isle of Pines (Isla de la Juventud), Cuba.

The genus *Triphora* was established by Nuttall in *Genera of North American Plants* (2: 193. 1818). The type species is *Triphora trianthophora* (Swartz) Rydberg based on *Arethusa trianthophora* Swartz. Twenty-one species are recorded for the genus (WCSP, 2018).

In Cuba the genus *Triphora* is represented by three species (Ackerman, 2014):

*Triphora gentianoides* (Sw.) Nutt. ex Ames & Schltr. (in O. Ames, *Orchidaceae* 7: 5, 1922); *Triphora surinamensis* (Lindl.) Britton (in N. L. Britton & P. Wilson, *Sci. Surv. Porto Rico & Virgin Islands* 5: 184, 1924); and *Triphora miserrima* (Cogn.) Acuña, (*Bol. Estación Exp. Agron. Santiago de Las Vegas* 60: 18, 1938, publ. 1939).

*Triphora miserrima* was published as a *Pogonia* by Cogniaux and transferred to *Triphora* by Acuña. The species is listed for Cuba, Dominican Republic (Medley, 1996) and Colombia (Ortiz archive). However, the two specimens at S from the Dominican Republic of *T. miserrima* collected by Ekman are not *T. miserrima*. The plants on the specimens have two flowers, a character not found on the isotype of *T. miserrima* at POM or the drawing of the type at AMES. The listing for Colombia is per a drawing by Ortiz in the archive of Ortiz of Colombian Orchidaceae, without any information. The drawing is labeled *T. miserrima* and shows a plant very similar to the Cuban plants with the exception that the uppermost portion of the tubular sheath partially encloses the ovary where on the undescribed Cuban population it does not. In addition, the drawing does not show the segments in any detail. *Triphora miserrima* appears to be endemic to Cuba.

Dietrich (1984) states that in Cuba are “identified two endemic species, *T. cubensis* and *T. miserrima* from the province of Las Villas. A new find from the Prov. Holguin suggested that the little-known genre be studied more intensively. It turned out that the Cuban clan *T. cubensis* lies in the variation range of the *T. gentianoides*, which is widespread in tropical America, although it is only sparingly collected. The same can be expected from *T. miserrima*'s previous studies of materials”.

Ackerman (2014) lists *T. miserrima* based on the original description and the drawing at AMES. Ackerman (2014) states that the “Flower morphology of *T. miserrima* closely resembles that of *T. gentianoides*. Cogniaux’s *T. miserrima* differs in their consistently small size, the absence of leaf blades, and the single-flowered inflorescences.”

A population of *Triphora* was discovered on the Isla de la Juventud by the senior author, which is similar to *T. miserrima* but differs significantly in the shape of the labellum, the extension of the tubular floral sheath, the presence of a leaf and the habitats where the two species occur. The description of *T. miserrima* is based on the protolog (Cogn, 1909), the drawing at AMES labeled type (of unknown origin) and a specimen labeled isotype at POM.

We here describe the *Triphora* discovered on Isla de la Juventud as a new species.

*Triphora pinensis*, Soto Calvo, Esperon and Sauleda, *sp. nov.*

Type: Cuba, Sierra La Cañada, Isla de la Juventud, (Isle of Pines). Collector Manuel Alejandro Soto Calvo, *s. n.* (Holotype: HAJB).

#### Diagnosis

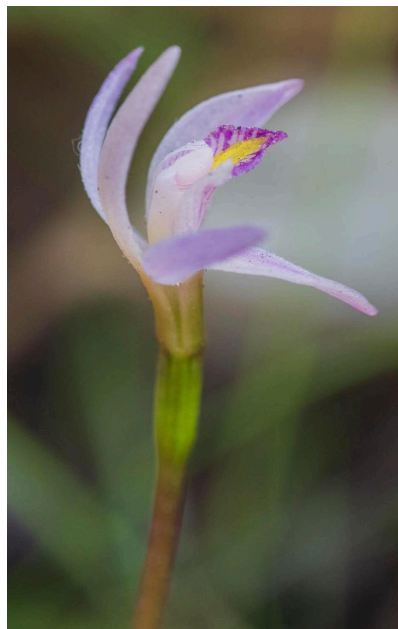
*Triphora pinensis* is similar to *T. miserrima*. One of the differences is in labellum. The apex of the lateral lobes and midlobe of the labellum of *T. miserrima* are rounded. The apex of the lateral lobes and apex of the midlobe of *T. pinensis* are acute. The tubular foliar sheath on *T. pinensis* extends only to the base of the pedicel where on *T. miserrima* the sheath extends to the base of the ovary. The habitats where the two species occur are distinct. The type locality of *T. miserrima* is a flat area at about 30 meters above sea level of deep fertile soils historically used for agricultural purposes while *T. pinensis* is found in a mountainous area at 225 m. above sea level, in a Pine forest with poor soils. In addition, *T. miserrima* is described as aphyllous where *T. pinensis* bears a single basal leaf.

#### Description

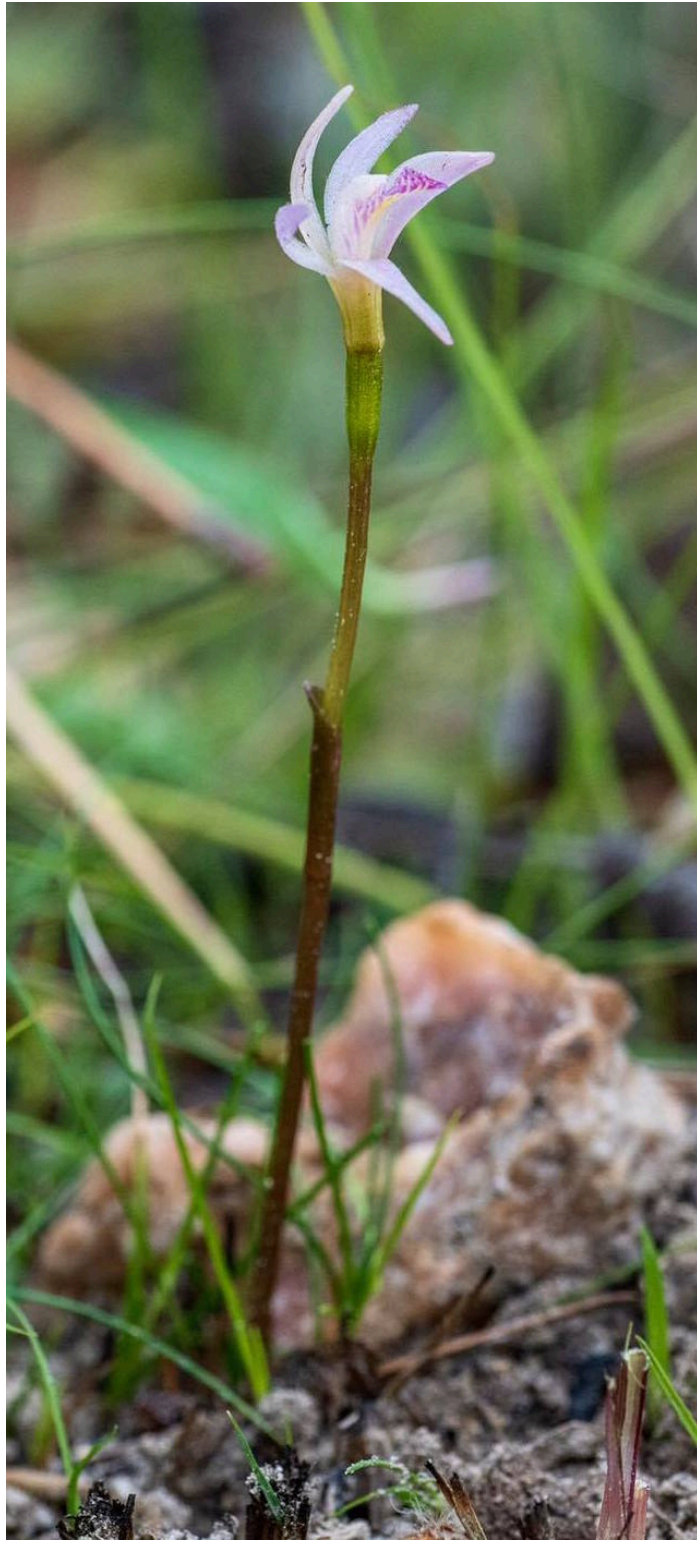
Plants glabrous, terrestrial, to 10 cm tall; tubers ovoid to subglobose, to 1.5 cm long; stem simple, erect, slender, terete, to 8 cm long; leaf ovate, green with lighter green tessellations, subacute, to 1 cm long, 1 cm wide, absent at time of flowering; inflorescence, terminal, single-flowered; flower erect, white with pink blush towards apex of segments, arcuate, membranaceous; pedicellate ovary slender, glabrous, slightly swollen below perianth; sepals concave, dorsal sepal linear-oblong, obtuse, 1.2 cm long, 0.6 cm wide, lateral sepals falcate, oblanceolate, acute, to 1.2 cm long, 0.6 cm wide; petals obliquely linear-oblanceolate, acute, 1.2 cm long, 0.4 cm wide; labellum 3-lobed, slightly concave, 8 mm long, 5 mm wide, disc with three parallel yellow crests running down the mid lobe to the apex, purple veins radiating from the central yellow crest, lateral lobes somewhat falcate, acute-rounded, margins entire, midlobe margin crispate-undulate; column erect, slightly arched, clavate, to 8 mm long.



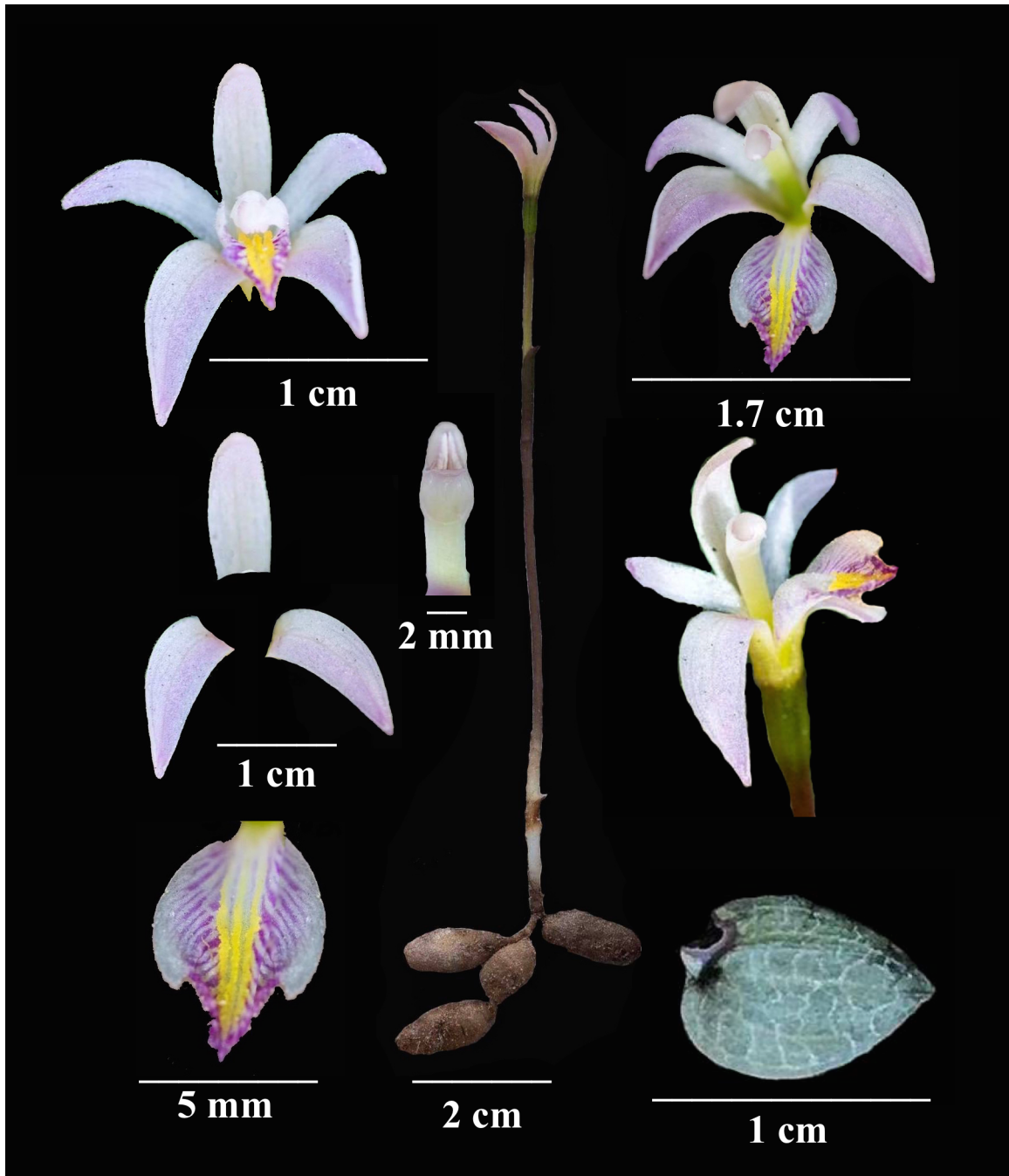
*Triphora pinensis*, Soto Calvo, Esperon and Sauleda in situ at Sierra La Cañada, Isla de la Juventud.



*Triphora pinensis*, Soto Calvo, Esperon and Sauleda.

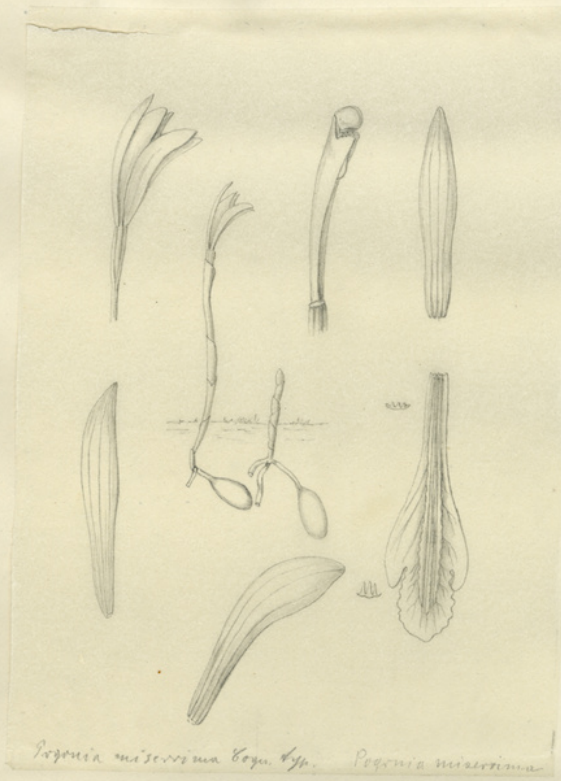


*Triphora pinensis*, Soto Calvo, Esperon and Sauleda.



*Triphora pinensis* Soto Calvo, Esperon and Saulea.

ORCHID HERBARIUM  
of  
OAKES AMES



*Pogonia miserima* Cogn. type. *Pogonia miserima*



Possible drawing of type  
*Pogonia miserima* Cogn.  
Symb. Antill. (Urban) 6: 316. 1909  
Det.: G.A. Romero & I. Ferrera Feb 2007

UNIVERSIDAD DE PUERTO RICO UPRRP  
*Triphora miserima* (Cogn.) Acuña  
Det.: James D. Ackerman 1999



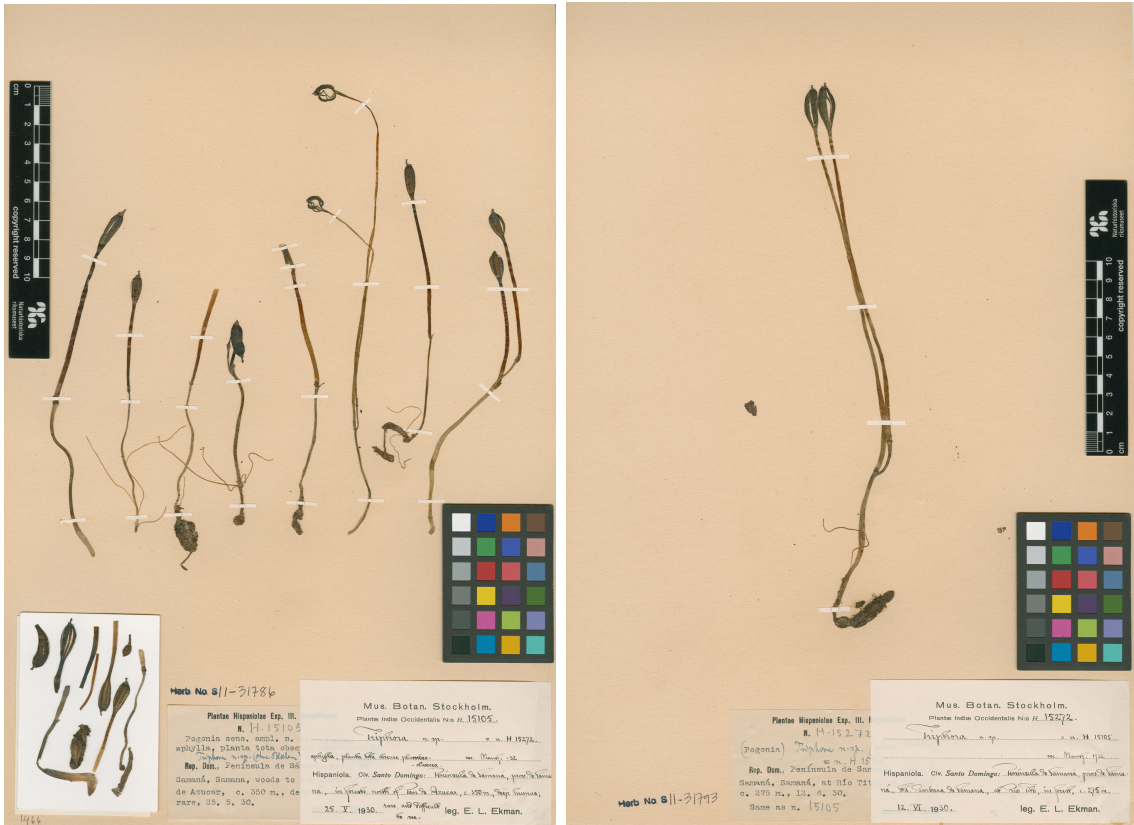
MICROFICHE BY MECKLER  
1983

97. 4

Drawing of type of *Triphora miserima* (Cogn.) Acuña at AMES.



Isotype of *Triphora miserrima* at POM.



Two specimens labeled *Triphora miserrima* from the Dominican Republic at S.

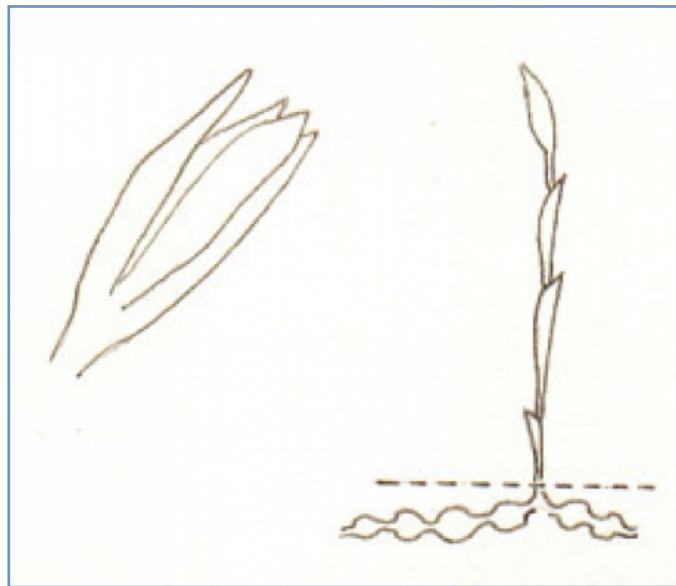
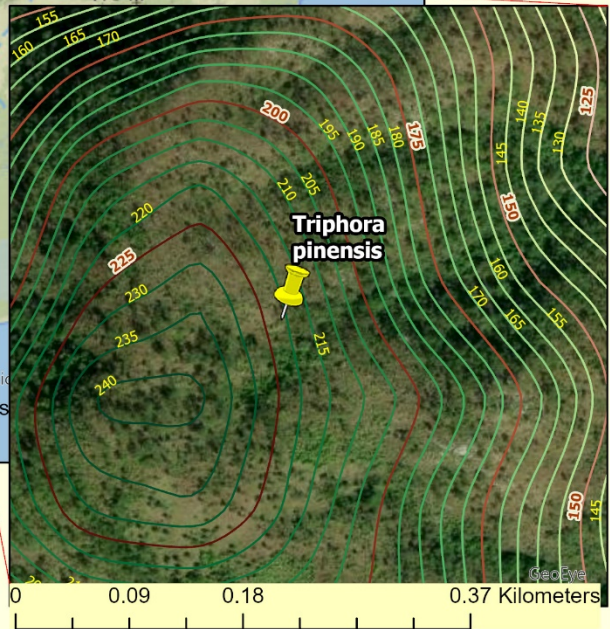



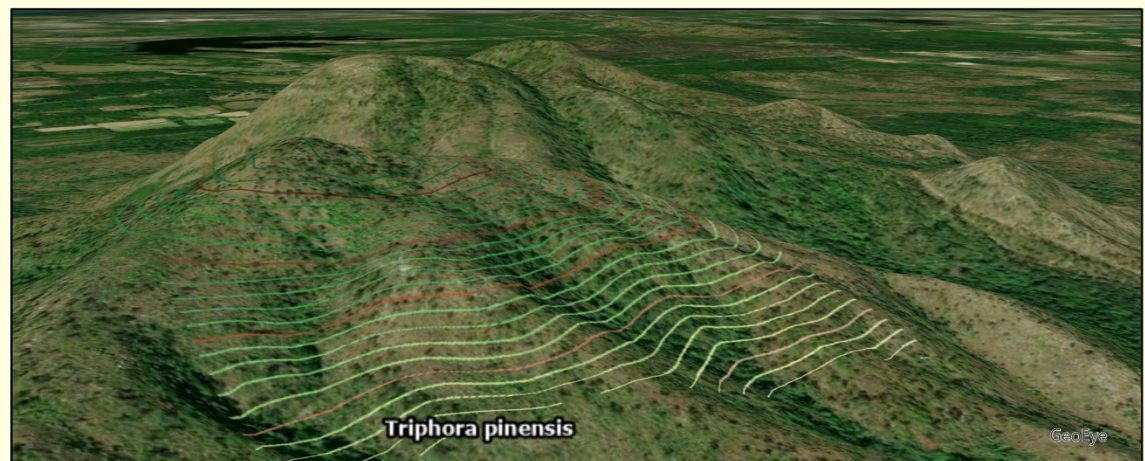
Illustration of Colombian plant in the Ortiz archive identified as *Triphora miserrima*.



LOCALITY OF TRIPHORA PINENSIS AT SIERRA LA CAÑADA , ISLA DE LA JUVENTUD, CUBA



 *Triphora pinensis* type locality



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