

Rediscovery and Revalidation of *Tolumnia lyrata* (Withner) Braem (Orchidaceae) from the Isla de la Juventud (Isle of Pines), Cuba.

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Abstract

The rediscovery of *Tolumnia lyrata* (Withner) Braem (Orchidaceae) on the Isla de la Juventud (Isle of Pines), Cuba and its revalidation is reported.

Tolumnia lyrata (Withner) Braem was originally described by C. L. Withner based on a specimen at AMES referred to him by Leslie Garay as possibly a new species. Withner based his description in the protolog on the description of the collector, W. Stimson on the holotype at AMES, and an examination of the type specimen at AMES. Verifiable live material has not been reported since the original collection by Stimson. All of the references in floras listing *T. lyrata* as a synonym of *Tolumnia lucayana* (Nash) Braem have made the determination mostly without the benefit of observing live populations (Moir, 1980; Braem, 1986, 1990; Nir, 2000; Ackerman, 2014; Greuter & Rodriguez, 2017). Withner in the protolog states: “Until more material, especially live plants, becomes available, we will not be able to tell about the variability of this species nor how closely it may be related to *Onc. variegatum*”.

On a trip to Las Nuevas, in the Northwest coast of Isla de la Juventud (Isle of Pines) in April 2018, the senior author observed two reddish-orange populations of *Tolumnia*, which were identified at the time as morphs of *T. lucayana*. However, these identifications were reconsidered after observing that these populations lack the diversity of morphs both in shapes and colors typical of the *T. lucayana* populations.

On a more recent trip in 2019 to Cayo Gordo at the Northeast Coast of Isla de la Juventud, four populations of this reddish-orange *tolumnias* were found. This is where Stimson collected the holotype of *O. lyratum*. In addition, Stimson (1958, 1959) reported to have previously collected *Tolumnia* and *Cattleyopsis* species there. The exact population where Stimson collected the holotype of *O. lyratum* is not noted on the holotype nor in Stimson’s description, but plants in the six populations of *Tolumnia* documented by the senior author matched the description of Withner and the holotype at AMES of *O. lyratum*. The “prominent point” at the “rounded” “apex of the lip”; “the isthmus is pronounced and has toothed and wavy margins”. The populations *T. lyrata* do not exhibit the variation that is found in all the populations of *T. lucayana* in both Cuba and the Bahama Islands. In addition, near the population of *T. lyrata* at Las Nuevas two populations of *Tolumnia lemoniana* (Lindl.) Braem were observed. No hybrids between the two populations were observed.

Comparison of the plants found at the six locations of *T. lyrata* with the description and holotype of *T. lyrata* at AMES, leads to the conclusion that *T. lyrata* is a valid species and not a synonym of *T. lucayana*.

We here report the rediscovery of *T. lyrata* and revalidate *T. lyrata* as a valid and distinct species.

Tolumnia lyrata (Withner) Braem, Orchidee (Hamburg) 37: 58 (1986).

Basionym: *Oncidium lyratum* Withner, Amer. Orchid Soc. Bull. 36: 400 (1967).

Type: Isle of Pines (Isla de la Juventud), Cuba; coll. W. Stimson, *s. n.*; April, 1959. Holotype AMES.

Plants epiphytic, caespitose, equitant, to 35 cm tall; roots white, numerous; rhizome short concealed by scarios bracts and leaf bases; leaves 3-5, green to greenish-brown with minute reddish-brown spots, distichous, triquetrous, laterally compressed, straight to falcate, narrowly elliptic, acuminate, upper margins minutely erose-crenulate, to 5 cm long, 6 mm wide; inflorescence erect to 35 cm tall; peduncle to 28 cm long, with distant, scarios, sheathing bracts, to 8 mm long, panicle to 7 cm tall, unbranched, to 8 flowers, floral bracts conduplicate, lanceolate, acuminate to 5 mm long; flowers predominately reddish-orange, sometimes with yellow spots or bars; pedicellate ovary filiform to 18 cm long, dorsal sepal reddish-orange, obovate, apically acuminate, to 6 mm long, 3 mm wide; lateral sepals connate nearly to their acute apices, obovate, to 7 mm long 3 mm wide; petals reddish-orange, pandurate, apically acuminate to 8 mm long, 4 mm wide, labellum reddish-orange with a yellow crest, 3-lobed, to 1 cm wide, 1 cm long, with a pronounced minutely toothed isthmus, lateral lobes obovate, midlobe lyrate-pandurate, margin crenulate and wavy, apically acuminate callus with two lateral projections and one central ridge; column yellow, erect to 4 mm long, 2 mm wide, column wings yellow, bilobed to crenulate, to 2 mm long, 1 mm wide. Anther yellow.



Tolumnia lyrata from Isla de la Juventud in situ.



Tolumnia lyrata from Isla de la Juventud.



Tolumnia lyrata from Isla de la Juventud.



Variation in *Tolumnia lyrata* from Isla de la Juventud.

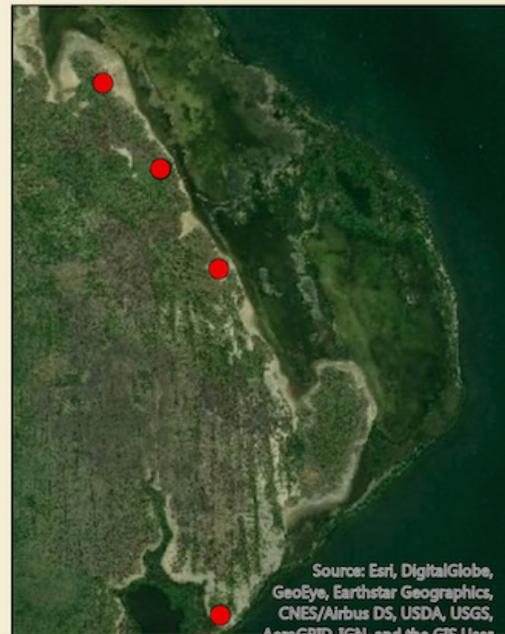
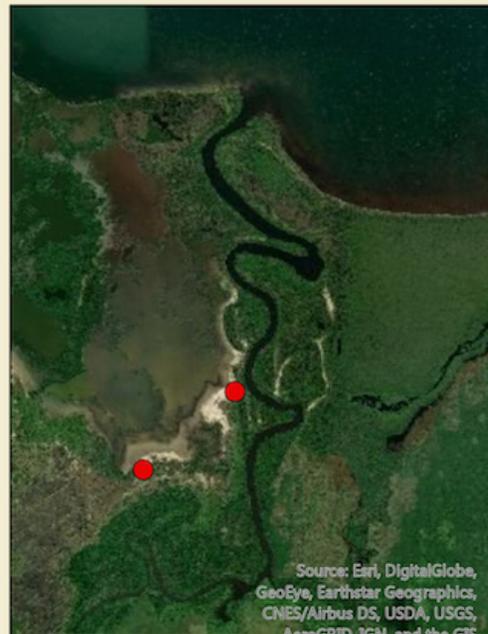


Tolumnia lyrata in situ at Isla de la Juventud.

POPULATIONS OF *TOLUMNIA LYRATA*, ISLA DE LA JUVENTUD, CUBA



Tolumnia lyrata
Study Areas
[Red Outline]
Populations
[Red Dot]



Localities on La Isla de la Juventud where *Tolumnia lyrata* is found.



Tolunnia lyarata occurs in the sandy beach vegetation behind the estuaries that surround the shoreline.



Tolunnia lyarata occurs in the sandy beach vegetation behind the estuaries that surround the shoreline.

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