

FIRST RECORD OF THE AMAZON LILY *Eucharis sanderi* (AMARYLLIDACEAE) FOR ISLA GORGONA, COLOMBIA*

Ana Paola Yusti-Muñoz¹ y Jorge H. Velandia-Perilla¹

Abstract

The amazon lily *Eucharis sanderi* is a rare species endemic to western Colombia, with few locality records known. We documented the occurrence of the species for the first time on Isla Gorgona, near the Pacific coast of Colombia, based on a specimen collected in May, 2011. Isla Gorgona is an important protected area for the conservation of threatened species such as *E. sanderi*. We recommend that research be conducted to determine the conservation status of the population of this species on the island.

Key words: Biogeography, Amazon Lilies, *Eucharis*, New locality records.

PRIMER REGISTRO DEL LIRIO AMAZÓNICO *Eucharis sanderi* (AMARILLIDACEAE) PARA LA ISLA GORGONA, COLOMBIA

Resumen

El lirio amazónico *Eucharis sanderi* es una especie rara endémica del occidente de Colombia, con pocos registros de ocurrencia. Se documentó la presencia de la especie por primera vez en la Isla Gorgona, cerca de la costa del Pacífico de Colombia, con base en un ejemplar colectado en mayo de 2011. La Isla Gorgona es un área protegida, importante para la conservación de especies amenazadas, como *E. sanderi*. Se recomienda que se hagan estudios para determinar el estado de conservación de la población de esta especie en la Isla.

Palabras clave: Biogeografía, Lirios Amazónicos, *Eucharis*, Nuevas localidades de registro.

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¹ Universidad del Valle, Facultad de Ciencias Naturales y Exactas, Departamento de Biología, Grupo de Investigación en Ecología Animal. Calle 13 # 100 - 00, Sede Meléndez. A.A. 25360. Cali. E-mail: yusti.ap@gmail.com, jorgehvelandia@gmail.com.

Amazon lilies, genus *Eucharis* Planch. (Equisetopsida, Magnoliidae, Asparagales, Amaryllidaceae) are terrestrial herbs, not climbing, with a subterranean bulb, umbellate inflorescence, and white perianth. The genus encompasses 17 species distributed throughout Central and South America, ten of which occur in Colombia: *E. candida* Planchon et Linden, *E. formosa* Meerow, *E. bakeriana* N.E. Brown, *E. bonplandii* (Kunth) Traub, *E. caucana* Meerow, *E. ulei* Kränzlin, *E. lehmannii* Regel, *E. castelnaeana* (Baillon) Macbride, *E. x grandiflora* Planchon & Linden and *E. sanderi* Baker. *Eucharis sanderi* is characterized by its strongly plicate leaves, large funnelform-campanulate flowers, large ovaries and capsules, high number of seeds per capsule, reduced staminal cup, and small number of flowers (usually only two per inflorescence, sometimes three or four) (MEEROW, 1989; SILVERSTONE-SOPKIN, 2011).

Eucharis sanderi is threatened with extinction due to rapid loss of habitat, leading to the isolation of populations that survive in small forest remnants (SILVERSTONE-SOPKIN, 2011). The species is known from the western coast of Colombia (biogeographic Chocó) from sea level to about 1,000 m. It inhabits sites with rich soil in the understory of wet, lowland rain forest, usually along watercourses (MEEROW, 1989). It has been recorded in the departments of Chocó, Valle del Cauca, Cauca and Risaralda, with few locality records throughout its distribution range; most of these records are sightings not corroborated by herbarium specimens.

We documented the finding of *E. sanderi* in a Pacific Colombian island ecosystem. A specimen was collected on 31 May 2011 on the “Sendero Cerro Trinidad,” Isla Gorgona, municipality of Guapi, department of Cauca, on the Pacific coast of Colombia ($2^{\circ}58'01''$ N, $78^{\circ}10'25''$ W, 19 m), in the understory of a tropical rainforest near a stream (original field number Yusti-Muñoz 107). A specimen was deposited at the Herbarium “Luis Sigifredo Espinal-Tascón” (CUVC) of the Universidad del Valle, Cali, Colombia (Figure 1). This is the westernmost record for *E. sanderi*, extending the species range at least 40 km westward (straight-line distance) (Figure 2). It also is the first record of the species on Isla Gorgona, and the first in an island ecosystem, although there have been many collecting expeditions to the island (BARBOSA, 1986; PRAHL & ALBERICO, 1986; AGUIRRE & RANGEL, 1990).



Figure 1. A specimen of *Eucharis sanderi* (A.P. Yusti-Muñoz 107) from Isla Gorgona, Guapi municipality, Cauca department, Colombia. Photo by A.P. Yusti-Muñoz.

Eucharis sanderi is an uncommon species in the places where it is found, because it seems to be restricted to the vicinity of streams in the understory of tropical rainforest. The determination of its occurrence on the Pacific coast of the country has been complicated, and some records of the species were derived from anecdotal reports. Thus it is important to ascertain the conservation status of this population on the island. Isla Gorgona is a protected area that belongs to the National Parks of Colombia, and is an ideal natural laboratory to develop studies on the natural history and ecology of this and other plant species typical of the Chocó biogeographic region.

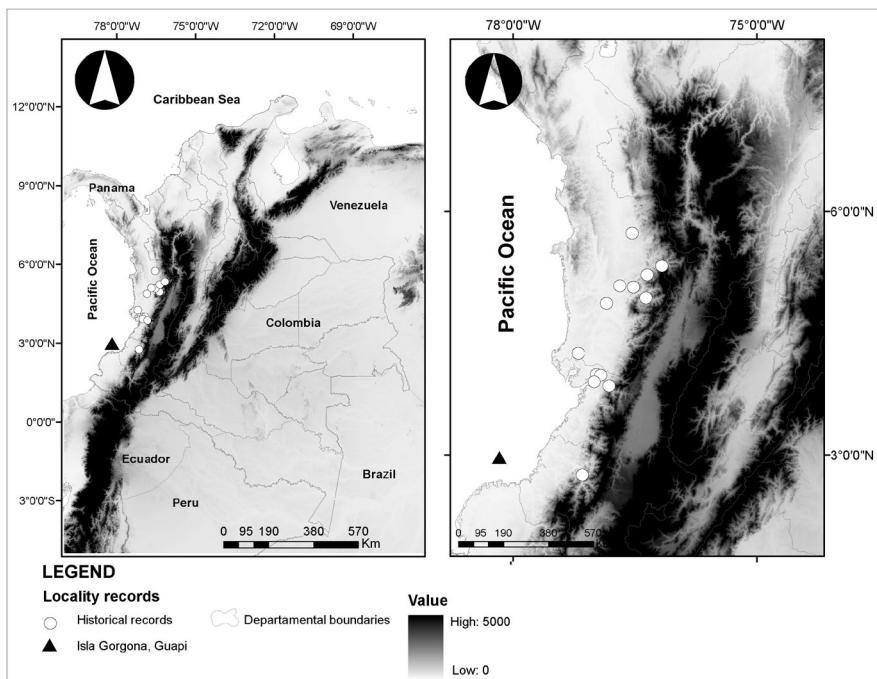


Figure 2. Map of western Colombia, showing locality records for *Eucharis sanderi*. Enlarged map on the right shows detail new locality (black triangle) and historical locations (white dots) by MEEROW (1989).

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BIBLIOGRAPHY

- AGUIRRE, J. & RANGEL, O., 1990.- Biota y ecosistemas de Gorgona. Fondo FEN, Bogotá, Colombia. 303p.
- BARBOSA, C., 1986.- Contribución al conocimiento de la flora y vegetación del Parque Nacional Natural isla Gorgona y Gorgonilla. *Pérez-Arbelaeza*, 1: 311-335.
- MEEROW, A.W., 1989.- Systematics of the Amazon lilies, *Eucharis* and *Caliphruria* (Amaryllidaceae). *Annals of the Missouri Botanical Garden*, 76 (1): 136-220.
- PRAHL, H. VON & ALBERICO, M., 1986.- Isla de Gorgona. Biblioteca textos universitarios, Banco Popular, Bogotá, Colombia. 252p.
- SILVERSTONE-SOPKIN, P.A., 2011.- Los muertos vivientes: la historia natural de cuatro lirios amazónicos del suroccidente de Colombia. Programa Editorial, Universidad del Valle, Cali, Colombia. 100p.