



## First report of *Pleurodema brachyops* (Anura: Leptodactylidae) for Pacific islands (Seville Island, Chiriquí, Panama)

Primer reporte de *Pleurodema brachyops* (Anura: Leptodactylidae) para las Islas del Pácifico (Isla Sevilla, Chiriquí, Panamá)

Angel Romero-Marcucci<sup>1</sup>

<https://orcid.org/0000-0002-7985-1734>

Michelle Quiroz<sup>2</sup>

<https://orcid.org/0000-0002-6955-4605>

Macario González-Pinzón<sup>3</sup>

<https://orcid.org/0000-0001-7747-6451>

Patricia Castillo-Vega<sup>1</sup>

<https://orcid.org/0000-0003-1930-4488>

C. Eliza Benítez-Montoya<sup>1</sup>

<https://orcid.org/0009-0008-6845-9105>

<sup>1</sup>Universidad Autónoma de Chiriquí. Facultad de Ciencias Naturales y Exactas. Escuela de Biología

<sup>2</sup>Universidad Autónoma de Chiriquí. Instituto Interdisciplinario de Investigación e Innovación.

<sup>3</sup>Natural Tanks

Autor correspondiente: [angel.romero1@unachi.ac.pa](mailto:angel.romero1@unachi.ac.pa)

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### Abstract

In Panama, *Pleurodema brachyops* is distributed in the provinces of Darién, Panama, Panamá Oeste, Coclé, Herrera, Veraguas and Chiriquí. We provide records of the new distribution located on Isla Sevilla (Chiriquí), thus being the first distributive record for this species on a Pacific island.

### Keywords

Amphibian, Azuero, distribution, four-eyed frog, Herpetofauna, locality, range.

### Resumen

En Panamá *Pleurodema brachyops* se distribuye en las provincias de Darién, Panamá, Panamá Oeste, Coclé, Herrera, Veraguas y Chiriquí. Proporcionamos registros de la nueva distribución localizada en Isla Sevilla (Chiriquí), siendo así, el primer registro distributivo para esta especie en una isla del pacífico.



## Palabras clave

Anfibio, Azuero, distribución, herpetofauna, localidad, rana de cuatro ojos, rango.

## Introduction

The anurans of the family Leptodactylidae, are plump and relatively small frogs (Faivovich et al., 2012) with a distribution that spans South America to the lowlands of Panama (La Marca, 1992; Gorzula et al., 1998). The frogs of the genus *Pleurodema* sp. have terrestrial habits, are located in open environments such as savannas and thorny bushes and are very abundant in those areas where it is present. They breed during the rainy season in temporary ponds and make nests out of foam (Duellman, 1977). Similarly, adult males usually vocalize while floating on the surface of the water in pools formed after heavy rains (Hoogmoed & Gorzula, 1979).

## Materials and Methods

During a field trip carried out on Seville Island, on Saturday, September 22, 2018 at 9:05 p.m., it was possible to photograph an individual of the genus *Pleurodema* sp. in the vicinity of the house of Mrs. Mixela Robles ("Doña Chela").

## Results

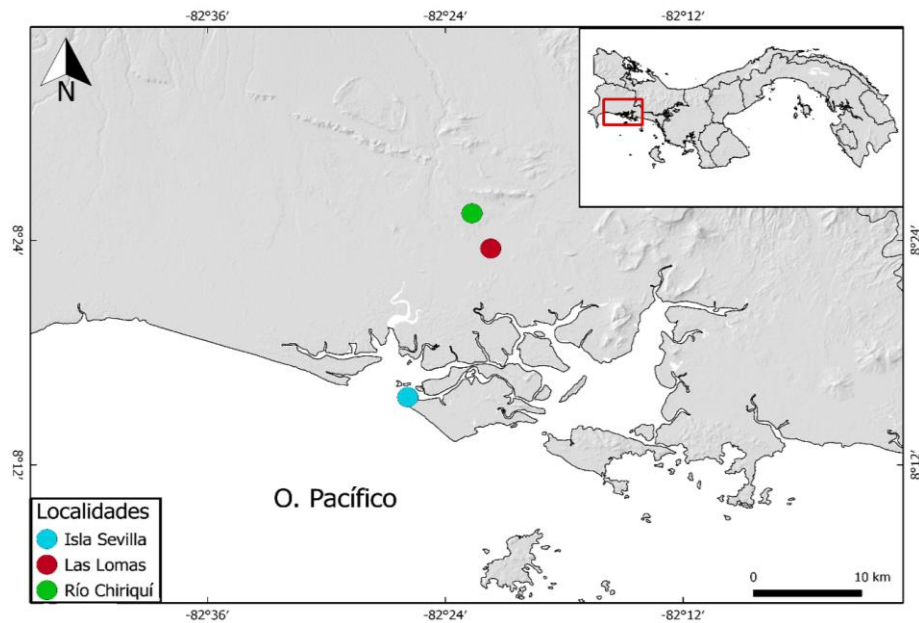
The frog was reported at an elevation of 1 m a.s.l. with the coordinates 8.260267° N, 82.431726° W. For the identification of the specimen, we use photographic references from Köhler (2011) until the species is identified as *Pleurodema brachyops* (figure 1), which presents the following combination of characteristics: a large body size and little obvious sexual dimorphism, with females being slightly larger than males (Molina Rodríguez, 2004). Additionally, it has a pair of glands raised dorsoventrally, over the inguinal region, accompanied by an intense orange groin coloration (Hoogmoed & Gorzula, 1979; Gorzula et al., 1998).

## Discussion

This note provides new biogeographic information placing this species in a new locality, located on Isla Sevilla (figure 2) 19 km south of its continental location for the province of Chiriquí, in the areas of Las Lomas, (8.42403 ° N, 82.37769 ° W), district of David and in the Chiriquí Nuevo River, (8.39268 ° N, 82.36189 ° W) thus being the westernmost continental record for the species (Batista et al., 2020).



**Figure 1.**  
A). general view of *Pleurodema brachyops* in situ, B). view of species characteristics



**Figure 2.**  
Map showing the former and current localities of the Four-eyed Frog *Pleurodema brachyops*. Red and green indicate previous localities, blue indicates new record on Seville Island

On the IUCN Red List of Threatened Species, *P. brachyops* is classified as "Least Concern" owing to its wide distribution, abundance and tolerance to habitat disturbance (La Marca et al., 2010).

It can be assumed that this species migrated in the past from a center of origin (the mainland) to the island of Seville, either via land bridges or through a somewhat accidental process, such as traveling on islets of land or logs carried from river mouths a process known as rafting (Darwin,



1859; Blanco, 2009), with the mouth of the Chorcha River being the closest and most likely source of this phenomenon. All of this, combined with the presence of lotic water systems abundant in year-round food sources, suggests an ideal microhabitat for the development of this species, facilitating its colonization of the island.

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