

# Amphibia, Anura, Centrolenidae, *Espadarana callistomma* (Guayasamin and Trueb, 2007): First country records from Colombia

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**ABSTRACT:** The glassfrogs diversity in the Chococoan tropical rain forest in Colombia is far from being thoroughly documented. We report here, the first record of *Espadarana callistomma* for the lowlands of Colombia. Further work in this region can yield results of interest to clarify the phylogenetic relationships of this group.

The Neotropical family Centrolenidae currently includes 148 species (Frost 2009), which have received considerable attention during the last decade (see Cisneros-Heredia and McDiarmid 2007; Guayasamin *et al.* 2008; 2009). Recent studies in the lowlands and Andean slopes of Ecuador have discovered several new species and records, demonstrating our relative poor knowledge of the group (*e.g.* Yáñez Muñoz *et al.* 2009). In Colombia, the diversity in the Chococoan tropical rain forest is far from being thoroughly documented.

Eighteen species of glassfrogs are present on the lowlands (< 800 m) of Colombia and Ecuador; three of them are endemic to Ecuador, and one to Colombia (Table 1). We present the first record of *Espadarana callistomma* (Guayasamin and Trueb, 2007) for the Pacific lowlands of Colombia, based on specimens housed in the Herpetological collections of Universidad del Valle (UV-C) and the J. Von Neumann (JVN-C) Cali-Valle del Cauca, Colombia (currently at the Universidad del Valle).

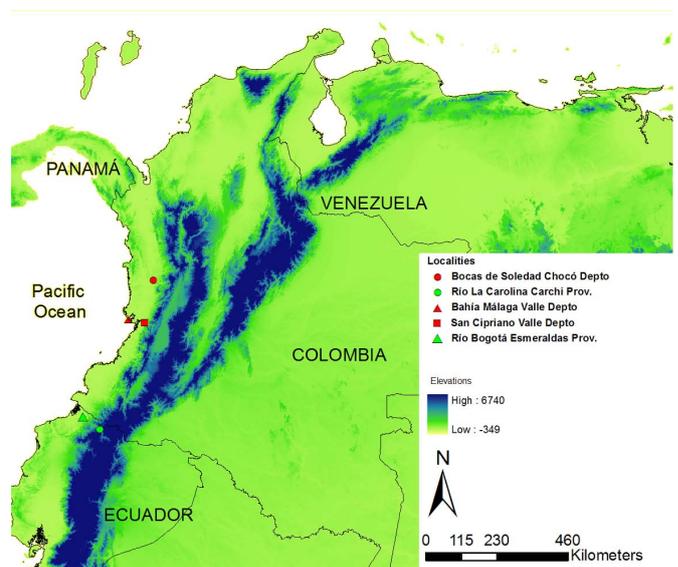
Four specimens (UV-C 8807-8810) were collected at Bahía Malaga, Buenaventura (03°56'42.01" N, 77°21'28.26" W, 20 m); one (UV-C 12312) at Bajo Calima (03°59'47" N, 76°58'28" W, 30m), department of Valle del Cauca; and two (Universidad del Valle, JVN-C 00234-00235) at Condoto, Bocas de Soledad de Tajuato, department of Chocó (05°05'15.57" N, 76°38'25.14" W, 77 m).

The presence of *Espadarana callistomma* in Colombia was expected due to habitat continuity with the Ecuadorian Chocó. These records extend the distributional range of *E. callistomma* 506 km N from previous known localities in Ecuador (Figure 1).

*Espadarana callistomma* was previously known from localities in the province of Esmeraldas and Carchi, Ecuador, at altitudes between 77 and 800 m (Figure 1). It differs from other congeneric species of the Pacific lowlands by having a uniform green dorsum, conspicuous humeral spines, and a heavily reticulated iris (Guayasamin and Trueb 2007). *Espadarana callistomma* resembles

*Sachatamia ilex*, but adult males of *S. ilex* (Figure 2) have small humeral spine "embedded" in the arm musculature (Guayasamin and Trueb 2007). Since *E. callistomma* was only recently described and the females of *E. callistomma* are almost identical to those of *S. ilex*, it is possible that additional specimens of *E. callistomma* are confused in museum collections as *S. ilex*.

The clade *Espadarana* contains three described species (Guayasamin *et al.* 2009); *Espadarana callistomma* is closely related to *E. prosoblepon* and *E. andina*. In Colombia, *E. callistomma* and *E. prosoblepon* replace each other along the elevation gradient of western Andes, with *E. callistomma* occurring on the lowlands between 77 and 500 m, and *E. prosoblepon* between 100 and 1,500 m. *Espadarana andina* is endemic to the eastern Andes of Colombia and Venezuela between 1,630 and 2,200 m (Ruiz-Carranza *et al.* 1996; Guayasamin and Trueb 2007).



**FIGURE 1.** Map showing new localities of *Espadarana callistomma* in Colombia (Red) and records published in Ecuador (Green) by Guayasamin and Trueb (2007).



**FIGURE 2.** Adult males of *Sachatamia ilex* (left) and *Espadarana callistomma* (right) not collected. Reserva Forestal San Cipriano-Escalerete, Valle del Cauca, Colombia. Note the exposed humeral spine of *E. callistomma*, and the concealed humeral spine of *S. ilex*, embedded in the arm muscles. Photo by Jhon J. Ospina-Sarria.

**TABLE 1.** Glassfrogs (Anura: Centrolenidae) from the Pacific lowlands of Colombia (= C) and Ecuador (= E) (< 800 m above sea level). Endemics species are in bold.

SPECIES	DISTRIBUTION
* <i>Cochranella</i> "balionota"	Pacific lowlands and Andean slopes, E/C
<i>Cochranella euknemos</i>	Pacific lowlands and Andean slopes, C
<i>Cochranella litoralis</i>	Pacific lowlands, E/C
<b><i>Cochranella mache</i></b>	Pacific lowlands, E
* <i>Cochranella</i> "orejuela"	Pacific lowlands and western foothills, E/C
* <b><i>Cochranella</i> "ramirezi"</b>	Pacific lowlands and Andean slopes, C
* <b><i>Centrolene</i> sp "Palenque"</b> (sensu Cisneros-Heredia and McDiarmid 2007)	Pacific lowlands, E
<i>Sachatamia albomaculata</i>	Pacific lowlands, E/C
<i>Sachatamia ilex</i>	Pacific lowlands and western foothills, E/C
<i>Espadarana callistomma</i>	Pacific lowlands, E/C
<i>Espadarana prosoblepon</i>	Pacific lowlands and western foothills, E/C
<i>Teratohyla pulverata</i>	Pacific lowlands, E/C
<b><i>Teratohyla sornozai</i></b>	Pacific lowlands and western foothills, E
<i>Teratohyla spinosa</i>	Pacific lowlands, E/C
<i>Hyalinobatrachium aureoguttatum</i>	Pacific lowlands and Andean slopes, E/C
<i>Hyalinobatrachium chirripoi</i>	Pacific lowlands and Andean slopes, C
<i>Hyalinobatrachium fleischmanni</i>	Pacific lowlands and Andean slopes, E/C
<i>Hyalinobatrachium valerioi</i>	Pacific lowlands and western foothills, E/C

\* Species considered as *incertae sedis* within Centrolenidae by Guayasamin et al. (2009).

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