

Taxonomy, natural history and conservation status, with the description of a new species

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Ecuador has the biggest number of amphibian species per unit of area in the world (425 species in 283,560 km²). In the last decade, conservative estimates indicate that at least 26 species of Ecuadorian amphibians have declined or gone extinct. The reasons for this crisis are not clear but have been related to habitat destruction, climate change, and/or diseases, such as chytridiomycosis. The Río Palenque Science Center (RPSC) was among the last remnants of tropical rainforest in the western lowlands of Ecuador. Twenty years ago, investigations done by R. McDiarmid, Ken Miyata and others lead to the discovery of an amazing herpetofauna, including several undescribed species. However, the expansion of the agricultural frontier and transformation of the forest remnants into oil palm and banana plantations destroyed this site. Among the species identified from RPSC were five species of glass frogs (family Centrolenidae): *Centrolene prosoblepon*, *Cochranella spinosa*, *Hyalinobatrachium fleischmanni*, *Hyalinobatrachium* sp. (cf. *valerioi*), and an undescribed species of the genus *Centrolene*. This research analyzed the morphological characters and natural history of the five glass frogs of RPSC in order to describe the new species of *Centrolene* from RPSC, which seems to be critically endangered, if not extinct. The new species is characterized by a combination of the following characters: 1) distinctive coloration in life with dark flecks and yellow dorsolateral stripes on a green dorsum; 2) parietal peritoneum white, covering about $\frac{1}{2}$ of the venter, pericardium white, liver and stomach without guanophores, large intestine with guanophores; 3) presence of exposed prepollical spines; 4) humeral spines in males; 5) unique glandular nuptial pad between fingers I and II; and 5) reddish iris.

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