



Research note

First record of *Heterandria anzueto* (Cyprinodontiformes: Poeciliidae) in El Salvador

Primer registro de *Heterandria anzueto* (Cyprinodontiformes: Poeciliidae) en El Salvador

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Abstract. We present the first records of *Heterandria anzueto* (Rosen and Bailey, 1979) in El Salvador. Specimens were collected in the upper and middle reaches of the Lempa River. These reports represent distributional range extensions for the species in Central America.

Key words: freshwater fish, Central America, Pacific slope, Lempa River, Poeciliidae.

Resumen. Presentamos los primeros registros de *Heterandria anzueto* (Rosen y Bailey, 1979) en El Salvador. Los ejemplares fueron recolectados en la cuenca alta y media del río Lempa. Estos registros representan ampliaciones de la distribución dentro de Centroamérica.

Palabras clave: peces de agua dulce, Centroamérica, vertiente del Pacífico, río Lempa, Poeciliidae.

Heterandria anzueto Rosen and Bailey, 1979 is native to Central America and is reported from rivers with low flow and small streams with clear water and rocky substrate (Rosen, 1979). The known distribution of this species includes rivers of the Atlantic slope of Guatemala (Kihn-Pineda et al., 2006), Honduras (Matamoros et al., 2009; Matamoros et al., 2011), and southeast Nicaragua (Rosen, 1979).

On the Pacific slope of Central America, *H. anzueto* has been reported in the Lempa River in Guatemala (Rosen, 1979; Lucinda, 2003) and Honduras (Matamoros et al., 2009; Matamoros et al., 2011). Despite *H. anzueto* being reported in the Lempa River, this species has never been reported in El Salvador (e.g. Hildebrand, 1925). The purpose of this note is to document the occurrence of *H. anzueto* in Salvadorean waters for the first time.

Sampling took place in June and September of 2011 in the Lempa River basin of El Salvador. The fish were captured with seines, cast nets, and electrofishing in various localities of the upper, middle, and lower reaches, including the main channel as well as tributaries and streams. The specimens were captured and fixed in 10%

formalin in the field, washed in distilled water for 24 hours, and placed in 70% ethanol for permanent storage. The samples were identified following the key by Rosen (1979). The specimens were deposited in the Ichthyology collection of the Louisiana State University Museum of Natural Science (LSUMZ) and the Natural History Museum of El Salvador MHNES (Museo de Historia Natural of El Salvador; MHNES).

On 9 June 2011, we collected *H. anzueto* in Paso Hondo River (LSUMZ 15119) for the first time within the Natural Area Cinquera in the Department of Cabañas. The second field collections took place from 3-19 September 2011. We collected a total of 73 individuals within the rivers El Salitre (MHNES40-547), El Llano (MHNES 40-578; MHNES40-581), La Conquista (MHNES40-582), Tamulasco (MHNES40-586), Goancora (MHNES40-590), Paso Hondo (MHNES40-595), and Los Limones (MHNES40-613) (Fig. 1). All individuals were sampled in small streams and tributaries from the Lempa River that were shallow in depth, had clear waters with low turbidity, and rocky substrate.

Heterandria anzueto (Fig. 2) is a robust species that can be distinguished in the female by a dorsal fin origin anterior to the origin of the anal fin, scales that form a dark crosslinked network that intensifies towards the caudal

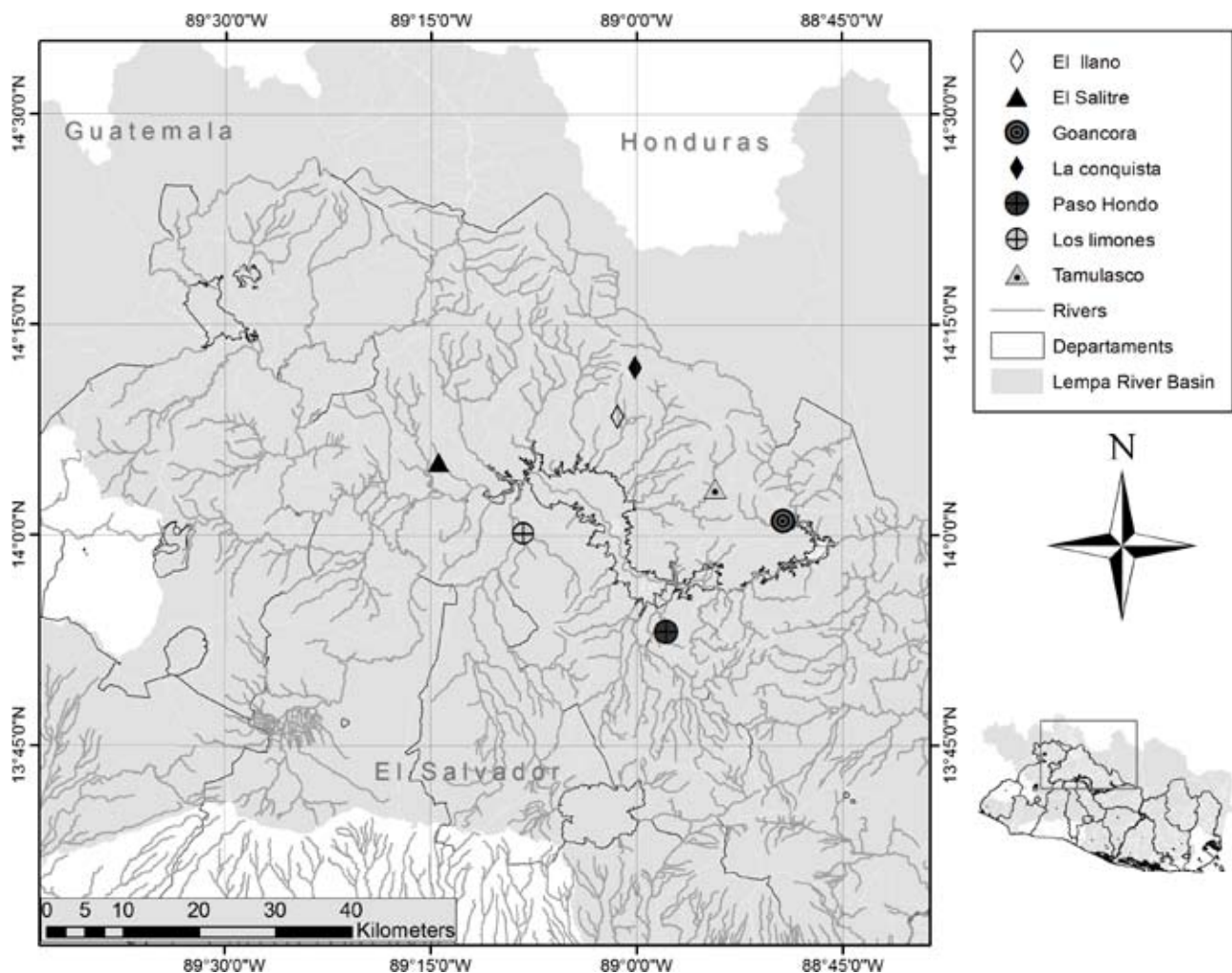


Figure 1. Locations where *Heterandria anzueto* was collected in the Republic of El Salvador: Paso Hondo River, Salitre River, El Llano River, La Conquista River, Tamulasco River, Goancora River, Los Limones River, Pacific slope, El Salvador, 2011.

peduncle, and with a noticeable dark pigment at the end of the peduncle; males have a different terminal segment in gonopodium rays formed by 4a in the shape of a sickle, followed by small short segments (Rosen, 1979).

Previous studies report the distribution of *H. anzueto* within the Lempa River in Guatemala and Honduras (e.g. Rosen, 1979; Matamoros et al., 2009). However, this species had never been sampled in El Salvador. This note reports the first sampling of *H. anzueto* in Salvadorean waters, expanding the species distributional range into El Salvador. This increases the number of freshwater species reported in El Salvador and contributes to the understanding of distributional patterns within Central America. To date, there are no populations of *H. anzueto*

reported in the lower basin of the Lempa River, where this species distribution may be restricted by the damming of the river in 4 locations within El Salvador.

The authors would like to thank collaborators Néstor Herrera and Enrique Barraza from the Ministry of the Environment and Natural Resources for their help in the field and processing of permits for El Salvador. We thank Caleb McMahan and Wilfredo Matamoros (LSUMZ) for logistics in the first sampling event and the Central American Commission of the Environment and Development for financing and logistics of the second sampling event. Finally we thank Margarita Salazar and Dimas López from CCAD for their logistical support in the entire process of this study.



Figure 2. *Heterandria anzuetoii* (LSUMZ 15119) male (top) and female (lower) captured in the Paso Hondo River, Lempa River basin, Department of Cabañas, El Salvador, 2011.

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