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## Research note

# Range extension of *Sanopus reticulatus* (Teleostei: Batrachoididae) in the Yucatán Peninsula

## *Extensión de ámbito de Sanopus reticulatus (Teleostei: Batrachoididae) en la península de Yucatán*

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## Abstract

The geographic range of *Sanopus reticulatus* Collette, 1983 in the Yucatán Peninsula is extended about 75 km southwest to Celestún and about 200 km to Las Coloradas. During the periods of algal blooms in Telchac and Las Coloradas and specific sampling in Celestún, Yucatán, on August 14 and September 26 and 27, 2015, 10 specimens were collected, proving that this species has a distribution all along the Yucatán state coast. All Rights Reserved © 2016 Universidad Nacional Autónoma de México, Instituto de Biología. This is an open access item distributed under the Creative Commons CC License BY-NC-ND 4.0.

**Keywords:** Reticulate toadfish; New records; Gulf of Mexico

## Resumen

El ámbito geográfico de *Sanopus reticulatus* Collette, 1983 en la península de Yucatán se amplía unos 75 km hacia el suroeste hasta Celestún y unos 200 km al este, hasta las Coloradas. Durante periodos de florecimientos algales en Telchac y Las Coloradas y en muestreos específicos en Celestún realizados el 14 de agosto, 26 y 27 septiembre 2015, se recolectaron 10 ejemplares de *S. reticulatus*, lo que demuestra que esta especie se distribuye en toda la costa del estado de Yucatán.

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**Palabras clave:** Pez sapo reticulado; Registros nuevos; Golfo de México

The family Batrachoididae is represented by 25 genera and 78 species occurring worldwide (Greenfield, Winterbottom, & Collette, 2008). In the Gulf of Mexico there are 3 genera and 4 species (McEachran & Fechhelm, 2005). The species of this family are found in tropical to temperate waters; most are coastal but some reside in freshwater and others occur

on continental shelves up to 250 m. All species are benthic, generally on sandy to muddy bottoms (McEachran & Fechhelm, 2005).

*Sanopus reticulatus* Collette, 1993 is reported only on the Yucatán state coast. There are 3 previous reports of its presence: in Progreso (Collette, 1983), Sisal (Badillo-Alemán, Gallardo-Torres, & Chiappa-Carrara, 2013), and the Madagascar reef (Zarco-Perello, Moreno-Mendoza, & Simões, 2014).

During the events of algal bloom presented on August 17–20, 2015 in Las Coloradas, Yucatán, and September 27, 2015 in Telchac, Yucatán, 8 dying specimens of *S. reticulatus* were collected and photographed. In Las Coloradas no organisms

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Figure 1. Collected specimen of *Sanopus reticulatus*, dorsal view (Yuc-pec-356).

were collected because of the advanced state of decomposition. Additionally, we collected 2 adult *S. reticulatus* in Celestún while scuba diving on September 26, 2015. The specimens were deposited in the Colección ictiológica regional de referencia UMDI Sisal (Semarnat Yuc-Pec 239-01-11) of the Unidad Académica Yucatán, Universidad Nacional Autónoma de México, under collection numbers Yuc-pec-356 and 357.

Taxonomic identification of these specimens was based on the reticulate pattern on the body and head (Fig. 1), and branched chin barbels that are more deeply divided than in other species of the genus (Collete, 1983). The sex of the specimens was determined by direct observation of the gonad. Total length (TL) was measured with the aid of an ichthyometer ( $\pm 0.1$  mm) and total weight with a high precision balance ( $\pm 0.5$  g). The specimens were fixed with 10% formaldehyde and 70% alcohol for preservation.

The presence of *S. reticulatus* in Celestún and Las Coloradas extends the known distribution of this species to

about 75 km southwest of Celestún and about 200 km of Las Coloradas (Fig. 2) from its previous known range from Sisal to Progreso, Yucatán (Badillo-Alemán, Gallardo-Torres, & Chiappa-Carrara, 2012).

The specimens collected in Celestún were 2 males, caught in the morning at an average depth of 3 m in burrows in hard substrate. Their length ranges from 399 to 410 mm and weight from 863.5 to 966.1 g. The *S. reticulatus* collected and photographed on the beach of Las Coloradas and Telchac is ranges from 115 to 242 mm in total length and from 15.4 and 182.1 g in weight. In the latter locations we collected 3 males and 4 females.

These results suggest that *S. reticulatus* has a continuous distribution along the Yucatán coast. Currently, this species is evaluated on the red list of IUCN under the category of endangered B1ab(iii), meaning a high risk of extinction in the wild, because of a limited distribution. The information provided in this study will contribute to a better assessment of the current status of this species endemic to Mexico.

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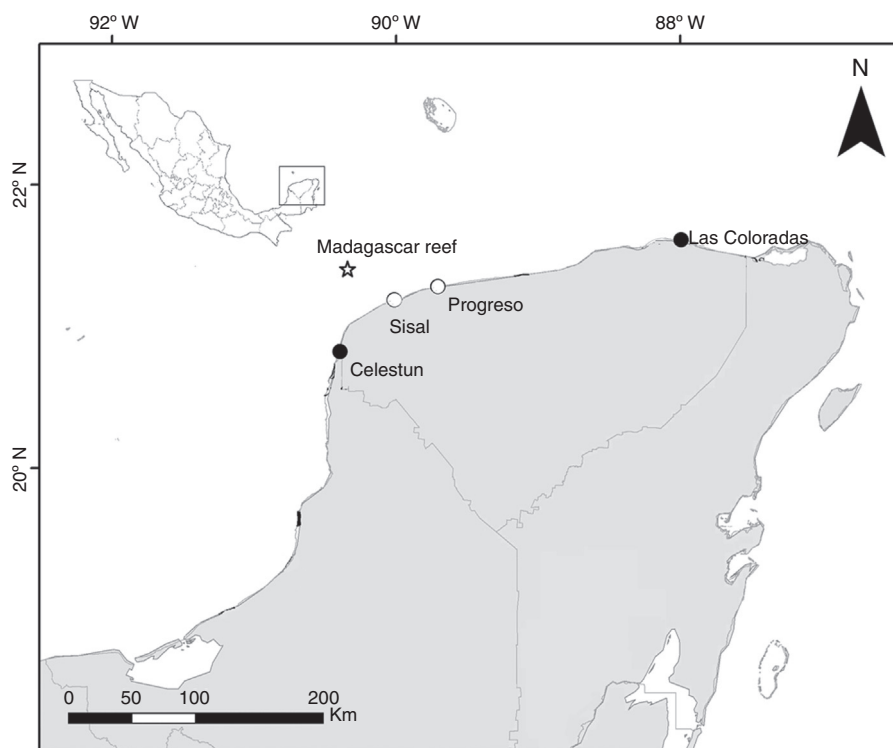


Figure 2. Distribution map of *Sanopus reticulatus* on the Yucatán state coast, locations with previous records (white circles) and locations with new records (dark circles).

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