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New records and notes on the geographical distribution of the Coquito sergeant *Nexilosus latifrons* (Tschudi, 1846) (Cichliformes: Pomacentridae) from northern Chile

Nuevo registro y notas sobre la distribución geográfica del Sargento coquito *Nexilosus latifrons* (Tschudi, 1846) (Cichliformes: Pomacentridae) en el norte de Chile

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RESUMEN

Un ejemplar único de Sargento coquito *Nexilosus latifrons* (Tschudi, 1846) fue capturado en Taltal, Norte de Chile, utilizando un arpón de caza submarina. Este espécimen fue colectado en un área que se encuentra a mitad de camino dentro de su distribución geográfica natural registrada, donde su presencia no había sido documentada previamente. Por lo tanto, este hallazgo contribuye significativamente a la continua ampliación del área de distribución de la especie en esta área. Este estudio subraya la importancia de examinar cuidadosamente esta expansión geográfica y enfatiza la necesidad de realizar más investigaciones y muestreos para obtener más especímenes en la región.

Palabras clave: Región de Antofagasta, Castañeta, costa del Pacifico, costa chilena, Taltal

ABSTRACT

A unique specimen of the Sergeant coquito *Nexilosus latifrons* (Tschudi, 1846) was captured in Taltal, Northern Chile, using a spear gun. This specimen was collected in an area that lies midway within its recorded natural geographical distribution where its presence had not previously been documented. Therefore, this finding significantly contributes to the continuous extension of the species' range in this area. This study underscores the importance of carefully examining this geographical expansion and emphasizes the need for further research and sampling to obtain more specimens in the region.

Key words: Antofagasta region, Castañeta, Pacific Coast, Chilean coast, Taltal

INTRODUCTION

Pomacentridae currently comprises 29 genera and around 428 species (Fricke *et al.*, 2022). These fish, both marine and brackish, have a wide distribution in tropical and subtropical regions (Grove *et al.,* 1986). On the other hand, the genus *Nexilosus* Heller and Snodgrass, 1903 is monospecific, including only the species *Nexilosus latifrons* (Tschudi, 1846), commonly known as "castañeta," "coquito sergeant," or "cagón" (Mann, 1954; Chirichigno, 1974; Grove *et al*., 1986; Béarez, 1996; Grove & Lavenberg, 1997; Medina *et al*., 2004; Méndez-Abarca, 2015). This fish exhibits ontogenetic development marked by chromatic changes: juveniles are bluish-gray with iridescent blue spots, while adults have grayish-brown tones with a yellowish vertical stripe (Méndez-Abarca *et al*., 2023), similar to what is observed in other species of rocky fish with which it coexists (Delrieu-Trottin *et al*., 2021; Méndez-Abarca & Mundaca, 2016; Méndez-Abarca *et al*., 2023; Moreno and Castilla, 1980; Reyes & Hüne, 2012). Its diet is mainly herbivorous, although they also consume animal-origin foods (Grove & Lavenberg, 1997; Berríos & Vargas, 2004), and they easily adapt to captivity (Méndez-Abarca, 2015; Méndez-Abarca & Pepe-Victoriano, 2020). Adults of this species are bottom dwellers (demersal), while juveniles can occasionally be found in shoreline pools during autumn and winter (Berríos & Vargas, 2000; Angel & Ojeda, 2001). Its depth range extends from 1 to 10 meters (Schneider & Krupp, 1995) and its geographical distribution ranges from the Galapagos Islands and the coast of Peru to Antofagasta Bay in Chile (Grove *et al*., 1986; Medina *et al*., 2004). Subsequently, Béarez (1996) expanded the distribution of the species to Ecuador in the north and Méndez-Abarca (2015) to Chañaral Bay, in the Atacama region, Chile, in the south.

In this contribution, we document the finding of a specimen of *N. latifrons*, captured with a spear gun at "El Pelao Saez" beach, off the coast of Taltal city, Antofagasta Region, Chile, in December 2018. This finding completes the species' geographical distribution up to Antofagasta Bay, as recorded by Grove *et al.* (1986) and Medina *et al.* (2004), and the coast of Chañaral city, as recorded by Méndez-Abarca (2015).

METHODS AND RESULTS

On December 5, 2018, a specimen of *Nexilosus latifrons* was captured in the "El Pelao Saez" beach area, located in the Taltal city, Región de Antofagasta, Chile, using a spear gun at a depth of 5 meters (see Figure 1). Subsequently, the specimen was subjected to taxidermy for preservation and photographed. Finally, it was deposited in the marine fish collection of the Wildlife Museum, belonging to the Animal Kingdom Foundation (FRA) in Arica, Chile.

The identification of the specimen was based on meristic and morphometric characters as described by Medina et al. 2004. The specimen has a body length of 285 mm. Dorsal fin with a portion of spines and a portion of soft rays (17 to 19); the portion of rays higher than that of spines; lower margin of the suborbital joined to the cheek at its anterior part, somewhat free posteriorly; yellowish color, with an orange band on the sides of the body, juveniles with green dots. A lateral line reaching only the soft part of the dorsal fin. Forked caudal fin with both lobes rounded (Medina *et al*., 2004).

DISCUSSION

The known geographic distribution of *Nexilosus latifrons* extends from the Galapagos Islands off the coast of Peru to Antofagasta in Chile, as documented by Grove *et al.* (1986) and Medina *et al.* (2004). Subsequently, Béarez (1996) expanded the species' distribution range northward to Ecuador, while Méndez-Abarca (2015) captured a specimen in Chañaral Bay in the Atacama region, Chile. The discovery of a specimen off the coast of Taltal in the Antofagasta region completes the distribution between Antofagasta Bay and Chañaral Bay, covering a distance of 146 km.

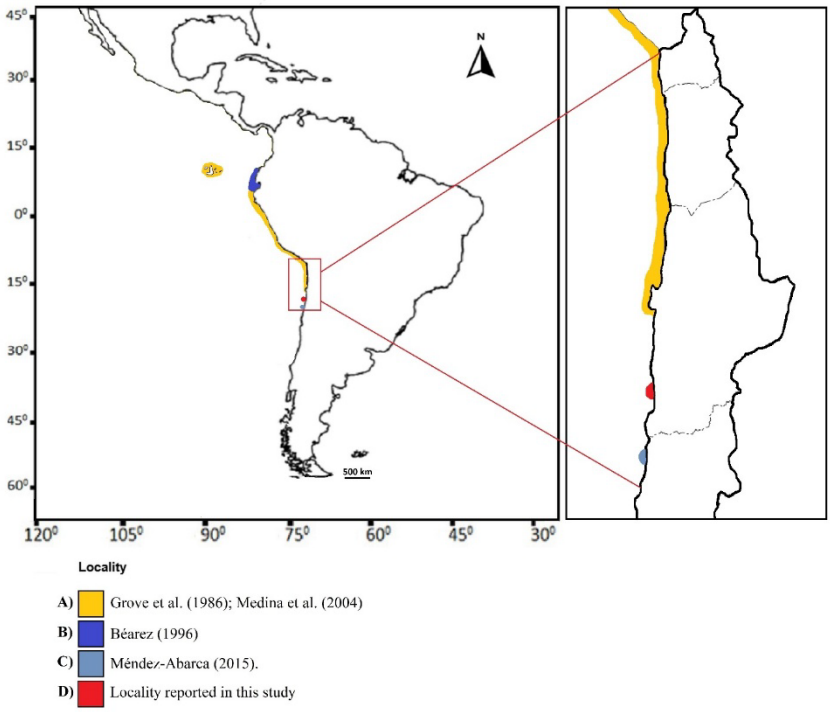

Figure 1. Distribution of *Nexilosus latifrons* along the Pacific coast of South America showing natural distribution and the new records of the species. **A.** Grove et al. (1986); Medina et al. (2004). **B.** Béarez (1996). **C.** Méndez-Abarca (2015) and **D.** the new record from Taltal, Chile.

Figure 2. *Nexilosus latifrons* collected in "El Pelao Saez" beach, Taltal, Chile. Scale bars: 4 cm.

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