

COMUNICACIONES BREVES

PRIMER REPORTE DE TIBURÓN CIGARRO (*ISISTIUS BRASILIENSIS*) PARA AGUAS CUBANAS

*First record of Cookiecutter shark (*Isistius brasiliensis*) in Cuban waters*

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RESUMEN

Se informa un nuevo registro para la ictiofauna cubana específicamente para la clase Chondrichthyes: *Isistius brasiliensis* Quoy and Gaimard, 1824. El ejemplar, un juvenil macho de 289 mm de longitud total y 248 mm de longitud precaudal fue colectado (fresco) del estómago de un pez espada (*Xiphias gladius*) capturado el 10 de diciembre del 2015 al noreste del puerto de pesca “deportiva” de Cojímar, La Habana, Cuba.

PALABRAS CLAVES: nuevos registros; ictiofauna; Chondrichthyes; tiburón cigarro; *Isistius brasiliensis*; Cojímar, Cuba.

ABSTRACT

A new report for the Cuban ichthyofauna especially on Class Chondrichthyes is given in this work: Isistius brasiliensis Quoy and Gaimard, 1824. A 289 mm total length (LT) and 248 mm of precaudal length juvenile male was collected fresh from the stomach content of a swordfish (Xiphias gladius) on December 10, 2015 at northeast of the Cojímar fishing port, Habana, Cuba.

KEY WORDS: *new records; ichthyofauna; Chondrichthyes; cookiecutter; shark; Isistius brasiliensis; Cojímar, Cuba.*

INTRODUCTION

The genus *Isistius* (Gill, 1865) consists of two recent species, the cookiecutter shark *Isistius brasiliensis* (Quoy & Gaimard, 1824), originally described as *Scymnus brasiliensis* (Castro, 2011) and the large-tooth cookiecutter shark *Isistius plutodus* (Garrick & Springer, 1964). Bite marks of some 2-7 cm diameter in large fishes and marine mammals are indicators of the presence of *Isistius* spp. (Hideki Nakano and Makoto Tabuchi, 1990).

This small shark size species (41-56 cm maximum length) inhabits the upper layers of warm, tropical, oceanic water between the surface and 550 m depth. Implying that the specie makes large vertical migrations. *Isistius brasiliensis* is a frequently caught shark and cosmopolitan in deep waters of the tropical, subtropical belts of the Atlantic, Pacific and Indian oceans (Castro, 2011). In the present study, a cookiecutter shark specimen was found on December 10, 2015 in a Swordfish (*Xiphias gladius*) stomach. This swordfish was caught at midnight at a depth of 90-100 m depth, northeast of the Cojimar fishing port. Is possible that the shark was swallowed during the night by this predator. Examination of the specimen was conducted on the Centro de Investigaciones Marinas de la Universidad de La Habana (CIM-UH), several hours after the swordfish was caught, opened and the shark was taken and given by the fisherman boat "Obrero". There is not clear evidence of enzymatic degradation by the stomach acid and the internal organ not invent began to decompose or seem to be damaged. The individual was classified, measured, weighted and photographed; stomach and gonads were examined too. The specimen was storage in 90 % ethanol a located at the Ichthyological Collection at CIM-UH with the catalog number (684).

Specie classification and systematic was defined according to Castro (2011) and Worms data base network.

Results:

Phylum: Chordata

Subphylum: Vertebrata

Class: Chondrichthyes

Subclass: Elasmobranchii

Orden: Squaliformes

Family: Dalatiidae

Genus: *Isistius*

Species: *Isistius brasiliensis*

Several morphometric measurement was collected (Tab. 1). The small shark measured 289 mm total length (LT) and 248 mm of precaudal length (Figure 1 A). Had a fresh mass of 62.7 g.

According to claspers calcification (Camhi, 2008) the specimen was an immature male with outer size 2.3 mm and inner size claspers 6 mm of length; without tested developed (Figure 2 A). Observed a close and healing umbilical scare (Figure 2 B). This shark has two spineless dorsal fins of equal height set far back on the trunk, and the rear tip of the first dorsal over de pelvic fin. The base of the second dorsal fin is only slightly longer than de base of the first one. Something very characteristic of this specie is the presence of a dark collar encircling the throat and the dark brown markings on the caudal fin. The median fins have pale, nearly translucent margins.

Table 1. Morphometric measurement from the shark specimen collected.

Measurement	Length
Precaudal length (PCL)	248 mm
Fork length (FL)	268 mm
Total length (TL)	289 mm
Straight total length (STL)	291 mm



Fig. 1. *Isistius brasiliensis* (Cookiecutter shark), complete specimen, Photograph by Alexei Ruiz.

According to the literature consulted from Cuban waters sharks diversity

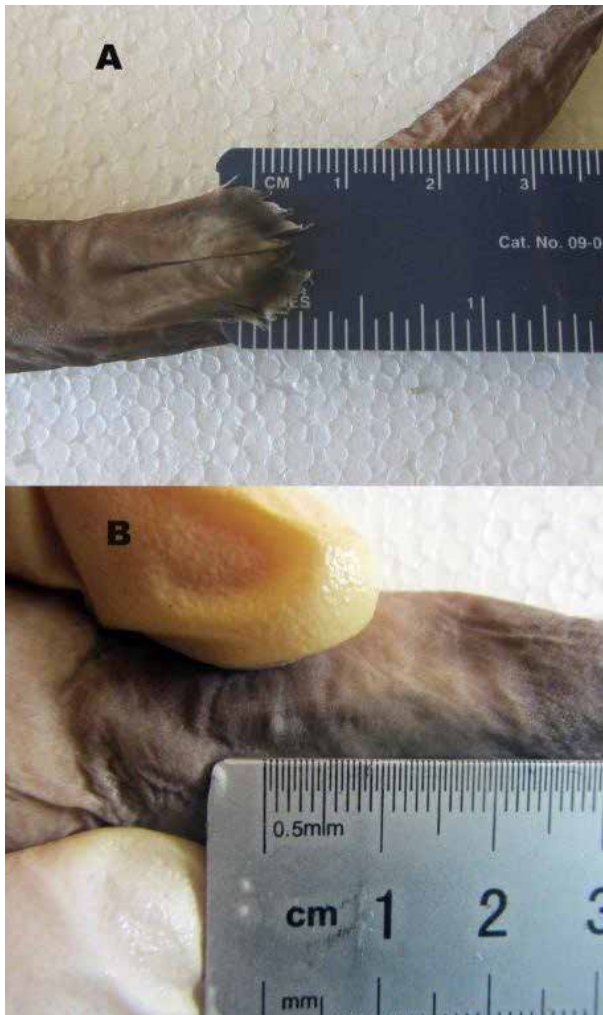


Fig. 2. Copulatory organs (Clasper) from male specimen of *Isistius brasiliensis* (2 A). Umbilical scar healed (2 B).

(Baisre, 2004; Claro, 2010; Aguilar et al., 2014; PAN-Tiburones, 2015) there is no report of this species in Cuban waters. Therefore the present finding of *Isistius brasiliensis* constitutes a new addition to the Cuban ichthyofauna and increase the diversity of sharks in Cuban waters. Also support the several reports of this specie in tropical waters and enlarge the knowledge of the possible predator-prey interaction.

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