

NOTE:

FIRST RECORD OF *TOBAGOGORGIA HARDYI* (OCTOCORALLIA: GORGONIIDAE) FROM THE COLOMBIAN CARIBBEAN

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RESUMEN

Primer registro de *Tobagorgia hardyi* (Octocorallia: Gorgoniidae) para el Caribe colombiano.

Esta nota registra la presencia del octocoral *Tobagorgia hardyi* Sánchez, 2007 en el Caribe colombiano. El octocoral, perteneciente a la familia Gorgoniidae, fue descrito originalmente para la isla de Tobago, de donde se origina su nombre como un nuevo género monoespecífico. Este registro está basado en colonias recolectadas en diferentes localidades del talud superior y la plataforma continental a lo largo del Caribe colombiano durante las expediciones Invemar-Macrofauna I y II.

PALABRAS CLAVE: Gorgoniidae, Octocorales, Colombia, Caribe.

The plasticity of octocorals gives them a great morphological and physiological variety (Bayer, 1961; Grasshoff, 1976; Fabricius and Alderslade, 2001). Among gorgonians, the families Gorgoniidae and Plexauridae are the most abundant and diverse shallow-water cnidarians found in Atlantic reefs (Sánchez, 2007), i.e. including the Colombian Caribbean. Their study involves a taxonomic challenge because most octocorals have sister species with similar morphological characters (Sánchez and Wirshing, 2005). Specially within these two families some of them include characters that are poorly defined as diagnostic at the generic level. Based on the family diagnosis some of them could be identified either as Gorgoniidae or as Plexauridae; besides, they exhibit several morphological variations (Sánchez, 2007).



Therefore, during the identification of collected material along the Colombian Caribbean upper slope and continental shelf, *Tobagorgia hardyi* specimens were difficult to deal with. First they were identified as belonging to Plexauridae, since they present a similar axis and other Plexauridae characters (e.g. colony shape, growth, variety of sclerites), but according to the descriptions of both families, the sclerites in Plexauridae are commonly larger (0.3 mm- 5 mm long) than in Gorgoniidae that are commonly <0.3 mm long (Deichmann, 1936; Bayer, 1956, 1961; Williams, 1992; Fabricius and Alderslade, 2001). Thus, it was decided to classify them as Gorgoniidae, since they presented an average length of sclerites of 0.16 mm. After that, it was impossible to find in the literature on Gorgoniidae a genus that matched the characters of the specimens found.

Samples included in the study were collected throughout the explorations carried out by the Instituto de Investigaciones Marinas y Costeras-INVEMAR, in sampling stations located along the continental shelf and upper slope (20-500 m depth) of the Colombian Caribbean (Figure 1). All samples were placed at the Museo de

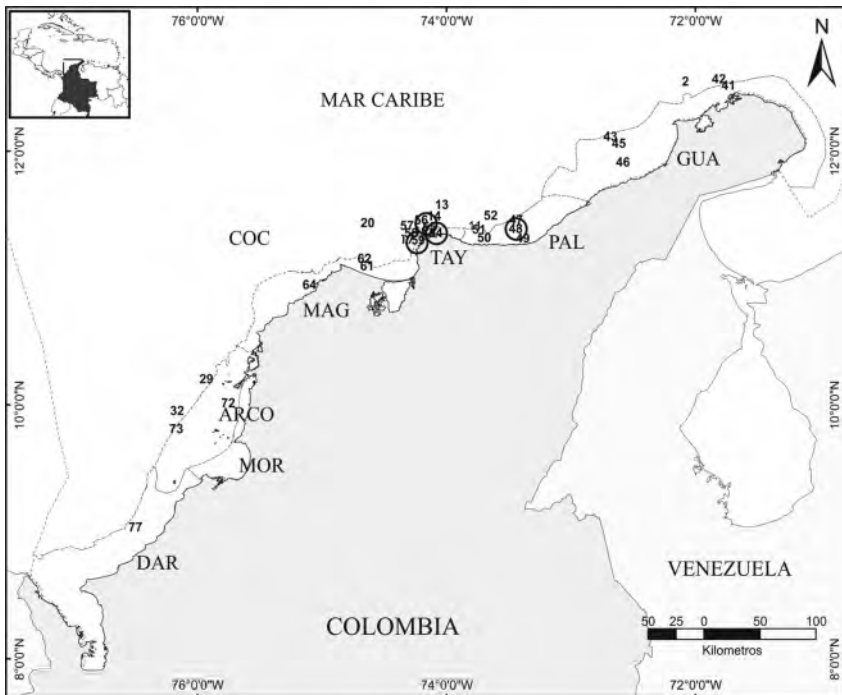


Figure 1. Study area. Black circles indicating the sampling stations where *T. hardyi* was collected. Regions are: DAR: Darién; MOR: Morrosquillo; ARCO: Archipiélagos coralinos; MAG: Magdalena; TAY: Tayrona; PAL: Palomino; GUA: Guajira; COC: Caribe Océánico.

Historia Natural Marina de Colombia (MHNMC) under collection numbers preceded by the code INV CNI (numbers shown below in the subtitle examined material).

Identification was carried out by examining morphological characters. Comparison with specimens from other collections was needed to accomplish the species identification. Surprisingly no comparable specimens were found until it was known about the new genus *Tobagogorgia* Sánchez, 2007 and its unique species *T. hardyi* Sánchez, 2007. Although the species was described just for Tobago by its author, the specimens here found resulted being the same species after comparing them with the type material (Holotype: USNM 1093840) at the Smithsonian National Museum of Natural History in Washington D.C. and after the examination of some specimens by the species author, Juan Armando Sánchez, who confirmed them to be the same.

***Tobagogorgia hardyi* Sánchez, 2007**

(Figure 2-3)

Identification references: Bayer, 1961; Sánchez, 2007.

Examined material: INV CNI1892 (station 59; 1 colony). INV CNI1893 (station 54; 1 colony). INV CNI1894 (station 48; 3 colonies). INV CNI1895 (station 55; 1 colony). INV CNI1896 (station 48; 2 colonies). INV CNI1897 (station 55; 1 colony). INV CNI1898 (station 59; 1 colony).

Diagnostic characters: The genus and species can be distinguished by the presence of both, enlarged ornamentation with multiple spines on the convex side of the asymmetrical sclerites from the surface layer and irregularly bent spindles in the inner layer (Figure 3). Cylindrical branches and polyps placed throughout the branch (no rows or grooves) distinguish this genus from *Leptogorgia*, which has analogous sclerite forms (Sánchez, 2007).

Description of samples examined: Whip-like and cylindrical colonies up to 12 cm long without branching (Figure 2). Bent spindles in the inner layer and straight spindles in the surface, 0.161 mm length in average, with tubercular ornamentation (Figure 3). Retractable polyps, forming a small protuberance when retracted in absence of a calyx, placed throughout the branch, with no particular order pattern. The color of the preserved (ethanol 70% and 96%) colonies is dark brown and the polyp apertures look darker than the rest of the colony.

Distribution: The species was originally described for Tobago. In the study area it was collected in Tayrona, Palomino and La Guajira ecoregions (Figure 1), between 25 m and 74 m depth.

Remarks: Samples examined, just like those described by Sánchez (2007), present typical Gorgoniidae characters; they share every one but the color. As expected, the





Figure 2. Colonies (above) and polyp aperture (below).

different methods to collect the samples and the higher depths where they were found in Colombia, may cause this color variation. According to Sánchez (2007), the live colonies color is yellow. But according to specialists who collected the samples of this study they were brightly orange when collected. Color can not be a diagnostic character and therefore this difference was not used as a reason to separate the samples from the species described by Sánchez (2007).

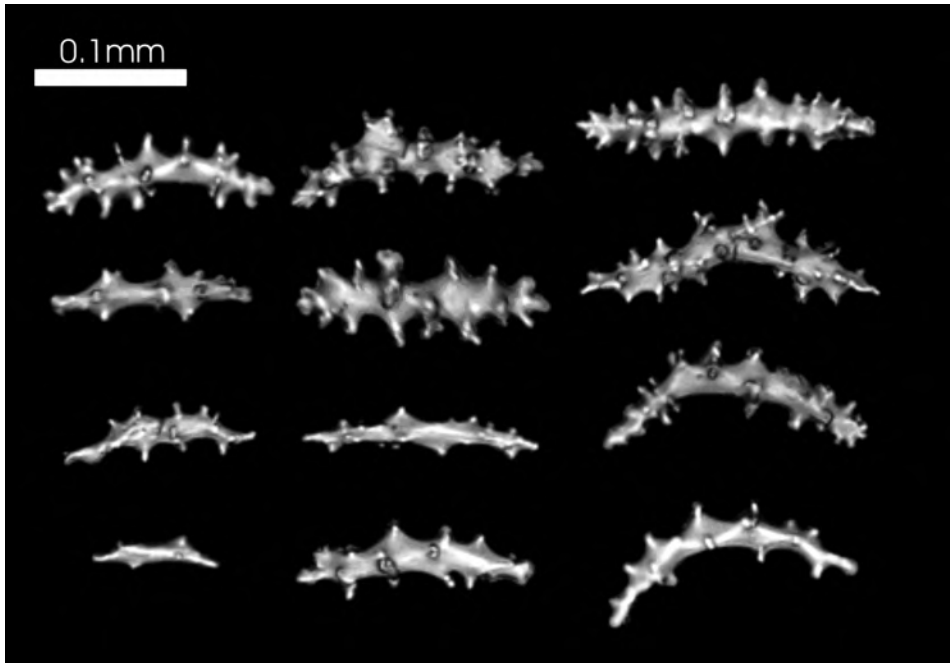


Figure 3. Sclerites present in *T. hardyi*.

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