



A new species of *Leptogorgia* (Cnidaria: Anthozoa: Octocorallia) from Golfo Dulce, Pacific, Costa Rica

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The description of this single species is necessary to facilitate the publication of ongoing research conducted by Rita Vargas at the Museum of Zoology, University of Costa Rica, dealing with the associated microfauna. Presently 24 species of *Leptogorgia* have been reported for the eastern Pacific, 13 of which have been found in Costa Rica (Breedy & Cortés 2011). Although octocoral surveys have been conducted as part of biodiversity studies, there is no published information regarding the occurrence of this taxon in Golfo Dulce. Here we describe a new species of *Leptogorgia* and compare it with other *Leptogorgia* species with similar characteristics. Golfo Dulce is a bay located on the southern Pacific coast of Costa Rica. It is about 50 km long, 10–15 km wide, and covers an area of approximately 680 km². The inner part of Golfo Dulce has a maximum depth of slightly over 200 m with a 60 m deep sill at the opening to the Pacific Ocean (Cortés 1999). It has been considered a tropical fjord because of the bathymetry and the presence of anoxic deep waters (Cortés 1999, Svendsen *et al.* 2006). Specimens were collected by Scuba diving, preserved in 70% ethanol or air dried, and treated and identified following the current methodology (Breedy & Guzman 2002). The holotype and paratypes are deposited in the Museo de Zoología, Universidad de Costa Rica (MZUCR, formerly UCR), San José, P.O. Box 11501-2060, Costa Rica.

Order Alcyonacea Lamouroux, 1812

Family Gorgoniidae Lamouroux, 1812

Genus *Leptogorgia* Milne Edwards & Haime, 1857

Leptogorgia cortesi sp. nov.

Holotype: MZUCR 2118, ethanol preserved, Punta Islotes, Golfo Dulce, 9 m, O. Breedy and J. Cortés, 11 April 1997.

Paratypes: MZUCR 2119–2127, 2130–2135, same data as the holotype; MZUCR 2128–2129, ethanol preserved, Punta Estrella, Golfo Dulce, 25–30 m, O. Breedy and H.M. Guzman, 5 February 2009; MZUCR 2147, dry, Punta Islotes, Golfo Dulce, 14 m, J. Cortés, 20 January 1994.

Description. The holotype is a bushy, irregular looking colony 11.2 cm long and 15.5 cm wide (Fig. 1A–B), arising from a conical holdfast, 15 mm in diameter, spreading over solid substrate. The colony is laterally branched; three primary branches arise from a very short basal stem, 3 mm in length and 2.5 mm in diameter. The branches, 2–2.5 mm in diameter, produce secondary branchlets, 1–1.5 mm in diameter, irregularly subdividing up to seven times. Some branchlets form pseudo-anastomoses (anastomosis of the coenenchyme, not of the axes). The unbranched final twigs are long, slender, and sprout at a wide angle; they shortly curve upward roughly parallel with the larger branches or extend perpendicularly. The twigs reach up to 6 cm in length, 0.5–1 mm in diameter, and have pointed tips. A narrow, marked, sinuous groove extends along the main stem and the branches and branchlets, but it may be indistinct or absent on the distal portions of the latter. The axis is horny, with a chambered central core filled with organic filaments mineralized with microspheres of carbonate hydroxylapatite. The polyps are retracted into surface mounds that are closely distributed, prominent, and about 0.3–0.5 mm tall; they are mostly arranged in two alternating rows on each side of the