

New records of deep-water corals of the Colombian Pacific: A contribution to increase of knowledge in the Tropical Eastern Pacific

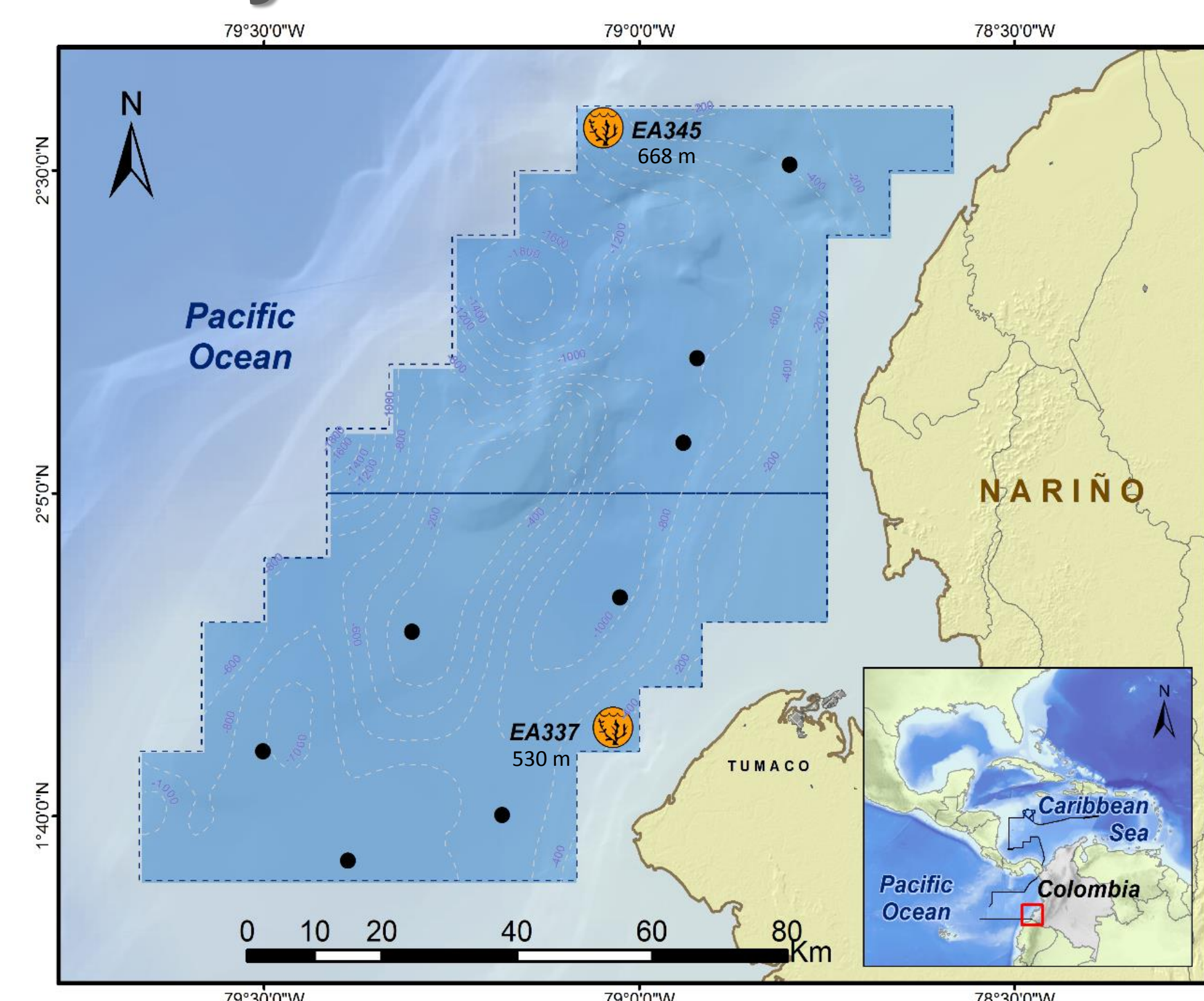
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Study Area



TUM OFF 6 and 7 hydrocarbon exploration blocks cover an area offshore of 7308 km² in the Colombian Pacific between 200 and 1300 m depth. It is located in front of the Sanquianga National Natural Park and up to the border with Ecuador. The area has a strong influence of inland waters from Tumaco Bay, Patía and Mira rivers. Large extensions of soft bottoms characterize the seabed with occasional occurrence of shoals, banks and hills

Methods



15 stations sampled with trawling (net 9×1 m opening)

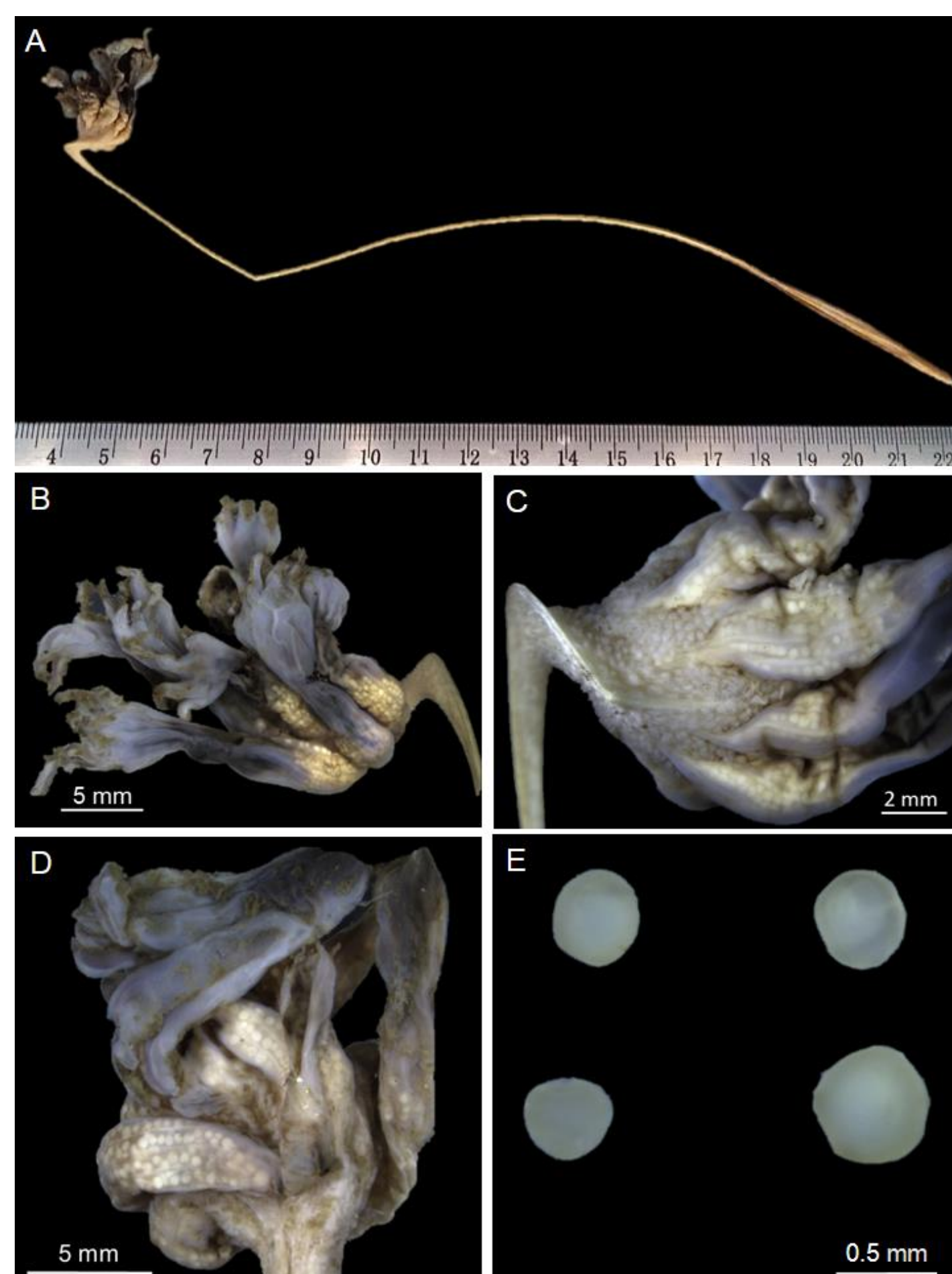
Rich communities of fish, crustaceans, annelids, mollusks, equinoderms, and cnidarians were obtained

Samples were sieve and sorted on board, cleaning and identification carry out at Makuriwa Museum Laboratories, and the lots storing in the Museum

2 stations with corals

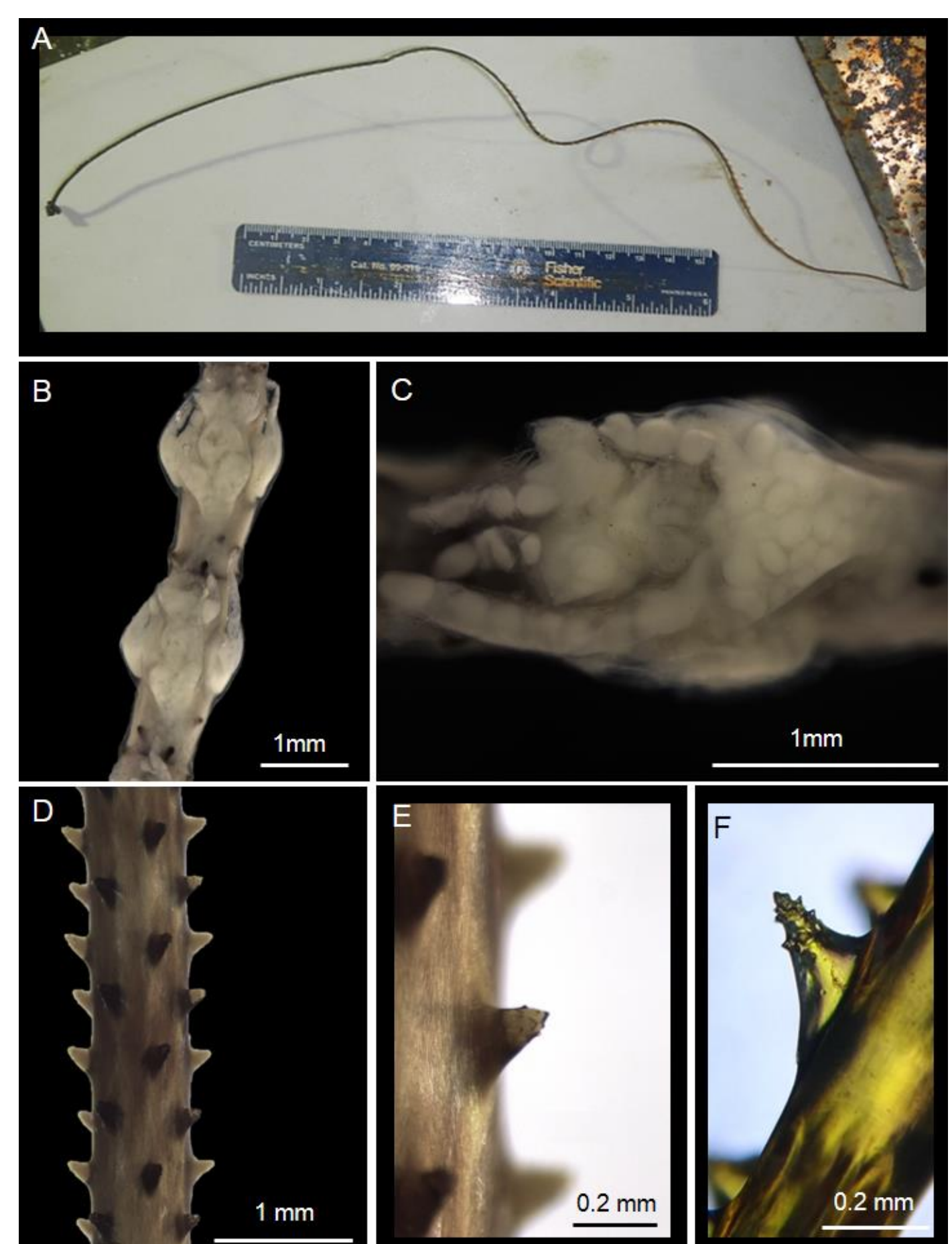
Octocorallia

Umbellula cf. lindahli Kölliker, 1875

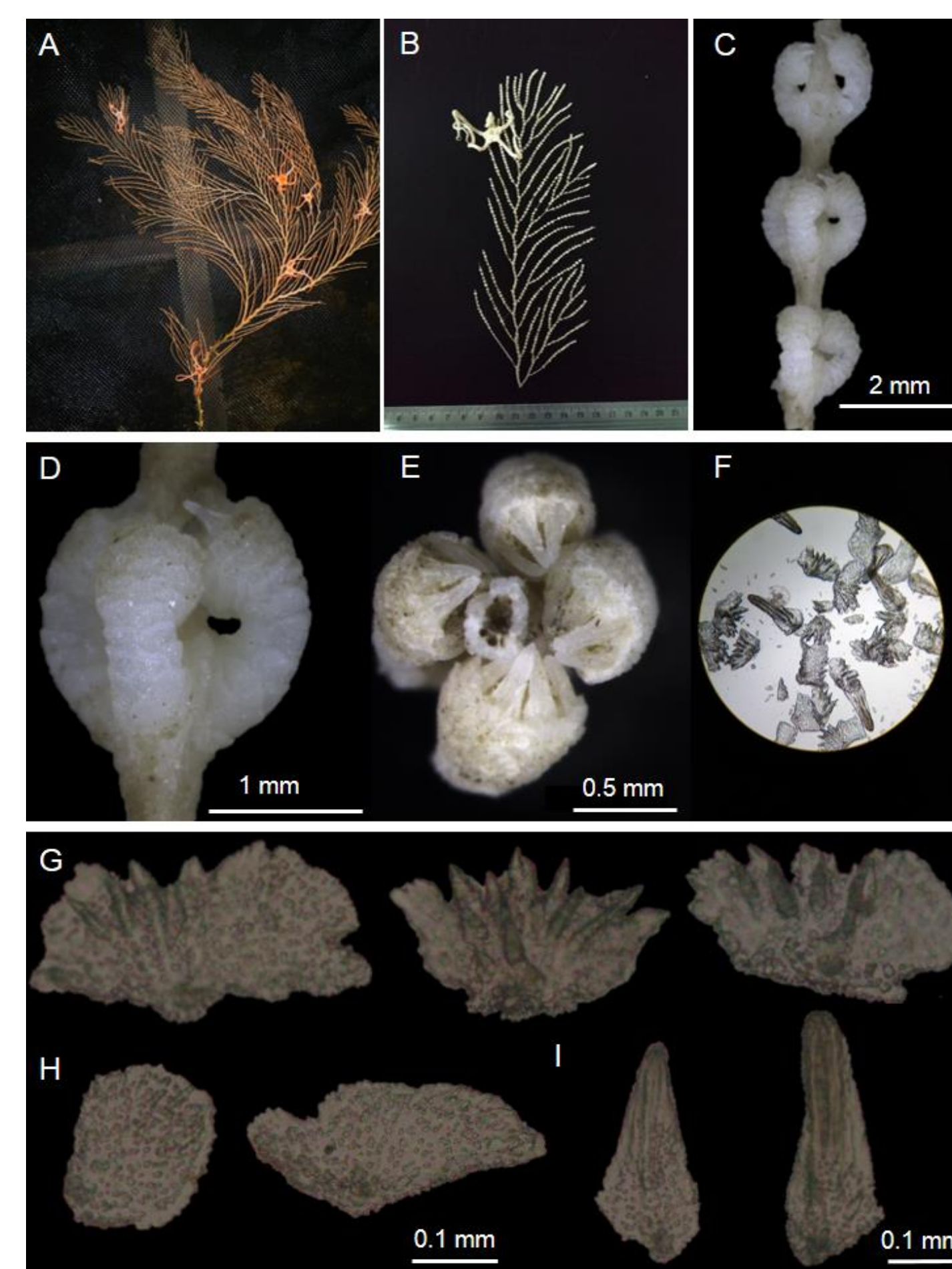


Colonies recognized for its long and slender stalk and a terminal cluster of polyps (A - B), with the siphonozooids on the rachis and below the terminal cluster, on the upper part of the stem (C). This species does not contain sclerites and present a cosmopolitan distribution (Kükenthal, 1915). All the three specimens revised were full of eggs in their polyps (D-E).

Stichopathes cf. spiessi Opresko & Genin, 1990



Callogorgia cf. galapagensis Cairns, 2018

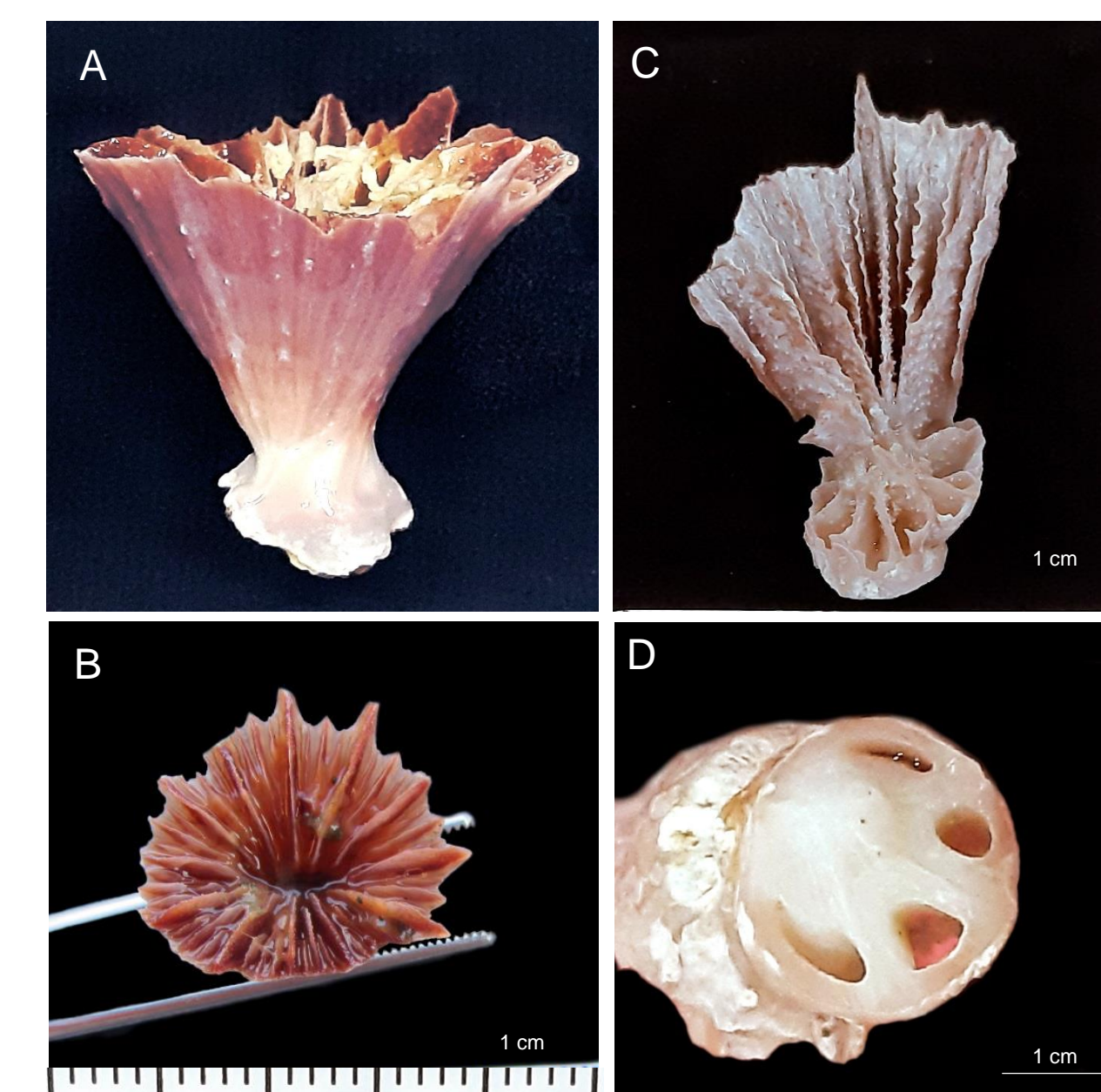


Colony of almost 1 m in height collected in the field (A). All the specimens with alternate and pinnate branching (B). Four to five whorls of polyps occur per cm (C-D), and each whorl with four or five polyps (E), being four the most common in the Colombian specimens. Nevertheless, in the description of the species (Cairns, 2018) the polyps are arranged in whorls of five or six. Sclerites of the body wall: abaxial (G), adaxial (H), infrabasal scales (I) and the opercular scales (J). The typical highly ridged scales of the abaxial body wall were evident in the specimens (G-J).

Colonies unbranched and curving in spirals (A), more evident in longer specimens. Four or five polyps per cm (B), polyps of 1.6 – 1.8 mm in diameter (C). Spines arranged in 8 longitudinal rows (D). Spines with conical appearance, measuring between 1.8 and 2 mm, and with small tubercles or knobs at apex (E-F). Two of the six complete specimens, presented eggs in their polyps (C). The species was already reported in the Eastern North Pacific (Opresko & Genin, 1990), nevertheless, these findings extended their distribution range to Southern Pacific.

Hexacorallia

Polymyces wellsii Cairns, 1991



Colony collected at 668 m depth in EA345 station. It is 2.5 cm height, and exhibe the characteristic pink color thecal (A). Calyx with 48 exsert septa arranged of four cycles (B). Corallum with asymmetric development of the rootlets (C y D), wich is the first difference with *P. fragilis*.

Bathyal species widely distributed, it has been recorded in the Pacific from Australia, New Zealand, Indonesia, Philippines, Galapagos Islands and Hawaii (Cairns, 2006). In the Western Atlantic has been reported in the Colombia San Andres Island (Reyes, 2000). Their finding in the Colombian Pacific Ocean increases its distribution in Colombian waters.

Caryophyllia sp.



The analyzed samples are poorly preserved to accurately identify. However, the hexamerall symmetry, the septa arrangement on four cycles, and the evidence of one crown of pali before of S3 or penultimate cycle of septa, allowed this tentatively classification.

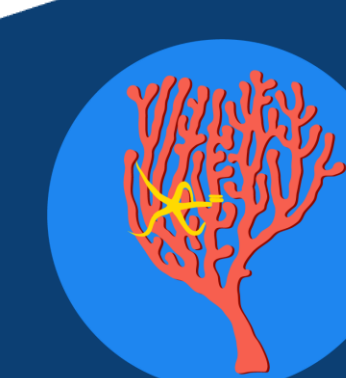
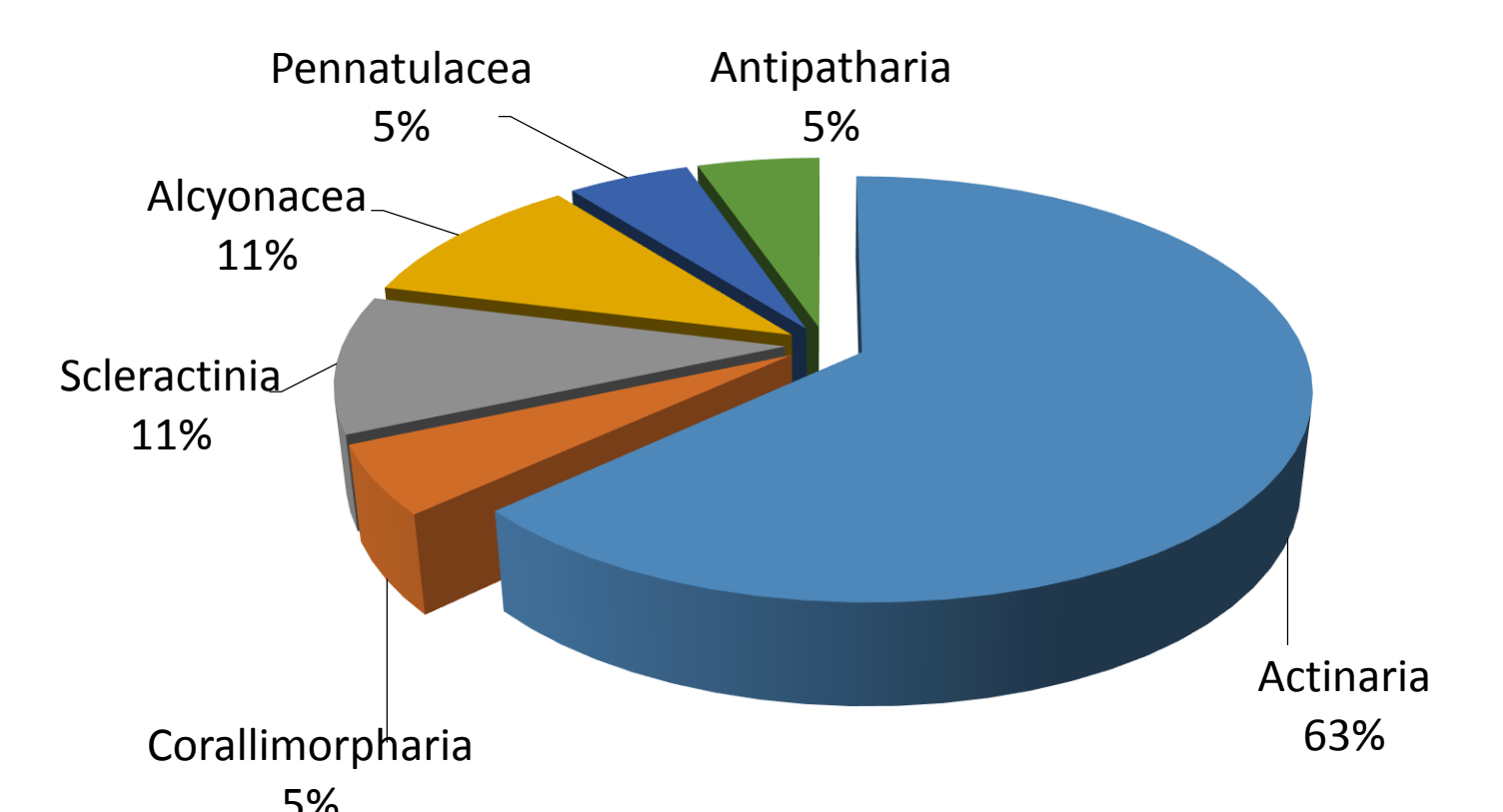
The corals had a representativeness of 37% with respect to the collected cnidarians. However, with the exception of *Caryophyllia sp.*, all species are new records for Colombian Pacific waters. This area usually represents a gap in the biological information of the Tropical Eastern Pacific

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Acknowledgements

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