**Supplementary File 01 –** Material and Methods for the DNA extraction and amplification

We extracted genomic DNA through a modified phenol-chloroform protocol (Sambrook & Russell 2001), with a lysis buffer containing Tris-HCl 10 mM (pH 8.0), EDTA 50 mM, NaCl 0.1 M, 0.5% SDS and Proteinase K (20 mg/mL). We checked the concentration and quality (260/280 absorbance) of extracted DNA through nanospectrophotometer.

A fragment (Folmer fragment, ca. 640 pb) of the mitochondrial cytochrome oxidase subunit 1 (COI) was amplified through PCR using the primer pair dgLCO1490 (GGT CAA CAA ATC ATA AAG AYA TYG G) and dgHCO2198 (TAA ACT TCA GGG TGA CCA AAR AAY CA) (Meyer *et al.* 2005). The fragment of the nuclear 28S rRNA (C2–D2, ca. 470 pb) was amplified using the primer pair 28S–C2–fwd (GAA AAG AAC TTT GRA RAG AGA GT) e 28S–D2–rev (TCC GTG TTT CAA GAC GGG) (Chombard *et al.* 1998).

PCR amplifications were performed in 25 µL reactions consisting of DNA (up to 50 µg/mL), 0.5 µL of each primer (10 µM), PCR SuperMix (Invitrogen™) or PCR MasterMix (Promega) supplemented with 1–3 U of Platinum™ *Taq* DNA Polymerase (Invitrogen™) and 200 µg of UltraPure™ BSA (Invitrogen™). The PCR reactions were submitted to the following thermocycling profile: initial denaturation at 94–95 °C for 3’, followed by 35 cycles of 30” denaturation at 94 °C, 20–30” annealing (38–48 °C for COI; 45–58 °C for 28S), 60” elongation at 72 °C, and a final elongation at 72 °C for 5’.PCR reactions were checked for the presence and size of amplicons through 1% agarose gel electrophoresis stained with SYBR® Safe and visualized under UV light.

**References**

Chombard, C., Boury-Esnault, N., Tillier, S. & Marshall, C. (1998) Reassessment of Homology of Morphological Characters in Tetractinellid Sponges Based on Molecular Data. *Systematic Biology* **47**, 351–366.

Meyer, C.P., Geller, J.B. & Paulay, G. (2005) Fine scale endemism on coral reefs: archipelagic differentiation in turbinid gastropods. *Evolution* **59**, 113–125.

Sambrook, J. & Russell, D.W. (2001) *Molecular Cloning: A Laboratory Manual*, 3rd ed. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.