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Nomenclature of vermetid anchoring bioerosion structures: making the names *Santichnus* and *Santichnus mayorali* available (Ichnofamily Renichnidae, trace fossils, bioerosion structures)

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A revision of the description of vermetid fossil anchorage bioerosion structures by Verde *et al.*, (2022) suggests the need for clarification to avoid confusion regarding the nomenclatural status of the ichnotaxa *Santichnus* and *Santichnus mayorali*. Zoological nomenclature, in accordance with the International Code of Zoological Nomenclature (ICZN, 1999) and its 2012 amendment (ICZN, 2012), allows for the electronic publication of new names under specific archiving and registration requirements (Zhang, 2012, Krell & Pape, 2015).

Our original publication, where these ichnotaxa for vermetid anchoring bioerosion structures were described, was distributed only electronically with no registration in ZooBank as required by Article 8.5.3 of the Code. Consequently, the ichnogenus and ichnospecies names were unavailable. Following Recommendation 8D of the Code and the nomenclatural sanitation, we formally publish these names here to comply with the Code and meet all availability requirements.

The diagnostic morphological characters and type material of these ichnotaxa are presented below, while the complete descriptive, comparative data, type material designation, authors and illustrations are those published under the same names in Verde *et al.* (2022), as well as the discussion and interpretation about its trace maker and ethological origin of this trace fossil. All specimens referred in the original study, and in this note, are housed in the Collection of the Palaeontology Area of the University of La Laguna (San Cristóbal de la Laguna, Tenerife Island, Canary Islands, Spain) with assigned registration numbers FPA 1–10, IG 9, 19, 20, 34, and 136 and ULL PA 226, 231, 307, 465–469, 471–473, 481, 486, 501–503, 506, and 520, which include the holotype, paratype and other analysed material.

Ichnofamily Renichnidae Wisshak *et al.*, 2019

Ichnogenus *Santichnus* Verde, Castillo, Martín-González & Cruzado-Caballero. New ichnogenus.

"*Santichnus*" Verde, Castillo, Martín-González & Cruzado-Caballero, 2022, is unavailable because work by Verde *et al.* (2022) has not been registered in ZooBank.

Type ichnospecies *Santichnus mayorali*, type and only known ichnospecies.

Etymology: Dedicated to Ana Santos, Portuguese ichnologist and colleague, for her important contributions in the field of bioerosion.

Diagnosis: Bioerosion structure that develops on the surface of hard calcareous substrates as a canal semicircular in

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cross-section that follows a logarithmic spiral path up to three whorls, in which the width of the canal varies gradually following the logarithmic spiral proportions.

Ichnospecies *Santichnus mayorali* Verde, Castillo, Martín-González & Cruzado-Caballero. New ichnospecies.

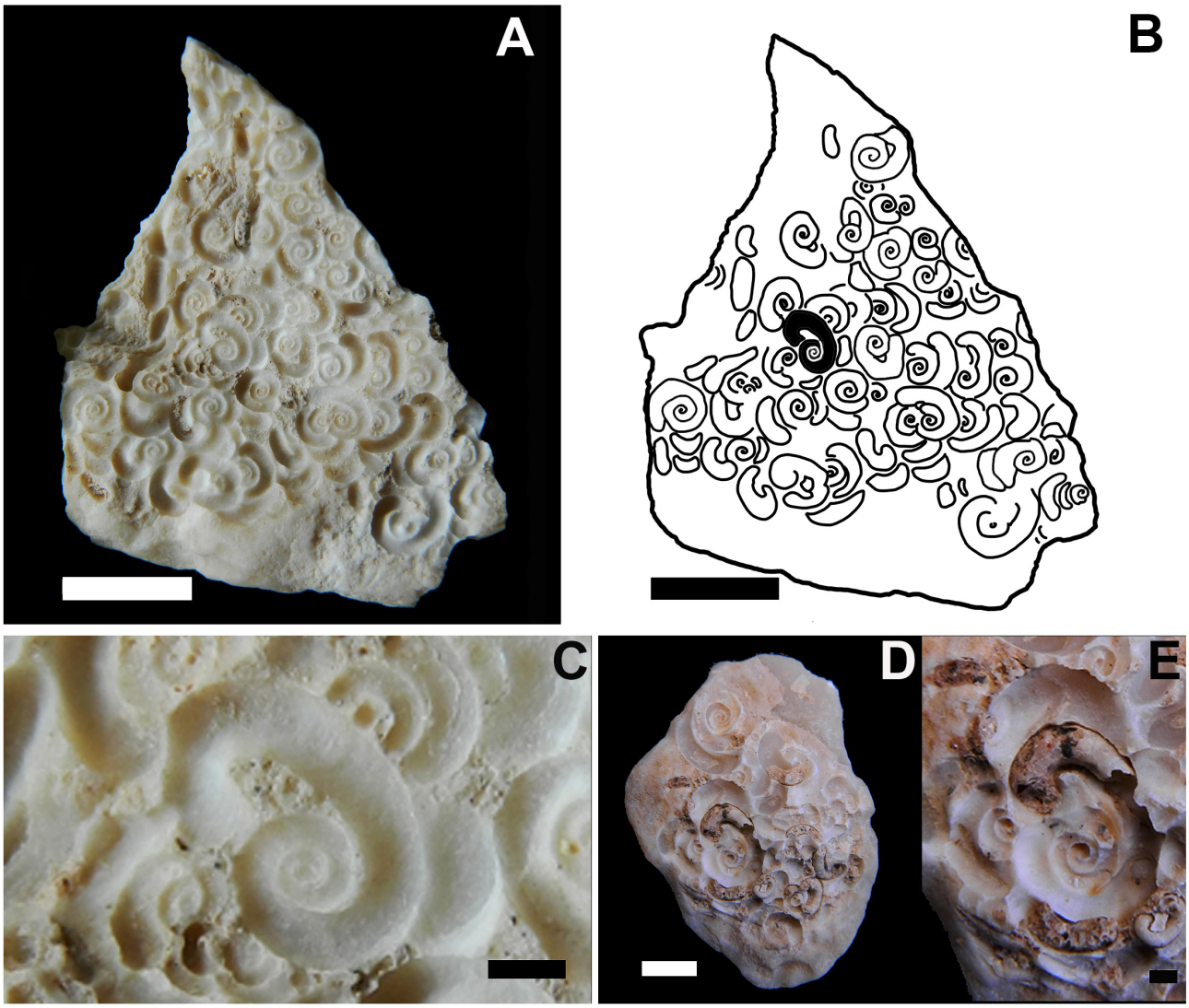

FIGURE 1. *Santichnus mayorali*. A-C: Holotype (FPA-7K). A: Whole sample of patellid fragment bearing the holotype. B: Scheme showing position of the holotype highlighted in black. C: detail view of holotype specimen highlighted in B. D: sample bearing the paratype (ULL PA 469) on an oyster fragment. E: detail of paratype showing interconnection with *Renichnus*. Scale: A, B, D: 5mm; C, E: 1mm.

"*Santichnus mayorali*" Verde, Castillo, Martín-González & Cruzado-Caballero, 2022, is unavailable because work by Verde *et al.* (2022) has not been registered in ZooBank.

Etymology: In honour of Eduardo Mayoral, a pioneering Spanish ichnologist in the investigation of bioerosion structures.

Holotype: Specimen FPA-7 K, on fragment of a patellid (Fig. 1 A–C). Paratype: ULL PA 469, on fragment of an ostreid (Fig. 1 D–E). Locality and age: Barranco León and Playa del Valle, Fuerteventura, Canary Islands. Miocene-Pliocene.

Type material locality: The holotype FPA-7 K comes from the base of the Barranco León site and the paratype ULL PA 469 comes from the Playa del Valle site, both on the northwest coast of Fuerteventura Island.

Stratigraphic position and age of the type material: The holotype FPA-7 K comes from an unnamed cemented sand level of Miocene-Pliocene age and the paratype ULL PA 469 comes from an unnamed bioconglomerate (rhodolith level) of Miocene-Pliocene age.

Diagnosis: Bioerosion structure developed on the surface of hard substrates as a canal semicircular in cross-section following a spiral path of up three whorls, in which the width of the canal varies in a gradual manner following logarithmic spiral proportions. The spiral lies with its coiling axis perpendicular to the substrate surface and the last whorl may depart from the spiral coil in a straight shaft or a recurved one that returns toward the spiral. A nonbioeroded subtriangular to crescentically arched area may be present between the recurved shaft and the spiral. Reniform depressions like those of *Renichnus* can be present around the last whorls in some specimens. The canal may show fine striae perpendicular to the central axis of the canal.

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