

ABSTRACTS

T A A S

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PARASITIC LIKE-TRACES ON MARINE MOLLUSKS: NEW SOUNDS FROM SOUTHERN BRAZIL

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Parasite traces on invertebrate fossil remains are relatively uncommon, despite its high biological information value regarding ecological interactions. Although these traces are not properly preservable, parasites are ubiquitous in the biosphere and their diversity and abundance is higher rather than predators. However, there is a vast unknowledge about the spatial and environmental variation of parasitic traces derived from the fossil record so far. The digenean trematode, for example, has a complex life cycle with three hosts, infesting mollusks bivalves in the second stage, being an intermediate host. Despite parasites be formed by a soft-bodied, they can produce diagnostic traces and preservable on bivalves, in the inner of the valves thus inducing de growth of oval-shapes modifying locally the shell geochemical composition. It has been observed that these deformities present in the structures, indicate that they were made when the host was still alive. This work aims to evaluate the prevalence of parasite like-traces caused by Digenean trematodes in bivalves' mollusks. To this purpose, 27 standardized samples of 0.05 m³ of sedimentary material and mollusks shells were gathered, along about 135 km of coast, between the counties of Torres and Palmares do Sul, southern Brazil, simulating retrograding and prograding settings in the Quaternary fossil record. Twelve species of mollusks were identified, while the genus *Donax* displayed a frequency of 88.49 %, the most abundant species being the only one that displayed parasite like-traces. Prevalence values were significantly similar (Mann-Whitney-Wilcoxon test after sine arc transformation, p=0.956) in samples associated with retrograding (0.55) and prograding settings (0.59). The pattern found for studies carried out in the Mediterranean Sea — high prevalence of trematodes infesting bivalve in retrograding sectors —, was not identified here for the Southern Brazilian coast, which highlights the importance of carrying out more studies on the subject. [CNPq 422766/2018-6]