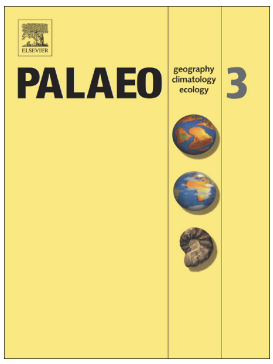

Multi-storm events recorded on Panopea burrows (Pliocene, Spain): The importance of sequestered information inside burrows

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PII: S0031-0182(18)30397-3
DOI: doi:10.1016/j.palaeo.2018.07.008
Reference: PALAEO 8860

To appear in: *Palaeogeography, Palaeoclimatology, Palaeoecology*

Received date: 2 May 2018
Revised date: 26 June 2018
Accepted date: 9 July 2018

Please cite this article as: A. Santos, J. Aguirre, F.J. Rodríguez-Tovar, E. Mayoral , Multi-storm events recorded on Panopea burrows (Pliocene, Spain): The importance of sequestered information inside burrows. Palaeo (2018), doi:10.1016/j.palaeo.2018.07.008

Multi-storm events recorded on *Panopea* burrows (Pliocene, Spain): the importance of sequestered information inside burrows

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ABSTRACT

The fossil record is essentially characterized by time-averaged assemblages as a consequence of the mixture of multiple generations of organisms into a single stratigraphic horizon. In order to investigate this issue a quantitative taphonomic analysis of fossil assemblages filling up *Panopea* burrows (ichnogenus *Scalichnus*) and those preserved in sediment without this trace fossil ~~on~~ of a Pliocene deposit of SW Spain were carried out. A combination of processes can be inferred from the analysis of the fossils infilling *Scalichnus* burrows. Passive concentration of shells within trace fossils ~~were~~ is interpreted to have been produced during event processes (most likely storm events) and active burrowing of bivalve trace-makers probably represented the background conditions.