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ABSTRACT BOOK



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THE MIDDLE PERMIAN TRACKSITE OF GONFARON: A COMPLEX ECOSYSTEM IN THE MIDST OF THE END-GUADALUPIAN MASS EXTINCTION

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The Permian outcrops of Provence yield one of the most extensive records of continental ichnofossils, reaching from the Kungurian through the Capitanian (early-middle Permian). The Pélitique Formation of the Gonfaron site (Provence, France) has recently been revised and is marked by a diverse vertebrate ichnofauna: *Batrachichnus salamandroides* (temnospondyls/lepospondyls), *Capitosauroides talus* comb. nov. (therocephalian therapsids), *Dicynodontipus* isp. (cynodont therapsid), *Varanopus* isp. (bolosaurian parareptiles), *Hyloidichnus bifurcatus* (captorhinomorph eureptiles) and *Rhynchosauroides* isp. (neodiapsid eureptiles). This ichnoassociation has been dated to the late Capitanian and assigned to the newly introduced *Dicynodontipus* sub-biochron. It is also the earliest evidence of the post-dinocephalian extinction recovery at low latitudes of Pangaea. Moreover, the Gonfaron site is an excellent site for the study

of Permian ecosystems: it yielded two rare full-body impressions of Hexapoda that testify certain ecological strategies, such as mimetics and jumping adaptation, possibly indicating high trophic pressure in harsh palaeoenvironmental conditions. The trophic pressure was investigated through the analysis of co-occurrences of fossil traces (arthropod and tetrapod tracks and trackways), which show that the association of tetrapod and hexapod imprints was relatively common. Also, the good preservation of the tetrapod tracks of the Pélitique Formation allowed the first synapomorphy-based correlation between *Hyloidichnus* tracks and captorhinomorph trackmakers and a precise reconstruction of the locomotion of captorhinomorph eureptiles. Further studies and new excavations on the site are planned to provide more data/material and strengthen our knowledge of this crucial period in the evolution of tetrapods and hexapods.