

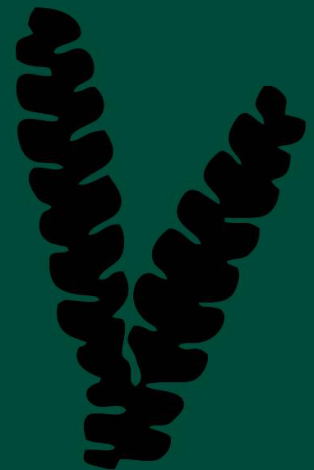
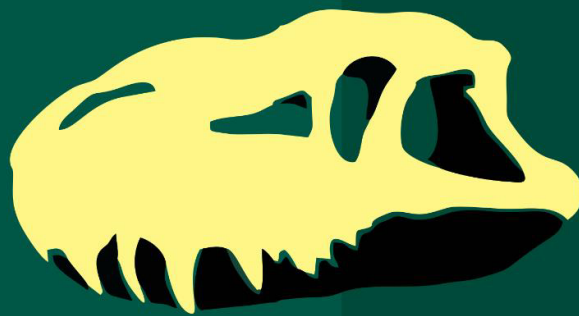
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PALAEONTOLOGICAL HERITAGE OF THE MONTI PISANI MASSIF (NORTHERN APENNINES, ITALY): A COMPELLING HISTORY OF ANIMALS, PLANTS AND PALAEOENVIRONMENTS THROUGH THREE GEOLOGICAL ERAS

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Located in Tuscany (central Italy), the Monti Pisani massif is an isolated mountain relief where the metamorphosed relics of the continental crust of the Adriatic plate are exposed. Violently hit by a devastating fire in 2018, this Northern Apenninic massif bears a rich geodiversity that includes a remarkable fossil record from the Palaeozoic, Mesozoic and Cenozoic eras. The Palaeozoic record consists of exquisitely preserved plant remains (including leaves and stem parts of tree ferns and giant horsetails) and rarer invertebrates from the Permo-Carboniferous Scisti di San Lorenzo Formation (which roughly correlates with the famous coal-bearing deposits of central and northern Europe). In addition to molds of invertebrates (molluscs and starfishes) and stromatolitic structures, the Mesozoic record mostly includes a diverse tetrapod ichnoassemblage consisting of tracks of lepidosauromorphs (predominant), archosaurs (including the first dinosauromorph footprint of Italy), and therapsids from the Triassic Quarziti del Monte Serra Formation (which is part of the famous “Verrucano tipico” succession, deposited in a rift valley during the early fragmentation of Pangaea). The Cenozoic is represented in the Monti Pisani fossil record by abundant and diverse fossils of terrestrial vertebrates (including spectacular members of the charismatic mammalian megafauna, such as elephants, rhinoceroses, hippopotamuses and leopards, besides prehistoric remains of modern humans) from upper Pleistocene karst cave deposits, testifying to both warm and cold climatic phases during the last tens of thousands years. Several of the aforementioned fossils have been known and investigated since the XIX century, and their study contributed to the emergence of modern geological thought. Overall, the fossil record of Monti Pisani is thus of prime importance for the Italian geocultural landscape. Here I provide an updated synoptic review of the palaeontological heritage of Monti Pisani and anticipate some preliminary perspectives for its geoconservation and sustainable valorization. *Funding*: This research was supported by a grant from Università di Pisa (PRA_2020_25).