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ABSTRACT BOOK

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Dipartimento
di Geoscienze



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First confirmed record of the weasel shark genus *Paragaleus* in the Mediterranean Pliocene

Collareta A.^{*1-2}, Mollen F.H.³, Casati S.⁴⁻⁵, Di Cencio A.⁴⁻⁶, Pullano A.⁷, Merella M.¹,
Bianucci G.¹⁻² & Mulè F.¹⁻⁸

¹ Dipartimento di Scienze della Terra, Università di Pisa. ² Museo di Storia Naturale, Università di Pisa. ³ Elasmobranch Research Belgium, Bonheiden. ⁴ Gruppo Avis Mineralogia e Paleontologia Scandicci, Badia a Settimo, Scandicci.

⁵ Istituto di Fisica Applicata “Nello Carrara”, CNR-IFAC, Sesto Fiorentino. ⁶ Istituto Comprensivo Vasco Pratolini, Scandicci. ⁷ Centro Interdipartimentale di Ricerca per le Scienze Ambientali, Alma Mater Studiorum Università di Bologna. ⁸ Dottorato di Ricerca in Geoscienze e Ambiente, Università di Pisa.

Corresponding author e-mail: alberto.collareta@unipi.it

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The weasel shark genus *Paragaleus* (Carcharhiniformes: Hemigaleidae) includes four living species that inhabit the tropical waters of the Atlantic and Indo-west Pacific oceans. The ascertained range of the Atlantic weasel shark, *Paragaleus pectoralis*, reaches latitude ~21°N, such that *Paragaleus* is currently absent from the Euro-Mediterranean region. However, during most of the Miocene epoch, the genus was widespread in the Mediterranean Sea and nearby European waters (including the Paratethys as well as the North Sea). Here, we provide the first unambiguous record of *Paragaleus* from the Mediterranean Pliocene based on abundant fossil teeth collected from the Zanclean (5.1-4.5 million years ago) locality of Arcille (Tuscany, central Italy). These dental remains demonstrate the regional persistence of a species of *Paragaleus* phenetically close to *P. pectoralis* after the Messinian Salinity Crisis. Moreover, they further indicate tropical conditions for the Early Pliocene Mediterranean Sea. The eventual extirpation of *Paragaleus* and other weasel shark genera (namely, the once widespread *Chaenogaleus* and *Hemipristis*) from the Euro-Mediterranean region did likely occur during the Pliocene as the climate became progressively cooler. As a consequence of the ongoing anthropogenic climate change, the family Hemigaleidae may re-colonise the Mediterranean Sea through the Strait of Gibraltar (with *P. pectoralis*) and/or Suez Canal (with *Hemigaleus microstoma* as well as *Hemipristis elongata*).