Bony fish remains from the Upper Cretaceous Scaglia Rossa of Veneto region (northeastern Italy)

Amalfitano, J.^{1,*}, Carnevale, G.², Fornaciari, E.¹, Giusberti, L.¹, Luciani, V.³

1) Department of Geosciences, University of Padova, Italy, *E-mail: jacopo.amalfitano@phd.unipd.it

- 2) Department of Earth Sciences, University of Turin, Torino, Italy
- 3) Department of Physics and Earth Sciences, Univ. of Ferrara, Polo Scientifico Tecnologico, Ferrara, Italy

Vertebrate remains from the hemipelagic limestones of the Upper Cretaceous Scaglia Rossa Formation of Veneto region are usually rare. The fossil fauna includes mainly chondrichthyans, marine turtles and rare mosasaurs, mainly coming from the Turonian-Santonian "lastame" lithofacies (AMALFITANO et al., 2017). However, there are a few sporadic remains of bony fishes that add relevant information about this poorly known vertebrate assemblage. BASSANI (1886) reported isolated teeth referable to "Lepidotes" and a single tooth of *Protosphyraena ferox* from the "Pietra di Castellavazzo" lithofacies (near Belluno). D'ERASMO (1922) reported isolated teeth or tooth plates of Pycnodontiformes (Coelodus, Acrotemnus) from other sites. D'ERASMO (1922) ascribed also some partial pectoral-fin remains to Protosphyraena, that are in need of a revision. However, what appears to be the most important bony fish from the Scaglia Rossa Formation is a disarticulated cluster of bones, still undeterminated, coming from the "lastame" lithofacies. The bones are preserved on three slabs and have a rather large size. The general morphology is in some ways reminescent to dermal elements of the cranium of giant actinopterygians that inhabitated the Cretaceous open marine environments (e.g., Bonnerichthys, FRIEDMAN et al., 2010, 2013). The skeleton of these giant fishes was in general poorly ossified and its elements were loosely connected by cartilage. This fact could explain the poor preservation of the skeletal elements of the "lastame" specimen.

Despite the sparse and fragmentary record, the bony fish remains from the Scaglia Rossa Formation are extremely interesting in a broader context, as they augment the paleobiodiversity of Late Cretaceous Tethyan ichthyofaunas.

AMALFITANO, J. et al., 2017. Palaeogeogr. Palaeoclimatol. Palaeoecol., **469**, 104–121. BASSANI, F., 1886. Boll. Soc. Geol. It., **4**, 142–148. D'ERASMO, G., 1922. Mem. Ist. Geol. R. Univ. Padova, **6**, 1–181. FRIEDMAN, M. et al., 2010. Science, **327**, 990–993. FRIEDMAN, M. et al., 2013. J. Vert. Paleontol., **33**/1, 35–47.