

## The chondrichthyan fauna from the Upper Cretaceous Scaglia Rossa of northeastern Italy: an overview

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Chondrichthyans are the most common vertebrates in the Turonian–Maastrichtian Scaglia Rossa Formation of northeastern Italy. Isolated lamniform and ptychodontid teeth have been found in several localities of the Veneto Region since the first half of the 19<sup>th</sup> century (e.g., BASSANI, 1877). Two specimens of the lamniform shark *Cretoxyrhina mantelli*, including articulated vertebrae and teeth, were recovered from the "Pietra di Castellavazzo" lithofacies near Belluno (BASSANI, 1888). Since the 1970s, chondrichthyan remains have been found during quarrying works in the "lastame" lithofacies near Sant'Anna d'Alfaedo (Lessini Mountains, Verona). These discoveries include a rather complete sclerorhynchid sawfish (*Onchosaurus pharao*; AMALFITANO et al., 2017a) and a large lamniform shark, *Cretodus* sp. that is closely associated with remains of a large marine turtle (AMALFITANO et al., 2017b). However, the most common lamniform is the ginsu shark, *Cretoxyrhina mantelli*, which is represented by at least three main specimens with associated vertebrae and teeth, and several others that are less complete. Some *Ptychodus* tooth sets were also found in the "lastame"; one specimen has well-preserved teeth associated with vertebrae and mineralized cartilage. *Ptychodus* remains from this lithofacies can be referred to at least three species: *P. decurrens*, *P. latissimus* and *P. cf. elevatus*.

In general, the chondrichthyan fauna of the Scaglia Rossa Formation is more diverse than previously assumed, including two large lamniform sharks (*Cretodus* and *Cretoxyrhina*) and a smaller one (*Scapanorhynchus*), a sawfish (*Onchosaurus*) and six ptychodontid species found in the whole Formation (*P. decurrens*, *P. latissimus*, *P. mammillaris*, *P. mortoni*, *P. rugosus* and *P. cf. elevatus*). This fauna is typically cosmopolitan, comprising widespread genera from the Tethyan realm, and shares several similarities with other Late Cretaceous chondrichthyan faunas, especially those from the English Chalk, UK and the Niobrara Chalk, U.S.A. (e.g., EVERHART, 2005).

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