

## New specimen of the rare requiem shark *Eogaleus bolcensis* from the Bolca Lagerstätte, Italy

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A rare carcharhinid specimen (slab and counter-slab, MSNPV 24625-24626) from the world-renowned Eocene Bolca locality was recently rediscovered during a restoration project started in 1989 by the Museo di Storia Naturale di Pavia. The individual, the largest *Eogaleus bolcensis* known from Bolca, is disarticulated and lies in a massive limestone matrix, suggesting its provenience from the Monte Postale site. While assessing its taxonomic status, multiple morphological affinities and ontogenetic trends within the Bolca Carcharhiniformes assemblage were documented. *Eogaleus bolcensis* is here distinguished from the school shark *Galeorhinus cuvieri* exclusively according to dermal denticle morphology, suggesting partial overlap of ecologic and trophic niches between the two species. Further, measurements and meristic counts taken on different traits of *E. bolcensis* (two individuals) and *G. cuvieri* (five individuals) specimens show high degree of similarities. The ratios “trunk length/total length” and “sum of vertebral centra (head region)/total length” of four complete individuals of the fossil assemblage were averaged and employed to estimate the total length of MSNPV 24625-24626. Here, the total length of MSNPV 24625-24626 is estimated in about  $172.1 \pm 0.1$  cm. The same approach is applied to MCSNV T.311 (*E. bolcensis*, holotype) and MNHN F.Bol.516 (*G. cuvieri*, holotype), two partially-preserved fossil individuals from Bolca locality. To support the ontogenetic variability among the Bolca shark assemblage, the age of the fossil individuals was estimated following the Von Bertalanffy Growth Function, using the modern chondrichthyans growth parameters as a reference. Data presented here suggest that all *G. cuvieri* specimens are juvenile individuals, whereas the *E. bolcensis* specimens were young-adult.

**Key words:** Chondrichthyes, Carcharhinidae, Triakidae, *Eogaleus*, *Galeorhinus*, Von Bertalanffy Growth Function, age classes, Eocene, Europe.

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