

TREASURES FROM THE DEPTHS: FIRST RECORD OF TUSCIZIPHIUS (FOSSIL BEAKED WHALE) FROM THE AZORES ISLANDS DEEP WATERS AND THE IMPORTANCE OF LOCAL COMMUNITIES TO SCIENCE

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Ziphiids or beaked whales, are deep-diving, echolocation-user odontocetes. They are the second most species-rich modern cetacean family with a diverse fossil record, with around fifty skulls recovered from Portuguese and Spanish (Asturias and Galicia) coastal waters. The mid-Atlantic Portuguese Archipelago of Azores is well-renowned for its rich fauna of living cetaceans. However, the occurrence of Late Neogene fossils of whales in the Azores was previously restricted to fragmentary material referred to as *Mesoplodon* sp. from marine sedimentary rocks from Santa Maria island.

A new specimen of fossil beaked whale from OMA (Observatório do Mar dos Açores), was recently recovered from deep waters surrounding the Azores by the fishing vessel *Manuel de Arriaga*. It is a well preserved rostrum (around 630 mm in length), with distinctive prominent medial rostral hook/sail-like structure formed by the fused premaxillae, which is believed to be related to sexual dimorphism. It also exhibits almost complete filling of the right premaxillary sac fossa by compact bone forming a semicircular shelf and rostral maxillary eminences on both sides of the rostrum. Because of these traits, it is assigned as *Tusciziphius atlanticus* Bianucci et al., 2013.

This specimen is the first fossil ziphiid attributed to *Tusciziphius* for this locality, increasing its previous distribution in about 1500 km (932 miles) to the west of the continental platform of Portugal.

Since most of these fossils are not collected by scientists but involuntarily in fishing activities, the collaboration and willingness of the fisherman to donate the specimens is crucial for their study.