

A new kentriodontine dolphin from the middle Miocene of Portugal

Olivier Lambert, Mário Estevens, and Richard Smith

Acta Palaeontologica Polonica 50 (2), 2005: 239-248

A nearly complete skull, a partial left scapula, five lumbar vertebrae, and some fragments of ribs of a medium-sized kentriodontid dolphin (Cetacea, Odontoceti) discovered in the middle Miocene of Setúbal Peninsula, Lower Tagus Basin, Portugal, are herein assigned to a new genus and species, *Tagicetus joneti*. Within the grade-level family Kentriodontidae, the new taxon is referred to the specifically and ecologically diversified subfamily Kentriodontinae, essentially defined by a well-developed posterolateral projection of the nasal. The elongated rostrum, the constriction of the asymmetric premaxillae at the base of the rostrum, the anteriorly elongated palatines, and the elevated vertex of *T. joneti* suggest closer affinities with the larger, more derived *Macrokentriodon morani*, from the middle Miocene of Maryland (USA). Among other features, *T. joneti* differs from the latter in having more numerous maxillary teeth and shorter zygomatic processes of the squamosals. Besides providing additional indications about the evolutionary trends within the Kentriodontinae, this occurrence constitutes the first record of the subfamily from the east coast of the North Atlantic based on a nearly complete skull. Considering their morphological diversity and wide geographic range, the Kentriodontinae may have constituted one of the dominant groups of Miocene oceanic dolphins.

Key words: Cetacea, Odontoceti, Kentriodontidae, Miocene, Lower Tagus Basin, Portugal.

Olivier Lambert [Olivier.Lambert@naturalsciences.be], Institut royal des Sciences naturelles de Belgique, Departement de Paléontologie, Rue Vautier 29, 1000 Bruxelles, Belgium; Mário Estevens [estevens@fct.unl.pt], Centro de Estudos Geológicos, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Quinta da Torre, 2829–516 Caparica, Portugal; Richard Smith [richardsmithpal@hotmail.com], Laekenveld 6, 1780 Wemmel, Belgium.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(417.4 kB\)](#)