

**Supplemental Table 1.** List of Neogene odontocete taxa from localities outside the North Atlantic realm (including the Mediterranean and North Sea) previously identified as belonging to the family Eurhinodelphinidae, described based on cranial material, and at least partly illustrated. More fragmentary, less diagnostic specimens (e.g., isolated humeri: Fordyce, 1981; Pilleri, 1989 and isolated teeth: Pilleri, 1986; Valerio & Laurito, 2012) are not discussed here.

<b>Taxon</b>	<b>Locality and country</b>	<b>Lithological unit and age</b>	<b>Main preserved parts</b>	<b>Revised attribution</b>	<b>Comments and references for reassessment</b>	<b>Original reference</b>
<i>Argyrocetetus patagonicus</i>	Bryn Gwyn, Chubut, Argentina	early Miocene	cranium and mandible	Odontoceti indet. (possibly <i>Chilcacetus</i> clade), pending the discovery of more complete specimens	see comments in main text; Lambert et al. 2015	Lydekker, 1893
' <i>Argyrocetetus</i> ' <i>bakersfieldensis</i>	Woody, Kern Co., California, U.S.A.	Jewett Formation, ?early Miocene	partial cranium	Odontoceti indet. (possibly <i>Chilcacetus</i> clade), pending the discovery of more complete specimens	referred material lacks the diagnostic anterior part of the rostrum; Lambert, 2005a; Lambert et al. 2015, 2019	Wilson, 1935
' <i>Argyrocetetus</i> ' <i>joaquinensis</i>	Pyramid Hill, Kern Co., California, U.S.A.	Vedder Formation, early Miocene	partial cranium	Odontoceti indet., pending the discovery of more complete specimens	referred material lacks the diagnostic anterior part of the rostrum; Lambert, 2005a; Lambert et al. 2015	Kellogg, 1932
?Eurhinodelphinidae	Aguada de Lomas, Sacaco Basin, Peru	Pisco Formation, late Miocene	partial neurocranium	Phocoenidae indet.	see comments in main text	Pilleri, 1989
' <i>Eurhinodelphis</i> ' <i>minoensis</i>	Minobusan, Japan	Yamanouchi Formation, early Miocene	partial mandible with some postcranial elements	Odontoceti indet.	referred material lacks the diagnostic anterior part of the rostrum; Lambert, 2004	Okazaki, 1976
' <i>Eurhinodelphis</i> ' <i>pacificus</i>	Okodzu, Niigata, Japan	late Miocene	anterior fragment of rostrum and mandible	Odontoceti indet.	premaxilla probably not much longer anteriorly than maxilla; Abel, 1931; Lambert, 2004	Matsumoto, 1926
<i>Iniospis caucasica</i>	Perekishkyul, Azerbaijan	late Oligocene-early Miocene	several partial crania	Odontoceti indet., pending a detailed	referred material lacks the diagnostic anterior part of the rostrum; Muizon,	Lydekker, 1892

				revision of the referred material	1991; Lambert, 2005a,b	
<i>Macrodelphinus kelloggi</i>	Woody, Kern Co., California, U.S.A.	Jewett Formation, ?early Miocene	partial crania and mandible	Odontoceti indet. (possibly <i>Chilcacetus</i> clade), pending the discovery of more complete specimens	referred material lacks the diagnostic anterior part of the rostrum; Lambert et al. 2015, 2019	Wilson, 1935
Rhabdosteidae (= Eurhinodelphinidae) incertae sedis	Lake Frome area, South Australia	Namba Formation, late Oligocene	cranial fragments incl. ear bones, some postcranial elements	Odontoceti indet., pending a detailed reassessment of the referred material	referred material lacks the diagnostic anterior part of the rostrum; malleus has a tuberculum that is proportionally longer than in known eurhinodelphinids; Lambert, 2005b	Fordyce, 1983

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