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RECORD OF *SCHIZODELPHIS SULCATUS*  
(CETACEA, ODONTOCETI) FROM THE MIOCENE OF PREPLANS,  
FRIULI (CARNIAN PRE-ALPS)

*SEGNALAZIONE DI SCHIZODELPHIS SULCATUS (CETACEA, ODONTOCETI)  
DAL MIOCENE DI PREPLANS, FRIULI (PREALPI CARNICHE)*

**Abstract** — The skull of an adult *Schizodelphis sulcatus* (P. GERVAIS, 1853) is described. The specimen originates from the Lower Miocene of Preplans, Friuli, Carnian Pre-alps. The biometric values are compared with those of skulls from the Belluno Miocene. The geographical distribution of *Schizodelphis* is discussed.

**Key words:** Cetacea Odontoceti Acrodelphidae, Lower Miocene, Carnian Pre-alps, North Italy.

**Riassunto breve** — Viene descritto il cranio di un adulto di *Schizodelphis sulcatus* (P. GERVAIS, 1853). L'esemplare proviene dal Miocene inferiore di Preplans (Friuli, Prealpi carniche). I dati biometrici vengono comparati con quelli degli esemplari provenienti dal Miocene del bellunese. Viene discussa la distribuzione geografica di *Schizodelphis*.

**Parole chiave:** Cetacea Odontoceti Acrodelphidae, Miocene inferiore, Prealpi carniche, Nord Italia.

## Introduction

The fossil remains of a denticete examined below belong to the Paleontology Collection of the Friuli Museum of Natural History in Udine. They were discovered by Mr. Sergio Spizzamiglio in 1975 in the region of Preplans (Meduno), on the right bank of the Meduna Creek (fig. 1).

There is an outcrop here of a terrigenous succession, about 2100 metres deep,

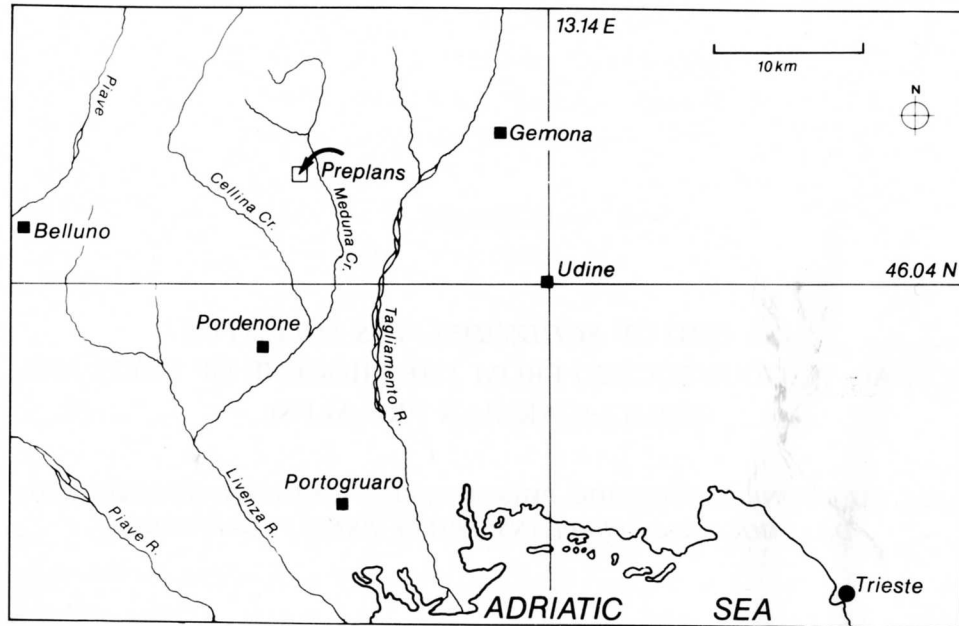


Fig. 1 - The finding out place is marked by an arrow.  
- La località del ritrovamento è segnata da una freccia.

noted for its Miocene fossil remains. It has already been illustrated by a number of authors, and particularly by STEFANINI (1915) and subsequently by GELATI (1969), MARTINIS (1969) and STEFANI (1984). Along the Meduna Creek, the outcrops appear particularly complete and continuous up to the Middle Miocene, subdivided according to STEFANI (loc. cit.) into six lithozones.

Biostratigraphically speaking, the find is to be assigned to the Upper Aquitanian, isochronous with the cetacean fauna of the Belluno sandstones. From the stratigraphic standpoint, both areas, Belluno and Friuli, are very similar (Massari, personal communication).

The denticete remains comprise a neurocranium with a rostrum split up into a number of segments, on one of which three single complete teeth have remained; there are also vertebral bodies without apophyses, rib fragments and smaller bone fragments, still embedded in sediment. The left mandibular ramus is fused with the cranium; a separate piece of the mandibular, in front of the symphyseal angle, is also preserved.

Ordo *Cetacea*  
Subordo *Odontoceti*  
Familia *Acrodelphidae* ABEL, 1905  
Genus *Schizodelphis* GERVAIS, 1861

*Schizodelphis sulcatus* (GERVAIS, 1853)  
MFSN No. 1768 GP

### Description

In dorsal view (fig. 2; plate I, A), the neurocranium appears roughly rectangular, longer than it is wide. Both condyles are very prominent, the articular facets being latero-caudally oriented. The supraoccipitale displays rounded caudo-lateral contours, with the sutura to the frontale running almost straight horizontally. The two nasalia form a high trapezium with the frontale. The width of the frontale is 94 mm dorso-caudally and 50 mm rostrally; the length is 43 mm. The nasalia are 20 mm wide and 15 mm long; the total width is 50 mm. The premaxillaria are wide, each projecting with a narrow lip between the frontal and the maxillary caudally. The vomerine groove is relatively narrow, the dorsal opening between the two premaxillaria being about 80 mm in length. It is flanked on both sides by an oblique 10 - 12 cm mediodorsal sulcus, oriented from caudo-lateral to rostro-medial. In the preparation of the fossil, the sulcus was obliterated by a second medio-concave sulcus, which is artificial (see plate I, arrows).

The pre- and maxillaria gradually taper to a narrow rostrum. In caudal view, (plate II, B), a skull deformation due to the effect of pressure appears. The condyles are roughly half-moon shaped, their vertical axes also being oriented from dorso-lateral to ventro-medial.

The base is most severely damaged and few structural details are discernible. A distal part of the rostrum is fused with the corresponding part of the mandibula (plate II A, C), on which six teeth are visible. Three of them have preserved crowns. They are distanced from each other, the crowns are high, spear-shaped, and coated with smooth, dark enamel.

The mandibula (plate I, C) displays a long symphysis with a very acute symphyseal angle. Ventro-laterally, the medio-distal part of the mandibula is traversed by a groove, which is characteristic of *Schizodelphis*.

