Vondst van de maand

A rare Lutrine fossil from the beach at Cadzand, The Netherlands

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Summary

A remarkably complete left mandible of a carnivore was found on the beach at Cadzand in the Summer of 1989. Its state of preservation immediately indicated that the specimen was of interest, being mineralized and therefore probably of a considerable age. Subsequent investigation has shown the specimen to belong to the extinct lutrine species *Aonyx antiquus* (de Blainville, 1841). A description of the specimen with measurements is given below.

Samenvatting

Op het strand van Cadzand werd in de zomer van 1989 een opvallend complete linker onderkaak van een carnivoor gevonden. De toestand van het bot maakte onmiddellijk duidelijk dat het hier om een interessant stuk ging, want het was gemineraliseerd en dus waarschijnlijk behoorlijk oud. Het erop volgend onderzoek wees uit dat het stuk tot de uitgestorven otter *Aonyx antiquus* (de Blainville, 1841) behoorde. Een beschrijving van het stuk met maten volgt hieronder.

Introduction

The otter mandible from the beach of Cadzand appears to be the third record for the taxon in Holland (Vervoort-Kerkhoff & Van Kolfschoten, 1988; Van Bree, *et al.*, 1999). Recently, Van bree *et al.* (1999) sorted out some errors in the nomenclature of the species changing it from *Cyrnaonyx antiqua.*

The specimen reached the beach after dredging operations had taken place in the North Sea to build up the beach at Cadzand. The area of the North Sea being dredged, appears to be the Sluische Hompels. Dredging is thought to be the explanation for both the presence of Quaternary and Neogene fossils on Cadzand beach, unlike the better known Eocene fossils, such as chondrichthian (shark) teeth, that have been washed ashore for many years.

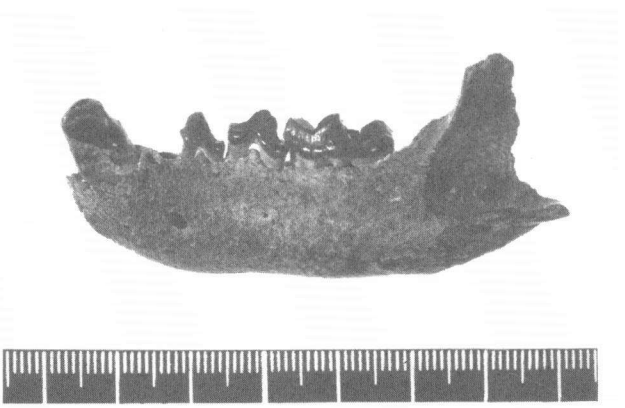

Fig. 1 Left mandible of *Aonyx antiquus* (de Blainville, 1841), from Cadzand Beach in The Netherlands; buccal view

Wangzijde van de linker onderkaak van *Aonyx antiquus* (de Blainville, 1841), gevonden op het strand van Cadzand, Zuid-Holland

Age

The precise provenance of the mandible and other fossils is unclear and thus it is difficult to date them. A Quaternary age is almost certain for the jaw because of the age of other specimens found in Europe (Willemsen, 1992). It may be possible to establish a more precise age by devising a chronology of the Cadzand beach mammalian fossils as was done for the dredged fossils from the Maasvlakte near Rotterdam (Vervoort-Kerkhoff & Van Kolfschoten, 1988). It is interesting to note the presence of some of the same taxa at both localities such as *A. antiquus* and the extinct elk, *Alces* cf. *gallicus* (Van Kolfschoten, pers comm.; Lister, pers comm.). This may imply a Bavelian age for the otter mandible, the age now ascribed to the more heavily mineralised material

at Maasvlakte (fauna 1 of Vervoort-Kerkhoff & Van Kolfschoten, 1988). However, prior to the Maasvlakte specimen was found, no occurences of *A. antiquus* older than Holsteinian or Saalian are known.

Other vertebrate fossils of note from Cadzand beach are a proximal left humerus and a right coracoid of the great auk, *Pinguinis impennis*, thus being only the third record of the species for Holland (Kompanje & Kerkhoff, 1991; van Wijngaarden-Bakker, 1978). All the fossils mentioned here are for the time being in the private collection of J.S.

Description

The left mandible is complete except for most of the ascending ramus which is broken off (fig.1). The teeth present are the canine, P3, P4 and M1. The canine exhibits an extreme amount of wear which appears similar to that in a specimen from Tornewton Cave figured in Willemsen (1992). This may imply a specific mode of life for the animal rather than a worn break. The other teeth are only slightly worn further emphasising the anomalous nature of the wear on the canine.

Measurements are taken at the lingual side, and for teeth taken at the base of the crown. The height of the mandibular ramus between M1 and P4 is 15.8 mm., and the width at the same point is 7.12 mm. The canine has a length of 8.8 mm., and a width of 6.2 mm. The P3 has a length of 6.5 mm., and a width of 4.1 mm. The total length of the first molar is 15.0 mm, the length of its talonid is 7.4 mm., the width of its talonid is 8.5 mm., the length of its trigonid is 7.6 mm., and the width of the trigonid is 7.5 mm.

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First of all Robert Stewart should be acknowledged for finding all the fossils from Cadzand described here. Thijs van Kolfschoten is thanked for confirming the similarity between the present specimen and that from the Maasvlakte. Adrian Lister is thanked for identifying the extinct elk tooth.

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