

## Fossils from the North Sea: what's new?

The construction of Maasvlakte2 provided ample opportunity to collect fossils from the (late) Pleistocene siliciclastic sediments that were being used in the construction process. For decades already, fossil remains of mammals have been dredged and trawled from the bottom of the North Sea, with emphasis on certain regions. Most of these fossils are from species that belong to the so-called mammoth fauna (also known as the *Mammuthus-Coelodonta* Faunal Complex) that lived on the mammoth steppe, a unique ecosystem that now no longer exists. As a rule these fossils had been exposed to weathering and growth of barnacles and other epifauna, while sitting on the seafloor – sometimes so for a considerable length of time. The dredging operations performed for maintaining the Eurogeul and other shipping routes exposed bones that were freshly exposed to the seabed; in general these were of much better preservational quality. The immense amount of sediment to be used for constructing Maasvlakte2 promised a similar result, freshly exposed fossil material of great preservational quality. We were not disappointed.

Material has been collected in various ways:

- accidental finds by workers during the suction and rainbowing process;
- intentional trawling with fishing nets on the spot after the sediment was removed;
- by experimental use of a beach cleaner;
- and since construction is terminated, by visually searching the beaches for fossils, especially smaller ones (beach combing) .

The results will be briefly presented, with emphasis on some of the more spectacular finds, such as the largest mammoth femur ever, coprolites (fossilized droppings) of hyaena, an otter skull, the numerous teeth of small mammals such as shrews and voles, and accidental finds of mammals from older periods of time than the Late Pleistocene. The finds will be compared to those of other localities. In summary, our knowledge of the fossil terrestrial ecosystems of the Pleistocene has greatly increased.

An aspect that should not be forgotten, is the importance of the paleontological finds in communicating with the public. Through exhibitions, excursions and publications the public can be informed about past ecosystems and their importance, and the general vulnerability of life on earth.