

Megachasma (Chondrichthyes, Lamniformes) and large *Centrophorus* (Chondrichthyes, Squaliformes) of the Belgian Neogene continental shelf

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Isolated fossil teeth of the elasmobranch genera *Megachasma* Taylor, Compagno & Struhsaker, 1983 and *Centrophorus* Müller & Henle, 1837 have been recovered from Neogene sands in the Antwerp area, situated at the south-western margin of the North Sea Basin. Fossil *Megachasma* teeth are recorded for the first time in Europe, while the teeth of *Centrophorus* mark the first occurrence of the genus in the fossil record of Belgium and the North Sea Basin. The precise stratigraphic origin of these teeth could not be established, due to the nature of these localities with the mixing of different horizons. The taphonomic condition of these teeth suggests a Late Miocene or Early Pliocene age, although reworking from older Miocene strata cannot be excluded.

The *Megachasma* teeth are compared with fossil specimens from Greece, Chile, USA and extant specimens. The Belgian teeth seem to fit well in the gap between the Early Miocene teeth from California and those of the extant taxon *Megachasma pelagios* Taylor, Compagno & Struhsaker, 1983; while the megamouth teeth found in Late Miocene to Early Pliocene sediments worldwide (Chile, North Carolina, Florida, and Greece) appear to be giant versions of modern teeth. Juvenile teeth of extant *Megachasma pelagios* are illustrated for the first time, showing a distinct ontogenetic variation in the roots and crown surface.

The *Centrophorus* teeth are remarkable for the presence of serrated cutting edges of both upper and lower teeth as well as their large size. The teeth, that measure up to 1 cm, are the largest fossil *Centrophorus* reported in literature. The subtle differences between the teeth of different *Centrophorus* species and the paucity of comparative extant material prohibit specific attribution, but the teeth pertain to individuals that equalled the largest extant species. The occurrence of these large *Centrophorus* in the Belgian deposits is remarkable as *Centrophorus* usually prefers deeper waters.