# Cetaceans and Belgian whalers

## *A brief historical review*

*by Roger H. CHARLIER*


## Abstract

Whaling has played a rather important role in the economic and trade development of residents of the coasts of Flanders, from contemporary Zeeland to the confines of Picardy. Despite the fact that these activities ceased several centuries ago, their memories survive in historical documents, coats of arms and a reviving interest for cetaceans. Antwerp has perhaps the world's richest trove of fossil cetaceans. Although not uncommon, sightings of the marine mammals are infrequent along the Belgian segment of the North Sea coast.



**Key words**
cetaceans, fossils, whaling


## Introduction

Although not uncommon, sightings of cetaceans in Belgian waters are rather infrequent. A slight increase in their numbers was noticed in the seventies and eighties but such confirmed observations have not continued. Some attribute their decline to the increase in pollution levels, despite pious promises to improve water quality in and about the southern North Sea. Offshore drilling operations are often cited as a major culprit.

Antwerp and the outlying domain of Planckendael have a well-known zoological facility coupled with an important museum of natural history, whereas Brussels is the site of a famous museum of natural sciences where large dinosaur fossils unearthed in Belgium have been re-assembled. Antwerp has perhaps the world's richest trove of cetacean fossils; both older and more recent excavations (in connection with the construction of a 'metro') brought to light important palaeontological discoveries (Abel, 1902, 1924, 1931; Charlier, 1947; Charlier and Charlier, 1959; Dollo, 1909; Leriche, 1922, 1934; Missone, 1958; Van Beneden, 1861).

## The site

Centuries ago the Basques were celebrated as being amongst the most daring and successful whale-hunters – rather than 'whalers'

in the economic meaning of the word. [1] Their prey was the elusive *Eubalaena glacialis* – the Biscayan or black right whale that showed up in the Bay of Biscay. In the last few centuries, the black right whales have rarely been sighted.

Although less known or heralded, Belgian – and particularly Flemish – whale hunters similarly developed a reputation for their cunning and ability to track and kill the great mammals. Their flourishing business lasted mainly from the 9th to the 13th centuries. The Belgian coast is an uninterrupted string of small villages. In bygone times, agriculture, but also fishing and sea-directed activities played the main economic role. Nowadays, they usually exist as tourist centres. Interest in marine mammals is evidenced in many areas.

Around the time of the Renaissance, it was not uncommon for rulers to invite foreigners to settle in specific areas of their realms. For example, Russian Tsarina Catherine II brought Germans to her empire, particularly near the mouth of the Volga River. Other rulers made offers to Flemings to come to Aquitaine (France) and so the marshes around Bordeaux were settled and drained by people from what is today the Belgian province of West Flanders. Hence came the small city of Bruges *[the name is reminiscent of the picturesque town in Belgium]*, just north-northwest of Bordeaux. Flemings were likewise invited to Portugal and although not all historians agree on this, descendants of Flemings brought the whaling tradition to Fayal Island, one of the Azores. Some whaling was still practiced there in 1973, but hunters were limited to artisanal means; although the author was there some time ago, it was not possible to ascertain whether or not whale hunting is still currently carried on. Yet until rather recently, whale-tracking observation posts and oar-manned boats were still very much a part of Fayal life.

Flemish and Basque hunting days are now but a memory. The medieval Flemish, Basque and Norwegian whale-hunters were succeeded in the 16th century by Dutch, English, Danes and Germans, whose skills but also unbridled activity nearly depleted the stocks of right whales in the Arctic and the North Atlantic Oceans. Only Norwegians, after a brief moratorium, still practiced the marine mammal hunt in the 19th century, and up to the present. Some claims to the contrary, the cetacean population is on the decline. Some fishermen claim the cetacean population does not seem to be decreasing, an affirmation hardly confirmed by actual observation. This paper, however, concentrates on cetaceans of the Belgian coast.

## Whalers

During the 9th and 10th centuries, especially after the death of Charlemagne (742-814), the coasts of what has become present-day Belgium, France and The Netherlands were repeatedly raided by fierce warriors. Because they came from northern regions, the coastal population referred to them as Northmanni, Northmen, Normen, Norsemen, Normans and/or Noormannen. Travelling the seas on sturdy vessels, these Scandinavian raiders – who rarely showed any mercy on the local

inhabitants – ravaged all coastal settlements and even sailed up the Seine River as far inland as Paris.

Their cruelty notwithstanding, the Normen [2] are credited (Degryze, 1963) with passing on the know-how of whale hunting techniques to the Flemish fishermen. [3] After the invasions of the Normen, some of the local fishermen indeed engaged in the search for and the killing of the large cetaceans. They plied the northern seas often in sailing ships (frequently three-masters) and once they had caught an animal, they fastened it alongside the ship and started carving and retrieving all parts that they could use and/or market.

Historical records recount the miraculous 'fish-fest' of 1123 when, after fervent prayers to St Arnold, an incredible catch ('manna') of whales occurred (Bartholeyns, 1863). Less than a half-century later (1163) the Charter of Newport (Keure van Nieuwpoort) specified the rights granted to specific towns to hunt the whales and dolphins. [4]

This activity on which the ruling sovereign held a monopoly, allowed some of his subjects or communities to engage in hunting sea mammals through the issue of 'patent letters'. These animals were caught in large numbers throughout medieval times.

In 1340, the villagers of Wenduine (Wenduyne on some older maps), east of Ostend, were granted the special 'privilege' of cetacean hunting, particularly of the common porpoise, *Phocoena phocoena* or marswin (French 'marsouin'). Wenduine's coat of arms shows a harpooned porpoise with the motto 'med tarpoen zonder pardoen', meaning 'with a harpoon, without pardon' (Fig. 1).

**Fig. 1.** The coat of arms of the villages of De Haan and Wenduine (near Ostend) *(Courtesy of Wenduine Tourist Office)*

Marswins are still occasionally sighted but never brought in any longer. Little lore or chronicle mention concerning cetaceans is found in documents for the next three centuries, even though the inhabitants of Wenduine were probably exercising their hunting privileges.

In 1403, chronicles report that eight whales had stranded in Oostduinkerke, a fishing village some three kilometres west of Nieuwpoort and fourteen kilometres from the current Franco-Belgian border. The same archives hold that, in 1447, four whale-hunting ships had their homeport in Blankenberg[h]e, a fishing harbour three kilometres from Wenduine and halfway between Ostend and Knokke.

From that time onwards, whale hunting appears to have become common, as companies devoted their resources to this activity and as trade increased. One such company was founded in Bruges in 1663, another in 1727 and still another in 1775. In Ostend one started in 1722, and Adam de Sotelet & Company was launched in 1730. Apparently two Flemish whale-hunters were still active in 1849; they were the three-master *Bremen* (Fig. 2) and the standard whaler *Océanie*.

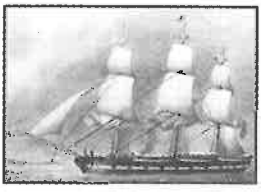

**Fig. 2.** Whaling ship *Bremen*, built in 1843 in Bremerhaven, Germany. *(Source: http://www.deutsche-auswanderer-datenbank.de/enships.htm)*

These were the last ones. It may be estimated that all trade (and certainly hunting) of cetacean articles originating in Belgian waters had ended by 1902.

## Regional characteristics

The Belgian coast (referred to by many local inhabitants as the Flemish coast), situated politically and ethnically entirely within the Flemish Region (a fact that may have influenced more Flemings than Walloons to study these animals), stretches from the English Channel to the largely silted Zwin Inlet; its characteristics persist as far as the Scheldt and Meuse estuaries (located in The Netherlands). In its natural state, this coastal region was a wetland (now largely a polder) that progressively changes into a shallow sea. The shoreline has retreated and advanced several times during the geological past and even during the historical (Christian) era (Dunkerkian). [5]

Thus a retreat of three, even five, kilometres marked the 15th century; as well, the islands of Schooneveldt and Wulpen (plus large segments of others) disappeared during the 16th century. The Zwin inlet, silted for several centuries, was temporarily reopened during the extremely severe storms of 1953. Ever since the 1940s, shifting sand banks plus irresponsible construction and development of the strand fronts and dunes have further reduced the width of some parts of the beach.

The term 'Flemish Sea' is commonly used today as a result of the labelling, by Gustave Gilson (Fig. 3) around 1900, of the

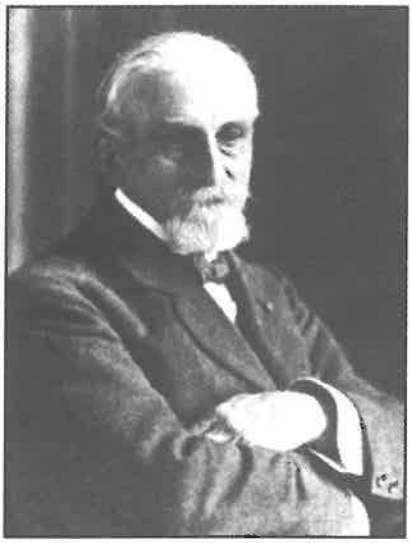

**Fig. 3.** Gustave Gilson.
*(Source of photo: The Royal Institute of Natural Sciences)*

North Sea area bathing the shore region belonging to France, Belgium and the southern tip of the Netherlands. The term refers only to the southern North Sea section between 51 and 53 degrees of latitude north. The 'Flandrian Sea' designates a Cenozoic sea that extended considerably inland covering Flanders, part of the contemporary provinces of Antwerp, (Flemish and Walloon) Brabant and even Namur. It was in that sea that sharks, dolphins and whales (and numerous species of fishes) lived; they are at the origin of the fossil troves uncovered regularly since the middle of the 19th century, particularly in the surroundings of Antwerp.

From an oceanographic point of view, the 'Flemish Sea' can be considered an interior sea, making it the southern edge of a water expanse open mostly to the north. Such an environment is of special impor-

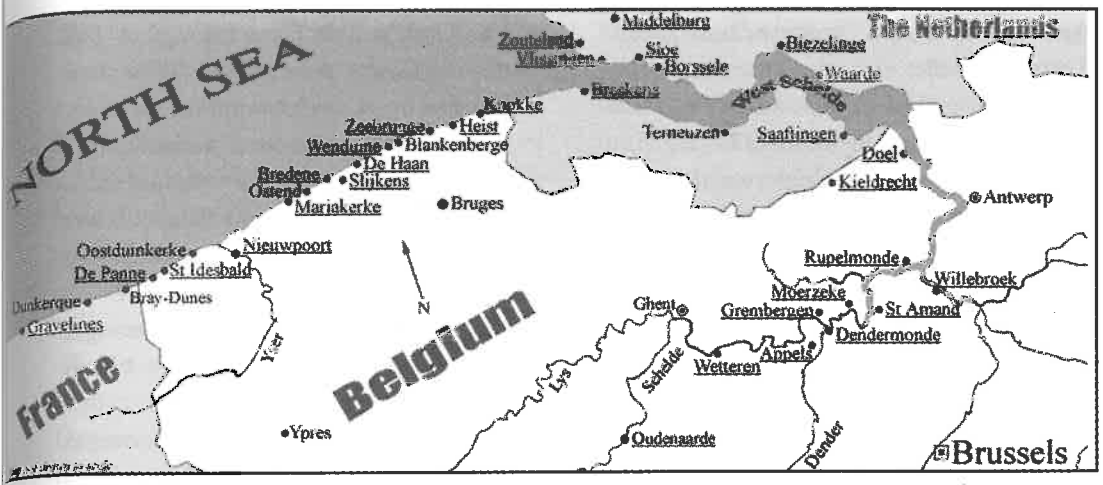


**Fig. 4.** Map of some sightings of cetaceans along the Belgian coast and upstream of various rivers. Reconstructed after map (circa 1990) from Kon. Belg. Inst. Natuurwetenschappen. Underlined are places where sightings were reported. Also indicated are some of the cities/towns cited in this article. Note: See alternative names of Belgian cities/towns at end of article. *(Map adapted from an original by Maarten Jansen)*

tance to cetaceans because: (i) it is far from the open ocean, their normal environment, (ii) the sandy bottom is treacherous for the large mammals, (iii) it is under the influence of the dominant northerlies and westerlies (which bring to shore cadavers of animals that lived elsewhere) and (iv) the Delta Works (undertaken in The Netherlands), that closed all the Scheldt Delta arms except the Western Scheldt, limit fluvial access.

## Sightings

Cetaceans have often been sighted along the Belgian, French and Netherlandish coasts, but also near the Yser and Scheldt River estuaries. The Royal Institute of Natural Sciences (formerly The Royal Institute of Natural History) established a map of sightings sites up to circa 1990 (see Fig. 4).

In the recent past, sightings in coastal and river waters included: *Phocoena phocoena* – the harbour porpoise (*Delphinidae/Phocoenidae*), the tumbler or bottle-nosed dolphin (*Turpsiops truncatus*) and the dolphin (*Delphinus delphis*) – which are all considered 'native' to Belgian waters. Other sightings are of rather occasional dwellers. Those found in rivers are mostly strays. In The Netherlands (Van Deynse, 1931) some specimens were sighted as far upstream as Venlo in the Meuse River. The sightings farthest upstream of the Scheldt were of a bottle-nosed dolphin at Wetteren and of harbour porpoises that worked their way through the locks to Ghent and Oudenaarde, some 200 kilometres from the estuary.

Stranding (beaching) of an individual occurs occasionally and provided municipalities, prior to the 'blasé' post-Second World War times, with an opportunity to exact a

viewing fee from tourists and locals. Records include:

- A 20-metre animal was killed near Doel on the Scheldt in 1577 (Fig. 5).
- A white-beaked dolphin was found on the beach in 1968 and a male Sowerby whale, 4.6 metres in length, weighing 950 kilograms stranded the following year (De Smet, 1970, 1972). A Sowerby whale (*Mesoplodon bidens*) stranded in Heist in 1969; another beached in Ostend in 1835 where, it is reported, kind-hearted visitors tried to feed the agonizing animal their sandwiches.
- A sperm whale (*Physeter macrocephalus L./Physeter catodon L.*) found at the Scheldt's mouth was towed in on January 1970 to Breskens (since the Treaty of Utrecht, this town belongs to The Netherlands), attracting 30 000 visitors over a three-week period for an odoriferous exhibit. Another washed ashore near Terneuzen (The Netherlands), Walcheren Island, on the Scheldt River in 1937, which event also attracted a crowd.
- Part of a whale's head was brought back to shore from nearshore North Sea waters in 1971.
- In 1974 a pilot whale (locally known as a 'griend') stranded at De Haan-Klemskerke (also known as Le Coq).

Killer whales (*Orcinus orca*) are very rare. *Lagenorhyncus albirostris* has been occasionally sighted at sea; it is hunted with little suc-

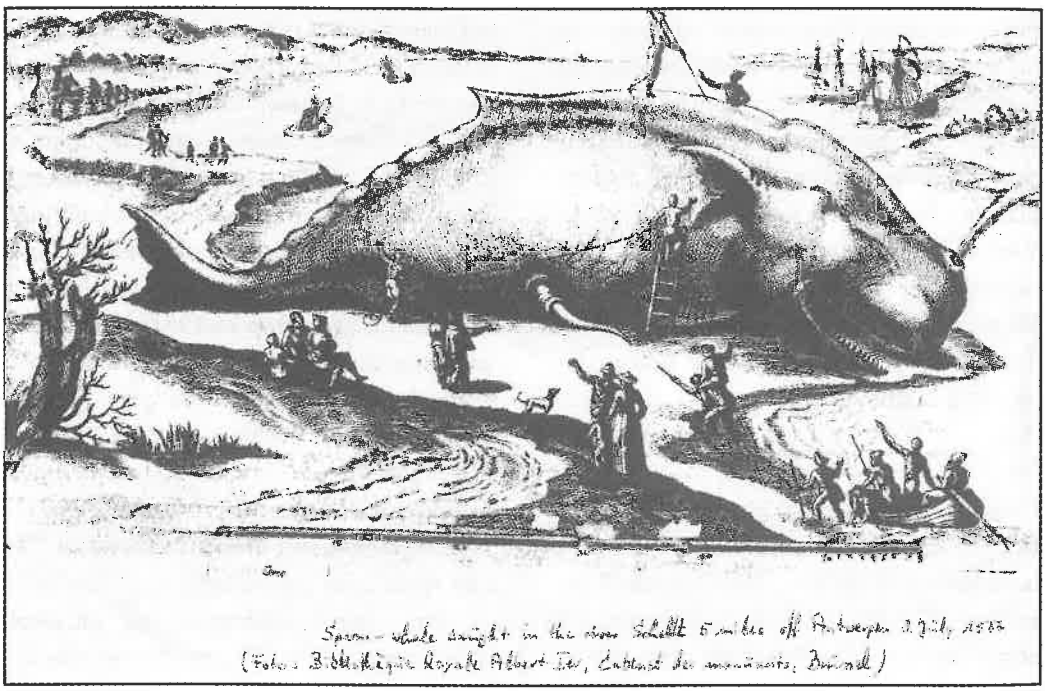

**Fig. 5.** Archive drawing of a sperm whale caught in the Scheldt River, five miles (eight kilometres) from Antwerp, 27 July 1577. *(Photo: Bibliothèque Royale Albert Ier, Brussels)*

cess by Norwegians. [6] It is claimed to be more common now than was once believed to be the case in the higher latitude of the North Sea (De Smet, 1972). The skeleton of a blue whale (*Balaenoptera musculus*), brought to Ostend in 1827, is on exhibit in Saint Petersburg (Russia).

A comprehensive inventory of cetaceans was compounded by De Smet (1974). The Institute was frequently the recipient of mammal cadavers on which its Cetaceans Department performed many experiments (De Smet, 1973b). Thus, on a specimen's penis an illness (acanthosis) was observed, which condition was attributed to the consequences of oil extraction operations or spills (De Smet and Bultinck, 1972). It was, however, in the gardens of the Royal Zoological Society of Antwerp that a skeleton of a baleen whale was mounted (De Smet, 1973a; De Smet et al., 1970).

Fossil cetaceans have been dug up in and around the city of Antwerp (Abel 1902, 1931; Sickenberg 1934; Van Beneden 1861, 1886; Van Beneden and Gervais, 1868-1880). Various species were found, among them *Balaenoptera, Burtinopsis, Balaenula* and *Balaenotus*. Van Beneden (Fig. 6) also identified a humpback whale, *Megaptera*. At least ten fossil cetaceans would date from the Scaldisian.

**Fig. 6.** Pierre Joseph Van Beneden
*(Courtesy of Institute for Information Transmission Problems of the Russian Academy of Sciences)*

With the era of stationary wars a thing of the past, the belt of fortifications around Antwerp became obsolete (Charlier, 1947; Charlier and Charlier, 1959). Contrary to the French habit of keeping some mementos of military engineering and architecture, the Belgians razed them. Tunnels were dug under the Scheldt River and a subway was laid out. In the process of construction, several troves of fossil bones were uncovered; unfortunately the modern equipment brought in and put to work caused considerable damage to the bones and more or less complete skeletons were chopped up. Those unearthed a hundred years ago were carefully preserved (Abel 1902; De Pauw, 1905; Dollo, 1909; Van Beneden, 1861, 1886; Van Bree and Nijssen, 1964). Obviously technology's advance has been paleontology's loss! Nevertheless, many bones that were removed in fairly good condition found shelter at the Belgian Royal Institute of Natural Sciences; they are still awaiting study.

## The fossil record

Large pelagic sharks were not uncommon during the Oligocene (Leriche, 1934), when the sea invaded the north of contemporary Belgium. Fossils of *Carcharodon angustidens, Odontaspis acutissima* and *Oxyrhina dessori* were dug up from Upper Rupelian deposits. In the Anversian (variably attributed to the Lower- and Mid-Miocene) basal gravel (in the Antwerp area) shark teeth abound (e.g. *Carchorodon megalodon*) with Sirenia (Sickenberg, 1934; Heuvelmans, 1943), whales, dolphins, Ziphioids and various Cetaceans also

found in the strata. *Eurhinodelphidae* and other long rostra dolphins have been found in the Belgian Upper Miocene deposits (Abel, 1902). A bone of a sub-fossil whale (*Physeter catodon L.*), probably dating of the 'historical period', was discovered in clay deposits near Middelkerke in 1967. The rostrum of a fossil whale was discovered in May 1970 in the centre of Antwerp.

Van Beneden (1861, 1886) examined the Antwerp fossils; his conclusions have not always found universal acceptance (Abel, 1924). The amount of bones uncovered during the 1860-1865 period is so large that 200 cubic metres of them, kept in the Royal Museum of Natural Sciences in Brussels, have not been studied to this day. It made Antwerp the largest deposit site of such bones in the world.

Misonne (1958) studied the period's local fauna, Jux and Rosenbauer (1959) described river deposits containing remains of cetaceans, while the contemporary North and the Baltic Seas retained more recently the attention of Schulz (1970). Dollo (1909) mentions them (cetaceans) for the Middle Oligocene (Upper Rupelian invasion) and they (including dolphins) are also frequent in the marine sands of the later Miocene (Bolderian). He identified the skeleton of *Miosiren kocki*, an enormous sirenian from the Bolderian. In the same layer, 22 species of Odonticeti (e.g. *Mesoplodon longirostris, Eurhinodelphis ssp*), seven species of Mysticeti, before 1900, were identified – and later a dozen others. The largest accumulations are from the Diestian, Scaldisian and Poederlian stages when sea level fluctuations were numerous.

## In the eye of the public

The disappearance of whaling as a profession along the Belgian coast and in distant waters, apparently at the dawn of the 20th century, is due to several factors. Among them are certainly the 'unprofitable' aspect (unfavourable cost-benefit ratio), but also the: (i) emergence of opportunities to earn a livelihood in less demanding, dangerous and 'archaic' occupations; (ii) disappearance of a market for numerous products provided by the whales; (iii) restrictions, in the 20th century, put in place by the International Whaling Commission; (iv) opprobrium surrounding the killing of endangered species; and (v) decrease in cetacean population due to over-hunting in the last century and the quality of water as the Industrial Age set in.

Furthermore, extensive civil works have made the waters inhospitable to much marine life, such as at De Panne, Nieuwpoort and Zeebrugge as part of their 'Noordzeepoort' scheme. The new large harbour facility at Zeebrugge has been completed at considerable expense, but if some improvement of water quality is claimed, the author believes that environmental problems are far from solved. Credit has to be given when and where it belongs. It is true that new facilities, pipeline routes etc. from Statoil have carefully examined routings that would cross natural reserves and have taken into account ecological and environmental realities. Some environmentalists tend to place the entire blame of whale disappearance on such water contamination, but no

conclusive evidence to that effect is yet at hand. The lengthy lapse of interest in their study, due to a growing public interest in the large sea mammals, is closing.

Except for the Norwegians further up north, the hunt for whales, once an important occupation on these shores, belongs now to folklore for most of the North Sea; its target might have been the Biscayan whale *Eubalaena glacialis*, mentioned earlier in connection with Basque hunting activity in the Bay of Biscay (Golfe de Gascogne), but it might as well have been the gray whale *Eschrichtius gibbosus*. According to some authors, *Eubalaena glacialis* and *Physeter catodon* are currently sighted on occasion.

Recollections of the Renaissance hunters and of strandings and sightings – even at considerable distance from the seashores, estuaries or way upstream rivers (Deby, 1846; De Pauw et al., 1905; van Deinse, 1931) – have inspired painters.

Even if few tourists or even local people pay hardly any attention to the proud Wenduine coat of arms with its harpooned 'potvis' (Fig. 1) and hardly anyone remembers the 'privilegium' granted the inhabitants centuries ago, whales, dolphins and seals are of interest to a steadily increasing segment of the population. Public interest, awakened by the 'Save the Whales' campaigns and television programs such as those of the late Jacques-Yves Cousteau and the US-produced 'The great Explorers', may well buttress greater scientific concern. However, it must be admitted that Belgium's renovated Museum of the Royal Institute of Natural Sciences has made great strides in research, fostering public attraction and initiating youngsters (Charlier, 2003). There was even a bank-sponsored Greenpeace exposition on marine mammals that recently (1998) ran in Brussels. And well, there should be active concern: the male specimen of a sperm whale found downstream in the Scheldt River in January 1970, showed by examination of its penis that it may have been suffering from invasive acanthosis, a frequent disease of oil workers (De Smet and Bultinck, 1972). Cleansing operations of tankers and current oil extraction in the North Sea

**Fig. 7.** Head of beached 'potvis' whale in Scheveningen, The Netherlands, 12 January 1995. *(Photo: © Roy Beukers)*

are exacting their toll on marine life; many animals show indications of health damage caused by oil. Dutch authorities have plans to build an artificial archipelago to site a nuclear plant. Belgians made some similar rumblings as part of their Noordzeepoort project. Supposedly the great depths and large water expanses will eliminate environmental damage. Will they? ■

## Note

The biological nomenclature utilized in this paper is that used in the auhor's source materials (i.e. the cited papers); no adjustment or modernization has been attempted. The geological nomenclature has similarly been maintained as it appears in the works and documents and maps consulted. No position

has been taken by the author in either domain when scientific divergences occur. The publications cited are only those mentioned in the paper; there is no claim of having provided a comprehensive bibliography.

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### Endnotes

1. A 'whale hunter' is the mariner who actually goes out on a ship to kill whales for commercial purposes; 'whalers' in the economic sense includes all persons who, at sea and on land, are involved in the commerce, marketing, etc. of whale products.
2. In French 'les Normans', in Flemish 'de Noormannen' (not to be confused with the 'Normands' and 'Normandiers' – inhabitants of present-day Normandy).
3. Charles the Simple (879-929), king of France (893 as joint ruler, then sole king 898-923) being unable to defeat the Normen, gave to their chief the area which was to become the duchy of Normandy. His descendant William the Conqueror (1027-1087; duke of Normandy 1027-1087, and king of England 1066-1087) eventually crossed the Channel to conquer today's British Isles. Some Normen had conquered part of the isles and established themselves there already in the 8th century.
4. Nieuwpoort had become an important harbour as a consequence of the silting of the Yser River (and of the Aa), which was the cause of the decline of the port of Dixmide and the city of Ypres (Ieper), famed for its 'hallen' or open market destroyed by German bombardments during the First World War. Ypres and its environs were the site of an incredible hecatomb of Allied soldiers during that conflict.
5. Dunkerkian is a geological name of transgressions of the Quaternary era affecting the French and Belgian coastal areas of the North Sea.
6. One of the few nations (with Icelanders and Japanese) that still hunt whales. The latter though claim that they do so only for scientific research purposes.

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**Alternative names of Belgian cities/towns**
(mentioned in this article)
Bruges – Brugge
De Haan – Den Haan, Le Coq
De Panne – La Panne
Dender – Dendre
Dendermonde – Termonde
Dunkerque – Duinkerke, Dunkirk
Gent – Ghent, Gand
Gravelines – Grevelingen
Ieper – Ypres
Kortrijk – Courtrai
La Panne – De Panne
Lys – Leie
Meuse – Maas
Nieuwpoort – Nieuport, Newport
Ostend – Oostende, Ostende
Oudenaarde – Audenaerde
Schelde – Scheldt, Escaut
Vlissingen – Flessingue, Flushings
Ypres – Ieper
Yser – IJzer
Zeebrugge – Zeebruges

**Index of species, order etc.**
*Balaenoptera musculus*
*Balaenoptera physalus*
*Balaenotus*
*Balaenula*
*Burtinopsis*
*Carcharodon angustidens*
*Carcharodon megalodon*
*Delphinapterus leucas*
Delphinidae
*Delphinus delphis*
*Eschrichtius gibbosus*
*Eubalaena glacialis*
*Eurhinodelphis* ssp.
Eurinodelphidae
*Gelidium*
*Iguanodon bernissartensis*
*Lagenorhynchus albirostris Gray*
*Laminaria* ssp.
*Megaptera*
*Mesoplodon bidens*
*Mesoplodon longirostris*
*Miosiren kocki*
*Mosasaurus Tetraehincae*
*Mysticeti*
*Odontaspis acutissima*
Odontoceti
*Orcinus orca*
*Oxyrhina dessori*
*Phocoena phocoena*
Phocoenidae
*Physeter catodon* L.
*Physeter macrocephalus* L.
Sirenia
Sowerby's whale
*Tursiops truncatus*
*Ziphioids*

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