The first historic record of a humpback whale (Megaptera novaeangliae) from the Low Countries (Southern Bight of the North Sea)

Jan Haelters¹, Francis Kerckhof¹ & Kees (C. J.) Camphuysen²

Royal Belgian Institute of Natural Sciences, Management Unit of the North Sea Mathematical Models,
3^e en 23^{ste} Linieregimentsplein, B-8400 Ostend, Belgium, e-mail: J.Haelters@mumm.ac.be
Royal Netherlands Institute for Sea Research, P.O. Box 59, NL-1790 AB Den Burg, the Netherlands

Abstract: In 1751 the corpse of a large whale was found floating at sea near Blankenberge (currently Belgium). The case was illustrated at the time by a water-colour of the whale and of an associated barnacle. In earlier publications, this whale has been regarded as a northern right whale (*Eubalaena glacialis*). However, morphological characteristics depicted in the original water-colour, published here for the first time, and in a copy of the original, point towards a humpback whale (*Megaptera novaeangliae*). Also, the illustrated barnacle can only represent *Coronula diadema*, a species typically associated with humpback whales. Thus, the case of a right whale in the southern North Sea in 1751, often cited because of the rarity of that species in this area by then, has to be deleted from the records. In this article also the size of the animal, the circumstances and the date are corrected with regard to the previous description of this record, and more information is given about the various artists to whom the water-colours can be attributed.

Keywords: Megaptera novaeangliae, humpback whale, southern North Sea, Belgium, Cirripedia, whale barnacles. Coronula diadema.

Introduction: a whale at Blankenberge in 1751

In 1962 Mol described the painting of a whale stranded at Blankenberge, currently Belgium, in 1751. He identified the animal depicted as a baleen whale "Balaena spec.", in the French summary of the article translated as "une baleine vraie", or a right whale (Eubalaena glacialis). De Smet (1974), in his overview of historic records of cetaceans in Flanders and the Scheldt estuary, agrees with Mol (1962), indicating that this surely is the illustration of a right whale, given the form of the mouth, the callosities on the dorsal side, and the depicted associated barnacle. We inspected the water-colour closer, and tried to elucidate the identity of both whale and painter, in relation to the

comparison of recent and historic strandings of large cetaceans in Belgian and Dutch waters.

Description of the water-colour

While preparing a book on whales (Camphuysen & Peet 2006), Gerard Peet succeeded in tracking down the current location of the water-colour of the whale at Blankenberge in 1751, described by Mol (1962): the New Bedford Whaling Museum, USA. The illustration, 57 cm high, 46 cm wide, water-colour on paper with manuscript additions in ink, is not signed (figure 1). Mol (1962), who did not publish the text below the water-colour, attributed it to Pierre Ledoulx (1730-1807), an artist who lived in Bruges, currently Belgium, on the basis of the title of the album in which it figures together with other illustrations. The name of another artist, Jan Karel

^{© 2010} Zoogdiervereniging. Lutra articles also on the internet: http://www.zoogdiervereniging.nl

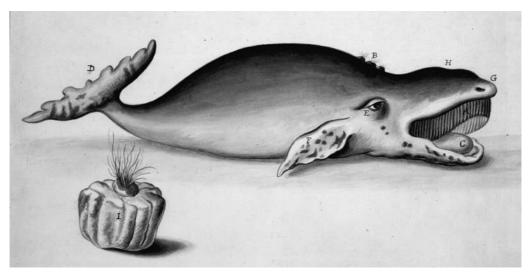


Figure 1. Detail of the water-colour (copy) by Jan Karel Verbrugghe of the painting of the whale on a beach at Blankenberge, currently Belgium, in 1751 (© courtesy of the New Bedford Whaling Museum). The text below the painting, in French, reads: "A. C'est la Baleine proprement dite, qui sert pour les corps de jupes; B. Place ou il se trouvaient des porreaux qui furent remplis des petits poissons semblables aux sardines; C. La langue; D. La queue; E. L'æil; F. La Nageoire; G. Le nez; H. Un endroit troué; I. Un porreau dans sa grandeur", or translated: A. This is the baleen itself, which serves for the fabrication of the core of skirts; B. Place where warts were located, filled with small sardine-like fish; C. The tongue; D. The tail; E. The eye; F. The pectoral fin; G. The nose; H. An area with holes; I. A wart in its entirety.

Verbrugghe, appeared to have been added afterwards in this title. Mol (1962) dates the album as collated in (around) 1755. However, the text below the illustration is very interesting, in that it indicates that it concerns a copy of an earlier illustration of the whale that was thrown onto the beach of Blankenberge on 30 December 1751:

"Copie d'une Baleine jetée sur les sables devant la ville et port de Blankenberge le 30 Decembre 1751",

and further down, that details were presented in the Inbona manuscript, which had been sold by Pierre Ledoulx to Jacques Goethals Vercruysse at Kortrijk (a town located in current Belgium, 50 km from Bruges):

"Le Manuscrit d'Inbona, que Mr P Le doulx a vendu a Mr Jacques Goethals Vercrysse a Courtray en donne le détail" The handwriting below the illustration matches exactly the one on two other illustrations in the album at the New Bedford Whaling Museum (NBWM) which were signed by Jan Karel Verbrugghe (maritime curator NBWM, personal communication), and the handwriting on drawings by Verbrugghe present in the collection of the Steinmetz-kabinet, Bruges, Belgium. As Verbrugghe was born in 1756 (he died in 1831), we can conclude that the water-colour of the whale was made not earlier than the last quarter of the 18th century by Jan Karel Verbrugghe, after an original.

Another correction of Mol (1962) and De Smet (1974) that needs to be made, concerns the reported length of the animal. The text below the water-colour mentions 40 feet (approximately 12 m), and not 28 feet, or 8.4 m as in Mol (1962), copied by De Smet (1974); 28 feet is mentioned as the "épaisseur" (thickness).

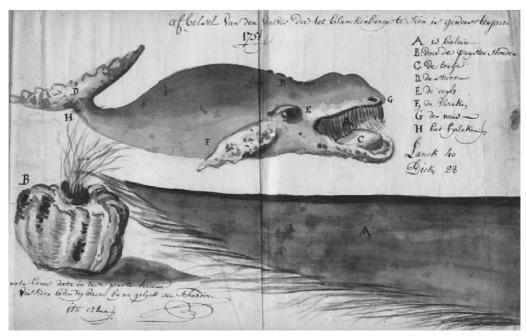


Figure 2. Original contemporary water-colour of the whale, by Jan Garemijn (© courtesy of the Public Library of Kortrijk, Fonds Jacques Goethals-Vercruysse). The text additions are similar to those in the copy, but are in the local Dutch dialect. We noted the following differences: H is located differently, and reads "het holeken", or the anus, and the text under the detail of the barnacle reads: "nota benee dater in dese puste kleene wiskern bestendig waere bij na gelyck aen schardin", i.e. translated: note that in the warts small whiskers were present, almost like sardines.

In search of the original illustration

Jacques (Jacob) Goethals-Vercruysse (1759-1838) was a wealthy industrial, collector and historian who lived in the city of Kortrijk. After his death, he left his extensive collection of books (12,000) and manuscripts (600) to the city of Kortrijk, where it remains until today as the Goethals Vercruyssefonds, managed by the city library. It is strange that the Inbona manuscript (public library of Kortrijk, Fonds Jacques Goethals-Vercruysse, GV. Cod. 175 fol. 29), by the hand of Jacques Inbona, and containing chronological accounts of noteworthy events in the city of Bruges between 1645 and 1684, would mention something that happened in 1751. However, when consulting the manuscript, it becomes clear that it has been completed with yearly events, until 1781, by Pierre Ledoulx. His elegant handwriting is much easier to read than the notes made by Inbona. By looking through the pages, it becomes obvious that Ledoulx only started to complete the manuscript years after 1751. For 1751, only two events were noted: the first one about some infrastructure works in Bruges, ending with the fact that they were completed in 1752, and the second one about the whale at Blankenberge:

"op den 30. september wiert tot blanckenberghe eenen walvisch op het strange gesmeten".

More interestingly, with the accounts of 1751, the original water-colour of the whale is inserted; it measures 32 cm by 20.5 cm, and is more basic than the copy, but otherwise nearly identical (figure 2). However, it also contains a drawing of a baleen plate. At the back of the

water-colour, Ledoulx wrote the following:

"Dit is de origineele teeckeninge vanden walvisch geteeckent tot blanckenberge ten jaere 1751 door Joannes garemijn, konstschilder van brugge",

stating that this was the original illustration made at Blankenberge in 1751 by Jan Antoon Garemijn, a well-known artist who lived in Bruges from 1712 to 1799, and who was a teacher of Pierre Ledoulx. The date of 1751 seems to have been corrected from 1761 at the back of the illustration, which might further confirm that the additions to the Inbona manuscript by Ledoulx were made only years later. This could also explain why Ledoulx made a mistake in dating the event.

Considering the dates, De Smet (1974) mentions two possible dates for the stranding: 30 December 1751, as in the text below the copy of the water-colour made by Jan Karel Verbrugghe, and 30 September 1751, as mentioned by Bowens (1792). Bowens (1792) gives the same date as Ledoulx in the Inbona manuscript, and uses exactly the same wording, suggesting that Ledoulx copied his accounts in the Inbona manuscript from the publication by Bowens (1792), printed in Bruges. However, neither of these dates is correct. A contemporary description of the event can be found in the 3 December 1751 edition of the newspaper Gazette van Gendt, which mentions a floating whale at sea on 30 November 1751, and local fishermen towing the whale to the beach off the town of Blankenberge (Anonymus 1751a):

"Blanckenberge den 1. December. Gisteren waerender dry onze Schuyten in Zee, welker visschers verre van hun eenen grooten Walvisch zagen drijven, die zig aenstonds met hunne Schuyten naer toewenden, die dezen Monstreuzen Visch met tauwen aan hunne Schuyten vast hechtende, met groot gevaer van te vergaen, dezen Walvisch alhier op het strange hebben gesleept."

Also in the next edition of this newspaper, three days later (Anonymus 1751b), the whale is still mentioned:

"Dezer dagen is door die van Blanckenberge in Zee gevischt en aldaer opgebracht een Walvisch van redelycke lengde."

Identity of the whale

Mol (1962) and De Smet (1974) state that the painting (of which we now know it is a copy) depicts a northern right whale. This species used to occur in the north-eastern Atlantic Ocean and the North Sea, and was intensively hunted there from the early Middle Ages onwards (Slijper 1958, De Smet 1974, Smeenk in Holthuis et al. 1998). It was undoubtedly already scarce in the North Sea during the Middle Ages (Kompanje & Smeenk 1996), and according to Van Beneden (1886) was only very rarely observed in European coastal waters in general during the middle of the 18th century. Still, in the early 20th century circa 140 right whales were captured by whalers in the north-eastern Atlantic, especially around the Hebrides (Brown 1986). The species is nearly extinct now, with little more than 300 animals remaining in the north-western Atlantic. Observations in the eastern part of the North Atlantic are extremely rare (Kompanje & Smeenk 1996, Reid et al. 2003), but include one animal photographed in 2005 off the coast of Zeeland (the Netherlands; Camphuysen & Peet 2006).

The illustrated barnacle

For the identity of the barnacle, a number of which are depicted on the dorsal side of the whale, with one being presented in detail below the whale, in theory three possibilities exist: *Coronula diadema*, *Coronula reginae* en *Cetopirus complanatus* (figure 3). Clearly, the barnacle cannot be other than

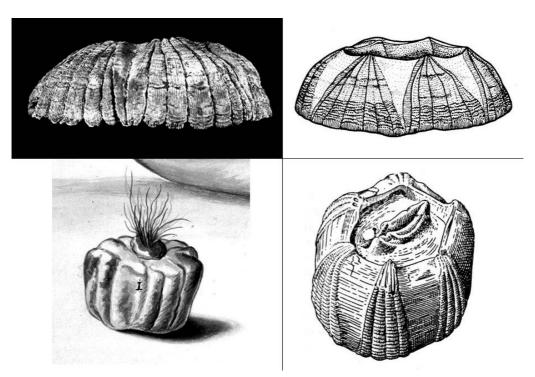


Figure 3. Top left: *Cetopirus complanatus* (from Holthuis et al. 1998); top right: *Coronula reginae* (from Zullo 1979); bottom left: the barnacle depicted in the original water-colour of the whale at Blankenberge in 1751 (courtesy of the Public Library of Kortrijk, Fonds Jacques Goethals-Vercruysse); bottom right: *Coronula diadema* (from Tarasov & Zevina 1957).

Coronula diadema. This is, together with Coronula reginae, the most typical barnacle on humpback whales (Megaptera novaeangliae), occurring on almost every individual, and often in large numbers. This species has also been reported, though less commonly, from fin whales (Balaenoptera spp.) and sperm whales (Physeter macrocephalus) (Zullo 1979, Scarff 1986). Coronula sp. was observed on a living right whale (in the Pacific Ocean), but it proved impossible to take samples (Scarff 1986). Besides this, some old, but very doubtful records exist of Coronula sp. on right whales. Scarff (1986) did not find recent indications, except his own observation, of the presence of Coronula sp. on right whales, and no barnacles were found on more than 30 right whales stranded during the last decades on the shores of the western North Atlantic (S. Kraus, New England Aquarium, Boston, personal communication in 2006).

The barnacle Cetopirus complanatus is enigmatic. Apparently it can be easily confused with Coronula reginae, and it has not been reliably recorded since the 19th century (Holthuis et al. 1998). Also, it is, or was, typical for whales of the genus Eubalaena, but rather for the southern than the northern hemisphere (Darwin 1854). In the Netherlands Cetopirus complanatus was found, near right whale remains, in an archaeological site from the 10th century (Holthuis et al. 1998), a period in which the right whale was hunted in the North Sea and English Channel. Very few remains of Cetopirus complanatus exist in natural history collections (Holthuis et al. 1998). Scarff (1986) concluded that the populations of Coronula sp. and Cetopirus complanatus have virtually disappeared from right whale populations due to the nearextinction of their host species. Whereas currently all, or the vast majority of right whales do not host *Coronula* sp. or *Cetopirus complanatus*, it cannot be stated that this was the case in the middle of the 18th century.

Anatomical features depicted

We thoroughly investigated the anatomical features in the water-colours of the whale. and these too made us conclude that this animal was a humpback whale rather than a right whale. The only characteristics that could plea for a right whale, but are surprisingly not mentioned by De Smet (1974), are the lack of ventral grooves and a dorsal fin (the latter being very small in many humpback whales). However, the water-colours display several features typical for a humpback whale, not occurring in right whales. These are: 1. the irregular shape of the posterior margin of the tail flukes, 2. the irregular margin of the flipper, 3. the elongated form of the flipper, and 4. the partially white, irregular pigmentation of the tail flukes and the flipper. Furthermore, there is no trace of the extensive callosities in distinct places on right whales. Moreover, the original of the illustration shows a baleen plate that could not possibly originate from a right whale. It is short and triangular, typical for humpback whales.

The humpback whale is indigenous in all oceans, from tropical to polar areas. Whereas it is regularly observed in the western part of the English Channel (Reid et al. 2003), it was, until recently, very rare in the southern North Sea. When in February 1995 a fresh scapula of a humpback whale was found in Dutch waters (Kompanje 1996), this then represented the only known record of this species for the Netherlands. In the early 21st century the situation changed: between 2003 and 2010 five individuals were washed ashore in the Netherlands (Smeenk et al. 2003, Camphuysen et al. 2008; www.walvisstrandingen.nl, viewed 25 November 2010) and one in Belgium (Hael-

ters et al. 2006). Given the size of humpback whales, it is unlikely that other strandings of this species would have gone unnoticed or unrecorded in Belgium or the Netherlands in historical days. In addition to, or in association with these strandings, at least five different individuals were observed along the coast in these years and a further two animals were recorded nearby, off the coast of northern France (Camphuysen & Peet 2006, Camphuysen 2007, Strietman 2009). Confirmed sightings within the area are lacking prior to 2003 (van der Meij & Camphuysen 2006).

Conclusions

Although the water-colours of the whale of 1751 are crude and hence unclear, it appears beyond doubt that a humpback whale is depicted rather than a northern right whale, given anatomical details and the illustration of the associated barnacle. This concerns the first documented case of a humpback whale in the Low Countries (Belgium and the Netherlands). As a consequence, the only documented and probable case of a right whale in what is currently Belgium dates back to 1178, when a carcass washed ashore in Oostende (De Smet 1974). The original water-colour of the whale, held at the public library of Kortrijk, Belgium, is by Jan Antoon Garemijn, whereas the copy, produced not before the last quarter of the 18th century, and currently in the New Bedford Whaling Museum, is by the hand of Jan Karel Verbrugghe.

It is remarkable that for centuries the hump-back whale of 1751 remained the only one recorded in the Low Countries, whereas for unknown reasons the situation changed dramatically in the 21st century, with six animals washing ashore in this area between 2003 and 2009.

Acknowledgements: We would like to thank Gerard Peet and Mark Lavaleye for drawing our attention to the illustration of the whale and the barnacle, and locating

it. We further acknowledge the New Bedford Whaling Museum, Bedford, USA, and the Public Library Kortrijk for the permission to reproduce the water-colours of the whale, Jürgen Van Lerberghe (Public Library Kortrijk) for his assistance in reproducing the original water-colour, Nadia Vangampelaere (Musea Brugge) for the verification of handwritings and signatures, and Adrie Vonk for the confirmation of the identity of the baleen. Finally, we highly appreciate the comments and suggestions made by Chris Smeenk and an anonymous reviewer.

References

- Anonymus 1751a. Gazette van Gendt XCVII, 6 December 1751.
- Anonymus 1751b. Gazette van Gendt XCVIII, 9 December 1751.
- Bowens, J.J. 1792. Nauwkeurige beschryving der oude en beroemde zee-stad Oostende gelegen in Oostenryksch Vlaenderen. Eerste deel. Joseph De Busscher, Brugge, Belgium.
- Brown, S.G. 1986. Twentieth-century records of right whales (*Eubalaena glacialis*) in the Northeast Atlantic Ocean. Report of the International Whaling Commission, Special Issue 10: 121-127.
- Camphuysen, C.J. 2007. Foraging humpback whale (*Megaptera novaeangliae*) in the Marsdiep area (Wadden Sea), May 2007 and a review of sightings and strandings in the southern North Sea, 2003-2007. Lutra 50 (1): 31-42.
- Camphuysen, C.J. & G. Peet 2006. Walvissen en dolfijnen in de Noordzee. Fontaine Uitgevers BV, Kortenhoef / Stichting De Noordzee, Utrecht, the Netherlands.
- Camphuysen, C.J., C. Smeenk, M. Addink, H. van Grouw & O.E. Jansen 2008. Cetaceans stranded in the Netherlands from 1998 to 2007. Lutra 51 (2): 87-122.
- Darwin, C. 1854. A monograph on the sub-class Cirripedia with figures of all the species. The Lepadidae; or, peduculated cirripedes. Ray Society, London, UK.
- De Smet, W.M.A. 1974. Inventaris van de walvisachtigen (Cetacea) van de Vlaamse kust en de Schelde. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen 50 (1): 1-156, plates I-IV.
- Haelters, J., T. Jauniaux & F. Kerckhof 2006. Bultrug op Belgisch strand. Zoogdier 17 (2): 3-5.
- Holthuis, L.B., C. Smeenk & F.J. Laarman 1998. The find of a whale barnacle, *Cetopirus complana*tus (Mörch, 1853), in 10th century deposits in the

- Netherlands. Zoologische Verhandelingen Leiden 323: 349-363.
- Inbona, J., manuscript. Rare geschriften behelsende het gedenckweerdighste dat 'er is voorgevallen binnen de stadt van Brugghe, sedert het Jaer 1645. tot ende met het Jaer 1684. door Mr. Jacques Inbona met een vervolgh ofte bijvoughsel van het geene sedert is voorgevallen binnen de stadt van Brugghe. Fonds Jacques Goethals-Vercruysse, GV. Cod. 175 fol. 29, Public Library Kortrijk, Belgium.
- Kompanje, E.J.O. 1996. Vondst van een schouderblad van de bultrug *Megaptera novaeangliae* in de zuidelijke Noordzee. Lutra 38 (2): 85-89.
- Kompanje, E.J.O. & C. Smeenk 1996. Recent bones of right whales *Eubalaena glacialis* from the southern North Sea. Lutra 39 (2): 66-75.
- Mol, T. 1962. Afbeeldingen van walvisachtigen (*Cetacea*) in een catalogus van een oud kabinet in Brugge. Lutra 4 (2): 21-22, plates II-III.
- Reid, J.B., P.G.H. Evans & S.P. Northridge 2003. Atlas of cetacean distribution in north-west European waters. Joint Nature Conservation Committee, Peterborough, UK.
- Scarff, J.E. 1986. Occurrence of the barnacles Coronula diadema, C. reginae and Cetopirus complanatus (Cirripedia) on right whales. The Scientific Reports of the Whales Research Institute 37: 129-153.
- Slijper, E.J. 1958. Walvissen. Uitgeversmaatschappij D.B. Centen, Amsterdam, the Netherlands.
- Smeenk, C., M. Addink & K. Camphuysen 2003. De eerste bultrug voor Nederland. Zoogdier 14 (4): 3-4
- Strietman, W.J. 2009. Whale watching met een Texelse twist. Zoogdier 20 (1): 19-20.
- Tarasov, N.I. & G.B. Zevina 1957. Barnacles (Cirripedia Thoracica) of the seas of the USSR. Fauna of the USSR Zoologicheskii Institut Akademii Nauk SSSR 69 [in Russian].
- van der Meij, S.E.T. & C.J. Camphuysen 2006. Distribution and diversity of whales and dolphins (Cetacea) in the Southern North Sea: 1970-2005. Lutra 49 (1): 3-28.
- Van Beneden, P.J. 1886. Histoire naturelle de la Baleine des Basques (*Balæna biscayensis*). Mémoires couronnés et autres mémoires de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique 38: 1-44.
- Zullo, V.A. 1979. Marine flora and fauna of the northeastern United States. Arthropoda: Cirripedia. National Oceanic and Atmospheric Administration (NOAA), Technical Report National Marine Fisheries Service (NMFS) circular 425.

Samenvatting

De eerste historische waarneming van een bultrug (*Megaptera novaeangliae*) in de Lage Landen (zuidelijke Noordzee)

In 1751 werd een grote walvis op zee aangetroffen nabij Blankenberge, nu in België, en naar het strand gesleept. Het dier werd afgebeeld, samen met één van zijn geassocieerde zeepokken, op een aquarel. In eerdere publicaties werd de walvis beschouwd als een noordkaper (*Eubalaena glacialis*). Morfologische kenmerken op de originele aquarel, hier voor het eerst gepubliceerd, en een latere kopie, tonen echter aan dat de afgebeelde walvis een bultrug (*Megaptera novaeangliae*) was. De afgebeelde zeepok, *Coronula diadema*, is een soort die typisch op de bultrug

voorkomt. De stranding van een noordkaper in 1751, vaak vermeld omdat deze soort toen ook al zeer zeldzaam was in dit gebied, wordt daarom afgewezen. In het artikel worden ook correcties gemaakt met betrekking tot de omstandigheden van de vondst, de datum en de afmetingen van het dier. De aquarellen konden toegewezen worden aan twee Brugse schilders. Het is zeer merkwaardig dat eeuwen lang de bultrug van 1751 het enige genoteerde geval was van een bultrug in de Lage Landen, terwijl daarin door ongekende oorzaken in de 21^e eeuw plots op een dramatische manier verandering kwam, met het stranden van niet minder dan 6 dieren tussen 2003 en 2009

Received: 20 September 2010 Accepted: 22 November 2010.