# North sea wrecks, an overview

#### Mapping wrecks

Beneath the waves of the North Sea lies a valuable archaeological resource. Thousands of wrecks – of ships and also planes – lie like time capsules on the sea bed. Little remains of some wrecks, while others are still virtually intact. We do not know the precise location of some, and sometimes we are unaware of the existence of others.

#### Importance of wrecks

Every wreck is unique and tells its own story. Many ships have sunk in this region over the centuries, from prehistoric logboat to Viking ships, from Dutch East India Company ships to steamships, from submarines to patrol boats, and from fishing boats to more recently lost freighters. Together, these wrecks give us an insight into the maritime history of the North Sea, which gives them cultural value.

Wrecks are also biodiversity hotspots, home to entirely different plants and creatures than the surrounding sea bed. This also makes wrecks interesting for fishermen and divers. Not every wreck is ecologically valuable. This depends on various factors, including the age of the wreck, the material in the wreck and its distance from the coast.

#### This poster

1815

1795

Age

of Tra

This poster is designed to raise awareness of the importance of wrecks and gives a visual impression of the maritime history of the North Sea. A number of wrecks from each period are shown on the map. One wreck from each period is highlighted with a brief description and illustration. The focus of activity in each period can clearly be seen on the small maps.

Herald of Free Enterprise After the Second World War there was a rapid rise in transport by water. More and more cargo was being transported by ship and freighters (1987) became ever larger and more efficient, particularly those used for bulk goods. Container ships began to be used for general cargo transport, Baltic Ace (2012) and ports underwent rapid expansion. Innovative techniques were Mont Louis (1984) developed to make fisheries more sustainable. Offshore activities, first in Anna Broere (1988) oil and gas, and later also wind farms and aquaculture, made the North Stanislaw Dubois (1981) Sea a multifunctional resource. The increase in air travel spelt the end European Gateway (1982) of large passenger liners, as fewer people travelled by sea. However, Vinca Gorthon (1988) ferry crossings became more affordable and pleasure cruising Antje Jansen (1973) increased. The ferry Herald of Free Enterprise was one of the ships Stella Maris (1953) that provided a scheduled service across the English Channel. It capsized in 1987 just after leaving Zeebrugge on its way to Dover,

with the loss of 193 lives.

## 医胆尿间的现

**Greenland Knar** 

Recent times

SS Sea Venture

Kennemerland

SS Saint Sunniva

Second World War

#### HMS Royal Oak (1939)

Blücher (1940)

HM O 22 (1940)

SS Mars (1939)

SS Brabo (1942)

HMS Daring (1940)

HMS Sealion (1945)

SS Sea Venture (1939)

Vp 801 (SS Bayern) (1940)

The post-war economic crisis led to large-scale poverty and discontent in Germany. In this climate, Adolf Hitler managed to come to power in 1933. His aim was to turn Europe into one big German empire. Germany invaded Poland on 1 September 1939; in response France, Britain and several other countries declared war on the Germans. The Netherlands remained neutral, but was invaded by Germany in May 1940. After the attack on Pearl Harbour in late 1941 the United States declared war on Japan and Hitler then declared war on the US, sparking the biggest conflict the world has ever seen. In 1939 the German submarine U 47 launched several torpedoes at the British battleship HMS Royal Oak in Scapa Flow, and managed to sink the ship.

1939 - 1945

## First World War

1945 - present

#### SMS Frauenlob (1916)

Hochseeflotte (1919) HMS Invincible (1916) HMS Indefatigable (1916) SMS Mainz (1914) HMS Hampshire (1916) HMS E 10 (1918) HMS E 16 (1916) SMS UC 30 (1917) SMS U 6 (1915) SMS G 87 (1918)

On 28 July 1914 the Austro-Hungarian Emperor Franz Joseph I declared war on the small neighbouring country of Serbia after the heir to the Habsburg throne had been killed in an attack. Several European countries soon declared war on each other, and within just a few weeks the Great War had broken out. As well as desperate fighting in the trenches, there were also battles at sea. The British 'Grand Fleet' and the German 'Hochseeflotte' fought a huge sea battle off the coast of Jutland. The use of submarines in war was a new phenomenon. Merchant and passenger ships frequently fell victim to torpedo attacks from submarines. During the Battle of Jutland in May 1916 SMS Frauenlob was hit by a torpedo launched by a British cruiser during a night-time engagement and quickly sank.

1914 - 1918

#### Age of Steam

## SS Kursk (1912)

1 chast 1 - son - 2 Potent SS Elbe (1895) SS Deutschland (1875) SS Cimbria (1883) SS Dilsberg (1892) SS Saint Sunniva (1930) SV Galatea (1898)

The 19th century saw the gradual advent of steam-powered ships. In 1837 a ship crossed the Atlantic for the first time almost completely without the use of sails. From that point on, progress was unstoppable. More and more seagoing ships with mechanical propulsion were built, and in the early 20th century large passenger liners made mass migration across the Atlantic possible. In 1912 the cargo and passenger ship Kursk was on its way from Antwerp to Russia with a number of passengers and a cargo of Baccarat crystal for Tsar Nicholas II. It sank in a storm after

1815 - 1960



• The European Cultural Convention (1954) is the framework for European collaboration on culture and the heritage. The

12 BC – 450

At the start of the Common Era the Romans extended their influence

- convention contains articles on the preservation of the common European heritage.
- The Granada Convention (1985) builds on the European Cultural Convention and the UNESCO World Heritage Convention. It sets out a broader definition of heritage, encompassing the industrial heritage, cultural landscapes, ensembles and the movable heritage. The convention also contains provisions on cataloguing, documenting, protecting and restoring the heritage.
- The Malta Convention (1992) is designed to afford the buried archaeological heritage better protection. It regulates, among other things, preservation of archaeological values in situ, consideration of the archaeological heritage in spatial plans and the funding of archaeological research ('the developer pays').
- The UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001) contains a set of rules for the protection of the heritage under water, and an Annex setting out a code of conduct for dealing with this heritage. The convention is intended to protect the underwater heritage all over the world through international collaboration.
- The United Nations Convention on the Law of the Sea (1982) states that the heritage on the sea and ocean bed should benefit mankind as a whole and that states must work together to protect it.
- The Nairobi International Convention on the Removal of Wrecks (2007) is designed to enable states to remove wrecks outside territorial waters if they pose a potential threat to the safety of human life, goods and property. It has not yet come into force.
- The European Directives on the environmental impact assessment of projects and spatial plans stipulate that these EIA procedures must identify the impact on the cultural heritage and archaeological resources and investigate how they can best be mitigated.

The above conventions and regulations have been implemented in different ways in national legislation and policy. Take the UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001), for example. France and Belgium have ratified the convention, but various other countries have yet to do so (see illustration).









Disclaime

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Coordination and maritime archaeology information: Thijs Coenen, Andrea Otte, Johan Opdebeeck (RCE/Maritime Programme) and Remy Luttik (Zeester diving team) Project manager: Xander Keijser (RWS/Water, Traffic & Environment) Illustrations: Pauline van den Broeke Design: www.canyouimagine.nl

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# Prehistory

Hjortspring (400 BC)

Dover boat (1500 BC) People have had boats since prehistoric times. The earliest known boats were logboats. Boats were probably also made from other materials, such as animal hides, but no trace of them has ever been Ferriby boat (1800 BC) found. In 1992 a wooden boat dating to around 1500 BC was found Pesse logboat (8000 BC) in the Dour estuary in Dover. It may have been used to cross the Bouldner Cliff (6000 BC) Channel. There is a lot of evidence suggesting there was contact between the British Isles and the European mainland at that time. Tir from Cornwall's tin mines was used to make bronze axes that have

this is the oldest seafaring vessel ever found.

from 8000 BC

been found all over Europe. If it was used to cross to the mainland,

## Roman period

(100-50 BC)

(4th century)

## Blackfriars I (2nd century)

northwards. Remains of seafaring ships from the Roman period **Roman fort and remains of wreck** are rare in this region. However cargoes of amphorae that must be from sunken Roman-period ships have been found in several places, on Guernsey (AD 110) Cargo of amphorae, Isle of Wight particularly in the Channel. The only seafaring Roman-period ship in Western Europe was excavated on the banks of the Thames by Blackfriars Bridge in London. It dates from the second century AD Brittenburg (1st century) Gallo-Roman wreck, Ploumanac'h and has a very robust construction, with large iron nails to attach the planking of the hull to the frame, bearing little resemblance to the Roman shipwrecks that have been found in the Mediterranean. Those vessels were probably not suitable for navigating the much more turbulent North Sea.





# Wrecks in Dutch waters

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## This poster

This poster is designed to raise awareness of the importance of wrecks and gives a visual impression of the maritime history of the North Sea. A small selection of wrecks from each period are shown on the map. One wreck from each period is highlighted with a brief description and illustration. The focus of activity in each period can clearly be seen on the small maps.

Oriënte (1966) After the Second World War there was a rapid rise in transport by water. More and more cargo was being transported by ship and Hondsbosch (1973) freighters became ever larger and more efficient, particularly those SS Spyros Armenakis (1965) used for bulk goods. Container ships began to be used for general Leliegracht (1973) cargo transport, and ports underwent rapid expansion. Innovative Birkenfels (1966) techniques were developed to make fisheries more sustainable. First World War Eurabia Sun (1974) Offshore activities, first in oil and gas, and later also wind farms Stanislaw Dubois (1981) and aquaculture, made the North Sea a multifunctional resource. Antje Jansen (1973) Traditional use of the North Sea made way for a different approach Vinca Gorthon (1988) to its value as a resource. Developments in nautical navigation techniques increased safety at sea, sharply reducing the number of ships lost. In 1966 the Cuban freighter Oriente collided with a Norwegian freighter in thick fog, and both vessels were lost.

1945 - present

**Recent times** 

# Second World War

Wellington LC (1941) SS Madrid (1941) SS Indus (1942) Amerskerk (1944) F 920 DM (1944) SS Empire Blessing (1945) M 469 (1944) Baloeran (1943)

The post-war economic crisis led to large-scale poverty and discontent in Germany. In this climate, Adolf Hitler managed to come to power in 1933. His aim was to turn Europe into one big German empire. Germany invaded Poland on 1 September 1939; in response France, Britain and several other countries declared war on the Germans. Minefields, attacks on shipping and the bombing of enemy targets claimed many lives. The Second World War was above all a war of air battles. In 1941 a Wellington bomber with registration number R1322 set off to carry out a reprisal attack on Bremen in response to aerial bombardments in Britain. It was attacked by a German fighter plane over the IJsselmeer, where it crashed.

1939 - 1945

#### HMS E 3 (1914)

HMS Hogue (1914) HMS Cressy (1914) HMS Aboukir (1914) SMS U 106 (1917) SS Tubantia ((1916) HMS E 34 (1918) HMS Scott (1918)

On 28 July 1914 the Austro-Hungarian Emperor Franz Joseph I declared war on the small neighbouring country of Serbia after the heir to the Habsburg throne had been killed in an attack. Several European countries soon declared war on each other, and within just a few weeks the Great War had broken out. As well as desperate fighting in the trenches, there  $\sqrt{2}$ were also battles at sea. The use of submarines in war was a new . phenomenon. Many merchant and passenger ships fell victim to torpedo attacks from submarines. The warring parties laid mines along shipping routes and off the coast. The 1-1-1-1-1 minefields claimed many lives. On 18 October 1914 the British submarine HMS E 3 was the first submarine to fall victim to an attack by another submarine when it was torpedoed by German SM U 27 to the north of Schiermonnikoog.

1914 - 1918



## SS Gulf of Panama (1882)

SS Countess of Durham (1881) SS Berlin (1907) SS Kerwood (1919) HM Adder (1882) SS Leerdam (1889)

SS Katowice (1949)

SS Cimbria (1883)

The 19th century saw the gradual advent of steam-powered ships. The Dutch naval officer Gerhard Moritz Roentgen regularly sailed to Britain, which had launched the first steamship in 1814, and he went to study modern shipbuilding techniques there. In 1823 King Willem I sent him to Britain again to investigate the latest developments. In his report he anticipated great potential for the use of steam engines to power warships, and received an honour for his work. In 1823 he helped set up a steamship company (Nederlandsche Stoomboot Maatschappij), of which he became director. The steamship Gulf of Panama was en route from Japan to Bremen in 1882 with a cargo of rice when its coal supply ran out during a heavy storm. It was no longer able to reach the port at Nieuwediep and ran aground on a sand bank off Texel.

1815 - 1960

450 - 1000 Early

Stanislaw Dubois



### Napoleonic era

#### HMS Lutine (1799)

Delft (1797) HMS Minotaur (1810) HMS Romney (1804) HMS Seine (1803)

In the 19th century armies grew to unprecedented proportions and the destructive power of weapons increased. When the French Revolution began in 1789, monarchs outside France became afraid that revolution would spread, and prepared to go to war against France. The French general Napoleon Bonaparte seized power in Paris. In 1799 he appointed himself First Consul and went on to conquer large areas of Europe. The frigate La Lutine sailed as part of the French fleet for 14 years, but fell into the hands of the British in 1793.

1795 - 1815

1735 when it ran aground on a sand bank in the North Sea during a



National legislation

Government policy on archaeology is based on the principles in the Malta Convention (1992), particularly the aim of preserving archaeological values where they lie in situ, consideration of archaeological interests in spatial planning and the guarantee that environmental impact assessments and the decisions based on them will take account of archaeological sites and their context. Another principle is that any archaeological research required will be paid for by the developer. Protection of the underwater cultural heritage is a condition introduced at national level.

#### Brief overview of national legislation

- The Wrecks Act (1934) provides the legal basis for the removal of shipwrecks. The legislation sets conditions for the removal of vessels and other objects stranded, sunk or grounded in public waters, or stuck in flood defences or other hydraulic structures.
- The Earth Removal Act (1965) regulates the extraction of sand, gravel, clay and other materials from Dutch soil by means of a licensing system. Under the legislation, the licence holder must take steps to preserve buried archaeological sites. If it is not possible to preserve a site, the developer of the site may be obliged to have it excavated.
- The Environmental Management Act (1979) defines the legal instruments that can be used to protect the environment. It stipulates that the impact on archaeology, including wrecks with cultural heritage value, must be identified as part of an environmental impact assessment before certain projects or spatial plans can go ahead. This applies, for example, to large-scale infrastructural projects (wind farms, sand extraction etc.).
- The Monuments and Historic Buildings Act 1988 regulates the protection of archaeological sites and the performance of excavations. It applies to all Dutch territory, including territorial waters. Since 1 September 2007 a number of provisions in the Act have applied to the contiguous zone (up to 24 miles off the coast). This includes a duty to report and a ban on excavations. A permit must be obtained for the excavation of archaeological monuments, including wrecks, in territorial waters and the contiguous zone. The law also provides for an obligation to report to the Cultural Heritage Agency (RCE) anything that can reasonably be assumed to be of importance in cultural heritage terms.
- The Archaeological Heritage Management Act (2007) implements the Malta Convention in Dutch law.

See also: http://www.noordzeeloket.nl/en/projects/north-sea-2050-spatial-agenda/wrecks/

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The Malta Convention (1992) is designed to afford the buried archaeological heritage better protection. This 'implementation act' also has a bearing on other legislation, such as the Spatial Planning Act, the Environmental Permitting (General Provisions) Act and the Earth Removal Act. Since 2007 local authorities have been obliged to incorporate archaeological values in their zoning plans.

• The Heritage Act is due to enter into force on 1 January 2016. It will replace six other pieces of legislation pertaining to the cultural heritage, including the Monuments and Historic Buildings Act 1988. The new legislation will extend the ban on excavating underwater sites. A certificate will be required for archaeological research and excavations under water.

tural Heritage Agency

DIVETEAM

ZEESTER

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Traffic & Environment)

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istry of Education, Culture and Science



#### Prehistory from 8000 BC Ainistry of Infrastructure and the Pesse logboat (8000 BC) People have had boats since prehistoric times. The earliest known boats were logboats. Boats were probably also made from other materials, such as animal hides, but no trace of them has Kadoelerveld logboat ever been found. The oldest known boat in the world was found (800 – 400 BC) in the Netherlands in 1955, during work on the A28 motorway Vlaardingen logboat (700 BC) in Drenthe province. A logboat made of fir, was found near the Wieringermeer logboat (3300 BC) village of Pesse, and has been carbon-dated to between 8200 Hardinxveld-Giessendam logboat and 7600 BC. The boat can now be seen in the Drenthe Museum (5000 BC) in Assen. information: Thijs Coenen, Andrea Otte, Johan Opdebeeck (RCE/Maritime Programme) and Project manager: Xander Keijser (RWS/Water,

#### Roman period



#### De Meern 1 (2nd century)

Brittenburg (1st century)

Votive stone for Nehalennia

(2nd century)

logboat (2nd century)

influence northwards. The border of the Roman empire lay along the Rhine, and it was heavily guarded. Many remains of ships De Meern 2 and 3, fragments of have been found in the old bed of the Rhine. They were used to supply the forts along the border. These 'aak-type' ships, punts and logboats carried bulk goods and possibly also troops. Most of the ships that have been found were reused to reinforce riverbanks or were deliberately sunk to influence the course of Zwammerdam ships (2nd century) the river. In 1997, however, archaeologists working at Vleuten-De Meern found remains of a river boat that was probably still in use when it sank. The deck house (where the captain would have slept) was still present, complete with furnishings and toolbox.

At the start of the Common Era the Romans extended their

