

# OCEAN NOISE

# Pollution

By OceanCare



Although it may not seem like it, noise pollution is one of the biggest threats to the world's oceans and OceanCare explains the effects it has on marine animals.

*In the marine environment,* acoustics is of paramount importance. However, the world's oceans are getting louder and louder and the ocean noise pollution severely impacts marine life. Since 2002, OceanCare has continued to raise awareness of the issue regarding ocean noise pollution on a political level in its campaign, Silent Oceans, and international bodies are increasingly taking this human-induced environmental threat seriously.

In certain marine areas, the ocean noise level has doubled every decade over the last sixty years. The increase in ship traffic generates a heightened dense acoustic "fog" that distorts the perception instincts of marine life.

Danger also lies with the high performance military sonars, which locate submarines, and seismic tests for oil exploration. These technologies generate sound waves of up to 240 decibels, equivalent to the noise of a rocket taking off. This sound travels up to 4 828km through the oceans or, in other words, sonar signals that are sent off the coast of California are still clearly audible in the Northern Pacific.

## WHALES AND DOLPHINS ARE PARTICULARLY VULNERABLE

The most noticeable consequence of such extreme sound events is the stranding of whales and other marine mammals. Strandings have been observed to be particularly frequent after naval sonar manoeuvres. These sonar systems can be as loud as a rocket launch. Extreme sound events like these inflict vascular damage in the brain, lungs and other organs. It can also cause animals to panic and surface far too soon. Nitrogen bubbles in the blood lead to cases of the bends and potentially deadly embolisms. Consequently, most whales and dolphins die on the high seas and sink to the ocean floor. Stranded whales are thus just the tip of the iceberg.

The adverse impacts of constant high noise levels on marine life are exemplified using the case of blue whales; with a remarkable 180 decibels, blue whales are the loudest animals. Yet, their songs are simply drowned by tank ships and military sonars which, at their source, are approximately one million times louder. Within a few decades, the range of the sonar signals of



Main:  
A Silent Oceans  
campaign image.

blue whales has fallen from 2 000km to 200km. As a result, these solitary marine mammals are even less able to locate mates and the survival of the species is thus further threatened.

For many whales and dolphins, it is also increasingly difficult to acoustically locate their prey through the cacophony of noise. More and more frequently, the marine mammals collide with ships which they discern too late.

#### FOOD SECURITY AT STAKE

After exposure to noise, the catch rates of, inter alia, herring, cod, sea bass, sea bream and haddock decline by 40-80%. Ocean noise pollution can have a devastating effect on fish stocks, which are already depleted (by an estimated 90%) due to overfishing.

If overfishing and ocean noise pollution are not stemmed quickly, the food security for marine mammals and humans will be at stake. This could be disastrous for coastal inhabitants and those in developing countries, who are dependent on protein from coastal fisheries.

#### IMPORTANT STEPS IN INTERNATIONAL FORA

Ocean noise has a negative effect on at least 55 marine species. Yet, binding rules and limitations for noise-generating technologies at sea are still missing, unlike the many regulations for the terrestrial arena.

OceanCare is striving to remedy this situation. As one of the leading agencies of the International Ocean Noise Coalition (IONC), OceanCare strives for the oceans to become more silent. Thanks to the Silent Oceans campaign, which was initiated in 2002, decision makers increasingly perceive noise as a threat. Equally, international institutions have also begun to recognise the threat of ocean noise pollution to marine life and have been recommending using precaution in the use of anthropogenic ocean noise.

The United Nations (UN) now acknowledges the reduction and regulation of ocean noise pollution as a high priority. In 2005, it recognised ocean noise pollution as one of the five biggest threats to marine mammals and one of the 10 biggest threats to the world's oceans.

OceanCare claims that politicians and all relevant bodies take a responsible approach to ocean habitats. The existing scientific data on the influence of noise on marine animals and the need to protect endangered species must be better respected. Thus, in order for the oceans to become more silent again, OceanCare postulates, among other things, the following:

- A globally binding noise threshold
- An international regulatory framework to reduce ocean noise pollution
- No noise exposure to sensitive habitats and protected marine areas
- The obligatory use of the best available noise reducing technologies
- That ocean noise levels are monitored and implications are examined
- That ocean noise polluters are held accountable for the consequences of their actions
- Comprehensive environmental impact assessments and a precautionary approach

## OceanCare strives for the oceans to become more silent.

### INTERNATIONAL ONLINE CAMPAIGN AGAINST OCEAN NOISE POLLUTION

In 2013, OceanCare initiated the international online campaign, Silent Oceans, to protect marine life from ocean noise pollution. Visit [www.oceancare.org/en](http://www.oceancare.org/en) or [www.silentoceans.com](http://www.silentoceans.com) for more information. Together with 18 partner organisations, OceanCare calls for the public to get involved in the protection of the world's oceans from underwater noise and to take part in this international online campaign. Through a variety of online initiatives, many people have become online activists and now actively support this important work.

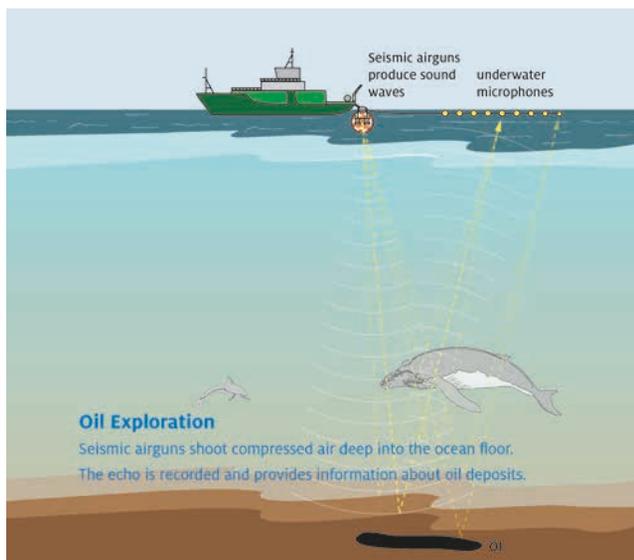
### LANDMARK DECISION IN 2014: EUROPEAN UNION ADOPTS ENVIRONMENTAL IMPACT ASSESSMENTS BEFORE SEISMIC SURVEYS

In March 2014, The European Parliament's Environment Committee passed a revised directive that provides for environmental impact assessments to become compulsory for ocean noise pollution related to oil exploration. Conservationists, including OceanCare, the International Fund for Animal Welfare and the National Resource Defence Council (NRDC) welcome this landmark decision in the European Parliament.

"This decision is long overdue and simply a necessity. Europe is still lagging behind when it comes to proper impact assessments, transparent consultation processes and regulating the oil industry" says Sigrid Lüber, president of OceanCare. OceanCare, together with the Silent Oceans NGO-coalition, has been criticising the continuation of seismic activities in, among others, Croatian and Greek waters in the Mediterranean Sea. **S**

#### ABOUT OCEANCARE

OceanCare has been working for the protection of marine mammals and oceans since 1989. With research and conservation projects, campaigns, environmental education as well as its contributions to a range of important international committees, OceanCare has undertaken concrete steps worldwide to improve the conditions of life in the world's oceans. In 2004, the UNEP/CMS Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) acknowledged OceanCare as a partner organisation. In 2011, OceanCare was granted Special Consultative Status with the Economic and Social Council of the UN to provide expert advice on questions regarding the protection of the marine environment.



Right: Oil exploration is done via seismic airguns.

Far right: Deafening sound waves of military sonars.

Ocean noise has a negative effect on at least 55 marine species.

