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Governments and Wildlife Groups Take Soundings on Noise Pollution and Ship Strike Threats to Whales and Dolphins

Rising Levels of Greenhouse Gases May Aggravate Rising Tide of Noise from Ships, Oil Exploration and Military Sonar

Rome/Bonn/Nairobi, 3 December 2008--The world's oceans and seas are becoming noisier as a result of increases in vessels; a rise in seismic surveys and because of the new generation of military sonars, an alliance of wildlife groups said today.

They are concerned that the cacophony of sounds pervading the seas are intensifying threats to marine mammals who use sound, sometimes over great distances, to communicate, forage for food and find mates.

The groups, attending the United Nations Environment Programme's Convention on Migratory Species conference in Rome, are urging governments and industry to adopt quieter engines for ships, tighter rules on the use of seismic surveys in oil and gas exploration and new, less intrusive sonar technologies by navies.

The news comes amid new concerns that rising levels of carbon dioxide (CO²), the result of the burning of fossil fuels, may be aggravating noise levels from increased human activities.

The Intergovernmental Panel on Climate Change (IPCC), established by the UN Environment Programme (UNEP) and the World Meteorological Organisation, warned in its latest report of growing acidity or 'acidification' of seas and oceans.

The IPCC flagged concern over the impacts of falling PH levels (increasing acidity) on coral-reef building creatures and on plankton at the base of the marine food chain.

Researchers at the Monterey Bay Aquarium Research Institute in the United States are also suggesting that increasing ocean acidity may be making the marine environment noisier.

Indeed the changing chemistry of seawater may mean that currently it is 10 per cent less absorbent of 'low' frequency sound than it was prior to the Industrial Revolution.

Unless emissions of greenhouse gases are cut—a key issue on the table this week in Poznan, Poland at the UN climate convention meeting—acidity levels in the seas and oceans could reach a point by 2050 where noise from ships to seismic guns is travelling 70 per cent further.

Mark Simmonds Science Director of the Whale and Dolphin Conservation Society, who is attending the UNEP Convention on Migratory Species meeting, said: "Underwater, man-made noise, is already triggering a kind of acoustic fog and a cacophony of sound in many parts of the world seas and oceans.

"In addition there is now evidence linking loud underwater noises with some major strandings of marine mammals, especially deep diving beaked whales. However, it also appears that other species may also be affected and this year has for example witnessed two major stranding events in Madagascar and the United Kingdom which are still being investigated," he added

He said there was also emerging evidence that certain tissue damage in cetaceans is linked to noise, with a probable mechanism being that startled animals exhibit unusual diving behaviour and suffering something similar akin to a human diver getting the 'bends'.

"Now we are confronted with cutting-edge evidence that fossil fuel burning and the build-up of CO² may pose a new and even 'louder' threat unless urgent action is taken to cut emissions over the coming years and decades. There clearly needs to be a comprehensive and joined-up response to noise pollution in the underwater world." he added.

Robert Hepworth, Executive Secretary of UNEP-CMS, said climate change was set to make parts of the ocean that were once relatively tranquil and inaccessible, even noisier.

"The retreat of the ice in the Arctic is leading to a scramble for drilling and oil and gas exploration which is likely to increase underwater noise exposure for species such as the beluga whale and the bow-head whale. This increase does not include the rise in noise as passages around the Arctic open up to ship traffic," he added.

The European Community and its member states have submitted a draft resolution to the 9th Conference of the Parties to the UNEP-CMS this week which urges members of the treaty to consider a wide range of measures to tackle underwater noise.

Measures being suggested include 'noise protection areas' in enclosed seas and sea basins; greater monitoring of noise levels and noise databases that list where man-made sounds are coming from.

The draft resolution also proposes that a set of guidelines on better managing noise sources be considered by signatory nations to the migratory species treaty.

Today the International Fund for Animal Welfare (IFAW) formally launched the report *Ocean Noise: Turn it Down* at the CMS meeting.

Veronica Frank, a legal expert with IFAW, said: "We are calling for wide-ranging action including a requirement that builders and owners of all vessels, from super-tankers down, working with the competent international body, factor noise reduction measures into vessels design and operation at the outset. And that all noise producers embrace new quieter technology and make other efforts to reduce noise and work with effective standards set by appropriate regulatory bodies".

Ship Strikes

Marie-Christine Grillo Compulsione, Executive Secretary of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic Area (ACCOBAMS) — a CMS-linked treaty -- said: "From 1950 to 2000, low frequency underwater noise has doubled every 10 years. This increase is related to the number of ships which has tripled. Several scientific studies have demonstrated the change in cetaceans' behaviour".

"A relationship between underwater noise and incidental catches and/or ship strikes has also been established as underwater noise disturbs cetaceans' echolocation. The underwater noise is a transboundary pollutant and currently there is no specific law to control its impact," she added.

Ms Compulsione said cetaceans in the Mediterranean were especially vulnerable to ship strikes, in some cases linked with noise.

Between 1985 and 2001, a 77% increase was recorded in the volume of ship cargo loaded onto and unloaded off Mediterranean ports.

Every year, 220,000 ships greater than 100 tons cross the Mediterranean basin and approximately 30% of international sea-borne volume originates from or is directed towards the 300 ports in the Mediterranean Sea. The numbers are expected to grow three or four fold in the next 20 years.

These figures do not include the traffic in recreational ships, military vessel sand high-speed ferries.

Records concerning 287 fin whales stranded along the Mediterranean coasts, caught on the bow of a ship or found floating at sea, indicate that 16 per cent have been killed as a result of a ship strike.

Ms Compulsione said action was underway with governments supporting ACCOBAMS having decided last year to adopt mitigation and conservation measures.

These include assessing the feasibility of having observers on vessels able to alter captains to impending strikes alongside education and training courses for vessel crews, coast guard personnel, port officials and maritime traffic managers.

Measures to encourage the decrease in night time transit of high-speed and fast ferries are also being assessed.

Recently the Ministero della Tutela del Territorio e del Mare of Italy decided to grant 70 000€ to ACCOBAMS to develop a project on cetacean collision mitigation aimed at gathering accurate figures on strikes alongside mapping the distribution and abundance on cetaceans with information on shipping traffic.

Notes to Editors

Highlights of the IFAW Report

- The distance over which blue whales can communicate has been cut by 90 per cent as a result of increased noise levels
- Ship noise in the Pacific Ocean has doubled every decade over the past 40 years and the global shipping fleet is expected to double in size by 2025, after doubling between 1965 and 2003
- Airguns used in seismic surveys generate 'colossal' sounds peaking at up to 259 decibels and can be repeated every 10 seconds for weeks or months on end
- One study indicated that sounds from such sources travelled more than 3,000km from the source
- 90 seismic survey ships are operational of which a quarter are in use on any given day
- There are an estimated 300 naval sonar systems world-wide able to generate pressure sound waves of more than 235 decibels and new kinds of low frequency sonar are being developed and deployed

- Recreational sonar is in use on millions of small boats globally

Additional Notes to Editors

In a report on Oceans and the Law of the Sea the UN Secretary-General said: "There is a growing concern that noise proliferation poses a significant threat to the survival of marine mammals, fish and other marine species....flooding their world with intense sound interferes with (their) activities with potential serious consequences".

The Whale and Dolphin Conservation Society www.wdcs.org
WDCS *Oceans of Noise* Report www.wdcs.org/publications.php
The International Fund for Animal Welfare www.ifaw.org

IFAW Ocean Noise Turn It Down – A report on ocean noise pollution
www.ifaw.org/Publications/Regional_Publications/UK/Ocean_Noise_Pubs/asset_upload_file469_48552.pdf

The UNEP Convention on Migratory Species www.cms.int
The International Ocean Noise Coalition awionline.org/oceans/Noise/IONC/index.htm
The paper on noise and ocean acidification is available at
<http://dx.doi.org/10.1029/2008GL034913>) and a press release from the American Geophysical Union is available at http://www.agu.org/sci_soc/pr/2008-32.html

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