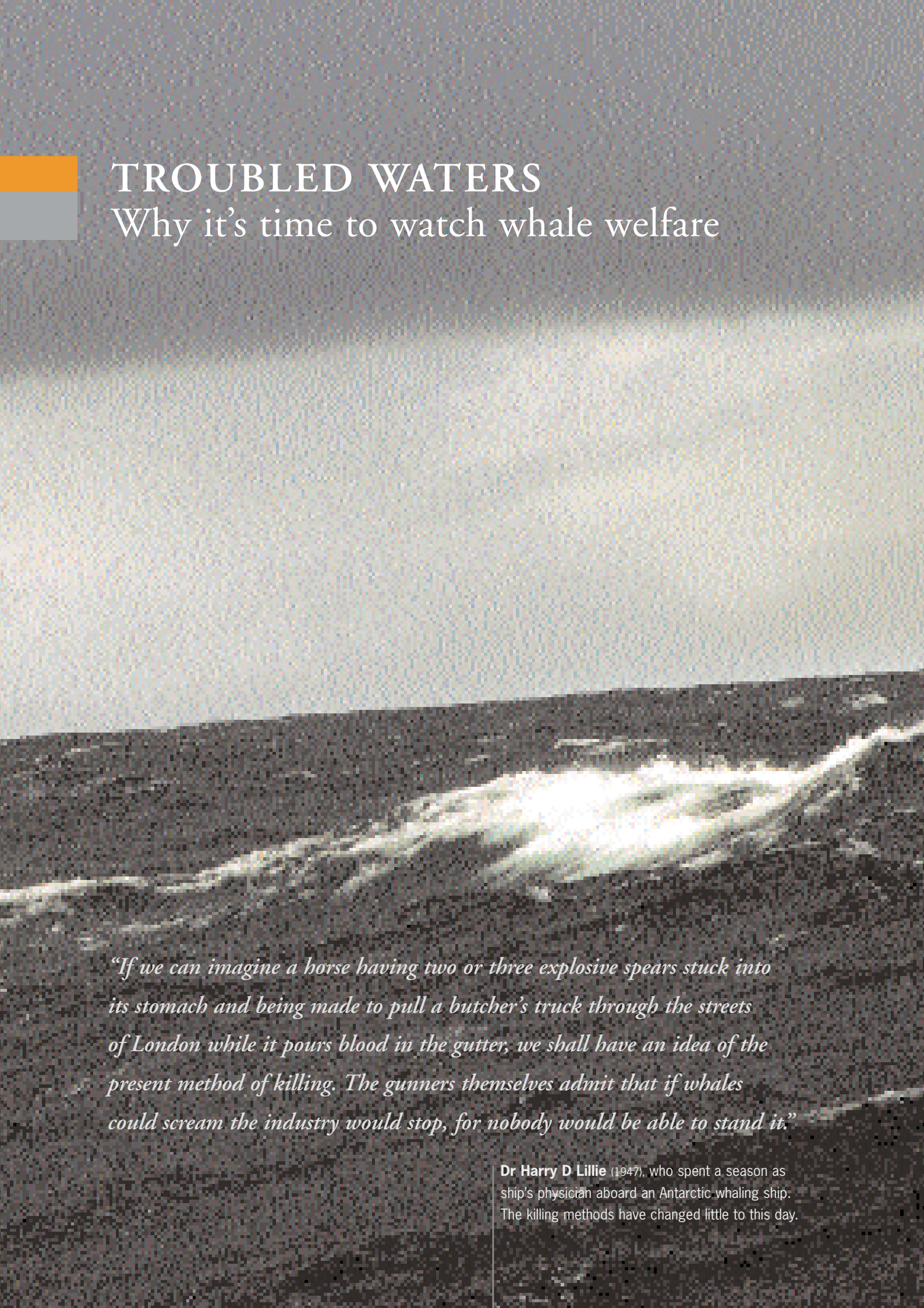
TROUBLED WATERS
Why it's time to watch whale welfare



"If we can imagine a horse having two or three explosive spears stuck into its stomach and being made to pull a butcher's truck through the streets of London while it pours blood in the gutter, we shall have an idea of the present method of killing. The gunners themselves admit that if whales could scream the industry would stop, for nobody would be able to stand it."

Dr Harry D Lillie (1947), who spent a season as ship's physician aboard an Antarctic whaling ship. The killing methods have changed little to this day.

Two million great whales were killed in the last century, using methods that caused widespread and prolonged suffering. Some species were hunted to the brink of extinction, leading to a worldwide ban on commercial whaling in 1986. Despite this, some 1,400 whales are still killed annually using methods little changed in a hundred years. Some nations would like to see a return to full-scale whaling operations. Yet a review of the scientific and practical evidence, summarised here, has found that severe welfare problems are inherent in modern whaling activities.

Whales are highly evolved animals with all the sensitivities that that statement implies. They have a complex social life. They call to one another across the vast expanses of the oceans. They are the largest animals that have ever existed, far larger than any dinosaur. There is nothing in the body of a whale, which is of use to us, for which we cannot find equivalents elsewhere.

I hope you will read the following pages and decide for yourself whether the hunting of whales in this way should still be tolerated by a civilized society.

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Mammals, not fish

There are about 80 species of whales, dolphins and porpoises, collectively known as cetaceans. These range from the great whales, such as the blue whale, the largest animal to have ever lived, to smaller dolphins and porpoises. Whales are mammals – air-breathing animals that feed their young on their mothers' milk. In so far as we know about their biology, many whales are already known to be highly intelligent and social animals.

Whaling today

The International Whaling Commission (IWC) is the intergovernmental body charged with providing for the proper conservation of whale stocks and regulating whaling. Its international moratorium, or ban, on commercial whaling came into force in 1986. However, loopholes mean that some whales continue to be hunted. Whalers from Norway and Japan, for example, will kill over 1,400 whales this year in commercial and so-called 'scientific' whaling operations. In 2003, Iceland resumed whaling, killing over 30 minke whales for 'research'. The meat from whaling operations, whether commercial or 'scientific', is ultimately intended for human consumption. Yet the killing methods fall well short of the standards necessary to achieve humane slaughter in livestock animals.

The IWC and humane killing

The IWC has been considering welfare-related issues since 1957 when it defined 'humane killing' as the process by which the animal is rendered instantaneously insensible until death supervenes. In 1958, the United Nations Convention on the Law of the Sea (UNCLOS) adopted a resolution requesting that all states use the best

means available to capture and kill marine life, including whales, in order to spare them from suffering to the greatest extent possible. A year later, the IWC convened its first working group on humane killing. Despite years of discussion on humane killing issues, including the adoption of at least 15 resolutions on welfare issues, progress within the IWC has been slow. The severe welfare concerns remain largely unresolved.

Whaler taking aim on board catcher ship.

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Killing methods

The technology used for killing whales has altered little since the 19th century, when the mechanically propelled harpoon was invented. The main killing method used during modern commercial and 'scientific' whaling is the penthrite grenade harpoon. Fired from a cannon, the harpoon is intended to penetrate the whale's body to a depth of 30 cm (12 inches) before detonating, killing it by inflicting massive shock or injury. The animal can then be winched to the whaling boat by a line held fast by the harpoon's spring-loaded claws that open on impact. Although the type of explosive used has changed from black powder to more powerful penthrite, for more than half a century, the basic killing method has remained the same.

Despite its destructive power, the whaler's harpoon often fails to kill its victim instantaneously. A whale that is shot but not killed will sustain massive injury, causing severe suffering. Recent data show that, for commercial and scientific hunts, the average estimated time to death is over 2 minutes, with some whales taking over an hour to die. However, these data may underestimate time to death.

The criteria used by the IWC to assess death or insensibility to pain in whales are: Relaxation of the lower jaw; or no flipper movement; or sinking without active movement. Using these criteria, Norway reported that 80.7% of minke whales were killed 'instantaneously' during the 2002 hunt. Japan's Antarctic minke whale hunt in 2002/2003 recorded 40.2% killed 'instantaneously'. A recent scientific and veterinary review concluded that these criteria are inadequate.

If the first harpoon fails to kill the whale, then a second penthrite harpoon or a rifle is used as a secondary killing method on the already injured whale. However, the data available indicate that rifles are often inadequate for this purpose, requiring many rifle shots to achieve a kill. The common use of secondary methods reflects the inefficiency of current whale killing practices.

The effect of the sea

Whalers must often attempt to achieve a fatal shot, either with a harpoon or a rifle, at distance. They also need to overcome a number of difficulties inherent in slaughtering whales at sea, including weather conditions and visibility, sea state, and the motions of the whaling ship. Rain and fog will reduce visibility and could hinder accuracy. A rough sea hampers the gunner's ability to follow the targeted whale below the water, making it more difficult to predict where the whale will surface. Both the gunner and the animal are in motion, movement which the gunner has no means of reducing. The more vigorous and frequent the movement of the ship, the more difficult it may be to hold and aim the harpoon.

If the weather, sea conditions, or ship's motion do not allow a precise shot, then there is a risk of a poorly placed harpoon resulting in protracted times to death and considerable animal suffering. These variables and the inadequate methods used to kill whales are reflected in the poor instantaneous death rates and the average times to death estimated in all whaling operations. The difficulties inherent in attempting to kill a large, partly submerged and moving animal at sea from a moving platform give rise to severe welfare concerns.

Impact of pursuit

Whaling operations may cause stress and compromise welfare in the hunted whale even before a killing method is deployed. Whalers depend on getting close to their quarry for successful harpooning. However, whales have not evolved as a prey species and may not be adapted to being chased. Pursuit times of 30 minutes or more are not unusual in Japanese hunts for example. The pursuit itself is believed to cause physical and psychological stress, which may lead to syndromes such as Exertional Myopathy, a condition that scientists believe may prove fatal, even to animals that evade capture.

Since the dorsal fin of this minke whale is clearly visible, it is likely that the harpoon would strike the last third of the whale's body, some distance from the vital organs.

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'Struck and lost' whales

Some whales are hit and injured but not captured, and are known as 'struck and lost'. The failure to capture whales that are struck and injured is a severe welfare problem. Struck and lost whales can incur a wide range of injuries, such as bleeding and damage to internal organs. They may subsequently die from their wounds or have difficulty in feeding or breeding.

Aboriginal Subsistence Whaling (ASW)

Despite the moratorium, the IWC allows whaling in some aboriginal hunts when carried out "exclusively for local consumption". ASW hunts are currently conducted in Greenland (minke and fin whales), Russia (gray and bowhead whales), the US (bowhead whales), and by the Bequians of St Vincent and the Grenadines (humpback whales). ASW killing methods are recognised by the IWC as being even less efficient than those in commercial whaling operations. Longer times to death and lower instantaneous death rates are estimated, and higher 'struck and lost' rates are recorded. Data for the period 2000-2002 show instantaneous death rates for ASW hunts of 0-17%, average times to death of 9-57 minutes, maximum times to death of 25-300 minutes, and up to 26 animals struck and lost annually.

For some ASW hunts, the IWC sets a limit on the number of whales that may be landed, rather than a 'strike limit'. This means that, in some hunts, ASW whalers are able to land the maximum number of whales permitted, but injure and lose an unlimited number.

Injuries incurred to whales that are struck but not captured may effect the welfare of these animals in both the short and long term.

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'Scientific' whaling

Of the three countries currently killing whales for commercial purposes despite the IWC moratorium on commercial whaling, Japan and Iceland are carrying out what is termed 'special permit' or 'scientific' whaling. However, these operations do not conform to the criteria routinely met by bona fide scientific research programmes. One such requirement is for an independent ethical review of a research plan prior to any approval being given. Whaling programmes have received sustained criticism from within the scientific community over their validity and have been condemned as being ethically unacceptable.

What is welfare?

Animal welfare is recognised internationally as an issue of importance, and has developed into a science. The welfare state of an animal can be described as good or high if the individual is fit, healthy and free from suffering. Although death itself is not a welfare issue, the way an animal dies is critical. The method of killing can cause a quick death, or pain and distress prior to death. Protecting the welfare of animals involves the prevention of avoidable suffering, and ensuring an instantaneous, humane death.

The welfare potential of whaling

The meat from all whaling operations is ultimately intended for human consumption. Comparisons with humane slaughter practices for livestock animals can therefore be used in assessing the welfare potential of whaling activities.

Basic principles that must be addressed to protect the welfare of animals at slaughter have been identified for livestock animals. These principles – the determinants of high welfare slaughter methodology are: Pre-slaughter handling facilities which minimise stress; use of competent well trained, caring personnel; appropriate equipment which is fit for the purpose; an effective process which induces immediate unconsciousness and insensibility, or an induction to a period of unconsciousness without distress; and a guarantee of non-recovery from that process until death ensues. These determinants can be used as a checklist to assess the welfare potential of current whaling activities (see table on opposite page).

When assessing the welfare potential of whale killing

Assessment of the welfare potential of current whaling operations

Welfare determinant	Do whaling operations meet this requirement?
Stress-free handling	✗ The pursuit can impose severe physical and psychological stress on the hunted animal.
Well trained personnel	✗ The training process fails to mimic the many variables that affect the accurate shooting of a live whale at sea.
Appropriate equipment	✗ Whale killing methods are often not well adapted for the specific anatomical requirements of the species taken.
An effective process causing immediate unconsciousness	✗ Whales are often shot at distance from a moving ship on a moving sea in variable visibility. Poorly suited equipment and variable accuracy often leads to failure to achieve an instantaneous kill.
Guarantee of unconsciousness until death	✗ Poor instantaneous death rates. Protracted average times to death demonstrate the lack of effectiveness in achieving immediate unconsciousness or death in the hunted whale. Inadequate criteria for assessing insensibility in whales is likely to underestimate times to death and overestimate instantaneous death rates.

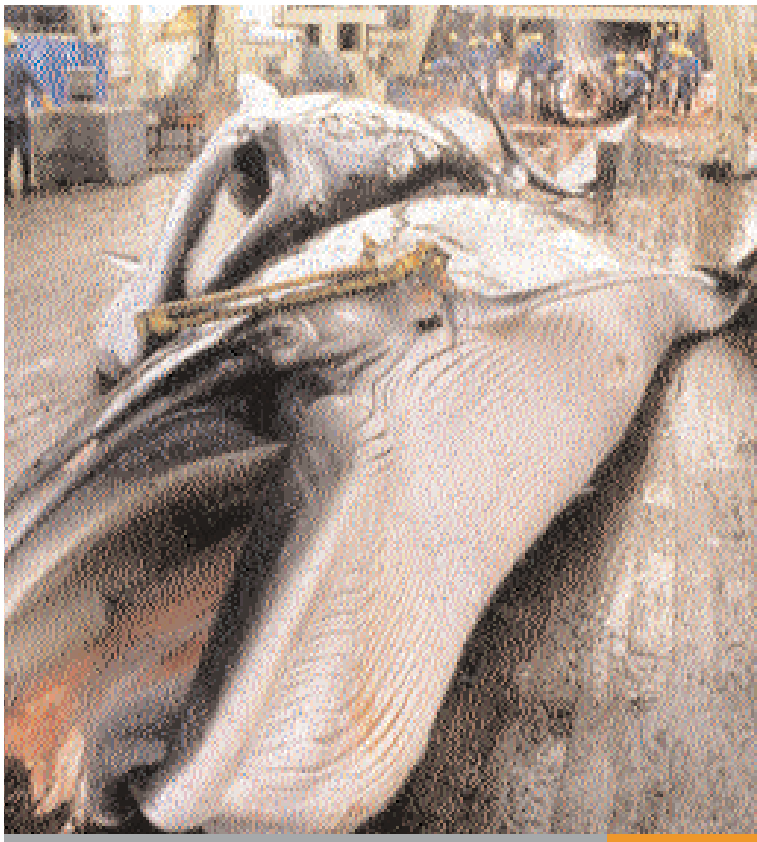
methods using these accepted principles of humane slaughter, it is clear that current whaling operations have a low welfare potential and are therefore likely to cause severe pain and suffering.

Time to die

Prolonged times to death, a stressful pursuit, and animals being struck and lost, indicate a major welfare problem for whales, of which we may not yet know the full extent. The physical adaptations of cetaceans to the marine environment have significant implications for their welfare. For example, being adapted to dive without oxygen intake for long periods, and the ability to lower heart rate by 50-80%, make it difficult to determine when a whale is dead. They may therefore survive and experience pain over a period significantly longer than suggested by the current IWC criteria for assessing death in whales. This begs the question, are some whales still alive when hauled onto the whaling ship for butchering?

Conclusion

Modern day whaling activities give rise to serious animal welfare concerns. A number of factors inherent in current whaling practices render it unlikely that truly humane standards could ever be achieved. On grounds of animal welfare alone, therefore, whaling operations should be halted.



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Minke whale on the flensing deck, with harpoon still embedded in the right side.

Time to watch whale welfare

The difficulties inherent in killing a large, partly submerged animal at sea give rise to severe welfare concerns. Yet, within the IWC, welfare issues remain largely unresolved. Now large-scale whaling appears to be on the brink of returning, with some nations wanting to see an end to the IWC ban on commercial whaling. A global coalition of over 140 animal welfare societies in more than 55 countries, led by the World Society for the Protection of Animals (WSPA), aims to ensure worldwide recognition that the whaling debate is not just about numbers and conservation, but also about animal suffering.

The global coalition calls on the International Whaling Commission to address fully the welfare concerns summarised in this document, and bring an immediate halt to commercial and research whaling operations.

What you can do

The global coalition is calling for universal recognition of the fact that, on welfare grounds alone, whaling operations should be halted.

- You can write to your government outlining your concerns for the welfare of whales and calling for all nations within the IWC to watch whale welfare by agreeing a permanent moratorium on welfare grounds.
- Visit our website: **www.whalewatch.org** for further details of how you can help whales and their welfare.

This is an adapted summary of *Troubled waters – A review of the welfare implications of modern whaling activities*, edited by P Brakes, A Butterworth, M Simmonds and P Lymbery, (Foreword by Sir David Attenborough) produced on behalf of a global coalition of animal welfare societies led by the World Society for the Protection of Animals (WSPA) (2004).

Copies of the full report are available from:
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Fact file

- About 1,400 large whales are killed each year despite a worldwide ban on commercial whaling.
- The main killing method is the penthrite grenade harpoon, designed to detonate inside the whale's body.
- The blast results in a wound at least 20 cm wide, tripling in size when the harpoon barbs extend to anchor inside the whale's body.
- Killing methods are often not adapted for the species killed. The same harpoons used for smaller minke whales are used on larger species.
- For commercial and scientific whale hunts, the estimated average time to death is over 2 minutes.
- Some whales take over an hour to die.
- Japan reported that nearly 60% of whales did not die rapidly or 'instantaneously' in 2002/2003. Norway reported about 20% for the same period.
- For practical reasons, records of 'instantaneous' death are likely to equate to up to 10 seconds after the harpoon strike.
- A recent scientific veterinary review concluded that the IWC criteria for assessing death or insensibility to pain in whales are inadequate.
- Whales are adapted for extended dives and can reduce blood flow to various organs and hold their breath for extended periods. This makes an accurate assessment of death in whales difficult.
- Sperm whales, for example, can dive more than 2 kilometres deep and can hold their breath for up to 2 hours.
- The stressful pursuit itself may lead to whales suffering or dying, even if they evade capture.
- In recent seasons, one Aboriginal Subsistence hunt recorded up to 26 whales struck and lost in a year.
- Over 180 rifle bullets were used on a single gray whale by one Aboriginal Subsistence hunt.
- Thousands of small whales, dolphins and porpoises are killed annually worldwide in hunting activities not addressed by the IWC.

This report is produced with the support and endorsement of the following organisations: **www.whalewatch.org**

WHALE | care for the wild | eia | JAPAN ANIMAL WELFARE SOCIETY | THE HUMANE SOCIETY OF THE UNITED STATES | RSPCA | WDCS | WSPA