

sustainable use of **whales as resources** and its growing economic value. The following year another resolution (1994-14) tasked the IWC Scientific Committee (IWC SC) to provide advice on whale-watching issues, including guidelines for whale watching. In 1996, a third resolution (1996-2) highlighted that the International Convention on the Regulation of **Whaling** empowered the IWC to consider the use, management and **conservation** of whales as resources, and thus reaffirmed the IWC's role in providing management advice on whale watching as a major economic use of **cetaceans**.

The IWC SC subsequently formed the Whale Watching Sub-committee. Activities conducted by this sub-committee have included the development of a set of whale-watching guidelines (IWC, 1996) and the compilation of a compendium of whale-watching regulations, laws and **codes of conduct** from around the world (IWC, 2005). In 2004, the IWC SC held a workshop on the science behind sustainable whale watching (IWC, 2004).

The objectives of the sub-committee are to provide management advice to ensure that whale watching does not **impact** the survival or ecology of whales, including patterns of habitat use, feeding, resting or reproduction. It has reviewed research on behavioural changes in cetaceans exposed to whale-watching boat traffic, the effect of **vessel approach distances** and speed, and the impacts of vessel noise. Other reviewed topics have included: (i) **dolphin** feeding stations; (ii) definitions of types of whale-watching activity, including '**whale ecotourism**'; (iii) **swim-with-whales tours**; (iv) high-speed whale-watching vessels; (v) the collection of scientific data from whale-watching vessels; and (vi) the promotion of long-term studies into the impacts of whale watching.

See also: International Whaling Commission (IWC).

#### **Related internet sources**

International Whaling Commission - General principles for whalewatching: <http://www.iwcoffice.org/conservation/wwguidelines.htm>

International Whaling Commission - Report of Workshop on the Science for Sustainable Whalewatching: [http://www.iwcoffice.org/\\_documents/sci\\_com/workshops/ww\\_workshop.pdf](http://www.iwcoffice.org/_documents/sci_com/workshops/ww_workshop.pdf)

International Whaling Commission - Whalewatching: <http://www.iwcoffice.org/conservation/whalewatching.htm>

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**Whaling** Humans have hunted coastal **whales** since prehistoric times, but commercial whaling began only in the middle of the 11th century, with French and Spanish Basque whaling operations targeting North Atlantic right whales, bowhead whales and Atlantic grey whales. In the 17th century, the Dutch, English, Danes, Germans and Americans also began commercial whaling operations, targeting the same species, although the Atlantic grey whale is believed to have become extinct during this period. Whales were being hunted primarily for their blubber (oil) and whalebone (baleen), the latter effectively being the 'plastic' of its time. In the 18th century, sperm whales also became a whaling target, as the fine oil derived from the spermaceti organ in this species' head was highly prized.

The methods used to catch these whales involved harpooning them from **rowing** boats then, after exhausting the animals, spearing them to death with lances. These methods limited the species that could be caught until the mid-19th century, when the invention of larger, steam-driven catching boats and cannon-fired, grenade-tipped **harpoons** allowed faster and larger whale species to be caught, such as blue, fin and sei. In 1925, the invention of large, ocean-going factory ships meant that whales could be processed at sea, and this opened up new, previously unexploited regions for whaling, such as **Antarctica**.

By 1931, in recognition of the fact that some whale species were in decline, whaling nations enacted the Convention on the Regulation of Whaling. In 1946, after WWII, these nations signed the International Convention on the Regulation of Whaling (ICRW), which formed the **International Whaling Commission (IWC)** that same year. Through the ICRW and the IWC, whaling bans were successively introduced for a variety of depleted species, culminating in 1982 with a moratorium on all commercial whaling (implemented in 1986). As a result of commercial whaling, over 2 million whales had been killed, with many species becoming vulnerable or endangered.



However, Norway still hunts northern minke whales (approximately 600 to 700 a year, with a proposal quota of 1052 animals for 2007) under an objection to the moratorium. Japan and **Iceland** also hunt whales (northern minke whales, and also Antarctic minke, Bryde's, sei, fin and sperm whales by Japan) via a provision in the ICRW that allows whales to be killed for scientific research. After scientific samples are taken, the whale meat is processed and sold in food markets. Moreover, in October 2006, Iceland, under a reservation to the IWC moratorium on whaling, started a commercial hunt for northern minke whales and fin whales.

The Icelandic programme is particularly controversial because of its potential **impacts on tourism**. **Whale watching** in Iceland was one of the fastest-growing sectors of tourism in the country: in 2002 it was estimated to have a direct value in excess of US\$12 million. However, after the announcement of Iceland's new whaling programme in April 2003, the Icelandic Tourist Industry Association issued a statement of concern about the impacts of this activity on Icelandic tourism. These concerns were supported with research that suggested that over 90% of whale watchers would not go

on a whale-watching trip to a country that hunted whales, and that nearly 80% would boycott taking a holiday in a whaling country altogether (Parsons and Rawles, 2003).

#### **Related internet source**

International Whaling Commission: <http://www.iwcoffice.org>

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**Wharf** A wharf is a landing place for ships. It can be built either along the **coastline** or as a structure out on the **water**. Some wharfs were turned into tourist magnets after having been upgraded with restaurants, souvenir shops and other tourist facilities – for example, Fisherman's Wharf in San Francisco (see Fig. W7).

Michael Lück

**Wheelhouse:** see **Bridge**

**Whirlpool** A whirlpool, as illustrated by Charybdis, which almost swallowed Homer's Ulysses, is **water** in rapid, violent, gyrating



**Fig. W7.** Fisherman's Wharf is one of San Francisco's (USA) most popular tourist attractions (photograph courtesy of J. Krausser).