



Capture and global trade of cetaceans

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Introduction

- There's an increasing concern about the impacts of anthropogenic activities on cetaceans.
- They face a high number of threats such as chemical pollution, physical and biological habitat degradation, climate change, trophic interactions with fisheries, ship strikes, acoustic disturbances, accidental killing in fishing gear as well as direct catches for human consumption and captive display.
- Cetaceans populations are susceptible to over-exploitation due to the current threats as well as past hunting.
- Their conservation status is reviewed by the International Union for the Conservation of Nature (IUCN) but it doesn't have any regulatory authority.
- The Convention on International Trade in Endangered Species (CITES) controls the international trade of cetaceans (live specimens, parts and derivatives) but it doesn't have authority over exploitation for domestic consumption.
- The International Whaling Commission only manages the hunting of large cetaceans. The exploitation of small cetaceans doesn't have any international management authority.

Objective

- Asses the impact of cetacean fisheries and the extent of this industry both in deliberate hunting and incidental capture.

Methods

- I consulted several sources of information, including reports from the International Whaling Commission (IWC), North Atlantic Marine Mammal Commission (NAMMCO), International Union for Conservation of Nature (IUCN), national management agencies (NOAA and ASCOBANS), and non-governmental organizations (WWF and IFAW).
- I also searched academic sources and checked the captive population of cetaceans using regional studbooks on several species.

Bibliography

- Cetabase. Tracking taiji – live capture and export data from drive fisheries. 2012.
- Fisher, S. and Reeves, R. 2005. The global trade in live cetaceans: Implications for conservation. *Journal of International Wildlife Law and Policy*, Vol 8:315-340.
- Entrup, N. and Cartledge, D. 1998. The dolphin traders. An investigation into the world-wide trade and export of Black Sea bottlenose dolphins (*Tursiops truncatus*) from the Ukraine and Russia, 1990-1997. A report for the Whale and Dolphin Conservation Society, U.K.
- Read, A.J., Drinker, P. and Northridge, S. 2006. Bycatch of Marine Mammals in U.S. and Global Fisheries. *Conservation Biology* 20: 163–169.
- Reeves, R., Randall, R., Smith, B., Crespo, E. 2003. Dolphins, Whales and Porpoises: 2002–2010 Conservation Action Plan for the World's Cetaceans. IUCN/SSC Cetacean Specialist Group. IUCN, Gland, Switzerland and Cambridge, UK.
- Robards, M. and Reeves, R. 2011. The global extent and character of marine mammal consumption by humans: 1970–2009. *Biological Conservation* 144(12): 2770-2786.

Results

Nation	Area	Dates	Fin	Sperm	Sei	Brydes	Minke	Total
Japan (pelagic)	NP	Jun-Aug11	0	1	96	50	49	196
Japan (coastal)	NP	May-Oct11	0	0	0	0	77	77
Japan (pelagic)	SH	Jan11-Mar12	1	0	0	0	266	267
Total	Total	Total	1	1	96	50	392	540

Fig (1): Scientific catches of baleen whales in 2011 – 2012 season by IWC

Results of the 2011–12 Auction of Whale Meat by the Institute of Cetacean Research

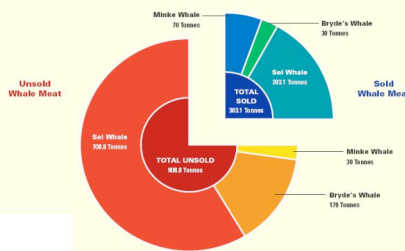


Fig (3): Auction of whale meat in Japan (2011 – 2012) by IFAW

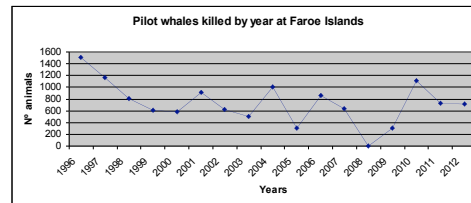


Fig (5): Pilot whales killed at Faroe islands by The Faroese Museum of Natural History



Fig (7): Harbor porpoise caught by fishing gear.



Fig (2): Fin whale hunted for scientific purposes by Japan.

Month of import	Whale meat HS Code '02084000'		Marine mammal fat/oil and fractions thereof (blubber) HS Code '150430000'		Total whale product		Total value	
	Kilos	Value (1000 yen)	Kilos	Value (1000 yen)	Kilos	(1000 yen)	US\$	Euro
2008 - October	66,573	120,651	0	0	66,573	120,651	1,137,653	809,329
2008 - December	0	0	13,866	51,605	13,866	51,605	550,846	436,073
2010 - June	33,405	32,460	68,802	163,257	102,207	195,717	2,146,783	1,749,940
2010 - July	21,600	21,964	64,740	95,525	86,340	117,489	1,344,347	1,078,825
2010 - September	109,104	100,504	19,490	48,725	128,594	149,229	1,766,237	1,378,382
2010 - November	255,000	322,312	0	0	255,000	322,312	3,995,375	2,877,401
2011 - January	86,400	72,378	43,173	77,552	129,573	149,930	1,847,566	1,379,759
2011 - May	64,425	131,083	79,892	105,825	144,317	236,908	2,922,599	2,026,066
TOTAL	636,507	801,352	289,963	542,489	926,470	1,343,841	\$15,711,406	€11,735,776

Source: <http://www.oecd.org/dataoecd/10/10/44701911.pdf> (Currency conversions use historical currency rates.)

Fig (4): Imported whale products from Iceland to Japan.



Fig (6): Pilot whales hunted in Faroe Islands

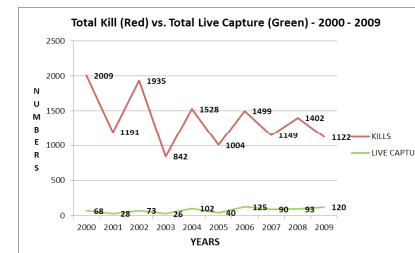


Fig (8): Small cetaceans hunted in Japan by cetabase

Discussion

- The IWC imposed an indefinite moratorium on commercial whale hunting in 1986 but there are countries that still hunt under scientific permits and aboriginal or subsistence use.
- Almost 2,000 baleen whales are now harvested each year — 400 to 1,000 for scientific purposes by Japan (Fig.1 and 2), Iceland and Korea, 300 to 600 by countries that object to the ban (Norway and Iceland), and around 350 for subsistence (mainly by Denmark, Russia and the United States).
- The meat of the harvested whales taken by scientific purposes is auctioned to finance this practice. In the 2011 – 2012 auction (Fig. 3) almost three quarters of whale meat went unsold (908,8 tons).
- The Icelandic whaling industry is trading legally and illegally with countries such as Japan (Fig. 4), Latvia, Faroe island, Norway and Belarus. Icelandic whalers have killed 126 fin whales and 81 minke whales in 2009, and 148 fin whales and 60 minke whales in 2010.
- Small whales, dolphins and porpoises are also hunted, for both subsistence and commercial use. In the Faroes, harvesting of pilot whales (Fig. 6) has been an important source of food for their inhabitants. The annual average catch of pilot whales is around 800 whales, with large fluctuations in catches from year to year (Fig. 5). With an average annual catch of fewer than 1000 animals, representing less than 1% of the total estimated pilot whale stock, it is widely recognized that pilot whale catches in the Faroe Islands are sustainable.
- Levels of PCB's, cadmium and mercury are relatively high in the blubber and meat of pilot whales taken in the Faroes (IWC, 1998a) which has raised doubts of their safety for human consumption.
- Japan hunts between 600 to 2000 small cetaceans each season mostly at Taiji.
- Small cetaceans are popular performers in commercial captive display facilities. In some countries, cetacean display facilities have been phased out or prohibited. However, international trade of wild caught dolphins still represents a significant threat to some populations, mainly in the North Pacific (Japan), South Pacific (Solomon Islands), the Caribbean (Cuba) and the Black sea (Russia and Ukraine). The global demand for live-caught bottlenose dolphins has increased in recent decades (Fisher and Reeves, 2005). Japan is the country with the highest capture rates for public display but it only represents 1% of all small cetacean captured in Japan (Fig. 8). Cuban dolphins are exported to South and Central America as well as Europe. Japan exports mostly to other Asian countries like China and Korea and also to Middle East countries like Iran and Turkey.
- Large numbers of small cetaceans become entangled (figure 7) in many gear types, but the largest problem remains with gill nets, drift nets and purse-seine nets. The continued use of gill nets endangers an increasing number of coastal and river species. Critically endangered dolphins like the Baiji and the Vaquita are very affected by nets. A total of 92 species of marine mammals are eaten by humans in 125 countries several acquired by by-catch.

Conclusions

- The impact of cetaceans fisheries globally is unknown because the specific population of cetaceans hasn't been assessed.
- No single multilateral environmental agreement addresses all the direct and indirect threats to cetaceans, covers all relevant waters or all species of cetaceans.
- The extent of the cetacean industry is worldwide but it has a major impact on Asia mostly caused by Japan and also in Europe.
- The global demand for captive small cetaceans has increased and it's becoming a serious threat to coastal populations which are already affected by other causes.
- Fishery by-catch is a serious and widespread threat to cetacean populations. There is an urgent need to develop alternative fishing gear and practices to lower the number of animals killed by fishing gear.