

# THE LEGACY OF WHALING

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## **Abstract:**

Between 1874 and 1997 2,488,488 whales were killed in order to sustain the commercial whaling activity. The early whale naturalists were whaler who detailed their observations when aboard of the open-boats chasing their preys, they gave the first records and understanding about the behaviour and peculiarities of whales. With the modern commercial whaling industry the biology of cetaceans was less explored unless if contributed to an increase in the hunt numbers. Today there is no need for whaling in name of science since the technology is quite advanced and proportionate a strong source of data better than whaling could ever give. However the controversy surrounding whaling and its parallel activities still subsists leading to big discussions and conflict of interest between pro and anti-whaling parties.

## **Introduction:**

The origins of whaling are unrecorded and can be traced at least back to the Stone Age. Research and excavations clearly show that whales were taken for subsistence use. The activity of whaling as a large-scale commercial activity was probably initiated by the Basques from the coasts of France and Spain. By the year of 1200, they were hunting whales in the Bay of Biscay and had found by then a market for almost every part of the whale's carcass (Mann *et al*, 2000; Carwardine *et al*, 2002).



By the eighteenth and nineteenth century whaling was a strong and important economic activity; and the whalers like predators of any species, had an extensive knowledge about the habits of their quarry. Some early whalers even were self-styled naturalist who wrote about whales as a professional and intellectual interest. One of the most important contributions of these whalers was made by Charles M. Scammon (1874) – to *the Proceedings of the Academy of Natural Sciences of*

*Philadelphia* and *The American Naturalist* – who published a monumental volume, entitled *The Marine Mammals of the North-western Coast of North America*. Of his book Scammon (1874:11) said: “The chief object of this work is to give as correct figures of the different species of marine mammals . . . as could be obtained from a careful study of them from life and numerous measurements after death . . . It is also my aim to give as full an account of these habits as practicable.” Scammon’s book was praised by its contemporaries as one of the only naturalist who combined his scientific knowledge with the experience of a whaler” could have written (Mann *et al*, 2000; Whitehead *et al*, 1996).

“The experience of a whaler” predisposed whalers to be best informed about those behavioural patterns likely to affect the outcome of the hunt. For example whalers’ knowledge of maternal behaviour often condemned mothers and calves as easy targets. Whaler Nordhoff (1895) proclaimed the humpback as “the most stupid of whales [because it] clings obstinately to the [calving] place has once chosen . . . [a fact which is] taken advantage of by whalers, and great numbers of the old fish are slain annually.” Also whalers’ recognition of strong bonds between individuals of certain species such as the sperm whale enabled the capture of entire social groups (Mann *et al*, 2000)

However whalers at that time even knowing whale behaviour with a certain degree of accuracy fell to interpret it in a depth manner and were conducted to inevitable bias mainly because they were less familiar with those aspects of social behaviour that did not directly influence hunting success (Matthews, 1946).

In the 1860’s with the invention of the harpoon gun and explosive harpoon head by the Norwegian Svend Foyn whaling entered a new era and became a devastating and incredible huge marine enterprise. However it was the “development of the floating factory in 1903 and especially the factory ship stern ramp in 1925 . . . which made expansion into all Antarctic seas possible” (McHugh, 1974). These technological advances made possible to hunt species that before were away from the range of whalers such as Blue, Fin, Sei, Bryde’s, and Minke whales.

However, “the rapid and more intensive catching methods using noisy propeller-driven catchers gave less time and opportunity for observations of undisturbed behaviour . . . For a long time after the end of open-boat whaling, therefore first-hand observations and new data were slow in coming.” (Best, 1979).

Although mechanized techniques reduced opportunities for first-hand observation, modern whaling did provide an incentive to better understand the social behaviour and social structure of whales: “effective management of heavily exploited wild species obviously requires that harvesting procedures be based on accurate knowledge of their natural history.” (Bartholomew, 1974).

Because of the rapid depletion of the whale stocks, the International Whaling Commission (IWC) was created in Washington on the 2<sup>nd</sup> of December of 1946. Its early role in the whaling issue was merely the management of the whale stocks between the countries who freely joined the IWC and the scientific base for its regulations and decisions were poor. Bartholomew described a picture of the role of science in the early IWC: unfortunately, despising “the large body of scientific data about the biology of whales, almost the only aspect of this knowledge that has been used by whaling industry is information on the abundance of whales and where they can be found”. Economy had a primordial role in the early IWC with the whaling

management being in “blue whale units” (BWU) rather than individuals; and it was defined on the basis of the amounts of oil produced from them. So, 1 blue whale was considered equivalent to 2 fin whales, or to 2.5 humpbacks, or to 6 sei whales. However this was a terrible idea for conservation and only later on a scientific committee was formed in order to manage the world’s whale stock in a more sensible, ethical, and scientific way. Because of the excessive decline in the whale stock the IWC had to take further decisions and institute a moratorium for whale hunt. Nevertheless some countries are still allowed to take a certain number of whales each year for research purposes (Gambell, 1998).

Nowadays the IWC has 57 member countries and the majority in anti-whaling; it has a full-time secretariat in Cambridge (England) and is composed by 3 main committees: Technical, Scientific, and Finance and Administration (Gambell, 1998).

### Results:

Apart from the hunt another economic activity was running parallel; the hunt of the so called small cetaceans. It is a controversial subject discussed in greater detail in the discussion, and why the focus of the whaling activity in this document is centred in the major group of whales hunted for economic purposes. Table 1.0 shows the number of catches per year from 1874 to 1997.

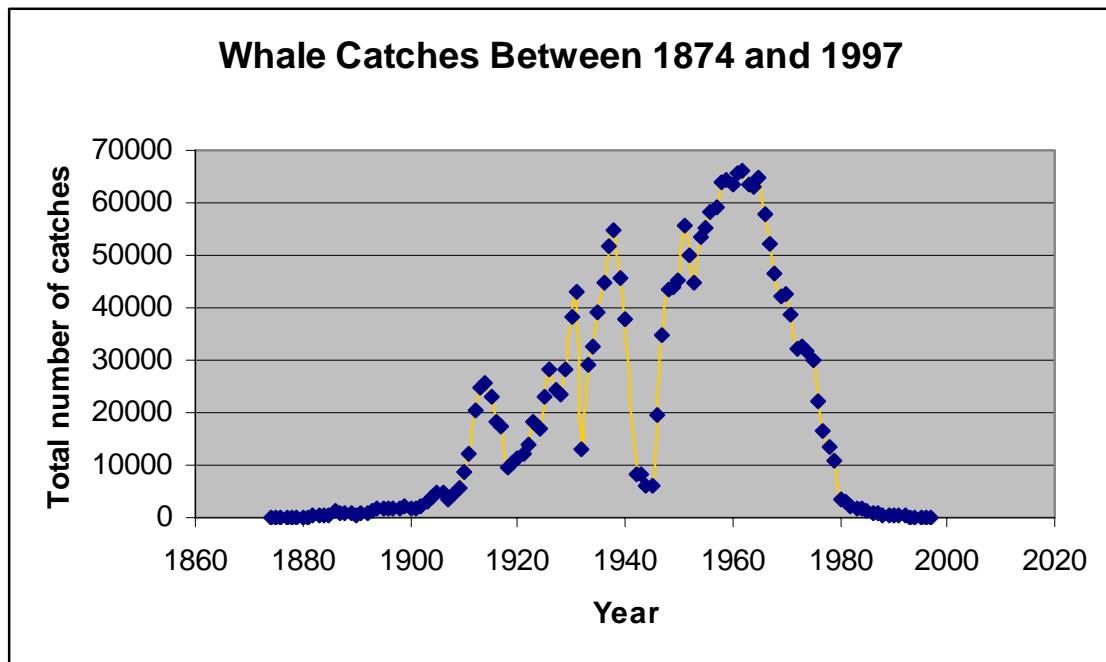
Table 1.0 – Officially reported catches of “Great Whales” (excluding minke whales) by Modern Whaling as recorded in the International Whaling Statistics.

Year	Total catch	Year	Total catch	Year	Total catch	Year	Total catch
1874	51	1905	4,931	1936	44,896	1968	46,645
1875	39	1906	4,592	1937	51,586	1969	42,126
1876	45	1907	3,519	1938	54,902	1970	42,480
1877	36	1908	4,490	1939	45,783	1971	38,771
1878	36	1909	5,509	1940	37,709	1972	32,133
1879	116	1910	8,490	1942	8,072	1973	32,605
1880	130	1911	12,301	1943	8,346	1974	31,905
1881	163	1912	20,408	1944	6,197	1975	29,961
1882	283	1913	24,838	1945	5,906	1976	22,049
1883	351	1914	25,673	1946	19,384	1977	16,309
1884	569	1915	22,980	1947	34,820	1978	13,638
1885	485	1916	18,320	1948	43,382	1979	10,668
1886	1,423	1917	17,542	1949	44,002	1980	3,542
1887	986	1918	9,468	1950	45,093	1981	2,928
1888	925	1919	10,242	1951	55,812	1982	2,050
1889	709	1920	11,369	1952	49,819	1983	1,683
1890	585	1921	12,174	1953	44,988	1984	1,743
1891	799	1922	13,940	1954	53,615	1985	1,202
1892	910	1923	18,120	1955	55,041	1986	843
1893	1,330	1924	16,839	1956	58,062	1987	817
1894	1,607	1925	23,253	1957	58,990	1988	266
1895	1,528	1926	28,240	1958	64,075	1989	287
1896	1,526	1927	24,215	1959	64,373	1990	225
1897	1,925	1928	23,593	1960	63,489	1991	233

Year	Total catch	Year	Total catch	Year	Total catch	Year	Total catch
1898	1,791	1929	28,115	1961	65,641	1992	275
1899	1,993	1930	38,300	1962	66,090	1993	67
1900	1,541	1931	43,130	1963	63,579	1994	108
1901	1,635	1932	12,992	1964	63,001	1995	157
1902	2,204	1933	28,915	1965	64,680	1996	104
1903	3,065	1934	32,586	1966	57,891	1997	158
1904	3,867	1935	39,311	1967	52,238		

By roughly analysing the data we can clearly see that the whaling industry had 3 major peaks; one in 1931 with 43,130 whales taken, another in 1951 with a catch of 55,812 whales and another one in 1962 with an incredible number of 66,090 after which the catch numbers start to decline. In 123 years 2,488,488 whales were registered as cached by the whaling activities. Graph 1.0 shows the evolution of the catches by years.

Graph 1.0 – Whale catch numbers against year of catch (from 1874 to 1997).



**Discussion:**

Whaling is still a hot topic nowadays which generates enthusiastic and sometimes “inflammable” discussions between whaling and anti-whaling countries or even between scientists. The research carried out shows that the whale stocks have been depleted very quickly and that to restore it at a similar level as it was in the pre-commercial-whaling statistics will be very difficult. So, the question is whether if it is whaling as science a good resource of information and advantageous to gain more knowledge about the complex order Cetacea, or it is just a curtain to keep commercial whaling activity still rolling?

Whaling as science is sometimes regarded as the “shoot first, ask questions later; but a major contribution of modern whaling to the understanding of behaviour comes from a paradoxical source: much of what is known about social behaviour and social structure of large cetaceans has been inferred from dead bodies. Making deductions about social structure and behaviour based on studies of cadavers was not unique cetacean research but it resembles the work of palaeontologists, who make inferences about the behaviour and social structure of never-seen, extinct animals based on fossils (Mann *et al*, 2000).

Today is believed that “the unnecessary reliance on lethal sampling is a major issue in this debate. The point is not that lethal sampling cannot contribute anything to knowledge of whale populations, or even that there are no data that cannot be obtained by other means; one can always find scientific value in carcasses. The issue is that lethal methods are not required to obtain information needed for population assessment. Today, so little of any significance to IWC management can be obtained only from whaling catches that it is impossible to justify killing animals on this basis, particularly given the many thousands of whaling catch samples already analysed or archived. Moreover, non-lethal techniques often provide better data at less cost, to both budget and animals. For example, population structure is most reliably studied with genetic analysis, which is routinely conducted using tissue from skin biopsies (Palsbøll *et al*.1997); lethal sampling is not required for this work. Furthermore, because biopsies can be taken and processed quickly (unlike catches), a biopsy program would substantially increase sample size and analytical power.

Small cetaceans are another issue; the IWC has no legitimacy to manage the stocks of small cetaceans, that is, dolphins. This is because on the International Convention for the Regulation of Whaling there is no definition for Cetacean and therefore its understood that whaling on regards the 13 species of great whales. So despising the efforts of the Scientific Committee (SC) of the IWC to regulate catch number of small cetaceans the country is free to take the perspective of the SC or not. For this reason the current document is only focused on the whale species that were more heavily hunted by whalers in the peak of the whaling industry.

### **Conclusion:**

The high number of whales killed during the commercial whaling era has depleted the stock of whale populations at an alarming rate leaving it impossible for a natural regenerative process of those same populations. IWC has institute a moratorium for this purpose, although some countries have some permits that makes possible for them to catch a certain number of whales for research purposes only, however it is not clear if these countries are using these permits to support a commercial whaling industry. It is believed by the cetologists that whaling is no more a good ethic way of carry out research in cetaceans and there are numerous possibilities to do the same studies using live individuals in the field and have much more data at a low cost. Whaling is no more a sustainable activity and it is endangering some species of extinction such as the right-whale. For these reasons it is reasonable to assume that research must be carried out at the highest standards possible avoiding all conflicts of interest.

**Document Statistics:**

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