

Freedom for whales

The great whales need protection from man.
Ray Gambell describes the efforts to provide it

THE control of whaling by the International Whaling Commission (IWC), which regulates about 90% of whaling activity throughout the world, has changed very considerably in recent years. There is now a long term management policy aimed at bringing all whale stocks to their most productive levels. Stocks which have been reduced below these levels in the past are given total protection from hunting so that they can rebuild at the fastest possible rate. All management decisions are now based only on the best scientific advice available on the condition and sustainable harvesting capacities of the stocks. Previously the economic arguments of the whaling industry weighed very heavily in decisions taken on the number of whales which were allowed to be caught and the stocks were successively overtaxed to varying degrees.

This major change in management policy started in 1965 but developed more rapidly after the 1972 UN Conference on the Human Environment in Stockholm at which a three-part resolution on whaling was adopted. It called for the strengthening of the IWC, an increase in international research on whales, and a ten-year moratorium on commercial whaling.

Ever since the IWC was set up by the International Convention for the Regulation of Whaling, signed in 1946, the secretariat had been provided on a part time basis by the UK Ministry of Agriculture, Fisheries and Food. In recent years it became clear that the part-time secretariat had difficulty in meeting the increasing demands placed upon it and so in 1976 the Commission established a full-time secretariat headed by an experienced whale biologist. The offices of the Commission have now moved from London to Cambridge, where there are a number of research institutions concerned with whales and other marine mammals. The secretariat is now able to devote itself completely to the development of the Commission's activities, including publicity, publications and the general servicing of the Commission's day-to-day requirements.

International research

A great deal of current knowledge of the biology, life history and status of the stocks of the great whales has been gained with the generous cooperation

of the whaling industry itself. Biologists have been able to collect and analyse materials from the whale carcasses during normal commercial operations and facilities for sighting and marking programmes, which would not otherwise have been undertaken have been provided. Inevitably, with the reduction of the whaling industry in recent years, the scope for research based on commercial operations has declined. This is particularly noticeable in terms of the sighting areas covered by the fleets, which now provide the only records of the protected species.

Whale research on an adequate scale for proper global management is very expensive. In 1975 the Scientific Committee of the IWC put forward detailed proposals known as the International Decade of Cetacean Research (IDCR), for research on the distribution and status of the stocks of whales in the southern hemisphere, North Pacific, and North Atlantic Oceans. They have been submitted to the United Nations Environment Programme as one possible funding agency. It is estimated that the first year of this ten-year programme will cost \$2.4 million at 1974 prices and, so far there has been no progress in obtaining funding of this magnitude. The delay has been partly brought about by a number of bodies awaiting the research proposals from the Food and Agriculture Organisation (FAO) Mammals in the Sea Scientific Consultation held in Bergen in September 1976.

In the meantime the IWC has set up its own voluntary research fund. Only a few contributions have been received so far, but it is hoped that a number of the IDCR proposals can be funded and implemented through this research fund. In addition, of course, the various national research groups continue their own programmes.

When the IWC considered the call for a total moratorium on commercial whaling it accepted the advice of its Scientific Committee that such action could not be justified scientifically since prudent management required regulation of each stock individually. Nevertheless, the Commission did formulate and adopt precise guidelines for the control of whaling based on the concept of Maximum Sustainable Yield (MSY). All stocks of whales are now classified into one of three categories according to the advice of the Scientific Committee:

- Initial Management Stocks, which may be reduced in a controlled manner

to achieve MSY levels or optimum levels as these are determined.

- Sustained Management Stocks which will be maintained at or near MSY levels and then at optimum levels as these are determined.

- Protection Stocks, which are below the level of sustained management stocks and will be fully protected.

All whale stocks have a natural capacity for increase and a natural rate of mortality. At their initial level these two factors balance one another so that the stock remains more or less in equilibrium. As the stock is reduced the pregnancy rate rises, the age at which the whales start to reproduce falls and recruitment increases. At some particular stock level the surplus of recruits over natural deaths reaches a maximum—the MSY—which can be safely harvested without reducing the stock size. At stock sizes below this level the surplus of recruits over natural mortalities declines until another equilibrium position is reached at very small stock levels.

The Scientific Committee has responsibility for identifying stocks of all species of large whales and classifying them according to these categories. The classification is revised annually. The size of catch which may be taken from the stocks is then determined more or less from automatic rules. If a stock is to be judged to be substantially smaller than the MSY level total protection is declared. If it is larger, catching is permitted under quotas which should allow a controlled reduction of the stock towards the MSY level. If the stock is already near the MSY level annual quotas are set with the intention of maintaining the stock at about that size. The rules for determining catch limits allow for possible errors in MSY estimates. For example, no more than 90% of the estimated MSY can be taken whatever the classification of the stocks. This gives a margin of 30% either way in the estimation of the MSY stock level with a symmetrical yield curve. There are also supplementary rules for determining the rates of catch when there is insufficient knowledge to assess the status of the stock, especially when exploitation has only just begun, and also when a stock has apparently been exploited at a sustainable level for many years.

Scientific advice

Despite the advances made by the IWC in bringing its house into order in recent years, there is still considerable public interest and debate over the way in which the whale stocks are harvested. One area of criticism concerns the activities of the Scientific Committee itself. There is much discussion

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over the concept of MSY as a basis for management. The Scientific Committee is very much aware of this problem and is open to any proposals which would help it in its task of assessing, classifying and offering advice on the regulation of the whale stocks. For the moment, however, the MSY concept is one which does give practical guidelines for the management of the whaling industry which can be kept under constant review. It also allows for new factors to be introduced to develop the idea of optimum stock levels.

The International Union for the Conservation of Nature and Natural Resources has called for the replacement of the MSY concept by more ecologically based criteria but unfortunately, it is not yet possible to quantify such a basis for management. Discussions are going on between the IWC Scientific Committee and the IUCN with a view to developing these ideas.

A further source of difficulty is the extent to which the Scientific Committee's activities and discussions are available for public scrutiny. Because it meets in the two weeks immediately preceding the Commission's Annual Meeting held in June every year, there is no possibility of publishing the reports of its work before the meeting. This has happened because the Committee must have the latest catch statistics from the Antarctic whaling season which finishes only a few weeks earlier. However, all the scientific papers contributing to management decisions are available immediately after the meeting, and most of them are published subsequently in the Commission's Annual Report.

The Commission has been criticised

as a club for exploiters but the majority of the sixteen member nations do not catch whales commercially. Also, any government may adhere to the 1946 Convention and so play a full role in the conservation and management of the whale stocks. When the Commission was first set up it recognised that specialised agencies related to the United Nations would also be concerned with the conservation and development of whale fisheries. It therefore agreed to decide within two years of the Convention's enforcement whether it too should become a UN agency. In 1950 it resolved that it should remain an independent body, but at the same time decided to maintain its close association with the FAO. The question of IWC affiliation to the UN has not since been raised within the Commission.

The 1946 Convention is currently being reviewed and a meeting is being planned of plenipotentiaries from all significant whaling countries or countries with stocks of cetaceans off their coasts to elaborate a new cetacean convention. It is very important that all whaling should be under unified international control, for if unregulated catching goes on there is little prospect for the survival of whales as a valuable resource and component of the marine ecosystem.

Although only some 10% of the world's whaling is carried out by nations which are not members of the IWC, their catch represents all or a major part of the whaling activity in certain parts of the world. For example, off the coasts of Chile and Peru these two nations are the only countries actively whaling, while the Spanish and

Portuguese catches in the temperate Atlantic are the only ones in that area. In addition, catches by Korea and a Somali registered vessel overlap with IWC members' operations. The IWC has noted that these activities are seriously weakening its conservation measures and it has repeatedly called on these countries to adhere to the 1946 Convention. So far, diplomatic approaches by individual governments and by the United Nations and various of its specialised agencies have met with a negative response.

International inspection

The Commission's regulations are enforced by whaling inspectors appointed by the flag nation of each catching operation. They report on any infractions and carry out prosecutions through their national jurisdiction. The Commission has also established an International Observer Scheme, whereby observers are exchanged between nations which are in or operate within the same geographical areas. Thus, Japan and the USSR exchange observers on their factory ships in the Antarctic and in the North Pacific. Land station operations in Japan receive observers from the United States, and the Icelandic whaling station has a Canadian or Norwegian observer. A similar exchange is planned between Australia and Brazil, the two Southern Hemisphere land station operations with the IWC.

The observers report directly to the Commission on the manner in which the whaling operations and the inspection schemes are carried out and check that the various regulations governing whaling activities are properly implemented. It has been argued that such an interchange between nations with common interests is not sufficiently independent and that observers from non-whaling nations should be placed at the various whaling factories. This is a matter for international agreement but it must be recognised that the present observer schemes are a significant step forward in the control of the whaling industry on a global scale.

The history of the regulation of whaling this century is generally one of failure. A number of stocks have been seriously depleted in every phase of whaling activity, for whales can be caught more quickly than they are able to reproduce. Nevertheless, the recent advances in the organisation and actions of the IWC make the future look more hopeful. Although there are still many difficulties and many problems of a scientific and administrative nature the present direction of the IWC and its stated intention to manage the stocks in a responsible fashion give cause for future optimism. □

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