Whaling as Science


In an open letter published last year in the New York Times, 21 distinguished scientists (including three Nobel laureates) criticized Japan’s program of scientific research whaling, noting its poor design and unjustified reliance upon lethal sampling. In a recent Forum article in BioScience, Aron, Burke, and Freeman (2002) castigate the letter’s signers and accuse them of meddling in political issues without sufficient knowledge of the science involved in those issues.

As members of the Scientific Committee (SC) of the International Whaling Commission (IWC), we can attest that the signers of the open letter correctly summarized criticisms made by researchers very familiar with Japanese scientific whaling. One such critique (Clapham et al. 2002) was presented and discussed last year at a meeting of the SC. It was authored by SC members representing a broad range of countries, yet mention of this paper and others like it was absent from Aron and his colleagues’ commentary, betraying a selectiveness that pervades their article. The authors quote lines from SC reports to support their contention that the IWC regards scientific whaling as valuable, but they fail to acknowledge many other sections that are highly critical of the Japanese program (IWC 1998, 2001, 2003).

Japan’s scientific whaling program in the North Pacific (JARPN) was originally described as a feasibility study, but it included no performance measures by which to judge its success or failure. To no one’s surprise, it was judged “successful” by Japan, and the full program (JARPN II) began in 2002. JARPN II involves annual catches of 150 minke whales, 50 Bryde’s whales, 10 sperm whales, and 50 sei whales. It is described as a “long-term research programme of undetermined duration” and gives as its primary objective studies of “feeding ecology” and, secondarily, investigations of “environmental pollutants... and stock structure” (Government of Japan 2002).

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Regarding the primary objective, we note that while the IWC has developed a revised management procedure (RMP) for future management of commercial whaling, it is not ecosystem based. IWC does not employ ecosystem-based management; consequently, none of the information derived from the feeding ecology study is relevant to the manner in which IWC assesses and manages whale populations.

Other fundamental problems of the JARPN II study include a lack of testable hypotheses or performance measures; inappropriate use of ecosystem models and failure to include sensitivity analyses and key data on other ecosystem components; selective or inappropriate use of data or methods in estimating whale abundance; unnecessary reliance on lethal sampling; inappropriate geographic sampling for population structure analysis; and unrealistic assessments of the effect of the proposed catches on the populations concerned (some of which may be depleted, and for which no adequate assessment of current status has been undertaken). For full details, see Clapham and colleagues (2002), available at www.nefsc.noaa.gov/psb/pubs/jarpn2.pdf.

Overall, JARPN II presumes, on an almost a priori basis, that whales (not humans) are primarily responsible for worldwide declines in fish stocks and ignores the immense complexities inherent in marine ecosystems. In short, it is difficult to escape the conclusion that JARPN II exists to “demonstrate”—all data to the contrary notwithstanding—that whales eat too much fish and therefore should be culled by more whaling. Significantly, when the IWC held a workshop last year to discuss modeling approaches to this issue, the Government of Japan refused to send any of its scientists.

This obstructiveness is not uncommon. Japan has also refused—contrary to common practice in other international management contexts—to allow independent analysis of its raw data. Despite repeated formal requests, obtaining anything more than data summaries, which are unsuitable for analysis, has to date been impossible. Furthermore, Japan has refused to...