A whale of a project

The stalled negotiations on the future of the International Whaling Commission have highlighted the extent to which 'scientific research' continues to be used as a smokescreen for slaughter on the high seas.

When, as a scientist, I read in the popular press that Japan has been allowed to cull up to 1,000 minke whales per year since 1988 for the purpose of scientific research, I naturally assume that this has led to a large number of scholarly publications from Japanese universities or government researchers in *Nature*, *Science*, etc., reporting landmark discoveries on the development, population genetics, behaviour or evolution of *Balaenoptera acutorostrata*. I searched in vain for such papers; although it is true that the scientists of the Institute for Cetacean Research (ICR) publish a handful of articles each year in more specialized organs, such as the *Japanese Journal of Zoo Wildlife and Medicine*. That's about 100 whales per publication. Perhaps, someone is engaged in a long-term project to purify and crystallize a low-abundance mitochondrial DNA helicase from 6 kilotons of fresh minke whale tissue. Or perhaps, the minke's 700 litres of blood provide a unique source material that enables proteomic analysis of memory B cells of a defined specificity. However, I could find no trace of any such projects in the database of any public research organization in Japan, Iceland, Norway or any other country.

Could all such research be the preserve of the private sector? The trick of counting the R&D of commercial companies towards the sum total of the national effort is well known in the Scandinavian democracies. Cloning of the humpback whale on a massive scale might create new opportunities for tourism, even for private hunting on the high seas. A successful Southern Right surrogacy farm could enable Norwegian companies to repeat indefinitely their massacres of a century ago in the Southern Ocean, bringing untold benefits in terms of new cosmetics,

pet foods and renewable fuels. Not to mention the opportunity for a revival of the Victorian corset. If any such endeavour is in progress, it remains a commercial secret why so little of the raw material is actually required for the work to proceed, given that most of it turns up in the supermarkets and restaurants of Kyoto, Osaka, Yokohama, etc.

Indigenous peoples—entitled by the existing international convention to hunt whales as part of their traditional subsistence culture—flout the spirit of the ban in a similar way. Much of the whale meat hunted in western Greenland ends up on the dinner plates of tourists. At least I have the excuse of being vegetarian for refusing such local delicacies on my trips in the North. I once asked a restaurateur in Ilulissat why they sacrifice such a substantial part of their nominal quota just to feed visitors from the South. 'Oh, there is no quota', he innocently replied. Actually he was wrong, but the quotas are so generous that in practice they are irrelevant and, in fact, apply to the species globally, not to any particular indigenous group hunting them.

For scientific research, quotas are similarly liberal and, in fact, self-awarded. The plain truth is that this 'research' is bogus. It is a cover for an activity that the rest of the world considers reprehensible. We would not tolerate an exception to the laws criminalizing child pornography on the grounds that a researcher was studying the impact of images of naked children on human sexuality. We would not tolerate a terrorist group purchasing radioactive materials to test scientifically the effects of detonating a dirty bomb in the New York subway. Admittedly, we do allow the US Department of Defense to carry out research on the weaponization of *Bacillus anthracis*, which led to tragedy in 2001.

For me, the most difficult issue here is not the slaughter of hundreds of majestic mammals to satisfy the lust of the human palate; that is arguably much less degrading than rearing billions of chickens in cramped

cages, and could perhaps even be managed in an ecologically responsible manner. For me, the issue is that the whole enterprise is being carried out in my name. To the public, the terms 'scientific researcher' and 'whale murderer' have become synonymous. If some countries are allowed to practice whale hunting while others voluntarily surrender this right, then the real reason behind the exception should be stated in the treaty. It has nothing to do with scientific research. This exception is allowed because the rest of the world is too cowardly to enact a global ban and enforce it by military means, or even to coerce compliance by imposing meaningful economic sanctions on the otherwise valuable trading nations concerned. Scientists are being made the fall guys because of Western dependency on Norwegian oil and Icelandic fish and aluminium, plus a possible lingering sense of guilt over Hiroshima and Nagasaki.

Whether or not the ongoing negotiations succeed, the slanderous misrepresentation of scientists will probably continue for another generation, unless scientists themselves are prepared to take a stand against it. In this case, I'll be sure to have my application ready to submit to the ICR to support my proposed test of the mitochondrial theory of ageing by genetically engineering OXPHOS bypass enzymes into the *Balaenoptera* genome. Since this genus seems to be already outside the norms of environmental protection, releasing into the wild genetically modified whales that might exhibit stress-resistance, protection from neuro-degeneration and enhanced longevity can surely be permitted. Doing so might even help to balance population losses due to the 'research' of others. Or perhaps we should just engineer CFP (cyan fluorescent protein) into blue whales to make them even easier to hunt and more beautiful for tourists to admire before they are killed.

Howy Jacobs

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