

sports, has now been published. The data presented have been derived from the literature and contributions from, and extensive consultations with professional specialists. Some fascinating if unusual 'facts' are put forward: humans driving cars probably kill up to 220 million vertebrates each year; domestic cats probably account for some 210 million more. These figures are in contrast to the small number of animals taken by falconers (c 60,000) and hunts (c 35,000 foxes, hares or deer). It is also argued that the use of gazehounds (ie greyhounds, lurchers, whippets) and raptors is probably the most humane method of killing wild animals in that the catch-to-kill time is short, and the prey are either caught and quickly killed or they escape largely uninjured.

All this may sound as special pleading on behalf of certain field sports but there can be little doubt that this report presents some most interesting, often unexpected and, at times, disturbing facts and speculations about the suffering caused by the killing of animals for sport or in pest control.

Aspects of Killing Wild Animals in Britain. N C Fox (1995). The Hawk Board: Stroud. 12pp. Paperback. Obtainable from the publishers, phone or fax 01267-233864. Price £2.

Research ethics

It is probably true that most of the general public would confess to a general lack of understanding of biotechnology, and many would not be clear as to what techniques are included in the term. This is unfortunate as it means that they also do not have a good understanding of the methods by which their food is produced, and of the ethical principles involved. There is therefore a good argument that to improve the standards of decision making in this area there should be more education. This volume contains papers presented at a conference organized by Norwegian and Swedish ethical organizations. The conference brought together scientists and participants from non-governmental organizations (NGOs). None of the discussions are reported but the editors do provide a summary of the conference, from which it is clear that there was some polarization of opinion between the scientists and the NGOs.

The papers cover a wide range of areas such as decision forming, biotechnology developments and even a paper that asks whether ethics applies to vegetables – the answer was yes! However, many of them read as transcripts of spoken presentations rather than as separate papers written for publication, and this sometimes results in contributions that do not seem to have much 'meat' to them.

The editors conclude their summary with four recommendations which map out a suggested future for the ethical assessment of biotechnology in Norway and Sweden, and which draw attention to the Danish and Dutch experiences. The UK Government has recently published a report on this subject but it is clear that most European Governments have much work to do to ensure that informed decisions can be made by the electorate.

Studies in Research Ethics No 5 Ethical Aspects of Modern Biotechnology: Proceedings from a conference 10–11 November 1993. Editors Matthias Kaiser & Stellan Welin (1995). Produced and published by Centre for Research Ethics: Göteborg. 141pp. Paperback. Obtainable from the publishers, Brogatan 4, S-413 01 Göteborg, Sweden (ISSN 1102 0458, ISBN 91 97 16 72 4 X).

Badgers and bovine tuberculosis

The Ministry of Agriculture, Fisheries and Food (MAFF) has now published its 18th annual report on bovine tuberculosis in badgers. Previous reports in this series have, over the years, detailed the evidence that badgers can be involved in the maintenance and spread of the disease, and the actions that have been taken to deal with the problem.

Since the early 1970s, when it was first noted in the South West of England that bovine tuberculosis was occurring in badgers living on the same farm as infected cattle, strenuous efforts have been made to eradicate the disease in both the cows and the badgers. In spite of this the problem still remains. In fact the latest (18th) report, which covers the situation in 1994, indicates that the bovine tuberculosis position is currently getting worse. For example, the number of newly confirmed herd outbreaks in the South West was 274 – representing an 18 per cent increase on 1993. It is believed that many of these outbreaks involve badgers.

The live test which is currently critical for the detection of the disease in captured badgers is apparently practicable but very time consuming and demanding of resources, and it appears that the development of a protective vaccine for badgers is likely to take quite a number of years.

The problem is not going away and is not, seemingly, going to be easily dealt with by the current MAFF approach. Further research is being carried out but progress is slow. One hesitates to suggest that the whole subject needs to be looked at again as there have been two major enquiries – published as the Zuckerman Report in 1980 and the Dunnett Report in 1986. It does, however, seem time to stand back once more and seriously reconsider what MAFF should or should not be doing re the control of bovine tuberculosis in cattle and in badgers.

Bovine Tuberculosis in Badgers. Eighteenth report by the Ministry of Agriculture, Fisheries and Food July 1995. MAFF: London. 32pp. Paperback. Obtainable from MAFF Publications, London SE99 7TP, UK (PB 2314). Price £2.95 plus 50p postage and packaging.