

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).