VERTEBRATES

Overall Aim

To monitor changes in populations of selected groups of vertebrates

Rationale

It is recognised that different organisms are likely to 'filter' the environment in different ways and that, to provide relevant data, an environmental monitoring programme should, ideally, focus on a range of organisms, eg endotherms as well as ectotherms, and organisms with different generation times (Whittaker 1990).

These are many wild, breeding vertebrates in the UK which could be included in this range of organisms and whose populations are likely to be affected by changes in climate, land use and pollution. However, there are considerable difficulties associated with attempting to assess their numbers and this accounts for the general dearth of information on population trends in most vertebrates. Birds are an exception in that they are relatively easy to observe, most are diurnal, and they are identifiable both by sight and by sound. Mammals are more problematical, often being most active at dawn, dusk, and during the night, when observation is most difficult, but an index of their local populations can in some cases be obtained by counting droppings, eg in rabbits and deer, both of which are widespread herbivores. Bats, though crepuscular, can be counted by electronic interception and recognition of their echo-sounding. Frogs are ubiquitous predatory amphibians and, although adult populations are difficult to monitor, it is possible to assess significant changes in populations by counting egg masses.

Reference

Whittaker, J.B. 1990. Technical aspects of detecting change: animals. In: *Environmental Change Network (ECN). Report of a Workshop on the Terrestrial Network*, edited by O.W. Heal, J.M. Sykes & G. Howson, 32-36. Grange-over-Sands: Institute of Terrestrial Ecology.