

tate it. Firstly, we do not need information on all our species before we start to produce our own ageing and sexing guide; secondly, we do not need criteria tried and tested throughout southern Africa before we start; thirdly, there is already enough material in *Safring News* (see Vol 23(1):49-52) which could be collated together to make the pro-

vocative start that seems to be needed to get ringers to add their know-how; fourthly, we need a willing coordinator who will start the ball rolling and, hopefully, see the *Guide to ageing and sexing birds in southern Africa* through its first few editions.

Les Underhill

Bird ringing in science and environmental management. Edited by Jenni, L., Berthold, P., Peach, W. & Spina, F. European Union for Bird Ringing, Heteren, The Netherlands. 24pp.

What can be achieved through bird ringing? What contribution can this knowledge make to science and conservation? This booklet, produced by EURING, the European Union for Bird Ringing, provides answers to these questions.

The booklet traces the history of scientific bird ringing; the beginnings in Denmark in 1889, the development of national ringing schemes, the introduction of mistnets and the unravelling of the mysteries of bird migration.

EURING has recently identified three major areas in which ringing in Europe is capable of playing major roles in science and conservation.

1. Little can be done about the declines in many species migrating from (and within) Europe until there is a better understanding of migration routes for each population, their staging, refuelling and non-breeding areas. This information can be used to plan a strategy to conserve these bird species through an integrated system of protected areas.

2. With habitat fragmentation, the dispersal processes that enabled gene flow to take place have been disrupted to an unknown extent. Our ignorance about how organisms move between birth site and breeding site is one of the major shortcomings in applying the theory of population ecology to conservation problems. Clearly, bird ringing can help to provide these data. Bird ringing can also help to identify 'source' and 'sink' populations, crucial information for conservation biology.

3. The mechanisms underpinning changes in the sizes of bird populations can be uncovered using bird ringing. The priority ringing projects in Europe are to measure the variations in time and space of breeding productivity, dispersal, survival, impact of hunting, etc.

The booklet is timely. All institutions need to justify their continued existence on an on going basis – otherwise they just become institutions. The point is repeatedly made that ringing schemes in Europe (and elsewhere in the world) have “a crucial role to play in solving the challenges and responsibilities facing environmental managers and politicians in the 21st century.”

Les Underhill