

Conserving Britain's Reptiles

Ian F. Spellerberg

This abstract of a paper read at the 10th International Symposium on the Biology of Amphibians and Reptiles, in Frankfurt last year, points to the endangered status of three of Britain's six reptiles, the lack of knowledge about them, and suggests measures that should be taken to protect them.

The six indigenous reptile species in the British Isles, excluding the Channel Isles, are at the limits of their northern range, and their distribution shows a pattern which is characteristic of cool temperate and geographically recent islands. Following isolation from their European counterparts about 7500 BP (before the present) it is probable that after about 3000 BP–2500 BP the populations receded and fragmented along with climate deterioration.

Three species are widespread in Britain at the present time: slow-worm *Anguis fragilis*, common or viviparous lizard *Lacerta vivipara*, and adder *Vipera berus*, but their overall distribution pattern is extremely fragmented. The other three, smooth snake *Coronella austriaca*, sand lizard *Lacerta agilis*, and grass or ringed snake *Natrix natrix*, are more or less limited to southern or southern and central England, and many of the populations are small and geographically isolated from each other. The disjunct patterns coupled with pressures on land utilisation mean that at least the smooth snake and the sand lizard are endangered. This means that some species, if they are to survive, will now have to be continuously and actively managed. As few species have been the subject of detailed ecological research there is a need for action.

Two methods are outlined for the conservation and management of the endangered species: populations and their habitats in protected areas, such as national nature reserves and county trust reserves, should be managed; and small populations could be relocated if their original site is in imminent danger of gross alteration. Both methods require basic research, and the fundamental ecological and behavioural requirements of these animals have to be examined in order to maintain or develop optimum conditions for their survival. With reference to relocation, the paper discusses a possible sequence of steps with the aim of establishing a viable lizard or snake population, and describes the initial stages of one attempt to relocate a sand lizard population under the supervision of the Nature Conservancy Council.

Some of the points raised in the valuable discussion that followed were: few symposium participants were aware of the detailed and critical distribution of Britain's reptiles; considerable concern was shown when it was reported that the reptiles did not enjoy legislative protection*; the lack of research into the possible link between agricultural chemicals and decline in reptile populations was noted; the absence of case histories on which to base the future management of small temperate-zone reptiles was considered to be an extremely serious situation; collaboration of researchers working in this field and in particular an exchange of material between those working on *C. austriaca* and *L. agilis* would be advantageous; and a greater participation by European Herpetological Societies in symposiums should be encouraged.

Dr Spellerberg's full paper will be published in *Biological Conservation*.

* See Protection Bill in Britain, page 2.