

Summary

Lizards and snakes in Great Britain have declined, primarily due to habitat loss, degradation and fragmentation. Even on protected sites they have not always been safe, as standard habitat management measures do not always encourage reptiles to thrive. In extreme cases, habitat management has even caused declines and local extinctions. This handbook encourages positive measures for reptiles across a range of land uses. It has been written primarily for managers of nature conservation sites, though the guidance will also help many other land managers.

Reptiles are ectothermic. They do not raise their body temperatures by metabolic processes, but instead rely on the external environment, which they can use to maintain relatively high temperatures when they are active. Consequently, they have variable body temperatures. The need for external warmth influences many aspects of reptilian biology, including habitat requirements.

Understanding the ecology and habitat requirements of reptiles can help in the planning and implementation of sympathetic management for these animals. Due to their need for warm sites, reptiles prefer south-facing slopes, or varied topography, usually on well-drained soils. They also need diverse vegetation structure, creating open areas and nearby cover, to provide protection from predators and the elements.

Reptile distribution within occupied areas tends to be patchy. Some microhabitats support many individuals, while other nearby areas are rarely used.

Reptile dispersal abilities are limited, so connectivity of habitat patches is very important. Managers should maintain connectivity, both within a site and looking beyond its boundaries. Fundamentally, managing habitats for reptiles involves maintaining areas in a mid-successional state, and providing a favourable vegetation structure at ground level. There should be abundant prey, cover from extremes of the weather, and connectivity to neighbouring habitat patches. Unlike some species, the precise floristic composition of habitats is often irrelevant to reptiles. Instead, the site's physical structure and thermal properties are crucial.

Site managers have to balance the needs of many species, and in some cases these may be conflicting. A section of this handbook is devoted to considering and resolving such conflicts.

Commonly used habitat management techniques are reviewed here for their application to reptile sites. Cutting, mowing and grazing are often the most acceptable means of maintaining reptile habitat. They must, however, be applied with care, or sometimes even avoided in particular instances. Scrub and tree removal are normally essential to retain the open character of reptile habitats but management causing large-scale damage to vegetation structure can be catastrophic for local populations.

Specific habitat features can enhance sites for reptiles. This handbook explains how to create brash and log piles, reptile banks, grass snake egg-laying heaps and sand patches for sand lizards.

The handbook also includes simple ways of incorporating reptile conservation into land use outside nature conservation areas, including farming, forestry, transport corridors, golf courses, gardens, allotments, churchyards and utility sites.

Although habitat management is the subject of this handbook, a summary of species management issues is provided, outlining the conditions under which reintroduction of native species, or control of non-natives, may be appropriate conservation actions.

An important challenge to conservation bodies today is that of engaging greater numbers of people while ensuring that public access does not damage wildlife interests. A section is therefore devoted to managing the interactions between reptiles and people.

Reptile survey is an important step in planning habitat management, and continued monitoring helps to assess and refine it. Visual searches and refuge surveys are both useful techniques. The fundamental principles and limitations of reptile survey are outlined here to monitor population trends within a site.

Finally, sources of additional information and advice and ways of getting further involved in the fascinating world of reptiles are provided, along with an appendix summarising Environmental Stewardship options that may be of value to reptile conservation.