

HOOFDSTUK 14 SUMMARY

RAVON (Reptile, Amphibian & Fish Conservation the Netherlands) started in 1999 with the compiling of all records of amphibians and reptiles in the Netherlands. Different databases were brought together and enormous amounts of 'paper records' were digitized. These data, combined with ecological knowledge from scientific publications and the experience of many professional and voluntary specialists, are brought together in this book. This book is an account of the present knowledge of the morphology, ecology, behaviour, diversity, threats and conservation of Dutch amphibians and reptiles, including extensive accounts on sea turtle observations and some introduced species. Chapters on cultural history and the history of herpetology in the Netherlands are also included. This book presents the distribution of amphibians and reptiles in the Netherlands up to 2007.

A summary of the various chapters is given below. Summaries on distribution, status and some special remarks are given at the end of each species account.

CHAPTER 1 Introduction

This book can be seen as the successor to the *Atlas van de Nederlandse reptielen en amfibieën* (BERGMANS & ZUIDERWIJK 1986). The present atlas is based on 451,710 records.

CHAPTER 2 Systematics, nomenclature and diversity

This chapter explains the classification of the Dutch amphibians and reptiles. All families occurring in the Netherlands and their features are presented. Vernacular and scientific names are given as well as the meaning of scientific names. This chapter also offers an account of the diversity of amphibians and reptiles on a global, European and national scale.

CHAPTER 3 Cultural history: fiction and facts

In past centuries, facts and fiction concerning amphibians and reptiles were heavily mixed up. This chapter gives examples from famous European books dating back to the Middle Ages and earlier, combined with 'serious' old texts which, nowadays, may be seen as hilarious. Even 18th century authors copied texts from centuries ago or refer to texts from the Bible and refrain from doing scientific research.

CHAPTER 4 The history of herpetology in the Netherlands

This chapter gives an extensive overview of the history of herpetology as a science in the Netherlands. In the 18th century there was a transition from 'dragon tales' to a more scientific approach. A deeper interest in distribution, natural history and ecology emerged. Publications in the 19th century though were still largely based on indirect data and many mistakes have occurred. Serious data collecting started around 1900. These data were pooled to five 'herpetogeographic reports' between 1946 and 1986, the last one being the well-known book of Bergmans & Zuiderwijk (1986). This book gave an enormous impetus to data collecting and studies by volunteers and the protection of am-

phibians and reptiles in the Netherlands. Besides the history of data collecting and the involved organisations and individuals, attention is paid to scientific research at universities, museums and institutes. The start of RAVON (1991) and its precursor (1988) are discussed in detail as well as the way the current database evolved.

CHAPTER 5 Ecology and life history

The life history and behaviour of amphibians and reptiles in relation to their habitat, weather, congeners, predators and prey is described. Attention is paid to yearly and daily activity patterns and thermoregulatory behaviour.

CHAPTER 6 The RAVON database

In this chapter the way the database on Dutch amphibians and reptiles was set up is discussed and the database itself is described. Attention is paid to data validation and the coverage of the Netherlands by the data. From the 451,710 records, 60% was collected between 1996 and 2007, the larger part being collected by volunteers.

CHAPTER 7 Observing, surveying and monitoring

Guidelines for data collection, useful books and multimedia for species recognition are presented. The necessary equipment and obligatory permits are discussed. The different ways of studying amphibians and reptiles are put forward; incidental observations, surveys and inventories, and monitoring all yield useful information with different applications. Many practical suggestions on finding animals and their different life stages are given. The chapter finishes with an overview of different kinds of research methods.

CHAPTER 8 The species

This chapter is the heart of this book. All 23 indigenous species are covered, as well as the sea turtle species which strand occasionally on Dutch shores, and a few exotic, introduced species. The indigenous species are discussed in a uniform way. Identification and similar species, phenology, life history, prey, predators, behaviour, migrations, range, distribution in the Netherlands, sympatric species, habitat, status and conservation, field methods and peculiarities are discussed.

Information is given about the European range, distribution in the Netherlands, phenology, sympatric species and habitat using graphs, maps and tables. An English summary completes each species account, highlighting the Dutch distribution and status.

CHAPTER 9 Herpetofauna in the Dutch landscape

In this chapter, spatial aspects of amphibian and reptile occurrence in the Netherlands are described. An analysis has been made of these aspects leading to 'herpetogeographical districts'. The landscape of these districts is described and characteristic species are mentioned. The origin of the observed districts is explained by the ways the Netherlands was colonized after the last Ice Age and by the soil types present. The most important Dutch landscapes in relation

to amphibians and reptiles are described (formation and history, use and threats, significance, examples of nature reserves belonging to this landscape).

CHAPTER 10 Changes in time and the Red List

This chapter describes the most important changes in the Dutch landscapes and their effects on amphibians and reptiles. The most important changes took place between 1900 and 1980 by means of the widespread cultivation of heathland and raised bogs, the intensification of agricultural practices and the lowering of ground water levels. After that period, initiatives were started to enhance populations of particularly threatened species. The changes described help to explain the marked changes in distribution and numbers of many amphibian and reptile species.

This chapter also presents the Red Lists of amphibians and reptiles which include eight out of 16 Dutch amphibian

species and six out of seven reptile species. No amphibian or reptile species have disappeared from the Netherlands.

CHAPTER 11 Conservation and management

This chapter gives an overview of the national and international legislation and policy concerning amphibians and reptiles. In Dutch nature management and policy, an increasing priority is given to amphibians and reptiles. The nationwide Ecological Network (part of Natura 2000) plays a central role in conservation.

During recent decades, an enormous amount of knowledge has been gathered by professionals and volunteers which proves very useful in the practice of nature management. Practical clues for habitat management are given, as well as nature management pitfalls, for many important habitat types. The chapter finishes with a discussion of reintroduction as a means of conserving species.