



Nature in Northern Europe

Biodiversity in a changing environment

Language English
Nord 2001:13

Language Finnish
Nord 2001:14

Language Estonian
Nord 2001:15

Language Latvian
Nord 2001:16

Language Russian
Nord 2001:17

Pages 352

Northern Europe has many faces. Its landscapes can feel cold and inhospitable, or warm and welcoming. The land may seem barren and infertile, or rich and verdant. But whatever the impression, one underlying feature remains constant: the influence of man.

This is what makes Northern Europe unique. Nowhere else at these latitudes has there been such a long and complex interrelationship between man and nature. This book tells the story of that interrelationship. It describes how man has altered the landscapes of Northern Europe over the centuries, in turn enriching and impoverishing them. It also deals with plants and animals: their role in furthering human development, and their consequent fate at the hands of man.

The biogeographical boundaries of Northern Europe can only be drawn arbitrarily. In this book we have adopted the highly pragmatic approach of largely following national boundaries. The geographical region covered here consists of all the Nordic countries (Iceland, Sweden, Finland, including Åland, Denmark, including the Faroe Islands, and Norway, including Svalbard), Scotland, the northwestern parts of Russia from the Kola Peninsula to the borders of the Baltic Countries, and the three Baltic Countries: Estonia, Latvia and Lithuania.

Viewed from afar, this area may seem quite small and homogeneous, but a closer look reveals great differences within the region, with habitats ranging from glaciers and snow-capped mountains to forests and highly

The report is a result of the active environmental co-operation taking place in the Nordic Council of Ministers' Working Group on Environmental Monitoring and Data.

productive agricultural land. There is both land and water - the Atlantic Ocean, the Baltic Sea with its unique brackish water habitats, and a vast number of lakes and rivers of all shapes and sizes. Population densities vary considerably, too, both for humans and other living things.

The social and political history of the region is similarly far from uniform, with some areas under eastern influences at various times, and cultures in other lands more firmly rooted in the west.

Nevertheless, some features are consistent throughout the region, including the clear and ubiquitous evidence of human activity in the landscape. Local natural resources, such as wood, fish, fertile soils and minerals have been actively exploited, often for centuries. Even today the economies of the region rely heavily on these resources. Consequently, it is hard to find a place where man has not left his footprint, although in European terms large areas of this corner of the continent are widely considered to be quite unspoilt.



Contents

Diversity all around

The setting: Climate • Land and sea • Life returns • The hand of man

How species are faring: Populations • The large predators • Game animals
• Small animals • Birds • Fish and whales • Invertebrates • Plants • Fungi
• Domestic plants and animals

Changing habitats: Mosaic landscapes • Above and beyond the tree line
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The idea behind the book was to compile basic information about biodiversity in Northern Europe, and the factors that shape it or threaten it, in a form that would be accessible and useful to anyone interested in nature, as well as to those working in the field.

Right from the start it was clear that the book could not possibly cover all aspects of nature comprehensively. So the focus is necessarily on the most important or best known habitat types and groups of organisms found in Northern Europe, with examples used to illustrate the underlying trends and threats. The ultimate aim is to portray the overall state of biodiversity today, rather than to present fragmented data about single species from different countries.

Depicting the situation in such a wide geographical area has not been a straightforward task. Vast amounts of data have been carefully studied and sifted to provide the coherent information presented in this book. Often this has involved the painstaking examination of original sources, or making use of the valuable personal experience of expert contributors from each of the participating countries. The long lists at the end of the book of the sources used for the maps and diagrams give some idea of the amount of detailed research that can go into producing a single illustration. We hope this book will increase our understanding of the biodiversity of our region, and that this knowledge will help us to appreciate and preserve nature in Northern Europe.

Nature in Northern Europe gives a fascinating and detailed insight into nature, examining both widespread trends and local specialities across an area stretching from Iceland to North-western Russia, and from Denmark to Svalbard. The central theme of the book is biodiversity the region's wide range of plants, animals and habitats and the factors that have shaped it over the years, especially recent trends and the role of man.

The story begins way back during and even before the last ice age, when Northern Europe's landscapes were largely formed. The species found here today have only arrived since the ice finally receded - and this recolonisation is still going on. But an opposite trend has also been discernible lately, with many species of plants and animals evidently in decline. The landscapes, too, have been losing some of their rich diversity.

- *How is nature faring in various parts of northern Europe today?*
- *What are the worst threats facing biodiversity?*
- *Where do bears and wolves still roam?*
- *Are there any butterflies in the Faroe Islands?*
- *How did Scotland's moorlands form?*
- *Can coral thrive in the North Atlantic?*
- *Which is Northern Europe's most common tree?*
- *How have the landscapes of the Baltic Countries been changing recently?*

Nature in Northern Europe answers all these questions, and many more, by presenting the latest information on biodiversity and related environmental issues, compiled in a Nordic co-operation project also involving experts from Scotland, the Baltic Countries and North-western Russia.