

Butterflies of Europe

Edited by OTAKAR KUDRNA

Volume 8

OTAKAR KUDRNA

**Aspects of the Conservation
of Butterflies in Europe**



AULA-Verlag Wiesbaden

Contents

Preface	7
1 Introduction	9
1.1 <i>Aims and scope</i>	9
1.2 <i>Material and methods</i>	11
1.3 <i>Acknowledgements</i>	12
2 Considerations on the significance of native butterflies for the conservation of nature in Europe	13
3 The decline of European butterflies, its anthropogenic causes and present countermeasures: survey and analysis	31
3.1 <i>Outline of biogeographic history of European butterflies during the holocene</i>	31
3.2 <i>Anthropogenic factors harmful to butterflies, their causes and control</i>	42
3.3 <i>Considerations on the significance of collecting for the conservation of European butterflies and lepidopterological research</i>	74
3.4 <i>Considerations on the significance of the so-called "Red Data Books", with an annotated check-list of butterflies threatened in Europe</i>	88
3.5 <i>Considerations on the present state of our knowledge of European butterflies</i>	99
3.5.1 <i>Literature on European butterflies</i>	99
3.5.2 <i>Mapping the distribution of European butterflies</i>	108
4 Applied taxonomy of European butterflies	113
4.1 <i>Taxonomy (s. l.) as an auxiliary biological science</i>	113
4.2 <i>Zoological nomenclature, its principles and their application</i>	116
4.3 <i>Taxonomic categories and their pragmatic application</i>	127
4.4 <i>Glossary of common taxonomic terms</i>	143
4.5 <i>An annotated checklist of European butterflies</i>	156
4.6 <i>A provisional synonymic check-list of generic and specific names of European butterflies</i>	186
4.7 <i>Priority tasks in taxonomic research</i>	215
5 Applied biogeography of European butterflies	217
5.1 <i>Biogeography as an applied science</i>	217

6		Contents
5.2	<i>Survey of the colonies of European butterflies</i>	218
5.3	<i>Biogeographic evaluation of nominal species</i>	244
5.3.1	Biogeographic disposition	244
5.3.2	Biogeographic condition	254
5.3.3	Biogeographic disposition and condition of European butterflies	256
5.3.4	Application of the Chorological index (CI) values	268
5.3.5	Application of the Vulnerability index (VI) values	269
5.4	<i>Preliminary considerations concerning the ecology of European butterflies</i>	270
6	Outline of a European comprehensive conservation programme for indigenous butterflies	287
6.1	<i>Definition of principles and priorities</i>	287
6.2	<i>European register of butterfly sites</i>	289
6.3	<i>Conservation (protection) of species acutely threatened by extinction in Europe</i>	292
6.4	<i>Conservation of rare endemic species</i>	293
6.5	<i>Conservation of eurychoric species</i>	299
6.6	<i>Conservation of incipient species</i>	301
6.7	<i>Guidelines for collecting of and trade in European butterflies</i>	302
6.8	<i>Suggestions concerning the implementation of the Comprehensive Conservation Programme for European Butterflies</i>	307
7	Bibliography	310