

FLOODPLAIN FORESTS OF THE TEMPERATE ZONE OF EUROPE

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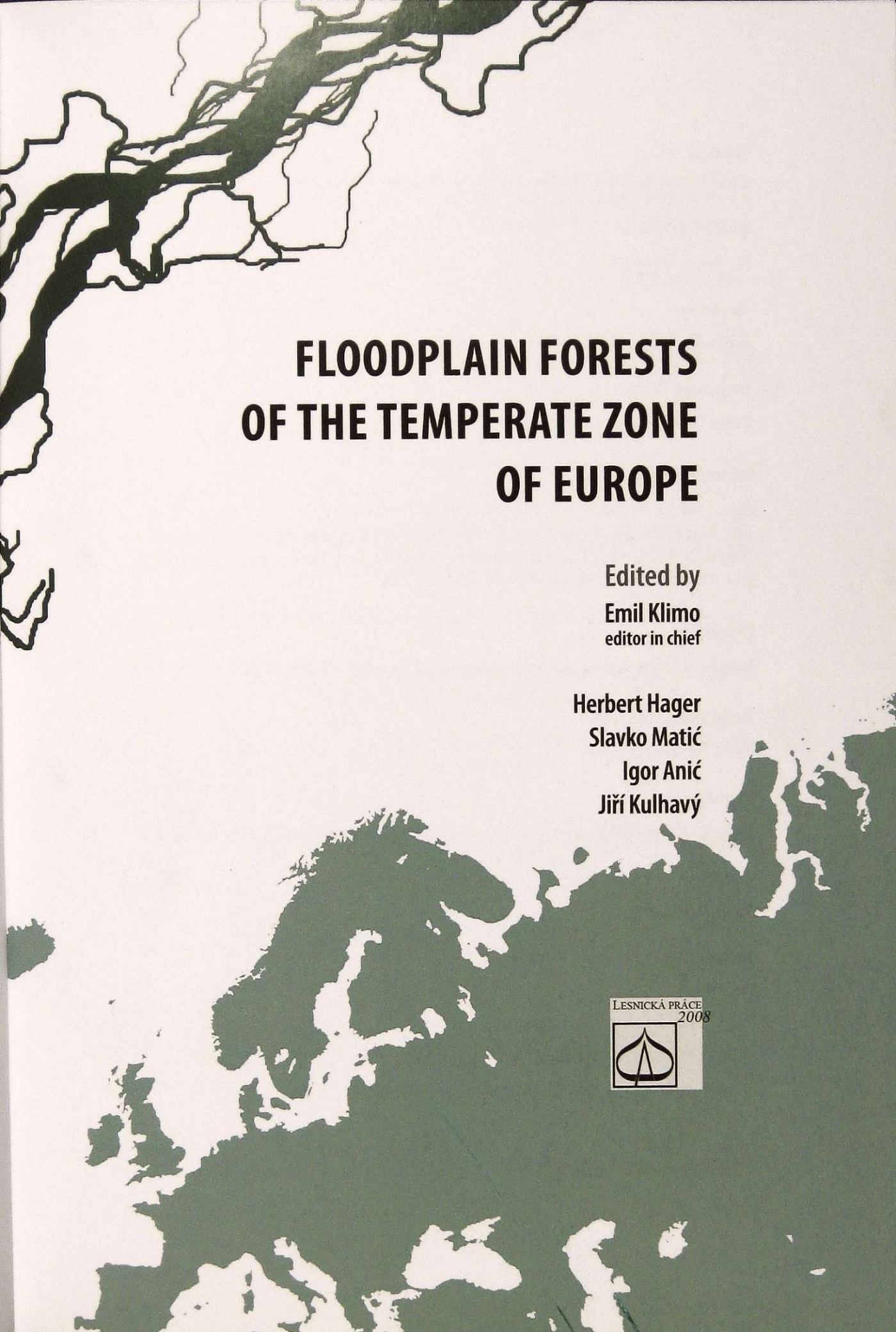
Igor Anić

Jiří Kulhavý



LESNICKÁ PRÁCE
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PREFACE

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Floodplain forest ecosystems represent an important part of European natural heritage and therefore deserve great attention in terms of the scientific analysis of their history, condition, protection, conservation and revitalization. These ecosystems have considerable production potential and a great diversity of ecosystems, communities and species. In many places, the history of floodplain forests in Europe can be traced back in terms of their natural development to the period 8000–6000 BC and the change of rivers into meandering types and sandy islands in valley floodplains becoming the preferred residential areas of Mesolithic hunters and fishers. This marked the beginning of anthropogenic processes influencing the floodplain landscape.

Central-European valley floodplains and plant communities in the Holocene alluvia of rivers and streams can be roughly divided into lowland floodplain and upland floodplain vegetation. Submontane and, to a certain extent, montane valley floodplains with flooded Holocene sediments can be classified as floodplain upland stands if plant communities have the characteristics of such floodplain stands (e.g. communities of alder forests and ash communities along streams, etc. [Mezera, 1956]) This use of terminology is not, however, unambiguous. As a result of anthropogenic impact, the commonly used term floodplain forest has lost its cardinal character, i.e. periodic flooding. Therefore, the term alluvial forests is more general because it can include forests in both flooded and unflooded areas. An even more general term is lowland forest, which was used by Rauš. Forests occurring outside alluvial regions can also be included under this term. The term riparian forests refers to forests occurring in the immediate vicinity of rivers. In our book, we shall use the term floodplain forests, although we are aware of a certain discrepancy between the term and the actual situation in nature.

The species composition of floodplain forests, although differentiated according to the part of Europe, is also markedly affected by local hydrological conditions concerning river length, topography, groundwater table and development under the effect of climate change during the Holocene period. In terms of site conditions, the terms „soft-wood broadleaf floodplains“ and „hard-wood broadleaf floodplains“ have been used where poplars and willows are the dominant species in the first case and oak, ash and elm in the second. Often original „soft-wood floodplains“ change by natural or anthropogenically affected processes into „hard-wood floodplains“ in consequence of changes in the water regime. The last-mentioned forest type is more favourable from the economic standpoint and predominates in the majority of floodplain forests at present. A considerable amount of alluvial areas are used for poplar plantations. In particular, these were established in the 1950s of the last century.

CONTENTS

Part 1

Preface	6
<i>Emil Klimo, Herbert Hager</i>	
The geology and geomorphology of floodplain	11
<i>Jaromír Demek, Anton Drescher, Severin Hohensinner, Bernd Schwaighofer</i>	
History of the relationship between man and European floodplain forests	39
<i>Otakar Štěrba, Branimir Prpić, Herbert Kilian</i>	
The hydrological and moisture regime of soils in floodplain forests	75
<i>Alois Prax, Wilfried Richter, Jan Čermák, Vítězslav Hybler</i>	
Floodplain forest plant communities	102
<i>Petr Maděra, Joso Vukelić, Antonín Buček, Dario Baričević</i>	
The fauna of temperate European floodplain forests	160
<i>Jiří Schläghamerský, Karel Hudec</i>	
Forest management in floodplain forests	231
<i>Slavko Matić, Igor Anić, Milan Oršanić</i>	
The floodplain forest ecosystem from the viewpoint of landscape ecology	284
<i>Otakar Štěrba</i>	
Revitalization and protection of floodplain forests	301
<i>Emil Klimo, Herbert Hager, Ivo Machar, Antonín Buček, Roland Schmalfuß, Gerhard Klasz</i>	
Cultural activities of man in relation to floodplain forests	324
<i>Žarko Španíček, Emil Klimo</i>	

Part 2

Austria	342
Bosnia-Herzegovina	354
Bulgaria	357
Croatia	369
The Czech Republic	381
France	418
Germany	457
Hungary	494
The Netherlands	502
Poland	516
Romania	521
Russia	539
Serbia	546
Slovakia	575
Slovenia	584
Switzerland	604
Ukraine	607
Summary	622