

# Contents

<b>I Karpatian – A Regional Stage of the Central Paratethys</b>	<b>13</b>
Definition of the Karpatian Stage	
Ivan Cicha & Fred Rögl	15
Hypostatotypes of the Karpatian Stage	
Nela Doláková, Šárka Hladilová, Pavla Petrová, Lilian Švábenická, Adriena Zlinská, Eva Halásová, Aida Sergejevna Andreyeva-Grigorovich & Zlatko Kvaček	21
Correlation of the Karpatian Stage	
Fred Rögl, Stjepan Čorić, Gudrun Daxner-Höck, Mathias Harzhauser, Oleg Mandic, Lilian Švábenická & Irene Zorn	27
A Summary of Published Stable Isotope Studies in the Karpatian of the Western Carpathians Basins	
Jana Hladíková & Šárka Hladilová	35
Stable Isotope Signatures at the Karpatian/Badenian Boundary in the Styrian Basin	
Christine Latal & Werner E. Piller	37
Karpatian Paleogeography, Tectonics and Eustatic Changes	
Michal Kováč, Aida Sergejevna Andreyeva-Grigorovich, Rostislav Brzobohatý, László Fodor, Mathias Harzhauser, Nestor Oszczypko, Davor Pavelić, Fred Rögl, Bruno Saftić, Lubomír Sliva & Zdeněk Stráňák	49
<b>II Formations of the Karpatian in the Central Paratethys</b>	<b>73</b>
The Karpatian in the Carpathian Foredeep (Moravia)	
Josef Adámek, Rostislav Brzobohatý, Peter Pálenský & Jan Šíkula	75
Appendix: Geochemical Characteristic of Karpatian Sediments from the Moravian Part of the Carpathian Foredeep	
Marie Adamová	88
The Polish Outer Carpathians and their Foredeep in the Karpatian	
Nestor Oszczypko	93
The Karpatian Sediments in the Alpine-Carpathian Foredeep in Austria	
Reinhard Roetzel	97
The Karpatian in the Vienna Basin	
Ivan Baráth, Michal Kováč, Natália Hudáčková & Ivan Hlavatý	101
The Karpatian of the Korneuburg Basin (Lower Austria)	
Mathias Harzhauser & Godfrid Wessely	107
The Karpatian in the Novohrad/Nógrád Basin	
Dionýz Vass	111
The Karpatian in the East Slovakian Basin	
Dionýz Vass & Adriena Zlinská	117
The Otnngian/Karpatian Boundary Interval in Slovak Neogene Basins	
Katarína Holcová	123
The Karpatian in the Styrian Basin	
Heinz Polesny	127
The Karpatian in Slovenia	
Bogomir Jelen & Helena Rífelj	133
The Karpatian in Croatia	
Zlatan Bajraktarević & Davor Pavelić	141
The Karpatian in Bosnia and Herzegovina	
Sejfuđin Vrabac, Stjepan Čorić & Zijad Ferhatbegović	145

### III Paleobiology of the Karpatian

149

Central Paratethys Karpatian Calcareous Nannofossils <i>Liliana Švábenická, Stjepan Čorić, Aida Sergejevna Andreyeva-Grigorovich, Eva Halásová, Mariana Măruntăeanu, András Nagymarosy &amp; Marta Oszczytko-Clowes</i> .....	151
Central Paratethys Karpatian Foraminifera <i>Ivan Cicha, Fred Rögl &amp; Jiřina Čtyrková</i> .....	169
Siliceous Sponge Spicules from the Karpatian of the Carpathian Foredeep in Moravia <i>Andrzej Pisera &amp; Šárka Hladilová</i> .....	189
Marine Gastropods, Scaphopods and Cephalopods of the Karpatian in the Central Paratethys <i>Mathias Harzhauser</i> .....	193
Planktonic Gastropods (Pteropods) from the Karpatian of the Central Paratethys <i>Margit Bohn-Havas &amp; Irene Zorn</i> .....	203
Terrestrial and Freshwater Gastropods of the Karpatian (Lower Miocene) <i>Herbert Binder</i> .....	213
Bivalves of the Karpatian in the Central Paratethys <i>Oleg Mandić</i> .....	217
Ostracods of the Karpatian <i>Irene Zorn</i> .....	229
Bryozoa of the Karpatian <i>Norbert Vávra</i> .....	243
Echinoderms of the Karpatian <i>Andreas Kroh</i> .....	247
Appendix: New Records of Echinoids from the Karpatian of Southern Moravia <i>Eva Pospichalová</i> .....	253
Karpatian Fish Teeth of the Central Paratethys <i>Ortwin Schultz</i> .....	257
Teleostei (Otoliths, Skeletons with Otoliths in situ) from the Karpatian of the Central Paratethys <i>Rostislav Brzobohatý, Bettina Reichenbacher &amp; Růžena Gregorová</i> .....	265
Teleost Fishes from the Karpatian (Lower Miocene) of the Western Paratethys <i>Madelaine Böhme &amp; Bettina Reichenbacher</i> .....	281
Amphibians and Reptiles of the Karpatian Central Paratethys <i>Petra Maria Tempfer</i> .....	285
Mammals from the Karpatian of the Central Paratethys <i>Gudrun Daxner-Höck</i> .....	293
Chemofossils from Karpatian Sediments <i>Norbert Vávra</i> .....	311
Diatoms of the Karpatian <i>Alexandra Olshtynska &amp; Pavla Petrová</i> .....	317
Palynological Characteristics of Karpatian Sediments <i>Nela Doláková &amp; Marianna Slamková</i> .....	325
The Flora and Vegetation of the Karpatian <i>Zlatko Kvaček</i> .....	347
Paleobiological Characterization of the Karpatian Stage <i>Fred Rögl, Rostislav Brzobohatý, Ivan Cicha, Stjepan Čorić, Gudrun Daxner-Höck, Nela Doláková, Mathias Harzhauser, Šárka Hladilová, Andreas Kroh, Zlatko Kvaček, Oleg Mandić, Alexandra Olshtynska, Andrzej Pisera, Bettina Reichenbacher, Ortwin Schultz, Liliana Švábenická, Petra M. Tempfer, Norbert Vávra &amp; Irene Zorn</i> .....	357