

Contents

List of contributors

page xvii

Foreword

xxi

J. B. Cragg

Contents of IBP 19

xxvii

Part I. Introduction

- | | | |
|---|---|----|
| 1 | Background | 3 |
| | <i>R. T. Coupland</i> | |
| 2 | The nature of grassland | 23 |
| | <i>R. T. Coupland</i> | |
| 3 | Problems in studying grassland ecosystems | 31 |
| | <i>R. T. Coupland</i> | |

Part II. Natural temperate grasslands

- | | | |
|---|---|-----|
| 4 | Introduction | 41 |
| | <i>N. R. French</i> | |
| 5 | Producers | 49 |
| | <i>P. L. Sims & R. T. Coupland</i> | |
| 6 | Consumers | 73 |
| | <i>M. I. Dyer</i> | |
| 7 | Micro-organisms | 87 |
| | <i>E. A. Paul, F. E. Clark & V. O. Biederbeck</i> | |
| 8 | Systems synthesis | 97 |
| | <i>R. T. Coupland & G. M. Van Dyne</i> | |
| 9 | Use and management | 107 |
| | <i>R. T. Coupland</i> | |

Part III. Semi-natural temperate meadows and pastures

Subeditor: *M. Rychnovská*

- | | | |
|----|-----------------------------------|-----|
| 10 | Introduction | 115 |
| | <i>E. Balátová-Tuláčková</i> | |
| 11 | Primary producers in meadows | 127 |
| | <i>M. Numata</i> | |
| 12 | Consumers in meadows and pastures | 139 |
| | Meadows | 139 |
| | <i>H. Haas</i> | |

Contents

Pastures	page 147
<i>G. A. E. Ricou</i>	
13 Micro-organisms in meadows	155
<i>B. Úlehlová</i>	
14 Ecosystem synthesis of meadows	165
Energy flow	165
<i>M. Rychnovská</i>	
Nutrient cycling	170
<i>A. A. Titlyanova & N. I. Bazilevich</i>	
15 Use and management of meadows	181
<i>B. Speidel</i>	
Part IV. Tropical grasslands	
Subeditor: <i>R. Misra</i>	
16 Introduction	189
<i>K. C. Misra</i>	
17 Primary production	197
<i>J. S. Singh & M. C. Joshi</i>	
18 Consumers	219
<i>M. C. Dash</i>	
19 Micro-organisms	227
<i>R. S. Dwivedi</i>	
20 Ecosystem synthesis	231
<i>J. S. Singh, K. P. Singh & P. S. Yadava</i>	
21 Use and management	241
<i>R. K. Gupta & R. S. Ambasht</i>	
Part V. Arable grasslands	
Subeditor: <i>W. M. Willoughby</i>	
22 Introduction	247
<i>W. M. Willoughby & P. J. Vickery</i>	
23 Producers	253
<i>P. J. Vickery</i>	
24 Consumers	259
<i>K. J. Hutchinson & K. L. King</i>	
25 Micro-organisms	267
<i>R. L. Davidson</i>	
26 Nutrient cycling	277
<i>A. R. Till</i>	

- 27 Use, management and conservation
W. M. Willoughby & R. L. Davidson

Part VI. Croplands

Subeditor: *L. Ryszkowski*

- 28 Introduction 301
L. Ryszkowski
- 29 Producers 305
Z. Wójcik
- 30 Consumers 309
L. Ryszkowski
- 31 Micro-organisms 319
J. Gołębiewska
- 32 Ecosystem synthesis 327
L. Ryszkowski

Part VII. Conclusion

- 33 Conclusion 335
R. T. Coupland

References 356

Index 389