

Contents

	List of contributors	Page vii
1	Introduction	1
	COLLEEN K. KELLY, MICHAEL G. BOWLER AND GORDON A. FOX	
	Part I	
	Observing temporal processes in nature	9
2	The storage effect: definition and tests in two plant communities	11
	PETER CHESSON, NANCY J. HUNTLY, STEPHEN H. ROXBURGH, MARISSA PANTASTICO-CALDAS AND JOSÉ M. FACELLI	
3	What temporal processes in trees tell us about competition, community structure and speciation	41
	COLLEEN K. KELLY, MICHAEL G. BOWLER, GORDON A. FOX, J. ARTURO SOLÍS-MAGALLANES, J. MARCELA RAMOS-TAPIA, PILAR LOPERA BLAIR, SUSANNE SCHWINNING, JOHN N. WILLIAMS AND JEFFREY B. JOY	
4	Testing the storage effect with long-term observational data	82
	PETER B. ADLER	
5	Seedling herbivory and the temporal niche	102
	MICK E. HANLEY AND REBECCA J. SYKES	
6	Temporal variation in density dependence in an herbaceous community	123
	NORMA L. FOWLER AND CRAIG M. PEASE	

- 7 Population and community dynamics in variable environments: the desert annual system 140
D. LAWRENCE VENABLE AND SARAH KIMBALL
- 8 Temporal niches, ecosystem function and climate change 165
SUSANNE SCHWINNING, GORDON A. FOX AND COLLEEN K. KELLY

Part II

Application to specific questions 189

- 9 Evolution of synchronised and intermittent reproduction (masting) of trees: key role of regeneration dynamics 191
YOH IWASA, AKIKO SATAKE AND YUUYA TACHIKI
- 10 Spatiotemporal variation can promote coexistence more strongly than temporal variation 224
ROBIN E. SNYDER
- 11 Roles of pollinator attraction and environmental fluctuation in inducing flowering synchrony 251
AKIKO SATAKE, YUUYA TACHIKI AND YOH IWASA
- 12 Temporal dynamics and the spread of insect resistance transgenes 282
MICHAEL G. BOWLER, FELIX BREDEN
AND COLLEEN K. KELLY
- 13 Concluding remarks 309
GORDON A. FOX, MICHAEL G. BOWLER
AND COLLEEN K. KELLY
- Index 321