

CONTENTS OF VOLUME 1

Editorial Board	v
List of Contributors for Volume 1	xi
Contents of All Volumes	xv
Dedication	xxvii
Preface	xxix

VOLUME 1

AQUATIC ECOLOGY

Abundance Biomass Comparison Method	RM Warwick	1
Acidification in Aquatic Systems	Morgana Tagliarolo	6
Constructed Wetlands for Wastewater Treatment	Jan Vymazal	14
Dead Zones: Low Oxygen in Coastal Waters	Andrew Altieri	22
Deep-Sea Ecology	Tracey T Sutton and Rosanna J Milligan	35
Ecosystem Health Indicators—Freshwater Environments	Adam D Canning and Russell G Death	46
Equilibrium Concept in Phytoplankton Communities	A Basset, GC Carrada, M Fedeles, and L Sabetta	61
Estuarine Ecohydrology	E Wolanski, L Chicharo, and MA Chicharo	69
The Estuarine Quality Paradox Concept	Michael Elliott and Victor Quintino	78
Eutrophication	Daniel A Lemley and Janine B Adams	86
Freshwater Aquaculture	James H Tidwell and Leigh A Bright	91
Intertidal Zonation	Maya C Pfaff and Ronel Nel	97
Maximum Sustainable Yield	Athanassios C Tsikliras and Rainer Froese	108
Micro- and Macroplastics in Aquatic Ecosystems	Imogen E Napper and Richard C Thompson	116
Microbial Communities	Cristiana Callieri, Ester M Eckert, Andrea Di Cesare, and Filippo Bertoni	126

BEHAVIORAL ECOLOGY

Age Structure and Population Dynamics	Louis C Bender	135
Altruism	KR Foster	144
Animal Home Ranges	Paul R Moorcroft	150
Anti-Predation Behavior	Lee A Dugatkin	159
Biological Rhythms	R Refinetti	163
Competition	John R Wallace and Mark Eric Benbow	170
Dispersal-Migration	AP Ramakrishnan	185
Dominance Hierarchy	Hilde Vervaecke and Jeroen Stevens	192

Environmental Stress and Evolutionary Change	Belinda van Heerwaarden, Vanessa M Kellermann, and Ary A Hoffmann	197
Food Specialization	Richard Svanbäck and Daniel I Bolnick	204
Habitat Mapping	Vincent Lecours	212
Habitat Selection and Habitat Suitability Preferences	B Doligez and T Boulinier	223
Herbivore-Predator Cycles	AC McCall	244
Imprinting	T Slagsvold and BT Hansen	250
Kin Selection	AS Griffin	256
Learning	DR Papaj, EC Snell-Rood, and JM Davis	260
The Marginal Value Theorem in a Nutshell	Vincent Calcagno	266
Mating Systems	Stephen M Shuster	274
Optimal Foraging Theory	DW Stephens	284
Orientation, Navigation, and Search	Jochen Zeil	290
Parental Care	Per T Smiseth	301
Sexual Selection and Sexual Conflict	Ulrika Candolin	310
Social Behavior and Interactions	Behavioral Ecology Chelsea N Cook and Noa Pinter-Wollman	319
Thermoregulation in Animals: Some Fundamentals of Thermal Biology	Udo Ganslofer and Gianna Jann	328

CONSERVATION ECOLOGY

Biodiversity Indices	Peter Fedor and Martina Zvaríková	337
Biological Integrity	Robert J Miltner	347
Biomagnification	KG Drouillard	353
Biotores	Panayiotis G Dimitrakopoulos and Andreas Y Troumbis	359
Connectivity and Ecological Networks	Robert HG Jongman	366
Conservation Biological Control and Biopesticides in Agricultural	ED Fountain and SD Wratten	377
Conservation Genetics	Richard Frankham	382
Ecological Health Indicators	Paul L Angermeier and James R Karr	391
Ecological Risk Assessment	Glenn W Suter II and Susan B Norton	402
Ecosystem Health Indicators	Marion Kruse	407
Ecotoxicology: The History and Present Direction	Hailong Zhou, Nan Xiang, Jia Xie, and Xiaoping Diao	415
Endangered Species	P Kareiva and J Floberg	424
Invasive Plant Species	Beth A Middleton	431
k-Dominance Curves	RM Warwick, KR Clarke, and PJ Somerfield	441
Polychaetes/Amphipode Index	C Chintiroglou and C Antoniadou	444
Protected Area	Yan Xie	451
Reintroduction	Doug P Armstrong, Philip J Seddon, and Axel Moehrensclager	458
Source-Sink Landscape	Wenwu Zhao, Lizhi Jia, Stefani Daryanto, Liding Chen, and Yue Liu	467

Spatial Subsidy	DM Talley	474
System Omnivory Index	S Libralato	481
Trophic Classification for Lakes	Fu-Liu Xu and Yang Jiao	487
Trophic Index and Efficiency	Timur Pavluk and Abraham bij de Vaate	495
Turnover Time	EH Dettmann	503
Wildlife Ecology	Melissa Songer	509

ECOLOGICAL COMPLEXITY

Cellular Automata	AK Dewdney	517
Chaos	Sven E Jørgensen and Brian D Fath	526
Citizen Science	Hiromi Kobori, Elizabeth R Ellwood, Abraham J Miller-Rushing, and Ryo Sakurai	529
Complex Ecological Networks	Mathilde Besson, Eva Delmas, Timothée Poisot, and Dominique Gravel	536
Complex Systems	Mikhail Prokopenko	546
Cybernetics	AM Makarieva	553
Ecological Data Archiving and Sharing	William K Michener	559
Ecological Indicators: Connectance and Connectivity	Marcel Holyoak	567
Ecological Informatics: Overview	F Recknagel	575
Emergent Properties	F Müller and SN Nielsen	591
Goal Functions and Orientors	H Bossel	598
Hierarchy Theory in Ecology	TFH Allen	606
Panarchy	L Gunderson	612
Population Dynamics: Stability	Peter A Henderson	617
Self-Organization	DG Green, S Sadedin, and TG Leishman	628
Systems Ecology	Todd M Swannack	637
Systems Ecology: Ecological Network Analysis	Brian D Fath and Ursula M Scharler	643
Thermodynamics in Ecology	Jae S Choi	653