

Original Articles

The Effect of River Water Circulation on the Distribution and Functioning of Reservoir Microbial Communities as Determined by a Relative Distance Approach

Karel Šimek, Marta Comerma, Juan-Carlos García, Jiří Nedoma, Rafael Marcé, and Joan Armengol

1

Variability in Light-Use Efficiency for Gross Primary Productivity on Great Plains Grasslands

H. Wayne Polley, Rebecca L. Phillips, Albert B. Frank, James A. Bradford, Phillip L. Sims, Jack A. Morgan, and James R. Kiniry

15

Spatial Heterogeneity of Surface CO₂ Fluxes in a Newly Created Eastmain-1 Reservoir in Northern Quebec, Canada

Cristian R. Teodoru, Yves T. Prairie, and Paul A. del Giorgio

28

Direct Measurement Versus Surrogate Indicator Species for Evaluating Environmental Change and Biodiversity Loss

David B. Lindenmayer and Gene E. Likens

47

Modelling Spatial Interactions Among Fire, Spruce Budworm, and Logging in the Boreal Forest

Patrick M. A. James, M.-J. Fortin, B. R. Sturtevant, A. Fall, and D. Kneeshaw

60

Scaling an Instantaneous Model of Tundra NEE to the Arctic Landscape

Michael M. Loranty, Scott J. Goetz, Edward B. Rastetter, Adrian V. Rocha, Gaius R. Shaver, Elyn R. Humphreys, and Peter M. Lafleur

76

Relating Climatic Dynamics in Time and Space to Ecological Responses, with Application to Australian Waterbirds

Mark Padgham

94

Six-year Stable Annual Uptake of Carbon Dioxide in Intensively Managed Humid Temperate Grassland

Matthias Peichl, Paul Leahy, and Gerard Kiely

112

Typhoon Disturbance and Forest Dynamics: Lessons from a Northwest Pacific Subtropical Forest

Teng-Chiu Lin, Steven P. Hamburg, Kuo-Chuan Lin, Lih-Jih Wang, Chung-Te Chang, Yue-Joe Hsia, Matthew A. Vadeboncoeur, Cathy M. Mabry McMullen, and Chiung-Pin Liu

127

Wetlands as Sinks for Reactive Nitrogen at Continental and Global Scales: A Meta-Analysis

Stephen J. Jordan, Jonathan Stoffer, and Janet A. Nestlerode

144

Plants Mediate the Sensitivity of Soil Respiration to Rainfall Variability

Zachary T. Aanderud, Donald R. Schoolmaster Jr., and Jay T. Lennon

156

Acknowledgment

168