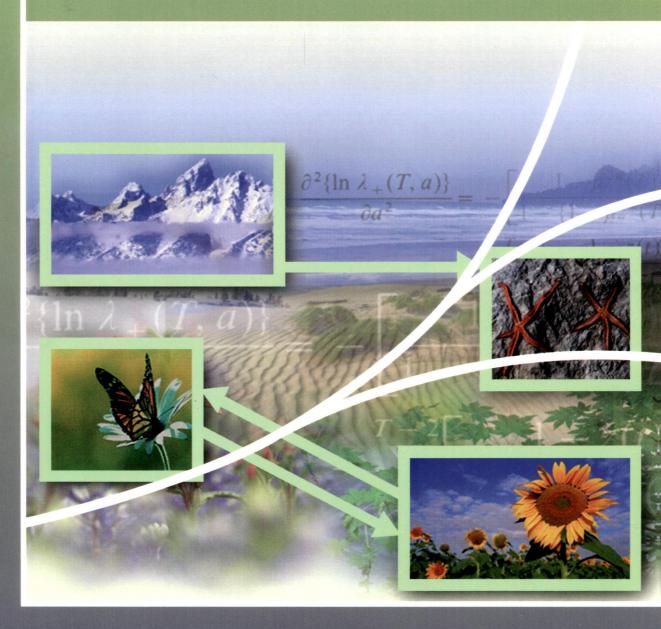


## ECOLOGICAL MODELLING

An International Journal on **ECOLOGICAL MODELLING AND SYSTEMS ECOLOGY** 



Editor-in-chief **Brian D. Fath** 

## **ECOLOGICAL MODELLING**

24 MARCH 2013

## **CONTENTS**

(Abstracts/contents list published in: Biological Abstracts, Cambridge Scientific Abstracts, Elsevier BIOBASE/Current Awareness in Biological Sciences, Current Contents AB & ES, Ecological Abstracts, Ecology Abstracts, Environment Abstracts, Environmental Periodicals Bibliography (EPB)); Also covered in the abstract and citation database SCOPUS®.

Full text available on ScienceDirect®.

A coupled stock-recruitment-age-structured model of the North Sea cod under the influence of depensation	1
R.B. Cabral, P.M. Aliño and M.T. Lim (Quezon City, Philippines)	1
APHIDSim: A population dynamics model for wheat aphids based on swallowtail catastrophe theory	0
M.D.K. Piyaratne (Shaanxi, PR China and Kamburupitiya, Sri Lanka) and H. Zhao, Q. Meng (Shaanxi, PR China)	9
Filling the gap: A compositional gap regeneration model for managed northern hardwood forests	
J.D.A. Millington (London, UK), M.B. Walters, M.S. Matonis and Jianguo Liu (USA)	17
Three-dimensional model for analysis of spatial and temporal patterns of phytoplankton in Tucuruí reservoir, Pará, Brazil	
R. Deus (Pará, Brazil and Lisbon, Portugal), D. Brito, I.A. Kenov (Lisbon, Portugal), M. Lima, V. Costa, A. Medeiros (Pará, Brazil), R. Neves (Lisbon,	
Portugal) and C.N. Alves (Pará, Brazil)	28
Modeling the complex hatching and development of Aedes aegypti in temperate climates	
V. Romeo Aznar, M. Otero, M.S. De Majo, S. Fischer and H.G. Solari (Buenos Aires, Argentina)	44
Modeling high-severity fire, drought and climate change impacts on ponderosa pine regeneration	
J.J. Feddema (Lawrence, KS, USA), J.N. Mast (Kenosha, WI, USA) and M. Savage (Los Angeles, CA, USA)	56
How to manage co-product inputs in emergy accounting exemplified by willow production for bioenergy	
A. Kamp and H. Østergård (Lyngby, Denmark)	70
Biogenic CO <sub>2</sub> fluxes from bioenergy and climate-A response	
F. Cherubini, A.H. Strømman and E. Hertwich (Trondheim, Norway)	79
Aquatic food webs of the oxbow lakes in the Pantanal: A new site for fisheries guaranteed by alternated control?	
R. Angelini (Natal, Brazil), R.J. de Morais (Goiânia, Brazil), A.C. Catella, E.K. Resende (Corumbá, Brazil) and S. Libralato (Trieste, Italy)	82
Evaluation of a soil greenhouse gas emission model based on Bayesian inference and MCMC: Model uncertainty	
G. Wang (Pullman, WA, USA and Oak Ridge, TN, USA) and S. Chen (Pullman, WA, USA)	97
Evaluation of a soil greenhouse gas emission model based on Bayesian inference and MCMC: Parameter identifiability and equifinality	
G. Wang (Pullman, WA, USA and Oak Ridge, TN, USA) and S. Chen (Pullman, WA, USA)	107

Available online at www.sciencedirect.com