Computational Ecology and Software

The Computational Ecology and Software (CES) is an open access (BOAI definition), peer/open reviewed online journal that considers scientific articles in all different areas of computational ecology. It is the transactions of the International Society of Computational Ecology. The journal aims to disseminate ecological researches, constructions and applications of theories and methods of computational sciences including computational mathematics, computational statistics and computer science. It focuses on modeling, simulation, approximation, prediction, recognition, and classification of ecological issues. The topics to be covered by CES include, but are not limited to:

- Computation intensive methods, numerical and optimization methods, differential and difference equation modeling and simulation, mathematical models and algorithms, prediction, recognition, classification, statistical computation (Bayesian computing, randomization, bootstrapping, Monte Carlo techniques, stochastic process, etc.), agent-based modeling, individual-based modeling, artificial neural networks, knowledge based systems, machine learning, genetic algorithms, data exploration, network analysis and computation, databases, ecological modeling and computation using Geographical Information Systems, satellite imagery, and other computation intensive theories and methods, etc.
- Artificial ecosystems, artificial life, complexity of ecosystems and virtual reality.
- The development, evaluation and validation of software and algorithms for computational ecology. The development and evaluation of apparatus, instruments and machines for ecological and environmental analysis, investigation and monitoring based on the software of computational ecology.
- Methodological applications of computational ecology in the researches of ecology and environmental sciences.

Authors can submit their works to the email box of this journal, ces@iaees.org and (or) wjzhang@iaees.org. All manuscripts submitted to CES must be previously unpublished and may not be considered for publication elsewhere at any time during review period of this journal. In addition to free submissions from authors around the world, special issues are also accepted. The organizer of a special issue can collect submissions (yielded from a research project, a research group, etc.) on a specific topic, or submissions of a conference for publication of special issue.

Editorial Office: ces@iaees.org

Publisher: International Academy of Ecology and Environmental Sciences

Address: Unit 3, 6/F., Kam Hon Industrial Building, 8 Wang Kwun Road, Kowloon Bay, Hong

Kong

E-mail: office@iaees.org

Computational Ecology and Software

ISSN 2220-721X

Volume 9, Number 3, 1 September 2019

Articles

Chaotic behavior of harvesting Leslie-Gower predator-prey model

Muhammad A. Khan, Muhammad S. Shabbir, Qamar Din, et al.

67-88

Dynamics of three species plankton model with Holling type-IV functional responses and control of toxic phytoplankton

Rashi Gupta

89-106

Sexual dimorphism, asymmetry, and allometry in the shell shape of *Modiolus* metcalfei (Hanley, 1843) collected from Dumangas, Iloilo, Philippines: A geometric morphometric approach

K.I. N. Uba, H. M. Monteclaro, M. M. P. Noblezada-Payne, et al. 107-120



IAEES

http://www.iaees.org/