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Editorial

Ecological complexity, as the first international scientific journal specialized in this vital, emerging area of ecological research in the 21st century, has been published since March 2004; the goal is to disseminate important information and significant contributions on the most recent inter-disciplinary or multidisciplinary research, complex systems approaches and quantitative modeling applications in biocomplexity in the environment and theoretical ecology. The Journal focuses on fundamentally complex ecological and environmental issues, especially on complexity of coupled human and natural systems, and this hallmark opportunity for developing a greater understanding of the complex ecological systems and sustainability of the world which we all share.

Ecological complexity refers to the complex interplay between all living systems and their environment, and emergent properties from such an intricate interplay. The concept of ecological complexity stresses the richness of ecological systems and their capacity for adaptation and self-organization (Li, 2004). The science of ecological complexity seeks a truly quantitative and integrative approach towards a better understanding of the complex, nonlinear interactions (behavioral, biological, chemical, ecological, environmental, physical, social, and cultural) that affect, sustain, or are influenced by all living systems, including humans. It deals with questions at the interfaces of traditional disciplines and its goal is to enable us to explain and ultimately predict the outcome of such interactions. Ecological complexity can also be thought of as biocomplexity in the environment. We have published papers from fundamental issues of ecological complexity (e.g., Gorshkov et al., 2004; Loehle, 2004; Makarieva et al., 2004, 2009; Garay-Narvaez and Ramos-Jiliberto, 2009) to various modeling techniques (e.g., Parrott, 2004; Garcia-Gutierrez et al., 2009; Millan et al., 2009; Tarquis et al., 2009).

In the first six volumes (2004–2009), we have published 164 full-length original research articles, 9 review articles, 19 view-points, 4 short notes, 7 editorials, one letter to the editor, and 5 book reviews. We also published three special issues and three special sections. Roughly, our journal's rejection rate is about 62%, and generally speaking, the rejection rate for the regularly submitted manuscripts is even higher than those for special issues/sections. The impact factor of our Journal for 2009 is 2.04, ranked in middle among all SCI ecology journals.

We have published the following special issues and sections:

1. Simulating the spatial and temporal dynamics of landscapes using generic and complex models, edited by J. Bolliger and H. Lischke (see Bolliger et al., 2005).

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- 2. Complexity and ecological economics, edited by K.N. Farrell and R. Winkler (see Farrell and Winkler, 2006).
- 3. Current food-web theory, edited by A.G. Rossberg and K. Yoshida (see Rossberg et al., 2008).
- 4. Environmental micro-simulation: From data approximation to theory assessment, edited by T. Svoray and I. Benenson (see Svoray and Benenson, 2009).
- 5. Fractal modeling and scaling in natural systems, edited by ÁMartín et al. (2009).
- 6. Eco Summit 2007 special issue, part one (Li, 2009).

As I stated in my Editorial for the inaugural issue (Li, 2004), "criticism, freedom and rationality are fundamental to a healthy academic society, which I, as a scientist, treasure most." We will promote that in every positive way. As an ancient Chinese sage said, "let a hundred flowers blossom, and a hundred schools of thought contend." So far we have published some very challenging debating papers (e.g., Dyck et al., 2007, 2008; Stirling et al., 2008). Here I need to emphasize that all of submitted manuscripts including viewpoint articles have to go through regular peerreview processes. The correct history for Dyck et al. (2007) should be that they submitted the manuscript on December 14, 2005, their revised manuscript was tentatively accepted on October 30, 2006 and finally accepted March 2, 2007 and went online on April 16, 2007.

In this coming year, we will make some changes with our editorial board to enhance our expertise in this research area and speed up our processing manuscripts. Again I am looking forward to your contributions, continuous support and assistance in making this journal a success.

References

- Bolliger, J., Lischke, H., Green, D.G., 2005. Simulating the spatial and temporal dynamics of landscapes using generic and complex models. Ecol. Complex. 2 (2), 107–116.
- Garay-Narvaez, L., Ramos-Jiliberto, R., 2009. Induced defenses within food webs: the role of community trade-offs, delayed responses, and defense specificity. Ecol. Complex. 6, 383–391.
- Garcıa-Gutierrez, C., Martın, M.A., Rey, J., 2009. On the fractal modelling of biomass distributions: an application to size class in fisheries. Ecol. Complex. 6, 246–253.
- Dyck, M.G., Soon, W., Baydack, R.K., Legates, D.R., Baliunas, S., Ball, T.F., Hancock, L.O., 2007. Polar bears of western Hudson Bay and climate change: are warming spring air temperatures the "ultimate" survival control factor? Ecol. Complex. 4, 73–84.
- Dyck, M.G., Soon, W., Baydack, R.K., Legates, D.R., Baliunas, S., Ball, T.F., Hancock, L.O., 2008. Reply to response to Dyck et al. (2007) on polar bears and climate change in western Hudson Bay by Stirling et al. Ecol. Complex. 5, 289– 302.

Farrell, K.N., Winkler, R., 2006. Introduction. Ecol. Complex. 3, 265-274.

- Gorshkov, V.G., Makarieva, A.M., Gorshkov, V.V., 2004. Revising the fundamentals of ecological knowledge: the biota-environment interaction. Ecol. Complex. 1, 17–36.
- Li, B.L., 2004. Editorial. Ecol. Complex. 1, 1-2.
- Li, B.L., 2009. Eco Summit 2007 special issue, part one. Ecol. Complex. 6, 393–395.
- Loehle, C., 2004. Challenges of ecological complexity. Ecol. Complex. 1, 3–6.
- Makarieva, A.M., Gorshkov, V.G., Li, B.-L., 2004. Body size, energy consumption and allometric scaling: a new dimension in the diversity-stability debate. Ecol. Complex. 1, 139–175.
- Makarieva, A.M., Gorshkov, V.G., Li, B.-L., 2009. Precipitation on land versus distance from the ocean: Evidence for a forest pump of atmospheric moisture. Ecol. Complex. 6 (3), 302–307.
- Martín, M.A., Pachepsky, Y.A., Perfect, E., Guber, A., 2009. Fractal modeling and scaling in natural systems. Ecol. Complex. 6, 219–220.
- Millan, H., Kalauzi, A., Llerena, G., Sucoshanay, J., Piedra, D., 2009. Meteorological complexity in the Amazonian area of Ecuador: an approach based on dynamical system theory. Ecol. Complex. 6, 278–285.
- Parrott, L., 2004. Analysis of simulated long-term ecosystem dynamics using visual recurrence analysis. Ecol. Complex. 1, 111–125.
- Rossberg, A.G., Yoshida, K., Ishii, R., 2008. Introduction. Ecol. Complex. 5, 71-72.

- Stirling, I., Derocher, A.D., Gough, W.A., Rode, K., 2008. Response to Dyck et al. (2007) on polar bears and climate change in western Hudson Bay. Ecol. Complex. 5, 193–201.
- Svoray, T., Benenson, I., 2009. Scale and adequacy of environmental microsimulation. Ecol. Complex. 6, 77–79.
- Tarquis, A.M., Heck, R.J., Andina, D., Alvarez, A., Antó n, J.M., 2009. Pore network complexity and thresholding of 3D soil images. Ecol. Complex. 6, 230–239.

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