

Abstract Submitted  
for the SES09 Meeting of  
The American Physical Society

**No correlation discerned between the periods of rise and dominance of simulated species in a model of biological evolution** ALAN KUHNLE, Florida State University — In [1], Liow et al. discern a general feature of the occurrence trajectories of biological species: the periods of rise and fall of a typical species are about as long as the period of dominance. In this work, an individual-based model of biological evolution that was developed by Rikvold and Zia in [2] is investigated, but no analogous feature is observed in the simulated species populations. Instead, the periods of rise and fall of a simulated species cannot always be sensibly defined; when it does make sense to define these quantities, they are quite short and independent of the period of dominance.

[1] Liow, L. H., Skaug, H. J., Ergon, T., Schweder, T.: Global occurrence trajectories of microfossils: Is the rise and persistence of species influenced by environmental volatility? Manuscript for Paleobiology, 5 Dec 2008

[2] Rikvold, P.A., Zia, R.K.P.: Punctuated equilibria and  $1/f$  noise in a biological coevolution model with individual-based dynamics. Physical Review E **68**, 031913 (2003)

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Date submitted: 28 Aug 2009

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