

Scaling Biodiversity
October 2004
Villa Lanna, Prague, Czech Republic

Workshop organizers:

- David Storch, Center for Theoretical Study, Charles University, Prague, and SFI (international fellow) (storch@cts.cuni.cz)
- Pablo A. Marquet, Center for Advanced Studies in Ecology and Biodiversity (CASEB), Departamento de Ecología, Pontificia Universidad Católica de Chile, and SFI (international fellow) (pmarquet@puc.cl)
- James H. Brown, Department of Biology, University of New Mexico, Albuquerque, and SFI (jhbrown@unm.edu)
- Geoffrey B. West, Los Alamos National Laboratory, and SFI (gbw@santafe.edu)

The intent of the workshop is two-fold. One aim is to bring together leading researchers from different disciplines and perspectives to work on scaling of biodiversity. The scientists include several with expertise in ecology, biogeography, and evolution, as well as others with training in physics and mathematics. They will attempt to clarify the questions, apply different conceptual approaches and analytical methods, and evaluate alternative hypotheses using available databases. The second aim is to involve students in the workings of these scientists. Graduate students and postdocs will be recruited from the Czech Republic and elsewhere in Europe. They will have the unique opportunity to participate in the process of tackling one of the biggest problems in complexity. Biodiversity, its patterns, causes, and conservation, is one of the hottest topics in contemporary biology. Many scientists and research groups are working on the topic, but most are working relatively independently. The proposed workshop will improve communication between the groups, seek consensus about the empirical generality and conceptual application of scaling theory, and hopefully lead to increased understanding of the fundamental processes that generate and maintain the diversity of life on the planet.

Participants

- Geoff West (physics), SFI and Los Alamos National Laboratory
James Brown (biology), SFI and Department of Biology, University of New Mexico
- Murray Gell Mann (Physics), SFI
- John Harte (physics, biology), Energy and Resources Group and the Ecosystem Sciences Division of the College of Natural Resources, University of California, Berkeley
- Andrew Allen (biology), Department of Biology, University of New Mexico
- Ethan White (biology), Department of Biology, University of New Mexico
- Jessica Green (biology, physics), Department of Environmental Science and Policy, University of California, Davis
- Joshua Plotkin (mathematics), Institute for Advanced Study, Princeton
- Neo Martinez (biology), Center for Applied Mathematics, Cornell University, Ithaca, New York

- Brendan Bohannon (microbial biology), Stanford University
Tim Keitt (biology) University of Texas at Austin, Section of Integrative Biology
- David Storch (biology), SFI international fellow, and Center for Theoretical Study, Charles University
- Pavel Kindlmann (mathematics), Theoretical and Evolutionary Ecology Section, Faculty of Biological Sciences, University of South Bohemia
- Tomas Herben (biology), Department of Botany, Faculty of Science, Charles University
- Arnost Sizling (mathematics, biology), Department of Philosophy and History of Science, Faculty of Science, Charles University
- Jerome Chave (mathematics, physics), Laboratoire Evolution et Diversité Biologique, Université Paul Sabatier, Toulouse, France
- Kevin Gaston (biology), Biodiversity and Macroecology Group, Department of Animal & Plant Sciences, University of Sheffield, UK
- Jack Lennon (biology), Centre for Biodiversity and Conservation, School of Biology, University of Leeds, UK
- William Kunin (biology), Faculty of Biological Sciences, University of Leeds, UK
- Andrew Clarke (biology), British Antarctic Survey, Cambridge University, UK
Fangliang He (biology, mathematics), Department of Renewable Resources, University of Alberta, Canada
- David Currie (biology), Ottawa Carleton Institute of Biology, University of Ottawa
- Pablo Marquet (biology), SFI and Center for Advanced Studies in Ecology and Biodiversity (CASEB) and Departamento de Ecología, Pontificia Universidad Católica de Chile, Chile.
- Beata Oborny (biology), Department of Plant Taxonomy & Ecology, Lorand Eotvos University, Budapest, Hungary.

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