

BIODIVERSITY SYNTHESIS CENTER: ENCYCLOPEDIA OF LIFE

SYNTHESIS MEETINGS: REQUEST FOR PROPOSALS

The synthesis of biodiversity information holds great promise as a source of scientific progress in many areas of biology and related disciplines. The *Encyclopedia of Life* (EOL) will become a nexus for integration of biodiversity information from many fields, and the Biodiversity Synthesis Center provides a central location for scientific working groups to convene and explore new ideas and develop tools for synthetic analysis in biodiversity informatics. We are now encouraging proposals for bringing together diverse groups of people for advancing biodiversity science and contributing to the EOL.

Synthesis Meetings will be held on a wide range of topics in biodiversity, evolution, and conservation. Synthesis Meetings may be held in Chicago at BioSynC or at other national or international venues. Proposals should be focused on biodiversity informatics, involve the formulation of novel scientific ideas, build new bridges among disciplines, and/or deal with a timely issue in biodiversity or conservation with a direct relation to the EOL. Proposals will be short (about 5 pages) and include the following topics: the leaders of the group, a concise summary, a clear statement of goals including how the group will answer an important issue in biodiversity, contributions to or use of the EOL, a list of participants, the duration and tentative agenda of the initial meeting, desired outcomes and products from the group, and the requested financial support and staffing needs requested from BioSynC. We anticipate supporting 10-12 synthesis meetings per year, with total budgets ranging from about \$15,000 for small meetings of 10 people up to \$50,000 for larger meetings with extensive international participation.

SOME POSSIBLE TOPICS FOR SYNTHESIS MEETINGS

(Additional ideas welcome):

Taxonomy of megadiverse species groups. Developing consensus species-level taxonomies of large and under-studied species groups, including review of names and synonyms, planning for EOL page content and the synthesis of biogeography and evolution in hyperdiverse taxa.

Phylogenetics and Evolution. Integrating the tree of life in the EOL, development of new tools for visualizing phylogenies and patterns of biodiversity on phylogenetic trees, and advancing evolutionary ideas in the Encyclopedia of Life.

Biogeography. Synthesis of biogeographic data, development of tools for biodiversity mapping in space and time, incorporating current and historical distribution records, fossils, predictive range maps, illustrating connections among species (e.g. food webs) on the EOL.

Conservation biology. Integration of theory and empirical data, identification of hotspots and conservation priorities, and the development of practical tools to aid biologists and policy makers in identifying and preserving biodiversity.

Genetics and genomics. Assembling and analyzing large data sets, computational phylogenetic questions, illustration tools for genetic diversity overlaid on species diversity maps.

Computing and software applications. New applications for the use of supercomputers and grid networks for high performance bioinformatics applications as related to the EOL.

Data mining, biosemantics other novel applications. Mining biodiversity data for patterns and interconnections, exploring the sociology or politics of biodiversity and information technology.

TO PROPOSE A SYNTHESIS MEETING:

We welcome Synthesis proposals at any time, with 4 target dates for review per year: March, June, September, and December 1.

Email applications to biosync@fieldmuseum.org

Proposals should be brief (about 5 pages) and include:

- Title
- Contact details for group leaders
- Summary
- Statement of meeting goals
- Statement of applicability to EOL
- Tentative participant list
- Tentative agenda or topics to be covered
- Tentative meeting logistics (ideal location, duration, timing)
- Meeting outcomes and products (i.e. EOL content, taxonomic lists, novel programs or applications, larger grant proposals, educational tools, etc.)
- Requested financial support

contact Mark Westneat (mwestneat@fieldmuseum.org) or Audrey Aronowsky (aaronowsky@fieldmuseum.org) for more information or to discuss proposal development. Also see our website www.fieldmuseum.org/biosync and the EOL website www.eol.org.