

e-Biosphere 09 Planning Workshop

4-5 June 2009

RESOLUTION

In conjunction with the e-Biosphere 09 conference held in London on 1-3 June 2009, a workshop was held to begin developing an integrated roadmap for biodiversity informatics over the coming 5-10 years. The workshop was attended by 36 individuals representing the organizations that sponsored the conference; additional organizations and institutions that have played leading roles in biodiversity informatics; and members of the e-Biosphere steering committee.

The workshop attendees endorsed the following resolution as a summary statement from the e-Biosphere 09 Conference and as a further step toward broad, community-based action.

The Convention on Biological Diversity defines "biological diversity" as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."

Biodiversity informatics is a rapidly growing field that brings information science and technologies to bear on studying and understanding biological diversity. In doing so, it is of great value to both science and society by creating unprecedented global access to information on genes, organisms, species, populations, ecological interactions, and ecosystems, as well as the effects of humans on all of these.

In order to address global environmental challenges, contribute to sustainable development, and promote the conservation of biological diversity, the workshop attendees agreed to work collaboratively and collegially in a common effort to rapidly further the efforts of biodiversity informatics. The workshop participants called for the further development of an inclusive, broadly based, open coalition. This coalition would collaboratively promote activities designed to rapidly improve the capability of biodiversity informatics to contribute to societal goals.

The attendees also endorsed the suggestions expressed by participants in the e-Biosphere 09 Conference that the biodiversity informatics community should:

- ensure maximum interoperability among as many kinds of data as possible;
- be based on community-wide standards and a solid taxonomic foundation;
- be comprehensive in coverage and global in scope;
- aggressively bring large amounts of both new and existing data into the digital realm where they are easily accessed; and
- provide free and open access to biodiversity data and information.

It was evident at e-Biosphere 09 that significant progress has been made in all of the above areas. It was equally apparent that the biodiversity informatics community

should increase efforts to network people, tools, databases and workflows. A major goal of the proposed open coalition would be to create a seamlessly connected virtual laboratory or platform for integrating, synthesizing, and analyzing biodiversity information, in order to better model and understand the entire biodiversity of the globe. Among many other uses, such a virtual laboratory or platform could be used to enable evidence-based assessments of biodiversity, in support of many policy and scientific fora worldwide.

Workshop attendees recognized that they represent only part of a much larger enterprise, and they called upon additional colleagues involved in biodiversity informatics to articulate and implement initiatives that serve the above goals.

Workshop participants agreed that some of the priority activities of the coalition should be to:

- Develop and maintain a communication mechanism that will engage and promote collaboration among all relevant stakeholders in biodiversity informatics;
- Develop and disseminate an outlook report on biodiversity informatics on a periodic basis, to assess the status and future of the field; and

In addition, the workshop participants recommended that the coalition should lend general support to, collaborate on and expedite existing and future initiatives to:

- Complete durable global registries of biodiversity informatics resources;
- Complete the construction of a solid taxonomic infrastructure through the development of checklists and the catalogue of life for all groups of organisms, in order to support the development of the global names architecture;
- Invest in ontology development and engage with the ontology community, with the goal of developing biodiversity-related ontologies that fill the needs of identified user communities;
- Develop an approach to the citation of published data and information services that will enable the impact of electronic data provision and biodiversity informatics to be documented objectively; and
- Implement active and effective outreach to the policy and research domains that rely on biodiversity informatics as a resource.