

# **DRAFT FOR WORKSHOP PARTICIPANTS ONLY NOT FOR PUBLICATION**

## **RESOLUTION**

### **e-Biosphere 09 Planning Workshop**

**5 June 2009**

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 first 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.

The workshop participants recognize the emergence of an inclusive, broadly based, open e-Biosphere coalition. This coalition will collaboratively promote activities designed to rapidly improve the capability of biodiversity informatics to contribute to societal goals.

The workshop attendees agreed to work collaboratively and collegially in a common effort to rapidly further the efforts of biodiversity informatics. In order to contribute to sustainable development and the conservation of biological diversity, the attendees also endorsed the suggestions expressed by participants in the e-Biosphere 09 Conference that biodiversity informatics 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.

One major objective of the coalition is to network people, tools, databases, and workflows to create a single seamlessly connected virtual laboratory or platform, able to do what was never available before – to integrate, synthesize, and analyze biodiversity information, in order to model the entire biodiversity of this globe. Such a virtual laboratory or platform will, for the first time, be able to support 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 call upon colleagues involved in Biodiversity Informatics to articulate and implement initiatives that serve the goals presented here. As concrete first steps, workshop participants agreed that some of the first activities of e-Biosphere should be to:

- Develop and maintain a communication mechanism that will engage and promote collaboration among all relevant stakeholders in Biodiversity Informatics;
- Create durable global registries of Biodiversity Informatics resources;
- Complete the development of the core of the Taxonomic Foundation Infrastructure through construction of the Global Names Architecture and completion of the Catalog of Life;
- 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 and disseminate an outlook report on Biodiversity Informatics on a periodic basis, to assess the status and future of the field;
- Develop an approach to the citation of published data and information services that will enable the impact of Biodiversity Informatics to be documented objectively;
- Engage the Computer Science community as collaborators in advanced research on biodiversity informatics; and
- Implement active and effective outreach to the policy and research domains that rely on Biodiversity Informatics as a resource.