

Workshop on Cyberinfrastructure for International Biodiversity Research Collaboration

**City of Knowledge, Panama
January 10-13, 2006**

Discussion Questions for Plenary Session Panels

Panel 1: Biodiversity and Ecological Informatics Research

1. What are the opportunities and successes with the utilization of cyber-infrastructure for biodiversity and ecological research collaboration? Within countries? Across countries? What did not work? What were the impediments that were difficult or impossible to overcome? Other lessons learned?
2. What will be the likely importance of networked, collaboration systems and architectures for biodiversity research in the future? What are the critical components of successful environmental informatics networks and collaborations?
3. What do you perceive are the measurable, demonstrable, benefits of an internationally shared cyberinfrastructure to your own research, to the larger environmental research and education community?
4. What can national research and education networking organizations (which are operating network backbones) and standards organizations, do to more effectively help the emergence and utilization of shared cyberinfrastructure for research collaboration?

Panel 2: Cyberinfrastructure for collaborative biodiversity research

1. What cyberinfrastructure (CI) tools are available or emerging to support collaborative biodiversity research among Central American nations, the U.S., and other countries?
2. Describe your experiences, best practices or success stories with applying CI to enable effective collaborative research among teams of distributed and autonomous researchers and geographically dispersed resources
3. Describe the key issues and challenges you face when applying cyberinfrastructure to support environmental research or other science domains?

Panel 3: Policy and Funding--national priorities, activities and programs, sustainability, future directions for investment and funding

1. Which programs is your agency or organization supporting or planning to support that may enhance the linkage between cyberinfrastructure and research in the biodiversity area, particularly with international collaboration? Are there any involving partnerships with other agencies?
2. From your agency/organization perspective, what activities promoting cyberinfrastructure-based collaboration would be likely to be welcomed? What would not be encouraged?
3. What mechanisms and next steps should we take to promote more collaborative cyberinfrastructure-based research?

Panel 4: Coordination and Collaboration--emerging international collaborative networks, cyberinfrastructure-based research communities, virtual teams and organizations

Coordination is about how people and technology manage dependencies. *Collaboration* is about how people work together. It is also about the medium that is used to collaborate; e.g., e-mail, video conference, teleconference, Access Grid, Wikis, and other technologies.

Theme 1: Coordination and Collaboration for Research

(Success stories, issues and challenges, best practices about coordination and collaboration involving groups doing research)

1. What are your success factors in effective coordination and collaboration?
2. How have distance, multiple time zones and geographical distribution of people and resources impacted effectiveness of coordination and collaboration?
3. Which cyber tools do you use to manage the collaboration? How effective are these tools for coordinating activities/work between the collaborating groups doing research?

Theme 2: Effective organizational models and mechanisms for biodiversity research collaborations

(By organizational model we mean a structure that enables its members to divide work into distinct tasks and then to coordinate the tasks among the members.)

1. Which organizational models have you found effective for broad research collaborations? Which models have not been effective? Explain why for each.
2. How dependent are the organization models you use on CI? Explain how.
3. What are the criteria you use or the factors that come into play for selecting a particular organization model for research collaboration?