

Biodiversity Information Needs in the Southern Appalachians:
Preliminary Results of a Survey of Researchers

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Increasing Biological Information Sources:
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Introduction

Information is essential to understanding earth's natural environment. As scientific and technical knowledge increase, the amount of information available to aid in the process of understanding the environment increases as well. To be useful, this information must be gathered, documented, organized, presented and shared in ways that are appropriate to any given situation, topic or use and are easily accessible. Increasingly, web portals and information networks address these needs by providing organized, easy access to an array of information about the environment. A challenge to these efforts however, is knowing what information is most appropriate to include for any given environmental topic, and how best to provide access to that information for the specific audience addressed.

Background

The NBII, a "broad collaborative program" managed by the U.S. Geological Survey, provides "access to data and information on the nation's biological resources"

(NBII Program 2002) via an internet portal. The mission of NBII's Southern Appalachian Information Node (SAIN) is to make the "region's biodiversity information available for decision making." To support this mission, SAIN partnered with the University of Tennessee's Center for Information and Communication Studies on the Increasing Biological Information Sources: Technical Assistance and Support for Delivery and Technology Transfer (IBIS) project to identify biodiversity information, and develop tools and services that increase the accessibility and effectiveness of that information. Priority topics are biodiversity related aspects of climate change, renewable energy and aquatic resource management and restoration. Priority audiences are organizational decision makers, resource managers, researchers, educators and the public.

Completing the IBIS objectives requires identifying the specific information needs and practices of SAIN's priority audiences as well as the status of their data collection, maintenance and/or sharing practices. Differences in information needs and practices among environmental researchers, educators and members of the community interested in environmental issues have been identified in a preliminary study (Normore 2009). However, the specific biodiversity information needs, current information seeking and sharing practices, and biodiversity information preferences of SAIN's current and potential users are unknown.

Research Purpose and Questions

The purpose of this research is to assess the information needs and information seeking behavior of high priority segments of SAIN's audience in order to make needed biodiversity information more accessible for research, decision making and education. Specific research questions include: 1) What biodiversity information is needed by

these audience members, 2) What information sources are currently relied upon, and why, 3) how does SAIN's priority audience currently find the information they need to do their work, and 4) what makes biodiversity information easier to find?

Methods

To address these questions, an internet survey was conducted in the fall of 2010. Invitations were sent to all life and agricultural science faculty at research intensive universities in the Southeast, as well as members of the herbarial community, and attendees at regional related conferences and workshops. Invitations will be sent to regional members of the environmental non-profit, land trust, and state fish and wildlife agency communities after the first of next year.

Preliminary Results

Three hundred scientists responded to an online survey. Preliminary results indicate difficulty finding needed biodiversity information despite substantial interest. While sixty percent of the respondents indicate half or more than half of their work relates specifically to biodiversity, thirty-one percent say that information is difficult or very difficult to find. Among current respondents, raw data at the state scale is needed most, information search tools are the most important information tools, and finding needed information is made easier via searcher skill and the degree of availability of appropriate information. The amount of time involved in finding the information needed is also a significant barrier to finding biodiversity information.

Preliminary Conclusions

These results suggest that the information needs of biodiversity researchers, decision makers and educators in the Southeast extend beyond needs for specific

topics and types of information to needs for information search training and streamlining of the processes of both providing and finding biodiversity information via internet portals. Results also provide actionable findings for the NBII in terms of meeting these needs via the Southern Appalachian Information Node (SAIN). For example, SAIN can help meet the needs of its audience, by engaging them in training on data management, data upload, and data search such that greater amounts of needed information are more readily accessible and usable.

Literature Cited

NBII Program (2002). "National Biological Information Infrastructure - Yesterday, Today and Tomorrow." from
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Normore, L.F. (2009). Information needs of groups interested in environmental issues in Southern Appalachia: Class project, University of Tennessee, IS588, Spring 2009.