

Celebrate The International Biodiversity Observation Year (IBOY) 2001-2002

Why do we need an IBOY?

The Earth's biodiversity provides goods and services of central importance for ecosystem functioning and society, but it is rapidly diminishing. Current rates of species loss are 1,000 times the natural extinction rate and are predicted to increase. Within the next few decades two-thirds of bird and mammal species may be on an irreversible path to extinction.

Monitoring and reducing biodiversity loss is a major scientific challenge of the twenty-first century. Only about 13% (1.75 million) of species have been taxonomically described. The location, conservation status and importance to ecosystems and human societies are known for even fewer species. Furthermore, biodiversity loss is a complex problem, driven by biological, chemical and physical changes in the atmosphere and biosphere that result from social changes such as increasing human population and consumption.

To inform biodiversity conservation, the following are urgently needed:

- increased biological research to inventory what exists and monitor change
- research that integrates biological, physical and social sciences
- increased communication of up-to-date scientific information on biodiversity to decision-makers.

What is happening during IBOY 2001-2002?

DIVERSITAS, the international program of biodiversity science, has launched IBOY as a pulse of activity to collect and share information on biodiversity. International researchers and educators are joining forces to:

- advance a holistic understanding of biodiversity and its links to society
- increase communication of science based information on biodiversity and its importance to the media, public and policy-makers.



At the center of IBOY, over 100 **projects** from over 140 countries are exploring genetic, species or landscape biodiversity and its links to ecosystems and society, at local to international scales. IBOY is drawing them together, through meetings, the internet, publications and

media activities to:

- network international biodiversity researchers
- promote interdisciplinary biodiversity research
- strengthen linkages between biodiversity research, education and media
- communicate science-based biodiversity information to a broad audience.

**TO LEARN MORE ABOUT IBOY VISIT
<http://www.nrel.colostate.edu/IBOY>**



“The Detecting Environmental Change conference is an important milestone for developing the international, interdisciplinary approaches necessary to provide information that society needs on the changes in our natural and managed systems.”

Dr. Diana H. Wall, Chair, IBOY

IBOY Projects around the world providing important new information on the Earth's changing biodiversity in 2001 and 2002 include:

BIOMARE - Implementation and Networking of Large-Scale, Long-Term Marine Biodiversity Research in Europe, led by Drs. Carlo Heip and Herman Hummel, is developing a network of reference sites and standardized indicators, to understand long-term marine biodiversity patterns across Europe.

<http://www.biomareweb.org/>

The Declining Amphibian Populations Task Force (DAPTF), led by Drs. Timothy Halliday and James Hanken, is assessing the extent and cause of recent declines in amphibians, to understand the

implications for ecosystem and human health, global change, and to improve amphibian conservation. DAPTF will publish its findings in a CD-ROM database and a book. <http://www.open.ac.uk/daptf/>

As part of the IGBP-GCTE program, a study of the *Impacts of Biological Invasions*, coordinated by Drs. Montse Vila, Mark Lonsdale and Pep Canadell, will gather international scientists for a meeting in Barcelona, September 2001, to develop a global assessment of rates, extent and ecological impacts of invasive species. <http://GCTE.org/>

LITUS, led by Drs. Magda Vincx and Jan Marcin Weslawski, is assessing the impacts of tourism on the biodiversity and functioning of sandy beaches from the arctic to the tropics, and will develop management protocols for conserving biodiversity under tourism. <http://ocean.iopan.gda.pl/rbdo/mekodb/litus/>

Drs. Terry Done and John Ogden are leading over 100 scientists and volunteers in an assessment of the *Recovery of Coral Reef Biodiversity Following Bleaching* caused by unusually hot weather around the world's tropical oceans in 1998. A report will be published in 2002.

Some land uses, particularly intensive agriculture, threaten biodiversity in soils and the ecosystem services they deliver such as

decomposition and maintenance of soil fertility. *MACROFAUNA: An Endangered Resource in a Changing World*, led Dr. Patrick Lavelle, is developing a global database and standardized methods to improve monitoring and management of soil biodiversity for sustainable agriculture.

<http://www.bondy.ird.fr/lest/iboy/index.html> *GLIDE: Global Litter Invertebrate Decomposition Experiment*, led by Drs. David Bignell, Mark Dangerfield and Diana Wall, is linking research sites across the Earth's biomes and land-use types, to survey patterns of soil biodiversity and decomposition. <http://www.nrel.colostate.edu/projects/glide/>

The *Millennium Ecosystem Assessment*, led by Dr. Walter Reid, is the first global attempt to assess the current and future abilities of ecosystems to supply the many goods and services needed by society. <http://www.millenniumassessment.org/>

BIOTA-Africa, led by Dr. Norbert Jürgens, is monitoring and analyzing changes in biodiversity across African biomes to provide information to support its sustainable management. <http://www.biota-africa.org>

