

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

## Why do we need an International Biodiversity Observation Year in 2001-2002?

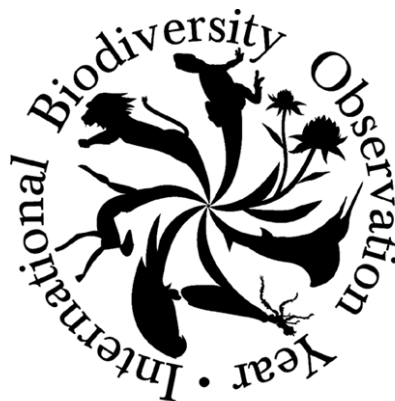
Improving knowledge about biodiversity may be the greatest scientific challenge of the 21<sup>st</sup> Century. Only 13% (about 1.75 million) of species have been *taxonomically* described by scientists. The location, conservation status, and importance to ecosystems and to humans, is known for even fewer species.

Exploring biodiversity will unlock many benefits, for example by discovery of genes and chemicals that can improve crops, yield new drugs, or restore polluted land. Learning where species are, their role in maintaining healthy ecosystems and how we can conserve them will be vital for making wise decisions about our land, rivers and oceans.

New technologies have put the goal of understanding and conserving biodiversity within reach but scientists fear that much biodiversity may be lost before these efforts are successful. Species extinction rates are 100 to 1000 times the background rate expected without human influence. A third or more of all species could be on a path to extinction within the

next few decades. How much biodiversity is conserved and the benefits we derive from it will largely depend on decisions we make in the next few years.

*Diversitas*, the international program of biodiversity science, has launched the IBOY as a window in time to pull together to collect and share information on biodiversity that can help us make wise decisions about its use and protection.



An Initiative of DIVERSITAS  
2001-2002

## What is happening during the IBOY?

Across the world, local to international projects are

answering the following questions:

- What biodiversity do we have and where is it?
- What goods and services does biodiversity provide?
- How is biodiversity changing?
- How can we conserve biodiversity?

They are exploring well-known biodiversity 'hotspots' such as rainforests and coral reefs and less familiar habitats such as the soil beneath our feet, the deep sea, and anchialine caves. They are making their findings available through the web, journals, books, the press, film and television.

Scientists around the world are reaching out in 2001 and 2002 to share the wonders of Earth's biodiversity and the journeys of discovery to understand and conserve it.

Read about IBOY's research at <http://www.nrel.colostate.edu/IBOY/projects.html>, including opportunities to learn more and get involved. Australian research in the quest to understand and conserve biodiversity, includes:

The latest DNA reproductive technologies can help save endangered species. Dr. Ian Gunn and other researchers, together with habitat conservation, at the Animal Gene Storage Resource Center of Australia (<http://www.med.monash.edu.au/affiliates/agsrca/opening.htm>) are part of an international project to establish global 'DNA Banks for Endangered Species' ([http://www.sandiegozoo.org/cres/frozen\\_initiative.html](http://www.sandiegozoo.org/cres/frozen_initiative.html))

Scientists are finding incredible biodiversity, hidden from view, in anchialine (inland saltwater) caves. In Australia, Dr. Bill Humphreys and others at the Western Australian Museum have found the world's richest sites for amphipods ([http://www.museum.wa.gov.au/whats\\_new1.htm](http://www.museum.wa.gov.au/whats_new1.htm)) and other abundant cave fauna such as remipedes and therosbaenaceans, that are relics from ancient lineages (<http://www.wetlandcare.com.au/res-fauna.htm#hump>; <http://www.geocities.com/~mediaq/austral.html>). Expeditions to Barrow Island and Cape Range in 2001 and 2002, as part of a global effort to survey the fauna of anchialine caves (<http://www.cavebiology.org>), are likely to find many more new species. This new information on anchialine fauna is helping to protect these unique and fragile ecosystems.



The Representative Areas Program aims to protect the range of biodiversity across the Great Barrier Reef Marine Park. Analytical software is helping to identify a network of highly protected areas (i.e. 'no-take' zones) representing the different habitats and communities within 70 bioregions. See <http://abc.net.au/science/bluehighway/default.htm> for an interactive map and [http://www.gbrmpa.gov.au/corp\\_site/key\\_issues/conservation/rep\\_areas/](http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/rep_areas/) for more information.

Dr. Terry Done and other scientists from the Australian Institute of Marine Science (AIMS) have joined forces with the Florida Institute of Oceanography to lead scientists and volunteers in a global survey of the recovery of coral reef biodiversity, following bleaching associated with hot weather in 1998. See coral bleaching and recovery in Middle Reef, Townsville at <http://www.aims.gov.au/pages/research/reef-monitoring/tm/bleaching-event/bleaching-01.html> and to participate, see <http://www.ReefCheck.org>.

**Twenty-two Australian protected areas are participating in the Man and the Biosphere – Biodiversity Inventorying and Monitoring Program, to gather information on species in protected areas across the world. Scientists, birders and ecotourists can use this database to locate their country's rich and protected biodiversity heritage and can add to this internet library catalog. To find species in Australia's protected areas go to <http://ice.ucdavis.edu/mab>, hit Search Flora or Search Fauna.**



KIDS – find information and activities on biodiversity at the IBOY Kids page!

<http://www.nrel.colostate.edu/IBOY/kids/kids.html>