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Newsletter of the IBOY

DIVERSITAS – International Biodiversity Observation Year 2001-2002

Contents:

Charting the Ants of the World

by Dr. Donat Agosti

The *Social Insects World Wide Web* (*SIWeb*) is providing the first online counts and access to all the species of ants found on earth, and related scientific information. Housed at the American Museum of Natural History and Ohio State University, SIWeb's mission is to provide a single point of entry to all existing scientific information on ants, and in a later phase, all the social insects – ants, wasps, bees and termites. *SIWeb*'s count of 11,041 species of ants described to date, however, is only about half the total number expected to exist on Earth. During the last 12 years 1,269 new species have been described by 93 scientists from around the globe, which is 11.5% of all 11,006 ant species currently known.

Ants are one of the ecologically most dominant groups of animals world wide. They live on every continent, with the exception of polar and high glacial mountain regions; can make up to one third of the total animal biomass (the measure of the total weight of all the animals at a given site); and are now one of the most efficient invasive species around the world. Thus, knowledge of the distribution and abundance of ants is clearly a key to chart the distribution of biodiversity worldwide, and to begin to understand the function and health of most of the global ecosystems. Despite this, the total number of stars in the sky is probably better known than the number of species living on planet Earth,

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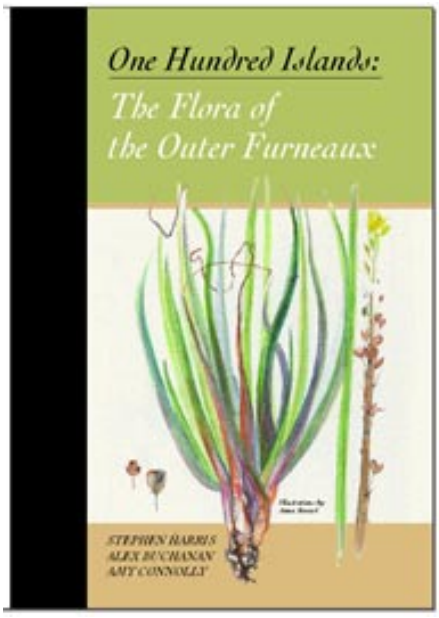
One Hundred Islands: *The Flora of the Outer Furneaux*

The flora of the Outer Furneaux Islands are described in a lavishly illustrated new book, published by the Tasmanian Department of Primary Industries, Water and the Environment. The book *One Hundred Islands: The Flora of the Outer Furneaux*, by Stephen Harris, Alex Buchanan, Amy Connolly and illustrated by Anna Stewart, is a contribution of the Tasmanian Government to IBOY and a product of the IBOY Project *The Flora and Fauna of the Bass Strait Coasts and Islands*.



One Hundred Islands: The Flora of the Outer Furneaux is the first of a series of products resulting from a three year survey of the diverse, but poorly known, flora of the coasts and islands of the Bass Strait between Tasmania and mainland Australia, conducted by the Nature Conservation Branch of the

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Online Ant Counts (cont.)

even ten years after the significant Earth Summit in Rio, 1992, declared the global biodiversity crisis to the public.

Comprehensive lists of species are the basic tools to start to understand patterns of global biodiversity. Even today such lists are rarely available, and mostly exist for those taxa that include less than a few thousand species (mammals, for example, had 4,629 listed species in 1991). Megadiverse groups of organisms – that is, groups with more than 10,000 species – at best have lists produced in print form, and thus are difficult to query, are always out-of-date, and are not usable for the information super highway.

All known species have a Latin binomen, unique within their respective kingdom. This is a globally accepted standard, and, in theory, it should be easy to find all information on a particular species just by searching for this name. In reality, we are far from making effective use of modern information technologies, since more than 95% of all the information known on species is hidden in obscure, hard-copy publications (for example, ca 3,800 publications cover primary ant systematics in 800 different serials by 480 authors). These data are especially difficult to obtain in the developing world, where most biodiversity is located and least protected. In the past year, the Organization for Economic Co-Operation and Development (OECD) has launched the Global Biodiversity Information Facility (GBIF), which will provide the informatics backbone to provide access to global biodiversity information. One of the primary goals of GBIF is to produce an electronic catalogue of the names of the world's species. *Indeed, it might be argued, that the knowledge on biodiversity is part of our global heritage and thus pertinent information should not be copyrightable.*

Thus, one main goal of *SIWeb* is to demonstrate, using ants as an example, the power of access to original biodiversity information for both science and conservation. This is being done by securing the necessary backbone by maintaining and updating the complete list of the ant species of the world. The scientific names will allow users to link to data sources worldwide, such as image and distribution databases.

A standard protocol to collect data on ground living ants was developed to facilitate the exchange of information among biodiversity experts as well as conservation management, and to be able to quantify abundance and change of ants in this period of biodiversity crisis.

In collaboration with Tom Moritz, director of the Digital Library at the American Museum of Natural History, new ways are being studied to provide access to the huge amount of legacy data (i.e. published material, specimen collections). The new research is also stimulating discussions to make the best use of electronic media, especially to define new standards to provide faster access to new research. A preliminary result is the access to over 500 online publications totaling ca 10,000 pages of publications, which can be searched through SIWeb.

Access to the data is also enhanced by specific menus for conservation and scientific communities and educational programs such as the Japanese Image Data Base, or the Virtual Congo Ant, a project in collaboration with the Digital Library project at the American Museum of Natural History.

SIWeb is a consortium of 50 scientists from all continents including the major institutions such as the American Museum of Natural History; The South African Museum, Cape Town; The Zoological Museum of the University of São Paulo; the CURIN School of Biology, Perth, Australia; and Institute of Genetics, Tokyo. The main coordinators are Donat Agosti (content), Research Associate at the American Museum of Natural History; Norman Johnson (databases), Director of the Insect Collections at the Ohio State University in Columbus, Ohio; and Hirotami T. Imai (Imagery and Education), National Institute of Genetics, Mishima, Japan.

This project is part of the initiative to provide information services to the Species Survival Commission of the World Conservation Union, the International Union for the Study of Social Insects. It is a core project of the International Biodiversity Observation Year 2001-02 (IBOY), and it is supplying the ant related data to the North American Integrated Taxonomic Information Service (IT IS).

SIWeb and its related Web sites are visited by close to ten million visitors every year and were recently featured in press articles by Reuters and CNN (http://www.cnn.com/2002/TECH/science/03/05/science.ants.reut/) and will be featured in the Netwatch section of *Science* volume 295, on March 22, 2002.

More information: on the IBOY Project *Charting and Documenting the World's Ants and Social Wasps* see http://research.amnh.org/entomology/social_insects/ and http://www.nrel.colostate.edu/IBOY/whatandwhere.html#ants

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One Hundred Islands (cont.)

Department of Industries, Water and Environment of the Tasmanian Government.

The Outer Furneaux islands are unusually rich in biodiversity, with a high proportion of endemic species. A number of factors contribute to their diversity: they lie at the junction several ecotones - two major sea currents and several distinctive marine provinces converge in the archipelago, contributing to a high biomass of marine fauna and seabirds; their location at the eastern extremity of a southern Mediterranean climatic belt contributes to a diverse assemblage of vascular fauna and plant communities; and the islands' isolation from external species' invasion makes them hotbeds of evolution, contributing to their high endemism. However, the very isolation that has contributed to the islands' biodiversity, makes their biota vulnerable to species invasions that are occurring as a result of human activities. Unlike continental species, the islands isolated fauna and flora have not evolved to withstand pressures of competition and predation from exotics.

The survey of the Bass Strait islands' fauna and flora are yielding important information about human impacts. While many islands bear some marks of human influence, others remain relatively untouched. Even more encouraging, the survey is revealing that there are islands that demonstrate that humans and areas of important natural value can coexist. Other results from the survey will be published over the next two years in a series of books and scientific papers. The project's leaders are highlighting the findings through a series of lectures to the public, specialist groups and students.

More information on the IBOY Project The Fauna and Flora of Bass Strait Coasts and Islands see http://www.nrel.colostate.edu/iboy/australia_ap.html#bass_straight

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Publications and Presentations

New Publications Provide Information and Tools for Conserving Migratory Species

by Dr. Klaus Reide

Two books and a CD-ROM database on animal migration have now been published from the project *Global Register of Migratory Species (GROMS)*:

- Riede, K. (2001): The Global Register of Migratory Species – Database, GIS Maps and Threat Analysis. Münster (Landwirtschaftsverlag), 320 pp. + CD.

The database contains 2,880 migratory vertebrate species and their common names in English, French and Spanish, their threat status according to the International Red List 2000, an extensive bibliography of 4,300 references, and digital maps for 545 species. Maps are compatible with any Geographical Information System (GIS), which allows geographic queries and threat analysis by intersection with other GIS layers (examples are included on the *GROMS* CD). The book contains first results from a global analysis of threat status, maps for 90 species in printed format, and a complete printed list of migratory mammals, birds and reptiles. A simplified version of the database is available on the *GROMS* webpage www.groms.de, containing a Java-based map server and animated migration routes based on satellite tracks.

- Riede, K. (Ed.) (2001): New Perspectives for Monitoring Migratory Animals – Improving Knowledge for Conservation. Proceedings of an International Workshop on behalf of the 20th Anniversary of the Bonn Convention. – Münster (Landwirtschaftsverlag), 166 p.

Over the past decades, animal migration has been studied applying new, highly sophisticated methods. Surprising new insights have been revealed by using satellite tracking, genetic analysis and new information technologies. The second book entitled "New Perspectives for Monitoring Migratory Animals - Improving Knowledge for Conservation" contains original articles presented at a workshop bringing together scientists and conservationists, who met during a memorable event: the 20th anniversary of the Convention on the Conservation of Migratory Species of Wild Animals (CMS, also known as the "Bonn Convention"), celebrated in Bonn, June 1999. Several conservation programs tailored for the protection needs of threatened migratory species are presented here and illustrate the great potential of new technologies for improving conservation. The workshop was hosted by the Center for Development Research. Both books and the CD are published by the Federal Agency of Nature Conservation, with funds from the German Ministry of the Environment.

More information on the IBOY Project *Global Register of Migratory Species (GROMS)* see http://www.biologie.uni-freiburg.de/data/riede/groms.html and http://www.nrel.colostate.edu/IBOY/how_changing.html#groms

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Dr. Clas Naumann, Zoological Research Institute and Museum, Alexander Koenig, Adenauerallee 160, 53133 Bonn, Germany. Phone: (49) 228 9122200; Fax: (49) 228 3122202; Email: C.Naumann.zfmk@uni-bonn.de

Harris, S., Buchanan A. and A. Connolly. 2001. *One Hundred Islands: The Flora of the Outer Furneaux.* Tasmanian Department of Primary Industries, Water and Environment, Hobart.

(See story pg. 1)

Kornicker, L.S., T.M. Iliffe and E. Harrison – Nelson. 2002. Ostracoda (Myodocopa) from Bahamian Blue Holes. *Smithsonian Contributions to Zoology.* 616: 1-99.

March 6-10, 2002

University of Florida, Gainesville, Florida, USA. Illife, T.M. 2002. *Karst Frontiers: Florida and Related Environments*

Dr. Thomas Iliffe of Texas A&M University at Galveston, USA presented a talk on cave biodiversity conservation at the Karst Waters Institute Conference.

More information on the IBOY Project *Exploration and Conservation of Anchialine Cave Faunas* see http://www.cavebiology.com/ and http://www.nrel.colostate.edu/IBOY/whatandwhere.html#anchialine

Contact:
Dr. Thomas Iliffe, Dept. of Marine Biology, Texas A&M University at Galveston, Texas, 77553-1675, USA. Tel: (1) 409 740 4454; Fax: (1) 409 740 5001; Email: iliffet@tamug.tamu.edu
Dr. Geoffrey Boxshall, The Natural History Museum, Cromwell Road, London, SW7 5BD, United Kingdom. Tel: (44) 207 942 5749; Fax: (44) 207 942 5433; Email: G.Boxshall@nhm.ac.uk

Press, Radio, and Television

February 5, 2002

Species Come, Species Go. Radio Netherlands International

http://www.rnw.nl/science/html/biodiversity020205.html

For more information on *BIOMARE - Implementation and Networking of Large-Scale, Long-Term Marine Biodiversity Research in Europe* see http://www.biomareweb.org/ and http://www.nrel.colostate.edu/IBOY/how_changing.html#feral, or contact Dr. Carlo Heip, (heip@cemo.nioo.knaw.nl).

March 4, 2002

Army of Microscopic Life Probed for Health of Planet's Soil. *National Geographic Today*

http://news.nationalgeographic.com/news/2002/03/0304_0304_TVwipe.html

For more information on the IBOY project *Global Litter Invertebrate Decomposition Experiment (GLIDE)* visit http://www.nrel.colostate.edu/projects/glide/ and http://www.nrel.colostate.edu/IBOY/goods_services.html#bignell or contact Dr. Diana Wall (diana@nrel.colostate.edu).

March 5, 2002

Scientists Set First Complete Ant-thology . CNN Online

http://www.cnn.com/2002/TECH/science/03/05/science.ants.reut/

For more information on the IBOY Project Social Insects World Wide Web http://research.amnh.org/entomzology/social_insects/ and http://www.nrel.colostate.edu/IBOY/whatandwhere.html#ants or contact Dr. Donat Agosti (agosti@starnet.com.eg).

March 11- April 1, 2002, Yucatan Peninsula, Mexico

Expedition to Survey and Film the Fauna of Anchialine Caves

The American Public Broadcasting Service (PBS) will begin filming for an hour-long documentary with IBOY Core Network Project Leader, Dr. Thomas M. Iliffe on caves and cenotes of the Yucatan Peninsula. The film, directed by Wes Skiles and Karst Productions Inc. will feature the biology, hydrology and archeology of the cenotes.

More information on the IBOY Project *Exploration and Conservation of Anchialine Cave Faunas* see http://www.cavebiology.com/ and http://www.nrel.colostate.edu/IBOY/whatandwhere.html#anchialine

Contact: Dr. Thomas Iliffe, Dept. of Marine Biology, Texas A&M University at Galveston, Texas, 77553-1675, USA. Tel: (1) 409 740 4454; Fax: (1) 409 740 5001; Email: iliffet@tamug.tamu.edu

April 15, 16, 17, 2002

Hindu Kush Bees of the Himalayas, Pulse of the Planet

The radio show *Pulse of the Planet*, which broadcasts to over 300 stations around the world and reaches more than one million listeners daily, will continue its series on IBOY Projects with three interviews with Dr. Farooq Ahmad on the IBOY Project *Indigenous Honeybees in the Himalayas: A Community-based Approach to Conserving Biodiversity and Increasing Farm Productivity*. Jim Metzner, host and producer of *Pulse of the Planet*, recorded the interview at "Building Bridges for Biodiversity: The first meeting of IBOY project leaders" that took place at the US Fish and Wildlife Service's National Wildlife Visitor Center, Maryland, USA June 14-16, 2001.

More information
After broadcast the articles can be heard online at http://pulseplanet.nationalgeographic.com. Click on the archive and search by keyword. For more information on *Pulse of the Planet* see http://www.pulseplanet.com

More information on the IBOY Project *Indigenous Honeybees in the Himalayas: A Community-based Approach to Conserving Biodiversity and Increasing Farm Productivity* see http://www.icimod.org.sg/ and http://www.nrel.colostate.edu/IBOY/how_conserve.html#bees

Contact: Dr. Farooq Ahmad, 4/80 Jawalakhel, PO Box 3226, Kathmandu, Nepal. Phone: (977) 1 525313; Fax: (977) 1 524509; Email: farooq@icimod.org.np

Meetings

March 12, 2002, Otsu Shiga, Japan

DIWPA Steering Committee Meeting

DIVERSITAS in Western Pacific and Asia (DIWPA) held a meeting of its Steering Committee, March 12, 2002, at the Center for Ecological Research, Kyoto University, Otsu, Shiga, Japan. The new members of the DIWPA Steering Committee were introduced to each other and the agenda below was discussed.

- New DIWPA SC and Secretary Office
- Progress report on IBOY-DIWPA-IBOY Biodiversity Assessment Program in the Western Pacific and Asia Region
- Field Biology Courses in 2002
- Activities of DIVERSITAS in new administration
- Activities after IBOY

Preceding the Steering Committee meeting, on March 11, an informal seminar discussed the future direction of the biodiversity study in this region. The discussion was set in the context of activities after IBOY and the new directions of DIVERSITAS under its new administration.

More information on the IBOY Project *DIWPA-IBOY - Biodiversity Assessment Program in the Western Pacific and Asia Region* see http://ecology.kyoto-u.ac.jp/%7Egaku/diwpaindex.html and http://www.nrel.colostate.edu/IBOY/how_changing.html#greenblue

Contact: Dr. Tohru Nakashizuka, Research Institute for Humanity and Nature, Kitashirakawa Oiwakecho, Kyoto 606-8502, Japan. Phone: (81) 75 753 7771; Fax: (81) 75 753 7753; Email: toron@chikyu.ac.jp

March 14 – 16, 2002, Heraklion, Crete

BIOMARE Regional meeting (emphasis on the Mediterranean, Baltic and North Sea regions)

April 18 – 20, 2002, Horta, Azores

BIOMARE Regional meeting (emphasis on the Atlantic and Arctic regions)

The topics of the BIOMARE Regional meetings are to discuss 1) the first choices of BIOMARE Reference Sites for marine biodiversity research across Europe, according to the agreed evaluation list (the BIOMARE Biodiversity Flagship Site Classification (BBFSC) (Workpackage 1)), and 2) the protocol on biodiversity indicators, adjusted on the basis of the outcome of the e-conference held in January and February 2002.

18 March, 2002, Amsterdam, The Netherlands

BIOMARE-MARS Workshop on Network of Excellence in Marine Biodiversity

The first outline of a Network of Excellence in Marine Biodiversity will be discussed, and a stand-by committee will be established that will prepare the call for proposals within the sixth framework program of the European Union. Since marine sciences in general, and marine biodiversity in particular, will be mentioned explicitly as important research axes, it is time to start the preparation of such a network. BIOMARE-MARS particularly expects interest and participation from the European museums of natural history, selected university groups, and governmental institutes. The conditions for participation in such a network must be established as well as a set of criteria allowing for participation. Most importantly, the important scientific issues at the European scale and the possible application of marine biodiversity science to European policies and competitiveness must be defined.

More information on the IBOY Project *BIOMARE - Implementation and Networking of Large-Scale, Long-Term Marine Biodiversity Research in Europe* see http://www.biomareweb.org/ and http://www.nrel.colostate.edu/IBOY/how_changing.html#feral

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Dr. Herman Hummel, NIOO-CEMO Netherlands Institute of Ecology - Center for Estuarine and Coastal Ecology, Korringaweg 7, 4401 NT Yerseke, The Netherlands. Tel: (31) 113 577300; Fax: (31) 113 573616; Email: hummel@cemo.nioo.knaw.nl

Field Expeditions

March 11- April 1, 2002, Yucatan Peninsula, Mexico
Expedition to Survey and Film the Fauna of Anchialine Caves (See pg. 5)

Funding and Collaborative Opportunities

Macrofauna – Call for Data to Analyze Worldwide Trends

The *Macrofauna* project is calling for collaborators to help populate a new database that will support comprehensive analyses of worldwide trends in macrofauna (e.g. earthworms, termites, ants) distribution, biomass, and density.

Fifteen years ago the *Macrofauna* network developed a database of soil macrofaunal communities around the world. In 1994 the first major analysis of the world's soil macrofauna communities, based on this database, was published (Lavelle. P. *et al.* 1994. The relationship between soil macrofauna and tropical soil fertility. In Eds. P.L. Woomer and M.J. Swift. *Biological Management of Tropical Soil Fertility*, John Wiley and Sons, Chichester). General trends were assessed for 73 macrofaunal communities from 29 sites under various land use systems around the world which were sampled using the TSBF hand-sorting method (Anderson, J.M. and J.S.I. Ingram (Eds.) 1993. *Tropical Soil Biology and Fertility: A Handbook of Methods*. CAB International, Wallingford).

Since then the *Macrofauna* project estimates that over 700 soil macrofaunal communities throughout the world have been sampled using the standard or slightly modified TSBF methodology. To capture this data for a new and more comprehensive analysis of worldwide trends in macrofauna distribution, biomass, density according to

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Macrofauna (cont.)

regional and vegetation factors, a new database has been created with a revised list of parameters and variables.

Macrofauna is calling for researchers with experience and knowledge in soil macrofauna to help populate the database by either submitting raw data or the references where the data can be found. The intellectual property rights of all contributors will be protected. Contributors will be considered a participant in the *Macrofauna* database construction project, and will be sent a database Agreement Form for the access and use of the finalized database. This Agreement Form proposes that any publication based on contributed data will automatically include all contributors and original owners of the data as co-authors.

Contact: For more information, including how to submit data contact Dr. Patrick Lavelle Laboratoire d'Ecologie des Sols Tropicaux, Univ. Paris VI / IRD (ex.ORSTOM), 3e rue Henri Varagnat, 93143 Bondy Cedex, France. Phone: (33) 1 48 02 55 01; Fax: (33) 1 48 47 30 88; Email: Patrick.Lavelle@bondy.ird.fr

More information: on the IBOY Project *MACROFAUNA - An Endangered Resource in a Changing World* see http://www.nrel.colostate.edu/IBOY/whatandwhere.html#macrofauna

Update on Declining Amphibian Populations Task Force (DAPTF) Seed Grants

DAPTF is currently completing allocation of Seed Grants for 2002. This year, we received 57 applications from 30 countries, and we expect to fund around 35 projects, an outlay of about $50,000. Our budget this year has been enhanced by generous contributions from Conservation International and the U.S. Department of the Interior's Amphibian Research and Monitoring Initiative (ARMI).

In the period 1992 to 2001, the DAPTF has funded 78 projects through its Seed Grant program, an outlay of $139,074; these projects are distributed across 34 different countries. In this year's round, we will be adding five new countries to our list. Notable 'firsts' among the projects we are funding this year are projects in Iran and Madagascar, and two projects on caecilians, a poorly-known group of limbless, burrowing amphibians.

Our feedback from completed Seed Grant projects indicates that, on average, each project yields two papers in refereed journals. More importantly, our grant holders have, on average, been able to raise a further $20 in funding for every $1 that we have awarded them.

More information on the IBOY Project *Declining Amphibian Populations Task Force (DAPTF)* and the Seed Grant program see http://www.open.ac.uk/daptf/ and http://nrel.colostate.edu/IBOY/how_changing.html#daptf

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Awards

Venezuelan Guayana Nature in the Caroní River Parks CD-ROM Wins Award

The IBOY project *Venezuelan Guayana Nature in the Caroní River Parks* CD-ROM placed second in the Digital Books category of the Premio Calidad Editorial 2001 contest. This annual award is given by the Centro Nacional del Libro (CENAL), and is a prestigious Venezuelan editorial prize. CENAL selected the CD-ROM to represent Venezuela at international book fairs.

More Information on the IBOY project *Venezuelan Guayana Nature in the Caroní River Parks* see http://www.nrel.colostate.edu/iboy/southa_ap.html#caroni

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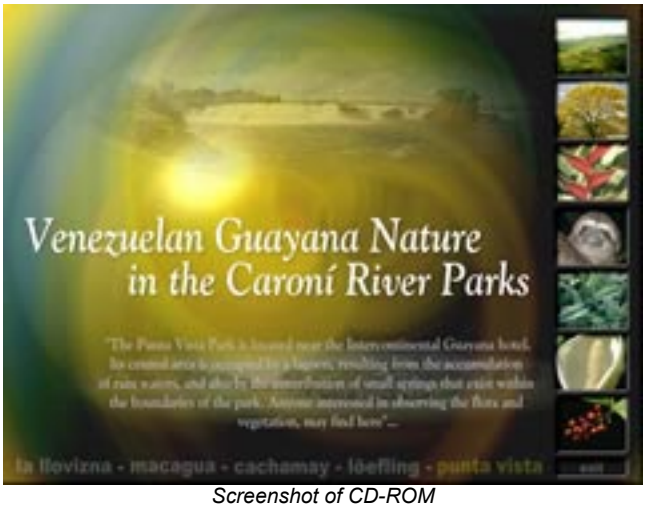

Screenshot of CD-ROM

From the Secretariat

IBOY Symposium at AAAS Described New IT Tools for Biodiversity Conservation

The IBOY Symposium "Biodiversity Science and Global Research: The International Biodiversity Observation Year" at the American Association for the Advancement of Science Annual Meeting and Science Innovation Exposition was a great success. The symposium, organized by Dr. Diana Wall from Colorado State University and Dr. Andrew Dobson from Princeton University, attracted a capacity audience and the speakers, each leaders of IBOY projects, were interviewed by media including the USA National Public Radio, National Geographic, Nature Magazine, and Radio Netherlands International.

The speakers presented findings across issues as varied as biodiversity itself, but their unifying message was that Information Technology (IT) has become a vital tool to help understand global biodiversity issues that are crucial for sustainability. Examples of the technologies being used include 3-D electronic images of species that are accelerating identification of poorly known groups of animals, 'distributed' or interconnected databases that enable scientists to query data stored in multiple databases across the world at the touch of a button, and GIS (Geographic Information Systems) a computer-based tool used to map and analyze multiple and complex characteristics of landscapes, including natural and anthropogenic impacts on biodiversity.

Dr. Wall presented the preliminary findings of the *Global Litter Invertebrate Decomposition Experiment (GLIDE*), the first world-wide network to examine the animals that dwell in soils on plant material (litter) and regulate decomposition, an ecosystem process essential for global nutrient cycles and maintenance of fertile soils. Global distribution patterns of this highly diverse group of animals are unknown, yet may be critical for identifying biodiversity 'hotspots' and how changes to habitats can affect ecosystem health. Wall revealed how, in just a few months, *GLIDE* researchers have analyzed over 17,000 individual animals using new photo-imaging techniques, and have found 28 orders of soil invertebrates from just nine sites. "The enormous diversity of litter fauna once made global studies impossible," said Wall "but we use new 3-D imaging techniques and send images to colleagues around the world to accelerate identification and make the survey tractable."

Dr. Oliver Ryder, a zoologist from the Zoological Society of San Diego, discussed the latest applications of genetic technology and genomics for conserving biodiversity in its native habitats. "DNA studies are an important tool for *in situ* conservation," explained Ryder. "They provide information on genetic variation and the gene pools of species, which is important for monitoring plant and animal populations and their viability, and evaluating the effectiveness of nature reserve and wildlife corridor designs. They also play a role through reproductive medicine." Ryder stressed that the success of these efforts may depend on starting before populations, and therefore the gene pools, have declined significantly, or in worse case scenarios, become extinct. He reported on the progress of *DNA Banks for Endangered Species*, an international collaborative effort that is working to anticipate the needs for, and secure long-term access to, genetic materials for biodiversity conservation.

Dr. David Wake, a biologist from the University of California at Berkeley, described the latest information from *AmphibiaWeb*, a web-based informatics system that collates data on amphibians from around the world. "During the past decade awareness that amphibian populations at sites across the world are declining, and even disappearing, has stimulated research activity," said Wake. "This single entry point to global data on amphibians is helping us develop a world view." *AmphibiaWeb* is helping scientists understand global amphibian species distributions, conservation status, the total number of species described, and rate of new species descriptions. "Ironically," noted Wake, "scientists' heightened concern for declining amphibian species is increasing research activity and is producing an annual increase of 1.5 – 2% in the number of species discovered and described."

Dr. Richard Mack, an ecologist at Washington State University, reported the ongoing efforts of an international team that is comparing data on invasive species around the world to understand the factors that influence the rate at which these species can occupy new ranges, the extent of these ranges and their long-term environmental impact. Ultimately, the team hope to identify the circumstances that make a species highly invasive or make an ecosystem susceptible to invasion. Mack believes this information will be invaluable in demonstrating the growth of invasions by these taxonomically diverse species in clear, graphic projections. Such studies will enable both investigators and policy-makers to quickly detect the course and rate of an invasion.

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IT Tools for Biodiversity Conservation (cont.)

Dr. Walter Reid, Director of the Millennium Ecosystem Assessment, described the progress after year one of this four-year program to assess the consequences of changes to the world's ecosystems for human well-being and to provide policy options. An international task force of experts spent the first year of the Millennium Ecosystem Assessment designing a methodology for this unprecedented assessment of the feedbacks between ecology and human decision-making. Reid outlined this methodology, which integrates perspectives from local, national and regional scales with data collected at the global scale by remote sensing and modeling.

Dr. Thomas Lovejoy, Senior Advisor to the President of the United Nations Foundation and Chief Biodiversity Advisor at the World Bank, described another new collaborative research program that seeks to help conservation efforts by improving access to data across international borders and disciplines. Amazonia GIS provides continuously updated maps of the Amazon Basin with overlapping layers of conservation activity, such as protected areas and national parks, to individuals whose work affects conservation in this threatened ecosystem.

A Press Release issued in association with the symposium is available at http://www.nrel.colostate.edu/iboy/press/feb1502_pr.html

Update on the US *Biodiversity Month* – May 2002

Plans for the *Explore Your World! Biodiversity Month* May 2002 are going extremely well.

This first ever US Biodiversity Month is being coordinated by the IBOY Secretariat, and over 30 events have registered so far, that will celebrate America's rich diversity of life through educational activities and scientific exploration. They range from activities at major museums and botanic gardens (including the Smithsonian Institution, the Carnegie Museum of Natural History and the Missouri Botanical Garden) to school and community groups. The IBOY Secretariat is currently planning a series of events in Washington DC in early May to launch Biodiversity Month.

If you live in the USA, please join us by joining or organizing an activity for *Explore Your World! Biodiversity Month*. If you live in another country, please let us know of activities in your country to mark IBOY and/or the International Day for Biological Diversity on May 22.

More information including a calendar and map of events, ideas and resources for participating and networking with other events is available at http://www.biodiversitymonth.org

Contact: For more information on these and other activities of the IBOY Secretariat, Gina Adams, Program Director, DIVERSITAS-IBOY, Natural Resource Ecology Laboratory, Colorado State University , Fort Collins, CO 80523-1499, USA. Tel: (+1) 970 491 1984, Fax: (+1) 970 491 3945, Email: gadams@nrel.colostate.edu

About IBOY

International Biodiversity Observation Year
An Initiative of DIVERSITAS
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The IBOY is an initiative of DIVERSITAS. Intellectual sponsorship is provided by the International Union of Biological Sciences (IUBS), International Union of Microbiological Societies (IUMS), Scientific Committee on Problems of the Environment (SCOPE), and the United Nations Educational, Scientific and Cultural Organization (UNESCO). IBOY has been endorsed by the Sixteenth International Botanical Congress (IBC) and the Second World Conservation Congress of the World Conservation Union (IUCN). The Fifth Conference of the Parties to the Convention of Biological Diversity (CBD) invited parties to participate in the IBOY. Financial sponsorship of IBOY is provided by the US National Science Foundation (NSF) (under Grant No. DEB-0122141), the International Council for Science (ICSU), Center for Applied Biodiversity Science at Conservation International (CABS), the International Group of Funding Agencies (IGFA), DIVERSITAS, and two anonymous US foundations. We acknowledge the support of the US National Committee for DIVERSITAS and the Board on International Scientific Organizations of the National Research Council.

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