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For Immediate Release

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## **Social Scientists and Biologists Collaborate to Address Human Dimensions of Biodiversity**

SCIENCE AND ENVIRONMENT REPORTERS: Preview of panel slated for 1.00 – 3.00pm, Saturday March 24 2001, at the AIBS Annual Meeting, Key Bridge Marriott Hotel, Arlington, VA.

Washington DC – As part of the 52<sup>nd</sup> Annual Meeting of the American Institute of Biological Sciences (AIBS), the National Research Council's US National Committee on DIVERSITAS will bring together prominent social scientists and biologists to lead a discussion on the links between biological diversity and human societies. The panel will also identify how new interdisciplinary research should be prioritized to provide information on the dynamics between humans and their environment that decision-makers in policy and public spheres need. For example information on how biodiversity influences the benefits that humans derive from ecosystems, and how changes in biodiversity will impact human psychology and economies such as fisheries and agriculture. The panel on *Human Dimensions of Biodiversity* is dedicated to the International Biodiversity Observation Year (IBOY) 2001 - 2002, a year in which scientists are joining forces to increase communication of important new information on biodiversity.

The interdisciplinary panel is an important step towards the integration of biological and social sciences that is necessary to consider human dimensions of biodiversity. Traditionally social science research, such as economics, anthropology and psychology, has operated largely independently of biological research. This has left science poorly equipped to provide information on how the welfare of human kind and biological diversity are connected. "As a rule, biologists and social scientists work in different departments, read different literature and attend different meetings" observes Ann Kinzig,

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biologist at Arizona State University and member of the panel. “If we are going to develop a real understanding of how people’s perceptions of biodiversity and the values and actions of society sustain, and are sustained by biological diversity, then biologists and social scientists need to work together much more frequently.”

Kinzig admits that developing this interdisciplinary research will not be an easy task. There are fundamental differences in the *modus operandi* of the two fields. Nevertheless, Kinzig and her colleagues on the panel feel that it is essential that these disciplines communicate. Andrew Dobson, biologist at Princeton University, Chair of the US National Committee on DIVERSITAS and member of the IBOY Steering Committee, explains that “The scientific problems involved in understanding the genesis and maintenance of biological diversity are as complex and non-linear as any of the problems studied in physics, mathematics, chemistry, or molecular biology. The main difference is that our food supply, health and economic welfare is much more tightly coupled to the future of biological diversity, than it is to the structure of atomic particles, or that of the universe.” Understanding these connections poses deep intellectual challenges. Scientists participating in this panel hope that we will have plenty of time to solve them but believe that the time available to do this will depend sharply on our ability to appreciate human dependence upon the services provided by biological diversity.

“The biological diversity of Earth supports almost every aspect of human existence, from ecosystem goods such as food, fuel and fiber, to ecosystem services such as renewal of oxygen in the air and soil fertility. It also provides a foundation for diverse economies including agriculture, fisheries, pharmaceutical bioprospecting and tourism. Furthermore, all forms of human culture have ultimately evolved directly, or indirectly, from the way in which we either perceive or utilize biological diversity” says Dobson. “However, human activity is central to the current loss of biological diversity, with rates of species extinctions now 100 to 1000 times the background rate in the absence of human influence. More disconcertingly, current rates of extinction are accelerating rapidly. There is a real risk that our children will lose the opportunity to see elephants, rhinos, or tigers in the wild. We are dramatically simplifying the landscape in which their intellectual lives can develop” cautions Dobson. If current rates of land use change continue, a third or more of all species could be on a path to extinction within the next decade. Scientists are increasingly concerned such extinctions threaten the ability of ecosystems to continue to provide the goods and services on which human society and its economy depends.

The panel will review existing knowledge about the interactions between biodiversity and humans, including human diversity itself, and consider how inter-disciplinary research efforts should be focused to gather important information that we do not have. Joining Dobson and Kinzig on the panel will be Cynthia Beale, physical anthropologist from Case Western University and Paul Stern, psychologist and Program Officer of the National Research Council’s Human Dimensions of Global Change Committee. “We hope the panel and discussion will build capacity for understanding interactions between humans and biodiversity, and ultimately for producing science-based initiatives to support policies that conserve the benefits that each derive from one another” says Dobson.

Another event at the AIBS Annual meeting that will explore links between biodiversity and human societies, as a contribution to IBOY, is a special screening of the film *Ocean Oasis: A Story of The Unbreakable Bonds Between A Parched Land, A Rich Sea, And The People who Love Them Both*.

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This giant-screen film about Baja California tells the story of the profound links between the seemingly separate worlds of the rugged Baja California desert and the teeming life of the Sea of Cortez, through the voices of several people who love this place and try to understand it: a fisherman, an ecologist, a zoologist, a naturalist and a marine biologist. The film will be presented at 7pm, March 25, at the Samuel C. Johnson IMAX Theater, National Museum of Natural History.

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Editors Note:

The *Human Dimensions of Biodiversity* panel and the 52<sup>nd</sup> AIBS Annual Meeting *From Biodiversity to BioComplexity: A Multidisciplinary Step Towards Understanding our Environment* are open to the press. Speakers from the *Human Dimensions of Biodiversity* panel will be available for interview after the panel session. The Director of the film *Ocean Oasis*, Soames Summerhayes will be available for interview at a reception immediately after the film's screening. More information on *Ocean Oasis* is at <http://www.oceanoasis.org>. The meeting registration fee will be waived for working reporters and public information officers. Leading ecologists speaking at the 52<sup>nd</sup> AIBS Annual Meeting include Paul Ehrlich (Stanford University), Jane Lubchenco (Oregon State University) and Simon Levin (Princeton University).

If you plan to cover the *Human Dimensions of Biodiversity* panel or attend the *Ocean Oasis* screening please contact the Program Director of the International Biodiversity Observation Year 2001-2002, Gina Adams (970 491 1984; [gadams@nrel.colostate.edu](mailto:gadams@nrel.colostate.edu)).

For logistics of attending the panel, the screening, and the AIBS Annual Meeting please contact AIBS Communications Specialist Casey Moulton (202 628 1500 x261; [cmoulton@aibs.org](mailto:cmoulton@aibs.org)) and provide your name and media affiliation; freelance journalists will need to indicate for whom they are covering the meeting. Once on site, reporters must check in at the registration desk to receive a press pass and other meeting materials. Registration will occur in the Potomac Ballroom foyer of the Key Bridge Marriott as follows: Friday, March 23 from 6-9pm; Saturday, March 24 & Sunday, March 25 from 8am-5pm; Monday, March 26 from 8am-2pm.

The Press Room (complete with phone and computers with Internet access), will be open from 8am-5pm, March 24-26, and will be located in the Washington Room of the Key Bridge Marriott (third floor). Most plenary speakers are available during the meeting for one-on-one interviews; contact Casey Moulton in the AIBS Communications Office (202/628-1500, x261; [cmoulton@aibs.org](mailto:cmoulton@aibs.org)) for speaker availability. Specifics about the meeting including a complete schedule of events, panel session information, and plenary speaker biographies can be found at [www.aibs.org/meeting2001/index.html](http://www.aibs.org/meeting2001/index.html).

The International Biodiversity Observation Year (IBOY) 2001 – 2002 is an initiative of DIVERSITAS in which scientists across the world are joining forces to increase communication of important new information on biodiversity. The Secretariat for IBOY is located at Colorado State University, Chaired by Dr. Diana Wall. More information on IBOY can be found at <http://www.nrel.colostate.edu/IBOY>. IBOY will have an informational booth at the Potomac Ballroom of the Key Bridge Marriott Hotel during the AIBS Annual Meeting.

DIVERSITAS, an international program headquartered in Paris, was created in 1991 to stimulate biodiversity sciences, under the auspices of the International Council for Science (ICSU), the United Nations Educational, Social and Cultural Organization (UNESCO), the Scientific Committee on Problems of the Environment (SCOPE), the International Union of Biological Sciences (IUBS), the International Union of Microbiological Sciences (IUMS), and the International Geosphere-Biosphere Program (IGBP).

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