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What's growing on
at the Garden!

WORLD RENOWNED BOTANIST PETER H. RAVEN AND COLLEAGUES CALL FOR EARNEST COOPERATION BETWEEN CHINA AND INDIA TO SAVE ENVIRONMENT

“China, India, and the Environment” Published in Mar. 19 Issue of the Journal Science

(ST. LOUIS): Cooperation between China and India, the emerging economic giants of the world, can mitigate climate change, environmental damage and loss of biodiversity. In **“China, India, and the Environment,”** published in the Mar. 19 issue of the journal **Science**, Dr. Peter H. Raven, president of the Missouri Botanical Garden in St. Louis, Mo., and co-authors highlight the significant influence both countries have on the future quality of the global environment. The authors of this paper advocate using scientific collaboration to break down the political barriers between the two nations and encourage each to limit the exploitation of resources in the Himalayas, reduce energy consumption, and decrease their ecological footprints in Asia.

“Global sustainability stands to benefit from cooperation based on solid relationships between China and India,” said Raven. “We all have a major interest in building a sustainable world, but we’re far from that goal now. Our environmental problems are growing larger each year. The loss of biological diversity, on which we depend completely for our existence, and the many effects of global climate change, affect everyone in the world. Our thesis is that China and India share so much adjacent territory that the environmental benefits should be obvious and, informed by scientific analysis, should help to provide a bridge between them for mutually beneficial discourse and cooperation.”

Even though much of the world is in the midst of an economic recession, China and India continue to grow rapidly. China’s population is projected to grow from 1.33 billion to 1.44 billion in 2050, while India is expected to increase from 1.17 billion to 1.75 billion. Likewise their Gross

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ADD ONE: China and India

Domestic Products (GDP), a rough index of consumption levels, continues to rise. According to Raven and his co-authors, development in both countries is fueled not only by the natural capital within China and India, but by the import of raw materials, which in turn affects the ecological stability of other countries. For example, the two countries import about 9 million tons of crude palm oil annually, almost one-quarter of global production, from Malaysia and Indonesia.

Raven and his co-authors also point out the environmental implications of the ongoing border dispute between the two nations, which has an adverse effect on the sustainability of natural resources in the Himalayas. The unique biodiversity of the region is threatened by the activities of troops stationed along the international border.

“We know that the activities of the troops are damaging the region’s subalpine and alpine ecosystems, which are very fragile and very slow to recover,” said Raven. “Because resources are so scarce in this area, the militaries are using rare plants for fuel.”

Co-author Dr. Jianguo “Jack” Liu, Michigan State University distinguished professor of fisheries and wildlife, says that water availability could be the most challenging issue facing the two countries. Many rivers flow through both China and India; if the upstream country builds a dam to generate hydroelectric power, it will likely cause water shortages downstream in the other country.

“Water is a huge issue,” said Liu. “It’s being discussed extensively. We need to make people aware of the benefits of cooperation. It’s more than just China and India that will be affected if these two countries don’t work together. The environmental impacts will be felt around the world, including in the United States.”

The Missouri Botanical Garden plays a key role in describing the plants of China and making the details of their diversity available throughout the world. In cooperation with the Chinese Academy of Sciences, the Garden is leading a multinational project to produce a 50-volume “Flora of China,” the first comprehensive English-language treatment of China’s plants, some 30,500 species. This effort was initially visualized by Garden President Peter Raven, who has co-chaired its editorial committee since it was initiated in 1987. Completion is projected for late 2012. In January 2010, Raven was one of three recipients of the Award for International Scientific Cooperation of the Chinese Academy of Sciences, in recognition of his efforts in promoting cooperation between

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ADD TWO: China and India

Chinese Sciences and those in the rest of the world. He has forged connections with and has been honored by a number of Chinese botanical gardens and research institutions, and is a foreign member of both the Chinese and Indian academies of science, among a number of other foreign academies. Described by Time magazine as a “Hero for the Planet,” Raven champions efforts around the world to learn about and preserve endangered plants. He was a member of President Bill Clinton’s Committee of Advisors on Science and Technology and served for 12 years as the home secretary of the U.S. National Academy of Sciences. He will retire as president of the Garden at the end of August 2010.

In addition to Raven and Liu, other co-authors include Kamalijit Bawa, University of Massachusetts-Boston distinguished professor of biology and president of the Ashoka Trust for Research in Ecology and the Environment in Bangalore, India; Lian Pin Koh, of the Institute of Terrestrial Ecosystems in Zurich, Switzerland; Tien Ming Lee, of the University of California-San Diego and Yale University; P.S. Ramakrishnan, of Jawaharlal Nehru University, in Delhi, India; Douglas Yu and Ya-ping Zhang, of the Kunming Institute of Zoology, in Yunnan, China.

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NOTE: Digital images available by request. Download media materials at www.mobot.org/press.

The Missouri Botanical Garden’s mission is “to discover and share knowledge about plants and their environment in order to preserve and enrich life.” Today, 151 years after opening, the Missouri Botanical Garden is a National Historic Landmark and a center for science, conservation, education and horticultural display.

The Missouri Botanical Garden is located at 4344 Shaw Blvd. in St. Louis, just south of I-44 at Vandeventer-Kingshighway (exit #287B). Open 9 a.m. to 5 p.m. every day except Dec. 25. Grounds open at 7 a.m. Wednesdays and Saturdays (exception: special admission rate events). Admission is \$8; free children ages 12 and under and Garden members. St. Louis City and County residents are \$4 and free Wednesdays and Saturdays until noon (exception: special admission rate events - third weekend of May, Labor Day weekend, and first weekend of October). Park for free on site and two blocks west at the Shaw-Vandeventer intersection. The Garden is easily accessible by taking the MetroLink commuter rail line to the Central West End station and picking up a Metro bus (www.metrostlouis.org). For general information, log on to www.mobot.org or call the 24-hour recording at (314) 577-9400 or 1 (800) 642-8842. For membership information, visit www.mobot.org/membership call (314) 577-5118 during weekday business hours. For volunteer opportunities, visit www.mobot.org/volunteer or call (314) 577-5187. The Missouri Botanical Garden is a tobacco-free environment.