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National Geographic Announces its Emerging Explorers for 2011

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WASHINGTON, May 17 -- National Geographic issued the following news release:

Fourteen visionary, young trailblazers from around the world -- including an astrobiologist, a Middle East peace worker and cultural educator, an Asian elephant specialist, a wastewater engineer, a filmmaker and a science entrepreneur -- have been named to the 2011 class of National Geographic Emerging Explorers.

National Geographic's Emerging Explorers Program recognizes and supports uniquely gifted and inspiring adventurers, scientists and storytellers making a significant contribution to world knowledge through exploration while still early in their careers. The Emerging Explorers each receive a \$10,000 award to assist with research and to aid further exploration. The program is made possible in part by the **Catherine B. Reynolds Foundation**, which has supported the program since its inception in 2004.

The 2011 Emerging Explorers are cultural educator and Middle East peace worker Aziz Abu Sarah; environmental scientist Jennifer Burney; planetary scientist and astrobiologist Kevin Hand; paleontologist Jørn Hurum; wildlife conservationist Paula Kahumbu; bioengineer Kakani Katija; ecologist Sasha Kramer; environmentalist Juan Martinez; entomologist Dino Martins; wastewater engineer Ashley Murray; ornithologist and conservation ecologist Çagan Hakki Sekercioglu; wildlife ecologist and filmmaker Adrian Seymour; science entrepreneur Hayat Sindi; and Asian elephant specialist Tuy Sereivathana.

The new Emerging Explorers are introduced in the June 2011 issue of National Geographic magazine, and comprehensive profiles can be found at <http://www.nationalgeographic.com/emerging>.

National Geographic Emerging Explorers may be selected from virtually any field, from the Society's traditional arenas of anthropology, archaeology, photography, space exploration, earth sciences, mountaineering and cartography to the worlds of technology, music and filmmaking.

"National Geographic's mission is to inspire people to care about the planet, and our Emerging Explorers are outstanding young leaders whose endeavors further this mission. We are pleased to support them as they set out on promising careers. They are innovators in their respective fields and represent tomorrow's Edmund Hillarys, Jacques Cousteaus and Dian Fosseys," said Terry Garcia, National Geographic's executive vice president for Mission Programs.

Cultural educator and Middle East peace worker Aziz Abu Sarah brings his childhood experiences as a Palestinian growing up in Jerusalem to his work forging cross-cultural understanding and positive social change amid the present Israeli-Palestinian conflict. As co-executive director at George Mason University's Center for World Religions, Diplomacy, and Conflict Resolution, he builds alliances between Jewish and Arab American religious, political and social groups. He pens editorials for Palestinian and Israeli newspapers, teams up with an Israeli as a radio show host and is authoring a book with a Jewish friend. Through the Mejdi tourism services company that he co-founded, he also has launched a unique study-abroad program, bringing students to the Middle East and beyond.

Environmental scientist Jennifer Burney is a University of California President's Postdoctoral Fellow at the Scripps Institution of Oceanography at the University of California, San Diego, and an affiliate of Stanford University's Program on Food Security and the Environment. Her research focuses on simultaneously achieving global food security and mitigating climate change. She designs, implements and evaluates technologies for poverty alleviation and agricultural adaptation, and studies the links between energy poverty and food and nutrition security, the mechanisms by which energy services can help alleviate poverty, and the environmental impacts of food production and consumption.

Planetary scientist and astrobiologist Kevin Hand of the Jet Propulsion Laboratory in Pasadena, Calif., has been helping to plan a NASA mission to Europa, Jupiter's fourth largest moon, in a quest to discover life beyond Earth. Europa is believed to have a vast liquid ocean beneath its icy surface. To create instruments that will travel hundreds of millions of miles through space and function in a place covered with ice several miles thick, with temperatures around minus 280 degrees F., Hand explores Earth's most forbidding environments to see how life survives in the harshest climes. One of his key challenges is figuring out how best to detect, characterize and map complex organic chemistry in the solar system to see if Europa's ice-covered ocean is inhabited.

Jørn Hurum, associate professor in vertebrate paleontology at the Natural History Museum, University of Oslo, is coaxing the secrets of evolution from a rocky polar desert. He has uncovered a treasure trove of fossilized skeletons on Norway's remote Svalbard island, above the Arctic Circle, revealing an entire marine ecosystem with never-before-seen species -- ranging from micro algae to small marine animals to enormous sea monsters -- that connect new dots in the evolutionary story. Among his most spectacular finds are fossilized remains of colossal pliosaurs. These 50-foot predators are among the largest sea reptiles of their kind known to science.

Kenyan wildlife conservationist Paula Kahumbu connects conservationists around the world with people who want to support their work. As executive director of WildlifeDirect, she uses the power of the Internet to spotlight key conservation issues and raise awareness and donations for projects saving wildlife and wild places. Thanks to her efforts, about 120 conservation projects have an online platform to share challenges and victories via blogs, videos, photos and podcasts, saving species from ants to lions. By celebrating the work of Africa's conservation heroes, Kahumbu has turned WildlifeDirect into a tool to advocate for and share home-grown conservation solutions to such challenges as ivory and rhino horn poaching, roads through parks, climate change, effects of pesticides on endangered predators and wildlife conflict in areas that neighbor parks.

Bioengineer Kakani Katija, of Woods Hole Oceanographic Institution in Massachusetts, dives into the emerging field of biogenic ocean mixing in her revolutionary research on the power sources that propel the perpetual motion of oceans. Winds and tides have long been known to drive ocean currents -- which in turn affect weather patterns around the world -- but as Katija's evidence increasingly shows, the

movements of sea creatures, from the minuscule to the monumental, could have an equally powerful effect on currents, weather and the overall health of our oceans. "The creatures in our seas could be as important to ocean circulation and global climate as the winds and tides," she says.

Ecologist Sasha Kramer fights Haiti's most pressing health, economic and environmental problems one toilet at a time. When she moved to Haiti in 2004, only 16 percent of people in rural areas and 35 percent in urban areas had access to toilets. Driven by her conviction that sanitation is a basic human right, she and a friend founded Sustainable Organic Integrated Livelihoods (SOIL), which focuses on transforming human waste into a valuable resource that empowers communities. The team developed "Ecosan" dry composting toilets that turn human waste into nutrient-rich fertilizer that boosts agriculture, helps curb disease, reduces environmental degradation and reinforces dignity.

Environmentalist Juan Martinez empowers a worldwide youth movement to connect children with nature, attract young leaders to conservation and help transform lives in disadvantaged urban communities. As a boy, Martinez lived with his family in a tool shed in south central Los Angeles. Thanks to his high school science teacher, he was dissuaded from joining a gang and joined the school's Eco Club instead. That sparked his love for nature, and today he spearheads the Natural Leaders Network of the Children and Nature Network and is a national spokesman on the importance of getting youth outdoors.

Kenyan entomologist Dino Martins, who has just received his Ph.D. from Harvard University, is investigating the crucial role that insects play in pollinating plants. Across East Africa, he works to identify the most useful plants and pollinators, creating habitats that will attract pollinators and helping both ecosystems and local communities thrive. He works with rural farmers, who are on the frontline between biodiversity and habitat destruction, to protect bees, by highlighting the necessity of pollinators for productive and sustainable agriculture. He also works with schoolchildren to start pollinator gardens, collect bugs and identify the most relevant crops and pollinators in their community. "You couldn't ask for more enthusiastic young scientists," he says.

Wastewater engineer Ashley Murray is founder and director of Waste Enterprisers (WE) in Ghana, a company that makes urban sanitation affordable for poor communities by creating and operating waste-based businesses. WE is developing businesses that rely on human waste as a resource and primary input -- nutrients in wastewater can be used in fish farms and agriculture, and the embodied energy can be used as fuel for cement kilns and industrial boilers. The goal is to generate a demand for waste, thereby establishing an alternative to its haphazard discharge into a community's waters and environment. "I wanted to highlight that sanitation is a business and that it can be profitable," she says. "But the real goal is to improve basic sanitation, health and environmental conditions for some of the world's poorest people."

Turkish ornithologist and conservation ecologist Çagan Hakki Sekercioglu, assistant professor in the Department of Biology at the University of Utah and director of the Turkish environmental organization KuzeyDoga, studies the causes and consequences of vanishing bird populations around the globe and applies his research to grassroots, community-based conservation efforts in the developing world. By the end of this century, up to 25 percent of all bird species may be extinct, with the widespread threat of habitat loss increasingly exacerbated by climate change. Sekercioglu documents the trends by gathering data from fieldwork and scientific literature into a unique global bird database that helps show which birds are threatened across the planet. He also spearheads conservation projects with local communities to protect threatened birds and bird habitats.

Wildlife ecologist and filmmaker Adrian Seymour is an honorary research fellow at the University of Bristol, England. He promotes conservation through scientific research and documentary filmmaking, exposing pressures that put both wildlife and local communities at risk. His recent studies have focused on the ecology of rain forest carnivores. He is currently researching the population dynamics of the Malay civet in Indonesia, whose rain forest home is threatened by human encroachment. The pressures he explores aren't limited to civets. Many films he produces tackle thorny human issues linked to conservation. The purpose of his films is not to preach, but to look at things from a local point of view and show the locals the value of keeping the environment intact.

Science entrepreneur Hayat Sindi is a Saudi biotechnology researcher whose primary objective is to develop and deploy affordable, easy-to-use technology to developing areas of the world to improve healthcare. Currently a visiting scholar at Harvard University, she co-founded the nonprofit Diagnostics For All to produce and distribute a low-tech diagnostic tool that detects disease by analyzing body fluids. The tool, the size of a postage stamp and costing just a penny each, could be a medical breakthrough saving millions of lives. Sindi also has been an inspirational figure for many young female students to pursue science majors in the Middle East and abroad. For years, improving the quality of science and engaging youth in an entrepreneurial innovative environment to diversify the economy in the Middle East has been a top priority for her.

Cambodian conservationist Tuy Sereivathana (Vathana) works to save endangered Asian elephants and is also dedicated to finding solutions to the challenges of poverty, social planning, unregulated development and environmental destruction that his country faces after decades of violence. Formerly a technical officer with Cambodia's national parks, he now works for international conservation organization Fauna & Flora International (FFI), educating local communities about elephants and introducing innovative low-cost solutions to mitigate human-elephant conflict. Vathana and his team have set up schools in remote areas and made wildlife conservation part of the curriculum. They also have introduced improved farming techniques that allow locals to grow crops more successfully without expanding into elephant habitat. Since the start of this project -- a joint initiative of FFI, Cambodia's Forestry Administration and the Ministry of Environment -- not a single elephant has been killed in Cambodia due to human-elephant conflict.

National Geographic's Emerging Explorers are part of the Society's Explorer Programs, which include 13 Explorers-in-Residence and 16 National Geographic Fellows.

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Memo:

Caroline Braun, 202/862-8281, cbraun@ngs.org

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