



Earthwatch Institute (EWI) is an international nonprofit organisation that supports scientific field research by offering members of the public unique opportunities to work alongside leading field research scientists. The Research Program at Earthwatch supports a diversity of research projects of high scientific merit worldwide, which address critical environmental and social issues at local, national, and international levels. Scholars interested in Earthwatch support should submit a preliminary proposal describing planned research, field methods and the need for EWI volunteer field assistants. If funding for the proposed research is deemed appropriate, a detailed full proposal will be invited for peer review.

We are pleased to announce that the following projects have been approved for EWI support for the 2004 fiscal year (October 2003 - September 2004)

Argentina

Oscar Alcober, Ph.D., Museo de Ciencias Naturales, Argentina • **Ricardo Martinez**, Museo de Ciencias Naturales • **Guillermo Heredia**, Museo de Ciencias Naturales. *Triassic Park: The Origin of Dinosaurs, Argentina.*

Mauro Lucherini, Ph.D., Mammal Behavioral Ecology Group (GECM) • **Estela Luengos Vidal**, Universidad Nacional del Sur, Argentina • **Diego Birochio**, Universidad Nacional del Sur, Argentina • **Claudia Manfredi**, Universidad Nacional del Sur, Argentina. *Argentinean Pampas Carnivores, Argentina.*

Australia

Ian Bell Queensland Parks and Wildlife Service • **Kirstin Dobbs** Great Barrier Reef Marine Park Authority. *Monitoring the Foraging and Nesting Population Demographics and Reproductive Biology of Hawksbill Turtles (*Ercimochelys imbricata*), on the Great Barrier Reef, Australia.*

Joe Benshemesh, Ph.D., Conservation and Natural resources Group, Northern Territory Government. *Conservation Ecology of Itjariitjari (Southern Marsupial Mole *Notoryctes typhlops*) in Central Australia.*

Nancy Fitzsimmon, Ph.D., University of Canberra. *Freshwater Turtles of the Kimberley, Australia.*

Frederieke Kroon, Ph.D., Commonwealth Scientific and Industrial Research Organization (CSIRO). *Impact of Riparian Restoration on Stream Ecology in Tropical North Queensland, Australia.*

David Lindenmayer, Ph.D., The Australian National University. *Australia Burning: Determining How Native Animals Respond to Fire.*

David Lindenmayer, Ph.D., The Australian National University • **Chris MacGregor**, The Australian National University • **Damian Michael**, The Australian National University. *Conserving Australia's Forest Wildlife, Australia.*

Michael Mahony, Ph.D., University of Newcastle • **John Clulow, Ph.D.**, University of Newcastle. *Australia's Vanishing Frogs, Australia.*

Alistair Melzer, Ph.D., Koala Research Centre for Central Queensland • **Bill Ellis, Ph.D.**, Koala Research Centre for Central Queens. *Koala Ecology, Australia.*

Katherine Moseby, University of Adelaide • **John Read, Ph.D.**, WMC Resources Land Management. *Bringing Back the Bilbies: Restoring an Arid Ecosystem in the Australian Outback, Australia.*

David Paton, Ph.D., University of Adelaide. *Waterbirds of the Coorong, Australia.*

Peggy Rismiller, Ph.D., Pelican Lagoon Research and Wildlife Centre. *Echidnas and Goannas of Kangaroo Island, Australia.*

Carol Scarpaci, Victoria University of Technology. *Dolphins and Fur Seals of Port Phillip Bay, Victoria, Australia.*

Linda Thomson, Ph.D., Centre for Environmental Stress Adaptation Research, LaTrobe University. *Revegetation in Agricultural Landscapes, Australia.*

David Westcott, Ph.D., CSIRO Sustainable Ecosystems Tropical Forest Research Centre • **Andrew Dennis, Ph.D.**, CSIRO Sustainable Ecosystems Tropical Forest Research Centre, Australia. *Seed Dispersal in Australia's Tropical Rainforests: A Threatened Ecological Process.*

Stephen Williams, Ph.D., Rainforest Cooperative Research Centre. *Climate Change Impacts on the Biodiversity of the Australian Tropical Rainforest.*

Bahamas

Diane Claridge, Bahamas Marine Mammal Survey • **John Durban, Ph.D.**, National Research Council • **Kim Parsons, Ph.D.**, Bahamas Marine Mammal Survey • **Ken Balcomb**, Bahamas Marine Mammal Survey. *Visual and Acoustic Survey of Bahamian Marine Mammal Species and Habitats, Bahamas.*

John Rollino, Earth Tech Inc. • **Thomas A. McGrath**, Corning Community College • **Garriett W. Smith, Ph.D.**, University of South Carolina, Aiken. *Long-term Study of Coral Bleaching on Reefs of San Salvador Island, Bahamas.*

Kathleen Sullivan Sealey, Ph.D., University of Miami • **Lester Flowers**, College of the Bahamas. *Coastal Ecology of the Bahamas Islands.*

Kathleen Sullivan Sealey, Ph.D., University of Miami. *Coastal Ecology of Bahamas, Bahamas.*

Barbados

Suzanne E. Dorsey, Ph.D., Salem College. *Damselfish of Barbados, West Indies.*

Julia A. Horrocks, Ph.D., University of the West Indies. *Conservation of Hawksbill Turtles in Barbados, West Indies.*

Belarus

Ina Berniakovich National Academy of Sciences of Belarus • **Iosiph Stepanovitch, Ph.D.**, National Academy of Sciences of Belarus • **Natallia Zelenkevich** National Academy of Sciences of Belarus • **Dimitry Grummo** National Academy of Sciences of Belarus • **Anatoliy Puchilo**, National Academy of Sciences of Belarus. *Bogs of Belarus.*

Belize

Caryn Self Sullivan, Texas A&M University • **Katherine S. LaCommare**, University of Massachusetts. *Ecology and Behavior of Antillean Manatees in the Drowned Cayes, Belize.*

Botswana

Alison J. Leslie, Ph.D., University of Stellenbosch. *Crocodiles of the Okavango, Botswana.*

Jose Jackson Maletle, Ph.D., NFTRC- Botswana • **Leapetswe Maletle, Ph.D.**, University of Botswana. • **Kesitegile Gobotswang** University of Botswana • **Salah Eldin Osman Mahgoub** University of Botswana. *Changing Health and Nutritional Patterns in Rural and Urban Communities in Botswana.*

Brazil

Paulo D'Andrea Ph.D., FIOCRUZ • **Victor Rademaker** FIOCRUZ • **Natalie Olifiers** FIOCRUZ • **Heitor Herrera** FIOCRUZ • **Ana Maria Jansen Ph.D.**, FIOCRUZ • **Nilton Carlos Cáceres Ph.D.**, University Federal do Matogrosso do Sul. *Health Status, Disease Diagnosis, Populations Ecology and Use of Space of Small Mammal Species in the Cerrado-Pantanal Corridor, Brazil.*

Reginaldo José Donatelli, Ph.D., Universidade Estadual Paulista, Brazil. *Birds and Dynamic Habitat Mosaics in the Pantanal, Brazil.*

Donald P. Eaton, University of Nevada, Reno. *Conservation of Freshwater Invertebrates and Fishes in Brazil's Pantanal Wetlands.*

Erich Fischer, Ph.D., Universidade Federal de Mato Grosso do Sul, Brazil • **Andréa Araujo, Ph.D.**, Universidade Federal de Mato Grosso do Sul, Brazil • **George Camargo**, Universidade Federal de Mato Grosso do Sul, Brazil • **José M. Longo**, Universidade Federal de Mato Grosso do Sul, Brazil. *Bat Assemblage in the Rio Negro: Richness, Diversity, Food Sources, and Associated Ectoparasites, Pantanal, Brazil.*

Paulo Flores, Ph.D., International Wildlife Coalition, Brazil • **Randall Wells, Ph.D.**, Chicago Zoological Society; Mote Marine Laboratory, Florida. *Ecology and Conservation of the Marine Tucuxi Dolphin (*Sotalia fluviatilis*) in Southern Brazil.*

Mario Galetti, Ph.D., Universidade Estadual Paulista, Brazil • **Marco A. Pizo, Ph.D.**, Universidade Estadual Paulista, Brazil • **Camila Donatti**, Universidade Estadual Paulista, Brazil. *Keystone Fruits and the Frugivores in the Pantanal, Brazil.*

Alexine Keuroghlian, Ph.D., University of Nevada, Reno. *The Response of Peccaries to Seasonal Fluctuations in the Pantanal of Rio Negro, Brazil.*

Marcos César de Oliveira Santos, Instituto for Biological Conservation. *Brazil's Marine Mammals: Monitoring Marine Mammals at an Atlantic Forest Reserve in Brazil.*

Leandro Silveira, Ph.D., University of Brasilia. *Carnivore Ecology & Conservation in a Seasonally Flooded Environment, Brazil.*

Helen Francine Waldemarin, Universidad do Estado do Rio de Janeiro • **Miguel Rico Barroeta** Associação Ecológica Ecomarapendi. *Ecology and Conservation of Pantanal Otters, Brazil.*

Ellen Wang Universidade Estadual Paulista-Rio Claro • **Vanda Lucia Ferreira** UFMS/Campus de Corumbá • **Jeffrey Himmelstein** William Paterson University. *Amphibians and Reptiles of the Southern Pantanal, Brazil.*

Cameroon

Martin R. Cheek, Ph.D., Royal Botanic Gardens, Kew • **Gaston Achoundong, Ph.D.**, National Herbarium of Cameroon, Yaounde • **Iain Darbyshire, Ph.D.**, Royal Botanical Gardens, Kew • **Jean Michel Onana, Ph.D.**, National Herbarium of Cameroon, Yaounde. *Cameroon Rainforests.*

Guillaume Dzikouk, Ph.D., Cameroon Biodiversity Conservation Society • **Taku Awa II**, Cameroon Biodiversity Conservation Society. *Contribution to the Bio-Ecology of the Grey-Necked Picathartes (*Picathartes oreas*), Cameroon.*

Phyllis Jansyn, State University of New York. *Health in Housing Parasite Project, Cameroon.*

Canada

G. Peter Kershaw, Ph.D., University of Alberta. *Climate Change at Arctic's Edge, Canada.*

Jane Waterman, Ph.D., University of Central Florida • **James Roth, Ph.D.**, University of Central Florida. *Polar Bears in Manitoba: The Social Complexities of an Asocial Species: Play in Adult Polar Bears (*Ursus maritimus*), Canada.*

Chile

Lee Dyer, Ph.D., Tulane University. *Rainforest Caterpillars, Costa Rica and Ecuador.*

Mario Rivera University of Chicago; Universidad Bolivariana. *Chilean Coastal Archaeology.*

Gonzalo Medina-Vogel, Ph.D., Universidad Austral de Chile. *Ecology of Southern River Otter in the Toltén River Watershed. Part II, Third year of monitoring habitat and resource use and selection by Southern River Otter (*Lontra provocax*), and assessment of the limiting, environmental factors for its distribution, Chile.*

Christopher M. Stevenson, Ph.D., Virginia Department of Historic Resources. • **Sonia Haoa** Independent researcher. *Intensification of Prehistoric Rapa Nui Agriculture, Chile.*

Leonard Charles Yannielli, Naugatuck Valley Community College, CT • **Francisca Massardo, Ph.D.**, Ethnobotanical Park Omora; Woody Native Plant Propagation Program, Institute of Ecological Research, Chile • **Ricardo Rozzi**, Ethnobotanical Park Omora; Ecological Education Program, Institute of Ecological Research, Chile. *Owl Ecology and Conservation on the Cape Horn Archipelago.*

Costa Rica

Susana Caballero, Ph.D., The University of Auckland • **Alejandro Acevedo-Gutiérrez, Ph.D.**, Western Washington University. *Dolphins of Costa Rica: Monitoring the Social Interactions Between Two Dolphin Species, Costa Rica.*

Karen Holl, Ph.D., University of California, Santa Cruz • **Rakan Zahawi, Ph.D.**, Organization for Tropical Studies. *Tropical Forest Restoration in Costa Rica.*

Frank V. Paladino, Ph.D., Indiana-Purdue University • **James R. Spotila, Ph.D.**, Drexel University • **Richard Reina, Ph.D.**, Drexel University • **Paul Sotherland, Ph.D.**, Kalamazoo College • **Bob George, Ph.D.**, Virginia Institute of Marine Science • **Vincent Saba**, Drexel University • **Pilar S. Tomillo**, University of Whales • **Walter Bien, Ph.D.**, Kalamazoo College. *Costa Rican Sea Turtles*

Cuba

Felipe Chavez-Ramirez, Ph.D., International Crane Foundation; Platte River Whooping Crane Maintenance Trust. *Ecology and Conservation of Sandhill Cranes and Savannahs in Cuba.*

Roberto R. Soberón, Ministry of Agriculture • **Manuel A. Tabet**, Ministry of Agriculture • **John Thorbjarnarson, Ph.D.**, Wildlife Conservation Society. *Ecology of the American Crocodile in the Monte Cabaniguan Wildlife Refuge, Cuba.*

Czech Republic

Josef Krecek, Ph.D., Czech Technical University, Prague • **Zuzana Horicka**, Charles University, Prague. *Acid Rain: Rehabilitation of the Air-Pollution-Damaged Headwaters of North Bohemia, The Czech Republic.*

Ecuador

Constance Dustin Becker, Ph.D., Kansas State University. *Conservation Studies: Birds and Ecotourism in Western Ecuador.*

Estonia

Chris Joyce, Ph.D., University of Brighton. *Restoring Biodiversity to Coastal Wet Grasslands in West Estonia.*

Ghana

Alfred Oteng-Yeboah, Ph.D., Council for Scientific & Industrial Research • **Paul Beier, Ph.D.**, Northern Arizona University • **William Oduro, Ph.D.**, Kwame Nkrumah University of Science and Technology. *Supporting Management of the Wechiau Community Hippo Sanctuary, Ghana.*

Grenadines

Gregg E. Moore, Ph.D., Center for Coastal Studies • **Colin S. Brent, Ph.D.**, North Carolina State University • **Marina Fastigi, Ph.D.**, Kido Ecological Research Station. *Biodiversity of the Grenadines: Ecological Resources and Sustainable Ecotourism in the Grenadines Archipelago*

Guatemala

Jonathan H. Kaplan, Ph.D., The University of New Mexico. *The Chocoma Archaeological Project, Guatemala.*

Iceland

Andrew Russell, Ph.D., University of Newcastle Upon Tyne • **Fiona Tweed, Ph.D.**, Staffordshire University • Tim Harris Staffordshire University • **Jay Fleicher**, SUNY College at Oneonta • **Ian Fairchild, Ph.D.**, Keele University, U.K. • **Philip Marren, Ph.D.**, University of Witwatersrand • **Nigel Cassidy, Ph.D.**, Keele University • **Nigel Mountney Ph.D.**, Keele University • **Palmer Bailey**, Independent Researcher • **Eric Natal**, Independent Researcher • **Leon Andrzejewski, Ph.D.**, Nicholas Copernicus University, Torun • **Timothy Harris**, Lecturer in Physical Geography, Staffordshire University, U.K. *Glacier Outburst Floods, Glacier Surges and Sediment Transfer: Implications for Proglacial Environments, Iceland.*

India

Nithya Balaji, Nalamdana • **Uttara Bharath**, Zambia Field Office of Zambia Integrated Health Project; Johns Hopkins Center for Communication Program. *Food for Thought: Maternal and Child Health in India.*

Narayan R. Desai, Ph.D., Society for Ecological Restoration (SER)-India. *Restoration of Degraded Sacred Grove at Village Koloshi, District Sindhudurga, Maharashtra, India.*

Shanti Pappu, Ph.D., Sharma Centre for Heritage Education • **Yanni Gunnell, Ph.D.**, Université du Paris • **Maurice Taieb, Ph.D.**, Centre National de la Recherche Scientifique • **Raman Sukumar, Ph.D.**, Indian Institute of Science • **Jean-Philip Brugal, Ph.D.**, Centre National de la Recherche Scientifique. *Pleistocene Archaeology and Palaeoenvironments in the Palar Basin, India: Excavations at Attirampakkam,*

Italy

Alain Touwaide, Ph.D., Smithsonian Institution. *Medicinal Plants of Antiquity, Italy.*

Jamaica

James C. Crabbe, Ph.D., University of Reading. *Jamaica's Coral Reefs.*

Japan

Naoki Maruyama, Ph.D., Tokyo University of Agriculture and Technology. *Surveying Habitat Density and Distribution of Wild Boar in Southern Izu Peninsula, Japan.*

Naoki Maruyama, Ph.D., Tokyo University of Agriculture and Technology. *Surveying the Population and Distribution of Owl at Southern Izu Peninsula, Japan.*

Shusake Minato, Ph.D., Kiyosato Educational Experiment Project. *Ecological Survey to Set Up Conservation Methods in the Forests and Mountains for Habitation of Dormouse, Japan.*

Kenjiro Mizuno, Sea Turtle Association of Japan. *Survey to Ascertain the Changes of the Distribution of Nesting Beaches at Amami Islands, Japan.*

Tomoki Suda, Ph.D., Tokyo Noko University. *Survey the Rat Population and the Recovery of Current Volume of Bamboo Grass at Nikko National Park, Tochigi, Japan.*

Michihito Watanabe, Ph.D., Laboratory of Natural Science for Coexistence of Human & Nature. *Surveying the Ecology of Endangered Grassland Butterflies at the Foot of Mount Fuji, Japan.*

Kenya

Linus Gatimu, Moi University • **Alan Birkett, Ph.D.**, Manchester Metropolitan University • **Geoffrey Wahungu, Ph.D.**, Moi University. *Kenya's Black Rhinos.*

David Harper, Ph.D., University of Leicester • **Tony Cook, Ph.D.**, Newton-in-the-Willows Field Centre • **Tony Drane**, Hon Research Associate • **William Kimosop** Lake Bogoria National Reserve • **Hakan Tarras-Wahlberg, Ph.D.**, Freelance Physical Geographer and Environmental Consultant • **Håkan Tarras-Wahlberg, Ph.D.**, Swedish Geological Survey • **Rob Britton, Ph.D.**, Environmental Agency-U.K. • **David Agassiz, Ph.D.**, The Natural History Museum. *Exploring Kenya's Rift Valley Lakes.*

Mark Huxham, Ph.D., Napier University • **James Kairo, Ph.D.**, Kenya Marine and Fisheries Research Institute • **Martin Skov, Ph.D.**, University of Liverpool. *The Effects of Species Richness on Growth and Ecosystem Functions of Restored East African Mangrove Stand, Kenya.*

Joseph Kirathe, LEWA Conservancy, Kenya • **Daniel I. Rubenstein, Ph.D.**, Princeton University. *Ecological Monitoring on Private Lands: Understanding the Relationships between Wildlife, Habitat, and Humans, Kenya*

Gábor Lövei, Ph.D., Danish Institute of Agricultural Science • **Tibor Csörgö, Ph.D.**, ELTE University, Budapest • **Samuel Muchai, Ph.D.**, National Museums of Kenya • **Sergio Scebba, MD**, Gruppo Inanellamento Limicoli, Pozzuoli (Naples). *Europe-Africa Songbird Migration: Population Trends of Migrant Passerines.*

Geoffrey Mwachala, East African Herbarium; National Museums of Kenya • **Geoffrey Mungai**, East African Herbarium; National Museums of Kenya • **Beatrice Khayota, Ph.D.**, East African Herbarium; National Museums of Kenya. *Rare Plants of Kenya.*

Paul K. Muoria, Ph.D., National Museums of Kenya • **Nicholas Oguge, Ph.D.**, Earthwatch Institute Conservation Research Initiative • **Daniel Rubenstein, Ph.D.**, Princeton University. *Conservation of Grevy's Zebras (Equus grevyi) in Samburu, Kenya.*

Alexander Njue Ph.D., Kenyatta University, Kenya • **Kiplagat Kotut, Ph.D.**, Kenyatta University, Kenya. *Temporal and Spatial Distribution of Water Resources in the Samburu region, Kenya, with Emphasis on Water Quantity and Quality, Aquatic Biodiversity, Human Use and Potential for Conflict.*

Donald Ogwen Moi University, Kenya • **Fred Atieno** International Livestock Research Institute • **Alex Njue Ph.D.**, Kenyatta University. *Comparative Evaluation of Critical Wildlife Habitats in and Outside Protected Areas in Samburu, Kenya.*

Bruce Patterson, Ph.D., The Field Museum of Natural History • **Roland Kays, Ph.D.**, New York State Museum • **Samuel Kasiki, Ph.D.**, Tsavo Research Center. *Ecology and Behavior of Maneless Lions in Arid Rangelands of Kenya.*

Madagascar

Luke Dollar, Ph.D., Duke University; Carnivore Conservation and Research Trust; IUCN • **Stuart Pimm, Ph.D.**, Duke University. *Carnivores of Madagascar: Conservation, Distribution, and Abundance of Carnivores in Ankarafantsika National Park, Madagascar with Special Emphasis on the Impacts of Non-endemic Competitors on the Behavioral Ecology of the Fossa (Cryptoprocta ferax).*

Jonah H. Ratsimbazafy, Ph. D, Durrell Wildlife Conservation Trust – Madagascar Programme; Lecturer, University of Antananarivo • **Vololoniaina H. Jeannoda, Ph.D.**, University of Antananarivo. *Behavioral Ecology of the remaining black-and-white ruffed lemurs (Varecia variegata variegata) following catastrophic habitat destruction at Manombo Special Reserve, Madagascar.*

Lyn Robinson, Rhodes University; WWF/Madagascar • **Anthony J. Ribbink, Ph.D.**, Rhodes University. *Sharks: At the End of the Line? A Framework for the Conservation and Management of Sharks in Madagascar.*

Patricia C. Wright, Ph.D., State University of New York at Stony Brook • **Toni Morelli**, State University of New York at Stony Brook. *Behavioral Ecology of Rain Forest Lemurs (*Propithecus diamdema edwardsi*) in Ranomafana National Park, Madagascar.*

Malaysia

Tigga Kingston, Ph.D., Boston University; Director. *Spatial Determinants of Insectivorous Bat Diversity: Pattern and Process in a Paleotropical Rainforest, Malaysia.*

Joan Whittier, Ph.D., University of Queensland • **Kamarruddin Ibrahim**, Marine Fishery Resources, Development & Management Center. *Ecology and Management of Hatchling Production of Green Turtles, Malaysia.*

Mauritius

Geoffrey D. Summers, Ph.D., Middle East Technical University (METU/ODTU) • **Françoise Summers**, Middle East Technical University (METU/ODTU). *Ile de la Passe, Mauritius: Key to the Indian Ocean; Archaeology, Architecture and Conservation of an Historic Islet, Mauritius.*

México

Oscar Carranza Castañeda, Ph.D., Universidad Nacional Autónoma de México. *Fossils from the Sierra Madre, México.*

John W. Laundré, Ph.D., Instituto de Ecología • **Lucina Hernandez, Ph.D.**, Instituto de Ecología. *Conservation of the Puma in the Mexican Chihuahuan Desert, México.*

Jorge Leirana-Alcocer Universidad Autónoma de Yucatán. *Conservation of Five Rare Plants in Coastal Yucatán, Mexico.*

Paulino Ponce, M.S., Bosque Tropical A.C. • **Alan Gubanich, Ph.D.**, Great Basin Institute; University of Nevada, Reno • **Michael Morrison, Ph.D.**, University of California's White Mountain Research Station. *La Manzanilla Conservation Project, Mexico.*

Jeffrey A. Seminoff, Ph.D., National Marine Fisheries Service • **T. Todd Jones**, University of British Columbia. *Sea Turtles of Baja: Ecology of the Black Turtle (*Chelonia mydas agassizii*) at a Temperate Foraging Area in the Gulf of California, México.*

Mongolia

Richard P. Reading, Ph.D., Denver Zoological Foundation • **Ganchimeg Wingard**, University of Montana. *Ecology and Conservation of Argali Sheep (*Ovis ammon*) in Mongolia's Mongolia's*

Wei-Zu Gu, Nanjing Institute of Hydrology and Water Resources, China. *Inner Mongolia's Lost Waters.*

Namibia

Stephane Helary, University of Witwatersrand. *Comparison of the Contribution of Different Habitat Types to Black Rhinoceros (*Diceros bicornis*) Nutritional Status and Reproductive Potential, Namibia.*

Keith Leggett, Ph.D., Northwestern Namibia Elephant and Giraffe Project. *A Scientific and Conservancy Approach Towards Sustainable Use Management of Elephants in Northwest Namibia.*

Laurie Marker, Cheetah Conservation Fund. *Conservation Strategies for the long-term survival of Cheetah in Namibia.*

New Zealand

Bernd Würsig, Ph.D., Texas A&M University. *Dusky Dolphins Movements, Social Grouping and Human-Related Behaviors, New Zealand.*

Peru

Peter K. Bol, Ph.D., Harvard University. *Lineage Houses, Landscapes, and Local History in China.*

Donald J. Brightsmith, Ph.D., Rainforest Expeditions; Duke University. *Macaw's of the Peruvian Amazon.*

Hernán Ortega, Museo de Historia Natural • **Max Hidalgo**, Museo de Historia Natural. *The Diversity of Aquatic Organisms and Status of Aquatic Habitats in Rivers of the Peruvian Amazon Basin, Peru.*

Poland

Mariusz S. Ziolkowski, Ph.D., Warsaw University, Poland. • **Henryk Paner** Archaeological Museum of Gdansk. *Archaeological Excavations at Uniradze Mound Cemetery, Poland*

Puerto Rico

Gregory Schmaltz, McMaster University • **Jim Quinn, Ph.D.**, McMaster University. *Mating Systems and Conservation Issues in a Communally Breeding Bird: The Smooth-Billed Ani (*Crotophaga ani*), Puerto Rico.*

Sally Silverstone, Tropic Ventures Education and Research Foundation; Global Ecotechnics Corporation • **Mark Nelson, Ph.D.**, Global Ecotechnics Corporation • **Rafael L. Joglar, Ph.D.**, University of Puerto Rico • **Patricia A. Burrowes, Ph.D.**, University of Puerto Rico. *Tropic Ventures Education and Research Program; Rainforest Enrichment Project, Las Casas de la Selva, Patillas, Puerto Rico.*

Romania

Mihail Zahariade, Ph.D., The Romanian Institute of Thracology, Romania. *Romans Fort on the Danube, Romania.*

Russia

Andrei Sergeevich Kabanov, Ph.D., The Educational Center of Traditional Russian Culture. • **Yelena Androsova, Ph.D.**, Folklore Archive of the Russian Academy of Sciences. *The Singing Russia: Traditions and the Revival Movement, Russia.*

South Africa

Bal Dave Balfour KwaZulu-Natal Nature Conservation Service • **Sue J. van Rensburg** KwaZulu-Natal Nature Conservation Service. *Large Herbivore Census in Hluhluwe-iMfolozi Park, South Africa.*

Peter J. Barham, Ph.D., University of Bristol • **Leslie G. Underhill, Ph.D.**, University of Cape Town • **Robert J. M. Crawford, Ph.D.**, Department of Environmental Affairs and Tourism. *South African Penguins.*

Peter Best, Ph.D., Mammal Research Institute; University of Pretoria. *The Movements and Feeding Behavior of Southern Right Whales Off the West Coast of South Africa.*

Tim Clutton-Brock, Ph.D., University of Cambridge • **Adin Ross-Gillespie** Kalahari Meerkat Project. *Cooperation and Competition in Kalahari Mammals, South Africa.*

Cathy Dzerefos, South African Institute of Ecologists and Environmental Scientists. • **Steven Evans** Birdlife South Africa and Endangered Wildlife Trust • **Philip Le Feuvre** Blue Swallow Working Group- Limpopo. *Distribution of Blue Swallow Habitats in Fragmented Grassland, Limpopo Province, South Africa.*

Michelle Hamer, Ph.D., University of Natal • **Dai Herbert, Ph.D.**, Natal Museum • **Robert Slotow, Ph.D.**, University of Natal. *South Africa Invertebrate Conservation.*

Spain

Ana Cañadas, ALNITAK Marine Environment Research and Education Center • **Ricardo Sagarminaga van Buiten**, ALNITAK Marine Environment Research and Education Center. *Spanish Dolphins: The Common Dolphin as a Tool for Designating Marine Protected Areas in the Spanish Mediterranean, Spain.*

John Dover, Ph.D., Staffordshire University • **Paul Lunt, Ph.D.**, Staffordshire University • **Jon Fairburn**, Staffordshire University • **Peter Carey, Ph.D.**, Center for Ecology & Hydrology • **Alejandro Rescia, Ph.D.**, Complutense University, Madrid • **Sara Fungairino, Ph.D.**, Complutense University, Madrid. *Land-use Change, Orchids and Butterfly Populations in the Hay Meadows of the Picos de Europa, Spain.*

Joseph Gibert Clols, Ph.D., Instituto de Paleontología • **Lluís Gibert Beotas**, Polytechnical University of Catalunya. *Early Man in Spain.*

Jacqueline Waldren, Ph.D., Oxford University • **Josep Alcover, Ph.D.**, University of the Balearic. *Balearic Prehistoric Ecology and Culture: Prehistoric Societies of, Mallorca, Spain.*

Sri Lanka

Wolfgang P. J. Dittus, Ph.D., Smithsonian Institution. *Behavior, Ecology and Epidemiology in Toque Macaques (Macaca sinica) of Sri Lanka.*

Tanzania

Fidelis T. Masao, Ph.D., Open University • **Chediël Msuya**, Tanzania Department of Antiquities. *Salvage and Conservation of the DK Site, Olduvai Gorge, Tanzania.*

William D. Newmark, Ph.D., Utah Museum of Natural History. *Impact of Tropical Forest Fragmentation on Bird Populations in the Usambara Mountains, Tanzania.*

Tasmania

Joan Whittier, Ph.D., University of Queensland • **Sue Jones, Ph.D.**, University of Tasmania • **Ashley Edwards, Ph.D.**, University of Tasmania. *Effects of Environmental Stress on Alpine Skinks in Tasmania.*

Thailand

Bruce J. Bourque, Ph.D., Maine State Museum. • **Steven L. Cox, Ph.D.**, Maine State Museum. *Prehistoric Archaeology and Paleoenvironmental Reconstruction, Muscongus Bay, Maine, U.S.*
Charles F. W. Higham, Ph.D., University of Otago. *The Origins of Angkor, Thailand.*

Trinidad

Dennis Sammy, WILDECAST: Wider Caribbean Sea turtle Conservation Network • **Scott Eckert, Ph.D.**, Nature Seekers. *Leatherback Sea Turtle Conservation and Community-Based Tourism, Trinidad, West Indies.*

United Kingdom

Paul T. Bidwell, Tyne and Wear Museums Service • **Nicholas Hodgson, Ph.D.**, Tyne and Wear Museums Service • **Graeme Stobbs**, Tyne and Wear Museums Service *Arbeia Roman Fort Excavation, South Shields, U.K.*

John Dover, Ph.D., Staffordshire University • **Paul Mitchell, Ph.D.**, Staffordshire University. *Ecology of Butterflies and the Great Green Bush-cricket in South Devon, U.K.*

Martin Haigh, Ph.D., Oxford Brookes University. *Summer Sapling Survey, U.K.*

David Harper, Ph.D., University of Leicester. *Distance Learning Undergraduate Certificate in Global Ecology and Wildlife Conservation, U.K.*

Paul Haworth, Ph.D., Freelance Ecologist. *Eagles of Mull, U.K.*

Roger D. Martlew, Ph.D., University of Leeds. *In Search of the Ancient British Kingdom of Craven, U.K.*

Chris Newman, Ph.D., Oxford University • **Christina Buesching, Ph.D.**, Oxford University. *Mammal Monitoring in Wytham Woods, U.K.*

Mark Satinet, Wiltshire Wildlife Trust. *Otters in the Upper Thames, U.K.*

Colin Speedie, MER Consultants Ltd. *Britain's Basking Sharks, U.K.*

Martin Whyte, Ph.D., Sheffield University. • **Mike Romano, Ph.D.**, Sheffield University. *Dinosaur Footprints in the Middle Jurassic of Yorkshire, U.K.*

United States

E. Charles Adams, Ph.D., University of Arizona • **Richard C. Lange**, University of Arizona. *Sociopolitical Organization of Chevelon Ruin and the Homol'ovi Settlement Cluster, NE Arizona, U.S.*

Larry D. Agenbroad, Ph.D., Northern Arizona University. *Excavations at the Hot Springs Mammoth Site, South Dakota, U.S.*

Harold Avery, Ph.D., Drexel University • **James Spotila, Ph.D.**, Drexel University • **Justin Congdon, Ph.D.**, Arizona State University • **Annette Sieg**, Drexel University. *Conservation and Biology of the California Desert Tortoise, U.S.*

Kenneth C. Balcomb III, Center for Whale Research • **Astrid van Ginneken, Ph.D.**, Erasmus University. *Orca Survey, Washington, U.S.*

Kenneth P. Cannon, National Park Service's Midwest Archeological Center, Nebraska. *Jackson Hole Bison Dig, Wyoming, U.S.*

Oscar Carranza Castañeda, Ph.D., Universidad Nacional Autónoma de México. *Mexican Megafauna* • **Donald E. Casperson, Ph.D.**, Los Alamos National Laboratory • **Galen R. Gisler, Ph.D.**, Los Alamos National Laboratory • **Todd J. Haines, Ph.D.**, Los Alamos National Laboratory • **John O'Donnell, Ph.D.**, Los Alamos National Laboratory. *Transient Phenomena in Astrophysics, U.S.*

George M. Crothers, Ph.D., University of Kentucky • **Charles A. Swedlund**, Southern Illinois University • **Robert H. Ward**, Mammoth Cave National Park. *Mammoth Cave Natural Resource Inventor, U.S.*

Randall W. Davis, Ph.D., Texas A&M University. *Intra- and Inter-Annual Movements and Habitat-Associations of Sea Otters in Prince William Sound, Alaska, U.S.*

Douglas A. Eifler, Ph.D., Haskell Indian Nations University. *Foraging Decisions of the Desert Grassland Whiptail Lizard (Cnemidophorus uniparens): A Signal Detection Approach. U.S.*

Roger S. Fouts, Ph.D., Chimpanzee and Human Communication Institute. • **Deborah H. Fouts, Ph.D.**, Chimpanzee and Human Communication Institute • **Mary Lee Jensvold, Ph.D.**, Chimpanzee and Human Communication Institute. *Caring for Chimpanzees, U.S.*

Tim B. Graham, Ph.D., United States Geological Survey. *Proposals to Develop and Test Monitoring Protocols for Amphibians and Terrestrial (Riparian) Invertebrates in Salt Creek Canyonlands National Park, U.S.*

Steve Hinton, Skagit River System Cooperative • **Gregory Hood, Ph.D.**, Skagit River System Cooperative. *Restoring Wild Salmon, U.S.*

Sean E. Jenkins, Ph.D., Western Illinois University • **Richard V. Anderson, Ph.D.**, Western Illinois University • **Michael A. Romano, Ph.D.**, Western Illinois University • **Susan T. Meiers, Ph.D.**, Western Illinois University. *Long-Term Riparian and Aquatic Ecosystem Monitoring Projects on the Upper Mississippi River, U.S.*

Glennis E. Julian, Ph.D., University of Texas • **Sara Helmes Cahan, Ph.D.**, Institut de Zoologie et d'Ecologie Animale, Université de Lausanne. *The Fate of Interspecific Hybrids in an Ant Hybrid Zone, U.S.*

John E. Kelly, Ph.D., Washington University • **William R. Iseminger, Ph.D.**, Cahokia Mounds Historic Site. *In Defense of Cahokia: The Northeast Palisade Project, Illinois, U.S.*

Peter Kiffney, Ph.D., National Marine Fisheries Service • **Correigh Greene, Ph.D.**, National Marine Fisheries Service. *Tributary Junctions: Hotspots of Biological Productivity and Diversity? U.S.*

Karl W. Laumbach, Human Systems Research, Inc. • **Dennis A. O'Toole, Ph.D.**, Cañada Alamosa Institute, Inc. *Prehistoric Peoples of the Rio Alamosa, New Mexico, U.S.*

Michael E. Loik, Ph.D., University of California at Santa Cruz. *Plant Responses to Climate Change in the Western United States.*

Patrick E. Martin, Ph.D., Michigan Technological University • **Timothy James Scarlett, Ph.D.**, Michigan Technological University. *Industrial Archaeology at the West Point Foundry Site, New York, U.S.*

John McLaughlin, Ph.D., Huxley College of the Environment • **Ralph H. Riley, Ph.D.**, Earthwatch Institute. *High Country Ecology of the North Cascades, Washington, U.S.*

William Megill, Ph.D., University of Bath; Coastal Ecosystems Research Foundation • **Lei Lani Stelle, Ph.D.**, Rochester Institute of Technology. *Behavioral Ecology of the Grey Whale Migration, British Columbia, Canada & Baja, U.S.*

William D. Newmark, Ph.D., Utah Museum of Natural History • **Eric Rickart, Ph.D.**, Utah Museum of Natural History. *Large Mammal Movement in Western North America, U.S.*

Astrida R. Blukis Onat, Ph.D., BOAS, Inc. *Cedar and Salmon: Timber and Gold. Cultural Traditions, Environmental Adaptation, and Landscape Transitions in the Skagit River Basin. Year One: The Bedal Homestead on the Sauk River, U.S.*

Rolf O. Peterson, Ph.D., Michigan Technological University. *Moose and Wolf Ecology on Isle Royale, U.S.*

Ralph Riley, Ph.D., Earthwatch Institute. *Salmon of the Pacific Northwest: Habitat Assessment, U.S.*

Steven Seefeldt, Ph.D., USDA- Agricultural Research Service. *Rangeland Ecology, Management and Utilization by Sheep, U.S.*

David Shaw, Ph.D., University of Washington • **Patricia Olson, Ph.D.**, Pacific Watershed Institute • **Susan C. Shaw, Ph.D.**, Pacific Watershed Institute. *Establishing Permanent Plots in Reference to Old-Growth Riparian Forests in the Wind River Experimental Forest, U.S.*

Myra Shulman, Ph.D., Cornell University • **Sara Morris, Ph.D.**, Canisius College • **Julie Ellis**, Brown University • **Jon Witman, Ph.D.**, Brown University. *Breeding and Foraging Behavior of Great Black-backed and Herring Gulls in the Gulf of Maine, U.S.*

Christopher M. Stevenson, Ph.D., Virginia Department of Historic Resources. *A Frontier Forts in Virginia: Colonial-Native American Interaction at Ft. Christanna, U.S.*

Tony Tucker, Ph.D., Mote Marine Laboratory • **Jeff Schmid, Ph.D.**, The Conservancy of Southwest Florida. *Sea Turtles of Charlotte Harbor National Estuary, U.S.*

Randall S. Wells, Ph.D., Chicago Zoological Society; Mote Marine Laboratory • **Jason Allen**, Chicago Zoological Society. *Wild Dolphin Societies, U.S.*

U.S. Virgin Islands

Jeanne Alexander, US Virgin Islands Division of Fish and Wildlife • **William Coles, Ph.D.**, US Virgin Islands Division of Fish and Wildlife • **Peter Dutton, Ph.D.**, National Marine Fisheries Service • **Donna Dutton**, National Marine Fisheries Service. *Saving the Leatherback Sea Turtle, St. Croix, U.S. Virgin Islands.*

David J. Booth, Ph.D., University of Technology, Sydney • **Giglia A. Beretta**, University of Technology, Sydney. *Coral Reefs of the Virgin Islands: Impacts of Human Disturbance on Coral Reef and Adjacent Ecosystems of the US Virgin Islands.*

Claire A. Fuller, Ph.D., Murray State University • **Paul C. Sikkil, Ph.D.**, Murray State University. *Behavior & Ecology of Caribbean Termites & Coral Reef Fish, U.S. Virgin Islands.*

Vietnam

Sinh Van Nguyen, Ph.D., Institute of Ecology and Biological Resources. *Study of the Ecological Characteristics of Native Forest Tree Species to Build Scientific Basis for Restoration of Native Forest Ecosystems in Vietnam.*

Lien Van Vu, Vietnam Russia Tropical Center, Hanoi, Vietnam. *Butterfly Survey at Tam Dao National Park: Using Butterflies as Ecological Indicators of Habitat Disturbance and Monitoring Butterfly Species populations Over Time, Vietnam.*

SCIENCE ADVISORY COMMITTEE

William Moomaw, Committee Chairman, Tufts University
Mark Burgman, The University of Melbourne, Australia
Sheldon Berman, Superintendent of Schools, Hudson, Mass., U.S.
Wade Davis, National Geographic Society, U.S.
Chris Dickman, The University of Sydney, Australia
James Else, Emory University, U.S.
Tom Griffiths, Australian National University, Australia
Christine Jost, Tufts University, U.S.
Spencer Jourdain, Metastar Communications, Inc., U.S.
Mike King, The Environment Council, Great Britain

Helene Marsh, James Cook University, Australia
Ellen Messer, George Washington University, U.S.
David Paton, The University of Adelaide, Australia
John Radcliffe, CSIRO, Australia
Daniel Rubenstein, Princeton University, U.S.
Hazel Rymer, The Open University, Great Britain
Denis Saunders, CSIRO, Australia
Marie Studer, Chief Science Officer, Earthwatch Institute, U.S.
Hugh Synge, Plant Talk, Great Britain

INTERNATIONAL ADVISORY COUNCIL

UNITED STATES

John D. Constable, Massachusetts General Hospital (retired)
Jill Conway, Massachusetts Institute of Technology
Irven Devore, Harvard University
Farouk El-Baz, Boston University
Gregory Guroff, The Guroff Group, Inc.
Daniel H. Janzen, University of Pennsylvania
Lynn Margulis, University of Massachusetts, Amherst
Russell Mittermeier, Conservation International
N.J. Nicholas, Jr., NJN Management, Inc.
Peter H. Raven, Missouri Botanical Garden
David D. Ryus, South Hamilton, Mass.
Michael Soulé, University of California, Santa Cruz
E.O. Wilson, Harvard University

LATIN AMERICA

Manfred Max-Neef, Universidad de Austral
Ira Rubinoff, Smithsonian Tropical Research Institute

AFRICA

Phillip Tobias, University of Witwatersrand

ASIA

Jiro Kondo, Research Institute for Technology and the Environment
Zhang Hanzhi, Development Research Center of the State Council, PRC
Chou Loke Ming, University of Singapore
Jatna Supriatna, Conservation International-Indonesia

EUROPE

SCIENCE PATRONS

Jeffrey McNeely, International Union for the Conservation of Nature and Natural Resources, Switzerland
Sir Richard Southwood FRS, Oxford University
M.S. Swaminathan, MS Swaminathan Research Foundation, India

SCIENCE ADVISORS

Mike King, Environment Council
Hazel Rymer, The Open University
Hugh Synge, Plant Talk
SPECIAL ADVISOR
Sir Crispin Tickell, GCMG, KCVO

AUSTRALIA

Mark Burgman, The University of Melbourne
Peter Cullen, The University of Canberra
Christopher Dickman, The University of Sydney
Tom Griffiths, The Australian National University
Helene Marsh, James Cook University
David Paton, The University of Adelaide
John Radcliffe, Commonwealth Scientific & Industrial Research Organization (retired)

RUSSIA

Georgi Golitsyn, Russian Academy of Sciences
Alexey Yablokov, State Counselor for Ecology & Public Health

EARTHWATCH (INTERNATIONAL)

3 Clock Tower Place, Suite 100
P.O. Box 75, Maynard, MA 01754, USA
Phone: (978) 461-0081 • (800) 776-0188
Fax: (978) 461-2332
E-mail: research@earthwatch.org
www.earthwatch.org/research

EARTHWATCH (EUROPE)

267 Banbury Road
Oxford OX2 7HT, U.K.
Phone: + 44 (0) 1865 318838
Fax: +44 (0) 1865 311383
info@earthwatch.org.uk

EARTHWATCH (AUSTRALIA)

126 Bank Street, South Melbourne
Victoria 3205, Australia
Phone: +61 (0)3 9682 6828
Fax: +61 (0)3 9686 3652
E-: researchau@earthwatch.org

EARTHWATCH (JAPAN)

Sanbancho TY Plaza 5F
Sanbancho 24-25, Chiyoda-ku,
Tokyo 102-0075 Japan
Tel. +81 (0)3 3511 3360
Fax +81 (0)3 3511 4663
info@earthwatch-japan.gr.jp