Appendix IV. Biographical Sketches of Workshop Participants

Greta Aeby

Greta is a coral biologist at the Hawaii Institute of Marine Biology (HIMB). She obtained her Ph.D. at the University of Hawaii where she studied the evolution and ecology of the coral disease, Porites trematodiasis. She then completed post-doctoral training at the University of West Florida examining factors affecting the susceptibility of coral to black band disease. She returned to Hawaii and has been investigating coral and fish disease in the main and northwestern Hawaiian Islands as well as in other areas of the Indo-Pacific.

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Jeff Allen

Jeff received his BS degree in Wildlife Biology from Michigan State University and his MS degree in Geography from the University of South Carolina. He received a Ph.D. in Policy Studies from Clemson University with an emphasis in natural resources policy. Prior to coming to the Thurmond Institute, he worked for the S.C. Wildlife and Marine Resources Department as a cartographic database manager; Clemson University and the National Park Service as an outdoor recreation planner for military installations across the U.S.; and the Regional Resources Development Institute at Clemson University as its program administrator. Currently, Jeff is the Director of the South Carolina Water Resources Center as well as Research Coordinator at the Strom Thurmond Institute of Government and Public Affairs (STI) at Clemson University. He oversees all projects within the Water Center (SCWRC), Regional Development Group (RDG), and Decision and Communication Technologies Group (DCTG). His work with the SCWRC involves administering grant money from USGS, coordinating water research with a national network of water research institutes and identifying and pursuing critical water research needs for South Carolina. His duties associated with other research groups include facilitating graduate student and faculty research, supervising STI's involvement with regional development issues, and initiating new endeavors that blend the needs and expertise of STI and various academic departments. Jeff has been actively involved in community development projects as well as natural resource policy and coastal research issues. Recent projects have included developing spatial models for predicting urban growth patterns as well as collaborating with a private company (SpectroTech) to bring hyperspectral remote sensing technology to Clemson University. Additionally, Jeff's work includes project design and administration of research within the Institute's Spatial Analysis Laboratory. This facility houses computers used for geographic information systems research and remote sensing image analysis. Projects within the facility focus on providing better spatial information to decision-makers and stake-holders regarding South Carolina and the Southeast.

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Melissa Bos

Melissa joined the Alliance for Coastal Technologies several months ago as the Hawaii-Pacific Coordinator based at the Hawaii Institute of Marine Biology. Prior to this, Melissa was the Coral Reef Specialist for the Hawaii Division of Aquatic Resources where she worked on six local action strategies for coral reef management in the Main Hawaiian Islands and with the US All Islands Group of the US Coral Reef Task Force. Nutrient uptake of coral reef communities under varying flow conditions was the topic of Melissa's MS thesis at the University of Hawaii Oceanography Department. Melissa worked as an environmental consultant in Hawaii and Texas after she received a BS in Chemistry and Marine Science from the University of Miami.

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Andy Bruckner

Andy is a coral reef ecologist with the NOAA Fisheries Office of Habitat Conservation. He received his MS in marine biology from Northeastern University, Boston MA in 1988, and his Ph.D. from the University of Puerto Rico in 1999. His Ph.D. dissertation involved a study on the occurrence, impact and treatment of black-band disease. During the 1990s he devoted much of his time to Caribbean coral reef research, focusing on the effects of coral predators and coral diseases on the survival of important reef-building corals. Andy has also been involved in the development, implementation and training in coral health monitoring protocols.

Most recently, Andy works on the NOAA Coral Reef Conservation Program and the U.S. Coral Reef Task Force on international and domestic coral reef conservation activities. Through the Coral Disease and Health Consortium (CDHC) he has been working with partners to develop diagnostic criteria for coral diseases, implement a rapid response protocol to address coral disease outbreaks; and improve our understanding of the global distribution and abundance of coral diseases and relationships with environmental factors. He recently developed a coral disease identification CD for western Atlantic reefs and partnered with UNEPs World Conservation Monitoring Center to implement the Global Coral Disease Database. He also continues his research on coral diseases and predators in Bonaire, Curaçao, Puerto Rico, Jamaica and the Flower Gardens. His recent efforts on the international trade in coral reef species include analyses of the volume, sources and types of coral reef species collected for marine aquaria and curios; an identification guides for corals in trade; assistance to developing countries in the development of sustainable management guidelines for ornamental coral reef fisheries; use of CITES Appendix II listings to prevent unsustainable trade in seahorses, humphead wrasse, corals, and other species on of CITES; the development of conservation strategies for sea cucumbers, and collection and mariculture guidelines for stony corals. In addition to his coral reef research, Andy manages two parts of the NOAA coral grants program and helps coordinate NOAAs Coral Reef Conservation Programs coral reef research, monitoring and management efforts. Recent awards include a 2004 Presidential Early Career Award for Scientists and Engineers (PECASE), and a 2003 NOAA Administrators Award.

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Athline Clark

Athline was one of the first to merge science and policy together in Hawaii during her Master's Thesis in Urban and Regional Planning at the UH Manoa. She now uses her training and experience as a Special Projects Program Manager for the Hawaii Division of Aquatic Resources. In this role she is the Hawaii Point of Contact to the US Coral Reef Task Force and oversees all the projects and programs that Hawaii has initiated in response to the Task Force. This includes the creation of six Local Action Strategies to address threats to coral reefs. She is also the State lead for the Northwestern Hawaiian Islands Sanctuary designation process.

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Craig Downs

Craig received his B.A in philosophy and a B.S. in biological science from Hiram College and his M.Sc. from Syracuse University, examining the relationship of biochemical/biophysical properties of photosynthesis to physiological/ecological phenomena. He is the founder and Executive Director of Haereticus Environmental Laboratory, a tax-exempt, non-profit organization whose purpose is to build scientific and technological capacities to address environmental health concerns. This concept was inspired during his time as Chief Executive Officer of the for-profit company, EnVirtue Biotechnologies, Inc., which provided financial and technological services *pro bono* to organizations, communities, and governments whose environmental issues could, in part, be resolved by the technologies provided by EnVirtue. Craig has almost 40 peer-reviewed scientific publications and leads scientific research and environmental assessment efforts at a number of universities, including University of Hawaii and Tel Aviv University (Israel). Craig founded Haereticus in 2004, and to date, and has built numerous partnerships and collaborations with U.S. and international national, state, and city agencies, non-governmental organizations, and academic institutions throughout the world (Micronesia, Polynesia, Central America, Caribbean Islands, New Zealand, the Middle East and the Arctic). He has helped establish or expand several environmental laboratories. Craig has taught accredited courses in the fields of environmental risk assessment, ecotoxicology, cellular diagnostics, and biochemistry and as part of Haereticus' educational effort, trains NGOs and governments in the area of environmental forensics and monitoring. He also remains active in the biotechnology industry, working with industry and governments to establish new biotech/economic zones in a number of countries, as well as encouraging new biotechnology start-up companies.

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Sylvia Galloway

Sylvia is a senior research scientist for NOAA working on assignment with the Marine Biomedical and Environmental Sciences Program, Medical University of SC. She received a BS in Foods and Nutrition from Syracuse University, a MS in Chemistry from

SUNY College of Environmental Science & Forestry and her Ph.D. in biochemistry Medical University of South Carolina. Her research focus is in the biochemistry of marine animals with particular reference to coral health/disease and to forensics issues. Currently she is studying molecular indicators of coral disease in relationship to environmental and anthropogenic stressors utilizing a genomic/proteomic approach. Past areas of research have included: (1) the measurement of environmental contaminants in marine mammal and sea turtle tissues, with special emphasis on the relationship of environmental contaminants to disease and death in these species; (2) the study of the metabolism of contaminant metals with special emphasis on the interaction of Se and CH_3Hg; (3) the use of species identification techniques (including PAG-IEF, marine fatty acid analysis, DNA sequencing and RFLP) for the forensic identification of unknowns in law enforcement cases related to managed or protected marine species; (4) marine biotoxin assessment as related to human consumers of marine fishery products; particular emphasis on program management at the national level.

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Mike Gawel

Mike is the Senior Planner of Guam Environmental Protection Agency and former Administrator of the Guam Coastal Management Program, has worked with coral reef resources and environmental management issues while residing in the tropical Pacific Islands since 1969. After graduating in Biology from Yale in 1968 and studying Ecology at the Yale School of Forestry and Environmental Studies, he served in the Peace Corps in Fiji as a researcher and lecturer at the University of the South Pacific. He moved to Guam in 1973, where he completed a M.Sc. on coral taxonomy and was able to discover and describe coral species and coral reef fish species new to science. He has worked as an environmental planner and Chief Planner in Guam and other islands of Micronesia and Chief of Marine Resources in the Federated States of Micronesia, where he was married in Chuuk and his son and daughter were born in Pohnpei. During the 1980's he studied at the East West Center and University of Hawaii's Urban and Regional Planning Program. In 1989 he was hired as an evaluator of the US AID World-Wide Coastal Resources Management Project in Sri Lanka, Thailand and Ecuador. He has documented impacts of disastrous typhoons, *Acanthaster planci* outbreaks, and ship groundings on coral reefs and has worked on coral reef conservation and management planning and the development of coral reef assessment and monitoring plans for Guam.

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Marion Henry

Marion represents The Federated States of Micronesia (FSM) which are Kosrae, Pohnpei, Chuuk (formerly Truk) and Yap, stretching over a vast expanse of Pacific Ocean just north of the equator. Geographically, these four small states are part of the Caroline Islands, consisting between them of over 600 islands, of which only 65 are inhabited. Marion is the Assistant Secretary for the Division of Resource Management & Development in the Department of Economic Affairs. The Division responsibilities

include agriculture, marine resources, tourism, and environment. He has been at this position for one year after serving as the Deputy Assistant Secretary responsible for marine resources for one year. He was Vice President of the National Fisheries Corporation for six year, prior to that served as Director of the Department of Resources and Development for the Government of Chuuk State after serving as the Deputy Director for 4 years. Prior to that Marion was Chief of Marine Resources for Chuuk State, serving in that capacity for more than five years.

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Julie Higgins

Julie received her B.S. in Ecology and Evolutionary Biology and her Master's in Microbiology from the University of Tennessee. Her Master's research investigated viral dynamics in high-nutrient, low-chlorophyll marine surface waters. Last year, Julie accepted a position with Dr. Cheryl Woodley's lab, where she is pursuing molecular approaches to studying marine diseases. Her current projects involve using PCR and DNA sequencing to conduct surveillance screening of Caribbean corals for known and suspected coral pathogens. Julie also just received her working diver certification from NOAA's Diving Center in Seattle, WA.

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Dave Jessup

David Jessup was the first wildlife veterinarian hired by the California Department of Fish and Game. He spent 15 years working on terrestrial species including elk, deer, bighorn sheep, wild pigs, bear, cougar and waterfowl, primarily their diseases, anesthesia, capture and translocation. He has spent the last 15 years working on the health and welfare of marine mammals and birds and marine ecosystems. Dave has authored or co-authored over 230 scientific and popular publications, book chapters or monographs from 1975-2006. He has also worked in Mexico, India and Africa on wildlife health and conservation problems. Dave currently supervises the Marine Wildlife Health and Research Center in Santa Cruz, CA for the OSPR division of CDFG.

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Bob Jonas

Bob received his Ph.D. in Environmental Microbiology (1981) from University of North Carolina, Dept. of Environmental Sciences and Engineering as well as a Master's of Science in Public Health also from UNC. He is Associate Professor of Environmental Science and Public Policy at George Mason University and former Director of Graduate Programs in Environmental Science and Public Policy. Bob's research focuses on microbial responses in stressed ecosystems (e.g. the Chesapeake Bay, coral disease). Along with Dr. Esther Peters he has taught a course in Diseases of Corals and Other Marine Organisms through Mote Marine Laboratory each summer since 1996. In a

collaboration between the College of the Bahamas and George Mason University he has been investigating white plague type II as well as black-band disease affecting corals along the barrier reef east of Andros Island. Currently he and his collaborators (Drs. Gillevet and Peters) (and of course the graduate students) are working on white plague (or white plague-like disease) from reefs around Lee Stocking Island, The Bahamas, and St Croix, USVI and a white syndrome (white plague-like) at the Flower Garden Banks National Marine Sanctuary.

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Eugene Joseph

After graduating from the College of Micronesia – Federated States of Micronesia (COM-FSM) in 1999 with an Associate's Degree in Marine Biology, Eugene was already motivated to work on protecting Pohnpei's coral reef, so in early 2001, he started working with the Conservation Society of Pohnpei (CSP). CSP Marine Program combines elements of traditional marine resource management with modern science to empower local communities to protect Pohnpei's marine biodiversity. Currently, the program's main focuses are MPA establishment, management and networking, spawning and aggregations, fish and coral monitoring, and income generating activities for MPA communities. Long before Eugene started at CSP, Pohnpei State Division of Marine Resources (DMR) has been exercising marine biophysical monitoring and data collection. However, there was no monitoring plan in place to keep the program running. Fortunately, a biophysical monitoring plan was successfully established in 2004 through a firm partnership between Palau International Coral Reef Center (PICRC), The Nature Conservancy (TNC), Pohnpei Marine Development and CSP. Two monitoring protocols were developed in the plan; a simple community based monitoring exercise and a more rigorous/science-based program to help monitor the changes in fish populations and coral reef cover and health. Eugene is currently a Marine Program Manager and as the monitoring team leader, aims to continue improving CSP marine program by enhancing project partnership both nationally and internationally. He is representing the Conservation Society of Pohnpei, Federated States of Micronesia at this workshop.

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Esti Kramarsky-Winter

Esti received her Ph.D. from Tel Aviv University. She conducted her studies in the laboratory of Professor Yossi Loya where she studied strategies in the survival of corals from stressed environments, with an emphasis on reproduction and regeneration. She has continued her work in corals, merging coral ecology with cellular physiology and microscopic anatomy and physiology. Her interests lie in understanding processes of coral tissue repair particularly as they pertain to the ability to resist and recover from disease. In addition, in collaboration with Dr. Ariel Kushmaro of Ben Gurion University, she is currently investigating the role that symbiotic microorganisms (bacteria and protists) may have in coral holobiont physiology. Esti is a leader in light and electron

microscopy of corals and is an active participant with other CDHC members in developing the field of coral pathology.

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Jennifer Kozlowski

Jennifer is a Coral Reef Program Specialist for NOAA's National Ocean Service Coastal Programs Division where she directly works with the state of Florida on their Local Action Strategy activities and is the Program Officer for Florida's annual Coral Reef Management Grant. She also serves as the lead for her office on coastal watershed management, land-based pollution, and coral disease-related issues in the states and Territories with coral resources and the U.S. Freely Associated States. Prior to joining NOAA, she worked with the EPA Chesapeake Bay Program as a coordinator of their Community-based Watershed Initiative. Jennifer has significant field experience during her Master's thesis where she studied white and black band diseases in the Florida Keys and Bahamas, she then spent 6 years conducting pharmaceutical research and development, and analytical development for both veterinary and pediatric vaccines. Among her other interests Jennifer volunteered at the University of Maryland Center for Marine Biotechnology investigating microbial communities in marine sponges as possible sources of medically important anti-viral, anti-bacterial or anti-cancer compounds, and worked in a research lab at Aberdeen Proving grounds developing a molecular-based rapid test methodology for detecting waterborne pathogens in drinking water sources.

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Ariel Kushmaro

Ariel is the head of the Environmental Biotechnology lab at Ben-Gurion University, Israel. Research activity includes investigation of the diversity, and distribution of microorganisms through approaches based on molecular (e.g. 16S rRNA analysis, FISH and DGGE) and novel culturing techniques. In addition his research work is aimed at understanding the structure and function of microbial communities and their dynamics with regard to the environment. Research projects include; coral diseases (e.g. bacterial bleaching and black band disease), novel antibiotics from cultured and uncultured microorganisms, characterizing microorganisms from coral surfaces and their potential roles in the marine ecosystem.

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Jo-Ann Leong

Jo-Ann is Director of the Hawaii Institute of Marine Biology at Coconut Island. She received her Ph.D. in Microbiology from the University of California, School of Medicine and her A.B. in Zoology at the University of California at Berkeley. Her research interests are in molecular virology, vaccine development and phylogeography. Viruses that infect aquatic organisms are important disease pathogens and their impact on aquacultured species such as salmon and trout can be devastating. These viruses, particularly infectious hematopoietic necrosis virus (IHNV), a rhabdovirus, and infectious pancreatic necrosis virus (IPNV), a birnavirus, are so lethal that 90% of salmon production at a hatchery can be lost to these diseases. Her laboratory is developing vaccines and other treatments to control these diseases in fish. After her arrival in Hawaii, Jo-Ann has become intrigued by the devastating diseases in corals and tropical fish and expanded her research into these research arenas. Jo-Ann helped in the formulation of the current CDHC National Research Plan and has been an active member in the Consortium since 2001.

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Qing Xiao Li

Qing is a professor in the Department of Molecular Biosciences and Bioengineering, University of Hawaii at Manoa. He is also the director of the Pesticide Residue Research Laboratory at UH Manoa. Qing received his Ph.D. from the University of California at Davis, California, in 1990, and his post-doctoral training in the University of California at Berkeley from 1991 to 1994. His current research is in the areas of analytical and environmental chemistry; marine pollution and toxicology, immunochemistry and antibody-based assays for environmental applications, phyto-remediation, bioremediation, microbial degradation, environmental metabolomics and proteomics. He has more than 100 peer-reviewed publications in these research areas and is interested in effects of pollutants on coral, particularly persistent organic pollutants.

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Kay Marano-Briggs

Kay received her Ph.D. from George Mason University where she studied the highly sulfidic Bahamian Blue Holes, characterizing the chemistry of this extreme environment and identifying novel microbial species. Kay is currently employed by the US Geological Survey and coordinates their biological research in the international arena. As an Affiliate Professor in the Department of Environmental Science and Policy at George Mason University, Kay collaborates with several GMU faculty on applied research topics related to coral disease and the marine environment. Her current research interest addresses the question of whether diver wetsuits can serve as a possible vector of disease, both for coral and humans. Kay has two daughters and five Thoroughbred horses, all of which necessitate her continued employment.

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Eric Mathur

In May 2006, Eric accepted a position as a scientific consultant (Animales, LLC) for the J. Craig Venter Institute and Synthetic Genomics, Inc. In addition, earlier this year, he became a delegate of the EO Wilson Biodiversity Foundation. Prior to these recent positions, he was the first employee and one of the scientific founders of Diversa Corporation. During his 12 year tenure at Diversa, he assembled the research organization, was instrumental in the development of their intellectual property portfolio and one of the lead technical scientists for business development. At various times he was responsible and had direct oversight for most of the research and development organization, including enzyme discovery, gene evolution, gene expression, cell engineering, sequencing, bioinformatics, subcloning and manufacturing. He eventually served as Vice President of Scientific Affairs and Molecular Diversity at Diversa Corporation. His Scientific Affairs responsibilities included external scientific spokesperson for Diversa Corporation, public relations officer and of Diversa's Biodiversity Access Program involving management of relationships with over 20 Countries and Institutions. Eric is the principle investigator on four separate DOE Initiatives for Proliferation Prevention (IPP) grants and has directed research in five former bioweapons laboratories in Russia. He also had oversight and directed Diversa's Molecular Diversity Program, which involved recovery and isolation of environmental nucleic acids, metagenomics, high throughput microbial cultivation and sequence-based gene and pathway discovery. Prior to Diversa, Eric was a founding Senior Scientist at Stratagene Cloning System, a La Jolla based biotechnology company where he was responsible for the discovery of Pfu DNA polymerase, Stratagene's current largest selling product. Eric also performed research at Scripps Research Foundation and at the University of California, where he received his BS degree in Biology with Highest Honors in 1977. Eric is an National Fellow of the Explorer's Club, he sits on the Scientific Advisory Boards of Synthetic Genomics, Inc., The Explorer's Club, Department of Energy's Joint Genome Institute, the Monterrey Biotechnology Institute and the Thermal Biology Institute at Montana State University; he has been a member of the SETI Life in the Universe Working Group, the PREVCON (Prevention of Forward Contamination of Mars) Space Studies Board of the National Academy of Science and served on the Sloan Foundation's International Census For Marine Microorganisms Technology Working Group. Additionally, Eric is an adjunct professor at the University of Hawaii's Institute of Marine Biotechnology and holds Visiting Distinguished Scientist positions at both the Institute of Thermal Biology at Montana State University and the International Center for Insect Physiology and Ecology in Kenya; sits on the Queensland North America Biotechnology Council, Cal State San Marcos Biotechnology Advisory Council, and is an Editor of the journal, *Extremophiles*. Eric has published over 60 scientific papers, is named inventor on more than 25 issued US patents and has been invited to present over 100 scientific lectures.

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Amanda McLenon

Amanda is currently working with the CDHC as an Educational Coordinator, developing training materials for conducting Coral Disease Outbreak Investigations. As a recent "transplant" from Ann Arbor, MI she will begin the College of Charleston, SC graduate program in Marine Biology in the fall. She has seven years of professional experience as a high school biology teacher, specializing in science literacy. Her education to date includes a Bachelor of Science Education in biology and chemistry from the University of Michigan, and a Master of Arts in Teaching from Marygrove College. Her goal in returning to graduate school is to gain significant laboratory and field experience. Ultimately, she wants to use her strong education background to help change global perceptions of the ocean and its importance. Her broad interests include coral ecology and disease, anthropogenic influences on marine ecosystems, macroalgae, and symbiotic relationships.

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Margaret Miller

Margaret is an Ecologist with the NOAA Fisheries' Southeast Science Center. She received an undergraduate degree from Indiana University and a doctorate in marine ecology from the University of North Carolina (Chapel Hill). Her dissertation involved ecological studies of non-reef building coral, Oculina spp, off North Carolina and factors that determined their growth and distribution. She then moved south to examine some "real" corals, in a three years post-doctoral position with the University of Miami. She began work for NOAA-Fisheries in 1997 as the sole benthic ecologist at the Miami Lab and has served as a foundation for its growing coral reef program. She is an active field researcher and diver. Her involvement with coral disease was forced upon her in the course of monitoring activities focused on *Acropora palmata* and *A. cervicornis* in the Florida Keys as massive die-offs were observed. Her disease-related research has mainly involved field assessment and transmission experiments and collaborating with the CDHC in outbreak investigation and other sample collections. Her additional current research foci include coral early life history, population studies of threatened elkhorn and staghorn corals and their threats, and area assessments of reef and fisheries status around remote Navassa Island. She lives with her husband and 2-year old son in Miami.

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Gary Ostrander

Gary is the Vice Chancellor for Research and Graduate Education at the University of Hawai‘i at Manoa. He received his Ph.D. from the University of Washington and completed his postdoctoral training in the Department of Pathology at the University of Washington Medical School in biochemical oncology. In 1990 he joined the Department of Zoology at Oklahoma State University as an Assistant professor and was promoted and tenured in 1993. He assumed the role of Directory of the Environmental Institute and Associate Dean of the Graduate College in 1995. Gary joined the faculty at Johns

Hopkins University in 1996. At the time of his departure in 2004 he was the Associate Provost for Research and Chair of the Graduate Board. While at Hopkins he held academic appointments in the Department of Biology and the Department of Comparative Medicine. Gary has authored over 80 technical papers and book chapters, edited 4 books and written a field guide. His primary research interest has been elucidating mechanisms of chemical carcinogens for which he has employed aquatic, rodent and human models. A second aspect of his work has involved both laboratory and field studies focused on understanding world-wide deterioration of coral reef ecosystems.

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Pam Parnell

Pam is a veterinary pathologist, and also serves as Director of the Clemson Veterinary Diagnostic Center in Columbia, South Carolina. She received her BS in Biology from Wofford College in 1983, Doctor of Veterinary Medicine (1987) and Doctor of Philosophy in Veterinary Pathology (1993) from the University of Georgia where she also completed her residency in anatomic veterinary pathology. She is a Diplomat of the American College of Veterinary Pathologists (1995) and has 13 years experience in diagnostic veterinary pathology. Research interests have included isolation and characterization of tumor growth factors, and more recently, viral diseases of shrimp and effects of environmental estrogens on development of mammary tumors in mice. She has participated in the CDHC since 2002.

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Esther Peters

Esther received her Ph.D. in biological oceanography from the University of Rhode Island, followed by a Postdoc where she studied at the National Museum of Natural History and the Registry of Tumors in Lower Animals. She is an internationally recognized expert on coral reefs and diseases of coral reef organisms, contributing chapters to books (e.g., *Life and Death of Coral Reefs*) and journal articles, including a review (with others) on "Ecotoxicology of Tropical Marine Ecosystems" (*Environ. Toxicol. Chem.* 16(1):12-40). Her research includes the effects of exposures to biological, chemical, and physical environmental stressors on a variety of invertebrates and fishes, comparative histopathology, and risk assessment. Her experience with examining the distribution of diseased corals and histopathological examinations of diseased corals includes the Florida Keys, northern and western Caribbean, Gulf of Mexico, and Hawaii. Esther is also an adjunct scientist, Mote Marine Laboratory; adjunct professor, where she has been teaching the course "Diseases of Corals and Other Reef Organisms" at the Tropical Research Laboratory, Summerland Key, Florida, since 1997. She also holds adjunct positions at Nova Southeastern University, Oceanographic Center, collaborating with scientists at the National Coral Reef Institute there; and an affiliate professor, Department of Environmental Science and Policy, George Mason University. Esther's involvement with coral issues also includes participating in the interagency Coral Disease and Health Consortium, U.S. Coral Reef Task Force, and the

Technical Advisory Committee on Land-Based Sources of Pollution for the Southeast Florida Coral Reef Initiative. In addition to all of these activities she her 'day job' is as an Environmental Scientist VI (toxicology and pathobiology) and Quality Assurance Manager in the Fairfax, Virginia, office of Tetra Tech, Inc.

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Bob Richmond

Bob is presently a Research Professor at the University of Hawaii's Kewalo Marine Laboratory. He previously served as a Professor of Marine Biology at the University of Guam Marine Laboratory for 18 years, and as Director of the Marine Lab from 1988 - 1991. He received a B.S. in Biology/Geology with High Distinction from the University of Rochester in 1976, an M.S. in Marine Environmental Sciences from the Marine Sciences Research Center, SUNY at Stony Brook, in 1982 and a Ph.D. in Biological Sciences from the Dept. of Ecology and Evolution, SUNY at Stony Brook, in 1983. Following completion of his graduate work, he received two postdoctoral fellowships, from the Smithsonian Institution and the Smithsonian Tropical Research Institute in Panama. He has spent most of his professional career studying coral reef ecosystems in both the Caribbean and the Pacific. He began his studies in the U.S. Virgin Islands and the Grenadines, and since 1980, has worked extensively throughout the Pacific Islands, from Hawaii to Palau. He served as Chief Scientist for a World Conservation Union-sponsored mission to the Galapagos Islands, and has assisted numerous Pacific Islands in dealing with marine resource and related conservation issues. He is the scientific advisor to the All-Islands Committee of the U.S. Coral Reef Task Force, and served as a Council Member for the International Society for Reef Studies. He was awarded an Aldo Leopold Fellowship in Environmental Leadership in 2004, and a Pew Fellowship in Marine Conservation in 2006. He works closely with island community-based organizations, traditional leaders and stakeholders, and has trained over 35 Pacific Islanders in his laboratory over the years. His present interests include coral reef ecology, marine conservation biology, ecotoxicology and integration of traditional management systems with modern approaches to resource use and protection.

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Mike Risk

Mike received his BSc (Hon. Geology) U Toronto, MSc Sedimentology U Western Ontario, and Ph.D. Marine Biology, with Gerry Bakus. Mike specialises in assessing impacts on reefs of land-based sources of pollution, and in climate change as recorded in skeletons of shallow and deep-water corals. He has worked in 40 countries, lived in seven-speaks five languages equally badly, including English.

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Emmett Shotts

Emmett received a BS in Bacteriology, in 1952, from Alabama; CMT, Medical Technology in 1953, from the Medical College of Alabama; MS, Medical Microbiology, in 1958, from Georgia and a PhD, Medical Microbiology in 1966, from Georgia. His specialty certifications include, Medical Technologist (ASCP); Specialist Microbiologist (Public Health/Medical), National Registry Microbiology; Diplomate, American College of Veterinary Microbiology (ACVM); Diplomate, American Veterinary Epidemiology Society (AVES); and a fellow, American Academy of Microbiology (AAM). Professionally, Emmett is active in the American Society for Microbiology (Clinical Section); American Fisheries Society (AFS; Fish Health Section); Wildlife Disease Assoc; International Assoc. Aquatic Animal Medicine; European Assoc. Fish Pathology; Epidemic Intelligence Service, Alumni Assoc; American Veterinary Medical Assoc (Affiliate); Editorial Board of Journal of Fish Diseases. During his career which has spanned some 45 years, he has received much recognition including the Snieszko Distinguished Service Award (AFS), the Distinguished Service Award (Wildlife Disease Assoc) and a Creative Research Medal from the University of Georgia. He has contributed over 250 manuscripts to Scientific Community in the form of articles, book chapters and published Abstracts, has two patents and made over 180 presentations. His research interests and expertise is varied and includes: Microbial Diseases of aquatic and terrestrial animals as well as humans, Zoonoses, Mechanisms of Pathogenesis, Molecular Technology, Mycology, Epidemiology, Ecology, Automated Systems, Antimicrobics, and Microbial Media development. His career has included affiliations and positions at Fort Detrick, MD. US Army (1954-56); Southeastern Wildlife Disease Study, Athens, GA (1956-59); Epidemic Intelligence Service officer, CDC; Asst. to the Chief, Veterinary Public Health Laboratory, CDC; Asst. to the Chief, National Rabies Investigations Laboratory, CDC, Atlanta (1959-64); Asst. Prof., Department of Pathology; Assist. Professor, Department of Medical Microbiology and Parasitology, Assoc. Prof., Prof., Prof. Emeritus, College of Veterinary Medicine, University of Georgia, Athens, GA (1966-97); and Director, National Fish Health Research Laboratory, Leetown Science Center USGS/DOI (1997-2000). During his career his research has carried him to Germany, England, Scotland, Ireland, Japan, Taiwan and Russia.

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Katie Siegler

Katie works for the Division of Aquatic Resources (DLNR-DAR) as the NOAA Coral Reef Fellow for the State of Hawaii. She is working with Greta Aeby on finalizing the Climate Change and Marine Disease Local Action Strategy. She has a Master's Degree in Environmental Science and is interested in pursuing further graduate studies in marine disease.

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Meir Sussman

Meir recently completed his Ph.D. under the mentorship of Drs. Bette Willis (James Cook University) and David Bourne (Australian Institute of Marine Science). His Ph.D. research investigated coral diseases on the GBR and in the Indo-Pacific where he isolated, cultured, and identified causative agents for 4 coral diseases. Meir then identified specific proteins and their gene transcripts, actively involved in these diseases that are part of bacterial virulence mechanisms expressed during coral infections. He plans to continue this line of research with the goal of developing management-applicable diagnostic tools for coral diseases.

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Mac Terzich

"Dr. Mac" is a Board certified veterinarian (Diplomate ACPV) that operates Pacific East Aquaculture, Inc., one of the nation's largest marine ornamentals captive coral propagation facilities, located on Maryland's Eastern shore in Mardela Springs. Pacific East Aquaculture is a Maryland State inspected and licensed coral aquaculture facility with the capacity to propagate and grow thousands of corals, and marine fishes and invertebrates. Mac is also active in sponsoring, setting up, and maintaining coral propagation projects in the Solomon Islands, and sponsoring research with local universities in coral health and captive propagation of marine ornamentals.

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Katherine Tucker-Mohl

Katherine received her degree from the University of Pennsylvania, School of Veterinary Medicine. She received a Veterinary Medicine Fellowship to work with Dr. Patrick Hart, Biological Resources Division - Pacific Island Ecosystems Research Center on *"Avian malaria in Hawaii: evaluating prevalence of infection and host resistance in the Common Amakihi"*. Her study seeks to build on recent observations that certain species of native birds have returned to lowland habitats and have established successful populations, despite high levels of chronic malarial infections. Research will compare the prevalence of avian malaria in two previously unstudied lowland populations of Common Amakihi near Kona, on the island of Hawaii, with the ultimate goal of improving conservation programs for, and the health of, endangered Hawaiian forest birds. She has recently accepted an internship with Dr. Thierry Work where she will experience treating and studying a variety of diseases in tropical organisms.

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Bernardo Vargas

Bernardo works for NOAA's Coral Reef Ecosystem Division in Hawaii, leading efforts to design and develop methods for identifying and characterizing coral disease in shallow-water coral reefs ecosystems of the U.S. Pacific Islands. He holds a Ph. D. from the University of Miami, Rosenstiel School of Marine and Atmospheric Science. Bernardo's research interests include coral reef community dynamics, with special emphasis on coral health status, disease incidence, prevalence, and development of diagnostic criteria based on field observations and histopathological examinations.

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Steven Victor

Steven is currently Head of the Research Department at the Palau International Coral Reef Center (PICRC) and has been a member of the research team since 2002. His main research interest is determining the effects of anthropogenic disturbances on coastal and marine resources, particularly coral reef habitats. In an effort to protect Palau's natural resources, Steven has worked with local partners such as The Nature Conservancy, Palau Conservation Society, local government agencies and international partners such as NOAA, the World Bank Targeted Research Group on Remote Sensing, Coral Disease, and Remediation, and Restoration Group, and Scientists from Australian Institute of Marine Science and University of Hawaii to understand how to best minimize human impacts on coral reef resources. Steven completed both his undergraduate and graduate degrees in Biology at the University of Guam. He continues to do research on mangroves, seagrasses and coral reefs in Palau and Micronesia.

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Bruce Wilcox

Bruce is a Professor of Tropical Medicine, Medical Microbiology and Pharmacology, at the John A. Burns School of Medicine, University of Hawaii. He is also the Director of the Asia-Pacific Center for Infectious Disease Ecology at the Asia-Pacific Institute for Tropical Medicine and Infectious Diseases. His fields of study were population biology, ecology and evolutionary biology and biology during his academic career at U. of California, San Diego and Yale. In addition, he has served in leadership positions in numerous Public Health organizations and as the founding Editor-in-chief of EcoHealth. He is an active teacher and researcher. Bruce's interest in emerging infectious disease, ecosystem management and disease ecology has recently synthesized into a research focus on social-ecological systems and the relation with emerging infectious disease.

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Dana Williams

Dana earned her doctorate degree in 2002, at the University of South Florida working with Dr. Pam Hallock-Muller on the population dynamics of a reef foraminifer. She then began post-doctoral research at the University of Miami Rosenstiel School (RSMAS) working with Dr. Margaret Miller (National Marine Fisheries Service) on acroporid coral populations in the Florida Keys. In 2003 Dana's discovery of an atypical disease outbreak in *Acropora cervicornis* in the Florida Keys led to her involvement in the CDHC and its first coordinated response and investigation of a coral disease outbreak. Since this outbreak investigation, Dana has continued to contribute her time and expertise toward refining the field sampling protocols for the CDHC's overall coral disease outbreak investigation response plan. Currently Dana is an assistant scientist at RSMAS working on *Acropora* spp. population monitoring and restoration methods in the Florida Keys.

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Bette Willis

Bette is a Professor at the ARC Centre of Excellence for Coral Reef Studies and an Associate Professor in the School of Marine Biology and Aquaculture at James Cook University (Townsville, Australia). Her research explores questions relating to the biology and ecology of scleractinian corals. Current research focuses firstly on the prevalence and ecological significance of coral disease on the Great Barrier Reef, and secondly on the implications of flexibility in algal endosymbiosis for the physiology of the coral host, particularly in relation to thermal tolerance and climate change. She is a Co-Chair of the GEF Working Group on Coral Disease (Targeted Research and Capacity Building for Management program), a primary goal of which is a global assessment into the causes, origins and impacts of coral disease worldwide.

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Wendy Wiltse

Wendy is an environmental scientist with US EPA Region 9 in Honolulu where she works on coral reef, wetlands, and water quality management. Wendy has worked on a range of EPA's water quality management programs, coordinated a watershed management project on Maui, and is active in Hawaii's Local Action Strategy to address land-based pollution threats to coral reefs. She's worked in Hawaii for over 12 years. Wendy has a Ph.D. in Marine Ecology from the University of Massachusetts.

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Gary Wobeser

Gary is with the Department of Veterinary Pathology, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Saskatchewan, Canada. He was raised on a mixed farm in Saskatchewan and trained initially as a wildlife biologist (BSA, MSc) and then entered Veterinary Medicine (DVM) and specialized as a veterinary pathologist (my PhD dealt with aquatic mercury poisoning in fish and mink). He has been a faculty member of the Department of Veterinary Pathology since 1974 and served a stint as Head of the Department. Gary was founding co-director of the Canadian Cooperative Wildlife Health Centre, which is a cooperative enterprise among Canada's four veterinary colleges, and serves all federal and provincial wildlife resource agencies. He teaches veterinary pathology at the undergraduate and graduate level, and wildlife diseases at the graduate level. He also does diagnostic pathology for both domestic and wild species. Gary's research interest includes disease of all types in free-living animals and he has worked at one time or another with many different diseases in mammals, birds and a few in fish. He has published three books on the subject: Diseases of Wild Waterfowl (in its second edition), Investigation and Management of Disease in Wild Animals (currently being revised), and Essentials of Disease in Wild Animals (published in 2006).

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Stephanie Venn-Watson

Stephanie Venn-Watson, D.V.M., M.P.H. received her veterinary degree from Tufts University School of Veterinary Medicine (1999) and public health degree from Emory University Rollins School of Public Health (2000). During 1999-2001, Stephanie was a veterinary epidemiologist at the Centers for Disease Control and Prevention (CDC) and served as Project Director for the World Health Organization's Global Salmonella Surveillance System (WHO Global Salm-Surv). Stephanie completed a National Research Council Associateship at the U.S. Navy Marine Mammal Program (MMP) during 2001-2002. She has been a civil servant veterinary epidemiologist at the MMP since 2003. Stephanie's primary responsibilities are epidemiological investigations; marine mammal infectious diseases; oversight of population health and database development; and coordination of clinical research.

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Cheryl Woodley

Cheryl received her Ph.D. in Molecular and Cellular Biology and Pathobiology from the Medical University of South Carolina. Since 1992, she has served as a research scientist with NOAA's Center for Coastal Environmental Health and Biomolecular Research in Charleston, SC and also holds graduate faculty positions at the Medical University of South Carolina and the College of Charleston. Over the past five years, her expertise in virology, molecular biology and biochemistry has been used in adapting biomedical concepts and technologies to investigate the effects of natural and anthropogenic stressors on coral heath. Recently her laboratory joined a multi-investigator, multi-agency Marine Genomics team at the Hollings Marine Laboratory, providing access to state of the art genomic and proteomic technologies to identify diagnostic indicators useful in determining the health status of coral reef organisms. In 2002, she helped organize and establish the Coral Disease and Health Consortium (CDHC) in response to the US Coral Reef Task Force's National Action Plan to Conserve Coral Reefs. The mission of the CDHC is "to understand and address the effects of natural and anthropogenic stressors on corals in order to contribute to the preservation and protection of coral reef ecosystems". Cheryl currently serves as Coordinator of the CDHC and together with over 50 CDHC members, contributing their time and expertise, they work to unify the coral health and disease research community, identify research priorities, develop innovative technologies and encourage a new generation of coral researchers through education and outreach.

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Thierry Work

Thierry is project leader for the Honolulu Field Station of the National Wildlife Health Center (USGS). He has degrees in entomology, veterinary medicine, and preventive veterinary medicine. His interests include diseases of free ranging terrestrial and marine wildlife. Current topics of investigations include diseases of reef fish, corals, and marine turtles.

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