

**Sustainability Related Research
Fiscal Year 2013
July 2012 - June 2013**

2012 July		
<i>Title</i>	<i>PI</i>	<i>Department</i>
Fairchild Tropical Botanic Garden supports research and education in tropical botany. As a tangible expression of this support, they provide graduate student support for individuals working for higher degrees in areas of tropical plant science	Eric Bishop-Von Wettberg	Biology
Assessing the effects of climate change on the controls of exotic plant invasions	Deron Burkepile	Division of Research
Integrated Water Resource Manageme	Maria Donoso	Earth & Environment
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Hector R Fuentes	Civil & Environmental Engineering
Synthesis of Everglades Research & Ecosystem Services II	Evelyn Gaiser	Southeastern Environmental Research Center
Dwight D. Eisenhower Transportation Fellowship Program at Florida International University	Sylvan C Jolibois	Civil & Environmental Engineering
GA for the Fairchild Challenge educational program	Hong Liu	Earth & Environment
Conservation ecology of selected plants in Halmahera, Indonesia Graduate Assistantship for Melissa Abdo	Hong Liu	Earth & Environment
Global Health Fellows and Scholars Program	Purnima Madhivanan	Epidemiology
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Assefa M Melesse	Earth & Environment
Modeling of Nutrient Exchange Program for the Everglades	Fernando R Miralles-Wilhelm	Southeastern Environmental Research Center
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Fernando R Miralles-Wilhelm	Southeastern Environmental Research Center
Causes and implications of dry season control of tropical wet forest tree growth at very high water levels: direct vs indirect limitations	Steven Oberbauer	Biology
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Rene M Price	Southeastern Environmental Research Center

2012 July continued

<i>Title</i>	<i>PI</i>	<i>Department</i>
Role of Marsh-Mangrove Interface habitats as aquatic refuges for wetland fishes and other aquatic animals	Jennifer Rehage	Southeastern Environmental Research Center
Fairchild Tropical Botanic Garden supports research and education in tropical botany. As a tangible expression of this support, they provide graduate student support for individuals working for higher degrees in areas of tropical plant science	Jennifer Richards	Biology
Landscaping Pattern: Marl Prairie/Slough Gradients	Michael S Ross	Southeastern Environmental Research Center
Monitoring of Tree Island Condition in South Everglades	Michael S Ross	Southeastern Environmental Research Center
Landscape Pattern-Ridge, Slough & Tree Island Mosaics	Michael S Ross	Southeastern Environmental Research Center
Synthesis of Everglades Research & Ecosystem Services II	Michael S Ross	Southeastern Environmental Research Center
Synthesis of Everglades Research & Ecosystem Services II	Joel C Trexler	Southeastern Environmental Research Center

2012 August

<i>Title</i>	<i>PI</i>	<i>Department</i>
Water quality monitoring project for the Florida Keys National Marine Science Sanctuary (FKNMS)	Henry O Briceno	Southeastern Environmental Research Center
Public Hurricane Loss Model	Shu-Ching Chen	International Hurricane Center
Watershed Modeling in Central America and Tropical Climate using GIS and Hydrological Models	Maria Donoso	Earth & Environment
Seagrass Monitoring in the Florida Keys National Marine Sanctuary FY 2010-2011	James Fourqurean	Southeastern Environmental Research Center
FCE LTER II: Coastal oligotrophic ecosystems research	Evelyn Gaiser	Southeastern Environmental Research Center
Ecological Effects of The Modified Water Deliveries and The Comprehensive Everglades Restoration Plan in Northeast Shark River Slough, Everglades National Park	Evelyn Gaiser	Southeastern Environmental Research Center
Public Hurricane Loss Model	Shahid Hamid	International Hurricane Center
Climatology of Hot Towers in Tropical Cyclones and their roles in Tropical Cyclone Intensity changes based on 12 years of TRMM Data	Haiyan Jiang	Earth & Environment
Towards a Holistic Understanding of Quality of Life: An Analysis of Activity-Travel Patterns on Non- Mid-week Days	Xia Jin	Civil & Environmental Engineering
Dispersal, habitat use and behavior of neonate sea turtles	Katherine L Mansfield	School of Environment, Arts & Society
Florida Puerto Rico Public Health Research	H Virginia McCoy	Health Promo & Disease Prevention
Assessing the impact & potential for containment of non-	Jennifer Rehage	Southeastern Environmental Research Center
Role of Marsh-Mangrove Interface habitats as aquatic refuges for wetland fishes and other aquatic animals	Jennifer Rehage	Southeastern Environmental Research Center
Three Florida Keys Research Needs	Michael Ross	Southeastern Environmental Research Center
A multi-proxy study of environmental change and ecological regime shift detection in Florida Bay and Biscayne Bay, Florida (USA) over the last ~100-1000 years	Anna H Wachnicka Kosiorek	Southeastern Environmental Research Center

2012 September

<i>Title</i>	<i>PI</i>	<i>Department</i>
Florida Caribbean Consortium for Agriculture Education and Hispanic Workforce Development	Mahadev Bhat	Earth & Environment
Tanzania Integrated Water, Sanitation and Hygiene (iWASH	Maria Donoso	Earth & Environment
Integrated Water Resource Management	Maria Donoso	Earth & Environment
Development of Construction and Operation Methods for Low Carbon Green Airport Pavement	Young Cheol Kang	Construction Management
Florida International University's Research Support to the Department of Energy's Office of Environmental Management	Leonel Lagos	Applied Research Center
Tanzania Integrated Water, Sanitation and Hygiene (iWASH	Michael E McClain	Earth & Environment
Integrated Water Resources Management Assistant to USAID Missions Worldwide	Michael E McClain	Earth & Environment
Role of Marsh-Mangrove Interface habitats as aquatic refuges for wetland fishes and other aquatic animals	Jennifer Rehage	Southeastern Environmental Research Center
Growing Community Roots for the Geosciences in Miami, FL	Dean Whitman	Earth & Environment

2012 October

<i>Title</i>	<i>PI</i>	<i>Department</i>
Strengthening local capacity for prioritizing conservation strategies in the Colombian Andean-Amazon: A basin-scale approach	Elizabeth Anderson	School of Environment, Arts & Society
Sustainability Report 2012: Sustainability Report: Perspectives on Central America	Elizabeth Anderson	School of Environment, Arts & Society
EFree - Energy Frontier Research in Extreme Environments	Jiuhua Chen	Mechanical & Materials Engineering
Dry Tortugas: Establishing Seagrass Monitoring Sites	James Fourqurean	Southeastern Environmental Research Center
Transportation Symposium Planning and Organization	Maria Ilcheva	Metropolitan Center
Global Health Fellows and Scholars Program	Purnima Madhivanan	Epidemiology
Collaborative Research: Ecological Homogenization of Urban America	Laura A Ogden	Southeastern Environmental Research Center
Disaster Risk Reduction in the Americas	Richard Olson	Latin American & Caribbean Studies
Survey of fishes at Homestead Airforce Reserve	Jennifer Rehage	Southeastern Environmental Research Center
Integration of recreational anglers into fisheries research: using citizen science to expand a mark-recapture study in the coastal Everglades	Jennifer Rehage	Southeastern Environmental Research Center
Provide office services and operational technical support to the South Florida Ecosystem Restoration Task Force, Office of the Executive Director	Leonard Scinto	Southeastern Environmental Research Center
Siloxanes in MSW: Quantities in Waste Components, Release Mechanisms during Waste Decomposition and Fate in the Environment	Berrin Tansel	Civil & Environmental Engineering
Miami-Dade Water and Sewer Department Water Use Efficiency and Water Consumption Data Analysis	Berrin Tansel	Civil & Environmental Engineering
Ecological Monitoring of Southern Everglades Wetlands, Mangrove Transition Zone and White Zone Interactions with Florida Bay	Tiffany Troxler	Southeastern Environmental Research Center
Dr. Zhu will perform large-eddy simulations (LESs) in a forecasting hindcasting mode to explicitly resolve the air-sea transfer of oil/gas/aerosol into the atmosphere and horizontal and vertical transport of hydrocarbon in the atmospheric boundary layer	Ping Zhu	Earth & Environment

2012 November

<i>Title</i>	<i>PI</i>	<i>Department</i>
Ocean Influences on the occurrence and abundance of Billfishes in the Gulf of Mexico	Kevin Boswell	Biology
Integrated Models for Evaluating Climate Change, Population Growth, and Water Management (i.e. CERP) Effects on South Florida Coastal Marine and Estuarine Ecosystems	Robert Joseph Burgman	Earth & Environment
Modeling of Nutrient Exchange Program for the Everglades	Fernando Miralles-Wilhelm	Southeastern Environmental Research Center
LILA Tree Island, Ridge, Slough Studies and Site Management	Rene Price	Southeastern Environmental Research Center
HABITAT SELECTION & MOVEMENT OF EVERGLADES FISHES IN RESPONSE TO SEASONAL HYDROLOGY: Full study	Jennifer Rehage	Southeastern Environmental Research Center
LILA Tree Island, Ridge, Slough Studies and Site Management	Michael Ross	Southeastern Environmental Research Center
Sustainable Allow Design: Searching for Rare Earth Element Alternatives through Crystal Engineering	Surendra K Saxena	Mechanical & Materials Engineering
LILA: Loxahatchee Impoundment Landscape Assessment Tree Island, Ridge and Slough Studies	Leonard Scinto	Southeastern Environmental Research Center
LILA Tree Island, Ridge, Slough Studies and Site Management	Leonard Scinto	Southeastern Environmental Research Center
Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills	Berrin Tansel	Civil & Environmental Engineering

2012 December

<i>Title</i>	<i>PI</i>	<i>Department</i>
SEED Funding: Is what you "see" really what you get?: Developing an acoustic baseline for the ecology and management of coral reef fish species	Kevin Boswell	Division of Research
Direct and indirect effects of outplanting variable densities of the threatened staghorn coral	Deron Burkepile	Biology
Handbook on Transit Planning and Operation	Fabian Cevallos	Civil & Environmental Engineering
Development of a Web-Based Software Tool for Human Service Transportation	Fabian Cevallos	Civil & Environmental Engineering
LTER: FCE LETE III - Coastal Oligotrophic Ecosystems Research	Evelyn Gaiser	Southeastern Environmental Research Center
Tier 1 University Transportation Center (UTC) Program Support	Arindam Gan Chowdhury	Civil & Environmental Engineering
Tier 1 University Transportation Center (UTC) Program Support	Cheng-Tin Gan	Civil & Environmental Engineering
Communication and Understanding of Hurricane Sandy Storm Surge Forecast and Warning Information	Hugh Gladwin	International Hurricane Center
Tier 1 University Transportation Center (UTC) Program Support	Mohammed Hadi	Civil & Environmental Engineering
Tier 1 University Transportation Center (UTC) Program Support	Xia Jin	Civil & Environmental Engineering
Loxahatchee River Oyster Reef Faunal Monitoring	Craig Layman	Biology
Florida Puerto Rico Public Health Research	H Virginia McCoy	Health Promo & Disease Prevention
Citizen's Independent Transportation Trust - SR836 Express Enhanced Bus TOD: Highest and Best Use Workshop	Edward P Murray	Metropolitan Center
Water-carbon Links in a Tropical Forest: How Interbasin Groundwater Flow Effects Carbon Fluxes and Ecosystems Carbon Budgets	Steven Oberbauer	Biology
Collaborative Research WSC Category 2:: Building robust decision-making for South Florida water resources through ecosystem service valuation, hydro-economic optimization and conflict resolution modeling	Michael Sukop	Earth & Environment
Tier 1 University Transportation Center (UTC) Program Support	Berrin Tansel	Civil & Environmental Engineering
The Effects of Wet Season Hydrology Patterns on Prey Populations that Support Wading Bird Populations	Joel Trexler	Southeastern Environmental Research Center
Tier 1 University Transportation Center (UTC) Program Support	Ton-Lo Wang	Civil & Environmental Engineering
Role and function of coastal lagoon and near shore habitats for dominant fishes: Evaluating the potential for impacts of climate change and anthropogenic alterations	Kevin Boswell	Biology

2013 January

<i>Title</i>	<i>PI</i>	<i>Department</i>
Infusing Food Security, Food Safety, Energy in the Environmental Studies Graduate Program at Florida International University	Krishnaswamy Jayachandran	Earth & Environment
WSC Category 3: Collaborative Research: Water Sustainability under Near-term Climate Change: A Cross-Regional Analysis Incorporating Socio-Ecological Feedbacks and Adaptations	John Stephen Kominosk	Southeastern Environmental Research Center
Surface Water-Groundwater Interaction in Everglades Tree Islands: Hydrological Restoration of Degraded Tree Islands	Tiffany Troxler	Southeastern Environmental Research Center
Aquarius Reef Base	James Fourqurean	Biology

2013 February

<i>Title</i>	<i>PI</i>	<i>Department</i>
Long-Term Aging of Recycled Binders	Hesham A Ali	Civil & Environmental Engineering
Rainforest Conservation and Ecology	Kenneth J Feeley	Biology
Aquarius Reef Base	James W Fourqurean	Biology
FISH AGGREGATIONS AND BIOGEOCHEMICAL HOT SPOTS ACROSS REGIONAL ENVIRONMENTAL GRADIENTS	Craig Layman	Biology
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Assefa M Melesse	Earth & Environment
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Fernando Miralles-Wilhelm	Southeastern Environmental Research Center
WaterSCAPES: Science of Coupled Aquatic Processes in Ecosystems from Space	Rene M Price	Southeastern Environmental Research Center
Role of Marsh-Mangrove Interface habitats as aquatic refuges for wetland fishes and other aquatic animals	Jennifer Schopf Rehage	Southeastern Environmental Research Center
LILA Imagery and tree stress	Michael Ross	Southeastern Environmental Research Center

2013 March

<i>Title</i>	<i>PI</i>	<i>Department</i>
Collaborative Research: Understanding range limits and plant migration in response to climate change in Neotropical montane forests	Kenneth J Feeley	Biology
Conservation action plan and taxonomy of a new critical endangered species of palm (<i>Pseudophoenix</i> sp. nova) from the Dominican Republic	F Javier Francisco Ortega	Biology
RAPID: Ecological responses to large-scale climate disturbance: Could the interaction of overfishing and disturbance initiate phase-shifts in tropical seagrass ecosystems?	Michael R Heithaus	Southeastern Environmental Research Center
Exploring the adaptation and acclimatization of tropical reef corals to global climate change	Mauricio Rodriguez-lanetty	Biology
Florida International University's Research Support to the Department of Energy's Office of Environmental Management	Leonel Lagos	Applied Research Center

2013 April

<i>Title</i>	<i>PI</i>	<i>Department</i>
Development of Methods to Assess Fish Biomass and Community Structure in Louisiana's Artificial Reef Sites	Kevin Boswell	Biology
Integrated Water Resource Management	Maria C Donoso	Earth & Environment
AGEDI Blue Carbon Demonstration Project 207608-Seagrass ecosystems	James Fourqurean	Southeastern Environmental Research Center
Research funds: a novel approach to sea turtle foraging ecology	Michael Heithaus	Southeastern Environmental Research Center
Seed funding: Adapting visual decision-making support to high-stress environments	Radu Jianu	Division of Research

2013 May

<i>Title</i>	<i>PI</i>	<i>Department</i>
Investigation of Wet land Biogeochemical Similitudes and Scaling for Robust Predictions of Greenhouse Gas Emissions and Carbon Sequestration	Omar I Abdul Aziz	Civil & Environmental Engineering
Direct and Indirect effects of Outplanting Variable Densities of the Threatened Staghorn Coral (<i>Acropora cervicornis</i>) to restore coral reefs in South Florida.	Deron E Burkepile	Biology
DISSERTATION RESEARCH: Assessing the effects of climate change on biotic interactions structuring herbivore communities	Deron E Burkepile	Biology
Florida International University's Research Support to the Department of Energy's Office of Environmental Management	Leonel Lagos	Applied Research Center
Collaborative Research: Dynamics of ecosystem carbon dioxide and methane fluxes from the Florida Everglades: Effects of Hydrology and Vegetation on the Net Radiative Forcing	Steven Oberbauer	Biology

2013 June - To Be Reported

Title

PI

Department