

Detailed Curriculum Vitae

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EXECUTIVE SUMMARY

- B.S., M.S. & Ph.D. degrees with 30+ years of experience in marine science and conservation.
- Senior leadership experience in academia, NGOs, government and industry.
- Proven success in scientific research, research administration, program management, teaching, visioning, strategic planning, fund raising, community/government relations and communications.
- Skilled at managing time, diverse activities and personnel under strict deadlines and with high performance expectations.
- Recognized for ability to deliver clear and compelling messages about ocean and coastal scientific research, technology and conservation to prospective donors and broad audiences. Invited speaker at numerous symposia and conferences.
- Senior Leadership and Performance Examples
 - Indian River Lagoon National Estuary Program (IRLNEP): Provided change leadership as the first executive director of the IRL Council. Outcomes: Helped establish a new network governance model for the IRLNEP; Revised the vision, mission, organizational structure and culture of the organization; Cultivated community support for a unified mission; Revised the IRL Comprehensive Conservation and Management Plan; Increased revenue support.
 - HydroPro-Tech, LLC: Consulting services provided to the founders of this Florida start-up company in 2014 helped secure an exclusive South African product import and distribution agreement for HP-T that covered North America and the Caribbean.
 - AquaFiber Technologies Corporation: Scientific and administrative leadership resulted in scientific documentation and proof-of-performance for AquaFiber's dual-nutrient reduction technologies for surface water restoration. Spearheaded team development of nutrient removal contract proposals for multiple clients (i.e. FP&L Turkey Point Nuclear Power Plant, South FL Water Management District - Caloosahatchee River, Cardno/EXTRIX for City of Durham, NC, and a top-ranked proposal to develop a regional-scale, dual-nutrient remediation facility on Lake Jesup/Middle St. Johns River Basin submitted to the SJRWMD in 2015).
 - Hubbs-SeaWorld Research Institute: Developed vision and strategic work plan for HSWRI coastal research expansion in Florida. Secured \$4.9 million in land donations from The Richard King Mellon Foundation. Secured over \$2 million for marine research through individual donations, grants and legislative appropriations working with HSWRI developments staff. Created vision and worked to secure Discover Florida's Oceans specialty license plate and generate recurring annual revenues for coastal research.
 - University of Central Florida: Created long-range vision and plan for a UCF coastal & sea turtle research center to be located within the Archie Carr National Wildlife Refuge in partnership with USFWS. Initiated strategic program planning, multi-disciplinary partnership development, research proposal development, and major donor identification. Concept became reality in 2018 when UCF declared its National Center for Integrated Coastal Research.
 - Brevard County Environmentally Endangered Lands Program: Developed multiple proposals that secured over \$25 million in matching state and federal land acquisition funds. Worked directly with The Richard King Mellon Foundation to secure lands valued at \$40 million to support the Archie Carr National Wildlife Refuge.

Duane E. De Freese, Ph.D.

Curriculum Vitae - Detailed

EDUCATION

B.S. Zoology, University of Rhode Island (1976)
M.S. Marine Biology, Florida Institute of Technology (1982)
Ph.D. Marine Biology, Florida Institute of Technology (1988)
Post-Doctoral Research Associate, University of Florida, FMEL (1990-1991)

ADDITIONAL EDUCATION

Rollins College, Roy E. Crummer Graduate Schools of Business. “Mini MBA”
Certificate Program (2002). Crummer Management Program.
Duke University School of the Environment, (1991). Senior Professional Program:
Land Acquisition & Conservation.
Culture of Marine Invertebrates for Research Purposes (1983) Marine Biological
Laboratory, Woods Hole, Mass.
Sea Education Association, Woods Hole, Mass. (1976). Apprentice & deckhand on 100
ft. staysail schooner, R/V Westward. Participated in SEA alumni open-ocean sail out
of Old San Juan, Puerto Rico (2014).

PROFESSIONAL EXPERIENCE

Current Professional Activities

1 October 2015 – Present

Executive Director Indian River Lagoon Council and Indian River Lagoon National Estuary Program. Responsible for leading the implementation of the Indian River Lagoon National Estuary Program Management Conference which includes science-driven conservation and management initiatives, public education & outreach, program administration, major donor development, policy guidance and revision/implementation of the IRL Comprehensive Conservation and Management Plan – Looking Ahead to 2030.

2 August 2019 – Present

Florida Fish and Wildlife Conservation Commission (FWC) Red Tide Task Force. Appointment by Governor Ron DeSantis. The Red Tide Task Force focus on the causes of Red Tide and will be supported by FWC’s Center for Red Tide Research in St. Petersburg, FL. The Red Tide Task Force complements the Florida Blue Green Algae Task Force and the Florida Red Tide Mitigation and Technology Development Initiative, a partnership between the Fish and Wildlife Research Institute within FWC and Mote Marine Laboratory.

1 April 2014 – October 1, 2015

Senior Consultant Science & Sustainability, HydroPro-Tech, LLC. Provided executive-level consulting services to a start-up company that imports a proprietary, latex-based concrete admixture product manufactured in South Africa. Responsibilities included scientific oversight, sustainability planning, and assistance with development of a vision, mission, corporate structure, and business plan for market penetration. Consultations in 2014 resulted in an exclusive import and distribution agreement for HydroPro-Tech that covers North America and the Caribbean.

22 July 2013 – Present

CareerSource Florida Board of Directors. Appointment by Governor Rick Scott. Two terms of Appointment: 22 July 2013 – 21 March 2015; 9 November 2015 – 21 March 2018. Serving on the Executive Committee and as board member sponsor for a CSF Advance Manufacturing Sector Strategy Marketplace Intelligence Initiative in 2015-2016.

Previous Professional Experience

1 January 2011 to 13 March 2015

Senior Vice President of Science & Business Development, AquaFiber Technologies Corporation. Provided senior executive oversight and management for all scientific and intellectual property activities associated with the company. Provided science leadership for a 5-year contract with the St. Johns River Water Management District to document AquaFiber IP and technology efficacy as a dual-nutrient remediation process for surface waters. Aligned complex science and technology issues with internal/external corporate communications activities. Assisted with cultivation of private-sector investors. Provided leadership in development of marketing collaterals, messaging and branding. Led development of large, complex proposals and contracts. Spearheaded corporate discussions regarding Florida water policy related to dual-nutrient remediation, nutrient credit trading, numeric nutrient criteria and technology development.

1 March 2009 to 31 December 2010

Vice President of Science & Business Development, AquaFiber Technologies Corporation. In 2009, the company began its transition from R&D to build a prototype, commercial-scale water restoration facility on Lake Jesup, FL. With a focus on dual-nutrient (nitrogen and phosphorus) remediation technologies for surface waters, AquaFiber investors built the first “pay-for-performance” nutrient remediation facility in Florida. Job responsibilities include science administration and leadership, new business development, corporate strategic planning, and community & inter-governmental relations. Position reports directly to the AquaFiber President/CEO and worked directly with the senior leadership team, Board of Trustees and Investors on a daily basis. Specific job experience: Dual nutrient remediation in surface waters (nitrogen & phosphorus); Microalgae growth and harvesting; Algae co-product applications; Algae to biofuels applications. In 2009, AquaFiber served as a sub-contractor to SAIC (prime contractor) providing large quantities of algal-based biomass to support a SAIC Phase 1 DARPA contract (\$25M) to produce algae-derived JP-8 jet fuel. I received a 25% salary increase within the first year of employment based on job performance.

2009-2010

Served as a volunteer science/technical advisory member and chapter author for the Urban Land Institute – Technical Assistance Panel developing a Regional Water Strategy Briefing Book for *myregion.org*.

February 2008-March 2009

Visiting Associate Scientist & Interim Director, University of Central Florida (UCF) Coastal Sustainability Initiative. Twelve-month appointment to provide administrative, scientific leadership and fund-raising support to the UCF College of Sciences. Position reported directly to the UCF Dean of the College of Sciences and worked closely with the Chair of the Department of Biological Science and the UCF Foundation. Primary responsibilities included: Strategic planning to advance UCF’s interest in expanded marine and coastal sustainability research; legacy planning for the UCF sea turtle research program; and development of proposals for sustainability research and new education program funding. Positioned included teaching OCE 3008 – General Oceanography (Biological, Geological, Chemical and Physical Oceanography) for Fall Semester 2009.

Spearheaded 6 milestones at UCF:

1. A strong coalition of UCF faculty and administrators was developed representing each of the 12 Colleges at the university with interest and expertise in cross-disciplinary education and research in coastal sustainability science and technology.
2. Major donors were identified and cultivated. Donor prospect lists were developed.
3. Over ten proposals and pre-proposals were developed.
4. Stakeholder interests and opportunities were identified to develop a center of excellence in coastal sustainability science at UCF and to expand UCF's research and teaching "footprint" in ocean and coastal ecosystem research, resource management and conservation.
5. UCF's academic standing in coastal sustainability science was enhanced through scientific publications, an active public speaking campaign and communication of a bold vision for UCF to become a national leader in cross-disciplinary teaching, learning, research and practice in coastal sustainability science.
6. A long-term strategy for the UCF sea turtle research program and a new coastal research center was developed. Implementation of those plans and active fund-raising began in 2013-2014.

Represented the Dean of the College of Sciences as a senior-faculty participant in a semester-long pilot course conducted by the UCF Faculty Center for Teaching and Learning to assist new faculty hires in developing effective classroom management and teaching skills.

2005-2017

Courtesy Professor UCF Biology Department. Provided seminars and lectures as requested. Participated in graduate student research committees. Ph.D. Students: Ann Spellmen, Ph.D. Research Thesis: "Manatee behavior and critical habitat utilization". Dr. Graham Worthy, Committee Chair, Biology Department, UCF (2009-present); M.S. Students: Kendra Cope. M.S. Research Thesis: "Marine Turtle Valuation: An economic impact study of conservation in Brevard and Indian River County, Florida". Dr. Kate Mansfield, Committee Chair, Biology Department, UCF (2013-present).

2007-2017

Adjunct Professor Florida Institute of Technology (FL Tech). Graduate student research committees. Ph.D. Student: Emily Ralston, Ph.D. Research Thesis: Marine bio-fouling. Dr. Geoffrey Swain, Committee Chair. Oceanography and Ocean Engineering, FL Tech (2008-2013). Jared McNally. M.S. Research Thesis: "Determination of Nitrogen Leaching Potential of Fertilizer". Dr. Tom Belanger, Committee Chair, Environmental Sciences Department, Florida Institute of Technology (2014-present).

2003-2009

Adjunct Professor Brevard Community College. Professor teaching general Oceanography (OCE 1001) during Fall and Spring Semesters. BCC Physical Sciences Department (2 sections; ~ 60 students each semester).

1999 –2008

Vice President Florida Research, Hubbs-SeaWorld Research Institute
Provided scientific, fund-raising and administrative leadership for the creation and expansion of HSWRI scientific programs in Florida. Began job with 4 primary goals: 1. Position the Institute and its scientists in Florida to achieve and sustain scientific excellence; 2. Secure coastal property in Florida for HSWRI research facility expansion; 3. Expand revenues to support the HSWRI Florida expansion, and 4. Build community

recognition and respect for HSWRI and its 40-year history of scientific research achievements. Primary job responsibilities extended beyond the role of a traditional V.P. of Research to include a wide range of additional responsibilities traditionally associated with a CEO/COO and Senior Development Director positions. During my tenure at HSWRI, I provided leadership in long-term strategic plan development; major-donor identification, cultivation and development; community and corporate relations; new facility planning and A&E contractor oversight; facility operations; safety oversight; leadership with local and state agencies in property zoning changes; budget and financial planning; media relations; and innovative partnership development. The V.P. position reported directly to the President of HSWRI (with headquarters in San Diego, CA) and worked directly with members of the Florida members of the Board of Trustees.

Milestone Accomplishments as V.P. of Florida Research (1998-2008)

- Created the vision and implemented the start-up phase of the HSWRI Florida expansion including oversight of Florida staff additions and facility expansion.
- Expanded extramural funding for the Institute in Florida with consistent growth of extramural research funding on an annual basis from 1998 to 2008.
- Worked with the HSWRI senior science team to develop and implement an annual and long-term strategic science plan that integrated the scientific research, conservation and education mission components of the Institute.
- Co-authored Institute-wide science productivity and ethics policies with senior scientist team.
- Created and funded the first “Hubbs-SeaWorld Professor” position, an endowed faculty position, in partnership with the Biology Department at University of Central Florida in 2001.
- Successfully cultivated a land donation (10 acres) from the Richard King Mellon (RKM) Foundation in 2004 valued at over \$4.9 million and worked to add these properties into the Congressionally identified boundary of the Archie Carr National Wildlife Refuge as part of a 65 acre (\$21.3 million) land donation to USFWS from RKM.
- Worked with HSWRI development director to create a community leadership committee, expand the Hubbs-SeaWorld Society, diversify the national scope of the Board of Trustees, and cultivate major-donor development.
- Assisted the UCF Biology Department in curriculum planning for a new multidisciplinary Ph.D. Program in Conservation Biology (began Fall 2006).
- Served as senior author and program administrator for numerous successful scientific grant proposals (listed in following sections of CV).
- Developed the first HSWRI Florida Hurricane Safety Plan in 2005 and updated the plan annually. Provided support for the development of HSWRI standard operating procedures.
- Served in a leadership capacity to create the vision for a new Florida specialty license plate (*Discover Florida's Oceans*) and worked with HSWRI Development staff to gain passage of the Bill into FL Law by the FL Legislature and FL Governor Jeb Bush in 2005.
- Expanded statewide and national recognition for HSWRI through an active public speaking campaign and leadership participation in statewide and regional committees and advisory boards.
- Helped developed a HSWRI-UCF research partnership (which was later expanded to the Caribbean Conservation Corporation and the Loggerhead Marinelifelife Center of Juno Beach) and secured multi-year, extramural funding to

implement and sustain the first leatherback satellite tracking program in Florida (2001-2004). Co-Pi's – Dr Llew Ehrhart (UCF), Dr. Brent Stewart (HSWRI) and Dr. Scott Eckert (formally HSWRI, now at Duke University).

- Worked with HSWRI Development staff and Congressman Dave Weldon's office to secure \$605,120 (2005) and \$350,000 (2006) in Congressional appropriations to begin site planning and construction of the new HSWRI research facility in Florida.
- Worked with HSWRI Development staff and Florida Senator Mike Haridopolos and Florida House Leader Andy Gardiner to secure a \$610,000 state appropriation during the 2006 Legislative Session.
- Developed a campus master plan vision with support from A&E consultants for a HSWRI joint-use research facility with University of Central Florida and Florida Fish and Wildlife Conservation Commission.
- Worked with the Florida Ocean Alliance, the Orlando Regional Chamber of Commerce, and "myregion.org", in concert with a strategic and active public speaking schedule, to help increase statewide awareness and appreciation for the value of Florida's Ocean Economy.
- Pursued innovative and visionary multi-disciplinary partnerships. Example: In 2007, I assembled an innovative team of academic, government, non-profit-research, and corporate for-profit partners to address national priorities and immediate opportunities to position the State of Florida as a leader in ocean and coastal research and technology development (with a focus on several independent, but converging, lines of marine research and technology development). The partners included HSWRI, UCF, Florida Institute of Technology, USGS, Burnham Institute for Medical Research, Dynamac Corporation, the Balmoral Group (a private, for-profit economic and financial group), Aqua-Magnetics, Inc. (a private, for-profit start-up company developing coastal observation buoys and innovative energy technology to power buoys), AquaFiber Technologies Corporation (a private, for-profit start-up company developing biotech pollution mitigation technologies with product value to energy, textile industry) and Roffer's Ocean Fishing Forecasting Service, Inc. (a private, for-profit company developing ocean and fishing forecast technology and interpretation services). A pre-proposal for a \$10 million Florida Center of Excellence Award was prepared and submitted. Although ranked highly, the proposal was not recommended for further statewide consideration. The process lead to a number of secondary research partnerships and initiatives that continued through 2010.
- In April 2007, HSWRI-FL was named one of the 50 most influential businesses in Brevard by Space Coast Business Magazine.
- Worked with HSWRI senior scientists and its research partners to secure over \$2 million in extramural research directed grants, contracts and awards (represent individually-lead funding initiatives to support "in-water" scientist activities).

2007

Comprehensive Economic Development Strategy Committee - East Central Florida Regional Planning Council and "myregion.org". Assisted ECFRPC in development of a successful Comprehensive Economic Development Strategy for East Central Florida.

2006

Professor for the Geospatial Sensing Institute for Project Launch. Professional development program for elementary and middle school math and science teachers. Developed by Whitaker Center at Florida Gulf Coast University and Florida Space

Research Institute. Intensive 2-week summer institute conducted at UCF Solar Energy Center, Cocoa Campus of Brevard Community College (July 11 – 21, 2006).

- 1999 **Promoted to HSWRI Vice President of Florida Research** by HSWRI President and appointed by HSWRI Board of Trustees as the “registered agent of HSWRI for the State of Florida” (January 15, 1999).
- 1998-1999 **Florida Director of Research, Hubbs-SeaWorld Research Institute**
Provided strategic planning and administrative leadership for 1st year start-up of HSWRI in Florida.
- 2000 **Workshop Facilitator: Harbor Branch Oceanographic Institution Protect Wild Dolphin Program.** Provided experienced workshop facilitation for organizational development of the program by the Dolphin Advisory Committee.
- 1999 **Workshop Facilitator: Visit Florida Sub-Committee on Nature and Heritage Tourism.** Provided experienced workshop facilitation for a comprehensive program progress analysis by the Nature and Tourism Subcommittee of Visit Florida.
- 1991 - 1998 **First Program Coordinator, Brevard County Environmentally Endangered Lands Program.**
Program Vision: Establish a network of nature sanctuaries for conservation, passive recreation and environmental education through a voter-approved land acquisition and conservation program in Brevard County, Florida.

Responsibilities: Program administration, budget development, land negotiation, staff liaison to Land Selection Committee & Procedures Committee, direct staff advisory role to the Brevard County Board of County Commissioners, land acquisition, public relations, development of sanctuary management plans, property/facility management, worked with county financial planners on *ad valorem* revenue issues and bonding; planned and implemented capital development projects, grant proposal development, coordination of research associated with conservation and restoration projects, development of environmental education programs, and coordination of volunteers.

Annual Budget: Annual *ad valorem* revenues of \$3.3 million pursuant to a public referendum. The program had a total bond capability of \$55 million (over 20 years) to acquire protect and maintain environmentally endangered lands.

Milestone Accomplishments: Acquired over \$20 million of land with one-to-one matches of acquisition costs from federal and state sources through successful competitive grant proposals. Provided leadership for county land negotiations with private land owners and their real estate representatives for over \$15 million in acquisitions. Coordinated competitive RFP process and developed consultant contract with The Nature Conservancy to provide land acquisition services to county. Coordinated development of long-term management strategy for conservation lands in Brevard County. Secured Board of County Commissioner adoption of a formal county-wide natural areas management plan. Provided senior leadership for long-term vision and financial planning for the program. Extramural funding success listed chronologically in Fellowships, Grants, Funding Activities and Awards section of CV.

- 1990-1991* **Post-Doctoral Research Associate - University of Florida, Florida Medical Entomology Laboratory.**
Mangrove marsh zooplankton ecology, Indian River Lagoon, Florida. Research included analysis of ecological effects of marsh management, water quality, and zooplankton diversity, abundance and distribution. Duties included field research coordination and development of sea water research lab for zooplankton laboratory studies. Worked directly with Dr. Jorge Rey (UF-IFAS).
- 1989-1990* **Visiting Assistant Professor, Department of Biological Sciences, Florida Institute of Technology.**
Responsibilities: Taught various lectures and labs; advised students, coordinated undergraduate student research, developed grant proposals, and conducted independent research.

Courses taught: Invertebrate Zoology and Laboratory, Marine Ecology and Laboratory, Tropical Marine Ecosystems (graduate level), Animal Physiology and Laboratory, Freshman Biology I, II, III and Laboratories for each.

Education Program Development, Marine Resources Council of East Florida & St. Johns River Water Management District.
Responsibilities: Design and development of a public education display, educational brochures and 35 mm slide show about the Indian River Lagoon.
- 1988-90* **Professor, Bermuda Biological Station for Research. Tropical Marine Invertebrates (5-week intensive summer course).**
Responsibilities: Taught all lecture, lab and field components, coordinated graduate student interns, advised students, coordinated student field research projects, supervised field excursions, supervised student research, and integrated student's scientific experiences with cultural experience of Bermuda.
- 1979-88* **Graduate Teaching Assistantship, Department of Biological Sciences, Florida Institute of Technology.**
Teaching Responsibilities: Laboratory courses - Freshman Biology I, II, III; Marine Ecology; Marine Biology; Invertebrate Zoology. Lecture courses - Freshman Biology I, Freshman Biology III, Paleontology (evolution sections).

Research Responsibilities: Responsible for planning, construction, management and maintenance of saltwater aquaria, participated in construction of laboratory aquaculture facilities, responsible for all aspects of graduate research, responsible for radioactive isotope use and safety in research laboratory. Served on departmental radioisotope safety team.
- 1988* **Faculty Lecturer - Freshman Orientation, Florida Institute of Technology, "Improving the Quality of Freshman-Level Instruction".**
- 1987* **Field Research: Sponsor Spanish Wells Resorts, Ltd., Bahamas.**
Sponsored ecological field studies of a macro-algal and invertebrate community associated with a phosphate tanker wreck site (with Dr. Kerry B. Clark).

1977-78 **Youth Conservation Corps, Rhode Island Department Community Affairs.**
1977- Coordinated student shellfish research for two Rhode Island coastal ponds.
Taught marine biology and ecology to high school students. 1978- Developed nature
study area for field ecology studies. Taught field ecology to high school students.

AWARDS AND RECOGNITION

2022 Junior Achievement SpaceCoast **2022 JA Business Hall of Fame Laureate.**

2021 **Nominee** in the Culture Section for the East Coast Surfing Hall of Fame.

2020 Lead Brevard. **2020 Rodney S. Ketcham Leadership Icon Award.**

2019 Appointed by Florida Governor Ron DeSantis as a member of the Florida Harmful Algal
Bloom (HAB) Task Force.

Marine Resources Council **Paul Kroegel Award for Outstanding Service by a
Government Employee.**

Recognition for leadership with the Indian River Lagoon National Estuary
Program and service to IRL conservation. Resolution by the Brevard County Board of
County Commissioners (February 26, 2019)

Friends of St. Sebastian River 2018 Environmental Enhancement Award (January
22, 2019).

2015 **Charlie Corbeil Conservation Award** for exceptional leadership as the first
Director of the Brevard County Environmentally Endangered Lands Program.

2014 **Elected President, Florida Institute of Technology Alumni Association** for 2 terms
(2014 and 2015).

2013 **Appointed by Governor Rick Scott as a Board member of CareerSource Florida**
(formally Workforce FL Inc.). Serve on the Global Talent Competitiveness Council.
Appointment Terms: 07/22/2013 – 03/21/2015; 11/09/2015 – 03/21/2018.

Elected Vice Chair of the Florida Ocean Alliance. Re-elected annually since 2013.

2011 Chosen as a C-level industry executive by **Workforce Florida Inc.** to serve on the
Florida Clean Technology Industry Cluster Task Force.

2010 **“myregion.org inaugural Chair Award”** for a decade of community service as a
“Champion of Regional Excellence”. The award was created to pay tribute to an
individual who exemplifies the vision and values of *myregion.org*, consistently
recognizes opportunities for regional collaboration, and continues to advance the mission
of *myregion.org*: *“Connecting our communities by building regional solutions”*.

Named to **myregion.org Executive Board of Advisors** (www.myregion.org).

2008 Named as one of four final candidates (chosen from 85 applicants) in a national search
for a new Executive Director of the Harte Institute for Gulf of Mexico Studies at Texas

A&M University-Corpus Christi. (<http://www.spartnerships.com/newsletter/tgi%203-14-08/tgi.html>).

- 2007 **Alumni Outstanding Achievement Award**, Florida Institute of Technology.
- Appointment to **Executive Council to the Dean, University of Central Florida College of Sciences**. Council Mission: Advise and assist the Dean of the UCF College of Sciences in strategic planning, goal development & implementation, community outreach & service and donor development (2007-present).
- HSWRI Florida operations named one of the 50 most influential businesses in region** by Space Coast Business Magazine (April 2007).
- Florida Air Academy 2007 Community Service Award.**
- 2006 **Central Florida Leadership Academy.** Chosen as one of 70 community leaders to participate in 2006 Inaugural Leadership Academy sponsored by *myregion.org* and Florida Chamber of Commerce.
- 2004 **Nominated** by a local citizen for a national conservation award administered by The Conservation Fund, Arlington, VA.
- “Listening to Leaders” speaker.** Invited as community leader for live interview for program sponsored by the Orlando Regional Chamber of Commerce.
- Received 2004 Stan Blum Award for Conservation** by the Marine Resources Council of East Central Florida.
- 1999 **Recognition by the Sea Turtle Preservation Society.**
- 1998 **Recognition from the Brevard County Board of County Commissioners** for accomplishments as Program Coordinator for the Environmentally Endangered Lands Program.
- 1996 **The Nature Conservancy Chairman's Award for Conservation**, Florida TNC.
- Archie Carr National Wildlife Refuge - Friend of the Refuge Award.**
- 1995 **Appreciation Award - Indian River Lagoon National Estuary Program.**
- 1994 **Nominee, Florida Coastal Management Program Biennial Award for Outstanding Contributions in Coastal Management.**
- 1989 **Recognition Award - Outstanding Service.** Department of Biological Sciences, Florida Institute of Technology.
- 1988-89 **Highest Ranked Instructor – Department of Biological Sciences, F.I.T.** Rank based on university-wide student evaluations.
- 1982-83 **Outstanding Teacher in Biology Award.** Department of Biological Sciences, Florida Institute of Technology.

FELLOWSHIPS, GRANTS, FUNDING ACTIVITIES AND AWARDS

- 2015-Present* **Indian River Lagoon National Estuary Program** proposal development for external project support. Secured:
- Worked with the Association of National Estuary Programs to include \$132 million in funding for the National Estuary Program in the bipartisan Infrastructure Investment and Jobs Law (2022).
 - Worked with the Association of National Estuary Programs to expand reauthorization for the NEP in Section 320 of the Clean Water Act. In 2021, the U.S. Congress authorized \$50 million for the NEP, an increase from \$26.5 million.
 - Worked with the Association of National Estuary Programs to expand annual appropriations from U.S. Congress pursuant to Section 320 of Clean Water Act: \$600,000 (FY 2018, 2019, 2020), \$662,500 (FY 2021); \$700,000 (FY 2022).
 - \$963,470 in FY 2020-21 for a Harmful Algal Bloom Innovative Technology Project Grant managed by the Florida Department of Environmental Protection Office of Water Policy and Ecosystems Restoration.
 - \$100,000 from Canaveral Port Authority (2016) for citizen engagement.
 - \$75,000 from two U.S. EPA supplemental grant awards (risk assessment and adaptation planning) for coastal resilience and climate ready estuaries.
 - \$25,000 EPA supplemental grant for Harmful Algal Blooms.
 - Base funding of \$2.1 million for IRL Council pursuant to an Interlocal Agreement through local, state and federal appropriations.
- 2011-2015* **AquaFiber R&D grant and contract development** for dual-nutrient remediation technology projects and associated renewable energy/beneficial biomass applications. Helped identify, secure and manage contracts for AquaFiber projects on Lake Jesup (SJRWMD), Caloosahatchee River (SFWMD); Falls Lake Watershed (Cardno ENTRIX and City of Durham, NC) and FP&L Turkey Point Nuclear Power Plant.
- 2009-2010* **Represented AquaFiber Technologies Corporation as senior scientist (working in a sub-contract agreement) to Science Applications International Corporation (SAIC)** who was awarded a Phase 1 contract in 2009 (\$25 million) to develop algae-derived JP-8 jet fuel for military use. Funds were granted and administered by the Defense Advanced Research Projects Agency (DARPA).
- 2008-2009* **UCF strategic planning & program development:** Provided administrative and scientific leadership in the development of multiple proposals and pre-proposals to advance a vision for a coastal sustainability science and technology center at UCF. Proposal development during 12-month appointment included proposals submitted to: NSF restricted proposals (NSF 08-580- Science and Technology Centers: Integrative Partnerships; NSF-05-550, Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories); National Parks Service; John D. and Catherine T. MacArthur Foundation; Darden Restaurants Foundation; Busch Entertainment Corporation; Royal Caribbean Ocean Fund; Richard King Mellon Foundation.
- 2008* **Major donor cultivation** for the UCF College of Sciences and Department of Biological Sciences.

Darden Restaurants Foundation. Developed 3 programmatic pre-proposals with HSWRI Development Director for preliminary discussion, review and prioritization by Darden Foundation grants review team. **HSWRI full proposal funded in 2007 at \$100,000.**

Assisted HSWRI Development Director to secure funding for the HSWRI marine mammal stranding program from the **Space Coast Tourist Development Commission. \$25,000 Funded.**

2007

Florida Center of Excellence Proposal (Senior co-author with Dr. Ross Hinkle, University of Central FL). Assembled an innovative academic, public-sector and private-sector team representing ocean and coastal research and technology interests to develop a \$10 million COE pre-proposal for UCF consideration. Pre-proposal ranked 5th among 18 UCF proposals. **Not recommended for full proposal development. Recommendation to resubmit when more comprehensive economic and job metrics available for industry-sector Pro Forma.**

Anonymous Private Donor. Support expansion of the UCF/HSWRI sea turtle research capacity at the Archie Carr National Wildlife Refuge. **\$50,000 funded.**

Florida High Tech Corridor. Economic Value of the Florida Ocean Research Corridor. With Valerie Seidel, Balmoral Group. **\$2,500 Pre-Proposal funded.**

Reliant Energy Inc. Submitted manatee instrumentation request on behalf of Ann Spellman, FFWCC researcher and UCF Doctoral student. **\$4,000 funded.**

United Space Alliance Employee's One Fund. Sea turtle research and education outreach at the Archie Carr National Wildlife Refuge in Brevard County, FL. **\$2,500 requested.**

2006

Darden Restaurants Foundation. Proposal Co-Author and Administrator. Award to support a 2007 fish nutrition post-doctoral research fellow at HSWRI in San Diego and sea turtle research in Florida. **(\$80,000 funded)**

Senior Author. NSF 05-550. Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories. \$300,000 requested; Not funded. Grant and support documents presented to UCF for future re-submission.

United Space Alliance Foundation grant to support HSWRI marine mammal stranding and research program. **\$2,500 requested; \$1,500 funded.**

Florida Legislative Appropriation. Proposal request with Jay Galbraith on behalf of HSWRI matching funds. Senator Mike Haridopolos and Representative Andy Gardiner Sponsors. **\$610,000 Funded.**

2005

Proposal with Jay Galbraith with gift in honor of Dr. Dave Weldon funded from the Cruise Industry Charitable Foundation. Scientific Research and Conservation of Florida sea turtles. **\$25,000. 2nd installment funded.**

Proposal Co-Author and Co-Administrator for Darden Restaurants Foundation grant to support a fish nutrition post-doctoral research fellow at HSWRI in San Diego and sea turtle research in Florida. **\$73,000 funded.**

Congressional Appropriation. Worked with Jay Galbraith to secure a Congressional HUD-EDI appropriation for HSWRI in 2005 to begin site planning and construction of the new HSWRI research facility in Florida. Congressman Dave Weldon, Sponsor. **\$350,000 funded.**

2004 **Congressional Appropriation.** Worked with Jay Galbraith to secure a HUD-EDI Congressional Appropriation for HSWRI in 2004 to begin site planning and construction of the new HSWRI research facility in Florida. Congressman Dave Weldon, Sponsor. **\$605,120 funded.**

Proposal with Jay Galbraith with gift in honor of Dr. Dave Weldon funded from the Cruise Industry Charitable Foundation. Scientific Research and Conservation of Florida sea turtles. **\$25,000 1st installment funded.**

2003 **Project Administrator.** "Tracking the endangered leatherback turtle from space: Remote sensing provides an insight into leatherback migrations and pelagic ocean environments". Co-PI's - Dr. Brent Stewart (HSWRI) and Dr. Llewellyn Ehrhart (Univ. Central Florida). **\$20,000 funded by Hubbs-SeaWorld Society; \$10,000 funded by Port Canaveral Port Authority.**

FFWCC Marine Turtle Grant Program. Co-PI with Graham Worthy and Llewellyn Ehrhart. Fatty Acid Signature Analysis to Study the Feeding Habits of Sea Turtles (University of Central Florida and Hubbs-SeaWorld Research Institute). **\$26,450 requested. Funding denied.**

FFWCC Marine Turtle Grant Program. Archie Carr National Wildlife Refuge: A Legacy for Sea Turtle Conservation in America. Education Brochure. **\$22,000 requested. Funding denied.**

2002 Worked with SeaWorld Orlando to secure **X-ray processing equipment, cassettes, film, and chemistry equipment donation from Agfa HealthCare** for the HSWRI Marine Mammal Stranding Program.

Senior Author and Project Administrator. "GIS analysis of the conservation lands in the Archie Carr National Wildlife Refuge". **\$15,000 funded.** Coupled with support for Dr. Llew Ehrhart and the 2002 sea turtle nesting research. **\$25,000 funded.** Funding from the Park Foundation through The Ocean Conservancy.

Senior Author, Project Administrator and Co PI with Dr. Llew Ehrhart and Dr. Scott Eckert. Tracking leatherbacks from space. Florida Space Research Institute. **\$27,000 funded.**

ABAR Foundation grant to support manatee rescue, rehabilitation, research and release at HSWRI. **\$6,000 awarded.**

2001 Worked with HSWRI Senior Leadership Team to secure **\$3 Million gift from Busch Entertainment Corporation** for HSWRI annual operations (spread over 5 years).

Senior Author and Project Administrator. "Tracking the endangered leatherback turtle from space: Remote sensing provides an insight into leatherback migrations and pelagic ocean environments". Co-PI's - Dr. Scott Eckert (HSWRI) and Dr. Llewellyn Ehrhart (Univ. Central Florida). **\$50,000** funded by the Florida Space Research and Education Program and **\$30,000** from Space Research Inc.

Senior Author and Project Administrator "Historical Synthesis of bottlenose dolphin strandings in the Indian River Lagoon system from 1977-2000: A GIS spatial analysis. Co-PI with V. Larson (Dynamac Corporation) and M. Stolen (HSWRI). **\$24,000** funded by the Florida Protect Wild Dolphin Program.

1998 **Author: Grant from SeaWorld to fund the Marine Resources Council Northern Right Whale Volunteer Observation Program.** Volunteered grant-writing services to MRC. **\$5,000** funded.

1996 **Senior Author: Indian River Lagoon Blueway CARL Proposal.** Proposal sponsored by St. Johns River Water Management District, South Florida Water Management District, Volusia County, Brevard County, Indian River County, St. Lucie County, Martin County, Indian River Lagoon National Estuary Program and The Nature Conservancy. **Proposal Request - \$59.3 million to acquire 8,900± acres of IRL wetlands and associated uplands.** IRL proposal was first ranked in December 1997 by the Florida Conservation and Recreational Lands (CARL) Program.

Senior Author - Coastal Scrub Ecosystem CARL Initiative.

Project proposed acquisition of 17,400± acres of scrub along the barrier island and Atlantic Coastal Ridge of Brevard County. Ranked #5 among 34 bargain-shared acquisition projects. **\$10 million of CARL matching funds appropriated FY 97-98.**

Co-Author with Ms. Anne Birch. EPA Section 319 Grant.

\$90,000 awarded to develop an environmental education center and demonstration restoration projects at Malabar Scrub Sanctuary.

Senior Author: Anheuser-Busch/Sea World Pledge & a Promise Award.

Grant proposal written and submitted as a volunteer effort on behalf of the Reusable Resources Adventure Center, the Melbourne High School "STARS Program and the Center for Self-Active Education. Proposal received 3rd place award.

1994 **Florida Recreation and Development Assistance Program.**

\$72,000 awarded to initiate site development at Malabar Scrub Sanctuary and the Malabar's community park. Town of Malabar co-sponsor of grant with EEL Program.

Florida Coastal Management Program (NOAA).\$72,000 awarded for development of preliminary management plans, GIS maps of land ownership patterns, and environmental education booklets for the Archie Carr National Wildlife Refuge and Coastal Conservation in Florida.

1993 **Co-Author and Editor Conservation and Recreational Lands (CARL)**

Program Projects (with Environmentally Endangered Lands Selection Committee):

- Scrub Jay Refugia Project. 9,679 acres; local commitment of **\$10 million**; CARL funded 1993-1997. Funding continued in Florida Forever Program.
- Maritime Hammock Initiative. 616 acres; local commitment of **\$10 million**; CARL funded 1993-1997.
- North Indian River Lagoon. 20,167 acres; local commitment of **\$5 million**; ranked & unfunded 1993-1997. Volusia County & St. Johns River Water Management District as partners.

North American Wetlands Conservation Council.

\$1.5 million awarded for land acquisition in North Indian River Lagoon CARL Project. Represented the very first NAWCA grant for region.

Florida Communities Trust.

\$350,000 awarded for acquisition of lands adjoining Turkey Creek Sanctuary.

1991

Mangrove Marsh Restoration Project.

Dr. Jorge Rey, P.I. with Florida Oceanographic Society & Martin County. Grants from South Florida Water Management District SWIM Program **\$61,200.00** and Indian River Lagoon National Estuary Program, E.P.A **\$25,000.00**.

1990

Senior Author & Editor: Governor's Nomination Report for the Indian River Lagoon National Estuary Program. Worked with staff of Former Florida Governor Bob Martinez. \$4 million awarded by U.S. EPA to SJRWMD.

1989

National Science Foundation. Instrumentation and Laboratory Improvement Program. **\$70,000 awarded** to F.I.T. Biology Dep't. Co-PI with Dr. K. B. Clark.

1985

Walter Rathbone Bacon Scholarship, Smithsonian Institution. Research Assistant with Dr. Kerry B. Clark, P.I. Travel grant to Belize, Central America.

National Science Foundation: Doctoral Dissertation Improvement Award.

"Energy Budget Analysis and Eco-physiology of Opisthobranch Molluscs". **\$4,700.00 awarded.**

Lerner Gray Fund for Marine Research, American Museum of Natural History. **\$600.00 awarded.**

1983

Hasselblad Foundation Grant. Graduate student research internship in Sweden.

OTHER PROFESSIONAL EXPERIENCE

Invitations to serve as a keynote speaker for conferences, seminars and workshops demonstrates ability to communicate value of coastal & ocean science and research to broad audiences: A listing of invited speaker engagements is below. Until the COVID pandemic, I typically presented over 50 local and statewide public speaking engagements annually. Recent speaking engagements include:

1. Tampa Bay Estuary Program, Tampa Bay Area Scientific Information Symposium (BASIS-7). Developing a Framework and Cultivating New Partners to Identify and Advance Innovative Technology in the Clean-Water Industry Sector. St. Peterburg, FL March 1, 2022.
2. Indian River Lagoon Science Symposium. Indian River Lagoon Biodiversity. Florida Atlantic University – Harbor Branch Oceanographic Institution. February 13-14, 2020.
3. Southeast and Caribbean Disaster Resilience Partnership Annual Meeting and conference. Role of National Estuary Programs in Disaster Planning and Response. January 28-29, 2020. Jacksonville, FL.
4. Gulf Coast Community Foundation. 2019. Presentation and strategic conversation with the Board of Directors about transformational leadership for Florida clean water and coastal restoration. Gasparilla Island. November 14-15, 2019.
5. Environmental Summit 2018. Science and Environmental Council. New College of Florida. Sarasota, FL. April 26-27, 2018.
6. Coastal Estuarine and Research Federation Biennial North American Conference. Providence, RI. November 5-9, 2017.
7. American Beaches and Shores Preservation Association National Conference. Ft Lauderdale, FL. October 25-27, 2017.
8. Congressional House National Estuary Caucus, Washington DC, April 4, 2017.
9. Restore Americas Estuaries, New Orleans, January 6, 2017.
10. American Water Resources Association, Orlando, November 16, 2016.
11. Invited speaker, Indian River Lagoon Research Institute TechCon 2015. Florida Institute of Technology. September 25-26, 2015.
12. Invited keynote speaker and round table facilitator at the 21st International Symposium on Society and Resource Management. 13-18 June 2015, Charleston, SC. Keynote Address: “*Cities at the Edge - Florida at the Edge*”.
13. Invited Speaker Lead Brevard. “*Florida at the Edge – Sustainability, Environment & Innovation*”. Kennedy Space Center Visitor Complex, Debus Center, March 19, 2015
14. Invited scientist and panelist for community discussion - “*Troubled Water: Indian River Lagoon in Peril*” sponsored by the League of Women Voters of Orange County, FL (Feb. 12, 2014).
15. Invited stakeholder/expert panelist to Save the Indian River Lagoon Estuary Now Stakeholder and Contributor Consortium Workshop. Vero Beach, FL. January 16, 2014.
16. Florida Association for Water Quality Control. “*Dual-Nutrient Removal for Numeric Nutrient Criteria (NNC) Compliance*”. Naples, FL. June 12-14, 2013.
17. Florida Lake Management Society Annual Conference. “*AquaLutions™ Performance Results at Lake Jesup, FL: A Commercial-Scale, Dual-Nutrient Removal Technology with Implications for Numeric Nutrient Criteria Compliance* (with William A. Eggers). Daytona Beach, FL. June 17-20, 2013.
18. Facilitator, Sustainable & Authentic Florida Conference. Anna Maria Island, FL. October 17-19, 2012.
19. Lead Brevard. “*Conservation Lands, Climate Change, Water and other Environmental Worries: Perfect Storm or Perfect Opportunity for Florida?*” Brevard Zoo, Melbourne, Florida, March 15, 2012.
20. Invited panelist. Mayor Teresa Jacobs Orange County Cleantech Economic and Jobs Summit. April 29, 2011. Valencia College, Orlando, FL.

21. Invited Panelist. Impacts of the Deepwater Horizon oil spill in the Gulf of Mexico on commercial real estate in coastal Florida. Sponsored by Commercial Real Estate Women (CREW), Sonesta Hotel, Orlando, FL. September 15, 2010.
22. Keynote Speaker. High Impact Technology Exchange National Conference: Educating America's Technical Workforce. Presentation: *Ocean Science and Technology – 21st Century Challenges Present Opportunities to Change the World*. July 28-29, 2010. Orlando, FL.
<http://www.highimpact-tec.org/2010-conference-presentations.php>.
23. Young Professionals Fast Track Class. Lead Brevard. *Conservation Lands, Climate Change, Water and other Environmental Worries: Perfect Storm or Perfect Opportunity for Florida?* Parrish Healthcare Center at Port St. John, FL. July 28, 2010.
24. Invited Speaker. 2010 Cooperative Ecosystem Studies Unit (CESU) Network (U.S. Department of the Interior) National Meeting hosted by the Howard University School of Law in Washington, DC. (June 22-24, 2010). Presentation: “
25. Young Professionals Fast Track Class. Lead Brevard. *Conservation Lands, Climate Change, Water and other Environmental Worries: Perfect Storm or Perfect Opportunity for Florida?* Parrish Healthcare Center at Port St. John, FL. April 14, 2010.
26. Lead Brevard. “*Conservation Lands, Climate Change, Water and other Environmental Worries: Perfect Storm or Perfect Opportunity for Florida?*” Rockledge City Hall, Florida, March 18, 2010.
27. Invited Speaker. Presentation title: “*Climate Change Adaptation: Preparing Local Communities for Climate Change and Sea Level Rise - A Florida Perspective*.” NASA/USACE climate change symposium: “Understanding Climate Change Adaptation” NASA Headquarters Auditorium, Washington DC. April 21, 2009
28. Space Coast Climate Change Initiative (SCCCI). Introduction to SCCCI inaugural climate change forum for the public. Brevard Community College. Melbourne, FL. Feb. 9, 2009.
29. Sea Turtle Preservation Society. Public lecture on “*Sea turtle conservation and climate change – Challenges to Florida and the Archie Carr National Wildlife Refuge*”. Jan. 8, 2009. Information posted on <http://spacecoastbeachbuzz.blogspot.com/>.
30. University of Central Florida 3rd Annual Campus and Community Sustainability Conference. Presented by UCF, Progress Energy, and the Council for a Sustainable Florida. “*Sustaining Florida's Ocean Resources and Ocean-Based Economy*”. October 19-21, 2008.
31. “*Florida's Ocean Economy*”. South Lake Chamber of Commerce. Lake County Florida. June 20, 2008.
32. “*A Florida- Ocean Perspective to Global Climate Change*”. Indialantic Rotary. Eau Gallie Yacht Club. June 11, 2008
33. Florida Historical Society Annual Meeting. JILLIAN PRESCOTT MEMORIAL LECTURE:
34. “*Florida and the Environment: From La Florida to Global Warming*.” Sarasota, FL. May 23, 2008.
35. Adapting to Global Climate Change Conference. “*A Florida- Ocean Perspective to Global Climate Change*”. Winnie Palmer Hospital Earth Day Expo 2008. April 26, 2008.
36. Retirement address for Diane Barile, professor of coastal management at Florida Institute of Technology. April 21, 2008.
37. “*Land Use and Natural Resources Sustainability in Florida*”. Lead Brevard student workshop in community smart growth and sustainability. February 18, 2008.
38. “*SeaWorld Orlando Conservation Weekends*” Presentation of HSWRI research, conservation and education programs to SWO guests. Jan 12-13 and 19-20, 2008.
39. “*Ancient and Modern Mariners of the Deep*”. Full-day marine science and pelagic & shore bird field trip with Audubon bird expert, David Hartgrove. Space Coast Birding and Wildlife Festival, Titusville, FL. January 23-28, 2008.
40. “*Hubbs-SeaWorld Research Institute*”, Chapel-by-the-Sea Men's Breakfast. November 17, 2007.

41. "Land from the Sea", Florida Historical Society. October 13, 2007.
42. "Florida's Ocean Economy - Understanding the Value of Ocean Resources and Research" Harbor Branch Oceanographic Institution, Ft. Pierce, FL. August 29, 2007.
43. "HSWRI Expansion in Florida – The Florida Ocean Economy", Titusville Chamber of Commerce. June 11, 2007.
44. HSWRI presentation to Young professionals of Brevard (Lead Brevard). May 22, 2007.
45. Commencement Address – Florida Air Academy. May 18, 2007.
46. Lake Worth Lagoon Science Symposium – Keynote Address. "Lake Worth Lagoon: Defining the Future of an Urban Estuary". Palm Beach Atlantic University, Weyenberg Center, West Palm Beach, Florida. May 16, 2007.
47. Indian River Lagoon National Estuary Program. Florida Coastal Ocean Observation System caucus. Workshop on private sector partnerships. "Communicating ocean and coastal research values in Florida". Harris Corporation, Melbourne, FL. April 16, 2007.
48. Leadership Orlando Smart Growth Panel, Harmony, FL. April 5, 2007.
49. National Science Teachers Association Annual Conference. Workshop on middle school teacher enhancement in math, science, social studies and language arts. HSWRI "Deep Science" leatherback curriculum. Co-presenter with Joe Scott. St. Louis, MO. March 30, 2007.
50. United Space Alliance (USALA). Keynote Dinner Speech. "HSWRI vision for research and Florida's Ocean Economy". March 26, 2007.
51. International Sustainability Conference. Keynote Lunch Speech. "Ocean Sustainability". Florida Tech, Melbourne, FL. March 7, 2007.
52. Leadership Brevard. Debus Center Kennedy Space Center. "Value of Conservation in Florida". February 22, 2007. Space Coast Birding and Wildlife Festival. "Ancient and Modern Mariners" Field Tour. January 27, 2007.
53. Titusville Rotary "Vision for the HSWRI marine and coastal research center at the Archie Carr National Wildlife Refuge". December 7, 2006.
54. Myregion.org Smart Growth Panel. Osceola, FL. November 14, 2006.
55. CCA Orlando Chapter. "Florida's Ocean Economy". November 14, 2006.
56. WMEL Radio – Live Interview – "Hubbs-SeaWorld Research Institute – Charting a New Course in Florida". October 15, 2006.
57. Orlando, FL Hernandon Branch Library – public lecture. "Florida's Ocean Economy" October 11, 2006.
58. Down Under Dive Club. "Florida's Ocean Economy". August 9, 2006. Regional Leadership Council "How Shall We Grow – Environmental Vision". June 14, 2006.
59. Cocoa Rotary. "Vision for the HSWRI marine and coastal research center at the Archie Carr National Wildlife Refuge". May 9, 2006.
60. Community Leader Panelist for Leadership Orlando – "How Shall We Grow". LYNX Building, Orlando, FL. April 6, 2006.
61. Indialantic Rotary. "Vision for Hubbs-SeaWorld Research Institute in Florida". Eau Gallie Yacht Club, Melbourne, FL. March 8, 2006.
62. Florida Academy of Sciences 25th Anniversary of Indian River Lagoon Conference. "21st Century Management of the Indian River Lagoon (IRL): Looking to the future for bold ideas in interdisciplinary scientific research, regional thinking, and promotion of scientific literacy". March 10, 2006.
63. Florida House of Representatives Growth Management Committee hearing. "Myregion.org, Naturally Central Florida and making regional thinking work". Tallahassee, FL. February, 21, 2006.
64. Century Commission for a Sustainable Florida. Presentation. "Naturally Central Florida". FL. Capitol, Tallahassee, FL. January 9, 2006.

65. Expert Conservation Panelist - University of Central Florida Metro with the Honorable Linda Chapin. "*Naturally Central Florida – Saving 7 Great Environmental Places*". WMFE TV Naturally Central Florida. January 31, 2006.
66. Keep America Beautiful National Conference. Keynote with Ms. Virginia Busch (President of the SeaWorld & Busch Gardens Conservation Fund) and Phillippe Cousteau (President of Earth Echo International). "*Trends in Marine Research, Conservation and Education and Role of KAB*". Renaissance Hotel, Orlando, FL. December 9, 2005.
67. University of Central Florida Graduate Student Seminar series. *Central Florida – A National Center for Ocean Research Excellence? Vision vs. Reality*. UCF, Orlando, FL. November 14, 2005.
68. Space Grant Research Consortium – "*Scientific research and discovery at Hubbs-SeaWorld Research Institute*". SeaWorld Orlando. October 26, 2005.
69. American Zoo and Aquarium Association. Zoos & Aquariums: Committing to Conservation Conference. "*Forty Years of Scientific Research: SeaWorld and the Hubbs-Sea World Research Institute A Model for Success*". Cocoa Beach, FL. January 29, 2005.
70. One of 3 keynote speaker with Dr. William F. Carroll (President American Chemical Society) and Dr. William F. Koch (National Institute of Standards and Technology) at the International Sustainability Forum –Sustainability's New Age: Preservation and Planning, Florida Institute of Technology and Budapest University of Technology and Economics. Presentation: "*Sustainability Horizon - Perspectives on Sustainability*". Florida Institute of Technology, Melbourne FL. February 22, 2005.
71. Leadership Brevard. *The Economic Value of Conservation*. 2005.
72. Florida Association of Science Teachers awards keynote presentation. Biodiversity of Marine Species and Science Education. Sheraton Hotel, Orlando, FL. 2005.
73. Urban Land Institute. "*Economic Value of Conservation-Sustainability, How to be a Green Giant?* Orlando Museum of Art, FL." May 20, 2005.
74. United Space Alliance Leadership Association. "*The 21st century: Hubbs Florida and Ocean Science Excellence*". August 15, 2005.
75. Orlando Regional Chamber of Commerce – Small Business Chamber. "*Naturally Central Florida, Economic Value of Conservation and Role of Ocean Science Research as an Economic Sector in Central Florida*". Orlando Regional Chamber of Commerce, Orlando, FL. October 20, 2005.
76. Southwest Florida Council for Environmental Education Inc Keynote presentation: "*Florida - 21st Century and Beyond, A Natural Foundation*". Bonita Springs, FL. November 4, 2005.
77. Space Coast Wildlife and Birding Festival. One Day Tour – "*Florida's Ancient Mariners*". November 18, 2005 and November 19, 2004).
78. Florida Section of the American Water Works Association. "*Florida - 21st Century and Beyond, A Natural Foundation: Communicating the Value of Science & Environmental Education as a Pathway to Community Excellence and Sustainability*". Renaissance Hotel, Orlando. November 29, 2005.
79. Brevard Legislative Delegation Hearing. "*Request for state appropriation for the new HSWRI research center in Brevard County, FL.*" Brevard County Government Chambers, Viera, FL. November 30, 2005.
80. Indian River Lagoon conservation awareness kayak trip with Congressman Tom Feeney. February 22, 2004.
81. Brevard Insight. "*The Economic Value of Conservation*". April 13, 2004.
82. Keynote Presentation with Shelley Lauten (Director myregion.org) and Michael Gallis (President Michael Gallis and Associates). "*On Regional Thinking and myregion.org. – insights into what works and what doesn't*". A Community Forum at Myrtle Beach, South Carolina. May 4, 2004.

83. Indian River Lagoon Annual Conference. *"The IRL – A historical perspective"*. IRL National Estuary Program. May 15, 2004.
84. Panelist - Florida Growth Management Conference. Orlando, FL. May 24, 2004.
85. Invited guest for talk-radio interview. *"The Vision for HSWRI in Florida"*. WMEL Radio Talk. August 22, 2004.
86. Keynote speaker – *"Listening to Leaders"* live audience interview with Orlando Regional Chamber of Commerce President, Jacob Stuart. Orlando Museum of Art, FL. September 17, 2004.
87. Presentation to representatives of Marine Industry Association at SeaWorld Orlando. October 5, 2004
88. NASA Jet Propulsion Laboratory Non-Volatile Memory Technology Symposium. Keynote Lunch Speaker *"Through the Space Looking Glass: Unraveling the Mysteries of the Giant Leatherback in the Atlantic Ocean"*. Universal Crowne Plaza, Orlando, FL. November 16, 2004.
89. Invited Commencement Speaker. Rollins College Brevard 2003 Commencement Address.
90. Keynote speaker at Shamu Stadium SeaWorld Orlando for professional meeting of association of medical professionals. 2001.
91. Leadership Brevard College Leadership Program and Leadership Brevard Programs. *Balancing environmental protection and economic growth a challenge for local communities in Florida*. 2001.
92. University of Central Florida Senior Seminar Series. *"Hubbs-SeaWorld Research Institute: Building on a tradition of ocean conservation and research"*. 2001.
93. Participant Resource Conservation and Tourism Workshop sponsored by The Nature Conservancy. 2001.
94. Keep America Beautiful Regional Conference – *"Economic and ecological value of conservation to local communities"*. 2001.
95. Natural Areas Association 2001 Conference – *"Searching for a Natural Balance: Indian River Lagoon"*. Biological Complexity Symposium.
96. Estuarine Research Federation Conference – *"The challenges of human population impacts to Indian River Lagoon biodiversity"*. 2001.
97. Brevard Zoo Committing to Conservation Conference. 2001.
98. Panel presentation Alachua County conservation lands initiative sponsored by Women for Wise Growth. *"Protecting water resources"*. Gainesville, FL. 2000.
99. Council on Foundations presentation *"Partnerships: A tradition of marine research, conservation and education at Hubbs-SeaWorld Research Institute*. 2000.
100. Ecotourism on public and private lands in Florida - Agro-Ecology Conference. Florida Center for Environmental Studies. *"Ethics in Ecotourism"*. 2000.
101. Florida League of Environmental Regulators. Facilitator - wetland restoration. 2000
102. Florida Institute of Technology - Biology Seminar Series. *Role of Research and Conservation in Florida*. 1999.
103. ECOTREK- Final keynote address to students participating in the 1999 environmental education program. 1999.
104. Florida Watchable Wildlife Conference. *"Status of nature tourism in Florida"*. 1998.
105. Florida Parks Service Annual Park Managers Meeting. *"Economic benefits of natural lands"* and *"Ecotourism opportunities and challenges for the future"*. 1997.
106. Florida Inter-Agency Partnership Conference for Preservation and Conservation. *"Florida Preservation 2000 Program - Balancing ecotourism opportunities and resource stewardship challenges"*. 1997.
107. 8th Annual State/Indian Tribe EPA Wetlands Program, Atlanta, GA. *"The Indian River Lagoon Blueway: Land acquisition, a tool for wetland and watershed conservation on an ecosystem level"*. 1997.

108. Volusia County Eco-, Cultural-, Heritage- Opportunity (ECHO) Tourism Symposium. *"Local government opportunities and responsibilities for resource protection and promotion of nature-based tourism"*. 1997.
109. FL Commission on Tourism, Eco-tourism/Heritage Tourism Advisory Committee meeting. *"Balancing ecotourism and conservation on Florida's endangered lands"*. 1997.
110. St. Johns River Water Management District Annual Partnership Workshop. *"Ecotourism and the economic value of natural area networks"*. 1997.
111. Leadership Brevard, Leadership Central Florida, Leadership Lake County and Brevard Insight Programs. *"Economic benefits of land protection in Brevard County, Florida"*. 1997.
112. Global Marketing & Management Services Inc. and Best Western International. *"Ecotourism: Corporate responsibilities for conservation"*. Grand Canyon, AZ. 1997.
113. Everglade Coalition Conference: *"Why buy endangered lands?"*. 1997.
114. Palm Beach Ecotourism Summit. *"Opportunities for nature-based tourism in FL"*. 1996.
115. Annual Acquisition and Management Partners Conference, St. Johns River Water Management District: *"Economic Values of Endangered Lands" & "Partnerships for conservation, acquisition & management of Preservation 2000 lands"*. 1996.
116. World Congress on Adventure Travel & Ecotourism. *"Corporate Commitment: Sustainable Ecotourism and Ecosystem Protection"*. Bahamas. 1995.
117. Duke University, School of the Environment, Coastal Speaker Series; *"Land acquisition & management: a tool for coastal conservation"*. 1995.
118. Earth Stewardship Conference, Florida Sea Grant College Program; *"Sustainable neighborhoods: role of conservation and socio-economics"*. 1995.
119. Annual Acquisition and Management Partners Conference, St. Johns River Water Management District: *"Why buy endangered lands? Pathways to ecosystem protection and economic sustainability"*. 1995.
120. Management & Protection of Estuaries and Coastal Waters. Workshops for EPA and Horsely & Whitten, Inc. Workshops in Naples & Apalachicola, FL (1995); Orlando FL (1994) & Charleston SC (1993). *"Land Acquisition, a non-regulatory tool for local governments and coastal conservation"*.

Communicating Scientific Research and Education through Visual Graphics and Stories.

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|--------------|--|
| 2016-present | Executive leadership activities with IRLNEP senior staff and communication consultants to rebrand the 25-year IRLNEP Program and implement brand activation strategies through new website, annual reports, print collaterals and social media. |
| 2015 | Design, message and brand support for HydroPro-Tech LLC. |
| 2009-Present | Design, message and brand support for website content, printed collaterals and investor proposals for AquaFiber Technologies Corporation. |
| 2006-2008 | Creation of original art for HSWRI Florida fund-raising events.

Creation of the HSWRI “Deep Learning” middle school science, math, language arts and social studies curriculum using satellite tracks of Atlantic Leatherback turtles with Satellite High School science teachers Joe and Lisa Scott. |
| 2003 | Original concept and design for Discover Florida’s Oceans specialty license plate. Final art rendered by contract artist. |

- 2000 Concept design and art guidance for exclusive sea turtle bronze limited-edition statue created for HSWRI by Artist Sandra Koop. Produced by American Bronze Foundry, Sanford, FL.
- 1995 Original art design and construction of *Living Lagoon Wall* - a 24 foot, portable wall display for the Indian River Lagoon National Estuary Program. The wall serves as a canvas for interactive art and environmental education for school children.
- 1992 Indian River Lagoon/Coral Reef Wall Mural - Personal Training Center, Indian Harbor Beach, FL.
- 1991 Concept, design and artwork for promotional poster and educational leaflet for the Indian River Lagoon National Estuary Program. Title: "Indian River Lagoon: Linkage between land and sea.
- 1990 Indian River Lagoon Fact Sheet, Educational Brochures and Florida map: St. John's River Water Management District and Marine Resources Council.
- 1989 Illustration: Urban Wastes in Coastal Marine Environments, D.A. Wolfe & T.P. O'Conner (Eds.). Vol. 5. Oceanic Processes in Marine Pollution. I.W. Duedall, D. Kester, and P.K. Park (Series editors). Krieger Publ. Co. Inc. Melbourne, FL.

VOLUNTEER COMMUNITY SERVICE & COMMITTEE ACTIVITIES

Florida Governor Appointments

- Florida Harmful Algal Bloom Task Force, Florida Fish and Wildlife Conservation Commission. Appointed by Governor Ron DeSantis (2019-present).
- CareerSource Florida Board Member. Appointment by Governor Rick Scott. Two terms of Appointment: 22 July 2013 – 21 March 2015; 9 November 2015 – 21 March 2018. Appointment continues until Governor reappointment or replacement.
- Nature and Heritage Tourism Committee of Florida Tourism Commission. Appointed by Governor Jeb Bush (2001-2005).

Current Community Service and Appointments

- Advisory Board Southeast and Caribbean Disaster Resilience Partnership (2020-present).
- Florida Ocean Alliance - Board of Directors (2001-Present); Elected Vice Chair (2013-Present). FOA Steering Committee for Florida Ocean and Coastal Plan funded by FL Legislature (2019 to present).
- East Coast Zoological Society of Florida/Brevard Zoo – The “Aquarium Project” at Port Canaveral. Cabinet and Task Force member (2019-present).
- Lead Brevard – Lecturer for annual leadership programs (1995-Present).
- Florida's Space Coast Office of Tourism, Beach Improvement Committee (March 2018-present).
- Agriculture & Natural Resources Advisory Committee, Martin County (2016- present)
- Northeast Florida Estuarine Restoration Team Steering Committee (2016-present).
- East Central Florida Estuarine Restoration Team Steering Committee (2017-present).
- Space Coast Transportation Resiliency Master Plan Task Force (2021-present).
- Florida's Space Coast Office of Tourism, Beach Improvement Committee (March 2018-present).

Previous Community Service and Appointments

- East Central Florida Estuarine Restoration Team Steering Committee (2017-present).
- Brevard/Volusia Regional Action Plan for Resiliency and Sustainability Steering Committee (2017-2018).
- Florida Institute of Technology – President Alumni Association (Jan. 2014 - Nov. 6, 2015).
- Univ. Central Florida College of Sciences Executive Council to the Dean (2007 - 2015).
- Advisory Board Member – Friends of the Archie Carr National Wildlife Refuge (1990 - 2015).
- *myregion.org* - Executive Committee member (2002 - 2013).
- Board Member - Florida Institute of Technology Alumni Association (2011-2015).
- Founding Board Member for STEM Charter Middle School planned for Viera, FL. (2011-2012).
- *myregion.org* Regional Water Strategy Steering Committee (2010-2011).
- Invited Member, Clean Technology Target Industry Cluster Florida Task Force for Workforce Florida and Enterprise Florida (2011).
- Lead Brevard - Steering Committee (2001-2012).
- Keep Brevard Beautiful - Board of Directors (2001-2012).
- Florida Coastal Ocean Observation System Consortium (2008-2009).
- The Nature Conservancy. External Science Advisory Panel. Disney Wilderness Preserve Long-Term Visioning Workshop (August 25-27, 2009).
- Urban Land Institute – Technical Assistance Panel to develop a Regional Water Strategy Briefing Book for *myregion.org* (2010-2011).
- UCF “Cleantech Symposium Series” Steering Committee Member (2008).
- “GreenCities” 2009 Conference Host Committee Member (2008).
- Comprehensive Economic Development Strategy Committee - East Central Florida Regional Planning Council and “*myregion.org*” (2007-2008).
- Board of Governors - Orlando Regional Chamber of Commerce (2006-2007).
- Comprehensive Economic Development Strategy Committee - East Central Florida Regional Planning Council and “*myregion.org*”: Assisted in development of a Comprehensive Economic Development Strategy for East Central Florida.
- Brevard Zoo - Board of Directors. (1998-2006).
- Forever Florida (Heritage Fountain) (2004-2005).
- Chair, Advisory Council on Environmental Education (2000-2005). Appointed by Executive Director of Florida Fish and Wildlife Conservation Commission.
- Marine Resources Council of East Central Florida - Board of Directors (1996-2001).
- Space Coast Sportfishing - Advisory Board (2000-2001).
- Brevard Nature Alliance - Board of Directors (1999 - 2003).
- Doctors, Lawyers, Weekend-Warriors Surf Festival. Executive Committee (1993-2001).
- Rollins College, Brevard Campus - Advisory Board (1996-2004).
- Florida Subcommittee for Nature and Heritage Tourism. 1998-2000.
- Advisory Board, Reusable Resources Adventure Center 1996-1997.
- Indian River Lagoon Ecosystem Land Acquisition Working Group. 1994-1997.
- Governor's Ecosystem Management Program: Subcommittee for Acquisition and
- Greenways. Working group Chair - economic costs & benefits. 1994. Indian River Lagoon Biodiversity Conference, Organizing Committee. 1994.

PUBLICATIONS

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2. Parkinson, Randall W., Valeri Seidel, Clay Henderson, and Duane De Freese. 2021. Journal of Coastal Management. "Adaptation actions to reduce impairment of Indian River Lagoon water quality caused by climate change, Florida, U.S.A. Published online: 07 Feb 2021. <https://doi.org/10.1080/08920753.2021.1875399>. 18p.
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