

## Patrick Arthur Pitts

625 36<sup>th</sup> Avenue  
Vero Beach, Florida 32968  
(772)532-5075 (cell)  
U.S. Citizen

### Education

University of North Carolina at Chapel Hill  
*Bachelor of Science, Zoology, May 1978; Chapel Hill, North Carolina*

Florida Institute of Technology  
*Masters in Science, Biological Sciences (Marine Biology Focus), March 1982; Melbourne, Florida*

### Professional Experience

Ecological Sub-contractor, May 2018 – Present  
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As of October 2021, I have worked part time exclusively for Coastal Resources Group, Inc. (CRG) and BluStem Ecological Consulting, LLC. (Ms. Laura Flynn, President for both companies, 813-230-0186). The focus of work has been on habitat restoration conducted in the Florida Keys under the Army Corps of Engineers' Keys Restoration Fund In-Lieu Fee Mitigation Program, which is managed by the Coastal Resources Group, Inc. for the Corps. I assist CRG with mangrove and oyster reef restoration monitoring, oversee construction of mangrove and oyster reef restoration projects, develop habitat restoration plans, and submit grant proposals in response to habitat restoration opportunities. Last year, I developed the response to an Indian River Lagoon National Estuary Program funding opportunity for habitat restoration in the IRL and received funding for an oyster reef restoration project at the Pelican Island National Wildlife Refuge for \$83,000 (including 50% in-kind matching funds).

Fish and Wildlife Biologist, January 2002 – April 2018

*U.S. Fish and Wildlife Service, South Florida Ecological Services Field Office, 1339 20<sup>th</sup> Street, Vero Beach, Florida, 32960; (772)469-4250; Mr. Miles Meyer – Supervisor*

My primary responsibility was to serve as lead biologist on complex major water resource restoration projects associated with the Comprehensive Everglades Restoration Plan (CERP)—including the \$450M Biscayne Bay Coastal Wetlands Project. Under CERP, I served as Regional Coordinator for the Southern Coastal Systems ecoregion. In this role I was responsible for coordinating scientists and resource managers to develop restoration performance measures and targets, assessing current environmental and habitat conditions using multi-disciplinary monitoring data, and evaluating restoration alternatives. Target organisms included seagrass, epifauna, mangrove fish communities, recreational sportfish (e.g., spotted seatrout), the American crocodile, roseate spoonbills and other wading birds.

From 2013 to 2018 I served as the South Florida coordinator for the USFWS South Florida Coastal Program (CP) which encompassed 19 counties. I developed and maintained partnerships with other natural resource agencies, non-governmental organizations, private landowners, and local communities to accomplish CP goals. I established and managed cooperative agreements to implement on-the-ground habitat restoration projects, and I logged project accomplishments in the USFWS HabITS database. I provided technical assistance through memberships on habitat restoration advisory teams and programs. I developed a new 5-year Strategic Plan for South Florida as part of the periodic National CP 5-year Strategic Plan revision and I helped create the new Florida East Central Estuarine Restoration Team to facilitate and coordinate restoration projects on Florida's Atlantic Coast. I also served on the Habitat Restoration Team for the Service's Gulf Restoration Program (GRP). In this capacity I coordinated with local government agencies and non-governmental organizations to prioritize, plan, and implement landscape-level restoration projects in southwest Florida through funding sources made available as a result of the Deepwater Horizon oil spill (e.g., RESTORE Act).

Research Specialist II, July 1984 – January 2002

*Harbor Branch Oceanographic Institution, 5600 U.S. Hwy. 1, Ft. Pierce, Florida, 34946; (772)465-2400; Dr. Ned P. Smith – Supervisor*

I investigated physical and ecological processes in marine and estuarine waters of the Florida Keys, Florida's southern estuaries, Florida's Indian River Lagoon and the central Bahamas. The major focus of research was on hydrology and transport processes in shallow coastal waters and how these processes may impact ecosystems through transport of fish and invertebrate larvae, sediments and nutrients. Results of this work have been used by resource managers to guide habitat management and restoration policies. Primary job responsibilities included coordinating field work, maintaining and operating oceanographic instrumentation, analyzing and interpreting data using a variety of specialized scientific software, writing technical reports, and publishing manuscripts in peer-reviewed scientific journals. I also served as Diving Safety Officer (DSO) whereby I managed and supervised scuba operations for two research divisions (~20 divers). Duties included formulating and implementing company diving regulations, training divers, maintaining diving equipment, producing annual scuba activity reports, and serving as DSO on ocean-going research vessels.

Biological Scientist I, March 1982 – June 1984

*Florida Medical Entomology Laboratory, 200 9<sup>th</sup> St. SE, Vero Beach, Florida 32962; (561)778-7200.*

I assisted in the research on the biohistory and ecology of various mosquito and midge species, with particular regard to the viruses they can transmit. Duties included maintaining viable colonies of these insects for physiological experiments, collecting wild mosquitoes to provide new brood stock, and deploying "sentinel" birds to determine the presence of mosquito-borne viruses in the wild. I was responsible for a field project that required trapping and obtaining blood samples from small mammals to determine the level of mosquito-borne viruses in wild populations.

Fisheries Surveyor, February 1981 – January 1982

*Kathryn Chandler Associates, Alexandria, Virginia; Kathryn Chandler – Supervisor.*

I worked as a sub-contractor to collect and assimilate data for a fishery survey conducted by the National Marine Fisheries Service within a 60-mile radius of Melbourne, Florida. Duties included identifying, counting, and recording Florida marine and estuarine fishes from catches of local recreational fishermen.

Laboratory Technician, April 1977 – Sep. 1978 and Jan. – Sep. 1979

*National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina and St. Augustine, Florida; Dr. John Pritchard – Supervisor.*

I performed various physiological and biochemical experiments on marine invertebrates and terrestrial mammals, which provided me extensive experience in the use of laboratory instruments ranging from scintillation counters to Mettler balances. I also performed protein and phosphatase assays.

**Teaching Experience**

Adjunct Instructor (1987 – 1994) - Indian River Community College, Ft. Pierce, Florida.

Instructed students in Fundamentals of Aquaculture and General Biology. Courses included both lecture and laboratory components.

Graduate Teaching Assistant (1980 – 1981) - Florida Institute of Technology, Melbourne, Florida. Taught undergraduate general biology laboratory courses.

**Publications and Professional Presentations**

I have over 20 publications in peer-reviewed scientific journals, and I have made over 30 oral and 6 poster presentations at regional, national and international scientific conferences, including but not limited to the National Conference on Ecosystem Restoration, Restore America's Estuaries Conference, Coastal and Estuarine Research Federation, International Coral Reef Symposium, INTECOL International Wetlands Conference, and Greater Everglades Ecosystem Restoration Conference.

**Leadership Training and Experience**

- Completed the USFWS Stepping Up To Leadership Program – April 2008
- Completed "Effective Facilitation" course at NCTC – April 2011
- Completed 4 supervisory-level detail assignments with the Service (Pocatello ID, Big Pine Key FL, and Vero Beach FL)

**Professional Recognition**

- U.S. Fish and Wildlife Service Regional Director's Honor Award for Outstanding Performance (2007)

- STAR Award from the U.S. Geological Survey for outstanding accomplishments (2006)
- Five STAR Awards from the U.S. Fish and Wildlife Service for outstanding accomplishments (2004, 2004, 2005, 2007, 2009)

**Volunteer Work**

- For Indian River County Government, Florida. I have helped monitor Florida scrub jays at Wabasso Scrub Conservation Area and South County Park since 2019. This work also includes conditioning and trapping juveniles for banding. My primary IRC government contacts are Beth Powell, Wendy Swindell, and Ashley Lingwood.
- For the Environmental Learning Center, Vero Beach, Florida. I served as Environmental Interpreter on boat eco-tours on the Indian River Lagoon from 2019-2024, and I have assisted with Lagoon Days for over 25 years during which I help instruct students about the ecology of the Indian River Lagoon. My primary contact is Barbara Schlitt-Ford.