

# Shannon M. Gonzalez, PWS

## Senior Ecologist/Principal



### Expertise

Avian Protection Plans  
Wildlife Ecology  
Water Use Permitting Support  
Aquatic Systems Evaluation  
Wetland Delineation,  
Assessment and Permitting  
Environmental Permit  
Compliance

### Education

M.S. Zoology, University of  
South Florida, 2004  
B.S. Biology, University of  
South Florida, 1998

### Certifications

Certified Mining Safety and  
Health Administration  
Instructor, 2007  
Professional Wetland Scientist,  
#1507, Society of Wetland  
Scientists, 2005  
FWC Authorized Gopher  
Tortoise Agent, GTA-09-00071  
FDEP Stream Condition Index  
Certification, 2004/2012  
FDEP Habitat Assessment  
Certification

### Memberships & Affiliations

Board of Directors - Florida  
Association of Water Quality  
Control  
Member - Coastal  
Conservation Association  
Life Member - University of  
South Florida Alumni  
Association

Shannon Gonzalez has a broad educational and professional background with interests in wildlife ecology and wetland function. His experience includes wetland delineation, evaluation, and permitting, wildlife ecology, and water use permitting support. Projects have involved the use of numerous ecological evaluation techniques, field identification of plants and animals, and agency interactions. His extensive field experience has enabled him to evaluate environmental resources and make effective strategic recommendations based on sound science and regulatory knowledge. He has also built an excellent working relationship with many biologists, regulators, and academicians that increase the potential for collaboration across different levels.

### AVIAN PROTECTION PLANS

#### Project Ecologist - Avian Risk Assessment and Avian Protection Plan, Throughout, Florida

Designed and implemented an avian protection plan for a large utility company to reduce avian interactions with electrical utilities. Aspects of the plan included conducting an avian risk assessment, research and development of construction and retrofitting techniques to make electrical utilities avian-safe, developing standard procedures to address avian injuries/mortalities, nest management techniques, preparing avian resource guide book and developing an employee training program.

#### Project Ecologist - Avian Protection Plan and Avian Risk Assessment, Central Florida

Conducted a habitat based avian risk model for a large mining company in Central Florida. Prepared an Avian Protection Plan to reduce avian interactions with electrical utilities. Aspects of the plan included conducting research and development of construction and retrofitting techniques to make electrical utilities avian-safe, developing standard procedures to address avian injuries/mortalities, nest management techniques, preparing avian resource guide book and developing an employee training program.

### WILDLIFE ECOLOGY

#### Project Manager – Wildlife Utilization of Phosphate Mined Lands Research Project, Bone Valley Phosphate Region, Central Florida

The project involved funding negotiations with the Florida Institute of Phosphate Research; coordination with the University of South Florida faculty, staff, and graduate students; sampling protocol development specific for each of the five classes of vertebrates; procurement of sampling materials; and sampling implementation. Habitat factors were also collected on each of the sites and a database was developed to allow for statistical comparison between species observed and habitats available.

#### Project Ecologist - Transmission Lines and Substations, Throughout Florida

Conducted general and species-specific listed species surveys and obtained FWS and FWC listed species permits for many transmission line and substation projects throughout Florida. Specifically conducted surveys for Florida scrub-jay, bald eagle, southeastern American kestrel, burrowing owl, red-cockaded woodpecker, crested caracara, gopher tortoise, sand skink and listed plant species. Obtained gopher tortoise relocation permits from the FWC and conducted the gopher tortoise relocation activities.

#### Project Ecologist - Transmission Structures, Throughout Florida

Conducted bald eagle nest monitoring for an electric utility company in Florida. The bald eagle nest monitoring was conducted in accordance with the FWC Bald Eagle Management Plan (2008) and the FWS Bald Eagle Monitoring Guidelines. Nest monitoring was conducted to allow the utility company to maintain and replace transmission structures during the eagle nesting season within the protected buffer zones (660 and 330 feet) of a bald eagle nest.

#### Project Manager – Amphibian Monitoring and Translocation Study, Hillsborough, Manatee, Polk, and Hardee Counties, Florida

Designed, implemented, and managed a multi-year amphibian study comparing unmined land to land that was mined and reclaimed. Remote frogloggers were used to measure breeding activity on 21 sites in Central Florida. Species found to be underrepresented on reclaimed lands were translocated from lands permitted for mining.

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**Project Manager – Holistic Habitat Management Plan Development for an Approximately 15,000-Acre Parcel, Hardee County, Florida**

This plan included presentation of baseline habitat, flora and fauna information and proposed management activities for preserved, enhanced and created habitat areas. This management plan was written according to the Florida Department of Community Affairs guidelines and the Florida Fish and Wildlife Conservation Commission (FWC).

**WATER USE PERMITTING SUPPORT**

**Project Manager – Environmental Management Plan Development, Hardee, Polk, Manatee, and Hillsborough Counties, Florida**

Coordinated the development of Environmental Management Plans to satisfy several conditions of Water Use Permits for clients in Central Florida. These plans include well installation and transect establishment to allow for standardized vegetative, soils, and hydrologic monitoring. Interpretive Reports are typically required annually by the Southwest Florida Water Management District (SWFWMD).

**Project Ecologist – Stream Stewardship Plan Development and Implementation, Manatee and Hardee Counties, Florida**

Assisted in the development of an acceptable stewardship plan and conducted fish and macroinvertebrate sampling as well as in-stream water quality measurements. Methods included electrofishing, seining, Stream Conditions Index (SCI), and use of Hydrolab and YSI equipment. Data on water quantity and water quality were collected, analyzed, and compared to biological data. The purpose of the plan was to detect any adverse conditions or significant trends that could occur as a result of upstream mining activities and to provide a mechanism for corrective actions, if necessary.

**Field Coordinator –Spring Biological Monitoring Program, Madison County, Florida**

Participated in the monitoring program for Madison Blue Spring. Monitoring included surveys by cave divers in the caverns leading to the spring and biological sampling in the spring boil, spring run, and the Withlacoochee River upstream and downstream of the spring run. Sampling in the river is conducted according to the SCI protocol. The sampling in the spring boil and spring run used a modification of the SCI protocol where Surber samplers were used instead of dip nets by open water divers to provide more thorough sampling of the limestone walls and boulders in those areas. Water quality was also sampled in conjunction with the biological sampling.

**WETLAND DELINEATION, ASSESSMENT AND PERMITTING**

**Supervised and conducted a wetland assessment using Florida's Uniform Mitigation Assessment Method (UMAM) on a 7,500-acre site in Central Florida**

A standardized naming convention was developed and teams of ecologists were deployed to make field observations. Data were collected and entered into a Microsoft Access Data Base. Upon finalization of the assessment area boundaries, the UMAM data were merged into a Geographic Information Systems (GIS) database to provide a visual representation of the UMAM scores. Ultimately this information is used to determine the amount of mitigation necessary for unavoidable impacts.

**Conducted a wetland assessment using Wetland Rapid Assessment Procedure (WRAP) on multiple sites in Central Florida**

Participated in a large-scale wetland assessment using WRAP on lands proposed for mining as well as reclaimed wetlands in Hillsborough, Manatee, Polk, and Hardee Counties. The data collected were used to determine the amount of mitigation necessary for any potential impacts and to compare the value of reclaimed wetlands to unmined wetlands.

**Project Coordinator – Wetland Delineation, Evaluation and Permitting, Hardee County, Florida**

Supervised and coordinated wetland delineation and assessment as well as developed and implemented a comprehensive permitting strategy with a large team including the client, engineers, scientists, and attorneys. Also participated in agency negotiations and prepared application documents for submittal.

**Project Manager – Wetland Delineation, Evaluation and Permitting, Hillsborough County, Florida**

Conducted state (SWFWMD) and federal (Natural Resource Conservation Service and US Army Core of Engineers (USACE)) delineation reviews and wetland assessments using WRAP. Developed and submitted application materials to the SWFWMD, USACE, and Environmental Protection Commission of Hillsborough County (EPC) on a 1,000-acre development site in Hillsborough County, Florida.

**Project Manager – Wetland Delineation, Evaluation and Permitting, Hillsborough County, Florida**

Completed EPC delineation begun by others and developed a permitting and mitigation strategy that satisfied the USACE, SWFWMD, and EPC, resulting in the approval of over 1,000 homes and associated development amenities as well as over 200 acres of preservation that were directly connected to a perennial stream and a large county preserve.

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## **ENVIRONMENTAL PERMIT COMPLIANCE**

### **Project Coordinator – Environmental Permit Compliance, Polk County, Florida**

Worked closely with the client and project hydrologists in negotiating a Corrective Action Plan that was acceptable to the SWFWMD. The project involved unauthorized impact to several wetlands and excavation of a creek that was undertaken by a lessee during the application review of a large Water Use Permit (WUP). The project resulted in a solution that allowed the client to proceed with the WUP without a referral to the legal department.

## **PEER-REVIEWED, PUBLISHED PAPERS**

- Guzy, J.C., E.D. McCoy, A.C. Deyle, S.M. Gonzalez, N. Halstead and H.R. Mushinsky, 2012. Urbanization interferes with the use of amphibians as indicators of ecological integrity of wetlands. *Journal of Applied Ecology* Volume 49, Issue 4, pages 941-952, August 2012.
- Durbin, D., S. Gonzalez, K. Robbins, N. Halstead, H.R. Mushinsky and E.D. McCoy. 2008. *Wildlife Habitat and Wildlife Utilization of Phosphate-Mined Lands*, Florida Institute of Phosphate Research, 98pp.
- Godley, J. S., S. M. Gonzalez, and M. C. Gonzalez. 2008. *Stilosoma extenuatum* (short-tailed snake). Diet and predation. *Herpetological Review* 39:473–474.
- Walton, L.M., S.M. Gonzalez and K.R. Campbell. 2004. *Organochlorine Pesticide Levels in Wading Birds Eggs: Lake Apopka North Shore Restoration Area Project, 2002 - 2004*. Prepared for the Natural Resources Conservation Service, Gainesville, Florida.
- Mushinsky, H.R., E.D. McCoy and S. Gonzalez. 2004. *Measuring Wetland Health: Comparing Vegetation and Anurans as Indicators*. Southwest Florida Water Management District. 55pp.