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FIFTY YEARS OF SERVICE TO FLORIDA'S PEOPLE AND NATURAL RESOURCES

The Fish and Wildlife Research Institute (FWRI) is a part of the Florida Fish and Wildlife Conservation Commission (FWC). Our statewide research programs focus on obtaining the data and information that managers of fish, wildlife, and ecosystem resources need to sustain Florida's precious natural resources. Our scientific activities rely heavily on many collaborative partnerships with other government, academic, non-profit, and private fish and wildlife research institutions. Most of the programs at FWRI are funded from user fees—such as hunting and fishing licenses—specialty license plates, or grants.

On July 1, 2004, the Florida Legislature established the Fish and Wildlife Research Institute as part of an agency-wide reorganization of the FWC. The Legislature and FWC stakeholders recognized the importance of integrating statewide fish and wildlife research to provide timely science-based information to managers of Florida's natural resources. The new FWRI integrates the research and support staffs of the FWC's Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute (FMRI). In addition to this integration of research staff, FWRI has established new focus areas in spatial analysis, biostatistics and modeling, wildlife forensics, and socioeconomic research.

FWRI is organized into five broad, interrelated science sections: Marine Fisheries Research, Freshwater Fisheries Research, Ecosystem Assessment and Restoration, Wildlife Research, and Information Science and Management. The principal liaison between the institute and the public is our Outreach Coordination office. Altogether, nearly 530 staff members—approximately half of them working at the downtown St. Petersburg headquarters and half operating from field laboratories at key inland and coastal locations statewide—make up FWRI. An annual operating budget of approximately \$42 million supports about 300 research projects.

Although FWRI is new, the elements that form the institute have been generating quality science in support of wise resource management for 50 years. Originally founded by the University of Florida in 1955, the Florida Marine Research Institute began as a field station that studied the red tides that plagued Florida's west coast. The Division of Wildlife's research-oriented beginnings date from the late 1940s, when federal funding under the Pitman-Robertson Act facilitated hiring biologists to work on wildlife restoration projects and to establish wildlife management areas. The Division of Freshwater Fisheries hired its first fishery biologist in 1946 using funds based entirely on fishing license sales.

VISIT FWRI'S AWARD-WINNING WEB SITE

The FWRI Web site is the authoritative source of information about fish and wildlife science in Florida. Online searchable databases, digital versions of publications and brochures, and up-to-date articles on current research projects help keep researchers, resource managers, and the public informed about current research, science issues, and various conservation stewardship programs.



<http://research.MyFWC.com>

ON THE COVER

Background—Fish and Wildlife Research Institute headquarters, St. Petersburg.

Insets—Nassau grouper, *Epinephelus striatus*; Florida panther, *Puma concolor coryi*; American alligator, *Alligator mississippiensis*; Largemouth bass, *Micropterus salmoides floridanus*.

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION FISH AND WILDLIFE RESEARCH INSTITUTE

100 Eighth Avenue SE
St. Petersburg, FL 33701-5020

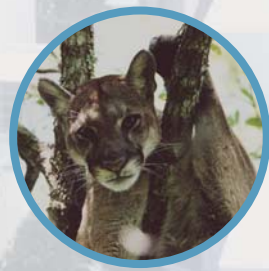
Telephone (727) 896-8626 Fax (727) 823-0166

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The Florida Fish and Wildlife Conservation Commission is an equal opportunity agency, offering all persons the benefits of participating in each of its programs and competing in all areas of employment regardless of race, color, religion, sex, national origin, age, handicap, or other non-merit factors.

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

FISH AND WILDLIFE RESEARCH INSTITUTE



Through effective research and technical knowledge, we provide timely information and guidance to protect, conserve, and manage Florida's fish and wildlife resources.

MARINE FISHERIES RESEARCH

Marine fisheries research focuses on recreational and commercial marine fisheries species. State and federal fisheries agencies use the information and assessments this research group generates to manage fishing activities and to gauge the health of Florida's coastal waters. To this end, teams of biologists conduct netting operations throughout Florida to monitor the abundance and distribution of important



Common Snook in Mangrove Bed

fisheries species. Other work groups gather and analyze commercial and recreational harvest statistics, conduct studies on species supporting significant fisheries, and develop techniques to restore depleted populations of species such as scallops and



Bay Scallop in Seagrass Bed

queen conch. Our fish hatchery produces redfish for release into marine waters, and hatchery researchers evaluate the survival of the released redfish and their potential for improving long-term fishing opportunities. Marine fisheries statisticians integrate biological and harvest information to assess the current health and predict the future status of Florida's marine fisheries stocks.



Spiny Lobster

FRESHWATER FISHERIES RESEARCH

Freshwater fisheries biologists collect and analyze freshwater fish and invertebrate species from Florida lakes, fish management areas, rivers, and streams. Research effort focuses primarily on recreationally and commercially important freshwater fish, including largemouth bass, bream, crappie, striped bass, and catfish. Our biologists provide information about the life history, biology, age structure, and stock abundance of these fish. In addition, researchers provide data about each fishery's response to regulations, market pressures, and new types of fishing gear. FWC uses synthesized recreational and commercial freshwater fisheries harvest data and species-specific life history and population data to make management decisions or to assess the effects of decisions made by others.



Gulf Striped Bass

ECOSYSTEM ASSESSMENT AND RESTORATION

Our habitat and ecosystem research provides information used to make decisions about preserving, managing, and restoring habitats including seagrasses, coral reefs, lake and stream vegetation, and forests and other upland areas. We also focus on assessing diseases and naturally occurring toxic



Florida Coral Reef

compounds, such as those produced by Florida red tides, that affect our natural resources. Our forensics unit trains scientists and law enforcement officers to meet the legal standards for using such scientific techniques as DNA analysis and electron microscopy to identify fish and wildlife or their remains.

WILDLIFE RESEARCH

FWRI's wildlife researchers collect and provide information related to population status, habitat requirements, life history, and recovery needs of upland, aquatic, and marine species. Wildlife research at FWRI reflects the diversity of Florida's fauna. Our studies of birds include several waterfowl species, wood storks, grasshopper sparrows, and snail kites. Wildlife researchers study reptiles and amphibians such as alligators, flatwoods salamanders, and gopher tortoises. Our biologists, with the aid of an extensive volunteer network, study sea turtles that nest on Florida beaches. A terrestrial mammals work group monitors and conducts research on black bears, deer, bridge bats, beach mice, and imperiled species. For decades, the FWC has been working to restore populations of three endangered mammals: the Florida panther, the Florida manatee, and the North Atlantic right whale. Research associated with restoration efforts focuses on threats to the survival of these unique animals.



Florida Scrub Jay



Florida Manatee

INFORMATION SCIENCE AND MANAGEMENT

Researchers in this group address complex issues by synthesizing ecological, habitat, and socioeconomic information using advanced techniques such as Geographic Information Systems (GIS). Spatial models are used to describe landscape-scale distribution patterns of fish and wildlife species and to identify lands and waters that are priorities for biodiversity conservation. In addition to performing research activities, our database experts focus on providing all users consistent access to FWRI data. Scientific editors, biostatisticians, and research librarians provide additional support for FWRI scientists.



3-D Map of Boca Grande Pass

OUTREACH COORDINATION

Our outreach staff members develop educational and outreach programs for classroom educators, civic organizations, and the public. They respond to citizen requests for information and publications; give information to various news media; and represent the institute at environmental events, science fairs, boating and fishing shows, and the Florida State Fair. They also help maintain our Web site and manage outreach events, such as MarineQuest in St. Petersburg.



Students Attending MarineQuest