



2017-2018 ANNUAL REPORT





**The Honorable Kay Ivey
Governor of Alabama
State Capitol
Montgomery, AL 36130**



Dear Governor Ivey:

I am pleased to submit the Department of Conservation and Natural Resources' Annual Report for the fiscal year ending September 30, 2018.

The Department continues to find new ways to serve the public while making sure we are adhering to our mission of promoting the wise stewardship and enjoyment of Alabama's natural resources for current and future generations.

Twelve Alabama State Parks were awarded Trip Advisor's Award of Excellence certificates in Fiscal Year 2018. Seven parks were inducted into the Hall of Fame for five consecutive years of winning Awards of Excellence. These designations are based on unsolicited visitor reviews and show how much the public enjoys what our parks have to offer.

In 2018, the Snapper Check Program was certified by NOAA Fisheries as a statistically valid method to estimate Alabama red snapper landings. Alabama is using Snapper Check to monitor red snapper landings in near real-time to stay within a state quota issued through a NOAA Fisheries' Exempted Fishing Permit (EFP). The EFP will continue through 2019.

The State Lands Division continued to coordinate administrative and technical aspects of the Deepwater Horizon Oil Spill Natural Resource Damage Assessment (NRDA) pursuant to the Oil Pollution Act. This included participating in NRDA Trustee Council meetings, conducting public meetings, soliciting public input regarding potential restoration ideas, assisting with development of draft restoration plans and implementing early restoration projects.

The Wildlife and Freshwater Fisheries Division implemented an Adult Mentored Hunting Program last year. A total of 71 new hunters participated in 13 adult mentored hunting workshops. Programs like this build on our already-established youth hunting programs with a goal of creating more hunters who will purchase the licenses that provide so much of the Department's revenue.

These are just a few of the accomplishments you will find in this report. Thank you for your support and leadership to our agency and the State of Alabama.

Sincerely,

A handwritten signature in black ink that reads "Christopher M. Blankenship". The signature is fluid and cursive, with the first name being the most prominent.

Christopher M. Blankenship
Commissioner



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DEPARTMENT OVERVIEW



The Department of Conservation and Natural Resources is an executive and administrative Department of the State of Alabama created by statute. The Commissioner, appointed by the Governor as a member of her cabinet, advises the Governor and Legislature on management of freshwater fish, wildlife, marine resources, state lands, state parks, and other natural resources.

Scope of Operations

The Department's scope of operations includes the administration, management and maintenance of 21 state parks, 23 public fishing lakes, three freshwater fish hatcheries, one aquatic biodiversity center, 162 public boat ramps, 30 wildlife management areas, 6 special opportunity areas, 12 shooting ranges, a saltwater mariculture center, and 645,000 acres of trust lands managed for the benefit of several state agencies, the General Fund and Alabama Trust Fund. Other departmental functions include maintenance of a State Land Resource Information Center and administration of the Forever Wild Land Trust program.

Organization

During Fiscal Year 2018, the Department had four operational divisions and seven support sections. The operational divisions were Marine Resources, State Lands, State Parks and Wildlife and Freshwater Fisheries. Support sections were Accounting, Engineering, Information and Education, Information Technology, Legal, Personnel and Payroll, Property Inventory, and Deepwater Horizon Oil Spill Restoration. The Commissioner was advised by a 13-member Conservation Advisory Board.

Division directors managed the Department's programs under their jurisdiction through authority delegated by the Legislature and the Commissioner. Concerted efforts were made to balance needs and requirements against resources and available funding to satisfy present and future public and resource requirements. Active public education and voluntary participation programs were expanded and new plans were implemented to achieve maximum multiple-use benefits consistent with resource conservation.

Department Goals

The Department's major goal is to promote the statewide stewardship and enjoyment of Alabama's natural resources

and to ensure that future generations will be able to enjoy these resources.

Funding

Funding for the Department is generated through special revenues, which include federal money, cigarette taxes, user and license fees, mandated interest from endowment and federal regulations. The Forever Wild Program received interest income from the Alabama Trust Fund. Specific revenue sources for the four operational divisions are as follows:

Marine Resources: Saltwater fishing licenses, fines, marine gas tax and federal grants. Marine Resources also has an endowment, but it has not grown enough to enhance operations.

State Lands: Management fees from the sale of timber, minerals and various leases on state lands administered under the Lands Asset Management Program. Further, the division receives additional federal grants that support specific programs.

State Parks: User-generated funds in the form of entrance, rental, lodging, golf and other recreational fees. State Parks received a modest amount of funding from cigarette tax revenue.

Wildlife and Freshwater Fisheries: Fishing and hunting licenses and permits; fines; waterfowl stamps; federal allocations from excise taxes on sporting arms, ammunition, archery gear and some fishing tackle; and federal grants. Interest income continues to be generated by the Game and Fish endowment fund for resident lifetime hunting and fishing licenses. Direct donations and voluntary state income tax refund check-offs for the Nongame Wildlife Program continue to decrease from previous fiscal years.

CONSERVATION ADVISORY BOARD

The Conservation Advisory Board, created by statute, is composed of 10 members appointed by the Governor for alternating terms of six years and three ex-officio members in the persons of the Governor, the Commissioner of Agriculture and Industries, and the Director of the Alabama Cooperative Extension System. The Commissioner of Conservation and Natural Resources serves as the ex-officio secretary of the Board.

The Advisory Board assists in formulating policies for the Department of Conservation, examines all rules and regulations and makes recommendations for their change or amendment. By a two-thirds vote of the members present and with the

Governor's approval, the Board can amend, make any changes, repeal or create and promulgate additional rules and regulations. The Board also assists in publicizing the Department's programs and activities.

Meetings

The Advisory Board met two times during FY 2018:

- March 3, 2018, at the State Capitol Auditorium in Montgomery, Ala.
- May 19, 2018, at the Alabama Fire College in Tuscaloosa, Ala.

Conservation Advisory Board Members as of Sept. 30, 2018

Members	Home Town	Term Expires
Joseph Dobbs, Jr., Chairman	Birmingham	March 28, 2021
Greg Barksdale	Hanceville	September 30, 2023
Brock Jones	Boligee	March 28, 2021
Patrick Cagle	Montgomery	March 28, 2021
Grady Hartzog	Eufaula	March 28, 2021
Raymond Jones, Jr.	Huntsville	May 9, 2019
Jeff Martin	Pell City	May 9, 2019
Ben C. Stimpson, Jr.	Mobile	September 30, 2023
Gary Wolfe	Fairhope	March 28, 2021
Tim Wood	Selma	September 30, 2023

Ex-officio Members

Kay Ivey, Governor, State of Alabama
 Gary Lemme, Director, Alabama Cooperative Extension System, Auburn University
 John McMillan, Commissioner, Alabama Department of Agriculture and Industries

Ex-officio Secretary of the Board

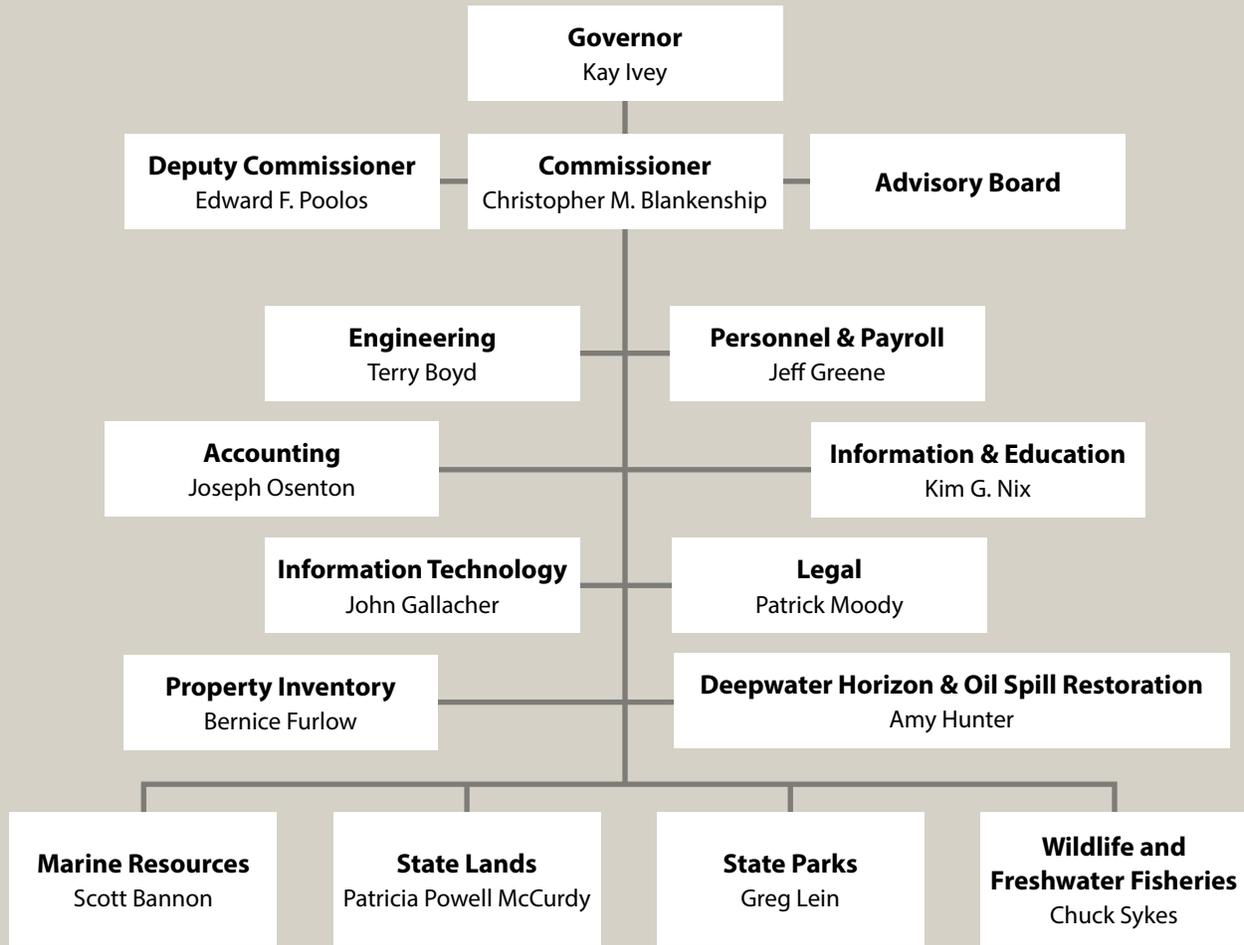
Christopher M. Blankenship, Commissioner, Alabama Department of Conservation and Natural Resources

BUDGET



	Total ACTUAL 2018	Total BUDGETED 2019	Total REQUESTED 2020
NUMBER OF EMPLOYEES	1,047	1,180	1,182
UNENCUMBERED CASH BALANCE FORWARD	39,968,197	46,574,887	25,611,027
Marine Resources - Gulf States Marine Fisheries Commission	534,030	565,000	559,000
Marine Resources - Commerce	822,950	691,000	2,725,500
Marine Resources - Interior	1,994,716	1,300,000	1,183,500
Game & Fish - Interior	28,364,764	23,850,000	21,250,000
Game & Fish - Misc	136,605	142,000	385,000
Lands - Commerce	2,259,106	10,375,000	4,424,825
Lands - Interior	0	1,000,000	1,000,000
Restore Act	0	146,201,479	132,190,997
Total Federal Funding	34,112,171	184,124,479	163,718,822
National Fish and Wildlife Foundation	8,421,073	4,800,000	11,724,000
Licenses and Permits	21,450,772	20,843,750	20,642,700
Land Management Fees	4,475,294	5,500,000	3,453,855
User Fees	36,907,160	37,012,662	39,869,030
Timber Sales	407,174	375,000	905,000
Fines	706,290	740,000	710,000
Trust Fund Interest (MR and WFF)	705,755	540,000	550,000
Other	4,900,086	6,722,800	6,130,100
Total Departmental Related Receipts	77,973,604	76,534,212	83,984,685
Cigarette Tax	2,618,662	3,000,000	3,000,000
Gasoline Tax	2,820,930	2,450,000	2,450,000
Use Tax Discount Cap	1,276,391	1,038,000	1,042,000
Sales Tax Discount Cap	5,000,000	5,000,000	8,000,000
GOMESA	21,422,091	34,600,000	35,600,000
Forever Wild Land Management	750,000	750,000	900,000
BP Oil Spill/NRDA Reimbursements	1,408,492	18,260,000	19,260,000
Rigs to Reef Donation	1,887,000	0	0
Total Other Receipts	37,183,566	65,098,000	70,252,000
Administrative Transfer	7,812,286	8,300,000	10,000,000
Actual All Receipts	157,081,627	334,056,691	327,955,507
BFY 2018-2020 Expenditures or Budgeted	150,474,937	355,020,554	350,935,921
Revenues versus Expenditures – Over (Under)	6,606,690	(20,963,863)	(22,980,414)
UNENCUMBERED CASH BALANCE	46,574,887	25,611,024	2,630,613
BFY 2018-2020 Expenditures/Budgeted	150,474,937	355,020,554	350,935,921
BFY 2018-2020 Federal Funding	34,112,171	184,124,479	163,718,822
BFY 2018-2020 State Funding	116,362,766	170,896,075	187,217,099

Department Organizational Chart as of September 30, 2018



FY 2018 Budgets and Expenditures for Administrative Division

Section	Budgeted Amount	Actual Expenditures	Over/(Under)
Accounting	2,047,788	1,980,007	(67,781)
Commissioner	682,401	558,942	(123,459)
Engineering	1,409,090	1,112,963	(296,127)
Information & Education	1,041,061	658,818	(382,243)
Information Technology	2,157,905	1,534,345	(623,560)
Legal	1,006,049	826,423	(179,626)
License	345,339	217,983	(127,356)
Payroll & Personnel	928,227	874,250	(53,977)
Property Inventory	159,173	203,452	44,279
Contingency	613,200		(613,200)
Totals	10,390,233	7,967,182	(2,423,051)

ADMINISTRATIVE DIVISION

ACCOUNTING

The Accounting Section is the central clearinghouse for all departmental financial data. Accounting maintains and records all receipts and disbursements for the Commissioner's office, staff sections and each of the four divisions. Accounting is responsible for six internal functions: Accounts Payable, Accounts Receivable, Budgeting, Procurement, Hunting and Fishing License Sales and Financial Reporting.

Accounts Payable reviews and approves all payment transactions and transfer journal entries for the Department. Over 20,000 transactions are processed on an annual basis.

Accounts Receivable reviews and approves all cash receipts and investment transactions for the department. Over 12,000 transactions are processed on an annual basis.

The Budgeting office prepares and submits the annual budget. It also processes budget modifications as required during the year. The Department expenses for FY2018 were approximately \$150.5 million.

Procurement provides purchasing assistance to each administrative section and to all divisions. This office is the liaison between DCNR and State Purchasing.

The Hunting and Fishing License Sales office is responsible for receiving revenues from license sales and certifying them into the Wildlife and Freshwater Fisheries and Marine Resources funds.

Financial Reporting processes Comprehensive Annual Financial Report entries, closing entries, reports on grants, calculates federal draws and maintains grant budgets for the Department.

INFORMATION AND EDUCATION

The Information and Education Section (I&E) provides a variety of creative services for the department. These include news releases, publication design, graphic design, web and special video productions, photography, email blasts and a weekly outdoors column sent to media and published on the Department's website. Personnel included five full-time positions.

In addition, I&E provided marketing and publishing consultation as well as editorial, proofreading and copywriting service for departmental staff; responded to information requests from the public, media and other agencies; and coordinated special projects.

Accomplishments

- Partnered with the Alabama Bicentennial Commission and the Alabama Tourism Department on the Outdoor Alabama Photo Contest. Coordinated a traveling exhibit of the winning photos in locations such as state parks, museums and libraries.
- Ninety-eight press releases were written in support of Department programs.
- Oversaw an email communications network of more than 750,000 people. Emails distributed included e-newsletters, hunting and fishing license expiration reminders, program notifications and more.
- Designed promotional materials including brochures, flyers, banners, posters, t-shirts and other marketing materials for State Parks promotions, Game Check, Forever Wild and other Department programs.
- Operated the department's official social media platforms on Facebook, Twitter, YouTube and Instagram.
- Created and maintained web content for outdooralabama.com and alabamaforeverwild.com.
- Served as liaison with website contractor to provide administrative and troubleshooting services for Department websites.
- Worked with WFF Law Enforcement Section to shoot video and take still photographs of daily operations and special projects so that current visuals are available for use in videos, printed materials, social media and the website.
- Designed publications such as the Marine Resources Tide Calendar, WFF's Full Fans and Sharp Spurs Turkey Report and the ADCNR Annual Report.
- Assisted divisions with several Facebook live productions.
- Produced videos on Game Check, Conservation Enforcement Officers, Chronic Wasting Disease and Red Snapper Management.
- Designed wraps for law enforcement and hunter education trailers.
- Created public surveys and produced reports on the results using the Qualtrics survey platform.

INFORMATION TECHNOLOGY

The Information Technology Section provides computer hardware, software and networking services for the Department.

Hardware services include setup and installation of computers and mobile devices, management of Department servers, and installation and support for printers, monitors, copiers and scanners.

Software services include web-based application development and maintenance, analysis, design and support for the department's E-Gov applications, support for all mainframe applications, and support and maintenance of department websites.

Networking services include support for all wired, wireless, and cellular technologies used throughout the department. IT support is also provided for email through a Microsoft Office365 Enterprise Agreement.

Facilities and Personnel

The staff of 12 includes an IT Manager, Account Clerk, Programmer Analysts, Systems Specialists, Technicians and two contractor-filled positions. There are seven vacant positions in IT.

Accomplishments

- Information Technology provided consultation, analysis and design, project management, database management and technical service and support for many Department projects. Major projects included the Game Check phone app that recorded over 84,000 deer harvested in the first season.
- Developed a new accounting system including a distribution of payment processing and automation of payment distributions that replaces an antiquated system of manual payment processing.
- Commercial and recreational license management.
- Streamlined public hunts registration by developing an all-encompassing system for the public to register; also provided administrative selection and reporting by Department personnel.
- Maintained hunter education class registration and reporting.
- Developed Game Breeders application that manages deer.
- Continued Department website management.

LEGAL SECTION

The Legal Section provides legal counsel and advice to the Department Commissioner, Deputy Commissioner, Division Directors, law enforcement personnel and other employees in the Department through meetings and advisory memoranda.

The Legal Section also performs all necessary legal work relating to the acquisitions of real estate for the Department, including

the procurement of title evidence (title insurance, title opinion, title research), preparation of deeds, issuance of Attorney General Title Opinions, closing acquisitions, recording deeds and obtaining the final title policies/opinions, tax assessments and payment of taxes due.

The section also handles departmental contracts and legal instruments of all types, including, but not limited to, oil and gas leases; real estate leases; personal services agreements; construction contracts; engineering contracts; easements; lease purchase agreements; State Park concession contracts; and any other documents as required.

The Legal Section corresponds, meets with and advises members of the Governor's Office, with the Alabama Legislature and other state attorneys as well as the public on matters of legal, legislative or regulatory interest related to the Department or in areas of governmental expertise.

The Section drafts, reviews and monitors legislation affecting the Department as well as drafting department rules and regulations, making sure they are compliant with the Alabama Administrative Procedures Act.

Litigation against DCNR and its employees, as well as litigation initiated by the Department, is also managed by the Legal Section. This includes both state and federal courts, appellate courts, state agencies and state Boards (i.e., Board of Adjustment and State Personnel Department). Litigation includes oral arguments, preparation of pleadings and briefs, and negotiation of legal conflicts.

PERSONNEL AND PAYROLL

The Personnel and Payroll Section provides personnel-related support services to the Commissioner's office, Division Directors, Section Chiefs, and each employee of the Department. The section serves as liaison to the State Personnel Department for DCNR's personnel actions and activities.

The Section is responsible for processing all payrolls, as well as maintaining all employee files and payroll records, for the Department's hourly and semi-monthly personnel.

The Section supports the advancement of DCNR's employees in various ways, including facilitating training opportunities and assisting with the administration of benefits.

ENGINEERING SECTION

The Engineering Section provides professional planning and programming, engineering, architectural, landscape architectural, surveying, cartographic and related administrative services to the divisions of the Department. The section's professional staff of engineers, architect, landscape architect and land surveyors ensures that solutions to conservation planning and programming, design and construction problems and the development

of departmental projects are integrated with ecologically functional and aesthetic aspects within the confines of economic feasibility.

Facilities and Personnel

The Engineering Section had 11 employees during FY 2017-2018: one Conservation Engineering Services Chief, one Registered Graduate Engineer, one Conservation Construction Inspector II, one Design Technician, one Design Technician Supervisor, one Legal Research Assistant, one Design Assistant, one Plant Maintenance Supervisor III, one part-time Conservation Construction Inspector I, and two Retired State Employees. The section's facilities are in Montgomery.

Accomplishments

The Engineering Section continued to provide on-site professional and technical support in the rebuilding of property and structures damaged or destroyed by storms. The Engineering Section coordinated with the Federal Emergency Management Agency and governmental agencies to assist with project documentation, repairs and reporting of multiple declared disasters in Alabama counties. They continue to work with the Alabama Emergency Management Agency and FEMA to recover an approximately \$941,180 associated with the damages sustained in April and May 2011 tornadoes as well as current severe weather disasters. Multiple disasters such as hurricanes Harvey, Maria, Matthew and Michael have delayed the attention needed to address 2011 FEMA reimbursement funding.

The Engineering Section administered approximately \$12 million in contracts both initiated and coordinated in fiscal year 2017-2018. Engineering Section programs consist of providing the necessary professional expertise required to reach Department goals. These programs include capital and improvement, using both out-sources and in-house design and in-house construction, master planning and site planning for Department facilities. Assistance is also provided in the areas of construction document preparation, project status and other reports, feasibility studies, advisement on proper repair and operation manuals, technical field assistance, emergency project involvement, dam inspections, specification writing for material and equipment purchases, field maintenance and training assistance.

Engineering was also involved with surveying assistance and technical advice on construction projects, boundaries and property corners for State Parks, delineation and location of oyster reefs, public access areas, Wildlife Management Areas, public lakes and other State-managed property. Approximately 30 percent of Engineering Section time was spent on technical assistance of a general nature involving various Department activities requiring engineering input.

The section continued to provide environmental-based assistance to all of the State Parks. This includes serving as a liaison with the Alabama Department of Environmental Management and other environmental organizations, testing and reporting and obtaining permits. The section organized and oversaw the

acquisition of a wastewater treatment company to operate, run, and maintain treatment facilities at Lake Guntersville, Cheaha, Wind Creek and Lakepoint State Parks.

The Engineering Section continues to assist the Commissioner's office and the divisions in the advertising for and selection of private architectural/engineering firms to prepare documents for the renovation, additions and other structures at DCNR facilities. The section remains as a coordinating liaison between the Department of Conservation and these private firms to communicate the needs of the Department and to ensure their inclusion into the completed plans.

PROPERTY INVENTORY

The Property Inventory Section is responsible for tracking all new assets acquired by the Department as well as the disposal of all assets once they have reached their end of service. This includes assuring that all new property is barcoded and entered into the State Inventory Database as well as tracked throughout its lifetime within the Department.

The Property Inventory Section is also responsible for coordinating and implementing the Department's yearly internal inventory of property as well as the bi-annual audit by the State Auditor's office.



DEEPWATER HORIZON OIL SPILL RESTORATION

In August 2018 the Deepwater Horizon Oil Spill Restoration Section (DWHRS) was created in the Administrative Section. The purpose of the new coordinator position and this new section is to coordinate all DWH related activities.

The DWHRS coordinates administrative and technical aspects of the Deepwater Horizon Oil Spill Natural Resource Damage Assessment (NRDA) pursuant to the Oil Pollution Act.

Specific activities included participating in NRDA Trustee Council meetings, participation in Trustee Implementation Groups, conducting public meetings related to NRDA activities, solicitation of public input regarding potential restoration ideas, assisting with development of draft restoration plans and implementation of early restoration projects, and representing the interests of the natural resource trustees and the Governor's office.

The DWHRS assists the Commissioner related to his service as the governor's designee to the Gulf Coast Ecosystem Restoration Council established pursuant to the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act), which directs 80% of Clean Water Act civil penalties resulting from the Deepwater Horizon Oil Spill for restoration projects within the five Gulf states.

The DWHRS also provides administrative support to the Alabama Gulf Coast Recovery Council, which was established by the federal RESTORE Act to oversee certain funds allocated directly to the State of Alabama.

In addition, the DWHRS staff assists the Commissioner and coordinates with the Governor's office in relation to efforts by the National Fish and Wildlife Foundation (NFWF) to distribute grant proceeds for coastal restoration from the Gulf Environmental Benefit Fund. This fund resulted from two plea agreements entered in early 2013 resolving the criminal cases against BP and Transocean arising from the Deepwater Horizon Oil Spill.

Due to ecosystem and economic damages caused by the Deepwater Horizon Oil Spill of 2010, State Lands Division staff continued to partner with staff from other ADCNR Divisions and Governor Ivey's office as to coastal restoration efforts associated with the Natural Resources Damage Assessment (NRDA), the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE), and National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund (NFWF-GEBF).

Significant accomplishments in FY18 included:

- Adoption of NRDA Restoration Plan II identifying 23 projects valued at over \$35 million.
- Funding announcement for eight new projects under NFWF-GEBF valued at over \$48.7 million.
- Awarded \$2.1 million Commitment and Planning Support grant from the Gulf Coast Ecosystem Restoration Council (RESTORE-Federal Council) to support the State's efforts in collaborative planning for Gulf-wide restoration efforts.
- Hosted the inaugural Governor's Restoration Summit and released a comprehensive Deepwater Horizon Oil Spill 2018 Restoration Progress Report (available for download at https://www.alabamacoastalrestoration.org/Portals/0/Documents/ADCNR_Report_10-2018.pdf).
- Announced, as administrator for the Alabama Gulf Coast Recovery Council, the first draft Multiyear Expenditure Plan (MIP) and State Expenditure Plan (SEP) as required under the RESTORE Act. The two plans describe more than 40 projects valued at over \$315 million.
- An overview of restoration projects benefiting the State of Alabama, organized by funding stream, is provided below. Additional project details available at www.alabamacoastalrestoration.org.

NRDA Early Restoration Projects

- Marsh Island (Portersville Bay) Restoration Project - \$11,300,000
- Dune Restoration Project (Gulf Shores & Orange Beach) \$1,500,000
- Nesting Sea Turtles Habitat Improvement Project - \$345,000
- Avian Habitat Enhancement Project - \$279,000
- Gulf State Park Enhancement Project - \$85,500,000
- Alabama Oyster Cultch Restoration - \$3,400,000
- Alabama Swift Tract Living Shoreline Project - \$5,000,080
- Point aux Pines Living Shoreline Project - \$2,300,000
- Osprey Restoration in Coastal Alabama Project - \$45,000
- Bon Secour National Wildlife Refuge Trail Enhancement \$545,110

NRDA Restoration Plan I Projects

- Fort Morgan Pier Rehabilitation Project - \$3,075,000
- Laguna Cove Little Lagoon Natural Resource Protection Project - \$4,400,000

- Bayfront Park Restoration and Improvements Project - \$1,000,000
- Dauphin Island Eco-Tourism and Environment Education Area - \$4,000,000
- Mid-Island Parks and Public Beach Improvements Project - \$1,900,000

NRDA Restoration Plan II Projects

- Magnolia River Land Acquisition (Holmes Tract) - \$4,144,162
- Weeks Bay Land Acquisition East Gateway Tract - \$4,247,000
- Weeks Bay Land Acquisition Harrod Tract - \$3,606,900
- Lower Perdido Islands Restoration Phase I - \$994,523
- Southwestern Coffee Island Habitat Restoration Project- Phase I - \$825,225
- Little Lagoon Living Shorelines - \$210,999
- Restoring the Night Sky - \$399,658
- Toulmin Springs Branch E&D - \$479,090
- Fowl River Nutrient Reduction - \$1,000,000
- Weeks Bay Nutrient Reduction - \$2,000,000
- CAST Conservation (Share the Beach) Program - \$935,061
- CAST Triage - \$622,915
- CAST Habitat Usage and Population Dynamics - \$1,631,697
- CAST Protection: Enhancement and Education - \$906,874
- Enhancing Capacity for the Alabama Marine Mammal Stranding Network - \$2,432,389
- Alabama Estuarine Bottlenose Dolphin Protection: Enhancement and Education - \$686,374
- Assessment of Alabama Estuarine Bottlenose Dolphin Populations and Health - \$3,059,229
- Colonial Nesting Wading Bird Tracking and Habitat Use Assessment - \$1,547,500
- Oyster Cultch Relief and Reef Configuration - \$480,262
- Side-scan Mapping of Mobile Bay Relic Oyster Reefs - \$104,229
- Oyster Hatchery at Claude Petet Mariculture Center - \$2,949,472

- Oyster Grow Out Restoration Reef Placement - \$962,370

NFWF-GEBF Projects

- Restoration and Enhancement of Oyster Reefs - \$3,750,000
- D'Olive Watershed Restoration - \$12,700,000
- Fowl River Watershed Restoration - \$3,300,000
- Alabama Barrier Island Restoration Assessment - \$4,400,000
- Alabama Marine Mammal Conservation and Recovery Program - \$1,900,000
- Coastal Habitat Restoration Planning Initiative - \$4,200,000
- Enhanced Fisheries Monitoring in Alabama's Marine Waters - \$1,800,000
- Multifaceted Fisheries and Ecosystem Monitoring in Alabama's Marine Waters - \$2,200,000
- Grand Bay Acquisition - \$5,770,000
- Mobile Bay Shore Habitat Conservation and Acquisition Initiative, Phase I - \$286,000
- Mobile County Conservation Acquisition - \$4,260,000
- Alabama Artificial Reef and Habitat Enhancement - \$12,500,000
- Alabama Coastal Bird Stewardship Program - \$1,460,000
- Lightning Point Acquisition and Restoration Project, Phase I - \$5,900,000
- Dauphin Island Conservation Acquisition - \$3,560,000
- Fowl River Spits Restoration - \$1,100,000
- Bon Secour/Oyster Bay Acquisition - Gulf Shores - \$12,500,000
- Gulf Highlands Acquisition - Gulf Shores - \$36,000,000
- Enhanced Fisheries Monitoring in Alabama's Marine Waters, Phase III - \$4,400,000
- Little Dauphin Island Restoration Assessment - \$1,480,000
- Salt Aire Shoreline Restoration - \$12,700,000
- Mobile Bay Shore Habitat Conservation & Acquisition, Phase II - \$6,900,000
- Dauphin Island Bird Habitat Acquisition & Enhancement Program - \$4,500,000

- Bon Secour National Wildlife Refuge Acquisition - \$5,900,000
- Enhanced Fisheries Monitoring in Alabama's Marine Waters, Phase IV - \$2,800,000
- Alabama Artificial Reef and Habitat Enhancement, Phase II - \$22,499,000
- Lightning Point Acquisition and Restoration Project, Phase II - \$16,578,000
- Restoration of the North Side of Dauphin Island, Phase I - \$329,000
- Deer River Shoreline Stabilization, Phase I - \$750,000
- Bon Secour River Headwater Restoration, Phase I - \$1,528,000
- Bon Secour National Wildlife Refuge Acquisition, Phase II (Three Rivers) - \$4,423,000
- Dauphin Island Causeway Shoreline Restoration Engineering & Design - \$250,000

RESTORE - Direct Component Projects (Bucket 1)

- Alabama State Port Authority RO-RO Terminal - \$29,630,741
- Baldwin Beach Express I-10 to I-65 Ext. ROW Acquisition - \$11,678,481
- Dauphin Island Aloe Bay Harbour Town - \$17,412,013
- Historic Africatown Welcome Center - \$3,689,214
- Redevelop City Docks (City of Bayou La Batre) - \$21,658,840
- Mount Vernon Water Treatment Plant - \$1,545,000
- Mobile Greenway Initiative - \$9,991,000
- Northwest Satsuma Water and Sewer Project - \$1,813,521
- Innovating St. Louis St.: Mobile's Technology Corridor - \$6,062,065



- Bayou La Batre Water Distribution System Upgrades - \$5,465,180
- Mobile County Blueway Trail Development - \$8,240,000
- Gulf Shores Ambassadors of the Environment - \$10,040,701
- Baldwin County ALDOT Capacity Improvements - \$58,504,000
- Fairhope Working Waterfront and Greenspace Restoration - \$6,386,000
- Planning Grant for Amended MIP - \$300,000

RESTORE - Federal Council FPL Projects (Bucket 2)

- Coastal Alabama Comprehensive Watershed Planning Project - \$4,342,500
- Alabama Living Shoreline Restoration Program (Category 1 & 2) - \$6,250,000
- Comprehensive Living Shoreline Monitoring Program (Category 1 & 2) - \$4,000,000
- Submerged Aquatic Vegetation Restoration & Monitoring Program - \$875,000
- Marsh Restoration in Fish River, Weeks Bay, Oyster Bay, Meadows Tract (Category 1 & 2) - \$3,158,043
- Mobile Bay NEP Implementation of 3-Mile & 12-Mile Creek Restoration - \$100,000
- Upper Mobile Bay Beneficial Use Wetland Creation Site (Engineering/Design) - \$2,500,000
- Enhancing Opportunities for Beneficial Use of Dredged Sediments - \$3,000,000
- Alabama Commitment and Planning Support Grant - \$2,100,000

RESTORE - Spill Impact Component Proposed Projects (Bucket 3)

- Characterization and Delineation of Significant Sand Resource Areas Essential for Beach Restoration, Offshore Alabama - \$951,175
- Alabama Gulf Seafood Marketing Program - \$2,937,699
- Development of a Regional Strategic Plan for the Coastal Alabama Region - \$579,375
- Replacement of Substandard Facilities at the ADEM Coastal Office & Mobile Field Office - \$6,038,599
- Extension of Effluent Force Main from Bayou La Batre WWTF - \$16,068,000

- Three Mile Creek Watershed Restoration - \$12,081,900
- Aloe Bay/Mississippi Sound Water Quality Enhancement Project - \$11,845,000
- Dirt Road Paving (Sediment Reduction) Program - \$10,395,914
- Bayou La Batre Collection System/Lift Station Upgrades \$13,189,150
- Mobile Area Storm Water Mapping & Resiliency Planning - \$3,090,000
- Perch Creek Area Sanitary Sewer Trunk Line CIPP - \$3,665,048
- Implementing Storm Water Management Improvements for Toulmin Springs Branch and Gum Tree Branch - \$1,222,744
- One Mobile: Reconnecting People, Work and Play through Complete Streets - \$1,287,500
- City of Chickasaw Sewer Rehabilitation Project - \$1,339,000
- Longevity, Stability & Water Quality Improvements, Bon Secour DMDA - \$350,966
- Orange Beach North Sewer Force Main Upgrade - \$5,350,850
- Fairhope Sewer Upgrade Phase I - \$10,300,000
- Eastern Shore Sanitary Sewer Overflows (SSOs) Prevention Plan (Fairhope)- \$1,030,000
- Expansion of the Orange Beach Wildlife Rehabilitation and Education Center/Gulf Coast Wildlife Recovery and Interpretative Center: Feasibility, Planning and Preliminary Design - \$472,255
- Environmental Restoration of Cotton Bayou & Terry Cove - \$515,000
- Auburn University Gulf Coast Environment Research Station - \$9,270,000
- Lillian Park Beach Habitat and Shoreline Protection - \$645,254
- Fairhope Area Community-Based Comprehensive Land Use Plan - \$669,500
- Canal Road Improvements E. of SR161 - \$1,903,718
- Little Lagoon Restoration Project - \$6,175,557
- Fort Morgan Parkway Trail Extension - \$4,566,608
- Meaher Park Improvements - \$3,553,500
- Alabama Point Seawall Repair - \$2,562,640
- Planning Grant to Amend SEP - \$300,000

MARINE RESOURCES DIVISION



The mission of the **Marine Resources Division (MRD)** is to manage the State's marine fishery resources through research, enforcement, and education for the maximum benefit of the resources and the citizens of Alabama. The Division consists of enforcement, fisheries and administrative sections.

The **Enforcement Section** consists of 19 State Law Enforcement Officers primarily tasked with patrolling Alabama's shorelines, coastal waters and adjacent federal waters, and enforcing state and federal laws and regulations relating to the conservation and protection of marine resources. Officers also enforce boating safety, hunting and freshwater fishing laws and regulations. They cooperate extensively with other federal and state agencies in the coordination of cooperative enforcement operations, investigations, training, public safety, search and rescue and other natural resource issues.

The **Fisheries Section** is responsible for making recommendations regarding fishery-related matters to managers. To meet this responsibility, fisheries staff conduct a variety of monitoring programs to gather data for many species of fish and invertebrates. These programs are divided into fishery-dependent and fishery-independent programs. The section also works with other Gulf of Mexico state and federal agencies, as well as the public, to collect data through various projects to determine the status of State and Federal marine resources. It also oversees programs for oyster restoration, inshore and offshore artificial reef programs and the mariculture program

located at the Claude Petet Mariculture Center. The Enforcement and Fisheries sections participate in outreach programs throughout the year.

The **Administrative Section** handles accounting, billing, payroll, license sales and public inquiries. The Division is housed at two facilities, one on Dauphin Island and the other in Gulf Shores. The two Division facilities combined supported an average of 63 full-time employees, one part-time employee, and six temporary positions during the 2018 fiscal year. There were 78 full-time, one part-time, and 12 seasonal employees budgeted during the year.

Accomplishments and Activities

MRD biologists continue to monitor oyster densities on Alabama's public oyster reefs. From June 22, 2018 through October 3, 2018, a total of 450 SCUBA quadrat samples were collected and processed. Samples were collected from reefs that were planted with cultch (aggregate material used by larval oysters for attachment) between 2009 through 2016 and from non-planted reefs for comparison. Very low oyster densities were observed on all reefs surveyed along with the presence of oyster drills and evidence of drill predation. Analysis of collected data indicated oyster density on the public reefs was too low to open reefs to commercial harvest in the fall of 2018.

National Fish and Wildlife Foundation (NFWF) funded multiple projects. Offshore sampling was conducted for vertical line (101 events), bottom long-line (54 events) and trawl target stations (53 events) during the year. This work complements ongoing Southeast Area Monitoring and Assessment Program surveys. NFWF funded inshore baitfish surface trawl (310 events) sam-

pling was also completed. One hundred and forty wild-caught spotted seatrout were acoustically tagged as part of the NFWF project of acoustic monitoring of fish movements and mortality. Hydrophones are located throughout the Alabama estuarine system to assist in tracking acoustically tagged fish and will help document movements and habitat use.

Offshore and estuarine areas targeted within the NFWF project for side-scan imagery acquisition were completed. Offshore side-scanning activities included mapping bottoms adjacent to the vertical, bottom long-line, and trawl sampling stations. Estuarine side-scanning sonar activities focused on determining the extent and condition of artificial fishing reefs, natural structures and oyster reef habitats. Sonar images were used in pre-reef construction to assist staff with identifying areas to receive artificial reef material and in post-construction to verify targeted areas were satisfactorily enhanced.



MRD continued the operation and maintenance of five continuous water quality monitoring stations throughout Mobile Bay. General results indicate significant periods of anoxic conditions at depths greater than 8 feet, which has adverse effects on naturally occurring oyster production.

MRD biologists conducted eight observer trips on two commercial blue crab vessels working Portersville Bay and the Wolf / Perdido Bays between July 11, 2018 and December 5, 2018. A total of 500 of 516 crab traps fished were sampled and 2,534 individual blue crabs were sexed and measured. External parasites and abnormalities found on sampled crabs were documented and bycatch was recorded. A total of 161 crabs were randomly selected and retained during the eight trips. Selected crabs were kept on ice after each trip until they were measured, weighed, and examined to verify sexual maturity, the presence of internal/external parasites, and for other abnormalities.

Staff from the MRD and the Gulf States Marine Fisheries Commission (GSMFC) have collaborated to reinstate the Biological Sampling Program for the collection of otoliths from targeted marine finfish. The program was temporarily suspended by the GSMFC due to funding shortfalls. The program was re-implemented on September 1, 2018, and will continue for 18 months. During this period, biological data from the program including length and age information from individual fish species will be entered into a database provided by the GSMFC.

During the FY18 reporting period, a total of 2,961 saltwater recreational fishing trips were sampled as part of a subaward with the National Marine Fisheries Service per an agreement with the Gulf States Marine Fisheries Commission. Samplers received training and were tested on fish identification and received training on proper survey techniques. MRD continued an at-sea observer program funded by NFWF. The program consists of a sampler riding on a volunteer federally permitted for-hire vessel operating out of Mobile or Baldwin counties to monitor fishing activities and collect biological data on targeted reef fish. From January through September 2018, four trips were completed from a total of 11 scheduled trips. The number of trips was lower than expected due to weather, staffing issues and decreased participation from for-hire vessels during red snapper season.

The mandatory reporting requirement for captains of recreational vessels landing red snapper in Alabama continued for the fifth year. During the 2018 red snapper season, 8,935

landings reports were submitted by representatives from charter boats, headboats and private fishing vessels through the Snapper Check Program. Approximately 1.80 million pounds of red snapper were estimated to have been landed in Alabama during 2018. In 2018, the Snapper Check Program was certified by NOAA Fisheries as a statistically valid method to estimate Alabama red snapper landings. Alabama is using Snapper Check to monitor red snapper landings in near real-time to stay within a state quota issued through a NOAA Fisheries' Exempted Fishing Permit (EFP). The EFP will continue through 2019.

AMRD's Claude Petet Mariculture Center (CPMC) continued stock enhancement efforts of red drum, Florida pompano, and Southern flounder. Photoperiod and water temperatures were manipulated to induce multiple spawning events for red drum and Florida pompano. Over 438,000 1- to 2-inch red drum fingerlings were released at sites throughout coastal Alabama. More than 33,000 1- to 2-inch Florida pompano fingerlings were released at locations along Baldwin County beaches. Modifications to existing larval rearing systems are being implemented to accommodate Southern flounder hatchery activities. Funding for these modifications has been provided, in part, by the Alabama chapter of the Coastal Conservation Association. Initial flounder spawning activities are anticipated during early 2020.

MRD continued artificial reefing activities to enhance habitats and increase recreational fishing opportunities for coastal saltwater anglers. A total of 311 public artificial reefs were either created or enhanced during FY18; 230 private artificial reefs were permitted for deployment in the offshore artificial reef permit zones.

The renovation of the public boat launch at Fort Morgan was completed in June 2018. The previous launch, consisting of two single-lane ramps and a 60-foot-long finger pier, was removed during renovation activities. The new launch is comprised of two double-lane ramps, steel bulkhead, and three 75-foot-long finger piers. The expanded launching facilities were needed to accommodate high vessel traffic at this popular launch location.

MRD is working with DCNR Engineering Section staff, the Alabama Historical Commission, and Volkert, Inc. to develop construction plans to replace a condemned fishing pier located at the site of historical Fort Morgan in Baldwin County. The pier, constructed in the late 1960s, was closed several years ago due to public safety concerns relating to the condition of the structure.

The new pier will be constructed in the footprint of the existing pier and construction is expected to begin in 2019.

In the Nearshore zone, out to 9 miles, MRD completed deployment of reef material in six of seven new nearshore reef zones. This expansion will provide approximately 30 square miles of reef zone that will promote reef fish and coastal pelagic fishing as well as provide juvenile fish habitat. This first-ever opportunity will allow MRD to make decisions on future reef-building projects that maximize the funding, fishing opportunities and reef fish production.

MRD completed the deployment of material in three circalittoral reef zones. These are areas within swimming distance of public beach sections of the Gulf State Park. The reefs are designed to promote habitat development and allow the public to have access through snorkeling.

In the offshore reef zone, MRD deployed two cleaned ships. The New Venture is a 250- by 56-foot, multi-level former surveying and cable laying vessel that has a variety of compartments within numerous decks that provide a considerable amount of complexity for a diverse finfish and crustacean community assemblage and allow dive opportunities. It was deployed approximately 20 miles south of Orange Beach in 120 feet of water with the top of the ship remaining near 60 feet. The Gladys B, a 102- by 28-foot tug boat built in 1937, was deployed 24 miles south of Ft. Morgan. Additional offshore deployments included 120 concrete reef modules with 25 feet of vertical relief and 250 concrete pipes, culverts, and manholes.

Alabama continued a seafood promotional campaign under the direction of the Alabama Seafood Marketing Commission. The Alabama Seafood Marketing Program consists of public relations, television commercials, print ads and articles, radio ads, billboards, speaking appearances, distribution of marketing materials, sponsorships of events and participation at community festivals and chef events. The website eatalabamaseafood.com was developed and has received rave reviews from the public.

ENFORCEMENT SECTION

From October 1, 2017, to September 30, 2018, MRD enforcement officers conducted 2,945 commercial fishermen intercepts, 23,835 recreational fishermen intercepts, 15,191 patrol hours, and 7,553 vessel boardings.

MRD officers continue to participate in joint investigations with NOAA/OLE regarding Gulf reef fish. Additionally, they are conducting joint patrols with the uniformed NOAA Enforcement Officer.

MRD Enforcement entered into the 17th Joint Enforcement Agreement with NOAA/OLE. The JEA provides equipment and funding for officers to enforce federal laws and regulations. The most recent contract included funding for patrol vehicles, outboard engines, and repairs to vessels. Additionally, it provided funding for underway and dockside patrols for priorities such as red snapper and turtle excluder devices.

The Enforcement section is actively involved in the Southern District of Alabama Environmental Crimes Task Force. This partnership has allowed multiple agencies to provide a wide range of skill sets and manpower to enforce state and federal laws. The section also participates in the South Alabama Regional Search and Rescue group to provide regional search and rescue. During FY 2018, officers worked closely with other state law enforcement agencies in a variety of activities including the apprehension and prosecution of persons in multiple federal fisheries cases covering several states.

Future Issues

The federal management of red snapper and other reef fish continues to be a highly volatile issue within the fishing community. 2019 begins the second year of a two year Exempted Fishing Permit (EFP) granted by the National Marine Fisheries Service since most occur in federal waters.

The 2019 Federal red snapper season for anglers fishing from both private fishing vessels and state licensed charter boats is set to be open for 27 days. The weekends season (Fri-Sun) will start on June 1, 2019, and remain open until July 28, 2019, or until the Total Allowable Catch (TAC) is met. The season will also include Thursday, July 4. The TAC for 2019 is set at 1,079,573 pounds. MRD has authority to adjust the season to ensure the maximum benefit of the season is utilized without exceeding the TAC.

There are many proposals and ideas to improve the management of red snapper to allow for increased harvest and an increased season length for this recovering species. One of the initiatives is for the federal government to cede management of red snapper to the individual states or regions made up of a combination of states. Other initiatives call for increased data collection and a reexamination of the red snapper stock through an improved stock assessment process using the additional data. In 2019, MRD anticipates the approval of a permanent state management plan for red snapper which will allow the Gulf States to establish their own seasons. The TAC will continue to be provided by the federal government.

In 2019, funds have been provided to MRD for equipment and resources to enforce sea turtle and marine mammal laws and regulations, as well as, provide education to the public. Proposed equipment to enhance both enforcement and monitoring of sea turtles will include two side-by-side ATVs to monitor nesting sites and allow officers to patrol stretches of beach that are not easily accessible by boat or patrol vehicle. Along with the two ATVs, two remotely stationed cameras will be added. These cameras will tie into MRD's existing Coastal Remote Monitoring System, which allows access to the 18 cameras that are in operation around Mobile Bay.

MRD Enforcement was awarded a Port Security Grant from FEMA and the Dept. of Homeland Security. This grant will allow MRD to add three additional cameras to the existing system and upgrade five of the existing camera locations. The system has been operating for nearly ten years and has proven to be a significant asset that has aided in enforcement activities as well as Search and Rescue. The system has also been used to chronic

storm damage and in multiple cases, uncontrolled wildfires. The Remote Monitoring system is a force multiplier allowing officers to check many locations from their vehicles.

The health and production of Alabama’s public oyster reefs continue to be a significant concern for MRD and is exemplified by the lack of a harvest season during the fall of 2018. MRD has obtained funding for the construction of an Eastern oyster hatchery and remote larval setting facilities. These facilities will be used to assist recovery and rehabilitation efforts by producing larval oysters to stock on Alabama’s reefs and to supplement natural production. Plans are currently in development with construction anticipated to begin in 2019.

Phase two of the NFWF artificial reef funding will begin to be spent through the development of monitoring programs and the surveying and permitting of a new offshore artificial reef permit area. Deployments will be made in the final nearshore zone which will promote juvenile reef fish habitat.

MRD will continue to work with other state and federal agencies in the assessment, monitoring, and rehabilitation efforts needed in response to the Deepwater Horizon oil spill. The Fisheries Section will work closely with the NRDA process to implement fisheries assessment and monitoring plans.

Marine Resources Project Summary

Public Artificial Reefs	311 Reefs Constructed/Enhanced
Marine Tide Calendars	75,000 Distributed
Snapper Check Reports	8,935 Landing Reports Submitted
Fisheries Assessment and Monitoring	408 Samples Taken and Analyzed
Adult Finfish Sampling Program	236 Net Sets Taken and Analyzed
Cooperative Statistics	616 Commercial Catch Samples Collected
Cooperative Statistics	263 Commercial Fishermen Interviewed
Commercial Trip Ticket	11,303 Commercial Fishing Trips Entered
Southeast Area Monitoring and Assessment	93 Offshore Sites Sampled
Marine Recreational Information Program	2,961 Recreational Fishing Trips Sampled
Estimated Hatchery Fish Released	33,418 Florida Pompano
Estimated Hatchery Fish Released	438,681 Red Drum

Marine Resources 2018 Budget

BUDGETED ITEM	BUDGET	EXPENDITURES
PERSONNEL COSTS	\$3,282,889.00	\$2,771,767.67
EMPLOYEE BENEFITS	\$1,447,716.00	\$1,265,850.47
TRAVEL- IN-STATE	\$17,000.00	\$2,676.34
TRAVEL -OUT- OF-STATE	\$30,000.00	\$16,248.90
REPAIRS AND MAINTENANCE	\$170,000.00	\$136,288.53
RENTALS AND LEASES	\$60,000.00	\$24,421.26
UTILITIES AND COMMUNICATION	\$192,000.00	\$180,326.46
PROFESSIONAL SERVICES	\$3,101,000.00	\$1,842,430.56
SUPPLIES, MATERIALS & OPERATING EXPENSES	\$502,000.00	\$456,153.01
TRANSPORTATION EQUIPMENT OPERATIONS	\$404,936.00	\$294,446.97
GRANTS AND BENEFITS	\$1,118,828.00	\$151,732.26
CAPITAL OUTLAY	\$401,271.34	\$5,040,798.86
TRANSPORTATION EQUIPMENT PURCHASES	\$455,000.00	\$398,539.93
OTHER EQUIPMENT PURCHASES	\$685,172.00	\$184,725.34
ADMINISTRATIVE TRANSFER	\$750,000.00	\$639,967.00
TOTAL	\$19,684,266.00	\$13,655,912.64



MARICULTURE CENTER REARS POMPANO, FLOUNDER, REDFISH

The **Alabama Marine Resources Division (AMRD)** maintains the Claude Petet Mariculture Center (CPMC) located in Gulf Shores, Alabama. CPMC was created in 1970 when 40 acres of land were donated to the State by Ms. Mildred Casey. An additional 5 acres was purchased by the State, which provided access to the Intracoastal Waterway and a brackish water source needed to fill ponds.

By 1973, thirty-five 0.2-acre ponds and a small pump station located on the Intracoastal Waterway were installed on the property. A small hatchery building used for broodstock holding and egg fertilization and hatching was completed in 1975. From 1970 through the early 1980s, the infrastructure and operational costs of CPMC were primarily funded with federal grants related to the culture and stocking of Gulf of Mexico-strain striped bass (*Morone saxatilis*) in Alabama waters.

From the mid-1980s through the mid-2000s, a variety of species were cultured at CPMC including spotted seatrout (*Cynoscion nebulosus*), red drum (*Sciaenops ocellatus*), Eastern oysters (*Crassostrea virginica*) and red snapper (*Lutjanus campechanus*). During this period the ponds were lined with high density polyethylene to prevent seepage, and greenhouse structures with tanks and recirculating water systems were completed.



Beginning in the mid-2000s, shrimp and Florida pompano (*Trachinotus carolinus*) were the primary species cultured at CPMC. An 8-inch seawater supply line that begins at the Gulf State Park Pier was installed during this time.

In July 2013, a new 23,000-square-foot hatchery building was constructed, and it provides a significant upgrade in fish production capacity. It contains areas for broodfish spawning, algae production, live food production, egg incubation, larval rearing, and juvenile holding. The hatchery also includes a greenhouse complex containing several re-circulating tank systems.

Currently, three species of fish popular among Alabama saltwater anglers are cultured at CPMC: red drum (*Sciaenops ocellatus*), Florida pompano (*Trachinotus carolinus*), and Southern flounder (*Paralichthys lethostigma*). Although most fish reared at CPMC are primarily for stock enhancement purposes, some fish may be tagged prior to release. The tagged fish are for research purposes to help determine growth rates and movement patterns.

AMRD is also planning to modify the infrastructure to culture the Eastern oyster by spring 2020. Oyster spat produced in the hatchery will be used to repopulate natural oyster reef areas in Mobile Bay and Mississippi Sound.

Broodstock (parent fish) are collected from local waters and relocated to maturation tanks within the hatchery. Collected fish undergo temperature and photoperiod manipulation in the tanks to mimic natural conditions and stimulate spawning activity. Broodstock will spawn on their own within the maturation tanks or be removed from the tanks and strip-spawned, the technique of manually removing eggs and milt (sperm), which are combined to initiate fertilization.

Fertilized eggs gathered from egg collectors built into each broodstock tank or from mixing containers used during strip-spawning are counted using a volumetric method and distributed among hatching jars/tanks. Eggs hatch within 36 to 48 hours, and larval fish are counted by sampling a portion of the water column. At this point, larvae will either be stocked into ponds or remain in the hatchery.

Conditions affecting growth and survival are maintained much more easily in a tank system; however, labor and operational costs needed to maintain fish in an indoor culture system are greater than a pond system. Larval fish are maintained in a temperature-controlled re-circulating system using full strength seawater (salinity greater than 30 ppt). Twenty-four-hour care is provided for larval fish in a tank culture system soon after the eggs hatch.

Once eggs hatch, the hatchlings are considered yolk-sac larvae. At this point, they have no mouths or eyes, but will develop them in the next 36 to 48 hours. Once fish develop their eyes, they need to eat immediately, so fish are moved from hatching containers to the larval-rearing systems.

Larval fish cultured at CPMC require live foods for the first 14 to 16 days after hatching. The fish require a certain size of food particle that can be captured and ingested. Two types of zooplankton are used to feed the young larval fish. Rotifers are used as a first food for the first 8 to 10 days after hatching. Brine shrimp (*Artemia* spp.) are used as a second live food. As fish continue to grow, they require larger sized prey items, thus the need to change food sources. Larvae are weened onto brine shrimp starting around eight days after hatching. At the same time, larval fish are also introduced to a formulated feed. Fish will be completely weened to an artificial diet approximately 16 days after hatching.

For red drum and Florida pompano, the culture period is approximately 35 to 45 days to grow to 1- to 2-inch fingerlings. Southern flounder require approximately 60 to 75 days to grow to 1- to 2-inch fingerlings.

At 1-2 inches, fish are the ideal size for harvesting and transporting to a release site. Once fish reach the appropriate size and after a sample of each group of fish pass inspection for common diseases, they are released in coastal Alabama waters.

For extensive systems, ponds are utilized, and less care is required. Prior to a spawning event, ponds are filled with brackish water, then fertilized with both organic and inorganic fertilizers to establish a phytoplankton bloom. This phytoplankton bloom is the food source for the zooplankton in the water. As the phytoplankton blooms, the zooplankton populations will increase and "bloom" as well. These zooplankton are the food source for newly hatched fish.

Once fish develop an eye, they are transferred to the ponds for further grow-out. During the transfer process, fish are acclimated to pond temperature and salinity. Fish will grow on the natural foods in the ponds for approximately 20 days. After that time, a crumbled, pelleted feed will be provided for the rest of the culture period, approximately 45-60 days. Once fish are 1-2 inches in length and after a sample of each group of fish passes an inspection for common diseases, they are harvested from the ponds and released in Alabama waters. ■



Florida Pompano

STATE LANDS DIVISION



The **State Lands Division (SLD)** manages undeveloped, state-owned trust lands that are specific as to their identity as well as to the income beneficiary. The land management program includes Sixteenth Section and Indemnity School Lands of approximately 30,000 acres; approximately 7,000 acres of Department of Mental Health trust lands; Muscle Shoals Grant Lands of approximately 8,000 acres; and other state agency lands, including submerged lands (inland and coastal), of approximately 600,000 acres. Resource uses include oil and gas exploration and development, timber harvesting, farming, coal mining, hunting leases and commercial uses. SLD continues its efforts to identify additional alternative means of revenue generation through management of these trust lands.

The Forever Wild Land Trust program is administered by the SLD at the direction of that program's Board of Trustees. Division personnel provide administrative support including coordination of the assessment and appraisal process, land acquisition transactions, budget preparation and annual reporting to the governor and legislature. In addition to these administrative services, the SLD also manages many of Forever Wild's 268,422 acres, as well as complimentary tracts owned by the SLD.

The SLD conducts sales and leases of excess state-owned lands pursuant to the State Land Sales and Leasing Act. This law establishes a procedure aimed at ensuring that the state receives full fair market value for lands that state agencies sale or lease and that the process is open, competitive and subject to public scrutiny.

The SLD maintains the state Land Resource Information Center (LRIC), which is a database of lands owned by the State of Alabama and its departments, agencies and institutions. The SLD implemented public search capabilities of this database in 2013. This provides the members of the public the ability to access and search information maintained in the LRIC database. The database can be found by following the "state properties" and then "state land" links on the Open.Alabama.gov website. The LRIC currently contains over 6,830 land records.

Animal and plant species and areas of biological significance that make up the rich natural diversity of our state are identified and inventoried as part of the Alabama Natural Heritage

Database maintained by the SLD. This effort provides important biological information to conservation organizations, developers, governmental agencies and the public. It also complements the SLD's role in evaluating land acquisition nominations submitted to Forever Wild and implementing a multiple-use management strategy designed to maximize public access to Forever Wild tracts.

The SLD operates three facilities dedicated to conservation and land stewardship educational programs and a fourth dedicated to sporting dog field trials, habitat restoration, and hunting programs for youth and individuals with physical disabilities. Located in Spanish Fort, the 5 Rivers Delta Resource Center serves as a gateway to outdoor recreation, conservation education, and land stewardship in the Mobile-Tensaw River Delta. The Weeks Bay National Estuarine Research Reserve (NERR), located in Fairhope on Weeks Bay (an estuary of national significance), conducts education and outreach, research, coastal training programs and stewardship activities related to the estuary and its watershed. The Wehle Land Conservation Center is located in Midway (Bullock County) and consists of the Robert G. Wehle Nature Center and the Elhew Field Station, which is funded in part through the Robert G. Wehle Charitable Trust. Located in Alabama's Black Belt region, the M. Barnett Lawley Forever Wild Field Trial Area is south of Greensboro in Hale County.

The SLD conducts coastal resource management and planning through the Alabama Coastal Area Management Program (ACAMP). The ACAMP purpose is to promote beneficial

STATE LANDS DIVISION FY18

Sources of Revenue	Total
Coal Bed Methane Royalties	\$238,677.12
Coal Mining Royalties	\$762,937.71
State Land Sales & Leasing Act	\$313,335.18
Land leases, farming, hunting, etc.	\$523,719.18
Miscellaneous easements, fees and permits	\$1,127,980.85
Non-governmental contributions to Forever Wild	\$11,341.02
Non-governmental operating contributions	\$147,707.00
OCS - 8(g) oil and gas payments	\$2,389,621.13
Oil and gas bonuses/rentals	\$934.00
Oil and gas royalties	\$46,578,055.51
Timber Sales	\$86,705.18
Total	\$52,181,013.88

DISTRIBUTION OF STATE LANDS RECEIPTS

Sources of Receipts	Total
Alabama Department of Corrections	\$782,296.70
Alabama Department of Education - Institutional Land	\$9,876.43
Alabama Department of Education - Trust Land	\$869,412.75
Alabama Department of Mental Health	\$51,851.91
Alabama Forestry Commission	-
Alabama Historical Commission	\$200,356.27
Alabama Department of Transportation	\$19,489.30
Alabama Trust Fund	\$47,219,659.46
Auburn University	\$970.68
Forever Wild Land Trust	\$100,330.28
Forever Wild Land Trust Stewardship Account	-
Marine Resources Division	\$218.94
State Lands Division	\$2,922,030.92
State Parks Division	\$4,423.25
General Fund	\$97.00
Total	\$52,181,013.89



Splinter Hill Bog

management of the lands and waters located in Alabama's coastal area through a comprehensive and cooperative program designed to preserve, enhance and develop these valuable resources for the benefit of present and future generations. This program works in cooperation with the Alabama Department of Environmental Management (ADEM) and receives federal funds from the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management (NOAA) within the Department of Commerce. The ACAMP, as well as research activities and educational programs at the Weeks Bay NEER, complement the division's responsibilities for managing submerged lands, which include promoting public trust resource awareness and the understanding of riparian/littoral area development and associated impacts on private property and public use of Alabama's tidal waters.

The SLD administers a regulatory program that manages impacts and improvements to public tidal submerged lands in conjunction with ADEM and the U.S. Army Corps of Engineers and their respective jurisdiction on state and federal waters. The SLD regulations are designed to balance the rights of riparian property owners with the public use of those tidal submerged lands for navigation as well as fishing and other recreational uses.

The SLD manages its responsibilities through a Land Management/Administrative Section, which includes Land Stewardship/Enforcement, Asset Management, Recreational Programs, and

the Natural Heritage Program, and its Coastal Section, which includes the Coastal Zone Management Program, Weeks Bay Reserve, 5 Rivers Delta Resource Center, and Coastal Restoration program. At the end of FY18, SLD employed 78 employees, including six part-time or seasonal employees, in support of its programs.

Several examples of the accomplishments by the various programs and facilities operated by the SLD for this past year follow.

ASSET MANAGEMENT ACCOMPLISHMENTS

- Generated over \$52.2 million in revenue for distribution to several state agency beneficiaries including, but not limited to, the Alabama Trust Fund, the General Fund, Department of Corrections, Department of Mental Health, Historical Commission, and the Department of Education.
- Examples of Asset Management activities included:
 - Completion of reforestation on 3,327 acres and initiation of reforestation activities (i.e. site prep) on an additional 2,813 acres providing potential future revenue streams for state beneficiaries including the Department of Education and the General Fund.
 - Assisted state agencies with revenue generation on trust lands through initiation of leases and sale of excess property pursuant to the Land Sales and Leasing Act's appraisal and bid process.
 - Administration of revenue generating activities on state-owned land including issuance of hunting leases, shellfish aquaculture easements, riparian easements, river crossing permits, submerged/upland pipeline rights of ways, dredge permits, farming/hay leases, oil and gas leases, and coal leases.

FOREVER WILD LAND TRUST ADMINISTRATION ACTIVITIES

- Administered the acquisition of 15 tracts totaling 6,061.75 acres and performed 1 land exchange totaling 40 acres:
 - Big Canoe Creek Tract (382 acres, St. Clair County)
 - Bon Secour Swift School Tract (250 acres Baldwin County)
 - Coon Gulf Heard Addition (40 acres, Jackson County)
 - Dallas County WMA Addition (145 acres, Dallas County)
 - DeSoto State Park-French Addition (3 acres, DeKalb County)

- Freedom Hills WMA-Randolph Hollow Addition (240 acres, Colbert County)
- Grand Bay Savanna - Solet Addition (2,462 acres, Mobile County)
- Lake Lurleen State Park-Roebuck Addition (70 acres, Tuscaloosa County)
- Lauderdale WMA-Newman Addition (160 acres, Lauderdale County)
- Old Cahawba Prairie-Childers Creek Addition (54 acres, Dallas County)
- Perdido River WMA-Freise Addition (47 acres, Baldwin County)
- Pine Barren Creek (1,050 acres, Dallas County)
- Red Hills-Ziebach Addition (50 acres, Monroe County)
- Weeks Bay Reserve-Sunset Shores Addition (2.75 acres, Baldwin County)
- Rum Creek (1,106 acres, Dallas County)
- McQuinn Land Swap (40 acres, Jackson County)
- Provided administrative support for the Public Education Initiative to improve the awareness and understanding of the Forever Wild Land Trust program and the opportunities it provides to Alabama's citizens.
- Processed and evaluated 50 Forever Wild Land Trust willing seller tract nominations.

FOREVER WILD RECREATIONAL AND LAND STEWARDSHIP ACTIVITIES

- Managed the public physically disabled and youth hunting programs hosting 20 days of hunting and hosted 26 sporting dog field trial/hunt tests involving over 3,300 sporting dogs at the M. Barnett Lawley Forever Wild Field Trial Area in Hale County. These events brought over 3,000 visitors to the tract and surrounding areas.
- Expanded public access opportunities by offering 92 open woods days at the Forever Wild Land Trust Sipsey River Recreation Area (Tuscaloosa County) and offering open gate weekends during the hunting season at the Red Hills (Monroe County), Old Cahawba (Dallas County), Splinter Hill Bog (Baldwin County) and Lillian Swamp (Baldwin County) Forever Wild tracts.
- Hosted over 2,200 visitors at the Wehle Land Conservation Center facilities for outdoor recreational and educational activities.

- Continued construction of a hiking trail along the Perdido River located on the Forever Wild Perdido River WMA tracts near Bay Minette in Baldwin County.
- Constructed six new horse stalls near the camping area at the Wehle Nature Center.
- Assisted State Parks Division in the construction of a new 2.1-mile hiking trail and footbridges at Blue Springs State Park, Barbour County.
- Assisted the Wildlife and Freshwater Fisheries Division with building new kiosks at Perdido River, Baldwin County and James D. Martin-Skyline, Jackson County, WMAs.
- SLD personnel also assisted with installation of over 20 gates and planting of summer food plots at the Charles D. Kelley Autauga WMA, Autauga County.
- Constructed a new pole barn and two lean-to covers associated with maintenance buildings at the Five Rivers Delta Resource Center, Baldwin County.
- Constructed a new 2.5-mile trail at the Old Cahawba Prairie Tract in coordination with the Old Cahawba Archaeological Park, Dallas County.
- Staff worked with the Cherokee Ridge Alpine Trail Association to install six new footbridges and a new gate at the Forever Wild Gothard-Yates Lake WMA, Elmore County.
- Continued a citizen science habitat monitoring project at three locations on (Grand Bay Savanna, Wehle Land Conservation Center, Old Cahawba Prairie) which invites visitors to the location to photograph the habitat from a fixed camera bracket and share via social media (<http://alabama-foreverwild.com/project-habitat-watch>). This will create a long-term photo documentation of the landscape.
- Maintained existing horseback riding, hiking, biking, and multi-use trails and boardwalks at the Shoal Creek Nature Preserve (Lauderdale County), Walls of Jericho (Jackson County), Wehle (Bullock County), Splinter Hill Bog (Baldwin County), Old Cahawba Prairie (Dallas County), Jacinto Port (Mobile County), Coldwater Mountain (Calhoun County), Dothan Park Trails (Houston County), Grand Bay Savanna (Mobile County) and Coon Creek (Elmore County) Forever Wild tracts.
- Performed prescribed fire on over 9,500 acres as part of maintaining or enhancing the natural plant communities occurring on various Forever Wild tracts.
- Reforested 2,813 acres of shortleaf pine on Freedom Hills and Riverton WMA.
- Reforested 146 acres of longleaf pine on Coosa WMA.
- Reforested 58 acres of longleaf pine on Charles D. Kelley-Autauga WMA.

NATURAL HERITAGE SECTION ACCOMPLISHMENTS

- Performed biodiversity survey work, conducted habitat assessments, participated in trail planning and continued collecting detailed GPS/GIS data of existing Forever Wild tracts to aid with the management and research of these tracts.
- Maintained GIS Server software allowing greater transparency of Forever Wild holdings and ADCNR facilities to the public by providing an interactive map online (<http://conservationgis.alabama.gov/fwlt/>). This same software is being used to improve geographic information transmission within the division and the department.
- Maintained the Natural Heritage Section (NHS) database, partially funded by a State Wildlife Grant, as a database accessible via a secure Internet website for over 700 approved users, currently containing more than 2.8 million records.
- Continued to enhance the Alabama Natural Heritage Section Herbarium with a current total of 4,250 specimens, all of which have been digitized, imaged and databased.
- NHS staff documented the first breeding pond for the crawfish frog (*Lithobates areolatus*) in the state and is participating in a current Species Status Assessment for the Cobblestone Tiger Beetle (*Cicindela marginipennis*).

COASTAL ZONE MANAGEMENT SECTION ACCOMPLISHMENTS

- The Alabama Coastal Area Management Program staff provided technical support, funding and oversight to 18 sub-awards to local governments in Mobile and Baldwin County, Geologic Survey of Alabama (GSA), Dauphin Island Sea Lab (DISL), and Mobile Bay National Estuary Program (MBNEP). These sub-awards totaling over \$499,731 in federal funds provided by the National Oceanic and Atmospheric Administration supported the following:
- Development of a geospatial database of storm drains for the City of Fairhope and the development of a storm drain marking and education program with the end goal of reducing nonpoint source pollution entering Mobile Bay.
- Development of updated comprehensive plans to inform and guide growth for the Cities of Citronelle and Foley.
- Mapping and delineation of important coastal habitats by the Mobile Bay National Estuary Program to inform management and restoration activities.
- Development, by Auburn Extension, of an online catalog of ordinances, codes, and policies for coastal Alabama with the goal of evaluating the consistency of these resources between coastal municipalities.
- Development of a sand dune protection and management plan for the Town of Dauphin Island.

- Provision of technical assistance, training and support to communities related to the FEMA Community Rating System, including the establishment of the South Alabama Flood Engagement Team to provide a forum for information sharing and training of coastal floodplain managers.
- Administration of the Coastal Geospatial Data Group by the Geological Survey of Alabama to increase opportunities for data sharing and improve management of coastal resources.
- Sponsorship and organization of the 31st annual Alabama Coastal Cleanup in partnership with the Alabama People Against a Littered State, resulting in 5,300 volunteers removing over 25,000 pounds of marine debris. Additionally, volunteers collected over 2,000 pounds of rigid plastics which were recycled through a partnership with Thompson Engineering and the Weeks Bay Foundation. This effort was further supported through the hosting of a marine debris workshop for the public in partnership with the Weeks Bay NERR.
- Received four applications for Shellfish Aquaculture Easements and issued 3 preliminary approval letters. Three applicants received notices to proceed and executed easement contracts.
- Continued to coordinate with local governments, homeowner associations and individual riparian property owners to provide information about SLD regulations as a means to efficiently manage uses of public submerged lands.

5 RIVERS DELTA RESOURCE CENTER ACCOMPLISHMENTS

- Hosted over 59,535 visitors from at least 43 states and 13 foreign countries.
- 5 Rivers educational staff administered 214 scheduled educational activities serving 15,491 students both at the facility and offsite.
- Hosted 447 receptions and business meetings with 20,916 participants and continued to provide a venue for local conservation organizations to hold monthly public meetings and for ADCNR to offer hunter education programs.
- The Cypress Gift Shop implemented Outdoor Market events hosting local community vendors. The first five events drew over 100 unique vendors and 1,477 visitors.
- WildNative Delta Safaris, a concessioner, continued to offer a variety of tours into the Mobile-Tensaw River Delta and served over 10,000 guests via pontoon boat tours and canoe/kayak rentals and guided tours.

SUBMERGED LANDS REGULATORY ACCOMPLISHMENTS

- Received, reviewed and/or approved 181 permit applications for activities impacting near-shore public trust submerged lands through the notice of Intent to Impact State Owned Submerged Lands (NOI) permit application process and conducted 42 onsite inspections.



- Hosted the Ninth annual 5 Rivers Halloween Trick or Treat event which drew 1,317 participants.
- Partnered with the Alabama Humanities Foundation to host the Smithsonian Institution traveling “Museum on Main Street” exhibit, Water/Ways, along with several ancillary activities, including a juried art show, specialized water-themed field trips, and weekend educational events, attracting over 3,000 visitors.
- Partnered with the City of Spanish Fort to host the Tenth Annual Delta Woods and Waters Expo, a three-day conservation event that served over 2,100 participants.
- Partnered with the Weeks Bay Foundation to serve as host site for the 15th Annual Alabama Coastal BirdFest, which drew 297 registrants to participate in 35 guided birding and nature tours, seven educational workshops, and two receptions over four days.
- Increased marketing and outreach presence in coastal Alabama through participation in tourism and marketing committees of the area chambers of commerce; coordination with area convention and visitors bureaus; participation in the Tourism Ambassador Programs; and participation in various additional community events including the Greater Mobile Boat Show, Dauphin Island Discovery Days, Bay Area Earth Day, Graham Creek Earth Day, Bellingsrath Gardens Kids Gulf Discovery Day, Alabama Coastal BirdFest Conservation Expo, and Baldwin County Fair.
- Partnered with the Gulf Coast Exploreum Science Center to design and implement an exhibit about 5 Rivers and the Mobile Tensaw Delta as part of the Exploreum’s month long “Water Story” traveling exhibit and programming. Staff also partnered with GulfQuest Maritime Museum, City of Orange Beach, Gulf State Park, Bon Secour National Wildlife Refuge, and Audubon to provide raptor and wildlife education programs throughout the Gulf Coast.
- Staff continued to manage and maintain the Bartram Canoe Trail, Perdido River Canoe Trail, Alabama Coastal Birding Trail, and Middleton Boat Ramp. Canoe Trail camp shelters were reserved over 200 times in the fiscal year.
- Staff worked with the City of Fairhope and Mobile Bay Audubon to update a birding trail informational kiosk at the Fairhope Pier.
- Obtained federal approval as to an updated 5-Year Management Plan for the Weeks Bay National Estuarine Research Reserve.
- The Reserve’s Education and Coastal Training program activities included the following:
 - Conducted education programs for approximately 1,061 K-12 and Graduate students (3,459 contact hours) and 3,703 adults.
 - Conducted a two-day Teachers on the Estuary (TOTE) Workshop for 17 teachers. The TOTE focused on estuarine biodiversity and the effects of water quality, sea level rise, and marine debris on coastal resources. Teachers were trained on the use of hands-on, classroom activities that use local data, much of which is from Reserve monitoring. Additionally, each teacher was provided with class sets of materials and curriculum to facilitate learning in the classroom.
 - Conducted a Marine Debris 101 class for 27 local residents. Partners included NOAA Marine Debris Program and MSU staff. Class agenda included an introduction to Weeks Bay Reserve and boat trip on the bay, an overview of marine debris and current marine debris projects in the Gulf, hands-on analysis of water samples to view microplastics, and information on citizen science monitoring of microplastics in the Gulf.
 - Conducted 17 workshops for 449 coastal decision-makers providing 3,543 training hours.
 - Implemented the Community Resilience Initiative in collaboration with the ACAMP and established the South Alabama Flood Engagement Team, a floodplain management user group.
 - Developed a Homeowner’s Guide to Stormwater Pond Maintenance for use by homeowner
- The Reserve’s Research and Stewardship program activities included the following:
 - Coordinated research from universities and agencies on eight research projects.
 - Collected water quality and weather data from five sites in Weeks Bay as part of the Reserve System-Wide Monitoring Program.
 - Hosted an intern who participated in research and stewardship projects and assisted with educational programs. Intern also initiated a citizen science micro-plastics monitoring project.
 - Hosted 865 guests in the Research Dormitory including researchers, Gulf Corps volunteers, workshop participants and visiting educators.
 - Hosted training of GulfCorps personnel in chainsaw safety, in exchange for removal of vegetation

WEEKS BAY NATIONAL ESTUARINE RESEARCH RESERVE ACCOMPLISHMENTS

- The Weeks Bay National Estuarine Research Reserve (Reserve) hosted more than 10,000 visitors from more than 45 states and 10 foreign countries and was involved in a number of administrative activities including:
 - Conducting quarterly meetings of Weeks Bay Advisory Committee and coordinating with the Weeks Bay Foundation in publishing quarterly newsletters.

near CORS site and weather station, resulting in more accurate data collection. Also trained GulfCorps members in the use of Trimble R10 in order to have select team members assist with collection of vertical data that will be used to update and expand digital elevation models of marsh habitat at the Reserve.

- Continued to serve as a member of the Northern Gulf of Mexico Cooperative Sentinel Site program sponsored by NOAA to focus research and monitoring efforts on tools and products to aid coastal resource use and management as well as coastal resiliency planning. Collected sentinel site flora data from 24 quadrates along three transects.
- Stewardship and Education Coordinators worked with the Weeks Bay Foundation to obtain grant funding for the removal of five derelict vessels and other marine debris from within the Weeks Bay watershed.
- Provided 28 vessel tours of Weeks Bay for 601 visitors.

- The Reserve's Volunteer program continued to be a critical source of operational and financial assistance providing more than 3,500 volunteer hours. Supporting activities included the following:

- Provided 11 Educational programs for volunteers.
- Coordinated, advertised, and facilitated the 26th Annual Native Plant Sale and the Baldwin County Master Gardeners Annual Spring Plant Sale as fundraising events.
- Provided financial and logistical support for more than 20 Reserve-supported activities including, workshops, research projects, summer education programs and special events.
- Presented educational programs and tours to 26 organizations and maintained the Reserve's herbarium, arboretum and longleaf pine restoration site.



WEHLE LAND CONSERVATION CENTER/ ELHEW FIELD STATION ACCOMPLISHMENTS

- Hosted 598 students over eight weeks of environmental outreach programs for 2nd-6th grade students from Bullock and surrounding county schools.
- Hosted 391 visitors during 16 Open Trail weekends
- Hosted over 315 visitors associated with state and county agency meetings, technical workshops, church retreats, boy/girl scouts, and regional council meetings
- Hosted 288 students and teachers at the Bullock County Water Festival and Forestry and Wildlife for Youth events
- Hosted 340 students and teachers at the annual Classroom in the Forest event of the Barbour County Extension System
- Hosted 223 youth and adults for the Bullock County fishing derby, co-sponsored by the Wildlife and Freshwater Fisheries Division, Bullock County Sheriff's Department, and Osprey Fishing Organization
- Hosted 38 youth and adults for overnight field trips for the Children and Mentors Outdoors (CAMO) Group
- Hosted two Auburn University graduate students and field technicians for two separate Southeastern Pocket-Gopher research projects on the Wehle Forever Wild tract and adjacent Barbour Wildlife Management Area.
- Administered and participated in USGS Breeding Bird Survey in Alabama.
- Monitored and oversaw management actions for Red-cockaded Woodpecker population on the Forever Wild Coosa Wildlife Management Area through an Endangered Species Act Section 6 Grant.
- Continued operation of a Monitoring Avian Productivity and Survivorship (MAPS) Banding Station on the Wehle Forever Wild Tract for the thirteenth year.
- Continued long-term reptile and herpetofaunal inventory through passive capture techniques and vocal recording programs on the Wehle Forever Wild tract.
- Continued a comprehensive floristic survey of the Wehle Forever Wild Tract in cooperation with other state field botanists.
- Continued Eastern bluebird monitoring, Northern Bobwhite covey count surveys and operation of a migratory bird night-flight call program on the Wehle Forever Wild Tract.
- Continued Gopher Tortoise (*Gopherus polyphemus*) population monitoring on the Wehle Forever Wild Tract to evaluate establishment/site retention of translocated individuals.
- Published findings from select EFS research projects and/or partnerships in peer-reviewed journals to disseminate findings to the research community.
- Treated Lespedeza bicolor infestations with spot herbicide application throughout tract.
- Conducted a prescribed fire covering 281 acres on the Wehle Forever Wild Tract as part of maintaining or enhancing the natural plant communities and benefitting a suite of associated wildlife species.

STATE LANDS 2018 BUDGET AND EXPENDITURES

Section Name	Budget	Expenditures
Land Management/Administrative	\$15,759,731	\$5,940,533
Administrative Transfer to Department	\$900,000	\$900,000
Coastal Zone Management Program	\$2,608,365	\$1,552,329
Weeks Bay NERR	\$2,039,346	\$953,970
Total per State Lands Fund	\$21,307,442	\$9,346,832
Forever Wild Land Trust Fund	\$22,143,841	\$11,016,139
Forever Wild Stewardship Fund	\$1,500,000	\$1,021,751

THE WEHLE LAND CONSERVATION CENTER: A PUBLIC RESOURCE FOR CONSERVATION, RECREATION AND ENVIRONMENTAL EDUCATION OPPORTUNITIES

The origins of **the Wehle Land Conservation Center (WLCC)** date back to a vision the late Mr. Robert G. Wehle had in the early 1990s when he initially presented his 1,546-acre estate near Midway (Bullock County) to the Forever Wild Land Trust. As a passionate conservationist and outdoorsman, Wehle wanted to ensure the land he worked so tirelessly to restore would be preserved for the benefit of future generations. The Forever Wild Wehle tract acquisition in 1994 ultimately paved the way for establishment of the WLCC and enhanced public recreation opportunities for the surrounding communities.

Following a tract nomination and scoring process, the Forever Wild Board of Trustees considers acquiring property from willing sellers pursuant to Constitutional Amendment 543 for an amount not to exceed appraised value. Acquired acreage is then managed by the Department of Conservation and Natural Resources according to Forever Wild's multiple-use philosophy. The natural attributes of Wehle's estate, coupled with its proximity to the adjacent Barbour Wildlife Management Area, made it an attractive acquisition opportunity for use as a nature preserve, recreation area and addition to the WMA's public hunting program.

Wehle generously offered his estate to Forever Wild for a discounted amount equaling half of the appraisal value. After this initial acquisition by Forever Wild, Wehle donated an additional 25-acre parcel to the State Lands Division and further contributed half the funding needed to construct the Wehle Nature Center. Despite Wehle's passing in 2002, the family tradition of generosity and passion for the property continues today through his establishment of the Robert G. Wehle Charitable Trust, which provides annual financial support to the WLCC.



MISSION AND REGIONAL IMPACT

The WLCC is dedicated to fostering sound land stewardship principles and promoting the understanding and appreciation of Alabama's natural heritage through educational outreach, conservation, research and recreational opportunities. In addition to administering educational programs through the Wehle Nature Center, the WLCC also hosts the Elhew Field Station, which promotes wildlife research, on-site conservation and environmental outreach. While wildlife research is vital to addressing various habitat management issues, WLCC's primary objective is to provide educational opportunities to the public. State Lands Division personnel strive to develop partnerships designed to fulfill outreach needs in one of our state's underserved regions. The audiences vary from elementary students to adults with the educational programs emphasizing applied, interactive learning.

The Auburn University Museum of Natural History (AU MNH) serves as a primary partner that coordinates environmental education programs for surrounding school systems each spring and fall at the Wehle Nature Center. These programs serve second through seventh grade students and offer a hands-on approach to science and the arts. The education modules are diverse in subject matter and promote conservation themes by using the trails, pond and facilities at the Nature Center, while also providing one-on-one interaction between students and instructors in a small group setting. All participating school systems are public and serve rural areas in the region. Schools participating annually include South Highlands Middle School (Bullock), Barbour County Primary and Intermediate Schools (Barbour), D.C. Wolfe Elementary (Macon), Notasulga School (Macon), and Tuskegee Public School (Macon).

Kay Stone, former AU MNH Education Coordinator, began managing the educational programs at the WLCC in 2008. Over the years, she developed relationships with many school principals to nurture student participation each spring and fall. She recruited a diverse pool of professionals specializing in the natural/physical sciences and arts representing various state and federal agencies, private companies, and academic institutions. These efforts yielded consistently high quality and diverse educational programs serving more than 500 students annually and soon captured state-wide attention. The Alabama Wildlife Federation recognized Kay Stone during its 2014 Annual Governor's Conservation Achievement Awards banquet as the "Conservation Educator of the Year" award recipient. Although Kay retired in 2018, the programs she developed will continue to benefit area schools through the ongoing commitment of the State Lands Division and Robert G. Wehle Charitable Trust in partnership with the AU MNH.

WLCC also works closely with several local and regional conservation groups and organizations. For example, WLCC supports both Bullock and Barbour County Natural Resource Planning Committees by hosting annual "Forestry and Wildlife for Youth" programs. These events educate hundreds of fourth grade students about various wildlife and forestry topics in a round-robin manner. Similarly, WLCC annually hosts the Bullock

County Cooperative Extension System's Water Festival, which draws approximately 300 students each spring to learn about the importance of Alabama's water resources. More recently, WLCC partnered with the Children and Mentors Outdoors (CAMO) Group, a program developed to mentor Bullock County youth by increasing youth appreciation for the outdoors, while also discouraging high-risk behaviors. The CAMO Group utilizes the WLCC grounds for camping and hiking several times a year. WLCC also hosts a youth fishing derby every summer in partnership with the Bullock County Sheriff's Department, ADCNR's Wildlife and Freshwater Fisheries Division and the Osprey Fishing Organization.

With an onsite dormitory and the recent addition of a dining hall, the WLCC can now accommodate a variety of usage requests ranging from day use to extended stay programs. These facilities are regularly rented for organizational meetings, retreats, luncheons, workshops and banquets.

Moreover, the facility's "Open Trail" weekends provide camping, fishing, and over 10 miles of horseback riding trails to an estimated 600 visitors annually. The Forever Wild trailhead further offers daily access to 8 miles of hiking trails. With over 175 bird species documented on the Wehle Tract, this hiking trail is also a popular stop along the Wiregrass Birding Trail.

LOOKING TO THE FUTURE

The State Lands Division is proud to continue Robert G. Wehle's legacy of land conservation and stewardship as well as his appreciation for Alabama's unique natural resources. With its ongoing educational programs, research efforts, and recreational opportunities, the impact of the WLCC will continue to serve future generations – just as Mr. Wehle would have wanted. ■



STATE PARKS



The **State Parks Division** administers 21 state parks encompassing approximately 45,300 acres of land and water in Alabama. The parks range from Gulf Coast beaches to Appalachian Mountains, and provide opportunities and facilities from basic day-use activities, to resort convention lodging, restaurant and golfing areas.

The mission of the Division is to acquire and preserve natural areas; to develop, furnish, operate and maintain recreational facilities, and to extend the public's knowledge of the state's natural environment.

The Division's goals are to manage and operate the State Parks system in an economically sound and efficient manner on the most self-sustaining basis possible; to provide and maintain high quality facilities and services to meet the needs of visitors; to provide an opportunity for personal growth and development of individuals through outdoor experiences; to promote use of State Parks facilities; to preserve the unique natural features and integrity of State Parks for future generations; and to promote good will and enhance the public image of Alabama and the Alabama State Parks through dedicated, courteous employees.

Accomplishments

Alabama's 21 state parks serving about 5 million guests annually. Additional significant accomplishments were made in improving purchasing procedures, computer systems, operation and maintenance policies, financial management analysis, advertising and marketing, natural resource management and the continuous coordination, supervision and implementation of a comprehensive statewide, state parks renovations program.

Facilities and Personnel

Among the 21 parks, 17 are maintained with an internal park staff determined by size, development, and operation of each area. Total employees for all parks vary from approximately 700 during peak season to approximately 500 during the off-season. Four parks are staffed and operated through management agreements with local governments or concessionaires.

The Parks Division central office in Montgomery includes five sections: Administrative, Operations and Maintenance, Management Analysis, Natural Resources and Advertising/Marketing, and operates with 13 full-time staff.

Problems and Solutions

The lack of sufficient maintenance funds has limited our options for attending to a backlog of maintenance and renovation needs, as well as the replacement of basic equipment required to manage the parks. The restoration of these maintenance funds derived from the cap on sales tax discounts in FY 2017 has provided much-needed relief in addressing the problems. We have undertaken numerous cost-sharing initiatives with local government partners to leverage the impact of these funding opportunities. We have also given scrutiny to the return on the investment that these projects provide. Special attention has been given to parks and recreational programs that have successfully demonstrated efforts that will produce supporting customer revenue as these improvements are completed. The continued availability of these maintenance funds and the efforts to apply them in the most cost-effective manner will be crucial to seeing that the parks and their amenities are cared for and made available for public use. These efforts, coupled with an ongoing review and adjustment of recreational rates and programs will provide the best solutions to address the park's short and long-term management goals.

We have also given special attention to expanding day-use recreational opportunities, especially those associated with families and trail users. Great progress has been made by partnering with trail clubs and professional trail organizations as we advance these recreational goals. Lastly, we have achieved new success in providing cost-effective recreational venues by partnering with concessionaires who are making financial investments in these facilities at several parks. We expect that these innovations and opportunities for improved public services will continue in FY 2019.



BILLY POPE

MANAGEMENT ANALYSIS SECTION

The Management Analysis Section provides general administrative direction and coordination for management control, administrative cost analysis, performance reporting, data processing, general accounting, budgeting, payables, receivables and purchasing.

Accomplishments

Section personnel received, processed and analyzed 2,184 performance reports for all state parks; prepared Park System Performance Reports as required by the Budget Management Act; received, processed and analyzed operations plans, budget reports and related reports; prepared Park System Operation Plans and fiscal year budgets; processed approximately \$46,400,000 in receipts and approximately 18,000 payment types; and disbursed approximately 17,448 warrants and approximately 15,000 payroll checks through and from the State Accounting System.

Section staff also continuously monitored data processing output, distributed it to statewide park cost centers, and monitored managerial audits as well as personnel actual versus budget for each state park. Management Analysis continues to work with the State of Alabama Accounting and Resource System and to develop detailed monthly financial statements of the state parks system as well as specific operations. Management Analysis continues to revise resale inventory procedures to promote better accountability.

OPERATIONS SECTION

The Operations Section supervises five district supervisors responsible for 21 state parks and lodges throughout the state. The Section is divided into North and South Regions. The North Region consists of the Northeast, Northwest and Central Districts. The South Region consists of the Southeast, Southwest Districts and the Montgomery office staff. The Montgomery Office has two full-time employees. The Southeast and Southwest District Supervisor positions are currently vacant. The North and South Regions are managed by two Operations Supervisors.

This section manages daily park operations, maintenance program, law enforcement, property and automobile insurance programs, property inventory, small concession contracts, fee waiver request from non-profit organizations, board of adjustment claims and processes all personnel actions for approximately 600 hourly and merit employees.

Accomplishments

- State Parks had over 4.82 million total park visitors in FY18, a 2.12% decrease from last year. However, campgrounds in several parks noted their highest annual occupancy percentages in the last 10 years, and the overall occupancy percentage for all the campgrounds tied the FY17 values as being the highest in the last 10 years.
- Twelve parks were awarded Trip Advisor's Award of Excellence certificates. Seven parks were inducted into the Hall of Fame for five consecutive years of winning Awards of Excellence.

- More than 450 accident/incident/offense and arrest reports were submitted for review and analysis.
- Park officers continued to advance in Active Shooter Training, as well as other applicable annual training. Training of officers via Skype was initiated by the law enforcement coordinator. Officers were also issued and trained on e-citation equipment.
- Continued \$3 million projects program to initiate recovery from several years of funding diversion. Most of these projects have been completed.
- A uniform committee was established and new uniforms purchased for employees.
- Began offering 10 new "tiny home" rentals at Lake Guntersville State Park Campground by a concession agreement with Recreation Resource Management.
- Four employees graduated from Park Leadership School. Another four employees attended this school for the first year.
- Worked toward establishing contracts to administer grants and start construction.
- Marinas were inspected by a certified electrical contractor.
- Prepared and began implementing 2019 projects list.
- Completed projects to upgrade infrastructure such as sewer systems, water systems, trails, water heaters and large

A/C units at several parks.

- Used profits made by parks to secure needed equipment such as mowers, vehicles and skid steers.
- Worked with Shelby County and Conservation Engineering on using gas tax/road use monies to complete phase one of bike lanes at Oak Mountain State Park.
- A contract was secured to begin paving Cheaha State Park's campground.
- Planned and initiated numerous large events that directly impacted park receipts.
- New pay rates for hourly employees were established through the personnel department.
- Continued filling vacancies in management and enforcement.
- Established new positions of Park Administrator I, Park Administrator III, Park Administrator IV and Operations Supervisor.
- Continued to provide environmental education to park guests via our naturalist programs. Park Naturalists attended training sessions to continue to develop their knowledge and techniques.
- Work began on new Operations Manual by headquarters staff with input from managers.



Unmet Needs

Internet connectivity issues are an ongoing problem for several parks, especially those in remote locations. Customers and staff are unable to obtain adequate internet connectivity over the State Parks infrastructure that is currently provided. Work has begun on rebuilding existing networks that are good, while abandoning some and replacing with fiber. Progress has been made in hooking some parks (Oak Mountain and Lake Lurleen) to direct fiber. Fiber is being installed at Cheaha. We still have challenges getting connectivity to all park guests.

The park system has many maintenance and capital needs. An annual prioritized projects list is starting to address some of these areas. Parks will follow a three- to five-year deferred maintenance plan to continue this progress.

The online reservation system is still not operating at a high enough level to ensure guest satisfaction. Montgomery and field staff have been working with the vendor to make improvements. Advances were made in creating new online maps and group reservations that increased online capabilities. Our goal is improving online availability to park guests to reduce phone calls that require additional staff.

Park managers/superintendents have historically been administrators and law enforcement officers. Park administrator positions were established to start separating law enforcement from administration. Several park administrator positions were filled during this past year.

NATURAL RESOURCES SECTION

The Natural Resources Section was created to help the parks accelerate enhancement of the quality of aesthetic, biological, historic and recreational aspects of their land and water resources and to increase the public's understanding, appreciation and enjoyment of those resources. Section staff currently consists of the Natural Resource Planner at Montgomery and six interpretive naturalists in field locations at DeSoto, Gulf, Lake Guntersville, Cheaha, Oak Mountain, and Cathedral Caverns State Parks.

The Natural Resources Section currently has two unfilled positions with one of those being the chief. Personnel use science and technology to assist the parks with diverse natural resource, recreation and environmental education objectives each year. The section also administers and coordinates grants for natural resource improvement projects.

Accomplishments

Contributions to the quality of natural resource health and vitality above and beyond what the parks would normally be able to accomplish on their own include:

- Restoration efforts at Gulf State Park included prescribed burn of 185 acres within the campground and the lake-side cabin unit around the eagle's nest, also known as

Eagle Loop. Benefits of these fires include reduction of fuel around the campground to reduce the wildfire risk, enhancing wildlife habitat by refreshing food and cover sources, control of brush thickets and to keep the forests open for better visibility and air flow for visitors.

- The Section facilitated the restoration of the existing longleaf/loblolly pine ecosystem at Lakepoint State Park by using prescribed fire. The lack of prescribe fire in recent history has allowed for the thick understory of competing vegetation, a lack of native grasses, and suppression of natural regeneration from pine seedlings. The 30-acre prescribe fire benefits include reducing the density of the young sweetgums, thus allowing increased sunlight and encouraged growth of native grasses; improvements to the wildlife habitat by providing new growth, which is more nutritious to wildlife; and a reduction of the fuel load, thereby reducing the risk of wildfire.
- Personnel facilitated a robust Integrated Pest Management Plan at Meaher State Park to reduce and control the invasive Argentine ant population. The Argentine ant population at Meaher was at a level that interfered with guests' enjoyment of the park. Initiating an Integrated Pest Management Plan allowed park personnel to monitor and identify the areas of the most need and deploy preventive measures to reduce the Argentine ant population.
- Section assisted with the continued use of herbicides for invasive and undesirable vegetation control within parks. This management tool was used at Gulf, Wind Creek, Frank Jackson, DeSoto and Oak Mountain in 2018.
- Section assisted with land encroachment, boundary line disputes/discrepancies and conflicts. Accordingly, the section continues to upgrade Alabama State Park deed files to maintain verified boundaries.
- Section developed and implemented a formal permitting process for individuals wishing to conduct research or collect scientific data on a state park.
- Section developed and implemented a Natural Resource Management Plan that identified stewardship targets and management strategies for the newly acquired acquisition called Gulf Highlands Conservation Acquisition to Gulf State Park. The Natural Resource Management Plan was a vital task to fulfill a National Fish and Wildlife Foundation – Gulf Environmental Benefit Fund grant.

Contributions to the public's understanding, appreciation and enjoyment of natural resources above and beyond what the parks would normally be able to accomplish on their own include:

- Park Naturalists entertain and educate many guests and visitors with recreational activities, interpretive environmental education programs and special events. They also provide a variety of public outreach programs and produce articles for publication outside of the parks. Program and publicity topics include: flora and fauna identification, habitat needs and management, air and water quality, and other environmental topics.

- Naturalists contribute to new trail construction, maintenance of existing trails and upgrading trail maps. Park naturalists contributed to a relatively new public relations initiative, coordinating programs and events for inclusion into social media sites within the department/division for public viewing.
- Section personnel assisted in Wildlife and Freshwater Fisheries Division regional fishing day events, deer population reduction management hunts at Oak Mountain State Park, Mentored Hunting Program at Oak Mountain State Park, Alabama Birding Trails Advisory Committee meetings and Forever Wild land acquisition evaluations.
- Natural Resource personnel attended Prescribed Fire Council Annual Meeting for wildland and urban interface fire control involving parks personnel statewide to maintain Burn Manager status.
- Section enhanced memorandums of understanding with the Nature Conservancy, the Alabama Forestry Commission and Auburn University to assist with prescribe fire, exotic species control and to provide lab/classroom experience for students in a park, forest environment. The Oak Mountain Interpretive Center Study continues to focus on mammal diversity within the park. The Alabama Wildlife Center located at Oak Mountain State Park continued to educate visitors through in-house and outreach programs.
- Natural Resource personnel continued to participate in the Forever Wild Land Acquisition program which resulted in the procurement of acreage for Lake Lurleen State Park.
- Facilitated Parks Field staff to attend Prescribed Fire Certification Classes and become Burn Managers.
- Facilitated all current park naturalists to attend National Association for Interpretation – Certified Interpretive Guide training. This program is designed for those who deliver interpretive programs to the public. It combines the theoretical foundations of the profession with practical skills in delivering quality interpretive programming to visitors. Certification included a written test, a 10-minute presentation and a literature review.
- Section staff designed and built a new trail system at Blue Springs State Park of 2.5+ miles on the acquired adjacent Forever Wild property.
- Began planning for a future archery park at Lakepoint State Park. Development of new birding programs and an off-highway vehicle trail continued at Lakepoint. A plan was developed for prescribed burning of all land within the campground, former golf course, and other adjacent park property.

Problems and Solutions

The Section continues to deal with the problems of insufficient funding to address lake siltation at numerous parks, the addition of fish habitat structure, expanding the environmental education program, constructing much-needed nature centers and controlling populations of invasive plant species with herbicide.

STATE PARK PROMOTIONS

The Alabama State Parks Promotions Section coordinates the advertising, marketing and promotional efforts of the Alabama State Parks system. The section currently employs two people in the Montgomery office.

Administrative functions include coordination of radio and television public service announcements; preparation and distribution of promotional literature; coordination of print and photographic material for magazines, campground directories and newspaper articles; cooperation and coordination with the Alabama Department of Tourism, chambers of commerce, convention and visitors bureaus, Alabama Department of Transportation rest areas (ALDOT), Tourist Association and special events promoters; evaluation of advertising opportunities; purchasing of advertising space; production of ads and advertising materials, assistance with individual State Parks promotional efforts; special events, various promotional exhibit expos, and continuous updating of photos; presentation of programs for various organizations, and the continued operation of the toll free nationwide phone line; social media marketing, website management and promotion, digital mobile-ready marketing, development of promotional park videos, and continued pursuit of affordable and effective marketing opportunities.

Accomplishments

- To promote our Parks as destinations for user groups, we continue to create messages and relationships that are better targeted.
- We continue to partner with the Tourism Department, specifically the Welcome Centers. Together we promote the great state of Alabama, and our special destination state parks scattered throughout the state. We also partner with ALDOT rest areas throughout the state to provide literature on Alabama State Parks.
- The Promotions Section worked to create and provide continued growth of social media accounts to further enhance the visibility of the parks, primarily through Facebook, Twitter, Instagram and YouTube.
- The State Parks e-newsletter continues to go out monthly to over 280K subscribers.
- The "Weekly Report to the Director" distributed through the promotions office keeps park staff and managers apprised of promotional events, packages, etc.

- The “Partners Pay the Way” campaign that was introduced to raise awareness of the many individuals, user groups, civic partners, and elected officials we depend on to keep our Alabama State Parks open and operational continues to be a success.
- In the FY 2016 we implemented a new program for our user trail groups entitled the “Dirt Pass Trails Program.” Trail are encouraged at a nominal fee to support state parks by buying a trail pass entitling them to use all the trails within our state parks system by showing the wristband that was purchased. All money from this promotion continues to go back in the State Parks system to support a stand-alone trails program. This program continues to be an asset for our trail users. Each year, the wristbands are updated and new totals are gathered and shared within the parks system.
- An assortment of park videos produced and accessed through our website continues to be a way of utilizing video technology to further promote the parks system.
- The Alabama State Parks Pocket Ranger Smart Phone App continues to be an asset for state parks user groups.
- The development, maintenance and management of alapark.com continues to be a valuable resource. Work began on a new design of alapark.com to be launched in FY 2019.
- We continue to produce various state parks literature and maintain an inventory of all individual state park brochures. We work with ALDOT and the Alabama Department of Tourism for distribution of brochures.
- Individual state park brochures are being updated with a more uniform look for consistent branding. This project is ongoing.
- Upon request, the Top Trails booklets are mailed out. This was a project shared with the University of Alabama to showcase park trails.
- The Parks for Patriots program that was implemented last year continues to honor the men and women who have served our country by allowing them free admission to the parks that charge an entrance fee. To accomplish this, we ask park guests to consider sponsoring a veteran by making a donation.
- We continue to have an ad in the Alabama Press Association Directory, which goes out to all daily and weekly Alabama newspapers, top ad agencies, public relations firms in the state, and legislative and congressional office personnel. This puts Alabama State Parks in front of some 500+ media outlets in Alabama.
- We continue to advertise our meeting and conference facilities in Business Alabama and Alabama Advantage magazines.
- We continue to promote the Alabama State Parks car tag and boat registration decal. The Parks staff uses promotional plates and rack cards to help promote these car tags and boat decals. Approximately 80% of the revenue from these items goes directly to the State Parks.
- Capital improvement projects are being promoted to make the public aware of these improvements, which were made possible by the passing of a Constitutional amendment in 2016.
- Trip Advisor reviews and comments are used constructively to make improvements to our products and services offered to the public.
- We continue to promote our concessionaire partnerships on new park activities and management.

STATE PARKS 2018 BUDGET AND EXPENDITURES

Section Name	Budgeted	Expenditures
Park Operations	\$38,119,662	\$37,894,249
Administrative Transfer	\$3,950,000	\$2,950,782
Parks Fund Repairs and Maintenance	\$3,322,583	\$2,970,156
Parks Fund Capital Outlay	\$4,315,463	\$4,315,463
Total	\$49,707,708	\$48,130,650



THE BENEFITS OF UNSOLICITED FEEDBACK FROM PARK GUESTS: TRIP ADVISOR

Most public and private programs and business settings have some form of feedback mechanism that addresses customer satisfaction. Historically, these have taken many forms such as customer comment cards, personal surveys, as well as the classic phone surveys. In more modern times, email questionnaires and surveys prompted through social media platforms have become the normal modes of soliciting customer and participant feedback.

In the past, most forms of guest experience surveys offered a set of very specific questions designed to focus on key criteria. The idea of allowing a guest or customer to offer their own review of a product or experience was considered taboo. They might say things an operator didn't want to hear, and you certainly wouldn't want other customers to be aware of such unsolicited and unstructured commentary. Crazy notions indeed!





ENTER THE AGE OF SOCIAL MEDIA

As we entered the new millennium, modern technology changed the way society communicates, and how we share ideas and opinions. We moved beyond the simple notion of offering information through a website and started getting comfortable with actually sharing opinions, ideas, experiences, and general feedback through social media platforms like Facebook, Twitter and Instagram. The business world was paying attention also. For companies like Trip Advisor, which started out simply wanting to consolidate and share the official word on travel destinations within guidebooks and other media, the concept of having site visitors offer their own trip review was something of an afterthought. Like so many great concepts, intentional or otherwise, the option of offering an unsolicited review of the destination took off like a flock of turkeys!

Alabama State Parks first started seeing Trip Advisor reviews of our parks in 2012 and 2013. Managers became aware of the guest comments and responded where hospitality deficiencies were noted. Shortly after that initial exposure, park managers began to see the promotional opportunities of marketing the parks through the Trip Advisor website. What really changed opinions and perspectives was when the first park received an annual award known as a Certificate of Excellence.

For years, the park system's internal customer surveys demonstrated that park guests had a high level of satisfaction with the parks' amenities and services. Because of the historic nature of customer comment cards, much of that feedback came from the guests staying in our overnight accommodations—campgrounds, cabins, and lodges. Social media options like Facebook advanced the degree of communication with day visitors, but guest feedback was largely guided and with limited perspective. In 2013, things began to change as several parks received notifications from Trip Advisor that the annual scoring of guest

reviews warranted recognition through their Certificate of Excellence program. The awards represent the top tier of hospitality venues. The actual scoring is done through Trip Advisor's proprietary algorithm, relying on criteria that consider a high level of responsiveness and acceptance, and locations with a regular pattern of guest visitation. A candidate site must also have no fewer than four out of five stars assigned by guest reviewers.

In 2014, the list had grown to include the following nine parks to receive the Trip Advisor Award of Excellence: Gulf, Cathedral Caverns, Chewacla, DeSoto, Lakepoint, Monte Sano, Oak Mountain, Lake Guntersville and Joe Wheeler. Over the following years, additional parks began to achieve the awards, and some parks began to receive multiple awards recognizing the diversity of venues with a given park.

In 2018, 16 Awards of Excellence were bestowed upon the Alabama State Parks system, including two of the system's smallest parks, which received the award for the first time ever (Meaher State Park and Rickwood Caverns State Park)! Of great note was the fact that seven parks were inducted into Trip Advisor's Hall of Fame for receiving the Award of Excellence for FIVE consecutive years: Gulf, Cathedral Caverns, Chewacla, DeSoto, Monte Sano, Oak Mountain and Joe Wheeler. The Hall of Fame Award was truly a great surprise because none of the staff were even aware of that recognition.

The awards have been great for our entire parks program because they reaffirm the quality of venues and facilities that our park system offers. This recognition spills over on the staff, volunteers, and the community partners who assist us each year. Most importantly, the Trip Advisor Awards of Excellence portray our parks in a positive light through an international standard that has become the "Gold Star." When it comes to putting your best foot forward with potential new visitors, nothing could be better than that. ■

WILDLIFE AND FRESHWATER FISHERIES



The **Wildlife and Freshwater Fisheries Division**, charged by law with protection, management and enhancement of the state's fish and wildlife resources, is composed of the Administrative, Law Enforcement, Fisheries and Wildlife Sections. The Division meets these responsibilities by carrying out coordinated, scientifically-sound enforcement, management, research, development, and educational programs designed to ensure protection and enhancement of fish and wildlife populations and habitats for the sustainable benefit of the people of Alabama.

ADMINISTRATIVE SECTION

Wildlife Diversity: State Wildlife Grants and Landowner Incentive Programs are two federal funding sources intended to focus management on imperiled wildlife species and avoid their eventual listing under the Endangered Species Act. Federal funding to the State Wildlife Grants program in FY18 was \$778,029. These funds are used to support various research and species restoration efforts, including the following projects:

- Reintroduction of the federally threatened Eastern indigo snake onto Conecuh National Forest. A total of 169 snakes have been released to date.
- Support of the Alabama Aquatic Biodiversity Center
- Comprehensive Examination of Black Bear Ecology and Management in Alabama
- Aquatic Snail Survey of Alabama
- Habitat Ecology of the Southeastern Pocket Gopher
- Eastern Hellbender Surveys
- Implementation of the State Wildlife Action Plan.

For FY18, the Landowner Incentive Program received \$115,000 for aquatic habitat restoration on private lands. These federal funds were awarded through the U.S. Fish and Wildlife Service, Partners for Fish and Wildlife Program.

These programs are administered by one biologist, the Habitat and Species Conservation Coordinator, who works closely with Wildlife and Fisheries sections staff. Both programs interact with and engage a broad range of partners, including federal and state agencies, universities, non-government organizations and private landowners.

FISHERIES SECTION

Responsibilities and Functions

The Fisheries Section's mission is to protect, conserve and increase the freshwater aquatic resources of Alabama.

Accomplishments

Technical Assistance: Technical Assistance: District fisheries biologists conducted 267 biological checks of private ponds. Individuals requesting assistance with problems were given appropriate solutions in writing. Staff members participated in meetings and conference calls concerning the licensing and relicensing of hydroelectric projects. District biologists investigated 20 reported fish kills and cases of pollution. Formal reports prepared by the investigators were sent to the appropriate agencies.

Environmental Affairs: The Fisheries Section reviewed, investigated, and commented on 181 water-related permits and environmental impact statements with potential adverse impacts to state aquatic resources.



JENNA CROVO

WILDLIFE AND FRESHWATER FISHERIES BUDGET AND EXPENDITURES

Section	Budgeted Amount*	Expenditures
Admin	\$1,548,346	\$933,858
Law Enforcement	\$14,055,022	\$12,988,950
Fisheries	\$9,443,230	\$8,047,025
Wildlife	\$29,137,523	\$27,549,259
Wildlife Diversity	\$1,141,459	\$303,490
Transferred to Department Administrative Expenses	\$4,400,000	\$3,509,359
TOTAL	\$59,725,580	\$53,331,941

* Funding includes Federal Aid in Wildlife and Sportfish Restoration monies apportioned to Alabama based on the state's geographical size and hunting and fishing license sales.

The highly favorable budget variance is due to an internal budget cut decision made by the Division.

WILDLIFE AND FRESHWATER FISHERIES DIVISION STAFFING

	FILLED	VACANT**
FULL TIME POSITIONS	306	24
PART TIME POSITIONS	24	3

** Vacancy count is based on the 2018 operations plan.

Public Fishing Lakes: A total of 108,160 anglers harvested 152,469 fish weighing 121,876 pounds from 21 of the 23 State-operated Public Fishing Lakes (PFLs). Each angler averaged 1.1 pounds of fish per trip and 1.4 fish per trip, which is slightly lower than the weight and number of fish harvested in FY17. The number of anglers fishing on Alabama's PFLs decreased approximately 10 percent from FY17. Due to lake manager resignations, four PFLs temporarily closed resulting in a decrease in angler usage. In addition, Washington County PFL was closed for renovation and restocking. Fayette and Lower Clay County PFLs remained closed for renovation.

Fisheries biologists and support personnel made 664 visits to PFLs to evaluate the condition of fish populations and to conduct operational and maintenance activities. The Carbon Hill, Eastaboga and Marion Fish Hatcheries stocked a total of 1,903,732 fish into Alabama's PFLs. This includes forage fish stockings by district fisheries biologists. Species stocked include bluegill sunfish, channel catfish, hybrid striped bass, redear sunfish and threadfin shad. Additionally, 1,200 pounds of rainbow trout were stocked into Madison County PFL for a winter fishery.

Four new lake managers were contracted during FY18 at Escambia, Madison, Marion, and Lee County PFLs. These lakes were temporarily closed and reopened for the spring fishing season. Due to poor fishing and low permits sales, Washington County PFL was drained and will be restocked in FY19. Prior to draining, Washington County PFL was temporarily opened to fishing without a lake manager on site to determine the effectiveness of fishing permit sales via online, probate office and license agent. A total of 222 fishing permits were purchased by anglers over a 10-week period for Washington County PFL.

Fayette County PFL is scheduled to reopen in the spring of 2019. Lower Clay County PFL is scheduled to reopen in the fall of 2018. Major repairs to the spillway and dam at Barbour County PFL were initiated and will be completed in FY19.

Access Areas: During the year, routine maintenance and inspection visits of 114 access areas were made by Fisheries Section personnel. These facilities are comprised of 142 boat ramps with 177 launch lanes, 114 courtesy piers, and parking for 3,537.

WORK COMPLETED AT BOATING ACCESS AREAS STATEWIDE

Task	Task Number of Access Areas
Wooden courtesy piers were repaired/treated	23
Weeds treated or bush-hogged	18
Dead trees/limbs trimmed or removed	6
Rip-rap placed to control erosion	1
Signs replaced or maintained	28
ADEM water quality signage installed	67
General inspection	347
Sites inspected for potential boating access projects	11
Parking lots patched/repared	4
Parking bumpers installed	1
Parking lots restriped	5
Surveys completed for project planning	10

Fisheries Section staff met in person and corresponded by mail, phone, and e-mail with various appointed and elected officials representing city, county, state, and federal governments, private stakeholders, and contractors, to coordinate, plan, and develop, statewide renovation and construction projects; renewed and executed various lease, construction, and maintenance agreements, as needed; applied for required permits and concurrences to complete project activities; maintained a boating access inventory database and ADA transition plan; prepared and filed grant applications, amendments and reports in TRACS; improved and maintained an Excel spreadsheet used for accurately estimating project costs.

Fisheries Section staff obtained ADEM signage and distributed to district offices for installation; completed maintenance renovation of ramp at East Diversion (Cherokee Co.); maintained a boating access inventory database; continued working with the I&E Section to develop an educational boating access construction video; worked with the Legal Section to develop new language for agreements and regulations that will help address parking conflicts, adheres to FERC requirements, and adheres to laws and regulations; and maintained the boating access administrative webpage.

Fisheries Section Staff attended a series of meetings related to construction at Leesburg (Cherokee Co.), Canoe Creek (St. Clair Co.) and Smith Lake Park (Cullman Co.). Construction plans for future renovations or new projects at access areas statewide were developed. Phase I of a major boat ramp expansion project at Smith Lake Park (Cullman Co.) was completed. Phase II of a major boat ramp expansion project was completed at Leesburg (Cherokee Co.). Construction of the Canoe Creek (St. Clair Co.) access area was completed. Construction of a major parking lot expansion at Beeswax Creek (Shelby Co.) was initiated. Construction of two new access piers, a new fishing pier, and ADA-compliant sidewalks were initiated at Lay Dam (Chilton Co.) access area. One new courtesy pier was installed at Shoal Creek (Lauderdale Co.) access area. Construction was initiated at Barnett's (Lauderdale Co.) access area to install a new access pier and construct ADA sidewalks. The parking lot at Chocolata Bay (Baldwin Co.) access area was repaved due to a ruptured waterline under the parking lot.

Fisheries Habitat: With the cooperation and assistance from private individuals, state and federal agencies, corporations, utility companies, and various conservation groups, the habitat enhancement program installed 850 fish-attracting devices (FADs) on 11 public reservoirs. Six "Fish Attractor" buoys were installed on four reservoirs to assist anglers in locating FADs. Ninety-two trees were felled on five reservoirs (Harris, Jordan, Mitchell, Weiss and Yates) to increase cover for fishes in littoral zones. Twenty-five tons of pea gravel were installed in Point A Reservoir to enhance spawning substrate. Aquatic habitat improvements in the form of native aquatic vegetation establishment took place on six reservoirs. Martin, West Point, Logan Martin, Smith, Weiss and Jordan received 1100, 600, 600, 1000, 600 and 500 buttonbush (*Cephalanthus occidentalis*) plants, respectively. Smith and Martin Reservoirs received approximately 1200 ft.² of water willow (*Justicia americana*). Underwater camera surveys and monitoring of all habitat enhancement activities are ongoing.

Fish Hatcheries: FY 2018 fish production goals were met or exceeded for black bass species, channel catfish, striped bass, hybrid striped bass, bluegill and redear sunfish. Other fish species were also stocked into public waters statewide through the Fisheries Section's program, which included public fishing lakes; totaling 3,380,660 fish. This information is provided in Table 1.

Public Water Fish Stockings by Permit Holders: Six permits for stocking fish in public waters were issued to agencies and organizations that desired to stock fish to support youth fishing events. A list of the fish species and sites being stocked by permit holders is provided in Table 2.

**TABLE 1:
FISH STOCKED BY WFF FISHERIES SECTION INTO
ALABAMA PUBLIC WATERS DURING FISCAL YEAR 2018**

Species	Inch Group	Number
Largemouth Bass - Florida	1-2	315,749
Striped Bass - Gulf Race	1	753,218
Hybrid Striped Bass	1	364,973
Channel Catfish	3-14	117,088
Bluegill Sunfish	1-4	1,107,550
Redear Sunfish	1-2	667,382
Black Crappie	3-8	7,410
White Bass	3	300
Southern Walleye	1-2	13,590
Rainbow Trout	6-15	33,590
Total		3,380,660

**TABLE 2:
FISH STOCKED BY PERMIT HOLDERS INTO
ALABAMA PUBLIC WATERS DURING FY 2018**

Species	Location	Number or Weight
Rainbow Trout	Tannehill State Park	600 lbs.
Channel Catfish	R.L. Harris Lake	500 lbs.
Channel Catfish	Neely Henry Lake	1,000 lbs.
Channel Catfish	Guntersville Lake	1,000 lbs.
Channel Catfish	Logan Martin Lake	1,000 fish
Channel Catfish	Blue Eye Creek	500 lbs.

Presentations: Fisheries Section biologists attended public meetings and workshops on fisheries resource topics around the state and nation. In addition to the aquatic education efforts, biologists made 28 presentations to 743 people and gave 386 talks.

Publications: Two peer-reviewed scientific journal articles were prepared for publication by Fisheries Section staff. District I staff wrote an article about Asian carp for the Alabama Hunting and Fishing Digest. Other staff members were interviewed for articles written by others, and photographs were supplied for articles.

Fisheries Research: Through the Investigation and Management Techniques for Public Waters Project (Sport Fish Restoration F-40), there were several ongoing contractual studies with investigators from the Auburn University School of Fisheries, Aquaculture, and Aquatic Sciences (AU-SFAAS) and the Samford University Department of Biological and Environmental Sciences that were initiated in a prior fiscal year. These studies included: "Contributions of Genotype and Environment in Hybridization and Performance of Native and Introduced Largemouth Bass Populations in Alabama," "Potential Striped Bass Recruitment and Distribution of Larvae in Wheeler Reservoir, Alabama," "Assessing the Impact of the Introduction of Blueback Herring in Alabama," "Economic Value of Recreational Fishing on Lake Eufaula (AL)," and "Investigation of the Trout Fishery in the Sipsey Fork Below Lewis Smith Lake." One new contractual study, "Assessing Reservoir Creel Survey Methods for Alabama," was initiated in FY 2018 with AU-SFAAS.

Reservoir Management: Largemouth bass, spotted bass, black crappie, white crappie, sauger, bluegill, redear sunfish, threadfin shad, gizzard shad, blue catfish, and flathead catfish populations were sampled by several methods such as electrofishing, trap netting, gill netting, prod pole, seining, and/or trawling in the following water bodies: Pickwick, Guntersville, Wilson, Wheeler, Weiss, Logan Martin, Mobile Delta, Claiborne, Lake LU (University of West Alabama), Demopolis, Duck River, Eufaula, Millers Ferry, Neely Henry, Harris, Jones Bluff, Jordan, Bankhead, Warrior, Lake Lurleen and Lake Jackson. Collected specimens were measured, weighed, and many were aged to determine growth rate. Thermal and oxygen profiles were collected from the majority these reservoirs.

Reservoir reconnaissance surveys were completed on some reservoirs where standardized sampling was performed. The results of these surveys are incorporated into reservoir management reports. Relative values of angler harvest, effort, and pressure were collected by creel surveys on selected reservoirs.

General Surveys: Sampling for Asian carp was conducted in Wheeler and Pickwick Reservoirs. Blackwater Creek and Mulberry Fork were sampled to determine the abundance of southern walleye. Redeye bass were sampled in the Cahaba River to assess genetic composition. An index of biological integrity (IBI) was conducted in the Weiss Bypass. Stream IBIs were completed at 11 sites.

Endangered Species (Section 6) Aquatic Studies: Through the Cooperative Endangered Species Conservation Fund (Traditional Section 6 of the Endangered Species Act), the following studies were conducted: Alabama and Gulf sturgeon survey; Pygmy Sculpin population monitoring; and status of the Snail

Darter and Coal Darter. The following projects were funded with Reverted Section 6 funds: status of the Bridled, Trispot and Holiday darters; and Frecklebelly Madtom.

Aquatic Education Program: The Fisheries Section, with assistance from other sections of the Wildlife and Freshwater Fisheries Division, conducted 39 fishing events reaching over 4,798 participants plus their families and volunteers. Fishing classes were conducted for various audiences (mostly youth) during 139 sessions that reached 3,831 participants. One hundred and two casting classes were taught for 3,831 participants. One hundred and nine talks about Alabama's aquatic resources were presented to a total audience of 2,820. Additional information was presented to the public through displays for eight events, and the Sportfishin' Simulator was used at one event. Eight presentations were made to 72 instructors of various types about casting, fishing and/or aquatic education.

Freshwater Malacology Management and Research: A total of 104 biological field trips, sampling streams statewide, were made during this fiscal year for general and specialized surveys of mussel and snail populations and to locate brood stock sources for use at the Alabama Aquatic Biodiversity Center. Assistance and consultation regarding mollusk issues were provided to the U.S. Fish and Wildlife Service, Tennessee Valley Authority and the University of Alabama.

River and Stream Fishes Program: A total of 156 biological trips were conducted by staff with the River and Stream Fisheries (RSF) Program. Sampling continued for the most endangered sturgeon species in world, the Alabama Sturgeon. However, none were collected this past fiscal year.

Water samples were collected in the Tombigbee and Alabama rivers to employ eDNA detection as a method to determine the presence or absence of Frecklebelly Madtom, a petitioned species. Traditional sampling was also conducted for Frecklebelly Madtom in the Mobile River basin.

Acoustic receivers were deployed above and below Guntersville Lock and Dam to monitor any upriver passage of tagged Silver Carp in the Tennessee River. No Silver Carp passage was evident to date.

As part of a cooperative project among Gulf States, we began collecting American Eel to assess the species status in Alabama. Collection continued for the soon-to-be-described southern walleye to establish a brood stock and continued tracking of tagged fish to determine movement and habitat preferences in the Mulberry Fork. Population monitoring of the threatened Pygmy Sculpin continued with staff conducting quarterly standardized visual snorkeling counts in Coldwater Spring. Sampling continued for Shoal Bass and Alabama Shad to determine potential declines in abundance for each species.

The Stream Fish Assessment Project continued with 40 sites sampled in five watershed management districts by RSF staff and Auburn University. Stream fish samples continue to be processed. RSF staff worked with several bowfin tournaments to gather basic biological data in Alabama as this species may become important in the future for caviar. A total of 178 (49 general) state-protected scientific collection aquatic permit applications were reviewed.

**TABLE 3:
PROPAGATED MOLLUSKS RELEASED BY AABC DURING FISCAL YEAR 2018**

Species	Location	Cohort	Date	Number
<i>Elimia capillaris</i>	Coosa River, Weiss Bypass	2016	11/10/2017	1,251
<i>Medionidus conradicus</i>	Bear Creek (Rock Creek)	2016	7/5/2018	101
<i>Toxolasma cylindrellus</i>	Bear Creek (Rock Creek)	2016	7/5/2018	277
<i>Toxolasma cylindrellus</i>	Duck River (Hooper)	2016	7/12/2018	150
<i>Toxolasma cylindrellus -lc</i>	Duck River (Hooper)	2016	7/12/2018	20
<i>Lampsilis virescens</i>	Elk (State Line Shoals)	2017	7/19/2018	290
<i>Lampsilis virescens</i>	Elk (Downstream Veto Bridge)	2017	7/19/2018	250
<i>Epioblasma penita</i>	Cahaba River (Centreville @ US 82)	2016	7/24/2018	300
<i>Villosa nebulosa</i>	Blackburn Fork	2016	7/24/2018	575
<i>Villosa nebulosa</i>	Locust Fork (Snead)	2016	7/24/2018	575
<i>Toxolasma cylindrellus</i>	Paint Rock (RM 33)	2017	7/25/2018	250
<i>Toxolasma cylindrellus</i>	Paint Rock (RM 50.7)	2017	7/25/2018	250
<i>Lampsilis virescens</i>	Paint Rock (RM 33)	2017	7/25/2018	250
<i>Lampsilis virescens</i>	Paint Rock (Butler Mill)	2017	7/25/2018	250
<i>Toxolasma cylindrellus</i>	Bear Creek (Rock Creek)	2017	7/31/2018	487
<i>Lampsilis virescens</i>	Bear Creek (Rock Creek)	2017	7/31/2018	200
<i>Lampsilis virescens</i>	Bear Creek (Visitor Lot)	2017	7/31/2018	200
<i>Lampsilis virescens</i>	Bear Creek (Strophitus Site)	2017	7/31/2018	200
<i>Lampsilis virescens</i>	Shoal Creek (TN site 1)	2017	8/1/2018	259
<i>Lampsilis virescens</i>	Shoal Creek (TN site 1)	2017	8/1/2018	167
<i>Lampsilis virescens</i>	Shoal Creek (TN site 2 state line)	2016	8/1/2018	259
<i>Lampsilis virescens</i>	Shoal Creek (TN site 2 state line)	2017	8/1/2018	167
<i>Lampsilis virescens</i>	Shoal Creek (AL site 3)	2016	8/1/2018	259
<i>Lampsilis virescens</i>	Shoal Creek (AL site 3)	2017	8/1/2018	167
<i>Lampsilis virescens</i>	Shoal Creek (AL site 4)	2016	8/1/2018	259
<i>Lampsilis virescens</i>	Shoal Creek (AL site 4)	2017	8/1/2018	167
<i>Lampsilis virescens</i>	Sequatchie River	2017	8/8/2018	600
<i>Epioblasma penita</i>	Lower Bull Mountain Creek	2016-2017	8/15/2018	343
<i>Epioblasma penita</i>	Cahaba River (Centreville @ 82)	2017	8/16/2018	72
<i>Toxolasma cylindrellus</i>	Duck River - Hooper Island	2017	9/4/2018	766
<i>Hamiota altilis</i>	Little River (AL 273)	2017	9/12/2018	198
AABC mollusk reintroductions completed in 2018				9,559
AABC Threatened & Endangered mollusk reintroductions completed 2018				7,057

The following peer-reviewed paper was authored by RSF staff: Rider, S. J. and T. R. Powell. 2018. First Record of *Ameiurus catus* (Siluriformes:Ictaluridae) from the Conecuh River, Alabama. *Southeastern Naturalist*: 17(3):N44-N50. As part of the 2017 Southern Division American Fisheries Society Paddlefish Symposium; the following draft manuscript was developed: Rider, S. J., D. K. Riecke, and D. L. Scarnecchia. Proactive Harvest Management of Commercial Paddlefish Fisheries, soon to be published.

Alabama Aquatic Biodiversity Center: The Alabama Aquatic Biodiversity Center (AABC) assisted numerous research and monitoring efforts in FY 2018. The unit assisted research projects with the USFWS (3), University of Alabama (2), Auburn University (1) and completed a published research project at Troy University (1).

The AABC provided animals for various projects at Missouri State University, University of Michigan, The Royal Canadian Museum, and the Research Center in Biodiversity and Genetics, University of Porto, Portugal.

The AABC also completed monitoring of multiple reintroduction efforts, including five-year fixed quantitative monitoring of the Paint Rock River. That effort confirmed reintroduction of Pale Lipiliput (*Toxoplasma cylindrellus*) at two reintroduction sites in the lower Paint Rock River.

The AABC stocked 8,308 individuals of six different Greatest Conservation Need and Threatened and Endangered freshwater mussels into 11 different drainages in FY 2018 (Table 3 on page 45).

AABC staff completed 83 biological trips conducted in support of aquatic species research and recovery activities statewide. AABC staff provided technical assistance 143 times to other state, federal and non-governmental organizations. AABC staff participated in 27 different technical meetings across the state. AABC staff was involved in a total of 23 different outreach activities with respect to interaction with other government agencies, academic institutions, and non-governmental organization.

One localized mollusk kill investigation was conducted by AABC staff in FY 2018.

FUTURE ISSUES

Public Fishing Lakes: Recruitment of qualified lake managers at rural lakes, low participation at rural lakes and aging facilities such as concession buildings are significant problems. Alternative management options are being evaluated at low angler-use lakes.

Riverine Habitat: The loss of riverine habitat in Alabama has resulted in the decline or loss of obligate riverine fishes. Efforts continue to document habitat loss and provide suitable riverine habitat where possible. Alabama needs to complete development of a statewide comprehensive water plan that includes instream flow protection to protect aquatic wildlife and habitats as its cornerstone.

Aquatic Nuisance Species (ANS): ANS pose a significant problem to the State of Alabama. These are species introduced outside of their native ranges that can grow in or are closely as-



Conservation enforcement officers train for every situation

sociated with aquatic environments. They pose a direct threat to recreational and commercial fishing resources and can have significant negative impacts to local economies that are dependent on aquatic recreational activities. Very little funding is available to address this problem.

The expansion of the silver carp population that are now are moving upstream in the Tennessee River from the Mississippi and Ohio Rivers is the most immediate threat to Alabama waters. WFF is cooperating with the state fisheries agencies of Tennessee, Mississippi and Kentucky, as well as the USFWS and the USGS, to monitor silver carp expansion in the Tennessee River and to seek federal funding to assist with the deterrence and management of this invasive species within the Tennessee River.

Fish Hatcheries: Many production ponds, including drain kettles, water supply lines, drainage lines and power supply to the ponds, need renovation.

Fishing License Sales: The continued trend of flat to falling revenue from the sale of fishing licenses remains a concern. The Fisheries Section's efforts to positively reverse this trend include an increase in staff time conducting casting and fishing classes as well as increased assistance with 4-H fishing programs. Renewed and increased marketing efforts with evaluation are being conducted to encourage license renewals.

LAW ENFORCEMENT SECTION

The Law Enforcement Section of the Wildlife and Freshwater Fisheries Division provides assistance in the protection and management of Alabama's wildlife resources and the safety of the public through a fair and balanced enforcement program.

Accomplishments

2018 marked the 111th anniversary of our agency. The enactment of the statute that made the Department of Game and Fish a State Department and provided ample laws for the preservation and protection of the game and fish of Alabama occurred in February 1907.

The Law Enforcement Section began a research project in 2017 that sought to identify the names of all Conservation Enforcement Officers who had lost their lives in the line of duty since the agency's founding in 1907. By year's end, 12 officers had been identified. A "Wall of the Fallen" was constructed on the fifth floor of the Folsom Administrative building to serve as a memorial to these officers. Portraits of all 12 fallen officers are prominently displayed. The Alabama Conservation Enforcement Officers Association provided funding for this long-overdue project. A dedication service was held on February 20, 2018, with Governor Kay Ivey as the keynote speaker.

This year all Conservation Enforcement Officers attended "Balancing Your Bias" training. The goal of this training is to provide the Conservation Enforcement Officer with a greater depth of knowledge and understanding of the different minority and ethnic groups that they interact with daily. This training gives several common-sense approaches to the daily challenges that a law enforcement officer faces and methodologies to make them safer while doing so. The training was universally well-received.

In the fall of 2017, instructors within the Law Enforcement Section underwent wilderness medical training with Hugh Coffee of Ditch Medicine, LLC. This training better prepared them to deal with gunshot wounds, broken bones, etc., that can be encountered while on patrol. This training was incorporated into our Rural Operations training program that began in the spring of 2018.

The Division continued its procurement of Colt Model 6720 lightweight AR-15 rifles. These have been obtained by trading in condemned evidence firearms and those guns that have been used for training over the last few years. At the current time, 75 percent of our Law Enforcement certified officers are equipped with these Colt carbines. The remaining staff continue to carry the aging Colt M-16 rifles obtained through the 10-33 program.

The Law Enforcement Section provided approximately 20 training sessions to search and rescue squads across the state during 2018. This program was initiated to teach "man tracking" skills that all Conservation Enforcement Officers learn early in their careers and continue to hone daily. Rescue squads are tasked with locating lost children, the elderly and those suffering from Alzheimer's disease and dementia. This program is another way of showing the Conservation Enforcement Officer in a positive light to groups that may not typically have any interaction with our agency. Further requests for this training have been heavy.

Law Enforcement administrators worked diligently to update the Law Enforcement Section Policies and Procedures Manual, as well as the Field Training Officer Manual. These resources are now fully available online with fillable forms that can be accessed by all staff at any time. Having this information available eliminates the need to maintain paper copies of training manuals and ensures that all officers have the most up-to-date information at their fingertips. Having fillable forms that can be electronically signed and submitted saves time and money.

Awards

The following recognitions were based upon superior performance in the field of wildlife law enforcement in their respective regions during the past year:

- Shikar Safari International Club Officer of the Year – C.E.O. Sr. Jason Bassett, St. Clair County.
- Alabama Chapter of the National Wild Turkey Federation Conservation Officer of the Year – C.E.O. Sr. Jody Yancey, Cherokee County.
- Southeastern Association of Fish and Wildlife Agencies Officer of the Year – C.E.O. Sr. Vance Wood, Montgomery County.
- Alabama Wildlife Federation Fisheries Conservationist of the Year – Sgt. Alan Roach, Dallas County.
- Alabama Wildlife Federation Enforcement Officer of the Year – C.E.O. Sr. Micky Tait, Wilcox County.

Problems and Unmet Needs

The Law Enforcement Section hired seven new officers during the past year; however, we are still at historically low staffing levels. The past year's hiring has been in response to retirements. Approximately 35 percent of our current staff have been hired within the last five years. Budget cuts are likely due to a continued decrease in hunting license sales; it is unknown when we will be able to significantly increase our staffing levels. Additional dedicated funding from license sales or other sources is necessary to safeguard public resources and continue current levels of public service.

Resistance to further needed regulation of the commercial deer breeder trade in Alabama continues to be severe. Our secure online game breeder database went live June 1, 2018. The database allows for deer breeders to conduct business transactions and the required notifications in a secure online system, even with the use of a smartphone. This greatly reduces the workload on the Law Enforcement Section staff, who have spent a great deal of time in the past conducting these actions for the breeders. Though this system has been very successful, one association representing some of the deer breeders remain opposed to many of the common-sense aspects of deer breeder regulation.

Our communications remain a major officer safety concern as we continue to rely on a commercial carrier for law enforcement dispatch. The Law Enforcement Section recently transitioned to a new PTT over LTE commercial network moving away from an older network used for the past 19 years. This transition is ongoing, and we are experiencing several technical and service issues with the new service that we hope to work through with support from the vendor. We are continuing to look for long-term solutions to officer communications as this system is not proven in emergency situations.

Enforcement Action

Chronic Wasting Disease (CWD) was detected in Mississippi this year, which brings the threat of this disease to our state's border. Increased surveillance in Alabama counties bordering Mississippi is the immediate response. The Law Enforcement Section worked several details along highway routes coming into our state with the goal of more aggressive enforcement of our importation ban.

The regulation banning importation of deer carcasses from outside states continues to have an impact as officers are consistently prosecuting individuals knowingly violating this ban. Deer processors continue to notify the agency about the importation of banned parts. With the assistance of Auburn University, we have disposed of multiple carcasses that could have put the state at risk. Alabama's importation regulation was expanded from banning the importation of cervid parts from only those states known to be CWD-positive (25) to banning parts from any state. This change considers the fact that not all states are testing for the presence of CWD and not as diligently as Alabama. This regulation was also recently amended to ban the use of imported cervid urine products to further protect Alabama's deer herd.

WILDLIFE SECTION

The mission of the Wildlife Section is to manage and enhance the wildlife resources of Alabama for the sustainable benefit of the resource and the people of Alabama.

Accomplishments

Research and Surveys: Annual biological surveys and research were continued throughout the state to obtain information on wildlife and their habitats to enable our biologists to make better management decisions. Aerial waterfowl censuses and hunter bag checks were continued in the Mobile-Tensaw Delta and on the Tennessee River during fall and winter. The winter count is conducted in conjunction with other states and the U.S. Fish and Wildlife Services (USFWS) as part of the annual mid-winter waterfowl survey to assess wintering populations of waterfowl. Aerial counts were also conducted for bald eagles as part of the national mid-winter bald eagle survey.

The annual mourning dove study, part of a nationwide project, consisted of trapping, banding, and releasing mourning doves. For this project, 1,014 mourning doves were banded and released, and data submitted to the Bird Banding Laboratory of the U.S. Geological Survey. Data from reported band returns will be analyzed by the USFWS to provide parameters needed for dove population modeling such as band return rates, harvest rates, and estimates for mortality and survival.

Spring turkey hunters participated in an avid turkey hunter survey to collect statewide data on gobbling activity (number of gobblers and gobbles heard), turkeys seen, and gobblers harvested for each day hunted during the season. Wildlife personnel and volunteer cooperators collected statewide observational brood data wild turkey in July and August. These observations were collected incidental to normal activities in the field. Field staff and volunteers recorded observations of all hens, poults, and gobblers, and each observation during any day was recorded separately. Observations were collected statewide and the data were separated by the five WFF districts, by six ecoregions (Piedmont, Southeastern Plains, Ridge and Valley, Southwestern Appalachians, Interior Plateau, and Southern Coastal Plain) and by public or private lands. The results of the avid turkey hunter survey and brood survey were published in a wild turkey report entitled Full Fans & Sharp Spurs.

Wildlife personnel continue to conduct game camera brood surveys in July and August. These surveys were conducted on WMAs that have wild turkeys present. The game camera survey results will be compared to observation results on WMAs where both methods are employed. These projects are ongoing.

Wildlife biologists participated in annual surveys to monitor the status of breeding birds in Alabama. Participation continues in the continent-wide Breeding Bird Survey (BBS). Eight total BBS routes were conducted across Alabama increasing the total number of completed BBS routes to 175 over a span of nearly 25 years. Six routes were run in southwest Alabama, and two in north Alabama. The BBS program is the most important census program for tracking population trends of land birds across the landscape.



Two Christmas bird counts were conducted, one in south Alabama and one in central Alabama, to assess winter bird populations. Wading bird rookery surveys were conducted across the state to monitor known breeding locations and survey for additional sites. A total of 43 rookeries were surveyed with 12 wading bird species detected. Surveys will continue to better assess trends of breeding wading birds in Alabama.

Shorebird populations were monitored in Mobile County where nearly all of Alabama's colonial shorebird colonies are located. Gaillard Island in Mobile Bay is historically the most important single site. The island contained 5,000 brown pelican nests and an equal number of laughing gull nests. Also, over 2,000 pairs of royal terns and Caspian terns nested on Gaillard Island. Islands in the Mississippi Sound are often important nesting locations. Cat Island once held a growing pelican population away from Gaillard Island, but in 2018 no colonial nesting birds used the island, which continues to shrink from wind and wave action.

Nearby Marsh Island, which has seen the addition of 50 acres created by a habitat restoration project, attracted a significant number of nesting birds for the first time. Over 2,000 pairs of royal tern, Caspian tern, gull-billed tern, and black skimmer nested on the island. This should continue in the near future as the habitat remains suitable for nesting.

Solitary nesting American oystercatcher, snowy plover, and Wilson's plover continue to nest in low numbers in Mobile County

on Cat Island, Isle Aux Herbes, and undeveloped portions of Dauphin Island. However, snowy plover has been increasing in Baldwin County, particularly on Bon Secour National Wildlife Refuge property. Birds are closely monitored and protected by refuge staff and personnel of the newly initiated Alabama Coastal Bird Stewardship Program funded by Alabama Audubon. Twenty pairs of snowy plovers were monitored in Baldwin County.

Nongame program biologists conducted eight surveys for bat Species of Greatest Conservation Need (SGCN) at various locations in Alabama. Methods included mist-netting, harp-trapping, emergence counts, and acoustic or video surveillance. Greater resolution of the range and distribution of SGCN bats is needed to support and refine regulatory oversight of threatened and endangered bats in Alabama and to more precisely target actions to meet species' recovery criteria. This year an intern was hired to assist with field work and enter the data into the bat database. The intern's summer employment enabled completion of nine nights of bat surveys compared to four over the same period for the previous year without an intern, and she significantly reduced a four-year backlog of data entry.

The nongame biologist for North Alabama serves as the leader of the Alabama Bat Working Group. The Mission of the ABWG is to communicate, collaborate, and coordinate efforts to conserve bats in Alabama. The ABWG undertakes two major events each year to promote bat conservation in Alabama, an Annual Meeting and a Bat Blitz. This year the ABWG held its first Joint

Bat Blitz with the Georgia Bat Working Group. Forty-six people from state, federal, academic, nonprofit and private entities participated. The 2017 fall meeting was hosted by the Oak Mountain Interpretive Center at Oak Mountain State Park, with 45 people attending. The ABWG continues to grow in membership and refine efforts toward bat conservation.

The Nongame Program continues work to better understand the distribution and habitat use of Eastern spotted skunks in Alabama. Once considered common in Alabama, the range, distribution, and population size of eastern spotted skunk is now unclear following an apparent precipitous decline of the species. Biologists continue to receive reports of eastern spotted skunks through a citizen science project to raise awareness of the skunk and engage the public in conservation. The most successful media outlet generating reports has been the annual advertisement in the Alabama Hunting and Fishing Digest. As of September 30, 2018, 24 verifiable reports were received with photographs of skunks. Results suggest the skunk maintains a sparse, statewide distribution with a core population in the Piedmont region.

Nongame Program staff provided logistic and field support to Dr. Andrew Edelman and his students at the University of West Georgia studying Eastern spotted skunks with funding from ADCNR. Dr. Edelman reported on results of the work at the Wildlife Section annual staff meeting, the Annual Colloquium on the Conservation of Mammals in the Southeastern U.S., and the Annual Conference of The Wildlife Society. His students presented two posters at the annual meeting of the Georgia Chapter of The Wildlife Society. Nongame biologist Nicholas Sharp was a co-author on these presentations and posters.

The Division received \$364,593 in federal funds for projects on fish and wildlife species eligible for funding under Section 6 of the Endangered Species Act. Approximately one-half of the funds were for projects administered by the Wildlife Section. Population and status surveys for the gray bat, red-cockaded woodpecker, RCW gopher tortoise, hellbender, and RCW restoration on state lands are examples of projects made possible by those funds. Implementation of a Safe Harbor Plan for red-cockaded woodpeckers continued for the state of Alabama through Section 6 funding.

Since removal of the bald eagle from the Threatened and Endangered Species List in 2007, Alabama bald eagle nests have been randomly monitored for productivity and survivorship. Biologists continued to record any newly discovered or reported eagle nests and biologists also monitored the number of bald eagles overwintering in Alabama as part of the nationwide 2018 Mid-winter Bald Eagle Survey. The number of bald eagles wintering in Alabama remains stable.

Golden eagle camera surveys were conducted in Alabama on several WMAs with assistance from Wildlife Section staff to assess the Eastern population of golden eagles. The surveys are helping us learn more about their winter ecology to allow us to better manage for them. Along with surveys, there have been 15 golden eagles captured and outfitted with cellular trackers in Alabama. Through tracking the birds' migration pathways and movements, we can better determine habitat usage and timing of birds wintering in Alabama.

Public Hunting: Wildlife Section staff managed over 739,000 acres within the WMA system. During FY18, Section staff held over 6,900 managed hunt days across the state. White-tailed deer hunting saw 62,934 man-days of hunting on the 34 WMAs and four Special Opportunity Areas managed by the Wildlife Section during FY18. This use of DCNR-managed lands is a 6.7 percent increase from the FY17 hunting season. The WMAs also provided opportunities for trapping, fishing, hiking, picnicking, camping, research and nature study. To support public recreation opportunities on WMA systems, staff maintained all building facilities, equipment, property boundaries, public access parking and roads. Additionally, staff conducted prescribed fire, managed timber and wildlife openings, early successional habitat and performed invasive species control to enhance habitat for wildlife population persistence and public enjoyment.

The Hunting Trail for People with Physical Disabilities continues to be well utilized. The trail has 20 hunting sites located within 19 of Alabama's 67 counties. This innovative program provides opportunities for individuals with physical disabilities to participate in hunting in an environment developed to meet their needs. During the 2017-2018 season the PDHA Hunting Trail had 1,017 man-days of use.

Wildlife Section staff continued efforts supporting youth hunting programs. This year our youth dove hunt program hosted 33 hunts. These hunts were offered across the state in 21 counties. The program is a cooperative effort between DCNR, Auburn University, non-governmental organizations such as Ducks Unlimited, local vendors and private landowners. The 2017 youth dove hunts had 679 youth participants. One hundred and twelve (16.5 percent) were first-time hunters. Additionally, 22 WMAs hosted youth deer hunts and 23 WMAs hosted youth turkey hunts the weekend prior to the opening of regular gun seasons.

Deer Management: Information was collected on various WMAs and other sites to determine deer hunter participation and success, the physical condition of deer and the status of deer populations. Deer were collected at six sites across the state to assess reproductive health and characteristics within those populations.

Hunters reported 76,002 harvested deer through the online deer and turkey harvest reporting system (Game Check) during the 2017-18 hunting season. The 2017-18 season was the second year for mandatory reporting of all deer harvests. Samples from 445 deer were collected and tested for chronic wasting disease (CWD) as part of WFF's statewide CWD surveillance efforts with no detections of the disease. A revision of WFF's Chronic Wasting Disease Strategic Surveillance and Response Plan was completed.

Cooperative Research: This past fiscal year, \$1.13 million in Wildlife Restoration federal assistance funds and approximately \$557,000 in external sponsorship funds were used to support 14 cooperative research projects between WFF and five universities. Twelve of these cooperative research projects were ongoing from previous years and two new cooperative research projects were established.

Agency staff worked with Auburn University (AU), Mississippi

State University, the University of Tennessee, the University of Georgia, and the University of West Georgia with ongoing cooperative research projects related to deer recruitment, tick-borne diseases and genetics, wild turkey survival and recruitment rates, coyote spatial distributions, waterfowl habitat use, and wildlife habitat management.

Two new cooperative research projects were established with AU. One project focuses on improving our understanding of waterfowl population dynamics, movement patterns, habitat use, and hunting pressure of wintering waterfowl within Tennessee River Valley region of Alabama to assist with waterfowl management decisions. The second was designed to determine eastern spotted skunk habitat use in south Alabama and develop a robust furbearer survey aimed at estimating occupancy and local abundance of common furbearers to inform management decisions of these species.

Technical Assistance: Five-hundred and thirty man-days were devoted to providing technical assistance to private landowners, corporations, hunting clubs, and government agencies. Biologists made 9,418 contacts and provided on-site inspections, reviewed and drafted wildlife management plans, and conducted other outreach activities to enhance wildlife management of Alabama's wildlife resources. One of the most popular avenues for dispensing wildlife management advice is through the agency's Deer Management Assistance Program (DMAP). DMAP

included 85 cooperating landowners and hunting clubs with 326,480 acres enrolled last year.

Providing landowners and land managers with technical assistance to help them implement strategies to improve wildlife habitat on their lands continued to grow in importance. As a result, a mutually beneficial 10-year partnership continued with the Natural Resources Conservation Service (NRCS). This partnership helps private landowners with obtaining Farm Bill program assistance while delivering better wildlife management advice. Under a cooperative agreement, WFF Wildlife Biologists worked out of NRCS offices and worked with NRCS personnel to deliver the programs. Seven WFF Wildlife Biologists worked in this partnership in FY18. Biologists met with landowners to develop conservation plans and contracts. Biologists also participated in workshops, tours, presentations, working groups and training sessions that reached hundreds of landowners and dozens of natural resource agency personnel. This partnership with NRCS will continue in FY19.

Wildlife staff continued meetings and site visits with personnel from Alabama Power Company (APC) associated with the Coosa Wildlife Management Plan and Martin Dam APC hydroelectric relicensing projects. Staff reviewed documents regarding the development of wildlife, shoreline, threatened and endangered species and recreation management plans for the Martin, Jordan, Mitchell, and Weiss hydroelectric projects. Plans are required by the Federal Energy Regulatory Commission. Notable



accomplishments during this past year were the completion of construction design and operation design of the Pruitt's Island Waterfowl Area on Weiss Reservoir and the addition of the Martin Community Hunting Area on Martin Reservoir. Wildlife staff will continue active involvement in the development of wildlife, shoreline, threatened and endangered species and recreation management plans for all projects associated with hydro-electric power generation.

Wildlife Section personnel continue to participate in various aspects of the East Gulf Coastal Plain Joint Venture. A JV serves to lead a regional habitat conservation movement founded upon a science-based, landscape scale strategy. The partnerships can more effectively secure a sustainable future for birds and habitats. The staff is also participating in the Gulf Coastal Plain and Ozarks Landscape Conservation Cooperative (LCC). The LCC will encompass more than one JV and will provide management direction and set priorities for conservation delivery. The LCC will address all taxa.

Nuisance Wildlife: Nuisance wildlife information was disseminated to the public through a variety of media outlets, educational workshops, technical literature, and by personal correspondence. Due to their destructive nature and negative impact on wildlife habitat, feral hogs are a serious concern in Alabama. Partnerships continued across the state with personnel from DCNR, the Alabama Cooperative Extension System, and USDA-Wildlife Services to provide informative workshops regarding feral hog biology, impacts of feral hogs on wildlife habitat, disease implications, current control methods and techniques, and the need to eliminate relocation of this species.

Control of other nuisance and predator species, such as beavers, coyotes, and raccoons, also generates many requests for assistance from landowners and land managers due to their potential impacts on other game species, including white-tailed deer and wild turkeys. Personnel conducted and assisted with workshops and seminars around the state to educate landowners, hunting clubs, forestry owners, etc. with information to be proactive in their nuisance wildlife management activities. Additionally, informative articles about dealing with these species were made available to the public online through the www.outdooralabama.com website. The ADCNR nuisance manual was used by personnel to provide the public with current information on nuisance wildlife species and nuisance issues ongoing across the state.

Forest Management Activities: The longleaf pine restoration project continued on Barbour WMA. When completed, this multiyear project will have restored longleaf pine habitat on approximately 4,000 acres. Timber was sold on Freedom Hills, Lauderdale and Geneva State Forest WMAs. Additional areas will be evaluated and marked for thinning during the next fiscal year.

Invasive species, such as cogongrass, Chinese tallow tree, Japanese climbing fern, and bicolor lespedeza were scouted and treated on the WMA system. Cogongrass is a highly flammable non-native invasive plant listed on the Federal and Alabama noxious weed lists. Wildlife Section staff have been monitoring cogongrass on the WMAs throughout the state, especially in central and south Alabama. Scattered areas of the grass have been undergoing treatment on the Fred T. Stimpson SOA,

Upper Delta WMA, Upper State Sanctuary, and Barbour WMA for several seasons. The infested areas have been significantly reduced, and monitoring and chemical control will continue.

Education, Outreach and Range Development: Nine shooting ranges on Wildlife Management Areas, the Etowah Public Shooting Range, the Marengo Public Shooting Range, and the Conecuh National Forest Range continue to receive abundant public use. These ranges are open to the public daily during daylight hours. Maintenance is conducted throughout the year by staff members and volunteers. This provides a total of 12 agency-operated shooting ranges in Alabama.

Fifteen community archery parks receive excellent use and public support. Most facilities have a youth range, adult range, and an elevated platform for simulating bow hunting conditions from a tree stand. A simulated ground blind is available for bow hunters to practice shooting from a kneeling or seated position. Ranges were constructed through partnership with WFF, the respective city, and the Archery Trade Association.

This was the 25th year that completing the Alabama Hunter Education Program was mandatory for first-time license buyers born on or after August 1, 1977. Approximately 5,228 students participated in the 204 courses offered by certified instructors throughout Alabama. The courses were taught by approximately 460 instructors, mostly volunteers, and totaled 3,680 hours of instruction. The time and expertise contributed by volunteers is essential to the success of the Hunter Education Program. Another 7,451 students took the online hunter education course, for a total of 12,679 students receiving certification.

Approximately 2,744 Alabamians participated in 61 youth shooting sports events that were conducted throughout the state to promote safe, responsible firearms handling and improve marksmanship skills. These one-day events are designed to introduce participants to muzzleloaders, shotguns, .22 rifles, pellet guns, and archery. Sport shooting is closely related to hunting activities and it is important for the public to have safe areas to participate in that sport. We will continue our efforts to increase developed shooting range sites.

The Wildlife Section conducted 13 adult mentored hunting workshops. Of those, five were three-day events and the remainder were one-day events. A total of 71 people participated in these events. Of the 71 participants, 32% were female and 18% were minorities. Five events were conducted in Dallas County, five in Mobile County, one in Greene County, one in Montgomery County, and one in Shelby County. These events are a collaborative partnership with the Alabama Chapter of NWTF with program sponsorship from the Alabama Wildlife Federation and PRADCO Corporation.

Alabama's National Archery in the Schools Program continued to grow. Approximately 450 schools participate with approximately 67,500 students each year. This program has the potential to introduce over 100,000 students to target-style archery each year. The 15th annual NASP state championship was held on April 6, 2018, and featured 1,236 participants from 68 schools. Approximately 3,789 student archers from 180 schools participated in nine regional qualifying events for the state championship. Teachers and school administrators have made positive statements regarding this program and report

that student behavior, attendance, and attitudes have improved since implementing the NASP.

The Wildlife Section conducted five youth and two adult furbearer trapping workshops in eight counties. The trapper education workshops are a collaborative effort of the Division of Wildlife and Freshwater Fisheries, the United States Department of Agriculture-Wildlife Services, the Tennessee Valley Authority, Safari Club International, the Alabama Trappers and Predator Control Association, the Alabama Forestry Commission and the Alabama State Lands Division. Participation in the workshops included 123 adults and 118 students. The average age of the students was 10.8, and 13.5% were female. Many of the students were accompanied by a parent or guardian. The 2 1/2 day program includes classroom presentations the first day on trapping history, furbearer management, responsible trapping and conservation, and trapping laws and regulations. The second day includes presentations on trap and snare types, trapping equipment, lures and baits, and hands-on trap setting familiarization. The afternoon is devoted to trap line scouting and making sets with their mentors. On the third day, the students meet at dawn to check traps and pull their trap line. The rest of the day is devoted to fur handling methods and techniques. This program continues to be well received by the participants.

Birding Trails and Falconry Permits: As of September 30, there were 71 permitted falconers in Alabama at the following classification levels: apprentice (13), general (31), and master (27). This represents the highest total of permitted falconers Alabama has ever achieved with six new apprentice falconers obtaining permits. Falconers are located in 31 Alabama counties, topped by Madison County with eight falconers followed by Shelby County with seven. The federal falconry database maintained by U.S. Fish and Wildlife Service was made operational again after several years of being offline. This database gives falconers the ability to enter their bird acquisition and disposition records through the internet.

PROBLEMS AND UNMET NEEDS

Public Hunting: The loss and threat of losing leased acreage in Wildlife Management Areas is a significant problem. Land acquisitions for WMAs were made during the past year. Using Pittman-Robertson Federal Assistance funds, 8,717 acres were

purchased and added in Dallas County to form the new Portland Landing Special Opportunity Area. Continuing a partnership with the Forever Wild Program (FW), utilizing FW funds as the state match for federal assistance grant funds, resulted in Forever Wild purchasing 2,156 acres serving as state match at Portland Landing SOA. The Wildlife Section will attempt to lease or purchase other lands and provide additional incentives to encourage landowners to include lands in the WMA program. WFF Wildlife Section will also continue to work with Forever Wild to purchase land to provide lands for public hunting.

Nuisance Wildlife: The occurrence of nuisance wildlife problems and conflicts continue to rise, especially as we deal with an increasingly urbanized society. This portion of the public is unfamiliar in dealing with wildlife issues. Also, the urban/suburban setting limits common solutions to effectively mitigate with many of these problems.

At the District level, a considerable amount of work time is spent providing assistance to nuisance wildlife calls. As the Division becomes more active in dealing with these non-traditional wildlife issues, time management and funding will become more challenging. The Division's Wildlife Section has issued approximately 107 nuisance wildlife control operator permits across the state. These permits allow private companies/individuals to deal with nuisance wildlife issues.

State Funding: Federal funding associated with the Federal Aid to Wildlife Restoration Act has increased significantly during the past five years. The matching state dollars required to fully utilize all of the federal dollars (25:75) have been limited and quite possibly could lead to reversions of federal dollars if matching opportunities are not available. WFF staff has collaborated with the Forever Wild board and worked cooperatively to utilize the FW funding as a state match source. This assists in capturing the allotment of the federal apportionment that is beyond the amount our traditional state dollars can capture, therefore providing aid for land acquisitions slated for inclusion into the WMA system. We are exploring other options to fully utilize our federal dollars through partnerships with outside entities and third-party in-kind match.





MAKING A DIFFERENCE ... WE ALL CAN DO IT!

By Chuck Sykes, Wildlife and
Freshwater Fisheries Director

“All it takes is a little hard work and we can stop the decline of hunters in Alabama.”

The first step in solving a problem is to admit that there is a problem, and we definitely know there is a nationwide problem of declining hunter numbers. Recruitment, retention, and reactivation (R3) has become the new buzz phrase among outdoor-related industries and state agencies alike. You see, without hunters, state agencies will not have the money needed to fund conservation efforts. Hunters are the backbone of wildlife conservation in America.





For those of you who do not know how this works, here is the abridged version in the simplest terms: The Pittman-Robertson Act (PR) was passed in 1937 to provide a constant source of conservation funding for state wildlife agencies. Through this act, gun manufacturers pay an excise tax on rifles they produce. Those tax dollars are sent to the U.S. Fish and Wildlife Service (USFWS) to distribute to the states. The apportionment of money is determined by the size of the state and the number of licensed hunters in that state. To date, more than \$20 billion has been generated through the PR program and distributed to the states to perform critical wildlife conservation and management.

When I began my job in December 2012, our PR apportionment was approximately \$9 million. Our 2017 apportionment was more than \$19 million. Why? Gun and ammunition sales skyrocketed during the final years of the Obama administration. That's a great thing as far as money going into the PR fund is concerned. But, what looks good at first glance can be problematic in the long run. Many of those purchases were made for either personal and home security or target shooters and not by traditional hunters. So, why is that an issue?

For the Wildlife and Freshwater Fisheries Division (WFF) to receive the funds allocated to the state, we must have state dollars to match with the federal dollars. For every dollar we generate in state revenue, we can match it with \$3 of PR revenue. But, if we don't have enough state revenue to match, the

money reverts to the USFWS. Since we do not receive money from the State General Fund, the only state revenue source we have is hunting license dollars, and with hunting license sales declining, therein lies the problem. This is a two-fold problem. First, the revenue generated from the sale of hunting licenses is used for match. Second, our piece of the national pie is determined in part by the number of hunting licenses we sell.

WFF needs hunters to purchase hunting licenses so that we have state funds to match with federal funds. That's how we provide wildlife management and conservation for the natural resources of Alabama, and goods and services for the citizens of the state. So, how do we create more hunters? That's where R3 comes in. We must recruit new hunters, retain them once they start and, finally re-activate hunters who for whatever reason chose to stop hunting.

WFF, as with many other state's conservation departments, has conducted many youth programs over the past few decades with the hopes of perpetuating hunters. What we have discovered is that most of the participants in WFF youth programs would have become hunters anyway. Although this is a good thing and those programs will continue, we must determine how to create hunters from nontraditional hunting families because what we've been doing isn't working. These harsh realities lead to the creation of the Alabama Adult Mentored Hunting Program (AAMHP).

The program accepts online applications and those are ranked based on the applicant's hunting experience in one of three priorities.

Priority 1: Be at least 19 years of age, possess a valid driver's license, and have no previous hunting experience. Applicants in this category will be given the highest priority.

Priority 2: Be at least 19 years of age, possess a valid driver's license and have limited lifetime hunting experience defined as hunting less than five occasions in their lifetime.

Priority 3: Be at least 19 years of age, possess a valid driver's license, and have limited lifetime hunting experience defined as hunting fewer than five occasions in the last five years.

During the first month of accepting applications, we processed more than 400 from seven states. The average age of the applicants was 42 and approximately 40% were female. Most of these applicants fell into Priority 1 status. During this second year of the program, we offered several opportunities for these newcomers to participate in one of the AAMHP deer, turkey or squirrel hunts. Some were one-day outings at various WMAs, while others were weekend-long programs at the Portland Landing SOA in Dallas County.

These trips are crash courses in Hunting 101. Our staff mentors take each participant through a plethora of activities, including firearm safety, habitat analysis, treestand safety, game-processing and, finally, meal preparation. A special Facebook group has also been created where these new hunters can interact with other newbies with their same interests as well as mentors who can help them progress through their journey to become hunters.

The program has been an incredible challenge for us. It is very labor-intensive and time-consuming. But it's been worth every second. I truly believe our staff has benefited as much from the program as the participants have. It is extremely rewarding to assist someone, especially an adult, in learning about the outdoors, wildlife management and consumptive use of our natural resources.

With hunting licenses being purchased by less than 5% of the residents of Alabama, we have a huge untapped market out there. We must all change our tactics and look to these non-traditional avenues to recruit new hunters. I think this program is going to yield impressive results in the years to come and help us turn the tide on the downward trend in hunters. For more information on the AAMHP visit www.outdooralabama.com and search for mentored hunts. ■



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