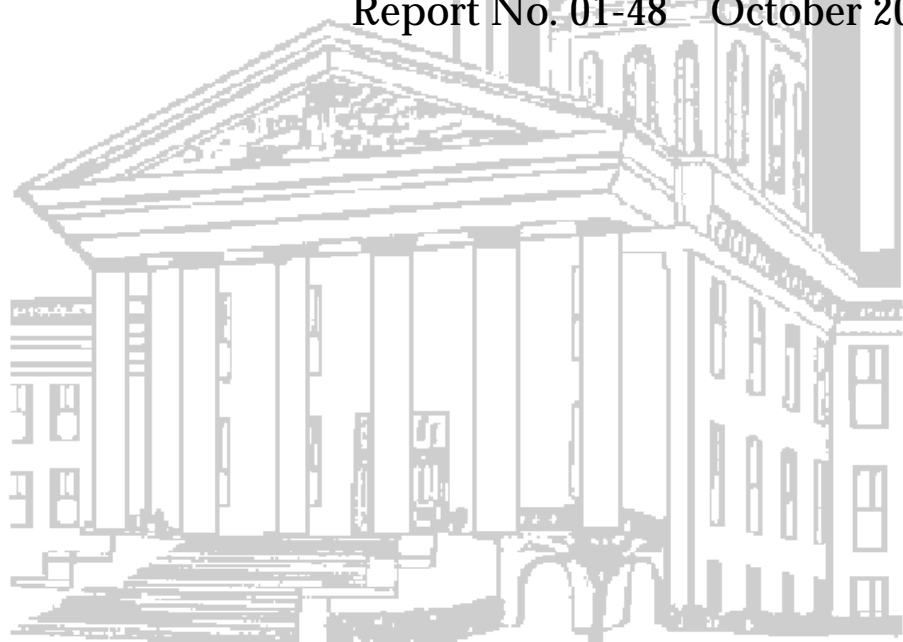


oppaga

Justification Review

Fish and Wildlife Conservation Commission

Report No. 01-48 October 2001



*Office of Program Policy Analysis
and Government Accountability*

an office of the Florida Legislature

OPPAGA provides objective, independent, professional analyses of state policies and services to assist the Florida Legislature in decision making, to ensure government accountability, and to recommend the best use of public resources. This project was conducted in accordance with applicable evaluation standards. Copies of this report in print or alternate accessible format may be obtained by telephone (850/488-0021 or 800/531-2477), by FAX (850/487-3804), in person (Claude Pepper Building, Room 312, 111 W. Madison St.), or by mail (OPPAGA Report Production, 111 W. Madison St., Tallahassee, FL 32399-1475).

The Florida Monitor: <http://www.oppaga.state.fl.us/>

*Project supervised by Tom Roth
Project conducted by Alex Regalado (850/487-9234) and Mike Molnar
John W. Turcotte, OPPAGA Director*



The Florida Legislature

OFFICE OF PROGRAM POLICY ANALYSIS AND GOVERNMENT ACCOUNTABILITY



John W. Turcotte, Director

October 2001

The President of the Senate,
the Speaker of the House of Representatives,
and the Joint Legislative Auditing Committee

I have directed that a program evaluation and justification review be made of the Fish and Wildlife Conservation Commission. The results of this review are presented to you in this report. This review was made as a part of a series of justification reviews being conducted by OPPAGA under the Government Performance and Accountability Act of 1994. Alex Regalado and Mike Molnar conducted this review under the supervision of Tom Roth.

We wish to express our appreciation to the staff of the Fish and Wildlife Conservation Commission for its assistance.

Sincerely,

John W. Turcotte
Director

Table of Contents

Executive Summary	i
Chapter 1: Introduction.....	1
Purpose	1
Background	1
Program Resources.....	4
Chapter 2: Commission Programs Generally Benefit the State and Should Be Continued	5
Chapter 3: Wildlife Management.....	7
Recommendations.....	9
Chapter 4: Freshwater Fisheries Management	11
Recommendations.....	14
Chapter 5: Marine Resources.....	15
Recommendations.....	18
Chapter 6: Law Enforcement.....	19
Recommendations.....	20
Chapter 7: Funding.....	22
Recommendations.....	27
Appendix A: Statutory Requirements for Program Evaluation and Justification Review.....	28
Appendix B: Status Changes in Marine Species.....	30
Appendix C: Actual and Adjusted License Costs	32
Appendix D: No Fee Permits	33
Appendix E: Trust Fund Schedules 2000-01 Through 2004-05.....	35
Appendix F: Response from the Florida Fish and Wildlife Conservation Commission	36

Justification Review of the Fish and Wildlife Conservation Commission

Purpose

State law directs the Office of Program Policy Analysis and Government Accountability to complete a justification review for each program operating under a performance-based program budget. This report reviews the performance of four programs (freshwater fisheries, law enforcement, marine fisheries, and wildlife) administered by the Florida Fish and Wildlife Conservation Commission and identifies alternatives for improving these programs.

Background

The Fish and Wildlife Conservation Commission was established by a 1998 constitutional amendment that consolidated the responsibility for conserving the state's fresh and salt water aquatic life, and wildlife into a single agency.¹ In implementing the amendment, the Legislature amended the statutes to place in the commission fish and wildlife programs previously administered by the former Game and Fresh Water Fish Commission and the Florida Marine Patrol. The Fish and Wildlife Conservation Commission's mission is to manage fish and wildlife for the benefit of people and the long-term welfare of the resource. The commission administers four major programs including freshwater fisheries, law enforcement, marine fisheries, and wildlife.

The commission is funded by general revenue and trust funds. In Fiscal Year 2001-02, the commission was appropriated \$180.8 million, of which \$51.4 million (28.4%) was from general revenue and \$129.4 million (71.6%) was from trust funds. The commission was authorized 1,801 full-time positions in Fiscal Year 2001-02.

¹ Article IV, Section 9, Constitution of the State of Florida.

Program Benefit, Placement, and Performance

Commission programs generally benefit the state and should be continued

We concluded that the commission's fish and wildlife management programs generally benefit Florida residents and visitors by helping conserve and protect the state's extensive and unique natural resources. Further, programs aimed at conserving and protecting these resources can be justified given the significant impact of nature-based recreation and commercial fishing on Florida's economy. A recent commission study estimated that nature-based recreation in Florida had an estimated annual economic impact of \$7.8 billion.

We concluded that the commission's major programs should be continued. The commission is constitutionally responsible for all management actions related to fish and wildlife in Florida. Abolishing the commission could compromise the conservation and protection of the state's natural resources. We also concluded that it would not benefit the state to transfer the commission's programs to other state agencies.

Wildlife management

The commission reported to the Legislature that the biological status of most wildlife species found in Florida is stable or increasing. However, these data should be interpreted with caution because they represent a species' biological status over its entire range, which includes areas outside Florida. Within Florida, the populations of many wildlife species is known or suspected to be declining, with greater declines in the population of species listed as threatened, endangered, or of special concern.²

Commission staff attribute wildlife population declines to factors beyond its control, such as habitat loss resulting from development. However, commission staff have initiated efforts to improve nongame wildlife management (including listed species) on public lands under its control, such as identifying nongame species and establishing management and monitoring plans. We recommend the commission continue its efforts to

² Florida law defines "endangered species" as those species are whose prospects of survival are in jeopardy and "threatened species" as those species in immediate danger of extinction. "Species of Special Concern" are those species facing a moderate risk of extinction in the future.

improve the biological status of nongame species on lands under its management.

Freshwater fisheries management

Commission data on freshwater fish populations in selected lakes indicate most sportfish species are stable or improving. However, some freshwater fish species listed as endangered, threatened, or of special concern are known or suspected to be declining. Further, the commission's lake rehabilitation projects appear to help increase fish populations, but comprehensive information on the projects' effectiveness is not available. We recommend that the commission routinely conduct post-project evaluations of its lake rehabilitation projects.

Marine resources

Commission data indicate that most marine fish species are stable or increasing. While some of the commission's regulatory actions have improved marine fish species, additional time is needed to evaluate if recently adopted regulations had their intended effect. We also concluded that manatee deaths attributable to human activity continue to be a concern.

We recommend the commission continue to evaluate the effects of its regulatory actions on an ongoing basis to determine if they are helping improve the status of marine species that are currently overfished. In addition, the commission should continue its efforts to reduce the number of manatee deaths caused by human activity, especially in areas of high manatee mortality.

Law enforcement

The commission's current Law Enforcement Program was created by merging law enforcement units and personnel from the former Florida Game and Fresh Water Fish Commission (GFWFC) and the Department of Environmental Protection's former Florida Marine Patrol (FMP). The commission has made progress in integrating the two law enforcement units following their merger, most notably in consolidating procedures and support services, and improving data collection systems. However, it needs to improve its data systems for compiling information on citations of violators. Therefore, we recommend that the commission consolidate its systems for compiling citation information.

Funding

The commission is facing a crisis in its financial status. Its current expenditures exceed revenues for its six operating trust funds. Further, the commission projects that three of the six trust funds will be in deficit position (by a total of \$9.4 million) by Fiscal Year 2004-05. Declining sales for freshwater fishing and hunting licenses used to fund its programs are contributing to these revenue shortfalls.

Although the commission reduced its costs to address its immediate financial problems, the commission projects it will still experience funding shortfalls in the next several years. We recommend the commission continue its efforts reduce the size of its projected trust fund deficits by increasing the sale of hunting and fishing licenses and eliminating low priority programs. If the Legislature puts a priority on the commission being able to support its programs with license fees, it should also consider authorizing the commission to raise its fees.

If the commission increased its fees that were instituted on or before 1987 to account for the effects of inflation, its revenues would increase by \$2.6 million. The Legislature may also wish to consider authorizing the commission to charge fees for certain licenses that are presently issued without charge. The commission reported that it spent \$1 million issuing 162,451 free permits and licenses in Fiscal Year 1999-00. If the commission's efforts to increase the sale of licenses prove to be successful, it may be able to forgo increasing license fees or decrease the license fees by an amount to offset the additional amount of revenue resulting from increased sales.

Agency Response

The Executive Director of the Florida Fish and Wildlife Conservation Commission provided a written response to our preliminary and tentative findings and recommendations. (See Appendix F, page 36, for his response.)

Introduction

Purpose

State law directs the Office of Program Policy Analysis and Government Accountability to complete a justification review for each program operating under a performance-based program budget. This report reviews the performance of four programs (freshwater fisheries, law enforcement, marine fisheries, and wildlife) administered by the Florida Fish and Wildlife Conservation Commission and identifies alternatives for improving these programs. Appendix A summarizes our conclusions regarding each of nine issue areas the law directs OPPAGA to consider in a program evaluation and justification review.

Background

The Fish and Wildlife Conservation Commission was established by a 1998 constitutional amendment that consolidated the responsibility for conserving the state's fresh and salt water aquatic life, and wildlife into a single agency.³ In implementing the amendment, the Legislature amended the statutes to place in the commission fish and wildlife programs previously administered by the former Game and Fresh Water Fish Commission and the Florida Marine Patrol. It also transferred to the commission several marine-related programs previously administered by the Department of Environmental Protection, including marine law enforcement, marine research, and manatee and sea turtle programs.

The Fish and Wildlife Conservation Commission's mission is to manage fish and wildlife for the benefit of people and the long-term welfare of the resource. The commission is governed by a board of seven members who are appointed by the Governor and confirmed by the Senate. The commissioners select an executive director who is responsible for implementing the commission's policies. The commission operates through its headquarters in Tallahassee and regional offices located in Lake City, Lakeland, Panama City, West Palm Beach, and Ocala.

³ Article IV, Section 9, Constitution of the State of Florida.

Introduction

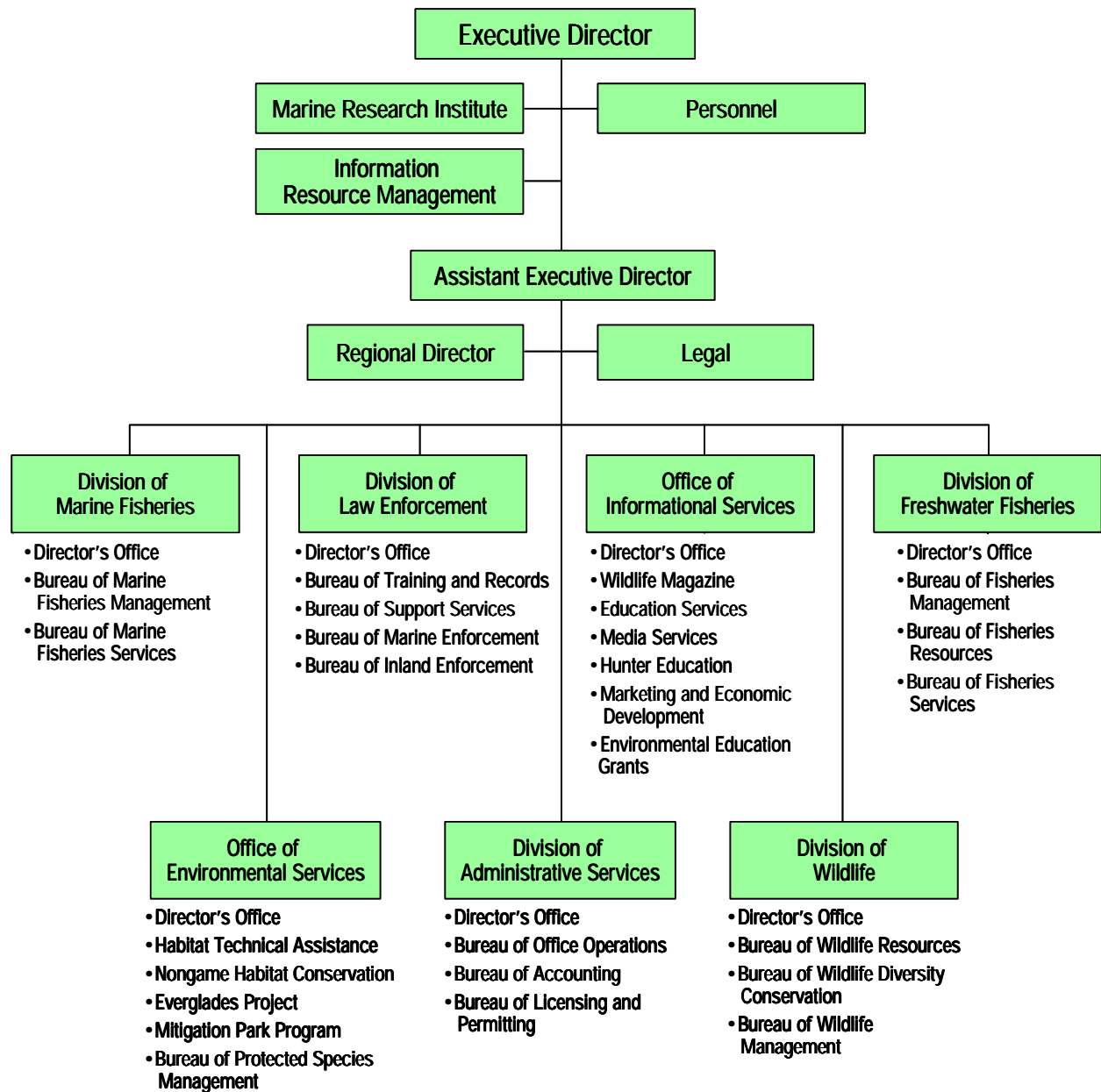
The commission administers four major programs: freshwater fisheries, law enforcement, marine fisheries, and wildlife (see Exhibit 1 for an organizational chart of the commission).

- The Freshwater Fisheries Program includes activities related to managing freshwater aquatic systems, such as fisheries management and monitoring, lake rehabilitation, construction and maintenance of boating access, freshwater fish stocking, aquatic plant management, and aquatic education. The commission's Division of Freshwater Fisheries administers the program.
- The Law Enforcement Program includes activities related to enforcing laws and regulations for hunting, fishing, endangered and threatened species, and boating safety. Program staff patrols state waters and lands, investigate potential violations, and inspect permitted and licensed wildlife facilities. The Division of Law Enforcement administers the program.
- The Marine Fisheries Program includes activities intended to ensure the long-term conservation of Florida's marine fisheries. Program staff provides educational services to Florida's marine anglers and others regarding the importance and contribution of the marine fishery and coastal habitats. The program also provides funding for statewide artificial reef development and issues saltwater commercial fishing permits and licenses. The Division of Marine Fisheries primarily administers the program. The Marine Research Institute, a separate entity administered through the commission's Office of the Executive Director, also carries out marine fisheries-related activities, such as assessing and monitoring marine fisheries, endangered and threatened species, and aquatic habitats.
- The Wildlife Program includes activities intended to ensure perpetuation of Florida's wildlife and provide for its responsible use. This program's major activities include surveying, monitoring, researching, and managing game, nongame, and imperiled wildlife species; promulgating regulations for protection and recreational use of wildlife; and management of public lands for conservation and recreational purposes. The Division of Wildlife administers the program.

The commission's Office of Environmental Services assists in maintaining and enhancing fish and wildlife habitat. Its major activities include coordinating intergovernmental efforts to assess the effects of proposed developments on fish and wildlife. It also conducts activities involving habitat protection planning, and land acquisition. Within the office, the Bureau of Protected Species plans and implements management activities to help protect endangered marine life, such as manatees and sea turtles.

Exhibit 1

The Commission Has Responsibilities for Conserving Wildlife, Freshwater, and Marine Aquatic Life



Source: Florida Fish and Wildlife Conservation Commission.

Program Resources

The commission is funded by general revenue and trust funds. In Fiscal Year 2001-02, the commission was appropriated \$180.8 million, of which \$51.4 million (28.4%) was from general revenue and \$129.4 million (71.6%) was from trust funds. The commission was authorized 1,801 full-time positions in Fiscal Year 2001-02. Exhibit 2 presents the commission's Fiscal Year 2001-02 budget and staffing by program.

Exhibit 2

Commission Programs Other Than Law Enforcement Were Primarily Funded by Trust Funds

Commission Program	Fiscal Year 2001-02 Appropriations			
	Total Funds	General Revenue	Trust Fund	Staffing ¹
Division of Law Enforcement	\$ 66,187,150	63.2%	36.8%	880.50
Florida Marine Research Institute	33,311,874	11.2%	88.8%	211.50
Division of Wildlife	26,179,825	0.6%	99.4%	251.50
Division of Freshwater Fisheries	22,356,003	13.3%	86.7%	165.50
Office of the Executive Director and Division of Administrative Services	12,890,830	17.6%	82.4%	145.25
Office of Environmental Services	10,584,027	0%	100%	46.50
Division of Marine Fisheries	4,682,473	3.0%	97.0%	42.00
Office of Information Services	4,575,586	7.5%	92.5%	58.50
Total	\$180,767,768	28.4%	71.6%	1,801.25

¹ Full-time equivalent positions.

Source: Legislative appropriations.

Chapter 2

Commission Programs Generally Benefit the State and Should Be Continued

Commission programs generally benefit the state by helping protect its unique natural environment

We concluded that the commission's fish and wildlife management programs generally benefit Florida residents and visitors by helping conserve and protect the state's extensive and unique natural resources. Florida is one of the most biologically diverse areas in North America. Its natural resources include 53,937 square miles of land, 7,700 freshwater lakes greater than 10 acres, 1,197 miles of coastline, and 12,000 miles of rivers, streams, and canals. Nearly 700 vertebrate species are found in Florida, 17% of which are found nowhere else in the United States.

Recreational activities and commercial fishing have a significant economic impact on Florida's economy

Programs aimed at conserving and protecting these resources can also be justified given the significant impact of nature-based recreation and commercial fishing on Florida's economy. A recent commission study estimated that nature-based recreation in Florida had an estimated annual economic impact of \$7.8 billion (see Exhibit 3). In 1999, the commercial saltwater fishery landed about 122 million pounds of finfish, shellfish, and shrimp with a dockside value of \$216 million.

Exhibit 3
Economic Impact of Nature-based Recreation Activities Is Significant

Activity	Participants	Retail Sales	Economic Impact ¹
Fishing ²	3,869,733	\$3,353,987,310	\$ 5,504,195,244
Hunting	233,922	356,812,910	383,994,869
Wildlife Watching	3,938,918	1,887,887,300	1,993,645,537
Total	8,042,573	\$5,598,687,520	\$7,881,835,650

¹ Economic impact refers to the amount of economic activity generated from nature-based expenditures, such as state tax revenues, jobs, and earnings.

² Includes recreational freshwater and saltwater fishing.

Source: Commission study based on U.S. Fish and Wildlife Service's National Survey of Fishing, Hunting, and Wildlife Associated Recreation.

We concluded that the commission's major programs should be continued. The commission is constitutionally responsible for all management actions related to fish and wildlife in Florida. While other state agencies conduct similar activities, none has the sole responsibility for fish and wildlife. For example, the Department of Environmental Protection enforces environmental resource laws, but does not monitor and report on fish and wildlife species.

Introduction

Abolishing the commission could compromise the conservation and protection of the state's natural resources. The commission manages Florida's fish and wildlife with the goal of maximizing sustained use of these resources. Without the commission's management and law enforcement activities, Florida's fish and wildlife would be subject to a yearlong open season. This could deplete the state's fish and wildlife resources to unsustainable levels, and thereby jeopardize the long-term health of fish and wildlife populations over time. This, in turn, could also adversely affect the state's economy since hunters, anglers, and wildlife viewers may become less willing to spend money on these activities.

We also concluded that it would not benefit the state to transfer the commission's programs to other state agencies. It would also require a constitutional amendment to transfer certain commission programs, such as law enforcement, wildlife, and aquatic species to another state agency.

Wildlife Management

The Wildlife Program's major goal is to ensure the long-term welfare of Florida's wildlife species and provide recreational opportunities. The commission reported to the Legislature that the biological status of most wildlife species found in Florida is stable or increasing. However, these data should be interpreted with caution because they represent a species' biological status over its entire range, which includes areas outside Florida. Within Florida, the populations of many wildlife species is known or suspected to be declining, with greater declines in the population of species listed as threatened, endangered, or of special concern.⁴ Commission staff attribute wildlife population declines to factors beyond its control, such as habitat loss resulting from development. While the commission has little ability to control development of privately owned lands, it could do more to help maintain nongame and listed populations on the public lands under its management.

Wildlife populations are declining in Florida, but causes are beyond the program's control

The commission currently reports data on the biological status of 532 wildlife species found in Florida as a legislatively approved performance measure.⁵ This data is based on commission staff's calculations of scores reflecting a species' vulnerability to extinction. For Fiscal Year 2000-01, the commission reported to the Legislature that the biological status of 71.5% of Florida's wildlife species were stable or improving.

However, these data need to be interpreted with caution. First, the data reported by the commission considers the biological status of a species over its entire range, which includes areas outside Florida.⁶ Other commission data on the population trend of a species within Florida alone

⁴ Florida law defines "endangered species" as those species are whose prospects of survival are in jeopardy and "threatened species" as those species in immediate danger of extinction. "Species of Special Concern" are those species facing a moderate risk of extinction in the future.

⁵ Performance measures and standards approved by the 2001 Legislature are found in the General Appropriations Act and Implementing Bill for Fiscal Year 2001-02. Agencies are required to report data for these measures in their long-range program plans.

⁶ The biological status (score) is determined by a composite score of seven different variables: population size, population trend, range size, distribution trend, population concentration, reproductive potential for recovery, and ecological specialization.

indicates that 261 of the 532 species (49.1%) are currently known or suspected to be declining (see Exhibit 4).⁷

Exhibit 4

Few Wildlife Populations Within Florida Are Increasing or Stable

Florida Population Trend, 2000							
Species Group		Increasing or Stable Known	Increasing or Stable Suspected	Formerly Declining, Now Stable	Declining in Some Areas	Decline Suspected	Decline Known
Game	(N=63)	3	18	3	7	28	4
Listed	(N=80)	0	6	10	10	32	22
Nongame	(N=389)	6	94	27	87	140	35
Total	(N=532)	9	118	40	104	200	61

Source: OPPAGA analysis of commission data.

Higher percentage of listed species known or suspected to be declining

Another important trend is that a high percentage of species listed as threatened, endangered, or of special concern are known or suspected to be declining. Commission data indicate that 67.5% (54 of 80) of Florida's listed species are known or suspected to be declining (see Exhibit 4). This is higher than the percentage of game species (50.7%, or 32 of 63 species) and nongame species (45.0%, or 175 of 389 species) that are known or suspected to be declining.⁸

Wildlife trend data limited

The data on wildlife population trends in Florida are troubling, but should also be interpreted with some caution. The commission's data are based on the personal knowledge of commission staff, scientific literature, and comments from biologists working for other organizations. Quantitative data for confirming these trends exists for only 70 of the 532 (13.2%) wildlife species.

Factors outside commission control affect wildlife species

Commission staff indicate most threats to wildlife resources, particularly those related to listed species, are beyond the commission's control. Habitat loss through land conversion or degradation is the major cause of declining wildlife populations. A 1998 commission study found the amount of urban land in Florida increased from 1.1 million acres in 1949 to 5.3 million acres (396% increase) in 1995. During the same period, Florida's population increased from 2.7 to 14 million persons (438% increase). There has been a corresponding decline in the state's non-urban areas and associated wildlife habitat. Existing wildlife habitats have also been degraded through the introduction of non-native plant species,

⁷ These data consider population trends for species in Florida independent of trends elsewhere in the species' ranges.

⁸ Despite these possible declines in game species, 87.2% of hunters surveyed by the commission in Fiscal Year 1999-00 were at least somewhat satisfied with hunting opportunities within the state.

such as melaleuca.⁹ The commission's role in addressing these threats is limited to commenting on environmental permit requests that affect the loss of habitat, identifying critical habitat needs, and managing land for wildlife.¹⁰

Managing habitat on public lands can help mitigate external effects

Although we agree that the factors affecting fish and wildlife trends are largely beyond the commission's control, we believe the commission can help mitigate for some factors by maintaining wildlife habitats on publicly owned lands under its management. The commission has historically focused more attention on game species since hunters have been its major source of revenue. The division's nongame wildlife program has historically focused its efforts on surveying and monitoring species. Division managers and staff believe refocusing their efforts on managing nongame and listed species on public lands can help maintain the species' populations.¹¹ As part of this effort, division staff is in the process of conducting studies to identify nongame and listed species present on lands managed by the commission. Currently, division staff has completed such studies for the red-cockaded woodpecker and scrub jay. This information can be used to develop wildlife management and monitoring plans to better manage nongame and listed species on public lands.

Recommendations

The commission reports most wildlife species found in Florida are stable or improving over their entire range, which includes areas outside of Florida. However, information on population trends within Florida alone indicates 49.1% of wildlife species are known or suspected to be declining. We recommend that the Legislature modify the commission's legislative performance measure for the wildlife program so that the commission reports population trends for wildlife species within their ranges in Florida.

A higher percentage of listed species are known or suspected to be declining in Florida relative to other species groups. The commission indicates that the threats to wildlife species, such as habitat loss, are beyond its control. However, commission staff has initiated efforts to

⁹ Melaleuca is an aggressive non-native tree species that spreads rapidly and virtually eliminates all other vegetation. Since melaleuca was introduced into Florida from Australia, it has taken over hundreds of thousands of acres of the Everglades.

¹⁰ The commission's Office of Environmental Services seeks to maintain and enhance fish and wildlife habitat by commenting on permits issued by state and federal agencies for habitat impacts. In addition, the office's non-game habitat conservation program uses Geographic Information Systems and modeling to identify critical habitat for acquisition purposes.

¹¹ The commission's Office of Environmental Services currently manages seven mitigation parks totaling 7,300 acres that are specifically intended to provide habitat protection for listed species including the gopher tortoise, the southeastern kestrel, and the red-cockaded woodpecker.

Wildlife Management

improve the management of nongame wildlife (including listed) on public lands under its control, such as identifying such species and establishing management and monitoring plans. We recommend the commission continue its efforts to improve the biological status of nongame species on lands under its management.

Freshwater Fisheries Management

The commission's Freshwater Fisheries Program is responsible for managing freshwater fisheries for optimum sustained use by Florida's residents and visitors. Commission data on freshwater fish populations in selected lakes indicate most sportfish species are stable or improving. However, some freshwater fish species listed as endangered, threatened, or of special concern are known or suspected to be declining.

The commission's lake rehabilitation projects appear to help increase fish populations, but comprehensive information on the projects' effectiveness is not available.

Freshwater fish populations are generally stable or increasing, but declines in listed freshwater fish species are a concern

Commission data indicate freshwater fish populations are generally stable or increasing. Commission staff developed an index for evaluating the health of Florida's freshwater fish populations.¹² The index is based on fish population data from 24 lakes that vary in size, fertility, and location. The commission reports that freshwater fish populations in 92% (22 of 24) of these lakes were stable or increased during the period from 1999 to 2000.¹³ The 2001 Legislature adopted this index as a performance measure for the commission's freshwater fish activities. The legislatively approved standard was that 70% of the lakes included in the index would have stable or increasing freshwater fish populations in Fiscal Year 2001-02.

The commission's performance measure covers less than 1% of all Florida lakes

While this index provides some indication of the status of Florida's freshwater fisheries, it should be interpreted with caution. The 24 lakes currently included in the index represents 13% of waterbodies managed by the division in Fiscal Year 1999-00, and less than 1% of all Florida

¹² Commission staff collected data on 24 lakes that included the catch rate of all fish by weight, catch rate of sportfish by weight, and number of species collected. Commission personnel sampled fish in early spring-summer of each year. An annual change in fish populations of 25% or greater is considered significant; otherwise, the lake's population is classified as stable.

¹³ Data for Fiscal Year 2000-01 were not available for this report.

lakes.¹⁴ The commission plans to add lakes to index in the future, which would increase the index's validity.

Other commission information generally supports the conclusion that most Florida fish populations are stable or increasing. In addition to compiling data on fish populations in index lakes, commission staff also developed rankings on the biological status of 126 freshwater fish species in the state, including 14 game species, 101 nongame species, and 11 species listed as threatened and endangered or of special concern. The rankings provide information on whether fish populations are known or suspected to be increasing or decreasing based on the best professional judgment of commission biologists and available research findings. This information indicates that 61.9% of the 126 freshwater fish species are known or suspected to be stable or increasing (see Exhibit 5).

Exhibit 5

Most Florida Freshwater Fish Populations Are Known or Suspected to Be Increasing or Stable

Florida Population Trend, 2000						
Species Group	Increasing or Stable Known	Increasing or Stable Suspected	Formerly Declining, now Stable	Declining in Some Areas	Decline Suspected	Decline Known
Game (N= 14)	1	9	0	1	2	1
Listed (N= 11)	0	3	1	1	4	2
Nongame (N= 101)	4	61	1	5	27	3
Total (N= 126)	5	73	2	7	33	6

Source: OPPAGA analysis of commission data.

Higher percentage of listed species known or suspected to be declining

However, this information also indicates that a higher percentage of listed species is known or suspected to be declining relative to other species. To illustrate, the populations of 54.5% (6 of 11) of listed species are known or suspected to be declining while three listed species are suspected to be stable or increasing (see Exhibit 5).¹⁵ Further, 3 of 14 game species (21.4%) and 30 of 101 nongame species (29.7%) are known or suspected to be declining. Flier, mud sunfish, and red-breasted sunfish are among the game species known or suspected to be declining. Commission staff cite habitat loss and degradation due to pollution and development activities as reasons for the declines.

¹⁴ Florida has 7,700 lakes greater than 10 acres.

¹⁵ The six listed species known or suspected to be declining are the black-mouth shiner, blue-nose shiner, crystal darter, Lake Eustis minnow, shoal bass, and tessellated darter. The three listed species suspected to be improving are the Gulf Coast sturgeon, harlequin darter, and Suwannee bass.

The commission's ratings regarding freshwater fish population trends needs to be interpreted with some caution since they are not based on quantitative data. The commission has compiled quantitative trend data for only 11 of the 126 (8.7%) freshwater fish species.

Freshwater anglers generally are satisfied

An important concern for the commission is whether freshwater anglers are satisfied with their fishing experiences. The commission's most recent survey of licensed resident, freshwater anglers conducted in 1997 found that 77% were satisfied with their fishing experience during the prior year, which exceeds the established legislative standard of 75%. The commission plans to assess angler satisfaction every four years, with a new survey to be conducted in 2002.

Available data shows lake rehabilitation projects generally help increase fish populations

The commission undertakes lake rehabilitation projects to help improve fish populations. These projects include periodic drawdowns of waters, removal of sediment and undesirable vegetation, and re-establishment of native submerged aquatic vegetation. Available commission data indicate that its lake rehabilitation projects helped increase fish populations. For example, commission data that fish populations in Lake Tohopekeliga increased following rehabilitation projects in 1979 and 1987. A 1999 University of Florida study found that fish populations in Lake Kissimmee increased following rehabilitation activities.¹⁶

However, commission data on the effectiveness of its lake rehabilitation activities are limited. Commission staff does not routinely conduct evaluations to assess the effectiveness of rehabilitation projects in increasing fish populations. Instead, evaluations are conducted when new rehabilitation techniques or modifications to accepted techniques are used.

¹⁶ Rehabilitation activities include periodic drawdowns and sediment removal, removal of undesirable vegetation, and re-establishment of native submerged aquatic vegetation.

Recommendations

We recommend that the commission improve the validity of its fish population performance data by increasing the number of lakes included in its index. Commission staff report it would cost \$2,322 to add a lake to the index. In addition, commission staff should consider modifying the measure to report on a multi-year average rather than an annual change, which would reduce the potential effect of yearly fluctuations in fish populations.

We also recommend that the commission routinely conduct post-project evaluations of its lake rehabilitation projects. In our opinion, such evaluations are needed to assess the relative effectiveness of techniques used to rehabilitate lakes of varying size and conditions. To reduce costs, these evaluations could be made using field observations and sampling techniques that would not require extensive monitoring and data collection and analysis activities.

Marine Resources

The commission's Marine Resources Program establishes rules and regulations for managing marine species, including regulations covering closed seasons, gear specifications, commercial and recreational quotas, and size limits. Florida's regulatory jurisdiction extends three miles offshore from the East Coast and nine nautical miles from the Gulf Coast. Federal marine councils have jurisdiction for the fisheries beyond state waters.

Commission data indicate that most marine fish species are stable or increasing. While some of the commission's regulatory actions have improved marine fish species, additional time is needed to evaluate if recently adopted regulations had their intended effect. We also concluded that manatee deaths attributable to human activity continue to be a concern.

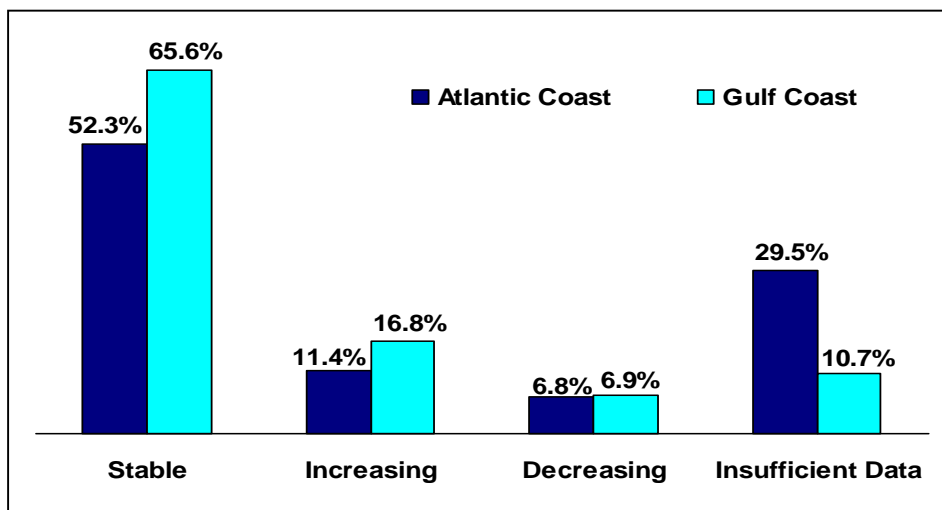
Most marine fish species are stable or increasing, but some species are still overfished

The commission is meeting the legislatively approved standard for its performance measure for marine fish species populations. In December 2000, the commission reported that 80% of Florida's marine fish species increased or remained stable, which meets the legislatively approved standard of 79% (see Exhibit 6).^{17, 18}

¹⁷ Trends rely on 1990-99 commercial and recreational catch rates landings as well as fisheries independent sampling for 133 species/groups.

¹⁸ The higher percentage of Atlantic Coast species/groups with insufficient data is partly attributed to including the Florida Keys as part of the Gulf Coast.

Exhibit 6
Florida's Marine Species Are Mostly Stable on the Atlantic and Gulf Coasts



Source: Florida's Inshore and Nearshore Species: 2000 Status and Trends Report.

However, such trend data need to be interpreted with caution. If a marine species is designated as “stable,” it does not necessarily mean that the species is in good biological health. Instead, it indicates there was no specific trend in the species catch rate. Consequently, it is possible for a certain fish species’ catch to be designated as stable while the species is in poor biological health. For example, “recruitment” of red snapper has increased in the last several years, but the species is considered overfished.¹⁹

***Stock assessments
indicates some species
not in good health***

Other data indicate that some marine fish species are not in good biological health. For example, the results of commission stock assessments indicates that 10 of 21 (47.6%) species studied are overfished or not expected to meet the goal set by fishery managers (see Appendix B, Table B-2 for results of current assessments on specific species). Stock assessments comprehensively assess the overall health of a fishery and are costly and time consuming to perform. As a result, the commission has performed such assessments for only 21 (15.8%) of the 133 species/groups. The assessments show that 9 species are healthy, 2 are recovering, and 10 are overfished. Stock assessments are generally performed every three to five years in order to allow sufficient time to determine whether regulatory actions related to a species have their intended effects.²⁰

¹⁹ Recruitment refers to the number of fish entering into a specific size class.

²⁰ Some fish stocks are assessed annually. For example, annual assessments are made for snook, a major inshore marine gamefish, due to concerns over declining populations. Other fisheries assessed and reviewed annually include bluefish, spiny lobster, and weakfish.

Our own analysis of commission data found mixed results regarding the health of Florida's marine fish species. We compared data on the status of 16 marine species from a 1992 study by the former Marine Fisheries Commission with current assessments for the same species. We found that 56.3% (9 of 16) of the species that were in decline or overfished in 1992 improved in biological health, while the others remained overfished (see Exhibit 7 and Appendix B, Table B-1).

Exhibit 7

Management Actions Have Had Mixed Results on Improving Marine Species

Species Status and Change (1992 to Present)	Number of Species
Species previously in decline/overfished that are now healthy, stable, or recovering	9
Species previously in decline/overfished that are still in decline/overfished	3
Species previously with insufficient data that are now in decline/overfished	2
Species previously in decline now with insufficient data	1
Species still with insufficient data	1
Total number of marine species reviewed	16

Definitions:

"Healthy" indicates that the fish species is above the target set by fishery managers.

"Overfished" indicates that the fish species is below and not expected to reach the target set by fishery managers.

"Recovering" indicates that the fish species is expected to reach the target set by fishery managers.

"Stable" indicates that there is no change in the status of fish species.

Source: Analysis of commission information and Performance Audit of the Marine Fisheries Commission within the Department of *Natural Resources*; Office of the Auditor General Report No. 11800, January 29, 1992; Florida Marine Research Institute, *Florida's Inshore and Nearshore Species: 2000 Status and Trends Report*, December 14, 2000; and commission staff interviews. Refer to Appendix B, Table B-1 for further detail.

Several marine species considered overfished are primarily caught in federal waters and regulated by federal councils. The commission has representation along with other states on these councils. Some other overfished species, such as spotted seatrout are primarily caught close to shore. Commission regulations on these inshore species can affect the health of those species.

Net limitation has positive effect on fish stocks

Several inshore species have improved since the commission adopted rules in 1995 to implement a constitutional amendment limiting the use of certain nets in commercial fishing.²¹ The net limitations were intended to reduce fishing pressure on targeted species. Stock assessments conducted since the commission adopted its rule found improvements in the populations of Spanish mackerel, mullet, and spotted seatrout in Florida

²¹ In 1994, Florida voters approved a constitutional amendment that made the use of gill or entangling nets unlawful in Florida waters.

waters.²² The commission has also adopted other regulations intended to improve marine species in the last few years, such as minimum size and catch limits. However, it is still may be too early to determine if these regulations have had their intended effects.

Manatees deaths caused by humans continues to be a concern

One of the commission's priorities is improving the condition of manatees in Florida. Florida's manatee count in January 2001 was 3,276, which was the highest count recorded since 1991. However, commission data indicates that manatee deaths totaled 273 in 2000, which was the highest number since 1996 when harmful algae blooms contributed to 415 deaths. While manatee deaths are caused by both natural and human factors, manatee deaths due to collisions with watercraft continue to be a concern. Of the 273 manatee deaths in 2000, 78 (28.6%) were caused by watercraft-related incidents compared to 82 deaths (30.5%) in 1999. In response to this problem, the commission increased water patrols by its law enforcement staff and education activities in four counties (Brevard, Broward, Collier, and Lee) that had experienced the highest number of manatee deaths due to watercraft collisions.

Recommendations

We recommend the commission continue to evaluate the effects of its regulatory actions on an on-going basis to determine if they are helping improve the status of marine species that are currently overfished. In addition, the commission should continue its efforts to reduce the number of manatee deaths caused by human activity, especially in areas of high manatee mortality.

²² Although the spotted seatrout population has increased, it has not met the target set by fishery managers and is still considered overfished.

Law Enforcement

The commission's current Law Enforcement Program was created by merging law enforcement units and personnel from the former Florida Game and Fresh Water Fish Commission (GFWFC) and the Department of Environmental Protection's former Florida Marine Patrol (FMP). Program staff are responsible for enforcing laws and regulations relating to hunting, fishing, endangered and threatened species, and boating safety. Program staff patrol state waters and lands, investigate potential violations, and inspect permitted and licensed wildlife facilities.

The commission has made progress in integrating the two law enforcement units following their merger, most notably in consolidating procedures and support services, and improving data collection systems. However, it needs to improve its data systems for compiling information on citations of violators.

Progress has been made in integrating law enforcement functions

The commission's current Law Enforcement Program was created in 1999 with the merger of law enforcement staff from the former Florida Game and Fresh Water Fish Commission who primarily performed inland activities and the Department of Environmental Protection's former FMP who primarily performed marine activities. These units had different policies and procedures, training requirements, data collection systems, and communication systems.

Inland and marine units reorganized

To carry out the merger, the commission's Division of Law Enforcement was reorganized to incorporate the former FMP employees. As of January 2001, the division was reorganized under a single chain of command that consolidated law enforcement personnel having inland and marine enforcement responsibilities. The commission reports that this consolidation allowed it to shift 34 positions from administrative to field duties.

Law enforcement staff cross-trained in inland and marine duties

The commission also implemented cross-training activities for its existing law enforcement personnel. Officers are receiving training to conduct both inland and marine officer duties allowing them to work together on a specific law enforcement activity. Since this training, law enforcement officers with inland and marine assignments have conducted joint

resource protection and boating safety details focusing on illegal netting, duck and dove hunting, and manatee speed zone enforcement. This approach should help the commission maximize the use of its law enforcement personnel and enable it to better mobilize resources to address problem areas as they arise.

Consistent law enforcement procedures being developed

The commission has also made some progress in establishing consistent law enforcement procedures. In order to implement the merger, the commission needed to develop consistent law enforcement procedures, referred to as general orders. As of May 2001, the commission had approved 14 general orders and another 23 were under review. Most of the general orders relating to matters such as the pursuit of suspects and the use weapons and force have been approved. The commission expects to develop an officer's manual with a maximum of 50 general orders by January 2002.

Progress made in improving data collection systems

Prior to the merger, both of the former law enforcement units used different systems to collect data on personnel activities and maintained the data in different types of databases. To address this problem, the commission began using the Department of Management Services' TimeDirect system in Fiscal Year 2000-01 to track the time spent on various activities by all of its law enforcement personnel. This provided a consistent method to track law enforcement personnel assignments and workload.

However, the commission still needs to improve its data systems for compiling citation information. Commission law enforcement officers use the same forms to cite individuals for violations occurring in inland and marine locations, but citation information is currently stored in two separate and incompatible databases. This hinders the commission in retrieving and compiling data on violators. Division of Law Enforcement managers report that they plan to consolidate data collection systems by January 2002.

Recommendations

The commission has made progress in consolidating law enforcement functions following the merger of the former Florida Game and Fresh Water Fish Commission and the Department of Environmental Protection's former Florida Marine Patrol. However, the violation citation information is stored in two separate and incompatible databases. We therefore recommend that the commission consolidate its systems for compiling citation information.

OPPAGA is required by law to review the actions taken by agencies in response to an OPPAGA report's recommendations within 18 months of the report's release. Within the next 18 months, OPPAGA will update the Legislature on the commission's progress in merging the two former law enforcement organizations and the Law Enforcement Program's performance in meeting its legislatively approved performance standards.²³

²³ The 2001 Legislature established four measures and standards (one outcome measure and three output measures) for assessing commission's Law Enforcement's Program for Fiscal Year 2001-02. The program did not have a legislatively approved outcome measure and standard for Fiscal Year 2000-01.

Funding

The commission is facing a crisis in its financial status. Its current expenditures exceed revenues for its six operating trust funds. Further, the commission projects that three of the six trust funds will be in a deficit position (by a total of \$9.4 million) by Fiscal Year 2004-05. Declining sales for freshwater fishing and hunting licenses used to fund its programs are contributing to these revenue shortfalls. Revenues derived from these fees fund most of the commission's programs, with the exception of its law enforcement function.

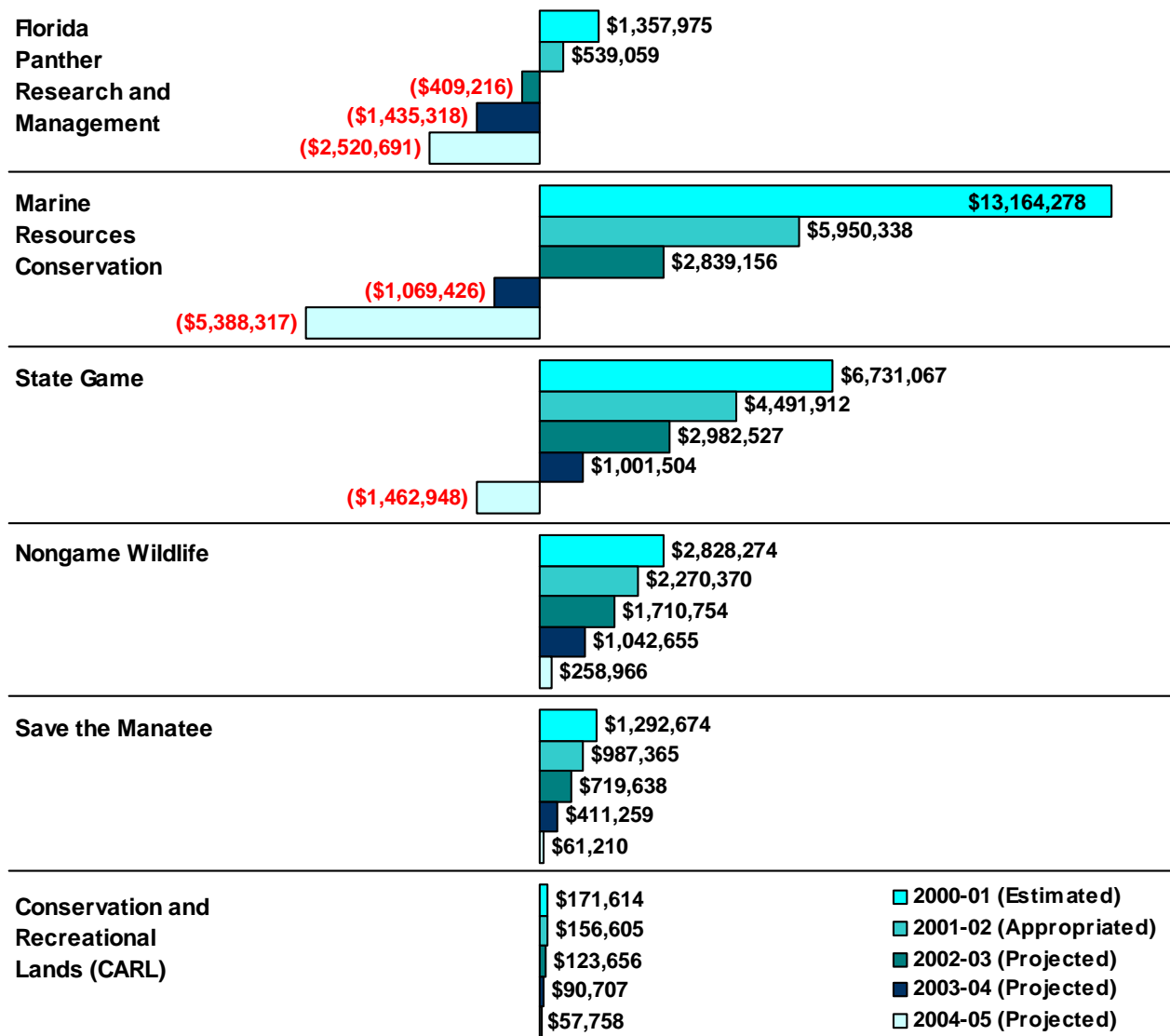
To address these challenges, the commission took some actions to reduce its costs for Fiscal Year 2001-02. These actions included eliminating education grants, postponing the replacement of motor vehicles, and reducing administrative expenses. Although these actions helped address the commission's immediate financial problems, they do not represent a long-term solution, as commission projections indicate that it will still experience funding shortfalls in the next several years.

If the Legislature assigns priority to commission support of its programs with license fees, it should consider authorizing the commission to raise the fees it charges for licenses and permits, some of which have not been raised since they were first established in the 1920s. It should also consider authorizing the commission to charge fees for certain licenses that are presently issued without charge. (See Appendix D, Table D-1, for a list of licenses issued without fees by the commission.)

The commission forecasts several trust fund shortfalls

The commission is facing shortfalls in revenues that are used to fund most of its major programs. The commission's expenditures are expected to exceed revenues for five of its six major trust funds in Fiscal Year 2001-02, a condition which is depleting the funds' balances. The commission projects that the Florida Panther Research and Management Trust to be in a \$406,219 deficit by Fiscal Year 2002-03. Deficits are also projected for the commission's two main trust funds - the Marine Resources Conservation Trust Fund and the State Game Trust Fund in Fiscal Year 2003-04 (\$1,069,426) and Fiscal Year 2004-05 (\$1,462,948), respectively. The deficits for the three trust funds are projected to total \$9.4 million by Fiscal Year 2004-05. These shortfalls will affect the commission's ability to carry out its mission and carry out key programs (see Exhibit 8 and Appendix E, Table E-1, for further detail on these shortfall projections).

Exhibit 8
The Commission Projects Declining Trust Fund Balances



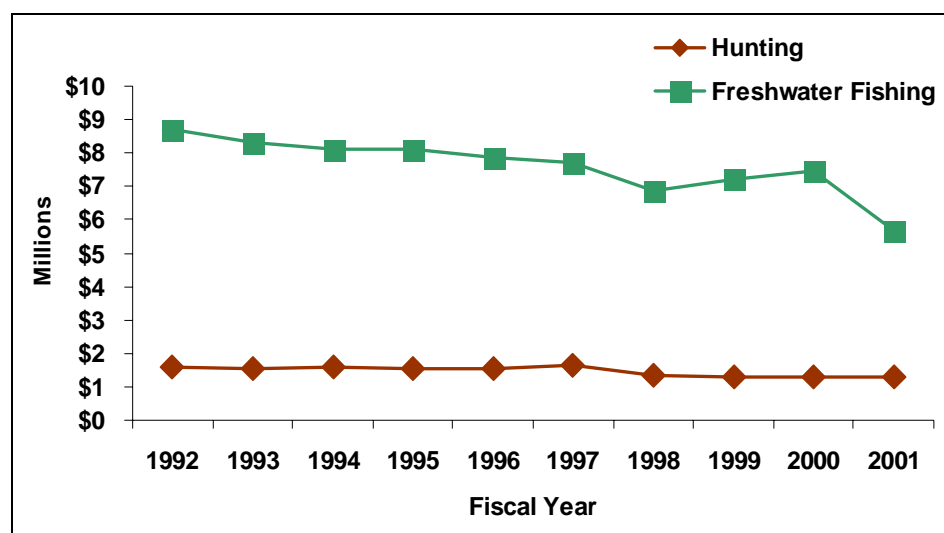
Source: Commission data.

The commission took several recent actions to address the projected trust fund shortfalls for Fiscal Year 2001-02. These actions included efforts to reduce costs by eliminating education grants, postponing the replacement of motor vehicles, and reducing administrative expenses. The commission reported that these actions will allow it to eliminate 6.5 full-time positions and reduce expenditures by \$7.3 million. However, these actions did not eliminate the commission's funding problems on a long-term basis. For example, eliminating education grants addressed immediate concerns for the Florida Panther Trust Fund for only one year.

Funding shortfalls caused by declining sales of freshwater fishing and hunting licenses

A primary cause for the commission's projected funding shortfalls is a decrease in freshwater fishing and hunting license revenues. This is problematic since these fees are the primary source of revenue used to fund major commission programs. As shown in Exhibit 9, revenue from freshwater fishing licenses issued by the commission decreased 37.2% from Fiscal Year 1991-92 to 2000-01, while the number of hunting licenses issued decreased 17.7% over the same period. Freshwater fishing license decreased 23.6% from Fiscal Year 1999-00 to 2000-01, due to drought conditions. However, saltwater recreational fishing licenses sales increased 6.8% during the same period (see Exhibit 10).

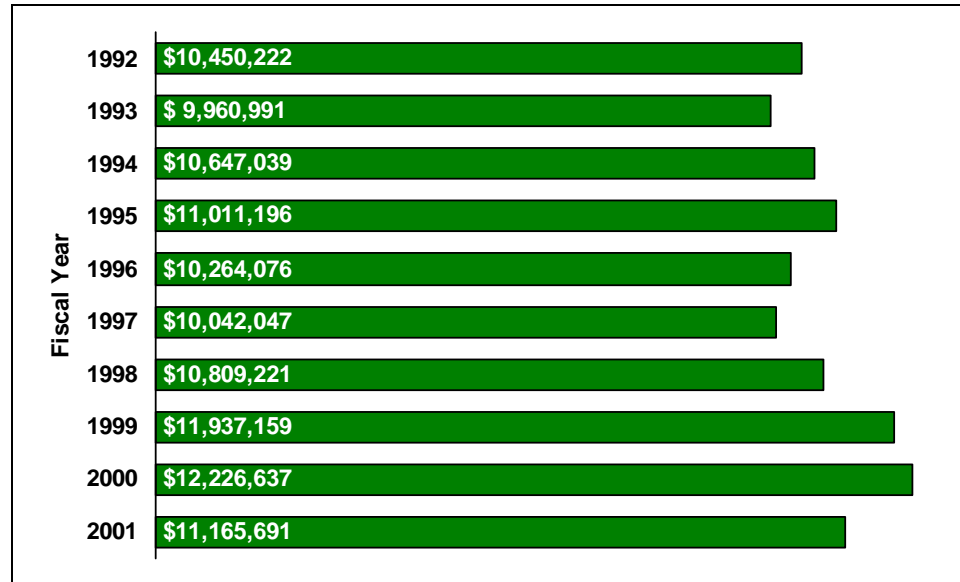
Exhibit 9
Recreational Freshwater Fishing and
Hunting License Revenues Are Decreasing



Note: Data includes resident and non-resident licenses, but does not include combination and sportsman licenses.

Source: Commission data.

Exhibit 10
Recreational Saltwater Fishing License Revenues Are Increasing



Note: Data includes resident and non-resident licenses, does not include combination and sportsman licenses.

Source: Commission data.

Commission managers attribute the decrease in freshwater fishing and hunting licenses to various factors, such as changes in the state's population over 65 years of age, which increased from 14.5% in 1970 to 17.6% in 2000. Individuals over age 65 are not required to purchase fishing or hunting licenses. Other factors include drought conditions that have contributed to decreases in freshwater fishing.

In an effort to address declining license sales, the commission is attempting to promote hunting and fishing activities in Florida. To help encourage more hunting and fishing, commission staff are conducting freshwater and marine fishing clinics for children, fishing and hunting clinics for women, and special opportunity hunts. Commission staff are also conducting limited marketing activities, such as sponsoring free gear giveaways to new license applicants and publishing informational articles in magazines.

The commission also is seeking to generate revenue from nature-based activities such as bird watching and hiking on public lands under the commission's management. The commission's Division of Wildlife recently implemented a pilot nature-based recreation program in five Wildlife Management Areas and two Wildlife and Environmental Areas that were selected for their recreation opportunities and proximity to

major population centers.²⁴ The commission has placed collection boxes in these pilot areas so that individuals can voluntarily pay a daily use fee. The commission reported collecting approximately \$68,000 in revenues from these collection boxes for Fiscal Year 1999-00. A 1999 study by the commission's Division of Law Enforcement found the compliance rate for the collection boxes in one management area was 87%.

Options for addressing projected shortfall

As part of its efforts to address future funding shortfalls, the commission should continue to seek to reduce its costs by eliminating low priority programs as was done in Fiscal Year 2000-01. However, if the Legislature puts a priority on addressing the commission's funding problems, it may want to consider authorizing the commission to increase the fees it charges for various licenses and permits. Studies by Senate and House substantive committees in 1999 determined that the fees charged for many licenses sold by the commission have not been changed in the past 10 years, and some licenses fees have not been changed since they were first established in the 1920s.²⁵ Exhibit 11 shows that if the commission adjusted fees for the effects of inflation on licenses instituted on or before 1987, the total amount of fees collected by the commission would increase by \$2.6 million (see Appendix C, Table C-1, for a complete list of licenses).

Exhibit 11

Some License Fees Have Not Kept Pace With Inflation

License	Year Established	Current Cost	Adjusted Cost
Game Farm	1929	\$ 5.00	\$ 50.00
Hunting Preserve	1959	25.00	147.06
Resident Hunting	1979	11.00	25.88
Resident Alligator Trapper	1987	250.00	375.94
Alligator Farming	1987	250.00	375.94
Total Revenue (All licenses established pre-1988)		\$2,232,083	\$4,799,459

Note: Total revenue is a projection using the number of licenses sold in Fiscal Year 1999-00.

Source: OPPAGA analysis of commission data.

²⁴ The seven pilot areas are Apalachicola River Wildlife Environmental Area, Babcock/Webb Wildlife Management Area, Big Bend Wildlife Management Area, Chassahowitzka Wildlife Management Area, Corbett Wildlife Management Area, Florida Keys Wildlife Environmental Area, and Three Lakes Wildlife Management Area.

²⁵ Senate Committee on Natural Resources, [Review of License Fees and Exemptions Authorized in Ch. 372, F.S.](#), September 1999. House Committee on Water and Resource Management [Review of Fishing and Hunting Licenses and Permits Issued by the Fish and Wildlife Conservation Commission](#), Florida House of Representatives, September 1999. Chapter 99-353, *Laws of Florida*, requires the Legislature to review hunting and fishing licenses and permits established under Ch. 372, F.S., every five years beginning in 2000.

The Legislature may also want to authorize the commission to charge fees for licenses and permits that are presently issued without fees. The commission reported that it spent \$1 million issuing 162,451 free permits and licenses in Fiscal Year 1999-00. For example, the commission issued 71,125 bass tournament exemption permits at total cost of \$357,759 yet received no revenues for these permits (see Appendix D, Table D-1, for a list of licenses issued without fees by the commission).

Recommendations

We recommend the commission continue its efforts reduce the size of its projected trust fund deficits by increasing the sale of hunting and fishing licenses and eliminating low priority programs.

The Legislature may wish to consider authorizing the commission to increase the fees it charges for hunting and fishing licenses. If the commission increased its fees that were instituted on or before 1987 to account for the effects of inflation, its revenues would increase by \$2.6 million. If the commission's efforts to increase the sale of licenses prove to be successful, it may be able to forgo increasing license fees altogether or decrease the license fees by amount to offset the additional amount of revenue resulting from increased sales.

The Legislature should also consider authorizing the commission to charge fees for various licenses and permits that it presently issues free of charge. The commission reported that it spent \$1 million issuing these free licenses and permits in Fiscal Year 1999-00 (see Appendix D, Table D-1, for a list of licenses issued without fees by the commission).

Statutory Requirements for Program Evaluation and Justification Review

Section 11.513(3), *Florida Statutes*, provides that OPPAGA program evaluation and justification reviews shall address nine issue areas. Our conclusions on these issues as they relate to the Fish and Wildlife Conservation Commission are summarized below.

Table A-1
Summary of the Program Evaluation and Justification Review
of the Fish and Wildlife Conservation Commission

Issue	OPPAGA Conclusions
The identifiable cost of the program	The Legislature appropriated \$180,767,768 for Fiscal Year 2001-02, including recurring and nonrecurring items; \$129,347,174 from trust funds, and \$51,420,594 from general revenue for the program (see page 4 for further detail).
The specific purpose of the program, as well as the specific public benefit derived therefrom	The commission manages, conserves, and protects Florida's aquatic and wild animal life for the benefit of Floridians who actively pursue fishing, hunting, and other recreational activities. The commission manages and protects fish and wildlife resources and their habitat by enforcing compliance with fishing and hunting regulations; protecting endangered and threatened species and illegal commercial trade of wildlife; enforcing boating safety laws; acquiring and managing public trust land for outdoor recreation; restoring wildlife species in depleted wildlife habitats; and producing and distributing selected freshwater species of fish.
Progress towards achieving the outputs and outcomes associated with the program	Generally, the commission reports achieving legislatively approved standards for its outcome and output measures.
An explanation of circumstances contributing to the state agency's ability to achieve, not achieve, or exceed its projected outputs and outcomes, as defined in s. 216.011, <i>F.S.</i> , associated with the program	Fiscal Year 1999-00 was the newly created commission's first full year of operations. During this period, commission operations were affected by staff having to assume new responsibilities and the merger of formerly separate organizational units. Factors outside of the commission control also affect its ability to achieve certain outcomes, such as the loss of habitat due to land conversion and degradation.
Alternative courses of action that would result in administering the program more efficiently and effectively	Our review identified several actions that would improve the commission's administration of its programs. <ul style="list-style-type: none"> ▪ The commission's wildlife program should focus its efforts on improving nongame and listed wildlife populations on lands under its management ▪ The commission should routinely conduct post-project evaluation to better assess effectiveness of lake rehabilitation efforts

Issue	OPPAGA Conclusions
	<ul style="list-style-type: none"> As an option for increasing revenue and addressing funding shortfalls, the Legislature should consider adjusting the prices of licenses and permits for inflation and authorize the commission to charge for permits presently issued without any charge.
The consequences of discontinuing the program	Abolishing the commission may compromise the conservation and protection of the state's natural resources and would reduce the revenues generated from hunting, fishing, and wildlife viewing activities.
Determination as to public policy; which may include recommendations as to whether it would be sound public policy to continue or discontinue funding the program, either in whole or in part	The programs of the Fish and Wildlife Conservation Commission should be continued. The constitution requires that the commission shall exercise the regulatory and executive powers of the state with respect to wild animal life, fresh water aquatic life, and marine life. While other state agencies conduct similar activities, none has the sole responsibility for fish and wildlife.
Whether the information reported pursuant to s. 216.031(5), <i>F.S.</i> , has relevance and utility for the evaluation of the program	Performance measures for the Wildlife and Freshwater Fisheries need to be modified to more accurately assess program performance (see pages 9 and 14).
Whether state agency management has established control systems sufficient to ensure that performance data are maintained and supported by state agency records and accurately presented in state agency performance reports	Commission law enforcement officers use the same forms to cite individuals for violations occurring in inland and marine locations, but citation information is currently stored in two separate and incompatible databases (see page 20).

Appendix B

Status Changes in Marine Species

Table B-1
Review of Status of Selected Marine Species¹

Fish Species	Status in 1992	State Management Actions Taken Since 1992 Report (Effective Date)	Current Status
Black Drum	Overfished	Multiple actions taken prior to 1992 report (1989); gear restrictions (1996)	Healthy
Red Drum	Overfishing occurring	Gear restrictions (1996) and no spearing (1998)	Healthy
Spanish Mackerel ²	Stock in decline	Recreational bag limit and commercial quota (1992, later deleted in 1994); gear restrictions (1993); change in season and daily commercial harvest limit (1996); commercial trip limits (1998); minimum size limit (1999); bag limit increased (2000); commercial vessel trip limit on weekdays for part of season (2001)	Healthy
Striped Mullet	Overfished	Gill net fishing closure and daily bag limit in Tampa Bay (1992); expansion of closure area, commercial harvest restrictions and daily, commercial trip limit (1993); elimination of commercial trip limit (1996); gear restrictions and some restriction eliminated (1997/1998); vessel limit (2000); no spearing (2001)	Healthy
Spiny Lobster	Possible overfishing	Trap Reduction Program (1992); recreational daily bag limit (1994); trap specifications (1994-97, 1999) trap reductions (2000-01)	Healthy
Amberjack ²	Overfishing occurring	Bag, minimum size, and possession limits (1990); commercial daily vessel limit (2001)	Healthy
Tarpon	Stock in decline	Permit system since 1988 and adjustments in tags sold annually	Stable
King Mackerel (Atlantic) ²	Overfishing occurring	Multiple actions taken prior to 1992 report (1984-91); daily vessel and minimum size limit (1993); adjustments to vessel limits (1996, 1997, 1998, and 2001); increased minimum size limit (1999)	Recovering
Snook	Stock in decline	Changes to closed season (1994); increase in minimum size limit, establish maximum size limit, and no spearing (1998); removed from Florida's "species of special concern" list (2001)	Recovering
Stone Crab	New Species identified	Trap specifications (1993,1995,1998, and 1999) and Trap Limitation Program (2000-01)	Possible overfishing
King Mackerel (Gulf) ²	Overfishing occurring	Multiple actions taken prior to 1992 report (1984-91); daily vessel limit and minimum size limit (1993); adjustments to vessel limits (1996 and 1998) increase in minimum size limit (1999)	Overfished
Red Grouper ²	Overfishing occurring	Bag and minimum size limits, gear specifications (1990); federal permit requirement (1992/1993); part of season closed (2001)	Overfished
Spotted Seatrout	Overfishing occurring	Restrictions on bag, size, fishing area, daily vessel, and gear (1996 and 2000)	Overfished

Fish Species	Status in 1992	State Management Actions Taken Since 1992 Report (Effective Date)	Current Status
Pompano	Insufficient data	Bag, size, and gear restrictions (1996), no spearing (1998)	Overfished
Bonefish	Insufficient data	No actions taken since 1992 report	Insufficient data
Spanish Sardines	Overfished	Commercial landing and vessel limits (1991)	Insufficient data

¹ Species are listed by current status.

² Federal councils primarily regulate these species. The commission does have representation on these federal councils.

Definitions:

“Healthy” indicates that the fish specie is above the target set by fishery managers.

“Overfished” indicates that the fish specie is below and not expected to reach the target set by fishery managers.

“Overfishing occurring” indicates that the catch rate is above the sustainable yield.

Recovering indicates that the fish specie is expected to reach the target set by fishery managers.

Stable indicates that there is no change in the status of fish specie.

Source: Analysis of commission information and Performance Audit of the Marine Fisheries Commission within the Department of Natural Resources, Office of the Auditor General Report No. 11800, January 29, 1992; Florida Marine Research Institute, *Florida's Inshore and Nearshore Species: 2000 Status and Trends Report*, December 14, 2000; and commission staff interviews.

Table B-2
Condition of Marine Species with Stock Assessments

Fish Species	Stock Assessment Conduct (Year)	Condition
Black drum	1995	Healthy
Amberjack ¹	1999	Healthy
Spanish mackerel ¹	1999	Healthy
Menhaden	2000	Healthy
Striped mullet	2000	Healthy
Sheepshead	2000	Healthy
Red drum	2000	Healthy
Spiny lobster	2000	Healthy
Seatrout, weakfish	2000	Healthy
King mackerel ¹	2000	Recovering
Snook	2000	Recovering
Hard clams	1994	Overfished
Gag grouper ¹	1997	Overfished
Spotted seatrout	1999	Overfished
Red grouper ¹	1999	Overfished
Red snapper ¹	1999	Overfished
Swordfish ¹	1999	Overfished
Bluefish	2000	Overfished
Bluefin tuna ¹	2000	Overfished
Vermilion snapper ¹	2000	Overfished
Pompano	2001	Overfished

¹ Federal councils primarily regulate these species. The commission does have representation on these federal councils.

Definitions:

“Healthy” indicates that the fish specie is above the target set by fishery managers.

“Overfished” indicates that the fish specie is below and not expected to reach the target set by fishery managers.

“Recovering” indicates that the fish specie is expected to reach the target set by fishery managers.

Source: Florida Marine Research Institute, *Florida's Inshore and Nearshore Species: 2000 Status and Trends Report*, December 14, 2000 and commission staff interviews.

Appendix C

Actual and Adjusted License Costs

Table C-1
Review of Current and Adjusted License and Permit Costs

License type	Year Established	Cost	Adjusted Cost	Percent Difference	FY 1999-00 Sold	Actual Revenue	Potential Revenue
Nonresident Wholesale Fish Dealer	1929	\$500	\$5,000.00	900%	14	\$ 7,000	\$ 70,000
Game Farm	1929	5	50.00	900%	544	2,720	27,200
Resident Statewide Fur Dealer	1929	100	1,000.00	900%	16	1,600	16,000
Resident Local Fur Dealer	1929	10	100.00	900%	15	150	1,500
Venomous Reptile	1953	5	32.05	541%	462	2,310	14,808
Hunting preserve	1959	25	147.06	488%	138	3,450	20,294
Resident and Nonresident Trapping	1967	25	128.21	413%	188	4,700	24,103
Wildlife Exhibitor 10 or less	1967	5	25.64	413%	1,205	6,025	30,897
Wildlife Exhibitor 11 or more	1967	25	128.21	413%	3,238	80,950	415,128
Personal Pet	1974	100	346.02	246%	187	18,700	64,706
Haul Seine	1976	100	300.30	200%	10	1,000	3,003
Resident Hunting	1979	11	25.88	135%	96,769	1,064,459	2,504,609
Waterfowl permit	1980	3	6.24	108%	16,138	48,414	100,653
Residential commercial fishing	1985	25	39.68	59%	1,683	42,075	66,786
Archery permit	1986	5	7.80	56%	27,696	138,480	216,037
Muzzle loading permit	1986	5	7.80	56%	19,943	99,715	155,562
Turkey permit	1987	5	7.52	50%	29,209	146,045	219,617
Residential Alligator Trapper	1987	250	375.94	50%	829	207,250	311,654
Nonresident Alligator Trapper	1987	1,000	1,503.76	50%	4	4,000	6,015
Alligator Trapper Agent	1987	50	75.19	50%	1,286	64,300	96,692
Alligator Farming	1987	250	375.94	50%	62	15,500	23,308
Alligator Farming Agent	1987	50	75.19	50%	25	1,250	1,880
Alligator Processor	1987	250	375.94	50%	3	750	1,128
Alligator public egg permit	1987	4	6.02	50%	27,402	109,608	164,824
Alligator private egg permit	1987	2	3.01	50%	13,136	26,272	39,507
Alligator Public Hatchling Tag	1987	10	15.04	50%	1,662	16,620	24,992
Alligator Validation tag > 7 ft	1987	30	45.11	50%	1,906	57,180	85,985
Alligator Validation tag > 7 ft	1987	25	37.59	50%	1,616	40,400	60,752
Alligator Validation Tag < 7 ft	1987	15	22.56	50%	432	6,480	9,744
Alligator Validation Tag < 7 ft	1987	10	15.04	50%	1,468	14,680	22,075
Total					247,285	\$2,232,083	\$4,799,459

Notes: License costs were adjusted for inflation using the Consumer Price Index conversion factors for the year 2000 (see http://www.orst.edu/dept/pol_sci/fac/sahr/sahr.htm).

Source: OPPAGA analysis of commission data.

Appendix D

Schedule of No-Fee Permits

Table D-1
Commission Administers 70 Permits Free of Charge

Permit	Number Issued FY 1999-00	Average Amount of Time Spent	Average Cost Per Permit (Salary, etc.)	Total Time (Hours)	Total Cost
Division of Wildlife					
1 Wildlife scientific collection permit	136	3.36	\$45.60	456.96	\$ 6,202
2 Wildlife possession permit (listed species)	70	3.27	44.32	228.90	3,102
3 Migratory bird nest take permit	121	3.33	45.18	402.93	5,467
4 Gopher Tortoise - standard permit	93	1.12	250.74	104.16	23,319
5 Gopher Tortoise - special permit	243	4.25	64.62	1,032.75	15,703
6 Avitrol permit - birds damaging property	46	2	0.76	92.00	35
7 Quota hunt permit	66,082	0.066	0.29	4,361.41	19,164
8 Antlerless deer permit	1046	1	17.84	1,046.00	18,661
9 Depredating deer permit	266	0.5	8.92	133.00	2,373
10 Steel trap permit	41	0.5	8.92	20.50	366
11 Release of pen-reared quail for field trials permit	2	4	55.50	8.00	111
12 Private lands non-hatchling alligator harvest permit	143	1.8	24.84	257.40	3,552
13 Private lands alligator egg harvest permit	56	1.3	17.94	72.80	1,005
14 Private lands alligator hatchling harvest permit	0	0		0.00	0
15 Public waters alligator egg collection permit	2	322.5	2,821.88	645.00	5,644
16 Public waters alligator hatchling collection permit	16	2.8	51.13	44.80	818
17 Public waters alligator harvest permit	688	5.9	93.28	4,059.20	64,177
Division of Law Enforcement					
18 Alligator farm permit	57	1	22.52	57.00	1,284
19 Alligator parts permit (importation)	1	1	12.00	1.00	12
20 Alligator transportation permit (into Florida)	1	1	12.00	1.00	12
21 Temporary transport/possession of wildlife permit (educational)	24	1	12.00	24.00	288
22 Dog training/field trails permit	43	0.58	42.97	24.94	1,848
23 Falconry permit	28	2	88.42	56.00	2,476
24 Fox enclosure permit	3	3	108.66	9.00	326
25 Gun/light at night permit	419	0.25	35.46	104.75	14,858
26 Import wildlife permit	20	1	12.00	20.00	240
27 Personal use wildlife (Class III, 1 animal)	310	2	24.00	620.00	7,440
28 Personal use wildlife (Class III, 2+ animals)	154	2	52.29	308.00	8,053
29 Wildlife rehabilitation permit	134	3	83.49	402.00	11,188
30 Special use Wildlife Management Area Permit (guns, dogs, access)	107	0.5	14.96	53.50	1,601
31 Taxidermy permit (migratory bird, protected mammals, etc.)	3	1	12.00	3.00	36
32 Restricted fish permit	38	1	31.26	38.00	1,188
33 Non-resident take permit for raptors	0	0		0.00	0
34 Raptor propagation permit	0	0		0.00	0
35 Permit to capture non-native crocodilians	2	1	25.00	2.00	50

Appendix D

Permit	Number Issued FY 1999-00	Average Amount of Time Spent	Average Cost Per Permit (Salary, etc.)	Total Time (Hours)	Total Cost
36 Temporary possession/transportation of migratory birds permit	11	1	25.00	11.00	275
37 Exotic animal auction permit	new	new	new		
38 Box turtle possession permit	9	1	12.00	9.00	108
39 Diamondback terrapin possession permit	1	1	12.00	1.00	12
40 Nuisance Alligator Trapper permit (authorization to sell live gators)	10	1	12.00	10.00	120
41 Elephant ride authorization permit	11	3	37.00	33.00	407
42 Import Freshwater fish permit	3491	1	10.00	3,491.00	34,910
Freshwater Fisheries					
43 Bass tournament exemption permit	71,125	0.013	5.03	924.63	357,759
44 Gill net permit	10	0.8	12.70	8.00	127
45 Grass carp triploid permit	827	8	107.00	6,616.00	88,489
46 Grass carp approval permit	36	2	40.00	72.00	1,440
47 Okeechobee haul seine permit	10	0.8	12.70	8.00	127
48 Tilapia haul seine permit	5	1	16.00	5.00	80
49 Scientific collecting permit	85	4	85.00	340.00	7,225
50 Game fish aquaculture processing permit	0	0		0.00	0
Office of Environmental Services					
51 Gopher Tortoise (5 and under) Incidental take permit	124	20	800.00	2,480.00	99,200
52 Marine Turtle permit	137	9 - 20.5 hrs	450.00	2,020.75	61,650
53 Commercial fishing and professional fishing guide permit	52	1	30.00	52.00	1,560
54 Resident access to limited entry areas permit	1	1	30.00	1.00	30
55 General activities permit	1	1	30.00	1.00	30
56 Testing of motors or vessels by manufacturers permit	3	1	30.00	3.00	90
57 Resident access through speed-controlled areas permit	0	0		0.00	0
58 Boat race Permit	0	0		0.00	0
Division of Administrative Services					
59 Alligator meat processing facility permit (free to individuals with Alligator trapping or farming license)		0			
60 Crossbow permit	480	0.25	5.62	120	2,698
Regional Directors					
61 Disabled use vehicle permit	347	2	20.96	694.00	7,273
62 Nuisance wildlife trapping	494	1 - 2 hrs	14.44	741.00	7,133
63 Prairie Lake Camping permits	49	0.33	3.16	16.17	155
64 Raccoon Hunting permits	2	1 - 2 hrs	25.64	3.00	51
65 Dove Hunt permit	13	1 - 3 hrs	14 to 25	26.00	254
Division of Marine Fisheries					
66 Blue crab endorsement	4,784	Insignificant	Nominal		
67 Restricted species endorsement	8,754	0.55	14.08	4814.7	123,256
68 Saltwater products license (free to Apalachicola Bay Oyster License holders)	909	0.5	7.15	454.5	15,589
69 Special Activity Licenses	275	2.5	40.50	687.5	11,138
70 Depredation Endorsement	0	0		0	0
Total	162,451			38,333.25	\$1,041,780

Source: Commission data.

Trust Fund Schedules 2000-01 Through 2004-05

Table E-1
Trust Fund Schedule Prior to Fiscal Year 2001-02 Legislative Budget Request Changes

Trust Fund	Category	Fiscal Year				
		2000-01 Estimated	2001-02 Appropriated	2002-03 Projected	2003-04 Projected	2004-05 Projected
Florida Panther Research and Management	Net Annual ¹	(2,248,445)	(818,916)	(948,275)	(1,026,101)	(1,085,373)
	Ending Cash Balance	1,357,975	539,059	(409,216)	(1,435,318)	(2,520,691)
Marine Resources Conservation	Net Annual ¹	6,020,080	(1,250,783)	(2,511,182)	(3,308,582)	(3,718,891)
	Ending Cash Balance	13,164,278	5,950,338	2,839,156	(1,069,426)	(5,388,317)
State Game	Net Annual ¹	723,719	(1,435,205)	(1,709,385)	(2,181,023)	(2,664,452)
	Ending Cash Balance	6,731,067	4,491,912	2,982,527	1,001,504	(1,462,948)
Nongame Wildlife	Net Annual ¹	(255,567)	(473,139)	(559,616)	(668,099)	(783,689)
	Ending Cash Balance	2,828,274	2,270,370	1,710,754	1,042,655	258,966
Save the Manatee	Net Annual ¹	435,506	(228,066)	(267,727)	(308,380)	(350,049)
	Ending Cash Balance	1,292,674	987,365	719,638	411,259	61,210
Conservation and Recreational Lands	Net Annual ¹	2,129,232	280,414	(32,949)	(32,949)	(32,949)
	Ending Cash Balance	171,614	156,605	123,656	90,707	57,758

¹ Reflects only recurring expenditures and revenues.

Source: Commission data as of August 16, 2001.

Response from the Florida Fish and Wildlife Conservation Commission

In accordance with the provisions of s. 11.45(7)(d), *Florida Statutes*, a draft of our report was submitted to the executive director of the Florida Fish and Wildlife Conservation Commission to review and respond.

The executive director's written responses are reprinted herein beginning on page 37.

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



JULIE K MORRIS
Sarasota

DAVID K. MEEHAN
St. Petersburg

H.A. "HERKY" HUFFMAN
Deltona

JOHN D. ROOD
Jacksonville

QUINTON L. HEDGEPEETH, DDS
Miami

EDWIN P. ROBERTS, DC
Pensacola

RODNEY BARRETO
Miami

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF THE EXECUTIVE DIRECTOR
(850)487-3796 TDD (850)488-9542

September 12, 2001

Mr. John W. Turcotte, Director
Office of Program Policy Analysis and
Government Accountability
111 West Madison Street, Room 312
Claude Pepper Building
Tallahassee, FL 32399-1475

Dear Mr. Turcotte:

I am pleased to provide you with this agency's response to your justification review dated September 12, 2001. If I may provide further information, please do not hesitate to call me.

WILDLIFE MANAGEMENT

Recommendation: We recommend that the Legislature modify the commission's legislative performance measure for the wildlife program so that the commission reports population trends for wildlife species within their ranges in Florida.

Response: At the request of Commission staff, the Legislature modified the Commission's legislative performance measure for the wildlife program so that the Commission reports population trends for wildlife species within their ranges in Florida.

Recommendation: We recommend the commission continue its efforts to improve the biological status of nongame species on lands under its management.

Response: Commission staff concurs with the need to continue the efforts begun under its own initiative to improve the biological status of nongame species under its management. In reaffirming this commitment, Commission staff also recognizes the need to maintain and enhance the existing emphasis on management of game species on these lands to reverse downward trends in the sale

of hunting and fishing licenses in accordance with the recommendations contained in Chapter 7 of this justification review.

FRESHWATER FISHERIES MANAGEMENT

Recommendation: We recommend that the commission improve the validity of its fish population performance data by increasing the number of lakes included in its index. Commission staff report it would cost \$2,322 to add a lake to the index.

Response: Although the Division of Freshwater Fisheries does not believe that the number of lakes is related to the validity of this measure, lakes will be added when funds and manpower become available, in order to increase the data variability.

Recommendation: In addition, commission staff should consider modifying the measure to report on a multi-year average rather than an annual change, which would reduce the potential effect of yearly fluctuations in fish populations.

Response: Because lakes were chosen to represent a variety of factors, data variability is increased. As suggested in the draft report, reporting a multi-year average may decrease variability of the data.

Recommendation: We also recommend that the commission routinely conduct post-project evaluations of its lake rehabilitation projects. In our opinion, such evaluations are needed to assess the relative effectiveness of techniques used to rehabilitate lakes of varying size and conditions. To reduce costs, these evaluations could be made using field observations and sampling techniques that would not require extensive monitoring and data collection and analysis activities.

Response: Freshwater Fisheries staff intends to conduct short-term rehabilitation project evaluations, which may include vegetation transects, fish population sampling, comparative analysis between enhanced and control sites and macro-invertebrate sampling, depending on the enhancement technique employed. Comprehensive short-term and long-term studies on large enhancement projects also will be conducted. As an example, \$450,000 will be spent during FY 2001-2002 to fund studies by state universities and U.S. Geological Survey personnel to evaluate enhancement projects effects on fish and wildlife resources.

MARINE RESOURCES

Recommendation: We recommend the commission continue to evaluate the effects of its regulatory actions on an on-going basis to determine if they are helping improve the status of marine species that are currently overfished.

Response: The Commission will continue to evaluate the effects of its regulatory actions on an ongoing basis.

Recommendation: In addition, the commission should continue its efforts to reduce the number of manatee deaths caused by human activity, especially in areas of high manatee mortality.

Response: The Commission will continue its efforts to reduce manatee mortality caused by human activity.

LAW ENFORCEMENT

Recommendation: The commission has made progress in consolidating law enforcement functions following the merger of the former Game and Fresh Water Fish Commission and the Department of Environmental Protection's former Florida Marine Patrol. However, the violation citation information is stored in two separate and incompatible databases. We therefore recommend that the commission consolidate its systems for compiling citation information.

Response: The Commission's Division of Law Enforcement has eliminated the use of the Game and Fish Information System (GFIS) and has begun using a modified version of the former Department of Environmental Protection's (DEP) Division of Law Enforcement database. This system has been modified to accept information from all officers of the Commission and the program has been installed in field offices.

The Division has charged a committee with the development of a Division of Law Enforcement Integrated System. Private vendors will bid on the creation of the system. Planning is underway for committee members to view currently operating law enforcement systems in Florida. The committee will also consider how the information system interacts with Computer Aided Dispatch (CAD) as the Division operates CAD systems in its Radio Dispatch Centers.

The short-term goal for the new system is to convert the current DOS-based database to a Windows-based environment and integrate the personnel, statute, arrest, warning, and complaint databases into one system. The intermediate-range goal will

Appendix F

incorporate the property and evidence tracking systems as well. The long-range goal is to have the system accessible via the Internet for

data input and report retrieval as well as data queries. The system will ultimately provide accessibility to the public records portion of the database by the general public over the Internet. The division hopes to put the system out for bid by the end of this calendar year.

Thank you for the opportunity to provide these responses to your review. I appreciate the professionalism displayed by your staff.

Sincerely,

/s/

Allan L. Egbert, Ph.D.
Executive Director

ALE/jtk