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Staff are very pleased to present to you today the Imperiled Species Management Plan (ISMP) and accompanying proposed rules. Five years in the making, the ISMP is the culmination of significant successful effort and collaboration among staff, partners and stakeholders. We have provided a number of updates over the years, including presenting the draft plan and associated rules last November. Therefore, this presentation will only include the high points and not go into much detail.

Photo cover: Hickory Mound at Big Bend Wildlife Management Area (FWC)

ISMP History

- 1993 – listing controversies
- 1999 – new listing process
- 2005 – revised listing process
- 2010 – new imperiled species management system



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Where we are today started in 1993 when two requested listing actions created considerable controversy and highlighted problems with the State's process to list imperiled species. Working with stakeholders, staff developed a new listing process, adopted in 1999, that was transparent and used quantitative criteria. However, listing controversies continued, and the new listing process was revised a little in 2005. With continued listing controversies, staff realized there was a larger issue with how imperiled species were managed in Florida. Staff developed the basic concepts of a new imperiled species management system, and then working with stakeholders that system was fully developed. It was adopted in 2010.

Staff committed to evaluating all species on the State's imperiled species lists that were not also Federally listed and had not recently been evaluated to determine if they met the criteria for being listed as State Threatened— a total of 61 species. These Biological Status Reviews (BSRs) were conducted in 2010 and 2011, and were the basis for staff's listing recommendations to the Commission. These recommendations were approved in 2011. However, as specified by rule, the listing changes could not be made until each of the species was addressed by a management plan. As staff began working on the management plans for these species, we soon realized that a different approach could lead to a more effective and efficient management of our imperiled species.

Thus, was born the basic concepts that developed into the ISMP.

Photo inset: White Ibis (Eudocimus albus).

ISMP Major Components



The ISMP includes four major components. The Law and Policy chapter provides information on rule revisions and policies needed to implement the ISMP. The ISMP includes summaries of Species Action Plans, which are stand-alone and supporting documents that identify threats and prioritized conservation actions for species or groups of species. The ISMP also includes Integrated Conservation Strategies, which take a more holistic approach and focus on higher-level strategies and their integrated actions that will yield the greatest conservation benefit for the greatest number of species. The final major component is the Implementation chapter, which focuses on 6 measurable objectives. These include re-evaluating 5 species of special concern, filling data gaps, monitoring species, implementing with regional teams, adding agency support and resources to implementation, and accounting for species protections and conservation gains.

Another set of stand-alone and supporting documents to the ISMP are Species Conservation and Permitting Guidelines, described later.

Imperiled Species Management Plan (ISMP) Timeline

2011: Biological Status Reviews (BSRs)

2013: Species Action Plans (SAPs)

2014: Integrated Conservation Strategies

2015: Draft ISMP, Rules, & Guidelines

2016: Final ISMP, Rules, & Guidelines



Forty-nine Species Action Plans, addressing the 57 species in the ISMP, were completed in 2013. Seven Integrated Conservation Strategies are included in the ISMP and were completed in 2014. They include more holistic approaches to things such as habitat conservation, incentives, monitoring, and research.

A draft ISMP was developed to bring together the SAP summaries, ICS, and other required components of the plan. Significant input from stakeholders was received during comment periods in February and June 2015, as well as throughout the plan's development, and a draft ISMP was presented to the Commission in November 2015. Two additional comment periods were held in 2016, and final edits were made to the plan which is now ready for final approval.

ISMP Goal

With broad public and partner support, conserve or improve the status of threatened species to effectively reduce the risk of extinction.



The goal of the Imperiled Species Management Plan is “With broad public and partner support, conserve or improve the status of threatened species to effectively reduce the risk of extinction.” The ISMP will direct and help assess FWC’s work on managing imperiled species. But it also recognizes that FWC cannot undertake all of the conservation actions alone, and identifies opportunities to enhance outcomes through strong partnerships and additional grant funding. While the successful implementation of the ISMP will be primarily achieved through non-regulatory means, some elements of the plan, such as protecting species from unauthorized take, or mechanisms to authorize allowable incidental take, will require some regulatory framework and rules.

Photo (inset): Roseate Spoonbill (Platalea ajaja)

Policies

- Permitting Standards for Incidental Take of Cryptic Species
- Nest Removal for Inactive Single-Use Nests of State-Threatened Bird Species
- Listed Species and Man-Made structures
- Aversive Conditioning of State-Listed Species



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Included in the ISMP are four policy statements that relate to permitting of cryptic or hard to find species, nest removal for inactive single use nests, permitting of activities involving listed species using man-made or artificial structures, and the use of approved aversive conditioning techniques. These policies were identified by FWC staff as ways to reduce regulatory burdens while still providing guidance, management, and protection for species. These policies provide clarity to staff and focus our efforts on important conservation issues.

Photo (inset): Southeastern American Kestrel (Falco sparverius paulus)

Rules

- Listing status changes for 38 species
- Additional authorizations via management plan
- Prevent possession of select reptiles and amphibians being removed from list
- Rule cleanup and clarification



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Seven rule revisions supporting the ISMP have been published and are ready for final approval. Two other rules were published but have had language changed. For these, Notice of Changes will be published upon Commission approval and filed for adoption with no further hearing unless requested. Together, these rule revisions will make listing status changes for 38 species (23 changing from SSC to Threatened, 15 being removed from the list), provide for some take authorizations via management plans, provide protection from collection and intentional take for certain species coming off the list, and provide some rule cleanup and clarifications.

Photo inset: Pine Barrens Treefrog (Hyla andersonii)

Implementation

- Review of new information on Species of Special Concern
- Filling data gaps on species
- Developing monitoring protocols
- Development and implementation of BMPs
- Habitat management and restoration



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Staff have not waited to begin implementation of the Imperiled Species Management Plan. Since the development of the Species Action Plans in 2012, staff have been working to implement key actions that are critical to achieving the ISMP's objectives. For example, one ISMP objective is to fill the data gaps for species remaining as SSC so that they may be evaluated to determine if they meet the criteria for listing as state Threatened. That work has been completed for most of the species and for one, the Eastern chipmunk, the reevaluation has been completed and it will be removed from the imperiled species list upon Commission approval. Reevaluations of the other species will occur in 2017.

Other ongoing work implementing the IMSP includes:

- Research on the Florida Burrowing owl, saltmarsh topminnow, and Florida mouse.
- Working with private landowners to provide technical assistance on managing their lands for imperiled species conservation in ways that will be viewed as an asset, not a burden, to landowners.
- Using information in SAPs to advance conservation for the southeastern American kestrel and beach-nesting birds, among other species.
- FWC is targeting habitat management and restoration on Wildlife Management Areas to benefit state-listed species.

Photo inset: Eastern chipmunk (Tamias striatus). Photo courtesy of FWC.

Impacts Assessment

- Definition of a management plan includes an assessment of ecological, sociological and economic impacts
- Overall, low financial impacts
- Reduce likelihood of Federal listing



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The management plan must include assessments of the ecological, sociological, and economic impact of implementing and not implementing the plan. The ISMP provides these assessments in the Impacts Assessment chapter.

Overall, FWC and external economic analysis showed that implementing the ISMP and the associated rule changes adding state-Threatened species to Rule 68A-27.003, F.A.C. will not significantly impact the costs and/or revenues for other state and federal agencies, private businesses or other economic sectors. While a few economic sectors estimate increasing costs over the next 5 years, others will see a slight increase in revenue annually. Overall, gains in other sectors may result in little or no net change to Florida's economy. FWC anticipates that much of the costs may already be accounted for in other state or federal permitting processes and will monitor potential costs to applicants by conducting economic assessments as species permitting guidelines are developed in consultation with stakeholders.

Seventeen (17) of the 57 species address in the ISMP are Federal at-risk species. Implementation of the ISMP will reduce the likelihood of these species becoming Federally listed and, thereby, eliminating or significantly reducing time and financial burdens to the Florida economy of such listings.

Photo inset: Reddish Egret (Egretta rufescens). Photo courtesy of Jonathan Mays, FWC.

Species Conservation Measures and Permitting Guidelines

- Species-specific guidance for all species included in the ISMP
- Provides information and tools for interpreting 68A-27.007
- Provides options for minimization and mitigation



Photo Courtesy Jack Rogers



Staff have created and are seeking approval of eight Species Conservation Measures and Permitting Guidelines. These documents provide detail relevant scientific information related to FWC commenting or permitting on projects and developments. Depending on the listing status, threats and needs of the species, these guidelines are tailored to provide information relevant to the species, required habitats, and related protections, if they apply. The guidelines are tools to give landowners, consultants, developers, and other agencies consistent information and guidance to make decisions about listed species, how to detect them, how they might avoid take of those species if found, and information on permitting options.

In the future, guidelines will be prepared for all 57 species. All will be presented to the Commission for approval.

Photo inset: Florida sandhill crane (Antigone canadensis pratensis) courtesy of Jack Rogers

Species Guidelines: Florida Sandhill Crane and Everglades Mink

- Both State Threatened
- Wetland dependent species
- Focus on breeding and nesting habitat
- Overlap with other agency processes



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Photo courtesy, David Stindler



Staff have drafted and vetted guidelines for the Florida Sandhill Crane and Everglades Mink. Both species are currently State Threatened and are not changing status. While the Florida Sandhill Crane can be found nesting and breeding in most parts of the peninsula, the Everglades Mink is found only in Collier, Monroe, and Miami Dade counties. The Sandhill Crane relies on shallow herbaceous wetlands for breeding, nesting, and roosting while the Everglades Mink is found in saltmarsh and forested wetlands. The guidelines focus on what threats or potential impacts to essential behavioral patterns may be and outlines avoidance, minimization, and mitigation options to create consistency in evaluating the need for intentional or incidental take permits.

Both species are wetland dependent species and FWC's role as a commenting agency allows us to work with DEP and the Water Management Districts when commenting on ERP permits that may have impacts to these two species. Staff believe that in most cases, the mitigation provided through the ERP permitting process could satisfy the requirements under 68A-27.007, F.A.C. It should also be noted that the Everglades Mink is categorized as a cryptic species and the permitting guidelines will focus on efforts to acquire additional information on the range, life history, and habitat requirements of this species.

*Photo inset: Florida sandhill crane (*Antigone canadensis pratensis*) and Everglades Mink (*Neovison vison evergladensis*)*

Species Guidelines: Keys Species

- White-crowned pigeon, Key ringneck snake, Florida brown snake, Florida Keys mole skink, Rim rock crowned snake
- Many found only in Monroe County
- Overlap with county and other agency processes



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Photo courtesy of Dick Bartlett



Staff have also drafted 5 species guidelines that address species found mainly in the keys. Species like the Key ringneck snake, the lower Keys population of the Florida Brown snake, and the Florida Keys mole skink are found only in the lower Keys. Species like the White-crowned pigeon and Rim rock crowned snake range up into portions of Miami Dade county but are also dependent on rare habitats like Pine Rockland and Tropical hardwood hammock. The species guidelines for the White-crowned pigeon focuses on breeding habitat in mangrove islands and foraging habitat in patches of tropical hardwood hammock greater than 12 acres in size. The four keys reptile guidelines categorize the species as cryptic species and the permitting guidelines will focus on efforts to acquire additional information on the range, life history, and habitat requirements of this species. Staff believe that in most cases, the avoidance, minimization, and mitigation provided through the Monroe County comprehensive plan and Big Pine key HCP as well as ERP permitting process could satisfy the requirements under 68A-27.007, F.A.C.

Photo inset: White-crowned Pigeon (Patagioenas leucocephala). Photo courtesy of Andy Wraithmell, FWC.

Stakeholder Engagement

- Stakeholder involvement since 2010
- Review and comment on multiple products
- Multiple methods of engagement
- Continued outreach



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Staff have been working to engage stakeholders in the process since 2011 and have overall support for the development and completion of the ISMP. We kept stakeholders involved in the process over the last 4 years through email updates, webinars, presentations, and phone calls. Stakeholders and the public reviewed each of the 49 Action Plans in 2012 and 2013 before they were finalized. In 2015, stakeholders provided written comments on two drafts of the ISMP, participated in 8 webinars, and 4 species-specific workshops to provide specific edits and suggestions. We received over 1000 comments on the 2015 draft Plans and staff provided updates at FWC Commission meetings in February, June and November.

In 2016, stakeholders provided written comments on two drafts of the ISMP, participated in 10 webinars and three workshops. We received over 600 comments on the draft plan in 2016 and have incorporated those changes into the final Draft ISMP. Staff have presented at over 30 Regional Planning Council Meetings, conferences, and smaller interest groups to make stakeholders aware of possible changes and opportunities to provide feedback.

Staff Recommendations

- Final approval of the Imperiled Species Management Plan
- Approval of eight Species Conservation Measures and Permitting Guidelines
- Final adoption of rules 68A-9.002, 68A-12.004, 68A-16.003, 68A-27.0012, 68A-27.003, 68A-27.005, and 68A-27.007
- Approval to publish Notices of Change for rules 68A-25.002 and 68A-26.002, and file for adoption without further hearing unless requested.



Staff recommends final Commission approval of the Imperiled Species Management Plan, the eight Species Conservation Measures and Permitting Guidelines, and seven rules (68A-9.002, 68A-12.004, 68A-16.003, 68A-27.0012, 68A-27.003, 68A-27.005, and 68A-27.007). Staff also requests approval to publish Notices of Change for rules 68A-25.002 and 68A-26.002, and file for adoption without further hearing unless requested.

The following slides are considered backup material
and are not anticipated to be part of the actual
presentation



Species Included in the ISMP

8 Mammals	21 Birds	
Big Cypress fox squirrel	American oystercatcher	Snowy plover
Everglades mink	Black skimmer	Tricolored heron
Sanibel rice rat	Florida burrowing owl	Wakulla seaside sparrow
Sherman's short-tailed shrew	Florida sandhill crane	White-crowned pigeon
<i>Homosassa shrew</i>	Least tern	Worthington's marsh wren
<i>Sherman's fox squirrel</i>	Little blue heron	<i>Osprey (Monroe County population)</i>
Eastern chipmunk *	Marian's marsh wren	Brown pelican
Florida mouse	Reddish egret	Limpkin
	Roseate spoonbill	Snowy egret
	Scott's seaside sparrow	White ibis
	Southeastern American kestrel	



Of the 57 species included in the Imperiled Species Management Plan, 8 are mammals, 21 are birds, 12 are reptiles, 4 are amphibians, 9 are fish, and 3 are invertebrates.

The peer-reviewed Biological Status Review Report for the Eastern chipmunk has been finalized and staff's final recommendation is removal of the chipmunk from the list of Species of Special Concern found in 68A-27.

Note:

Bolded species are state-Threatened.

Italicized species remain Species of Special Concern until further data is gathered to ascertain listing status.

* The original Biological Status Review Report recommended leaving the Eastern chipmunk as a Species of Special Concern until new data could be collected. Those data have been collected and staff's final recommendation following peer review of the new Biological Status Review Report is removal of the Chipmunk from the list.

Species Included in the ISMP

12 Reptiles		4 Amphibians
Barbour's map turtle	<i>Alligator snapping turtle</i> *	Florida bog frog
Florida brown snake (Lower Keys population)	Peninsula ribbon snake (Lower Keys population)	Georgia blind salamander
Florida Keys mole skink	Red rat snake (Lower Keys population)	Gopher frog
Florida pine snake	Striped mud turtle (Lower Keys population)	Pine Barrens treefrog
Key ringneck snake	Suwanee cooter	
Rim rock crowned snake		
Short-tailed snake		



Of the 57 species included in the Imperiled Species Management Plan, 8 are mammals, 21 are birds, 12 are reptiles, 4 are amphibians, 9 are fish, and 3 are invertebrates.

As staff updated the Commission in June 2015, the alligator snapping turtle, which was approved for removal from the state-designated list, has been proposed to remain as Species of Special Concern until the recently appointed Biological Review Group can assess the three species of alligator snapping turtle [Suwannee Alligator Snapping Turtle (*Macrochelys suwannienensis*), Apalachicola Alligator Snapping Turtle (*Macrochelys apalachicola*), and Alligator Snapping Turtle (*Macrochelys temminckii*)] to determine if they meet the criteria for listing as State-designated Threatened species.

Note:

Bolded species are state-Threatened.

Italicized species remain Species of Special Concern until further data is gathered to ascertain listing status.

* The original Biological Status Review Report recommended removal of the alligator snapping turtle from the Species of Special Concern list, but newly published studies indicate that there are three species of alligator snapping turtle in Florida. Based on a recently submitted species evaluation request, there is sufficient information to warrant investigation into the status of the three species. Following Commission rules established in Chapter 68A-27.0012, F.A.C., the Commission has designated a Biological Review Group to assess the three new species [Suwannee Alligator Snapping Turtle (*Macrochelys suwannienensis*), Apalachicola Alligator Snapping Turtle (*Macrochelys apalachicola*), and Alligator Snapping Turtle (*Macrochelys temminckii*)] to determine if they meet the criteria for listing as State-designated Threatened species. Staff will present the group's findings in a biological status report. Until the alligator snapping turtle evaluations are complete, staff recommend maintaining the alligator snapping turtle status as Species of Special Concern.

Species Included in the ISMP

9 Fish	3 Invertebrates
Blackmouth shiner	Black Creek crayfish
Bluenose shiner	Santa Fe crayfish
Crystal darter	Florida tree snail
Key silverside	
Saltmarsh top minnow	
Southeastern tessellated darter	
<i>Harlequin darter</i>	
Lake Eustis pupfish	
Mangrove rivulus	



Of the 57 species included in the Imperiled Species Management Plan, 8 are mammals, 21 are birds, 12 are reptiles, 4 are amphibians, 9 are fish, and 3 are invertebrates.

Note:

Bolded species are state-Threatened.

Italicized species remain Species of Special Concern until further data is gathered to ascertain listing status.

Species by the Numbers

	Listing Status Changes	
	<i>Current</i>	<i>Proposed</i>
State Threatened	14	37
<i>Species of Special Concern</i>	43	5
Remove from List	-	15

Note: 20 of 57 species are federal at-risk species, and 4 of those are no longer being considered for federal listing.



Of the 57 species included in the plan, 14 were listed as state Threatened prior to the plan and will remain listed as state Threatened; 23 will change listing from Species of Special Concern to state Threatened; 5 will remain Species of Special Concern; and 15 will be removed from the imperiled species list but continue to be included in the plan for guidance in monitoring and conserving them.

Threatened – As defined in rule, a species or subspecies whose population is declining, has a very limited range or has a very small population.

Species of Special Concern (SSC) – Species that were on the state-designated list in 2010 that have significant information needs and are a high priority for the FWC to make a final determination on listing status. **Keep in mind that the SSC category is only temporary and we will have new information on those 5 to make a determination by 2018.**

Remove from List – Species or subspecies that did not meet criteria to be listed as Threatened or SSC but still have some protections under the general prohibition sections of wildlife laws, or are managed for sustainable populations under the FWC's constitutional authority.

17 of our 57 species are either candidates for federal listing or petitioned for federal listing to the USFWS. Examples include: Florida Sandhill Crane, Saltmarsh Top minnow, Santa Fe Cave Crayfish, Sanibel Island Rice Rat, and Florida Keys Mole Skink.

Rules

- **68A-9.002:** Change clarifies federal authorizations other than permits are also acceptable to take and/or possess migratory birds or their nests
- **68A-16.003:** New rule stating that no State permit is needed to take inactive nests, or parts thereof, of birds not listed in 68A-27
- **68A-25.002 and 68A-26.002:** Two snake and two frog species coming off list in 68A-27 will be protected from intentional take and possession



Rules

- **68A-27.0012:** Remove reference to listing moratorium which has expired
- **68A-27.003:** Retitle rule to better identify, add exemption language for take, possession and sale that are specifically authorized in Commission approved management plans, add species now listed as State-designated Threatened, remove species no longer meeting listing criteria



Rules

- **68A-27.005:** Remove reference to listing moratorium, remove species now listed as State-designated Threatened, remove species no longer meeting listing criteria
- **68A-27.007:** Remove language for different permit standards for blackmouth shiner, striped mud turtle, Florida mastiff bat and pillar coral. Changes also add human safety as a factor to consider for intentional take permitting and clarify intentional take requirements for listed marine species are included in 68B, not 68A-27



Integrated Conservation Strategies

- Combined Actions and Strategies across common themes
- Develop efficiencies for research and management
- Improves implementation and prioritization process among species



Photo courtesy Fiona Sunquist



The purpose of the Integrated Conservation Strategies is to find common ground for implementation of over 1800 species actions. We focused these strategies into 5 areas of focus -, Research and Monitoring, Habitat Conservation and Management, Incentives and Influencing, Education and Outreach, and Law and Policy. These five focal areas will address common themes and emerging issues for the 57 species (14 total strategies and 72 actions). Each of these grouping will address many aspects and issues and may have multiple parts.

Photo (inset): Gopher frog and Florida mouse

Guidelines: Florida Sandhill Crane

- Status: State Threatened
- Uses shallow wetlands for breeding and nesting
- Focus on breeding and nesting behaviors
- Overlap with other agency permitting processes



MyFWC Photo



This species is currently listed as State Threatened and will remain threatened. Florida Sandhill Cranes forage in a variety of open habitats but rely on shallow herbaceous freshwater marshes for nesting (typically January to May) and roosting. Therefore, actions that result in loss of suitable natural wetlands (i.e., excluding man-made areas, such as stormwater ponds) where cranes are foraging, roosting, or nesting can cause significant impairment of essential behavioral patterns.

Disturbances in and around wetlands with active nests can significantly impact nesting success. Humans approaching a nest location within 250 feet of a nest site can cause a crane to flush (Dwyer and Tanner 1992). Once flushed, parents can remain off of the nest for 15 minutes to over 4 hours, and some nests are abandoned altogether (Dwyer and Tanner 1992; FWC, unpublished data). Disturbances within 400 feet can interrupt nesting activity and even cause abandonment of the area, even if the birds do not flush (Stys 1997).

Actions that result in loss or abandonment of active nests or actions that result in sandhill cranes flushing from nests, regardless of whether nests occur in natural or man-made wetlands, can significantly impair breeding. Young, flightless sandhill cranes have been observed foraging 1500 feet from the nest site within weeks of hatching (Layne 1981). Actions that impact upland foraging of flightless young (i.e., young within first 70 days after hatching; Nesbitt 1996) could result in the significant impairment and cause take.

Photo inset: Florida sandhill crane (Antigone canadensis pratensis) MyFWC photo

Guidelines: Sherman's Fox Squirrel

- Status: Species of Special Concern
- No mitigation required
- Need for additional data
- Focus on avoiding nests and young



Photo courtesy David Jones



Photo inset: Sherman's Fox Squirrel. Photo Courtesy David Jones

Guidelines: Everglades Mink

- Status: State Threatened
- Covered under Cryptic Species Policy
- Need for additional data
- Overlap with other agency permitting processes



Photo courtesy Dave Shindle



Photo inset: Everglades Mink. Photo Courtesy Dave Shindle.

Guidelines: White-crowned Pigeon

- Status: State Threatened
- Found mainly in Monroe County
- Focus on breeding and foraging behaviors
- Overlap with existing county regulations



Photo courtesy David Pelky



Photo inset: White-crowned Pigeon. Photo Courtesy David Pelky

Guidelines: Keys Reptiles

- Key ringneck snake, Rim rock crowned snake, Florida brown snake and Florida Keys mole skink
- Status: State Threatened
- Covered under Cryptic Species Policy
- Found mainly in Monroe County
- Overlap with existing county regulations



MyFWC Photo



Photo inset: Key ringneck snake. Photo by Kevin Enge, FWC