



Division: Habitat and Species Conservation

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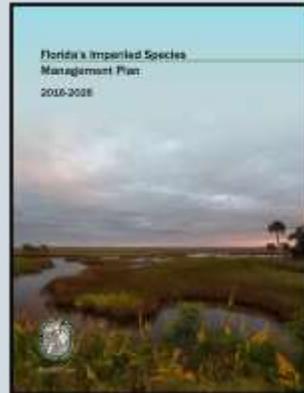
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All photos by FWC

Presenting 8 new guidelines

## Background

- Imperiled Species Management Plan
  - Approved November 2016
- One of seven Strategic Initiatives
- Addresses 57 species, 37 State listed as Threatened
- Species status changes took place in January 2017
- Guidelines for 8 species developed and approved in 2016
- Guidelines for 8 species presented today



### ISMP History:

The culmination of nine years of work, the Imperiled Species Management Plan (ISMP) was approved at the November 2016 Commission Meeting. The ISMP addresses the laws and policy for listed species, provides a summary of each Species Action Plan, groups actions into Integrated Conservation Strategies, and outlines implementation of key components over the next 10 years.

One significant component of the ISMP is the Species Conservation Measures and Permitting Guidelines. The Commission approved 8 guidelines in 2016 for species the Florida Sandhill Crane and some of our Reptiles found in the Keys and were directed to bring the remaining guidelines back for approval.

We will be grouping the Guidelines to present to the Commission for approval over the next 3 years. Factors affecting the timing and phasing of the Guidelines include availability of research findings, coordination with other projects (such as the Beaches HCP), evaluation of species need (for example, scheduling delisted species last), and federal at-risk decision timelines.

## Species Conservation Measures and Permitting Guidelines

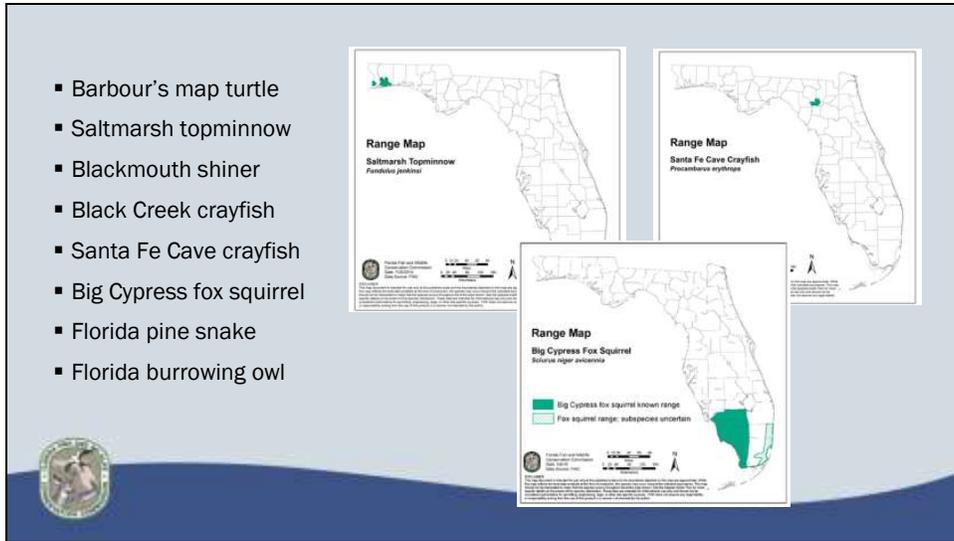
- All 57 species will have guidelines
- Tool for landowners, consultants, partners, and interested parties
- Provide options for avoidance, minimization and mitigation when applicants are seeking permits
- Require Commission approval



Guidelines are stand-alone documents that lay out the biological and regulatory needs for each species. The ISMP provides a framework for the Guidelines and details overarching policies, however, each set of Guidelines focuses on individual species (or suites of species). The Guidelines provide species-specific information on:

- essential behavioral patterns,
- survey methods (which are not required but if followed, do provide assurance of species absence),
- recommended conservation practices
- species-specific exemptions or authorizations for take,
- coordination with other regulatory programs, and
- permitting options for achieving conservation or scientific benefit.

The guidelines also authorize exemptions in cases where applicants don't need permits.



The species included in this presentation are:

- Barbour's map turtle
- Saltmarsh topminnow
- Blackmouth shiner
- Black Creek crayfish
- Santa Fe Cave crayfish
- Big Cypress fox squirrel
- Florida pine snake
- Florida burrowing owl

These 8 species range from panhandle rivers to a handful of caves in north central Florida, to the cypress swamps further south. Each set of guidelines was developed by species experts with input from the public and partners.

## Stakeholder Engagement

- Six meetings and workshops in summer 2017
- 45 day public comment period
  - October 13 to November 27
- Two public meetings in November 2017
- Incorporated public comment into draft guidelines



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 have worked with stakeholders that have contributed their comments on the biological status reviews, species action plans, overall ISMP, and now the guidelines. Staff have presented at Regional Planning Council Meetings, conferences, and to smaller interest groups to make stakeholders aware of status changes for these species and opportunities to provide feedback.

We continued to engage with stakeholders during the development of the Guidelines.

We kept stakeholders involved in the process through email updates, webinars, presentations, and phone calls. In 2017, staff met with stakeholders to discuss drafts of the guidelines, held 4 webinars, and 6 species-specific workshops and two public meetings in south Florida focused on burrowing owl permitting guidelines. We received approximately 300 comments on the draft guidelines and have incorporated that feedback into the drafts presented today.

## Panhandle Aquatic Species

- Protections from other regulations
  - Environmental Resource Permitting conditions
  - Outstanding Florida Waters designation
  - Florida Forestry Wildlife Best Management Practices
  - Florida Agriculture Wildlife Best Management Practices
- Conservation practices include
  - Maintaining water quality/quantity
  - Maintaining vegetation for both fish
  - Maintain nesting sandbars for Barbour's map turtle



The Barbour's map turtle, saltmarsh topminnow, and Blackmouth shiner are all state Threatened species found in very limited ranges in panhandle rivers and streams. The map turtle is found in larger river systems like the Apalachicola and Chipola rivers, the Blackmouth shiner is found only in the Blackwater and Shoal rivers, and the Saltmarsh topminnow is found mainly in Pensacola and Perdido Bay.

As we developed the Guidelines and talked to partners, we realized that there were a number of themes that arose with certain species. We found that many species that lived in rivers that were Designated Outstanding Florida Waters or were part of voluntary programs that avoid degrading rivers and streams. We also knew that much of the protections afforded by other agencies like DEP would provide a benefit to these species. You will see these themes throughout my presentation and will likely see them again when we discuss others in the future.

The primary threats to these species are maintaining water quality, quantity and the availability of nesting/spawning substrate. However, as wetland dependent species, these activities are regulated through other programs, and the conditions for minimization and mitigation found in those permits is usually adequate to provide protection and meet conservation benefit for these species. Following Forestry Wildlife BMPs and requirements for Outstanding Florida Waters protects these species by maintaining water quality and quantity. Significant habitat modification could occur for activities that eliminate sand bars for nesting and logs for basking for the Barbour's map turtle; remove aquatic vegetation for blackmouth shiner; and remove saltmarsh vegetation for the saltmarsh topminnow.

The saltmarsh topminnow is a federal at-risk species, which means it has been petitioned for federal listing. Decisions for this species are expected in 2022.

## Aquatic Crayfish

- Protections from other regulations
  - Florida statutes protect caves and cave life
  - Environmental Resource Permitting conditions
  - Outstanding Florida Waters designation
  - Florida Forestry Wildlife Best Management Practices
  - Florida Agriculture Wildlife Best Management Practices
- Conservation practices include maintaining water quality and quantity in key watersheds



The Black Creek crayfish and the Santa Fe Cave crayfish are both state Threatened species. The Black Creek crayfish is found in just a few streams near the Jacksonville area, while the Santa Fe Cave crayfish is known from fewer than 10 caves in Suwannee and Columbia counties.

The primary threats to these species are changes to water quality and quantity. Following Forestry or Agriculture Wildlife BMPs and requirements for OFW protects these species by maintaining water quality and quantity; although stream buffers don't directly impact the Santa Fe Cave crayfish, the water quality of the limestone caves is directly linked to the water quality of the river systems. Significant habitat modification could occur for activities that significantly alter water quality or water quantity, alter the vegetation around streams, or that change the temperature of the rivers and streams in the Black Creek crayfish range.

Once again, you can see the common themes that these species are already well protected by other programs and regulations. As wetland dependent species, activities that may degrade water quality are regulated through other programs, and the conditions for minimization and mitigation found in those permits are usually adequate to provide protection and meet conservation benefit for both of these species.

Both crayfish are federally at-risk species. The Black Creek Crayfish will be evaluated in 2020.

## Big Cypress Fox Squirrel

- Provide buffers around nests year-round that maintain nests and food trees
- Environmental Resources Permit conditions for activities in cypress domes
- Encourage conservation actions in Species Focal Areas
- Provide guidance on aversive conditioning techniques



The Big Cypress fox squirrel is state Threatened, occurring in Collier, Hendry, Lee and Monroe counties. BCFS nest in cypress domes, palm trees and pines; they can be found on golf courses and in suburban areas with ample food plants available. The nests of BCFS are the center of their home ranges and they may have multiple nests that they use for sheltering year round or raising young during the breeding season. Protecting these foraging areas is an important part of conserving BCFS by maintaining hydrology and food resources within 575 feet of nests.

Activities that impact cypress domes – where the majority of nesting occurs – are managed through other regulatory processes such as Environmental Resource Permitting; the conditions included in those permits can also protect BCFS. For non-wetland areas, the Guidelines recommend buffer distances, preserving the nest tree and retaining a percentage of food trees on site within the 575 foot buffer.

High priority habitats are identified as Species Focal Areas, and conservation actions within these areas will have the greatest benefit for long term BCFS conservation. Another component of the Guidelines is to provide acceptable practices for aversive conditioning of BCFS to limit human-wildlife conflict in the urban/suburban wildlife areas.

## Florida Pine Snake

- Guidelines focus on acquiring information for this species
- Protections for gopher tortoises also protect the Florida pine snake
- Voluntary protections of pocket gopher villages and stumps for forestry practices



The Florida pine snake is a state Threatened species found in the upland habitats of north and central Florida. The pine snake is often associated with pocket gopher villages, gopher tortoise burrows, and stumps. The pine snake spends most of its time underground and is cryptic – meaning they are difficult to detect or survey for, even in areas where we know they are likely to occur.

The Guidelines focus on acquiring more information about this species as a way to achieve scientific benefit. Although not included in the Forestry Wildlife BMPs, forestry stakeholders had an interest in incorporating forestry-specific protections into the Guidelines. Staff worked with stakeholders to develop guidance that is similar to practices for other burrowing species found in the Forestry Wildlife BMPs.

## Florida Burrowing Owl

- Found statewide
- Prefer open, treeless areas like prairie, pasture, parks, and lawns
- Differences in approach of development of Burrowing Owl Guidelines
  - High volume of requests for permits
  - Owls concentrated in urban/suburban areas



The Florida burrowing owl is a state Threatened species found throughout the peninsula of Florida – as far west as Eglin AFB and as far south as the Dry Tortugas. They prefer areas with few trees and open groundcover and can often be found in pastures, cemeteries, school fields, parks, and lawns. The highest concentrations of owls are in Southeast and Southwest Florida. The City of Cape Coral had over 1000 adults and the largest known number of owls in the state. These owls dig their own burrows which are usually 5-10 feet long and they use the burrow for breeding, raising their young, and sheltering year round.

Because this species is most abundant in a densely urban area, FWC was already issuing a substantial number of permits for Florida burrowing owls prior to 2017; however the change in status also included specific rule requirements for assessing the conditions for any new permits. The Guidelines for the burrowing owl therefore vary from the species previously discussed in this presentation by outlining categories of impacts and specific mitigation options. These options were developed because of the large number of permits that we currently issue for this species and stakeholder requests to develop specific guidance. For many other species, we are able to provide individual guidance and information about what options applicants have for mitigation but for the burrowing owl, stakeholders requested concrete information on activities that might cause take, buffer distances, and mitigation.

## Florida Burrowing Owl

- Voluntary programs
  - Florida Forestry Wildlife Best Management Practices
  - Florida Agriculture Wildlife Best Management Practices
- Protections include providing buffers around burrows at different times of the year
  - 33 feet during the breeding season
  - 10 feet during the non-breeding season



The Florida burrowing owl is included in the Forestry and Agricultural Best Management Practices for Wildlife. This program requires that those enrolled in the program avoid known or visibly apparent burrows during the breeding season, similar to the avoidance measures for gopher tortoises.

Since the burrows are usually 5-10 feet long, the Guidelines recommend a 10 foot buffer around the burrow year round to prevent collapsing the burrow. The Guidelines also recommend that applicants or people with owls on their property maintain a 33 foot buffer around the burrows during the breeding season to avoid harming or harassing the adult owls or young in those burrows. The guidelines provide detail about which activities are approved within those 10 foot or 33 foot buffers and provide guidance about ways to avoid and/or minimize take of owls or damage to their burrows/nests.

## Florida Burrowing Owl

Three categories of impacts based on project size and type:

1. Impacts from activities; no land use changes
  - owls in school yards, cemeteries, parks
2. Small land use changes
  - construction on small lots such as homes
3. Large scale land use change
  - sector planning



If landowners are unable to avoid burrows by 10 feet outside the breeding season and 33 feet during the breeding season, are not enrolled in the BMP's, or are not covered by other authorizations included in the Guidelines, they may need to seek an incidental take permit. Staff have outlined 3 different types of activities where take might occur and permits would be needed:

- Activities that may collapse a burrow with no changes to the habitat surrounding the burrow. This is a common situation for areas such as athletic fields, cemeteries and parks. These are instances where the burrow is in the a location where they may be harmed and can be moved to another area on site or potentially offsite.
- Activities that may collapse a burrow with some changes to the habitat surrounding the burrow. An example of this type of impact is a homeowner clearing a  $\frac{1}{4}$  acre or  $\frac{1}{2}$  acre lot and, due to the size of the lot, they cannot avoid a burrow by 10 feet year round or 33 feet during the breeding season.
- Activities that may affect both the burrow and the surrounding foraging habitat. Large scale developments that alter land use are an example of this type of activity.

## Florida Burrowing Owl

Mitigation options include:

- On-site or off-site starter burrows
- On-site or off-site artificial burrows
- Financial contribution
- Habitat protection or acquisition
- Habitat management or restoration
- Programmatic or multispecies permits



If landowners are unable to avoid by 10 feet outside the breeding season and 33 feet during the breeding season, are not enrolled in the BMP's, or are not covered by other authorizations included, they may need to seek an incidental take permit. The Guidelines outline options for minimization and mitigation. The list of options is not comprehensive but is intended to cover most of the scenarios encountered and give stakeholders some certainty about permit applications.

Category 1: for collapse of burrows *without* change in surrounding habitat there are 3 options. Installation of a starter or artificial burrow on site; installation of starter/artificial burrow offsite; contribution of \$1900 to the conservation fund.

Category 2: for collapse of burrows *with* some changes in surrounding habitat there are 3 options. Installation of 2 artificial burrows and \$600 contribution per burrow cluster; installation of 2 starter burrows and \$850 contribution per burrow cluster; contribution of \$1900 per burrow cluster.

Category 3: for significant habitat modification where greater than 50% of available foraging area within a 1,970 foot radius of a burrow cluster will be removed the options will be evaluated on a case by case basis and include scientific benefit by filling data gaps, habitat restoration, protection, or maintenance, and financial contributions.

## Staff Recommendation

### Approval of eight Species Conservation Measures and Permitting Guidelines:

- Barbour's Map Turtle
- Blackmouth Shiner
- Saltmarsh Topminnow
- Black Creek Crayfish
- Santa Fe Cave Crayfish
- Big Cypress Fox Squirrel
- Florida Pine Snake
- Florida Burrowing Owl

*If approved, these would go into effect immediately.*



If approved, since these are not rule, they would go into effect immediately.

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



## Order of Completion of Guidelines

- Eight guidelines approved in 2016, 8 drafted in 2017
- Remaining 41 will be completed over the next 3 years
- Brought to the Commission in batches, can be single species or multispecies
- Staff are focusing first on 37 State Threatened species
- Maximize consistency with other agency efforts
- Coordination on development and evaluation of 9 at risk species which will be evaluated by the USFWS in the next 7 years
- Delisted species will have guidelines completed later in the timeline



## Common Themes in the Guidelines

- 6 of the 8 are found in aquatic or wetland environments that would overlap with the Environmental Resource Permitting process.
- 5 of the 8 are found in rivers and streams that have been designated as Outstanding Florida Waters.
- 5 of the 8 species are included in Forestry and Agricultural Wildlife Best Management Practices.
- 4 of the 8 are “At Risk” species that will undergo USFWS evaluation in the next 7 years.



## Barbour's Map Turtle





## Saltmarsh Topminnow



## Florida Pine Snake



## Big Cypress Fox Squirrel



# Florida Burrowing Owl

