Office of Environmental Management








FDOT and the Endangered Species Act Consultation Process

Webinar Series –

Practical Examples & Species Specific Highlights

March 1, 2022

With Presentation's from:

NOAA FISHERIES

U.S. FISH & WILDLIFE SERVICE

FDOT

Welcome and Introduction to Workshop

Purpose of Workshop:

- The sessions are anticipated to provide a basic overview of the ESA consultation process for transportation projects. These webinars are intended for NEPA and Environmental Permitting practitioners and participants should have a base level understanding of the NEPA process and/or Environmental Permitting as it relates to the Federally listed species consultation process.
- **Workshop Format:**

- The sessions are being held every Tuesday from 9:00 to 12:00 EST for four (4) consecutive weeks beginning on February 15th, 2022, and continue through
  - February 22nd,
  - March 1st, and
  - March 8th
- **Each session requires a separate registration**. Participation and feedback are welcome

FDOT HOSTS:

Katasha Cornwell
State Environmental Process Administrator
Office of Environmental Management
Florida Department of Transportation

Denise Rach
Project Delivery Coordinator
Office of Environmental Management
Florida Department of Transportation

Orientation to the Go To Webinar Platform

Kendra Pewtress
Stantec
Webinar
Administrator

How to…

- Send your questions and comments to the presenters through the Question box
- Questions and comments can be submitted any time during the workshop presentation
- This session is being recorded
- Materials from the webinar will be available

Speaker Introductions

Mark Cantrell – U.S. Fish and Wildlife Service (USFWS), Panama City

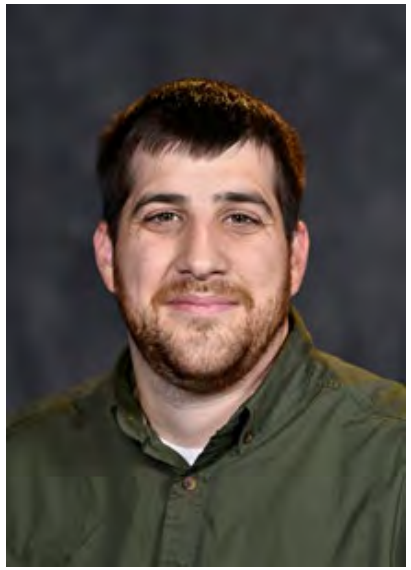
Ruth Roaza – FDOT- Office of Environmental Management, Tallahassee

David Rydene- National Marine Fisheries Service (NMFS)-West Coast, Habitat Conservation Division (EFH)

Kurtis Gregg- National Marine Fisheries Service (NMFS)-East Coast, Habitat Conservation Division (EFH)

Speaker Introductions- Species specific presentations

Victoria Garcia – U.S. Fish and Wildlife Service (USFWS), Species Biologist, Vero Beach



Lucas Davis – U.S. Fish and Wildlife Service (USFWS), Species Biologist, Jacksonville

Calusa Horn - National Marine Fisheries Service (NMFS)- Endangered Species Biologist/ Tribal Liaison, Southeast Region

David Rydene- National Marine Fisheries Service (NMFS)-West Coast, Habitat Conservation Division (EFH)

Session 3 – Practical Examples & Exercises regarding ESA Consultation

- **Kurtis Gregg**
  - *NMFS Online Resources*
  - *NMFS example project*
- **Ruth Roaza**
  - *Environmental Screening Tool*
- **Mark Cantrell**
  - *Information Planning and Consultation Tool*
  - *Programmatic Consultation*
  - *USFWS example project*
- **Victoria Garcia**
  - *USFWS examples: Snail kite*
- **Calusa Horn**
  - *Species Highlight: Manta ray*
- **Lucas Davis & David Rydene**
  - *Species Highlight: Sea turtles*

Review of Selected Online Resources

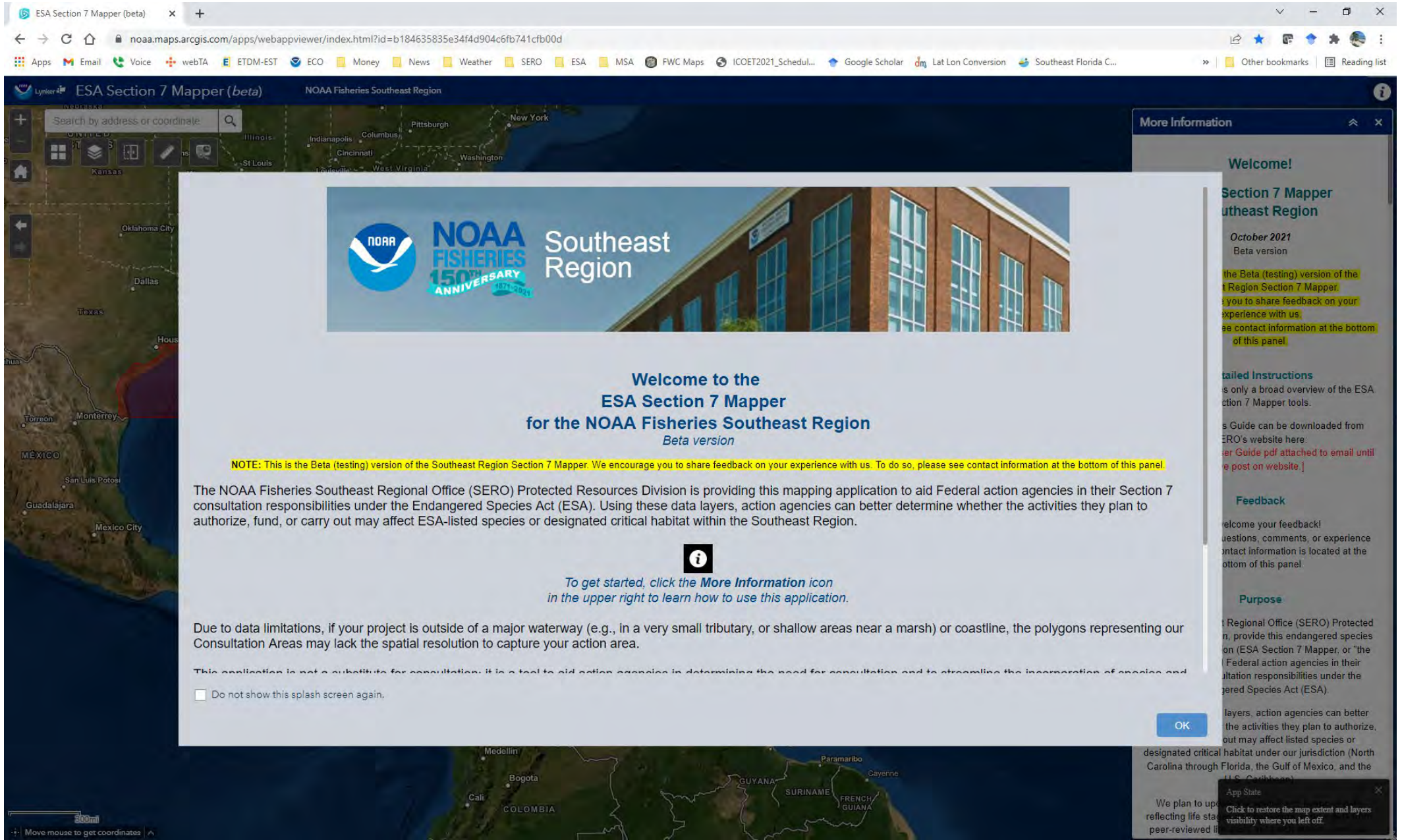
Refer to the handout for links to online resources from NMFS and USFWS

NMFS ESA Section 7 Mapper Tool

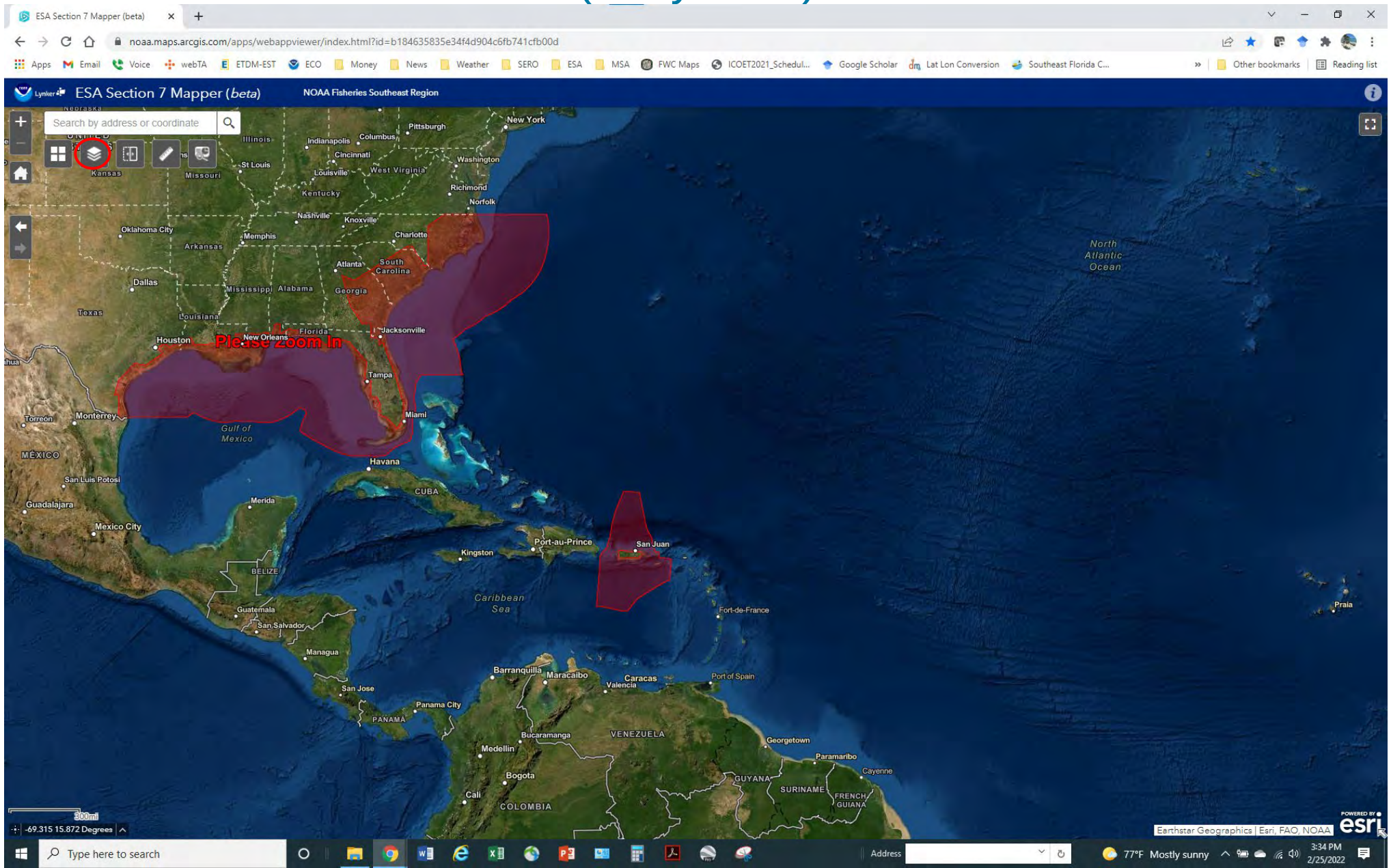
USFWS Information Planning and Consultation planning tool

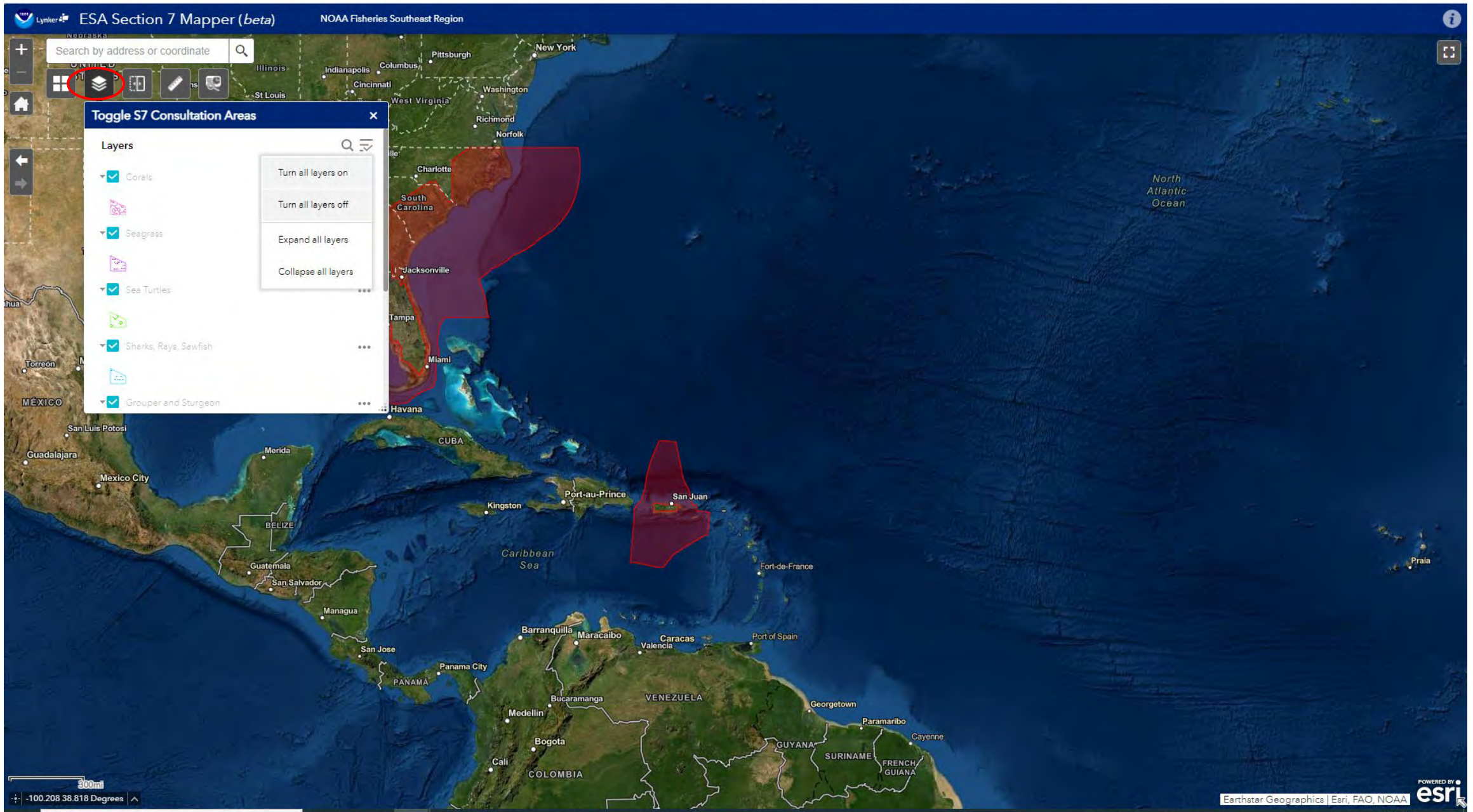
FDOT Environmental Screening Tool

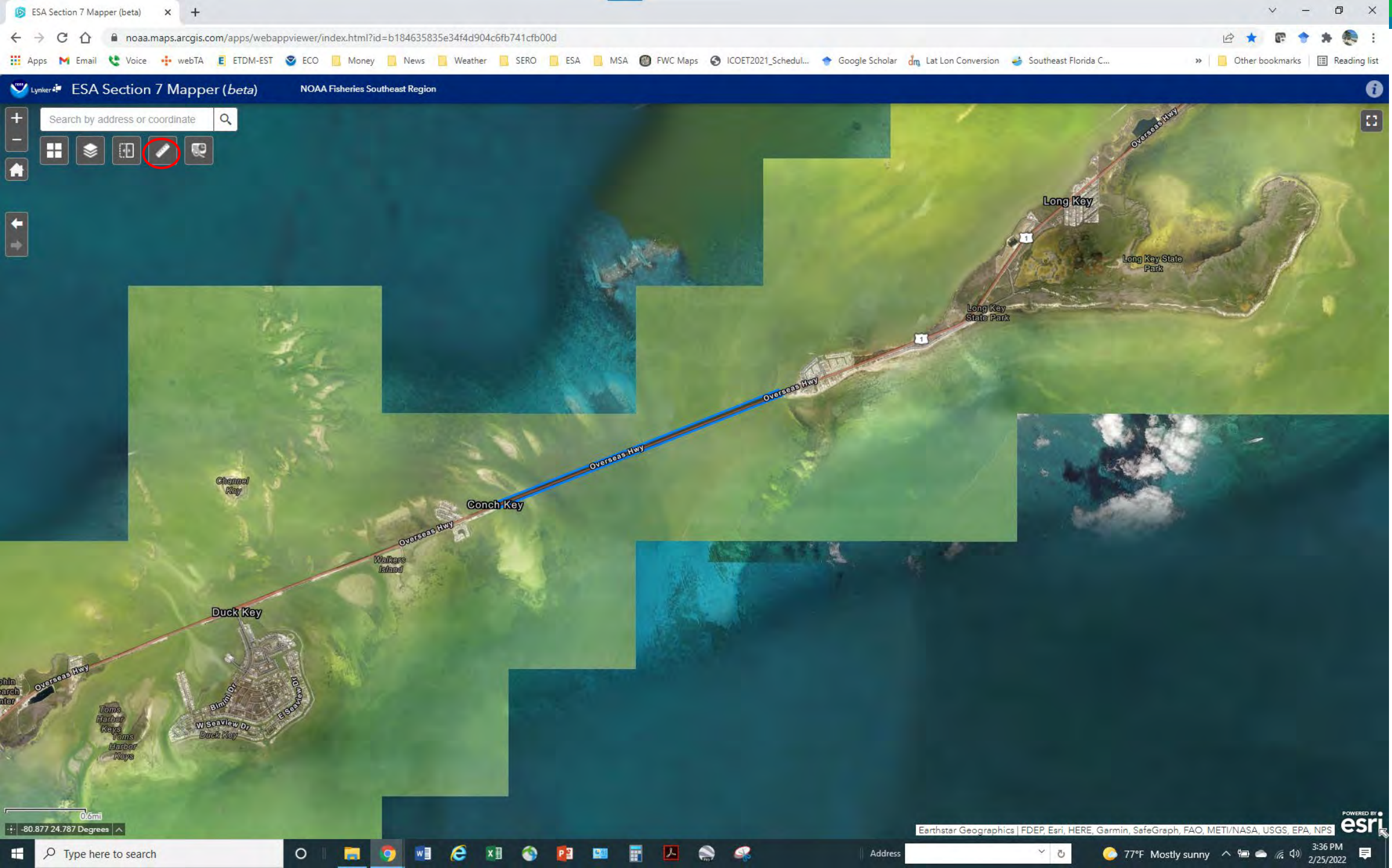
Main Page

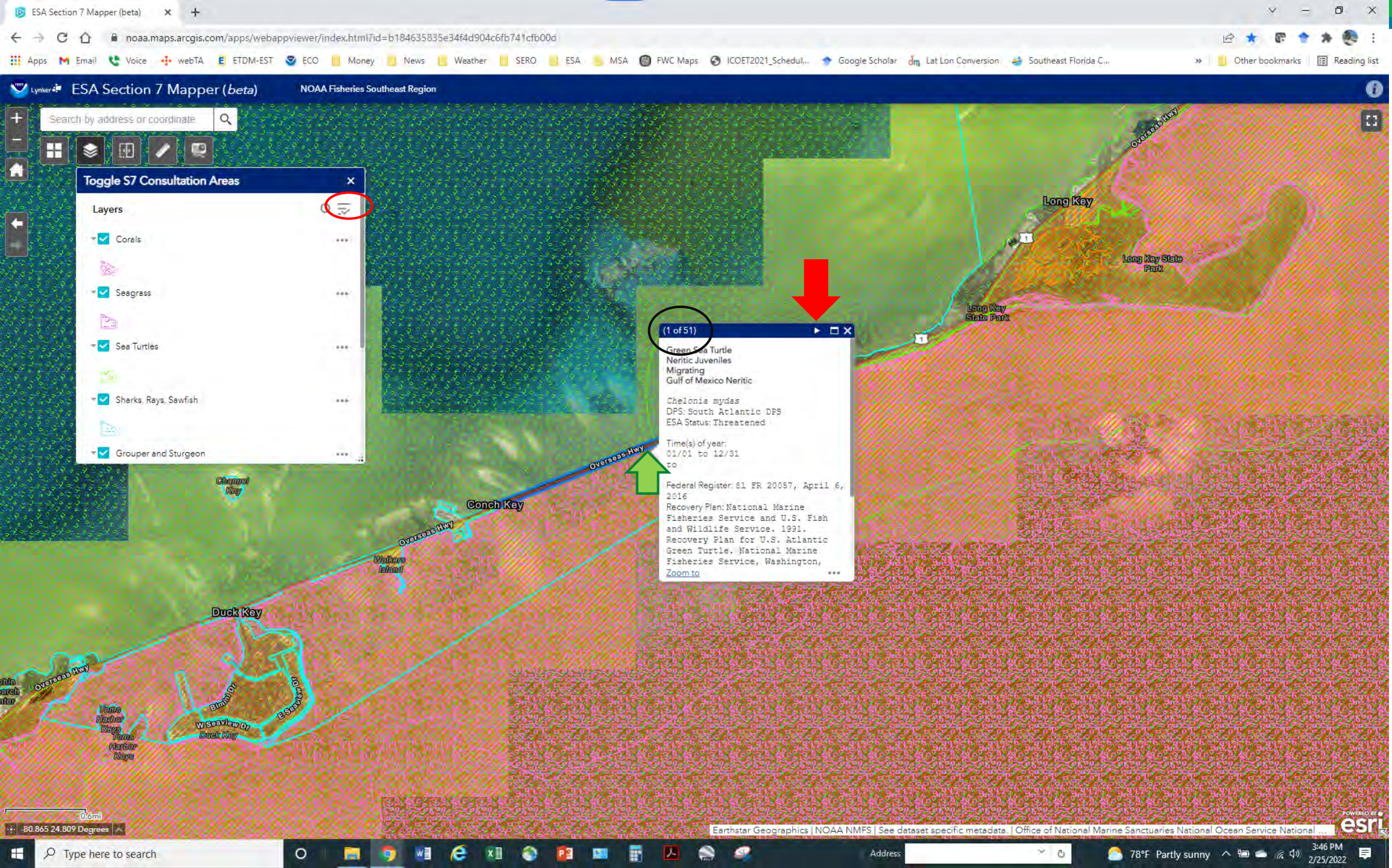

ESA Section 7 Mapper (beta)
noaa.maps.arcgis.com/apps/webappviewer/index.html?id=b184635835e34f4d904c6fb741cfb00d
ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
NOAA FISHERIES 150TH ANNIVERSARY
Southeast Region
Welcome to the
ESA Section 7 Mapper
for the NOAA Fisheries Southeast Region
Beta version
NOTE: This is the Beta (testing) version of the Southeast Region Section 7 Mapper. We encourage you to share feedback on your experience with us. To do so, please see contact information at the bottom of this panel.
The NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division is providing this mapping application to aid Federal action agencies in their Section 7 consultation responsibilities under the Endangered Species Act (ESA). Using these data layers, action agencies can better determine whether the activities they plan to authorize, fund, or carry out may affect ESA-listed species or designated critical habitat within the Southeast Region.
To get started, click the More Information icon
in the upper right to learn how to use this application.
Due to data limitations, if your project is outside of a major waterway (e.g., in a very small tributary, or shallow areas near a marsh) or coastline, the polygons representing our Consultation Areas may lack the spatial resolution to capture your action area.
Do not show this splash screen again.
OK
More Information
Welcome!
Section 7 Mapper
utheast Region
October 2021
Beta version
Feedback
Purpose
App State
Click to restore the map extent and layers visibility where you left off.
Move mouse to get coordinates

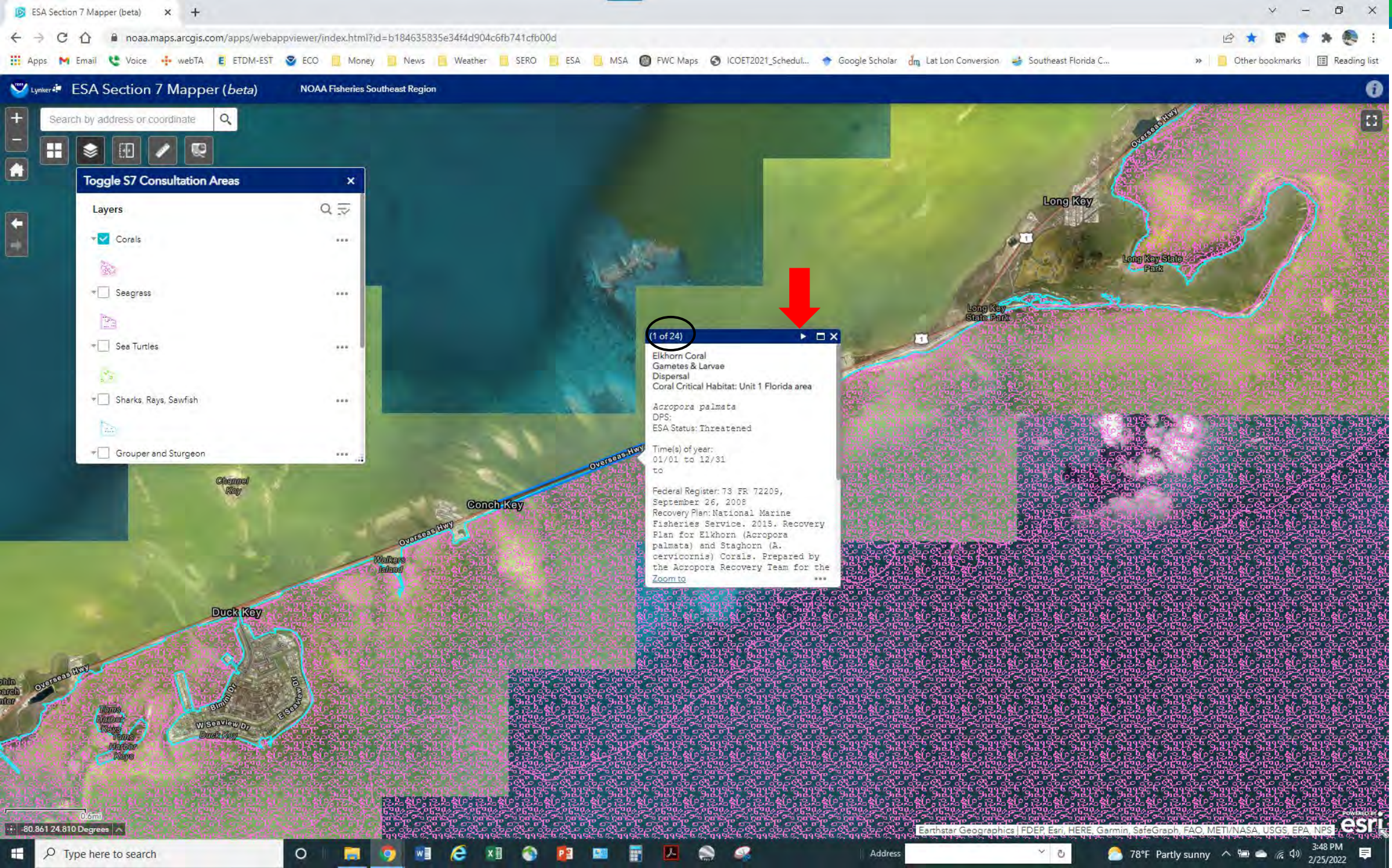
NMFS Southeast Region (all layers on)

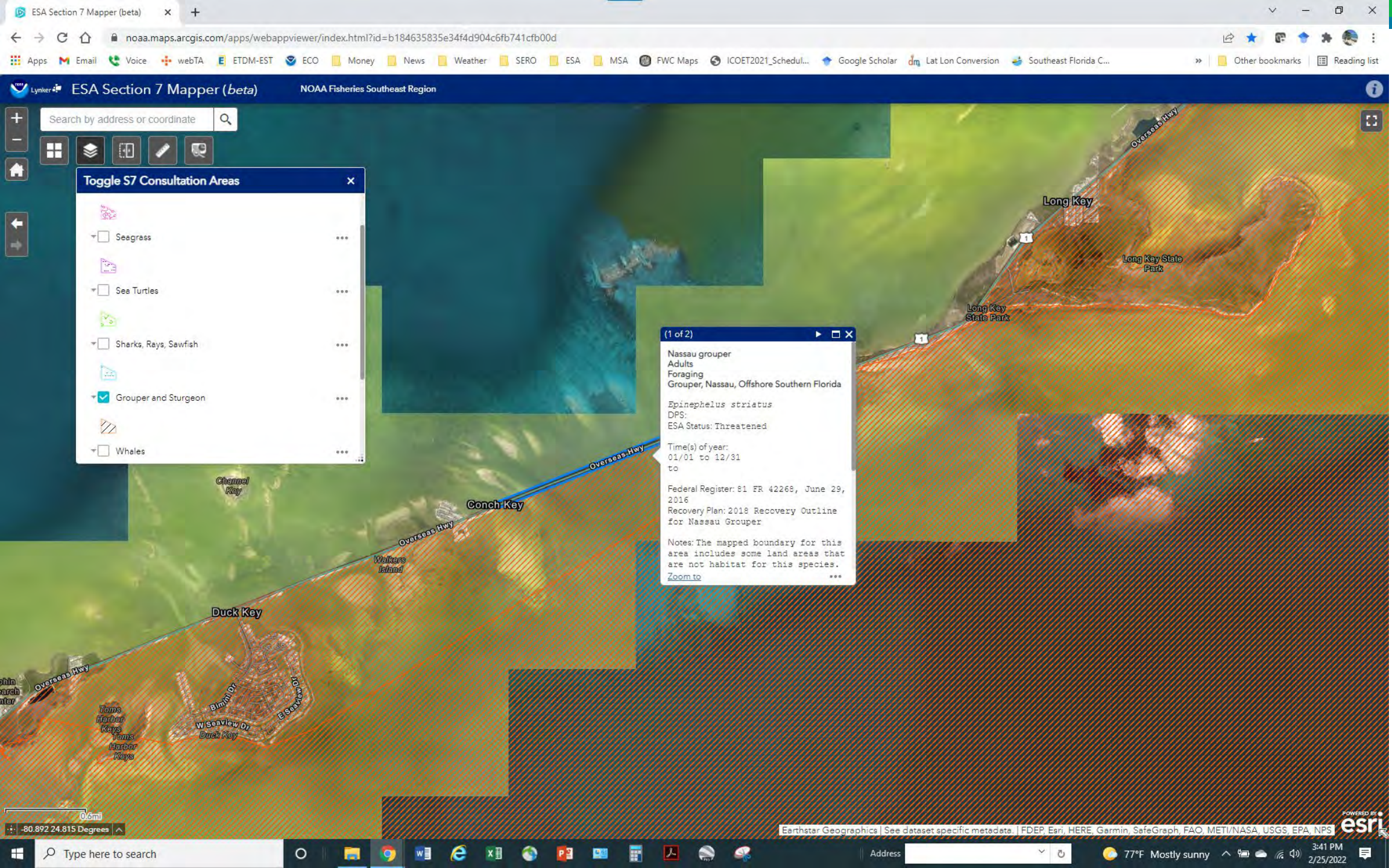


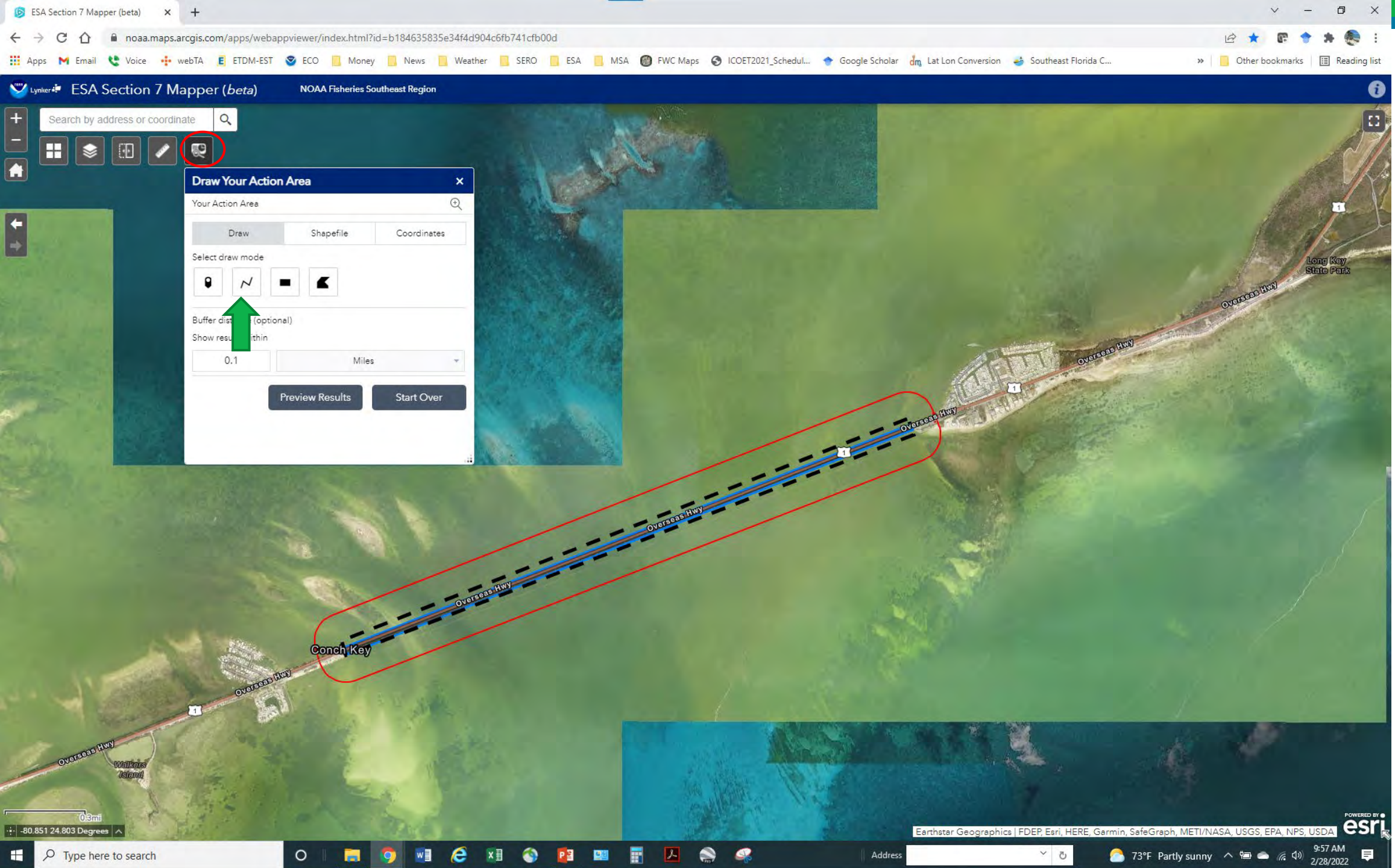

ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Toggle S7 Consultation Areas
Layers
Turn all layers on
Turn all layers off
Expand all layers
Collapse all layers
Corals
Seagrass
Sea Turtles
Sharks, Rays, Sawfish
Grouper and Sturgeon
North Atlantic Ocean
Caribbean Sea
CUBA
MÉXICO
BELIZE
PANAMÁ
COLOMBIA
VENEZUELA
GUYANA
SURINAME
FRENCH GUIANA
New York
Pittsburgh
Washington
Richmond
Norfolk
Charlotte
Jacksonville
Tampa
Miami
Havana
Kingston
Port-au-Prince
San Juan
Fort-de-France
Port of Spain
Caracas
Maracaibo
Barranquilla
Georgetown
Paramaribo
Cayenne
Praia
Mexico City
Guadalajara
Merida
Guatemala
San Salvador
Managua
San Jose
Panama City
Medellin
Bucaramanga
Bogota
Cali
Earthstar Geographics | Esri, FAO, NOAA
-100.208 38.818 Degrees
77°F Mostly sunny
3:35 PM
2/25/2022

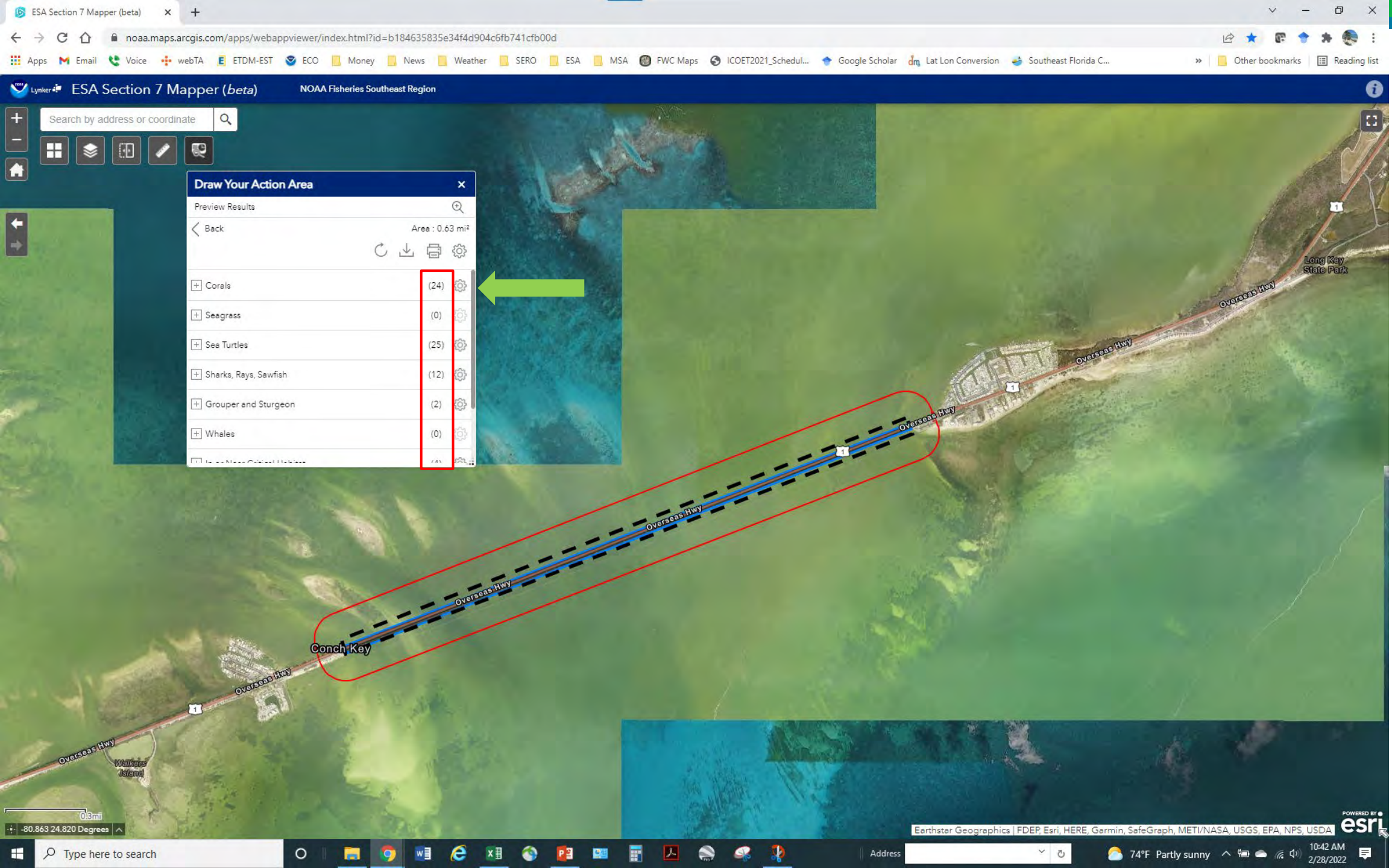

ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Long Key
Long Key State Park
Overseas Hwy
Conch Key
Channel Key
Walkers Island
Duck Key
Toms Harbor Keys
Bimini Dr
E Seaview Dr
W Seaview Dr
0.6mi
-80.877 24.787 Degrees
Earthstar Geographics | FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
POWERED BY esri


ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Toggle S7 Consultation Areas
Layers
Corals
Seagrass
Sea Turtles
Sharks, Rays, Sawfish
Grouper and Sturgeon
(1 of 51)
Green Sea Turtle
Neritic Juveniles
Migrating
Gulf of Mexico Neritic
Chelonia mydas
DPS: South Atlantic DPS
ESA Status: Threatened
Time(s) of year:
01/01 to 12/31
to
Federal Register: 81 FR 20057, April 6, 2016
Recovery Plan: National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1991. Recovery Plan for U.S. Atlantic Green Turtle. National Marine Fisheries Service, Washington,
Zoom to
Long Key
Long Key State Park
Overseas Hwy
Conch Key
Duck Key
Walkers Island
Channel Key
Toms Harbor Keys
Bimini Dr
W Seaview Dr
E Seaview Dr
Earthstar Geographics | NOAA NMFS | See dataset specific metadata. | Office of National Marine Sanctuaries National Ocean Service National ...
esri


ESA Section 7 Mapper (beta)
noaa.maps.arcgis.com/apps/webappviewer/index.html?id=b184635835e34f4d904c6fb741cfb00d
ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Toggle S7 Consultation Areas
Layers
Corals
Seagrass
Sea Turtles
Sharks, Rays, Sawfish
Grouper and Sturgeon
(1 of 24)
Elkhorn Coral
Gametes & Larvae
Dispersal
Coral Critical Habitat: Unit 1 Florida area
Acropora palmata
DPS:
ESA Status: Threatened
Time(s) of year:
01/01 to 12/31
to
Federal Register: 73 FR 72209, September 26, 2008
Recovery Plan: National Marine Fisheries Service. 2015. Recovery Plan for Elkhorn (Acropora palmata) and Staghorn (A. cervicornis) Corals. Prepared by the Acropora Recovery Team for the
Zoom to
Long Key
Long Key State Park
Overseas Hwy
Conch Key
Channel Key
Walkers Island
Duck Key
Tom's Harbor Keys
Bimini Dr
E Seaview Dr
W Seaview Dr
-80.861 24.810 Degrees
Earthstar Geographics | FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
78°F Partly sunny
3:48 PM
2/25/2022


ESA Section 7 Mapper (beta)
noaa.maps.arcgis.com/apps/webappviewer/index.html?id=b184635835e34f4d904c6fb741cfb00d
ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Toggle S7 Consultation Areas
Seagrass
Sea Turtles
Sharks, Rays, Sawfish
Grouper and Sturgeon
Whales
(1 of 2)
Nassau grouper
Adults
Foraging
Grouper, Nassau, Offshore Southern Florida
Epinephelus striatus
DPS:
ESA Status: Threatened
Time(s) of year:
01/01 to 12/31
to
Federal Register: 81 FR 42268, June 29, 2016
Recovery Plan: 2018 Recovery Outline for Nassau Grouper
Notes: The mapped boundary for this area includes some land areas that are not habitat for this species.
Zoom to
Long Key
Long Key State Park
Overseas Hwy
Conch Key
Channel Key
Walkers Island
Duck Key
Toms Harbor Keys
Bimini Dr
E Seaview Dr
W Seaview Dr
0.6mi
-80.892 24.815 Degrees
Earthstar Geographics | See dataset specific metadata. | FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
Type here to search
77°F Mostly sunny
3:41 PM
2/25/2022


ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Draw Your Action Area
Your Action Area
Draw
Shapefile
Coordinates
Select draw mode
Buffer dis (optional)
Show resu thin
0.1
Miles
Preview Results
Start Over
Overseas Hwy
Conch Key
Long Key State Park
Walkers Island
0.3mi
-80.851 24.803 Degrees
Earthstar Geographics | FDEP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA
POWERED BY esri


ESA Section 7 Mapper (beta)
NOAA Fisheries Southeast Region
Search by address or coordinate
Draw Your Action Area
Preview Results
Back
Area : 0.63 mi²
Corals (24)
Seagrass (0)
Sea Turtles (25)
Sharks, Rays, Sawfish (12)
Grouper and Sturgeon (2)
Whales (0)
Overseas Hwy
Conch Key
Long Key State Park
Walkers Island
Earthstar Geographics | FDEP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA
74°F Partly sunny
10:42 AM
2/28/2022

US Fish & Wildlife Service – online resources

Online Resources help yourself.

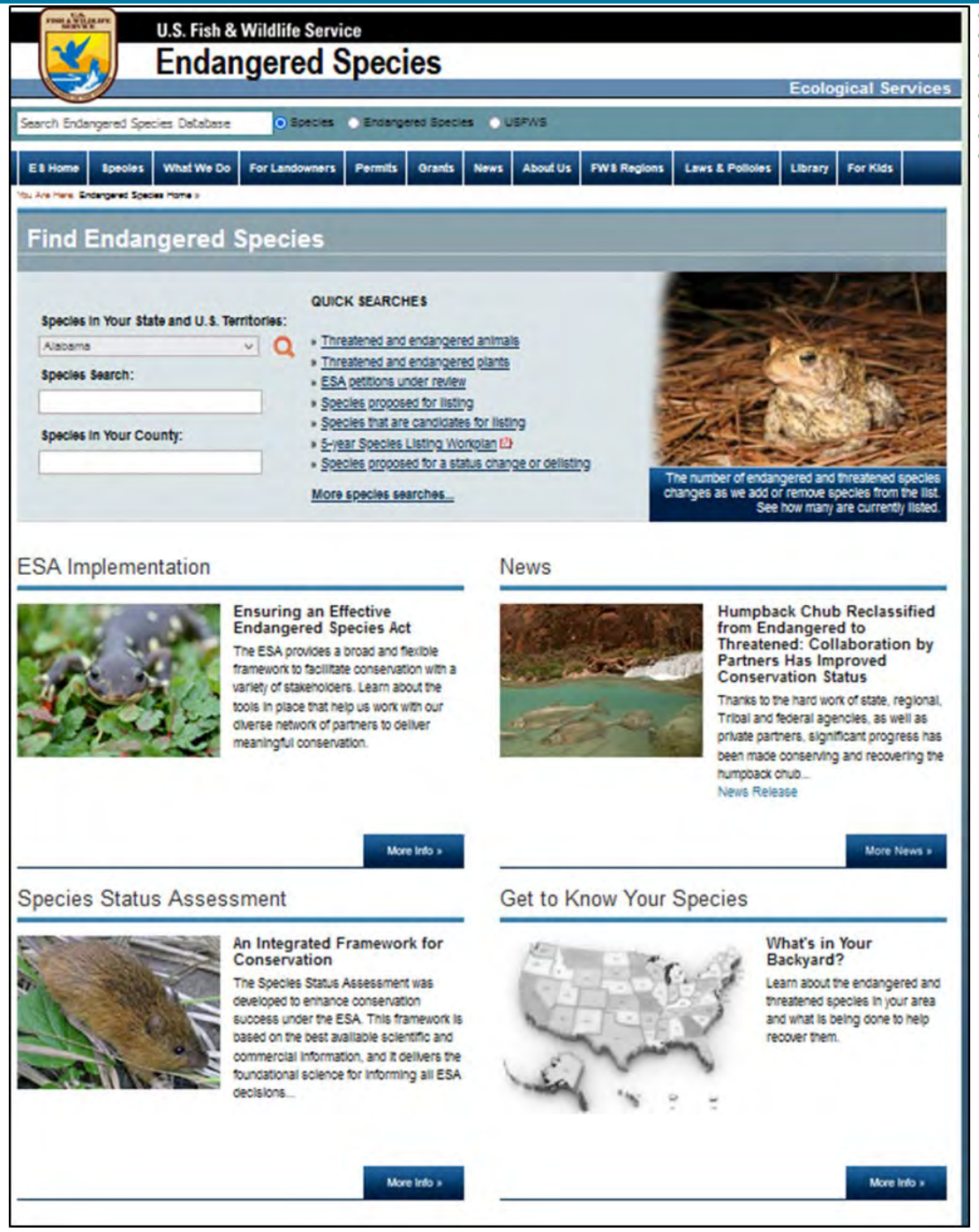
We are living in the *Information Age.*

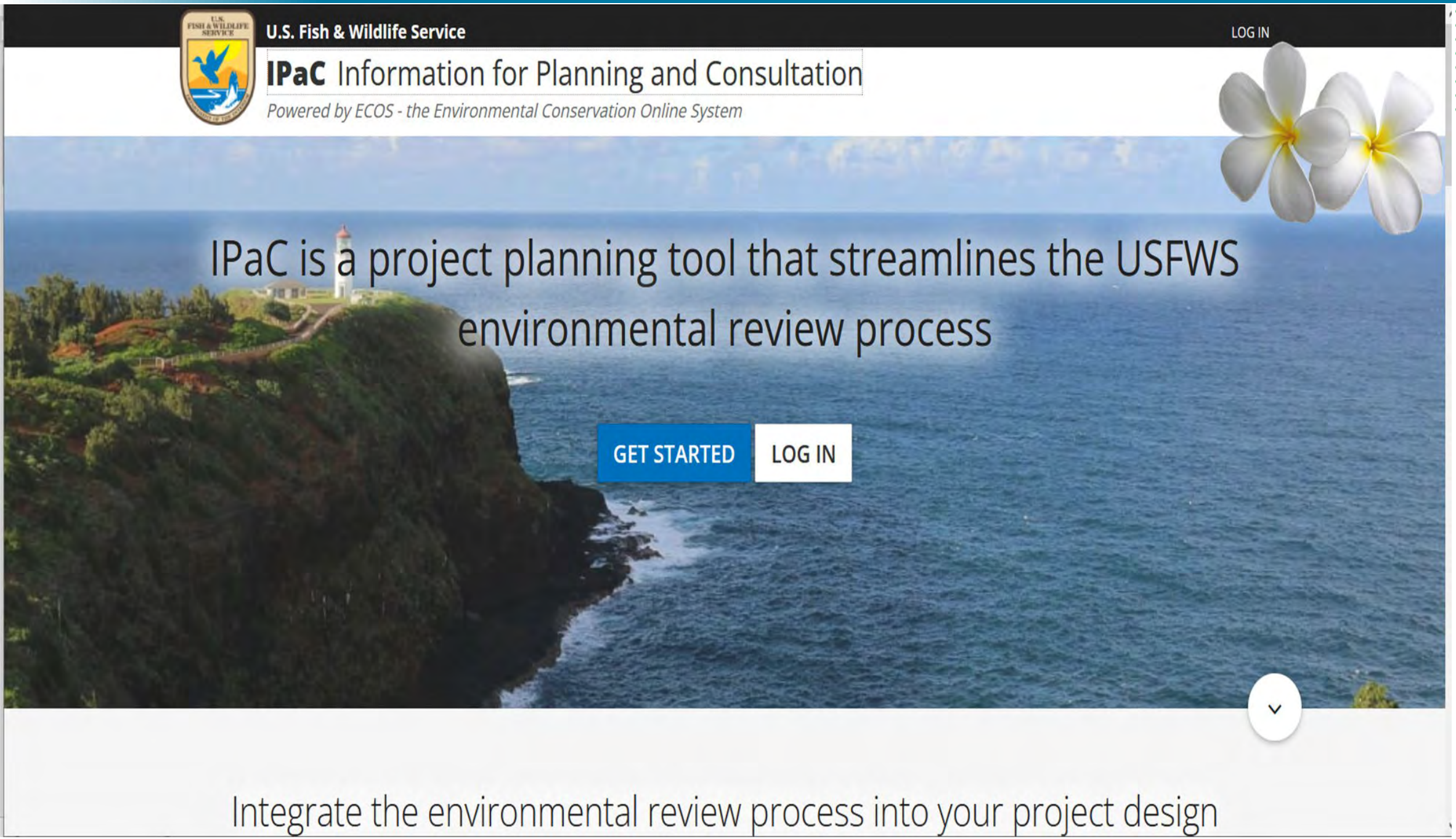
There is a lot of information out there.

Some of it is good.

www.fws.gov

https://www.fws.gov/endangered/




U.S. Fish & Wildlife Service
LOG IN
IPaC Information for Planning and Consultation
Powered by ECOS - the Environmental Conservation Online System
IPaC is a project planning tool that streamlines the USFWS environmental review process
GET STARTED
LOG IN
Integrate the environmental review process into your project design

Integrate the environmental review process

Integrate the environmental review process into your project design

Quickly and easily identify USFWS managed resources and suggested conservation measures for your project.

Explore species and habitat

See if any listed species 1, critical habitat, migratory birds or other natural resources may be impacted by your project.

Using the map tool, explore other resources in your location, such as wetlands, wildlife refuges, GAP land cover, and other important biological resources.

Conduct a regulatory review

Log in and define a project to get an official species list and evaluate potential impacts on resources managed by the U.S. Fish and Wildlife Service.

Follow IPaC's Endangered Species Act (ESA) Review process—a streamlined, step-by-step consultation process available in select areas for certain project types, agencies, and species.

New!

Build a biological assessment

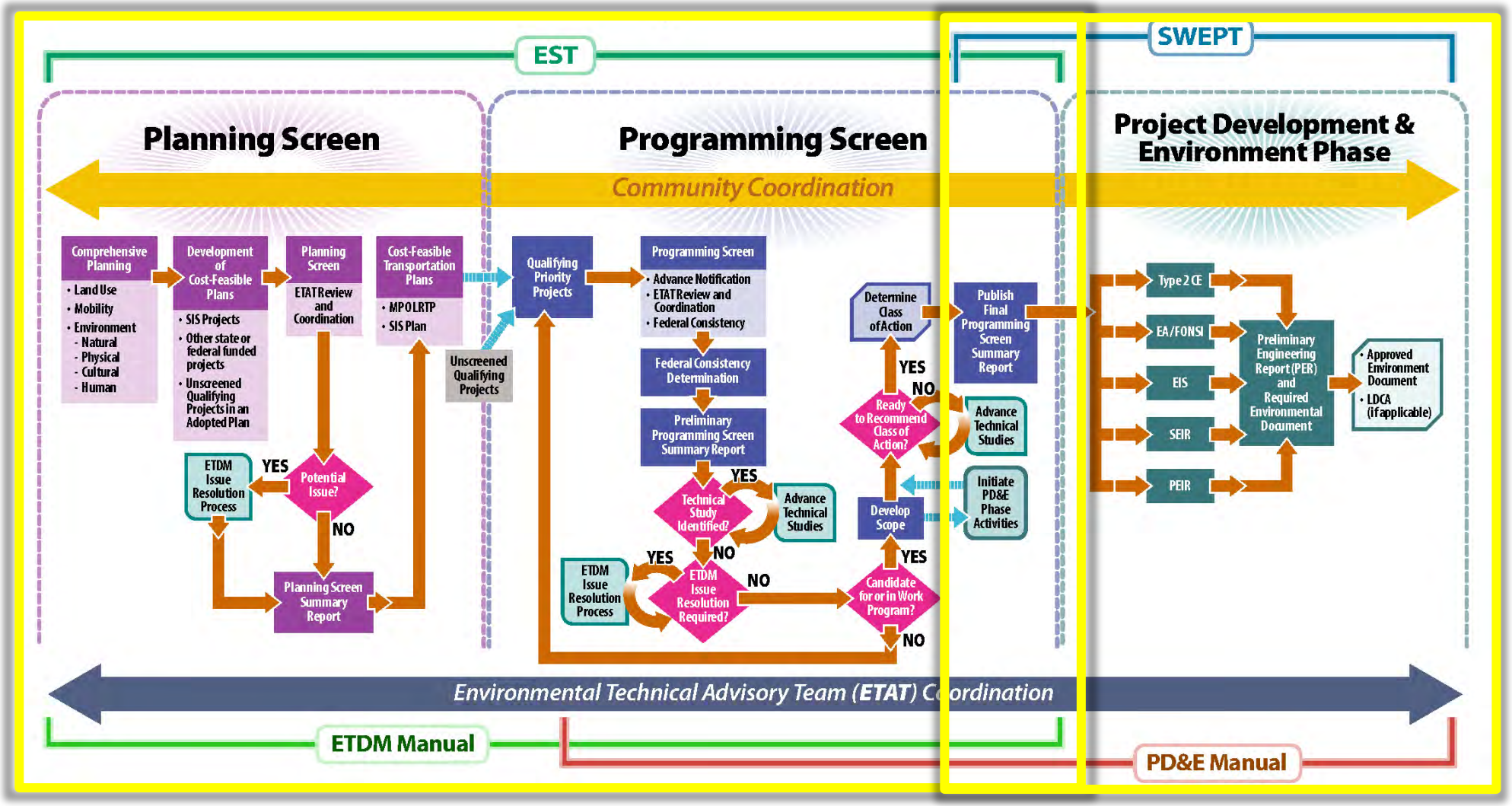
Consultation Package Builder (CPB) replaces and improves on the original Impact Analysis by providing an interactive, step-by-step process to help you prepare a full consultation package leveraging U.S. Fish and Wildlife Service data and recommendations, including conservation measures designed to help you avoid or minimize effects to listed species.

CPB has been released as a beta version of the software and will continue to be improved over time.

Efficient Transportation Decision Making (ETDM)

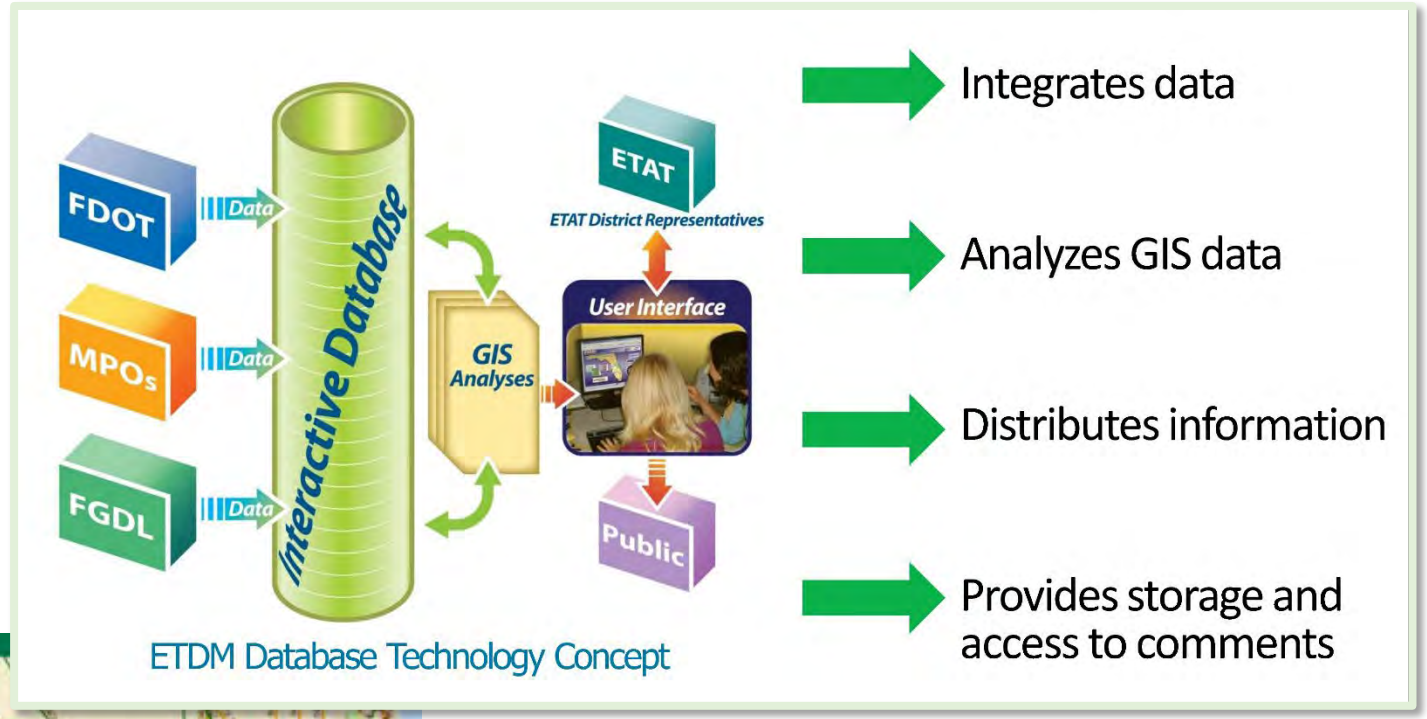
- Feasibility
- Avoidance, minimization and mitigation opportunities
- Focus topics
- Information to advance to PD&E
- Issue resolution during planning

ETDM to PD&E


EST
SWEPT
Planning Screen
Programming Screen
Project Development & Environment Phase
Community Coordination
Comprehensive Planning
• Land Use
• Mobility
• Environment
- Natural
- Physical
- Cultural
- Human
Development of Cost-Feasible Plans
• SIS Projects
• Other state or federal funded projects
• Unscreened Qualifying Projects in an Adopted Plan
Planning Screen
ETAT Review and Coordination
Cost-Feasible Transportation Plans
• MPO LRTP
• SIS Plan
Unscreened Qualifying Projects
Qualifying Priority Projects
Programming Screen
• Advance Notification
• ETAT Review and Coordination
• Federal Consistency
Federal Consistency Determination
Preliminary Programming Screen Summary Report
Technical Study Identified?
YES
NO
Advance Technical Studies
ETDM Issue Resolution Process
ETDM Issue Resolution Required?
Potential Issue?
ETDM Issue Resolution Process
Planning Screen Summary Report
Determine Class of Action
Ready to Recommend Class of Action?
Develop Scope
Candidate for or in Work Program?
Publish Final Programming Screen Summary Report
Advance Technical Studies
Initiate PD&E Phase Activities
Type 2 CE
EA/FONSI
EIS
SEIR
PEIR
Preliminary Engineering Report (PER) and Required Environmental Document
• Approved Environment Document
• LDCA (if applicable)
Environmental Technical Advisory Team (ETAT) Coordination
ETDM Manual
PD&E Manual

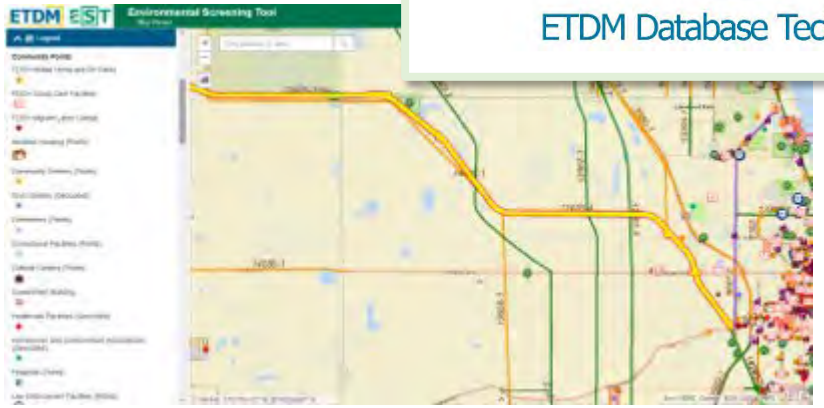
Environmental Screening Tool (EST)

- Web-based User Interface
- Integrate Data from Multiple Sources
- Store and Report Results
- Maintain Project Records
- Geographic Information Systems (GIS)

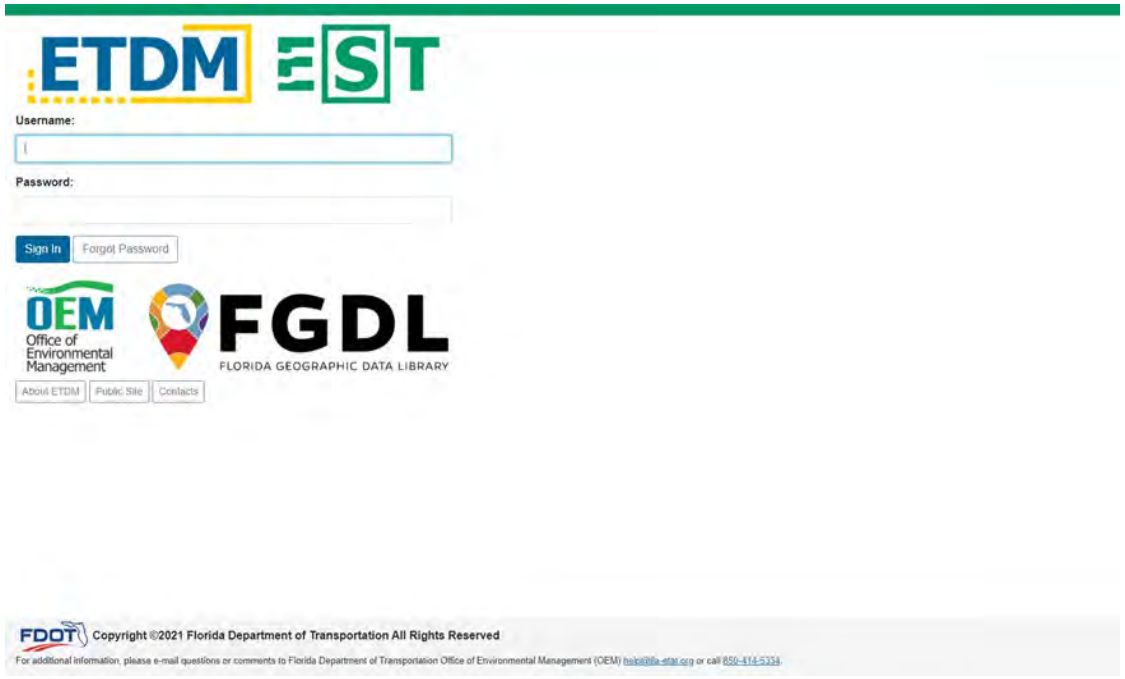


ETDM Database Technology Concept

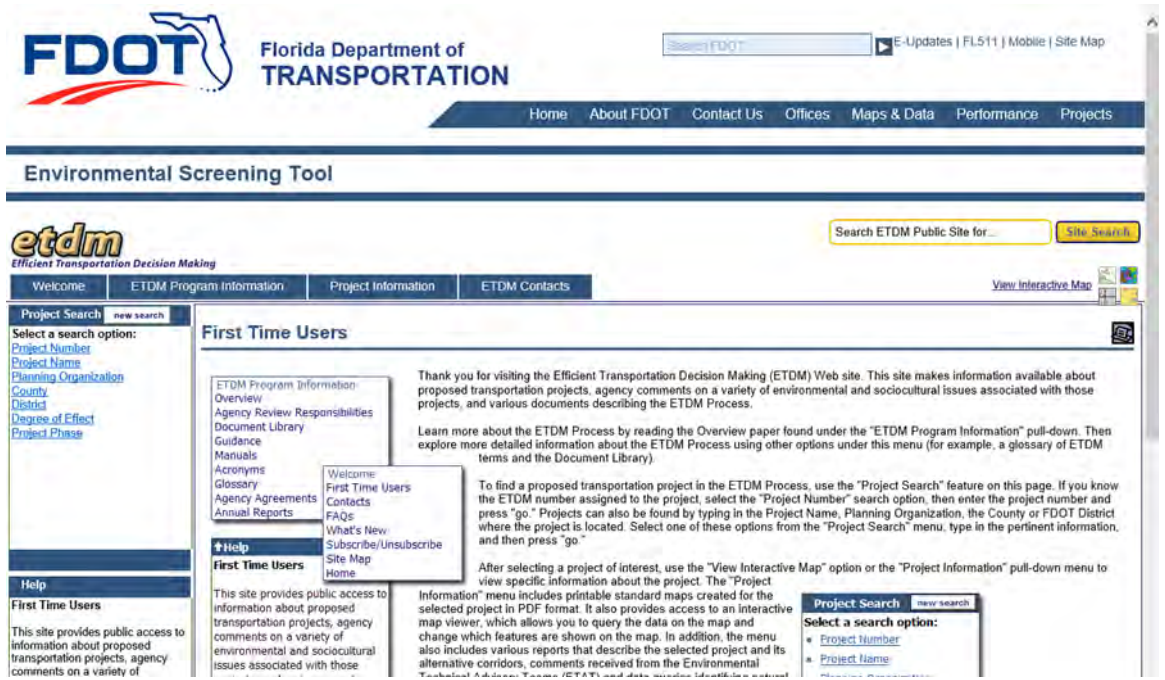
FGDL
FLORIDA GEOGRAPHIC DATA LIBRARY



Secure and Public EST Websites

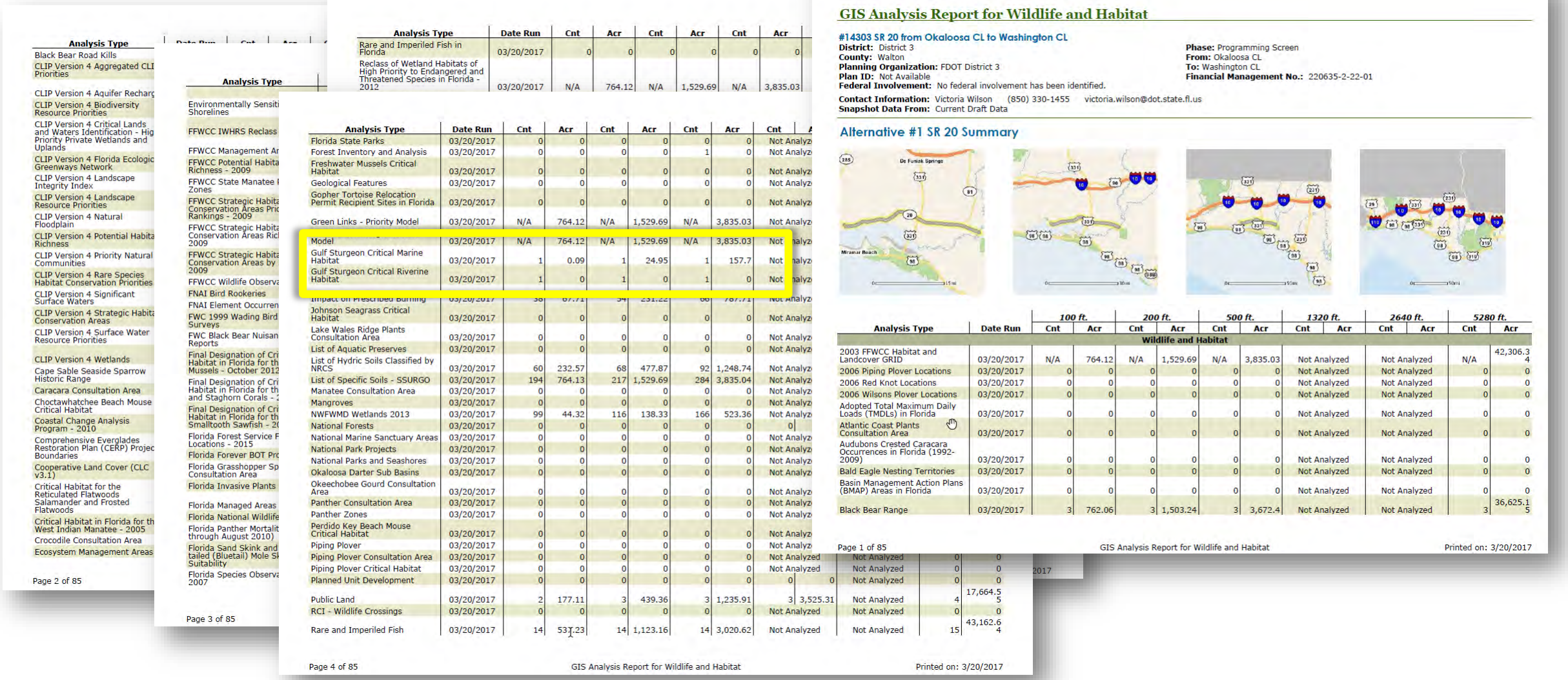


https://www.fla-etat.org/est/secure



https://etdmpub.fla-etat.org/est/

Protected Species and Habitat Data



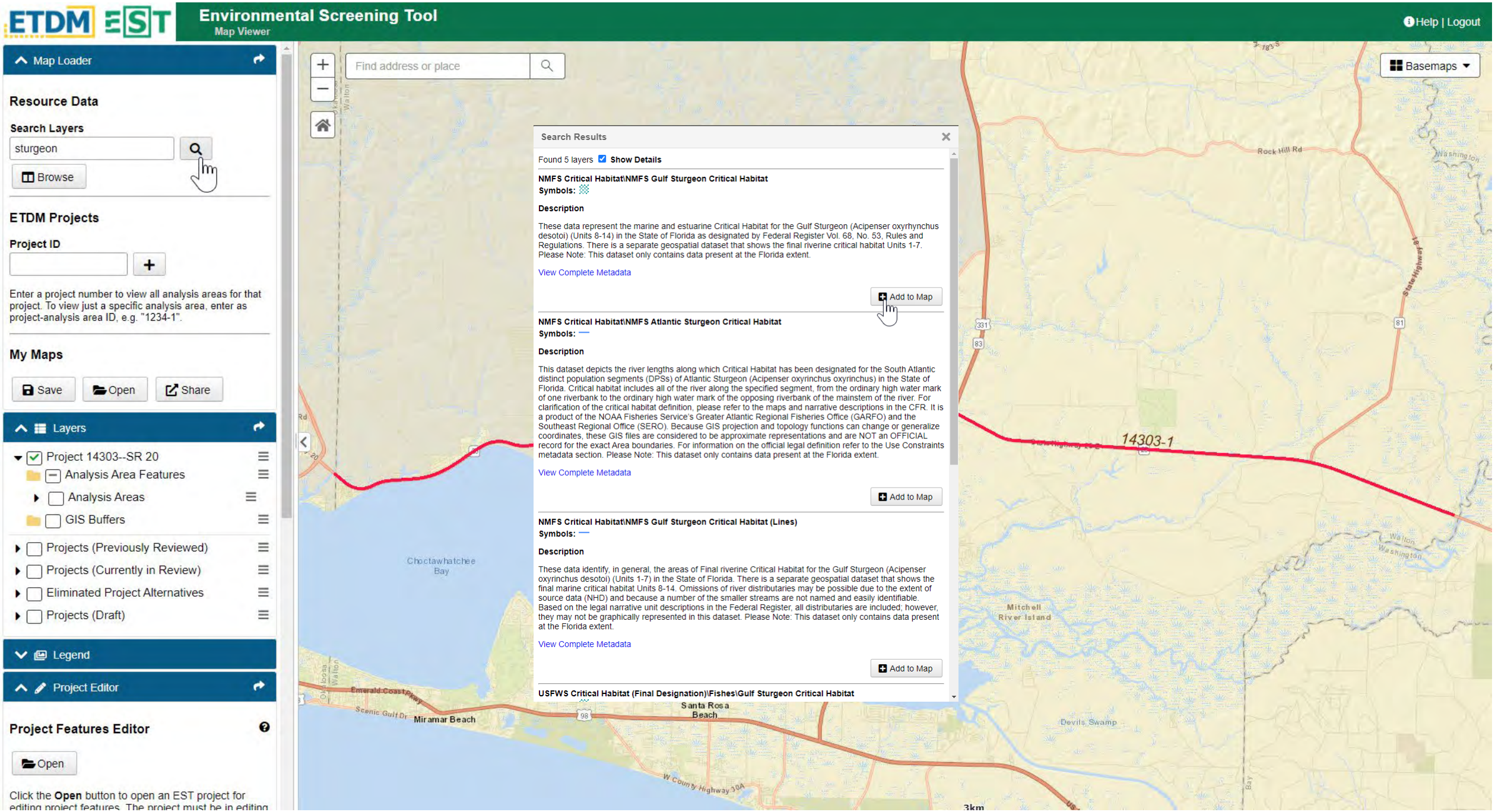
GIS Analysis Report for Wildlife and Habitat

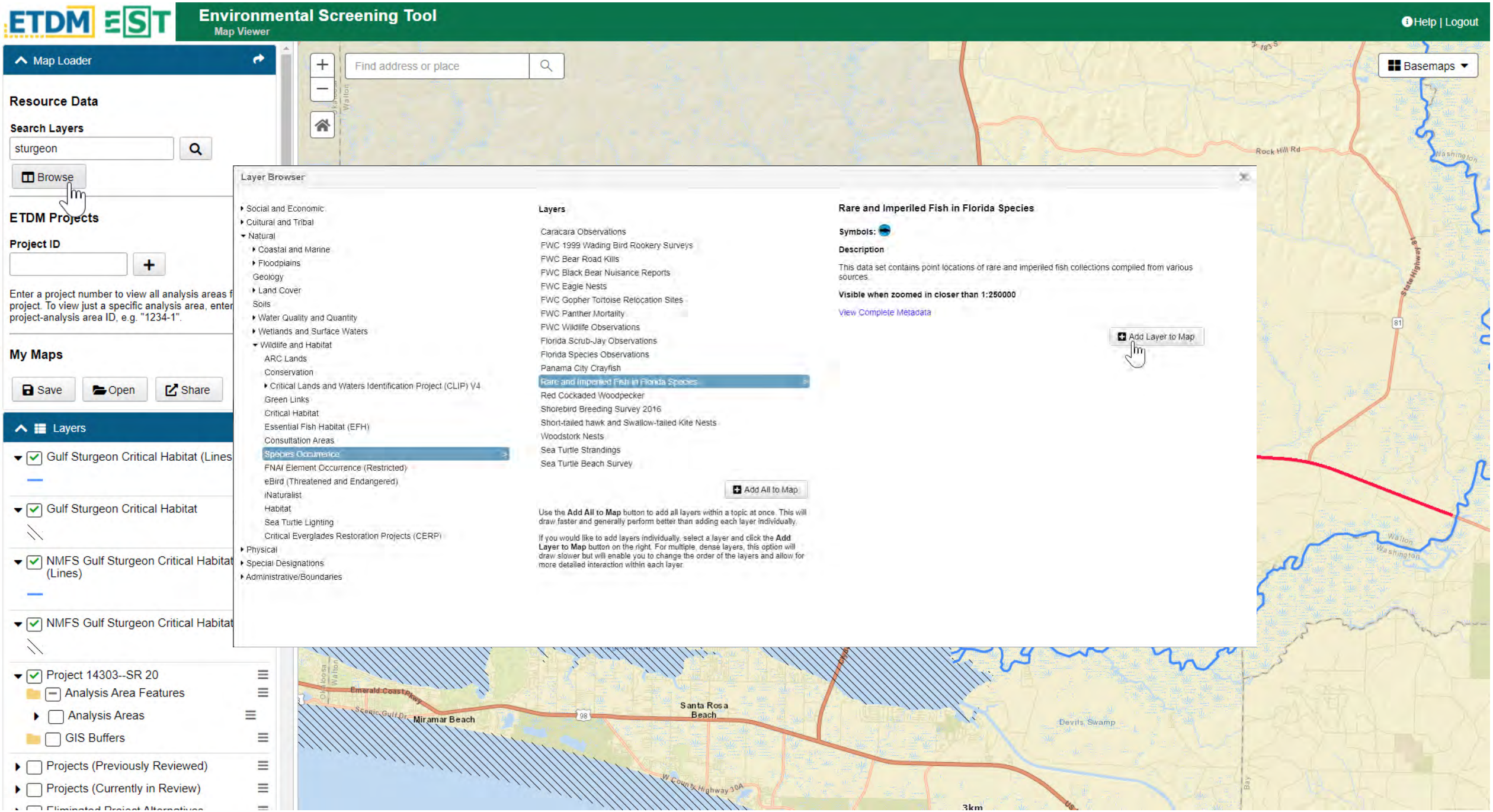
#14303 SR 20 from Okaloosa CL to Washington CL
District: District 3
County: Walton
Planning Organization: FDOT District 3
Plan ID: Not Available
Federal Involvement: No federal involvement has been identified.
Phase: Programming Screen
From: Okaloosa CL
To: Washington CL
Financial Management No.: 220635-2-22-01
Contact Information: Victoria Wilson (850) 330-1455 victoria.wilson@dot.state.fl.us
Snapshot Data From: Current Draft Data

Alternative #1 SR 20 Summary

Analysis Type	Date Run	100 ft. Cnt	100 ft. Acr	200 ft. Cnt	200 ft. Acr	500 ft. Cnt	500 ft. Acr	1320 ft. Cnt	1320 ft. Acr	2640 ft. Cnt	2640 ft. Acr	5280 ft. Cnt	5280 ft. Acr
Wildlife and Habitat													
2003 FFWCC Habitat and Landcover GRID	03/20/2017	N/A	764.12	N/A	1,529.69	N/A	3,835.03	Not Analyzed		Not Analyzed		N/A	42,306.34
2006 Piping Plover Locations	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
2006 Red Knot Locations	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
2006 Wilsons Plover Locations	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
Adopted Total Maximum Daily Loads (TMDLs) in Florida	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
Atlantic Coast Plants Consultation Area	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
Audubons Crested Caracara Occurrences in Florida (1992-2009)	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
Bald Eagle Nesting Territories	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
Basin Management Action Plans (BMAP) Areas in Florida	03/20/2017	0	0	0	0	0	0	Not Analyzed		Not Analyzed		0	0
Black Bear Range	03/20/2017	3	762.06	3	1,503.24	3	3,672.4	Not Analyzed		Not Analyzed		3	36,625.15

Analysis Type	Date Run	Cnt	Acr	Cnt	Acr	Cnt	Acr	Cnt	Acr
Rare and Imperiled Fish in Florida	03/20/2017	0	0	0	0	0	0		
Reclass of Wetland Habitats of High Priority to Endangered and Threatened Species in Florida - 2012	03/20/2017	N/A	764.12	N/A	1,529.69	N/A	3,835.03		
Florida State Parks	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Forest Inventory and Analysis	03/20/2017	0	0	0	0	1	0	Not Analyzed	
Freshwater Mussels Critical Habitat	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Geological Features	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Gopher Tortoise Relocation Permit Recipient Sites in Florida	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Green Links - Priority Model	03/20/2017	N/A	764.12	N/A	1,529.69	N/A	3,835.03	Not Analyzed	
Model	03/20/2017	N/A	764.12	N/A	1,529.69	N/A	3,835.03	Not Analyzed	
Gulf Sturgeon Critical Marine Habitat	03/20/2017	1	0.09	1	24.95	1	157.7	Not Analyzed	
Gulf Sturgeon Critical Riverine Habitat	03/20/2017	1	0	1	0	1	0	Not Analyzed	
Johnson Seagrass Critical Habitat	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Lake Wales Ridge Plants Consultation Area	03/20/2017	0	0	0	0	0	0	Not Analyzed	
List of Aquatic Preserves	03/20/2017	0	0	0	0	0	0	Not Analyzed	
List of Hydric Soils Classified by NRCS	03/20/2017	60	232.57	68	477.87	92	1,248.74	Not Analyzed	
List of Specific Soils - SSURGO	03/20/2017	194	764.13	217	1,529.69	284	3,835.04	Not Analyzed	
Manatee Consultation Area	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Mangroves	03/20/2017	0	0	0	0	0	0	Not Analyzed	
NWFWMD Wetlands 2013	03/20/2017	99	44.32	116	138.33	166	523.36	Not Analyzed	
National Forests	03/20/2017	0	0	0	0	0	0	0	
National Marine Sanctuary Areas	03/20/2017	0	0	0	0	0	0	Not Analyzed	
National Park Projects	03/20/2017	0	0	0	0	0	0	Not Analyzed	
National Parks and Seashores	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Okaloosa Darter Sub Basins	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Okeechobee Gourd Consultation Area	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Panther Consultation Area	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Panther Zones	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Perdido Key Beach Mouse Critical Habitat	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Piping Plover	03/20/2017	0	0	0	0	0	0	Not Analyzed	
Piping Plover Consultation Area	03/20/2017	0	0	0	0	0	0	Not Analyzed	Not Analyzed 0 0
Piping Plover Critical Habitat	03/20/2017	0	0	0	0	0	0	Not Analyzed	Not Analyzed 0 0
Planned Unit Development	03/20/2017	0	0	0	0	0	0	0	Not Analyzed 0 0
Public Land	03/20/2017	2	177.11	3	439.36	3	1,235.91	3	3,525.31 Not Analyzed 4 17,664.55
RCI - Wildlife Crossings	03/20/2017	0	0	0	0	0	0	Not Analyzed	Not Analyzed 0 0
Rare and Imperiled Fish	03/20/2017	14	537.23	14	1,123.16	14	3,020.62	Not Analyzed	Not Analyzed 15 43,162.64


ETDM EST
Environmental Screening Tool
Map Viewer
Help | Logout
Map Loader
Resource Data
Search Layers
sturgeon
Browse
ETDM Projects
Project ID
Enter a project number to view all analysis areas for that project. To view just a specific analysis area, enter as project-analysis area ID, e.g. "1234-1".
My Maps
Save
Open
Share
Layers
Project 14303--SR 20
Analysis Area Features
Analysis Areas
GIS Buffers
Projects (Previously Reviewed)
Projects (Currently in Review)
Eliminated Project Alternatives
Projects (Draft)
Legend
Project Editor
Project Features Editor
Open
Click the Open button to open an EST project for editing project features. The project must be in editing
Find address or place
Basemaps
Search Results
Found 5 layers
Show Details
NMFS Critical Habitat\NMFS Gulf Sturgeon Critical Habitat
Symbols:
Description
These data represent the marine and estuarine Critical Habitat for the Gulf Sturgeon (Acipenser oxyrhynchus desotoi) (Units 8-14) in the State of Florida as designated by Federal Register Vol. 68, No. 53, Rules and Regulations. There is a separate geospatial dataset that shows the final riverine critical habitat Units 1-7. Please Note: This dataset only contains data present at the Florida extent.
View Complete Metadata
Add to Map
NMFS Critical Habitat\NMFS Atlantic Sturgeon Critical Habitat
Symbols:
Description
This dataset depicts the river lengths along which Critical Habitat has been designated for the South Atlantic distinct population segments (DPSs) of Atlantic Sturgeon (Acipenser oxyrinchus oxyrinchus) in the State of Florida. Critical habitat includes all of the river along the specified segment, from the ordinary high water mark of one riverbank to the ordinary high water mark of the opposing riverbank of the mainstem of the river. For clarification of the critical habitat definition, please refer to the maps and narrative descriptions in the CFR. It is a product of the NOAA Fisheries Service's Greater Atlantic Regional Fisheries Office (GARFO) and the Southeast Regional Office (SERO). Because GIS projection and topology functions can change or generalize coordinates, these GIS files are considered to be approximate representations and are NOT an OFFICIAL record for the exact Area boundaries. For information on the official legal definition refer to the Use Constraints metadata section. Please Note: This dataset only contains data present at the Florida extent.
View Complete Metadata
Add to Map
NMFS Critical Habitat\NMFS Gulf Sturgeon Critical Habitat (Lines)
Symbols:
Description
These data identify, in general, the areas of Final riverine Critical Habitat for the Gulf Sturgeon (Acipenser oxyrinchus desotoi) (Units 1-7) in the State of Florida. There is a separate geospatial dataset that shows the final marine critical habitat Units 8-14. Omissions of river distributaries may be possible due to the extent of source data (NHD) and because a number of the smaller streams are not named and easily identifiable. Based on the legal narrative unit descriptions in the Federal Register, all distributaries are included; however, they may not be graphically represented in this dataset. Please Note: This dataset only contains data present at the Florida extent.
View Complete Metadata
Add to Map
USFWS Critical Habitat (Final Designation)\Fishes\Gulf Sturgeon Critical Habitat
Rock Hill Rd
Washington
State Highway 81
331
83
14303-1
Choctawhatchee Bay
Walton
Washington
Mitchell River Island
Emerald Coast Pkwy
Scenic Gulf Dr
Miramar Beach
98
Santa Rosa Beach
Devils Swamp
W County Highway 30A
3km


ETDM EST
Environmental Screening Tool
Map Viewer
Help | Logout
Map Loader
Resource Data
Search Layers
sturgeon
Browse
ETDM Projects
Project ID
Enter a project number to view all analysis areas f
project. To view just a specific analysis area, enter
project-analysis area ID, e.g. "1234-1".
My Maps
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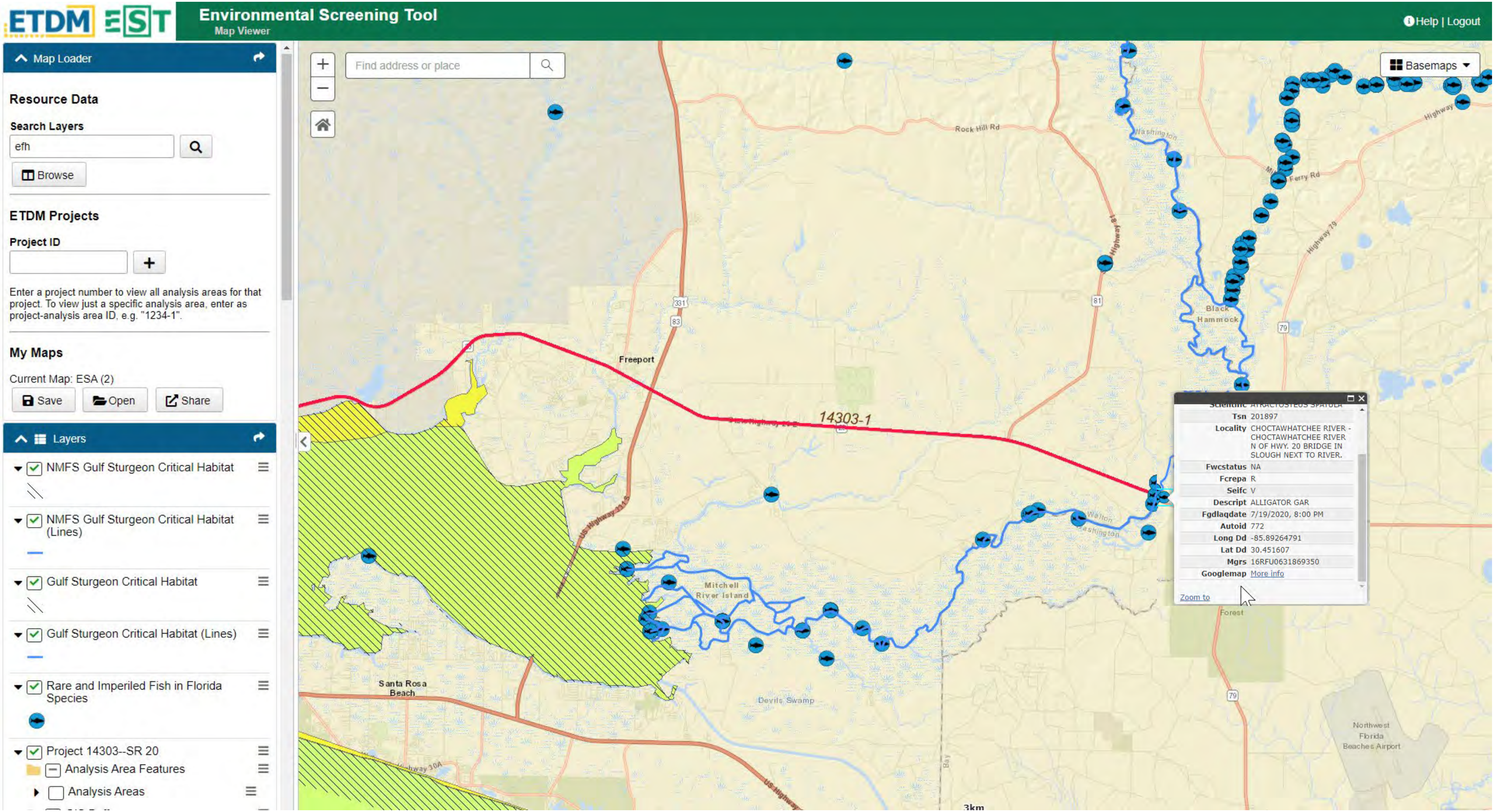
Open
Share
Layers
Gulf Sturgeon Critical Habitat (Lines
Gulf Sturgeon Critical Habitat
NMFS Gulf Sturgeon Critical Habitat
(Lines)
NMFS Gulf Sturgeon Critical Habitat
Project 14303--SR 20
Analysis Area Features
Analysis Areas
GIS Buffers
Projects (Previously Reviewed)
Projects (Currently in Review)
Find address or place
Basemaps
Layer Browser
Social and Economic
Cultural and Tribal
Natural
Coastal and Marine
Floodplains
Geology
Land Cover
Soils
Water Quality and Quantity
Wetlands and Surface Waters
Wildlife and Habitat
ARC Lands
Conservation
Critical Lands and Waters Identification Project (CLIP) V4
Green Links
Critical Habitat
Essential Fish Habitat (EFH)
Consultation Areas
Species Occurrence
FNAI Element Occurrence (Restricted)
eBird (Threatened and Endangered)
iNaturalist
Habitat
Sea Turtle Lighting
Critical Everglades Restoration Projects (CERP)
Physical
Special Designations
Administrative/Boundaries
Layers
Caracara Observations
FWC 1999 Wading Bird Rookery Surveys
FWC Bear Road Kills
FWC Black Bear Nuisance Reports
FWC Eagle Nests
FWC Gopher Tortoise Relocation Sites
FWC Panther Mortality
FWC Wildlife Observations
Florida Scrub-Jay Observations
Florida Species Observations
Panama City Crayfish
Rare and Imperiled Fish in Florida Species
Red Cockaded Woodpecker
Shorebird Breeding Survey 2016
Short-tailed hawk and Swallow-tailed Kite Nests
Woodstork Nests
Sea Turtle Strandings
Sea Turtle Beach Survey
Add All to Map
Use the Add All to Map button to add all layers within a topic at once. This will draw faster and generally perform better than adding each layer individually.
If you would like to add layers individually, select a layer and click the Add Layer to Map button on the right. For multiple, dense layers, this option will draw slower but will enable you to change the order of the layers and allow for more detailed interaction within each layer.
Rare and Imperiled Fish in Florida Species
Symbols:
Description
This data set contains point locations of rare and imperiled fish collections compiled from various sources.
Visible when zoomed in closer than 1:250000
View Complete Metadata
Add Layer to Map
Rock Hill Rd
Washington
State Highway 81
Walton
Washington
Okaloosa
Walton
Emerald Coast Pkwy
Scenic Gulf Dr
Miramar Beach
98
Santa Rosa Beach
Devils Swamp
W County Highway 30A
Bay
3km



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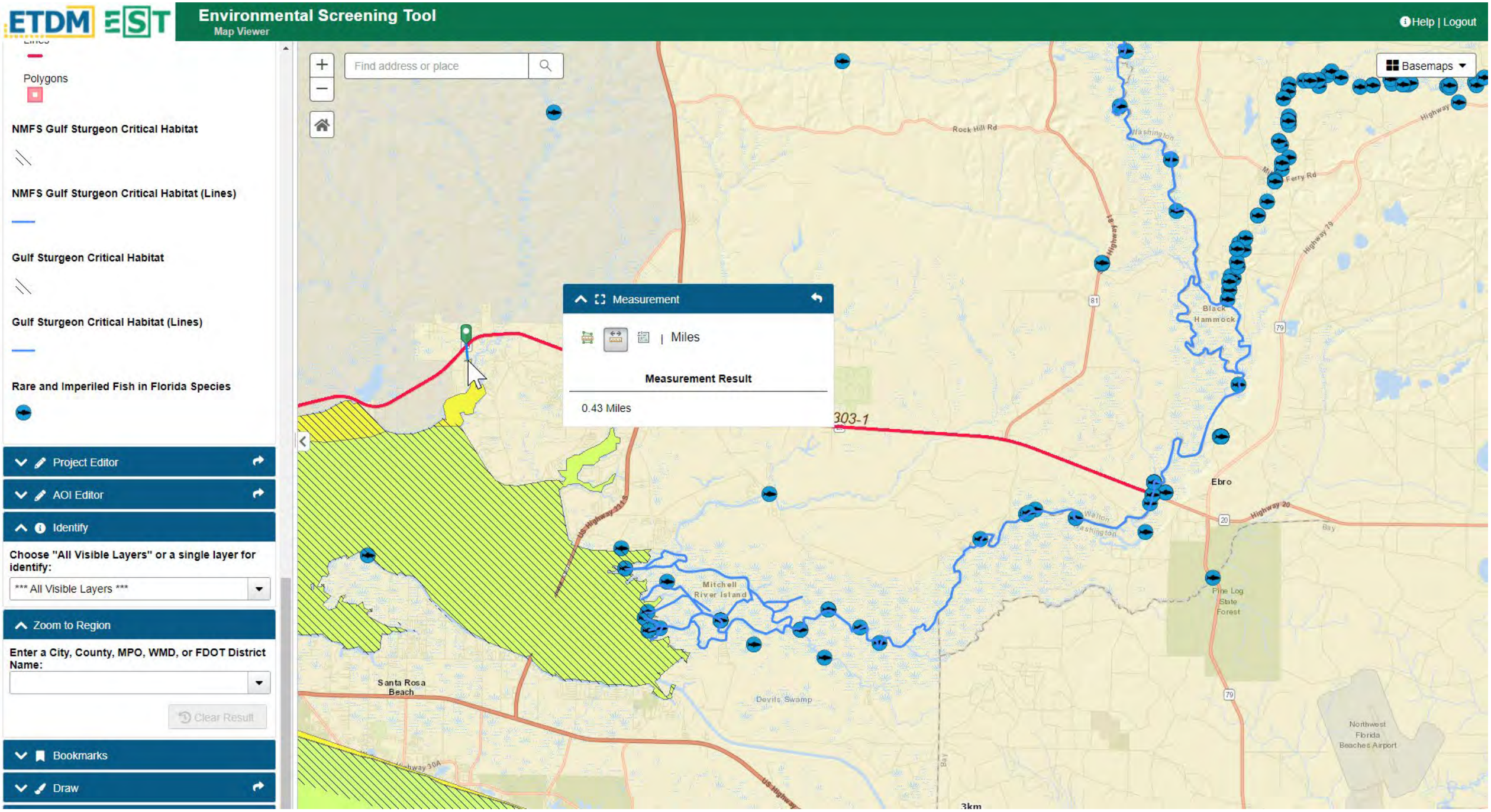
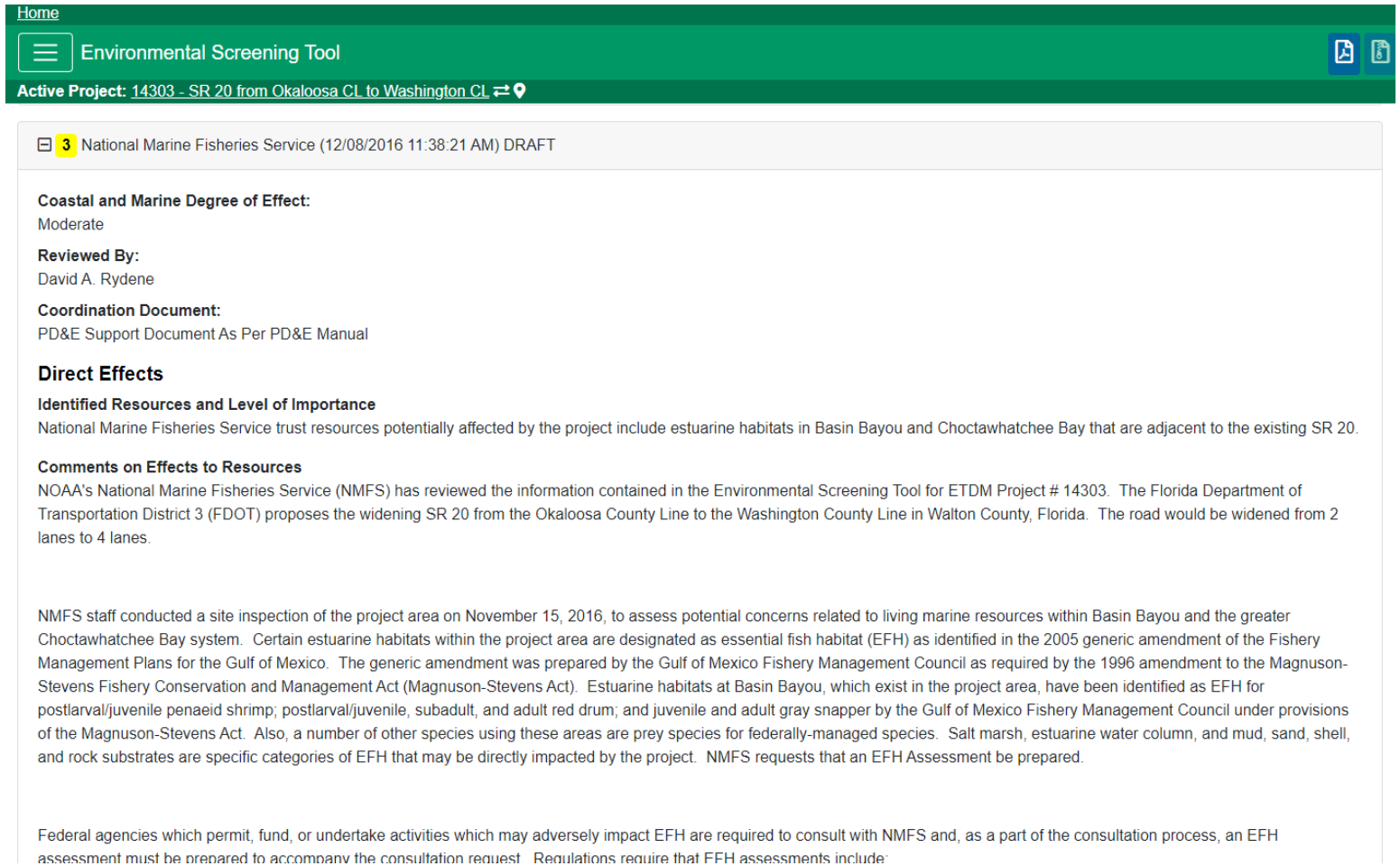
Environmental Screening Tool
Map Viewer
Help | Logout
Map Loader
Resource Data
Search Layers
efh
Browse
ETDM Projects
Project ID
Enter a project number to view all analysis areas for that project. To view just a specific analysis area, enter as project-analysis area ID, e.g. "1234-1".
My Maps
Current Map: ESA (2)
Save
Open
Share
Layers
NMFS Gulf Sturgeon Critical Habitat
NMFS Gulf Sturgeon Critical Habitat (Lines)
Gulf Sturgeon Critical Habitat
Gulf Sturgeon Critical Habitat (Lines)
Rare and Imperiled Fish in Florida Species
Project 14303--SR 20
Analysis Area Features
Analysis Areas
Find address or place
Basemaps
Rock Hill Rd
Freeport
14303-1
Mitchell River Island
Black Hammock
Santa Rosa Beach
Devils Swamp
Northwest Florida Beaches Airport
Forest
3km
Tsn 201897
Locality CHOCTAWHATCHEE RIVER - CHOCTAWHATCHEE RIVER N OF HWY. 20 BRIDGE IN SLOUGH NEXT TO RIVER.
Fwcstatus NA
Fcrepa R
Seifc V
Descript ALLIGATOR GAR
Fgdlaqdate 7/19/2020, 8:00 PM
Autoid 772
Long Dd -85.89264791
Lat Dd 30.451607
Mgrs 16RFU0631869350
Googlemap More info
Zoom to


ETDM EST
Environmental Screening Tool
Map Viewer
Help | Logout
Polygons
NMFS Gulf Sturgeon Critical Habitat
NMFS Gulf Sturgeon Critical Habitat (Lines)
Gulf Sturgeon Critical Habitat
Gulf Sturgeon Critical Habitat (Lines)
Rare and Imperiled Fish in Florida Species
Project Editor
AOI Editor
Identify
Choose "All Visible Layers" or a single layer for identify:
*** All Visible Layers ***
Zoom to Region
Enter a City, County, MPO, WMD, or FDOT District Name:
Clear Result
Bookmarks
Draw
Find address or place
Basemaps
Measurement
Miles
Measurement Result
0.43 Miles
Rock Hill Rd
Washington
Mill Ferry Rd
Highway 81
Highway 79
Black Hammock
Ebro
Highway 20
Walton
Bay
Pine Log State Forest
Mitchell River Island
Devils Swamp
Santa Rosa Beach
US Highway 331
Northwest Florida Beaches Airport
3km

ETAT Comments

- Provide detailed information on topics
- Highlight critical path issues
- Specify fatal flaws and potential controversies
- Identify potential avoidance, minimization and mitigation opportunities
- Assist with development and refinement of reasonable alternatives
- Recommend commitments
- Identify anticipated permits
- Provide coordination information
- Identifies Cooperating and Participating Agencies



Home

Environmental Screening Tool

Active Project: 14303 - SR 20 from Okaloosa CL to Washington CL

3 National Marine Fisheries Service (12/08/2016 11:38:21 AM) DRAFT

Coastal and Marine Degree of Effect:
Moderate

Reviewed By:
David A. Rydene

Coordination Document:
PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance
National Marine Fisheries Service trust resources potentially affected by the project include estuarine habitats in Basin Bayou and Choctawhatchee Bay that are adjacent to the existing SR 20.

Comments on Effects to Resources
NOAA's National Marine Fisheries Service (NMFS) has reviewed the information contained in the Environmental Screening Tool for ETDM Project # 14303. The Florida Department of Transportation District 3 (FDOT) proposes the widening SR 20 from the Okaloosa County Line to the Washington County Line in Walton County, Florida. The road would be widened from 2 lanes to 4 lanes.

NMFS staff conducted a site inspection of the project area on November 15, 2016, to assess potential concerns related to living marine resources within Basin Bayou and the greater Choctawhatchee Bay system. Certain estuarine habitats within the project area are designated as essential fish habitat (EFH) as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. The generic amendment was prepared by the Gulf of Mexico Fishery Management Council as required by the 1996 amendment to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Estuarine habitats at Basin Bayou, which exist in the project area, have been identified as EFH for postlarval/juvenile penaeid shrimp; postlarval/juvenile, subadult, and adult red drum; and juvenile and adult gray snapper by the Gulf of Mexico Fishery Management Council under provisions of the Magnuson-Stevens Act. Also, a number of other species using these areas are prey species for federally-managed species. Salt marsh, estuarine water column, and mud, sand, shell, and rock substrates are specific categories of EFH that may be directly impacted by the project. NMFS requests that an EFH Assessment be prepared.

Federal agencies which permit, fund, or undertake activities which may adversely impact EFH are required to consult with NMFS and, as a part of the consultation process, an EFH assessment must be prepared to accompany the consultation request. Regulations require that EFH assessments include:

Programmatic Agreements

Such agreements establish streamlined processes for handling simple environmental requirements for commonly encountered project types.

Examples:

- Freshwater Mussel Phase 1 Programmatic Approach for Transportation Work Activities (2017 et seq.)
- Minor Transportation Activities (2021) New!

Programmatic Agreements

- Most environmental requirements are handled on a project-by-project basis.
- This requires FDOT to initiate repetitive submissions for routine actions that can considerably slow down a project's environmental review.
- Programmatic Agreements (PAs) have been developed to streamline these repetitive processes, helping us all save time and money, while maintaining appropriate consideration for the environment.
- Employing a PA helps us design projects to avoid, minimize and mitigate potential impacts, speed up our environmental reviews and increase transparency between FDOT and regulatory agencies.

Freshwater Mussel Programmatic Approach for Transportation Work Activities (2017 et seq.)

The purpose is to provide a clear, consistent, and predictable approach for complying with requirements under the ESA.

The PA covers all fifteen(+) species of federally protected mussels and their designated critical habitat in the State of Florida, and spans the following river drainages: Escambia, Yellow, Choctawhatchee, Econfina, Chipola, Apalachicola, Ochlockonee, and Suwannee Rivers. (D3)

- *Chipola slabshell (Elliptio chipolaensis)*
- *Choctaw bean (Obovaria (=Villosa), choctawensis)*
- *fat threeridge (Amblema neislerii)*
- *fuzzy pigtoe (Pleurobema strodeanum)*
- *Gulf moccasinshell (Medionidus penicillatus)*
- *narrow pigtoe (Fusconaia escambia)*
- *Ochlockonee moccasinshell (Medionidus simpsonianus)*
- *oval pigtoe (Pleurobema pyriforme)*
- *purple bankclimber (Elliptoideus sloatianus)*
- *round ebonyshell (Reginaia (=Fusconaia) rotulata)*
- *shinyrayed pocketbook (Hamiota subangulata)*
- *southern kidneyshell (Ptychobranchus jonesi)*
- *southern sandshell (Hamiota australis)*
- *Suwannee moccasinshell (Medionidus walkeri)*
- *tapered pigtoe (Fusconaia burkei)*

Mussel PA

Phase I focuses on FDOT actions that the participating agencies mutually agree will have either "no effect" (NE) on mussels or "may affect, but are not likely to adversely affect" (MA-NLAA) mussels with incorporation of conservation measures.

Phase II PA address actions that MA mussels, including formal consultation for projects that are "likely to adversely affect" (MA-LAA) mussels.

Programmatic Agreements

There are other “programmatic” examples that FDOT can employ to streamline the environmental review process.

Keys - programmatic effect determination keys

- *Eastern Indigo Snake Programmatic Effect Determination Key (South Florida)*
- *Eastern Indigo Snake Programmatic Effect Determination Key (North Florida)*
- *Florida Panther Effect Determination Key*
- *Florida Manatee Key Programmatic Biological Opinion, Addendum*
- *Programmatic Piping Plover Biological Opinion*
- *Wood Stork Key*
  - » *Central and North Peninsular Florida*
  - » *Panhandle Counties*
  - » *South Florida*
- *Consultation Key for the Florida bonneted bat*

Programmatic Approach (PA) for Minor Transportation Activities.

PA addresses routine maintenance and modernization activities carried out by FDOT which result in no effects or minor effects to endangered species.

- *The actions identified in this PA for concurrence are limited to those that occur within existing transportation right-of-way limits.*
- *Focus on those circumstances most often expected to result in no effect.*
- *Includes novel approaches for determining effects to species as it applies to linear transportation projects.*
- *Activities and species not explicitly addressed in the PA will follow traditional consultation procedures.*

- The PA includes measures to document its use within FDOT's Statewide Environmental Project Tracker, along with annual reporting from the Office of Environmental Management.

Minor Projects PA

The Minor Projects PA has been logged on the spreadsheet as being used for 173 projects statewide as of today, less than 1 year in place.

- 313 No Effects
- 54 MANLAA

Activity	A1	A2	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	C1	C2	C3	C4	C5	C6	C7
Statewide Total	8	2	9	3	17	43	20	7	26	15	5	3	0	56	0	10	2	0	0	0	25	1	0	0	36	0	4

B 12. Restoration, rehabilitation, or resurfacing of existing pavement.

B 4. Installation, replacement, and repair of fencing, signs, and traffic signals. Repair or replacement of lighting.

C 5. Sidewalk, trail or multi-use path construction.

Benefits

When procedures are standardized and agreed upon, work progresses more efficiently. Benefits include:

- *Repetitive actions considered on a program basis rather than individually by project*
- *Projects are designed to specific standards, reducing confusion and repetitive communication between agencies*
- *A streamlined environmental review process, resulting in quicker project turnarounds*
- *Improved timeliness and quality of the environmental review process*
- *Minimized impacts on ecosystems, watershed scales and historic properties and bridges*
- *Limited staff and resources are able to focus on preservation and conservation rather than paperwork*
- *Consistent permit conditions, generating greater certainty.*
- *Enhanced trust relationships among FDOT and regulatory agency staff*

Programmatic Consultations

NOAA Fisheries' Programmatic Biological Opinion conducted with the U.S. Army Corps of Engineers Jacksonville District for minor in-water activities

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

F/SER31: NMB
SER-2015-17616

NOV 20 2017

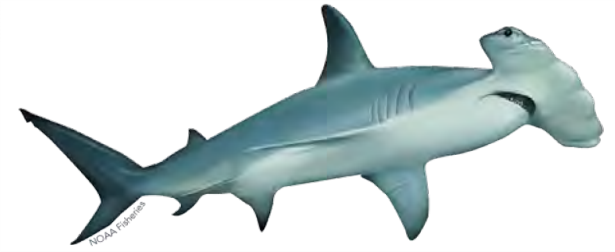
Mr. Donald W. Kinard
Chief, Regulatory Division
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

Ref.: U.S. Army Corps of Engineers Jacksonville District's Programmatic Biological Opinion (JAXBO)

Dear Mr. Kinard:

Enclosed is the National Marine Fisheries Service's (NMFS's) Programmatic Biological Opinion (Opinion) based on our review of the impacts associated with the U.S. Army Corps of Engineers (USACE's) Jacksonville District's authorization of 10 categories of minor in-water activities within Florida and the U.S. Caribbean (Puerto Rico and the U.S. Virgin Islands).

The Opinion analyzes the effects from 10 categories of minor in-water activities occurring in Florida and the U.S. Caribbean on sea turtles (loggerhead, leatherback, Kemp's ridley, hawksbill, and green); smalltooth sawfish; Nassau grouper; scalloped hammerhead shark, Johnson's seagrass; sturgeon (Gulf, shortnose, and Atlantic); corals (elkhorn, staghorn, boulder star, mountainous star, lobed star, rough cactus, and pillar); whales (North Atlantic right whale, sei, blue, fin, and sperm); and designated critical habitat for Johnson's seagrass; smalltooth sawfish; sturgeon (Gulf and Atlantic); sea turtles (green, hawksbill, leatherback, loggerhead); North Atlantic right whale; and elkhorn and staghorn corals in accordance with Section 7 of the Endangered Species Act. We also analyzed effects on the proposed Bryde's whale. We based our analysis on project-specific information provided by USACE, consultants, and NMFS's review of published literature. The Opinion concludes that the suite of activities evaluated within the Opinion is likely to adversely affect, but is not likely to jeopardize, the continued existence of Johnson's seagrass and is likely to adversely affect, but is not likely to destroy or adversely modify, critical habitat for smalltooth sawfish and Johnson's seagrass.



Minor In-Water Activities covered by JAXBO

Shoreline stabilization (e.g., installation, repair, and removal of structures)

Pile-supported structures and anchored buoys (e.g., installation, repair, and removal of structures)

Dredging including maintenance, minor, and muck dredging

Water-management outfall structures and associated endwalls (e.g., installation, repair, and removal of water outfall structures)

Boat ramps (e.g., installation, repair, and removal of structures)

More Minor In-Water Activities covered by JAXBO

Aquatic habitat enhancement, establishment, and restoration activities (oyster reef and living shorelines, seagrass restoration, artificial reefs, fill to restore natural contours or improve water quality)

Transmission and utility lines (e.g., installation, repair, and removal of aquatic and subaqueous lines)

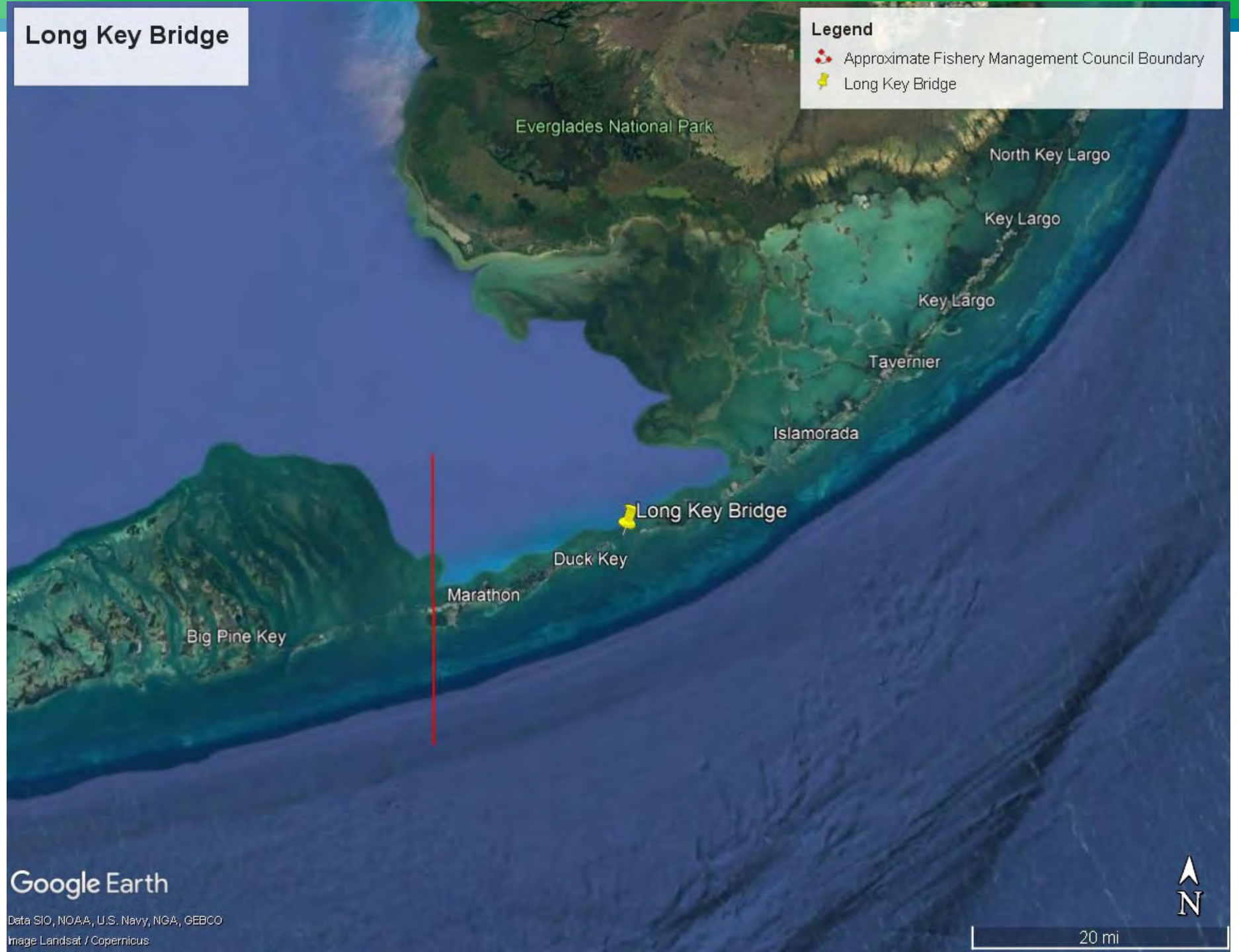
Temporary platforms, fill, and cofferdams (e.g., installation, repair, and removal of structures)

THE CAVEAT IS THAT THE JACKSONVILLE CORPS HAS TO BE THE ACTION AGENCY IN ORDER FOR JAXBO TO BE USED BECAUSE THE PROGRAMMATIC CONSULTATION WAS DONE WITH THEM

Endangered Species Act Section 7 Consultation Example Project: Long Key Bridge Replacement

National Marine Fisheries Service, Southeast Regional Office
Protected Resources Division

Florida Department of Transportation
ESA Training Session 3
March 1, 2022


Long Key Bridge
Legend
Approximate Fishery Management Council Boundary
Long Key Bridge
Everglades National Park
North Key Largo
Key Largo
Key Largo
Tavernier
Islamorada
Long Key Bridge
Duck Key
Marathon
Big Pine Key
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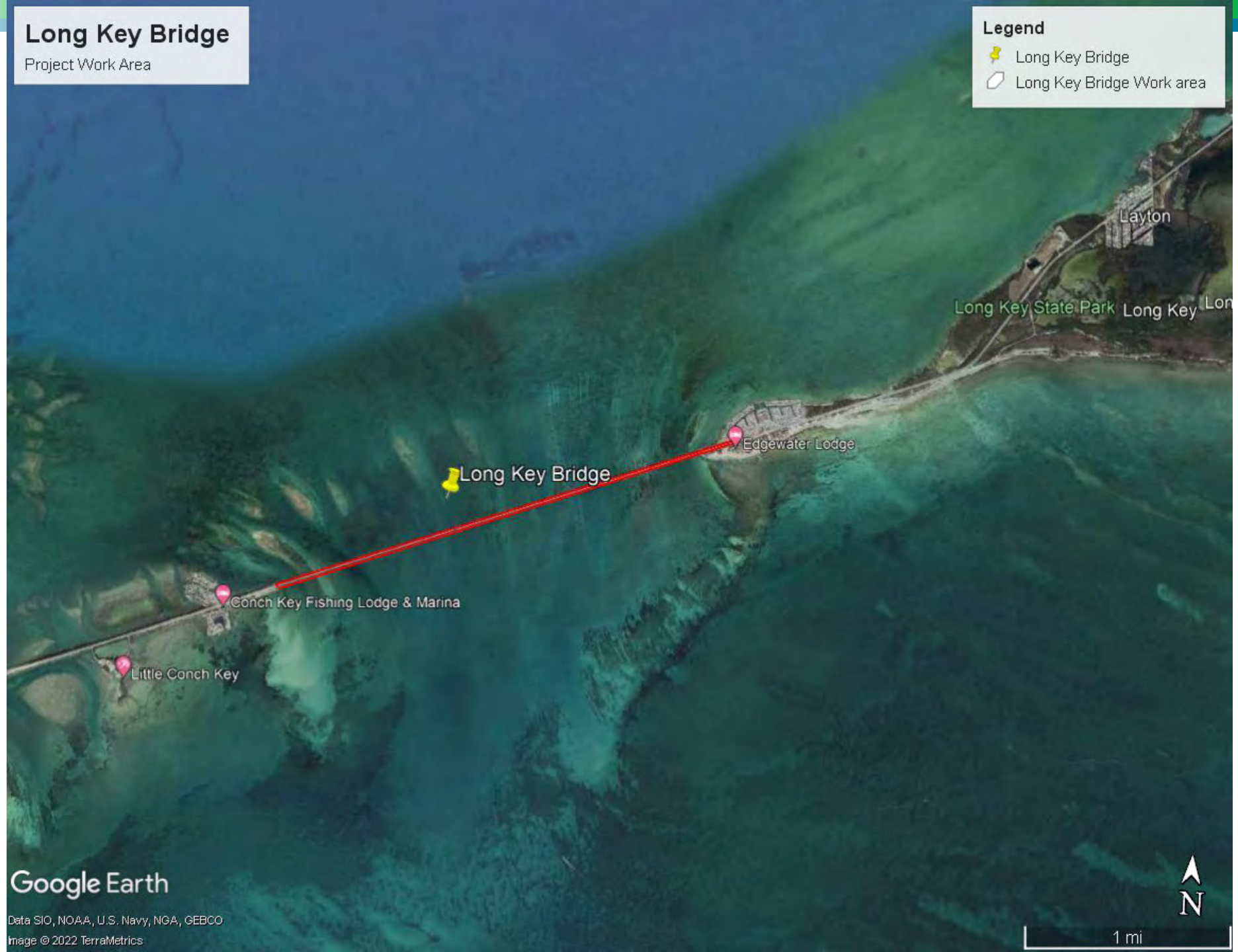
Long Key Bridge
Project Work Area
Legend
Long Key Bridge
Long Key Bridge Work area
Layton
Long Key State Park
Long Key
Edgewater Lodge
Long Key Bridge
Conch Key Fishing Lodge & Marina
Little Conch Key
Google Earth
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2022 TerraMetrics
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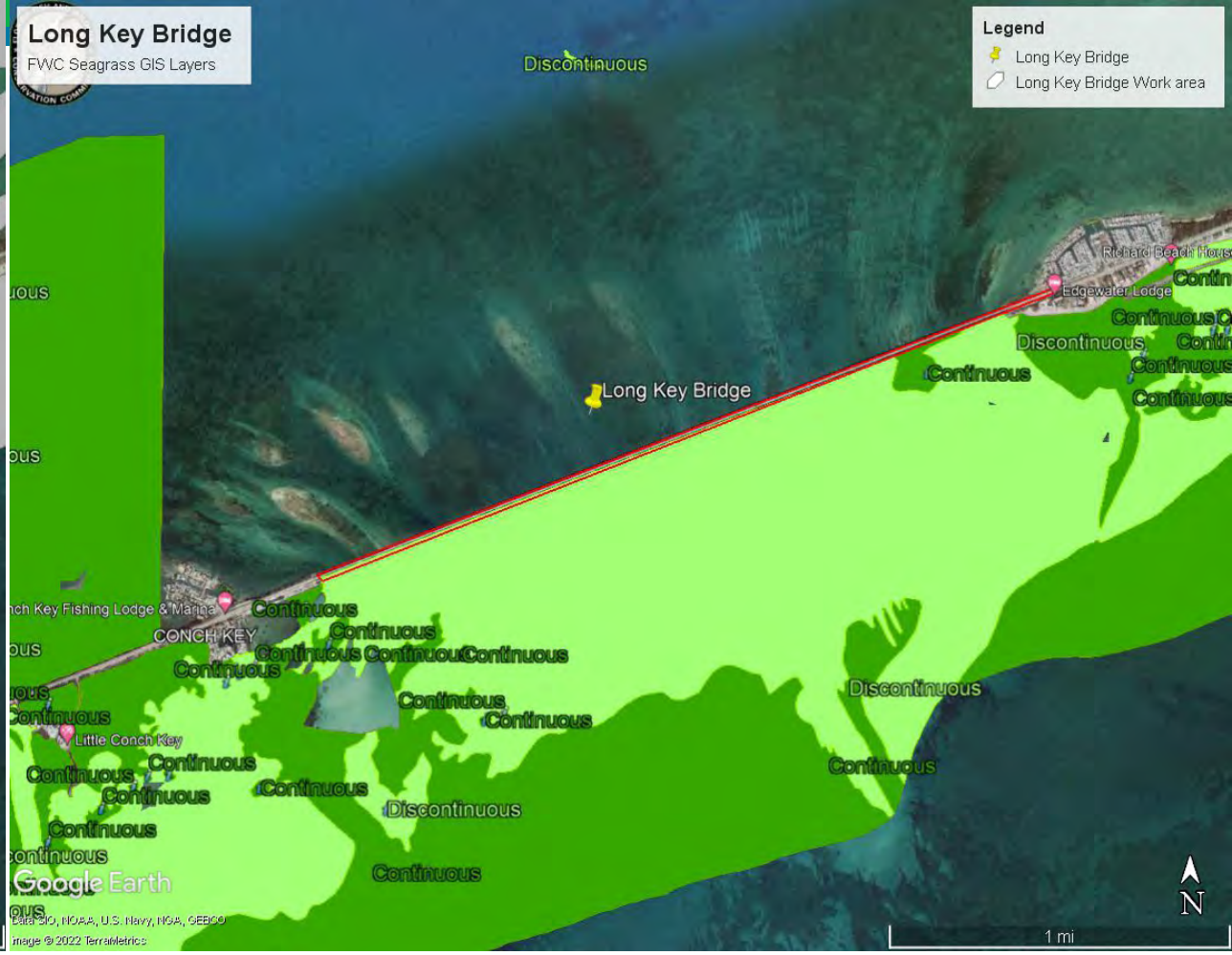
The Florida Department of Transportation (FDOT), when acting as the federal action agency, provides a Natural Resources Evaluation (NRE) with the consultation request. The NRE includes determinations of effects of the project to ESA listed species and the rationale for the effects determinations based on scientific information. The NRE often includes measures to prevent take of ESA listed species.

NMFS staff review the information in the NRE and coordinate with FDOT to ensure information required for the ESA Section 7 consultation is included, such as:

-results of benthic surveys to assess presence, abundance and locations of ESA listed species,
-input parameters for using the noise impacts calculator to assess effects of pile driving,
-barge and work vessel drafts and exclusion areas,
-water quality best management practices,
-measures to control demolition debris among many other items.


Long Key Bridge
FWC Hardbottom GIS Layers
Legend
Long Key Bridge
Long Key Bridge Work area
Edgewater Lodge
Long Key Bridge
Conch Key Fishing Lodge & Marina
CONCH KEY
Little Conch Key
Google Earth
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2022 TerraMetrics
N
1 mi


Long Key Bridge
FWC Seagrass GIS Layers
Legend
Long Key Bridge
Long Key Bridge Work area
Discontinuous
Edgewater Lodge
Long Key Bridge
CONCH KEY
Little Conch Key
Continuous
Discontinuous
Google Earth
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2022 TerraMetrics
N
1 mi

Based on the marine habitats present, the following ESA listed species may be expected to occur in the vicinity:

- Corals (*lobed star coral, mountainous star coral, boulder star coral, pillar coral, rough cactus coral, elkhorn coral, and staghorn coral)*
- Sea turtles (leatherback, loggerhead, Kemp's ridley, hawksbill, and green)
- Smalltooth sawfish
- Giant Manta Ray
- Nassau grouper
- Scalloped hammerhead shark

Do we have to consult on all of these species?

Do we consult on different life history stages and habitat for these species?

Typical routes to effect:

- vessel strike-sea turtles, smalltooth sawfish, corals,
- entanglement-smalltooth sawfish, giant manta ray
- noise impacts-sea turtles, Nassau grouper (due to having a swim bladder)
- vessel anchoring, spudding and grounding-corals, designated critical habitat for staghorn and elkhorn corals
- construction equipment strikes-smalltooth sawfish, sea turtles, corals
- pile removal-attached corals

Examples of measures to reduce effects:

- follow the NMFS' 2021 "Protected Species Construction Conditions"
- daytime work only, slow speed of barges and work vessels
- use observers to monitor ESA listed species in the work area
- monitor turbidity barriers and trailing lines for entanglement of listed species
- slow start/ramp up pile driving, use cushion blocks
- prohibit anchoring, spudding or grounding over hardbottom and in sea grass
- inspect seabed and piles for ESA listed corals
- relocate corals prior to pile removal

What am I missing on these two lists?

Informal consultation includes analysis of each route to effect for each ESA listed species with a determination by NMFS that take will be avoided and all effects are beneficial, insignificant or discountable. The informal consultation results in a letter of concurrence by NMFS with the determinations made by the federal action agency.

Formal consultation is required when take of an ESA listed species is expected to occur (e.g. if ESA listed corals are observed during benthic surveys for the bridge replacement). The federal action agency provides a biological assessment to the NMFS. NMFS staff (e.g. FDOT Liaisons, NMFS, SERO, PRD staff and NMFS, SERO, Office of General Counsel) prepare a biological opinion, using the biological assessment and best available information that may include reasonable and prudent measures to eliminate or reduce take, prevent jeopardy, or reduce unavoidable destruction or adverse modification of designated critical habitat that may result from the project.

USFWS Project Review

Disclaimer: There is not a standardized process that we follow. The type of information requested will vary on the type of project and its location. Your mileage may vary.

USFWS Contact Information

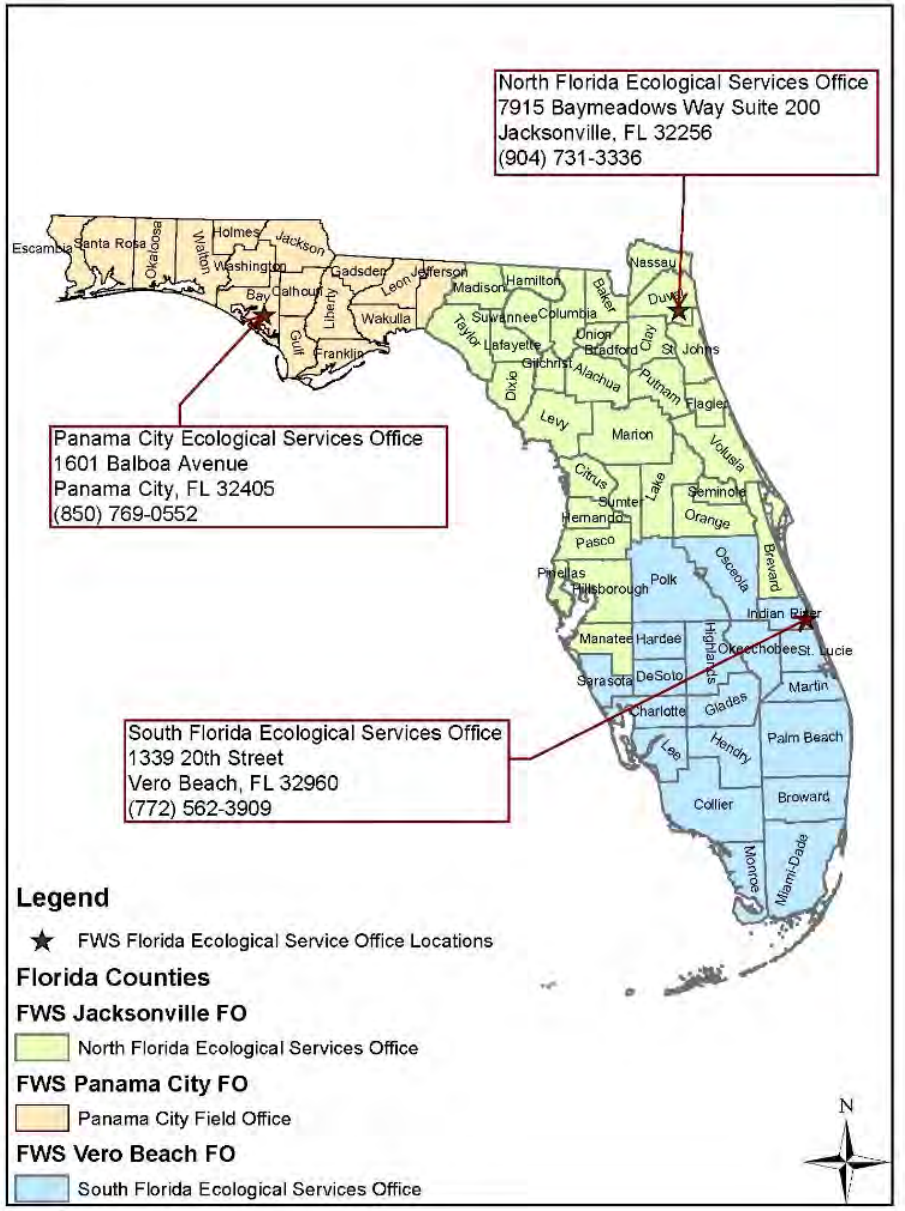
USFWS Transportation Biologists

Jacksonville – Zakia Williams
zakia_williams @fws.gov

Vero Beach – John Wrublik
john_wrublik@fws.gov

Panama City – (currently vacant) **Jose Rivera**
jose_rivera@fws.gov

Statewide – Mark Cantrell
mark_a_cantrell@fws.gov



Incoming projects

FDOT liaisons receive their projects:

- Districts usually send their requests for consultation, technical assistance directly to an FWS biologist, usually by email.
- You can submit through EST !
- We track the FDOT projects.
  - *Maintain an electronic file for each project of all project records (including all emails, letters, and other documents as received).*
  - *We also enter project information into Ecosphere (formerly TAILs).*
- We work closely with the Recovery Biologists and species experts to analyze potential effects of a proposed project.

Biologist Review

Our office has records of listed species occurrences, consultation areas, etc. in shape files that we can review through use of ArcMap or Google Earth to help determine which species may be affected by the project.

We try to provide concurrence or requests for additional information on a project back to FDOT within 30 days and its usually much quicker depending on the complexity of the project and our work load.

Biological Assessment or Natural Resource Evaluation?

Contents of a BA are up to discretion of the action agency, but the Federal Regulations for the Act recommend:

1. *The results of an on-site inspection of the area affected by the action to determine if listed or proposed species are present or occur seasonally.*
2. *The views of recognized experts on the species at issue.*
3. *A review of the literature and other information.*
4. *An analysis of the effects of the action on the species and habitat, including consideration of cumulative effects, and the results of any related studies.*
5. *An analysis of alternate actions considered by the Federal agency for the proposed action.*

50 CFR 402.12(f))

Who, what, where, when?

Who will be involved?

- *Will the project include any other permitting agencies?*

In general, the *where* is very important.

- *Make sure we have a good location map – kmz, shapefile, map.*

Describe the action – *what* is proposed?

- *Include everything: utility relocation, borrow pits, stormwater controls, laydown staging areas, temporary bridge, etc.*

***When* will it occur?**

- *Are there seasonal components of the construction? Will the construction be multi-year?*

Other information to include:

- A detailed project description with maps and figures as needed.
- A description of action area (*The action area is defined as all areas to be directly or indirectly affected by the Federal action and not merely the immediate area involved in the action*).
- The Need for the project
- Any features of the project design that would minimize the likelihood for adverse affects to listed species or critical habitat.
- Results of listed species surveys conducted on or near project site.
- Any protective measures for listed species that will be followed during project construction (e.g., manatee in-water construction conditions).
- A discussion of the effects of the action and a justification of why they are not adverse to listed species or critical habitat.
- Certification that the FDOT has used the best scientific and commercial data available (NOAA Fisheries)

Stepwise

What habitats are affected?

- *Species range maps, Critical Habitat maps.*
- *Species Occurrences*
- *National Wetlands Inventory*
- *Conservation lands data.*
- *Google Earth*
- *Streetview*
- *Our biologists are familiar with the District roads, and adjacent habitats.*
- *We make site visits when warranted.*

Upon receipt of a written request for concurrence, the USFWS:

Review the information and consider the potential effects of the proposed project.

- *Provide written concurrence, ending consultation on the project;*
- *Provide non-concurrence ,request additional information on the project and continue informal consultation, or;*
- *Provide non-concurrence and recommend that FDOT request initiation of Formal Consultation for their project.*

A response will be provided within 60 days and this timeframe may be extended upon mutual consent of the USFWS/NOAA Fisheries and the FDOT but shall not exceed 120 days total from the date of receipt of the Federal agency's written request for concurrence (50 CFR 402.13).


BREAK
TIME!!!

Everglade snail kite

Rostrhamus sociabilis plumbeus

Melissa James

- First listed as endangered in 1967
- Critical Habitat was designated in 1977

Historical range has contracted

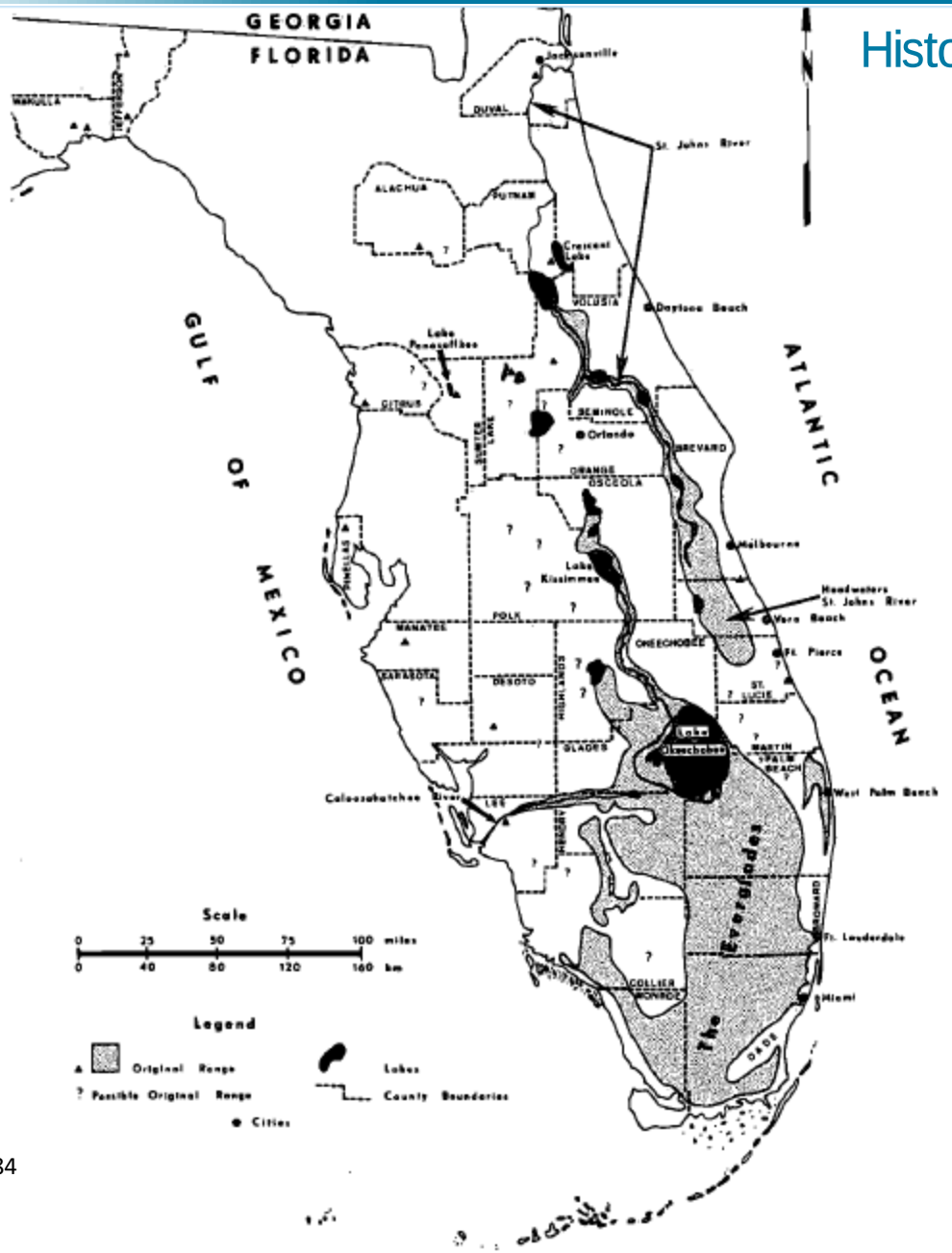


Figure 5.—The original range of the Snail Kite (*Rostrhamus sociabilis plumbeus*) in Florida. Selected counties are shown with their present boundaries.

Sykes 1984

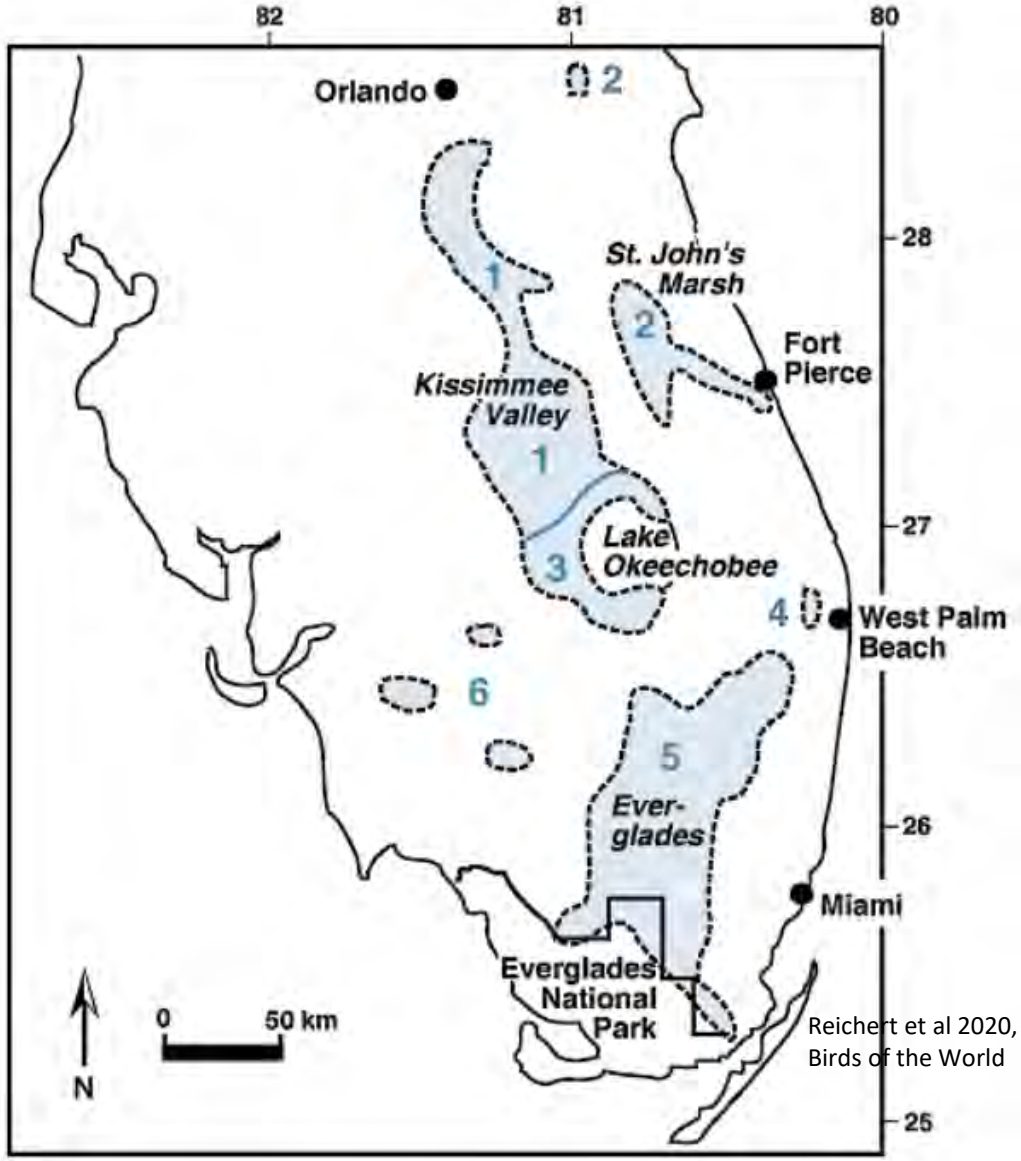


Figure 2. Current (1995) range of the Snail Kite

Current (1995) range of the Snail Kite(R. s. plumbeus) in Florida.

Reichert et al 2020, Birds of the World

Restricted to freshwater marshes, shallow edges of lakes

- Everglades/Big Cypress
- Lake Okeechobee
- Kissimmee Chain of Lakes
- St. Johns River Basin
- Payne's Prairie
- Other sites

- Nest in a variety of substrates: cattail, bulrush, small trees, bushes
- Nesting season is generally from December-July but can extend into October
  - *Peaks in March and April*
  - *Nesting can occur year-round, has been recorded in every month of the year*

Nesting

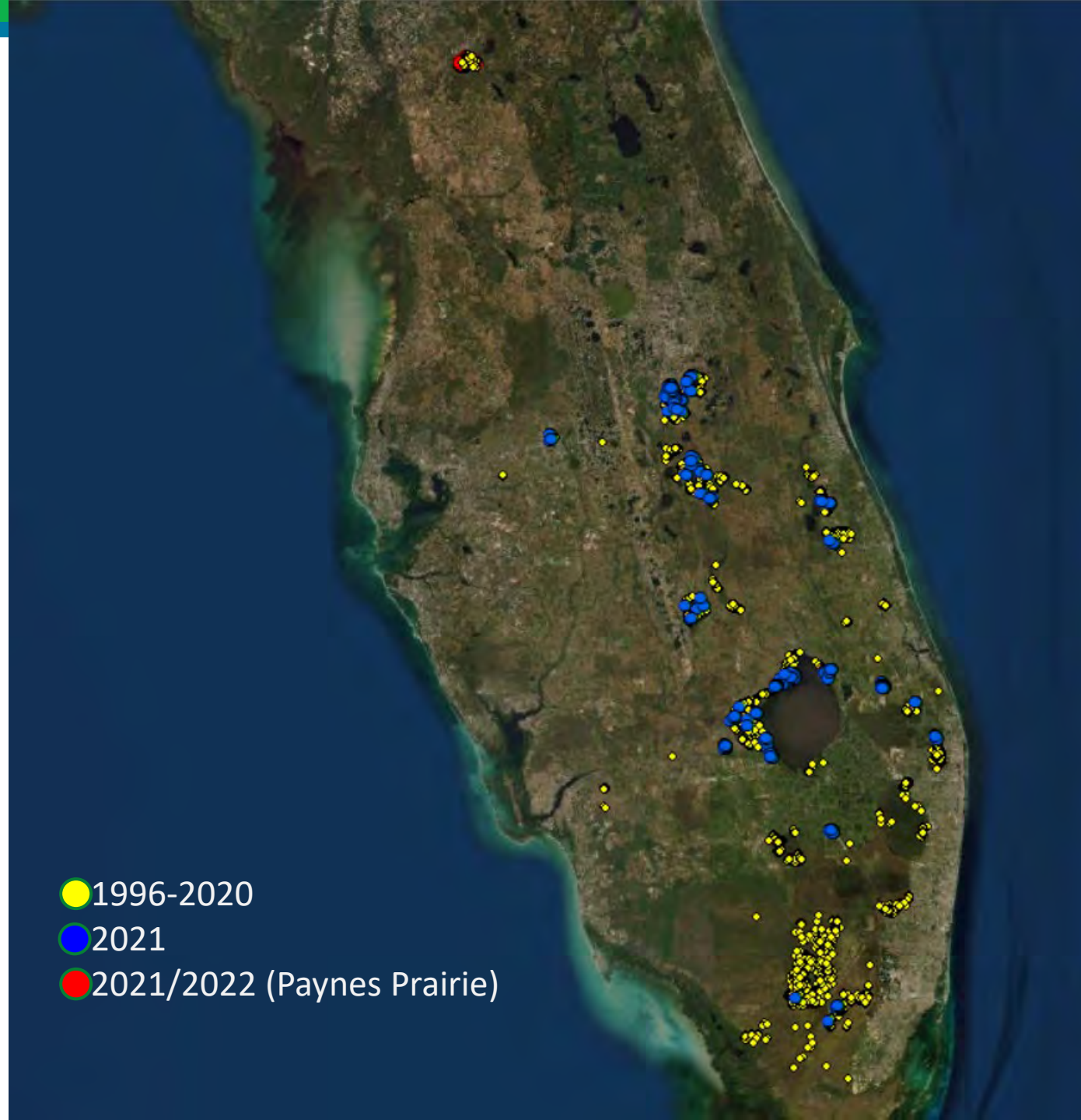
- **Nesting stages:**
  - Nest building
    - Takes ~11 d (4-18 d)
  - Laying (
    - Takes 6 d to complete a 3-egg clutch
  - Incubation
    - ~27 d (24-30 d)
  - Nestling (
    - ~29 d (23-34 d)
  - Fledgling
    - Fly well at 6-7 weeks after hatch
    - Parents feed until 9-11 weeks after hatch
  - Total ~120 days (4 months)
- **Post-fledging**
  - Highest risk first 4 months after fledging
- **Multiple nests**
- **Re-nesting after failure**

Adult female Snail Kite shelters nestlings, Lake Toho, Florida, July.

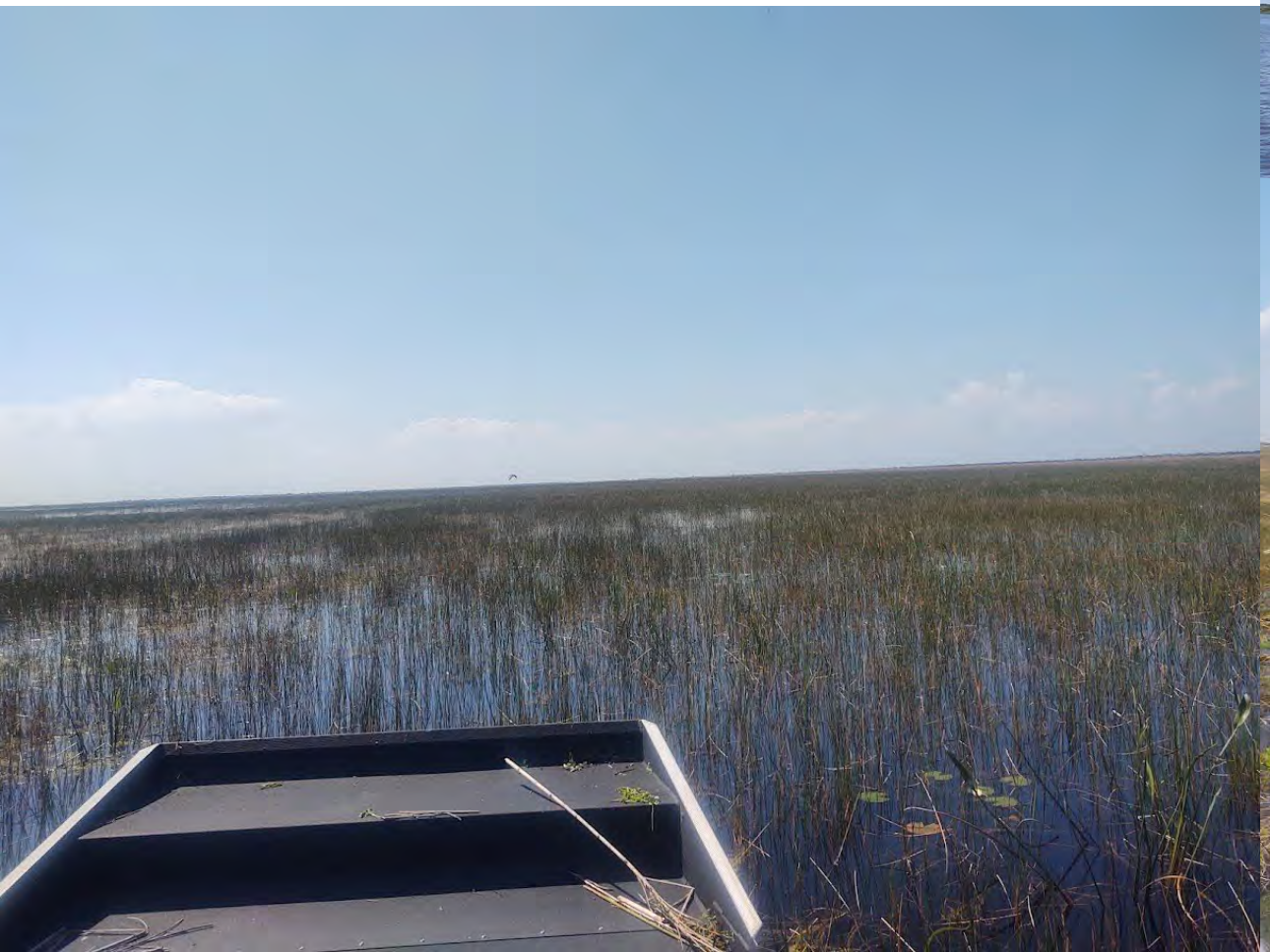
Adult female Snail Kite shelters nestlings until rainstorm passes. Photo credit: Jean Olbert.

Nesting 1996-present

Years	Total Nests	Known Fate	Successful	Apparent success
2000-2020	6110	6110	1934	0.32
2010-2020	4637	4637	1553	0.33
2021	569	543	196	0.34



Foraging habitat:
Sparse emergent vegetation or along emergent edges



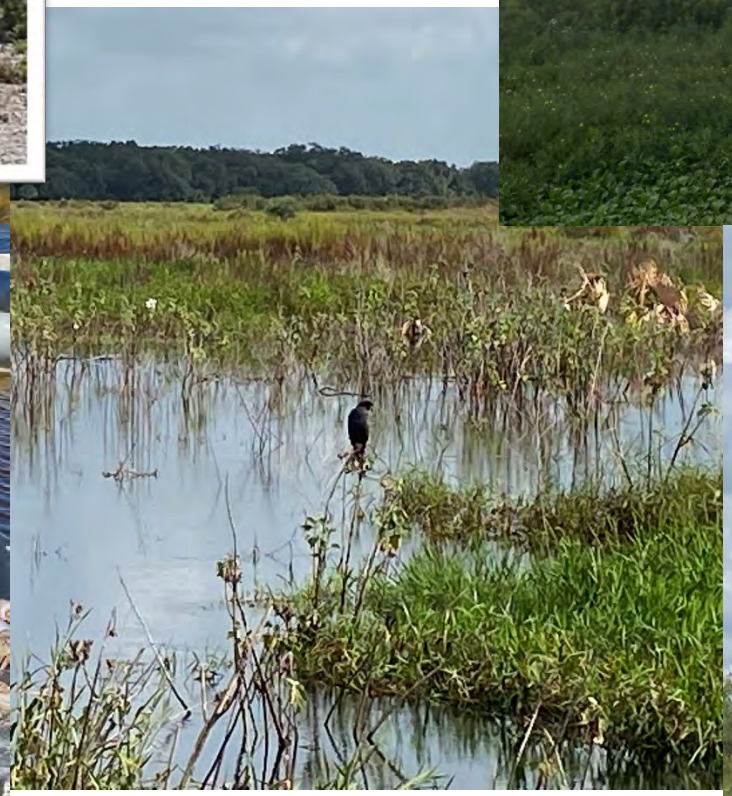
Diet consists almost exclusively of apple snails

- Native Florida apple snail (*Pomacea paludosa*)
- Non-native island apple snail (*Pomacea maculata*)

Exotic apple snail (left) and native apple snail (right) Photo: The Pomacea Project

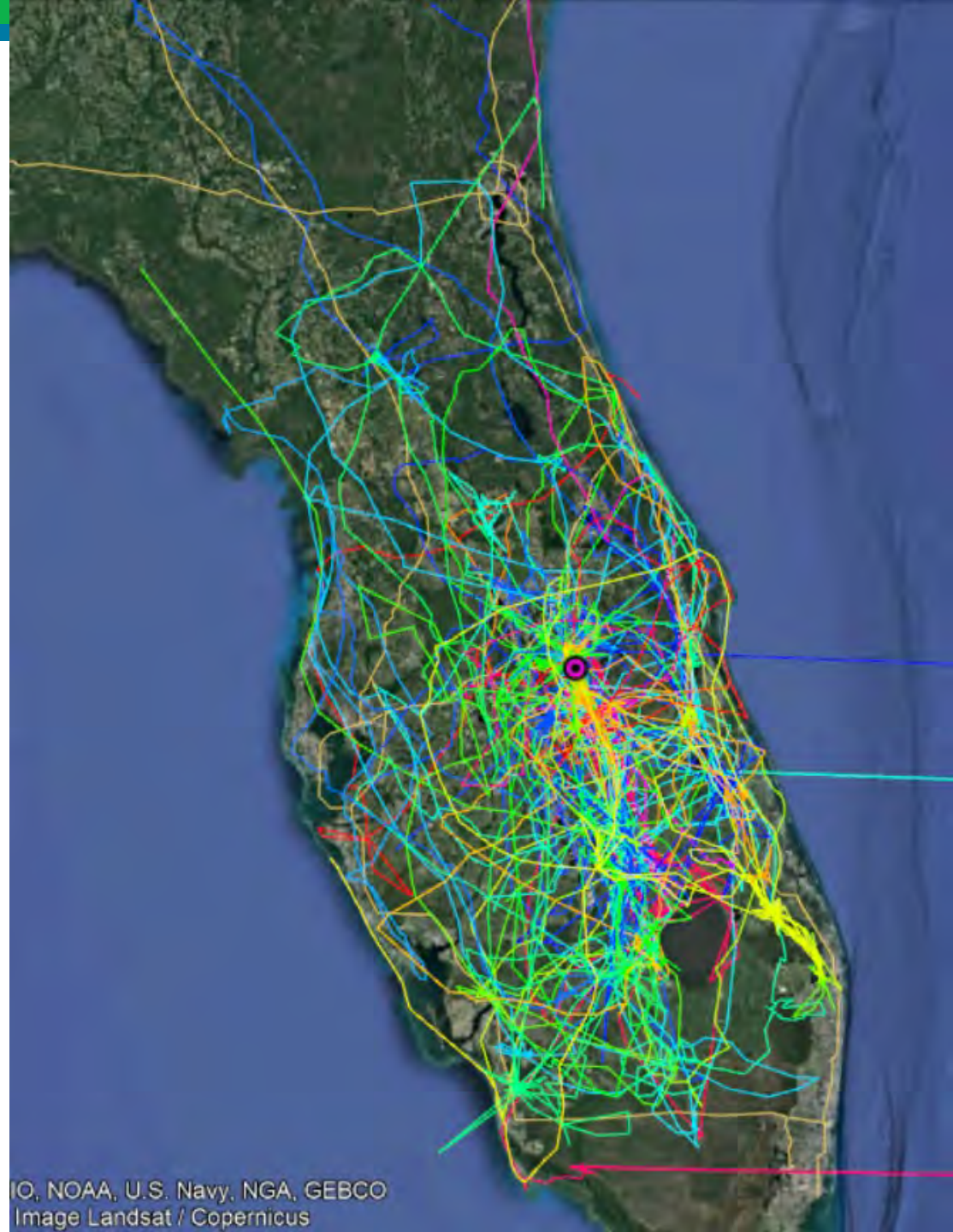
Eggs of the native apple snail (left), and the exotic apple snail (right)

Hunt prey on the wing or from perches
Often return to the same spot to consume prey



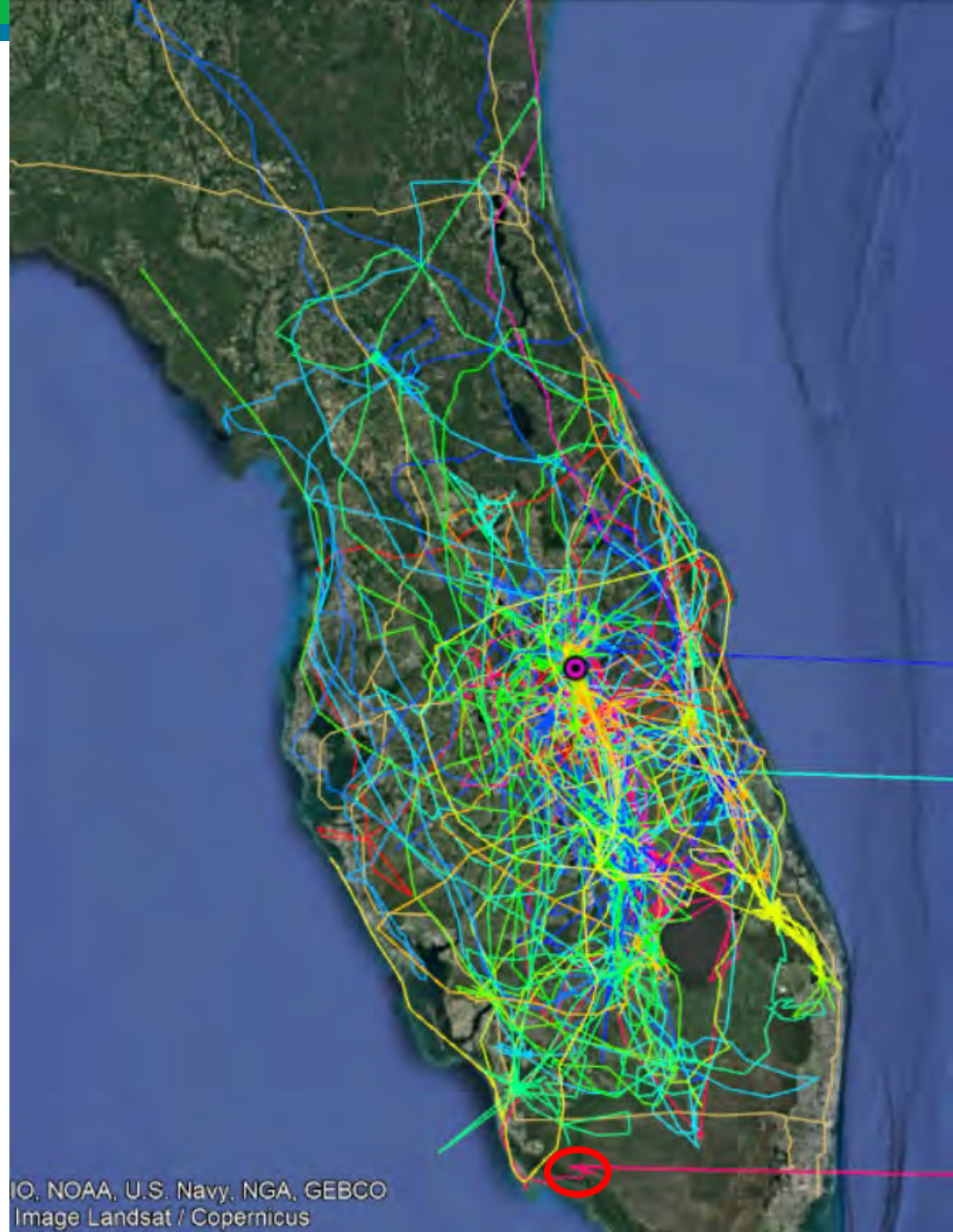
Snail kite tracks indicating use

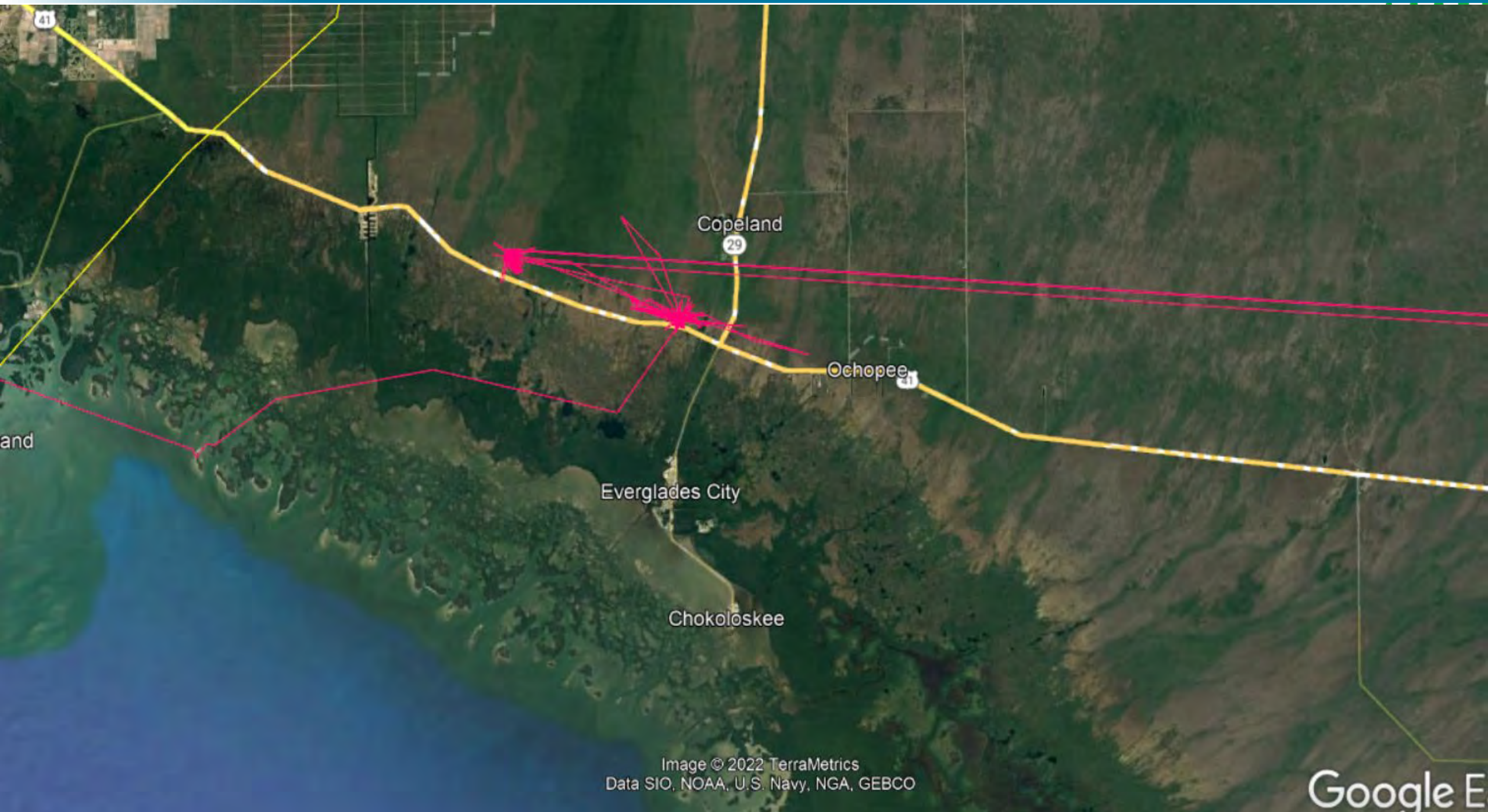
Data from 67 kites tagged as nestlings from 2018-2021



Snail kite tracks indicating use

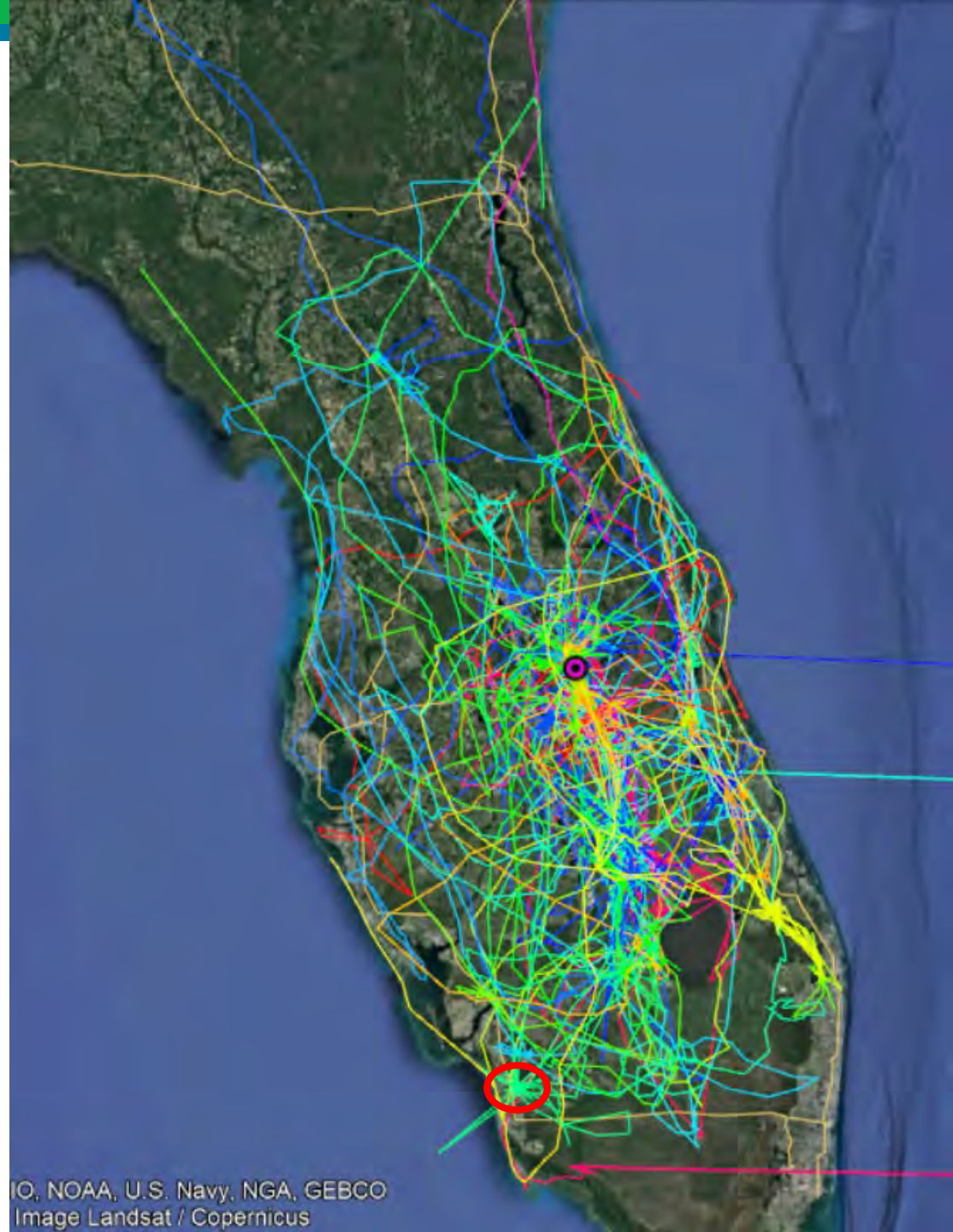
Data from 67 kites tagged as nestlings from 2018-2021

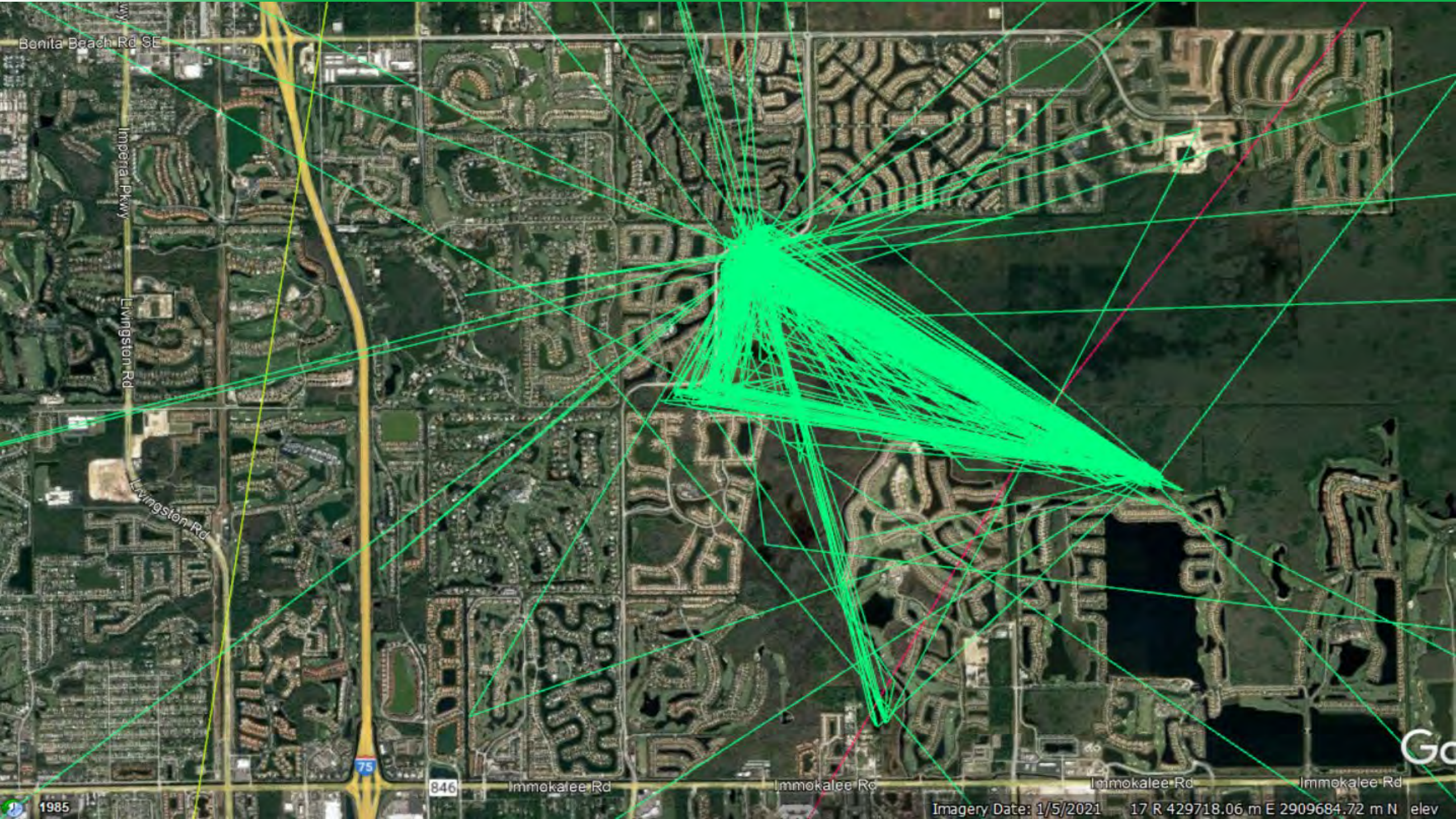



41
Copeland
29
Ochopee
41
and
Everglades City
Chokoloskee
Image © 2022 TerraMetrics
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Google E

Snail kite tracks indicating use

Data from 67 kites tagged as nestlings from 2018-2021




Bonita Beach Rd SE
Imperial Pkwy
Livingston Rd
Livingston Rd
75
846
Immokalee Rd
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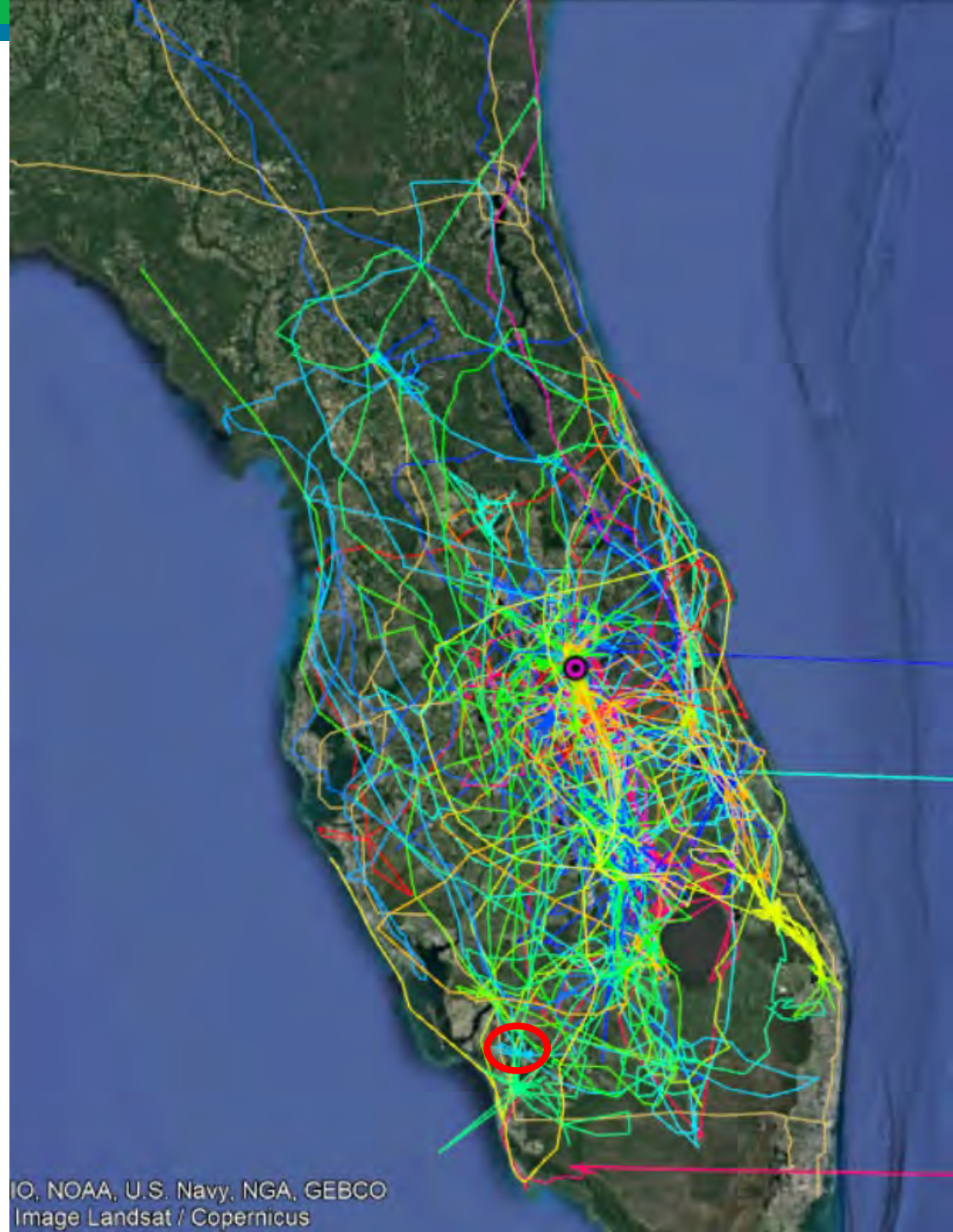
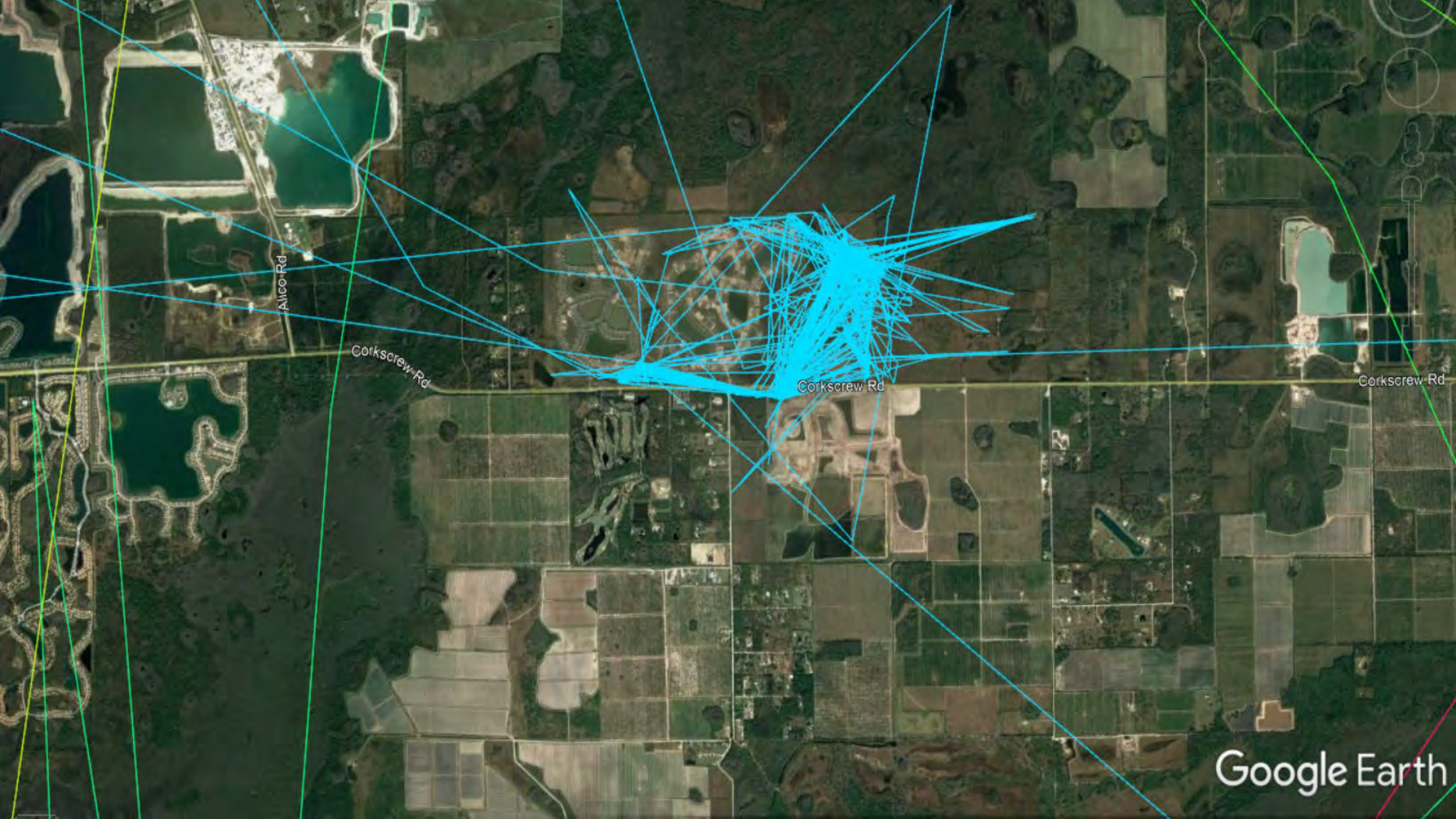
Imagery Date: 1/5/2021 17 R 429718.06 m E 2909684.72 m N elev

Snail kite tracks indicating use

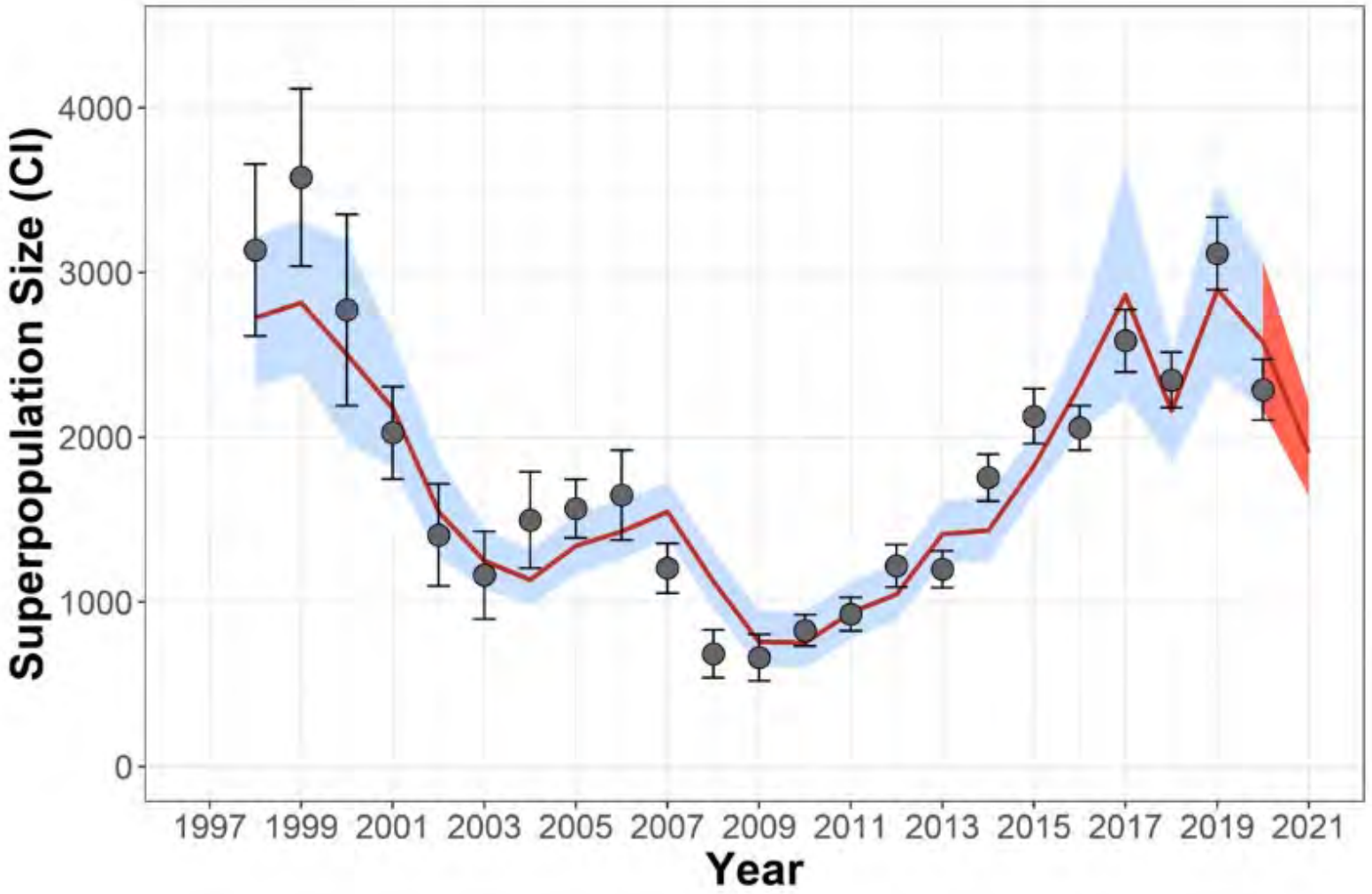
Data from 67 kites tagged as nestlings from 2018-2021




Alico Rd
Corkscrew Rd
Corkscrew Rd
Corkscrew Rd
Google Earth

Population size estimate for 2021 is expected to show a further decline due to poor nesting in 2020

(From a presentation by Rob Fletcher, UF, preliminary unpubl data)



Main threats

- Eutrophication / stabilization of lakes
- Habitat loss due to other factors
- Lack of aquatic and emergent plant management
- Hydrologic management
- Nest disturbance
- Contaminants
- Climatic extremes

Project Planning: Conservation Measures

Can be tailored to any specific project

Snail kite surveys and monitoring

Implementation of Nest Protection Buffers

- No-entry Buffer Zone - A 500-ft (~150 meter) radius no-entry buffer zone to protect kites from direct disturbance that may affect the fate of nesting. All equipment and activity must stay outside of these areas at all times when kite breeding activity is occurring.
- Limited Activity Buffer Zone - A 1,640-ft (500 meter) radius limited-activity buffer zone to maintain and protect foraging opportunities and habitat conditions around each nest to allow nesting kites to successfully hatch and fledge young. The goal is to maintain habitat conditions for the entire nesting period similar to those that were present when the birds selected the site.

Conservation Measures *(cont'd)*

Presence of a qualified biologist

- Presence of a qualified biologist during any construction activities occurring within 700 ft of an active nest (suspected or confirmed) to ensure nesting kites are not disturbed by project-related activities.
- If it appears that construction activities are altering breeding or foraging behavior of nesting snail kites, these activities will cease and FWS will be contacted the same day.

Education Plan

- A snail kite education plan will be implemented to help avoid and minimize any adverse effects of the project on snail kites. All project-associated personnel will be briefed as to the nature of snail kites and the potential impacts of the project on them. The education plan will include:
  - *A description of the snail kite (including photos and/or video), its habits, behaviors indicating disturbance, and its protection under Federal and State law;*
  - *Instruction not to injure, harm, harass, or kill this species or possess any part thereof (e.g. feathers, eggs, and nest);*
  - *Instruction to contact the onsite project lead if snail kite behavior suggests an individual is being disturbed by project activities, or if a snail kite nest is suspected within 700 feet of project activities.*

Conservation measures *(cont'd)*

Reporting

- The location of any suspected active nests must be reported to FWS by phone and/or email within 24 hours of being found.
  - *Information provided must include an aerial map with the estimated location marked, the approximate distance and direction of the nest from specified GPS coordinates, and the estimated distance between the suspected nest and the project area.*
- The results of the initial survey must be sent via email to FWS prior to commencing construction.
- Once construction commences, weekly snail kite monitoring reports must be sent via email to FWS.
  - *These must include of a short summary of monitoring activities, field observations (e.g., characterizing kite activity in the vicinity of the project area), suspected/confirmed kite breeding activity, and any protective measures implemented. If there are any suspected or confirmed snail kite nests within 500 m of the project area, the report must also include a scaled aerial map showing all nests and their associated buffers in relation to the project area.*
- A final monitoring report must be sent to FWS within 60 days of the completion of construction activities.

Survey Guidance

APPENDIX A

USFWS Snail Kite Survey Guidance

The objective of the survey is to document any and all use of the area by snail kites. To this end, the most important aspects are complete survey coverage and detailed documentation of kite activity. Documenting approximate nesting location and related snail kite activity/behavior are important, but "nest checks" are not required nor allowed without a valid Endangered Species Recovery Permit under Section 10(a)(1)(A) of the Endangered Species Act. Unless an observer possesses a valid 10(a)(1)(A) permit, nest monitoring must be conducted from a minimum distance of 500 feet (ft) to avoid disturbing nesting kites.

Snail kite surveys should be conducted in the early morning to increase the probability of detection and decrease potential thermal stress to eggs or nestlings. To maximize the probability of observing kite activity, surveys should not be conducted in any precipitation above a slight sprinkle, in fog that impedes visibility, or in strong winds.

A. Nesting and Courtship Behavior – look for these characteristics for hints of nest presence:

- Stick carrying – Follow birds with material carries. (However, sometimes it won't lead you to a structure, as males may carry around as a courtship behavior.)
- Long drawn out calling – Individuals call for many reasons but if you aren't pressing into their space long drawn out calling can hint at a possible structure.
- Diving and Swooping – Males will often swoop and dive in a courtship display. If you see a pair swooping around together it could mean a potential nest. Sometimes very aggressive adults will swoop at people or boats if there is a nest very close by, but this is rare.
- Copulation – This can sometimes be a result of stress but often means that there is a nest or there will

Questions?

Feel free to contact me any time for help developing conservation measures, monitoring plan, survey methods, etc.

victoria_garcia@fws.gov

Cell: 772-559-2097

Office: 772-469-4249

Overview of Giant Manta Ray *(Manta birostris)* in Southeast U.S.

NOAA FISHERIES

Southeast Region

Calusa Horn
Southeast Region Giant Manta Ray Coordinator
Calusa.Horn@noaa.gov

Florida Department of Transportation
March 1, 2022

What is a Giant Manta Ray?

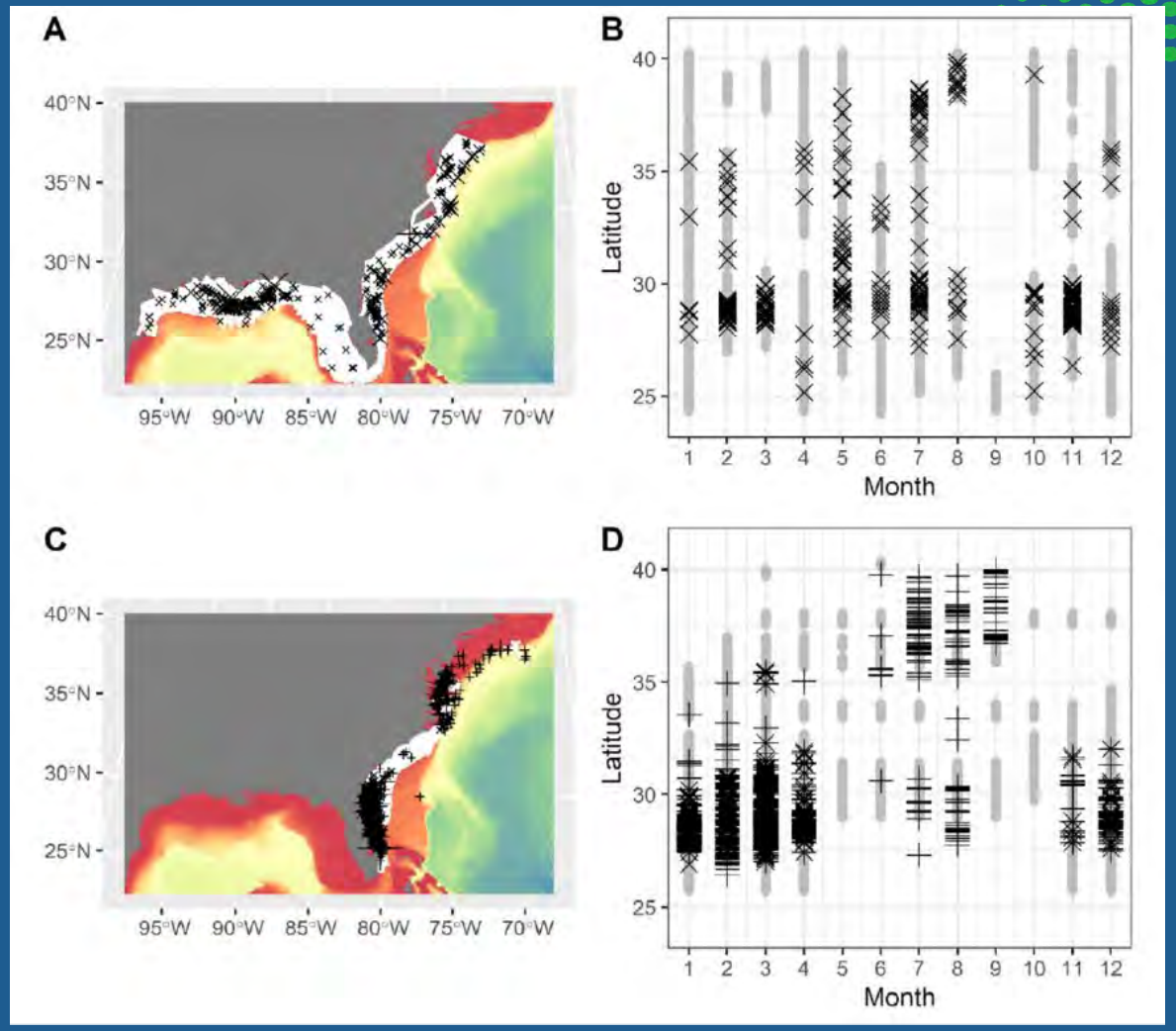
- Elasmobranch – skeleton made of cartilage instead of bone. two wing-like pectoral fins; two sets of gills (obligate ram ventilator); and two cephalic lobes that extend from the mouth and funnel in water
- Reaching widths of up to 29 ft (8.8 m); at birth ~6 ft
- Filter feeder: zooplankton such as euphausiids, copepods, mysids, decapod larvae, and shrimp
- Typically solitary animals, they do aggregate to feed and mate
- Low Fecundity - one of the lowest fecundity of all elasmobranchs, typically only giving birth to one pup every two to three years. Estimated maturity at 8-10 years. Longevity estimated 40 years.
- Biggest brains of any fish studied so far. They use that brain power to learn, exercise their memory, distinguish between objects and even recognize themselves in the mirror
- Harmless to humans – no barb or stinger

Distribution map of the Oceanic Manta Ray *Mobula birostris*. Darker areas indicate confirmed range; lighter areas indicate expected range.

Map: Lawson et al., (2016)

Manta Ray Distribution - Southeast

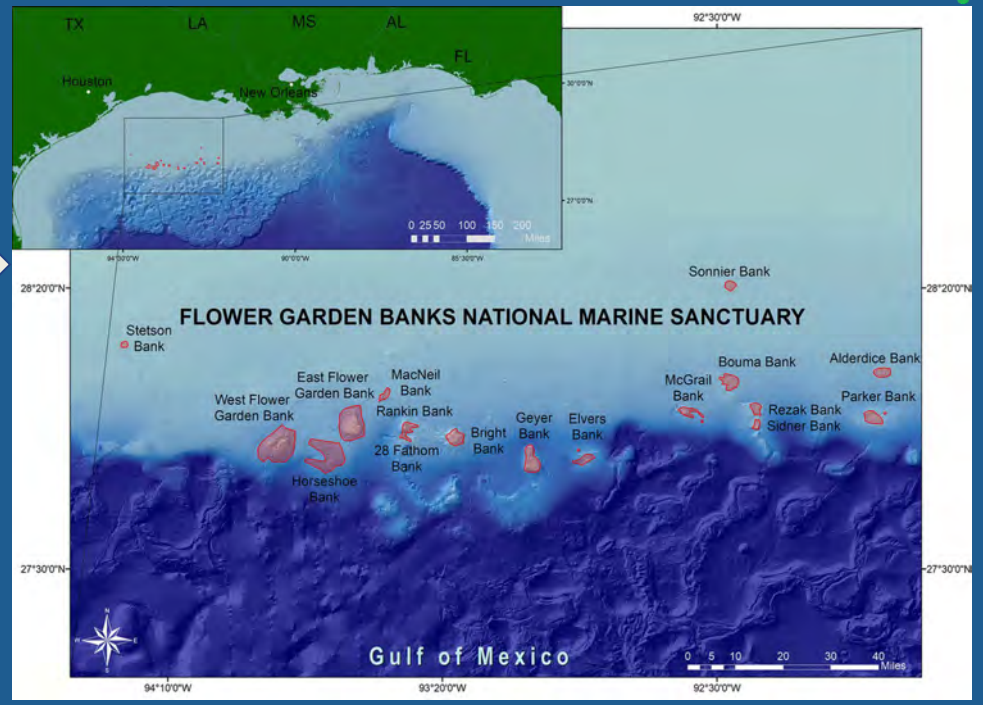
- The highest nearshore occurrence tends to be off northeastern Florida during April.
- As temperatures warm from June to October, the distribution of manta rays extends northward along the shelf-edge, with higher occurrences north of Cape Hatteras, North Carolina.
- As temperatures cool from November to March, manta rays are more prevalent south of Savannah, Georgia.
- In the Gulf of Mexico, the highest nearshore occurrence was predicted around the Mississippi River delta from April to June and again from October to November.

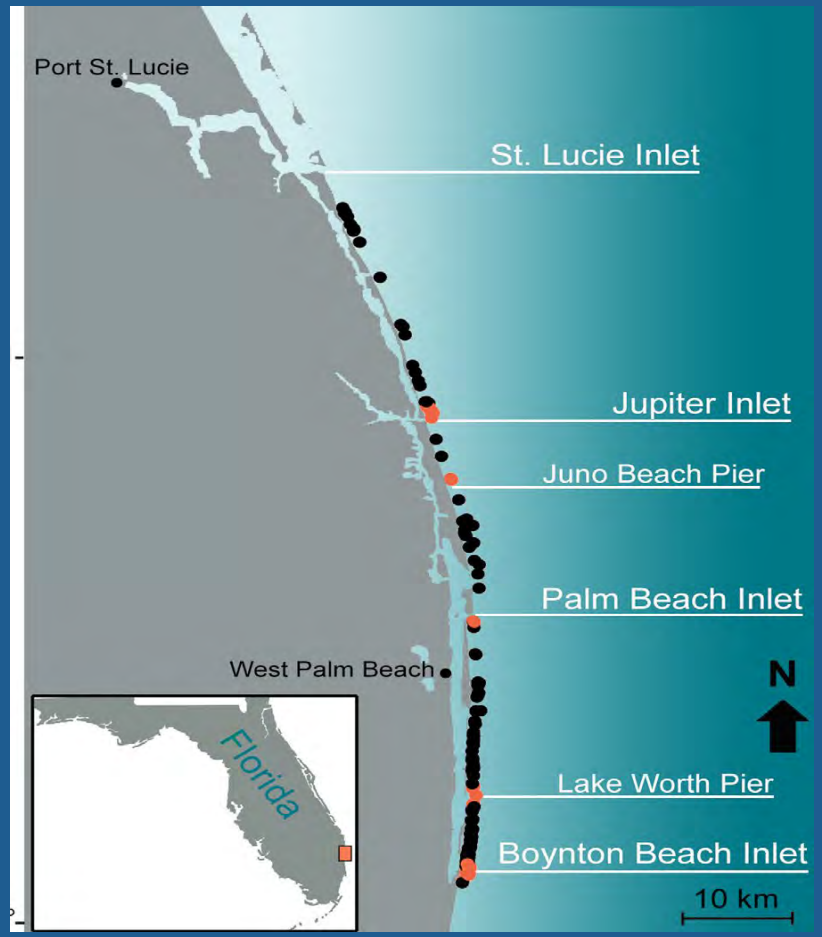


Farmer et al. (2021). The Distribution of Giant Manta Rays In The Western North Atlantic Ocean Off The Eastern United States. 10.21203/rs.3.rs-677529/v1.

Habitat's of Interest

Juvenile nursery habitat Flower Garden Banks National Marine Sanctuary (FGBNMS) in the Gulf of Mexico[1]





Juvenile nursery habitat South Atlantic, Specifically Southeast Florida[2]

[1] Stewart, J.D., Nuttall, M., Hickerson, E.L. *et al.* Important juvenile manta ray habitat at Flower Garden Banks National Marine Sanctuary in the northwestern Gulf of Mexico. *Mar Biol* 165, 111 (2018). https://doi.org/10.1007/s00227-018-3364-5

[2] Pate JH, Marshall AD (2020) Urban manta rays: potential manta ray nursery habitat along a highly developed Florida coastline. Endang Species Res 43:51-64. https://doi.org/10.3354/esr01054

Endangered Species Act

The giant manta ray was listed as **threatened** on January 22, 2018 - "*any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range*"

- Targeted/bycatch throughout their range; most susceptible to industrial purse-seine and artisanal gillnet fisheries.
- Significant population declines; especially in the Indo-Pacific/eastern Pacific
- No global population estimate. Subpopulation estimates range ~100-1,500 individuals.
- Regulations inadequate

ESA Sec. 7 Domestic Threats

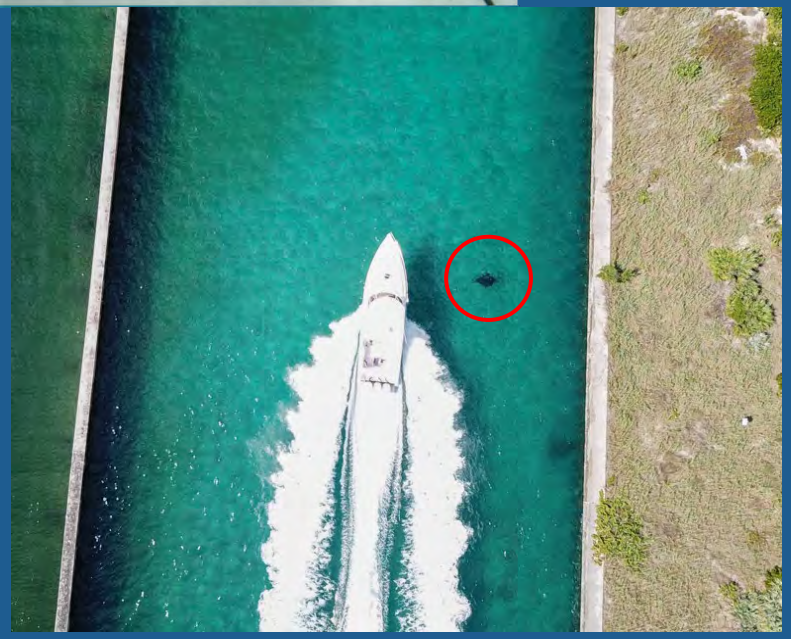
- *Vessel Strike*
- *Recreational fishery*
- *Fisheries Bycatch*
- *Entanglement*


Photo: Bryant Turffs

Vessel Strike

Giant manta rays are subject to vessel strike under varying circumstances:

- *Species feeds and basks at the surface.*
- *Feed in/around inlets where there is high vessel traffic.*



Recreational Fishing Interactions

Foul-hooking occurs from fishing piers, vessels, and shoreline:

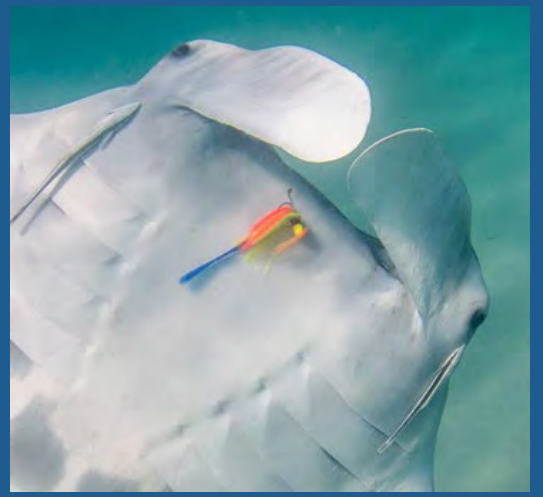
-Pier signage

-Angler outreach

(crookies, buffs, tackle box, decals)

-Sport/angler magazine articles

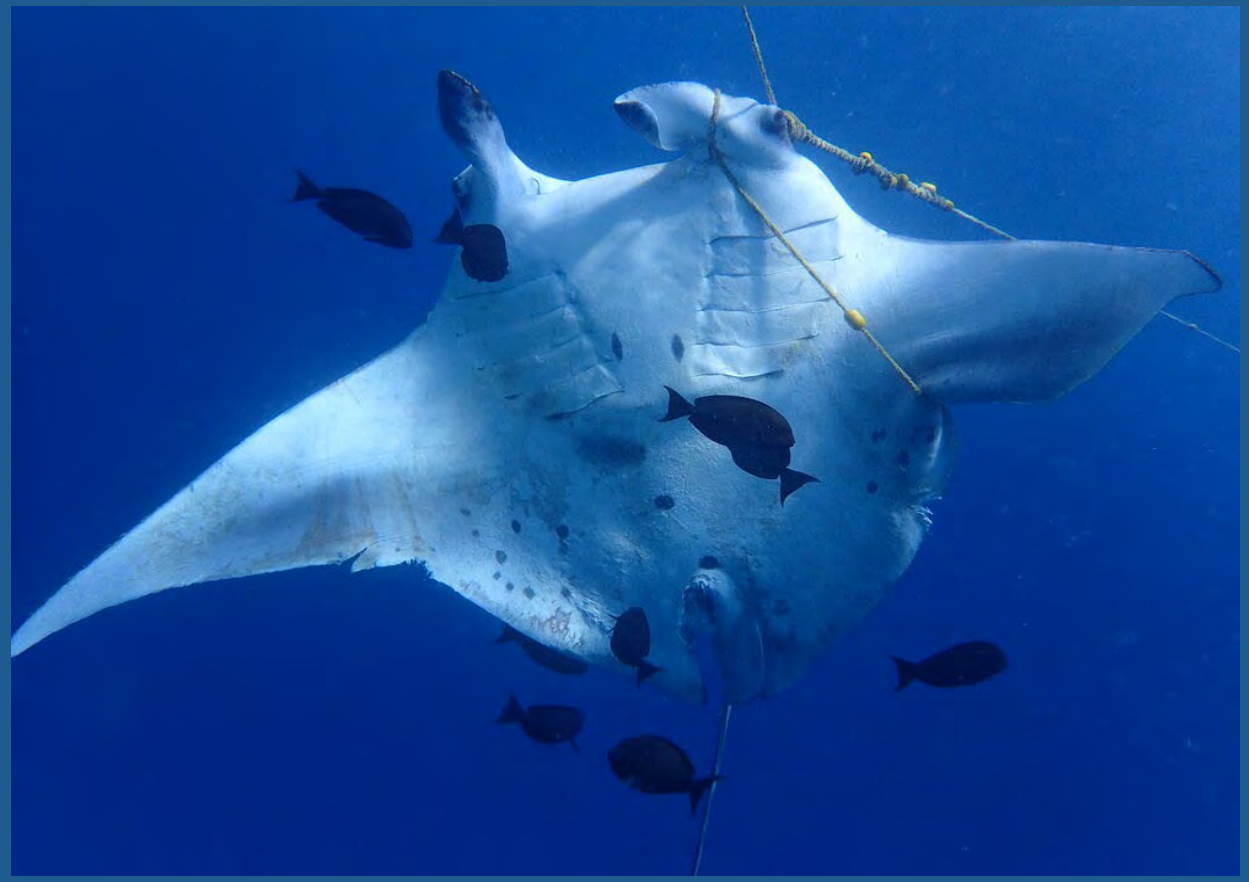
-Required FWC training



Bycatch

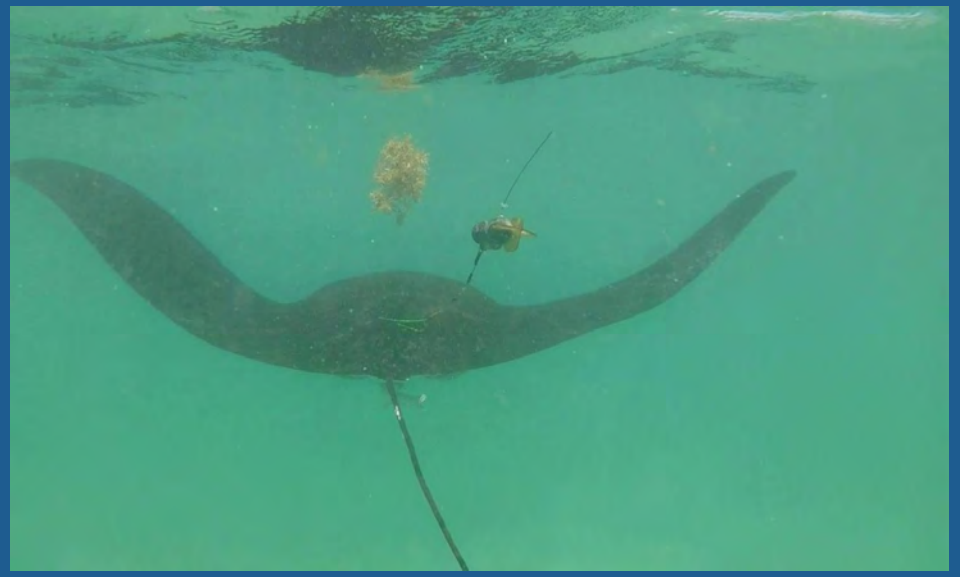
- Incidentally caught in several U.S. Fisheries: pelagic longline, bottom longline, gillnet, reef fish, and trawl gears types
- Direct harvest and retention is prohibited in Florida
- Take and trade in U.S. waters were not identified as significant threats

Entanglement



NOAA's Roles in Conservation & Recovery

- Recovery Outline (Plan is process)
- Educational outreach
  - Manta.ray@noaa.gov
  - www.fisheries.noaa.gov
- Support and participate in research and monitoring
- Section 7 consultation with federal partners – avoid and minimize




BREAK
TIME!!!

Species Profile - Sea Turtles

Lucas Davis, USFWS

Florida Ecological Services Field Office

Species of Sea Turtles

Loggerhead
(*Caretta caretta)*

Leatherback
(*Dermochelys coriacea)*

Green
(*Chelonia mydas)*

Kemp's Ridley
(Lepidochelys kempii)

Hawksbill
(Eretmochelys imbricata)

Lifecycle

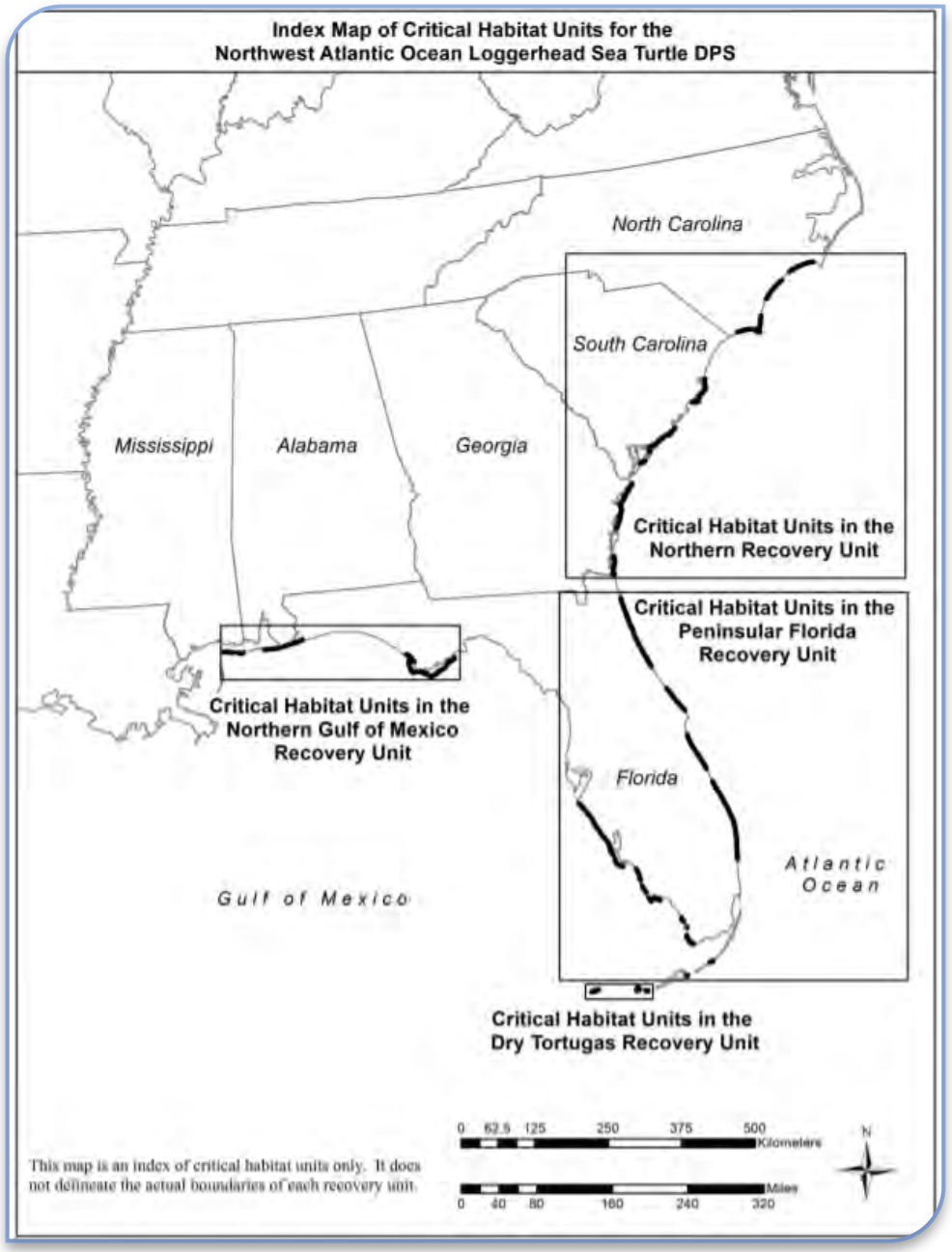
- Hatchling Emergence
- Driftlines/Sargassum
- Nearshore Feeding
- Breeding Migration
- Nearshore Mating
- Nesting

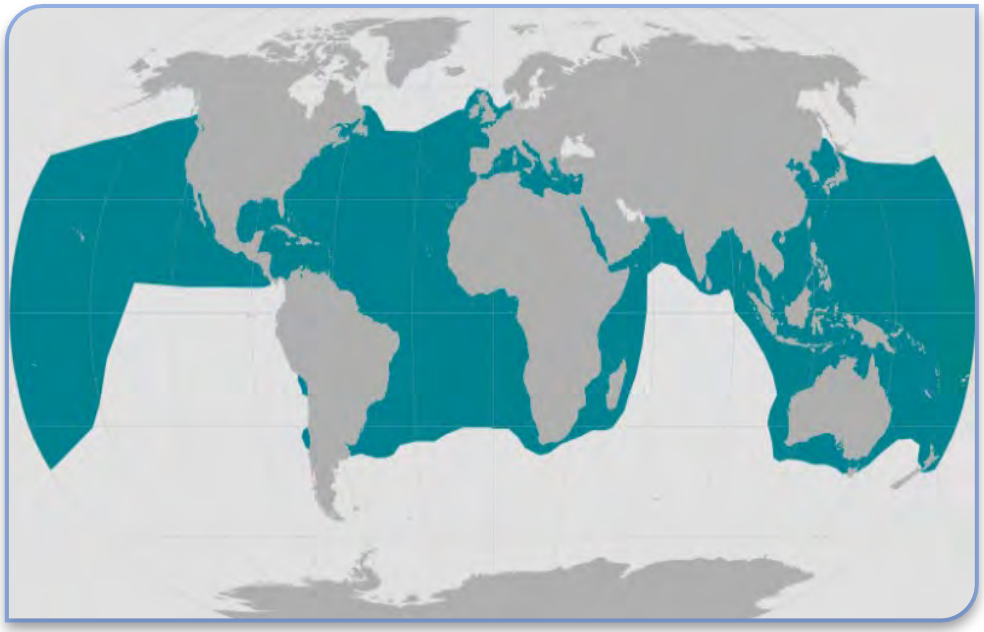

Photo: Becky Skiba, USFWS


Photo: NOAA Pacific Islands Fisheries SC


Photo: Molly Martin, USFWS

Loggerhead Critical Habitat and Range



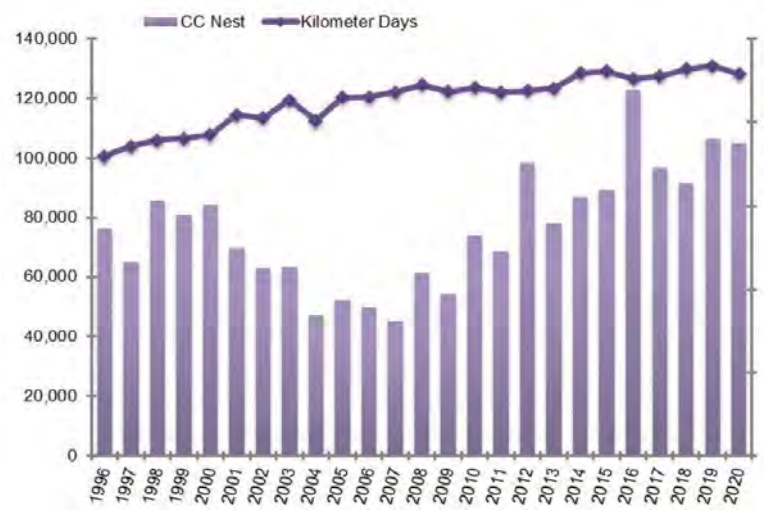


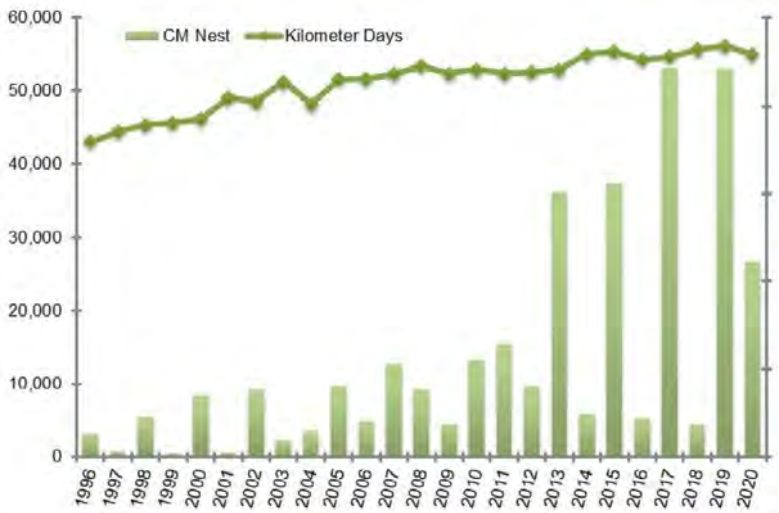
Sea Turtle Nesting

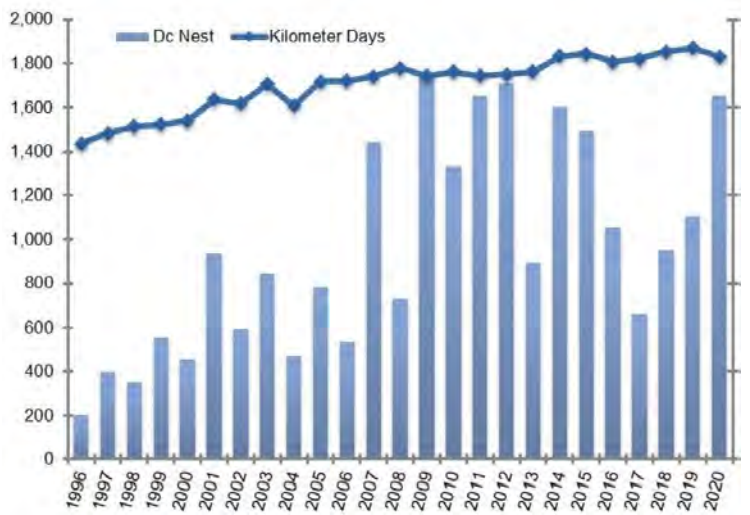
- Nesting and hatching season varies by species and location
- Nesting and hatching both occur at night
- Nests contain about 100 eggs and incubate about 2 months
- Females return to nest in the same areas where they hatched

Sea Turtle Nesting

Year	C. caretta (N)	C. caretta (NNE)	C. mydas (N)	C. mydas (NNE)	D. coriacea (N)	D. coriacea (NNE)
2020	105,164	147,007	26,656	34,075	1,652	344



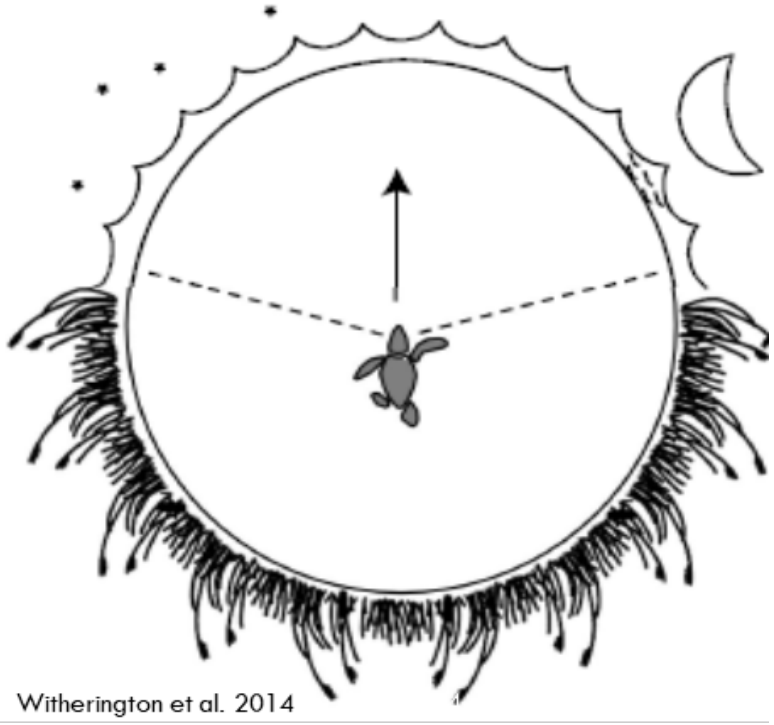




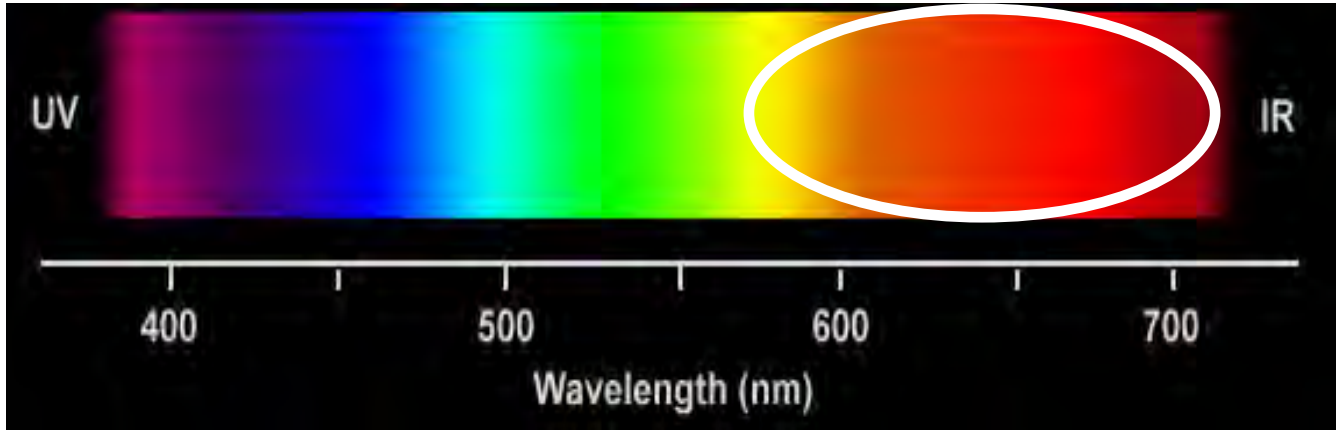
https://myfwc.com/research/wildlife/sea-turtles/nesting/nesting-atlas/

Sea-finding behavior

- Towards bright open areas/horizons
- Away from dark silhouettes
- Attracted to short wavelengths
- Less disturbed by long wavelengths



Witherington et al. 2014



Problematic Lighting

- Lighting that is directly, indirectly or cumulatively visible from the nesting beach
- Unshielded light sources
- High mounted fixtures
- Excessive lighting
- Short wavelength light sources

Photo: T. Long, FWC

Impacts on nesting and emerging sea turtles

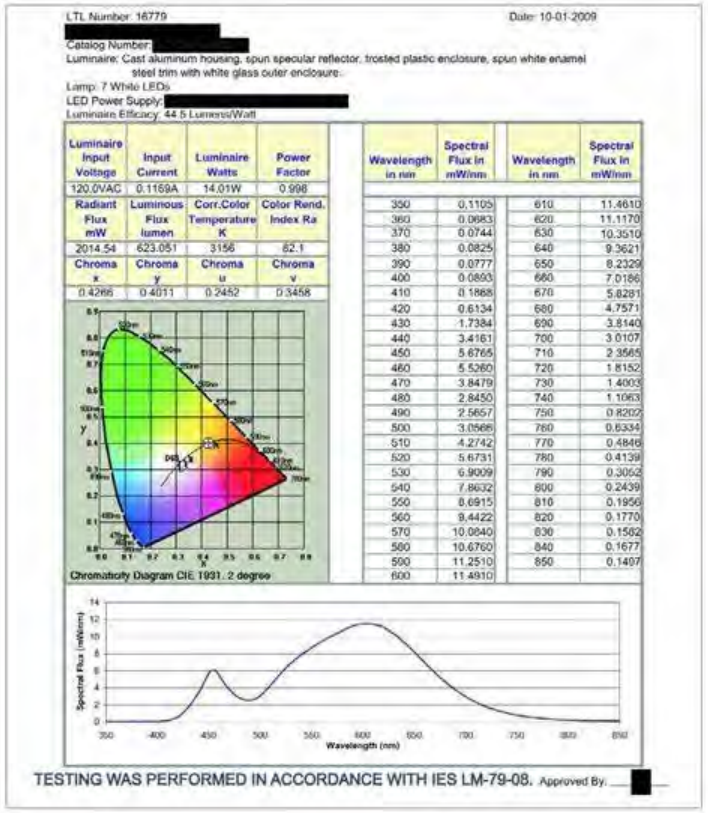
- Deter females from emerging from the water to nest
- Interfere with ability to find their way to the water
- Hatchlings have a limited energy reserve
- Can result in dehydration, exhaustion, predation, entanglement, and death

Solutions

- Low mounting heights
- Low lumen output
- Shielded or directed light sources
- Approved long wavelengths

Amber LED Light Sources

- Spectral Distribution Graphs
- Color Temperature
- Amber vs PC Amber
- Filters



LTL Number: 16779 [redacted] Date: 10-01-2009

Catalog Number: [redacted]

Luminaire: Cast aluminum housing, spun specular reflector, frosted plastic enclosure, spun white enamel steel trim with white glass outer enclosure.

Lamp: 7 White LEDs

LED Power Supply: [redacted]

Luminaire Efficacy: 44.5 Lumens/Watt

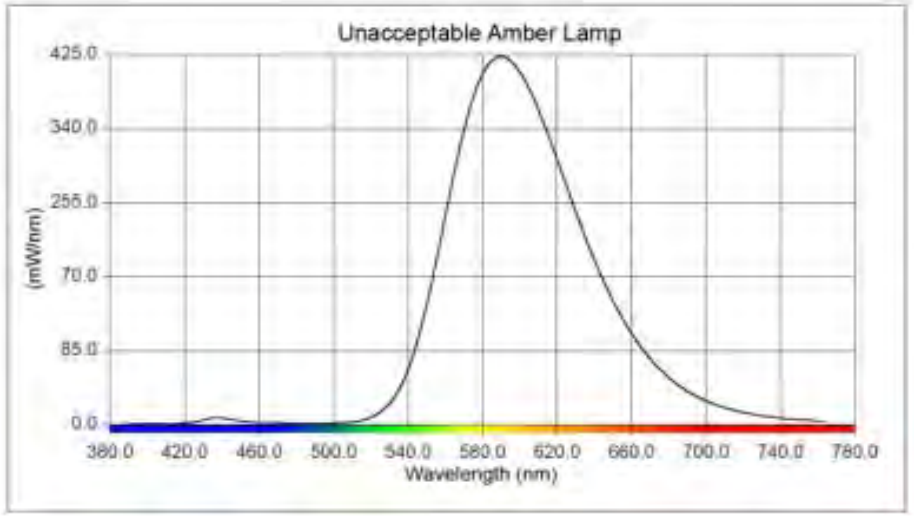
Luminaire Input Voltage	Input Current	Luminaire Watts	Power Factor
120.0VAC	0.1159A	14.01W	0.998
Radiant Flux mW	**Luminous Flux lumen**	**Corr.Color Temperature K**	**Color Rend. Index Ra**
2014.54	623.051	3156	82.1
Chroma x	**Chroma y**	**Chroma u**	**Chroma v**
0.4266	0.4011	0.2452	0.3458

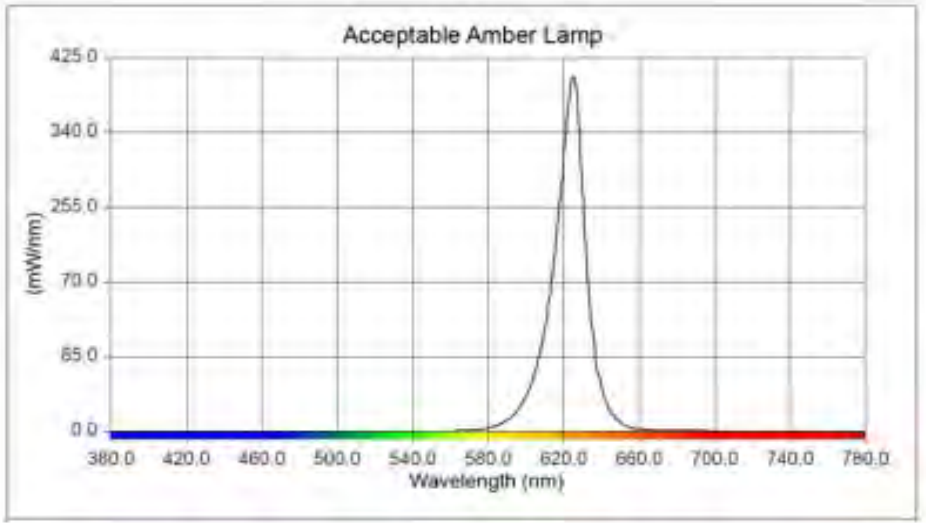
Chromaticity Diagram CIE 1931, 2 degree

Wavelength in nm	Spectral Flux in mW/nm	Wavelength in nm	Spectral Flux in mW/nm
350	0.1105	610	11.4610
360	0.0683	620	11.1170
370	0.0744	630	10.3510
380	0.0825	640	9.3621
390	0.0777	650	8.2329
400	0.0893	660	7.0186
410	0.1868	670	5.8281
420	0.6134	680	4.7571
430	1.7384	690	3.8140
440	3.4161	700	3.0107
450	5.6765	710	2.3565
460	5.5260	720	1.8152
470	3.8479	730	1.4003
480	2.8450	740	1.1063
490	2.5657	750	0.8202
500	3.0566	760	0.6334
510	4.2742	770	0.4846
520	5.6731	780	0.4139
530	6.9009	790	0.3062
540	7.8632	800	0.2439
550	8.6915	810	0.1956
560	9.4422	820	0.1770
570	10.0840	830	0.1582
580	10.6760	840	0.1677
590	11.2510	850	0.1497
600	11.4910		

Spectral Flux (mW/nm) Wavelength (nm)

TESTING WAS PERFORMED IN ACCORDANCE WITH IES LM-79-08. Approved By: [redacted]





Sea Turtles in the Water

NOAA FISHERIES

Sea Turtle Species

Loggerhead (*Caretta caretta*)

Green (*Chelonia mydas*)

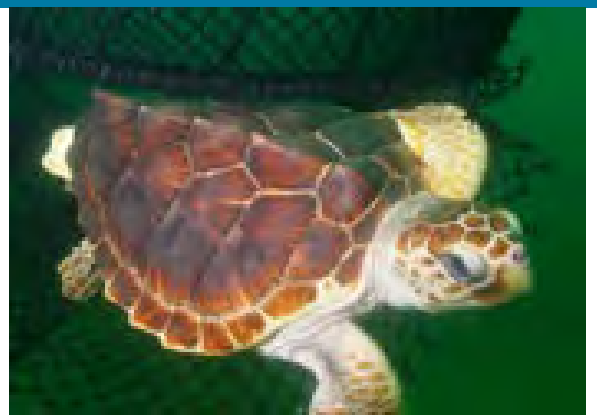
Kemp's ridley (*Lepidochelys kempii*)

Hawksbill (*Eretmochelys imbricata*)

Leatherback (*Dermochelys coriacea*)

- *All sea turtle species are jointly managed by NMFS and the USFWS. NMFS has jurisdiction in the marine environment, USFWS on the beach.*

Loggerhead (Northwest Atlantic Distinct Population Segment [NWA DPS])



Range: Loggerheads are the most abundant species of sea turtle found in U.S. coastal waters. They are found worldwide, but all individuals found in USACE jurisdiction would be from the NWA DPS. Neritic juvenile and adult loggerheads can be found along essentially all shelf waters of the Gulf of Mexico and the Atlantic (neritic refers to the inshore and nearshore marine environment from the surface to the sea floor where water depths do not exceed 200 meters), including within sounds, bays, and estuaries. Post-hatchlings can be found in *Sargassum* habitats, driftlines, and other convergence zones. Oceanic juveniles reside in the Northeast Atlantic waters and the Gulf of Mexico.

Loggerhead (NWA DPS)

Weight: Up to 250 lbs (113 kg).

Length: Up to 3 feet (0.9 m).

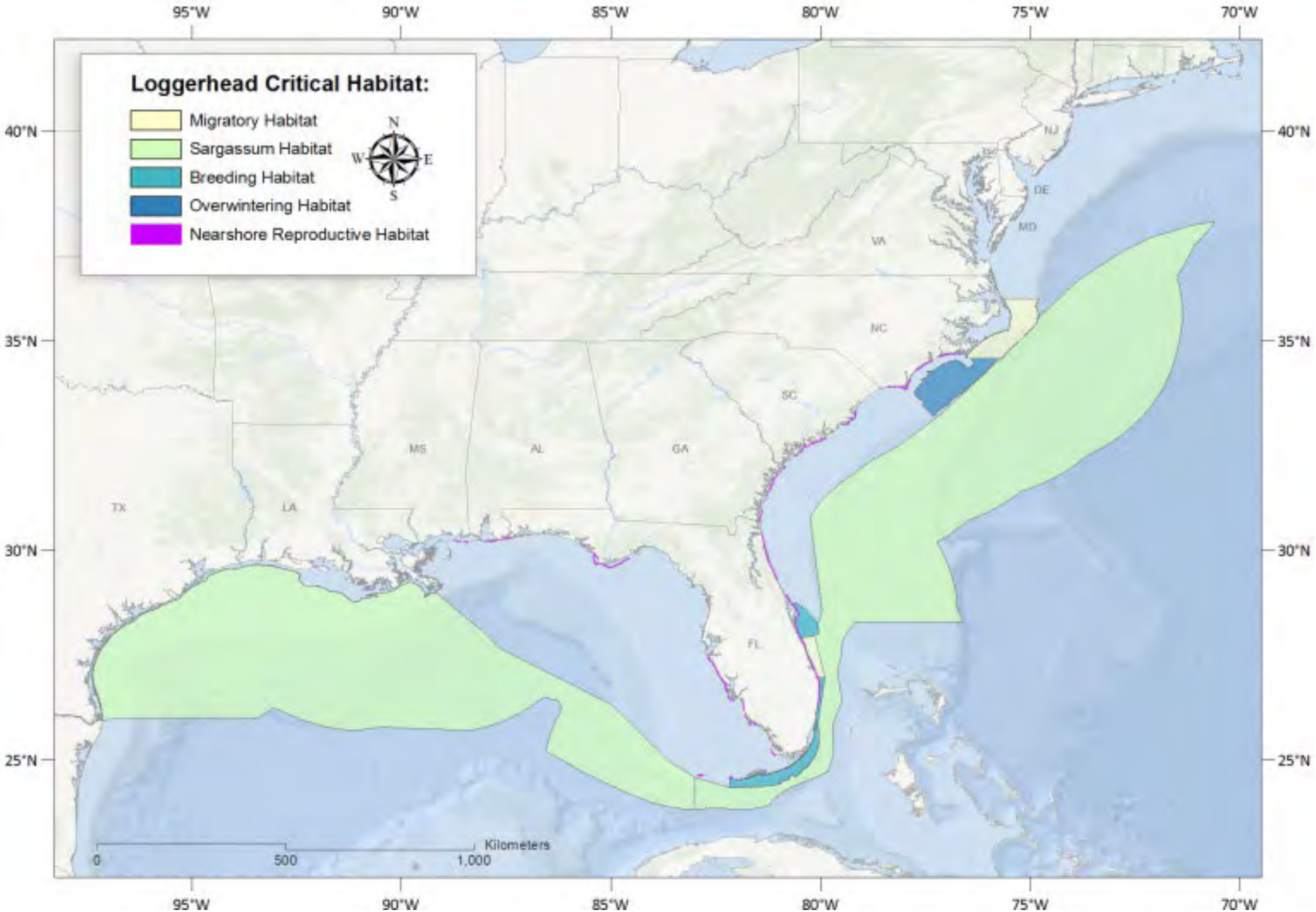
Diet: Varied, often hard-shelled prey such as whelk, conch, and mollusks, but will eat a wide variety of other items. Post-hatchlings feed on small invertebrates within the *Sargassum* community and other driftline/convergence zone habitats.

Females nest from April-September and generally lay 3 to 5 nests per season.

Loggerhead (NWA DPS) Critical Habitat

38 units of critical habitat (designated in 2014):

- Nearshore reproductive habitat (1 mile out from all USFWS designated critical habitat nesting beaches);
- Winter area;
- Breeding habitat;
- Constricted migratory corridors;
- *Sargassum* habitat.


Loggerhead Critical Habitat:
Migratory Habitat
Sargassum Habitat
Breeding Habitat
Overwintering Habitat
Nearshore Reproductive Habitat
N
W
E
S
95°W
90°W
85°W
80°W
75°W
70°W
40°N
35°N
30°N
25°N
NJ
DE
MD
VA
NC
SC
GA
FL
AL
MS
LA
TX
0
500
1,000
Kilometers

Green
(NA and SA DPSs)

Range: Green turtles are found worldwide, and in Florida could be from the North Atlantic or South Atlantic DPS. In U.S. Atlantic and Gulf of Mexico waters, neritic juvenile and adult green turtles are found in inshore and nearshore waters from Texas to Massachusetts, the U.S. Virgin Islands, and Puerto Rico. Oceanic juveniles are found in the offshore waters of the Atlantic and Gulf of Mexico. Post-hatchlings can be found in *Sargassum* habitats, driftlines, and other convergence zones. The DPS regions are based upon nesting beaches, but individuals from the SA and NA overlap on the foraging grounds.

Green (NA and SA DPSs)

Weight: Up to 300-350 lbs (135-150 kg).

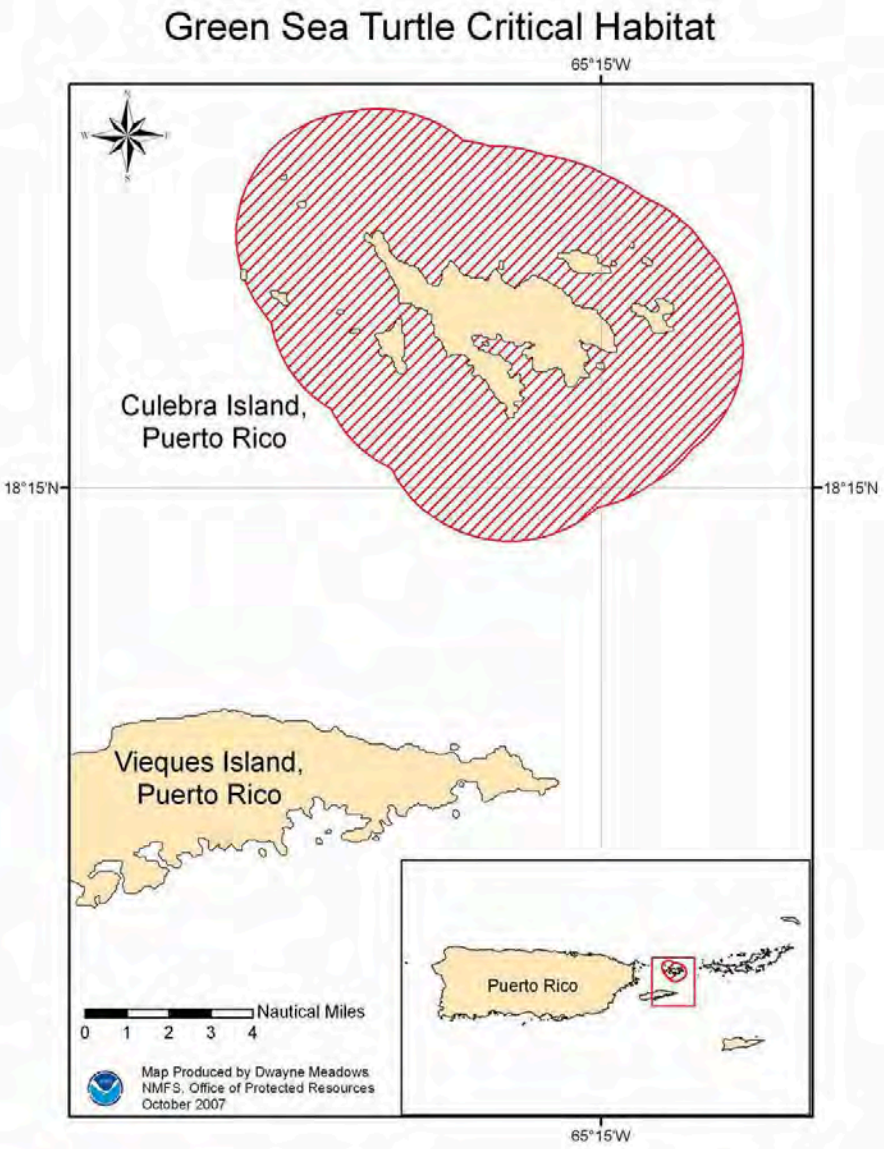
Length: Over 3 feet (1 m).

Diet: Adult and neritic juvenile green turtles are unique among sea turtles in that they are herbivorous, feeding primarily on seagrasses and algae. Post-hatchlings feed on algae and small invertebrates within the *Sargassum* community and other driftline/convergence zone habitats.

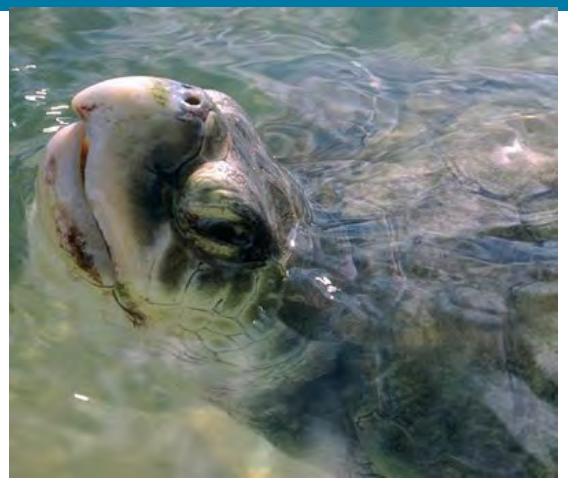
Females generally nest in the summer between June and September; peak nesting occurs in June and July. They lay an average of 5 nests, or clutches.

Green Turtle Critical Habitat

(new critical habitat will be designated for the new DPS listings)

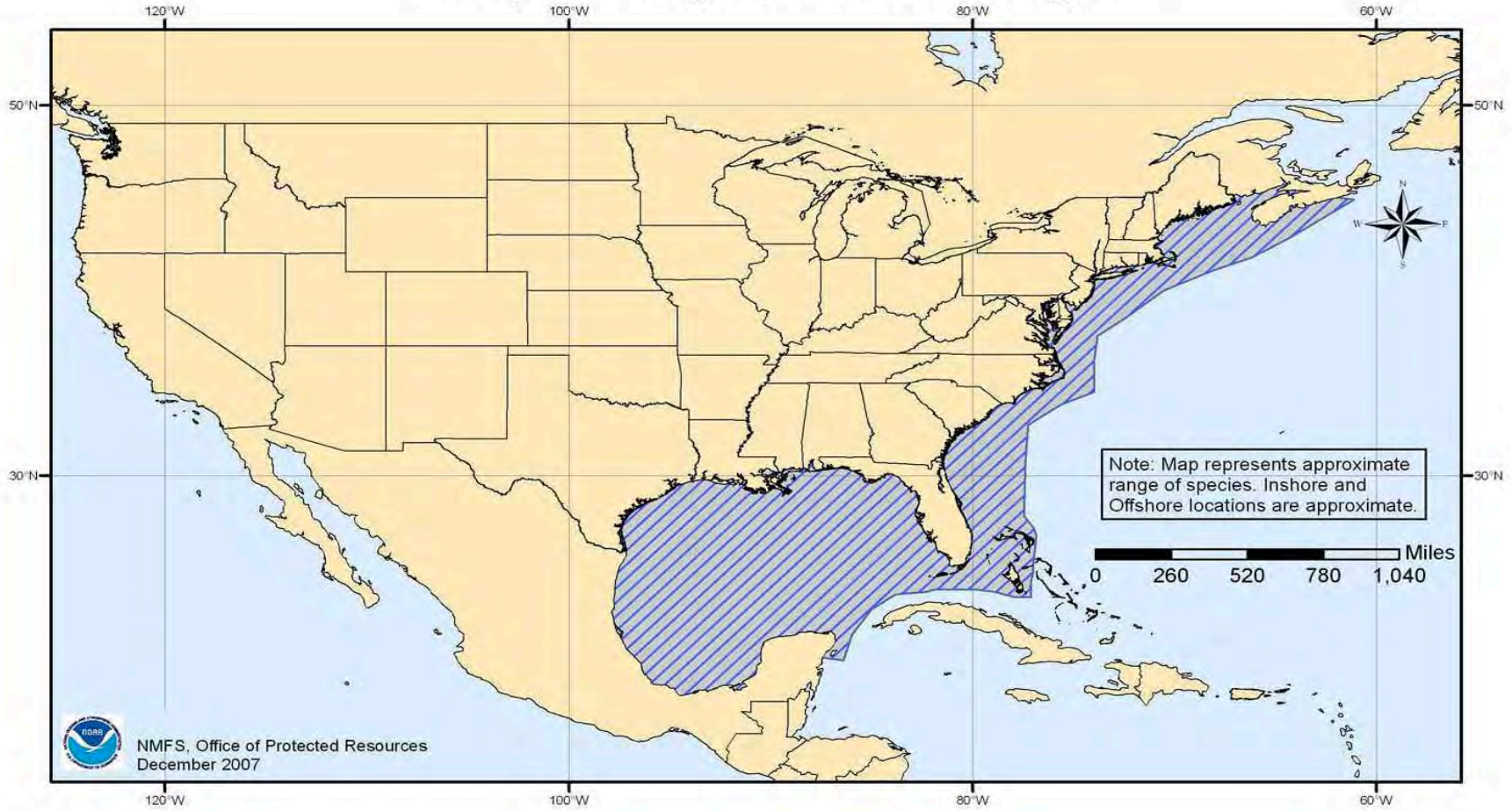


Kemp's ridley



Range: Adult and neritic juvenile Kemp's ridley turtles are found primarily in coastal waters of the Gulf of Mexico and the western Atlantic, on the shelf and inshore waters of sounds, bays, and estuaries. As with other hard-shell sea turtle species, post-hatchlings can be found in *Sargassum* habitats, driftlines, and other convergence zones. Oceanic juveniles are found in the offshore waters of the Gulf of Mexico and the western Atlantic until about 2 years of age, when they recruit to neritic habitats. The map illustrates the overall approximate range of this species.

Kemp's Ridley Sea Turtle Range



Kemp's ridley

Weight: Up to 100 lbs (45 kg).

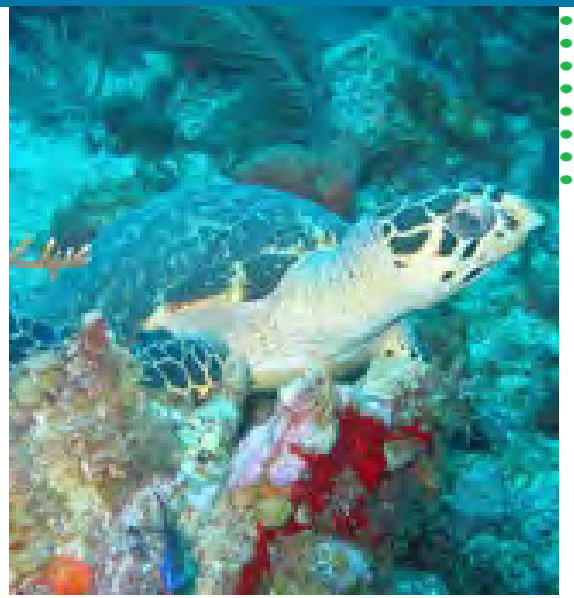
Length: 24-28 inches (60-70 cm).

Diet: Adult and neritic juvenile Kemp's ridley turtles forage largely on crabs, but also consume mollusks, snails, jellyfish, and a wide variety of other foods. Post-hatchlings feed on small invertebrates within the *Sargassum* community and other driftline/convergence zone habitats.

Females generally nest from May to July, with the primary nesting occurring in Mexico, and a secondary nesting site in Texas on Padre Island. Females typically lay 2 to 3 nests per season.

**No critical habitat has been designated for Kemp's ridleys.*

Hawksbill



Range: Adult and neritic juveniles can be found in coastal waters of the Gulf of Mexico and the western Atlantic, on the shelf and inshore waters of sounds, bays, and estuaries. However, within U.S. waters they are primarily found at or near coral reef and other reef habitats in the Caribbean and Florida, and are rare visitors to other areas. As with other hard-shell sea turtle species, post-hatchlings and pelagic juveniles can be found in *Sargassum* habitats, driftlines, and other convergence zones.

Weight: Adults 100-150 lbs (45-70 kg).

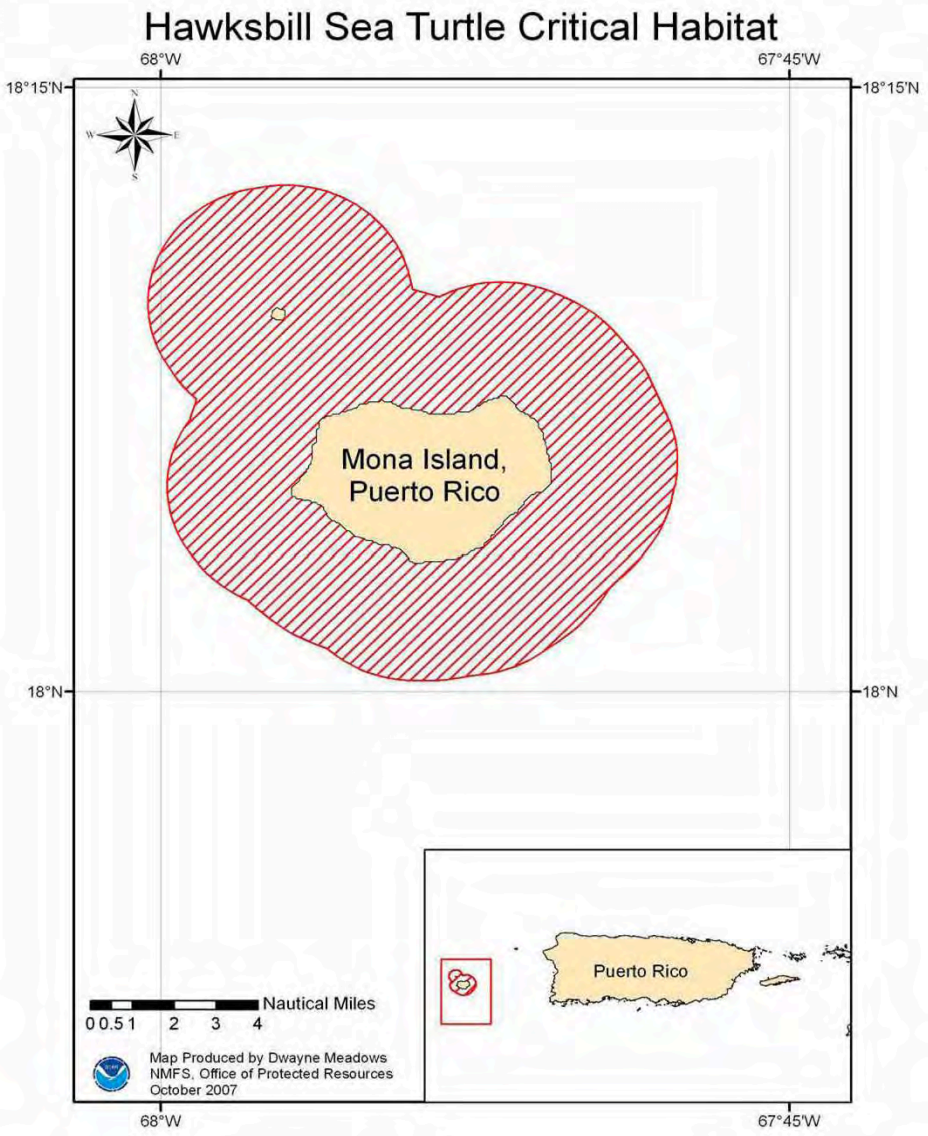
Length: 25-35 inches (65-90 cm).

Hawksbill

Diet: Adult and neritic juveniles feed primarily on sponges, with some invertebrates and algae. Post-hatchlings and oceanic juveniles feed on small invertebrates and algae within the *Sargassum* community and other driftline/convergence zone habitats.

Nesting within the western Atlantic primarily occurs in the Caribbean and South America. Nesting on the U.S. mainland is rare and sporadic. Females generally nest from April to November, with local variations within that time frame. Females typically lay 2 to 3 nests.

Hawksbill Critical Habitat



Atlantic Leatherback

Range: Occur in oceanic waters throughout the Atlantic and Gulf of Mexico. Typically remain in open, oceanic waters except during mating/nesting and on occasions when they follow jellyfish blooms into nearshore coastal waters to feed. It is very rare for a leatherback to enter inshore waters.

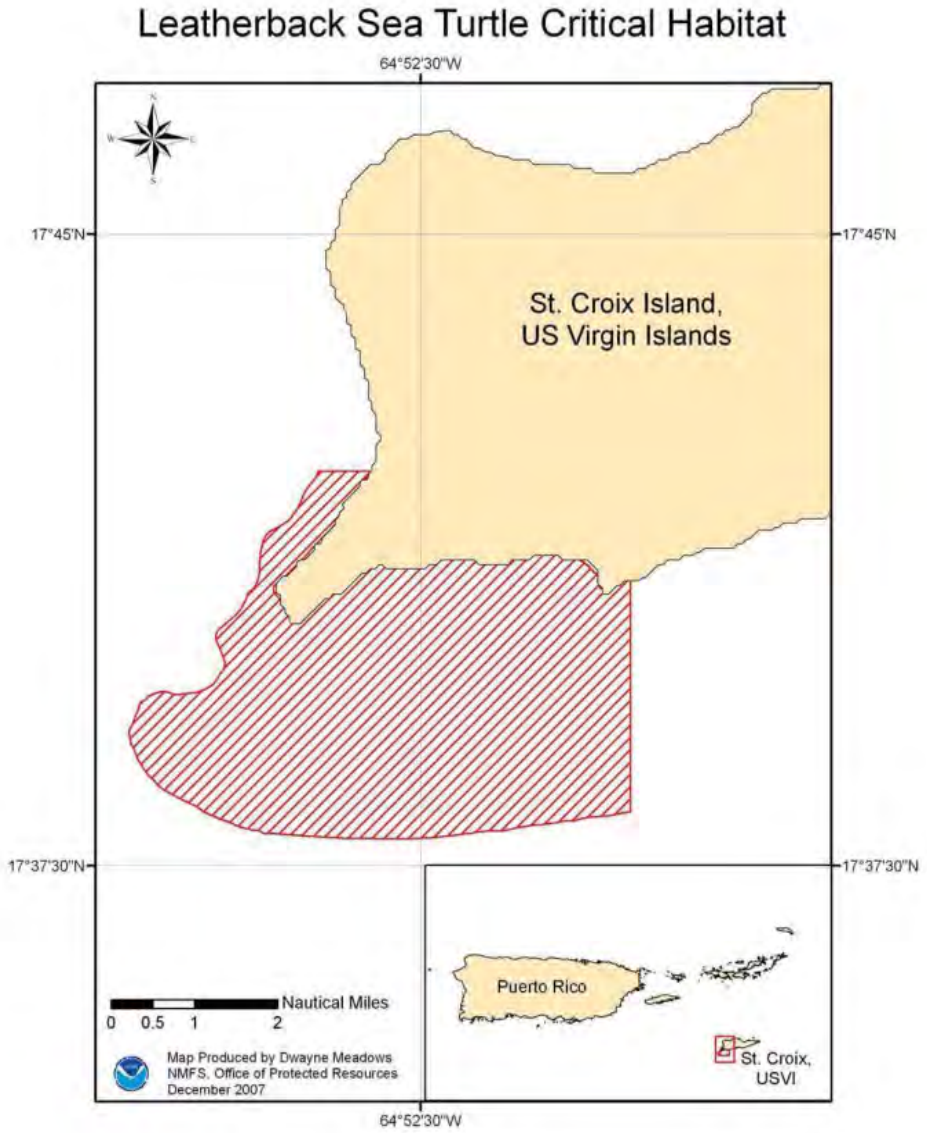
Weight: Adults up to 2000 lbs (900 kg).

Length: Up to 6.5 feet (2 m).

Diet: Primarily soft-bodied animals such as jellyfish, salps, and pyrosomes.

Nesting within the western Atlantic primarily occurs in the Caribbean, Central America, east coast of Florida, and South America. Nesting on the U.S. mainland outside of Florida is rare and sporadic. In the U.S. females generally nest from March to July. Females typically lay 5 to 7 nests in a season.

Atlantic Leatherback Critical Habitat



Examples of Major Stressors, Threats, and Projects (Non-Fishery) that May Affect Sea Turtles and Sea Turtle Critical Habitat

Threat	Potential Routes of Effect	Potential Impact to Species/Critical Habitat
Shoreline stabilization projects (including breakwaters, groins, etc.)	• Construction activities • Physical barrier • Alteration of nearshore currents • Concentration of predators	• Disturbance of, or injury to, individuals in the construction zone • Alteration of nearshore currents and wave patterns that can create disorientation or longshore drift of hatchlings (Loggerhead Critical Habitat feature) • Alteration of habitat resulting in increased predation pressure on hatchlings (Loggerhead Critical Habitat feature as well as potential takes for any species nesting at those beaches) • Loss of clear ingress/egress onto and off of the nesting beach for nesting females and hatchlings (Loggerhead Critical Habitat feature)
Beach nourishment	• Turbidity/siltation/burial of habitat • Vessel traffic • Pipeline • Construction equipment	• Habitat loss from siltation/burial at the site or down- current • Disturbance of nesting females • Vessel interactions including injury or mortality • Physical impedance from accessing nesting areas by the pipeline. • Disturbance/disorientation caused by activity and lighting from barges and other construction equipment

Examples of Major Stressors, Threats, and Projects (Non-Fishery) that May Affect Sea Turtles and Sea Turtle Critical Habitat *(continued)*

Dredging	• Turbidity/siltation effects • Habitat alteration • Noise/disturbance • Direct interaction	• Mortality or injury via direct dredge interaction • Impacts to important habitat • Disturbance of, or injury to, individuals from the dredging activities
Fishing piers	• Construction/maintenance • Fishing	• Habitat loss/alteration from the pier structure/pilings • Disturbance, exclusion from important habitat, or injury from construction activities • Incidental capture by people fishing on the pier • Marine debris/entanglement issues from pier discards and lost fishing gear
Energy exploration and development (including renewable resources)	• Noise • Physical barrier • Habitat loss • Pollution	• Disturbance, exclusion from important habitat, or injury from exploration, construction, or development/production activities and noise • Physical barriers along migration routes (Loggerhead Critical Habitat feature) • Loss of important habitat • Water quality and marine debris issues
Aquaculture	• Physical barrier • Entanglement/entrainment • Water quality/habitat alteration	• Potential physical barrier to sea turtle migration (Loggerhead Critical Habitat feature) or access to important habitats • Drowning or injury from entanglement/entrainment • Habitat and water quality degradation from nutrients and/or chemicals used at the facility

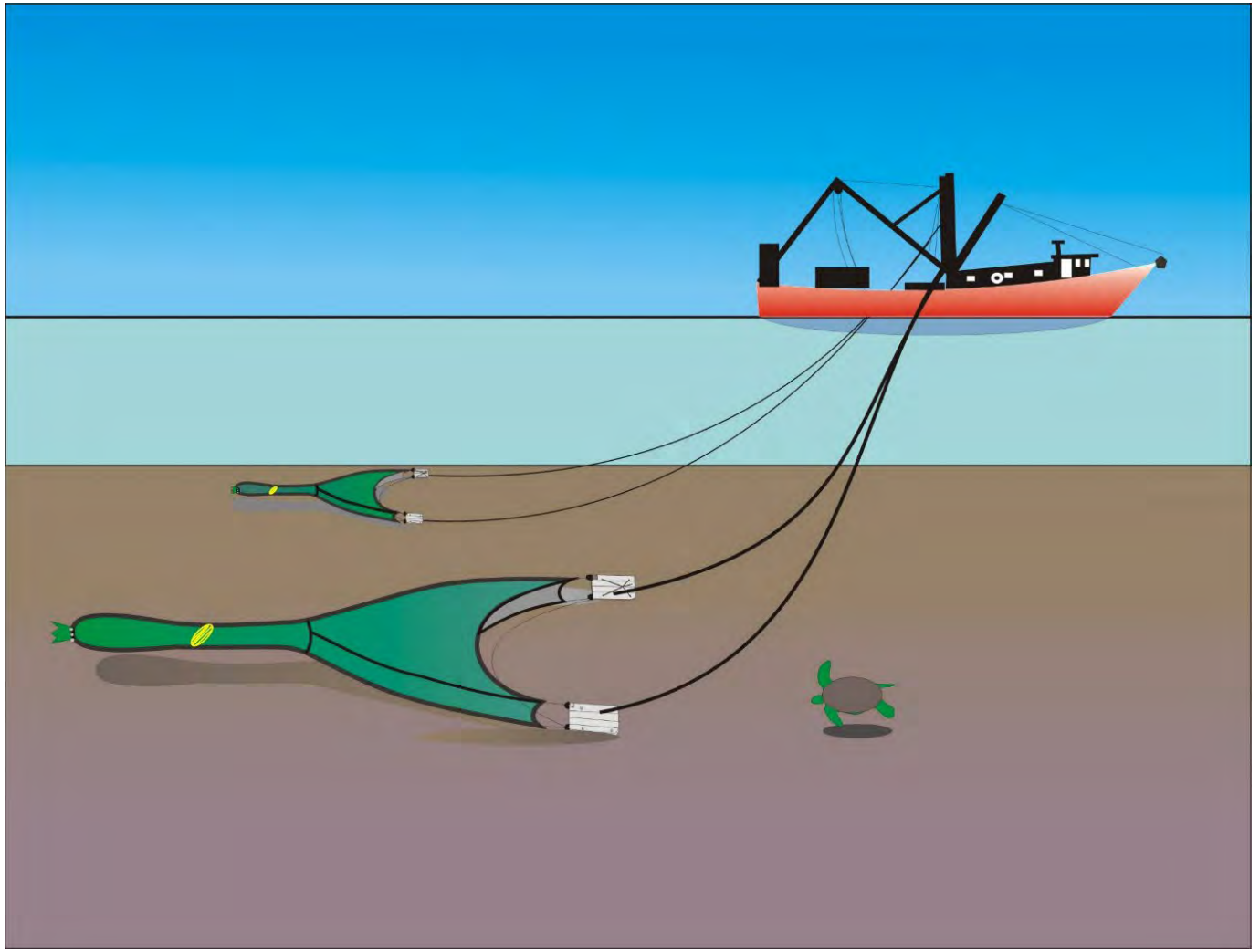
Examples of Major Stressors, Threats, and Projects (Non-Fishery) that May Affect Sea Turtles and Sea Turtle Critical Habitat *(continued)*

Restoration projects	• Construction • Habitat alteration • Physical barrier	• Disturbance, exclusion from important habitat, or injury from construction activities • Loss of important habitat • Physical exclusion from important habitats from barrier island formation or other land build-up
Water control structures, outfalls, and associated infrastructure	• Construction • Habitat alteration • Physical barrier • Entrainment	• Disturbance, exclusion from important habitat, or injury from construction activities • Loss of important habitat • Physical exclusion from important habitat (for example from installing a water control structure where there was an opening to a sound or bay previously) • Injury or death from entrainment on such structures, gates, grates, etc.
Pile driving activities	• Noise • Construction • Vessel interactions • Physical barrier • Habitat alteration	• Habitat loss/alteration from the pier structure/pilings • Disturbance, exclusion from important habitat, or injury from construction activities • Disturbance, injury, and mortality from vessel interactions • Impeded access to habitat, refuge, or migratory pathways (the latter being a Loggerhead Critical Habitat feature)

One of the main threats to sea turtles is accidental capture in fishing nets, particularly shrimp trawls!

Also known as incidental take!!

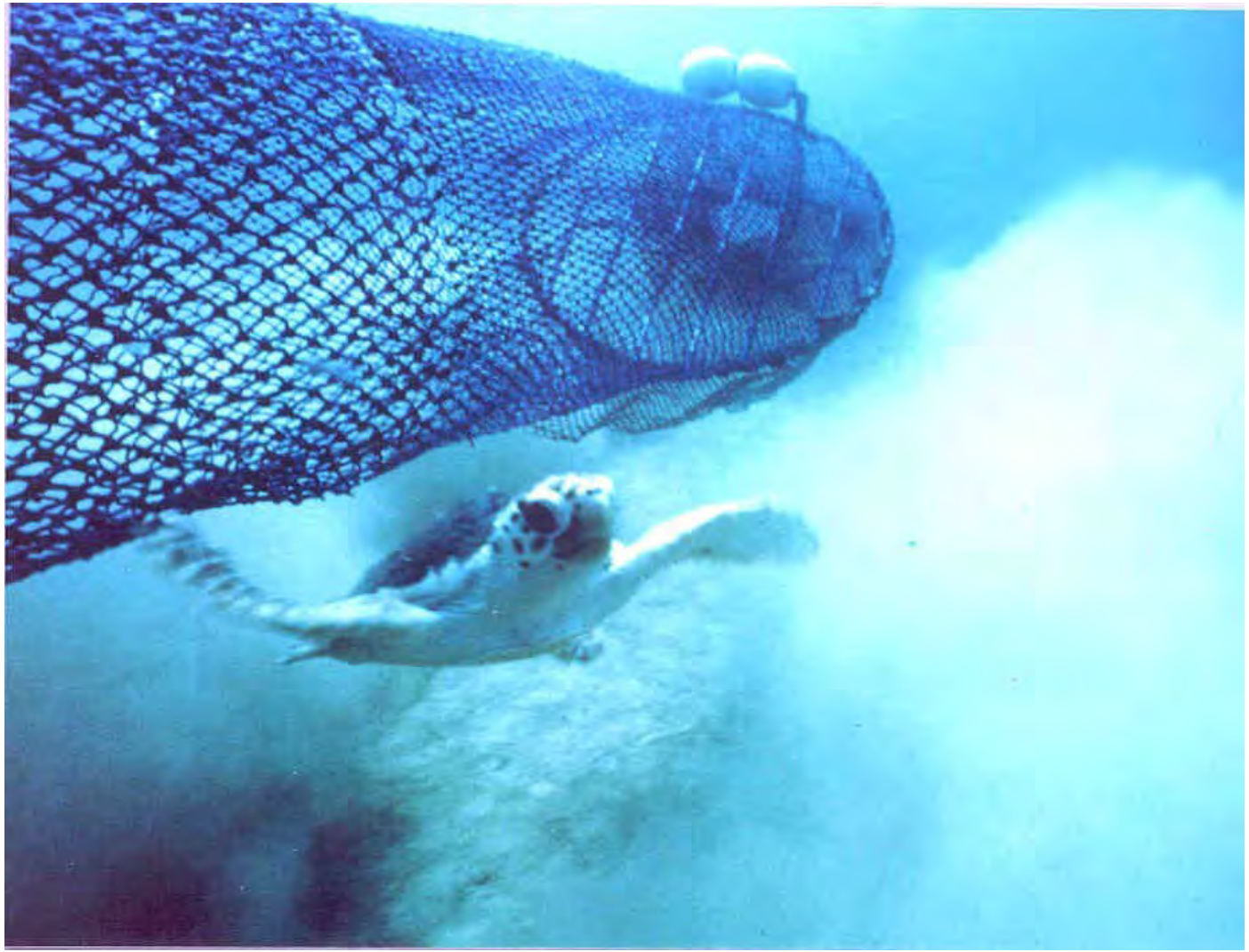
Shrimp Trawlers in the U.S. are now required to have **Turtle Excluder Devices or TEDs** installed in their nets to allow turtles to escape (the yellow things)



TEDs have a set of bars inside the net that allow shrimp to pass through but catch sea turtles before they reach the bottom of the net with an opening in the side of the net to allow a turtle to escape

I’M FREEEE……MAN, THAT WAS A CLOSE CALL

THANKS, NOAA FISHERIES !!!



Session 3 Wrap-Up

Questions?

End of Session 3 – Overview of ESA Consultation from USFWS, NMFS

- **Online Resources**
  - FWS, NMFS
  - FDOT - Environmental Screening Tool – EST
- **Programmatic Agreements**
  - Mussel PA
  - Minor/Maintenance PA
  - JAXBO
- **Walk Us Through a Project**
- **Species Highlights**
  - Snail kite - Victoria Garcia
  - Manta ray - Calusa Horn
  - Sea turtles - Lucas Davis & David Rydene

- **Questions, reflections?**

Wrap-Up: Practical Examples & Species Specific Highlights

Thank you for participating!

- Remember to register for ESA Webinar 4 – **March 8, 2022**

- Next weeks webinar will continue with the FWS and NMFS discussion on laws and listing updates, we'll learn about the Services wildlife refuge system and have species specific presentations on the Bald Eagle, Black Rail, and FL Bonneted Bat .

Session 4 – ESA Laws & Listing Updates

1. ESA Listing Updates - USFWS/NMFS
   - General process overview, 5-year reviews
   - Current listings including CH underway and/or recent changes
   - Where does the FWS mitigation policy stand?
2. Species Highlights
   - *American Bald Eagle* – ***Ulgonda Kirkpatrick and Resee Collins****, USFWS*
   - *Florida Bonneted Bat* – ***Sandra Sneckenberger****, USFWS*
   - *Species Highlight Nassau Grouper* – ***Kurtis Gregg****, NMFS*
   - *Species Highlight Black rail* – ***Kevin Kalasz,*** *USFWS*
3. National Wildlife Refuge System – ***Jereme Phillips***, USFWS
4. New pile driving calculator – ***David Rydene***, NMFS

Thanks for participating and we will see you next week.