# Proposed Terrestrial Critical Habitat for the Northwest Atlantic Loggerhead Sea Turtle Population

By: Ann Marie Lauritsen, Sandra L. MacPherson, and Lorna Patrick





**U.S. Fish and Wildlife Service** 

# **History of Loggerhead Listing** (joint responsibility USFWS and NOAA Fisheries)

- July 1978 Listed as threatened throughout worldwide range; jurisdiction shared by U.S. Fish and Wildlife Service and NOAA Fisheries.
- August 2007 ESA 5-year review recommended full status review to determine if there were Distinct Population Segments (DPS).
- August 2009 Joint Biological Review Team completed status review, identifying 9 DPS.
- September 22, 2011 USFWS and NOAA Fisheries published a final rule changing the loggerhead's listing from a single, global threatened listing to 9 DPSs listed as endangered or threatened.





## **Loggerhead Distinct Population Segments**





Loggerhead Listing Status -- Final Rule September 22, 2011



North America Chesapeake Bay, Cut stream Cut







Northwest Atlantic Loggerhead Sea Turtle - complex life cycle













# What is Critical Habitat?

ESA §3(5)(A)-the term "critical habitat" for a threatened or endangered species means –

(i) the specific areas within the geographical area occupied by the species, at the time it is listed... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed... upon a determination by the Secretary that such areas are essential for the conservation of the species.



#### **Geographical area occupied by the species**

The geographical area in which the species can be found. Such areas may include migratory corridors, seasonal habitats, and habitats used periodically.





#### Essential to the conservation of the species

This is not defined in the ESA or regulations. It reflects habitat needed for the species to reach recovery.





#### Special management considerations or protection

# Methods or procedures useful in protecting the physical or biological features essential to the conservation of listed species.





#### Physical and Biological Features (PBF): Sites for breeding, reproduction, or rearing (or development) of offspring



Nearshore access from the ocean to the beach for nesting females



Sand that allows for successful embryo development



Sand that allows for suitable nest construction



Sufficient darkness to ensure nesting/hatchling turtles orient to sea



# Framework for Conservation and Recovery (Shaffer and Stein 2000)

- Representation Good spatial distribution throughout nesting range
- Redundancy High density nesting beaches over recent 5-year period
- Resiliency Expansion beaches ensuring population viability



# **Selection Criteria- by Recovery Units**

- Extra-tidal or dry sandy beaches
- Capable of supporting a high density of nests
- Serve as an expansion area for beaches with a high density of nests
- Well distributed within each State or region to ensures good spatial distribution



## Selection Criteria – Northern Recovery Unit

Divided beach nesting densities into four equal groups by State and selected beaches that were within the top 25% (highest nesting densities). With the beaches adjacent to them included, this encompasses the majority of nesting within the Northern Recovery Unit.

State	Medium Nesting Density	High Nesting Density
North Carolina	1.13 - 2.38	> 2.38
South Carolina	2.64 - 13.97	> 13.97
Georgia	6.14 - 11.34	> 11.34



## Selection Criteria – Peninsular Florida Recovery Unit

Divided beach nesting densities into five regions based on genetics groups (Shamblin et al., 2012) by State and selected beaches that were within the top 25% (highest nesting densities). Beaches adjacent to them encompass the majority of nesting within the Peninsular Florida Recovery Unit.

State	Medium Nesting Density	High Nesting Density
Northern Florida	9.35 - 12.85	> 9.35
Central Eastern Florida	96.85 - 428.32	> 137.32
Southeastern Florida	91.95 - 333.10	> 86.28
Southwestern Florida	14.38 - 24.29	> 14.19
Central Western Florida	16.67 - 67.98	> 14.53

We include beaches on two Florida keys to ensure conservation of the unique nesting habitat in this area.



# Selection Criteria – Gulf of Mexico Recovery Unit

Divided beach nesting densities into four equal groups by State and selected beaches that were within the top 25% (highest nesting densities). Beaches adjacent to them encompass the majority of nesting within the GOMRU.

State	Mean Nesting Density	High Nesting Density
Florida	1.15	> 1.15
Alabama	0.64 - 1.56	> 1.56
Mississippi	0.06 - 1.50	> 1.50



#### Selection Criteria – Dry Tortugas Recovery Unit

All islands west of Key West, Florida, where loggerhead nesting has been documented due to the extremely small size of this Recovery Unit;

Selected beaches: Bush Key, East Key, Garden Key, Hospital Key, and Loggerhead Key in the Dry Tortugas National Park and Boca Grande Key, Woman Key, and four unnamed keys in the Marquesas Keys in the Key West National Wildlife Refuge



# **Proposed Areas for Designation**

USFWS proposed 1,190 km (739 miles) in 90 units Land ownership: Federal (19%), State (21%), and private and others (local governments) (60%)

State	# of CH Units	Miles	Percent of Total
North Carolina	8	96	13
South Carolina	22	79	11
Georgia	8	69	9
Florida	47	451	61
Alabama	3	18	2
Mississippi	2	26	4
Total	90	739	100

## Draft Economic Analysis of the Proposed Terrestrial Critical Habitat Designation

ESA requires designation of critical habitat...on the basis of the best scientific data and after taking into consideration the economic impact, the impact on national security, and any other relevant impact,.... Areas may be excluded if the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless failure to designate such area as critical habitat results in extinction of the species.

- The DEA was prepared by independent consultants, IEc.
- IEc contacted Federal and State agencies.
- Estimated an incremental administrative cost since consultation was ongoing as a result of the species already listed.



#### **Critical Habitat Does NOT**

- Create a wildlife refuge, reserve or park
- Affect private landowners who are not using Federal money or do not require Federal permits
- Create a new, independent review process (potential impacts to critical habitat are reviewed at the same time as potential impacts to listed species)



# What is the Regulatory Impact of a Critical Habitat Designation?

- Federal agencies are required to consult with the USFWS and NMFS to ensure that their actions will not destroy or adversely modify critical habitat. Federal actions include activities that are funded or permitted by Federal agencies.
  - NOTE: Federally endangered or threatened species are protected under the ESA <u>regardless</u> of whether or not they have designated critical habitat.





# Timeline of Loggerhead Critical Habitat Proposed Rule

March 25, 2013 - USFWS published proposed rule for terrestrial critical habitat. 60-day comment period.

July 18, 2013 - USFWS published Notice of Availability of the Draft Economic Analysis and reopened the comment period.

September 16, 2013 - Comment period closed.

July 18, 2013 - NOAA Fisheries published proposed rule for inwater critical habitat.

USFWS and NOAA Fisheries final rules are expected to be published concurrently - expected in July 2014.



# **Outcome of Proposed Rule**

#### **Advantages**

- Allow USFWS and partners to focus recovery efforts
- Education
- Federal agencies aware of need to consult on existing projects updated protection requirements

#### Disadvantages

- Misinformation on critical habitat's regulatory framework worry about property rights and economy
- Negates importance of areas outside of critical habitat

#### Thank you!

Our State Technical Advisors:

**Matthew Godfrey** 

**DuBose Griffin** 

**Mark Dodd** 

**Allen Foley** 

**Robbin Trindell** 



