

# Food Habits of Nesting Bald Eagles (*Haliaeetus leucocephalus*) in New Jersey

---

Roger Wood<sup>1</sup> and Sarah Weber<sup>2</sup>

<sup>1</sup> The Wetlands Institute and Richard Stockton College of New Jersey

<sup>2</sup> St. Mary's College of Notre Dame, IN



# Objective

---

- To examine the diet of NJ bald eagles by identifying bones/feathers of food items from nests  
(This is a continuation of a research project started in the winter of 2010)

# Background

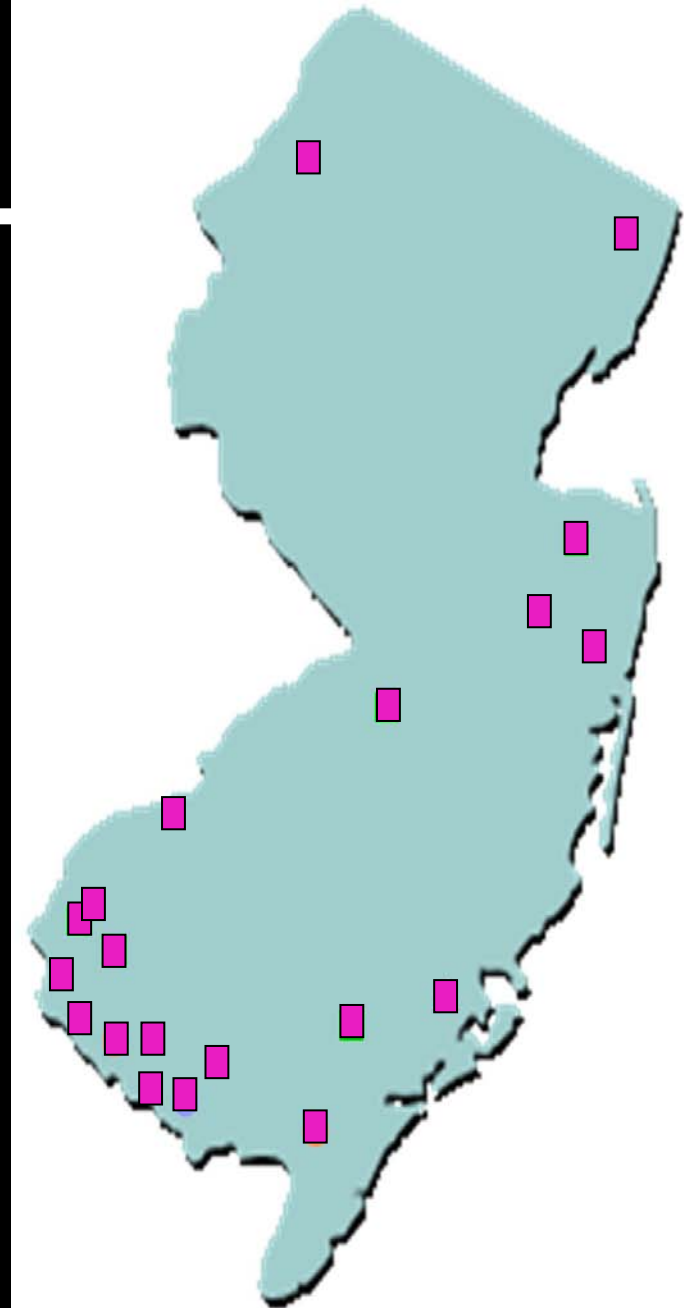
---

- August 2007: bald eagles removed from federal endangered species list
- Still listed as state endangered in NJ
- Active bald eagle nests in NJ
  - 1999: Just over 20
  - 2002: Nearly 30
  - 2009: 69
- Most nests are located in the southern part of NJ near the Delaware River and Bay

# Locations of Sampled Nests

---

- 1999-2002: 12 nests
- Spring 2010: 14 nests
  - 6 of these nests previously sampled in 1999-2002





# Fish Menu

---

- Nine different species associated with NJ bald eagle nests

<b>Common Name</b>	<b>Scientific Name</b>
Channel Catfish	<i>Ictalurus punctatus</i>
White Bullhead (Catfish)	<i>Amiurus catus</i>
Brown Bullhead (Catfish)	<i>Amiurus nebulosus</i>
Carp	<i>Cyprinus carpio</i>
Chain pickerel	<i>Esox niger</i>
Striped or yellow bass	<i>Morone</i>
Bluefish	<i>Pomatomus saltatrix</i>
Toadfish	<i>Opsamus</i>
Sea robin	<i>Prionotus</i>

# Reptile Menu = Turtles

---

- 3 different species associated with NJ bald eagle nests

Common Name	Scientific Name
Northern diamondback terrapin	<i>Malaclemys terrapin terrapin</i>
Stinkpot	<i>Sternotherus odoratus</i>
Snapping turtle	<i>Chelydra serpentina</i>



# Bird Menu

---

- Based on both bones and feathers
- At least 15 different species associated with NJ bald eagle nests

Common Name	Scientific Name
Puddle ducks (mallards, black, gadwall)	<i>Anas</i>
Geese (brant, Canada)	<i>Branta</i>
Gulls (herring, black back)	<i>Larus</i>
Black crowned night heron	<i>Nycticorax nycticorax</i>
Great egret or great blue heron	<i>Ardea</i>
Snowy egret	<i>Egretta</i>
Whimbrel	<i>Numenius phaeopus</i>
Rock dove	<i>Columba livia</i>
Barred owl	<i>Strix varia</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>
Domestic chicken	<i>Gallus</i>



# Mammal Menu

---

- Based on bones and teeth
- Six different species associated with NJ bald eagle nests

<b>Common Name</b>	<b>Scientific Name</b>
Muskrat	<i>Ondrata zibethicus</i>
Woodchuck (groundhog)	<i>Marmota monax</i>
Gray squirrel	<i>Sciurus carolineusis</i>
Eastern cottontail rabbit	<i>Sylvilagus floridanus</i>
Opossum	<i>Didelphis virginiana</i>
Deer	<i>Odocoileus virginianus</i>



# Examples of Scavenging

---



**Bird shoulder girdle with shotgun pellet holes**



**Catfish skull and associated hook**

# Conclusions

---

- Total number of different species represented by nest remains = 33
- Many specimens were apparently scavenged from carcasses left by humans
- Predated turtles were selected for small size
- Most common prey items were muskrats, turtles, and catfish

# Acknowledgements

---

- Thanks go to
  - Larissa Smith for making specimens available; her colleagues at the NJ Endangered and Nongame Species Program for retrieving bones; volunteers all over NJ who monitor individual nests and take photographs for the NJ Bald Eagle Project
  - Curators at the Academy of Natural Sciences in Philadelphia who helped identify specimens: Dr. Ted Daeschler (mammals), Dr. John Lundberg (fish), Dr. Nate Rice (birds)
  - Phil Broder for providing book to identify mammal skulls