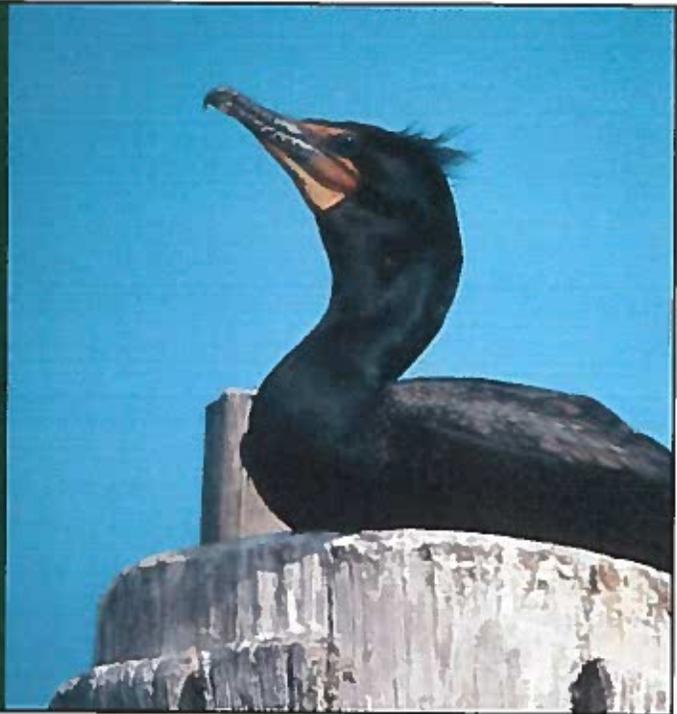


Double-crested Cormorant Management in Michigan

Dr. Russ Mason
Wildlife Division Chief
March 16, 2017



Public Resource Depredation Order (PRDO)

- Created in 2003 by U.S. Fish and Wildlife Service
- Allows take to address damage to public resources
 - Public fisheries
 - Vegetation on public lands
 - Impacts on wildlife
- Puts restrictions on authorized agencies and amount of take
- Contains specific rules on take allowed (e.g., egg oiling, egg and nest destruction, etc.)



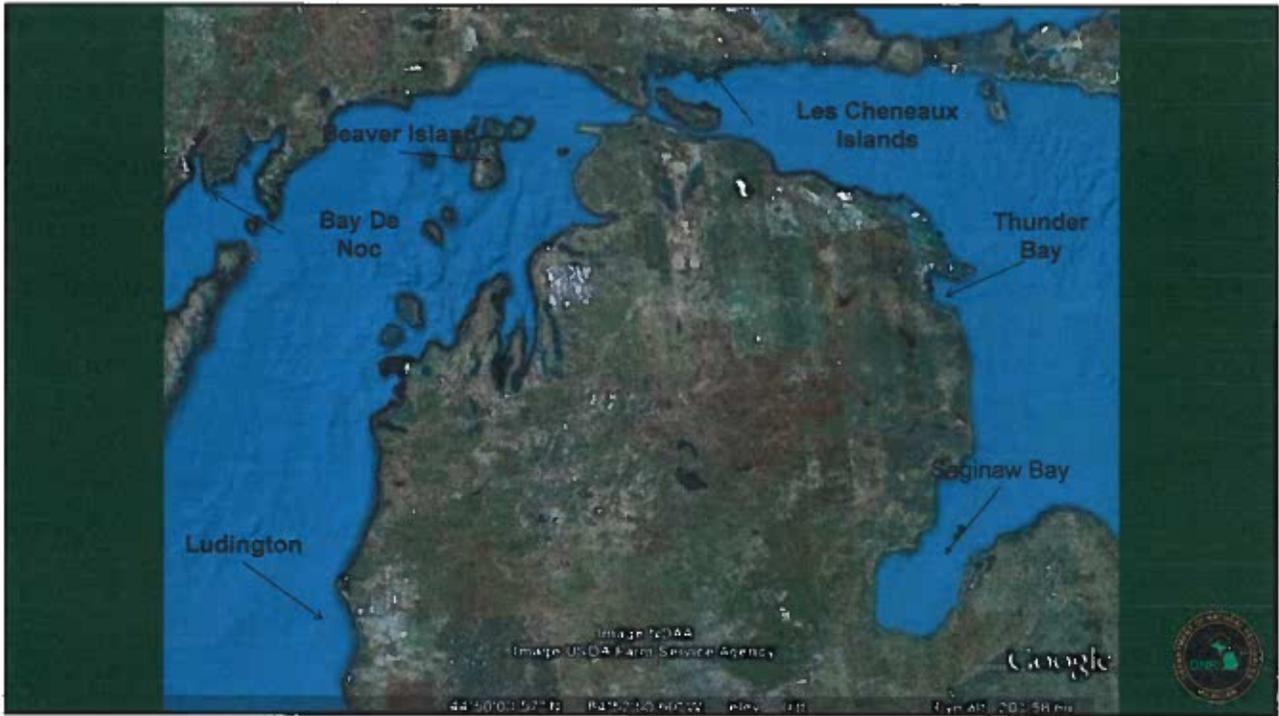
Michigan Interagency Cormorant Coordination Group

- Agencies authorized to manage cormorants
 - Department of Natural Resources (DNR)
 - U.S. Department of Agriculture (USDA) Wildlife Services
 - U.S. Fish and Wildlife Service (USFWS)
 - State Tribal representatives
 - Chippewa Ottawa Resource Authority
 - Grand Traverse Band of Ottawa and Chippewa Indians
 - Little Traverse Bay Bands of Odawa Indians
 - Bay Mills Indian Community
 - Saginaw Chippewa Indian Tribe

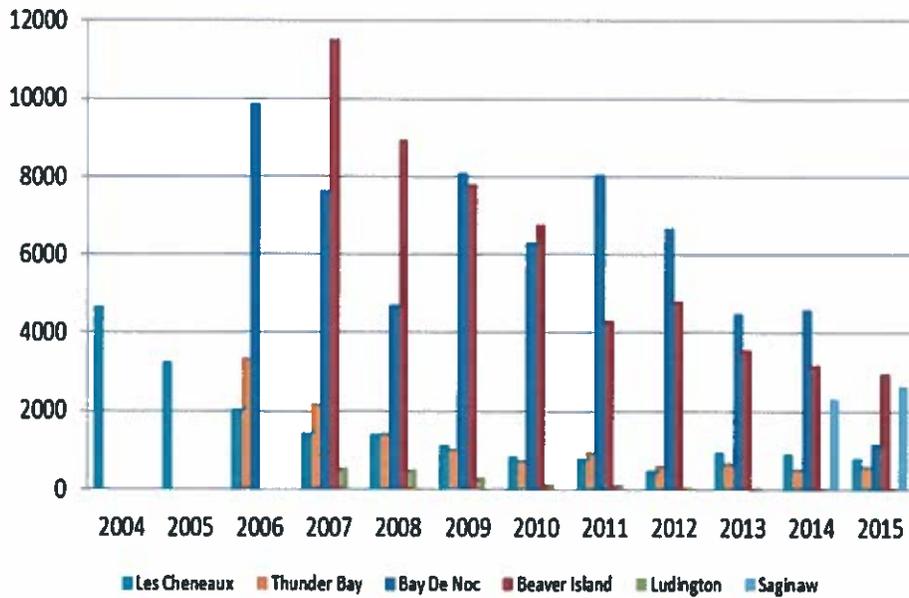


Previous work

- *Contracted* with USDA Wildlife Services to do all of our management and harassment work (volunteers provide some labor for harassment)
- *Managed* several important areas during spring bird migration
- *Managed* nesting colonies at several locations
- *Harassed and managed* at many of our important fish stocking locations in late spring



Peak Nest Count Summary



Funding Overview

Fiscal Year	Fund Source	Approp.	Expend.	Lapse
2011	Game & Fish Protection Fund	\$ 50,000	\$ 12,918	\$ 37,082
2012	Game & Fish Protection Fund	\$ 100,000	\$ 87,054	\$ 12,947
2013	General Fund/General Purpose	\$ 100,000	\$ 100,000	\$ -
2014	General Fund/General Purpose	\$ 100,000	\$ 100,000	\$ -
2015	General Fund/General Purpose	\$ 150,000	\$ 150,000	\$ -
2016	General Fund/General Purpose	\$ 150,000	\$ 150,000	\$ -
2017	General Fund/General Purpose	\$ 150,000	\$ 150,000	\$ -

Since 2012, the Wildlife Division provides \$20,000 annually to support training and supplies for citizen volunteers



Management efforts halted

- In May 2016, federal judge ruled there was a process issue associated with extension of Public Resource Depredation Order
- Federal ruling shuts down double-crested cormorant population control efforts
- DNR immediately submitted an application for a state specific permit to resume control activities – USFWS did not act on permit. (applied in 2016 and 2017)
- Certain management efforts can still continue but culling cannot be included



Current Happenings

- Federal legislation introduced (HB 368) – Rep. Rick Crawford – Safeguard Aquaculture Act
- Companion legislation also introduced (SB 5219) - Sen. Tom Cotton – same name of above Act
- Working with Michigan delegation to extend to include PRDO
- 2017 General Fund appropriation will primarily be used for harassment efforts around fish stocking locations
- DNR assessing pathways to work with USFWS and other states to ensure that the substantial progress is not eroded



Thank You



www.michigan.gov/dnr



White-Nose Syndrome

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March 16, 2017

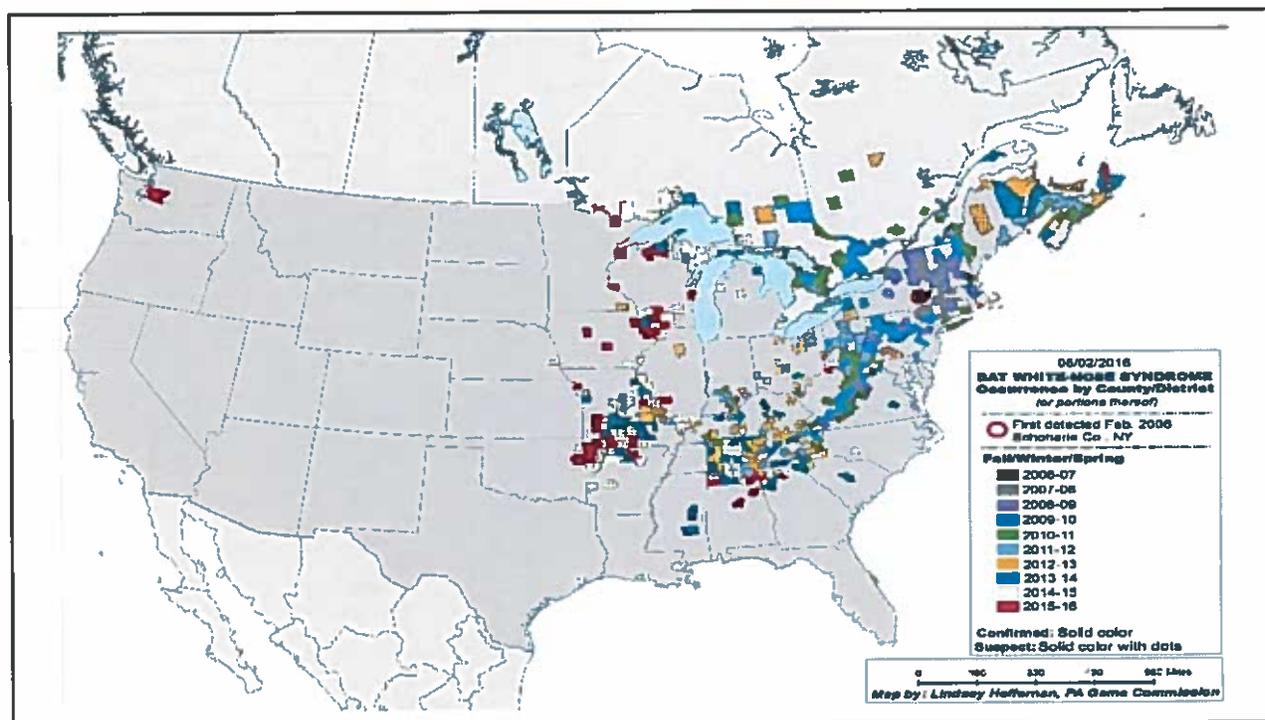


“White-nose Syndrome (WNS) is a devastating disease of hibernating bats that has caused the most precipitous decline of North American wildlife in recorded history.”

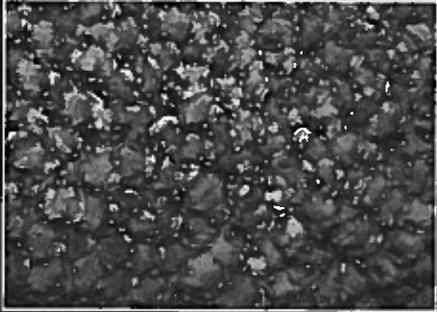


Background

- WNS is caused by a fungus that was likely introduced from Europe
- The first documented case of WNS in the U.S. was in the winter of 2006-2007 in New York
- WNS results in significant population declines of cave-hibernating bats
- WNS can be spread by humans and bats
- Only bats have been affected – no other wildlife or domestic animals have been impacted



Why are bats so vulnerable?



- Clustering behavior promotes transmission
- Condition in mines and caves ideal for fungal growth
- Multiple species in direct contact
- Limited energy resources during hibernation
- Immuno-suppressed during hibernation



Population Level Impacts

- Most of Michigan's bats live for 20-30+ years
- Michigan's bats typically raise only 1 or occasionally 2 pups per year
- Bat populations will take a long time to recover from mass mortality event – likely centuries
- Many crop and forest pests may no longer be consumed by bats
- Bats provide approximately \$74 per farmed acre of pest control services annually in Michigan



Federal Listing Status

- Indiana Bat
 - Federally endangered
- Northern Long-eared Bat
 - Federal threatened
- Little Brown Bat
 - Under review by FWS and decision expected in 2023
- Tricolored Bat
 - Petition to list currently under review by FWS



WNS in Michigan

- Currently found in 20 Counties
- Winter die-offs occurred the past two winters
- We expect to lose ~90-99% of cave hibernating bats due to WNS



Next Steps

- Protect hibernacula by reducing disturbance
 - FY 2018 Executive Budget includes \$2 million one-time General Fund to close abandoned mine shafts on DNR-managed public land
- Partner with researchers to implement WNS treatments
- Conduct surveys to better understand distribution of cave-hibernating bats during summer
- Continue to implement education and outreach program



Next Steps (cont.)

- Work with Wisconsin and Minnesota DNRs to draft a Habitat Conservation Plan (HCP)
 - An HCP is required by the US Fish and Wildlife Service to cover actions that result in take of an endangered species
 - The HCP is a proactive, collaborative approach to conserve bats while minimizing potential impacts to sustainable forest management
- Continue to fund bat research projects



