

American Black Duck Decision Support Tool Update

Black Duck Action Team Meeting

March 30, 2021



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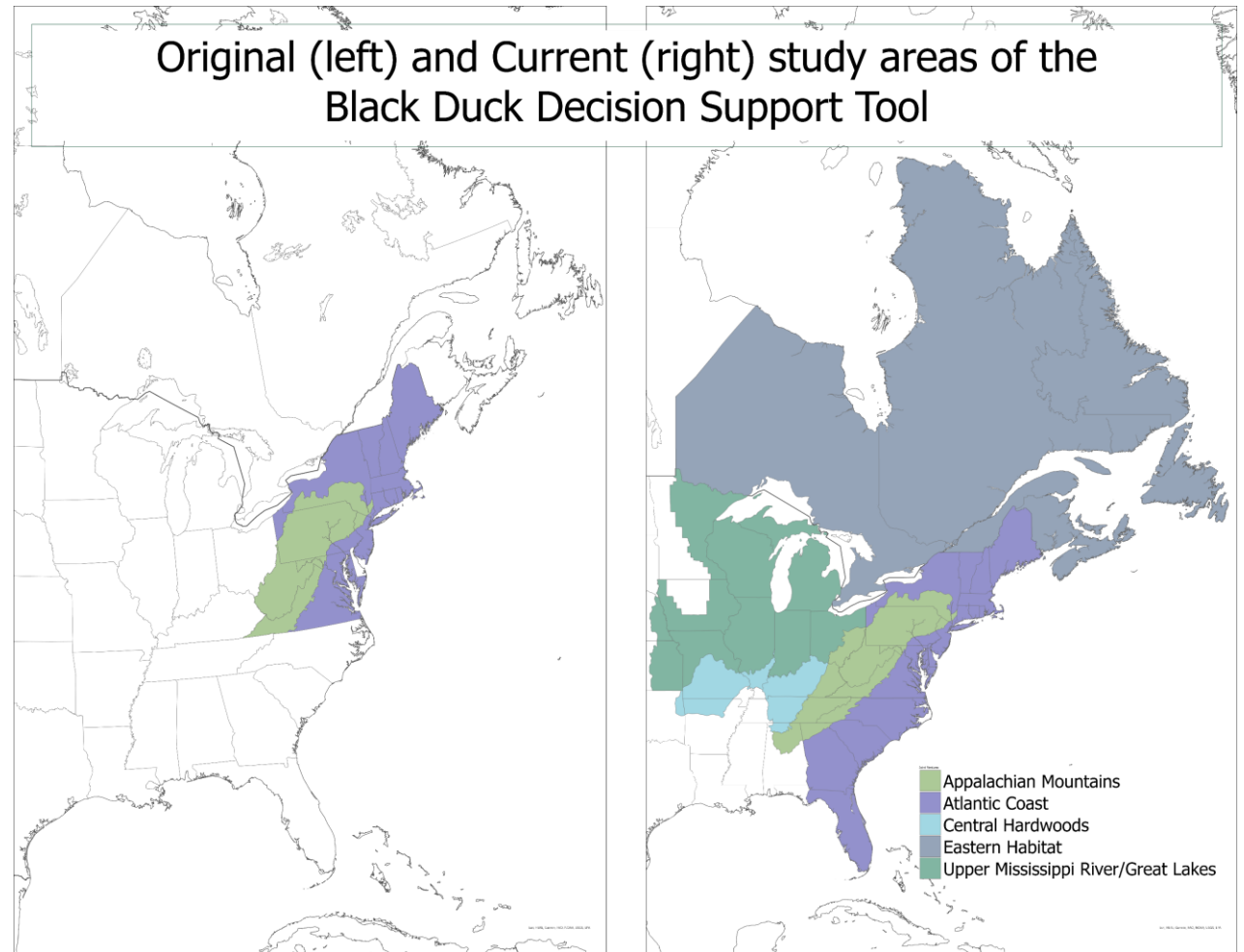
Decision Support Tool Development

- Develop biologically based protection and restoration objectives for black ducks and other dabbling ducks using a bioenergetics approach
- Guide habitat implementation to areas of greatest need/impact
- Inform the ACJV Waterfowl and Black Duck Plan



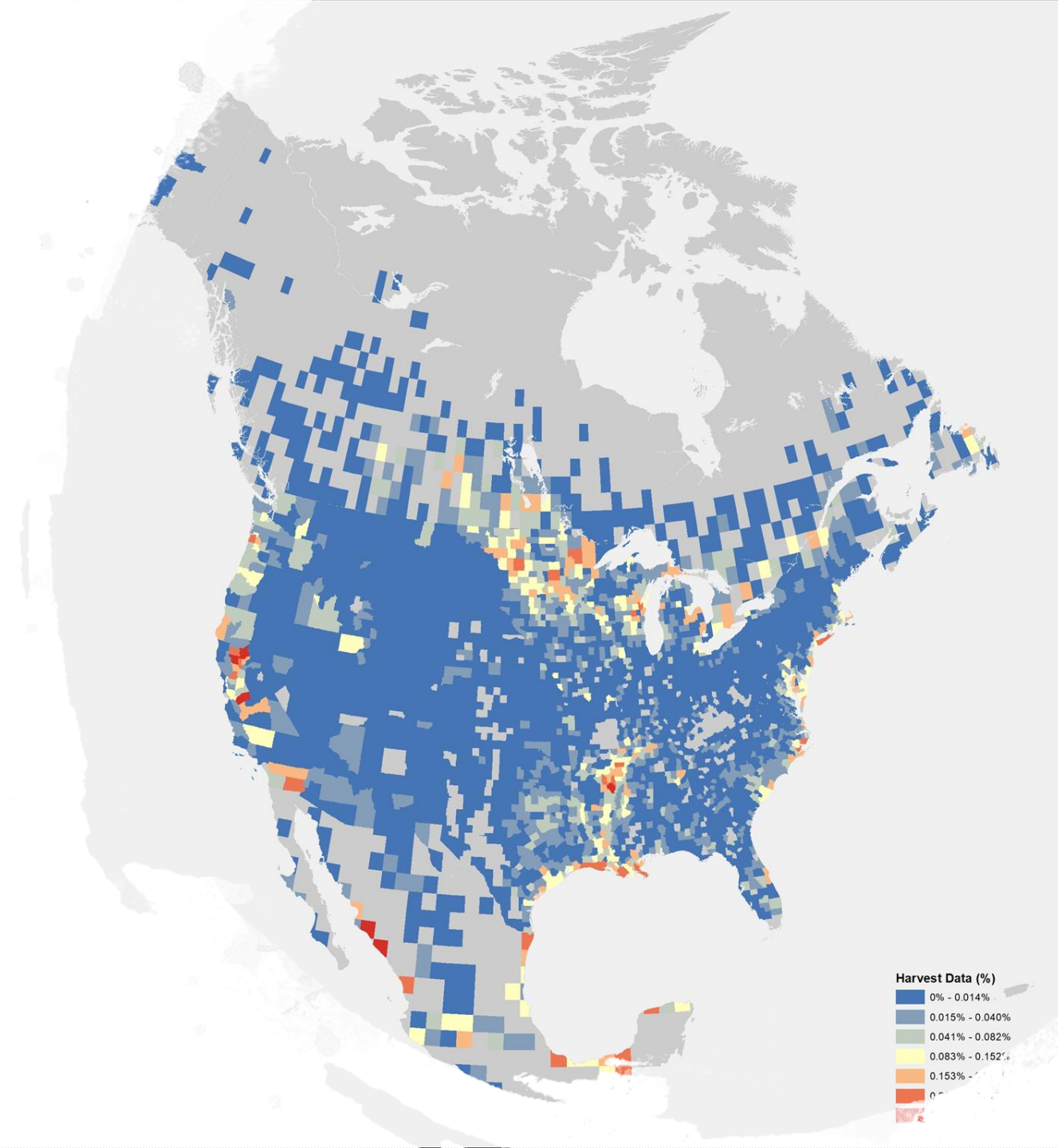
- Timeline for completion = Fall 2022
- Currently working on completing ACJV & AMJV

Original (left) and Current (right) study areas of the Black Duck Decision Support Tool



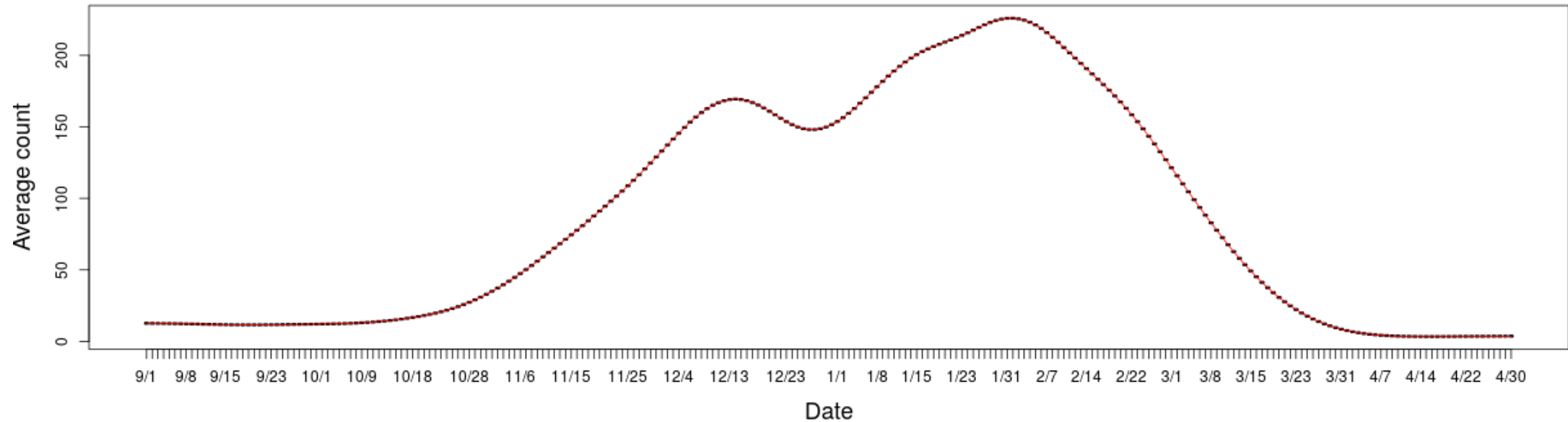
ABDU DST Model Refinements

Updated NAWMP population objectives (continental vs. U.S. objectives; Fleming et al. 2019).



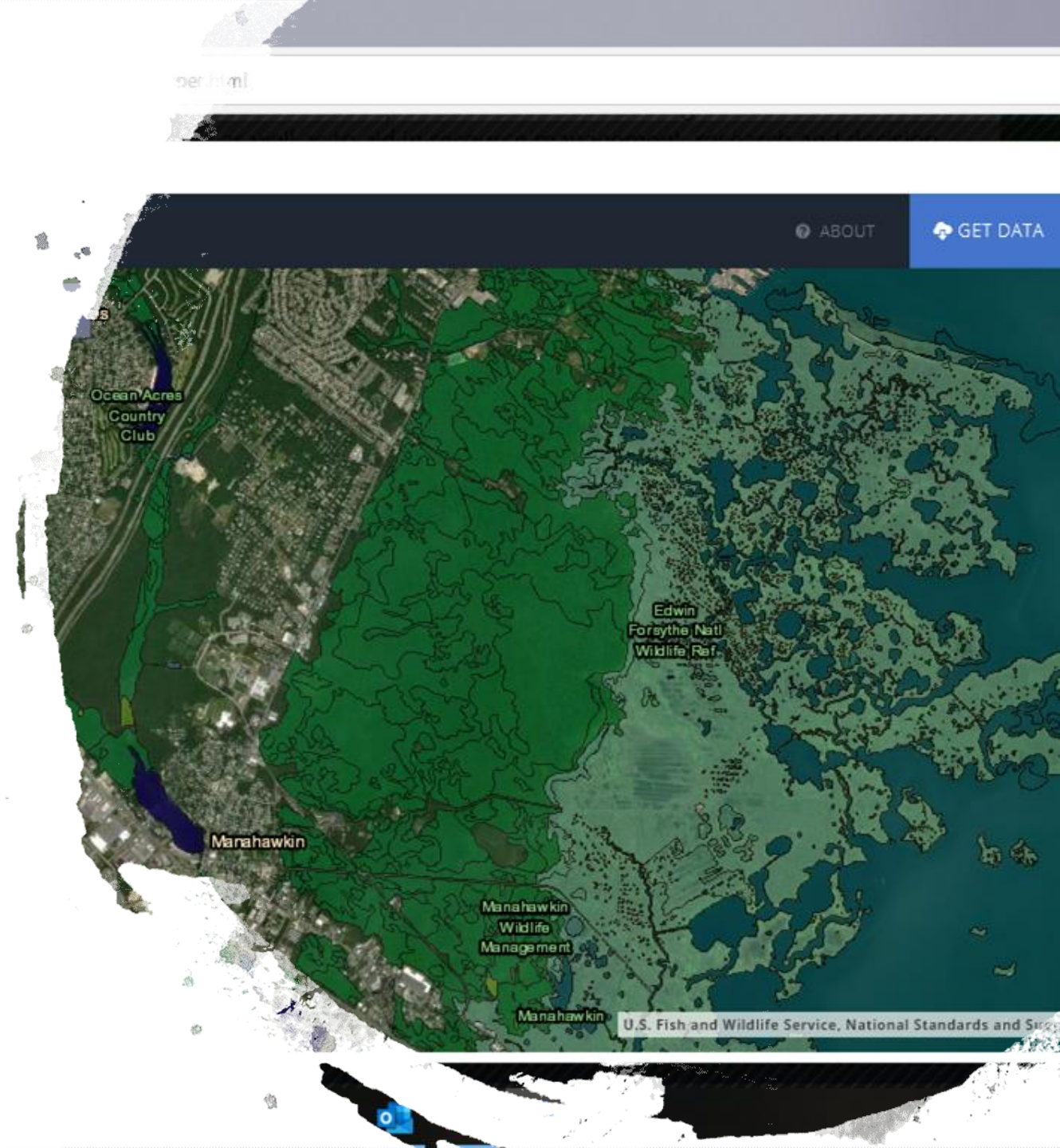
ABDU DST Model Refinements

eBird migration chronology
(BCR vs. New England, Mid-Atlantic & South Atlantic).



ABDU DST Model Refinements

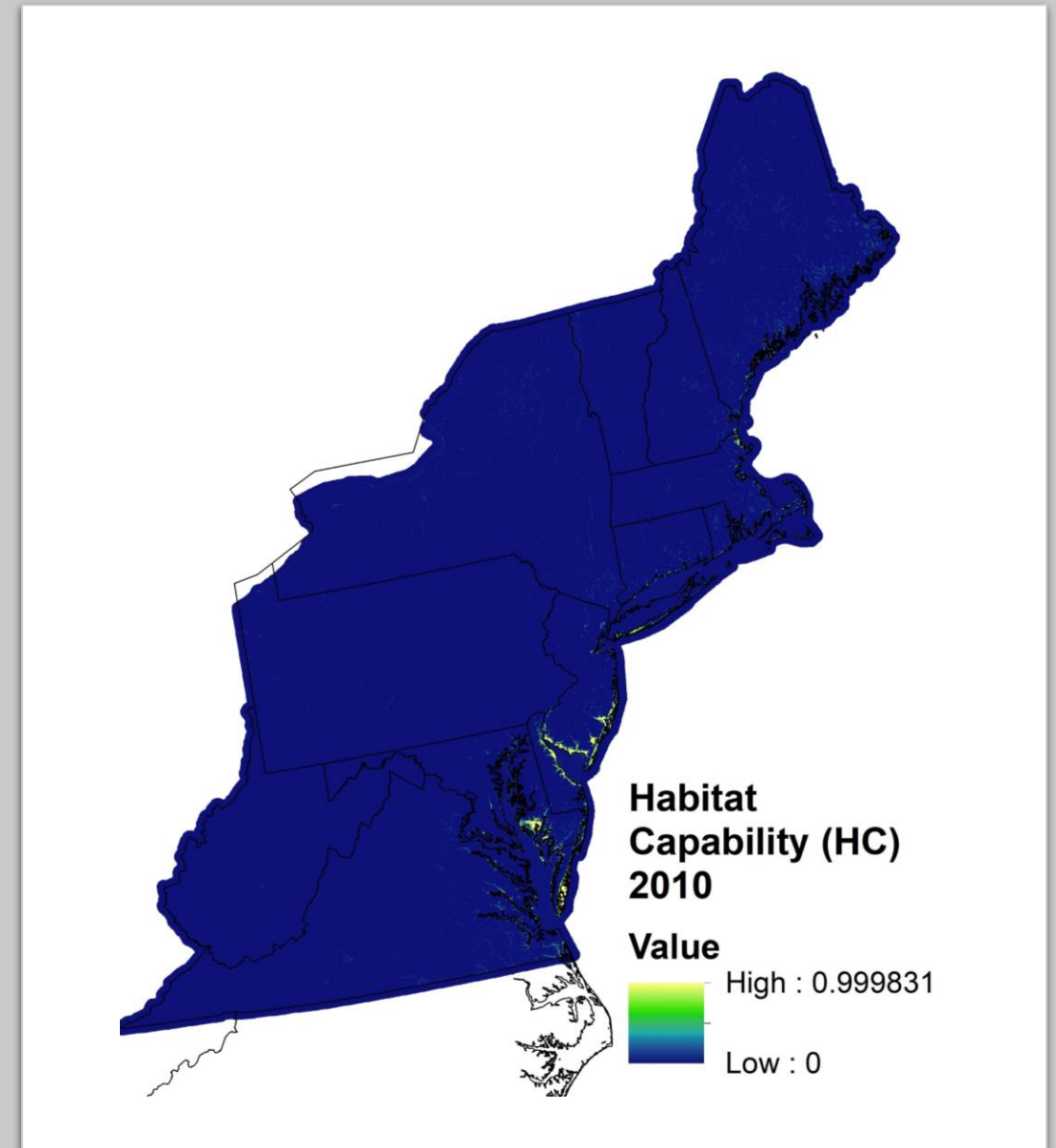
Updated National Wetland Inventory layer augmented with refined high/low marsh and impoundment data.



ABDU DST Model Refinements

Considerations for dispensing with HCI for prioritizing HUC12 watersheds

- HCI was specifically developed for wintering ABDU.
- HCI discounts the value of wetlands as you move further from the coast (e.g., HCI value declines $\geq 16\text{km}$).
- HCI discounts value of wetlands near development due to potential human disturbance.
- Meta-analysis of telemetry data (Ringelman et al. 2015) suggests that there is no evidence that ABDUs avoided urban areas or roads supporting inclusion of available habitats in carrying capacity modeling.
- HCI is a regional layer and is only available for the North and South Atlantic Region (e.g., we don't have it for the remainder of the area being modeled).



ABDU DST Model Refinements

Improved model input and output display

