Conservation status of island- and marsh-nesting birds in Maryland's Coastal Bays

Stakeholder meeting, October 23, 2023

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Maryland Coastal Bays Important Bird Area

IBA identified for significant bird populations.

<u>Island-nesting seabirds</u>:

- 100% of Maryland's breeding Royal Terns.
- 100% Maryland's breeding Black Skimmers.

<u>Wading birds</u>:

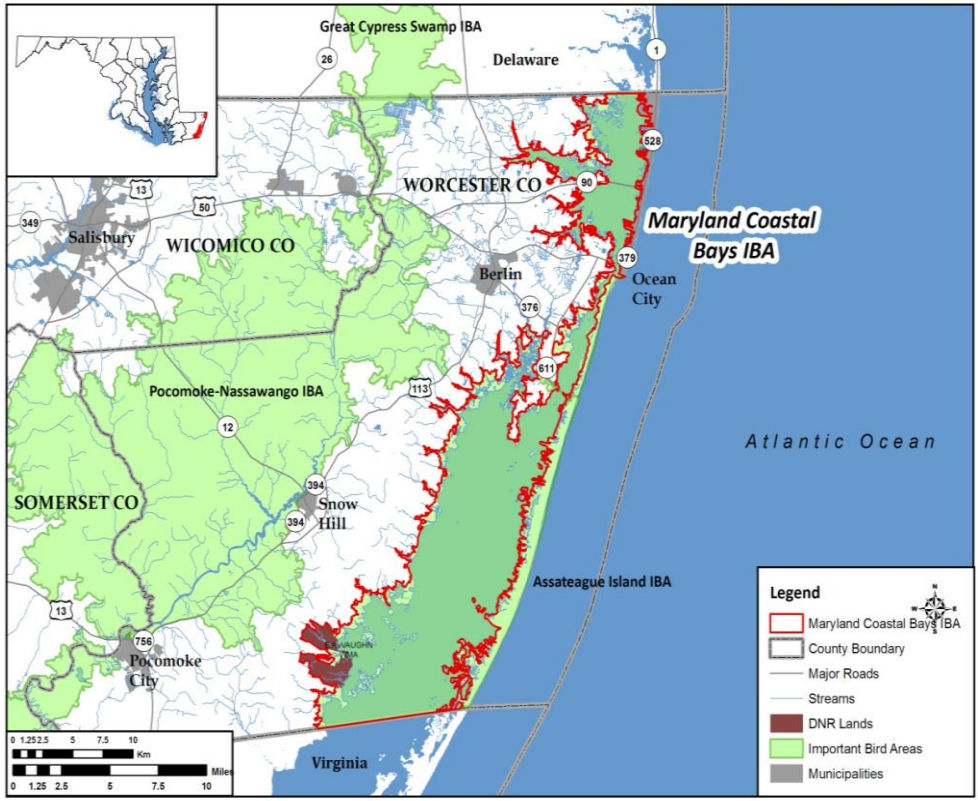
- 2,300 pairs of herons, egrets, and ibises (7 species).
- Largest wading bird colony in Maryland.

<u>Waterfowl</u>:

- 25,000-30,000 waterfowl in winter.
- 100% of Maryland's Brant geese, 7,000 Black Duck.

<u>Saltmarsh birds</u>:

- Globally important for Saltmarsh Sparrow.



Endangered Seabirds in Md

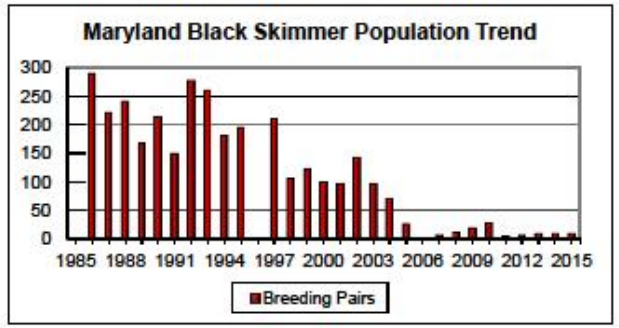
Species Trends, 1985-2015

- **Black Skimmer**. State-endangered. 95+% decline, near extirpation.
- **Common Tern**. State-endangered. ~90% decline in population.
- **Royal Tern**. State-endangered. Declining, very marginal colony site.

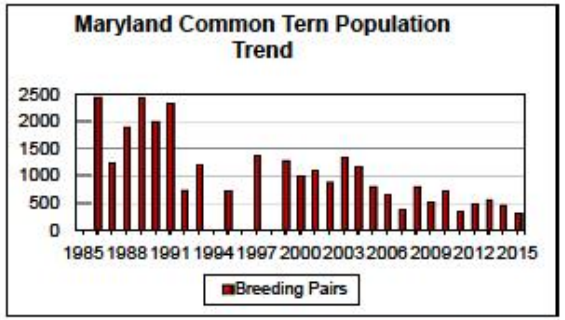
Monitoring by DNR, MCBP and public volunteers.

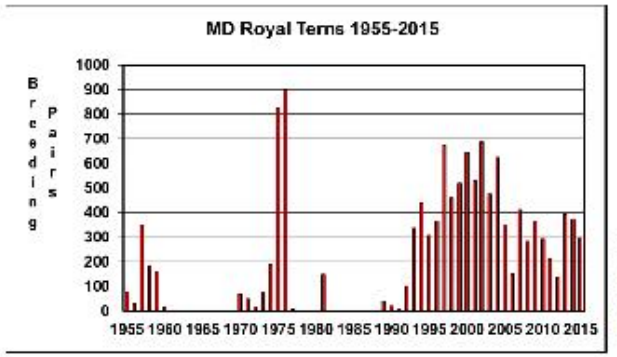
Since 2020: Almost no nesting success by these species on Coastal Bays islands. Skimmer Island reduced to remnant.

POPULATION OF ENDANGERED SPECIES ARE CONTINUING TO DECLINE DUE TO LOSS IN HABITAT



Black skimmer with chick





Common tern

Royal terns nest primarily on one island in the coastal bays, so they are very vulnerable to habitat loss. Royal terns are shown below

Reasons for island-nesters decline

1. Erosion of islands

Reasons for island-nesters decline

1. Erosion of islands

Skimmer Island – R. I. P.

28 October 2021

Kim Abplanalp

Maryland Coastal Bays Colonial Waterbird and Islands Report 2019

Audubon MARYLAND-DC

THE REPORT

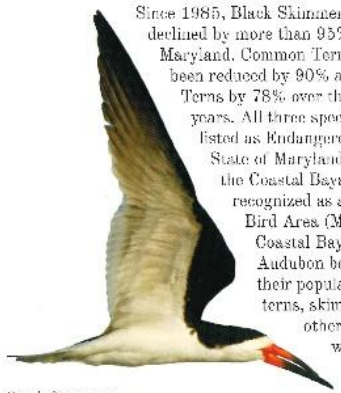
This report provides an assessment of the current state of colonial waterbird breeding in the Coastal Bays of Maryland behind Ocean City and Assateague. This is the first of what will be an annual report on their status.

HISTORY OF THE BIRDS

Terns and skimmers

Iconic species of terns and skimmers that define the essence of the Coastal Bays' birdlife are in serious decline because the islands that they depend on for nesting are rapidly eroding as a result of sea level rise and increased storm events. Moreover, human induced disturbance is directly taking its toll on the birds. Terns and skimmers evolved to breed only on sandy islands where their nests on the sand are safe from predators. Wading birds also require predator-free islands but with shrubs or small trees.

Since 1985, Black Skimmers have declined by more than 95% in Maryland. Common Terns have been reduced by 90% and Royal Terns by 78% over the past 16 years. All three species are listed as Endangered in the State of Maryland. In 2009, the Coastal Bays were recognized as an Important Bird Area (Maryland Coastal Bays IBA) by Audubon because of their populations of terns, skimmers, and other colonial waterbirds.



Black Skimmer

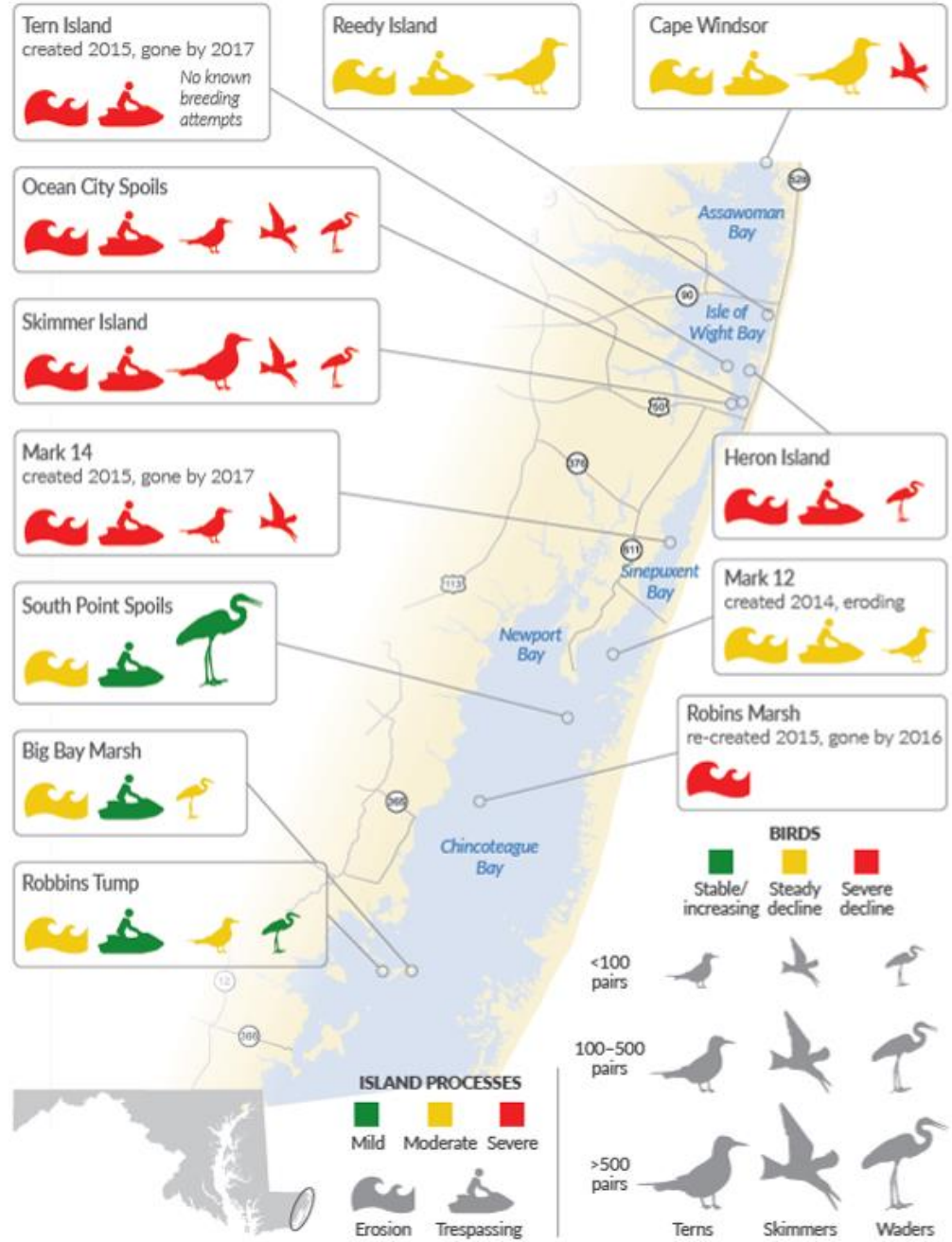
Wading birds

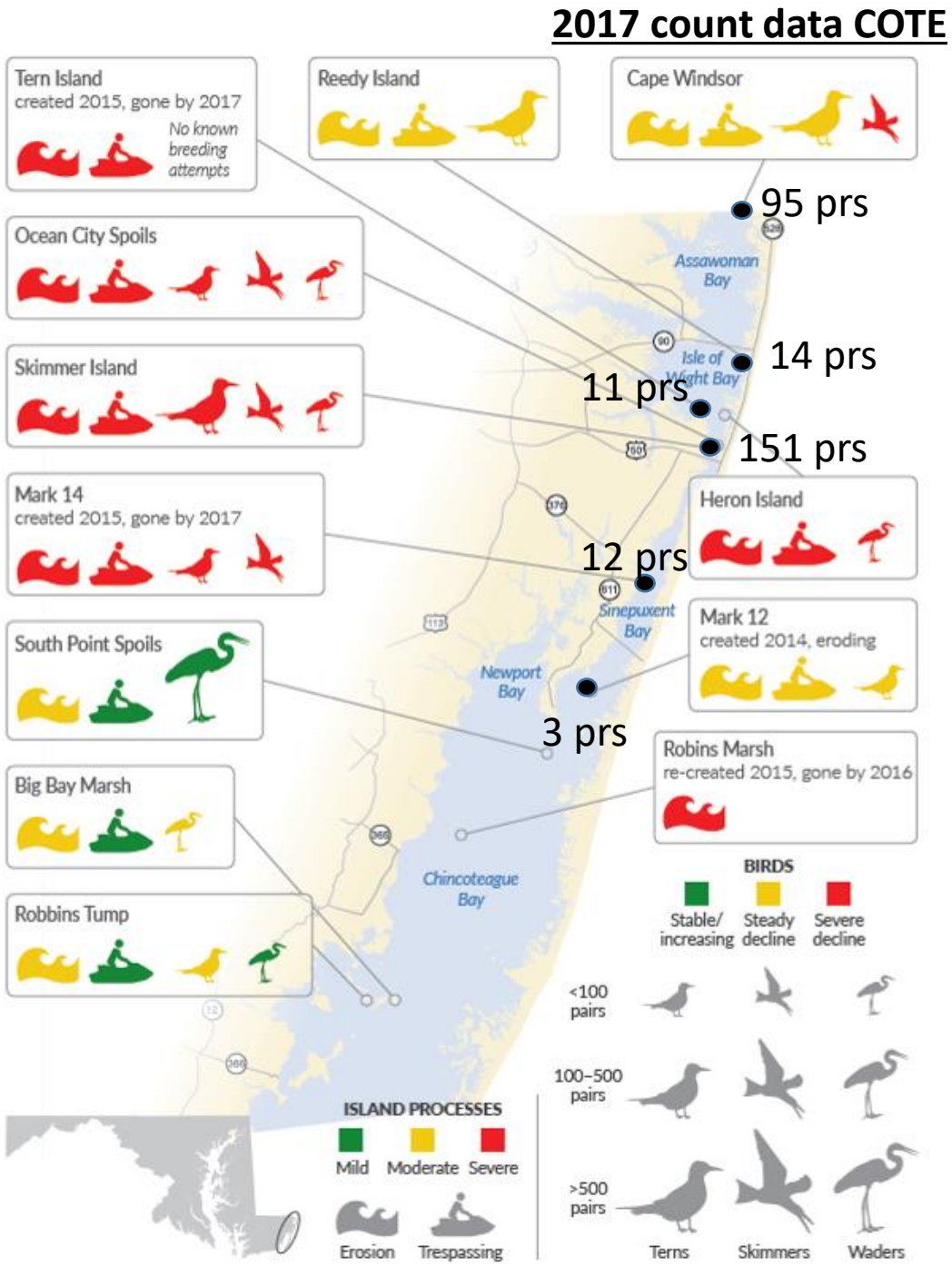
Tricolored Heron

Skimmers and terns aren't the only struggling species in the Coastal Bays. A large suite of wading birds also only use islands in the Coastal Bays to breed. These include Snowy Egrets, Cattle Egrets, Little Blue Herons, Tricolored Herons, Great Egrets, Black crowned Night herons, and Glossy Ibis. Like skimmers and terns, these species suffer from island disturbance, erosion, and sea level rise. As a result of these factors, more than 95% of all wading birds in the Coastal Bays now breed on just one island, South Point Spoils. This report includes information on their current status.

Monitoring

Waterbird populations have been monitored in the Coastal Bays since 1985, coordinated by Maryland Department of Natural Resources (DNR), and assisted by Assateague Island National Seashore (AINS), the Maryland Coastal Bays Program (MCBP), and public volunteers. The DNR Colonial Waterbird Survey coordinates a complete statewide census of breeding terns, gulls, skimmers, pelicans, cormorants, herons, egrets and ibis every five years. In each intervening year between complete censuses, a partial census is carried out to keep track of rare, threatened, and endangered species and other species of special interest.

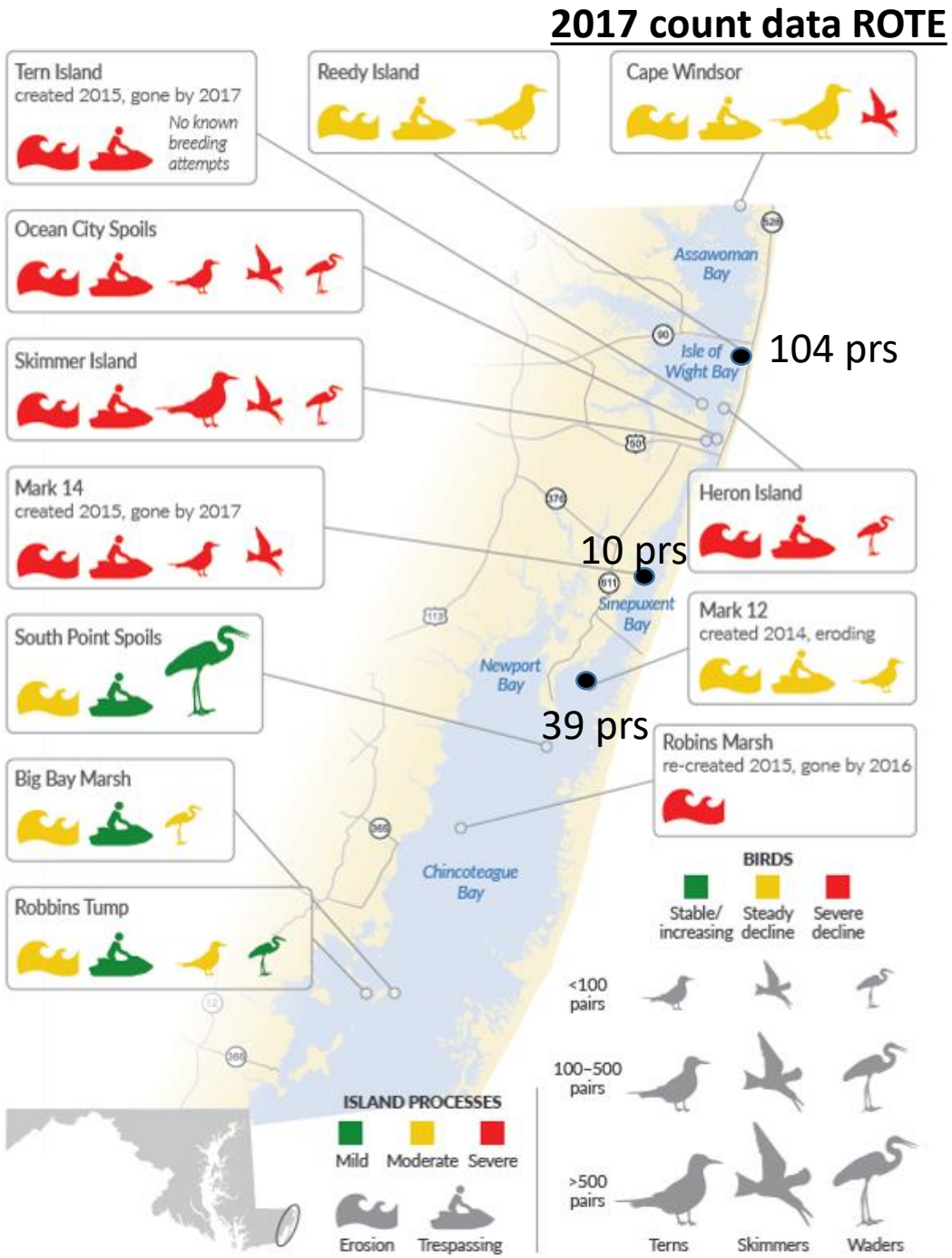




Common Tern – Distribution and Habitat Requirements

- Islands, barrier islands, salt marsh.
- Will nest in small colonies

- Also uses artificial situations: rafts, floating islands, piers, barges, bridges etc.

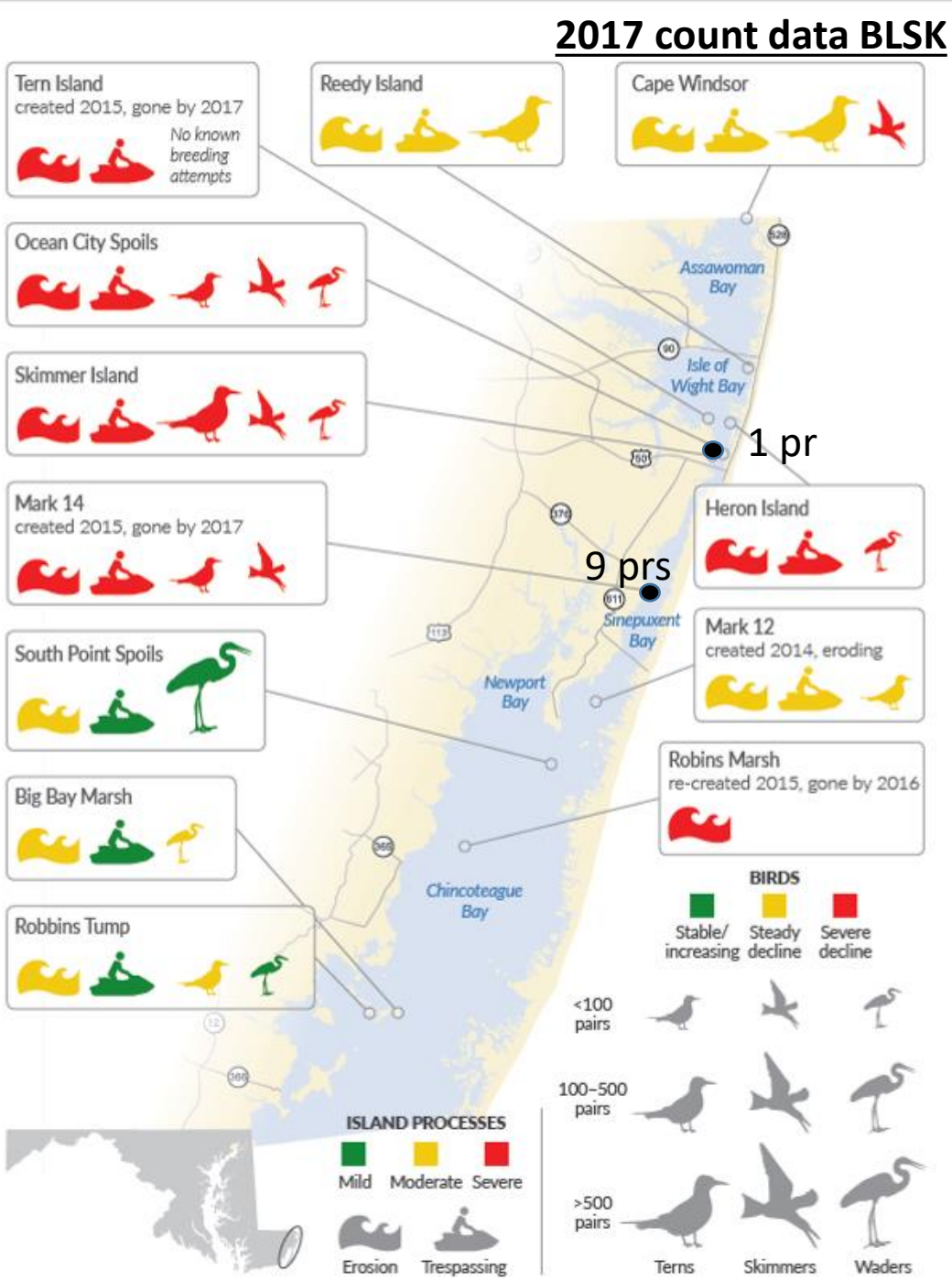


Royal Tern – Distribution and Habitat Requirements

Prefers:

- Inaccessible islands
- Unimpeded view 360^0
- Large, dense colonies
- Social facilitation important; colonies > 100 or 200 do better
- Chicks form crèche, need room to roam

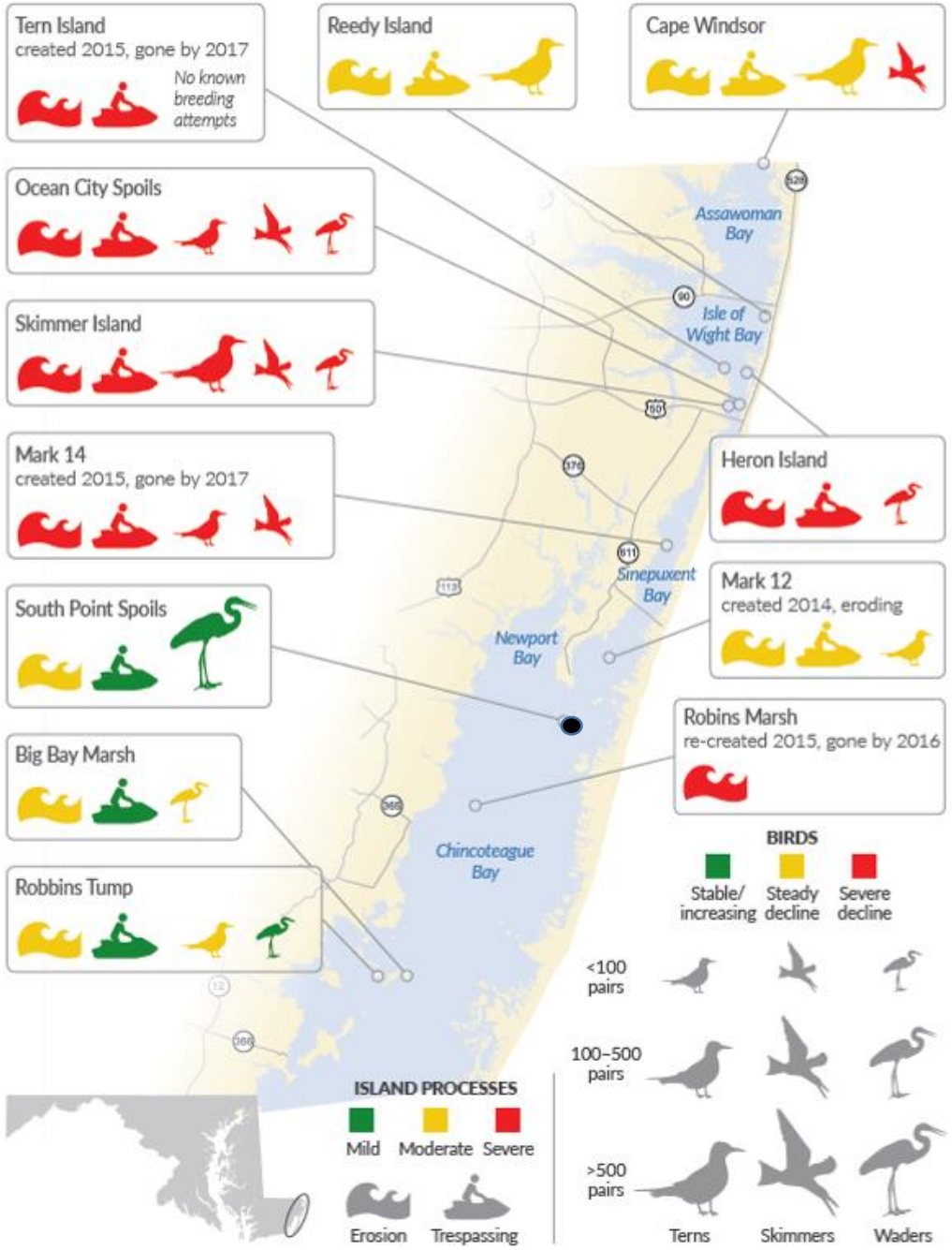
- Not known to nest on small rafts, floating islands, but will nest on large barges (Hampton Roads, VA)



Black Skimmer – Distribution and Habitat Requirements

- In Md, islands and beaches. Elsewhere, can use salt marsh islands and dredge spoil islands.
- In NJ, avoid islands <0.5ha or >20 ha
- Nest within tern colonies. Usually COTE. Numbers of terns and skimmers correlated. BLSK use the most open area within the tern colony. When associating with ROTE, BLSK segregate within the island.

2017 count data BLSK



Wadingbirds: Herons, egrets, ibises

In Coastal Bays:

- Now confined to South Point Spoils.
- Steep decline since 2017.

Table 2: Breeding populations of wading birds and Brown Pelicans in Maryland Coastal Bays 2003–2013

	2003		2008		2013	
	Pairs	Colonies	Pairs	Colonies	Pairs	Colonies
Snowy Egret	367	4	371	4	341	2
Cattle Egret	301	3	304	3	290	2
Great Egret	488	5	493	5	401	4
Little Blue Heron	40	2	42	1	40	1
Tricolored Heron	68	3	71	1	87	1
Black-crowned Night-heron	50	6	56	4	6	2
Glossy Ibis	1031	5	1036	4	1112	2
Brown Pelican	0	0	29	1	0	0

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Saltmarsh birds of the Coastal Bays

Saltmarsh Sparrow

- Only lives in salt marshes
- Good ecological indicator of healthy marsh.
- Endemic (as breeder) to NE US
- Steep population declines
- Candidate for listing under federal ESA.
- Projected extinction by 2060

- In 2011-12, more abundant in Coastal Bays than other marshes in Maryland.
- 2021-22. Md population much reduced.

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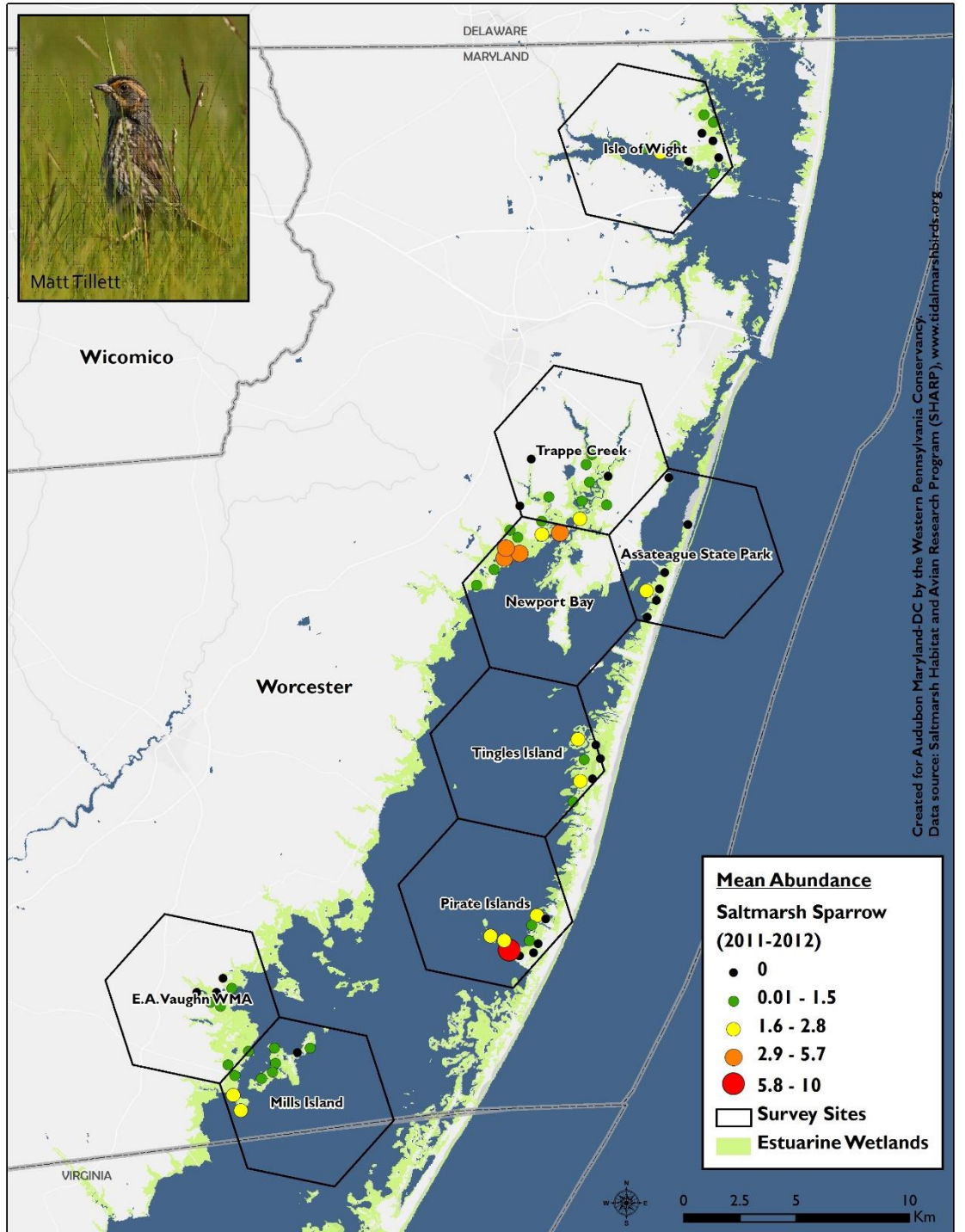
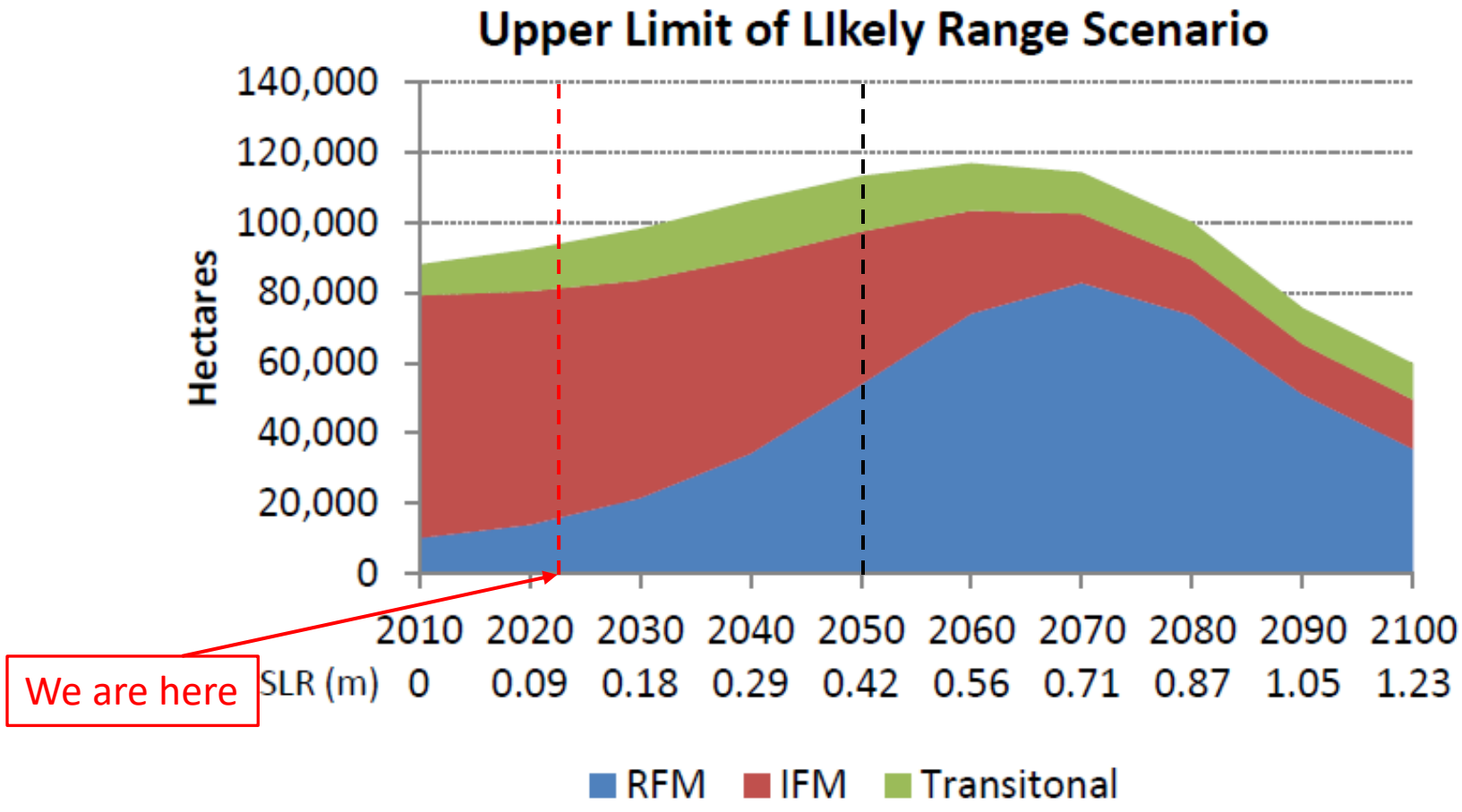


High marsh zone in MD declines >33% by 2050 as it converts to low marsh (TNC 2021)



"Upper limit of likely range" SLR scenario, 2010–2100 = +1.23 meters (TNC, 2021).

Marshes for Tomorrow: a project of

DELMARVA RESTORATION & CONSERVATION NETWORK

Collaborative of local, state and federal agencies and NGO's working on the scale of the Delmarva Peninsula

Del - Mar - Va =
Delaware, Maryland, and Virginia

Convened in 2017 by:

LOWER SHORE LAND TRUST

THE CONSERVATION FUND

EASTERN SHORE LAND CONSERVANCY

Audubon MID-ATLANTIC

Marshes for Tomorrow goal & objectives

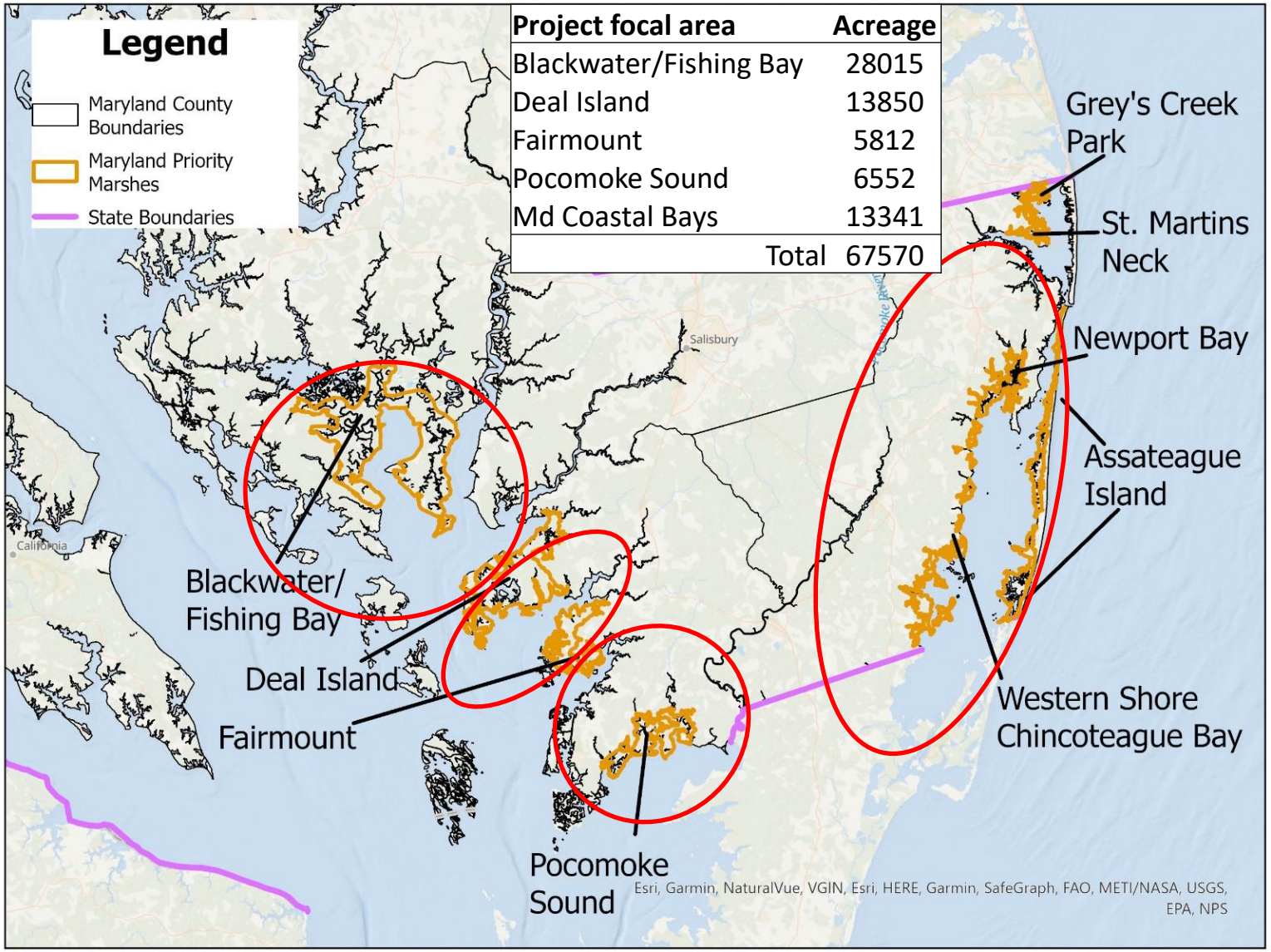
Audubon
MID-ATLANTIC

Goal: Create an implementation plan for tidal marsh restoration on a landscape scale in Maryland.

Objectives:

1. Identify at least 25,000 acres of tidal marsh to be maintained long term to conserve the high marsh ecosystem and Saltmarsh Sparrow in Maryland in the face of sea level rise.
2. Determine a schedule of spatially explicit restoration actions for the priority marshes identified under Objective 1 that will maintain this acreage as high marsh over the long term.
3. Create conceptual conservation strategies at the local/county level, which incorporate the restoration schedules of Objective 2 and which have the broad approval of local communities

MfT project focal areas



Maryland Priority Marshes for Saltmarsh Sparrow

Map prepared by ACJV and bird conservation experts

N

0 5 10 20 Kilometers

0 5 10 20 Miles

MfT project focal areas – predicted high marsh acreage by decade

Year	Blackwater/ Fishing Bay	Deal Island	Fairmount	Pocomoke	Coastal Bays	Total Acreage
2020	22411	11028	4717	5763	8846	52765
2030	19674	10713	4503	5579	7224	47693
2040	15535	9950	4056	5054	4759	39355
2050	9996	7472	3025	3500	2202	26196
2060	4675	3683	1383	1020	699	11460
2070	1070	1181	453	96	360	3160
2080	67	81	275	10	234	666
2090	16	19	266	2	152	454
2100	13	9	265	0	102	389

Source: SLAMM, “Upper limit of likely range” SLR scenario, 2010–2100 = +1.23 meters (TNC, 2021).