

**Title: Trends Among Migrant Birds in the Dyke Marsh Breeding Bird Survey in a Thirty-Year Period (1993-2023)**



PRESENTER:  
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**BACKGROUND:** Mr. Cartwright has participated in the Dyke Marsh Breeding Bird Survey as both an observer and a PI for 30 years. This survey records the avian species nesting at Dyke Marsh, with extra effort made to assess the population and nest density of neotropical migrants and other high visibility species.

**METHODS**

1. Count every bird in the survey area.
2. Apply behavioral criteria to determine breeding status.

**RESULTS**

- Both land and marsh birds are in decline or have disappeared while others are changing their breeding habits, and some may be adapting to changes in habitat.
- This situation may be specific to Dyke Marsh or part of a regional change in conditions.

**CAUSES FOR MIGRANT DECLINE AND HABITAT CHANGES**

- Death of Pumpkin Ash trees due to Emerald Ash Borer, promoting nest exposure and increased predation, primarily by Fish Crows
- Changes or decline in prey base
- Marsh erosion
- Tidal channels widening in response to rising water levels in Potomac River

# Dyke Marsh is one of the largest remaining freshwater tidal wetlands in the Washington metropolitan area. How are its breeding birds doing?



Photo by: Jane Gamble  
18 May 2021

**ORCHARD ORIOLE**  
*Icterus spurius*  
Successfully breeding, however, many males are first year breeders, which may indicate that habitat has become suboptimal.



Photo by: Cornell Laboratory of Ornithology

**BALTIMORE ORIOLE**  
*Icterus galbula*  
In contrast to the Orchard oriole, this species has experienced a decline over the past 5 years. Recent breeding seasons have seen few or no birds building nests.



Photo by: Cornell Laboratory of Ornithology

**WARBLING VIREO**  
*Vireo gilvus*  
Once easy to locate at Dyke Marsh, these birds have virtually disappeared from the southern portion of the marsh. Steady populations in the north have fewer nests and fledged no young in 2022.



Photo by: Ed Eder  
14 July 2022

**EASTERN KINGBIRD**  
*Tyrannus tyrannus*  
Appears to be modifying their strategy, likely in response to decline in the populations of odonates, their prey base. All young appear to have fledged in 2022 and 2023.



Photo by: Ed Eder  
24 May 2014

**YELLOW WARBLER**  
*Setophaga petechia*  
Until recently, a dependable breeder whose decline parallels that of the Baltimore oriole. In 2022 one nest and a single fledgling were recorded. No evidence of attempted breeding was found in 2023.



Photo by: Cornell Laboratory of Ornithology

**NORTHERN PARULA**  
*Setophaga americana*  
A confirmed breeder in the past, presence of this species has not been detected since 2019. The Acadian flycatcher seems to be following the same fate.



Photo by: Ed Eder  
8 July 2017

**MARSH WREN**  
*Cistothorus palustris*  
Studies in the 1950s recorded 87 singing males but by 1999, a graduate study tallied only 34 territorial males and 14 breeding females producing 11 fledged young showing evidence of serious decline. Last confirmed as breeders in 2017.



Photo by: Ed Eder  
16 June 2017

**LEAST BITTERN**  
*Ixobrychus exilis*  
Preferring narrow channels in dense cattail habitat, these birds ceased breeding activity in the south marsh as water levels rose and channels widened. Population appears steady with the same number of birds occupying a smaller area.



Photo by: Ed Eder  
19 June 2022

**PROTHONOTARY WARBLER**  
*Protonotaria citrea*  
Nesting well at Dyke Marsh, perhaps benefitting from the creation of additional cavities in dead ash trees. 10 territorial males recorded in 2022. At least two breeding pairs produced fledged young the past 2 years.



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