

# Prothonotary Warbler Nest Box Project

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## PROJECT GOALS:

- Increase conservation efforts at our parks where there is suitable habitat for Prothonotary Warblers (PROW).
- Involve the public by providing volunteer opportunities.
  - Monitor nest boxes
  - Build and install boxes
  - Data entry
- Increase public awareness by having some of the nest boxes visible from trails.
- Provide important data to researchers at Cornell.
- Install & monitor more boxes at additional park properties as they are acquired.
- Long term: determine a study we could do with PROW that may involve banding and perhaps even a nanotag.

## VOLUNTEERS

### SKILLS NEEDED

- Ability to collect detailed information and report it using a home computer or the NestWatch smart phone App.
- Can correctly identify nests and birds that are likely to use our nest boxes (Eastern Bluebirds, Carolina Wrens, Carolina Chickadees, Prothonotary Warblers, and Wood Ducks).
- Able to hike at least a mile. Some of our nest boxes are easily accessed and others are more challenging, and the hike could be strenuous.

### Optional, but Preferred, Skills

- Using the NestWatch App, Volunteers can instantly report the nest box data rather than writing it in a notebook and uploading it to the website on their home computers.\*  
  
\* Cell phone signal is spotty in some of the parks, so an alternative is to use one of the “Rite in the Rain” notebooks provided to record nesting data and enter it all at once using the app when the volunteer is back at their vehicle. This also helps prevent phones from being dropped into the swamp.
- Able to use hand tools like loppers, pruners, screwdrivers, or drills to make repairs to boxes or to clear branches from the surrounding area.

### REQUIREMENTS & EXPECTATIONS

- Volunteers will be exposed to ticks, chiggers, mosquitoes, bees/wasps, poison ivy, bad weather, and other wildlife such as an occasional snake that may be able to reach the box.

- Due to varying challenges with each nest box trail, there are different minimum ages recommended for each. For safety reasons and to insure data is correctly reported, a supervising adult needs to accompany children under age 18.
- Volunteers may work independently or in family teams.
- Understand that “zero” or “no eggs” are important data, and that there could be times when all nest boxes are empty. It also helps establish beginning and end of season dates.
- After the initial training, volunteers should commit to at least one monitoring day per month throughout the nesting season.
- Although dogs are permitted at many of our parks, they should not accompany volunteers during nest box surveys.

## **VOLUNTEER DUTIES**

- From March – August, at least once/month, volunteers will check all nest boxes at the site(s) they have committed to.
- They will note stage of nest, number of eggs, age of young, adult behavior, any pests present, and repairs that need to be made. Data will need to be submitted either using the NestWatch App or website.
- Occasionally, nest boxes will need to be replaced or repaired using hand tools or a battery-operated drill.
- If the volunteer feels comfortable doing so, they may occasionally have to evict ants, wasps or snakes from the nest boxes. So far we haven’t had issues with House Sparrows or Cowbirds.
- At Cypress Swamp, volunteers need to wear chest waders to access half of the boxes and will also check the Wood Duck Boxes since they are in the same general area.
- We also have need for volunteers to do trail maintenance along the access paths and trim back branches around the nest boxes.
- **MD-DC Breeding Bird Atlas (2020-2024):** Volunteers are also encouraged to record their bird sightings and breeding behaviors on eBird for the Maryland-DC Breeding Bird Atlas by using the “MD-DC BBA” portal found under the eBird settings.

## **VOLUNTEER TRAINING**

- Interested volunteers should attend one of the training opportunities offered at each site they’re interested in monitoring.
- Afterwards, they will be qualified to sign up to monitor the nest boxes at that location as often as every 3 days within the nesting season. They do NOT need to requalify every season unless there are major changes to the nest box locations or to the NestWatch App and Website.
- At the beginning of the season, nest box maps and monitoring instructions are emailed to veteran nest box volunteers as a refresher.
- Volunteers can request a “Volunteer Parking Placard”
- Volunteers may be asked to take a nest photo quiz with eggs and various sizes of nestlings to volunteers as part of their qualification.

## **RECOMMENDED STAFF TRAINING**

- Continue apprenticing with Jo Lutmerding on the MAPS Project and have Gene Groshon apply for his Master Bander’s Permit so that he will be able to continue banding when Andy Brown retires.

- Passerine Banding Workshops so that we can get our own permit to use color bands.

## PROJECT DATES

- **March:** If there are major repairs or new boxes that need to be installed, we usually have a nest box work day to accomplish that. We have a stockpile of nest boxes in the barn by Sixes Rd. Trainings are offered at each site this month too.
- **March-June:** monthly trainings are offered at each park.
- **March - August:** Nest boxes need to be checked at least once a week but can be checked as often as every 3 days at each site. On their monitoring days in 2020-2024, volunteers can also record data on eBird for the MD-DC Breeding Bird Atlas. Volunteers will sign up for monitoring opportunities using the Galaxy Digital Volunteer Portal.

## OVERALL PROJECT SUMMARY:

**2014** - began project. Used a mix of 8 existing and new nest boxes attached to trees using cable ties. No predator guards. No regular nest checks.

**2015** - we had one Prothonotary (PROW) nest with 2 fledglings out of 8 nest boxes.

**2016** - added 8 boxes at Flag Ponds with predator guards and 3 at Cypress Swamp. Began to install flashing around trees as predator guards under Cypress Swamp boxes.

7 PROW fledglings between 2 nests

2 other PROW nests predated

1 chickadee (CACH) nest that was predated

**2017** - installed 2 more bluebird boxes and 4 wood duck boxes at Cypress Swamp. Changed some of the box locations, and put all but one box on posts with predator guards. Updated the nest boxes so that they open on the side to make nest checks easier. Predator guards made a huge difference in the success of fledglings!

**Flag Ponds** -1 Carolina Chickadee (CACH) nest predated by black snake

### **CYPRESS SWAMP**

1 PROW nest with 1 unhatched egg

1 bluebird (EABL) nest with 2 unhatched eggs

2 PROW chicks died out of one clutch of 4

40 PROW chicks fledged (It's likely that some of these were mis-identified CARW nests)

12 Wood Ducks (WODU) fledged

20 EABL fledged

## **2018**

- FP: increased hole size from 1.25 to 1.5, and moved 2 boxes.
- Ward: Installed 9 boxes (including 1 large box)
- CS: Checked Wood Duck boxes at CS the whole season this year. Added 4 larger songbird boxes and moved 2 EABL boxes
- See Data Below compared to 2019 & 2020 results
- **2018 Nest Box Volunteer Hours = 161.5**

## 2019

- CS: added 1.25" hole excluders to some of the boxes to help reduce competition between bluebirds & prothonotaries, replaced box 8 & box 12
- FP: moved box 6 from Todd's Pond to beach, and box 7 from swamp to beach to attract EABL and TRSW
- Ward: moved box 5 to the pond side of the path so that it's less likely to wash away. The bridge across Hall Creek was washed out, so we were unable to access Boxes 1-3 this season.
- **2019 Nest Box Data:** See Charts and graphs on the next few pages compared to 2018 & 2020 data
- **2019 Volunteer Hours: 151.5**

## 2020 SUMMARY OF ACTIVITIES

### NEW UPDATES IN 2020:

- A new footbridge was installed at Ward, allowing access to boxes 1-3.
- Removed flashing from tree near BCPW#1
- COVID 19 Challenges: volunteers were unable to begin to check nest boxes until mid-April, and trainings for new volunteers were not offered until June.
- August 4: Tropical Storm Isaias brought 9 inches of rain per hour to the area and wiped out half of the Cypress Swamp boardwalk.
  - Several boxes were pushed over and filled with mud & debris but were easily cleaned and repositioned upright.
  - **Need re-installed before 2021 season:**
    - Ward Box 5 was washed away and retrieved intact. Can be found on the ground near old spot. (was re-installed 11/5)
    - BCPW #1: was washed downstream about a hundred feet. Can be found on the trail about 30ft away from old spot. Intact. Recommend relocating.
    - BCPW #7/7B: Was washed a couple thousand feet downstream. Can be found at end of boardwalk beyond barricade that's near Battle Sign. Intact. Gene would like it to be placed back in old spot.
    - Wood Duck #3 is missing a roof.
    - Wood Duck #1: GONE!!! Need new box, guard & post. Recommend same location since it's the most successful box.
    - BCPW #6: GONE!!! Need new box, guard and post. Perhaps this one can be moved inside the boardwalk loop, since there are no boxes on that side.
- We now have a banding permit for passerines. Since naturalist Gene Groshon will be taking over this project, he contacted a researcher in South Carolina who was studying PROW. In June, Gene & SHANNON began attempts at trapping & banding Prothonotary Warblers in a mist net along the boardwalk using a decoy lure and sound lure. This proved to be a good method for capturing males. For the females, we were able to catch one at the nest box using a butterfly net. Due to volunteers checking nest boxes more often, we were able to get the timing right so that Gene could also band nestling Prothonotary Warblers.

- **2020 Volunteer Hours: 155 hours**
  - *Not bad, considering that due to COVID 19, we didn't have volunteers begin to check nest boxes until mid-April, and we didn't offer any trainings for new nest box volunteers until June.*
  - *For Comparison: 151.5 hours in 2019, 161.5 hours in 2018*
- **2020 Participating Volunteers**
  - Joanne Simmons: 23 hours
  - Craig Simmons: 20.5 hours
  - Karen Anderson: 10.5 hours
  - Karen Ritchie: 22.5 hours
  - Eaton Ekarintarigun: 6.5 hours
  - Katia Toniolo (Eaton's mom): 6.5 hours
  - Kirsten Jabara: 22 hours
  - Ava Jabara: 22 hours
  - Alina Jabara: 20 hours
  - Kathy Tushaus: 1.5 hours
- **2020 VOLUNTEER APPRECIATION: Blackwater NWR Trip 3/3/20:** 4 volunteers accompanied Gene Groshon & Shannon Steele on an enjoyable birding trip to the refuge in the county van just before the pandemic.

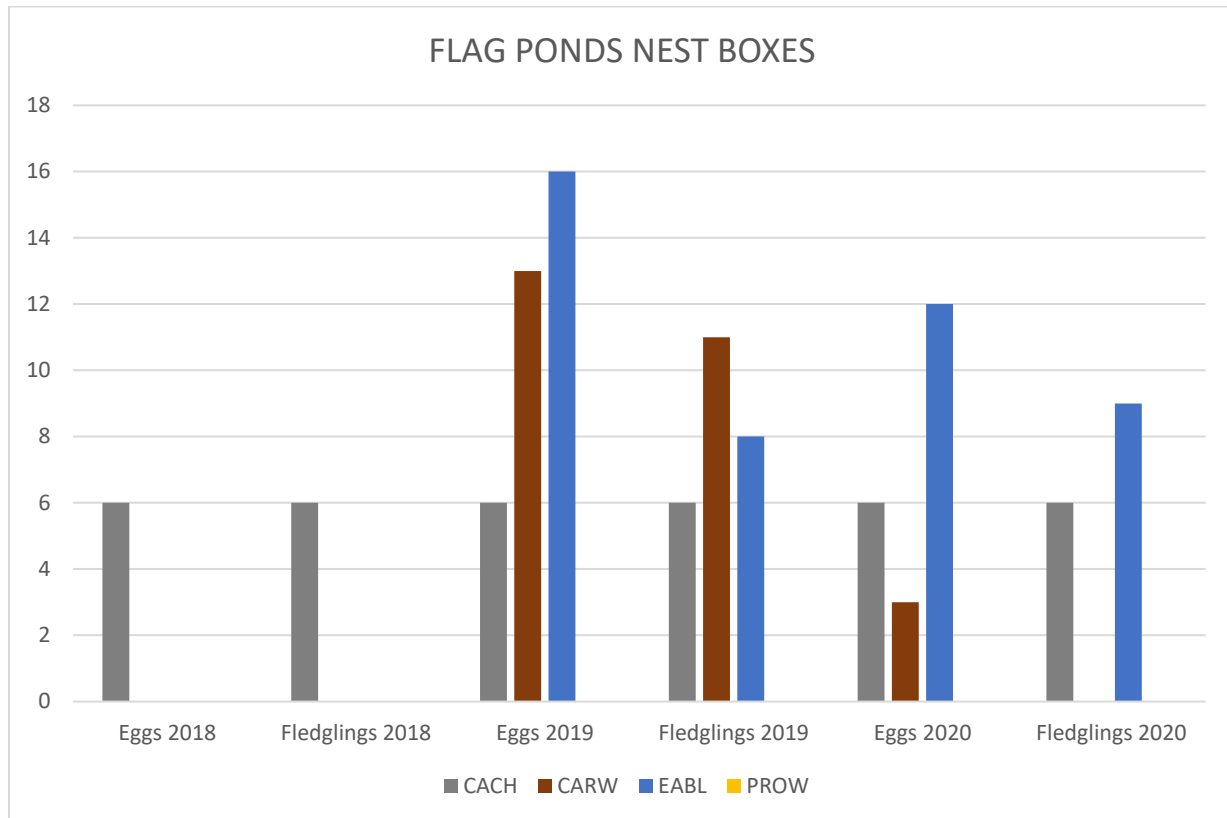
## FUTURE PLANS

- Eventually, Gene would like to put unique color bands on the Prothonotary Warblers and markers along the boardwalk so that visitors will be able to report their sightings to us. We're hoping that the banding data collected in years to come will give us some answers about their longevity and population trends as well as whether or not adults and nestlings return to the same nesting site.

## FLAG PONDS [year 5] (8 EABL boxes)

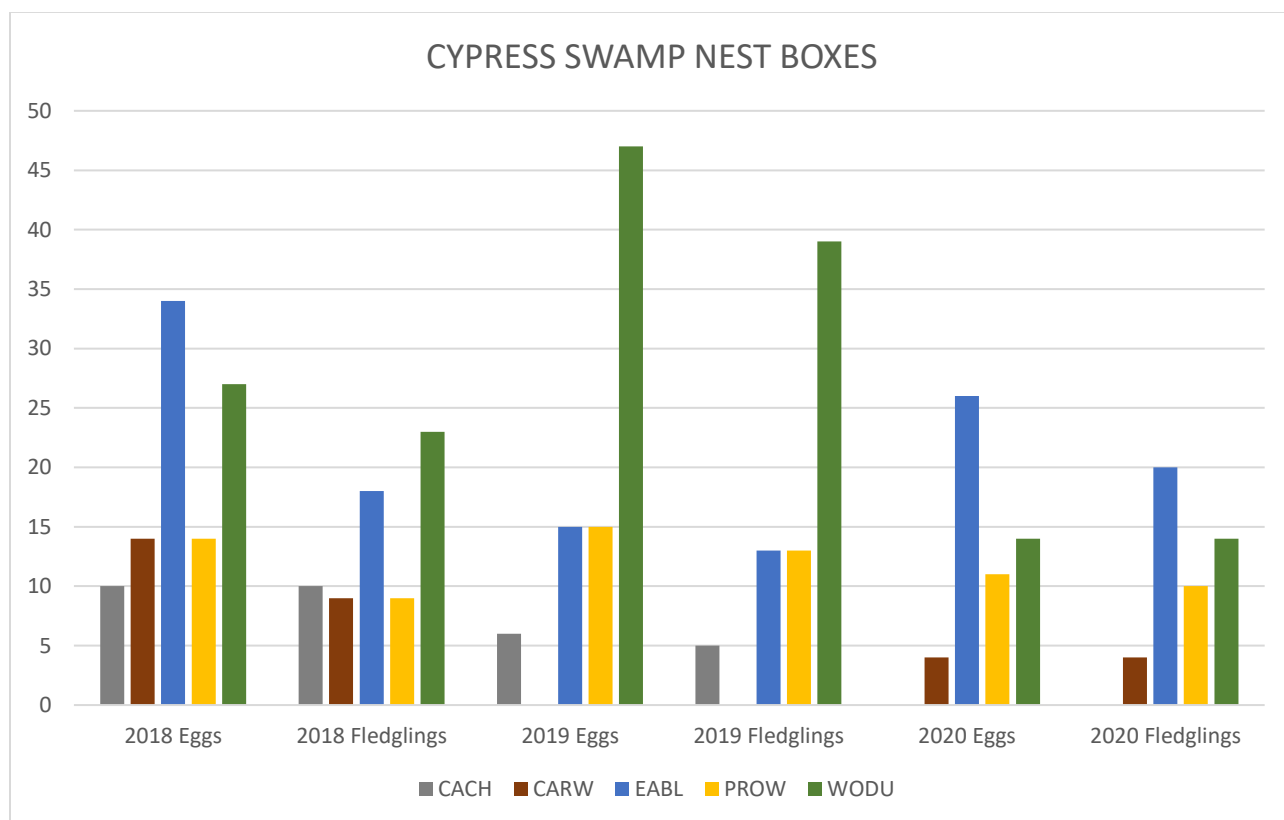
FP	2018 Eggs	2018 Fledglings	2019 Eggs	2019 Fledglings	2020 Eggs	2020 Fledglings
CACH	6	6	6	6	6	6
CARW	0	0	13	11	3	0

EABL	0	0	16	8	12	9
PROW	0	0	6	6	0	0



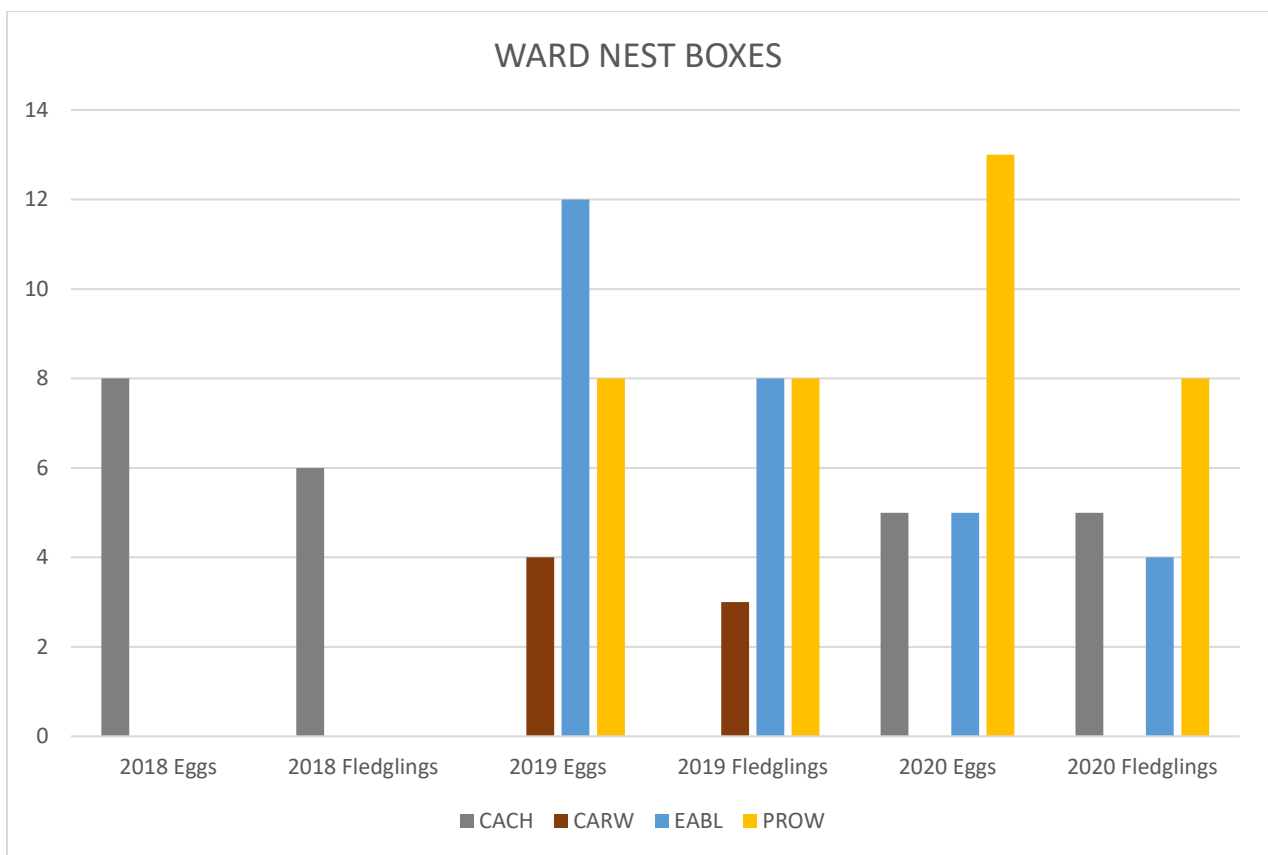
**CYPRESS SWAMP [year 7] (4 WODU boxes, 13 EABL boxes, 4 Larger boxes)**

	2018 Eggs	2018 Fledglings	2019 Eggs	2019 Fledglings	2020 Eggs	2020 Fledglings
CACH	10	10	6	5	0	0
CARW	14	9	0	0	4	4
EABL	34	18	15	13	26	20
PROW	14	9	15	13	11	10
WODU	27	23	47	39	14	14



### WARD [year 3] (8 EABL boxes, 1 larger box)

WARD	2018 Eggs	2018 Fledglings	2019 Eggs	2019 Fledglings	2020 Eggs	2020 Fledglings
CACH	8	6	0	0	5	5
CARW	0	0	4	3	0	0
EABL	0	0	12	8	5	4
PROW	0	0	8	8	13	8



### PICTURES





**Storm Damage BC#1 August 4, 2020**



**Storm Damage BC Wood Duck #3**



**Prothonotary Nestlings banded by Gene 7/9/20.  
They can be banded as young as 5 days.**



**Prothonotary female caught at nest and banded  
by Shannon 6/25/20**



**The amount of white in the Prothonotary Warbler's tail feathers can help determine age**



**Gene bands the first male prothonotary caught in mist net 6/18/20**



**PROW Nestlings Ward #4**



**Bluebird Nestlings at Cypress Swamp**



**14 Wood Duck Eggs BCWD#1**



**Chickadee Nestlings**



*Supporting Calvert County's nature parks and natural spaces*



# CALVERT STEWARDS

## VOLUNTEER PROGRAM

*A partnership between Calvert Nature Society and Calvert County Natural Resources Division*

# 2020 Annual Report

Date of Issue February 2021

CALVERT STEWARDS VOLUNTEER PROGRAM  
c/o Natural Resources Division  
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Volunteer Portal: <https://calvertstewards.galaxydigital.com/>

Calvert Nature Society: [www.calvertparks.org](http://www.calvertparks.org)

Calvert County Natural Resources Division:  
[www.calvertcountymd.gov/NaturalResources](http://www.calvertcountymd.gov/NaturalResources)

