

# Wood Duck Box Monitoring in Calvert County 2021 Nesting Season

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Approximately twelve volunteers contributed 132 volunteer hours to this project.

The Calvert County Natural Resources Division, the American Chestnut Land Trust, the Cove Point Natural Heritage Trust, and a private farm support the Maryland Wood Duck Initiative (MWDI) by monitoring and reporting on wood duck nest box sites within Calvert County. Volunteers from the Calvert Stewards, Calvert Master Naturalists, and others monitor 58 wood duck nest boxes located at seven sites. Volunteers ensure that boxes are functional each Spring prior to nesting season and then periodically check the boxes to collect data on the number of eggs laid, whether they hatched or not, or if the nest failed (no eggs hatched at all). This data is collected and reported to the MWDI which aggregates it with data collected across the State to determine the health of the wood duck population and policies and programs designed to support the wood duck populations.

The Maryland Wood Duck Initiative is a program of the Maryland Department of Natural Resources, <https://dnr.maryland.gov/wildlife/Pages/MWDI/index.aspx>. Its mission, as stated on its web site, is as follows:

*The Maryland Wood Duck Initiative is an all-volunteer wildlife conservation effort started in late 2004. Our objectives are to enhance Maryland's wood duck population and to generate a greater appreciation of the wetland habitats in which they live by advocating and demonstrating the merits of a "best practices" approach in managed nest programs.*

## Skills Needed

The skills needed depend upon the volunteer's assignment. In general,

- Ability to work independently,
- Ability to hike across uneven terrain and potentially wade in creeks or ponds with mud bottoms or bottoms that are litter with debris.
- Ability to use a screwdriver to open the boxes and potentially drills, shovels, weed whacker or hedge trimmers to clear vegetation from around the boxes.
- Ability to record observations into an excel spreadsheet.
- Ability to carry a bucket of wood chips, waders, and/or equipment along the designated trails. May be up to a mile or more.
- At ACLT, the ability to canoe is useful.

## Volunteer Duties

- At assigned sites, the volunteer may do one or more of the following tasks:
- Spring/Fall box maintenance (February/March – September/October ideally)
  - Check condition of the box and make repairs (or report repairs which may be needed to the team or project leader)
  - Add wood chips and soap boxes as needed

- Nesting season (March – September)
  - Check box for eggs, counting those that are laid, hatched/unhatched. Discard eggs/eggshell remains and potentially any deceased ducklings.
  - Replace wood chips/repair or report needed repairs as necessary
  - Record observations and transfer these observations to the report work sheet
- End of season
  - As designated, the volunteer will submit the final report to the project leader.
  - The project leader will consolidate the findings from all sites and submit the reports and a summary report to the MWDI and Calvert County Natural Resources Division.

## Requirements And Expectations

- Hike independently or in teams
- Monitor assigned sites at least twice during the nesting season and in the Fall
- Be exposed to ticks, chiggers, mosquitoes, bees/wasps, poison ivy, and other wildlife as well as uncertain footing in wading is required to reach the nest boxes

## Training

- New volunteers will be provided information (maps, past reports, etc.) about the various sites and may elect their preferred locations
- New volunteers will generally be part of a team assigned to a designated site. Hands-on training is conducted as part of the monitoring.
- Team assignments are recommended, particularly for those sites where wading is required.

## Project Dates

- Early Spring (February/March) - Check boxes for condition, repair as necessary, replace wood chips
- Nesting season (March/September) – Check boxes for nesting activity. Two checks are preferred although more times are fine. (Some boxes are checked at the same time as bluebird boxes at the same site.)
- Late Fall (September/November) – Conduct a final check of the boxes and submit final reports
- December – Final reports prepared and submitted to MWDI and CENRD. Note, these are two different reports.

## Summary of 2021 Activities

This is an ongoing program with nest box sites located at the American Chestnut Land Trust, Battle Creek Nature Center/Cyprus Swamp, Calvert Cliffs State Park, Cove Point Natural Heritage Trust, a private farm in mid-county, Flag Ponds, and Ward Park. Maintenance and monitoring were accomplished with a team of a dozen volunteers<sup>1</sup>. At Battle Creek and Ward Park, the monitoring was generally coupled with that for the Bluebird nest boxes. Because of this, the number of monitoring trips varies. The MWDI recommends at least 2 visits per season.

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<sup>1</sup> Bob Boxwell, Alan Christian, Bob Field, Jim McVey, Beau Sanders, Shannon Steele, Craig Simmons, Joanne Simmons, and the owners of the private farm.

Overall, 2021 was not a very productive year. We have 61 boxes located throughout the county. Of those, 60 were deemed functional and of those 10 or 17% were used. Ward Park Recreation and Nature Park had the highest utilization rate of 76%. None of the boxes at Battle Creek, the private farm, or CPNHT were used. We surmise that the boardwalk construction might have impacted usage at Battle Creek. The private farm had an infestation of starlings which took over all of their boxes. The site at CPNHT does not seem viable.

We had 126 eggs laid, with 106 hatching for a successful box hatch rate of 87%. We had 1 failed box at Calvert Cliffs (4 eggs). This resulted in a gross hatch rate of 84%.

	<u>2019</u>	<u>2020</u>	<u>2021</u>
Box utilization	32%	37%	17%
Eggs laid	234	307	126
Hatch rate	86%	86%	87%
Gross hatch rate	66%	83%	84%

Our biggest challenges are similar to past years.

- Wasps are a significant issue. At some sites (particularly Calvert Cliffs), they prevented mid-summer monitoring because of safety concerns for the volunteers.
- The continued expansion of phragmite at Thomas Branch (Calvert Cliffs) is degrading the habitat. Beaver activity upstream has also changed the nature of the stream with increasing meadow-like conditions downstream. We are also concerned about the presence of snakeheads in Gray Creek. They prey on ducklings and although there is no way to validate our concern, we believe that a portion of our hatched ducklings are falling to both snapping turtles and the snakeheads.
- We saw an increase in the number of non-ducks using the boxes at Calvert Cliffs. This may have been a result of moving the boxes from the water to land. Although we like wrens, we would prefer ducks in those boxes.
- Two of the boxes at Flag Ponds are in the water and very difficult to monitor. They will be moved this spring.
- The CPNHT site has not been used since its inception in 2016. Wood ducks are in the area; they are not using the boxes.
- Cliff Brown, the Executive Director of the MWDI, has received our end of year report.

## Future Plans

We will have a planning session in March to discuss sites, team alignments, and monitoring/reporting issues as well as monitoring schedules. Identifying additional sites, potentially at Battle Creek and on Grey's Creek or other sites in Calvert Cliffs, will also be explored.

Efforts will be made to train volunteers how to track hours on Galaxy Digital. In lieu of this, a report detailing the names, contact information, boxes monitored, and dates & hours of monitoring should be provided annually.

*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*

# 2021 Annual Report

Date of Issue March 2022

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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)

