

Wood Duck Box Monitoring in Calvert County

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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 63 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.

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 CCNRD. Note, these are two different reports.

SUMMARY OF 2023 ACTIVITIES

This is an ongoing program with nest box sites located at the American Chestnut Land Trust, Battle Creek Cypress Swamp, Calvert Cliffs State Park, Cove Point Natural Heritage Trust¹, a private farm in mid-county, Flag Ponds Nature Park, and Ward Farm Recreation and Nature Park. Maintenance and monitoring were accomplished with a team of a dozen volunteers². 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.

The following summarizes our findings.

In terms of eggs laid, 2023 was not as productive as 2022. We have 63 boxes located throughout the county. Of those, 61 were deemed functional and of those 19 or 31% were used. The private farm (Cove Farm) had 100% of its boxes used in 2023; Ward Park was the second highest with 70%. Calvert Cliffs State

¹ No data is available for the CPNHT location. A new team of volunteers will be required for future monitoring.

² Alan Christian, Bob Field, Ryan Niemi, Craig Simmons, Joanne Simmons, and the owners of the private farm are primary monitors.

Park had a 39% rate; both Battle Creek and Flag Ponds had 25% rates. ACLT did not have any boxes used although ducks were observed.

Overall, we had 230 eggs laid, with 168 hatching for a successful box hatch rate of 87%. We had only one failed box at Ward Park (15 eggs). The gross hatch rate was 73%. When compared to preceding years:

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Box utilization	32%	37%	17%	36%	31%
Eggs laid	234	307	126	292	230
Hatch rate	86%	86%	87%	81%	78%
Gross hatch rate	66%	83%	84%	66%	73%

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 ACLT boxes on the North-South Trail and at the Southside have not been used since installation. They may be moved to more optimal locations.
- The deteriorating situation at Calvert Cliffs continues. The phragmite at Thomas Branch is expanding and degrading the habitat. Beaver activity upstream has changed the nature of the stream with increasing meadow-like conditions downstream. We also remain 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.
- Ward Park has experienced significant changes due to the park's ongoing development, the need to reinforce the dike around the ponds, and the rising water level at some of the sites. Consequently some of the boxes have been relocated and additional moves are anticipated. Three new boxes have also been added.

Cliff Brown, the Executive Director of the MWDI, has received our end of year report.

Approximately 80 volunteer hours supported this project.

FUTURE PLANS

We will have a planning session in March to discuss sites, team alignments, and monitoring/reporting issues as well as monitoring schedules.

We are looking for a new project coordinator for a transition this year.

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

2023 Annual Report

Date of Issue March 2024

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Calvert County Natural Resources Division:
www.calvertcountymd.gov/NaturalResources

