

Wood Duck Box Initiative

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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 61 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 2020 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 volunteers¹. At Battle Creek and Ward Park, the monitoring was generally coupled with that for the Prothonotary Warbler or Bluebird nest boxes. Because of this, the number of monitoring trips varies. The MWDI recommends at least two visits per season.

¹ Because of the COVID pandemic, monitoring at the various sites was done by individuals or couples: Alan Christian, Bob Field, Jim McVey, Penny Moran, Craig and Joanne Simmons, and the owners of the private farm.

We had 61 boxes located throughout the county. Of those, 60 were deemed functional and of those 22 or 37% were used. The private farm (3 boxes, 100%), Ward Park (7 boxes, 57%, and Calvert State Park (19, 44%) had the highest utilization rate. Battle Creek which usually has a 100% utilization rate of its four boxes only had one used this year. Flag Ponds also with four boxes only at a 25% utilization rate.

Overall, we had 307 eggs laid, with 255 hatching for a successful box hatch rate of 86%. We had one failed box this year which resulted in a gross hatch rate of 83%. When compared to previous years:

	2018	2019	2020
Box utilization	36%	32%	37%
Eggs laid	237	234	307
Hatch rate	83%	86%	86%
Gross hatch rate	57%	66%	83%

In addition to the COVID pandemic, our biggest challenges are similar to last year.

- The ACLT boxes on the North South Trail which were installed in 2018 have not been used. We will explore the viability of these boxes and the possibility of relocating them.
- The wood duck boxes at Battle Creek were damaged by the flooding early in the year. They have been repaired and are available for nesting birds.
- At Calvert Cliffs, the continued expansion of Phragmites at Thomas Branch is degrading the habitat. Beaver activity upstream has also changed the nature of the stream with increasing meadow-like conditions downstream and deeper water on the upper portion. The latter has made monitoring some of the boxes a challenge, even with waders. We are planning on moving some of the boxes in 2020 subject to COVID precautions. 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.
- 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 provided some suggestions for consideration including moving some of the boxes and/or closing off some of the boxes to increase box utilization and program efficiency (i.e., decreasing monitoring time). He also suggested added capacity at Battle Creek because of its 100% utilization rate.

Approximately 132 volunteer hours supported this project.

FUTURE PLANS

Because of the continuing COVID threat, we anticipate that only one or two volunteers will monitor a site at any given time. We have three new volunteers this year and hope to include those new volunteers from last year who did not participate because of the pandemic restrictions. Moving some of the boxes to address the Phragmites challenge on Thomas Branch and the high-water issue at Grey's Creek which makes monitoring difficult will be a high priority. Identifying additional sites, potentially at Battle Creek and on Grey's Creek or other sites in Calvert Cliffs, will also be explored.

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CALVERT STEWARDS

VOLUNTEER PROGRAM

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

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

