

MARYLAND WILD TURKEY RESEARCH PROJECT

2023-2025 Results Highlights



To better understand wild turkey populations in Maryland, a comprehensive 3-year research project was conducted from 2023 to 2025.

- ✓ 198 hens were tracked with GPS radio-transmitters in Western MD and the lower Eastern Shore, spanning across hundreds of public and private properties.
- ✓ 337 nests were located and 81 broods were monitored.
- ✓ 481 gobblers were leg-banded statewide.

Reproductive Success

- An average of **24% of nests successfully hatched** and 76% failed. Predation was the primary cause of nest loss.
- Approximately **1/3 of hens** were successful in hatching a nest annually.
- **44% of broods** were completely lost by 2 weeks post-hatch.
- On average, **less than 2 out of 10 poults hatched survived** to 4 weeks old.
- **Reproductive success was similar to other recent studies** but long-term declines in poult production appear likely.

Hen Survival

- Adult female **annual survival ranged widely from 31%–86%** depending on site and year. Juvenile survival ranged from 58%–93%.
- Survival was lowest during **nesting and brood-rearing season**.
- **Mortality Causes:** Mammalian predation was a primary source of mortality, supplemented by vehicles, owl predation, and harvest. Disease was not a major direct cause of mortality.

Breeding Season Timing

- **Peak nest incubation date was May 2** in both regions, suggesting day-length triggers breeding activity. **Peak egg-laying was April 18.**
- Data confirms that the **current spring hunting season opening date is consistent with biological timing**. An earlier season would risk breeding disruption.

679

Total Turkeys Captured

May 2

Peak Nest Incubation Initiation

24%

Probability of a Nest Hatching

1.7

Poults out of 10 hatched that survived to 4 weeks old

GOBBLER HARVEST

- Annual **adult gobbler harvest rates ranged from 25%–31%**. Juvenile (jake) harvest rates were 8%–11%.
- Male harvest rates (including jakes) of $\leq 30\%$ are generally considered sustainable.
- **Maryland spring turkey seasons and bag limits are currently appropriate**, but populations should be closely monitored for changes.

HABITAT MANAGEMENT

Habitat management can minimize the impacts of predation and improve hen survival and reproductive success.

Efforts should focus on providing high-quality **nesting and brood-rearing habitat**.

Techniques such as timber thinning, native grass and forb plantings, and prescribed burning can increase vegetation diversity and insect abundance.

More detailed results can be found in the full report on the DNR [Wild Turkey Webpage](#).