

Setting the Spring Gobbler Season

By: Bob Eriksen, NWTf Regional Biologist

The technician was new on the job accompanying me for the first time on a turkey trapping operation. As we set up the equipment in the early morning light he asked if I had any idea where the flock of turkeys was. I replied that I thought they were to our east on the side of the ridge. As we wired the last rocket I stood up and owled loudly. The side of the ridge exploded in gobbles. It was January 9th and the temperature was five below zero. Our new technician looked at me in amazement and said that he thought wild turkeys only gobbled in the spring. I smiled and replied that I have heard wild turkeys gobble every month of the year.

I remember being surprised the first time I saw gobblers strutting in the winter. We were checking bait sites in preparation for live-trapping operations and watched eight or ten gobblers fanned out in a mixed flock of forty or fifty birds on a dairy farm. That was a long time ago and wild turkeys continue to teach me new things and defy commonly held misconceptions about their behavior. Because I have been surprised by wild turkeys so many times I am definitely not surprised when I receive questions about their behavior. One of the most common questions wild turkey biologists receive from hunters concerns the timing of the spring gobbler season. The question usually begins with a narrative about how the spring season starts too late.

The last such inquiry I had started with a statement about wild turkey behavior. "It's only February and the birds are gobbling hard. I have seen gobblers strutting already and last spring I saw a hen being bred on March 10th. The best gobbling is in March and our season doesn't start until the end of April. Why can't we hunt turkeys in March or April?"

Let's go back to the logic behind having a spring gobbler hunting season. It's all about the behavior and biology of the wild turkey. We can selectively harvest spring gobblers even in states with large numbers of turkey hunters by carefully monitoring wild turkey behavior and setting the season for when many of the hens are incubating their clutches. The theory is that removing some of the gobblers from the population will not have a major impact on the reproductive success of the population if hens have been bred and are nesting. Biologists prefer to have most of the hens on the nest and incubating when the season is open to reduce the chance of disturbance causing nest abandonment and accidental or illegal take of hens. We biologists are conservative because it is our job to manage the wild turkey resource effectively so that future generations of turkey hunters will enjoy the same benefits that we have today. So, the question is: When should the season start?

Gobblers will gobble at any time of the year in response to loud noises or other stimulus. Even in the winter when gobblers encounter hens they will often be seen strutting and trying to impress the ladies. Gobbling intensifies as the length of daylight increases in late winter and early spring. There is frequent gobbling and displaying while winter flocks are still intact. The increasing hours of daylight bring hens into breeding condition. However, nest initiation (egg-laying) usually does not begin until mid-April. As the winter flocks break up in late March and early April you will see regular breeding activity if you have a chance to observe turkey flocks. You may see some breeding as early as the first week of March, but that does not mean egg-laying has begun. If there is no ovum ready to be fertilized no egg will form and the hen will not begin to nest.

According to the Game Commission Management Plan for Wild Turkeys in Pennsylvania the spring gobbler season should begin on the Saturday closest to May 1st. Most often that is the last Saturday in

April. Sometimes it is the first Saturday in May. Many hunters believe the season starts too late and the Game Commission frequently receives requests to schedule opening day earlier. The management plan recommendation was based on nesting data collected in the 1950's and 60's and on information on nesting and incubation dates documented in nearby states. The current hen turkey survival and fall harvest rate study has provided an opportunity to collect up to the minute data on wild turkey nesting. The study requires that 60 hen turkeys be equipped with satellite telemetry transmitters by the end of each winter. That is, a sample of 30 hens is monitored in both the northern and southern study areas. Not only does this provide information on when most hens begin incubating; it provides data on whether nesting and incubation dates differ from north to south. Many hunters suppose that turkeys in the southern counties nest earlier because the leaf out in that area of the state is earlier than in the northern tier counties.

In recent years we had some very early springs. In 2010 and again in 2012 warm weather moved into the Commonwealth in March and by opening day all the leaves were out statewide. The year in between, 2011 was more of a normal spring. So, what did the data from satellite telemetry tell us? Let's start by looking at the opening date of the regular spring gobbler season and comparing it with the median date of the start of incubation. The incubation date is the date on which the hen settles down on her newly laid clutch of eggs and starts on her 26-28 day incubation period. Half of the hens' incubation dates occur before the median incubation date and half occur after that date so think of the median date as the halfway point of the start of nesting. Remember that hens lay eggs for almost two weeks before they begin to incubate. In 2010 the median incubation date was April 24 and the spring season began on May 1 (see Figure 1). The data suggest that more than half of the transmitter equipped hens were incubating their nests on the opener. In 2011 the median incubation date was May 4 and the season opened on April 30 (Figure 2). Less than half the hens were incubating on opening day. Last year (2012) the median incubation date was May 2 and the season opened on April 28 (Figure 3). Once again less than half the hens had begun to incubate by opening day.

This information tells biologists that the opening date of the spring gobbler season in Pennsylvania is set just about right. In fact, the opening date is a little early based on accurate nesting data from the past three springs. The opening date as it is currently established is a good compromise between providing quality recreational opportunity and giving maximum protection to the wild turkey resource. A more conservative approach would be to open the season only after nearly all the hens were well into incubation.

From time to time spring hunters suggest that there should be a split season, one that opens earlier in the southern counties and later in the northern counties. The satellite telemetry data provides answers to that argument as well. The research project is divided into two study areas. Study Area 1 consists of Wildlife Management Units 2C, 2E, 4A, 4B and 4D in the southwestern and southcentral counties. Study Area 2 lies in Wildlife Management Units 2F and 2G in the northcentral counties. The median 2012 incubation date for Study Area 1, the southernmost area was May 3. The median incubation date for Study Area 2, in the northern tier was May 4, just one day later. This information suggests that little difference exists in nesting dates from the southern part of Pennsylvania to the northern part. That makes sense because nesting dates are determined primarily by photoperiod, the length of daylight hours. An early spring can affect the dates slightly but not by more than a couple of days. There does not seem to be any justification for establishing a split season in Pennsylvania. Not only would that be biologically unsound, it would create social and enforcement issues by focusing hunter attention more intensely on the separate opening days and weeks.

Gobblers sound off intensely in March and April. Alert hunters out in the early mornings for pre-season scouting take note of the gobbling intensity and wish they could be out in the woods hunting. Anyone who thrills to the sound of gobbling toms would love to be out there every day of the spring. But just because they are gobbling doesn't mean it's time to hunt spring gobblers. As conservationists we can enjoy participating in the hunt even more knowing that science supports the season structure and that the future of turkey hunting will be secure as long as we preserve habitat and manage the resources intelligently.

Figure 1.

Incubation timelines, 2010

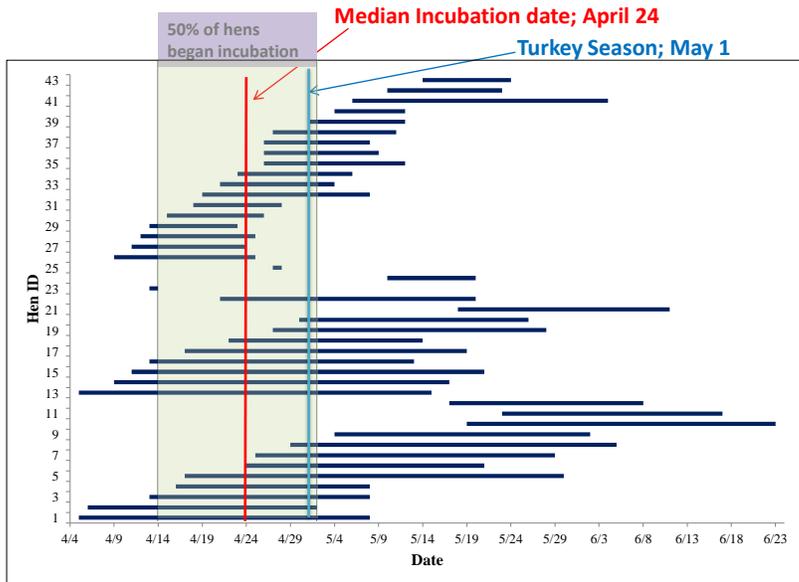
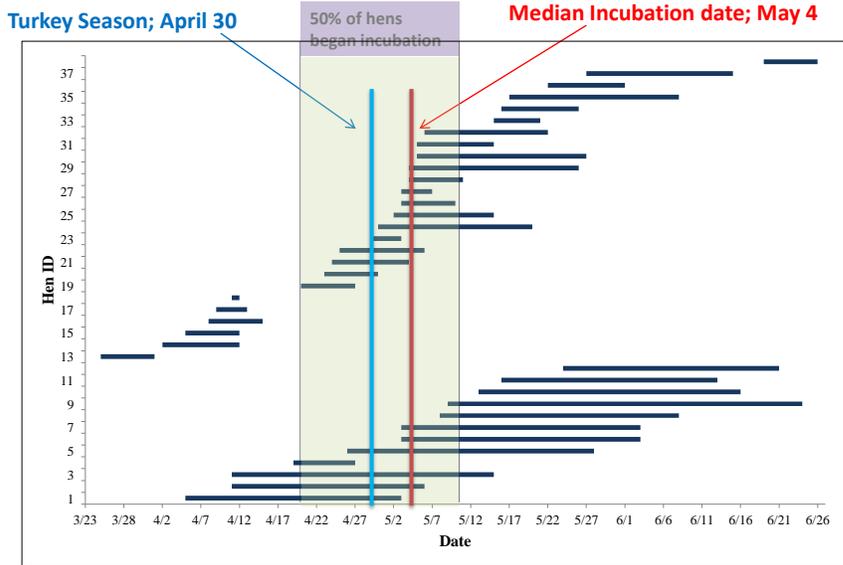


Figure 2.

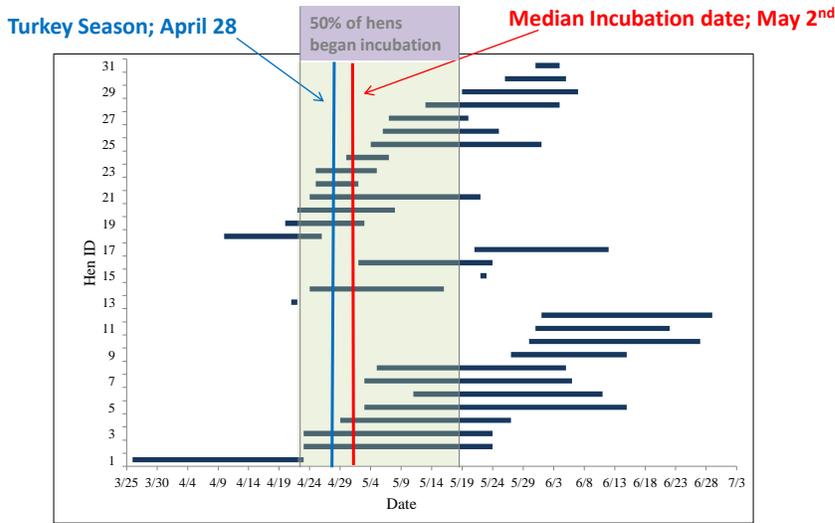
Incubation timelines, 2011



Spring Season Shouldn't Open Earlier

Figure 3.

Incubation timelines, 2012



Spring Season Shouldn't Open Earlier