

# **REPORT ON PUBLIC MEETINGS RELATED TO WILD TURKEY DECLINES AND OPTIONS FOR FUTURE MANAGMENT**



**SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES**

**BIG GAME PROGRAM**

**UNANIMOUSLY APPROVED BY THE SCDNR BOARD**

**DECEMBER 14, 2023**



## **Report on Public Meetings Related to Wild Turkey Declines and Options for Future Management.**

Over the last few years, the South Carolina Department of Natural Resources (SCDNR) has heard from turkey hunters, landowners, and members of the General Assembly with concerns about decreasing turkey numbers, lower reproduction, and declining harvests across the state. These issues are not unique to South Carolina and are occurring across the Southeast and Midwest. SCDNR shares these concerns and turkey reproductive data, harvest data and numerous research projects in South Carolina and across the southeast support these observations.

During July and August of 2023 SCDNR hosted a series of five public meetings around the state to discuss the concerns and options for future management to address these declines. As part of each meeting SCDNR presented available data, and received comments and questions from hunters who were provided a survey with various management options. For individuals unable to attend one of the meetings, a video presentation and survey were advertised via email and social media and made available on the SCDNR website following the in-person meetings. Below is a link to the video.

<https://www.youtube.com/watch?v=l45CTLWPwrA>

Appendix 2 provides the meeting schedule, SCDNR's presentation topics, comments and questions from attendees, and the survey provided to attendees. A summary of categorized public comments is provided in Appendix 3. Approximately 297 constituents attended the in-person meetings and over 4,000 viewed the online meeting with 254 and 1,637 completing the survey, respectfully. All 46 South Carolina counties were represented both in terms of where participants live and turkey hunt.

The following statistics are the statewide results from survey respondents. For expanded statistics by Game Zone refer to Appendix 1. Video of results. <https://www.youtube.com/watch?v=imxyIJI1Gs>

- Approximately **72%** have observed a decline in turkey populations in the areas they hunt in recent years.
- Approximately **85%** feel that legislative/regulatory changes are needed to address turkey declines in South Carolina.
- Excluding individuals who were neutral, approximately **75%** supported a later start date to the turkey season with April 7 being the average latest date supported among all respondents.
- Excluding individuals who were neutral, approximately **69%** supported a season shorter than the current 40-day season with 29 days being the average among all respondents.
- Excluding individuals who were neutral, approximately **81%** supported a reduction in bag limit from the current 3 bird limit.
- Excluding individuals who were neutral, approximately **54%** supported prohibiting afternoon hunting early in the season.
- Excluding individuals who were neutral, approximately **33%** supported prohibiting afternoon hunting all season.
- Excluding individuals who were neutral, approximately **86%** supported limiting the harvest of "Jakes" to youth hunters only.
- Excluding individuals who were neutral, approximately **62%** supported prohibiting the use of "strutter" decoys.
- **71%** of respondents supported an increase in the fee for resident turkey tags to benefit habitat management efforts for turkeys.

### SCDNR Recommendations:

- Based on supermajority support from survey respondents for a later start date to the spring turkey season, **SCDNR recommends beginning the season on April 10 statewide**. Note that this is the same recommendation offered in 2019 based on research conducted in South Carolina indicating the average date for female turkey nest initiation is April 9.  
<https://www.dnr.sc.gov/wildlife/turkey/pdf/2018SCDNRTurkeyReporttoGeneralAssembly.pdf>  
This recommended change has the most potential for increasing wild turkey productivity through better breeding success, by protecting dominant gobblers from harvest during the most active and critical period of the breeding season.
- Based on supermajority support from survey respondents for a reduction in the number of days in the spring turkey season, **SCDNR recommends a 31-day season** beginning April 10 and closing on May 10 which will insure at least 4 weekends in the season regardless of the year. Season length is the primary driver of overall harvest. This recommendation would be very impactful at lowering harvest which is critical as current wild turkey productivity (reproductive output + brood survival) is not keeping pace with annual mortality due to harvest and other causes. The Southeast average season length is 33.8 days.
- Based on supermajority support from survey respondents for a reduction in the spring gobbler bag limit, **SCDNR recommends decreasing the bag limit from 3 to 2 birds** and maintaining the current daily limit of one (1). A bag limit reduction will also aid in lowering overall harvest while impacting a small percentage of hunters. Until reproduction and brood survival increases to desirable levels, overall harvest must be reduced to prevent further declines in the population. The Southeast average bag limit is 2.2 turkeys per season.

### Other Items for Legislative Consideration:

- A slight majority of survey respondents supported limiting afternoon hunting during the early part of the season. Data from the annual Turkey Hunter Survey shows that an average of 24% of the annual harvest is in the afternoon. There should be some level of concern that with changes in techniques and technology including game cameras, the use of blinds, lifelike decoys, etc. afternoon harvest has become additive to what traditionally took place. This idea had limited support from public meeting attendees and survey participants. If a shortened season and lower bag limit are implemented this restriction would be less impactful.
- A supermajority of survey respondents supported limiting the harvest of “Jakes” to youth hunters only. However, the Jake harvest is typically low in South Carolina. Therefore, there appears to be limited “savings” to this option and some hunters would be placed in an awkward position if they mistakenly harvested a Jake.
- A majority of survey respondents supported prohibiting the use of “strutter” decoys. Based on data from the 2022 Turkey Hunter Survey, 23% of hunters use strutter decoys, however, they are no more successful in terms of turkeys harvested or the amount of time required to harvest turkeys. That said, the argument can be made that strutter decoys may “prop-up” hunters who

would normally not be as successful. Also, there will likely be pushback from the decoy industry, hunting retailers, and turkey hunters who have invested in strutter decoys.

- A supermajority of survey respondents supported an increase in resident turkey tag fees with the additional funds supporting a habitat improvement program for wild turkeys. When asked how much they would be willing to pay for a set of resident tags, the average was \$22, and the median was \$20. Currently, a set of resident tags is \$5. This proposed change was not initiated by SCDNR and questions regarding it were included in the survey following repeated comments, support, and suggestions from participants at the public meetings.

**Other issues brought forward through public comments:**

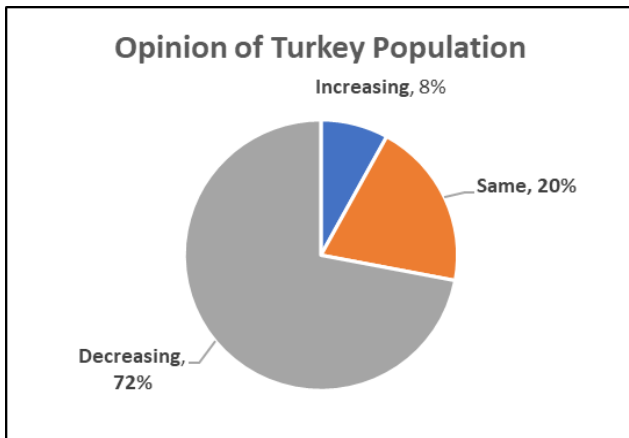
- Predator Management
- Habitat Management

There is a need and appetite for more information, education, and outreach on these subjects. SCDNR can provide this through digital and print media as well as workshops, seminars, and online videos. These issues are important and need to be addressed in addition to the proposed changes in harvest timing, season length and bag limit. However, large scale positive changes on predator populations and habitat improvement are difficult if not impossible to implement through legislation or regulation. These are issues best addressed by private landowners or property managers. Their success can be improved through more awareness and education of opportunities, techniques, and effective practices. SCDNR will work to provide this in the coming years.

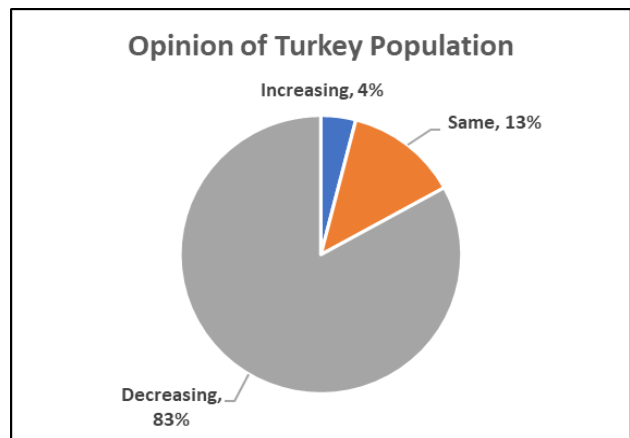
Appendix 1 – Expanded Statistics by Game Zone (for reference, a Game Zone map is provided on page 16).

In recent years what changes have you observed in wild turkey populations in the area(s) you hunt?

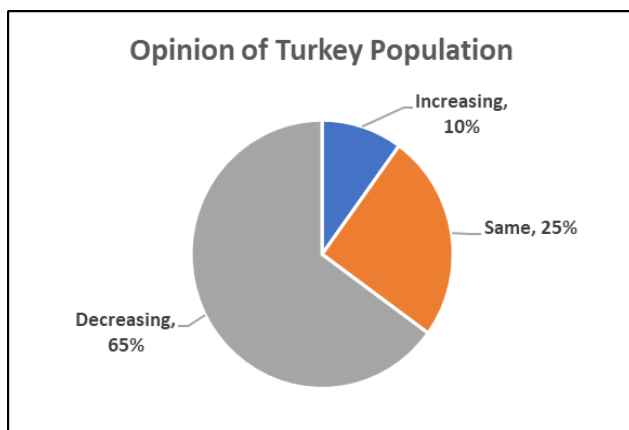
### Statewide



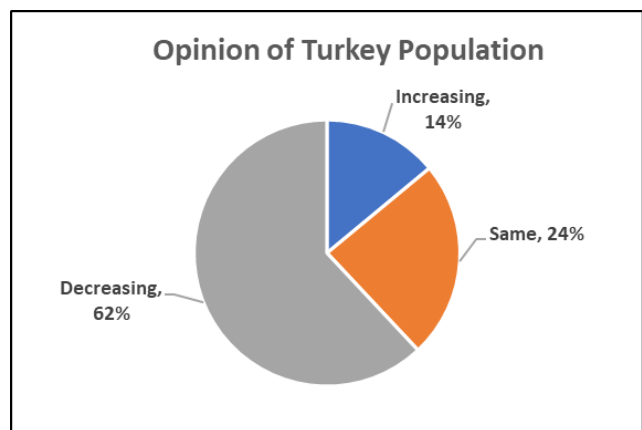
### Game Zones 1 & 2



### Game Zone 3



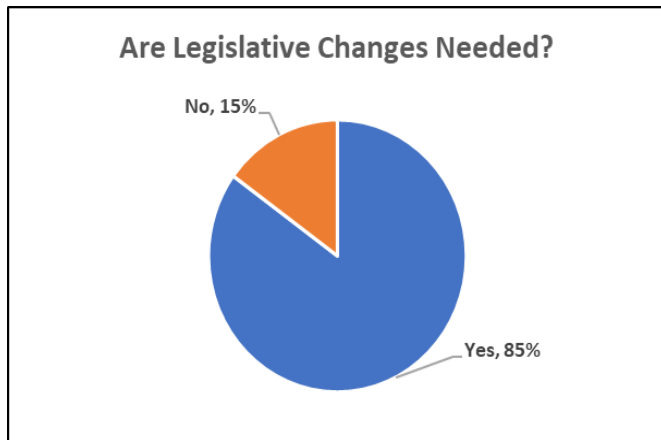
### Game Zone 4



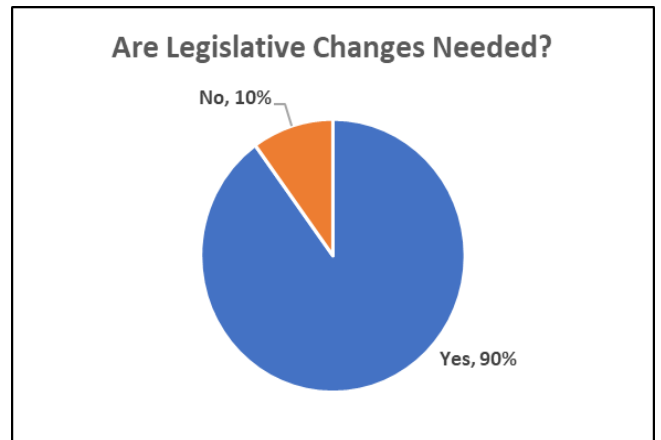
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Do you feel legislative or regulatory changes are needed to address turkey populations in South Carolina?**

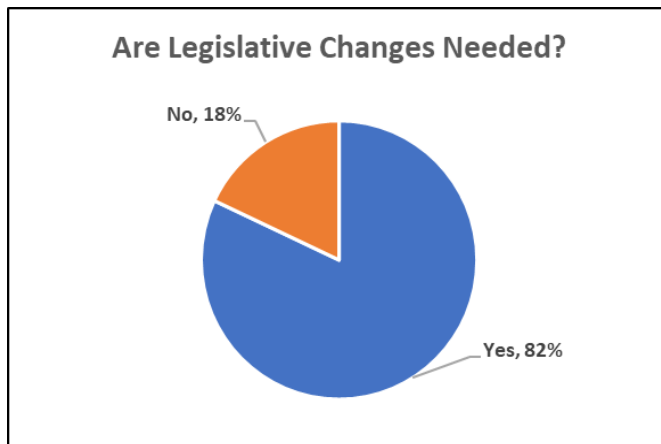
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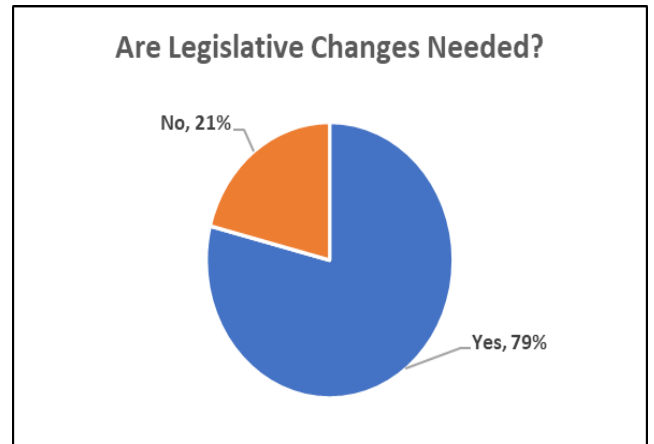
**Game Zones 1 & 2**



**Game Zone 3**



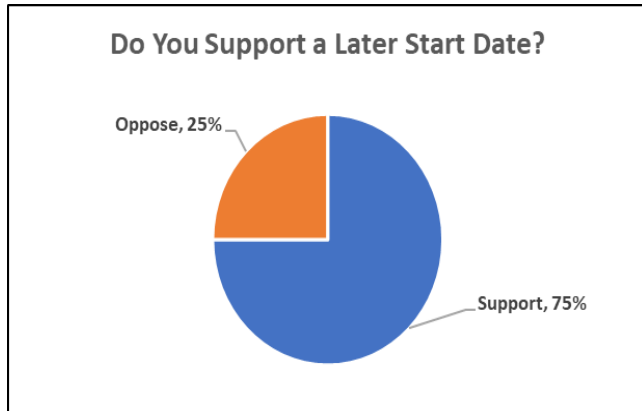
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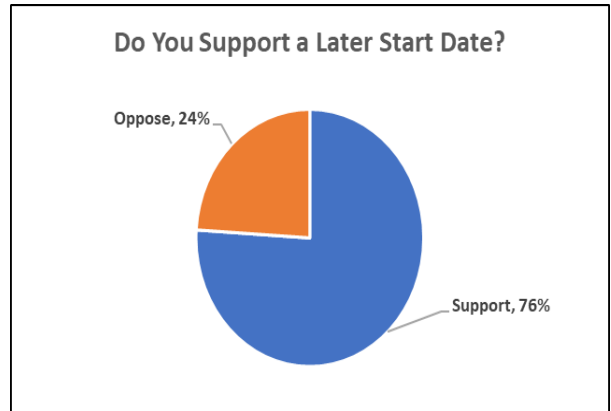
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Later turkey season start date.**

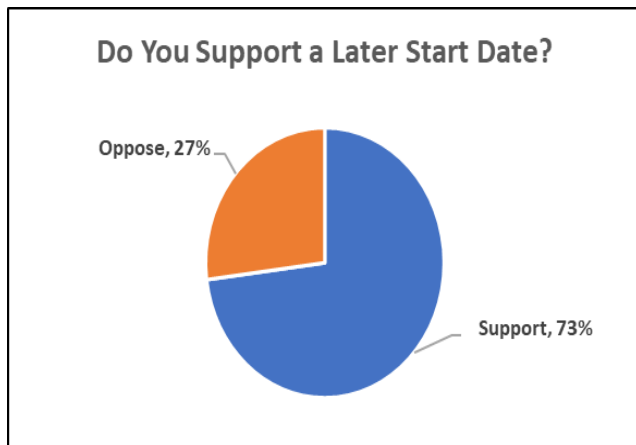
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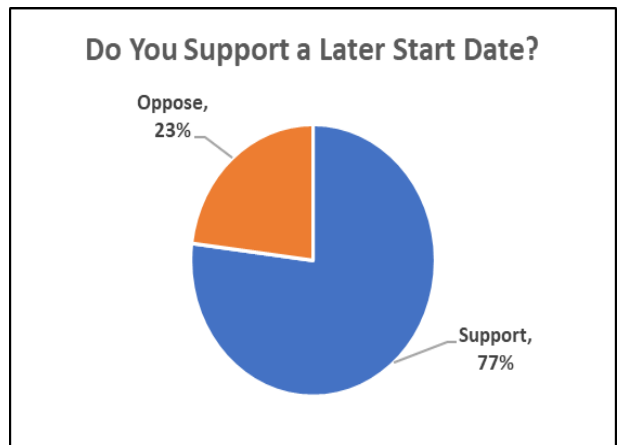
**Game Zones 1 & 2**



**Game Zone 3**



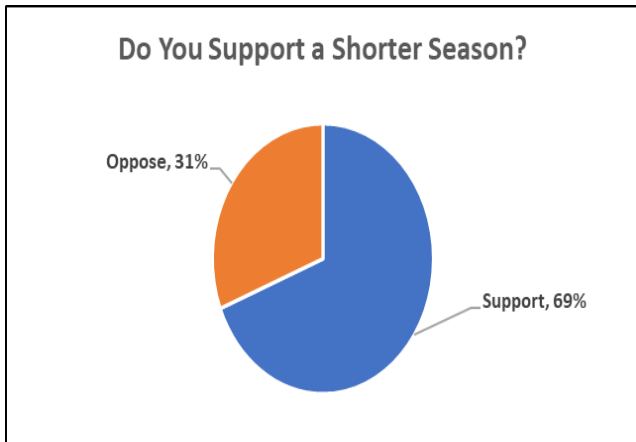
**Game Zone 4**



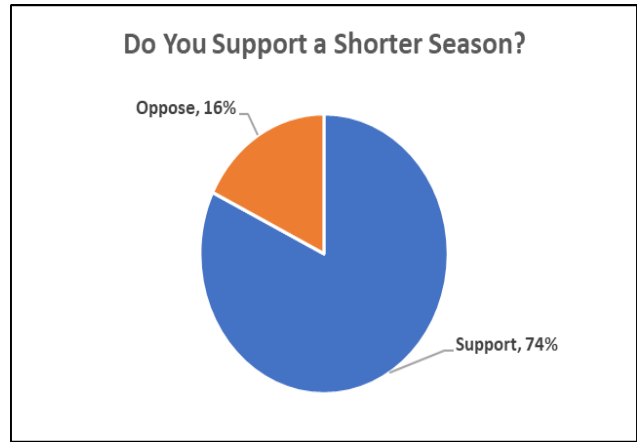
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Shorter turkey season length.**

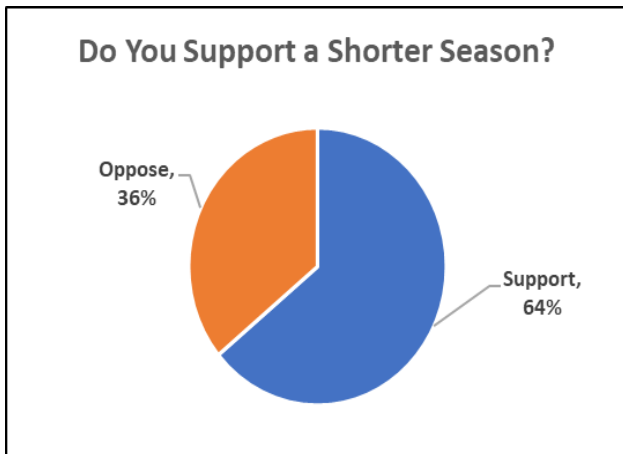
**Statewide**



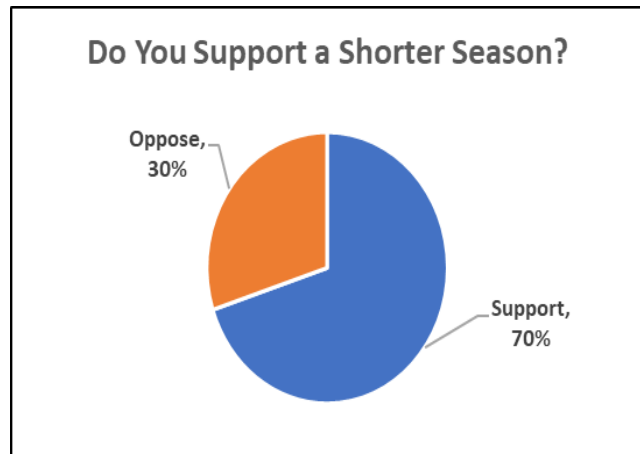
**Game Zones 1 & 2**



**Game Zone 3**



**Game Zone 4**

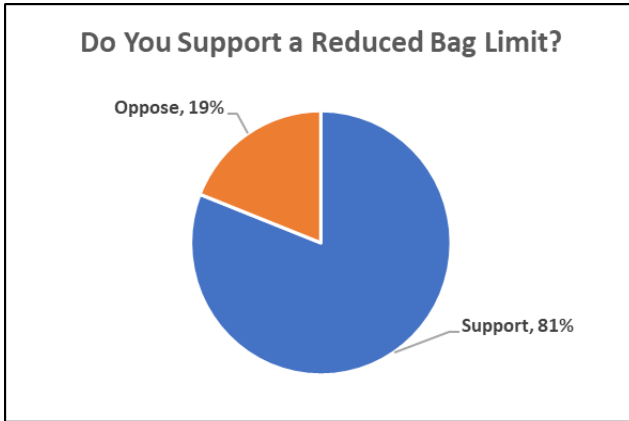




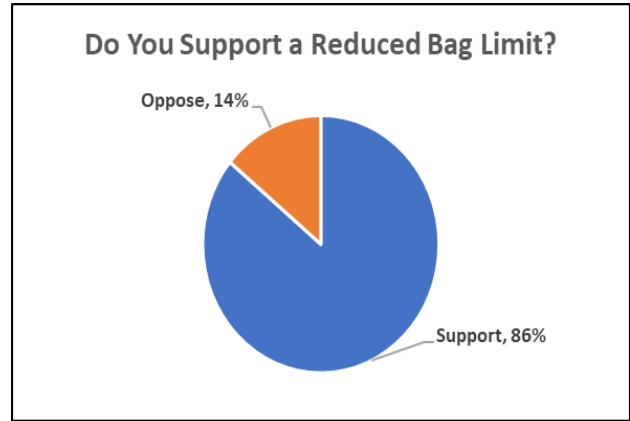
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Bag limit reduction.**

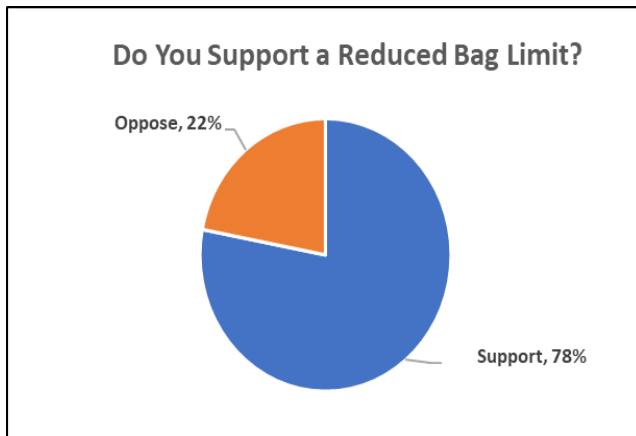
**Statewide**



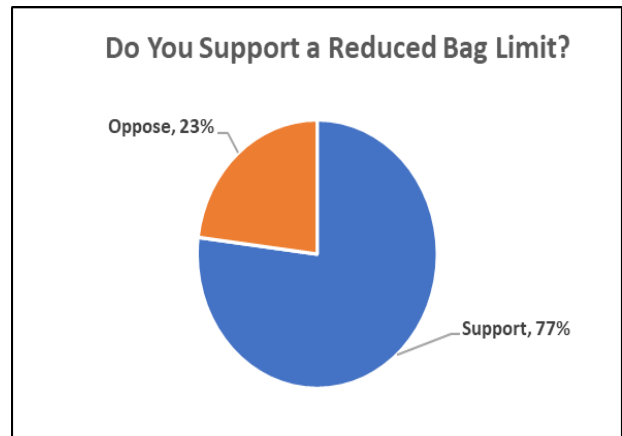
**Game Zones 1 & 2**



**Game Zone 3**



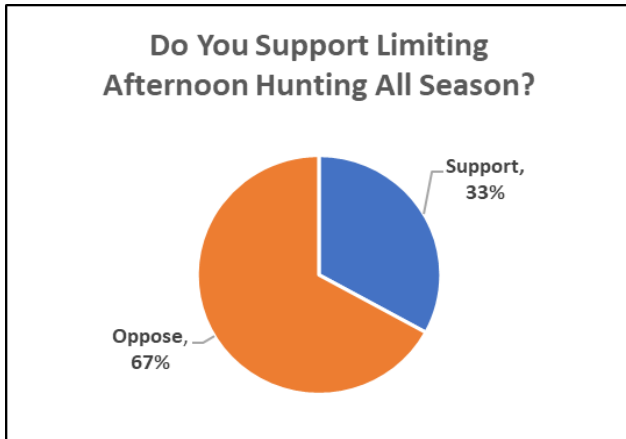
**Game Zone 4**



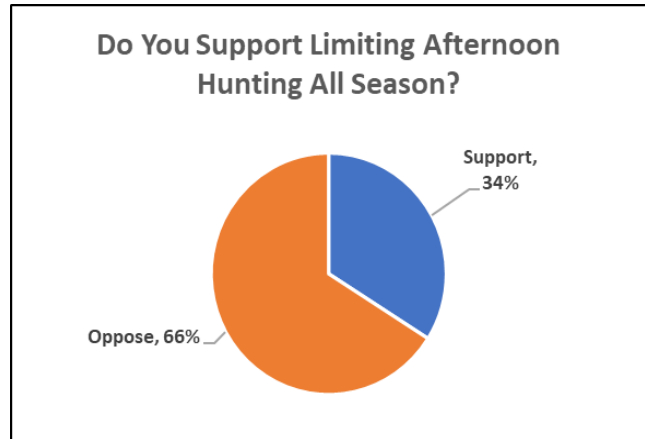
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Eliminate afternoon hunting all season.**

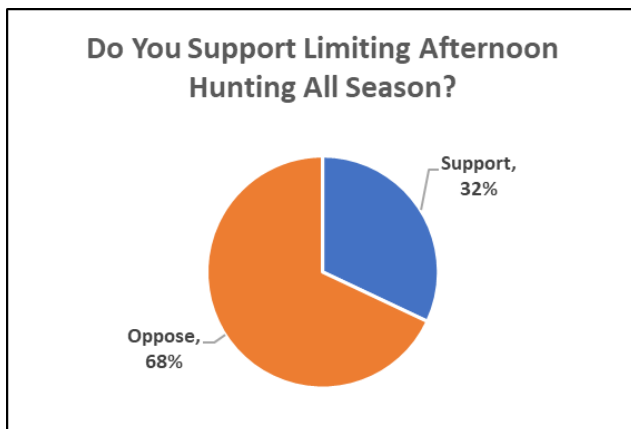
**Statewide**



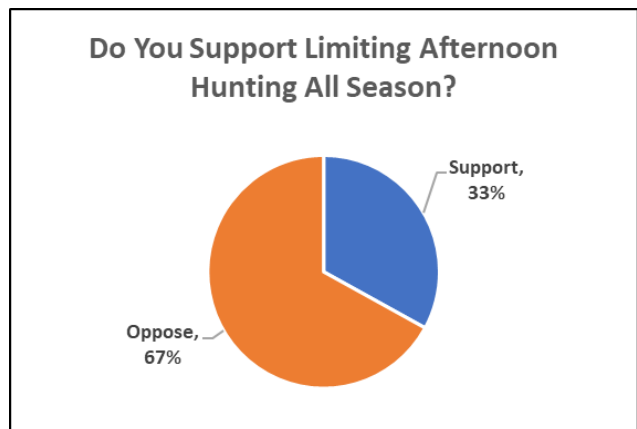
**Game Zones 1 & 2**



**Game Zone 3**



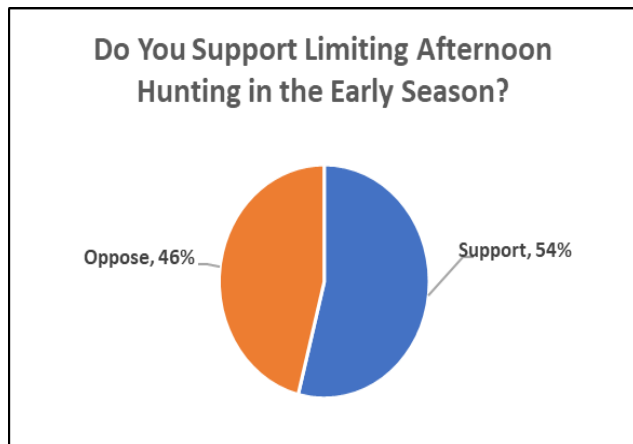
**Game Zone 4**



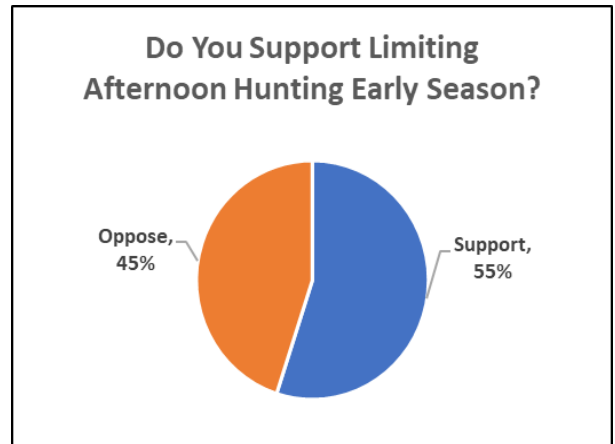
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Eliminate afternoon hunting in the early season.**

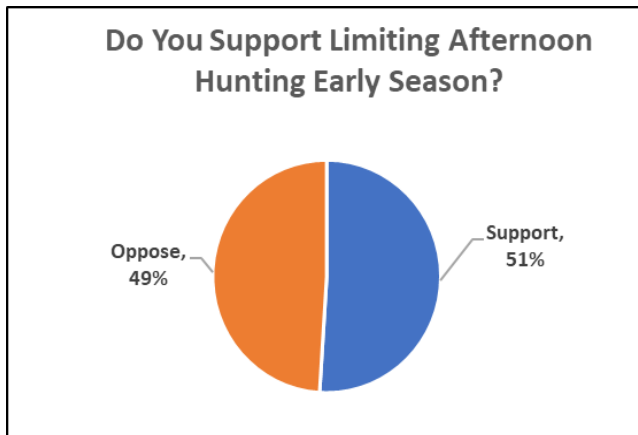
**Statewide**



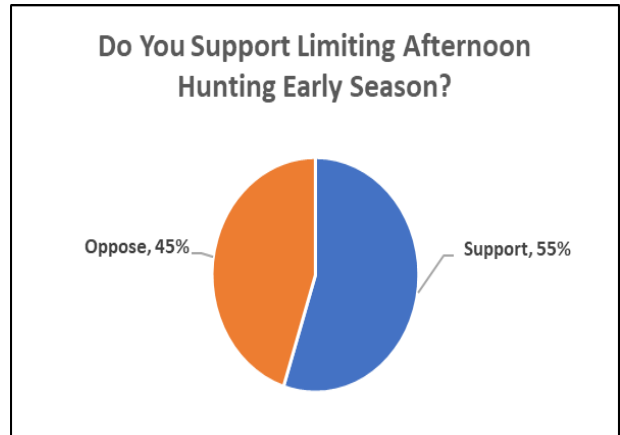
**Game Zones 1 & 2**



**Game Zone 3**



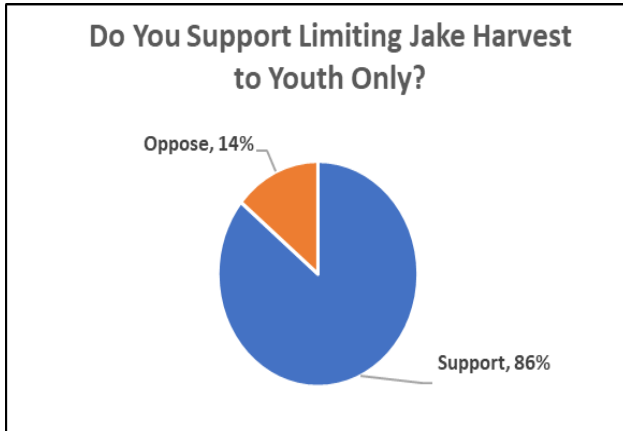
**Game Zone 4**



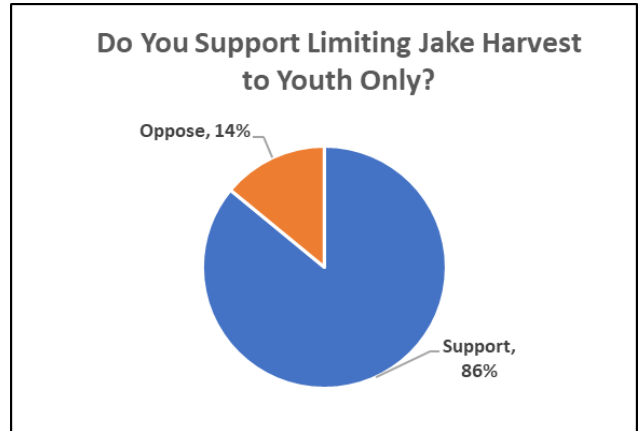
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Limit the harvest of Jakes to youth only.**

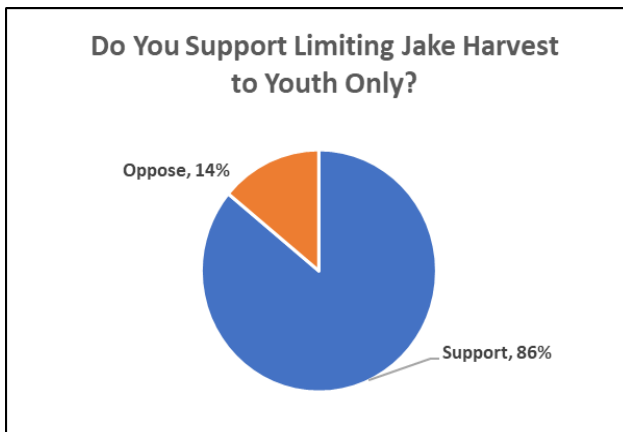
**Statewide**



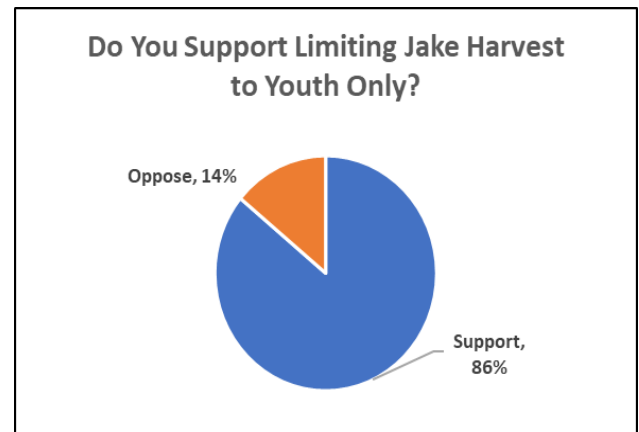
**Game Zones 1 & 2**



**Game Zone 3**



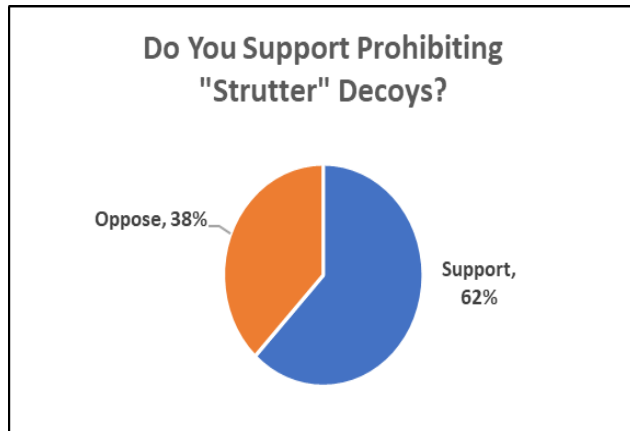
**Game Zone 4**



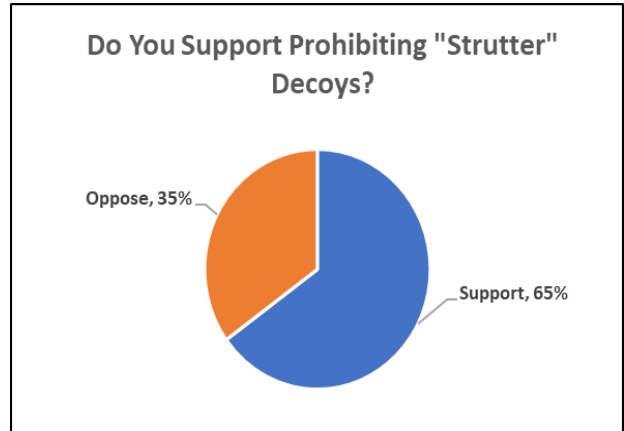
Appendix 1 cont. – Expanded Statistics by Game Zone. Note - Individuals who were neutral or had no opinion on the question were not included in the percentages.

**Options for recommendations for legislative change: Prohibit the use of “Strutter” decoys.**

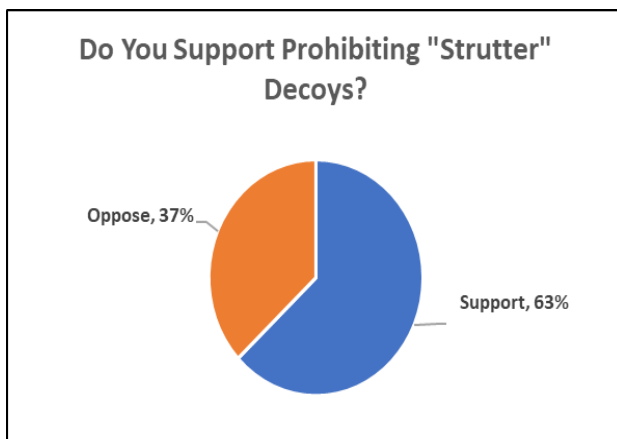
**Statewide**



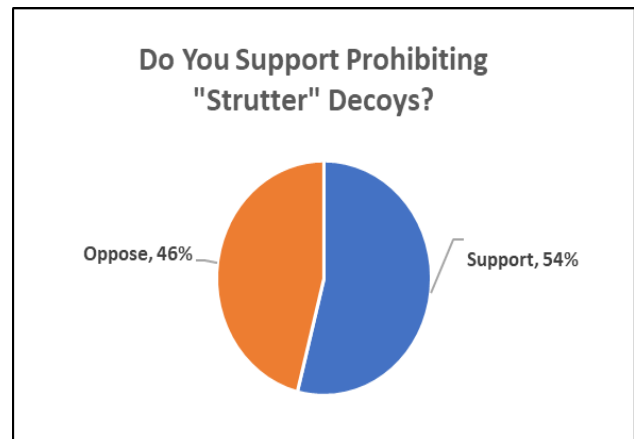
**Game Zones 1 & 2**



**Game Zone 3**

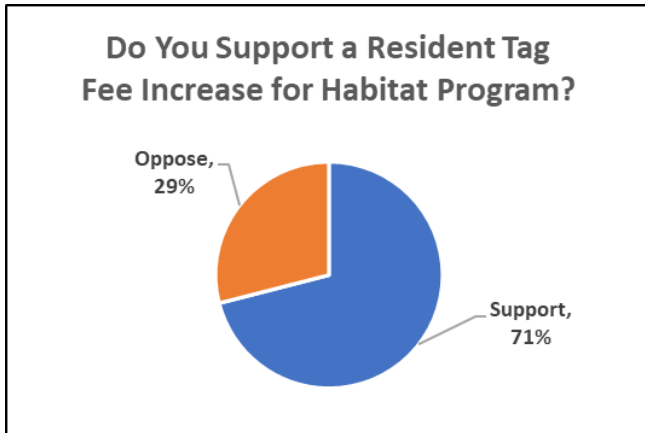


**Game Zone 4**

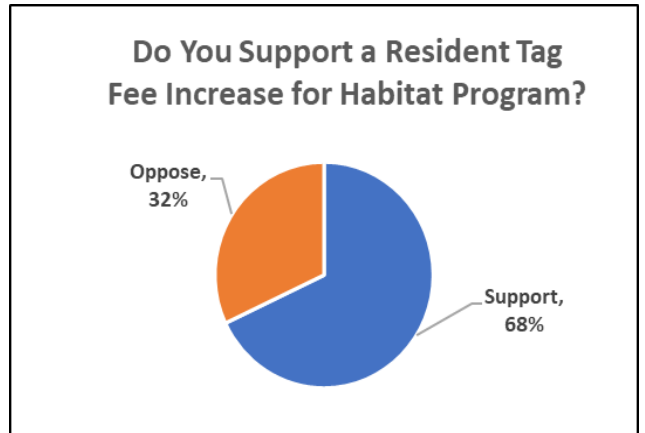


**Would you support a fee increase for resident turkey tags if the revenue was dedicated to funding a habitat improvement program?**

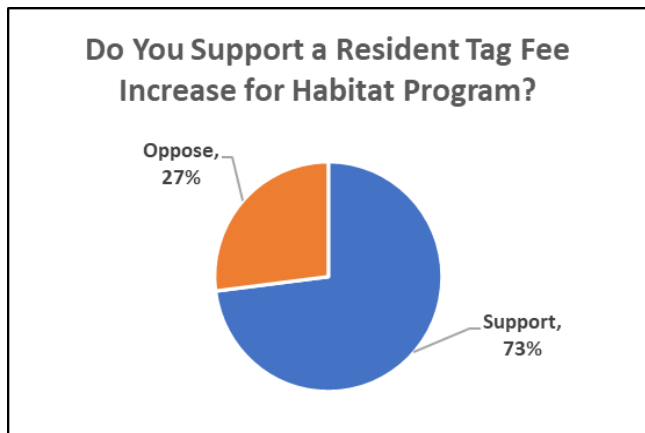
**Statewide**



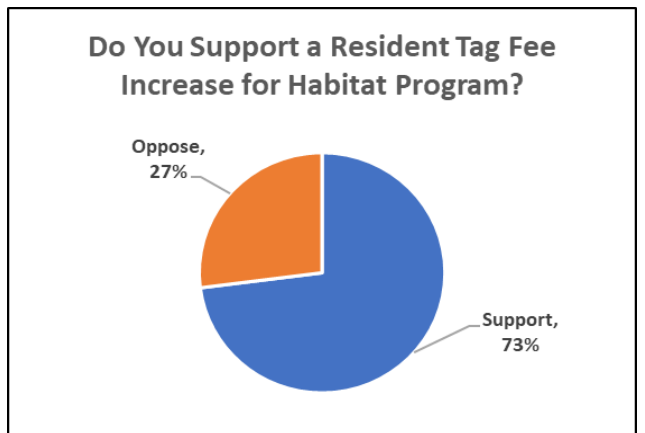
**Game Zones 1 & 2**



**Game Zone 3**



**Game Zone 4**



**What is the latest date you would support to start the season?**

Among all respondents:

- Statewide April 7
- Game Zones 1 & 2 April 9
- Game Zone 3 April 5
- Game Zone 4 April 7

**What is the latest date you would support to start the season?**

Among those who were neutral or supported a later start date:

- Statewide April 10
- Game Zones 1 & 2 April 11
- Game Zone 3 April 8
- Game Zone 4 April 9

**The current season is 40 days. What is the shortest season length you would support?**

Among all respondents:

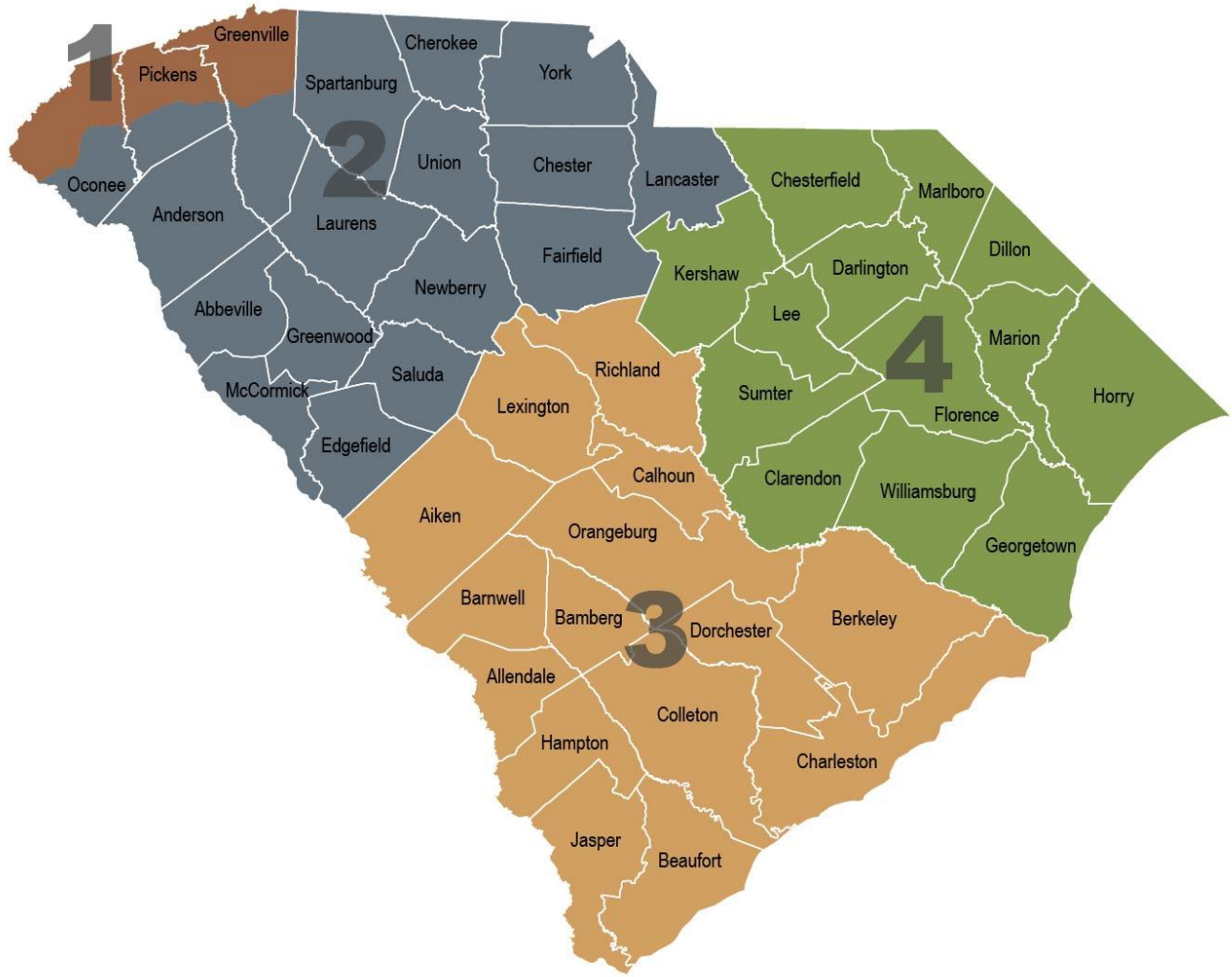
- Statewide 29 Days
- Game Zones 1 & 2 27 Days
- Game Zone 3 30 Days
- Game Zone 4 29 Days

**The current season is 40 days. What is the shortest season length you would support?**

Among those who were neutral or supported a shorter season:

- Statewide 28 Days
- Game Zones 1 & 2 27 Days
- Game Zone 3 29 Days
- Game Zone 4 28 Days

Appendix 1 cont. – South Carolina Game Zone Map.





## Appendix 2. Public Meeting Schedule and Summary

### Public meeting schedule

\*All meetings began at 6:30 p.m. and ended no later than 8:30 p.m.

**July 11:** Clemson Pee Dee Research and Education Center (REC), Pitner Center Auditorium; 2200 E Pocket Road; Florence, SC 29506.

**July 13:** Palmetto Electric Cooperative, New River Community Room; 1 Cooperative Way; Hardeeville, SC 29927.

**July 25:** Orangeburg-Calhoun Technical College, Roquemore Auditorium; 3250 St. Matthews Road; Orangeburg, SC 29118.

**July 27:** Greenville Technical College Barton Campus, University Transfer Auditorium; 506 S. Pleasantburg Drive; Greenville, SC 29607.

**Aug. 1:** Piedmont Technical College Newberry County Campus, Community Conference Center Auditorium, 1922 Wilson Road; Newberry, SC 29108.

Each meeting began with an introduction and meeting outline by Charles Ruth, followed by a presentation on *Wild Turkey Populations in South Carolina* by Jay Cantrell.

Presentation topics included:

- SC turkey reproduction trends
  - Since 2002 trends show less than two poults per hen
  - Similar trends seen throughout the SE states.
- SC harvest rates
  - Peaked around 2002, followed by a 20-year declining trend.
  - Legislative changes to increase opportunity by expanding the length of the season resulted in a brief increase in harvest. There were no additional birds, just more days to harvest them.
- SC turkey hunters
  - Approximately 50,000 turkey hunters in 2023 compared to the 35,000 in early 1990s.
  - Today it takes an average of 20 days to harvest (40% increase in effort) a single turkey.
- Harvest/days of the season data now available through SC Game Check.
  - April 1 biggest day of harvest when GZ 1 and 2 open, WMAs open, GZ 3 and 4 reopen for those who took a turkey in the previous 10 days.
  - Statistics over last three years show:

## Appendix 2 cont.

- 22% of harvest occur after 12:00 noon
- 8% of harvest are jakes
- 9% of turkeys harvested on public lands (percentage of public land compared to private is similar)
- 9% of all harvest non-resident hunters (mostly GA, FL and ½ from NC)
- Reported hunter success over season
  - 20% take one
  - 7% take two
  - 2% take three
- Ongoing research
  - Eight large turkey study sites across the SE, including LA, GA, SC and NC, since 2014 on public and private lands that SCDNR is actively coordinating with.
    - A hen lays an egg a day until her clutch is complete then begins incubation process.
      - Research shows that similar dates across all sites and similar year to year at each research location.
  - Additional studies are being done across the SE but focused on other aspects of turkey life history.
  - SRS-three years into five-year study-preliminary data shows that hunting may influence reproductive success.
  - Webb Center project showed average hen lays first egg on April 10 and begins incubation 12 days later.
    - Shows about 60% of turkey harvested before the average hen begins laying eggs.
    - Earlier laying hens have higher success rates.
    - Hens want to reproduce multiple times a season with as many gobblers as possible.
- Timing of Harvest
  - SCDNR sees the first hens laying mid-March with April 9 on average. Breed within a few days of egg laying.
  - GZ 3&4: 65% of harvest thru April 9
  - GZ 1&2: 45% of harvest thru April 9
  - Statewide over half of harvest occurs before the bulk of breeding occurs.
  - SRS gobbling shows that peak of gobbling is first two weeks of April. The occurrence in May is still higher than in early to mid-March. Research shows similar pattern with hunted sites, with a decline starting around when season opens.
- Use of Strutter Decoys
  - 23% of hunters state they use strutter decoys but showed no difference in

## Appendix 2 cont.

success rate, number of birds harvested or effort. You can interpret this as they have no effect or that the decoys are propping up the less experienced hunter. No way to scientifically determine this.

- There are several things we can do legislatively and many things we can't.
    - SCDNR can't affect weather, disease, private landowners' habitat, predation control on private lands, etc.
    - Legislatively, SCDNR can recommend season start dates, season lengths, harvest bag limits, methods, etc.
    - All regulations and laws are legislatively created.
- 

### **Florence**

**59 public attendees**

**14 SCDNR staff**

**Jerry Lee, SCDNR Board**

**Martha Herbert, SCDNR WFF Advisory Committee**

6:30 Meeting opened by Charles Ruth. Outlined the meeting and introduced Jay Cantrell to present a brief presentation on the current wild turkey population in South Carolina.

6:35 Presentation began.

As a state agency, SCDNR can only control so much in relation to the decline in turkey populations. From a regulatory or legislative perspective, we can only look at season dates, harvest numbers, hunting methods, season start dates, etc. since turkeys in SC are not producing as many birds as hunters are harvesting.

7:12 Jay Cantrell opened the floor to public comments and questions.

- Marlboro, Dillon and Chesterfield counties
  - Need to move the season dates to April 1 since we are not seeing hens or hearing gobblers.
  - Landowners need to increase trapping of small game predators. Need to look at incentives for trapping predators. Maybe a time limited bounty just surrounding the nesting season.
  - Look at a temporary reduction to one tag for a couple years.
  - Need to get predator balance back in check.
  - People need to take advantage of depredation permits for year-round trapping of land nest predators.

## Appendix 2 cont.

- Response: bounties would cost several million dollars per year without killing any additional predators.
- How much would you need to get more people trapping that are not already trapping?
  - Do we promote the depredation permit programs?
- What can we do statewide to help spread the word about promoting quality private landowners, assisting private landowners, etc.
  - Response: we have a small game program that has hundreds of land management plans.
  - Statewide timber stands are becoming smaller acreage, which is just one aspect of timber management that affects habitat.
- Agree that individuals need to focus on predation management, but that is not something SCDNR can influence. Individual landowners need to do it and influence their close friends.
- Need to push the season back, that is what is affecting the reproduction more than the number of tags.
  - Response: SCDNR continues to support a season open date of April 10.
- Georgetown County
  - Any thought of county harvest limits?
    - Response: state law only allows SCDNR to manage on game zone level or larger.
    - To regulate at a smaller level would require a constitution amendment.
- Sumter County
  - How are farmers affecting the success of nests? Is there something SCDNR can do to possibly incubate eggs from nests that the farmers disturbed. Specifically, the nests in hay and wheat fields.
    - Response: they won't have a hen that can teach them how to survive in the wild.
    - Has been done in the past. The wild eggs that were farm raised saw very little success.
- Everything is eating the eggs from eagles to racoons. Need to promote trapping.
- How does burning affect all this?
  - Response: Less than 3% of the state sees any prescribed burning in any given year. According to the SCFC, last five years from April 1-June 15 of year is seeing almost no burning during nesting seasons. May be a very local effect, but not the main source of the population declines.
  - Some habitat work requires burns during nesting season.

## Appendix 2 cont.

- Hens are nesting in areas you find one to two years of growth, which is not the area that is being burned on any given year.
- How do we get more burning? How do we encourage it?
  - Response: SCDNR and SCFC both promote burning.
  - During active burning, SCDNR has not found any evidence that a nest has been burned up at Webb Center.
  - SCDNR needs to continue to promote timber management, burning and predator management on individual properties.
- Marlboro County
  - I kill two turkeys a year. Whatever you make the limit, people will take that many because they can.
  - What about pigs? We have always had racoons, coyotes, etc. but not always had pigs.
    - Response: evidence shows that pigs are not targeting nests. Also, there is no evidence of lower success where pigs are denser.
    - We have also looked at coyote scat but did not see a ton of evidence that coyotes are eating a large volume of turkey eggs either.
- How many times will a turkey nest?
  - Response: no more than three times a year. Each clutch is less successful.

7:55 Charles presented possible solutions to address the issue of declining turkey populations:

- Limit jake harvest to youth only
  - Prohibit strutter decoys
  - Limit or eliminate afternoon hunting
  - Bag limit reduction
  - Shorten season length
  - Later turkey season start date
- 
- Large number of attendees indicated that they would support a two-bird limit with a later season start date.
  - We the hunters need to contact our legislators asking them to follow the science.
  - What about limiting afternoon hunting, at least part of the season? PA restricts afternoon hunting for half the season.
    - Afternoon hunting is easier than calling a bird off the roost.
    - Afternoon hunts are successful because the hen is pushing the gobbler off them...allows you to not pressure the roost.
  - People need to spend more time calling them, not harvesting them to allow the birds to reproduce.
  - Close the season for a year.

## Appendix 2 cont.

- Response: the legislative process won't allow that.
  - AL and GA have shifted their seasons, has not been long enough to see how successful it has been.
    - Response: SCDNR has looked at average bag limits, season lengths and state dates.
      - Average is two birds
      - States are pushing back start dates
      - Shorten season
        - Why would you have to shorten if you push it back?
          - Because the more days people can hunt the more birds that will be harvested.
  - NC should be the model. Their harvest rates are increasing, they start later, two-bird limit. If we started the same time NC does, we would have less non-resident take.
- 8:30 SCDNR Wild Turkey Public Meeting Survey was distributed. SCDNR wildlife staff were available for private comments. Meeting attendees were asked to complete the survey and either turn it in at the meeting or mail it to provided address.

Meeting adjourned.

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## Hardeeville

**34 public attendees**

**10 SCDNR staff**

- 6:34 Charles Ruth opened and outlined meeting. Introduced Jay Cantrell to give the presentation (summarized above).
- 6:39 Jay Cantrell presented brief presentation on current turkey research.
- 7:14 Jay opened the floor to comments and questions.
  - Does SCDNR have any data on leading causes of nest failure?
    - Response: varies a lot site to site. Hard to tell because cameras on nest affects hen behavior.
      - This includes abandonment, disturbance, predation (various species, up to 40% snakes).
  - What did the MSU study state as the number one cause of nest loss?

## Appendix 2 cont.

- That study indicated it was raccoon at that site, but this varies site to site depending on what predators are present.
- Repetitive trapping on private lands shows improvement in success of nests. Can't be regulated on a statewide basis due to the large amount of land that will never see a trap.
- The average poults/hen by August is 3-4 which is desirable, but we are seeing more and more hens with zero poults resulting in an average around 1.5/hen. Declining steadily since 1982.
  - Shows we need to look at a method to reduce the harvest or the population can't maintain.
  - The harvest was reduced legislatively a few years ago, but not enough was done.
    - Most people are already only killing one per season and mostly early. The one bird first ten days doesn't change this result.
    - The legislative changes did not change what SCDNR is seeing with the reproduction success, etc. The first 10 days are and always have been at time when the majority of birds are taken.
    - We continue to kill a lot of birds before they have a chance to breed. The timing is off and interfering with breeding. What can we do to change that?
    - Most states in SE are opening before the height of breeding. NC is the only one that is starting after what is considered the height of reproduction.
- NC has delayed start date to second Saturday of April. This season they saw record harvest. The delayed start date appears to have a positive effect on overall populations.
- SCDNR has in the past and will continue to recommend a start date of April 10.
- Currently we get a lot of NC out of state hunters, even though they have better success rates up there. We need to push date back, so NC hunters not enticed to come to SC.
  - Taking out the NC harvest alone will not solve SC's population problems alone. Some NC hunters will still come.
  - NC also has a reduced bag limit of two.
- South Florida and MS have the earliest start dates and they are seeing very negative effects on populations from non-residents that are from states that seasons have not started yet.
- Is there anything that SCDNR can do to incentive the taking of predators? Bounties come up frequently, but it has never had a successful impact. You pay for the ones already be taken for free. Only 750 trappers in SC. Expensive to get started in and not enough money to get people into trapping.
  - Trapping takes a huge effort, time and money. Need to focus on habitat since good habitat can support more predators.
  - Need to get more large landowners burning.
  - Need more education and outreach on burning and predator/habitat management.

## Appendix 2 cont.

- A lot of largescale habitat changes are dependent on forestry and agriculture industries.
- If you look at statewide timber stands from early 2000s to 2017, a 104% increase in timber stands over the age of 15 years.
- Only 3% of the state see active burning. Need more burning and more thinning.
- Site prep techniques have also changed significantly.
- Are you seeing population declines or problems the same statewide or regional differences?
  - We don't see enough difference in breeding timing across the state since we don't have a significant difference in latitudes, etc. in our small state.
  - Individuals' properties around the state are doing well since they are managed well by private landowners and the decisions they are making for habitat and harvest. Properties will strong predator control, active burning, delay starting date of their season, etc. are seeing an increase.
  - We still have turkeys, but if we don't make changes now, we may get into an unfixable situation.
  - One season start date would help remove pressure on turkeys in those areas where they currently have an earlier season open date.
  - The current varied season start dates were never based on biological research.

7:47 Jay Cantrell presented some of the possible solutions that have been suggested.

- Does SCDNR have any data on the effects of closing shooting hours at 1:00 similar to Missouri?
  - No, but we do know that over 20% of harvest in SC is occurring during the afternoon.
  - Is the current afternoon harvest additive to traditional harvest, we do not know.
  - If you remove afternoon hunting, you maintain season length but reducing opportunity.
- Do you have data on when youth hunters are taking on most of their birds?
  - Does restricting afternoons or weekend opportunities reduce the youth's harvest to get out into the woods and harvest a turkey?
- We are not shooting hens. Many would like to see the seasons stay the same so that research can be done on the other variables such as weather. Need to go slow with making changes.
- The purpose of these meetings is to be prepared if the legislature calls for a change in turkey season. SCDNR is likely two years away from initiating regulation changes to allow for some additional research to be completed. Still need to ask how long do you allow declines before you act?
- How long will it take to see change if you make season changes now?
  - In NC it has taken several years.
  - Enough people are stating they no longer see hens, see huge reduction in gobbling, etc.
  - SCDNR is getting a lot of pressure to do something now.
- If things improve SCDNR can recommend higher bag limits and season lengths, but not likely change the start date back since that would prove the later start date is greatly improving reproduction.
- Didn't see any birds in the 1970s?
  - That is when SCDNR started doing restoration efforts for turkeys.



## Appendix 2 cont.

- Turkey hunting didn't really take off till mid or early 1980s in SC.
- Before the 1960s we had a ton of birds and were a source for other states. Birds from the Francis Marion went to the Piedmont due to better habitat.
- In 1982 we were only killing around 4000 birds.
- Is restoration in question at this time?
  - No, we do not have any spots in SC where they are simply no birds. If we in restoration mode the season would have to be closed.
  - Long way from there. Lots of issues with where you would get birds from.
- The goal is to get the harvest down temporarily so reproduction can start improving.
- Only 12 counties were ever at the March 15<sup>th</sup> start date. The rest were April 1. Then went to March 20 statewide. This caused a problem because this allowed 22 counties now to have the earlier start date.
- Research also shows that turkeys are henned up in March and that the best hunting is really in April.
- In Jasper County we have large acreage, we have taken 51 gobblers per season, no jakes. Over these last few years, we are hearing less gobbling. Seeing hens in trees making very little noise. How do hens even know where to go if gobblers are not talking?
  - We are killing mature birds that are weighing more like 13lbs. instead of the historic 18lbs.
  - Is there less gobbling overall regardless of the population out there? Why are the birds not talking?
    - Response: SCDNR currently doesn't collect any data on body weights but has not been a complaint that we have heard.
    - We have heard the complaint about less gobbling. Science and data is not showing us why. Maybe birds have learned to stay quieter so that coyotes don't prey on them as much. Might have killed out the louder birds and genetically pushing that towards the quieter birds.
    - Look at deer in high fence and how quickly you can change the traits of the herd.
    - The more birds you have the more two-year-old birds you are going to have that gobble nonstop.
    - We have historically underestimated the social aspects of turkeys.

8:30 Jay Cantrell and Charles Ruth wrapped up the meeting and made themselves available for individual discussions.

## Appendix 2 cont.

### Orangeburg

51 Public Attendees

10 SCDNR Staff

Rep. Russell Ott, Rep. Bill Hixon, Mike Hutchins- SCDNR Board Vice Chairman, Titus Duren- SCDNR WFF Advisory Committee

6:30 Meeting opened by Charles Ruth who made introductions of special attendees listed above and outlined the meeting.

Russell Ott made a brief statement recognizing DNR staff for their efforts with the Big Game Project.

Charles introduced Jay Cantrell to present a brief presentation on the current wild turkey population in South Carolina.

#### Questions/Statements from the Public:

- Is one of the topics on the turkey hunter survey that's distributed asks how "seasoned" a hunter is versus a "newbie". Charles responded that the average age of a turkey hunter is 44 years of age. He also stated that coyotes are not as big of a problem for turkeys. Charles referred to the coyote versus deer study at SRS.
- Can we consider outlawing shooting jakes and back up the start date to March 15<sup>th</sup>?
- What can the hunter do to help DNR do more? Russell Ott spoke and stated not all hunters agree, but everyone should just work together.
- What do we think about reaping? Jay responded it's been banned on WMA's. It is allowed on private land, but the DNR discourages the practice.
- We should stop reaping and stop afternoon hunting.
- Studies and biologists recommend later start dates.
- The coyote workshop should address turkey predation. Education outreach should be implemented. DNR should add links to the web site regarding the coyote workshop. Resources should be provided to landowners and more education on burning.
- We should start the season April 11<sup>th</sup>, referring to a biologist he spoke to. Dates hunting typically are very warm. He was against shifting the season dates and he wanted to know if we are doing predator control on SRS.
- What affect predation have on our study? Regarding fire, hens aren't picking sites during the season. Jay presented prescribed fire facts.
- Do we notice that the nests shift?
- Regarding habitat, are they offering landowners incentives? What would it take to get that started in South Carolina? The General Assembly should look into it.

## **Appendix 2 cont.**

- Russell Ott South Carolina is not so restrictive regarding turkeys. New laws and regulations may not have an effect on the turkey population. Turkey harvest in North Carolina is going up. They have a two-bird limit and their season starts the second Saturday in April.
- Changes were made in South Carolina three years ago and tags were reduced from five to three. Do we feel that we're seeing the benefits of those changes?
- If we implemented the April 10<sup>th</sup> start date, how long until we see results?
- Does our study include what they're finding in North Carolina? North Carolina's success is the answer and we should go to the legislature to change our regulations.
- Have we looked at states outside of the southeast? Jay said the NE would be the best example. They have a later season. Michigan, Wisconsin, and Pennsylvania are doing very well.
- How many turkey surveys were turned in? Charles responded approximately 6,000. How many people say they kill more than three turkeys? Many people are killing more than the limit.
- A man representing six other hunters from Florence County said his group recommends starting the season later. We should not allow anyone who has killed a turkey in the last 10 days should not even be allowed to guide for another hunter. They are willing to change dramatically.
- Tennessee changed their start date and added five extra days to the end of the season. What do we think about that.
- Nesting success for early breeders compared to hens that breed later in the year. Can you touch on that?
- Are we considering another restoration project? What is DNR doing now or what are we planning for the future? Charles stated we are a long way from another restoration project.
- Feels there's a huge lack of education for the public.
- Strutter decoys are a safety issue. Shoot less, start later.

8:30 Charles wrapped up the meeting.

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## **Greenville**

**94 public attendees**

**10 SCDNR Staff**

6:30 Meeting opened by Charles Ruth. Outlined the meeting and introduced Jay Cantrell to present a brief presentation on the current wild turkey population in South Carolina.

6:35 Presentation began.

As a state agency, SCDNR can only control so much in relation to the decline in turkey populations. From a regulatory or legislative perspective, we can only look at season

## Appendix 2 cont.

dates, harvest numbers, hunting methods, season start dates, etc. since turkeys in SC are not producing as many birds as hunters are harvesting.

7:19 Jay Cantrell opened the floor to public comments and questions.

- What is SCDNR's plan to present to Legislatures?
  - SCDNR getting prepared because have a feeling Legislatures will be bringing up topic in 2024 session.
- Does decline have any correlation with wild hogs?
  - There has been a past study looking at hogs and dummy turkey nests. 1% of the nests were predated by hogs. Turkeys do no nests where hogs are. Turkeys move to higher ground to nest.
- Is there predator control at SRS?
  - No
- Comment – Own 60 acres in Pickens County and in early 90s heard gobblers a lot but now not hearing or seeing birds.
- What about trapping on WMA land?
  - Dilemma how to have trapping on WMA land – conflicts harder to overcome. Conflicting areas.
- Coyote predation
  - Project at UGA – transect lines through coastal plain, sandhills, and piedmont. Collected scat for DNA analysis. Genetic people studied scat and noted only 9% of turkey was found in coyote scat.
- Corn research
  - Corn will increase raccoon population.
- CWD comment
- Gentleman mentioned he is disabled and feels tourism has a factor in harvest. Will be out hunting early in morning, and hikers and people walking dogs ruining hunts. Noted general WMA users do not have restrictions, but WMA hunters do.
- Question about predator management permit (PMP).
  - Show slide of PMP application and explained it is a free permit that allows individuals to continue trapping outside the trapping season (March 1 through November 30).
- Burnings at SRS?
  - Charles explained that fire is good, and fire is actually suppressed across the state. Showed the prescribed fire slide to review.
- Has habitat changed in the last 30 years?
  - Yes. 2004-2017 % of statewide timber stands <15 years decreased and stands >15 years increased 104%. Major change is forestry, agriculture, human population, and development.

## **Appendix 2 cont.**

- Comment – Hard time finding people to help burn.
  - What is the carrying capacity for turkeys?
    - Approximately 90 thousand birds statewide. Change with habitat.
  - Will SCDNR share recommendations to public?
    - Showed slide of possible Legislative/Regulatory solutions. Public will be able to provide their input in survey at end of meeting.
  - Question of how one can reach a Representative.
  - What other entities are contributing to turkey research?
    - Forest Service, SCDNR, State Forests, timber companies, NWTF. President of SC NWTF, Larry Deas, was at meeting and asked to comment on this. Mr. Deas discussed NWTF's Habitat for the Hatch program that focuses on combatting the decline of wild turkey populations in the southeast. Habitat for the Hatch plans to send \$40 million over the next 10 years creating nesting habitat on both private and public lands.
  - Comment to not restrict turkey hunting to just mornings. Many people work and rely on afternoons to hunt.
  - Comment to raise turkey tag price for habitat work
- 

## **Newberry**

**59 public attendees**

**16 SCDNR staff**

**Bill Hixon-State Representative**

**Jake Razor-SCDNR Board Member**

6:30 Charles Ruth welcomed the public and introduced special guests. Introduced Jay Cantrell to begin overview presentation.

Video version of the presentation will be available online next week with survey for those that were not able to attend this or any of the meetings.

7:15 Jay Cantrell opened the meeting to public comments.

- Do armadillos eat turkey eggs?
  - Response: Yes they do, but not a main nest predators. The top of the list is mostly racoons and snakes. Armadillos have not shown up in any of the research as a main predator even though their population rise has coincided with turkey declines.

## Appendix 2 cont.

- We have seen coyote populations have a direct impact on deer populations, but research on scat DNA testing, shows they are only an incidental predator on turkeys.
- LPDV-How is it transmitted? Is it caught or spread?
  - Response: Still trying to determine if spreading from hen to egg and what birds are most at risk.
  - Limited studies, but one study does show that infected birds had a lower reproductive success.
- Has legalizing baiting for deer had an effect on the turkey population, especially with disease?
  - Response: If you do have a disease issue, baiting is a negative situation since the baiting creates artificial movement of turkeys.
  - No smoking gun at this time showing this is a major factor in decline.
- How many times do birds reproduce/lay eggs?
  - Response: March-August, but majority are lay eggging the 10<sup>th</sup> of April and poults hitting the ground the end of May.
  - First attempt is the often the most successful.
  - We are seeing a larger number of hens that completely failed or didn't attempt to reproduce.
- Are we the only state that has the one bird in first ten days rule? Is it having any impact?
  - Response: Most birds killed beginning of season; most hunters kill only one so not sure of the true impact. We are finding that the successful hunters are taking another person as a trigger man during that window.
- In NY they do not bait, and they are not seeing a decline in turkey populations. Cameras show that bait piles are just creating easy access for predators.
  - Response: We do know that baiting has a positive impact on racoon populations, expanding their range, providing another food source.
  - Need to account that their season dates are also better aligned with breeding dates and usually shorter season dates, with smaller bag limits.
- It was mentioned that there has not been a spike seen because of the 10-day rule. Is that because we have double the number of hunters?
  - Response: We have seen more hunters, but whenever you start the season is when most of the birds will be seen.
  - There is not a difference between the timing of laying eggs between the Upstate and Lowcountry.
  - Biologically, SC should be looking at pushing back to at least April 10 or peak of incubation which is around April 22. NC has had a two-bag limit, 30-day seasons, starting second Saturday of April and they are seeing an increase in birds.
  - Across SE, average bag limit is two, season length is 33 days, about ½ pushing back start dates.

## Appendix 2 cont.

- Never had scientific evidence to start March 15 in the Lowcountry. Had to overcome tradition, but research conflicts with this tradition.
- Within reason, regardless of when we start, the first 10 days will see the most successful harvests.
- We will gobble the turkeys out regardless when we start.
- How many birds are we seeing get through to the 28-day age?
  - Response: Less than a quarter hatch, about a 1/3 survive to a month old, averages 30% (or four birds) surviving to 28 days.
  - Still trying to determine why less birds are successful or not even laying at all.
- Is there a food source that is diminished, such as grasshoppers?
  - Response: We do know that insect populations are going down, but is it weather, spraying, etc. and it is low enough to have an impact on turkey food sources.
- It is SCDNR job to look at trends in research and work with other states to identify when populations cannot continue to sustain how things are going. We can only influence bag limits, season dates, etc., but we cannot control habitat improvements on private lands.
  - Right now it does look like pushing back season dates will help improve reproduction success and reduce harvest through smaller bag limits. If we can get reproduction success back up, which would allow us to increase the birds we can harvest in the future.
  - Not at panic mode yet but cannot continue or will be there.
- We are in the Piedmont...we don't have the agriculture they have in the Lowcountry so difficult to have statewide open date. Easier to get Upstate hunters to push back a start date. Can we regulate the birds how we feel best for the Upstate? We should not stay on April 1 just because the Lowcountry won't push to April 10.
  - Response: It is a good point that traditions and historic hunting practices are not the same statewide so even though the biology doesn't support it, better than nothing.
  - We are having these meetings to see what acceptance the public has for proposed changes.
  - It is not just science, cultural and traditional factors come into play.
- We must do something to make a change. That is the bottom line.
- Research shows that our hunting has an impact on the birds.
- Private landowners have a great opportunity to manage predators. We have seen great success with depredation permits. Maybe have a drawing for people that are doing actively doing predator depredation on their properties. Maybe a drawing with prize from NWTF.
  - Response: we have a free predator management program, property based, which allows for trapping year-round on your property.
  - We can do things to make people more aware of the importance of predator control and habitat management (burning and tree thinning) that would help populations.
  - There is always a lot of property that never sees a burn or trapping, so won't have a statewide impact.

## Appendix 2 cont.

- The SRS is an un hunted population and not representative of the other non-hunted properties because it is so intensively managed.
- Deer are learning how to avoid and coexist with the coyote populations. Are the turkeys doing the same thing, such as not gobbling so they don't attract the coyotes.
  - Response: The Rio Grande turkey are very vocal, and they have always existed with coyotes. At this point, the coyote population has peaked, and they are leveling out. We have even seen a slight increase in deer populations.
  - We have seen that does that are more distanced from their fawn and visit them less have more success.
  - We may have possibly altered the turkey population since the more vocal birds have been harvested and quiet birds are the ones reproducing.
- Turkeys don't gobble anymore. Over the last eight years, turkeys may gobble one day and not the next even if still there.
- We do have a coyote incentive program where we tag 16 coyotes a year, 112 tags returned so half still out there. It was historically a lifetime hunting license to now a \$3000 cash prize.
- What about the feral hog?
  - Response: They are not showing up as a big issue. Only about 2% or less of monitored nests across the state have been destroyed by hogs. They are not overlapping with turkey populations where they like to nest.
- Need to do something or will be no turkeys in 20 years.
- Any research on effects of habitat loss as population expands in SC?
  - Response: We know that we have added over a million people in the last 25 years, so we do know that habitat loss is a factor. We cannot control that. We need to focus on the habitat we have.
- What about solar fields? Are they having an effect? Only reason they are being put there is because of incentive programs which is a huge habitat loss.
- Decoys...they are the biggest problem. People hunt in the afternoon with decoys and don't even call birds? You could ban decoys for life. The art of turkey hunting is the calling not the shooting.

8:08 Jay presented options that SCDNR has collected from discussions with other states, research and feasible to do through legislation. Survey was distributed.

Jay was asked to present data on dates for nest initiation again.



**Appendix 2 cont.**

**SCDNR Wild Turkey Public Meeting Survey**

County of Residence: \_\_\_\_\_

County/Counties you turkey hunt most often: \_\_\_\_\_

Have you observed a decline in wild turkey populations in the area(s) you hunt in recent years?    **YES**    **NO**

Do you feel legislative / regulatory changes are needed to address turkey declines in South Carolina?    **YES**    **NO**

The following are possible options for recommendations for legislative change, indicate your level of support for each one:

	<b><u>Strongly Support</u></b>	<b><u>Support</u></b>	<b><u>Neutral</u></b>	<b><u>Oppose</u></b>	<b><u>Strongly Oppose</u></b>
Later turkey season start date	5	4	3	2	1
Shorter season length	5	4	3	2	1
Bag Limit reduction	5	4	3	2	1
Eliminate afternoon hunting, all season	5	4	3	2	1
Eliminate afternoon hunting, 1 <sup>st</sup> 10 days	5	4	3	2	1
Limit Jake Harvest to Youth Only	5	4	3	2	1
Prohibit the use of strutter decoys	5	4	3	2	1

What is the latest date you would support to start the season? \_\_\_\_\_

The current season on private land is 40 days. What is the shortest season length you would support? \_\_\_\_\_ **days**

What do you think the season bag limit should be?    **1**    **2**    **3**

Would you support a fee increase for resident turkey tags if the revenue was dedicated to funding a habitat improvement program?

What is the maximum amount you would pay for a set of resident turkey tags (currently \$5.00)?

Please list any other ideas you have for potential legislative/regulatory changes for wild turkeys in South Carolina:

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Additional comments:

Please drop in box or mail to: **SCDNR Big Game Program, PO Box 167, Columbia, SC 29201**

Thank you for your time and participation!

### Appendix 3. Survey comments summary

Total surveys: 1,891

Theme	Code	Frequency	Percent
Predator Control	Encourage trapping/pred control	234	12.40%
Predator Control	Less restrictions	137	7.20%
Reg Change	Change seasons	110	5.80%
Reg Change	Reduce Limits	107	5.70%
Reg Change	Ban/restrict decoys /fanning/ reaping	100	5.30%
Non-residents	Increase \$	83	4.40%
Habitat	Avoid burning during nesting	72	3.80%
Habitat	Incentive programs	70	3.70%
Reg Change	Increase fees	66	3.50%
Other	OTHER	62	3.30%
Non-residents	Reduce tags	61	3.20%
Habitat	Habitat general	54	2.90%
Reg Change	Temporary season closure	54	2.90%
Enforcement/Punishment	LE	52	2.70%
Reg Change	Limit jake harvest	52	2.70%
Habitat	Forestry practices	49	2.60%
Reg Change	End/restrict baiting	40	2.10%
Non-residents	End/limit out-of-state	40	2.10%
Habitat	Habitat on public land	39	2.10%
Predator Control	More bounties	36	1.90%
Reg Change	Statewide season	36	1.90%
Trust	Science not politics should determine	31	1.60%
Habitat	education	30	1.60%
Habitat	Increase Burning	30	1.60%
Non-residents	Lottery	27	1.40%
Reg Change	Public/Private land Same	25	1.30%
Other	Increase research	25	1.30%
Reg Change	Restrict afternoon hunting	24	1.30%
Reg Change	Sunset any new regs	24	1.30%
Other	Development hurting turkeys	21	1.10%
Trust	Lack of trust \$	19	1.00%
Other	Bring in more turkeys	19	1.00%
Reg Change	Limits on public land/close roads	16	0.80%
Reg Change	Youth season changes	15	0.80%
Trust	Support for or confidence in SCDNR	15	0.80%

Other	Disease concern /ban chicken litter	15	0.80%
Reg Change	Mgmt by game zone/county	14	0.70%
Other	No Change	14	0.70%
Reg Change	Increase primitive hunting	13	0.70%
Other	Turkeys for future generations	13	0.70%
Reg Change	Ban TSS	12	0.60%
Non-residents	Shorter season	12	0.60%
Reg Change	Don't allow Sunday hunting	11	0.60%
Reg Change	Mandatory time btw harvests	11	0.60%
Reg Change	Fall season	11	0.60%
Reg Change	Ban blinds (exceptions for youth and disabled)	11	0.60%
Other	Turkey stamp	11	0.60%
Habitat	Timing of mowing (pasture/roads)	10	0.50%
Reg Change	Don't restrict afternoon hunting	10	0.50%
Reg Change	Match NC season	9	0.50%
Reg Change	Reinstate check stations	9	0.50%
Reg Change	If tagged out, no calling for others	9	0.50%
Reg Change	Instate lottery	9	0.50%
Bating	Baiting increases predators	8	0.40%
Other	Hunting ethics	7	0.40%
Bating	Aflotoxin	5	0.30%
Reg Change	Sunday hunting everywhere	5	0.30%
Reg Change	Hunting hens	5	0.30%
Other	Hunting not the problem	5	0.30%
Reg Change	End turkey jail	4	0.20%
Reg Change	Restrict cameras	4	0.20%
Reg Change	Quota system	4	0.20%
Trust	Equity of incentive programs	4	0.20%
Reg Change	Allow decoys	3	0.20%
Reg Change	Saturday season start	2	0.10%
Habitat	Herbicides hurt turkey habitat	0	0.00%