



Turkey Hunting During the Pandemic

written by David T. Cobb

*A survey led by the Commission provides
insight into hunter participation in
the spring of 2020*

Spring wild turkey hunting is a favored activity for many hunters in North Carolina and across the country. So, managing turkey hunters and turkey hunting is a priority for state wildlife agencies, including the N.C. Wildlife Resources Commission. It's a task that became even more challenging in recent years due to the pandemic.

In January 2020, China confirmed that a cluster of SARS-CoV-2 (COVID) infections was discovered in Wuhan province. The World Health Organization and U.S. Centers for Disease Control then issued health advisories. By late January, the virus had been discovered in the United States, prompting a declaration of a public health emergency.

In March 2020, the U.S. government issued a series of advisories concerning travel, gatherings and person-to-person contact. Through March and April 2020, many states began issuing various restrictions on public gatherings, travel and other activities with the potential to congregate people. Although governmental regulations broadly limited our ability to gather, participation in outdoor activities, including wild turkey hunting, was relatively unrestricted.

We asked biologists whether more or fewer people hunted, if individual hunters hunted more or less frequently, or neither of these scenarios. In most states, including North Carolina, more resident hunters hunted turkeys in 2020

Turkey hunting seasons occur during the species' breeding season, so wildlife managers have a challenge balancing turkey biology with the desires of hunters. In some states, turkey populations have exhibited recent declines, causing unease among some turkey hunters and state wildlife agencies about the future of the species. The 2020 opening of spring turkey hunting seasons loosely coincided with governmental regulatory responses to the COVID pandemic. This season was one of the first hunting seasons for any species in the U.S. that could have been impacted by state agency and public responses to the COVID pandemic.

Elevated concerns for potentially declining turkey populations, along with unique challenges in regulating spring turkey seasons, caused some hunters and biologists to be concerned that an increased hunter effort due to closures in workplaces, events and other forms of recreation because of COVID restrictions would potentially place unsustainable pressure on turkey populations. Some state and local governments also worried that traveling hunters, especially nonresidents, could increase COVID cases at local levels. This concern led several states to restrict turkey hunting to residents only. With a potential windfall of free time due to COVID-related travel restrictions and alterations to work schedules, substantial increases in hunting participation, effort and harvest, and subsequent impacts of turkey populations, were valid concerns.

As the Commission's research director, I helped lead our research team conduct a survey of state agencies with turkey seasons. In the spring of 2021, our team used an online survey of turkey biologists to determine the activities of turkey hunters and characteristics of turkey hunting during the spring 2020 season. Using this survey, we were able to determine the activities of wild turkey hunters and characteristics of turkey hunting three to five years prior to and during the spring 2020 hunting season.

We were particularly interested in evaluating license sales, hunter numbers, number of days hunting, individual hunter effort and reported harvest. We evaluated the information by state and across regions: Northeast, Southeast, Midwest and West. Biologists from 47 states replied to the survey. Here is what we learned.

A BUSY SEASON

Opening day of the 2020 turkey hunting season varied across the country from March 15 in Mississippi to May 5 in Washington. Most states (roughly 70%) had no restrictions that would have affected turkey hunters or hunting, or the restrictions were strictly COVID-related with no likely impact to hunting.

Conversely, 30% of the states had restrictions that directly affected turkey hunting, including changes in allowed license sales and restrictions on access to turkey hunting areas. On average, turkey seasons across the country opened prior to state-specific implementation of COVID restrictions but there was significant variation, with season-opening dates ranging from 38 days before to 46 days after state-specific implementation of COVID restrictions.

We asked biologists whether more or fewer people hunted, if individual hunters hunted more or less frequently, or neither of these scenarios. In most states, including North Carolina, more resident hunters hunted turkeys in 2020 and individual turkey hunters hunted more often in 2020. There were fewer non-resident turkey hunters in most states during the 2020 spring turkey season.

Because short-term turkey population trends could be an important factor in determining potential effects of the COVID pandemic on turkey populations and turkey hunting, we asked respondents to indicate whether the turkey population in their state had increased, decreased or stayed the same from 2015–2020.

In general, perceived trends in the West were that populations stayed the same or increased. Perceived trends in the Midwest were that populations stayed the same or decreased. Perceived trends in the Southeast (except for North Carolina, which saw an increase in turkey populations) were

that populations stayed the same or decreased. Responses from the Northeast indicated all three trends, but the majority (64%) of respondents indicated that turkey populations had been stable from 2015–2020.

Questions concerning turkey hunting variables and reported turkey harvest yielded considerable information to complete our COVID scenario evaluations. In most states, sales of spring turkey hunting licenses increased in 2020 compared to the 2017–19 average. Based on survey responses, some exceptions reflected reductions in non-resident hunting opportunities during 2020 due to restrictions on interstate travel or limits on non-resident license sales. More states had increased hunting license sales when their COVID restrictions were in place before the spring hunting season opened than states that enacted restrictions after the season opened.

Estimated active turkey hunters in 2020 was greater than the 2017–19 average in almost all states, and in some cases up to 30% greater. The number of active hunters was greater in states where the time between

implementation of COVID restrictions and the opening date of turkey hunting seasons was greatest. Although fewer states provided data, turkey hunting effort—expressed as total hunter days per season—also increased in 2020 compared to the 2017–19 average. Hunters in states with seasons opening after implementation of COVID restrictions expended more hunting effort, indicating that restrictions provided hunters with more free time and the ability to spend more time afield.

In addition to respondents' estimates of hunting effort, we used responses to calculate effort expressed as days hunted per individual hunter (i.e., hunter-days). Trends across the country in hunter-days mimicked other hunting-related variables; hunter-days increased in 2020 from the previous three-year average, mostly in states with hunting seasons opening after COVID restrictions were implemented.

Reported turkey harvest is the population and hunting variable most often of interest to managers and turkey hunters. This is especially true in areas where populations may be stable or declining. The

reported total harvest was greater in most states in 2020 compared to the previous three-year average. In North Carolina, reported harvest increased by 28%. Even though 60% of respondents reported an increased reported harvest in their state, 40% of states indicated that reported harvest decreased, in one case by more than 40%. Although hunting effort and total reported harvest increased in most states in 2020, take-per-unit-effort (i.e., harvest per hunter-day) decreased in 93% of states from which data were available.

DRAWING CONCLUSIONS

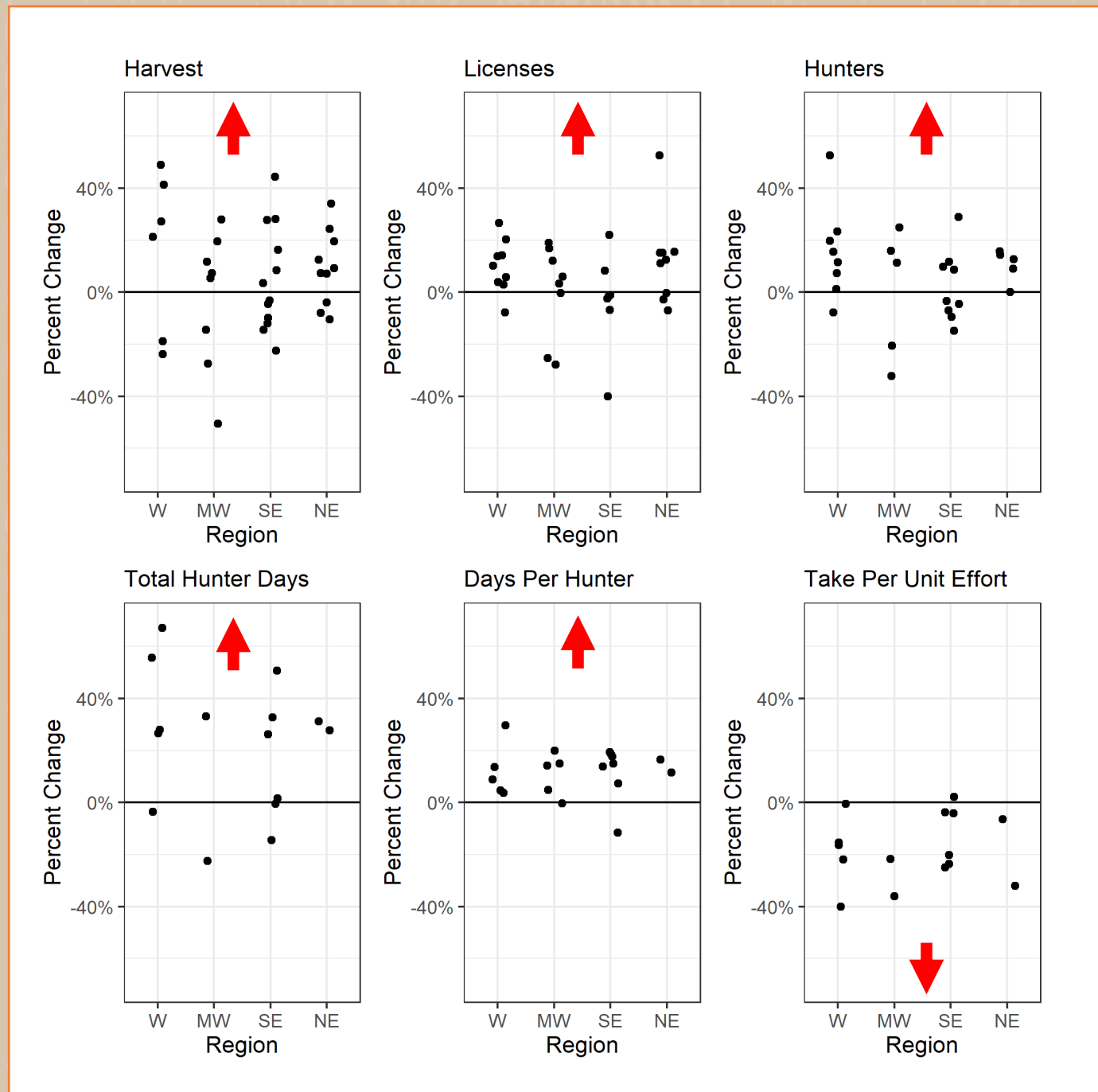
Our results establish a series of reference points for turkey hunting and hunter dynamics before and during the COVID pandemic. Our study was not designed to demonstrate direct cause and effects of the 2020 COVID pandemic on turkey populations. Although we cannot assess impacts on turkey populations, there is evidence that hunting participation and effort increased in 2020 compared to previous years, and the increases or decreases observed in



THOMAS HARVEY/NCWRC

Tracking the Trends

A national perspective on changes in spring wild turkey hunting and hunter variables between the 5-year average for 2015–19 and 2020 during the COVID-19 pandemic. Each dot represents a fish and wildlife agency in the region labeled at the bottom. Abbreviations: W–West, MW–Midwest, SE–Southeast, NE–Northeast.



harvest, were not necessarily in response to changing turkey numbers.

Our results address many questions raised before and during the 2020 spring turkey hunting season, will inform future evaluations and could be used to design direct management-oriented research to evaluate the concepts raised by our work at local, state, regional and range-wide scales. Whether the levels of turkey hunting participation and effort will be sustained in future years is unknown. Spring 2020 was an important reference point that will have to be viewed in the context of COVID when compared to years before and after.

Our results also indicate that hunting license sales, the number of hunters afield, reported harvest, total hunter days afield and the number of days individual hunters were afield all increased in most states during the spring 2020 wild turkey hunting season. For numerous reasons, more individuals had more available time to hunt. In addition, many state governments and agencies, including state fish and wildlife agencies, promoted getting outdoors during the pandemic. Our results show that those efforts, or others, were successful.

We could not measure directly if increased license sales, hunters afield and reported harvest reflected the entry of new hunters into turkey hunting or the return of lapsed turkey hunters, but either is possible. The pandemic effect on longer term Recruitment, Retention and Reactivation (R3) efforts—across all outdoor activities, including turkey hunting—is fertile ground for future evaluation.

Changes in hunting and hunter variables were not consistent in all states. Arguably, the most useful measure of potential effects of hunting on a wildlife population—take-per-unit-effort—decreased in all but one state from which responses were collected. Viewed nationally, our results support many trends that wild turkey managers predicted. Importantly, results also demonstrate that because wild turkeys are a resource whose management is entrusted to the state, and populations and hunting dynamics vary among states, there are many exceptions to generalities about the variables we measured during 2020.

Although surveys of this type do not allow us to determine the impact of changes



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in hunting participation and effort on turkey population density or distribution within or among states, they do suggest that broadened and standardized monitoring and research is needed.

Because wild turkeys are a priority game species of most state fish and wildlife agencies in their range, we believe continued and expanded monitoring will inform questions about hunting participation and changes in turkey populations. Monitoring efforts should be designed and standardized with specific goals allowing the interaction of variables on turkey population dynamics and hunter demography to be examined. In all cases, monitoring efforts should include

wildlife population and habitat evaluations and study of hunter dynamics from a human dimension perspective. ♦

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