

Northern Bobwhite Status Report, 2021

Agriculture and Grassland Wildlife Program Note 21-2



Northern Bobwhite Quail Hunting in Illinois

Quail hunting in Illinois was very popular for most of the early and mid-1900's with well over 150,000 hunters. Harvest was estimated at over 2 million quail per year from the 1950's through the early 1970's. Due primarily to changes in land use and farming practices, this abundant game bird which was a by-product of the agricultural landscape in the early part of the 20th century began a dramatic decline in the mid 1970's (Figure 1). Estimates of harvest and the number of quail hunters put this decline in perspective; by 1990, there were 84,000 hunters and they harvested 937,000 birds. Ten years later, there were 40,500 quail hunters and harvest was 271,500 birds. The small, diverse farms of the 1950's had abundant small grains (wheat, oats etc.), livestock and hay fields with lots of fencerows and hedgerows separating small fields that provided great cover for quail.

Today, corn and soybeans have replaced most of the small grains, pastures, and hayfields that were once common in Illinois. The hedgerows and fencerows provided cover for game are gone or have been 'cleaned up' with herbicide, leaving very little habitat and eliminating travel corridors between the remaining blocks of habitat. In addition, field size and the size of equipment have increased dramatically in the last 50 years. Larger and more efficient equipment decrease the amount of time it takes to harvest crops. Most fields are disked soon after harvest, covering most crop stubble early in the fall. There is very little winter cover left and crops get planted quickly in the spring. During the summer, 'recreational' or aesthetic mowing of roadsides and non-crop areas often occurs during prime nesting season (April – August) for the northern bobwhite, ring-necked pheasant and other grassland birds. The changes to the landscape and the loss of habitat have occurred slowly, over several decades, but the additive effects on quail and pheasant populations are dramatic.

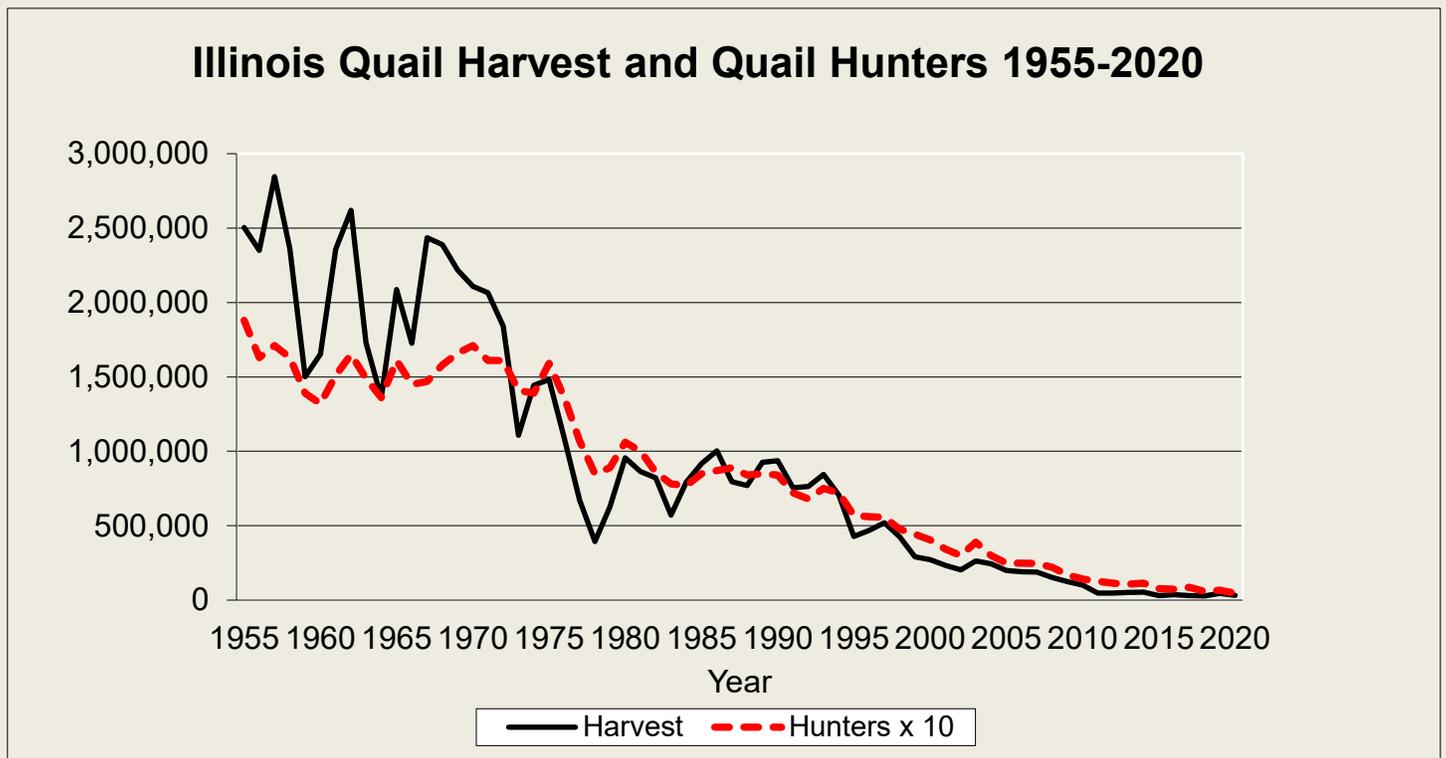


Figure 1. Illinois Quail Harvest and Quail Hunters 1955 – 2020.

2020-21 Hunter Harvest

Harvest estimates are based upon results of the 2020-21 Illinois Hunter Survey. The 2020-21 quail survey estimated that 4,646 hunters shot 31,629 wild quail (30% decrease) compared to 6,749 hunters and 45,270 quail in the 2019-20 survey. Despite the lower harvest, the number of quail per hunter/day was up 14.7% (1.15 in 2019 to 1.32 in 2020) but hunters in 2020 spent 11% less days afield than 2019.

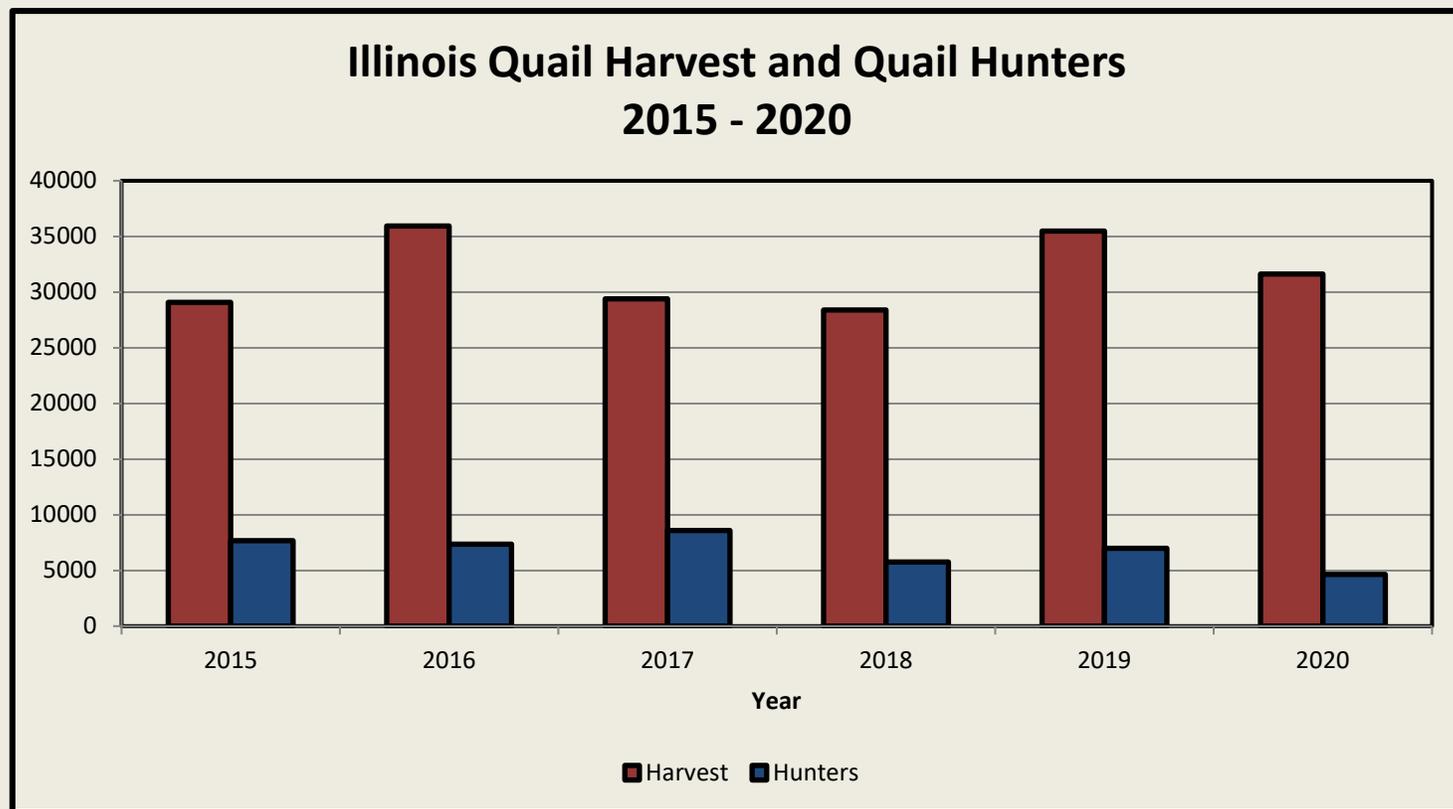
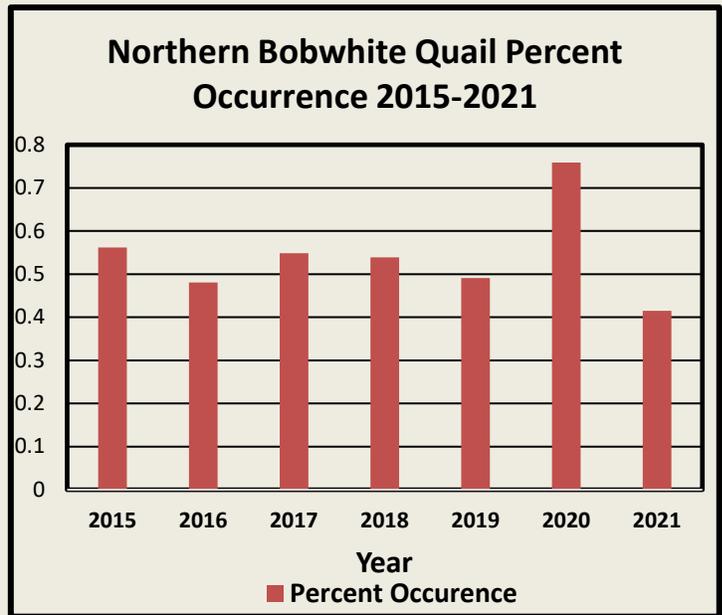
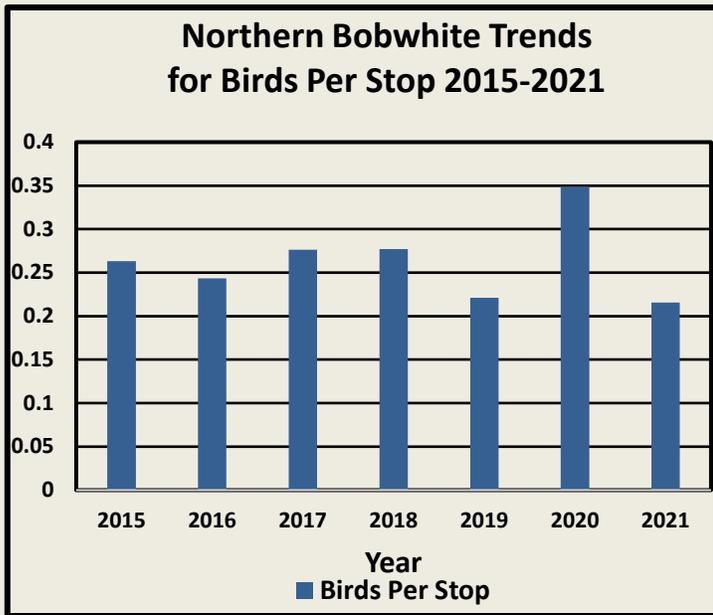


Figure 2. Quail Harvest and Hunters 2013 – 2020.

Quail Population Index

There are established routes across the state and biologists run the routes two times annually during the spring/summer. The first run is completed during the peak breeding window for ring-necked pheasant (May 10 – June 10) and the second run is completed during the peak of quail breeding (June 10 – July 10). Each route has 20 stops, where biologists stop for 3 minutes and record individual birds seen or heard. The number of routes surveyed annually depends on staff availability, but as many of the surveys are completed as possible.

During 2021, observers recorded an average of 0.41 quail per stop during the surveys (a 45% decrease from 2020). Quail were recorded at 21.6% of stops (percent occurrence), down 38%. The number of quail counted and the number of stops where quail were seen or heard in 2021 were both down from 2020 surveys.



Figures 3 and 4. Northern Bobwhite trends for Birds per Stop and Percent Occurrence

Weather 2020-2021

The winter of 2020-21 in the primary quail range was relatively mild. However, a two-week period of below average temperatures, ice and snow likely causing a larger than normal winter mortality event. Spring brought average to below average rainfall over a large portion of the State. Starting in June, localized areas of the state received record rain fall events which could have impacted nesting attempts and brooding of small chicks.

2021-2022 Season Outlook

The key to a successful 2021-22 quail season is finding high-quality habitat. The most productive quail regions in the state this year seem to be Central and West-central Illinois. Quail numbers in southern Illinois are struggling after several years of above average rains and a couple of late winter storms that brought ice and snow cover. Establishing quality quail habitat or managing existing habitat is more important than ever for the future of quail and quail hunting.

Habitat Management Tips

- ‘Stone’s Throw’ escape cover – A good rule of thumb for evaluating the amount of escape cover in your quail management area is to think about how far you can throw a rock. You should be able to stand anywhere on the property and throw a rock into escape cover (blackberry brambles, shrub thickets, giant ragweed patches, etc.). If you can – well done! If not, then it’s probably not as good of quail habitat as it could be!
- Good quail habitat looks messy and “weedy”. Fields that look ‘clean’ with tall grasses dominating, are probably not good quail habitat!
- Break up mowing times to ensure some suitable escape cover for quail throughout the year. Try not mow more than 1/3 or 1/4 of any field, waterways or fallow areas at a time. Avoid mowing during peak nesting season, from May 1 – August 1. This strategy is also important to other grassland birds and wildlife including monarch butterflies and other pollinators.
- A general guideline for quail habitat is to provide 40% brood cover (flowering forbs and scattered grasses with open, bare dirt underneath), 30% nesting cover (unburned grasses with scattered forbs), 20% escape cover (thickets in and along the edges of grasslands that provide heavy cover, ie. blackberry, dogwood, giant ragweed, sumac, loose brush piles, etc.), 5% roosting cover (bare ground with sturdy, overhead cover) and 5% food plots (if there are no adjacent ag fields). These components must be provided in every 40 – 80 acre block of suitable habitat, since quail do not typically move very far from escape cover.

- October is a good time to spray and/or disc blocks (4 – 8 acres/year for every 40) in existing grasslands that have become too thick.
- Fall mowing or burning in September or early October can clear away thatch and stimulate vigorous regrowth of cool-season grasses that invade stands of native grasses. Once this new growth reaches 6” – 12” in the fall, read and follow label directions for a foliar application of herbicide like glyphosate to set back areas of tall fescue, brome, bluegrass or reed-canary grass. A second herbicide application may be needed the following spring/summer before native grasses begin growing.

For additional information on quail or quail management:

- Illinois Department of Natural Resources, **District Wildlife Biologists**
(<https://www2.illinois.gov/dnr/conservation/wildlife/Pages/default.aspx>)
- **Quail Forever, Habitat Management Tips**
(<https://quailforever.org/Habitat/Why-Habitat/Quail-Facts/Upland-Habitat-Basics.aspx>)
- **National Bobwhite Conservation Initiative** (<https://bringbackbobwhites.org/>)
- **Missouri Department of Conservation’s Better Quail Habitat Tips**
(<https://mdc.mo.gov/wildlife/attracting-wildlife/better-quail-habitat>)

Thank you for your interest in the northern bobwhite quail. Have a safe and enjoyable hunting season in 2021!

Season Dates Update

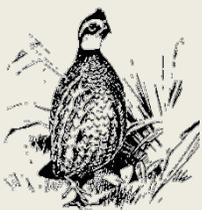
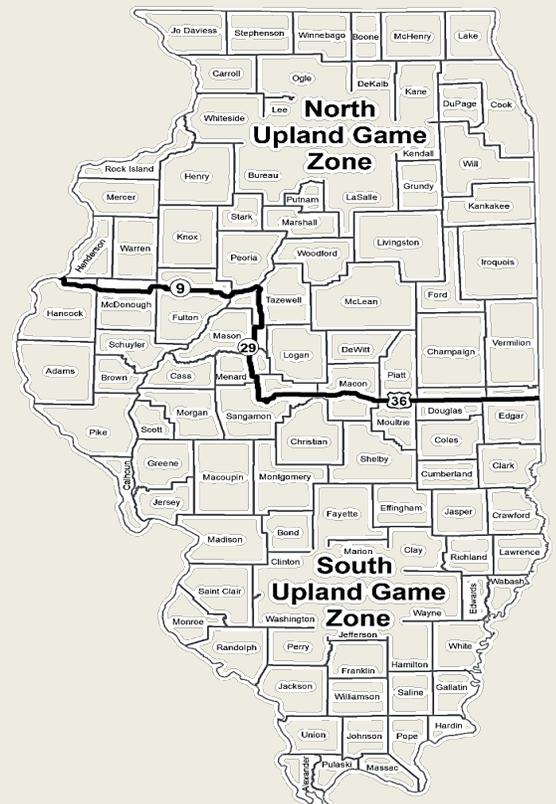
November 6, 2021 - Jan 8, 2022 (North)
November 6, 2021 – January 15, 2022 (South)

Hours

Sunrise to Sunset

Bag Limits

8 per day with 20 in possession after the 3rd day



*Prepared by Wade Louis 8/25
Illinois Department of Natural Resources
Division of Wildlife Resources*