

## Changing Populations

### Eastern Bluebird (*Sialia sialis*)

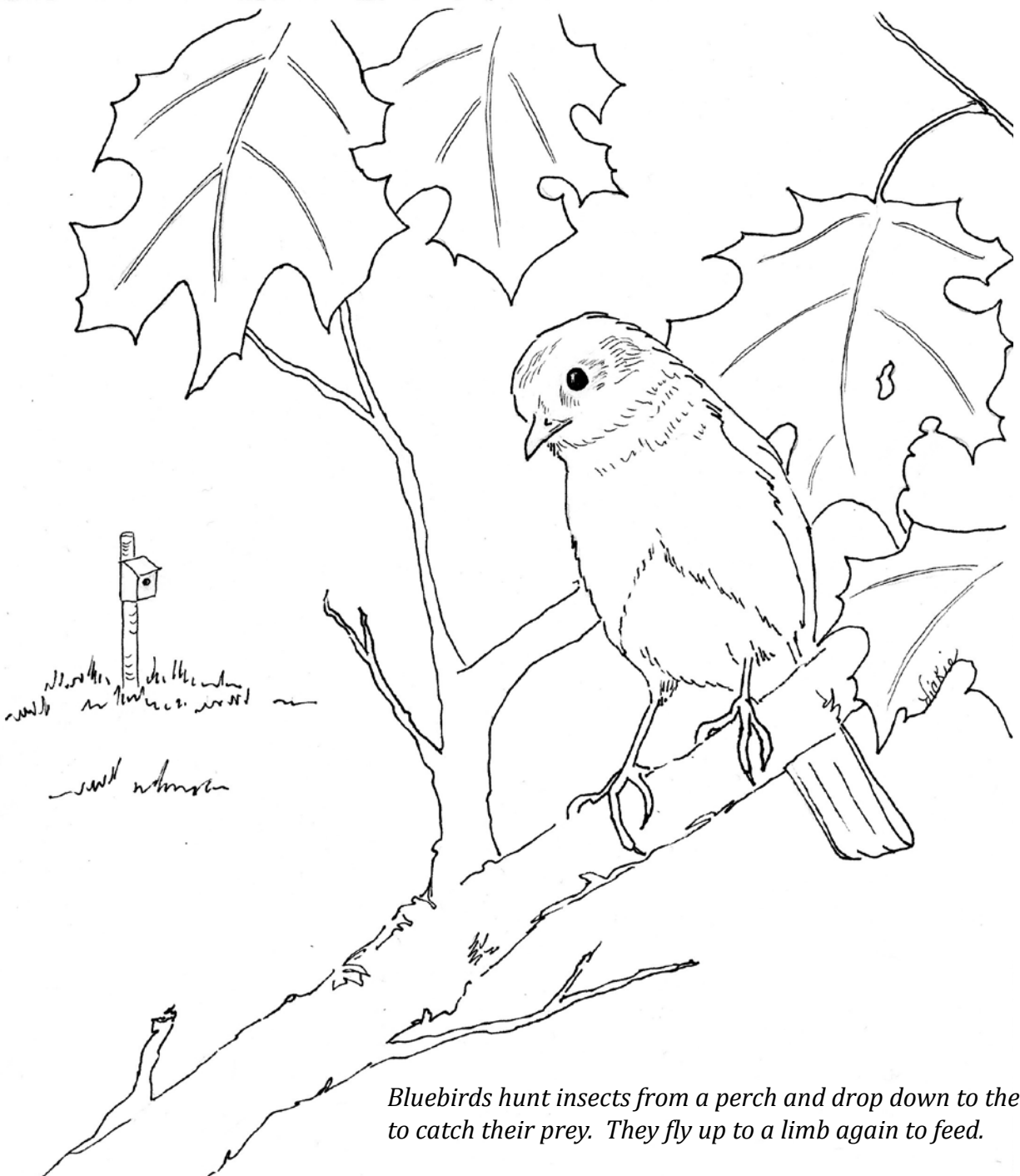
This is the beautiful blue bird you see on Watchable Wildlife license plates in Tennessee. They are year-round residents here.

**Habitat:** Bluebirds like open habitats without much groundcover such as orchards, open woodlands, parks, and lawns in suburban and rural areas.

**Food:** Insects and small fruits

**Nesting:** Bluebirds are cavity nesters, meaning they nest in holes in trees. Nest boxes are a substitute for tree holes, and bluebirds make good use of them. Young leave the nest after 15-18 days.

**Conservation considerations:** Bluebirds must compete with European Starlings and House Sparrows for available nest sites.



*Bluebirds hunt insects from a perch and drop down to the ground to catch their prey. They fly up to a limb again to feed.*

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### Wild Turkey (*Meleagris gallopavo*)

Turkeys are the largest bird that nests in Tennessee. They spend a lot of time on the ground, but they can fly. They roost in trees at night. Turkeys are often hunted.

Wild Turkey do not grow down feathers. Instead, they have a second feather that grows on the feather shaft. This feather is called an after-shaft feather and may help keep the turkey warm.

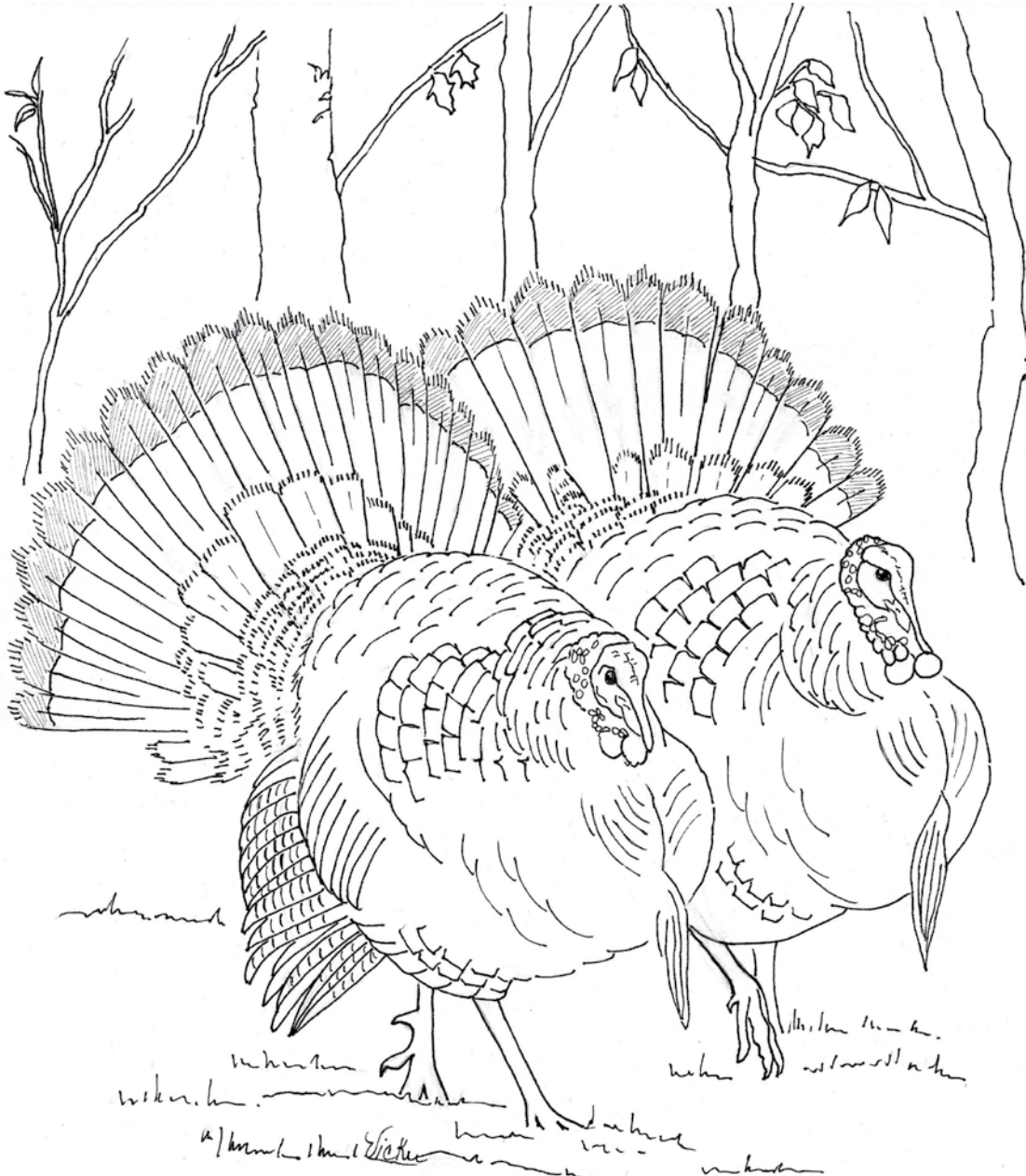


**Habitat:** Mature woodlands with scattered openings or fields.

**Food:** Acorns, nuts, seeds, fruits, and insects.

**Nesting:** Turkeys nest on the ground where they lay 7-14 eggs. The chicks leave the nest shortly after hatching.

**Conservation considerations:** Over-hunting eliminated turkeys from much of their range in the early 1900s, but modern wildlife management has allowed populations to bounce back throughout Tennessee.



# Changing Populations

Ornithologists, people who study birds, count birds to learn how populations are changing. If numbers of a species are going down, ornithologists want to know why. If they can figure out why, it may be possible to solve problems before a species disappears.

The United States Department of the Interior has coordinated Breeding Bird Surveys (BBS) all across the United States, including Tennessee, since 1966. Counters cover a 24.5-mile route, stopping to record all the birds they see or hear for 3 minutes every half mile. The table below shows the number of individuals counted in Tennessee for three species, the Eastern Bluebird, Northern Bobwhite, and Wild Turkey, from 1970-2010.

A good place to look for more information on birds is the Tennessee Wildlife Resources Agency's Tennessee's Watchable Wildlife website (<http://www.tnwatchablewildlife.org/birds.cfm>).

**Table 1. Counts of individuals of three species recorded on BBS routes in Tennessee from 1970-2010**

Year	# of routes	Bird Species		
		Eastern Bluebird	Northern Bobwhite	Wild Turkey
1970	40	200	1200	0
1975	42	300	1200	0
1980	42	125	1150	0
1985	42	250	900	0
1990	39	425	700	0
1995	40	450	500	0
2000	37	575	300	17
2005	41	675	250	52
2010	38	500	150	50
Total	361	3500	6350	119

Data from USGS BBS, November 2012 (<https://www.pwrc.usgs.gov/bbs/>)  
Numbers in the count have been rounded off.



## Northern Bobwhite (*Colinus virginianus*)

The bobwhite was named for its loud whistled “bob-white” call. Bobwhites are non-migratory. These small chicken-like birds are a popular game bird and are hunted, like the wild turkey.

**Habitat:** Native grasslands interspersed with dense thickets near woodlands.

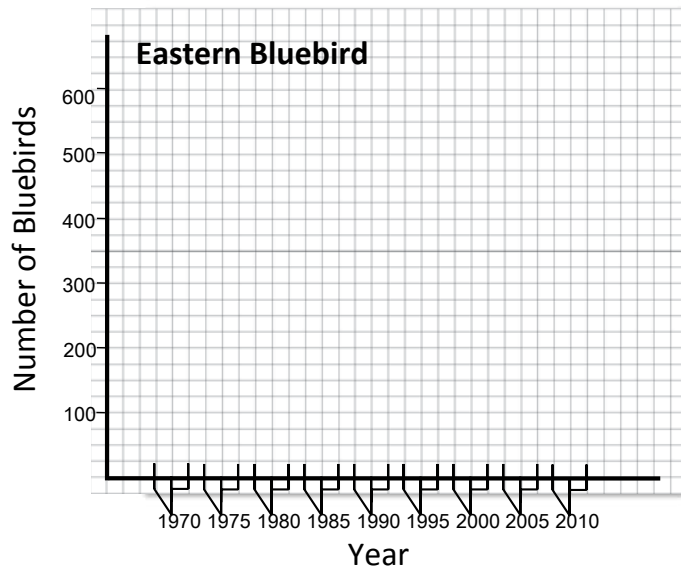
**Food:** They eat seeds and insects, mostly seeds in winter, and mostly insects in summer while raising young.

**Nesting:** Bobwhites nest on the ground where they usually lay 12-16 eggs. The chicks leave the nest within one or two days of hatching and can feed themselves.

**Conservation considerations:** Declining numbers may be due to succession of grasslands and farmlands to forest and changes in agricultural practices.

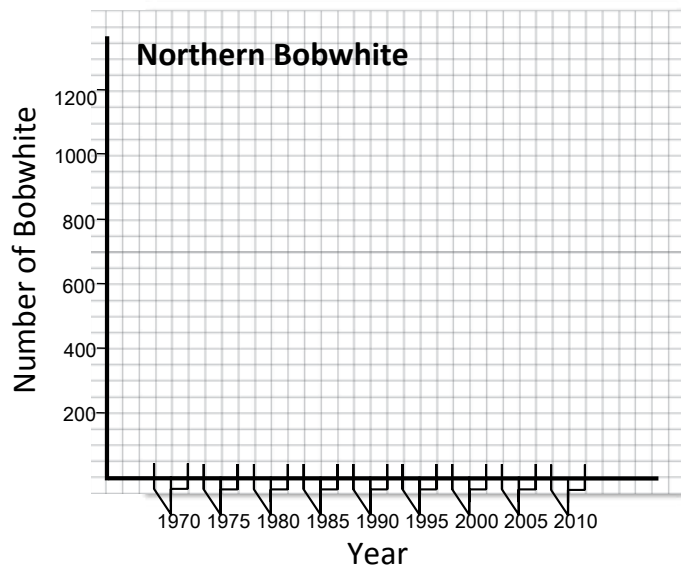
# Changing Populations

Make **bar graphs** to represent the counts for each species to see how populations have changed from 1970-2010.



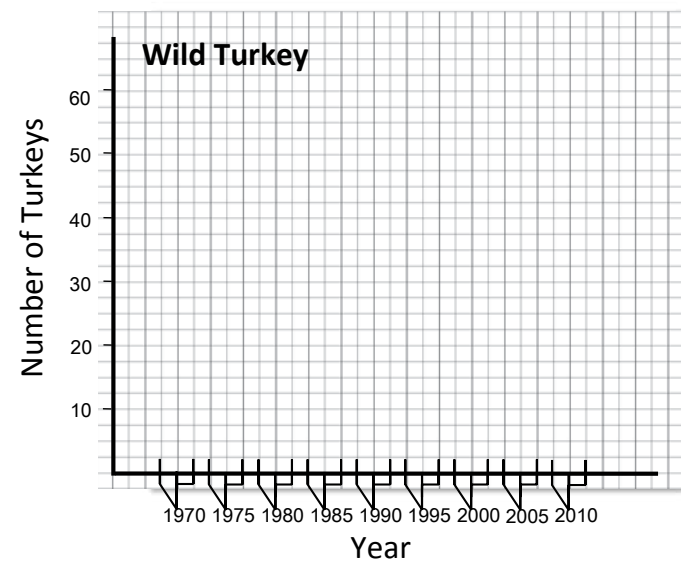
Describe how the number of Eastern Bluebirds has changed over time:

What might have caused this change in Eastern Bluebirds?



Describe how the number of Northern Bobwhites has changed over time:

What might have caused this change in Northern Bobwhites?



Describe how the number of Wild Turkeys has changed over time:

What might have caused this change in Wild Turkeys?