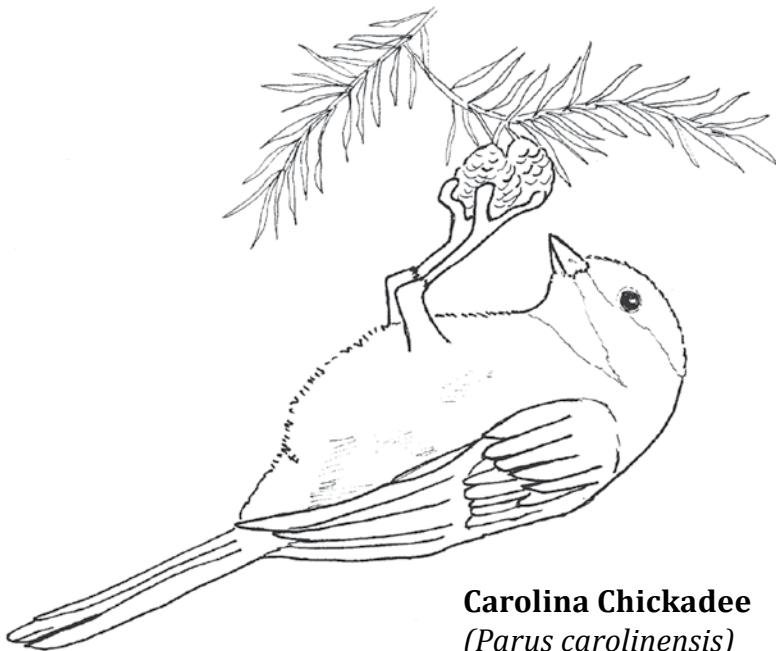


## Winter Survival



**Tufted Titmouse**  
(*Parus bicolor*)

**Downy Woodpecker**  
(*Picoides pubescens*)



**Carolina Chickadee**  
(*Parus carolinensis*)

### **Changing Seasons and Winter Survival: Year-Round Residents**

All birds need food, water and shelter in the right environment or habitat for health and safety. Resident birds remain in the same general area year-round. They breed and raise their young in the same area that they spend the winter. Resident birds change behavior to adapt to winter conditions.

Small woodland birds, like chickadees, titmice and downy woodpeckers, join mixed flocks to locate food. These birds are often seen together at backyard feeders.

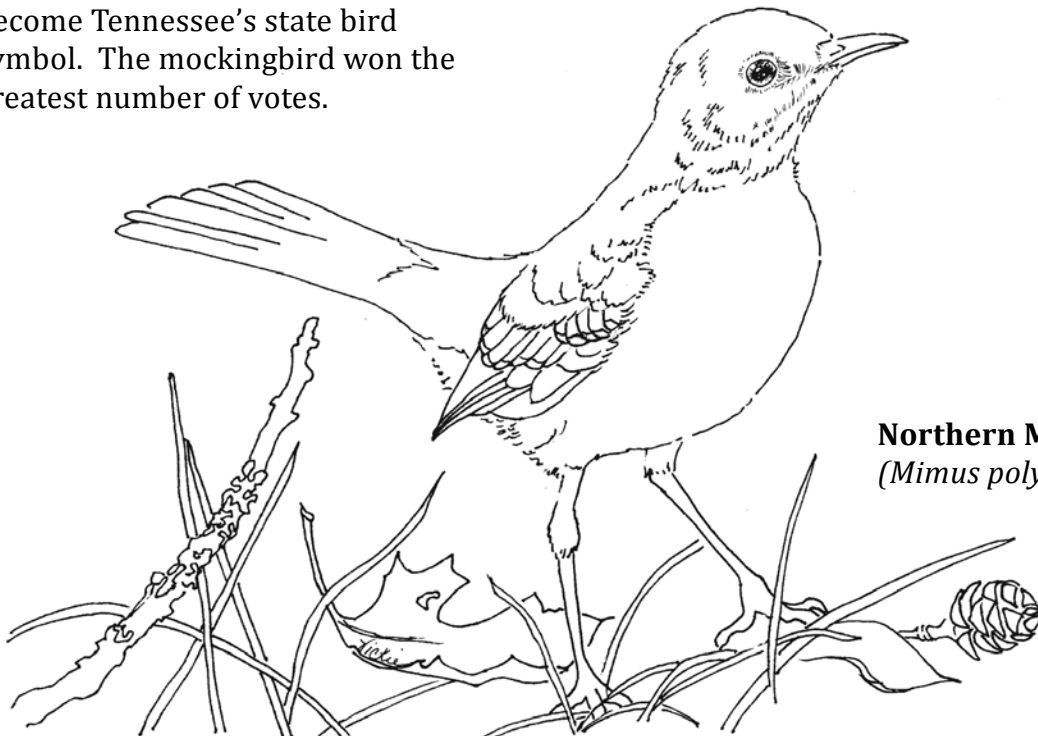
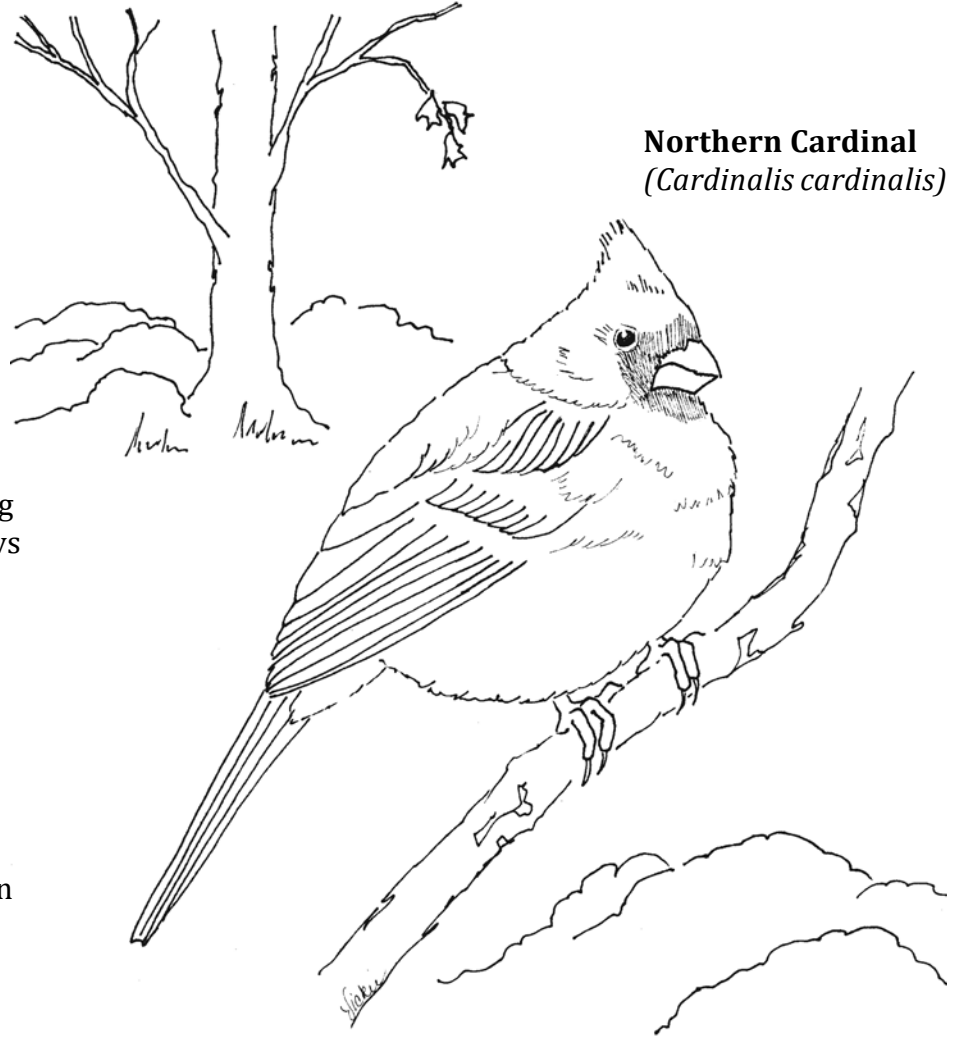
## Winter Survival

Many birds grow extra down feathers in a fall molt to insulate against winter's cold. While molting a bird loses worn feathers and grows new ones. Small down feathers grown next to the skin add a thick layer of warmth. By fluffing these feathers to create air pockets, birds can add more insulation and may look twice their normal size!

The resident **Northern Mockingbird** has no song of its own but mimics other bird songs.

In 1933, 72,000 school children voted to decide which bird would become Tennessee's state bird symbol. The mockingbird won the greatest number of votes.

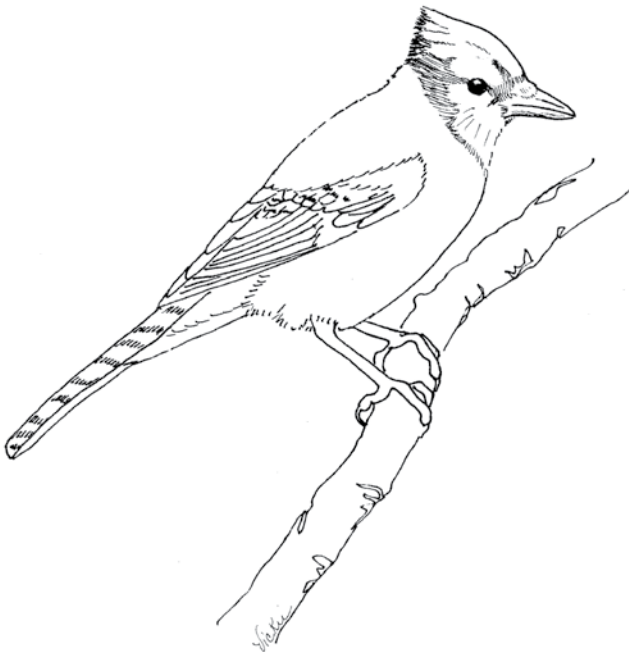
**Northern Cardinal**  
(*Cardinalis cardinalis*)



**Northern Mockingbird**  
(*Mimus polyglottos*)

## Winter Survival

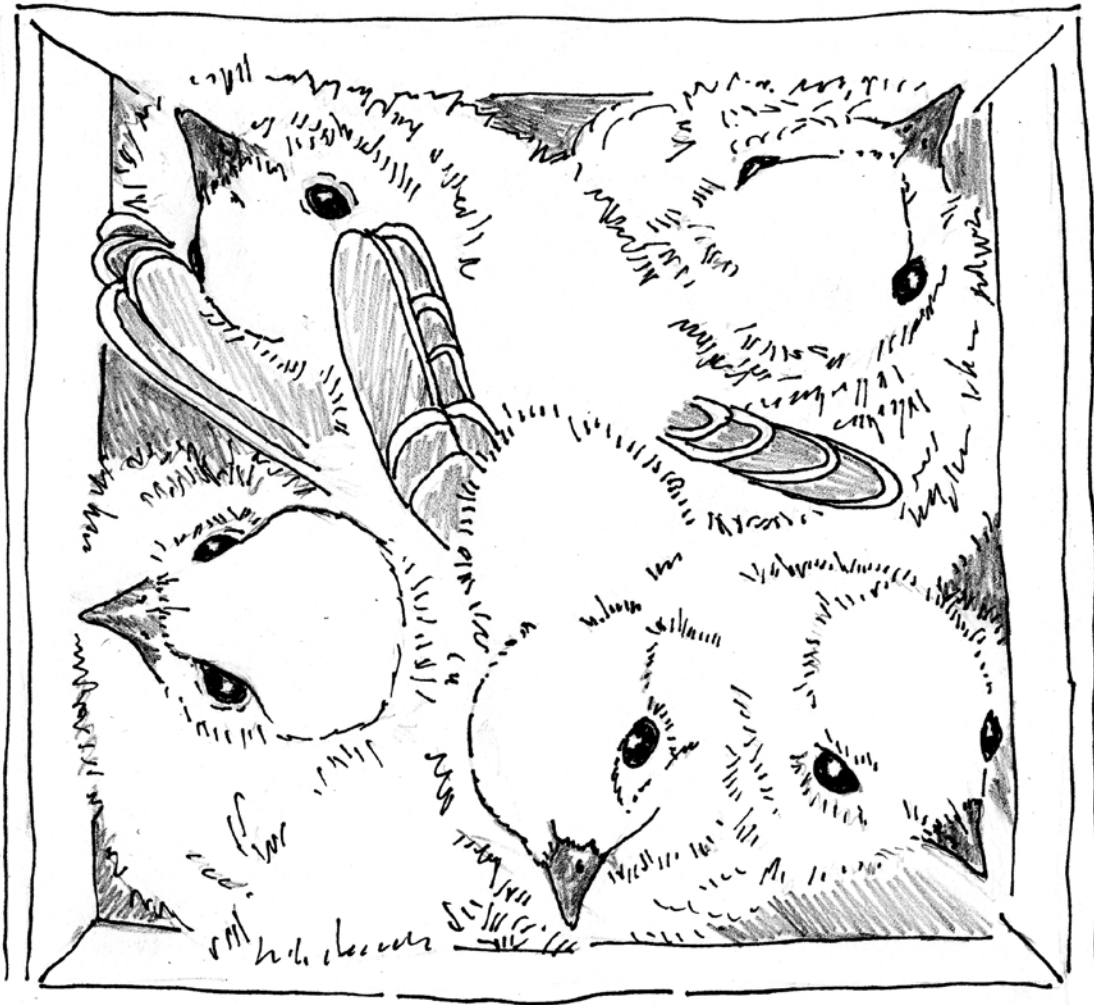
The **American Robin** (*Turdus migratorius*) is a year-round resident in Tennessee. It feeds on insects and worms when these are available. During the fall, large flocks of northern robins migrate or travel to Tennessee to find food. They can be seen eating in fruit bearing trees and shrubs, like dogwood and holly. Robins migrate in large mixed flocks and are noisy when they arrive.



The **Blue Jay** (*Cyanocitta cristata*) is a resident blue bird that is larger than a robin and has a crest. It makes noisy calls and will sometimes mimic the cry of hawks. A Blue Jay's favorite food is acorns, but they also eat insects, grubs and berries. Blue Jays from the north migrate from tree-top to tree-top in large flocks and are quiet while migrating. It is impossible to tell whether a wintering Blue Jay in your yard is a resident bird or a migrant. There is still much to learn about Blue Jay migration.

## Winter Survival

**Eastern Bluebirds** remain in Tennessee throughout the winter months. They eat insects and spiders when available and add small fruits and berries. They join other bluebirds in small flocks in the winter. Some of these flocks include northern bluebirds that have migrated or traveled south to find food and a warmer climate. When night temperatures drop to 20 F degrees or below, bluebirds roost together in cavities or nest boxes for warmth.



Name three ways that flocking helps birds in winter months.

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answer key: more eyes to find food, more eyes to watch and warn of predators, for warmth while roosting on cold nights