



Wildlife Note — 42
LDR0103

Chickadees, Nuthatches, Titmouse and Brown Creeper

by Chuck Fergus

These woodland birds are mainly year-round residents in their breeding areas. They become most apparent in fall and winter when all four types may occasionally be seen together, along with downy woodpeckers and kinglets, in mixed-species foraging flocks. In these groupings, the greater number of eyes may improve foraging efficiency and detect potential predators. Our two chickadees and the tufted titmouse belong to Family Paridae, omnivorous feeders that cache excess seeds in holes or bark crevices, remember the locations, and return later to eat the food. The two nuthatches are in Family Sittidae. They glean insect food from the trunks of trees and also eat nuts; their common name derives from the way they “hack” nuts apart using their stout pointed bills. Taxonomists place the brown creeper in Family Certhiidae, a group that includes only six species, the other five of which inhabit Europe and Asia.

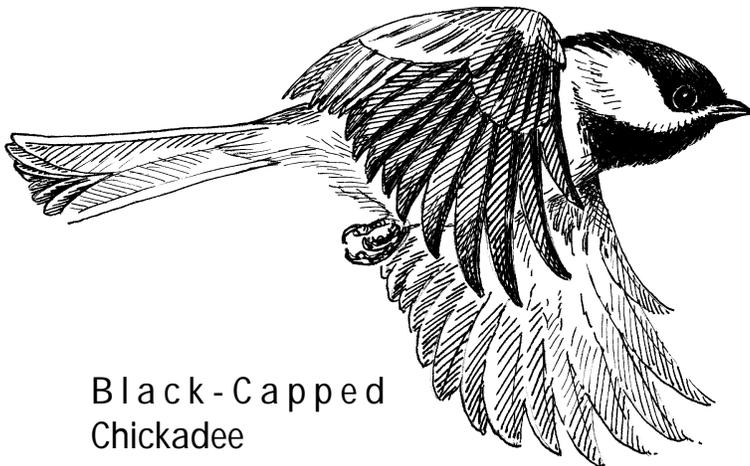
Black-Capped Chickadee (*Poecile atricapillus*) — A black cap and bib, buffy flanks, and a white belly mark this small

(five inches long), spunky bird. Chickadees have short sharp bills and strong legs that let them hop about in trees and cling to branches upside down while feeding. They fly in an undulating manner, with rapid wingbeats, rarely going farther than 50 feet at a time. The species ranges across northern North America, living in deciduous and mixed forests, forest edges, thickets, swamps, and wooded areas in cities and suburbs. Black-capped chickadees are common throughout Pennsylvania, except for the state’s southwestern and southeastern corners, where they’re replaced by the similar Carolina chickadee.

About two-thirds of a chickadee’s diet consists of animal protein: moth and butterfly caterpillars (including early growth stages of gypsy moths and tent moths), other insects and their eggs and pupae, spiders, snails and other invertebrates. In late summer and fall, chickadees eat wild berries and the seeds of ragweed, goldenrod and staghorn sumac. In the fall chickadees begin storing food in bark crevices, curled leaves, clusters of pine needles, and knotholes. The birds rely on these hoards when other food becomes scarce. Chickadees also eat suet from feeding stations and fat from dead animals.

In winter, chickadees live in flocks of six to 10 birds with one dominant pair. Listen for the *chick-a-deedee-dee* calls that flock members use to keep in contact while foraging around a territory of 20 or more acres. A flock will defend its territory against other chickadee flocks. At night chickadees roost individually in tree cavities or among dense boughs of conifers. A roosting bird tucks its head under a wing to conserve body heat. On cold nights, a chickadee’s temperature drops from a normal 108°F to about 50°F, causing the bird to enter a state of regulated hypothermia, which saves significant amounts of energy. Chickadees lose weight each night as their bodies slowly burn fat to stay alive; they must replace those fat stores by feeding during the next day.

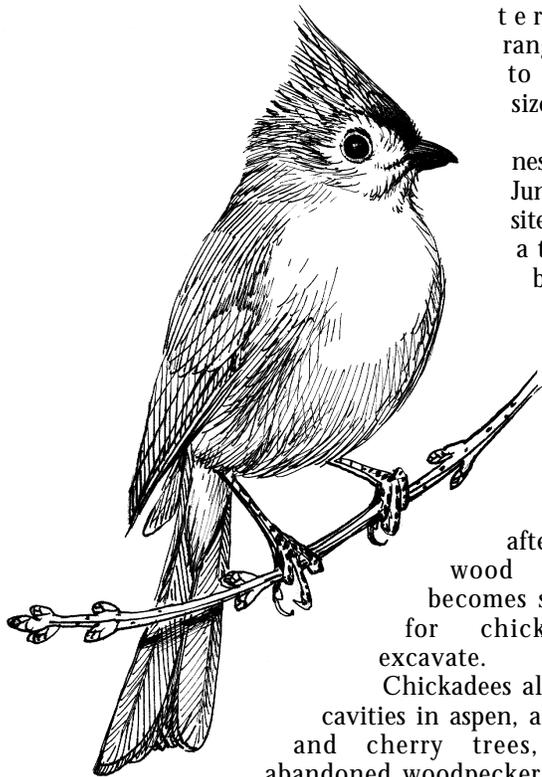
Chickadees mate for life. In spring, the



Black-Capped
Chickadee

—DOUG PIFER

Tufted Titmouse



—DOUG PIFER

winter flocks break up as pairs claim nesting territories ranging from 3 to 10 acres in size.

Chickadees nest in May and June. The usual site is a hole in a tree, dug out by both sexes. Birch is a favorite, because this tree's tough outer bark stays intact after the inner wood rots and becomes soft enough for chickadees to excavate.

Chickadees also clear out cavities in aspen, alder, willow, and cherry trees, and use abandoned woodpecker holes. The cavity is usually 4 to 10 feet above the ground. The female assembles the nest by laying down a base of moss, then adding softer material such as animal fur or plant fiber. House wrens compete for nest cavities and may destroy chickadee eggs and broods; raccoons, opossums and squirrels raid nests. Chickadees will renest if a first attempt fails. Only one brood is raised per year.

The five to nine eggs are white with reddish brown dots. The female incubates them, and the male brings her food. The eggs hatch after 12 days. Juveniles beg loudly and are fed by both parents. Young fledge about 16 days after hatching. Some three to four weeks after fledging, the young suddenly disperse, moving off in random directions. As winter approaches, they join feeding flocks. Some become "floaters," moving between three or more flocks, ready to pair with an opposite-sex bird should its mate die.

Chickadees are taken by many predators including sharp-shinned hawks, American kestrels, Eastern screech owls, saw whet owls, and domestic and feral cats. Sometimes chickadees mob these enemies while sounding zee-zee-zee alarm calls. The average life span for a chickadee is two and a half years, and the current longevity record is 12 years, nine months. Every few years long-distance movements take place within the population, "irruptions" that may be launched by failure of seed crops or high reproductive success.

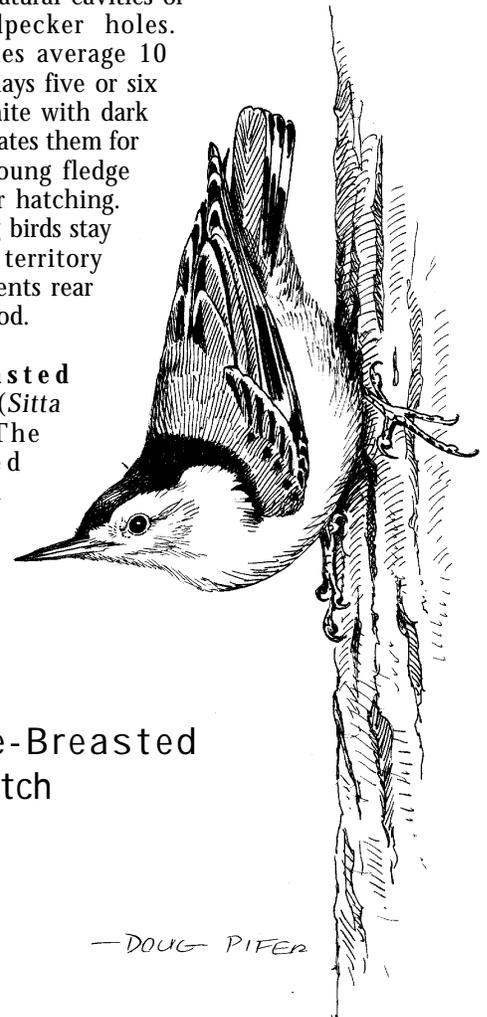
Carolina Chickadee (*Poecile carolinensis*) — Similar to the black-capped chickadee in appearance and life history, this species lives in milder climates across the southeastern United States. The Carolina chickadee breeds in southeastern and southwestern Pennsylvania.

Tufted Titmouse (*Baeolophus bicolor*) — This trim bird has gray-and-white plumage, a prominent head crest, and black "shoebutton" eyes. The species ranges through eastern North America into southern New York and New England. It has extended its range northward over the last half-century, perhaps because of climatic warming and an increase in bird feeding by humans. In the early 1900s the tufted titmouse was absent from northern Pennsylvania; today it breeds statewide.

Titmice eat insects (caterpillars, wasps, bees, sawfly larvae, beetles and many others, as well as eggs and pupae), spiders, snails, seeds, nuts and berries. Like the chickadee, the titmouse forages by hopping about in tree branches, and often hangs upside down while inspecting the underside of a limb. To open a nut or seed, the bird holds the object with its feet and pounds with its bill. Titmice cache many seeds; with sunflower seeds, the birds usually remove the shell and hide the kernel within 120 feet of the feeding station, under loose bark, in cracks or furrows in bark, on the ground, or wedged into the end of a broken branch or twig.

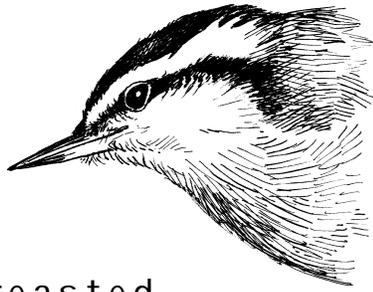
Winter flocks are often made up of parents and their young of the previous year. Titmice are early breeders: males start giving their *Peter Peter* territorial song in February. In Pennsylvania, pairs begin building nests in late March and early April. Titmice are believed not to excavate their own nest cavities; instead, they use natural cavities or abandoned woodpecker holes. Breeding territories average 10 acres. The female lays five or six eggs, which are white with dark speckles, and incubates them for two weeks. The young fledge about 18 days after hatching. Sometimes yearling birds stay on in their natal territory and help their parents rear the next year's brood.

White-Breasted Nuthatch (*Sitta carolinensis*) — The white-breasted nuthatch has a slate-gray back, a



White-Breasted Nuthatch

—DOUG PIFER



Red-Breasted Nuthatch

white breast and face, and a cap that is black in the male and ashy gray in the female. Nuthatches inhabit deciduous forests throughout Pennsylvania and the East. They climb around in trees, walking in a herky-jerky manner up and down and around the trunks, along branches and the undersides of limbs. Both sexes sound a nasal *ank ank* call. Pairs live in home territories of 20 to 35 acres.

White-breasted nuthatches feed on insects and spiders in summer and on nuts and seeds in winter. They relish suet at feeding stations and carry away sunflower seeds for caching. Sometimes they forage on the ground. Nuthatches wedge acorns and hickory nuts into tree bark and then hammer the shells off with blows from their awl-like beaks.

During courtship, the male bows to the female, spreading his tail and drooping his wings while swaying back and forth; he also feeds her morsels. Before building the nest, the birds rub or sweep crushed insects back and forth over the inside and outside of the nest cavity. Ornithologists speculate that this sweeping behavior leaves chemical secretions behind that may repel predators or nest competitors. The female builds a nest inside the cavity (commonly a rotted-out branch stub or an abandoned squirrel or woodpecker hole) using twigs, bark fibers, grasses and hair. She lays five to nine white, brown-spotted eggs and incubates them for 12 to 14 days while her mate brings her food. Both parents feed insects and spiders to the young, which fledge after two or three weeks, usually in June.

Red-Breasted Nuthatch (*Sitta canadensis*) — In Pennsylvania, this species is found mainly in the northern part of the state; it ranges through New England and across Canada. Slightly smaller than the white-breasted nuthatch, the red-breasted has a rusty tinge to its breast and a prominent black eye-stripe. The species lives in areas where evergreens are plentiful and often nests in pine plantations. Red-breasted nuthatches feed on insects and on seeds, particularly those of conifers. They nest in tree cavities 5 to 40 feet above the ground. Five or six young are

produced in a single annual brood. In some autumns, large numbers of red-breasted nuthatches show up south of their normal range; biologists believe that poor cone production in northern forests drives these movements.

Brown Creeper (*Certhia americana*) — Brown creepers are inconspicuous birds whose intricately patterned backs help blend them in with the tree bark that is their near-perpetual home. Brown creepers breed across a huge range extending from Alaska and Newfoundland south to Nicaragua. They favor mature forests with many large trees. The species is found in much of Pennsylvania, although numbers are lower in the state's southeastern and southwestern corners. Braced by their long stiff tails,

brown creepers climb slowly up tree trunks, following a spiral course. They inspect bark furrows and use their decurved bills to tease out insects, pupae and eggs. They also eat spiders and seeds.

The call is a long, thin *seeee*; the male also voices a subtle breeding song. The species nests under peeling bark, often in a shagbark hickory or a dead or dying tree, less frequently in a cavity.

A hammocklike twig nest is built to fit the available space. The female lays four to eight eggs, which are whitish and dotted with reddish brown. Incubation takes 14 to 17 days, and young leave the nest two weeks after hatching. Brown

creepers from the Northeast may migrate south to Florida and the Gulf Coast. In winter, brown creepers sometimes mix in with foraging flocks of chickadees; perhaps these are residents, or northern birds that have shifted southward.

Brown Creeper



Wildlife Notes

Allegheny Woodrat
Bats
Beaver
Black Bear
Blackbirds, Orioles, Cowbird and Starling
Blue Jay
Bobcat
Bobwhite Quail
Canada Goose
Chickadees, Nuthatches, Titmouse and Brown Creeper
Chimney Swift, Purple Martin and Swallows
Chipmunk
Common Nighthawk and Whip-Poor-Will
Cottontail Rabbit
Coyote
Crows and Ravens
Diving Ducks
Doves
Eagles and Ospreys
Elk
Finches and House Sparrow
Fisher
Flycatchers
Foxes (Red & Gray)
Gray Catbird, Northern Mockingbird and Brown Thrasher
Herons
Kingfisher
Mallard
Mice and Voles
Minks & Muskrats
Northern Cardinal, Grosbeaks, Indigo Bunting and Dickcissel

Opossum
Otter
Owls
Porcupine
Puddle Ducks
Raccoon
Rails, Moorhen and Coot
Raptors
Ring-necked Pheasant
Ruby-throated Hummingbird
Ruffed Grouse
Shrews
Snowshoe Hare
Sparrows and Towhee
Squirrels
Striped Skunk
Tanagers
Thrushes
Vireos
Vultures
Weasels
White-tailed Deer
Wild Turkey
Woodchuck
Woodcock
Wood Duck
Woodpecker
Wood Warblers
Wrens

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