

FIELD NOTES COMPILERS:

Breeding Season

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Fall Migration

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Winter Season

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Spring Migration

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Winter Survival

How birds adapt to the coldest season

by Sheryl De Vore

Just as humans might fly to Mexico or Florida to escape the cold in winter, many avian species that spend summers in Illinois have long ago hitched a ride on the wind to warmer climates. But migration relates more to loss of food supply and not so much to the cold. Night-hawks, for example, have left Illinois by September or October because they depend solely on flying insects for food.

Other birds can remain during winter because of their ability to secure nourishment. For instance, chickadees and nuthatches have bills which enable them to glean dormant insects in tree barks that other migratory birds would not be able to obtain. Some ducks and nonmigratory geese can also find vegetative matter in open water, especially since the advent of aerated corporate ponds.

Finding food; however, is only one part of the struggle to

survive in winter. Birds must also keep warm. To do so, they possess certain anatomical features that make them more resistant to cold than mammals. Their hard bills, comprised of horn and not of skin, as well as their unexposed legs and feet, enable them to retain body heat. Special arrangement of arteries and veins in ducks and geese help keep their feet from freezing to the ice on frozen ponds.

Waterproof feathers also protect birds from extreme cold. To get the most benefit out of that feature, birds fluff their feathers which traps a blanket of warm air that surrounds their bodies. Tucking a foot or a bill into the feathers also helps reduce heat loss.

Some birds may actually produce extra feathering in winter to increase their fluffing capabilities. A White-throated Sparrow may have 1,525 fea-

thers in fall and 2,600 feathers in winter.

Birds also roost in communes for warmth. Six or more chickadees might spend a frigid winter's night nestled together in a tree cavity to conserve body heat. Twelve or more bluebirds may huddle in a nesting box while cardinals may roost in conifers. Snow buntings often remain buried beneath the snow for one or more days at a time during intensely cold periods.

Birds such as chickadees may also shiver while at rest to produce heat, but must often replenish that used-up energy with food. Nearby feeders often offer that extra needed nourishment.

While watching birds this winter, take time to observe the specific behaviors that demonstrate their remarkable adaptations to cold. ■