



Bird Notes

From Northeast Kingdom Audubon
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For Immediate Release

Cooling Off and Warming Up...How They Cope

While the memory of this year's Valentine's Day blizzard may be fading even though some of us may still be shoveling out, the Great Backyard Bird Count (GBBC) that followed the storm has reported impressive numbers of birds. Almost 10 million birds were counted in North America, 28,000+ (76 species) in Vermont and 17,000+ (79 species) in New Hampshire. The top five species counted were American Goldfinch, Dark-eyed Junco, Black-capped Chickadee, Blue Jay and Mourning Dove. Applause for anyone counting while shoveling!

The big storms and super cold temperatures of February always remind me of the marvelous and somewhat mysterious ways that birds cope with these extremes. Not being able to curl up like small mammals to reduce their size, birds do the opposite, they expand their size by adding feathers, some by as much as 50 %. Fluffing all those extra feathers reduces their heat loss by another 30-50%. It's not hard to understand this behavior, but this is only the first step needed to keep up their high body temperatures. Some birds like Ruffed Grouse dive into the deep snow at night to reduce heat loss. Snow caves anyone? Lots of opportunities for them this year! The best other birds can do is to seek the shelter of dense vegetation, cavities, abandoned nest boxes or undershrub snow hollows like redpolls do.

Unlike those small mammals with super high-energy brown fat (using it requires no shivering), birds must shiver to keep warm....sound familiar? In fact, studies have shown that when crows and ravens are not using their muscles for flight, they just keep shivering...all night long! Without food, birds struggle to keep warm, or do they?

When our birdfeeding stations are deserted at night, some birds are experiencing an even more miraculous way to fend off the cold....by becoming cold themselves. Chickadees have shown us this by lowering their body temperature, a torpor of sorts, or as I call it, Hibernation-Lite. Once this self-induced hypothermia is reached, bouts of shivering help to maintain it. These little birds can save up to 20% of the energy they need to stay warm by cooling off to 50-54 degrees F overnight. And, when morning temperatures are warm enough, they can shiver up to their normal body temperature (102-4 degrees F) during the day. Bottom line.....keep those feeders FULL!

A final winter coping strategy of sorts deserves attention. We can spot a large, moving, twittering flock easier than just one or two thanks to “The Flockers”. Tree seedeaters like the finches, fruit eaters (waxwings) and even the grass/weed seedeaters like snow buntings, come from the north in tight flocks. Apparently the multitudinous eyes are better at detecting danger and locating the specific foods that each species requires.

Were it not for all of these miraculous bird adaptations and behaviors to watch, winter might just be nothing more than, well, snow.

Happy Winter Birding!

Carolyn E. Boardman is a board member of NEK Audubon living in Brownington, Vermont. NEK Audubon is one of 8 chapters of Audubon Vermont and part of the National Audubon Society. NEK Audubon is a non -profit organization that encourages people’s enjoyment of birds, wildlife and natural habitats through field trips, programs and publications. For more information about meetings, field trips and special events visit www.nekaudubon.org.
Art work by Robin Rothman.