

*Do You Know.....how birds keep warm during the winter?*

Many people wonder how birds can survive the cold temperatures of winter. Nature has provided some wonderful adaptations that ensure birds will still be singing come spring.

Pygmy nuthatches of the west coast merge their small family flocks in with others and roost together in hollow tree cavities. As many as 100 nuthatches may crowd into a hole, roosting in stacks of squares, oblongs, triangles, diamonds or wedges. A bird at the bottom of the stack may save six times more energy than a bird alone at the top. Our local Eastern bluebirds are known to use the same technique, only they crowd into the handy nest boxes thoughtfully provided by avid bluebird enthusiasts. European starlings are well known for roosting en masse in tree groves, buildings, viaducts, house and electric towers. Larger numbers may mean extra body heat, but it also decreases your chances of becoming some hawk's prey.

The Common redpoll and Hoary redpoll of Canada can survive in colder temperatures better than any other songbird. In northern Canada and Alaska, where snow can blanket the ground for much of the year, Common redpolls sometimes dig tunnels in snow with a roosting chamber at the end. They sleep in the chamber and break through the roof to depart in the morning. Snow is actually a great insulator and these birds have learned to take advantage of that. In unusually harsh winters, large flocks of redpolls have been known to travel south for a warmer winter in the northern United States.

Snowy owls, known for their diet of lemmings and other small rodents, sometimes resort to catching fish. The famous (or infamous) John James Audubon observed a Snowy owl that was fishing by lying belly down beside a water hole. When the winds are fierce across the Arctic plains, mated pairs of these elusive owls have been observed huddled together in their shallow nesting hollows, allowing the wind to pass over their smooth back feathers.

While most birds in our area seek shelter during severe weather by huddling in evergreens or brush, waterfowl are another matter. Often seen on frozen ponds or other bodies of water, Mallards and Canada geese seem content to sleep on the ice. As feathers are great insulators, these birds hunker down to cover their feet and stay warm. Additionally, their arteries and veins lay side-by-side so the incoming blood is warmed before it reaches the body's core, greatly reducing heat loss. Their feet are able to remain above freezing no matter how cold it gets. As an added bonus, sleeping on the ice provides great protection from nocturnal predators, like Red and Grey foxes.

All birds take advantage of those bright, sunny winter days by finding the best patch of direct sunlight to soak up the warmth. The most visible displays of sunbathing are put on by Turkey and Black vultures, both of whom will spread their wings wide in the tops of dead or leafless trees to catch all the sun they can. The sunlight warms the air under their body feathers, providing an extra layer of insulation.

Although we often feel we should be doing something to help wildlife during the difficult winter months, nature has provided wonderful adaptations which allow most animals to survive.

*by Chris Montuori and Brittany Davis, staff*