Birds Staying Warm
By Martin Hagne

A few weeks ago, we wrote an article about winter bird adaptations. But with the recent freeze, we thought we could talk even more about how birds stay warm and how you can help them through this tough winter!

In this frigid weather we are reminded to bring pets in, wrap the plants, drip water for the pipes, stay off the icy roads, and bundle up if you're outside. But how do birds handle this weather? There is no one out there turning up the heat for them! Some species can survive temperatures close to 100 degrees below freezing, and most birds have special adaptations for surviving the cold.

Like us, birds shiver to keep warm. Birds also have much higher metabolic rates and burn more energy to stay warm. Even small birds that weigh less than half an ounce and can maintain a temperature of 100°F even in 0°F weather! Having wonderful insulation, staying very active, and having food stashed away all help them stay warm.

A lot of food is necessary, because small birds eat more than 35% of their weight each day. Compared to many other birds, some species have a large hippocampus. That's the part of the brain that's responsible for spatial memory, and in the fall, this part of their brain gets even bigger to help remember where they have stashed food!

Feathers also play a very important role. Birds stay warm by trapping pockets of air around their bodies, under and in their feathers. Having clean, dry, and flexible feathers is a must. Preening, how birds clean their feathers, varies between species.

All birds produce oil from a gland near the base of their tail, and many birds use this oil to weatherproof their feathers. Other birds like egrets, herons and mourning doves grow special feathers that disintegrate into a powder that they use to waterproof their feathers. Preening keeps feathers water resistant, and warm.

Many small birds stay close together in shrubs, vines and evergreen trees to share body heat. They can also slow down their metabolic rate to conserve energy. Cavity nesters use tree cavities and nest boxes to stay warm. Larger birds like gulls and crows sometimes also flock together for warmth.

Ducks and water birds isolate the blood flowing through their legs instead of circulating it throughout their entire bodies, helping to keep their body temperatures higher. Birds also have specialized scales on their feet and legs that help minimize heat loss. Many large birds save heat by standing on one leg or sitting down, and putting their bills under their back feathers to keep warm, and breathing warmer air.

Hummingbirds save energy by lowering their body temperature and heart rate, entering a temporary state of torpor, similar to hibernation. The next morning, within a few minutes, the hummingbird speeds up its metabolism and gets its body temperature back to normal.

We can all help birds during cold weather by keeping bird baths open if freezing, and having lots of bird seed out. Suet blocks are very helpful for high energy food. Using a 3:1 water to sugar ratio (instead of the normal 4:1) in hummer feeders helps them from freezing plus gives hummers an extra boost. Take hummer feeders in at night if necessary, making sure they are back out at first daylight, or install a

specially made warmer on them. Keeping dense bushes and foliage for birds to huddle together in out of wind and rain is a must. So, as you get yourself ready for the cold, help the birds out a bit too!

Caption: A Common Redpoll Stays warm despite the snow. Photo by Mike Williams.