

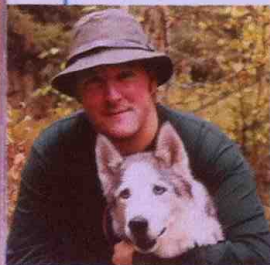


Brr...irds of Winter

Boreal chickadee

It's 40° below
outside, yet
these tough
fliers thrive.

Story and photos by
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It is cold...very, very cold, even by our admittedly skewed standards here in Fairbanks, Alaska. I keep telling myself that spring is coming soon.

On the morning I write this, the thermometer reads 42° below. Nonetheless, at the Alaska Bird Observatory, where I work as a research biologist, hundreds of birds are fluttering around the feeders.

I take a quick inventory—hairy and downy woodpeckers, boreal and black-capped chickadees, hoary and common redpolls, and pine grosbeaks. In my thick down jacket, long underwear and heavily insulated boots, I can manage a few minutes outside admiring the birds and the clear sound of their calls.

The redpolls make a cacophony of cheeps that virtually overwhelm the more musical whistles of chickadees and the lovely melodic songs of pine grosbeaks. I look closer at the redpolls.

The two species are very difficult to tell apart. The more abundant common redpolls are browner and more heavily streaked on the breast and rump, while the less plentiful hoary redpolls are paler with a stout, triangular bill. The differences are subtle, and I find

the challenge of categorizing individuals endlessly entertaining.

It is quite beautiful, despite the cold. The steep winter sun is lighting up the trees with a lovely golden glow. There are rows of black-capped and an occasional boreal chickadee sitting on the bare branches of the cottonwoods.

These usually hyperactive birds are now still, fluffed up like tennis balls and gathering what heat they can from the sun. For a few minutes, I stand there watching as a cloud of exhaled breath lingers in the air in front of me.

Heating Things Up a Bit

Eventually, my toes grow cold and I move indoors. I pour myself a cup of coffee and stand by the window, warming my hands on the mug and watching activity on the feeders.

I glance at the thermometer—it reads 39° below. "Warmed up a bit," I grin to myself.

I think about my feathered friends out there in the frigid temperatures. These birds of the boreal forest constantly amaze me, coping with temperatures that regularly drop far below zero.

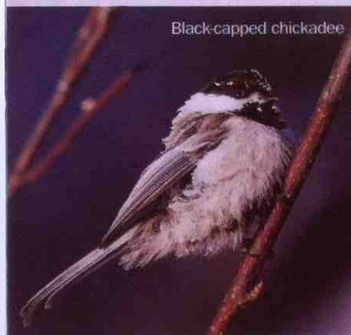
Feathers, we all know, provide wonderful



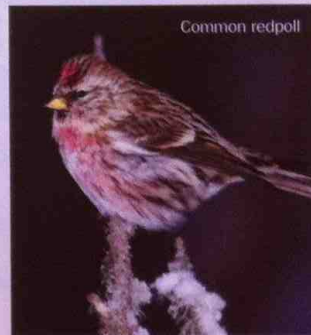
Downy woodpecker



Pine grosbeak



Black-capped chickadee



Common redpoll



Hoary redpoll

insulation, but the adaptations that permit these birds to live in such harsh environments go beyond that.

Physiologically, these tiny birds are perfectly adapted for the cold. For example, the artery that carries blood to their legs and feet and the vein returning the blood to the body are side by side. This means that the warm blood from the heart heats the cold fluid returning from the feet.


Physical Adjustments

The long, dark nights in this area are another major hurdle for winter birds. Black-capped chickadees spend these hours in tree cavities, protected somewhat from the wind

and cold. More amazingly, they are capable of lowering their body temperature by as much as 8° to save energy—quite an ingenious adaptation.

I know birds have many more strategies for dealing with the cold, especially the species that winter in interior Alaska. Unfortunately, I cannot spend the rest of my morning pondering and appreciating the feathered friends out my window.

My work preparing for the spring field season is calling, and I regretfully turn my back to the window and return to my desk.

But for the rest of the day, when I listen, I can hear the birds outside doing the same thing as me...waiting for spring. 

SUBTLE DIFFERENCES. The hoary and common redpoll are very similar, though the common species is more heavily streaked. Both can endure frigid weather, as can the other birds on these pages.