

# Chip Notes

Black-Capped Chickadee  
(*Parus atricapillus*)



## Those Amazing Birds...

Backyard feeders provide necessary energy to maintain birds' body temps

### Avian Metabolism and Temperature Regulation.

What? A biology lesson? No, I just want you to consider for a few minutes what is happening on the other side of your windowpane as you watch the birds at your feeders. First, just like you, songbirds are warm-blooded animals. In fact, the typical passerine body temperature is within a degree or two of yours. But they are MUCH smaller than you! Therefore birds have proportionately larger surfaces through which to lose heat in relation to their mass. This means that a great deal of food intake is required just to "thermo-regulate." Two avian examples of the importance of sustainable food sources are backyard favorites and illustrate the point. Hummingbirds have the highest metabolic rates of any animals, needing to consume their body weight in nectar each day. In fact, hummingbirds are as small as a warm-blooded animal can be.

Any smaller and it would be impossible to consume enough calories to maintain a body temperature. Black-capped chickadees, during particularly cold winter nights, go into a torpor, or temporary hibernation, that lowers their respirations, heart beats, and body temperatures. Doing so keeps them from running out of fuel and freezing to death before daylight returns and they can once again forage for food. Does this mean that songbirds become dependent on their human benefactors? Absolutely not. Your feeding stations are one choice among many natural food sources. Understanding the critical nature of food sources does support the underlying premise of Aspen Song's formulations. The better the quality of the seed mix from the bird's perspective, the more effective the product will be at providing the enjoyment backyard birdfeeders seek.