

COLD RUBY-THROATED HUMMINGBIRDS IN SASKATCHEWAN - MAY 2021

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On 20 May 2021, on a farm near Archerwill, SK, Debra Hanson observed some unusual behaviour by Ruby-throated Hummingbirds (*Archilochus colubris*), hereafter hummingbirds, which is described below. The overnight low was -2°C, a far departure from the 32°C earlier in the week. That morning, there was rain, snow and freezing rain and the high for the day was forecasted to be only 4°C. These were not ideal conditions for hummingbirds.

Hummingbirds arrived back to the farm on 14 May (entry in Debra's daily planner), and up to 10 had been seen feeding at one of the four sugar water feeders on 19 May. At 19:00 h on 20 May (Figure 1), Debra looked out her kitchen window to see a hummingbird motionlessly hanging from the feeder, upside down, while a second hummingbird was perched

on the feeder upright but not moving. As she was taking photographs of the birds, the hummingbird that had been hanging lost its grip and fell to the ground. Debra called for her husband Ted to come help! He went outside and was able to pick the hummingbird up from the ground, as well as the one sitting on the feeder. He took them into their greenhouse along with another feeder. The greenhouse was 21°C. A third hummingbird was caught later that day about 21:30 h. It, too, was moved to the warm greenhouse (Figure 2).

On 21 May at 06:00 h, a fourth hummingbird was moved to the greenhouse. Debra took a picture of two hummingbirds (Figure 3), one sitting motionless on the feeder while a second hovered over the motionless hummingbird. There were icicles hanging from the bottom of the feeder. Later in the day, at about noon, the last hummingbird, number five, was caught and moved to the greenhouse.

Two days later, when the weather had warmed up, four out of the five rescued hummingbirds flew out the open greenhouse door.

One of the hummingbirds did not survive. It never became active in the greenhouse like the other four did.

One possible explanation for the observed lethargic behaviour witnessed from these hummingbirds is what is called torpor. Numerous species are known to use torpor, including hummingbirds. While a hummingbird is in torpor, it lowers its metabolic rate by up to 95 per cent, allowing it to use up to 50 times less energy and eliminate the need to feed.¹ Hummingbirds may use torpor nightly, which allows them to survive the night without feeding. When in torpor, the bird is unable to move as its muscles and reactions are almost shut down to conserve energy. Were the hummingbirds Debra observed going into torpor in response to cold stress? It's difficult to confirm, but this observation is fascinating nonetheless.

1. Bennu D (2012) How do Hummingbirds survive cold nights? Hummingbirds in Torpor. Published in "The Flyway" summer 2012 Quarterly Newsletter of Nisqually and Grays Harbor National Wildlife Refuges. <https://purl.fdlp.gov/GPO/gpo734>. 🐦



FIGURE 1: Photograph of the two Ruby-throated Hummingbirds observed at 19:00 h on 20 May 2021, near Archerwill, SK. The bird on the left was hanging on the feeder until it fell to the ground. The bird on the right sat motionless.



FIGURE 2: Photo of a Ruby-throated Hummingbird inside the greenhouse at the feeder. All photos courtesy of Debra Hanson.

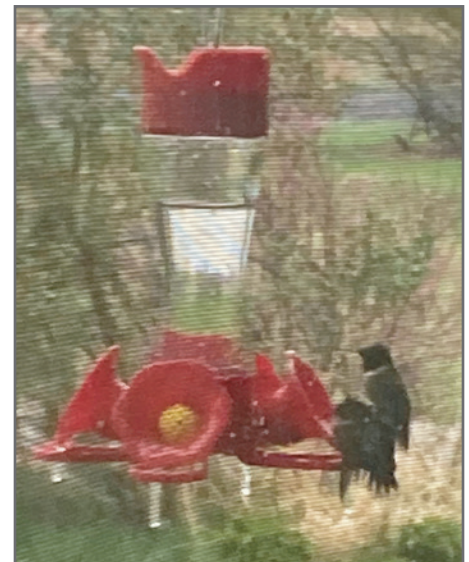


FIGURE 3: Two male Ruby-throated Hummingbirds, one hovering over the other motionless hummingbird, 21 May 2021.