

Thanksgiving is over and many of us are probably sitting back and attempting to digest the turkey, mashed potatoes, and stuffing that was consumed in massive quantities yesterday. If you are like me, you may also be tempted to wrap up in a nice warm blanket for a nap. It may comfort you to know that you are not alone in eating larger portions of food and sleeping more often when the weather turns colder. Many types of animals do this every year in preparation for the winter season.

Snow and freezing temperatures are not the most conducive elements for promoting plant growth. So before many of their food sources disappear, some animals will eat larger quantities in late summer and fall and create a layer of fat. This fat can serve two purposes: first, animals can turn it into energy at a later date when food is scarce, and secondly, they can use this fat as a way to maintain their body temperature when the thermometer drops.

Putting on a bit of extra weight during the winter is especially important if you are a hibernator. Animals that are true hibernators, such as the groundhog, live entirely off of their fat reserves while they are sleeping away the winter in their cozy shelters. Even with this extra padding, the fat stored by hibernating animals would not be enough to sustain them through the entire winter if their body didn't perform some other remarkable changes. True hibernators go into such a deep sleep-like state that they are unable to wake up right away even if they are disturbed. Their body temperature drops significantly, until it almost matches the temperature of the outside environment, and their heart rate and breathing decrease drastically as well. These factors combine to limit the amount of energy the hibernator uses, and allow it to survive without eating. Other animals, such as bears, go into a sleep-like state as well. While they do store up fat in the fall, they are not considered to be true hibernators because they do not sleep as deeply, and they are able to wake up and forage for food in the winter if necessary.

Hibernation is also the preferred method for animals that cannot maintain a steady body temperature, such as snakes, turtles, and frogs. These animals will find a rocky crevice or a burrow

underground and become dormant until the warmer weather of spring signals them to wake up. Even though our snakes at the zoo are kept in a warm room throughout the winter, they still exhibit signs that correspond to the colder weather, such as a decrease in activity and, subsequently, a decrease in appetite.

There are many animals that do not hibernate, and literally “weather the storms” that winter can bring. These animals employ a variety of techniques that enable them to stay warm and have enough to eat. Some animals, like squirrels, hoard food that they collected in the summer and fall and return to the caches during the winter. This activity serves an additional purpose in the spring when nuts and seeds forgotten by these hoarding animals sprout and begin to grow.

Mammals will also exchange their lighter summer jackets for thicker winter coats. The swift fox is an excellent example of this. In the summer their pelt is thinner and slightly darker, to prevent them from overheating and to help them blend in with the dirt and grass of the prairie where they live. In the winter, their coats will get much thicker and even lighter in color, to help them remain warm and blend in to snowy areas. Combine this winter coat with a nice layer of fat, and most mammals in Kansas are able to stay warm, whether awake or asleep.

Some of our zoo animals, however, are not suitably adapted for the cold Kansas weather. These animals are sometimes taken off display and kept in warmer housing throughout the winter, such as the birds in our aviaries and the African spurred tortoises. Many of our other zoo animals do just fine in the winter and employ some of the methods mentioned above to protect themselves from the cold.

So try not to feel too guilty about that extra piece of pie, or for curling up under a warm blanket for a nap. It’s only natural that we might exhibit some of the same changes that other animals do during this time of year. However, if the guilt still persists, you can always do as many birds do...take a nice three month vacation to a warmer climate in the south!

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