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Monarch Butterflies feeding on showy milkweed. PHOTO: IDFG



# Milkweed

## *The Unsung Hero of the Monarch Butterfly's Journey*

Species of  
Greatest  
Conservation  
Need

### The Monarch's Essential Ally



When you hear the word "milkweed," you might imagine a pesky plant that needs to be pulled from your garden. However, milkweed is far from a nuisance—it's a lifesaver for the monarch butterfly. The monarch's existence is intricately tied to milkweed, making it an essential part of North America's ecosystem.

#### **Milkweed: Monarch's Lifeline**

Milkweed, named for the milky sap it releases when broken, is the only plant where monarch butterflies lay their eggs. Once the eggs hatch, the caterpillars feed exclusively on milkweed, which provides all the nutrients they need to grow. Monarch caterpillars rely on at least 27 different species of milkweed found across North America, five of which have been documented in Idaho.

#### **A Journey of Thousands of Miles**

Monarchs are famous for their incredible migrations. The western population, such as those in Idaho, travels from their breeding grounds in Idaho to wintering sites along the coast of California. Remarkably, they often return to the exact same trees year after year.

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The showy milkweed pod is an elongated, velvety capsule that measures between three to five inches long. Starting off green, the pods turn brown or gray as they mature and eventually split open to release numerous seeds attached to silky threads. These threads help the seeds travel by wind, spreading the plant. Showy milkweed is essential for monarch butterflies, providing habitat for their larvae, and adds to the ecological diversity in its native western North American habitats.

PHOTOS: Public Domain

## Life Cycle on Milkweed

In early spring, western monarchs begin their journey north from coastal California. They lay eggs on milkweed plants as they go. The caterpillars that hatch continue the migration, and it takes three to five generations to complete the journey to northern areas like Idaho. In Idaho, milkweed doesn't bloom until early June, which is when the monarchs start arriving.

Milkweed plants are easy to spot with their unique leaves, vibrant flowers, and distinct seed pods. Idaho is home to five native species, including showy milkweed and swamp milkweed. These plants thrive in various habitats such as grasslands, forests, and roadside ditches.

## Monarch Development

Once a female monarch lays her eggs on milkweed, the tiny caterpillars hatch and begin to eat. They grow rapidly, shedding their skin five times as they develop. Interestingly, milkweed contains toxins that the caterpillars absorb, which makes them taste bad to predators. This chemical defense is crucial for their survival.

After two weeks, the caterpillar forms a chrysalis and undergoes an amazing transformation into a butterfly. This process, called metamorphosis, takes about nine to fifteen days. The adult butterflies then continue the migration northward, searching for more milkweed on which to lay the next generation of eggs.

## Challenges and Conservation

Despite their defenses, only about 10% of monarch caterpillars reach adulthood. Predators, pesticides, and environmental conditions take a heavy toll. As summer ends, the final generation of monarchs doesn't reproduce immediately. Instead, they prepare for the long flight back to their wintering grounds. These monarchs are the great-great-grandchildren of those that began the journey north months earlier.

Unfortunately, monarch populations are in decline. Habitat loss, pesticide use, and climate change all contribute to fewer monarchs reaching their wintering sites in Mexico and California. Efforts are underway to better understand and support these butterflies. In Idaho, wildlife experts and citizen scientists are mapping milkweed and documenting monarch sightings to aid conservation efforts.


## How You Can Help

Anyone can help monarchs by planting native milkweed and flowers in their gardens. Reducing pesticide use also creates a safer environment for these butterflies. Observations of milkweed and monarchs can be reported to online tracking tools like the [Western Monarch Milkweed Mapper](#). By taking these small steps, you can play a big part in ensuring the survival of this magnificent species.

Milkweed may seem like an ordinary plant, but it holds the key to the monarch butterfly's epic journey and survival. Next time you see this plant, remember its crucial role in one of nature's most incredible migrations.



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# The Hidden Dangers of Red Hummingbird Food



If you're a bird lover, there's nothing quite like the joy of watching hummingbirds flit around your garden, their vibrant feathers catching the sunlight as they hover over flowers. To attract these tiny wonders, many people set up hummingbird feeders. However, there's a common mistake that can do more harm than good: using red-dyed hummingbird food.

## The Appeal of Red Dye

It's easy to understand why red-dyed hummingbird food is popular. Hummingbirds are attracted to bright colors, especially red, which signals the presence of flowers rich in nectar. This has led manufacturers to add red dye to commercial hummingbird food, and many people assume it's beneficial. However, the truth is far from it.

## Health Risks for Hummingbirds

The red dye used in many commercial hummingbird foods is often made from artificial chemicals that can be harmful. Studies suggest that these dyes can cause a range of health problems in birds, including potential toxicity and harmful effects on their organs. Additionally, hummingbirds have incredibly fast metabolisms and sensitive digestive systems. The chemicals in artificial dyes can disrupt their digestion, leading to discomfort or more serious health issues.

## Natural is Better

Hummingbirds don't need colored food to be attracted to feeders. The red color of the feeder itself is sufficient to draw them in. Using clear, dye-free nectar mimics their natural food source and is much safer for their health.

## Making Your Own Safe Hummingbird Food

The best way to ensure you're feeding hummingbirds safely is to make your own nectar. It's simple and requires only two ingredients: sugar and water.

### Ingredients:

- 1 cup white granulated sugar
- 4 cups water

### Steps:

- 1 Mix the sugar and water in a large bowl. Stirring until dissolved.
- 2 Fill your hummingbird feeders with the nectar and place outside. The extra nectar can be stored in a covered container in the refrigerator for up to one week.

**Note:** You do not have to boil the water. In warm weather, it is best to replace the nectar every 2-3 days. Feeders should be cleaned thoroughly every time before refilling with fresh nectar.

# A Long Nap

## *Hibernation of Northern Idaho Ground Squirrels*

Species of  
Greatest  
Conservation  
Need

### **A Strategic Snooze**

by Sam Jolly\*, Regional Wildlife Diversity Biologist  
Idaho Department of Fish and Game

As July arrives and the snow is finally melting off the higher mountains of Idaho, the northern Idaho ground squirrel (*Urocitellus brunneus*) is preparing to enter hibernation.

Usually, we think of hibernation as a strategy to escape harsh winter conditions that would otherwise prove fatal, or at least very difficult, for organisms. Hibernation in many mammals typically begins when the snow starts to fly and lasts until longer days bring food and warmer temperatures. Northern Idaho ground squirrels are a little different.

Almost the entire known range of the northern Idaho ground squirrel is comprised of a network of mid-to high-elevation meadows that become blanketed in wildflowers, grasses, and other plants in the weeks after the snow melts. This is when the squirrels emerge from hibernation, usually in April. However, by early summer, these lush meadows have turned brown and dry as the days heat up and all the moisture disappears. At this time, northern Idaho ground squirrels decide it's time to go back to bed. After being above ground for only about four months, they return to their cozy underground hibernacula and go to sleep for the next eight. Amazingly, during this four-month period of activity, northern Idaho ground squirrels manage to find a mate, rear young, and eat enough to survive until next spring before going back into hibernation.

The northern Idaho ground squirrel is an endemic species to west-central Idaho, living in dry meadows and open forests. They hibernate for about eight months each year and engage in "haypiling" to store food. These social animals live in colonies, communicate through vocalizations, and face threats from habitat loss and competition, making them a threatened species. Recovery efforts focus on habitat restoration and controlled burns. Predators include hawks, snakes, and badgers, and they reproduce once a year, with females giving birth to four to six young. PHOTOS: (top) Sam Jolly/IDFG; (left) Arabelle Osicky/IDFG





From low sagebrush openings around 3500 feet elevation to high mountain meadows approaching 7500 feet, these squirrels exist in a wide range of vegetation communities, temperatures, and snowfall conditions. This means that while the low elevation squirrels are gorging on fresh flowers and greenery, the high elevation squirrels are just emerging from hibernation, often to a relatively barren landscape of patchy snow and freshly sprouting plants. No matter how late they emerge from hibernation, the squirrels usually only stay active above ground for about four months of the year.

So, why do northern Idaho ground squirrels spend so much time underground? There are several possible explanations. One theory is that they are food-limited, meaning that when their food runs out, they can't "afford" to be active above ground anymore. This makes sense, as the timing of their hibernation tends to align with the time that their main food sources (native forbs and grasses) start to senesce.

Another hypothesis is that they spend so much time in hibernation because it's generally safer than being active and above ground. When in hibernation, the ground squirrels are subjected to fewer predators than when they're above ground. Researchers from the University of Idaho have found that once squirrels reach a weight that will allow them to survive through hibernation, they will begin to hibernate regardless of environmental conditions.

Juvenile northern Idaho ground squirrels, which usually emerge from their burrows in mid-June, tend to stay up later than their parents, as they need more time to fatten up before hibernating. This supports the idea that ground squirrels tend to prefer to be underground. It's just safer.

Idaho Department of Fish and Game is part of a long-term effort to monitor the population of northern Idaho ground squirrels, a federally threatened species and one of Idaho's only endemic mammals. Ultimately, the goal is to recover the squirrel population so that it is not longer in need of federal protection.

PHOTOS: (left): Sam Jolly/IDFG; (bottom) Arabelle Osicky/IDFG





The best part  
of wildlife viewing.



[idahobirdingtrail.com](http://idahobirdingtrail.com)

# Idaho Birding Trail



## Farragut

## Wildlife Management Area

Farragut Wildlife Management Area (WMA) is located in northern Idaho on Lake Pend Oreille. Initially the site of a World War II naval training station, it now serves as a hub for conservation and recreation. The Idaho Department of Fish and Game and the Idaho Department of Parks and Recreation manage the WMA (~1400 acres) and Farragut State Park (~2600 acres) cooperatively as a single 4000-acre unit.

The diverse landscapes, including forests, meadows, and over 3.5 miles of lake front, provide habitat for a variety of wildlife. Over 120 species of birds have been found in the area, from bald eagles and chestnut-backed chickadees to snow geese. Larger mammals such as white-tailed deer, black bears, and moose roam the area, and mountain goats are often observed on Bernard Peak across the lake from the WMA's Eagle Boat Launch area.



# Thank You

Thank you to those who made direct donations, purchased or renewed a wildlife license plate, or contributed to the Idaho Nongame Wildlife Fund when completing their taxes.

Your contribution provides important funding for wildlife and habitat conservation, research, and outreach in Idaho.



## **Windows to Wildlife**

WILDLIFE DIVERSITY PROGRAM

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