Windows to Wildlife

A Wildlife Viewing Hotspot

On the Idaho Birding Trail at Market Lake Wildlife Management Area

Ears to the Night

Exploring the world of the Pallid Bat

Chilled to the Bone

How Idaho's Amphibians and Reptiles Brave the Winter

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Sandhill Cranes on their annual migration. PHOTO: Don Sniegowski/Flickr CC

Chilled to the Bone

How Idaho's Amphibians and Reptiles Brave the Winter

PHOTO: Northern Leopard Frog/Gary Shackelford

The Art of Winter Survival

When the days grow shorter and the temperatures drop, many animals prepare for the winter months. But what about Idaho's amphibians and reptiles? These cold-blooded creatures can't generate their own heat like mammals and birds do, so they rely on different survival strategies to make it through the freezing cold. Let's take a look at how frogs, salamanders, snakes, and turtles brave the icy conditions in Idaho.

SLOWING DOWN TO SURVIVE

We often hear about animals hibernating during winter, but reptiles and amphibians actually go through a slightly different process called ***brumation***. In hibernation, warm-blooded animals, like bears, enter a deep sleep and live off their fat reserves. Cold-blooded creatures, on the other hand, enter brumation where they slow their metabolism down drastically, becoming sluggish and conserving energy. Although they aren't technically asleep, their body functions—such as breathing, digestion, and movement—slow down to nearly a complete stop.

Salamanders, such as this Coeur d'Alene Salamander, seek shelter under rocks during the winter as part of their survival strategy during brumation. PHOTO: Ryan Killackey, IDFG

Despite this dormant state, reptiles in brumation might still move occasionally if they need to drink water. Amphibians, such as frogs and salamanders, can remain fully submerged in icy ponds or burrow into the ground, relying on their specialized skin to breathe and survive for months without eating.

MASTERS OF MOISTURE

For amphibians, winter is all about finding the perfect balance between cold and moisture. Idaho's amphibians like the Northern Leopard Frog, Pacific Chorus Frog, and Long-toed Salamander, depend on water, even during the winter months. Frogs and salamanders have thin, permeable skin that allows them to absorb oxygen, which is crucial when they hide away for the winter.

Some frogs, like the Northern Leopard Frog, spend the winter at the bottom of ponds or streams. But here's the catch—while the surface of the water freezes solid, these clever frogs remain in the unfrozen depths below. With their metabolism slowed to a crawl, they absorb oxygen directly through their skin and can survive the icy cold water without breathing in the usual way.

Unlike their aquatic cousins, toads, like the Western Toad, prefer dry, underground hideouts. When autumn arrives, they dig deep into the soil, sometimes using abandoned rodent burrows, and wait out the cold months below the frost line. In this safe, sheltered spot, their heart rates and bodily functions slow, allowing them to survive until the ground thaws in spring.

Idaho's Long-toed Salamander takes a similar approach. These little amphibians hide under logs, rocks, or in damp soil, staying protected from freezing temperatures. Their slimy skin helps them absorb moisture from the surrounding environment, keeping them alive during the winter.

During brumation, frogs, toads, and salamanders slow down their metabolism to survive the winter. Aquatic species rest at the bottom of ponds, absorbing oxygen through their skin, while terrestrial species burrow into soil or hide under leaf litter and rocks. They remain inactive until warmer weather returns. PHOTOS: Northern Leopard Frog/Gary Shackelford; Western Toad/Charles Peterson; Long-toed Salamander/John P Clare on Flickr CC.

FINDING THE PERFECT WINTER RETREAT

Idaho's reptiles face a different challenge. Cold-blooded by nature, they rely on the warmth of their environment to stay active. When temperatures drop, especially in Idaho's colder months, reptiles must find shelter in warm, safe places to survive. Without access to proper warmth, they risk becoming sluggish or even immobile, which can make it difficult for them to escape predators or gather enough food. Finding a suitable place to hibernate or take cover during colder periods is critical for their survival.

Snakes, like the Garter Snake, seek out a cozy communal hibernation spot known as a hibernaculum. These are often cracks in rock piles, crevices, or abandoned animal burrows that stay just warm enough to keep the snakes from freezing. In fact, Garter Snakes often gather in large groups, huddling together for warmth. You might be surprised to learn that hundreds, or even thousands, of snakes can hibernate together in one hibernaculum!

The Painted Turtle, Idaho's only native turtle, spends the winter in ponds or slow-moving streams, buried in the mud at the bottom. Like frogs, these turtles have a remarkable ability to survive without breathing air. They can absorb oxygen through specialized tissues in their throats and even through their cloaca—an opening they use for waste and reproduction. With their bodies slowed down, they can remain underwater for months, waiting for spring.

The Short-horned Lizard and other Idaho lizards find small crevices in rocks or burrow into loose soil. These places offer them protection from freezing temperatures, and like snakes, they lower their body functions to a near standstill. In this state, they can go without food, relying on fat reserves stored up during the warmer months.

THE SCIENCE OF SURVIVAL

Idaho's reptiles and amphibians demonstrate impressive resilience during harsh winters by entering a state of dormancy and seeking shelter in protected areas. Whether buried under snow or in moist habitats, they survive months of freezing temperatures and remain dormant until spring's warmth. Their ability to adapt to extreme conditions highlights their amazing survival strategies, even in the most challenging conditions.

Reptiles, like snakes, lizards, and turtles, also undergo brumation to survive the winter. During this time, their metabolism slows down, and they become mostly inactive, seeking out sheltered spots such as burrows, rock crevices, or beneath logs to stay protected from the cold. Unlike hibernation, reptiles may wake up and move around on warmer days before returning to brumation. PHOTO: Garter Snake hibernaculum/Katie Theule; Painter Turtles/J.M. Storey; Pygmy Short-horned Lizard/Beth Waterbury

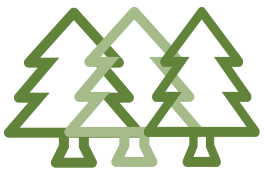
HAVE YOU SEEN THIS BIRD?

Mountain Quail Observations Needed

The Idaho Department of Fish and Game is asking for the public's assistance in gathering information about a lesser-known upland bird species, the **Mountain Quail**.

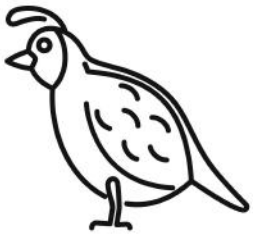
Mountain Quail are Idaho's only native quail species. Once common, they are now classified as a **species of greatest conservation need** and are found in scattered populations across mountainous areas of Idaho, Oregon, California, Washington, and Nevada.

Mountain Quail eat mostly plants, including small fruits, nuts, and seeds. They forage on the ground and use their feet to uncover food in leaf litter.



They are elusive birds that inhabit shrub-covered mountainous areas, such as chaparral. During the summer, they often move to higher elevations where plant life and insects are more abundant.

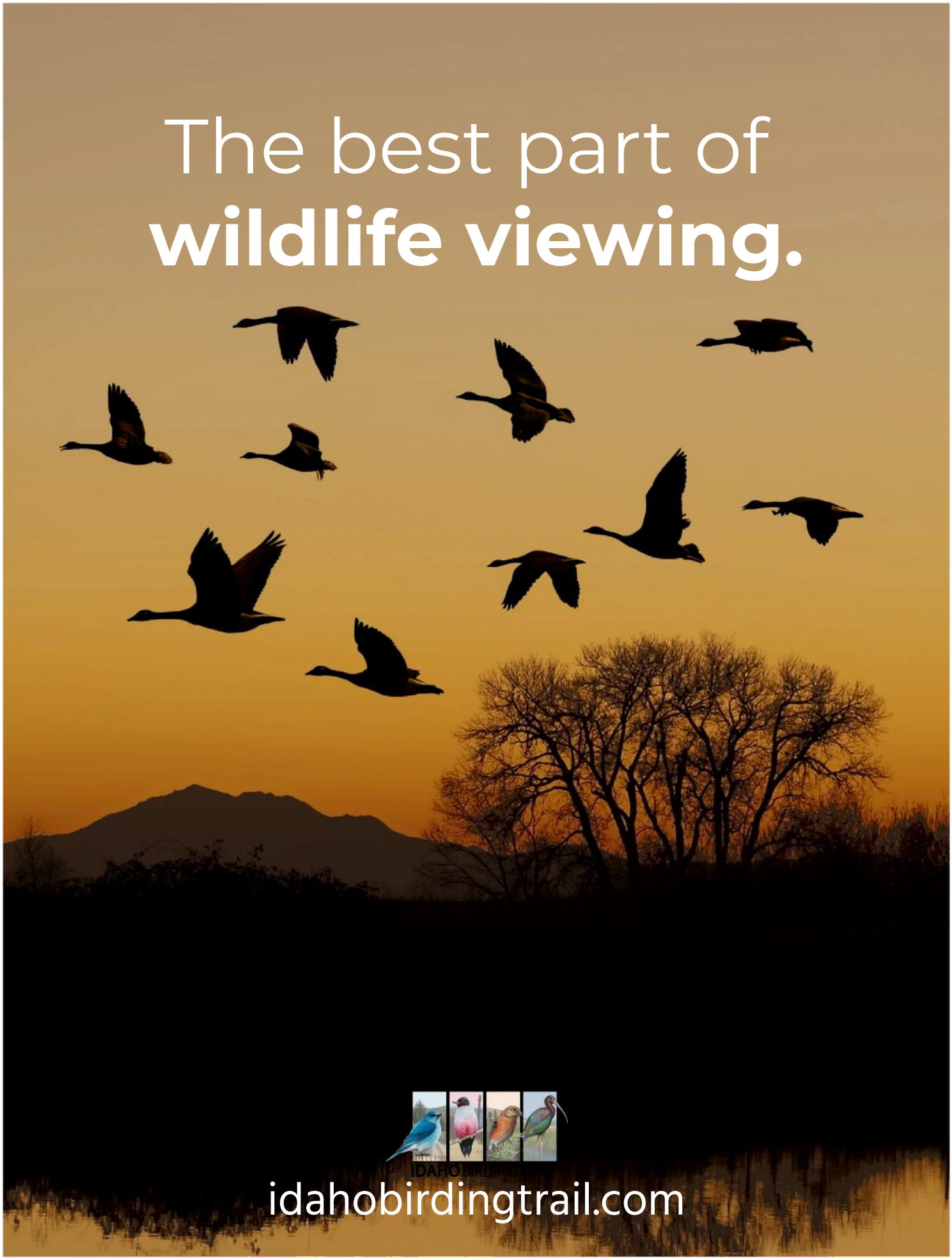
Mountain Quail have light brown backs, grey chests and chestnut feathers with white bars on their sides. Their throats are also chestnut-colored. They are the only quail that has a **long** slender feather plume on the head.



WE NEED YOUR HELP!

Think you've seen a Mountain Quail? Please contact your nearest Idaho Fish and Game office or email sandy.amdor@idfg.idaho.gov with details including the location, date, time of day, number of quail, your confidence in the sighting, and if you captured any photos or videos.

Your observations are important to helping us protect this species!


The best part of
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Idaho Birding Trail

Market Lake Wildlife Management Area

Located in eastern Idaho, just north of Idaho Falls, Market Lake Wildlife Management Area (WMA) has become a premier destination for birdwatching. With over 180 bird species visiting throughout the year, the WMA was recognized as an Important Bird Area in Idaho in 1997 and gained Global Important Bird Area status in 2010 by the National Audubon Society and BirdLife International.

Market Lake WMA offers vital habitat for important species, such as Snow Geese and White-faced Ibis. It serves as a crucial stopover site for Snow Geese during their spring migration and supports the nearby breeding colony of White-faced Ibis at Mud Lake WMA, which accounts for 25% of the known breeding population in the western U.S.

A wildlife viewing blind is a popular spot for watching waterfowl and shorebirds.

To Get There: The viewing blind is on the former Western Wings Pond on 800 North near the overpass that crosses Interstate 15, two miles north of Roberts.

New Wildlife Viewing Guide Celebrates *Idaho's Bats*

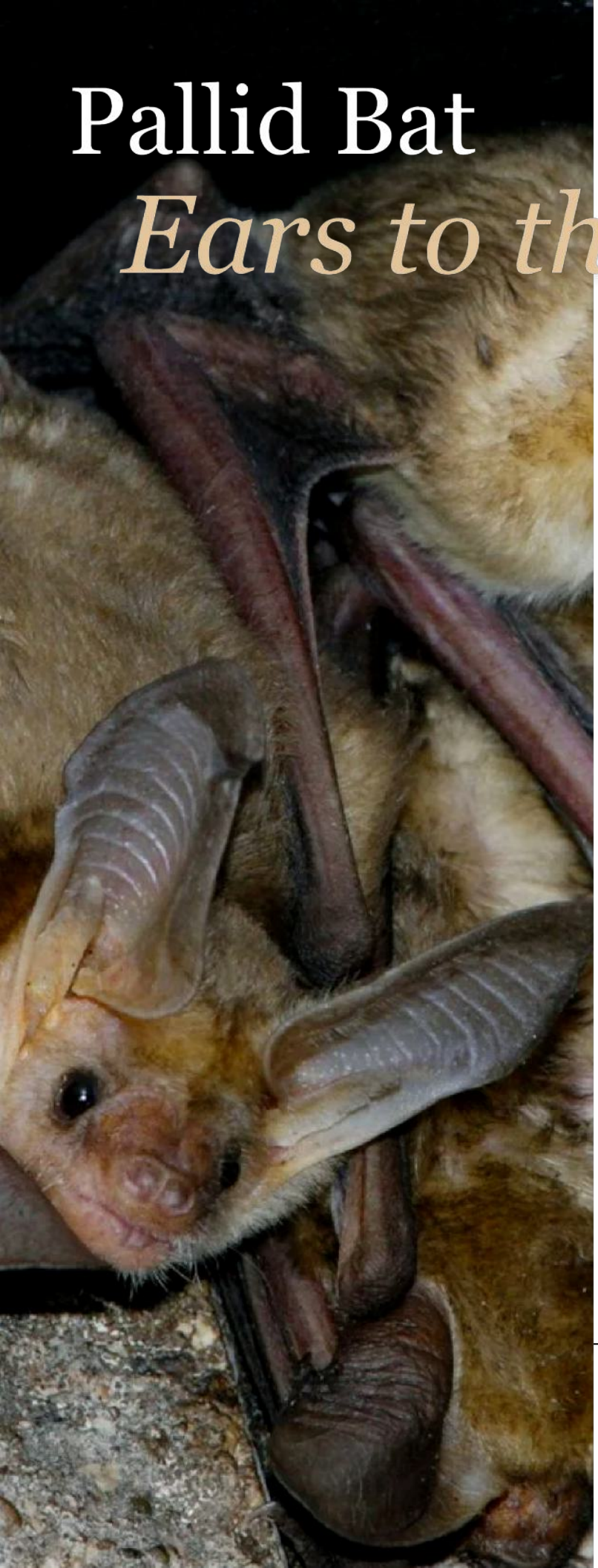
Exploring Idaho's Bats

The latest installment in Idaho's popular wildlife viewing series has just been released, focusing on the state's 14 species of bats and their vital role in local ecosystems. Following the success of previous guides on ungulates and owls, this new pocket guide sheds light on Idaho's fascinating bat species, each contributing to the state's rich biodiversity. Whether you're an avid wildlife watcher or just curious about these elusive creatures, this publication provides a wealth of knowledge to enhance your outdoor experiences.

The guide offers detailed insights into the diet, life cycle, and habits of Idaho's bats. From the tiny insectivorous Little Brown Bat to the scorpion-eating Pallid Bat, readers will discover the unique adaptations that help these mammals thrive in a variety of habitats across the state. Beyond natural history, the guide provides practical tips on how and where to spot bats in their natural environments—whether near caves, forest edges, or even urban areas at dusk.

In addition to bat-watching tips, the guide addresses common concerns about bats, including what to do if one enters your home and how to safely help them. For those interested in conservation, the guide explains how you can support bat populations by installing bat houses and protecting their habitats. As human activity increasingly impacts bats, this guide encourages Idahoans to become stewards of these often misunderstood animals and to appreciate the diverse roles they play in ecosystems around Idaho.

Pick up your copy at any Idaho Department of Fish and Game office!



Pallid Bat

Ears to the Night

Species of Greatest Information Need

The Pallid Bat, identifiable by its yellowish to pale cream-colored fur and notably large, rounded ears, thrives in the arid regions of the American West. With ears measuring up to five-eighths of an inch across, these bats are adept at listening for the sounds of ground-dwelling arthropods, such as scorpions, crickets, and grasshoppers. Their range spans from south-central British Columbia to central Mexico. In Idaho, they are mostly found in semiarid grasslands and shrub-steppe habitats.

Social by nature, Pallid Bats emerge from their roosts later than many other bat species and often feed in groups, especially mothers with their offspring (pups). They roost in various structures, including rock crevices, tree hollows, mines, caves, and even human-made structures. Remarkably, Pallid Bats can handle scorpions and are resistant to their venom, allowing them to exploit these prey sources effectively. During the summer months, pregnant females congregate in maternity colonies within warm crevices, abandoned mines, or buildings.

Breeding typically occurs from October through December, with one to two pups born between late spring and mid-summer. While largely inactive in winter, Pallid Bats are believed to hibernate in small groups or as solitary individuals. They face several conservation challenges, including sensitivity to noise pollution, habitat loss due to land conversion, pesticide poisoning from contaminated prey, and human disturbance. Protecting their natural habitats and mitigating these threats is crucial for ensuring the survival of this unique bat species.

Bat Beats

Scan to listen

Bat Bit: To protect themselves from predators, Pallid Bats produce a skunk-like odor from wart-like bumps on their face as a defense mechanism.

Thank You

Thank you to those who made direct donations, purchased or renewed a specialty 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.

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Belted Kingfisher PHOTO: Andy Morffew/Flickr CC