

NATURE DETECTIVES



Winter 2016



Ptalking...um, that is...Talking About Ptarmigans

Ptarmigans can be quite startling for the people or animals that unknowingly come near them. Skiers, hikers, even prowling coyotes can get very close to the birds without noticing ptarmigans are there. When the birds suddenly take flight, the astonished person or predator often jumps back in alarm. Surprise! **White-tailed ptarmigans** were here and gone.

The ptarmigans escape from people and predators by appearing to be chicken-size rocks or small mounds of snow that suddenly explode. Their camouflage coloring makes them champions at hiding in plain sight. In summer they blend in with the surrounding rocks, and in winter they appear to be bumps of snow.

Pull Out and Save

Tracking Ptarmigans Is Tough

Getting to white-tailed ptarmigan **habitat** is really difficult. You have to go beyond the tall forest to where few trees grow. Climb to where trees are short and gnarly, twisted from the recurring gusty winds. Here and up higher on the **alpine tundra** watch for ptarmigans. Study areas of soft snow around willow bushes for the birds' three-toed tracks. Listen for their clucking sounds. The easiest time to look for the birds is in late summer and early fall. Few people tackle the drifted snow and extreme cold of the alpine tundra in winter.

Home at the Top

Hearty ptarmigans feel at home in the alpine zone where trees cannot survive the harsh conditions. They are the *only* birds that live in the alpine all year round. Other birds move in for the short mountain summer, but they leave before winter arrives to avoid the freezing cold winds, biting snow and scarce food supply. Ptarmigans have special ways of coping with the challenges of this habitat. Their color changes are just one way they have adapted to life at the top of the world.



How To Look Like Rocks and Snow

Ptarmigans are good at hunching down and holding perfectly still until danger goes away or until they sense it is time to beat their wings in sudden escape.

They molt their feathers almost continuously from late April until early November so their feathers match the look of the mountain terrain. Depending on the season, ptarmigans look like snow mounds or rocks setting in melting snow or setting amid summer flowers.

All year long, white-tailed ptarmigans have white tails, of course. They also have white wing feathers. During winter, their body feathers are snow white.

At the end of April, brown and gray speckled feathers start showing among their white feathers. Now the birds begin to look like granite rocks on melting patches of snow. As the real snowpack melts, more mottled brown and gray feathers cover the birds' bodies, matching the bare, rocky land.

The alpine summer is short and soon patches of new snow dot the ground. White feathers emerge among the ptarmigans' darker granite-colored feathers. By the time the ground is completely snowy, the birds are wearing their full white, feathery coat.



Who Are They Hiding From?

Coyotes, foxes, weasels, dogs and humans are dangers on the ground. Eagles hunt ptarmigans from the sky.



How Ptarmigans Dine in the Alpine



willow

The food needs of ptarmigans are simple. In winter they thrive on the buds and stems of willow bushes. Summer brings a varied diet of new leaves, alpine flowers, seeds and some fruits plus insects nibbled now and then.

The birds swallow rocky grit to grind against the tough vegetable matter in their gut to aid in digestion.

Ptarmigan Tidbits

The **silent p** at the beginning of ptarmigan is a mystery. Someone named the birds hundreds of years ago and the reason for the **p** has been lost in history.

Ptarmigans dislike heat. They take **snow baths** to cool off on days when the air temperature rises above 70 degrees F.

White-tailed ptarmigans are about the size of footballs with small heads and rounded tails. Ptarmigan are in the **grouse family** – as are wild *turkeys*.

Babies Hatch Ready To Go



Ptarmigans keep their same mates as long as both show up at the place where they nested the year before. The male struts around and expands the flashy combs over his eyes, which look a little like red eyebrows. He will chase off other males and she will chase off any wandering female from their chosen territory.

Snow melt means nest time so the male watches for predators while the female scratches a shallow depression and pulls dry plants around her for a nest rim. She will lay about six eggs here and sit on them for over three weeks in all kinds of weather. Summer above tree level is a mix of cool breezes and sunshine followed by intense thunderstorms or sudden snow squalls and dropping temperatures. Finally, fuzzy-feathered chicks hatch from the surviving eggs. Only a half-day later, the wide-eyed babies will follow their mother's soft clucking to find food.



Instinctively, chicks know how to peck at insects, the food they need for their growing bodies. As summer ends and insects disappear, the now-big chicks will gradually begin to eat seeds and fruits. They will join with other flocks of ptarmigans by winter.



Surviving Winter

Grown chicks and adult ptarmigans have feathers on eyelids, nostrils, toes and legs to keep them warm. Feathers on their feet also act as snowshoes so they walk easily atop the snow. On sunny days, they bask out in the sun and shelter from the wind beside a shrub or rock pile. They scabble into soft snow to roost under its insulating blanket on freezing cold days and colder nights. Completely covered by the snow, they look like little plops of snow under the willow shrubs.

When deep snow covers the willow buds they eat, the birds move to taller willows or thickets swept free of snow by the wind. Often such willows are further down the mountain, closer to tree line or even a little below.

Walking saves valuable energy for ptarmigans. Strolling short distances, just far enough to find food, and flying only when necessary are key to the birds' survival.



Feathers Are a Bird's "Fur" Coat

Feathers look fragile and thin, but they are designed to keep a bird warm -- especially the small and fluffy feathers, called down feathers. This is important to a ptarmigan that spends the whole winter sleeping in the snow. Long ago, people already knew that feathers help keep in warmth. They stuffed pillows and blankets with feathers for this reason.

Feather Warmth

See how feathers keep a ptarmigan warm! Give this a try:

Get two sealed plastic baggies, 2-3 ice cubes, and some feathers, preferably down feathers. (You can get down feathers at a hobby store.)

- Put ice cubes in one baggie and lots of feathers in the second baggie.
- Place the bag with ice cubes in one hand. How long does it take before your hand gets really cold?
- Now place the bag with feathers on top of your hand. Put the bag of ice on top of the feathers. Can you feel the cold of the ice cubes?
How long does it take before any of the cold gets through to your hand?

Camouflage Is King

Ptarmigans depend on camouflage to blend in – with brown feathers in the summer and white feathers in the winter. Try this:

- Get several fuzzy craft sticks (or pipe cleaners) of different colors, including brown, white, black, red, and green.
- Cut the sticks into one-inch pieces.
- Go outside where there is grass, dirt and rocks. Spread the pieces around on the ground. Have a friend, brother, or sister go out and pick up as many pieces as they see in 20 seconds.



What colors did they find first? Last? Not at all?

- Now spread the pieces around on something white, like a driveway or sidewalk or snow. Be sure you spread them around a large area and don't let your friends see where you hid them. Have your friends go and pick up pieces again for 20 seconds.

Did they find different colors first this time?



Sherlock Fox says, "Do you want to blend in?"

Try wearing colors that match something in your house. See if you can blend in without someone noticing!

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