

Wyoming Wildlife

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For those who appreciate wildlife, the bugle of an elk echoing down a forested draw, a white jackrabbit bounding through the sage, the brilliant blue of a mountain bluebird fluttering over a snow-covered landscape, or a mallard hen gliding out of the reeds with a fuzzy brood in her wake are as indicative of the season as the date on the calendar, the numbers on the thermometer, or the time that day draws to a close. I am a warm-weather person and though I delight in having distinct seasons, I prefer my winters to be brief and not too bitter. (Wyoming seldom complies.)

And yet, when the days get shorter and cold winds blow out of the north, I start scanning the skies and the fence posts, eager for a look at my first rough-legged hawk of the season even though the sight of this beautiful bird of prey forecasts winter. Somehow, the sight of a roughleg nonchalantly hunting for voles on a fiercely cold January day makes winter eminently more bearable for me. As warm days begin to outnumber cold ones and early flowers boldly begin to open their petals, I begin to look for the first Swainson's hawk— as sure a sign of spring in Wyoming as the vibrant green flush of emerging cottonwood leaves.

Perhaps no two hawks are as indicative of the season in Wyoming as the rough-legged hawk and the Swainson's hawk. These species frequent opposite ends of the earth for much of the year, but visit Wyoming and neighboring states for part of their yearly life cycle. While many of us notice hawks, fewer of us distinguish between Wyoming's various raptors,

A Swainson's hawk poses with a talon full of meat. The Swainson's will land and ambush small mammals on the ground and is just as agile in the air, often taking insects on the wing.

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and fewer still are aware of the long journeys that many of these birds have made before taking up a casual perch on that roadside fence post.

The rough-legged hawk is a “snowbird” visitor to Wyoming, which serves quite nicely — if surprisingly — as its Florida or Arizona in the winter. While most birds flee Wyoming’s brutal cold, strong winds and blowing snow, the roughleg is in its element in these conditions. The rough-legged hawk has a global distribution but breeds only in the arctic and subarctic regions. Although they will occasionally nest in trees at the edge of the boreal forest, North American rough-legged hawks typically build their stick nests and raise their young on cliffs in tundra or taiga habitats of Alaska and Canada. No roughlegs have been documented nesting in the Lower Forty-eight, so reports of the species in the summer in Wyoming are met with extreme skepticism by anyone familiar with this species.

Rough-legged hawks winter in open-country habitats from southern Canada to the southern United States, though reports from the southeastern U.S. are rare and the birds occur in higher numbers in the more northerly states. As with most hawks, female roughlegs are larger than males, and their larger body size

may allow them to cope better with cold winter temperatures. Biologists have documented higher numbers of females in states like Idaho and Montana in winter and higher numbers of males in states like Arizona and Nevada, although there is substantial overlap between the sexes.

The rough-legged hawk is the only *buteo* — or soaring hawk — in North America that exhibits different plumage depending on the sex, so males and females can be told apart. As I drive around southeastern Wyoming in winter, the roughlegs that I see are predominantly females, with their pale heads, wide band of dark feathering across the belly and their single dark band near the base of the tail. The elegant, but more-difficult-to-identify males with their slightly darker heads, barred or mottled black-and-white belly band, and multiple stripes on the tail are usually scarce. The light-eyed juvenile birds look more like the females than the males but can be differentiated by their eye color and subtle plumage differences. As a species, rough-legged hawks can exhibit highly variable coloration with very light and almost completely dark birds complicating identification.

The rough-legged hawk is perfectly adapted for the challenging conditions it encounters on both its breeding and wintering grounds. Its dense feathering extends to its toes — giving the rough-legged hawk its common name and its scientific species name (*lagopus* meaning hare-foot in Latin). The first time I held a rough-legged hawk, I felt like I was dipping my hands into a down pillow and better understood how the species could withstand ferociously cold winter temperatures. I also couldn’t help noticing the hawk’s relatively small feet, which are perfectly adapted for catching lemmings on its breeding grounds and voles, mice, and pocket

gophers on its wintering grounds.

While it may take small birds and medium-sized prey like ground squirrels and rabbits in the arctic and may take advantage of carrion on occasion during the winter, the roughleg is a small-mammal specialist and typically focuses its hunting efforts on these small creatures. The hawk often hunts by hovering in the air, flapping its wings to stay in the same bit of airspace, searching the ground below its keen eyes. This unusual method of hunting on the wing serves the species well since it spends much of its year on the treeless tundra. In winter, the rough-legged hawk also frequently searches for prey from a tree, fence post, or power pole.

Rough-legged hawks often concentrate where numbers of voles — which are known to undergo cyclic population boom and busts — are high in the winter. Unfortunately, such concentrations have made this relatively approachable raptor vulnerable to persecution. For example, in western Montana in the late 1990s, dozens of shot rough-legged hawks were found each winter in an area where the birds convened to feed on abundant voles. The only person who was apprehended admitted that he went on his weekly hawk-shooting forays to protect the ring-necked pheasants he loved to hunt from being killed by the area’s abundant hawks. Aside from being illegal, his actions were all the more unfortunate considering that the rough-legged hawk — the predominant winter raptor in the area — typically avoids large birds like pheasants and ducks.

Like bald eagles, rough-legged hawks often roost communally in the winter. Several may perch together in a tree, and large numbers will sometimes congregate in patches of forest. As many as 325 roosting rough-legged hawks used a traditional

communal roost in western Montana one winter. The hawks spread out over a large open valley to hunt and feed during the day then funneled back into a fairly small forest patch at the base of mountains to roost at night. The warmer microclimate that this protected forest patch provided for the birds allowed them to conserve energy on cold winter nights. The study of this communal roost underscored the importance of fully understanding the natural history of an animal in order to conserve it. Because the rough-legged hawk is an open-country, tundra-living species, its use of warmer forest patches for winter roosting was unexpected, and protecting communal winter roost areas may be an important conservation consideration for this northern hawk.

Understanding what Swainson's hawks do in winter also has proven important to conserving this species.

Swainson's hawks— which occur throughout western North America— arrive in Wyoming in mid-April, when many other Wyoming raptors already are nesting. They establish their territories— sometimes after skirmishing with resident raptors— in open grasslands, sparse shrublands, and agricultural landscapes. Tolerant of human activity, Swainson's hawks have adapted particularly well to agricultural areas. Some even seem willing to tolerate more developed places. Several pairs nest within Laramie's city limits, for example.

Because of its two-toned wings— its dark flight feathers contrasting with pale wing linings— the typical Swainson's hawk is readily identifiable in flight. However, the species shows a great deal of variation in its plumage and many populations have a high proportion of dark-morph birds, whose relatively uniform dark-brown

The classic Swainson's coloration (opposite page) includes a brown bib and black on the trailing edges of the wings. The rough-legged hawk (below) has a dark belly band and dark marks on the wrists of its wings. Both species have dark and light individuals that can be hard to identify in the field.



coloration can make identification more challenging.

Although the Swainson's hawk's small bill and head shape make it look much like the rough-legged hawk, the two buteos are not closely related. Instead, the Swainson's hawk's closest relative is the Galapagos hawk, which inhabits the famed islands off the coast of Ecuador in South America. This potentially baffling relationship makes more sense when one learns more about the hawk's natural history and the importance of South America in its yearly life cycle.

During the spring and summer breeding season, Swainson's hawks construct stick nests in isolated trees, shrubs, and shelterbelts, or along the

edges of riparian areas and feed their young primarily small mammals, birds, and reptiles. During the non-breeding season, however, once the young hawks have left the nest, the relatively common Swainson's hawk begins to engage in some decidedly uncommon activities. To begin with, the species is almost unique in switching from feeding primarily on small mammals when raising its young, to feeding almost exclusively on insects— and particularly grasshoppers and dragonflies— during the rest of the year.

Although Swainson's hawks are not social during the breeding season, they often begin to congregate in large flocks in late August and early

A lighter Swainson's (below) and a dark phase bird of the same species (opposite page) show some of the range in color that can make the two species hard to identify. Luckily for birders, the two birds overlap in range for only a few weeks in spring and fall, so a medium-sized soaring hawk in the winter is likely to be a roughleg; in the summer, it will be a Swainson's.



September, and can be seen hunting for insects on the ground or from low perches. Considered the most gregarious of North America's birds of prey, pre-migratory concentrations of Swainson's hawks can consist of more than one hundred birds. If you drive by an irrigated pasture in fall and spot multiple hawks perched on the sprinkler system or following behind farm machinery, they are likely to be Swainson's hawks, fattening themselves on grasshoppers prior to embarking on their extraordinary migration.

Each fall, Swainson's hawks stream out of North America—leaving Canada's prairies, California's agricultural fields, and Wyoming's

wide open spaces— as they begin a long southward journey to their wintering areas, most of which are found in Argentina's grasslands, or pampas. The Swainson's hawk's 12,000-mile round-trip journey is the longest migration of any hawk. Swainson's hawks often travel in large groups, some consisting of as many as 10,000 birds, and take advantage of thermals during their daytime flights. Because they are reluctant to fly over water, the birds funnel through Central America, thrilling hawk-watchers who come to witness this spectacular river of birds flowing through the skies. Up to 845,000 Swainson's hawks were counted in Veracruz, Mexico, during one fall migration, and approximately 350,000 Swainson's hawks were recorded flying over a single count-site in Panama City one October and November.

Having crossed Central America, the hawks usually fly across the Andes Mountains in Colombia then travel along the eastern foothills of the Andes before continuing south through western Brazil and eastern Bolivia, and finally on into Argentina. While some Swainson's hawks are sighted in neighboring countries, the vast majority winter in central Argentina, where a Wyoming Swainson's might associate with hawks from Alberta, Saskatchewan, California, Idaho, and Colorado.

Swainson's hawks often congregate in large numbers on their wintering grounds and frequently form large communal nighttime roosts. A single roost in Argentina's La Pampa Province contained approximately 12,000 Swainson's hawks. Concentrations like these make Swainson's hawks vulnerable to harmful events such as hailstorms, shootings, and poisonings. For example, in 1995 and the austral summer of 1995-96, while Wyomingites shivered through winter,



approximately 6,000 dead Swainson's hawks were found in South America where toxic pesticides had been used to control an outbreak of grasshoppers and locusts. As many as 20,000 Swainson's hawks ultimately may have been killed by these pesticide applications. Although efforts to reduce such threats are ongoing, the loss of so many Swainson's hawks on their wintering grounds provided a compelling reminder to North Americans that the fate of many of "our" bird populations is as tied to events in the southern hemisphere as it is to conservation and management efforts in our own country.

So next time you drive by that hawk perched on a fence post, take a closer look. If it's a Swainson's hawk or a rough-legged hawk it may have flown from half a world away before gracing your view. If it's winter, your hawk may have spent the summer flying over arctic foxes and caribou. If it's summer, your hawk may have shared tree perches with toucans and parrots. Given the distances they've flown to get to Wyoming and the company they've kept, it's worth giving that neighborhood raptor a second look.

Writer Sophie Osborn studies raptors from her home outside of Laramie.