

Colorado's Snow Quail

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If you have ventured into the high country, you may have had a lucky encounter with Colorado's only year-round alpine resident — the White-tailed Ptarmigan. This Colorado grouse is the smallest in North America, weighing less than one pound, and has a range that extends more than 2,700 miles from northern New Mexico to southern Alaska and central Yukon. Five subspecies have been identified across this large range, and the population in the southern Rockies is one of the most fragmented and isolated. Throughout their range, White-tailed Ptarmigan live above tree line. In the Arctic tundra and boreal forests, they are replaced by the far more abundant Willow and Rock Ptarmigans.



Ptarmigan winter plumage. Photo by Brad Andres (c).

As the colloquial name “Snow Quail” implies, the White-tailed Ptarmigan changes from a mottled gray, brown and white in summer to a pure white in winter. This drastic plumage change is likely a response to predation pressure (similar to changes in Snowshoe Hares). I have been amazed how well a female brooding her chicks blends into the surrounding alpine vegetation at just a few feet away! Unlike a lot of birds, ptarmigan are vegetarians, feeding on seeds, flowers and primarily willow buds during the winter. They have evolved a unique digestive system to handle this high-cellulose food.



Ptarmigan summer plumage. Photo by Daniel Arndt (c).

White-tailed Ptarmigan have developed many adaptations to survive the high, harsh winters. Their scientific genus name *Lagopus* comes from Greek meaning “hare foot,” and their feathered feet assist

them as snowshoes and also help prevent heat loss. Feathers around their nostrils also are an adaptation to maintain their body temperature. Ptarmigan greatly reduce their energy expenditure by walking rather than flying and will often roost together in snow banks. They have a very low metabolism and extract any water in their willow-bud diet and deposit incredibly dry droppings.

Guanella Pass has been a popular place to search for winter ptarmigan. Perhaps easier and less stressful for the birds is looking for them during the summer along the Mount Evans road close to the top or at Summit and Lincoln Lakes. There is some concern that increasing temperatures and changes in alpine habitats due to climate change could negatively affect the Snow Quail in Colorado and throughout the southern part of their range.