

Chapter 1 : Central Rockies Mammals - Animals & Birds - Books - Books & Maps - Camp & Hike

Birds of the central Rockies. [Jan L Wassink] -- This easy to use field guide provides color photos of bird species in their natural surroundings. Descriptive text places each bird in its own ecological niche-explaining how to identify the.

We visited Inglewood in October and really enjoyed it. We plan to hike through Griffith Woods in April. Can you recommend a book or guide that would help us recognize the most common Calgary birds and the sound of their calls? May 12, These hardy doves have been reported as far north as The Yukon. When they arrive somewhere, they generally manage to hang on and establish a population. No idea how they survive a northern Canadian winter as they were originally introduced in Florida! May 11, I live in Fairview, Alberta. About a year ago, I awoke one morning thinking that I was hearing a Cuckoo sound. I woke my wife and she heard it too. Several days later, she came in from the back yard and said your bird is back. Out with the binoculars to see what I could see. I mention this to a friend who lives in the area and some time later he said he had spotted a dove like bird that made a sound like I had described, probably a Mourning dove. Days later, while dog walking in the morning, I flushed a bird that I first thought was a Pigeon, but the colour was different and as it flew into a row of spruce, I definitely saw a squared tail with white underparts and I thought I noticed a dark brown or black collar. On reporting this to the above mentioned friend, we consulted the bird books and decided that what I had seen was a Eurasian dove but they are not suppose to be up here. He saw the birds next, two of them and close enough to be positive of the identification. Through the summer and the fall we continued to see a single or occasionally, a double and once, three together on the road. Their sound was more frequent than the sightings. Snow came and we expected them to leave. Yesterday I heard the same call that we had come to associate with the Eurasian dove from the same Spruce tree that my wife and I had first pinpointed. Today, May 11, I saw two together on a power pole in the back alley. Had time to get the field glasses and watch them preen and call for a good 15 minutes or more. I would say they are here to stay. Marilyn Tichkowsky December 12, I have just a sunflower feeder on south side of my house in Edmonton. It attracts mostly sparrows, some house finches, chickadees, the odd nuthatch and a few juncos this year. Also have lots of mice with all of the seed scatter. A couple of weeks ago I noticed a shrike in my lilac bush within 3 feet of my window with a mouse in its claws. Quite a sight and one that I never expected to see. Is this behavior common? I thought shrikes inhabited open country not urban residential. July 18, Hi Linda " I remember watching white pelicans on Sturgeon Lake when I was a youngster, as we were out there every weekend. Linda July 13, We have 5 American pelicans out on Sturgeon lake, AB we enjoyed watching them fish and fly yesterday" We have only ever seen brown pelicans here. Terry February 5, Saw around 25 white winged crossbills at my house west of Calgary. They pick up lots of spruce cones, fly up onto a branch and pick apart the cone.

Chapter 2 : Birding the Rockies | Audubon Rockies

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Setting[edit] Mount Elbert rises through multiple biotic zones, with alpine tundra at its peak. Areas of the Rockies that do not support or have few trees include the prairie of the eastern foothills and the Alpine tundra. Near the treeline, zones can consist of white pines such as whitebark pine or bristlecone pine ; or a mixture of white pine, fir, and spruce that appear as shrub-like krummholz. Finally, rivers and canyons are home to unique forest habitats even in the more arid parts of the mountain range. Clinton Merriam recognized that two-dimensional diagrams of elevation and aspect described plant community distribution in the Southern Rocky Mountains. Peet provided the most complete description of 10 major forest community types, which are summarized here. Because of the variations in latitude and precipitation along this huge mountain range, the elevations presented here are gross generalizations. Dominant plants of the mixed grass prairie include little bluestem , needlegrasses , wheatgrasses , sand-reeds , and grammas , with dropseeds and cottonwoods in riparian zones. Short-grass prairie species include little bluestem, buffalo grass , western wheatgrass , sand dropseed , ringgrass , needle-and-thread , Junegrass , and galleta. Plant species composition varies locally with changes in soil characteristics and topographic position—that is, from hilltops to valley bottoms. The herbaceous layer in riparian communities is often more diverse than upslope areas and adjacent forests. Mexican pinyons and singleleaf pinyons are found in western Utah , alligator junipers and Rocky Mountain junipers grow to the south, and Utah junipers grow to the north. Many shrubs and grasses of the plains occupy the gaps between tree outcrops. Heavy livestock grazing is associated with the spread of junipers by reducing competition from grasses , and fire suppression is partly responsible for their continued dominance. Rocky Mountain ponderosa pine forest The appearance of ponderosa pine woodlands varies from scattered individuals in low-elevation or rocky areas to dense forests at higher elevations or on deeper soils. Typical intervals between natural fires are less than 40 years in most ponderosa pine forests. An even newer addition to the ecosystem, European-American settlers, devastated the ponderosa pine forests through logging for houses, fencing, firewood, mine timbers, and railroad ties, and with fire. The ponderosa pine forests were close to the developing population centers at the forest-prairie edge. The scale of the loss of ponderosa pine habitat is demonstrated best in several hundred paired photographs from the early 20th century and s. However, nearly all the paired photographs also reveal that the most important feature of the ponderosa pine ecosystem is its resilience. Ponderosa pine seedlings establish quickly in disturbed sites. Research in the Front Range of Colorado shows a tenfold increase in ponderosa pine biomass since in many stands. This regeneration has restored habitat for many wildlife species [1] but has also led to unnatural forest densities in many areas. In the absence of fire, the oak stands may be invaded by pines. Like ponderosa pine, Douglas-fir is tolerant of frequent, low-intensity surface fires. High-intensity fire intervals in Douglas-fir forests in Wyoming average 50 years. These include western hemlock , western redcedar , grand fir , mountain hemlock , and larches. Lodgepole pine forests interspersed with stands of quaking aspens are fire-resilient forests that dominate the central and north-central Rocky Mountains. As evidenced by the fires in the Yellowstone National Park in , lodgepole pine forests are rejuvenated by crown fires that replace tree stands. Aspen stands are keystone communities for hundreds of birds and mammals and are especially important forage for deer and elk. Dominant tree species in the Colorado Rocky Mountains subalpine forests include Engelmann spruce and subalpine fir , as well as lodgepole pine and the occasional Douglas-fir. Widespread insect outbreaks in spruce-fir forests occur more frequently. On exposed, dry slopes at high elevations, subalpine white pine forests replace spruce-fir forests. Common species of the white pine forests include whitebark pine in the northern Rocky Mountains, limber pine in the central and north-central Rocky Mountains, and bristlecone pine in the southern Rocky Mountains. Typical intervals between fires range from 50 to years. The white pines are tolerant of extreme environmental conditions and can be important postfire successional species. It is controlled by a complex of environmental conditions, primarily soil temperatures

and the length of the growing season—which becomes shorter with higher elevations. Dominant treeline species, including spruces, firs, and white pines, often have a shrublike form in response to the extreme conditions at the elevational limits of their physiological tolerance; such dwarfed trees are called krummholz. Krummholz islands may actually move about 2 centimeters per year in response to the wind; they reproduce by vegetative layering on their lee sides, while dying back from wind damage on their windward sides. Under favorable climatic conditions, krummholz can assume an upright treelike form or can increase their cone crops and seedling establishment. Vegetation in the alpine zone is similar to that in the Arctic: Even basic regional information is not available on many nocturnal species for example, bats, raccoons, and so forth; invertebrates; lichens, mosses, and fungi; and soil microorganisms. European-American settlement of the mountains has adversely impacted native species. Examples of some species that are known to have declined include western toads, greenback cutthroat trout, white sturgeons, white-tailed ptarmigans, trumpeter swans, and bighorn sheep. In the United States portion of the mountain range, apex predators such as grizzly bears and gray wolves had been extirpated from their original ranges, but have partially recovered due to conservation measures and reintroduction. Other recovering species include the bald eagle and the peregrine falcon. Species such as the black bear and mountain lion, many small mammals, and common bird and plant species are described as stable because, in most instances, the populations are persistent and not rapidly increasing or declining. As one entomologist[who? Most of the Rocky Mountain states and the Front Range of Colorado in particular support high species richness of butterflies and moths. In Colorado, the diverse habitats—from prairie to tundra—support about 2, species of butterflies, moths, and skippers; more than 1, species are in the Front Range. Some species of grasshoppers are unique to individual mountaintops in Colorado, New Mexico, Arizona, Nevada, and Utah. The Rocky Mountain locust, a common pest to farmers in the 19th century, is now extinct. Heavy grazing along river valleys in Montana and Idaho is thought to have irreparably destroyed locust breeding areas. The widespread declines of amphibian populations throughout the Rocky Mountains mirror these global trends. Eleven populations of western toads disappeared from the West Elk Mountains of Colorado between and because of a bacterial infection and, perhaps, multiple sublethal environmental causes. The number of breeding sites in Rocky Mountain National Park has declined to only 3. Populations of northern leopard frogs are significantly declining throughout the Rocky Mountains. Colorado River cutthroat trout[edit] The Colorado River Cutthroat trout, a native of western Colorado, eastern Utah, northwestern New Mexico, and southwestern Wyoming Colorado River cutthroat trout were once abundant in mountainous tributaries of the Green and Colorado rivers, but non-native brown, brook, and rainbow trout had displaced them by the s. They still survived in some isolated pockets, however, and these populations have been used to restore the cutthroats to many areas in their historic range. However, in , brook trout invaded because a flood washed them downstream from nearby Crescent Lake. Brook trout have an advantage over cutthroat trout because they spawn in fall. By the time Colorado River cutthroats hatch in August, brook trout fingerlings may be able to eat them. Colorado Parks and Wildlife is controlling their population with large nets and selective removal. However, in the s, scientists found putative greenbacks on the eastern slopes of the Front and Sawatch ranges in Colorado. Then in , researchers at the University of Colorado found that the only pure population of these fish was in a small stream in the Arkansas River basin, outside their native range. The potential ecological repercussions are staggering. If populations of cutthroat trout continue to decline, grizzly bears could lose an important posthibernation food because the native cutthroat trout spawn in the streams and are easy prey for the bears, whereas the nonindigenous lake trout spawn in deep water. However, other threats to the trout remain, such as whirling disease, brought from Europe by nonnative brown trout. They have also been introduced to some areas outside of their native range, like the Poudre and Fryingpan rivers in western Colorado. White sturgeon[edit] The largest freshwater fish in the Rocky Mountains and North America is also in trouble. The white sturgeon historically ranged from the mouth of the Columbia River to the Kootenai River upstream to Kootenai Falls, Montana. These include raptor species that migrate through the mountains, such as golden eagles, bald eagles, and ospreys. Owls, such as the great horned owl, the boreal owl, and the great grey owl make their homes in the forests. Ptarmigans are common above treeline. Many songbirds, including wrens, warblers, and finches [23] Bald eagles[edit] A bald eagle The coniferous and deciduous

forests of North America have long been the home of bald eagles. Bald eagle populations are now recovering after years of hunting, habitat destruction, and pesticide-induced deaths. In the early s, Colorado had just one breeding pair of bald eagles but by biologists counted 19 breeding pairs. In Wyoming nesting attempts increased from 20 in to 42 in The bald eagle is not yet fully recovered, however; pesticide residues continue to inhibit bald eagle reproduction, and habitat loss and lead poisoning remain serious threats. Like the bald eagle, this species was driven to near extinction by pesticides. By fewer than 20 breeding pairs were known west of the Great Plains. Even in the Greater Yellowstone ecosystem , federal spruce budworm control relied on DDT , which accumulates in the food chain, causing eggshell thinning and reduced reproductive success in raptors. Six breeding pairs of American peregrine falcons were found in Colorado in the early s. By , 53 pairs were breeding in Colorado. In Wyoming, Montana, and Idaho combined, 8 of 59 historical sites were used by falcons in Low breeding densities, reproductive isolation, habitat loss, and pesticide poisoning on wintering grounds remain threats to peregrine falcon recovery. Short-term population cycles are well documented in populations that are not hunted but not in populations outside the park, which are hunted. Although detailed population size data are available from more than 28 years of monitoring, scant information is available on habitat change , predator populations, or other potential causes of change in ptarmigan populations. In the park, the population seems to be increasing. A 2-year study revealed lower ptarmigan densities where elk use was greater, although characteristics of willow, which is ptarmigan habitat, did not significantly differ in the high- and low-use elk sites. Furthermore, a 2-year study of ptarmigan habitat cannot explain year trends in population size. Habitat loss and other factors partly responsible for ptarmigan deaths—such as predation and competition—were not studied during the year period. Some species migrate, while other species stay in the Rockies year-round. Canada geese are also commonly found here. A flock of trumpeter swans in Grand Teton National Park Trumpeter swan populations were seriously threatened in the s; fewer than 70 birds were thought to exist. Now protected from hunting, more than 1, swans winter in the Greater Yellowstone ecosystem, but the size of the breeding population has declined in recent years because of habitat loss. Wildlife biologists suspect that population size declines in the songbirds may be partly the result of increased predation and brood parasitism. Brood parasitism by brown-headed cowbirds , for example, increases as a result of nearby logging. In Colorado, the largest populations of black bears live in habitats with Gambel oak and aspen as well as chokecherry and serviceberry.

Chapter 3 : Peterson. A Field Guide to the Birds of Eastern and Central North America.

Rocky Mountain Birds Birds and Birding in the Central and Northern Rockies Paul A. Johnsgard School of Biological Sciences University of Nebraska-Lincoln.

Gray Jays are stocky, fairly large songbirds with short, stout bills. They have round heads and long tails, with broad, rounded wings. Gray Jays are dark gray above and light gray below, with black on the back of the head forming a partial hood. Juveniles are grayish black overall, and usually show a pale gape at the base of the bill. Habitat Gray Jays live in mixed evergreen-deciduous forest across the boreal forest of the United States and Canada. The Gray Jay makes its home in boreal and subalpine forests across northern North America, usually where black or white spruce trees are common. Other tree species often found in its habitat include aspen, white birch, balsam fir, sugar maple, lodgepole pine, jack pine, red spruce, Engelmann spruce, Sitka spruce, eastern white cedar, yellow cedar, alpine fir, amabilis fir, and mountain hemlock. Behavior Gray Jays are typically in small groups. They have a wide variety of vocalizations including hoots and chatters. The Gray Jay usually flies slowly, gliding with its wings angled downward, but it is capable of fast, maneuverable flight when escaping a predator or disputing territory with another jay. The pair breeds in frigid conditions during February and March. The displaced siblings go looking for unrelated adult pairs whose own nests have failed, in the hopes of adopting their own safe havens. If a young bird is still hanging around the following year, the breeding pair prevents it from approaching the nest-but the young bird may help feed the new chicks once they fledge. Gray Jays use alarm calls, chattering, screaming, and mobbing when hawks, owls, or crows approach. They tend to be fearless of humans, particularly when human food is involved. They can be very bold and will beg from campers, follow hikers, and go inside cabins to steal food. Diet Gray Jays eat a variety of foods including arthropods, berries, carrion, nestling birds, and fungi. They learn quickly to recognize and look for human food, as well as take advantage of game that has been shot or trapped by hunters. When foraging, the Gray Jay scans its surroundings from a succession of perches, each a short flight apart from one another. It will snap up flying insects in the air, wade in shallow water to capture invertebrates and amphibians, kill small mammals, raid the nests of other birds, and occasionally pursue small birds like chickadees and warblers. They store food year-round by producing special saliva from large glands and molding the food into a sticky blob, gluing it behind flakes of bark, under lichen, in conifer needles, or in tree forks. They seem to have a good success rate of remembering where they have stored food. Nesting The male chooses the site after perching and looking around in several suitable spots. He picks a site at low to moderate height, often choosing a tree close to the south-facing edge of a forest patch to take advantage of the extra warmth from sunlight. Both sexes do the same nest-building activities, but the male does most of the work during the early stages. He starts by making a loose ball of spruce and tamarack twigs and holding it together with cocoons from forest tent caterpillars. Then he and his mate add a donut of twigs above the ball, filling it in with finer twigs, bark strips, and lichens. They line the cup with feathers or fur and mold it by pressing their bodies inside of it. The female helps more and more throughout the 3-week process, and by the end she may be contributing more than the male. The finished nest is 4 to 6 inches high, with a cup about 2 inches deep and 3 inches across. Their eggs are gray-white with little to no markings. The male brings food to the nest while the female incubates two to five eggs for about 18 days. The female broods the young for about four days, and then joins the male in feeding the young. The young leave the nest at 22 to 24 days, but stay with their parents for another four to six weeks. Recent studies have shown there to be a third, unrelated bird on the territory, helping throughout the nesting season. Migration Status Gray Jays do not migrate, but will sometimes move down in elevation during the winter months. Oddly, it does not attempt a second brood in the May-June breeding period used by other birds in boreal habitats, even though those warmer conditions would appear to be more favorable. Paleontologists have recovered the fragmented fossils of two Gray Jays from the late Pleistocene about 18,000 years ago, along with other boreal birds and mammals, at a cave in central Tennessee, indicating a much colder climate at that time than now. Together, they complete a ring around the Northern Hemisphere. The two species share the habit of using sticky saliva to attach food to crevices in trees. Gray

Jays take advantage of whatever food they can find. A Gray Jay was seen landing on the back of a live moose to eat blood-filled winter ticks. Another was observed tearing a baby bat away from its mother. Gray Jays may even attack injured larger animals. The Gray Jay has incredibly thick, fluffy plumage that it puffs up in cold weather, enveloping its legs and feet. Even its nostrils are covered with feathers. The oldest Gray Jay on record was at least 17 years, two months old. Banded in , it was recaptured and re-released by a bird bander in Colorado in

Chapter 4 : Birds of the Central Rockies, Jan L. Wassink. (Paperback)

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Distribution of the Evening Grosbeak. This species winters irregularly and in varying numbers north and south to the dashed line. See text for details. An irruptive migrant across much of its range, it makes roughly biannual appearances at winter feeding stations throughout much of the coterminous United States. Often moving in large flocks, this boldly colored bird with the massive bill is difficult for observers to miss. During the breeding season, however, the species is quite secretive, and courtship occurs without elaborate song or display. This secretiveness, together with a spare, flimsy nest placed high in a tree, makes it a difficult subject of study. The breeding range of the Evening Grosbeak underwent a significant expansion in historic times. The contemporary scientific literature documented eastward movement, with the species regularly appearing in areas east of its known range, perhaps a result of the establishment of box elder *Acer negundo* in eastern cities as an ornamental planting. The abundant seeds of the box elder persist on the tree through the winter, providing a stable food supply. Outbreaks of forest insects may also have allowed this bird to extend its breeding range to the east. The Evening Grosbeak was an object of much interest from the late s to the mids, largely as a part of natural history and banding studies resulting from its eastward range expansion. Important recent works include studies of breeding ecology and behavior in Colorado Bekoff, M. Ecological analyses of nesting success in Evening Grosbeaks. Close Bekoff et al. Breeding behavior of Evening Grosbeaks. Close Scott and Bekoff , Bekoff, M. Vigilance, flock size, and flock geometry: Close Bekoff , impact on forest insect pests Torgersen, T. Some effects of avian predators on the western spruce budworm in north central Washington. Close Torgersen and Campbell , Takekawa, J. How much is an Evening Grosbeak worth? Close Takekawa and Garton , and winter irruptions Bock, C. Synchronous eruptions of boreal seed-eating birds. Close Bock and Lepthien f , Prescott, D. Intraspecific and geographical trends in body size of a differential migrant, the Evening Grosbeak.

Chapter 5 : Bird Migration: Birds of the Central Flyway

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Great Egret Great Egret: This large white heron has yellow eyes and a bill that is also yellow but appears orange when breeding, black legs and feet, and long feather plumes that extend from the back to beyond the tail during breeding season. Feeds on fish, frogs, insects, snakes and crayfish. It has a buoyant direct flight on steady wing beats. Sexes are similar in appearance, but males are slightly larger.

Green Heron Green Heron: This small heron has gray-green upperparts, chestnut brown head, neck, and upper breast, and a paler brown belly. The bill is two-toned with a dark upper mandible and yellow lower. During the breeding season bill is black. It is an opportunistic feeder with fish as the primary food source. This medium-sized, slender heron has a slate-gray body and a purple-blue head and neck. The eyes are yellow and the bill is dark gray with a black tip. The legs and feet are dark. It feeds on small crustaceans, invertebrates and large insects. It has a direct flight with steady quick wing beats. The sexes are similar.

Tricolored Heron Tricolored Heron: Medium heron, blue-gray upperparts, head, neck, wings, paler rump, white stripe on foreneck, white belly. Also has white plumes on back of head and rust-brown plumes on lower neck, back during the breeding season. Bill and legs are olive-brown. Direct flight on steady wing beats. Medium-sized, stocky heron with gray body and brown-and-white mottled wings. Face is black and white; crown is pale yellow and sweeps back as a plume. Eyes are large and red. Bill is heavy and black. Legs and feet are yellow. Direct flight with steady, deep wing beats.

Pinyon Jay Pinyon Jay: Small, crestless, stocky jay with blue-gray body. Head is darker blue and has pale streaks on throat. Bill, legs, feet are black. Feeds on pine seeds, grain, fruit, berries, insects and eggs and young of other birds. Steady buoyant and direct flight with deep wing beats.

Chestnut-backed Chickadee Chestnut-backed Chickadee: Small, energetic chickadee with chestnut-brown back, rump and flanks, and white breast and belly. Barlowi subspecies has gray flanks. Cap and throat are black; cheek patch is white. Wings and tail are dark. Legs and feet are gray-black. Song not whistled like other chickadees, more like a sparrow chipping.

Glaucous Gull Glaucous Gull: This large white gull has a pale gray back and yellow eyes. The bill is yellow with a red spot on the lower mandible. The wings are white-edged and white tipped; the legs and feet are pink. It is an active predator of seabird nesting colonies. Diet includes fish, insects and birds. It has slow steady wing beats and soars on thermals and updrafts.

Glaucous-winged Gull Glaucous-winged Gull: This large gull has gray upperparts with white underparts, head and neck. The eyes are dark and the bill is yellow with a red spot on the lower mandible. The wings are gray with white edges and spots near the tips. The legs and feet are pink. It feeds on fish, small birds, or almost anything. It has a powerful direct flight and often soars on thermals.

Western Bluebird Western Bluebird: Small thrush with deep blue hood and upperparts, crescent mark across upper back, red-brown breast, and white belly. Bill, legs and feet are black. Populations are declining due to competition for nest sites with European Starlings, Tree Swallows and House Sparrows.

Northern Mockingbird Northern Mockingbird: This medium-sized bird has gray upperparts, paler gray underparts and a faint eye line. The wings are gray-black with two white bars and large white patches, visible when spread. It has a long, gray tail edged with white, yellow eyes and black legs and feet. Feeds on fruit and insects. Several quick wing strokes alternated with wings pulled to the sides.

Band-tailed Pigeon Band-tailed Pigeon: Large dove, small, purple-gray head and broad neck with distinctive, thin white band on nape. Back and wings are purple-gray, underparts grade from purple-gray neck and breast to white belly. Tail is pale gray, dark band at base. Bill, legs, feet are yellow.

Medium hummingbird; male has bronze-green upperparts, dull gray underparts. Hood and throat are iridescent red, may appear black or dark purple in low light; broken white eye-ring is usually visible. Tail is dark green with black outer tail feathers. Feeds on nectar, insects, spiders, and sap.

Black-bellied Plover Black-bellied Plover: This medium-sized shorebird has black upperparts vividly marked with a white spot on each feather. Vent and wing stripe visible in flight. Strong direct flight with powerful rapid wing beats. Feeds on marine worms and insects.

Black Turnstone Black Turnstone: Medium sandpiper, scaled black upperparts, white spot between eye and bill, black breast

with white speckles on sides, and white belly. Short, dark bill slightly upturned. Back, wings, and rump display a dramatic black-and-white pattern in flight. Swift flight on rapid wing beats.

Acorn Woodpecker
Acorn Woodpecker: The male has a red crown, white forehead and glossy black face and body. The breast is white with black streaking; belly and rump are white. Yellow-tipped throat feathers may be present. Wings are black with white patches. Female is similar except for a black patch between the white forehead and red crown. The juvenile has a dark eye. Medium-sized woodpecker with black back and white rump. Bright red throat, breast is black, belly is yellow, and flanks are barred black-and-white. Black head has two white facial stripes. Black wings have large white shoulder patches. Tail is black, legs and feet are gray.

White-throated Swift
White-throated Swift: Medium-sized swift, mostly brown-black except for white throat, white patches on belly, flanks, white edges on wings. Face is pale gray, has dark eye patch. May be the most rapid flying North American bird, has been seen fleeing from raptors at estimated speeds of over mph.

Chapter 6 : Gray Jay - Rocky Mountain National Park (U.S. National Park Service)

Stretching for more than 5, miles from Central and South America and to the polar regions of North America, the Central Flyway shares many of the same attributes of the Mississippi Flyway. Still, it is distinct enough to be included as its own flyway since many of the birds use the eastern edge of the Rocky Mountains and the American prairie.

Reddish Egret Reddish Egret: Medium egret with blue-gray body and shaggy, pale rufous head and neck. Bill is pink with dark tip. White morph has all-white plumage, black-tipped pink bill, and black legs. Feeds on fish, frogs and crustaceans. Direct flight with buoyant steady wing beats. Tricolored Heron Tricolored Heron: Medium heron, blue-gray upperparts, head, neck, wings, paler rump, white stripe on foreneck, white belly. Also has white plumes on back of head and rust-brown plumes on lower neck, back during the breeding season. Bill and legs are olive-brown. Direct flight on steady wing beats. Wood Stork Wood Stork: Large, odd wading bird, mostly white except for black flight feathers and tail. Upper neck and head are featherless and dark gray. The bill is thick, long, and curved downward. Legs and feet are gray black. Alternates between strong wing beats and gliding. Soars on thermals and updrafts. Crested Caracara Crested Caracara: Large, ground-dwelling falcon, black body, finely barred tail, wing panels and upper breast. Head crest is black, facial skin is red, and large bill is blue-gray and hooked. Legs are long and yellow. Strong steady wing beats alternated with long to short glides. Large northern falcon with three color morphs: Dark morph is dark gray with pale streaks on throat and upper breast. White morph is white with dark spots and markings on wings, nape, and sides. Gray morph is a mix. The eyes, bill, and legs of all morphs are yellow. Brown Pelican Brown Pelican: Large, unmistakable seabird, gray-brown body, dark brown, pale yellow head and neck, oversized bill. Black legs, webbed feet. Feeds on fish by plunge diving and scooping them up with pouch. Powerful flight alternates flaps with short glides. Flies close to the water in straight line. Roseate Spoonbill Roseate Spoonbill: Large ibis, pink body, white upper back, neck. Long bill, gray and spatulate. Head is bare and olive-green. Feeds while wading in shallow water, sweeping its bill back and forth. Sensitive nerve endings snap bill shut when prey is found. Alternates steady wing beats, short glides. Surf Scoter Surf Scoter: This medium-sized diving duck is entirely black except for white patches on the forehead and nape. It has an orange, black and white bill, white eyes and orange legs and feet. The female is less distinctly marked with smudgy face patches and dark bill. It dives for food, primarily mollusks and crustaceans. Rapid direct flight with strong wing beats. Flies in straight line formation. Winter Wren Winter Wren: Tiny wren with barred, dark brown upperparts and pale eyebrows. Brown underparts heavily barred on flanks, belly, and undertail. Bill is dark brown. Legs and feet are brown. Only member of the wren family found outside the Americas, occurring in Europe, Asia, and Africa. Golden-crowned Sparrow Golden-crowned Sparrow: Large sparrow, brown-streaked upperparts and plain gray breast. Yellow crown is bordered by a wide black cap; cheek and collar are black. Wings are brown with two white bars. Short flights, alternates rapid wing beats with brief periods of wings pulled to sides. Mew Gull Mew Gull: Medium-sized gull with gray back and upperwings, and white head, neck, breast, and belly. Bill is bright yellow. Wings have white-spotted black tips; tail is white. Feet and legs are dull yellow. Undulating, with several rapid wingbeats and a pause. Glaucous Gull Glaucous Gull: This large white gull has a pale gray back and yellow eyes. The bill is yellow with a red spot on the lower mandible. The wings are white-edged and white tipped; the legs and feet are pink. It is an active predator of seabird nesting colonies. Diet includes fish, insects and birds. It has slow steady wing beats and soars on thermals and updrafts. The sexes are similar. Glaucous-winged Gull Glaucous-winged Gull: This large gull has gray upperparts with white underparts, head and neck. The eyes are dark and the bill is yellow with a red spot on the lower mandible. The wings are gray with white edges and spots near the tips. The legs and feet are pink. It feeds on fish, small birds, or almost anything. It has a powerful direct flight and often soars on thermals. Western Gull Western Gull: This large gull has gray upperparts, white head, neck, tail and underparts, yellow eyes, a bright yellow bill with red spot near tip and pale pink legs and feet. It has gray upper wings, white-edged with white-spotted black tips. Diet includes fish, crabs, clams, eggs, carrion and garbage. It has a direct flight; strong, steady wing beats; soars on thermals. Northern Mockingbird Northern

Mockingbird: This medium-sized bird has gray upperparts, paler gray underparts and a faint eye line. The wings are gray-black with two white bars and large white patches, visible when spread. It has a long, gray tail edged with white, yellow eyes and black legs and feet. Feeds on fruit and insects. Several quick wing strokes alternated with wings pulled to the sides. Medium hummingbird; male has bronze-green upperparts, dull gray underparts. Hood and throat are iridescent red, may appear black or dark purple in low light; broken white eye-ring is usually visible. Tail is dark green with black outer tail feathers. Feeds on nectar, insects, spiders, and sap. Black-bellied Plover Black-bellied Plover: This medium-sized shorebird has black upperparts vividly marked with a white spot on each feather. Vent and wing stripe visible in flight. Strong direct flight with powerful rapid wing beats.

Chapter 7 : Birds found in Alberta

"The Rocky Mountain region has fascinated me ever since I traveled to Glacier and Yellowstone National Parks as a teenager, and saw for the first time such wonderful birds as ospreys, American dippers, and Lewis's woodpeckers."

Lawrence, and Little Diomedea. The Aleutian chain is volcanic in origin, with a maritime climate in which wind is ever present. Vegetation at higher elevations consists of dwarf shrub communities, mainly willow and crowberry. Meadows and marshes of herbs, sedges, and grasses are plentiful, and some islands have ericaceous bogs. Sea ice does not extend to the Aleutians and permafrost is generally absent; however, sea ice is an important feature of the Bering Sea. Southern Hemisphere procellariiforms occur regularly in the offshore waters of the southern Bering Sea and northern Gulf of Alaska during Alaskan summers. Joint Ventures in this BCR: Wet and mesic graminoid herbaceous communities dominate the lowlands, and numerous ponds, lakes, and rivers dot the landscape. Tall shrub communities are found along rivers and streams, and low shrub communities occupy uplands. Forests of spruce and hardwoods penetrate the region on the eastern edge. Permafrost is continuous, except in southern parts of the region. High densities of breeding waterfowl and shorebirds are found on the coastal plain of the Yukon and Kuskokwim Rivers. Intertidal areas here and lagoons of the northern side of the Alaska Peninsula support millions of shorebirds during migration, including Dunlin, Western Sandpiper, Red Knot, and Bar-tailed Godwit. Passerine diversity is greatest in tall, riparian shrub habitats, where Arctic Warbler, Gray-cheeked Thrush, and Blackpoll Warbler nest. Gyrfalcon and Rough-legged Hawk nest along the riverine cliffs. Pacific Coast Bird Conservation Region 3 – Arctic Plains and Mountains This region includes low-lying, coastal tundra and drier uplands of the Arctic mountains across the entire northern edge of North America. Because of thick and continuous permafrost, surface water dominates the landscape 20–50 percent of the coastal plain. Freezing and thawing form a patterned mosaic of polygonal ridges and ponds, and many rivers bisect the plain and flow into the Arctic Ocean. The ocean surface is generally frozen 9 to 10 months of the year, and the ice pack is never far from shore. Because of the wetness, waterfowl and shorebirds dominate the avian community and passerines are scarce. Several Old World species, including the Arctic Warbler and Bluethroat, penetrate the region from the west. Taiga passerines, such as Gray-cheeked Thrush and Yellow Warbler, reach the region along drainage systems, and raptors, including Gyrfalcon and Rough-legged Hawk, nest commonly along major rivers. Few bird species winter in the region. Pacific Coast, Eastern Habitat Bird Conservation Region 4 – Northwestern Interior Forest The interplay of elevation, permafrost, surface water, fire, and aspect creates an extensive patchwork of ecological types. Forest habitat in the region is dominated by white spruce, black spruce, poplars, and paper birch. Tall shrub communities occur along rivers, drainages, and near treeline. Bogs, consisting of low shrubs and shrub-graminoid communities, are common in the lowlands. Alpine dwarf scrub communities are common throughout mountainous regions, and the highest elevations are generally devoid of vegetation. Lowlands, bottomlands, and flats harbor many species of migrating and breeding ducks e. These and the forested lowlands and uplands support breeding shorebirds, such as Greater and Lesser Yellowlegs; Solitary, and Spotted Sandpipers; Sanderling; and Common Snipe. American Golden-Plovers and Surf-birds are found in alpine habitats in mountainous ecoregions. Western Sandpiper, Long-billed Dowitcher, Short-billed Dowitcher, Hudsonian Godwit, and Dunlin use stopover sites along the coast that are also primary wintering habitat for Rock Sandpipers. At high elevations, Horned Lark and American Pipit are common breeders. Its maritime climate is characterized by heavy precipitation and mild temperatures. The region is dominated by forests of western hemlock and Sitka spruce in the far north, with balsam fir, Douglas fir, and coast redwood becoming more important farther south. Broadleaf forests are found along large mainland river drainages. The coast of the Northern Pacific Rainforest is characterized by river deltas and pockets of estuarine and freshwater wetlands set within steep, rocky shorelines. These wetlands provide critical breeding, wintering, and migration habitat for internationally significant populations of waterfowl and other wetland-dependent species. The area includes major stopover sites for migrating shorebirds, especially Western Sandpipers and Dunlins. Pelagic waters provide habitat for large numbers of shearwaters, storm-petrels, alcids, and

Black-footed Albatross. Black spruce is a dominant species in the open, coniferous forests of the north, while the warmer better-drained southerly locales support mixed-wood forests of white and black spruce, lodgepole pine, tamarack, white birch, trembling aspen, and balsam poplar. Low-lying wetlands cover 25–50 percent of the zone, and patterned ground features are common. A large portion of the area is underlain by permafrost, creating a landscape that is seasonally waterlogged over large areas. The subarctic climate is characterized by relatively short, cool summers with prolonged periods of daylight and long, very cold winters. The poorly drained areas of the Hudson Plains support dense sedge-moss-lichen covers, with open woodlands of black spruce and tamarack in better-drained sites. Coastal marshes and extensive tidal flats are present along the coastline. The Canadian Shield is characterized in upland sites and along rivers by open, mixed-wood forests of white spruce, balsam fir, trembling aspen, balsam poplar, and white birch. Further north, approaching the limit of tree growth, stunted black spruce and jack pine dominate, accompanied by alder, willow, and tamarack in the fens and bogs. Thousands of lakes and wetlands occur in glacially carved depressions, and peat-covered lowlands are commonly waterlogged or wet for prolonged periods due to discontinuous but widespread permafrost. The abundance of water provides an important habitat for breeding waterfowl. The coasts of Hudson and James Bay provide critical shorebird staging habitat, funneling millions of birds southwards during fall migration. Eastern Habitat, Prairie Habitat Bird Conservation Region 8 – Boreal Softwood Shield The Boreal Softwood Shield is a broad, U-shaped region comprised of seacoasts in the east and vast areas that are more than 80 percent forested by closed stands of conifers, largely white and black spruce, balsam fir, and tamarack. Toward the south, broadleaf trees, such as white birch, trembling aspen, and balsam poplar are more widely distributed, as are white, red, and jack pine. The region is a broadly rolling mosaic of uplands and associated wetlands, dotted with numerous small to medium-sized lakes. Peatlands are common in wetland areas. Coastlines and offshore areas in the east are important year-round for breeding and wintering seabirds. This area is dry due to its position in the rainshadow of the Cascade Range and the Sierra Nevada. The region is also important for breeding Mountain Plover and Snowy Plover. Most of North American breeding White-faced Ibis and California Gulls nest in marshes and lakes scattered across the region. The Rockies are dominated by a variety of coniferous forest habitats. Drier areas are dominated by ponderosa pine, with Douglas fir and lodgepole pine at higher elevations and Engelmann spruce and subalpine fir even higher. More mesic forests to the north and west are dominated by western larch, grand fir, western red cedar, and western hemlock. The Wyoming Basin and other lower-lying valleys are characterized by sagebrush shrubland and shrubsteppe habitat, much of which has been degraded by conversion to other uses or invasion of non-native plants. Intermountain West, Canadian Intermountain Bird Conservation Region 11 – Prairie Potholes The Prairie Pothole region is a glaciated area of mixed-grass prairie in the west and tallgrass prairie in the east. This is the most important waterfowl production area on the North American continent, despite extensive wetland drainage and tillage of native grasslands. Breeding dabbling duck density may exceed pairs per square mile in some areas during years with favorable wetland conditions. Continued wetland degradation and fragmentation of remaining grasslands threaten future suitability of the Prairie Pothole region for all of these birds. Prairie Pothole, Prairie Habitat Bird Conservation Region 12 – Boreal Hardwood Transition This region is characterized by coniferous and northern hardwood forests, nutrient-poor soils, and numerous clear lakes, bogs, and river flowage. Great Lakes coastal estuaries, river flowage, large shallow lakes, and natural wild rice lakes are used by many breeding and migrating water birds. Yellow Rail are among the important wetland species, and islands in the Great Lakes support large colonies of Caspian and Common Terns. Although breeding ducks are sparsely distributed, stable water conditions allow for consistent reproductive success. Threats to wetland habitat in this region include recreational development, cranberry operations, peat harvesting, and drainage. Lawrence Plain covers the low-lying areas to the south of the Canadian Shield and north of various highland systems in the United States. In addition to important lakeshore habitats and associated wetlands, this region was originally covered with a mixture of oak-hickory, northern hardwood, and mixed-coniferous forests. Very little of the forests remains today due primarily to agricultural conversion. The highest priority bird in remnant forests is the Cerulean Warbler. Agricultural abandonment may temporarily favor shrub-nesting species, such as Golden-winged Warbler and American Woodcock, but

increasingly, agricultural land is being lost to urbanization. This physiographic area also is extremely important to stopover migrants, attracting some of the largest concentrations of migrant passerines, hawks, shorebirds, and waterbirds in eastern North America. Much of these concentrations occurs along threatened lakeshore habitats. Other important forest birds include the Canada Warbler and Bay-breasted Warbler. Beaver ponds and shores of undisturbed lakes and ponds provide excellent waterfowl breeding habitat, particularly for American Black Duck, Hooded and Common Mergansers, and Common Goldeneye. Because inland wetlands freeze, coastal wetlands are used extensively by dabbling ducks, sea ducks, and geese during winter and migration. Vegetation at lower elevations is dominated by ponderosa pine on the west and lodgepole pine on the east, with fir, spruce, and alpine tundra at higher elevations. Various coniferous forest types often lodgepole pine interspersed with aspen dominate higher elevations. High arid plains and dry upland short-grass prairies provide critical breeding areas for Mountain Plover. San Luis Valley wetlands and surrounding uplands support one of the highest densities of nesting waterfowl in North America and provide migration habitat for Sandhill Cranes and other wetland species. Intermountain West Bird Conservation Region 17 – Badlands and Prairies This semi-arid rolling plain is dominated by a mixed-grass prairie that lies west and south of the glaciated Prairie Pothole region, east of the Rocky Mountains, and north of the true shortgrass prairie. Due in large part to the continued dominance of ranching as a land use, many contiguous grassland tracts of significant size persist in this area. The relatively small number of wetlands in the region, including small impoundments created to serve as livestock water sources, receives intensive use by upland nesting waterfowl and broods. Northern Great Plains Bird Conservation Region 18 – Shortgrass Prairie The shortgrass prairie lies in the rainshadow of the Rocky Mountains, where arid conditions greatly limit the stature and diversity of vegetation. Southern areas winter large numbers of three longspur species: Reasons for the precarious status of some these birds are poorly understood, but could involve a reduction in the diversity of grazing pressure as bison and prairie dogs have largely been replaced by cattle, and the gradual shift from once expansive prairies to fragmentation by agricultural interests. A few large rivers, such as the Platte, Arkansas and Canadian, drain out of the Rocky Mountains through this region toward the Mississippi. These rivers created broad, braided and treeless wetlands that are heavily used by migrating waterfowl, shorebirds and cranes. Saline lakes in Texas and New Mexico support important breeding species, such as the Snowy Plover and wintering populations of Sandhill Cranes. For further information on this region, visit the Playa Lakes Joint Venture website. Playa Lakes Bird Conservation Region 19 – Central Mixed-grass Prairie The central mixed-grass prairie extends from the edge of shortgrass prairie on the west to the beginning of the tallgrass prairie and savanna-like habitat to the east. Large areas in the center of this region have been converted to agriculture, though extensive areas of high-quality grassland in the Nebraska Sandhills and excellent shrublands in Texas remain. Dickcissel abundance is centered squarely over this BCR.

Chapter 8 : Woodpeckers - North American Birds - Birds of North America

Birds of the Rockies is a popular book by Leander Sylvester Keyser. Read Birds of the Rockies, free online version of the book by Leander Sylvester Keyser, on blog.quintoapp.com Leander Sylvester Keyser's Birds of the Rockies consists of 14 parts for ease of reading.

The Western guide covers North America west of the 100th meridian. Nat Geo and Peterson Advantages and Disadvantages: There are advantages and disadvantages to each guide book. Peterson is the only bird field guide that has both. Personally, I like Peterson Guides for several reasons For each bird, there are arrows pointing to the most important field marks for identification. I also like how categories of voice, similar species, and habitat are bolded and described within the description, making it easier to locate and read. And last, but certainly not least, I believe the Peterson paintings of each bird is superb compared to other field guides. I still prefer to use the separate regional guides. The regional Peterson Guides, therefore, are especially useful to beginners. They were smaller and lighter, and fit easier into fanny packs, cargo pockets, etc.. If you are looking for something more compact you may want to take a look at Sibley Guides , although at 4. Occasionally, I will take my smaller, older edition 4. In a photo of a bird, you are seeing one individual of that species, in one light condition, in one molt stage, etc. Use these guides only as a secondary source. It has wonderful insight and details about common birds and their behaviors. Good Birdwatching Field Guide for Kids Golden guides have not been updated since the 80s only cosmetic features in However, you will soon outgrow it and want more details. Check out our review of The Warbler Guide which is one of the best field guides I have ever seen. Definitely worth every penny. Whether you are a beginner birder or a seasoned expert, this guide should be part of your library. It has over 1,000 photos and lots of details so that you will never miss a warbler ID again. Other Field Guides This is certainly not an exhaustive list and review of all bird field guides. But on all my local outings, I only take my Western Peterson Guide. If I visit the East I take N. Now get your field guide, go outside, find some birds, and enjoy the bliss! Related Bird ID Pages:

Chapter 9 : Audubon Rockies

The silky-flycatchers are a small family of passerine birds which occur mainly in Central America, although the range of this one species extends to central California. They are related to waxwings and like that group, have soft silky plumage, usually gray or pale yellow.