Glacier is Ready for Fall

Fall in Glacier begins by late August or early September, when the high mountain peaks turn frosty white with the first snows. The Going-to-the-Sun Road may become icy and require closing at night, only to be reopened as the morning sun's rays warm the pavement. The campgrounds become deserted, and only blackened fire grates remain as evidence of a busy summer.

Columbian ground squirrels went underground when the grass began to dry out in mid-August. The deer are getting fat from eating still-green bushes and their coats are heavy in readiness for the coming winter's cold. Some of the shy forest animals may be more frequently viewed, such as the coyote, snowshoe hare or an occasional elk. Oft times you can hear an elk bugle in the early mornings and late evenings. Cedar waxwings and the pine grosbeaks are just a few of the birds rushing to get the last of the berries from trees and bushes.

Most of the diligent seasonal employees have gone to their respective homes, colleges, or winter jobs, all of them enriched by their summer duties in Glacier. Many know that they will be back someday, maybe a year, maybe ten; their hearts dictate their return.

Even with a marked decrease in visitation, the 100 or so full-time personnel have plenty to keep them busy. There are many projects to continue and complete before snow falls — campsites to be cleaned, picnic tables to be taken in for shelter, winter ski-patrol cabins to be stocked, the horses and mules to be trucked to winter pasture, buildings to be winterized.

A different type of visitor comes to the park in autumn — groups of school children, young people not wanting to recognize the end of summer, and people who would rather avoid the crowds.

The mornings are crisp, so cold that they leave the tips of your fingers and nose tingling. The skies turn a light, hazy blue and the smells become autumn smells, moldy leaves, wet moss, fresh rain, and the heaviness of a warm afternoon. Blustery storms come and go. Even standing in the sunshine with your eyes closed, it's difficult to pretend that it's anything other than fall.

Rangers and naturalists get out their snowshoes and skis, give them a new coat of varnish, check the bindings and then check the weather reports. The skies tell them snow is coming, heavy and deep — it's just a matter of time.

Then it comes, like a Christmas surprise, a shock at first — no more lush green, red and brown, but only crisp white snow, falling from the skies, blanketing the ground and lying heavily on branches.

Fall has come and gone, winter has arrived, but Glacier and its animals and friends are ready.
Heavy mist hangs in the cold air as I arrive on the Apgar Bridge. The green lodgepole pines and yellow larch of fall brighten up this gray early morning. Below me, lower McDonald Creek is dark except for flashes of silver as spawning Kokanee salmon break the surface of the water.

It amazes me how these freshwater salmon, planted in Flathead Lake in 1916, chose this stream 90 kilometers away as their spawning grounds. They began their journey upstream several months ago. Yet how do these fish know to return to the same creek where they originated four years earlier? Thousands of females lay their eggs in the gravel bottom of the slow-moving, shallow creek, while males frantically fertilize these eggs. Once the salmon have spawned, their long journey is ended and within two to three weeks they will die.

But nothing is wasted in nature, the dead fish continue to contribute to the food web of lower McDonald Creek. A hundred meters down the creek I see ducks and mergansers feeding on the salmon. Magpies and ravens are busy scavenging leftover bits of fish. On other mornings, I have observed river otters, mink, coyotes, and grizzly bears taking part in the feast. Occasionally even a deer will nibble at the dying fish.

In the crisp golden light of morning, I hear the soft chatter of an eagle. My attention shifts from the drama in the creek to the one in the sky. Bald eagles are beginning to arrive from their night roosting areas; first singly or in pairs, and then by tens and twenties. As I set up the spotting scope to give other visitors a better view of the spectacle, I see more and more white heads among the dark tree branches as these birds of prey take up their places along the creek. From their perches, they look down upon a banquet of fish.

I stand awed by the sight. The number of eagles in front of me must be well over a hundred. The five-year-old and older adult birds, identified by black bodies with white heads and tails, fish from the trees. Swooping low over the creek, one plucks a fish out of the water. Back on a tree branch, it uses its beak to tear the salmon into bite-size pieces. Each bird consumes about six fish a day.

Immature eagles are not as adept at flying as adults, so they fish from shore. There are several brown and white mottled, immature birds standing along the creek this morning. Now and then one wades out into the water, snags up a sluggish salmon and carries it back to the shore to eat.

The eagles are migrants, too. How do they know to return each year from throughout western Canada to this one survival of wintering wildlife. Food is extremely scarce, competition is keen and the deep snow leaves many animals floundering up to their bellies. Even when the snow is obviously not too deep, walking at a moderate pace on an open road or meadow requires large expenditures of energy from the animals. Think of how much energy you use to reach your outdoor goals, and how much food before, during and after that you consume.

When a wild animal is approached by a human, on snowshoes or skis, it causes the animal to become excited. Thinking it is being pursued, it tries to run. Running leaves the animal in a weakened state. It can also drive the animals from the sheltered valleys within the Park and into the areas around the Park where they are hunted.

Do your part to keep your winter viewing of wildlife a rewarding experience to humans and one that is not harmful to the health of wildlife.
Management of People During Autumn

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In the autumn of 1939, rangers in Glacier National Park reported 37 Bald Eagles (Haliaeetus leucocephalus) along lower McDonald Creek. This was five years after the first record of a kokanee salmon (Oncorhynchus nerka) spawning run in the creek. Kokanee had been introduced in Flathead Lake (60 miles downstream) and Lake McDonald (from which lower McDonald Creek flows) in 1916 and 1922 respectively.

Since 1965 we have conducted weekly autumn censuses. The route includes Lake McDonald (16.5 km long), lower McDonald Creek, (4 km) and a portion of the Middle Fork of the Flathead River (6.5 km). The latter two are counted from a canoe. Maximum eagle numbers rose to 639 in 1981 with a drop to 306 in 1982. Peak counts do not fully reflect the number of eagles passing through Glacier in the autumn. The turnover rate is rapid and the actual number of eagles that stop to feed along McDonald Creek exceeds 1,000. The concentration begins in late September and usually disperses by the end of December, depending on the timing of the salmon run.

Prior to arriving in Glacier and after departure these migrating bald eagles face the well known host of destructive influences: habitat destruction, poisoning, shooting, trapping and electrocution. One of the management challenges at this significant bald eagle concentration in Glacier National Park relates to the management of people and their activities. As long as suitable prey base and freedom from excessive human disturbance are provided, the McDonald Creek area will continue to offer an attractive stopping point for southward migrating bald eagles.

There is an increasing concern about the future of a stable salmon population upon which the eagles feed. Salmon numbers in 1982 were much below previous years. Although the salmon are not native to the Flathead Drainage the annual run has become very important to migrating bald eagles. The presence of hundreds of eagles along McDonald Creek in the autumn has attracted an increasing number of people interested in viewing or photographing. News media coverage of the concentration has made the autumn arrival of eagles a well-known event. Federal listing of the bald eagle as endangered in Montana, in 1978, further attracted attention.

Prior to 1970, visitors were allowed to walk along McDonald Creek, or boat down the creek. Disturbance of eagles along the creek was frequent and became a major threat to the welfare of eagles at the concentration. In addition, viewing opportunities for most visitors were being diminished. One person walking along the creek is sufficient to cause nearly all eagles to fly away from the creek, often producing large soaring groups. In order to reduce the disturbance level, in 1970 park managers began implementing a series of measures including zoning, regulation and enforcement. This management strategy evolved in response to increasing violation and is aimed at both reducing disturbance to eagles and providing better viewing opportunities for people.

Information leaflets are available and educational displays can be viewed in Apgar Visitor Center. The education/interpretation process may be the most important facet in the bald eagle protection program in Glacier — as the adage goes: "Through interpretation — understanding, through understanding — appreciation, through appreciation — protection."

A successful interpretive program must include basic information provided by research and a consideration of intangible resource values. An intensive research program began in 1977, expanding on studies initiated in 1965. Objectives include the indentification of migration routes, wintering areas and nesting sites used by eagles associated with the Glacier concentration. Color markers and radio transmitters have been placed on a number of eagles. The research is still in progress. It will provide information upon which a better coordinated interagency, interstate and international management program can be developed, as well as contributing management programs for people for bald eagle habitat within Glacier National Park.
Salmon attracts: Eagles, People and BEARS

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Protecting bears and people

Your cooperation in adopting the following good manners and practices in bear country will provide for your safety and reduce the number of trail and campsite closures this year.

Your cooperation will also greatly reduce bear habituation to humans which ultimately result in incidents between bears and man. These situations necessitate handling and/or eliminating bears, including the currently threatened grizzly bear.

Remember ALL bears are potentially dangerous!

Feeding bears or photographing them at close range habituates them to human activity. (Feeding animals is a violation and subject to a fine).

A Clean Camp in an auto or backcountry campsite is good insurance against bear problems. Garbage should be placed in bear proof garbage cans or placed in sealed, plastic bags to be packed out by the backpacker. DO NOT BURY!! Food and ice chests should be placed in auto trunks when not being used. Food left unattended in the open will be removed and the responsible person is subject to a fine. Persons camping in the backcountry should store food as illustrated on the litter bags given out with backcountry camping permits. Storing food in a tent invites trouble! Wise backpackers use odorless food, such as freeze-dried foods.

Sleeping areas should be near the outer edge of your individual assigned campsite, as far as possible from where you cook.

Hiking alone is not recommended. Making noise (bear bells, talking, singing) avoids surprising a bear. A surprised bear may respond aggressively. If a bear is made aware of human presence, it will often run away. It may make a short charge at you until it determines you are not a threat. DO NOT RUN!! Bears, like dogs, are fond of the chase. Running may excite them and increase the chance of physical contact. If you do not have time to climb a tree, or there are no trees, remain where you are or retreat slowly.

Be Alert and think ahead. Watch for bear signs — fresh tracks, diggings and scats (droppings). Be alert when traveling into the wind. The bear may not get your scent and thus be unaware of your approach. Bears may not hear you approach near rushing streams.

Please report all bear sightings and incidents to a ranger. This information is valuable in evaluating situations and in initiating proper management actions to ensure the safety of people and bears.

About Bears, a 25 cent pamphlet on some of the characteristics of grizzly and black bears, is available at park visitor centers.

Hikers can avoid bear problems by being alert, carrying bear spray, and following the practices outlined above while in bear country.

Hikers who encounter a bear should:

- Remain calm
- Avoid eye contact
- Do not run
- Do not climb a tree
- If bear is charging, make yourself look larger — back up slowly, avoid charging bear

In the rare situation of a bear attack:

- Try to appeal to bear's base instincts
- Do not fight bear
- If bear is less than 10 feet, keep it in view, give it a wide berth

Hikers should also be aware of the following:

- Do not approach bears
- Do not feed bears
- Do not aggressively confrontation bears

Hikers are encouraged to follow the practices outlined above to reduce the number of bear attacks and ensure the safety of both hikers and bears.