



## ***Introduction***

Our last trip to Alaska dates back to the summer of 2012. Wishing to once again savor the wide-open spaces and sumptuous landscapes of the American Great North, we spent 10 weeks in this magnificent region, from August 16 to October 29, 2024. This time, our photographic objectives did not concern the bear or the wolf but consisted of :

- capture the lights and colors of the Alaskan mountains from late summer to early winter,
- follow the moose rut which generally takes place from mid-September to mid-October,
- take aerial views of the Denali massif, the Kichatna Mountains, the Revelation Mountains, the Neacola Mountains and the Wrangell Mountains,
- take a photographic portrait of the Collared Pika,
- represent the autumnal diversity of Alaskan birds, between mountains, lakes, rivers, tundra and taiga,
- gather some images of the most representative wildlife of the Alaskan mountains: Dall's sheep, Rocky Mountain marmot, Rock ptarmigan and White-tailed ptarmigan.

## ***From dream to reality***

With an area of 1,723,000 km<sup>2</sup> (41 times that of Switzerland), for more than 730,000 inhabitants, Alaska has something to make lovers of virgin nature and wide open spaces dream. And yet, beyond the ideal representations that it can arouse, this vast country cannot be understood as easily as one might suppose. Most wild spaces without infrastructure remain inaccessible. While it is possible to be dropped off by seaplane in an isolated place and live there for a while in complete autonomy, this type of experience requires substantial equipment and rigorous preparation. This is an option that is relatively incompatible with the constraints linked to photography. In addition, traveling off-trail, whether in the tundra or taiga, is laborious and in no way guarantees an encounter with wildlife. From a photographic point of view, this type of approach remains unsatisfactory in relation to the material means and the efforts, both physical and mental, that it requires.

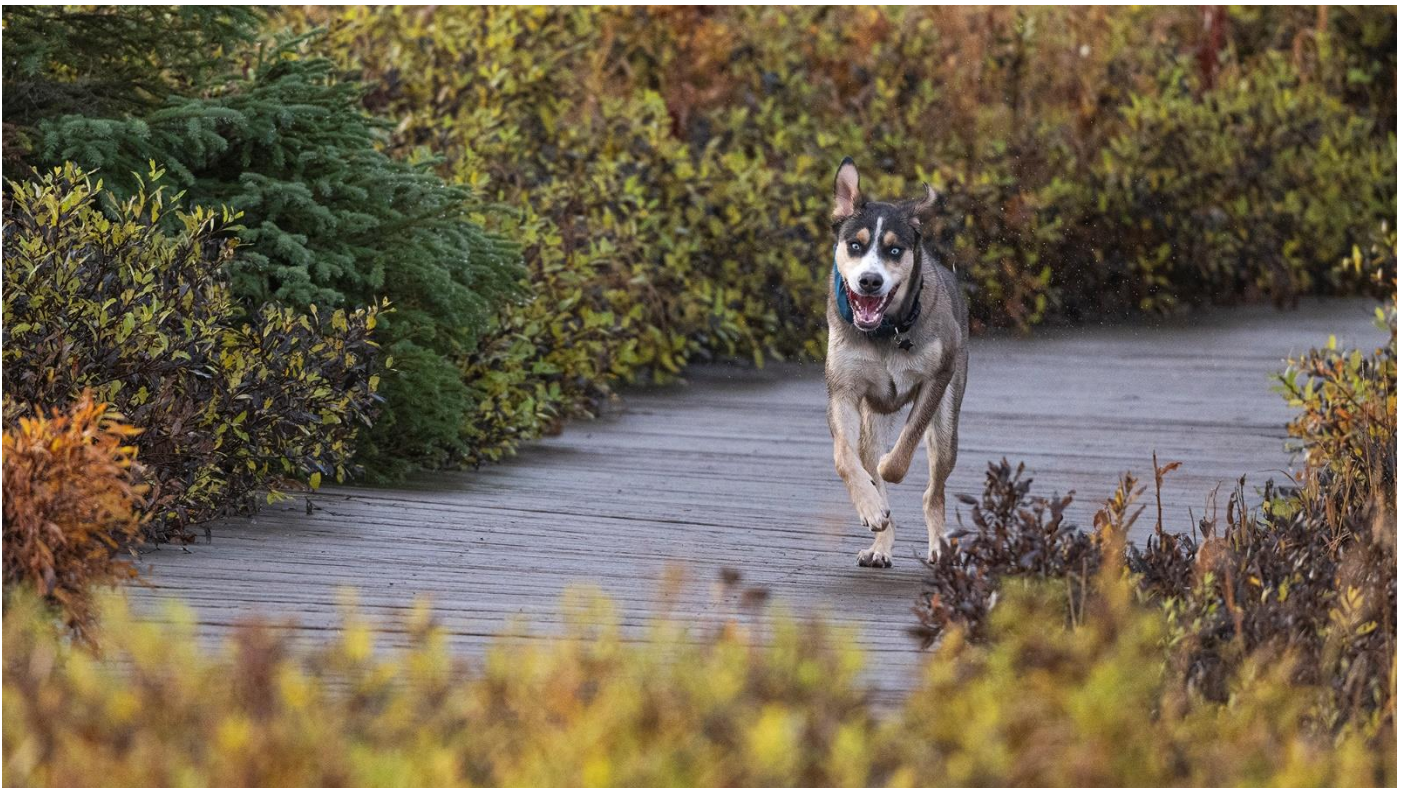
We combined different options, giving priority to those that offered us the best opportunities but also maximum freedom :

- lodges or bush camps: high prices but perfectly compatible with photographic requirements;
- trails and recreation areas accessible to the public, the solution we have favored being the most economical. These spaces offer great opportunities but are, in places, overcrowded, particularly by dog walkers who, for the most part, have the unfortunate habit of not keeping their dogs on a leash and who are, moreover, totally indifferent to the negative impact they produce on wildlife;
- the immediate surroundings of the road network: if the main roads, with heavy traffic, offer little chance of observing wild animals, the secondary roads, on the other hand, can hold some nice surprises. Asphalt or dirt, they are, for the most part, accessible to ordinary vehicles. However, be careful not to enter one of the many private properties;
- long trails accessible to the public which are generally covered using adapted vehicles (mountain bike, quad, etc.) but which can also be covered on foot. Economically advantageous solution but very unprofitable in terms of animal encounters, this type of trail being very popular with hunters;

- tourist excursions (bus tours, cruises, flights over glaciers and mountains, etc.). Although most of these are affordable from an economic point of view, they bring together a high number of participants and often take place at times that are not suitable for producing beautiful images. On the other hand, they provide access to places that are impossible to visit on your own.



Alaska has an extensive network of trails, generally well maintained and suitable for all levels. In national and state parks, they provide access to areas favorable to observing wild flora and fauna.



Dogs not on a leash scare away most wild animals who view them as predators.



Beginning at Glenn Highway 159.8, Lake Louise Road winds north 19 miles to Lake Louise. It crosses a forest area dotted with ponds which are appreciated by the Trumpeter Swan.



Photographs of the Tundra Swan along the Denali Highway. In Alaska, the wildlife is much less fierce than in Europe. Shots are most often taken on approach. In this exercise, it is the obstacles linked to the nature of the terrain and the density of the vegetation which pose the most problems.



Female moose near a road in Chugach State Park, frequented by hikers, mountain bikers and quad enthusiasts.



In Alaska, there are many trails that allow you to go very far into the “bush”. Unfortunately, the latter are monopolized by hunters: the probability of catching a ball between the eyes is greater than that of seeing a wild animal !



In Alaska, as in the rest of the United States, it is highly recommended not to enter private property, under penalty of serious consequences, coarse salt being the least of these !

Through the moose rut, we became aware of the extent of the problem linked to the loss of biodiversity. Two decades ago, in the valley we explored, it was possible to observe up to 60 moose per day during the rutting period. You should know that these animals have been meeting in this region since time immemorial. Today, only around ten animals can be observed in one day and with a lot of luck.

### ***Autumn lights and colors***

Landscape photography is just as demanding as wildlife photography. You have to be on the lookout for lights that highlight the wild beauty of the places you want to represent. These light conditions only occur very rarely, mainly early in the morning or in the evening, which often means sleeping there so as not to miss the crucial moment. Weather conditions are also very decisive, with the most favorable times being just before or just after a period of bad weather. This is not what is lacking in Alaska ! We shot most of our landscape images in Denali National Park, along the Denali Highway, the Richardson Highway, the Glenn Highway, in Portage Valley and around Anchorage.



In Alaska, RVing is the best option for landscape photography. It allows you to be on site in the right place and at the right time while offering appreciable comfort, especially in bad weather.

### ***Moose rutting in Chugach State Park***

To observe the moose rut, most photographers go to Denali National Park. If the latter is of incomparable beauty, the conditions which reign there do not allow maintaining close and intimate contact with the animals: prohibition of leaving the road to enter the bush, overcrowding of the places by tourists of all kinds, paid and time-limited access, abusively authoritarian attitude of the rangers. After spending a few days in Denali, we went to Chugach State Park which has none of the drawbacks listed above. In addition, this park is easy to access, being located 30 minutes by car from Anchorage.

Between September 16 and October 11, we devoted 18 days to the Moose rut. The exercise turned out to be more difficult than expected: moose populations are in decline throughout its entire range (in Minnesota, the population has fallen by 50% in ten years !), mainly due to excessive hunting and the increase in parasitic load caused by global warming. Added to this, in certain places, is the destruction or overcrowding of favorable environments.



*Looking for Moose in Chugach State Park.*

Moose frequent heavily vegetated environments. Off the trail, it is difficult to make your way through the vegetation, in terrain that is often wet and strewn with obstacles of all kinds. The density of the vegetation makes it difficult to spot animals and often prevents them from being photographed properly. It seems that animals take advantage of this vegetation which allows them to escape the

sight of undesirables. That said, all of the individuals we met showed no sign of concern or aggression towards us, letting us approach within ten meters a few times ! Note also that it is difficult to make the favorable angles of light coincide with the possible shooting angles.



*The density of vegetation is one of the many obstacles to overcome to achieve a good image of the Moose.*

1. Monday September 16: first incursion on the premises. Observation of a female from the road leading to the parking lot. Photograph of a middle-aged male near the trail, about a 40-minute walk from the parking lot.
2. Tuesday September 17: location scouting. No sightings.
3. Wednesday September 18: location scouting. No sightings (is it too early for the rut?).
4. Thursday September 19: location scouting. Observation of a large male at approx. 400 meters. We now have a more precise idea of the shooting locations and conditions.
5. Saturday September 21: long walk. Observation at approx. 200 yards from a young male with broken antlers on the left side.
6. Wednesday September 25: Observation of a large male from the observation post overlooking the valley.



Every morning, we observe the valley where the moose rut takes place from a promontory which offers a clear view for several kilometers.

7. Thursday September 26: Short-distance observation of two females and a young male. After a long wait, mating between the young male and one of the two females... in excellent conditions for the photo.
8. Monday September 30: Distant observation of a female accompanied by two young males. Together, they disappear into the dense vegetation at the bottom of the valley, followed by a black bear. Coyote songs echo in the distance.
9. Tuesday, October 1: No sightings, except bear tracks on the frosty wooden path.



Fresh tracks attesting to the presence of a bear in the area: probably a black bear.

10. Wednesday October 2: Distant observation of a medium-sized male moving quickly. Also distant observation of two young males and two females, unreachable and out of range for the photo.
11. Thursday, October 3: Close photographs of a young male and a female in tall grass.

12. Friday October 4: No sightings but fruitful meeting and exchanges with photographers Rick and Libby Libbey, who are among the best connoisseurs of the place and the Moose :

<https://www.moosemannaturephotos.com/>



Our friends Rick and Libby Libbey (photo taken from their website).

13. Saturday October 5: Observation and photographs of a female and a young male at the place we nicknamed “the little hill”, located 1 hour walk from the parking lot.
14. Monday October 7: Observation and photographs of seven individuals on the same square: “Flattop” (the largest male on the square, aged seven and a half years), “The one-eyed one”, “Socks”, “The young belligerent » as well as a one-year-old male and two unidentified females. 200mm images of the “young belligerent” and “Socks” confronting each other.
15. Tuesday October 8: Observation of a group of seven moose 1h30 walk from the parking lot. Too far away and inaccessible to take interesting images.
16. Wednesday, October 9: Photographs of Flattop accompanied by two females, including a mating and some wide-angle shots showing Flattop against a mountain backdrop. A young male with broken antlers is also there.
17. Thursday, October 10: First snow of our stay at Chugach State Park. Photographs of a female and her calf not far from the parking lot. Morning alongside Flattop accompanied by a female who are lying down for several hours. Two females, “Broken antlers” and a partially blind male (probably the result of an illness) are located nearby. Unfavorable light conditions as soon as the sun arrives.
18. Friday October 11: Distant observation of a few isolated individuals, grazing and ruminating. With Rick, last looks at Flattop, lying more than a kilometer away.

Through the moose rut, we became aware of the extent of the problem linked to the loss of biodiversity. Two decades ago, in the valley we explored, it was possible to observe up to 60 moose per day during the rutting period. You should know that these animals have been meeting in this region since time immemorial. Today, only around ten animals can be observed in one day and with a lot of luck.

### ***Aerial views***

In aerial photography, success comes largely from good preparation. In order to have a precise idea of the realities on the ground, the first step consists, during the months preceding the trip, of consulting geographical maps and collecting, on the Web or in specialized literature, as much information as possible. The second step consists of listing the different aviation companies likely to correspond to the different projects that we wish to carry out. Subsequently, repeated contacts with the latter should lead to defining the best possible options.

Once there, we were faced with three determining factors: unpredictable weather, a time limit of ten weeks and a limited budget. The combination of these 3 factors generates a certain dilemma : namely, when is the right time to get started ? There is no other choice than to take risks, trust the indications of pilots who are not always aware of photographic requirements and rely on a minimum of luck. Thanks to the sky, we benefited from it much more than we had hoped.

If you want to produce usable aerial images, the first thing to do is to give up the tourist flights offered by the different aviation companies; on the one hand, because the latter take place mainly in the middle of the day, when the lights are too bright and, on the other hand, because they do not allow the flight plan to be chosen or modified. In addition, if you are unlucky, you may be assigned a seat that is not ideal for photography. The higher price of an à la carte flight is fully justified : it allows you to make a personal flight plan and choose the time at which you want to do it. That said, a tailor-made flight does not necessarily bring total freedom, since the different companies must comply with all kinds of restrictions, whether union, security or specific regulations (ban on flying over certain areas, certain hours, etc.).

As far as possible, it is imperative to choose aircraft that offer the possibility of shooting with an open window. Few companies have devices that have this advantage. This condition is decisive since it makes it possible to avoid unwanted reflections which, depending on the angle of light, are inevitable when taking photographs through a window.

After having defined the subjects that you wish to photograph, it is necessary, based on a detailed geographical map, to study from which angles they will be best highlighted. This step makes it possible to estimate at what time of day the desired subjects benefit from the best light and to sketch different flight plans that can be submitted to the pilot, only he being able to confirm the feasibility of the project and determine its cost. Please note that although a pilot is in principle gifted with an insightful mind, he does not necessarily have any knowledge of photography. You must therefore inform him of the altitude and distance at which you must position yourself in relation to the subjects you wish to photograph. From this moment, the pilot generally understands that he will have to work with an unusual and demanding client, which presents a significant advantage.

Despite all the care taken at the various preparatory stages, the desired and estimated conditions are not necessarily there. For example, certain unexpected subjects may present better photographic

interest (interesting light, etc.) than those initially planned in the flight plan. It is therefore essential to demonstrate flexibility, adaptation and surrender to the magic of the present moment.



The Cessna 185 is a single-engine aircraft renowned for its exceptional performance in various aerial missions. With its rugged construction and powerful engine, the Cessna 185 is well suited for operations in remote and harsh environments, including bush flying, aerial surveillance and utility transport. Its high-wing configuration provides excellent visibility for pilots and passengers. It is particularly well suited to aerial shots, its large window adjoining the front seat can be kept open and offering a vast field of vision. Powered by a reliable Continental IO-520-D engine, the Cessna 185 offers impressive short takeoff and landing capabilities, making it ideal for accessing remote airstrips with limited length. Floats or skis can be attached to the Cessna 185, allowing it to take off and land on water or snow surfaces.

On board a small Cessna, the photographic conditions are far from comfortable : you find yourself strapped into a small seat, equipped with headphones and a microphone which are essential for communicating with the pilot. It takes quite a bit of contortionist talent to find, on your right and in your viewfinder, the landscapes you want to photograph. To top it off, flying at high altitude, it is necessary to dress warmly and wear sunglasses. In addition, covered by the noise of the plane's engine, the sounds produced by the camera when it is triggered are no longer perceptible, not to mention that you have to constantly concentrate on opening or closing the airplane window.

As the landscape passes quickly and often unexpectedly, it is better to be clear with your photographic equipment and avoid time-consuming operations, such as changing lenses or formatting memory cards. The use of lenses covering focal lengths of 24 to 70 mm, or even 70 to 200

mm, are the most suitable. It is also important to use high capacity memory cards and ensure that you have sufficient, fully charged batteries.



*In order to avoid any reflection that would spoil the images, it is essential to take aerial shots from an open window. The collusion between pilot and photographer is also a valuable asset.*

There are many difficulties encountered during the flight. The movements created by turbulence and the wind which rushes inside the plane when the window is open, create two problems: the impossibility of achieving precise framing and a significant risk of motion blurs. In principle, a high shutter speed (1250th of a second) and burst triggers guarantee that at least one of the images produced is well framed and well “sharp”. That said, the viewing angle sometimes offering a succession of shots both very close and very distant, we must be careful not to favor speed to the detriment of the aperture which must be adjusted so as to obtain a depth of sufficient field. In low light, do not hesitate to increase the sensitivity.

During a flight, an incredible diversity of angles and light conditions can occur. Landscapes move by so quickly that it is not always possible to make the necessary exposure corrections. The “bracketing” technique considerably increases the number of shots, it is preferable to make exposure corrections during image processing, hence the need to adopt the Raw format when taking shots. As a precaution and when the subject is particularly striking, it is always possible to ask the pilot to make a second

pass; but in certain cases this maneuver requires considerable time. It is therefore better to get your images right the first time.

The major difficulty we encountered during our aerial shots concerns the horizon line. One of the basic rules of landscape photography requires that the horizon be aligned with the image frame. However, the plane makes numerous changes of direction and inclination, the reference points concerning the horizon are greatly reduced. To work around this problem, it is a good idea to enable virtual horizon in the case menu. In case of doubts about the horizon, it can be useful, even providential, to take several views of the same scene by varying the inclination of the framing.

What remained essential in producing these aerial images was the feeling experienced in the face of such grandeur. Even felt from the open window of a small Cessna 185, the contemplation of this immensity, totally devoid of human presence, did not fail to respond to our quest for an original nature.

Flights carried out :

- Saturday, August 24: flight over the Denali Massif with Talkeetna Air Taxi (Cessna 185) from 11:45 a.m. to 1:15 p.m., when a small window opened between two periods of bad weather. Beautiful atmospheres between mountains and cloud formations.
- Sunday, August 25: flight over the Kichatna Mountains with Talkeetna Air Taxi (Cessna 185) from 6:30 p.m. to 9:00 p.m. Great weather starting from Talkeetna but many clouds over the Kichatna with a lot of turbulence but also beautiful lights and atmospheres.
- Friday August 30: flight over the Denali Massif with Denali Air (Piper PA-31 Navajo) from 8:00 a.m. to 9:15 a.m. Images of Mt Denali and the highest peaks of the massif against a backdrop of a sea of fog. Great weather but morning light conditions favorable for producing sharp images.
- Friday September 27: flight over the Revelation Mountains and Neacola Mountains with Trail Ridge Air (De Havilland Canada DHC-2 or Beaver) from 10:00 a.m. and 4:00 p.m. Few companies agree to go to these little-known and little-visited regions. Trail Ridge Air is one of them but sets the time dates according to its schedule. Luckily our flight took place the day after a period of bad weather. The lights were a little bright but the scenery was breathtaking, made up of a multitude of peaks (mostly anonymous) freshly plastered with snow. The Revelation Mountains and Neacola Mountains, known only to a handful of climbers, have rarely been photographed. We are happy to have never-before-seen images of them.
- Thursday October 17: flight over the Wrangell Mountains with Copper Valley Air Service (Cessna SkyHawk) from 3:30 p.m. to 5:30 p.m. and in freezing cold when the window opens. Magnificent lights and breathtaking decor.



Like most of Alaska's great peaks and glaciers, the Wrangell Mountains are several dozen kilometers from the nearest road. Only a few very rarely used trails allow you to get close to it ; they are only accessible to adventurers capable of living in almost complete autonomy for several weeks. For the photographer, aerial shots are the only possible option, as long as the weather conditions permit, the summits being shrouded in persistent clouds for most of the year.

### ***Photographic portrait of the Collared Pika***

Very close to the American Pika (*Ochotona princeps*), the Collared Pika (*Ochotona collaris*), which is a bit like our totem animal, is a small mammal belonging to the lagomorph family. He has an energy of action and recovery that commands our admiration. Not hibernating, it is forced to make significant provisions of vegetation which are stored in the form of hay in a pantry under the rocks in order to be consumed during the winter. This storage constitutes the main activity of the Pika in the summer period and is characterized by incessant comings and goings between picking places and storage places. Biologically adapted to a very cold environment, the survival of the Pika is greatly threatened by global warming. We photographed this amazing being in the Talkeetna Mountains from Monday August 19th to Friday August 23rd under varying weather conditions.



Photograph of the Collared Pika in the Talkeetna Mountains. The habitat of the Collared Pika is in the mountainous and rocky regions of Alaska and the Yukon. The areas of scree which serve as refuge and storage are located in the immediate vicinity of clams rich in food resources.

### ***Autumn diversity of birds***

Although a large number of birds stay in Alaska, most of them migrate south as soon as fall arrives. However, some sedentary species spend the whole year in Alaska openly facing the long winter period. Among the latter are the Willow Ptarmigan, the Spruce Grouse and the American Dipper which we photographed in various places. Other species remain on their breeding grounds until late autumn at the latest and only leave the area when they can no longer find enough food. This is the case, for example, of the Trumpeter Swan (*Cygnus buccinator*) which we photographed throughout the fall, mainly at Potter Marsh and in the Portage Valley. In Alaska, trumpeter swans return to their nesting grounds in early spring, shortly after the ice melts. They head back south late in October, when the frost is well underway, to spend the winter in the states of Montana, Idaho and Wyoming. We were lucky enough to see several families of trumpeter swans fly south: the groups gather on the frozen lakes before communicating to their peers their desire to fly away. They then exchange vocalizations and harmonious movements which are an enchantment for the ears and the eyes.



The name trumpeter swan comes from the cry that the bird utters, which evokes the sound of a trumpet. Female and male are identical in appearance although the latter is heavier. Pairs form for life and choose a breeding territory to which they generally remain attached throughout their lives.

### ***Mountain wildlife***

We planned to photograph the Dall Sheep but had little hope of making this project a reality, autumn being a period open to hunting. A trophy hunt that takes place almost everywhere except national parks. Denali National Park is one of the favorite spots for photographers but remains inaccessible in October, the period when we wanted to take our images. We also planned to photograph the Dall Sheep in a cliff environment, which is not easy to do in Denali National Park. To try to make our project a reality, we went to Chugach State Park, partly for its ease of access and its particularly attractive rocky environment. For several days, we observed several groups which remained inaccessible. However, thanks to a stroke of luck, we took the desired images on the last day of our trip, the snowfall having forced the mouflons to lose altitude. A group of females accompanied by their cubs, located some 200 meters above the place we used to frequent, were finally accessible ! A somewhat difficult approach on the steep and rocky slopes but filled with birch trees to which we could hold on, led us close to the animals which, fortunately, were very tolerant towards us.



*A goat and its mother accompanied by a male on the steep slopes of Chugach State Park. Males and females live in separate groups, except during the rutting period which takes place from late autumn to early winter.*

He narrowly missed us so that we didn't encounter any Rock Marmot. After much searching, we finally found a small family holed up on a remote, steep slope in the Talkeetna Mountains. As for the Rock Ptarmigan and the White-tailed Ptarmigan, they remained untraceable. During our first trips to Alaska, which took place in the nineties, we found two “spots” very favorable for observing these typically mountain species. A sad observation some thirty years later: the places are now overcrowded by a cohort of outdoor sports enthusiasts and onlookers of all kinds, including countless dog owners (on a rainy Monday, we counted on average one dog not on a leash per hour). Consequence: the places were emptied of any wild fauna sensitive to disturbance and were transformed into a playground for city dwellers and “bathroom” for dogs !



We looked for the Rock Ptarmigan very early in the morning to avoid the crowds of tourists who pass by during the day. Despite this... nothing! The places, which once hosted ptarmigan and marmots, seem to have been emptied of their wildlife. Only a few arctic ground squirrels showed us the tip of their noses.

### ***Unexpected encounters***

Every trip brings its share of unforeseen events, whether negative or positive. On the positive side, three encounters as unexpected as they were enchanting marked our trip: the first with a red squirrel who, near our camper, was stocking up on mushrooms for the winter; the second with a Northern Hawk Owl and the third with a pair of River Otters.

Unlike most owls, the Northern Hawk Owl (*Surnia ulula*) is diurnal. This behavior allows it to take advantage of the abundance of small mammals and birds also active during the day. In Alaska, it is in coastal areas that we are most likely to observe it, perched at the top of a tree, scanning its environment in search of potential prey.

During most of the year the river otter (*Lontra canadensis*) is active from dusk to dawn, but in winter it can be seen more frequently during the day. On Thursday, October 24, for several hours, we had the chance to observe two individuals on a frozen pond fishing for fish. The weather conditions were gloomy with dark sky and a few snowflakes. The social structure of this species is very variable: some animals are solitary, while others live in family groups consisting of an adult female and her offspring, or sometimes in large groups consisting only of adult males. Groups usually travel and hunt together, and also use the same roosting site and den. Dens are created in riverside burrows, under vegetation or rocks near water, in sunken banks or hollow trees, and sometimes in muskrat or beaver lodges. The home ranges of individuals overlap widely and, although this animal is not territorial, it uses scent marking as an important means of communication, which we noticed on several occasions.



The silhouette of the Northern Hawk Owl on the lookout at the top of a spruce tree is one of the most evocative scenes of the taiga. Rather sedentary despite the rigor of the boreal climate, the species is sometimes nomadic in the event of a food shortage, but only undertakes small movements towards the south in winter.

## Species photographed

### Mammals

- American red squirrel (*Tamiasciurus hudsonicus*)
- Ermine (*Mustela erminea*)
- Snowshoe Hare (*Lepus americanus*)
- River Otter (*Lontra canadensis*)
- Hoary marmot (*Marmota caligata*)
- Dall Sheep (*Ovis dalli*)
- Moose (*Alces alces*)
- Grizzly Bear (*Ursus arctos horribilis*)
- Collared Pika (*Ochotona collaris*)
- Arctic ground Squirrel (*Urocitellus parii*)

### Birds

- Chipping Sparrow (*Spizella passerina*)
- Northern Harrier (*Circus hudsonius*)
- American Wigeon (*Anas americana*)
- Lesser Yellowlegs (*Tringa flavipes*)
- Northern Hawk-Owl (*Surnia ulula*)
- American Dipper (*Cinclus mexicanus*)
- Tundra Swan (*Cygnus columbianus*)
- Trumpeter Swan (*Cygnus buccinator*)
- Great Blue Heron (*Ardea herodias*)
- Red-necked Grebe (*Podiceps grisegena*)
- Brown Creeper (*Certhia americana*)
- Varied Thrush (*Ixoreus naevius*)
- Sandhill Crane (*Antigone canadensis*)
- Willow Ptarmigan (*Lagopus lagopus*)
- Belted Kingfisher (*Megasceryle alcyon*)
- Black-capped Chickadee (*Poecile atricapillus*)
- Canada Jay (*Perisoreus canadensis*)
- Northern Shrike (*Lanius excubitor*)
- Common Loon (*Gavia immer*)
- Downy Woodpecker (*Picoides pubescens*)
- American Pipit (*Anthus rubescens*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Ruby-crowned Kinglet (*Corthylio calendula grinnelli*)
- Red-breasted Nuthatch (*Sitta canadensis*)
- Spruce Grouse (*Canachites canadensis*)