

BIG FIVE
TOURS & EXPEDITIONS

**ARCTIC POLAR
BEAR SAFARI**

CHURCHILL, MANITOBA, CANADA



The following general outline offers practical information, suggestions and answers to some frequently asked questions. It is not intended to be the definitive guide for your trip. Be sure to check the reading listing included here for more information.

WEATHER

The climate of the sub-Arctic can be demanding, and is characterized by harsh winters, low average temperatures, little snow or rainfall, and a short summer season. Temperatures range from far below zero during the winter to mild (40-60 degrees F) during the summer.

In the Churchill area during polar bear-viewing season (October/ early November), temperatures are comparable to midwinter temperatures in many parts of the U.S., and range from 10 to 40 degrees F, hovering in the 20s. But this is the season between seasons, fall is ending and winter is beginning, and weather can be quite variable. Temperatures may vary from 32 degrees F to -22 degrees F within the same week, and sometimes in the same day.

The weather is normally somewhat cloudy during this time and some snow is almost always on the ground. Wind is a major force of nature in this region. You will see its impact on the landscape when you arrive. Not only is the wind strong, but there is also no shelter from it. In fact, wind can be far more hazardous than cold temperatures.

TIME ZONE / TRAVELING TIME

Churchill, Manitoba is in the Central Time Zone. Flying time to Winnipeg from either New York or Los Angeles is approximately five to six hours, including time on the ground.

A NOTE ABOUT DAYLIGHT: In late fall, the length of day is shrinking, especially at the far northern latitudes. During this safari, you can expect 8 to 10 hours of light. Evenings are very dark, which improves the chances of viewing the Northern Lights.

PASSPORTS AND VISAS

U.S. citizens and permanent residents of the U.S. do not require passports or visas. Proof of citizenship or residence is needed to enter Canada, such as a birth certificate or certificate of naturalization. A driver's license is **not** acceptable. Visitors to Canada may usually stay up to six months. All visitors must be able to satisfy an immigration officer that they are genuine visitors and that they have enough funds for their stay in Canada.

AIRPORT FORMALITIES

INTERNATIONAL AIRPORT: *Winnipeg International Airport (YWG)* is linked with all major cities in Canada, and several in the U.S.A. It is located 10km (6 miles) northwest of the city. There is a regular bus service every 20 minutes (travel time is 20 minutes). Airport facilities include duty-free shop, post office, restaurant (open 0600-2000), banks (open 0700-2100, not open on weekends), car rental, and car parking. After you clear customs, you will be met at the airport by a driver and escorted to your hotel, where a Big Five Representative will greet you.

CUSTOMS

DUTY-FREE: The following goods may be taken into Canada by non-residents without incurring customs duty:

200 cigarettes and 50 cigars and 200g of loose tobacco and 200 tobacco sticks per person over 18 years of age; 1 bottle (1.1l) of spirits or wine or 24 bottles or cans (355ml) of beer or ale per person over 18 years of age if entering Alberta, Manitoba and Québec and over 19 years if entering British Columbia, Ontario, New Brunswick, Newfoundland & Labrador, Northwest Territories, Nova Scotia, Prince Edward Island, Saskatchewan and Yukon; gifts to the value of C\$60 per gift (not being advertising matter, tobacco or alcoholic beverages); a small amount of perfume for personal use.

PROHIBITED ITEMS: As in all countries today, all narcotics (hemp, opium, cocaine, morphine, heroin, etc.). Penalties for possession, use or trafficking in illegal drugs are strict and convicted offenders can expect jail sentences and heavy fines.

NOTE: There is a Goods and Services Tax (GST) of 7 per cent on all goods and services. Visitors may reclaim this tax on accommodation and any goods purchased and taken out of the country. The goods must be available for inspection on leaving the country. The total amount on each receipt for eligible exported goods must be at least C\$50 and the total purchase amount (before taxes) must be at least C\$200. However, GST is not reclaimable on food, drink, tobacco or any form of transport. To claim a rebate, a GST form must be completed, with all original receipts and aircraft boarding pass attached, and posted to the address on the form. Forms are available in hotels and tourist offices. In Québec, the provincial sales tax can be reclaimed at the same time as GST on the GST form. GST forms should be sent to Visitor Rebate Program, Canada Customs & Revenue Agency, Summerside Tax Center, Suite 104, 275 Pope Road, Summerside PE, C1N 6C6, Canada (tel: (902) 432 5608 outside Canada or (800) 668 4748 in Canada; www.ckra-adrc.gc.ca/visitors).

Further information regarding entry and customs requirements, current departure tax, etc., may be obtained from any Canadian embassy or consulate, located in most major cities.

US CUSTOMS

After more than 48 hours in Canada, U.S. residents may take back up to \$800 fair retail value of merchandise for personal or household use free of United States duty or tax, once every 30 days. Up to 100 cigars (non-Cuban), 1 L (33.8 fl. oz.) of alcoholic beverage (if the resident has attained the age of 21) and 200 cigarettes (1 carton) per person may be included in the duty-free exemption. Goods must accompany the resident upon arrival in the United States. U.S. residents visiting Canada for less than 48 hours may take back \$200 worth of merchandise duty-free. The following may be included, but the total fair retail value must not exceed \$200: 50 cigarettes, 10 cigars (non-Cuban), 150 ml (4fl. oz.) of alcoholic beverages or alcoholic perfume.

For a list of exempt items: contact your nearest Customs office or write the U.S. Customs Service, Box 7407, Washington, DC 20044. Please note: It is illegal to bring into the United States any product made from a wild animal, including ivory, hides and skins, and so on.

LUGGAGE

Traveling light is always the first and best rule! We recommend passengers limit their luggage to one medium-sized soft bag per person or two small duffle bags. In this security conscious era, airline luggage restrictions may change without notice. Also, luggage limits vary depending on ticket class, plane size, destinations, etc. It is always best to confirm with airlines for specific limitations.

Generally speaking, from the US, economy class passengers are allowed to check in two (2) normal size pieces of luggage (each piece measuring no more than about 62 linear inches, which means length plus width plus height), and not exceeding 70 pounds per bag.

Scheduled flights from other countries and within foreign countries generally limit luggage to 44 pounds total, plus one carry-on personal item. Further restrictions apply for charter flights. We will advise you of those restrictions in your final documents.

Most airlines now allow only one carry-on bag in addition to one personal item such as a laptop or handbag. Most bags within the 22 x 14 x 9 (or, a total of 45 linear inches) size restriction will be considered legal carry-on size by major domestic U.S. airlines. Many US airlines check-in desks have sizing boxes within which your bag must fit. Obviously, no knives or cutting instruments are allowed in carry-on baggage.

All luggage should have identification inside as well as secure baggage tags on the outside.

Please note that the US National Transportation and Safety Board now suggests that you do not lock your checked luggage. If a screener has to open your bag, the locks may have to be broken. This applies to flights within the US and international flights originating in the US. This, however, does not address other international travel issues. We suggest that you lock your luggage and bring a couple of spare locks in the event one or more are cut off. But the choice is up to each individual traveler to make.

CAMERAS & FILM

GENERAL PHOTOGRAPHY: Bring plenty of film and fresh batteries for your camera -- more than you think you'll need! Good animal shots demand it and you'll be surprised at how much film you use when you are trying to capture all those special moments.

Make sure you have lens caps for all your lenses. Clean your equipment frequently. You might want to bring a blower brush and lens cleaning tissues.

Avoid airport x-ray machines whenever possible and request a hand search of your film only. While security people are often obliging, some are not so allow a little extra time. X-rays are cumulative on exposed and unexposed film so the more times film is x-rayed, the more risk of damage. This is especially true with older machines found in many countries. Lead bags for film are available for purchase and are worth the small investment. Do not have film in your camera because it may be opened for inspection. If planning to shoot video, be sure to bring plenty of tape and batteries. Videotape is not affected by airport x-rays; only magnetic fields or prolonged exposure to heat will damage videotape.

NOTE: Recent news reports warn that new explosive detectors used in more than 100 US airports to scan checked baggage will ruin unprotected, unexposed film. This technology will eventually be in place at all airports worldwide. Experts suggest either carrying your film in your carry-on luggage and/or placing film in safety, lead-lined bags to prevent X-ray damage.

EQUIPMENT: Bring cameras and lenses you are comfortable using. If you are going to buy new equipment before you go, do so as far in advance as possible. Shoot and develop at least a dozen rolls before departure to work out any problems. Bring the camera operation manual if you are not totally familiar with your camera. Bring filters, especially a polarizing filter, a flash, and a beanbag or other support to rest telephoto lenses on the windowsill. Lack of space and frequent movement make tripods impractical in the Tundra Buggy.

LENSES: A combination of fixed and/or zoom lenses between 28 mm and 300 mm is a good choice. Two lenses are recommended: a 35-80 mm or similar and a 70-210 or 100-300mm zoom lens. These should more than adequately cover most situations. Serious photographers will want to bring lenses in the 500-1,000 mm range. A 2x converter will be useful for those with shorter focal lengths. Point-and-shoot cameras leave much to be desired when photographing the animals.

FILM: It's strongly recommended that you bring what you need with you. You will undoubtedly shoot more pictures than you planned, and film away from home tends to be expensive. Even those not that interested in photography will probably shoot one or two 36-exposure rolls of film per day, and enthusiastic shooters will far exceed that amount. Be sure film is fresh. A film speed of ASA/ISO 64 is an excellent choice for color slide film in broad daylight; consider this speed when possible. But higher speed films (100 and above) are better able to handle varying lighting situations and overcast lighting that you are likely to encounter this time of year. For color prints, there are several good choices, including Kodak and Fuji films -- ASA/ISO 100 & 200 for daylight photography, ASA/ISO 200 & 400 for heavily overcast days, and ASA/ISO 1000 for low light and nighttime situations.

BATTERIES: Replace all batteries in cameras and other electric equipment before leaving home. ***Be sure to bring extra batteries** with you because they do not last as long in extreme cold weather. Your camera will be useless without them.

IMPORTANT NOTE

A major concern in the Arctic is the need to protect optical equipment from frosting up. Frosting occurs on both lenses and cameras, and is a major problem affecting electrical contacts and moving parts, especially in video equipment. It happens when a cold object is brought into a warmer, moist environment (i.e., under your parka or into the Tundra Buggy) and the water vapor molecules attach to the cold surface. This is why a glass with a cold drink sweats.

Preventative techniques are to avoid moisture from breath, perspiration, etc. from contacting cold equipment. Keep equipment as warm as possible, which can be a challenge sometimes, or keep it cold and do not bring it into a warmer, moist environment. A third option is to cover equipment with a plastic bag before introducing it back into warmer temperatures. Once the equipment has warmed to room temperature, remove the plastic bag.

If frosting does occur, it is vital to warm up the equipment thoroughly (allowing it to shed the extra moisture), before taking it back into the cold. If gear is not allowed to warm up thoroughly, cold air may induce freezing problems, which can terminate your use of the equipment.

SAFETY

The biggest safety concerns in Churchill this time of year are man-and-bear encounters. Each autumn 50 to 100 or more bears frequent the town. With this many bears on hand, and given a number of curious people, contacts are inevitable. To date, there have been two fatalities. Officials have undertaken intensive public education programs to minimize these man-bear contacts.

Warning signs, indicating Polar Bear Alert areas, remind visitors that these are not animals in a zoo, but large, unpredictable, wild carnivores roaming free. Local police and government authorities maintain a 24-hour vigil from September through November to protect residents from bears and to protect bears from thoughtless humans.

Strong wire fences have been erected at certain spots in town. Animals wandering into town are usually live-trapped and released or hauled off to bear "jail," a holding compound where they are cared for until they can be released. Others are driven away with bright lights and the sound of special explosives. Visitors, however, often do not see bears within town limits during their stays.

As with travel to any destination, common sense should be the prevailing guide to avoid problems. Pay attention to all warning signs. Remember to observe normal precautions while traveling. Do not take your passport, airline tickets, and all your money on day trips. Always leave these and other valuables in hotel safes. Pamphlets addressing safety issues abroad are available from *Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402*, or Bureau of Consular Affairs' home page: <http://travel.state.gov>.

HEALTH REQUIREMENTS / MEDICAL FACILITIES

No vaccinations are required for visitors entering Canada. Health insurance is strongly advised during any foreign travel. Please check the latest regulations with your local health office or the Centers for Disease Control and Prevention hotline for international travelers at 1-877-FYI-TRIP (1-877-394-8747); fax: 1-888-CDC-FAXX (1-888-232-3299), or their main telephone number in Atlanta, 404-332-4559. Or, visit the CDC Internet home page at <http://www.cdc.gov>.

Health conditions in Canada are good, but visitors should be in generally good health. Talk with your personal physician about any shots or boosters that are recommended depending on your personal health profile. If you wear contact lenses or glasses, we suggest you take a spare set. If you are on medication, be sure to bring enough for the duration of the trip.

CURRENCY / BANKING

Although American money is widely accepted in Canada, visitors should use Canadian money to avoid exchange problems. Travelers can exchange funds and traveler's checks at any Canadian financial institution, bank, trust company, credit union, co-operative, caisse populaire or exchange booth at airports and border crossing points to receive the prevailing rate of exchange. Commercial establishments give less favorable rates of exchange.

Local stores in small towns such as Churchill often accept American currency but do not always offer the current US Dollar rate exchange. Credit cards are accepted at many shops, hotels and restaurants, but it is advisable to carry some cash when in the rural areas. Do not plan on using personal checks.

OFFICIAL HOLIDAYS

New Year's Day	Jan 1
Good Friday	Apr 9
Easter Monday	Apr 12
Victoria Day	May 24
Canada Day	Jul 1
Labor Day	Sep 6
Thanksgiving	Oct 11
Remembrance Day	Nov 11
Christmas Day	Dec 25
Boxing Day	Dec 26

ELECTRICITY & MEASURES

Electricity is 110 volts, 60 cycles AC same as in the United States.

1 inch = 25.417 millimeters	1 foot = 0.305 meters
1 mile = 1.609 kilometers	1 acre = 0.405 hectare.
1 gallon = 4.546 liters	1 pound = 454 grams.

Sometimes, it is easier to remember the reverse in the case of kilometers and kilograms: a kilometer is a bit over 1/2 mile (.62 miles), and a kilogram equals 2.2 pounds.

FOOD & DRINK

Food choices in Canada are as varied as they are in the United States. Make a point of trying *arctic char*, a delicious local fish that is, as one guest described it, "somewhere between salmon and trout.

Please note: If you have food allergies or are on a special/restricted diet, please notify your travel agent or our office in advance, so that we may try to comply with your needs. Also, advise your travel agent or our office if you have any mobility restrictions, so that we may inform our representatives accordingly. They will always strive to accommodate you to the best of their ability.

IMPORTANT CLOTHING TO BRING

- Insulated parka (with hood is preferred)
- Insulated Boots (a type that dries out quickly over night)
- Insulated Hat(s)
- Insulated Mitts
- Warm sweater(s)
- Nylon or other Outer Pants (i.e., ski warm-up pants)
- Scarf
- Quality socks (wool or thick cotton)
- Light cotton/silk gloves or glove liners to protect hands while handling optics, etc.
- Pants/shirts/underwear, etc. to suite the colder conditions
- Turtleneck pullovers and wool slacks are also very good choices.

CLOTHING

Traveling in the Arctic is definitely different than most places on earth. Dressing appropriately is vital for your comfort and safety. Bring long underwear, preferably thermal, so you can wear several layers of clothing (underwear, shirt, sweater, and parka to trap warm air between them). Several light layers are warmer than one heavy one. Polypropylene underwear is extremely useful and available from L.L. Bean, REI, Eddie Bauer, EMS and others.

Warm gloves, thick wool socks, a hat and scarf, and warm waterproof footwear are essential for walking around town or even when Tundra Buggy windows are open. Comfortable shoes and warm socks for wearing in the motel are also desirable. Remember, if your extremities are well wrapped and warm, the rest of you will be too! **More people feel cold due to inadequate footwear than for any other reason.**

How you look is not important on the tundra -- dressing warmly is. Participants need to be flexible for variable temperature conditions, yet be prepared for very cold and windy conditions. Although you will be in heated vehicles, warmth disappears quickly once windows are opened for photography and wildlife watching.

The prime consideration is to insulate, to block wind, yet avoid moisture build-up in clothing that will freeze and reduce insulation/warmth. Do not get overheated; over-dressing makes regulating body temperatures more difficult. The best comfort level is maintained by **dressing in layers** as this allows

you to remove clothing to disperse extra heat. Conversely, as you start to chill down, added layers help conserve heat. Remember, there is not much physical activity during Tundra Buggy rides to generate heat.

In summary, layered clothing allows you to regulate the insulation thickness, which is what keeps your body heat in. Therefore, if the ambient temperature is warm, little insulation is needed. If the temperature drops (i.e., all the windows are open), then you can add insulation.

OTHER ITEMS TO BRING

Personal First Aid Kit (Band-Aids, aspirin, personal medications, etc.); personal toilet articles; flashlight - with spare batteries and bulb, watch (water resistant) with alarm, or travel alarm clock; lip salve; portable hair dryer (also useful for drying out boots, if needed) and disposal "heat pads" (for warming hands & feet - found where cold weather gear is sold). Do not forget sunglasses, as glare from snow packs on sunny days can be intense.

Binoculars: Regardless of whether you plan to take photographs, it is absolutely essential you bring a good pair of binoculars - preferably one per person since it can be annoying to have to pass them back and forth when trying to look at something interesting. Magnification should be in the range of 7-10 power, and they should be as light and compact as possible.

ABOUT THE TUNDRA BUGGY

The Tundra Buggy is a specially designed all-terrain vehicle allowing travel over the frozen tundra and rocky coastline of Hudson Bay. They are comfortably heated to at least 55 degrees F and hardy passengers will probably shed their coats (provided they are wearing thermal underwear and a warm sweater). It does get cold, however, with the windows open during photography and viewing times.

At best, the ride is rough as it travels over boulders, across ice patches or splash through ponds. Seats are upholstered, and the vehicle moves very slowly, so it is not an ordeal to spend 8-9 hours a day in the buggy.

After an early breakfast, we usually arrive at the departure site (some 20 miles east of town) by 8:00 AM. We end the day between 4:00 or 5:00 PM when it gets dark. Lunch is served picnic style, and coffee, tea, soft drinks, juice and water are available during the day.

We can get amazingly close to wildlife with the Tundra Buggy (sometimes it may seem too close). We do this incredibly enough by spotting, then slowly approaching the monarch of this icy kingdom, the polar bear -- in a vehicle the size of a small cabin! We may also come across snowy owls, hawks, ptarmigan and arctic foxes. During these times, it is very important to refrain from talking, unnecessarily moving about, opening windows or making any noise. In order to let the animals get used to our presence, we pause often during these activities and then open the windows for viewing and photographing.

Polar bears can be as curious about us as we are to see them. They will sometimes approach vehicles, stand up, full length, and lean against the buggies, making close up portraits of these magnificent animals possible, even though the windows are about 12 feet above the tundra. They may stay within 50 feet of buggies for several hours or they may pass right by.

EXTREMELY IMPORTANT: Polar bears rank among the world's largest carnivores and can easily mutilate a human with one swipe of a paw -- even as a playful gesture. Although we tend to be complacent about these large, seemingly huggable animals with their chocolate-drop eyes, it is very important that

all passengers keep arms, heads, and even camera straps are inside the Tundra Buggy when bears are in the area. Each buggy has a viewing platform at the back and there is ample opportunity for everyone to have time out there.

In addition to the wildlife, we see dramatic landscapes and unique flora -- some lichens are 1000 years old.

TUNDRA BUGGY ETIQUETTE

Current Tundra Buggy vehicles accommodate up to 48-50 people. Each row has four seats across, two on each side separated by a very wide aisle. Each buggy also has an outside viewing platform in the back and a single toilet with no running water. The size of these buggies means that all passengers need to be gracious and considerate to insure that everyone has a positive experience.

- ☼ Normally, during this time of year, there are plenty of opportunities to see bears so please be generous about sharing your view if you happen to have a window seat. Also, please don't hog the "best" spot if you are on the platform, share.
- ☼ People cannot safely move about when the buggy is in motion. By necessity, passengers need to take advantage of stops but this can result in much wasted time if everyone wanders around or stands around during stops, especially if it's a spot with no bears in the vicinity. Please, do what you need to do as quickly as possible and be seated so that the driver can again get the vehicle moving. This is for your benefit to help you see as many bears as possible.
- ☼ When bears are in the area, be as quiet as possible to avoid scaring them away.
- ☼ **NEVER** try to feed bears or yell, whistle, or hoot to get their attention. This type of behavior will not be tolerated and may result in halting the tour for that day.

OTHER TRAVELER'S TIPS

Travel necessitates being a good-natured realist as well as a romantic, and requires an agreeable acceptance of situations as they exist, not as each of us might prefer them to be.

Churchill is a delightful, small frontier town with basic amenities, which, by the way, does include three internet connection sites. During polar-bear-viewing season, the community bustles with activity; its few restaurants, motels, and lodges are filled to capacity. The town even has to import workers from other areas and provinces. All this means that you may not always receive the level of service you might expect at home or in a city. On the other hand, you might receive even better service than you've come to expect back home. Either way, a pleasant tolerance makes for an enjoyable travel experience.

If you are an appreciative traveler, we want you with us because we know you'll be a wonderful companion and have the time of your life.

TIPPING

Tipping is entirely up to you and depends on level of service, whether or not you feel comfortable tipping and your budget are important factors. There are no fixed amounts for tipping, but the following is a general guideline to assist you. Guide: Approximately Canadian \$5.00 per person per day. Tundra Buggy Driver: Approximately Canadian \$3.00 per person per day. Bus Tour Driver: Approximately Canadian \$3.00 per person per day. Restaurant Staff: A tip of approximately 20% is appropriate.

INTRODUCTION TO MANITOBA

GEOGRAPHY & TERRAIN: Manitoba, one of ten provinces and two territories, is bordered by the U.S. state of North Dakota to the south, Saskatchewan to the west, Ontario to the east, and the Northwest Territories to the north. The landscape is diverse, ranging from rolling farmland to sandy beaches on the shores of Lake Winnipeg, and from the desert landscape of the south to northern parkland covered by lakes and forests.

WINNIPEG (THE CAPITAL): Almost equidistant from the Pacific and Atlantic Oceans, the provincial capital stands in the heart of a vast prairie that covers much of the southern part of the province. This *Gateway to the North* sits at the confluence of the Red and Assiniboine rivers. With a number of festivals during the year, including an international folk festival in the summer, Winnipeg is one of the most culturally and racially varied of Canada's cities. Easily walkable, it is the country's fourth largest city and has theaters, art galleries, and ballet and opera companies.

You might want to consider arriving a day early to have the opportunity to explore this charming city. Places of note include the Legislative Building with Manitoba's symbol, a statue of *Golden Boy*, balancing triumphantly on its dome; Centennial Centre, which has the Commodity Exchange, the world's largest grain market. Not to be missed is the *Manitoba of Man and Nature*, one of only two museums in Canada to carry a Michelin rating. Closed Mondays, the museum has a great deal of information about the Hudson Bay area. In the suburbs, the Royal Canadian Mint and Lower Fort Garry, an old fur-trading post, are worth visiting. St Boniface, formerly a separate city, is the French Quarter of Winnipeg.

POPULATION: The Aboriginal population of Manitoba was joined by the Scottish Selkirk settlers in 1811, English & French Canadians after confederation in 1870, followed by Russian Mennonites, Icelanders, Ukrainians & Germans in subsequent years. Post WWII saw additional immigration from Europe and most recently from the Caribbean, South America, Africa & Asia. In '96, the province was home to 1,113,898 people.

CHURCHILL, MANITOBA: One of the *Last Great Wilderness Experiences*, Churchill is a remote community on the barren, rocky coast of Hudson Bay in northern Manitoba. Distinguished as the *polar bear capital of the world*, Churchill is the only easily accessible human habitat where polar bears can be seen in the wild, and it is also the best place in the world to view beluga whales during the summer. The area has an abundance of game and wildlife as well as the world's heaviest concentration of Northern Lights.

Churchill also offers visitors plenty to do and see in and around town. You can't fail to notice Churchill's five-million-bushel grain facility looming up over the harbor. It can load grain at the rate of 60,000 bushels per hour. Churchill is Canada's only sub-arctic seaport and is 1,000 miles closer to Europe than Montreal.

Cape Merry, on the town side of the Churchill River, is a national historic site with the remains of the first gun battery built in 1746. A plaque honors Sir Thomas Button, the first European to reach the mouth of the Churchill River in 1612. This site also offers visitors a breathtaking view of the complex and delicate tundra ecosystem.

Across the Churchill River, on the west peninsula, lies Fort Prince of Wales, a huge stone fort built by the English in the 1700s to protect their interests in the fur trade. With cannon embrasures, thick walls, and diamond-shaped bastions, the fort took 40 years to complete.

Sloop's Cove, another historic site, is 2.5 miles

upstream from Fort Prince of Wales. In the 18th century, it was a safe harbor and winter haven for Hudson's Bay Company sloops. Post-glacial land uplift turned it into a meadow surrounded by rocks, some of which still contain iron-mooring rings used by early ships. The rocks bear signatures of Hudson's Bay Company men, the best known of which was Samuel Hearne, northern explorer and governor.

The west peninsula provided an economic base for different cultural groups over the past 3,5000 years, including pre-Dorset, Thule, Inuit, Chipewyan, Cree and Europeans.

The Eskimo Museum, established in 1948 by a French priest who lovingly put together a spectacular collection of Inuit carvings and artifacts. The collection is among the finest and oldest in the world, and contains many tiny ivory figures of exquisite detail that date back to 1400 BC.

Canadian Parks Service Visitor Reception Center provides films on polar bears, Canada's arctic landscapes, and the arduous building of the railroad to Churchill. It also holds a collection of Hudson's Bay Company furs, muskets, and trade goods from the 16th and 17th centuries.

Because of severe and long winters, the town built a large town center running several blocks that is worth a visit. It includes the hospital, town administration offices, gymnasium, swimming pool, playground, and areas to meet and socialize – all under one roof. Large bay windows overlook the sometimes stern and somber Hudson Bay.

More than 15 miles out of town is the Churchill Northern Studies Centre (CNSC), an arctic research facility that hosts groups such as Earthwatch. CNSC was established in 1976 by the people of Churchill with cooperation from the government of Manitoba, and is a non-profit charitable corporation with a mandate to facilitate research and education.

HISTORY

Churchill's history is most evident since exploration days and construction of Prince of Wales Fort in the 1700s, but artifacts reveal that the area has been frequented by other cultures for thousands of years.

The first known occupants of the area were Pre-Dorset people who lived there as far back as 1700 BC. These people led a nomadic existence, harvesting ringed seals in Hudson Bay and caribou inland.

The first Europeans to arrive in Churchill were looking a Northwest Passage to the spice-rich Orient. Jens Munk, a Danish navigator, led an ill-fated expedition that wintered beside the Churchill River near its mouth in 1619-20.

A slave woman, a Chipewyan Dene or Northern Indian, helped make peace between the Cree and Chipewyan Indians almost a century later, thus enabling the Hudson's Bay Company to establish a trading post in the area in 1717 under the direction of Captain James Knight. Prince of Wales Fort was built in the latter part of the 18th Century.

Churchill became the site of the first astronomical observations made in Canada in 1769. It also was the departure point for the first overland journey made by a European, Samuel Hearne, to the Arctic Ocean.

Western Canadians' demand for a prairie port eventually brought about construction of the Hudson Bay Railroad and the Port of Churchill. The last spike of the railroad was driven in 1929, and the first two ships loaded with grain left the port in 1931.

Fort Churchill, located five miles east of Churchill, was first established in 1942 by the United States Air Force as part of proposed overseas air operations to Europe. After the World War II, Canada and the United States jointly sponsored a training and experimental center. The base was officially closed

in August of 1980.

GREAT WHITE BEARS

You are about to experience a fascinating natural phenomenon that occurs in the Churchill region every year. After a summer of laying low and trying to keep cool, polar bears migrate toward Churchill's coastline as fall gives way to winter. As temperatures begin to cool, all bears except pregnant females begin to prowl the coastline waiting the chance to get back on the bay ice to hunt seals. Depending on the time when the ice begins to form, many bears concentrate in jumping-off places along the coast. This approximately six-week period is when polar bear viewing is best.

Although Hudson Bay, which is larger than all of Manitoba, freezes over in winter, tidal movements create pressures that crack and shift the ice, opening leads and channels over large areas, especially within 10 to 50 miles of the edge of the bay. Seals, the bears' primary food, are found in numbers here.

Pregnant females begin looking for winter denning sites. Polar bear denning sites are concentrated in at least 17 localities over the circumpolar range of the species. One of the world's largest denning areas was found in Manitoba in 1969, about 40 miles south of Churchill. The Cape Churchill area, 30 to 40 miles east of Churchill, attracts more bears than any other area. Other times of the years, polar bears are solitary, non-territorial animals roaming vast ranges up to 1,000 miles, by some estimates.

Although the bear's playful antics in captivity endear it to many, its role in the wild as a successful predator is less well known. Polar bears are the largest land carnivores in the world.

Massive forepaws, up to 12 inches in diameter, are larger than the hind paws and have partially webbed toes and long, strong claws that enable the bears to swim rapidly, dig easily in snow and ice, and kill a 500-pound bearded seal with ease.

In spite of its size (males usually weigh more than 1,000 pounds & females 500 pounds), this bear can quietly lower itself backwards into the sea, swim under water or on the surface with only its nose snowing, and then come out of the water at a full charge. It can also run at remarkable speeds across rough ice, leap six-foot hurdles, and climb steep ice cliffs.

The roly-poly teddy-bear concept hardly applies to a polar bear stealthily stalking a seal resting on the ice. Crouching low to the ice, the bear slides forward almost imperceptibly, stopping each time the wary seal looks up from its nap. Although energetic and nearly tireless in its search of food, it also has cat-like patience and can stay motionless for hours waiting for a seal to surface.

Much of the animal's anatomy, behavior and habits are adapted to ice and to hunting seals. The bear's long neck and streamlined head resemble the smooth outline of the seal. Clawed feet are covered with hair, enabling it to walk with ease across slippery ice. The rotund body, short, rounded ears, dense fur, and heavy layers of fat help conserve heat. The fur and fat also make it buoyant in water. The color of the fur, white in winter, yellowish in summer, is good camouflage for hunting seals on the arctic ice. The animal has keen vision and a powerful sense of smell.

The distribution of ice (and seals) affects the bear's seasonal activities. In winter, the vast, permanent polar ice cap is surrounded on nearly all sides by hundreds of miles of pack-ice, a hazardous terrain formed of great blocks and slabs of ice jammed, piled, and packed together by the combined effects of winter storms and polar sea currents. The edge of the pack ice and channels that form in the ice due to tides and currents

attract seals and other sea mammals. It is here that polar bears are most often found.

From early spring on, even resistant inshore ice breaks up, creating the ideal habitat for seals and bears. During summer, as the area of pack ice gradually becomes smaller, most bears apparently either move onto the ice of coastal and inland areas, or become stranded on shores and inland. At this time, some may be carried great distances by ice floes drifting on ocean currents.

Mating takes place on the pack ice in April and May. To provide protection for herself and her offspring, the mother bear builds a maternity den in October and November. A maternity den at first may be only a shallow bed in the shelter of a bank, but it is usually in a place that is covered by drifting snow.

During the course of the winter and prior to the birth of the young, the mother constructs a special chamber within the snowdrift. These chambers are usually oval rooms, up to 20 feet in length and five feet in height and width, with an entrance tunnel six feet long and two feet in diameter. Den interiors usually show claw marks on the walls and ceiling, revealing the method of construction. Dens are sometimes complex, with two or more chambers divided by low walls. Often there is a raised sill at the main entrance. Because of the insulation provided by snow, the heat given off by a denning bear may raise the temperature as much as 40 degrees F, even when outside temperatures are far below freezing. Usually only pregnant females enter winter dens, but occasionally sub-adults and adult males also use them.

During denning, the female is usually torpid, with a slightly lower body temperature and a reduced respiratory rate to conserve energy. This is not, however, a complete state of hibernation, and bears can easily be awakened.

After an eight-month gestation period, the young are born during December and January, the coldest and darkest time of the year. Since they are born in a very early stage of development, blind, helpless and not much bigger than a guinea-pig, the igloo-like den is an important barrier against the cold. It will be three or four months before the cubs first see daylight. The she-bear usually keeps to the winter den, safe beneath the deep snow from November to March. Throughout this time, heavy layers of stored body fat sustain the mother and the nursing young. In March or April, the family leaves the den and journeys onto the sea ice in search of the seals that are born at this time. The female spends a lot of time sniffing out the fat, milk-nourished seal pups in their little snow and ice dens. The family hunts together until the yearling's second fall, at which time the nearly two-year old young are often deserted.

By the time the arctic tundra blossoms, many bears are roaming inland, even in high arctic regions. In July, when the sea ice melts in Southern Hudson's Bay and James Bay, bears head for the nearest land, usually islands and the coastal mainland of Manitoba and Ontario as summering grounds. Here, bears rest and graze on vegetation of various kinds including grasses and blueberries. It is a long way from seals to blueberries, but the bears adapt easily to this change of diet. Bears have been found over 100 miles inland, but these are extraordinary cases. Polar bears are essentially maritime animals, living on or close to the sea.

Preservation: During the last 30 years, polar bear numbers have declined greatly, especially in northern Russia, northern Scandinavia, and along the Labrador coast. They are thought to be almost extinct in Labrador and southwestern Greenland. Bears are now completely protected in Russia, and have been placed on the world list of endangered species by the International Union for the Conservation of Nature. Major

factors in that decline are excessive shooting by native hunters and by increasing numbers of sportsmen coupled with and aided by modern forms of transportation.

The total world population of bears may be no more than 12,000 to 20,000 and is possibly even less. More accurate figures are hard to obtain because these animals are non-territorial and cover a vast circumpolar range. Increased international interest in the welfare of the polar bear has been evident since 1965 when the five arctic countries -- Canada, Denmark, Norway, USA and USSR -- met to exchange information and ideas. This has led to a series of cooperative studies.

It is now known that most of the world's polar bears are in Canada, possibly up to 12,000 occurring here. Surveys along the coasts of Manitoba and Ontario have shown that in the South Coast Lowland Region from Cape Churchill to the south end of James Bay, bears are abundant and increasing. The future of the South Coast Lowland population depends on several factors including maximum protection of the denning sites.

SUGGESTED READING LIST

A IS FOR ARCTIC:

NATURAL WONDERS OF A POLAR WORLD

Wayne Lynch

Lured from a career in medicine by the magic of the North nearly 20 years ago, Dr. Wayne Lynch returns every year to the Arctic--the temptress that altered the course of his life. A world-acclaimed author and wildlife photographer, Lynch has compiled a book unlike any other about this distant region. In *A is for Arctic*, he presents an intimate and entertaining look at the charismatic creatures that flourish in this wild polar world. Experience the sights and sounds of seabird cliffs teeming with screaming kittiwakes and colorful auks, and marvel at the majesty of such northern mammals as the polar bear, fox, walrus, seal and whale, which have adapted to a landscape still touched by the timeless flow of glaciers. Wonderfully illustrated with photographs that capture the delicate beauty and complex nature of the region, *A is for Arctic* will change forever the way you view the North.

ARCTIC DREAMS: IMAGINATION AND DESIRE IN A NORTHERN LANDSCAPE

Barry Holstun Lopez

A classic narrative of travel - journey into a rich and rewarding mind as well as through a stupendous landscape. This much celebrated meditation on the Arctic is the result of Lopez's travels throughout the North (Baffin Island, Siberia and Greenland). A dazzling writer and compassionate observer, Lopez weaves biology and history into his storytelling, including extended chapters on the polar bear and narwhal.

THE ARCTIC WOLF: TEN YEARS WITH THE PACK

L. David Mech, Foreword by Roger A. Caras, Foreword by Michael K. Phillips

In a remote land where he battles arctic winds and blizzards one day and mosquitoes the next, Dr. L. David Mech has learned more about the day-to-day life of the wolf than any other person. For months at a time, he has watched wolves play, sleep, socialize, and train their young. When they go on the hunt for musk oxen, he has followed. From his expeditions he has gathered a multitude of intriguing observations and remarkable photographs, which he shares with you here.

Wolf lovers and nature enthusiasts alike will treasure this collectible anniversary edition of Dr. Mech's esteemed classic *The Arctic Wolf: Living With the Pack*. You'll revisit the original

pack members--including Alpha Male, Mom, Shaggy, Mid-Back, Lone Ranger, Left Shoulder, and Scruffy--and meet the next generation of wolves as you delight in Dr. Mech's fascinating stories and photographs.

THE ARCTIC WORLD

Fred Bruemmer, Ernest S. Burch, William Ewart Taylor

The single best introduction to the North. A celebrated photographer who has traveled and lived throughout the circumpolar north, Bruemmer captures the spirit of the place in a series of lavishly illustrated essays on the people, plants and animals of the seven Arctic countries.

GHOSTS OF CAPE SABINE: THE HARROWING TRUE STORY OF THE GREELY EXPEDITION

Leonard F. Guttridge

"Ghosts of Cape Sabine is an extraordinary, true Arctic drama of man against nature - and man against man." "Twenty-five men went north. Only six returned alive." "In July 1881, an expedition composed mainly of American soldiers sailed off to establish a scientific base in the remote Arctic region of Lady Franklin Bay. What happened afterward is a remarkable three-year saga of human achievement and human frailty, of heroism, hardship, bad luck and worse judgment. Compounded by deliberate political negligence back home, especially on the part of Secretary of War Robert Todd Lincoln, son of the late president, and increasingly fierce dissension in its own camp, the expedition's fate, and that of its would-be rescuers, eventually encompassed starvation, mutiny, suicide, shipwreck, execution... and cannibalism." "The story has been only partly known, and full of dark riddles, but more than seven years of research by historian Leonard Guttridge have uncovered journals, letters, diaries, and other documentary material that for the first time provide intimate day-by-day details of the swirling events surrounding that ill-fated voyage, from turbulent birth to bizarre and tragic finale."--BOOK JACKET.

NATURALISTS' GUIDE TO THE ARCTIC

E.C. Pielou

This book is a practical, portable guide to all of the Arctic's natural history--sky, atmosphere, terrain, ice, the sea, plants, birds, mammals, fish, and insects--for those who will experience the Arctic firsthand and for armchair travelers who would just as soon read about its splendors and surprises. It is packed with answers to naturalists' questions and with questions--some of them answered--that naturalists may not even have thought of.

POLAR DANCE: BORN OF THE NORTH WIND

Thomas D. Mangelsen, Carlman Riddell

An award-winning nature photographer, Mangelsen followed polar bears for eight years to collect the images featured here, over 250 exquisite color photographs that take the reader on a year-long journey through the Arctic. The accompanying text, by Canadian naturalist Bruemmer, chronicles a year in the life of a mother polar bear and her cubs and a young male bear as they experience the changing seasons in their Arctic wilderness habitat. The book's focus is on the polar bear but is balanced with images of walruses, seals, foxes, birds, characteristic vegetation, and the seasonally changing landscape. Mangelsen has surpassed his goal of creating a "beautiful picture book on bears," as this volume also presents a learning forum for those who seek an understanding of the Arctic but are unlikely to travel there. Sitting down with this book is an absorbing experience that will leave the reader with a new respect and admiration for the Arctic and its inhabitants. Highly recommended. Deborah Emerson, Monroe Community Coll., Rochester, N.Y

