

TRAVEL GUIDE FOR VISITORS IN WINTER CLIMATE

THE ASSOCIATION OF THE HAPPY FRIENDS OF THE DARK AND THE COLD

JARKKO ENQVIST AND LARS WESTERLUND

IN ASSOCIATION WITH FINNISH INSTITUTE OF OCCUPATIONAL HEALTH



FOREWORD

This travel guide has been produced with the help of EU support from Leader Skellefteå Älvdal. A publication produced by the Finnish Institute of Occupational Health has been used as a basis.

Our travel guide is intended to be a tool when planning for tourism in the subarctic climate during the winter.

This climate offers great opportunities for recreation and exercise. From just being, to more physically demanding activities. To listen to the silence or to the mysterious sound of reindeer when moving. Marvel at the northern lights or experience the mystique when the ice cracks.

As a visitor, you can get a deeper feeling of the cold and the darkness by preparing well for your stay.

Gagsmark 13th of November 2018

Jarkko Enqvist and Lars Westerlund



The association for the happy friends of Dark and Cold
www.darkandcold.com www.coolastecentrum.se

STAYING IN THE WINTER CLIMATE

The winter season is an exotic period for visitors because then you either only see the sun for a few hours or it does not rise above the horizon at all. This time is called polar night and in the northernmost part of Sweden the sun is below the horizon for about two months - from November to the end of January. The closer you get to the Arctic Circle, the longer the time when the sun does not rise above the horizon. This time is not totally dark but there is light in the darkness. The white snow makes everything brighter because the moon and stars reflect light. The further into the spring you get, the brighter it becomes, and the difference can even be experienced daily.

Northern Lights

During the clear winter nights, you can sometimes see the northern lights in the Nordic subarctic sky. The northern lights occur at an altitude of over 100 kilometres when the high-energy particles of the solar winds hit the earth's atmosphere. The northern lights can be colourful with a mixture of green and blue hues, but the most common are beautiful green undulating waves dancing in the sky. Since there are no city lights in many places up in northern Sweden, you can see both the northern lights and the stars very clearly during the dark season. They are best seen by staying in nature and there are even companies that arrange Northern Lights safaris.

The cold affects us in many ways

Humans cool down quickly in the winter cold if you stand still or do not have good enough clothing.

First, skin and extremities, such as feet and hands, cool down. The skin gets goosebumps, and you can start shivering. Severe prolonged shivering is due to the muscles warming up. Through shivering, the muscles create heat that requires energy. Therefore, it is good to bring fluids and energy sources such as chocolate or nuts.

Face, fingers, and feet are usually the first to cool down. Wet fingers cool down quickly in the cold air, much faster than if they are dry. Therefore, dry your hands if you have got snow on them.

Depending on the skin temperature, the experience of cooling down may feel neutral, chilly, or cold. People experience the cooling down very individually and it is therefore important to pay attention to the reactions of fellow travellers even if you are not feeling cold yourself.

If the temperature of the skin drops sharply, you experience pain and sensation disappears completely, you should immediately warm up the body part and get the blood circulation in the cooled area going.

Short-term pain from the cold is not dangerous, it disappears as you warm up again. Prolonged stay in the cold, on the other hand, can lead to the whole body being cooled down, which is called hypothermia. By actively moving the body, the risk of cooling down is reduced. If the cold becomes uncomfortable, you should look for a warmer place, such as the heat of the campfire or move indoors.

Watch out for cold metal surfaces

Fingers and hands cool down quickly when touching cold metal surfaces or holding gadgets, such as tools. Touching metal surfaces can quickly lead to frostbite. Below -5 Celsius, moist skin can stick to the cold metal.

You should also not lick cold metal since you are then guaranteed to get your tongue stuck. The tongue loosens if you breathe against the metal and warm it up, or rinse with warm water against the tongue and the metal.

Frostbite

Low temperatures or cold winds can quickly cause frostbite on the face or ears. Frostbite is first noticed as a white area on the skin. It is important to check the face of your fellow travellers quite often to detect the onset of frostbite.

First aid for such an injury is to warm the frozen part with a warm palm. Once you have warmed up, the skin should not be subjected to frostbite again because there is a risk of the damage worsening. If the frostbitten part is large or a cold blister has appeared, you should consult a doctor.

No ointments or creams will protect the skin from frostbite. If you want to use face cream, it should be applied to the skin at least 30 minutes before going out.

Hypothermia

Hypothermia is the term for a condition in which the body's internal organs have temperatures below + 35 Celsius.

Hypothermia most often occurs in connection with falling into cold water, staying for a prolonged period in the cold in wet clothes, or due to acute illness, accident, or fatigue, being still for a long time.

Symptoms of hypothermia are that you become distracted, have difficulty perceiving time and place and have severely shivering muscles. The shivering may disappear as the hypothermia deepens. If hypothermia is suspected, stop the person from getting colder and warm the person slowly. This should never be done near an open flame. Instead, you can use your own body heat as a heat source. It is important that a person suffering from hypothermia receives hospital care as soon as possible.

You get easily chilled

- From the wind, which for example also occurs when snowmobiling, and excursions with dog sleds.
- if clothes get wet due to sweat or external moisture.
- when touching cold surfaces, such as metal.
- From standing still and inactivity.

Maintaining warmth, warming up and being active in the cold

Appropriate clothing greatly reduces the risk of cooling down and by moving, you warm up if the clothing is not warm enough. Driving a snowmobile or walking, produces three times more heat than sitting still and during a snowshoe walk, the body produces four times more heat than sitting still.

You should take frequent breaks when staying in the cold, remember to drink non-alcoholic liquids and eat snacks even if you do not feel hungry. It is advisable to bring a liquid that is approximately +25 Celsius. As a snack, you can, for example, eat chocolate, sandwiches, raisins, or nuts, if the tour operator does not offer food during the trip. Eating a snack is important, not only to replace the extra energy that the muscles use in the cold, but also for the brain to maintain its ability to concentrate.

We have different tolerance levels to cold

Some people tolerate the cold better than others. A well-trained person is able to move more and produces more heat for the body. A person accustomed to cold does not freeze as easily as one who is not. Size matters, small, thin people freeze more easily, and older people are more sensitive to the cold.

Certain diseases such as diabetes, various heart conditions and asthma reduce cold tolerance.

Medication can change the metabolism and thereby also one's resistance to cold.

On average, a person adapts to the cold after two weeks and the ability of the hands to tolerate the cold adapts already after just a few days.

Clothing for visits in cold climates

Check weather forecasts and select clothing according to the coldest part of the day. Also listen to the locals regarding the weather. Warming effectiveness is greatly reduced if your clothing gets wet because of perspiration or moisture from outside. You can vary the amount of clothing depending on activities to reduce sweating.

Attire during breaks

During breaks, you can add an extra layer of clothing from the backpack, for example a warming intermediate layer or an extra jacket.

The Inuit's traditional attire is adapted to work both during movement and during breaks. It is well ventilated during

movement and when sitting still, the clothes are more enclosed to retain heat.

Effective clothing against cold

Functional winter clothing consists of variable layers. If you have too little clothing, your body cools down quickly and if you have too much clothing and are active, sweat can soak up the entire outfit.

Talk to the guide about suitable clothing for the weather and the current activity. Children are more sensitive to the cold than adults and it is the adults' responsibility to ensure that children are appropriately dressed.

By dressing layer by layer, you can vary the number of garments depending on activity and temperature. Remember that clean base layers and middle layers are warmer than dirty ones. Dirt clogs the structure of the textile and prevents the migration of moisture from the body.

Base layer

Underwear or base layer keeps the skin dry and warm. Underwear moves moisture from skin to outer clothing layers. Suitable materials are polyester, polypropylene, wool and silk and various double layer materials. The skin feels dry if you use materials that let through and transport moisture away from the body. Do not use cotton in the cold climate as it has a cooling effect.

Middle layer

Intermediate layers regulate the cooling insulation depending on the weather, cold or activity. Good intermediate layer clothing is

wool, fleece, and faux fur. As an intermediate layer, you can, depending on the cold and wind, have one to three layers.

Outer garments

In addition to protection against cold, outerwear also provides protection against wind and moisture. Sufficiently loose clothing does not compress different layers of clothing and therefore does not reduce the amount of warming air present in the clothing. It is appropriate to choose an outer jacket that is a size larger than you normally wear. Good outerwear is moisture-repellent and windproof. Warm lining materials are down, wadding, and faux fur. The wind reduces the thermal insulation capacity of the clothes as it transports heat away from the clothes. Therefore, in windy weather, it is important to tighten and choke sleeves and trouser legs and tighten the waist of the jacket. The jacket may have a hood with a fur edge, which protects against icy winds.

Colourful clothes and reflectors increase others visibility of you in the dark.

Head protection

Protecting the head from the cold is important because most of the heat generated by humans disappears through the head. In addition to the cold, you should also protect your head from wind and moisture. All bare skin in the ears and face should be protected as these parts are most prone to frostbite.

You can use a scarf, hood, face shield, earmuffs, or bandana.

The hands

Protecting your hands is important and the same principle applies as for other clothing, layer on layer. If you have thin base layer

gloves under windproof, thicker gloves, you reduce the need to work with just fingers. As an outer layer, mittens protect better than gloves. It is wise to bring dry replacement gloves.

The feet

The feet are best protected with two sock layers. For the base layer you should have a moisture-transporting synthetic fibre sock and as an outer layer a heat-insulating wool sock. Do not use cotton socks in the cold.

Shoes

Winter shoes should be one size larger than summer shoes. The shoes should have a thick sole that prevents heat transfer to the ground, ice or snow and a shoe with high shaft protects the ankle. You can use felt or the corresponding insole to increase the thermal insulation of the sole.

Outsole slip properties

The pattern of the outsole must be at least five millimetres. Soles that are made of soft and porous material do not become hard in the cold and thus they do not become slippery. The material that works best in the cold today is thermoplastic rubber. At a shoemaker, you can also change the sole of your existing shoes for a thermoplastic sole.

In slippery conditions, you can use shoes with built in spikes or anti-slip protection that is attached to the shoe with straps. This is especially important if you walk on icy roads or on ice. When walking indoors or in shops, the anti-slip protection must be removed, or the spike sole protracted so as to not damage indoor floor surfaces.

Safe winter

The best way to protect yourself from accidents is to plan. It is important to check the weather reports, check the itinerary and opportunities to seek protection in the event of a storm. Keep in mind that snowmobiles or quad bikes are heavy if they get stuck or overturn. Steep slopes, long distance, wildlife on the road and high speeds always involve additional risks.

Familiarize yourself in advance with the activity you are going to do

It is important to find out in advance if the activity planned is right for you. Are there beginner groups? How long does it take to complete the activities and what condition is required to complete them? Can you participate if you are pregnant or ill or have any physical ailments? These questions can be answered by tour operators and event organisers.

Travel planning

If you are going for a walk or hiking by yourself, or if the itinerary involves overnight stays, it is important to plan and advise when you will arrive at the destination or return to the accommodation so that someone knows where you are in the event of emergency services being needed. You should also consider whether the mobile phone has coverage on your hiking route. Although in principle there is coverage on the entire route, there may be areas without reception, even relatively close to human settlements. Please have a charged power bank, second battery, which is stored in the heat close to the body, but remember that protect it from sweat.

Weather

Keep track of the weather and weather forecasts at least once a day. If necessary, change the plan and do another activity. In the subarctic climate, where the weather can change in a short time, the tour operator usually has a plan B depending on the prevailing weather conditions. If you are out and encounter severe weather, it is not cowardly to stay in the accommodation until the weather has improved. On the contrary, it is very wise. Always be foresighted when choosing clothes for the activity or event. Keep in mind that there can be large variations in temperature, wind, snow and darkness. If it is dark and the sky is covered with thick clouds, it will become even darker. Feel free to bring an extra flashlight.

Follow instructions and advice

It is important to follow the rules and advice that are given or that you can read. Do not deviate from the group and or make your own individual decisions that are not anchored with the others. Ask the guide in advance about how to respond in the event of an emergency. It is important to listen to the guide and ask immediately if you do not understand what is being said. Do not rely on the skills of fellow travellers, as they may have received their information online. The guides are always trained for their assignments.

Stay on the map

It is advisable to bring a regular map as a backup in case of electronic failure. You should stick to the map and the planned route. By noticing landmarks, you can tell the rescue service approximately where you are in the event of an accident or rapid change of weather and wind.

BRANCH SPECIFIC ADVICE

Snowmobile safari

You can drive a snowmobile or quad bike without license during guided tours. Check with the snowmobile rental company what regulations apply in connection with renting a snowmobile or quad bike.

NEVER DRIVE UNDER THE INFLUENCE OF ALCOHOL OR OTHER DRUGS!

Snowmobile safaris range in length, from a couple of hours to several days. It is important to drive at a speed that makes it possible to stop the scooter within the visible distance. When it snows, in the dark, and when driving on a winding snowmobile trail, you always have limited visibility. One must know how the vehicle's accelerator and brake pedals and other controls should be used. If you are uncertain about the feature, ask the guide. Remember that stumps, stones, and hollows are hidden in the snow, even though the surface may appear to be soft and smooth.

Protect your face with face masks and eyes with goggles or with the helmet built-in protections, if any. Helmets are mandatory when driving open motor vehicles such as snowmobiles and quad bikes.

The snowmobile usually has heated handles for both the driver and the passenger. Use these as it is possible to get frostbite quite quickly in the sub-zero conditions. Remember the children's clothing and protection in connection with the snowmobile safari. The passenger must wear warmer clothing than the driver. Bring extra clothes and warmers. Sit on a warm surface and use a blanket during stops.

Dresswear	Material and Clothing details
Base layer	Choose moisture-absorbing materials such as wool, silk, or materials with double layers where the inside is a material that transports moisture, for example polyester or polypropylene, and the outside, for example wool.
Middle Layer	Put on 1-3 layers of clothing. For colder temperatures, airy materials such as fleece, wool and faux fur are suitable.
Outer layer	Choose warm windproof padded, or down cover. Snowmobile overalls protect better than 2-layer clothing.
Headgear	Choose base layer beanie under the helmet. Protect your face with face protection, not cream. If you wear an open helmet, wear eye protection glasses. If you wear a full-face helmet, protect your face by using the helmet's visor.
Gloves	Wear at least two layers, first thinner gloves, and top layer thicker mittens.
Sock / Footwear	Wear at least two layers of socks. On the inside layer against the skin thinner sock and on top wool sock or equivalent. Use a warming sole in the shoe. Choose sufficiently spacious shoes with a thick outsole.

Dog and reindeer safari on sled

Dress warmly for the safari. If you are sitting in the sled, wrap a blanket around you and protect your hands and feet from the cold. You can even use a neck scarf as a face shield. When you are in the sled, you need more clothes, because those who are not active during the journey freeze more easily than the driver. Do not go too close to the animals without permission, ask if you can approach them. Dogs can bite and the reindeer can thrust with their horns. Stay alert at all times for the animals can act completely different from what you were prepared for. If you drive a dog sled, you produce heat and sweat. Remember this when you have a break, drink fluids, and try not to cool down during the break. When traveling, stay in your place in the line,

do not overtake. If you have any questions, ask the guide or the person responsible for the event.

Dresswear	Material and Clothing details
Base layer	Choose moisture-absorbing materials such as wool, silk or materials with double layers where the inside is a material that transports moisture, for example polyester or polypropylene and the outside, for example wool.
Middle Layer	Put on 1-3 layers of clothing. For colder temperatures, airy materials such as fleece, wool and faux fur are suitable.
Outer layer	Choose warm windproof 2-layer padded or down cover or snowmobile overalls. In windy winter weather, use windproof clothing if you do not have to work hard or do things that make you sweaty.
Headgear	Choose a headdress that protects the ears well, a fur hat with ear flaps is very suitable.
Gloves	Wear at least two layers, first thinner gloves, and thicker mittens for the top layer.
Sock / Footwear	Wear at least two layers of socks. On the inside layer against the skin thinner sock and on top wool sock or equivalent. Use a warming sole in the shoe. Choose sufficiently spacious shoes with a thick outsole.

Skis and snowshoes

When you go with snowshoes or cross-country skis, the body produces a lot of heat. Choose the length and difficulty requirements of the route based on your experience and level of fitness. Remember that if you have never skied or worn snowshoes, it is easy to overestimate your ability. In sweaty clothes you cool down quickly. For prolonged movement, you should dress to minimize sweating. Lighter clothing is enough, as long as you are on the move. Choose attire based on weather, cold, length of the trip, time and at what level of physical effort

the trip requires. You may feel cold before you start the activities. Choose clothing that is breathable and has ventilation hatches. Bring extra clothes, such as a jacket and fleece or a thicker wool sweater to wear during breaks. Also bring dry replacement gloves. Bring fluids to drink and energy-rich provisions such as nuts or chocolate.

Dresswear	Material and Clothing details
Base layer	Choose a base layer made of polyester, polypropylene, or wool blend.
Middle Layer	Wear clothing that is easy to vary so that you can put on or take off clothes when needed. Choose moisture-transporting air-permeable materials such as fleece and wool blends.
Outer layer	Wear clothing that has an adjustable waist and has a ventilation function. For milder cold, choose garments with wind and moisture-protective membrane. Clothes with membranes keep wind and water out of the body and can at the same time "breathe". When you sweat, the moisture can freeze on the inside of the garments and the garments "breathe" less and become damp on the inside. When the weather is colder, choose clothing without membranes, that "breathe".
Headgear	A beanie is a good choice.
Gloves	Wear ski gloves or mittens.
Sock / Footwear	Base layer put on a sock made of moisture-transporting synthetic material with a wool sock as the top layer. Wear boots that are suitable for snowshoes or skis.

Slalom and snowboard

Wear a helmet! The helmet protects in the event of a fall or collision and protects against head injuries. When snowboarding, use a wrist guard and back plate. The wrist protection provides support for the hand's thin bones and protects against bone fractures. The back plate provides support for the spine against

impact in the event of a fall and collision. When it is very cold, use face protection against cold injuries. If you rent skis or boards, test them first and then give yourself time to get used to the new equipment. Remember that rental items can have different properties than your own. Test bindings and quick stops with rental skis and board. Remember that anyone who comes from behind on the hill is obliged to give way to people in front.

Dresswear	Material and Clothing details
Base layer	Choose body-hugging underwear, either from a completely technical material or from a wool blend. Long-sleeved thermal vest and long-legged thermal pants.
Middle Layer	Use 1-3 intermediate layers depending on the weather.
Outer layer	Wear a shell jacket, coveralls or jacket and trousers with lining to protect you from the wind. Check that the jacket has a place or fastening device for lift passes. Choose jacket with ventilation hatch with zipper at the sleeves and on the side. Tighten the lower edge of the jacket to prevent the direct wind from impacting your body. Choose pants made for downhill skiing. These have a raised back area as wind protection on the spine and space for a boot under the trouser legs.
Headgear	Wear a base layer beanie under the helmet and face protection in cold and windy weather.
Gloves	Use gloves with long sleeves. Good gloves are windproof and have a lining with adjustable sleeves, which enables a good pole grip.
Sock / Footwear	Use a base layer sock made of synthetic material and then a wool sock. Make sure that the boot gives you the support you need for a good downhill ride.

Ice fishing

Walking on ice and ice fishing are pleasures that belong to the subarctic climate. However, the ice is often capricious, especially in autumn and spring. Always ask the tour operator or guide

about ice conditions and where the ice is weakest. The ice is weak where there is current, at narrow passages, at bridges and under bridges. Choose warm and windproof clothing and headgear that covers the ears. The hands freeze easily when ice fishing, so keep in mind that the gloves should be extra warm. Wear shoes with a thick, non-slip sole. It is easy to get chilled when you sit and ice fish for longer periods on open windy ice. Bring ice picks with you, keep these easily accessible around the neck. If the ice breaks and you end up in the icy water, keep calm, attach the ice spike to the ice edge and pull yourself up from the water. Remember that the ice held in the direction you came from and pull you up in that direction. You can use the backpack as a buoyancy aid, fasten it with the waist strap around your waist and remember to always pack your belongings in waterproof bags when you go out on the ice.

Dresswear	Material and Clothing details
Base layer	Choose moisture-absorbing materials such as wool, silk or materials with double layers where the inside is material that transports moisture, for example polyester or polypropylene and on the outside, for example, wool.
Middle Layer	Put on 1-3 layers of clothing. For colder temperatures, airy materials such as fleece, wool and faux fur are suitable.
Outer layer	Choose warm windproof 2-layer padded or down cover or snowmobile overalls. In windy winter weather, use windproof clothing if you do not have to work hard or do things that make you sweaty.
Headgear	Choose a headdress that protects the ears well, a fur hat with ear flaps fits very well.
Gloves	Wear at least two layers, first thinner gloves, and top layer thicker mittens.
Sock / Footwear	Wear at least two layers of socks. At the bottom against the skin thinner base layer socks and on top woollen socks or equivalent. Use a warming sole in the shoe. Choose sufficiently spacious shoes with a thick outer sole.

Winter Swimming / Ice dipping

Winter swimming is an incredibly special experience so do not miss the chance to try this when you stay in the subarctic climate. Ask your tour operator where there is the possibility of winter swimming at your destination. Bring a friend you should never swim alone. Warm up your body by jogging lightly, do not go in a sauna beforehand. Keep in mind that places around the wake are often slippery, so take extra care around the wake. This is especially true along the path to the wake and when you climb down the steps into the wake / ice hole. Protect your feet when you go to the wake, for example with "flip-flops" or other shoes that should be easy to pull on after the dip. Feel free to wear a hat or similar. If you are going down to the wake after the sauna, give your body a chance to adjust to the cold before you step into the water. Use the steps or a ladder to go into the water, do not jump.

The first few times you may feel that it is a little hard to breathe. This is completely natural and passes quickly. Wait in the wake until you can breathe effortlessly. This takes about 10 seconds. Stay in the wake for a short while, the first few times and then increase the time gradually. 30 seconds in the wake gives a strong experience even for the experienced winter swimmer. Do not wear a t-shirt or other clothing as it cools the body further when you get up from the wake with wet clothes.

Wipe yourself and put on a bathrobe or a large towel. Remember, you will not catch a cold when you are in the wake, but you can get it after the dip if you do not wear warm clothes. You have a nice warm feeling after the winter swim and can therefore be cooled down afterwards if you stay outside for too long without putting on warmer clothes. It is a good to have a hot drink after the dip. If you have a cardiovascular disease or if you suspect

that winter swimming is not suitable, talk to your doctor about the suitability of winter swimming.

Dresswear	Material and Clothing details
Base layer	none
Middle Layer	none.
Outer layer	Swimsuit. Towel and preferably warming jacket or bathrobe.
Headgear	Hat or woollen beanie
Gloves	Bare hands, alternatively neoprene gloves,
Sock / Footwear	Bare feet. Neoprene sock and shoes that are easy to put on. Afterwards shoes that provide space for warm socks.

Spending the night in an igloo

It is possible to spend the night in a snow igloo or in an ice hotel / snow castle. The temperature in these facilities / rooms is around -5 Celsius even when it is -25 Celsius outside. It is not dangerous for your health to spend the night in igloos, ice hotels or snow castles if you are healthy and have appropriate clothing. The organizer usually provides you with sleeping pads such as reindeer skin and a sleeping bag. At night, wear long-sleeved warm underwear. Also wear gloves, socks, and a hat. Tighten the string that closes the sleeping bag opening at the shoulders. Put on the hood and adjust it so that your breathing is not obstructed and the moisture from breathing does not remain in the sleeping bag. You can reduce your clothing whilst lying in the sleeping bag if it is large enough. A good storage place for outerwear that you are not wearing during the night is inside the sleeping bag at your feet. Bring a hot drink in a thermos.

Overnight stay in cottages by the hiking trail

Around Sweden there are a couple of hundred cottages where you can stay overnight for free. These are in keeping with Right of Public Access law. When planning your trip, you can also plan where to spend the night. Remember to always tell someone where you are heading and leave an itinerary when you are hiking, skiing, or snowmobiling or otherwise moving in the wilderness (for emergency services). In northern Sweden, in the subarctic climate, the wilderness begins around the corner from your accommodation.

Free cottages are for those who ski or come on their own. Here you may not stay more than two nights, preferably one night in the same cottage. Those who travel by motor vehicle usually use the cabins for cooking during the day. In many cases there is wood and a stove for cooking and there may also be pots, cutlery, and plates. You must bring a camping mattress and sleeping bag. Everyone who needs cover has the right to stay in overnight cabins, so make room for those who come after you. Take care of your own garbage.

Mountain stations

There are several mountain stations where you can book accommodation and even meals for a fee. These can only be used by those who have booked a place in advance. Take care of your own garbage.

Those who spend the night in cottages should keep in mind that a sudden change in weather can make it impossible to leave the cottage. Bring extra provisions and an external charging battery, power-bank, for your mobile.

Transport between destinations

Where there are buses between the urban areas, you can take your equipment with you and stow it in the cargo space. The buses are modern and warm. Remember that you do not need to wear warm clothes and shoes on the bus, but you will do after the bus ride. Make sure you do not sweat and wet your clothes if you are going to stay outdoors after the bus ride. Also remember not to be too lightly dressed when waiting for the bus, during the winter there may be delays. Be sure to bring clothes with you for a slightly longer period outdoors.

On the trains you travel comfortably and can bring your equipment, however, find out what to do if you have extra equipment / excess baggage. Train carriages are heated, there are sleeping compartments and, in some cases, even restaurant carriages. Also keep in mind here that it can happen that trains get stuck between stations, so bring clothes with you so that you can manage a stop in the lower temperatures.

Driving in a subarctic environment

It is easy to rent a car in northern Sweden. The rental car offers an opportunity to move freely between interesting destinations.

Driving a car here can mean surprises for the unaccustomed driver. Roads can be slippery and snowy. Driving along these roads in these conditions can be tiring, so plan breaks in your route. Wear clothes that are easy to wear and provide mobility while you are driving or sitting in the car. Note that even if the roads are fine and the cars serviced, there may be an accident, or you may have an engine stop and then there may be long waiting times to get help whilst sitting in a cold car. Therefore, always bring warm clothes and shoes with you in case you need to stay outdoors in connection with an unforeseen event.

Always drive carefully in winter road conditions, even if the surface is not slippery on the stretch you are driving. It can be very slippery just a few meters ahead. The road edges are marked with either reflective sticks or with debris, do not drive the car outside these markings.

If you get stuck and the car tires start to slip, be cautious and try to find a way to get a grip on the ice, such as sand or, in an emergency, use a jacket under the tire to get a better grip. Front-wheel drive cars are understeered, the front then wants to move forward on slippery surfaces. Rear-wheel drive cars are oversteered, and the rear end wants to go forward on the slippery surface. Most cars have electronics with anti-skid or traction functions, four-wheel drive cars react steadier than two-wheel drive. Note that these safety items do not provide complete protection and that if you have unsuitable speed for the conditions, safety devices give you false sense of security and when it breaks away with the car, it happens at a faster speed than if you would have driven without these safety details. Always be careful in winter conditions and do not overestimate your ability. Also, do not overestimate the car's ability to parry your mistakes.

Check for a first aid kit, a pillow, a reflective vest, and a working flashlight in the car.

If an accident happens

Even an experienced winter traveller can end up in an emergency. The most common accidents are injuries related to snowmobiling, slips and sprains.

In case of emergency

Check what has happened, what damage has occurred and where you are.

Ring 112 (Emergency services) for help.

Give first aid based on your ability, do not remove the helmet in the event of a snowmobile accident so as not to aggravate a possible neck or spine injury.

Keep the victims warm with extra clothes and blankets. If you give your own clothes to the injured, keep moving.