

Pearls of Nature

in Eda municipality



Eda kommun

Pearls of Nature

- | | |
|--|---|
| ① Tallmön nature reserve | ⑦ Kloften nature reserve |
| ② Fogdegroparna wilderness area/
Säterleden trail | ⑧ Skutan nature reserve |
| ③ Gullrosas berg nature reserve | ⑨ Fågelåsen ridge and
Bryelsegrottorna caves |
| ④ Bysjön bird observation tower | ⑩ Klöftsprecka |
| ⑤ Jösseälven river,
Hälgebodaforsen rapids | ⑪ Billan river |
| ⑥ Gråberget nature reserve | ⑫ Boda meadows |



Pearls of Nature

in Eda municipality

Thank you for allowing us to show you some of Eda's unique natural areas. Pick and choose and find what suits you best! Give yourself a wonderful experience of nature, even though pictures can never provide a complete experience, for this requires visual and aural impressions on site.

Further copies of Pearls of Nature can be found at Eda municipality's civic office or on the municipality's website: www.eda.se.

Contents

4	Tallmon nature reserve
8	Fogdegroparna wilderness area
9	Säterleden trail
12	Gullrosas berg nature reserve
14	Bysjön bird observation tower
16	Jösseälven river, Häljebodaforsen rapids
18	Gråberget nature reserve
20	Kloften nature reserve
22	Skutan nature reserve
24	Fågelåsen ridge and Bryelsegrottorna caves
26	Klöftsprecka
28	Billan river
32	Boda meadows, Skillingmark

Photo

Bo Fritzén; Dan Mangsbo; Sören Andersson, Charlottenberg; Remjäng Village community; Mats Rydström, Eda municipality; Linda Stöberg, county administrative board Värmland; Gunilla Sundin, Eda municipality; Tomas Jansson, Hushållningssällskapet i Värmland; Sven-Åke Berglind, county administrative board Värmland; Anita Andersson, county administrative board Värmland.



Tallmon nature reserve

’ ’ Tallmon and the Vrångsälven river’s deep valleys are memories of a vanished geological period

Tallmon is a municipal nature reserve which was established in 2010 so that the area’s natural values, as well as its opportunities for outdoor life, could be preserved and developed. With its 70 hectares, Tallmon is a part of the large glacial deposit located close to Charlottenberg, which extends from Bytjärnet in the south to Magnor in the north. Tallmon and the Vrångsälven river’s deep valleys are memories of a vanished geological period. The valley had already taken on its characteristic shape before the last ice age thanks to the Glomma river, which flowed through it en route to Glafs fjorden at Arvika and onward out into Lake Vänern and the North Sea. Tallmon has high natural values and a distinctive topography with sandy heaths, ravines, cliffs and watercourses. The high biological values are primarily to be found in the moist ravine landscape alongside Vrångsälven’s meandering edge zones and its delta areas, as well as on the glacial deposits where the dry heathlands which give Tallmon its name are located.

The historical traces in the area are primarily the remnants of Morast fort,



The permanent nesting box exhibition on Tallmostugan’s gable.

which was built in 1664, and Nolby fort, a fire trench which was constructed in connection with the dissolution of the union in 1905. Remains of earth cellars, buildings and croft foundations have been found in both the north and the central, flatter part, alongside Vrångsälven.

The nature reserve contains a 2.5 kilometre long illuminated ski track, as well as both newly constructed and restored paths, picnic areas, a beaver observation tower and windbreak with

fireplace. Ski runs are constructed during the winter. Tallmostugan, a newly built cottage which is open to the public, is situated where the area starts.

Two hundred year old pines grow around it. You can find tree fungi and the signal species, ring scale fungus (*Phellinus pini*), growing on them. Signal species are indicators of biotopes with high natural values.

The sandy heath changes into a ravine landscape with damp spruce forest and quite a high mix of deciduous trees in the ravines' interior. Source tributaries are forced out of the ground here thanks to the abundant supply of cold water springs. One of them is Karl XII's spring. The ground becomes flatter at the end of the ravines towards Vrångsälven.

You have a very good chance of seeing beaver (*Castor fiber*). Three-toed woodpecker (*Picoides tridactylus*), lesser spotted woodpecker (*Dendrocopos minor*) and grey-headed woodpecker (*Picus*



Tallmostugan rest hostel.

canus) are also to be found here. Tawny owl (*Strix aluco*) breed in the area, as does Europe's largest woodpecker, the black woodpecker (*Drycos martinus*), which is easy to recognise from its jet-black plumage. Grey wagtail (*Motacilla cinera*) breed on Vrångsälven's western bank and in wintertime dippers (*Cinclus cinclus*) can be seen in the stream.



The ring scale fungus (*Phellinus pini*) grows in many different environments, but requires Scots pines (*Pinus sylvestris*) which are more than 150 years old. The oldest pines in the nature reserve are about 200 years old.

Traces of otter (*Lutra lutra*) have been encountered. The power line through the reserve creates light corridors with sandy soil, providing a favourable environment for an abundance of sand-loving insect species. An inventory of insects was conducted in 2011. The report can be downloaded from Eda municipality's website www.eda.se.



The tawny owl (*Strix aluco*) breeds in Tallmon.

The power line is home to species including Värmland's province insect, the Scarce Heath butterfly (*Coenonympha hero*). It is classified as disadvantaged (NT) according to the Species Data Bank's red list, and is also included in the EU's Species and Habitat Directive. This means that it is strictly protected, which includes a ban on destroying the species' habitat. Besides Western Europe, the Scarce Heath butterfly primarily occurs in central and western Värmland as well as in southern Dalarna.

The nature and cultural trails start at Morastforsen. Boards are situated along the trails which provide information about the various natural and cultural areas. A delta area has been



The Scarce Heath butterfly (*Coenonympha hero*) thrives on the the moist and healthy meadowlands at Ladugårdskullen.

formed at the lower part of the stream, with several small streams converging into the Vrångsälven river. The delta area is surrounded by luxuriant, wild alder forest with indications of root overhang formations, clearly affected by Vrångsälven's periodically high flow of water. The delta area is a suitable biotope for crayfish (*Astacus astacus*) and a spawning ground for salmon trout (*Salmo trutta*), brook lamprey (*Lampetra planeri*), dace (*Cyprinider*), pike (*Esox lucius*) and other fish.

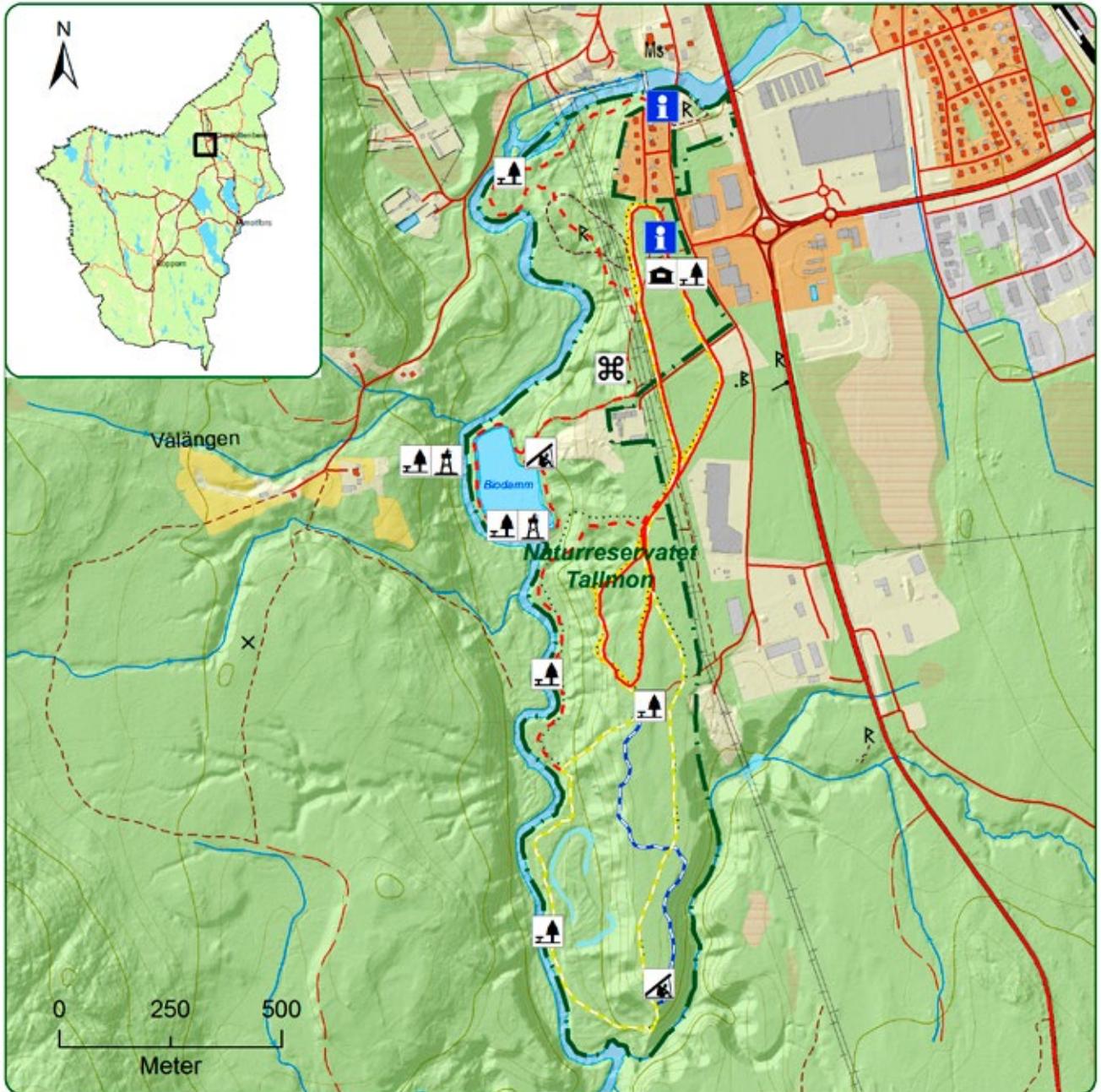
A wetland has been created called Biodammen to reduce the outflow of nitrogen from the sewage works. In and around the wetland is an abundance of dragonflies, as well as other insects and animals, including birds which live beside water. For a few intensive weeks in the spring you can hear the frog

choir sing. Vegetation flourishes along the wetland's embankments, with the Scarce Heath (*Coenonympha hero*) and False Heath Fritillary butterflies (*Melitaea diamina*) thriving. The False Heath Fritillary is designated as disadvantaged (NT) in the Species Data Bank's red list

for endangered species. The northern part of Tallmon Nature reserve borders several very fine biotopes in the form of a damp meadow, Ladugårdskullen, as well as Svinryggen, a glacial deposit with ancient virgin forest and an abundance of dead wood.



The Scarce Heath (*Coenonympha hero*) Värmland's protected province butterfly.



Fogdegroparna wilderness area

” You might hear wolves howling

Fogdegroparna resembles pure wilderness with few motor roads or other traces of human activity. Silence and calm prevail here. The area offers numerous natural experiences, for example, in the Norra Lien and Deletjärnsåsen nature reserves or the large, untouched Sätermossen, Fogdegropsmossen, Storemossen and Amundsmymren bogs.

Together the bogs form a huge area consisting of numerous marshes, parts with abundant water, meres, islets and small lakes, which are unparalleled in Eda. The area is located about 320 metres above sea level, in other words, above the highest coastline, and has thus never been eroded by the sea.

Beside the large bogs, you might catch a glimpse of birds that are highly sensitive to disturbance, for example golden plover (*Pluvialis apricaria*), capercaillie (*Tetrao urogallus*), red-throated diver (*Gavia stellata*) and curlew (*Numenius arquata*). The height means that there is a harsh climate with frequent deep snow in the winter.



A unique photograph with bear tracks (top) and wolf tracks in the same picture, taken in the Fogdegroparna wilderness area.

The Säterleden long-distance footpath cuts through the area between Remjäng past Långevattnet to Remjängssätern. The wilderness area has a rich flora and fauna and consists of a range of habitats with natural pine forest, pine forest, marshy forest, small lakes, meres and bogs.

It is not unusual to see a golden eagle glide past in the sky, and if you are lucky you can see traces of wolf, lynx and bear. From time to time a wolf pack uses the area as its territory. You might perhaps hear them howling if you stay overnight in Remjängssätern chalet or somewhere else in the area.

Säterleden trail

’ ’ *There is a chance you will see traces of wolf, lynx and bear*

The Säterleden trail, which crosses the Fogdegroparna wilderness area, is a beautiful, undulating long-distance footpath which follows the old sätervägen road between the Remjängssätern and Remjäng’s water-driven sawmill and shingle machine.

The footpath is about seven kilometres long and runs mainly through uninter-

rupted wilderness. It is crossed by two forest roads, which means that you can choose to walk a shorter section. It is also possible to visit Remjäng water-driven sawmill and shingle machine and Remjängssätern by car.

The wilderness area has a rich flora and fauna with varying habitats, including natural pine forest, pine forest, marshy

forest, small lakes, meres and bogs. You might see traces of wolf, lynx and bear. Be prepared when walking along the trail as you might suddenly startle a capercaillie! The loud noise the capercaillie makes in flight can frighten the bravest of souls.

Remjängssätern dating from the 1700s was one of Sweden’s most southerly



A log cabin has been built where the old "fire shed" from the 1700s previously stood.

mountain pastures and was in use until the late 1920s. In former times the old main road from the village of Remjäng was the natural connection between the parishes of Järnskog and Östervallskog. The mountain pastures were used for cows and goats. The animals grazed freely in the forest and were collected up by the milkmaid when it was time for milking. She made cheese and butter, which was transported down from the mountain pasture to the farm for storage. Utilising more land for grazing and winter fodder than there was at the farm meant that more grazing animals could be kept, and thus more food produced.



View from Säterleden.



Remjäng water-driven sawmill and shingle machine.

Säterleden and Remjängssäteren have been reconstructed by Remjäng's village community. Old natural values have been recreated as they were when the chalet pasture was in use.

You can stay overnight or rest at the chalet after your walk through a piece of cultural history offering unique natural experiences.

For overnight stays or a guide: contact
Olle Henriksson +46 (0)571-222 37,
+46 (0)70-288 22 76.



Gullrosas berg nature reserve

’ Opportunity for adventurous walks



Precipices and cliffs characterise the environments in the Gullrosas berg nature reserve.

Gullrosas berg was named after a cow which, while grazing in the forest here, unfortunately fell off a cliff. Gullrosas berg was used as pasture land right up to the 1960s. Traces of grazing can still be seen, including in the form of dead or dying juniper bushes. Forest grazing took place just about everywhere in the area.

The 53 hectare nature reserve is located about three kilometres southeast of Skillingsfors with entrance and parking beside the road. The entire area is hilly, consisting of north-south valleys with intervening ridges covered with pines. The reserve is located approximately 180 metres above sea level, with

the highest point on the ridge reaching 250 metres above sea level.

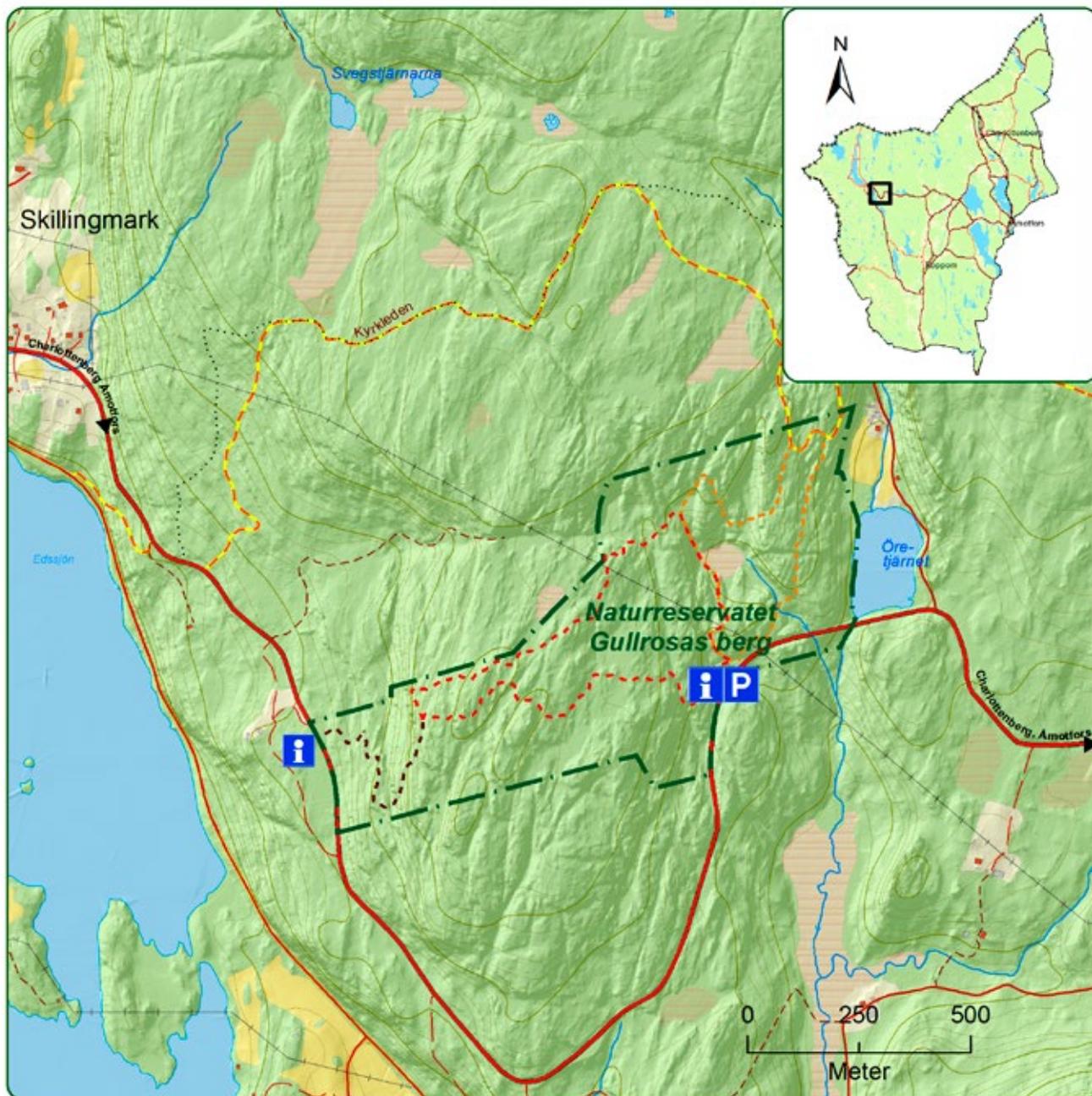
The cliffs are typical of the rift valley landscape, providing the opportunity for adventurous walks in varied terrain. The area contains birch and alder



Characteristic pecking marks from the three-toed woodpecker on a spruce. The small pecking holes look like rings around the trunk.

marshes, small open bogs, pine covered ridges, deep spruce forests, species-rich cliffs with mosses, lichens and tree fungi, as well as elements of deciduous trees consisting primarily of aspen and birch. Traces of forest fires are visible on some old stumps. Thanks to the varied environment, it is possible for a number of different animals and plants to live here. Several endangered species thrive in the reserve, for example, Norwegian ragged lichen (*Platismatia norvegica*), Nordic moss (*Cynodontium suecicum*), tree fungus (*Perenniporia subacida*) and the three-toed woodpecker (*Picoides tridactylus*). Beside hazel grouse (*Tetrastes bonasia*), you can see the mating dance of both capercaillie (*Tetrao urogallus*) and black grouse (*Lyrurus tetrix*) on early spring mornings.

Kyrkleden, the 17 kilometre long trail between Skillingmark and Kõla churches, passes partially through the reserve and offers a walk in varied hilly, in parts demanding, terrain.



Bysjön bird observation tower

”One of Eda’s best bird areas

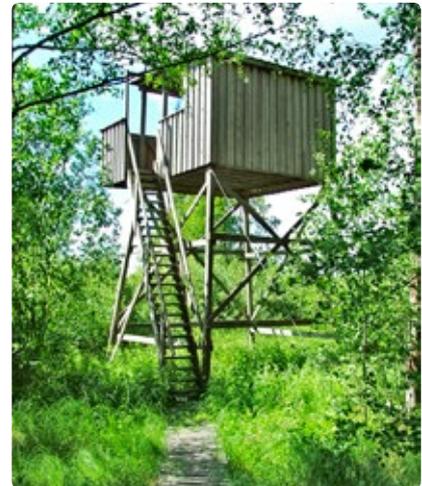
The northern part of Bysjön lake, at Lerot, is one of Eda’s best bird areas. The shallow, reedy bay is home to breeding and resting birds. Cattle have been grazing on the shore for a few years, and this attracts birds, primarily waders. Bysjön is Eda municipality’s third largest lake and it is one of the most rich in species. The northern part is shallow and nutritious (eutrophic). It constitutes an important spawning ground for the lake’s fish species and is beneficial for most birds which live beside water.

A bird observation tower for the public is located on the edge of a leafy shoreline forest. Several species have been observed from the bird tower, including western marsh harrier (*Circus aeruginosus*), hen harrier (*Circus cyaneus*), common snipe (*Gallinago gallinago*), osprey (*Pandion haliaetus*), river warbler (*Locustella fluviatilis*), corncrake (*Crex crex*), bittern (*Botaurus stellaris*), great crested grebe (*Podiceps cristatus*) and greylag goose (*Anser anser*), which now breeds here.

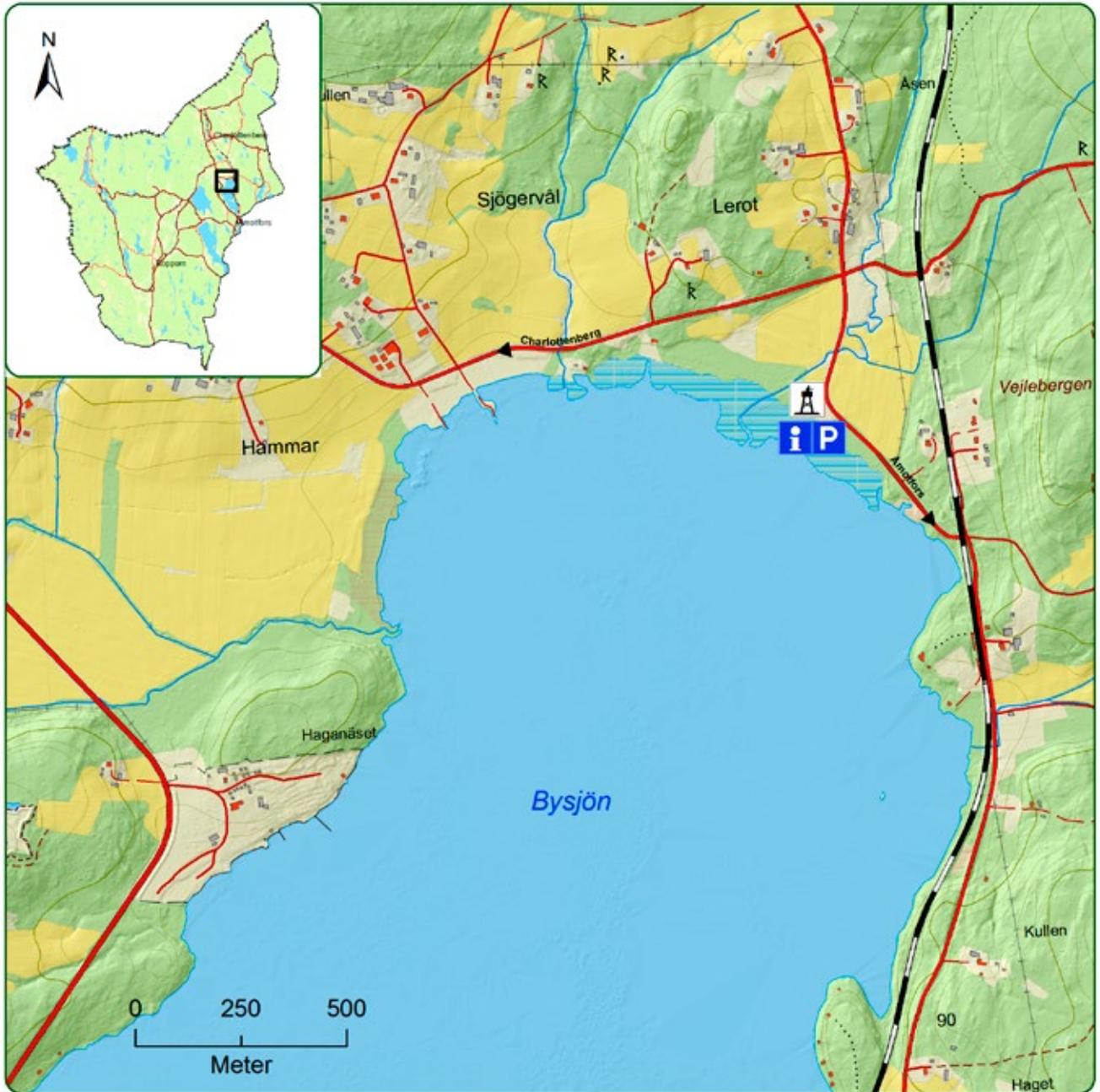
The area is much frequented by birds, primarily as a resting-place during the spring and autumn migrations. The bird tower is easily accessible and you do not need to be a keen birdwatcher to be able to study the rich bird life. You can both watch birds and sit and enjoy the view from the tower with a simple pair of binoculars.



View over Bysjön from the bird tower.



The bird tower.



Jösseälven river, Häljebodaforsen rapids

”Sitting still on warm May evenings watching salmon trout hunting insects is a wonderful, tranquil experience

Jösseälven at Häljeboda is a part of a watercourse which flows out in Glafs-fjorden. The section runs between the Vällen and Borgsjön lakes, and consists of two streams which are bordered by the Flan lake. The powerful streams are the largest in the

municipality and constitute important spawning grounds for Borgsjön's stock of seagoing salmon trout (*Salmo trutta*). The unregulated stretch of stream is a reliable place in wintertime if you want to see dippers (*Cinclus cinclus*). A beautiful, well-managed open

agricultural landscape with solid cultural features extends from the river's banks. Sitting still on warm May evenings watching salmon trout hunting insects on the surface of the water at Häljebodaforsen is a wonderful, tranquil experience.



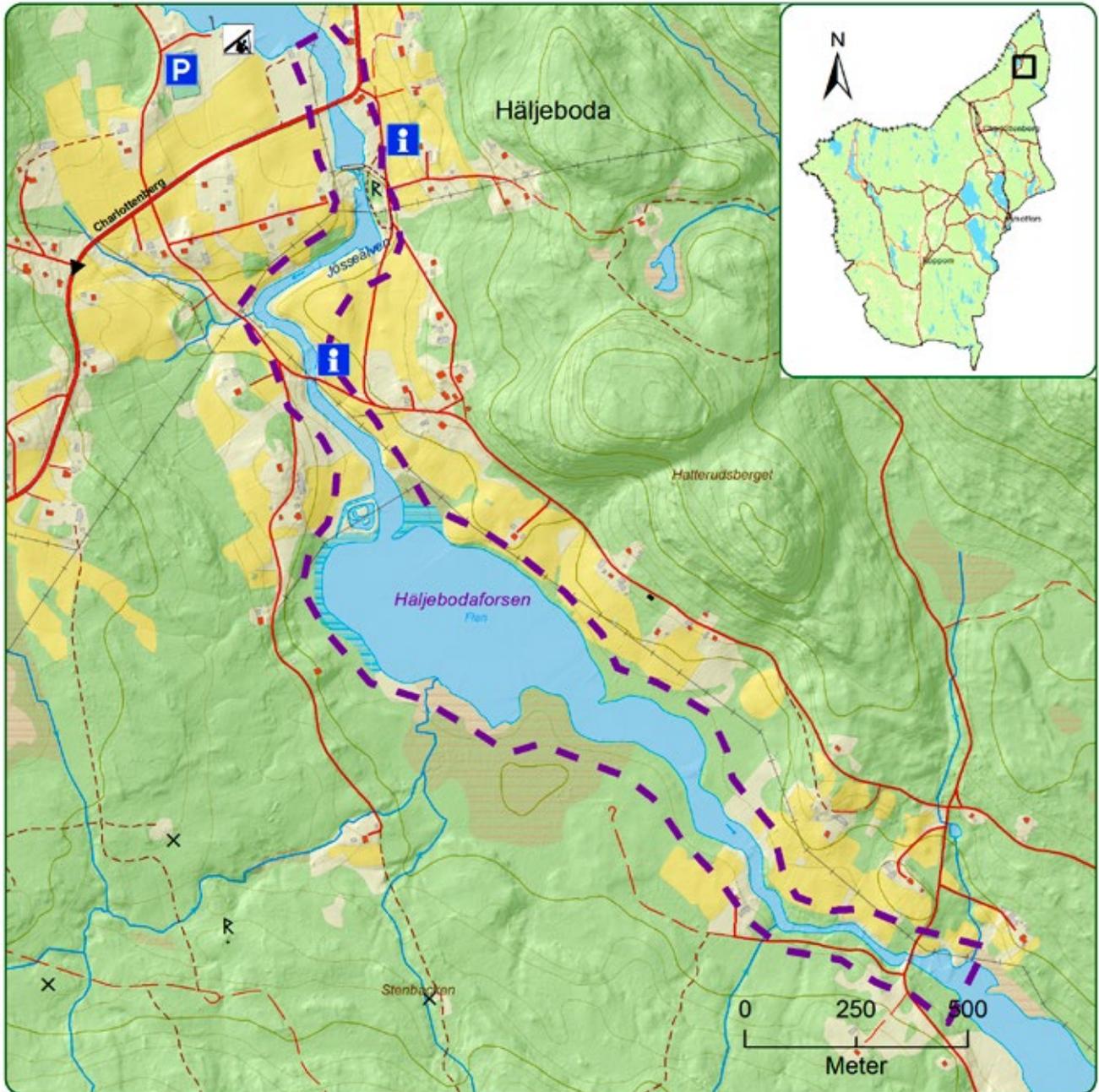
A salmon trout (*Salmo trutta*) catching a mayfly (*Ephemera vulgata*).



The Jösseälven river runs through both Norway and Sweden and offers paddling of medium difficulty.



The Jösseälven river in winter apparel, Häljeboda.



Gråberget nature reserve

The Svartningen and Gråberget mountains dominate the 127 hectare reserve. Gråberget boasts a height of 340 metres above the sea, which means that parts of the area are hard to access. Both of the mountain's western slopes are steep, with boulders and cliffs. Parts of Gråberget's northern cliff have the same appearance. You can walk among bogs and pine forest on ridges with elements of marshy forest similar to natural forest.

Three trapping pits in the area show that the land has been used for a long time. There are also traces of human activity in the form of an old roadway, as well as remains of forest huts and an earth cave. There are ruins of a lookout tower on the top of Gråberget. The view is magnificent.

The rift valleys are very humid with old, lichen-rich deciduous trees and cliffs with overhangs containing numerous fungi and mosses. Large parts of the area contain pines that have been scarred by fires. This means that a fire has damaged parts of the tree and that

the damage has subsequently healed over. Fire scars can be many hundreds of years old.

The bedrock consists of calcareous minerals which produce a rich vegetation beneath the slopes.

Tree lungwort (*Lobaria pulmonaria*) is abundant. This tells us that the forest has been allowed to grow in peace over a long period of time, without the impact of human beings. It usually grows on large, old deciduous trees. The lichen require a high, constant level of humidity and a fairly open and patchy forest environment.

Another sensitive species is the needle lichen (*Chaenotheca gracillima*). Besides high and even humidity, it requires a lot of dead wood. These species tell us how forests can be constituted without the impact of modern forestry .

Walking in the beautiful reserve through open pine forest and rift valleys with streams and bogs gives you an experience with a strong wilderness feel.

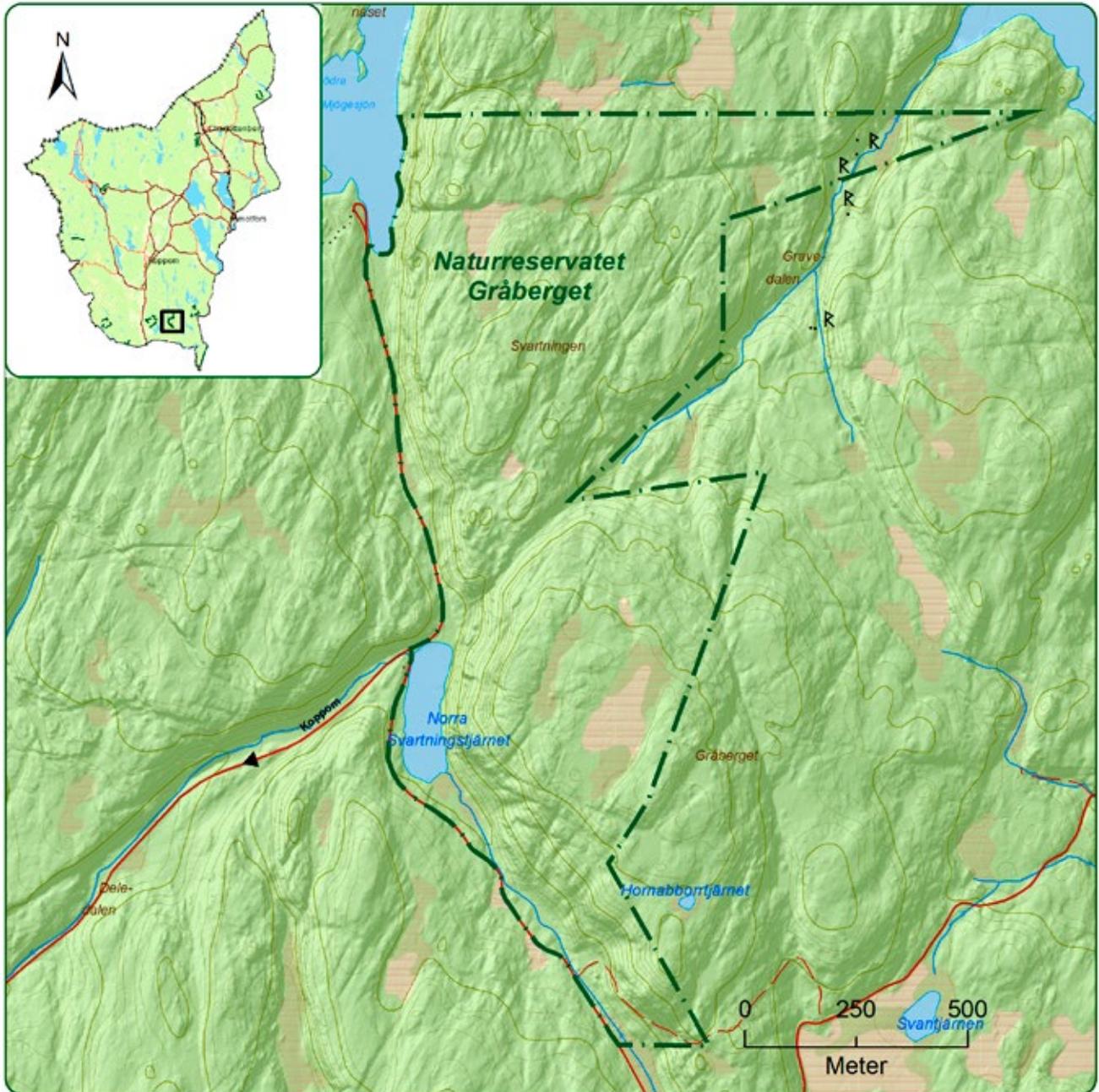
” Large parts of the area contain pines that have been scarred by fires



The slope of the mighty Gråberget mountain running down to Norra Svartingstjärnet.



The fountain of youth can be found to the south of Gråberget's peak, or at any rate, a beautiful little lake.



Kloften nature reserve

’ ’ *Enjoy the view or see if you can find “Hell’s Gap”*

The 95 hectare nature reserve is located about 8.5 kilometres southeast of Koppom. Located beside the Östra Buvattnet lake at 170 metres above sea level, Kloften mountain rises to 300 metres, providing a fantastic view over the lakes below.

The nature reserve comprises the top of Kloften, some small boggy sections and the west side of the mountain. The western slope and fissure down towards Klofftjärnet is steep, with boulders and



View over Klofftjärnet.



An old pine stump, also called a resinous pinewood stump, well-preserved thanks to its high resin content.

cliffs. The ground below is firm to wet with some elements of marshy forest. There are large numbers of deciduous trees in the southern parts below the western cliff. A small brook, which flows underground in places, runs in the deeply cut fissure towards Klofftjärnet. There is a high level of humidity and many moisture-demanding mosses thrive here. The edges of the fissure have ten to fifteen metre high cliffs. There are large, moss-covered boulders in the valley.

The forest type is mixed stands of pine and spruce interspersed with pure pine forest in the gently undulating rift-valley landscape. Large parts are natural forest

with old spruce and pines. You can walk through old pine forest, consisting of both boggy ground and flat rocks.

The forest is largely pine forest on ridges, however, there are also areas with a lot of spruce and dead wood, both snags (dead trees standing upright) and fallen spruce and birch trees. The oldest pines are between 250 and 300 years old. In parts of the area there are traces of fires in the form of burnt trunks. Enjoy the view on Kloften or see if you can find the fissure – “Hell’s Gap” to quote Ronja Rövardotter! Large parts of the area are hard to access, which can make for exciting walking.

Skutan nature reserve

Skutan is part of a 180–280 meter high ridge which runs in north-south direction. Large, shady, moss-covered cliffs face east, south and west. The reserve comprises 124 hectares.

The forest largely consists of leafy ridges with Scots pine (*Pinus sylvestris*) and slowgrown Norway spruce (*Picea abies*). The slopes are rich in deciduous trees, primarily aspen. The area is known for its alkaline minerals, which



There are a number of sites in the area where capercaillie perform their ritual mating dance.



The black woodpecker (*Dryocopus martius*) often looks for food right at the bottom of tree trunks and stumps. Rotting spruce with carpenter ants (*Camponotus herculeanus*) are particularly attractive.

produce a particular flora consisting of mosses and vascular plants on and below the cliffs. The high proportion of deciduous trees is probably due to the fact that the ground has previously been used for forest grazing. Otherwise, it is difficult to detect traces of human activity.

Forestry has been very limited as its cliffs and ridges make the area hard to access. An old haulage road for horses and a part of the Pilgrimsleden

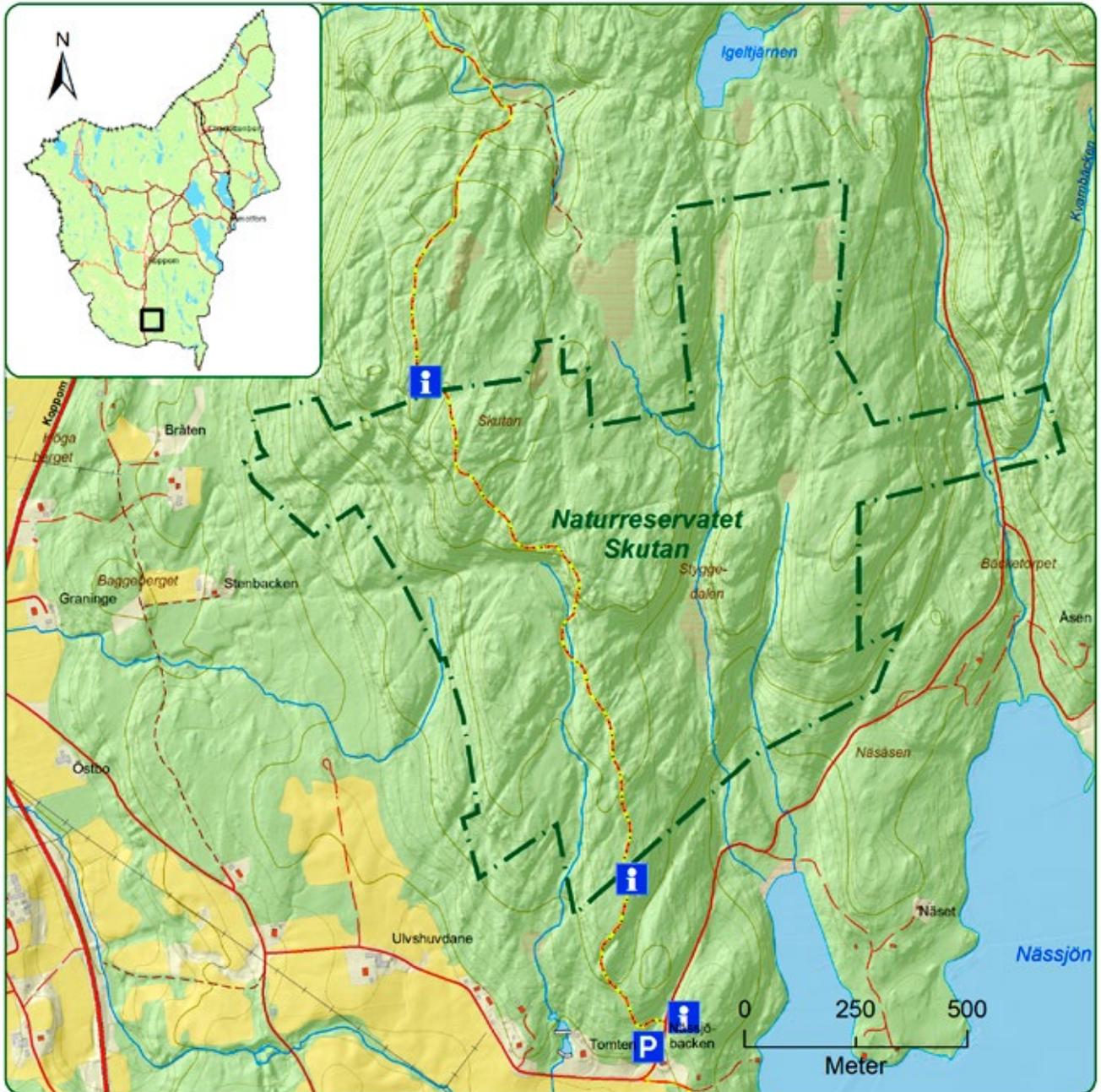
’Alkaline minerals produce a particular flora consisting of mosses and vascular plants

long-distance footpath run through the reserve.

There is an abundance of birds that live in coniferous forests, as well as various woodpecker species, which look for food and make nesting holes in coniferous and deciduous trees. There are also several locations where capercaillie (*Tetrao urogallus*) perform their mating dance. Species in the reserve which are to be found in the Species Data Bank's red list for endangered species are primarily linked with the old slowgrown spruce forest with its valuable elements of old, large deciduous trees.



The longhorned beetle (*Tragosoma depsarium*) is a dark brown, slightly shiny beetle, 20-30 mm long. Its antennae are powerful, head and neck shield are hairy and it has large eyes. Here in Sweden the longhorned beetle has really only been found in old piles of dead pine. It is important to allow windfallen pines to remain in the forest if it is to thrive.



Klöftsprecka

’’The reward is a fantastic feeling once you are standing between the rock faces



Fault scarp with Klöftsprecka viewed from the road.

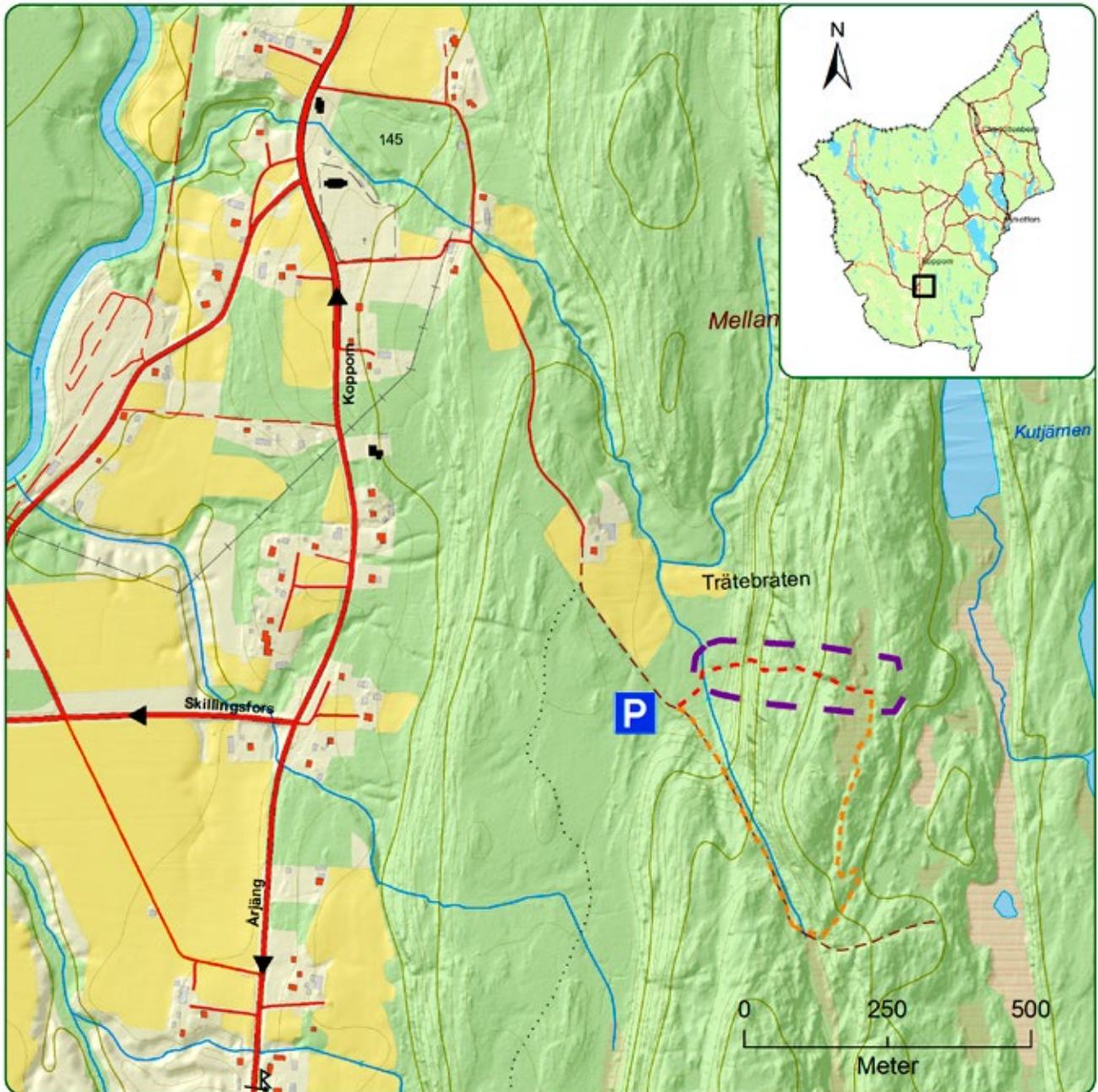
South from Koppom, a fault scarp runs in north-south direction. It is the same long fault scarp beside which the Skutan nature reserve is located. Klöftsprecka is a 40 metre long fissure in the rock which divides the fault scarp. The fissure is 1.5 metres

wide, with a 15 metre high, inwardly inclined cliff face. The rare and crumbly rock lamprophyre can be found here. The fissure has been formed through the the softer lamprophyre crumbling away over time, leaving behind the surrounding harder gneiss.

There is room at the gravel road's turning area to park your car. You can see the start of the trails here, marked in orange, and you then choose from two different paths. The lower path leads to the bottom of the fissure. It is about 200 metres away. The path that continues into the fissure is steep and it is a challenge to get to the top. The reward is a fantastic feeling once you are standing between the rock faces. Watch out for loose and unstable stones and gravel underfoot! You will have to both walk and scramble along the paths!

The upper path is somewhat longer, but a bit easier to walk, leading you up to the fault scarp's plateau, where you will find the path which leads to the fissure. Here you can see the fissure from above.

Take a break along the path to enjoy the view over the agricultural landscape in Järnslog.



Billan river

”Only one mussel larva in one hundred million develops into a mussel

Billan, also called the Billälven river, is a watercourse which drains several Norwegian meres and lakes, including North and South Bellingarna. Billan flows into the Vrångsälven river. The section between the Norwegian border and lake Ämten is classified as a Natura 2000 area, as the watercourse is very important for the endangered and protected freshwater pearl mussel (*Margaritifera margaritifera*). Old mussels are found throughout almost the entire river, and in places there are large numbers of small mussels. The fresh-

water pearl mussel needs clear running water with a sand and gravel bottom that is deficient in lime. This occurs from Slussåsen in the south up to Sødra Bellingen in the north. The long section with freshwater pearl mussels is unique to Eda and the county as a whole.

The freshwater pearl mussel's fertilised eggs develop on the female mussel's gills into small glochidia larvae (the first larval stage). A female produces three to five million larvae during a breeding period. After five weeks the female mus-

sel releases her larvae in small clusters that are highly appetising to host fish. The host fish – one year old salmon (*Salmo salar*) and salmon trout (*Salmo trutta*) fry – eat the clusters of larvae. During the process, the larvae get caught in the fishes' gills and live there for eight to ten months. They subsequently let go, are taken by the current and land in a suitable location on the bottom.

The freshwater pearl mussel's life cycle is highly complex. Studies have revealed that only one mussel larva in one hun-



Observing freshwater pearl mussels with a water telescope.



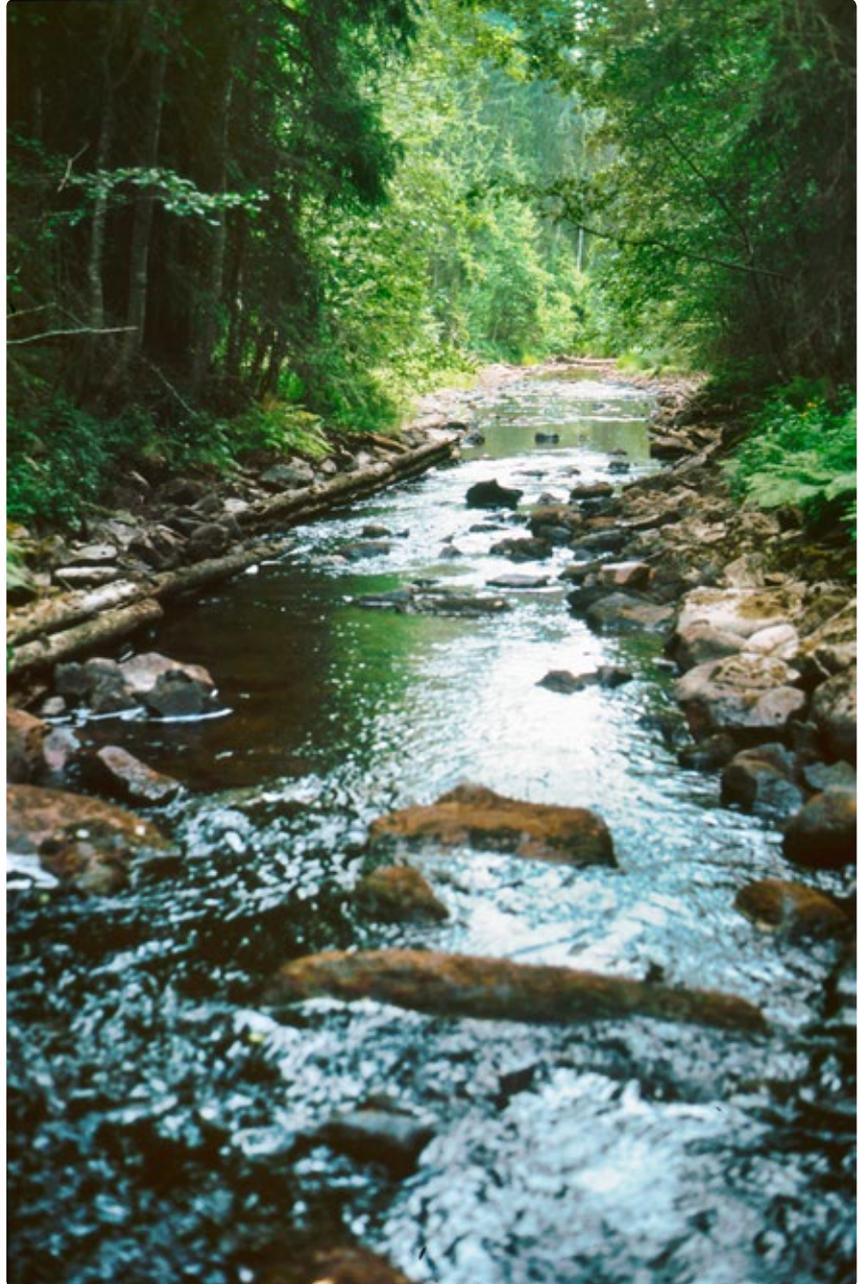
Observing mussels from the bank.



Billan is one of a small number of water-courses in Värmland with a rich stock of freshwater pearl mussels.

dred million develops into a mussel. The freshwater pearl mussel becomes sexually mature at eighteen to twenty years old, and can be very old. The oldest one to have been found was 280 years old! Once a fish has been host to mussel larvae once, it becomes immune and non-receptive. It is therefore important that there is a large population of salmon trout or salmon in waters where the freshwater pearl mussel lives.

In other parts of the river there are a number of powerful rapids with calmer sections in between. Further south the landscape becomes flatter and the water flows more slowly. The river takes on a more meandering course there, which means that the bottom and edges of the river consist of finer sediment. At certain places along the edges of the river you can see remnants from the time when timber was floated on Billan.



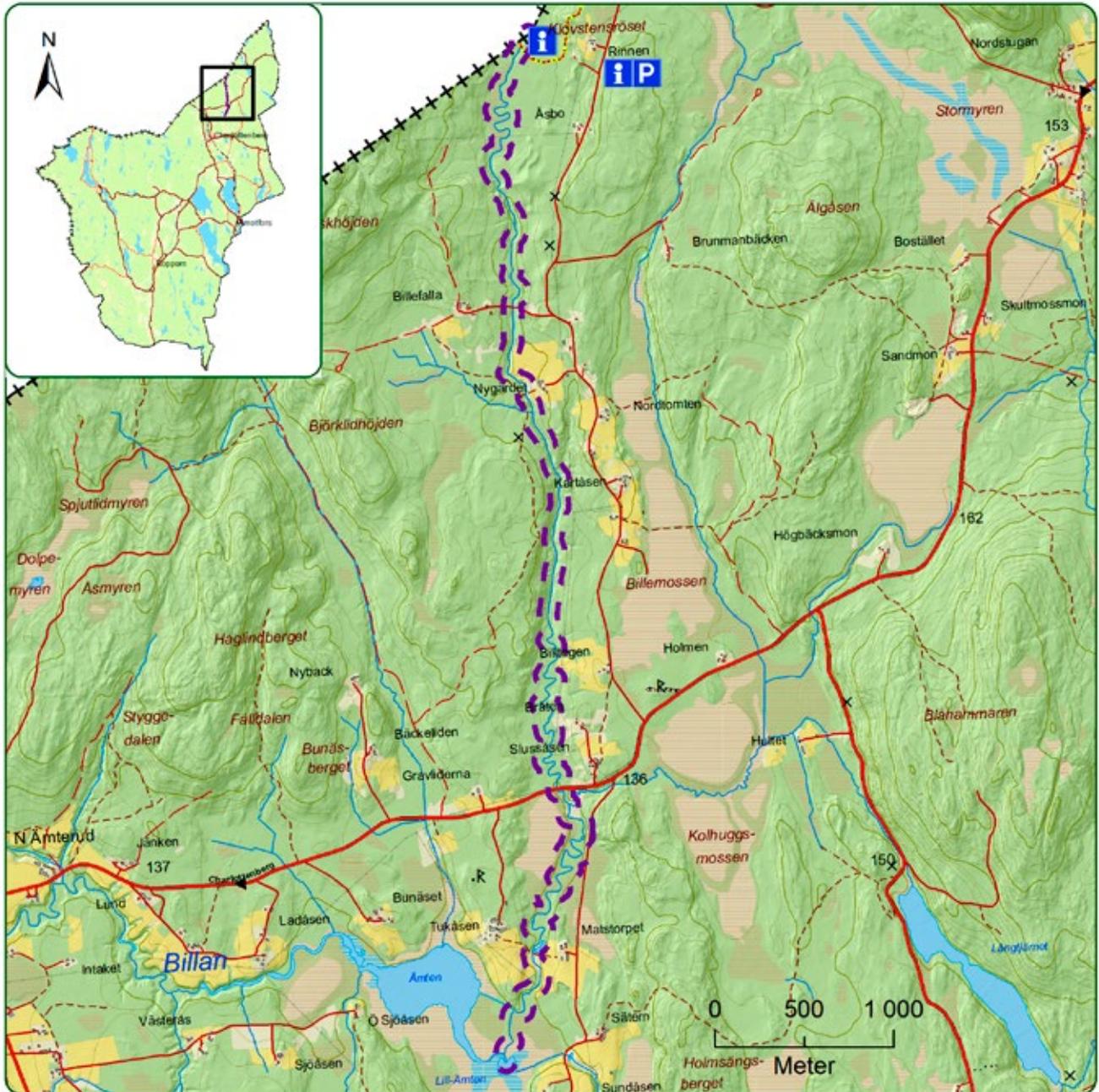
Billan with its luxuriant vegetation along the waterside.

A narrow strip of alder, birch and sallow grows along Billan's shores. Birch increase the closer you get to lake Ämten. Deciduous copses on the river's lower reaches and around Ämten constitute a good environment for several bird species. Spruce forest takes over further away from the river.

Billan is unregulated and there are no obstacles to walking on the Swedish side. The river has numerous sections with high natural values in the form of discharge areas, rocks with overflowing water, narrow sections, deep pools (expanded hollows), joining water-courses and unregulated lake outflows. Species here include stationary salmon trout (*Salmo trutta*), crayfish (*Astacus astacus*), reproducing freshwater pearl mussels and a rare bottom fauna. Thus far Billan has been spared illegal transplantation of signal crayfish (*Pacifastacus leniusculus*), which has preserved the large stocks of domestic crayfish. (Signal crayfish carry crayfish disease which kills all crayfish in a watercourse.)



Crayfish (*Astacus astacus*) thrive in Billan.



Boda meadows, Skillingmark

’’ *Follow the butterflies and
enjoy the floral splendour*



The approach to Västra Bråten farm, with the hay meadows at the edge of the wood.

The meadowlands in Västra Boda at Bråten farm are the most species-rich in Eda municipality. Animals have grazed and hay-making has been carried out for generations on the meadows. Hay-making on Boda meadows is still performed by the owners. The scythed hayfields have been maintained in the same way for a very long time. The annual hay-making, flora and fauna have been preserved, as old meadowland provides excellent conditions for a rich and varied insect life.

Artificial fertilisers have never been used. Evidence of this is that neither cow parsley nor cocksfoot grow on the meadows. The meadow flora has come about naturally.

The area slopes gently eastwards. The ground undulates slightly with individual rocks visible on the top of the hillocks. The soil type is moraine with a lot of sand and stone. The ground is consequently fairly dry.

Hay-making is carried out manually some time between 15 July and 15 August. It is important that the meadow is harvested at the right time in order to retain the flora's composition. The cut hay lies on the field for three to five days in order to shed its seed, and is subsequently transported away from the meadow.

Hay from a species-rich meadow can contain 40 to 80 different species of grass and plants. This can be compared

with modern hay which is cultivated on fields, which generally contains two kinds of grass and one or two kinds of clover.

Keep a look out for unusual and rare insects such as the Scarce Heath butterfly (*Coenonympha hero*), which is Värmland's province insect and has a strong population here. Species which thrive on the meadows include mountain arnica (*Arnica montana*), melancholy thistle (*Cirsium helenioides*), lesser butterfly orchid (*Platanthera bifo-*

lia), hoary plantain (*Plantago media*), globeflower (*Trollius europaeus*), milkwort (*Linum usitatissimum*), heath spotted orchid (*Dactylorhiza maculata*) and round-leaved wintergreen (*Pyrola rotundifolia*).

To get the most out of your visit to Boda, you should arrive just before hay-making, which starts on 15 July at the earliest. You will then have the greatest chance of seeing the rare plants and orchids in full bloom.



Green forester (*Adscita statices*) on buttercup (*Ranunculus acris*).



Wood nymph (*Dactylorhiza fuchsii*).



Melancholy thistle (*Cirsium helenioides*).



Narrow-bordered bee hawk-moth (*Hemaris tityus*).



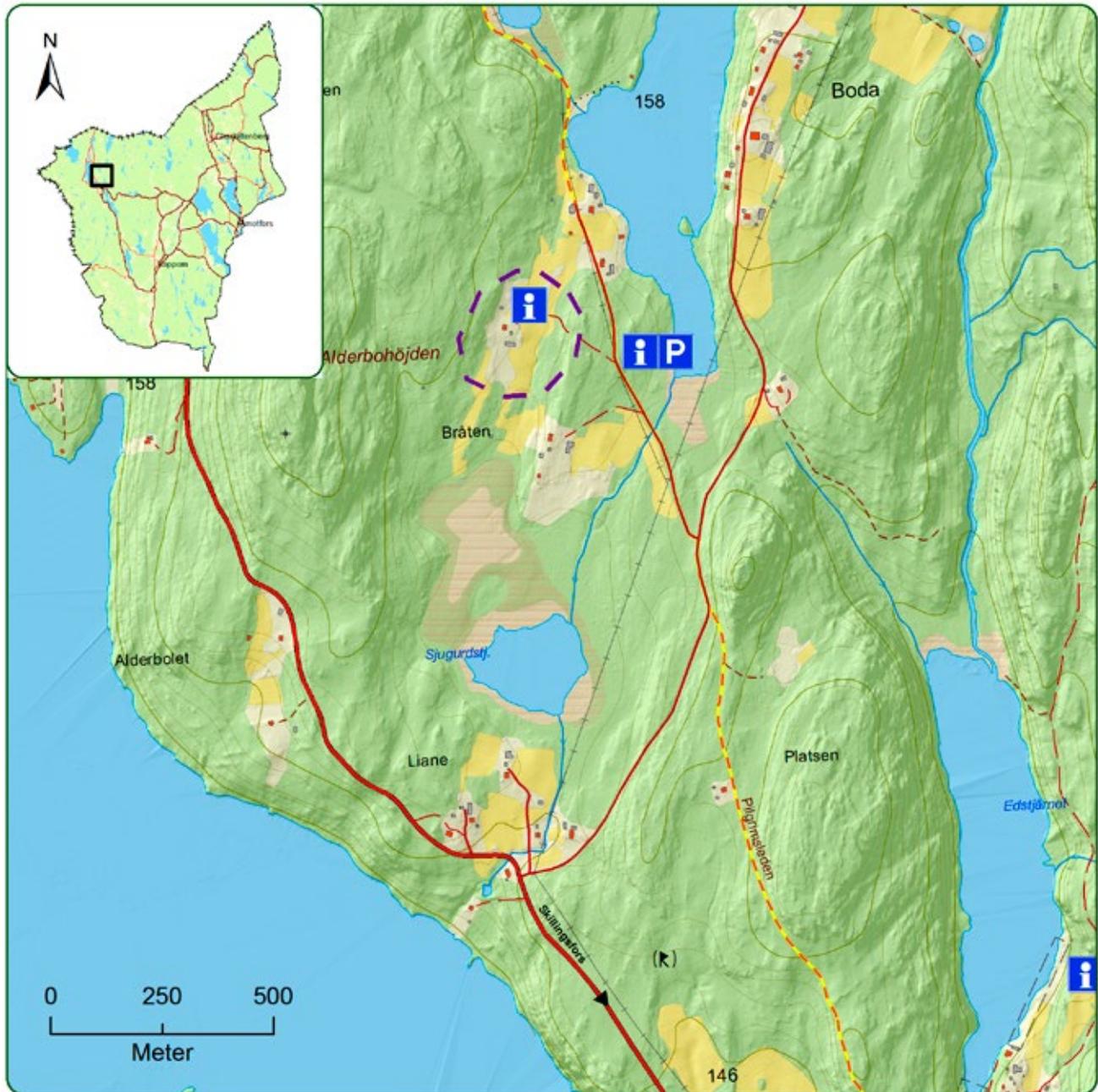
Butterflies showing the way.

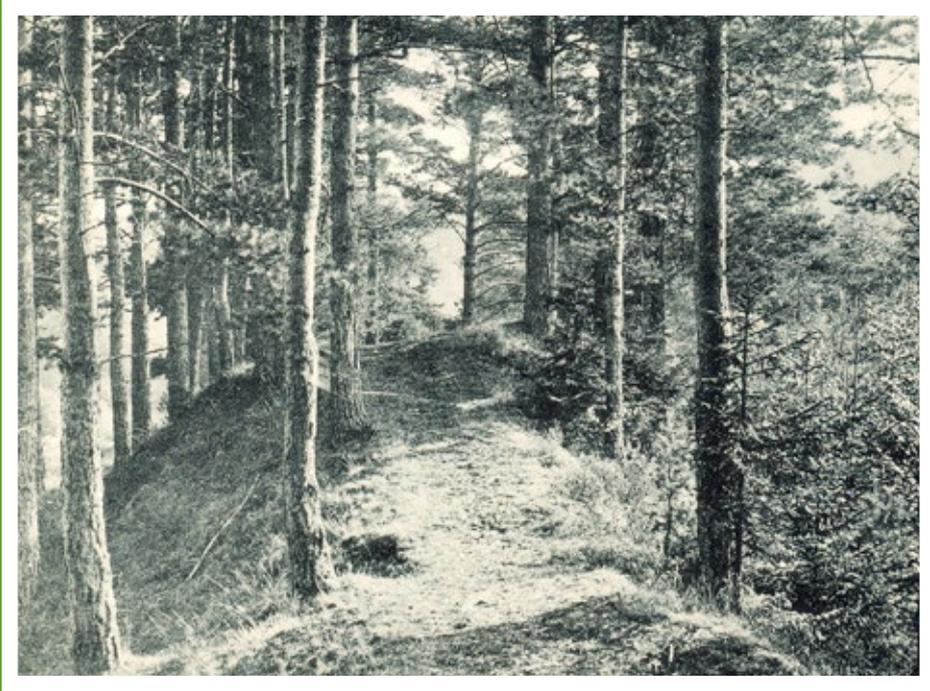
From the car park, it is about 300 metres walk to the information board which displays the two flower trails' approximate routes. Follow the butterflies, which mark the trails, and enjoy the floral splendour. More information is available alongside the trails at certain flowers.

Length of the flower trails: the southern trail is 600 metres, the northern trail is 300 metres.

Boda meadows is a protected area, which means that you are not allowed to pick plants and that dogs must be kept on a lead.

While enjoying the splendid floral display, we request that you show consideration and follow the marked trails, as the farm is a private area. Inventory reports of the meadows' flora and fauna can be downloaded from Eda municipality's website www.eda.se.





Svinryggen is a steep, sandy ridge, which came about during the ice age. Norway's largest river, Glomma, passed through the valley on its way to Lake Vänern and left the glacial deposit. Svinryggen is located adjacent to the shooting range at Kulleberget in Charlottenberg. The picture from a postcard was taken in the early 1900s. Note the pines, which look like they are about 50 years old!

Svinryggen in 2009. In the space of one hundred years nature has reconquered the area. The large trees are over 150 years old. There is now a wonderful, multilayered mixed forest of pine and spruce that is rich in the dead wood which is necessary for many species to survive. Up on Svinryggen is a small path, where you have to balance on the magnificent, high and sandy ridge. At the top are the remains of a fire trench.



Picture on the back cover

Mountain arnica (*Arnica montana*)
visited by a honey bee (*Apis mellifera*).



Eda Municipality
Torget 1, 673 32 Charlottenberg
+46 (0)571-281 00
www.eda.se



Government subsidies for local
nature conservation projects
have co-financed the project