### NATURE RESERVES IN KALMAR COUNTY







## STIRRING NATURE

In Trollskogen it is peaceful and still. When I enter the forest from the parking area, it is as if all human noise is shut out. Instead, I am enfolded by the deep sound of the roaring sea, travelling through the treetops. The chaffinch persistently repeats its strophe. Redstart and great tit join the bird chorus. I continue along the path and pass mighty, gnarled oaks, winding ivv. sweet twinflowers, and pines swept for centuries by the wind. A dor beetle slowly moves across fallen pine needles. Where the trees thin out, the wind caresses the short grass between sand and shingles. Here on the shore, everything is perfect. The sea with rustling waves, the immense sky, which meets the horizon uninterrupted. This is the soul of Trollskogen - the harmony between sea and forest. I want to remain here, a long time.



# WHAT HIDES UNDER THE SURFACE?

The protected water in Grankullaviken is home to everything from minute shrimps to giant pikes. Baltic herring, flounder and other fish spawn in the shallow bay.

Large parts of Grankullaviken have a depth of less than 3 metres. This means that the water warms quickly in spring. Also, that light reaches the bottom, allowing e.g. seaweed and eelgrass to thrive. The algae and plants offer hiding places for small fish. For large fish, it is a larder!

If you dip your head under water, what might you see? Small creatures swim among the fronds of seaweed – amphipods, sea slaters and Baltic prawns. Broadnosed pipefish hide in the waving eelgrass. On the bottom close to the shore, dragonfly nymphs creep out. They are terrifying predators that can catch small fish with their

extendable jaw.

BROADNOSED PIPEFISH - "seahorse" in Swedish waters



## POPULAR OAKS

Here and there in Trollskogen you come across old oaks. They are highly valuable, as they provide homes for many plants, animals and fungi. Some of the species dependent on the oaks are very rare, such as the dot lichen *Arthonia anombrophilia*.

On your way through Trollskogen you will see several large oaks. They grew up when the forest on the promontory was much thinner than it is today. In those days, village people collected wood and timber from the forest and put out their animals to graze in summer.

Old hollow oaks are havens for beetles and other small creatures. Some live in the greenery of the crown, others in the bark or wood, or on the roots. Some thrive in the wood mould – the sawdust-like compost of decayed wood, gnawings, insect droppings and dead insects found in hollow trees. Many of the small inhabitants in oaks are endangered, since there are so few old trees left.



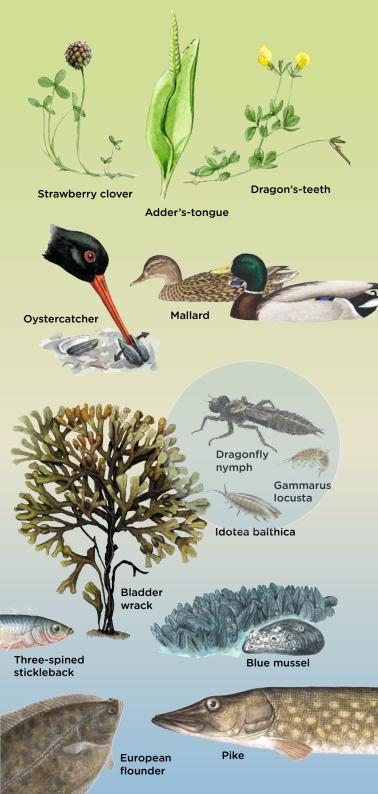
# *MULTI-SHAPED FOREST*

The pines in Trollskogen have not had an easy upbringing. Decades of wind are reflected in their twisting shapes. A forest to marvel at.

The pine forest with its storm-twisted trees is a characteristic feature of the reserve. The peculiar forest is worth a visit, at any time of year.

Many creatures live in the forest. Black woodpecker, dressed in glossy plumage with a red crown, makes itself known through calls and hammering. Ant lions build funnel-shaped pits in the sand to catch their prey. Ants beware! The eastern pine processionary is a grey, inconspicuous moth. But you can't miss the larvae when they move in metre-long columns, resembling a procession!







# SIX THINGS NOT TO BE MISSED

#### 1 TRAIN TO THE FOREST In the past, timber from Öland's forests was transported to Grankullaviken bay on the Böda forest railway.

Today, the train only takes people. The Böda Forest Railway Association organises annual tours, see www.bosj.se for further information



## (4) TROLLEKEN OAK

A more gnarled creation would be hard to find! But if you are over 900 years old, you have to accept a few flaws. And be prepared to house an abundance of small creatures, mosses and lichens.



#### (2) IMPORTANT BOUNDARY

Once there was a wall across the entire promontory. When you crossed the boundary to the north, you entered sacred land. This is how archaeologists interpret its function. Parts of the wall still remain today.



## (5) GRAVES FROM THE PAST

There are around 15 Iron Age graves in the area. They are entirely embedded in greenery. But when they were erected they were seen widely, as the landscape was completely open then.



#### (3) SHIPWRECK

On a stormy night in December 1926, the schooner Swiks ran aground to the east of Trollskogen. All seven crew members survived and came ashore. The wreck now lies washed up on the shingle beach.



### 6 TWISTED PINES

Growing up in poor soil and lashing winds is hard. But if you are made of tough stuff you manage, even if you can't grow straight. Trollskogen's peculiar pine forest leaves no one untouched.







## MOIST, RICH MEADOWS

Lush coastal meadows spread out to the west, where Trollskogen meets the sea. In summer, the meadows are grazed by cattle. Don't miss coming here if you want to see many different butterflies, dragonflies and flowers!

Grazed coastal meadows are species-rich environments. Specialised plants, which benefit from short grass and like having wet feet, thrive here. The flowers are visited by bumblebees looking for nectar. Dragonflies hover over the meadows searching for butterflies and other insects. The coastal meadows provide breeding sites for waders, ducks, geese and swans, with an abundance of food both on land and in the shallow water.

Ladder grasshopper, Glanville fritillary and common brimstone are just some of the insects you can find if you come here in summer. Walk slowly, so that you don't miss strawberry clover, adder's-tongue, dragon's-teeth and other coastal meadow plants.

VAGRANT DATER – a characteristic species for the coastal meadows



## LAND MEETS SEA

On the eastern side of Trollskogen, the waves break on the shore in perpetual motion. It "clatters" when the water rearranges the smooth stones. A geologically very interesting area!

Some of the pebbles on the beach are of **limestone** and sandstone, the species that make up Öland's bedrock. But there are also granite stones. Granite was transported here by the inland ice from mainland Småland and Östergötland.

The shingle beach is a barren environment. But a bit further out are **lush underwater meadows of bladder wrack and other algae.** Trout and other fish swim around hunting for small creatures living among the seaweed.



## ANIMAL GUARANTEE

Black longicorn beetle and antlion, dor beetle and eight-spotted jewel beetle. They all live in Trollskogen. You can see them magnified outside naturum Trollskogen. Together with the pine marten Morris!

The visitor centre naturum Trollskogen is located by the entrance to the reserve. Here

you find an exhibition about nature on the promontory. At www. naturumtrollskogen.se there is information on opening hours, guided tours and other activities.



#### WINTERGREEN LIANA

Many trees in Trollskogen are entwined in ivy. When young, the leaves of this vine are three-lobed. When the plant is around ten years old, stems grow out with cordate leaves. These stems also bear flowers and then fruit. Ivy flowers in late autumn and the berries ripen in spring. The other way around compared to other plants!



# THE NATURE RESERVE IN BRIEF

AREA: 266 HA

ESTABLISHED: 1998COUNTY: KALMARPROVINCE: ÖLAND

## REGULATIONS

Special rules apply within the reserve. Full regulations about the right to travel and remain within the reserve are posted on a notice board at the entrance.

- Do not take away stones.
- Leave flowers and other plants untouched.
- Respect wildlife. For example, do not go near bird nests.
- Dogs must be kept on a leash.
- Do not camp or light fires.
- Do not leave cigarette butts, think about the fire risk.
- Cycle and ride on the road only not on the walking trails.

## GETTING HERE



Trollskogen Nature Reserve is located on the north-eastern tip of Öland (approx. 65 km from Borgholm). Trollskogen's coordinates (RT90): X: 6358105 Y: 1579106

#### DON'T FORGET

**BINOCULARS:** See birds, butterflies and dragonflies close up.

**NET:** If you want to investigate who lives under water. Or catch butterflies (naturally, you let them go afterwards!). You can also borrow nets in naturum.

**PICNIC:** Bring your own or take a break in the naturum cafe.

#### **FURTHER INFORMATION**

Kalmar County Administrative Board

Webbsite: www.lansstyrelsen.se/kalmar

Contact: +46-(0)10-223 80 00 reservat.kalmar@lansstyrelsen.se





The area is part of the EU:s network of protected areas, Natura 2000.

Production: Naturcentrum AB 2019. Map: C. Lindkvist, Naturcentrum AB. Illustrations: C. Bollner/Azote (three-spined stickleback, European flounder, pike), R. Kautsky/Azote (bladder wrack), N. Johansson (Gammarus locusta, Idotea balthica) & N. Forshed (others). Photo front page: taigaphoto.se. Other photos: H. Terner (forest train), C. Kindblom Landtmanson (naturum), S. Nilsson (Pine marten Morris), J. Morin, Naturcentrum AB (dragonfly), taigaphoto.se (Trolleken small photo, wall) & Kalmar County Administrative Board (others). Translation: Maria Morris for Stefanie Busam Golay I Stilren.