



Landscapes of Peipsimaa

Lake Peipus is in the heart of Peipsimaa. This Lake on the eastern border of Estonia that is as wide as a sea is the fourth largest in Europe and the largest in Estonia. At its medium water level, Lake Peipus covers 3555 km². The border between Estonia and Russia is almost in the middle of the lake leaving about 44% of the Lake to Estonia.

About 240 rivers and streams flow into Peipus; however, the only river that begins here is the Narva River, which carries almost a half of the volume of lake water into the Gulf of Finland every year. The waters of Lake Peipus and the variety of habitats it offers are the foundations of the biodiversity of the region. You can find 35 different species of fish and a species of Cyclostomata in this lake that is one of **the most abundant in fish** in the Northern Europe. Although the number of species of fish has fluctuated significantly over the years, there is enough bream, roach, perch, pike and pike-perch for both professional and amateur fishermen. Even the most inexperienced fishermen can come and learn about fishing on a lake. You can rent fishing equipment and boats from the owners of tourism farms and holiday homes around Lake Peipus and hire an experienced instructor to accompany you on the lake.

A fascinating fishing method is ice fishing on Lake Peipus in winter when thousands of people come here to try their luck with a pulling device. Peipsi pulling devices have special winter spoon baits that are attached to short winter rods. These are used to catch perch, houting and other fish from the frozen lake. A memorable winter excursion can be ordered from the local organizers of fishing trips who drive the participants to a fishing spot in special unsinkable vehicles called *karakatits*. After a successful fishing trip, you can learn from your instructor how to prepare fish dishes; you can also take a hot sauna or even stay the night in a tent on the ice so you could try your luck again at first light.

In the centre of the Peipus plain, the River Emajõgi flows into the lake. A fen has formed between the tributaries and lakes near the mouth of Emajõgi with a surface that is only 1 metre higher than the water level in Peipus. Spring floods turn the fen into one large lake, which is dotted with wooded bog islands. Here, on an almost uninhabited natural landscape, you can find the nesting places of water fowls, spawning places and habitats of fish, nesting places of white-tailed eagles, golden eagles and ospreys and a home of wood grouse, common cranes, wolves and bears. This area is known as **Emajõe Suursoo** and the best way to visit it is by sailing along the river and its tributaries. There are several different kinds of watercrafts that can be used for a nature trip: a historical Emajõgi barge, a raft, a motor boat, ect. You can stay the night in the raft house anchored on Kalli River; moreover, you can take a trek in these parts not only in summer but it is also possible to ski along the ice roads across swamps and rivers or drive around in amphibian vehicles in winter. Further information about the nature of Emajõe Suursoo and its hiking options is available in Kavastu, in a nature centre located right on the bank of Emajõgi.

Piirissaare that is the largest island in Peipus (7.5 km²) forms a natural border between Suurjärv and Lämmijärv. Most of the island is only 1–2 metres above the water level of the lake and it is characterised by fens and shrub-bery that are a home to many bird species. The island is a suitable environment for amphi-bians as well. On Piirissaare, one can find the largest population of common spadefoot in Estonia and perhaps the not-yet-extinct Euro-pean green toad. In order to protect amphi-bians, coastal grasslands were restored and ponds for spawning were created.

Species-rich forests grow on the lowland plains of Peipus that are on the eastern shore of Lämmijärv.

Almost all types of Estonian forests are represented in the forests of Järvselja. Old natural forests, broad-leaved forests and spruce stands rich in grasses are protected by **Järvselja Nature Reserve** that has been formed around a native tree stand, which has been protected since 1924. This area, resembling a primeval forest, can be visited by taking a hiking trail that is almost 5 km long. The network of hiking trails is going to be extended in order to let enthusiasts see the biota of key biotopes. Järvselja forests have been thoroughly studied and mapped because generations of Estonian forest specialists have been trained here since 1921. Probably this is why the highest trees of Estonian forests have been found in Järvselja region.

The swamps in the south of Peipsimaa are still 'young' and fens are therefore characteristic of the landscape of this area. Far in the south-west corner, we can find one exception – the Meelva bog –, which was formed when shallow endoheric basins became paludified. Meelva Nature Park was established to protect the swamp untouched by human activity, Meelva, and Pado Lakes; its natural treasures include eagles and whooper swans. Hikers interested in nature can stay the night in the forest cabin of Meelva.

Peipsimaa nature will charm you with the variety of species in its virgin forests, the austere monotony of fens, the wonderful colours of bogs, the singing dunes and the eternal playfulness of the waters of Lake Peipus. The wonders of local nature will only show themselves to those who take the time to watch and listen respectfully.

Further information about the nature of Peipsimaa and different services can be found at: www.visitpeipsi.com.





Ecosystem of Lake Peipus is enriched and adorned by **birds**. The lake feeds tens of thousands of birds who stay here in springs and autumns. Peipus offers the best opportunities in Estonian mainland to observe waterfowls and their migration. Excellent bird watching points are on the beach by Nina village and the northern shore of Lahepera Lake, where the observation platform is accessible by wheelchairs. However, the best observation points are by Lämmijärve in Mehikoorma and on the Räpina polder. Here, the lake is narrow resembling a bottleneck and thousands of geese, diving ducks, mergansers, divers, ducks and other water fowls fly past while waders are wandering in the shore. In this area, many rare birds as well as birds that have strayed from their usual habitats have been spotted. On the one hand, the wide area of Lake Peipus limits the spread of species; on the other hand, it opens up a corridor for species from the south to spread towards the north. In addition to already existing nature preservation areas, a special conservation area was recently created in the north-west region of Peipus where the reed beds and coastal meadows are a great place for the migratory birds to rest and for the hatchers to nest.

Peipsimaa is not just Lake Peipus and its immediate vicinity – it consists of the entire Peipus valley carved into the bedrock stretching from north to south; it offers diverse landscapes and was covered by the waters of predecessors of Peipus during the last stages of glacial and post glacial periods. Today, Peipus is only a remnant of this in the deepest part of the valley that tilts towards the south. Fascinating Alutaguse and Peipsi lowlands were formed by winds and peat forming processes after lake waters retreated during the postglacial period.

Today, tourists can enjoy the 32 km of **coastal sand dunes** that have formed on the northern shore of Lake Peipus. The most beautiful dunes are around Rannapungerja, Kauksi, Kuru, Alajõe, Remniku and Smolnitsa.

Sand dunes can be as high as 5–8 meters; in Alajõe, their height can reach 20 meters. Only a few plants grow on white dunes right on the shore; moss, lichen and pine forest join these plants on grey inland dunes. A nature park was established to protect the dunes of Järvevälja and Smolnitsa and their biota. The plants that grow on the dunes are easily destroyed by stepping on them; therefore, you should only use the existing trails and build fires in the specially designated areas when hiking in this area. On the dunes of the northern shore of Lake Peipus, the ear of a hiker can catch a peculiar sound – the sands 'sing'. This noise is created by sand grains rubbing against each other and is a sign of the cleanness of water and sand.

You can take a look at the dune landscape and habitats by hiking on Luite nature trail that begins at Kauksi Nature Centre.

The vast area of dunes that was formed when the waters of Lake Peipus retreated does not let water back into the lake creating huge **swamps** on the lowlands of Alutaguse. Swamps that have not been altered by human activity are rare in Europe. Swamps contain our clean water supplies and provide habitats and migration corridors for species that do not like to come into contact with humans (eagles, wood grouse, willow ptarmigans, black storks, bears, wolves, lynxes, etc.). Agusalu and Muraka Nature Reserves are among the wetlands of international importance that were created to protect swamps, protected species and their habitats.

Old native trees that are home to Siberian flying squirrels still grow on bog islands and fringes of **Muraka** fen. Kotka nature trail that runs for 8 kilometers and starts in Iisaku allows looking at the nature of Muraka fen. **Selisoo** Nature Reserve is a buffer zone for the Muraka fen against the effects of coal mining; a nature trail with lookouts was created to introduce the local biocoenosis influenced by human activity.

Agusalu fen is characterised by high (3–18 m) and narrow strand plains running towards north-west and south-west, which alternate with swampy areas. These strand plains are considered the only continental dunes in Estonia and are called *kriivad*. 200–250 strand plains alternating with swamps form a varied and unique landscape. All developmental stages of a swamp can be observed here; the old natural forest that grows on strand plains is a suitable habitat for eagles, wood grouse and willow ptarmigans. You can visit the nature reserve by taking the biking trail that runs for 38 km and starts in Agusalu. Further information is available in Iisaku Nature Centre.

A part of **Puhatu** fen is also protected; this fen was the largest wetland in Estonia, but unfortunately, it has been partly destroyed by peat production and coal mining. Puhatu Nature Reserve boasts Poruni primeval forest. On the banks of Poruni River, you can find an old broad-leaved forest with very complicated layering and a floodplain forest where the majority of trees are ashes and alders – a rare combination in Estonia. A nature education trail has been created to help visitors of the primeval forest.

Struuga Nature Park, which is the newest and the most unique of nature parks, is located in the near vicinity of the Narva River between the villages of Vasknarva and Karoli. The Park protects the oxbow lakes of the Narva River and floodplain grasslands and their habitats. The protection area is also a special conservation area for birds; the local key species are great snipes, short-eared owls and corn crakes. The oxbow lakes are excellent places for Peipus fish to spawn and a place of protection for fish species such as asps, loaches, European bullheads and European weatherfish.

Further information for hikers in Alutaguse swamps and forests is provided by Iisaku and Kauksi Nature Centres; accommodation, catering and creative activities are offered by **Alutaguse Recreation and Sports Centre** (<http://alutaguse.com>) located in Illuka, which is situated in a very unique corner of Estonia – in Kurtna where there are 42 lakes on an area of 30 km². In Alutaguse forests and swamps, nature hikes and mammal tours are organized by tourism companies **Estonian Nature Tours and 360°**.

The shores of Peipus offer great variety; you can find flat sandy beaches, coastal moraine landscapes and peat beds that are covered in thick sedges and reeds. In **Kallaste**, on a very short strip of the western shore of the lake, there is an especially beautiful **limestone bluff**. Here, red Devonian sandstone can be spotted on a nearly one-kilometre strip. At its highest part, the Aruküla exposure of the Middle Devonian horizon is as high as 8 metres; many fossils of sea fish of that period have been found here.



Kallaste bluff is protected as a natural monument of primeval nature and a valuable habitat for different plants and animals. The high sandbank is a great place to nest for sand martins – about 678 pairs of birds nested here in 2012.

In Alatskivi, the level landscape is divided by **Alatskivi glacial valley** and its eskers and lakes in valleys nearby; Alatskivi valley is the only protected cultural landscape in this region. The approximately five kilometres of hiking trail allows you to enjoy the nature of the glacial valley, to visit the site of an ancient Estonian settlement and a beautifully restored Alatskivi manor house, the old manor park and its deer garden.

About 15 minutes by car to the west of Alatskivi, you will find **Padakõrve Nature Reserve** that was established to protect kames, the old natural forest and the biota of mesotrophic bog forests and oligotrophic bog forests. Nature enthusiasts will be excited about the largest known population of wood ants in Europe with about 1500 mounds. Mounds can only be observed from the forest trail that runs through the nature reserve but even the populations by the sides of the road are a sight you will never forget.

