

# Pyhäjärvi



A management plan was made for the Natura 2000 areas of Säkylän Pyhäjärvi in 2012. The planning area contains two Natura areas, Harolanlahti and Pyhäjärvi. The goal of the plan is to coordinate the objectives of nature conservation, recreational use and other uses of the area. It is a kind of user guide for the sustainable use of the area. Progress of the plan's objectives will be evaluated approximately every five years.

The vision of the management plan is that the good water quality in Pyhäjärvi will promote the positive development of recreational use of nature, nature

tourism and the other key enablers of operations in the area. Pyhäjärvi is an attractive and versatile destination for recreation and nature tourism. Pyhäjärvi is known nationally and internationally for its good regional collaboration in order to improve the condition of the lake, and it is a significant and interesting subject of study due to the high-quality and multidisciplinary research.

## Conservation of Pyhäjärvi

The purpose of establishing the Pyhäjärvi Natura areas was to secure a favourable conservation level of nature types and habitats of species mentioned in the Habitats Directive as well as the species mentioned in the Birds Directive. In addition to the Natura areas, the management plan includes private nature conservation areas. Depending on each area, their objectives range from the conservation and management of the valuable nature destination's assets, conservation of the diversity, beauty of nature and the favourable conservation level of the nature type/species, maintaining the characteristics of bird wetlands in the area and protecting nesting birds, and preserving the vegetation, fauna and landscape of the islands. Eight nature types mentioned in the Habitats Directive are known to exist in the planning area. The most significant ones are oligo-trophic waters containing very few minerals of sandy plains as well as groves. Additionally, there are flood meadows, wooded swamps and natural forests. The Pyhäjärvi planning area includes two separate Natura areas, the Harolanlahti area and Pyhäjärvi.

The local restoration work has long traditions. The Pyhäjärvi region and the nearby municipalities, industry and organisations finance the restoration program implemented by the Pyhäjärvi Restoration Program run in Pyhäjärvi Institute. There is more information on the activities of the restoration program on this website: [www.pyhajarvensuojelu.net](http://www.pyhajarvensuojelu.net)

## What is Natura 2000 and why is it important?

- The aim of the Natura network is to assure the long-term survival of Europe's most valuable and threatened species and habitats.
- The purpose is to protect the nature types and habitats that are becoming rare as well as the valuable bird areas.

In Natura areas, it is forbidden to significantly impair the natural assets due to which the area is a part of the Natura network in the first place. Usually this does not restrict individuals' acts in terms of normal use of the land.



### Land use

-  Private nature conservation area
-  Metsähallitus area
-  Natura 2000 area

## Harolanlahti

The northernmost remote area of Pyhäjärvi with its nearby shores and wealth of birds belong to Harolanlahti. There are several groves on the western shore of the bay and near the shore. Most of the shores are reed banks and there are occasional flood meadows. The esker-filled point of Hiittenkari is a valuable landscape that is also included in the conservation area. The species and mating couples of waterfowl are abundant.

The groves of Harola form one of the most important grove protection areas in Satakunta. It is a diverse and lush entity of grove-like dry heaths, groves, dry heath forests, bogs and shores. The hazel groves are especially wonderful. Other very valuable habitats are shores and meadows of alders as well as the flood meadows filled with common alders in Peiniemi. The flying squirrel – an endangered species – inhabits the area.

## Pyhäjärvi

Pyhäjärvi is both the largest lake in south-western Finland and the provincial lake of Satakunta and Varsinais-Suomi. It belongs to the Eura River watercourse. Pyhäjärvi is a shallow and open lake with clear water. Especially the eastern shore is rocky and most of the islands are located in that area. The most important rivers that run into the lake are Pyhäjoki and Yläneenjoki. Pyhäjärvi outflows along Eura River into the Sea of Bothnia.

The representativeness of the nature type "oligotrophic waters containing very few minerals of sandy plains" in Pyhäjärvi is excellent except in the northern part of the lake where this representativeness is significant. Vegetation is clearly zoned, submerged vegetation is substantial and the species are many and diverse. Shoreweed is also present in the lake.



**Area 155 km<sup>2</sup>**

**Length of island-free open lake:  
approximately 25 km**

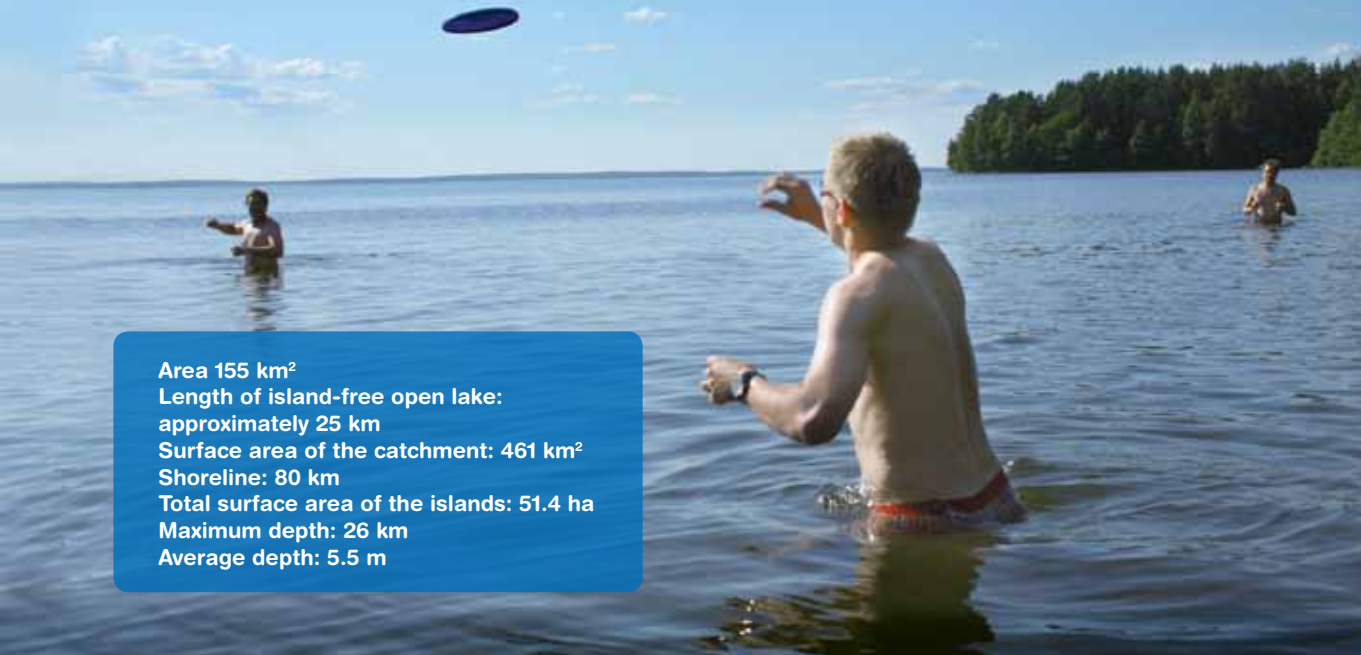
**Surface area of the catchment: 461 km<sup>2</sup>**

**Shoreline: 80 km**

**Total surface area of the islands: 51.4 ha**

**Maximum depth: 26 km**

**Average depth: 5.5 m**



## Birds

Two species under strict protection, three endangered species and 27 species mentioned in Annex 1 of the Birds Directive have been observed in the Pyhäjärvi area. The significance of the different areas of Pyhäjärvi to the birds varies depending on the species and species groups. Mannilanlahti, Kauttuanlahti and Sarvonlahti are the most important areas for species that thrive on lush shores and wetlands. For the nesting water-fowl and gulls, the areas of importance are especially the northern end of the lake, the areas surrounding Katismaa, the Säskylä archipelago and the small islets, for example Lintulaki where is the largest black-headed gull colony in the whole area. The Bird Report (Yrjölä, Kekkonen, Tanskanen, Uppstu. 2010) mentions species observed in the area, such as terns, black-headed gulls, black-throated loons, red-throated loons, common scoters and long-tailed ducks. The greenish warbler and the red-breasted flycatcher, both of which inhabit wooded shores, have been observed in the Harola and Pähkinistö areas. The complete Bird Report is available on the Internet: [www.pyhajarvi-instituutti.fi/kiulu](http://www.pyhajarvi-instituutti.fi/kiulu)

**Species under strict protection:** white-tailed eagle and Caspian tern

**Threatened species:** lesser black-backed gull, greater scaup, lesser spotted woodpecker

## Vegetation

The vegetation of Pyhäjärvi is diverse and substantial. The Aquatic Plant Report mentions a total of 62 aquatic plant species (submerged plants, floating-leaf plants and emergent plants), of which some favour oligotrophic and some eutrophic waters. Areas with



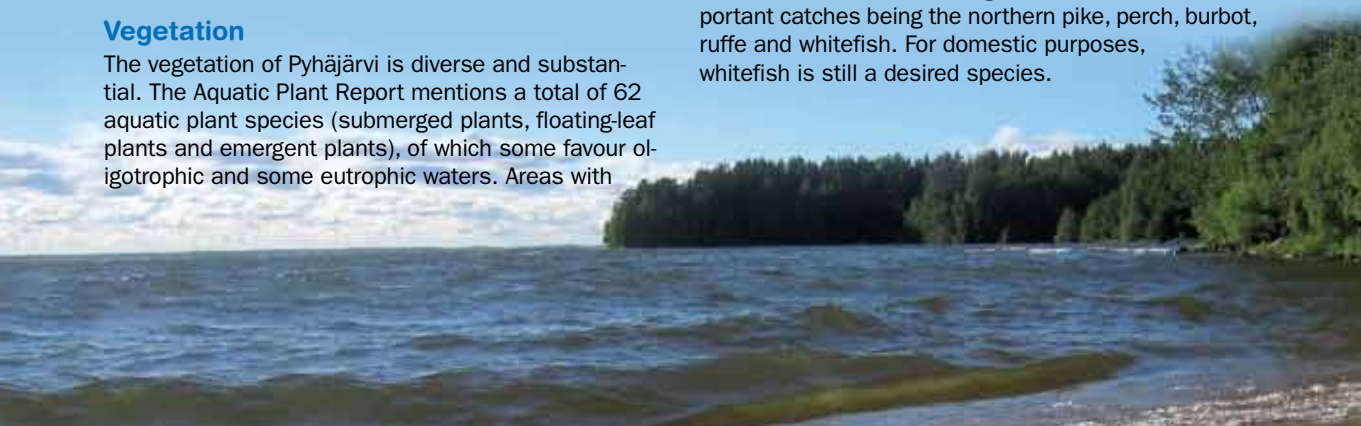
the lushest vegetation are located at the beginning of River Pyhäjoki and Vähäkylänlahti, both of which are areas sheltered by islands, as well as in Mannilanlahti on the western shore. The vast and open lake restricts the emergence of aquatic plants. Of the large islands, lissalo and Emäkari are grove-filled islands in the middle of the

open lake. The common reed is, of course, significant in the context of ecology and landscape. In some places, the yellow water lily is also abundant and an easy-to-see species. Common and abundant species of submerged plants are water lobelia, lake quill-wort, American waterweed, alternate water-milfoil, common water moss and fragile stonewort.

**Near-threatened species:** Fontinalis moss

## Fish

There is significant professional fishing and crayfish catching in Pyhäjärvi. The most important fishing methods are winter seines and fyke nets. The most important catches are vendace, northern pike and perch. Professional fishermen also conduct biomanipulation by fishing smelt, common roach and ruffe from the lake. Biomanipulation has been supported since 1995. In recent years, the utilisation opportunities of the catch removed by fishing have improved. Pyhäjärvi is significant also as a recreational fishing destination, the most important catches being the northern pike, perch, burbot, ruffe and whitefish. For domestic purposes, whitefish is still a desired species.





## Assets and use:

### Recreational use

The Pyhäjärvi region is a rich and diverse area for those engaging in nature tourism and recreational use. Pyhäjärvi is an important recreational destination for the local residents throughout the year, offering a range of activities (for example fishing, boating, skiing, ice skating, swimming and water sports). The lake is also a top fishing destination in southwestern Finland. It is also a popular destination among the region's bird-watchers. Harola also boasts the most excellent groves in the whole province and its history is nationally remarkable.

### Cultural heritage

All in all, there are 690 Iron Age cairns in Harola, as well as three stone structures that resemble forts. Most of the cairns are located in the grove preservation area of Harola. The area is very valuable in terms of the protection of relics and the area with the cairns has some of the most noteworthy relics in the nation.

### Species

Several of the species mentioned in the Habitats and Birds Directives are found on Säkylän Pyhäjärvi and its shores. The key assets centre around birds.

### Research

Research and monitoring activities in and around Pyhäjärvi are very notable. The geology, biology and the quality of the water have been monitored for several decades by many research institutes and authorities. The restoration program of Pyhäjärvi performs noteworthy research activities in the area in collaboration with several other entities (for example the Universi-



ties of Turku, Helsinki and Jyväskylä, the Finnish Environment Institute, the Centre for Economic Development, Transport and the Environment of Southwest Finland, Geological Survey of Finland and the Finnish Game and Fisheries Research Institute) and Pyhäjärvi also participates in many international projects.

## Threats:

Climate change can add external nutrient loading to the lake, for example in the form of runoffs caused by rain in the winter. External nutrient loading, in turn, promote eutrophication, which reduces the representativeness of the nature type called "Oligotrophic waters containing very few minerals of sandy plains". Additionally, climate change may promote the spreading of invasive species. Climate change can also affect the structure of fish stocks and change the range of species, which in turn affects fishing methods and the premise of professional fishing. Insufficient fishing of less valuable species of fish threatens the survival of the commercially valuable species.

Threats to the area as a tourist destination are the diminution of recreational opportunities due to eutrophication and lack of management as well as inadequate marketing and weak networking. One of the future challenges is indeed the development of service offerings.

Insufficient financial resources threaten the implementation of research.

Nature types are also threatened by the regulation of the lake water level, waterborne traffic, littering the environment, tourism that takes a toll on nature, pesticides, infiltration of the artificial groundwater around the eskers in Virttaankangas, construction on shores as well as oil and chemical spills. In Harola, the lack of management and maintenance cause reverting to bush, degeneration of the grove vegetation as well as plants being replaced by fir trees.

## Objectives of the Plan

- The good condition of Lake Pyhäjärvi will be secured.
- Nature types in Harola will be representative.
- Invasive and alien species will not be detrimental to the native species.
- Professional fishing will continue in Pyhäjärvi.
- Pyhäjärvi and Harola will be attractive and diverse recreational destinations.
- Increases in nature and fishing tourism in the Pyhäjärvi region without jeopardising natural assets.
- Nature management in the area will be based on sufficient and varied knowledge gained from research and monitoring.
- Archaeological destinations will be representative.



## Implementation and procedures

Implementation of new water protection procedures in the catchment area.

- Creation of new wetlands, sedimentation ponds, protective zones and other measures, focusing primarily on diminishing the burden caused by flood peaks and improving the water retention ability of the catchment area.

Outlining the efficacy and renew the existing water conservation procedures.

Reduction of the burden caused by waste water in sparsely populated areas.

Sufficient selective fishing.

- Development and testing of new and existing fishing methods in the circumstances of Pyhäjärvi.
- It is recommended that several species of fish are caught in a balanced manner.

Securing financing for the Pyhäjärvi restoration program.

Development of and support for landscape management of the various areas.

- Management methods, for example grazing, clearance and mowing support the representation of areas with cultural and ancient remains.
- Cutting small-scale gaps in areas where vegetation has taken over bodies of water can improve assets related to birds.

Promotion of recreational use and knowledge.

- Via marketing, nature tourism product development and collaboration of entrepreneurs.
- With the help of teaching materials and environmental education related to water, water conservation and the cultural environment.
- Compile and maintain information packs on the terrain.

Maintaining and promoting the existing service structures and creating new ones.

Removal of detrimental species and/or restricting their stocks, outlining the effects of invasive species, and research. Increasing the hunting of small predators in order to protect birds.

## In Natura areas, you may:

Individuals' normal use of land is normally not restricted in Natura areas. Every Man's Right applies in Natura areas so that it is forbidden to impair the natural assets based on which the area was selected as a Natura area. The foundation of the Harola and Pyhäjärvi Natura areas is to secure a favourable conservation level of nature types and habitats of species mentioned in the Habitats Directive as well as the species mentioned in the Birds Directive. The area's protection decisions must be followed also in private conservation areas. It is possible to practice for example forestry in the area without jeopardising the protection principles.

## Use of the Pyhäjärvi areas is restricted as follows:

- Lake Pyhäjärvi Fishing Area (the owners of fishing waters) has introduced restrictions on for example traps, undersize catch and prohibited areas and the organisation also determines the annual closures to ensure the spawning of whitefish.
- Declarations of preservation and the Fishing Area's decisions must be followed in private conservation areas.
- Uusiluoto: Disembarkation is prohibited during birds' nesting period, April 15th–July 15th.
- The eastern point of Pähkinistö, Himmi, the unnamed island to the west of Himmi as well as the unnamed minor rocks: movement and disembarkment are prohibited during birds' nesting period, April 1st–July 31st.
- From the northern tip of Kalasaari to the southern tip of the point of Pähkinistö: speed limit 10 km/h.
- Motor boating is prohibited in the areas comprising the northern tip of Kalasaari and the southern tip of the point of Pähkinistö (the northern boundary) as well as from the southern part of Kalasaari to the southern part of Himmi (the southern boundary).
- It is recommended to avoid moving in the vicinity of Emäkari during birds' nesting period, May 1th–July 15th.

## Every Man's Right

### In nature, you may:

- move by foot, skis and bike besides on people's yards, fields or planted areas that may be damaged by movement
- pick wild berries, mushrooms and flowers
- stay temporarily in areas where moving around is allowed (e.g. camping)
- fish and ice fish; lure fishing requires a county-specific permit
- use the waterways for boating and swimming, walk on ice

### You need the landowner's permission to:

- make a fire
- operate a motorised vehicle
- pick sprigs, moss, lichen, wood material etc.; fell trees

### You may not:

- create disturbance, disturb domestic peace, cause damage, litter, hunt without permission
- disturb or damage birds' nests or fledglings
- pick protected plants





The plan was made by Pyhäjärvi Institute in the Kilpailukykyä Pyhäjärvisuodun luonnosta (Competitiveness from the Nature of Pyhäjärvi Area) project in co-operation with Metsähallitus – Forest and Park Services. The whole plan is available on Pyhäjärvi Institute's website: [www.pyhajarvi-instituutti.fi/kiulu](http://www.pyhajarvi-instituutti.fi/kiulu). This brochure is made in project Pyhäjärven ja Köyliönjärven Natura 2000 alueiden hoito- ja käyttösuunnitelmat yleistajuisiksi esitteiksi.

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