

Lake Köyliö



A management plan was made for the Lake Köyliö Natura 2000 areas in 2012. 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 with regard to tourism and trade. Progress of the plan's objectives will be evaluated approximately every five years.

The vision of the management plan is that Lake Köyliö will be an attractive national landscape and a nature destination that can be utilised in a versatile manner for recreational and economic purposes.



Conservation of Lake Köyliö

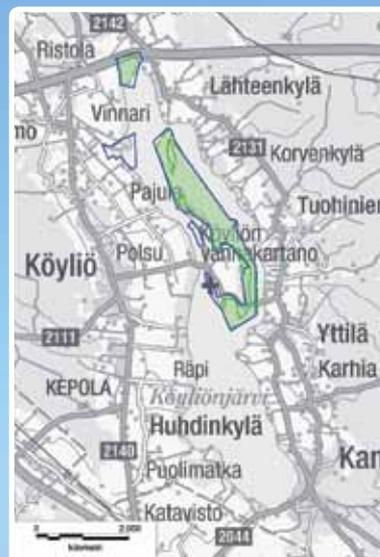
The purpose of establishing the Lake Köyliö Natura areas was to secure a favourable conservation level of nature types and habitats of species mentioned in the Habitats Directive as well as the species mentioned in the Birds Directive. In addition to the Natura areas, the planning area of the management plan includes private nature conservation areas, the purpose of which is the preservation of the precious nature, such as the birds and related assets as well as the management of the traditional landscape.

The Lake Köyliö Natura area consists of three small areas. The Kirkkosaari-Kaukosaari area and the northern part of the lake are protected by the Nature Conservation Act and the beginning of the river is protected by the Water Act and the Building Act. Smaller areas in the Kirkkosaari-Kaukosaari area have also been placed under protection in accordance with the Water Act and the Building Act.

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
-  Natura 2000 area

© Metsähallitus 2012
© Suomen ympäristökeskus 2012
© Karttakeskus Oy, Lupa L5293
Maanmittauslaitos 1/MML/12

Lake Köyliö

Lake Köyliö is a part of the Eura River waterways. It is a shallow lake, its centre being only three metres deep. Lake Köyliö is a typical rift with shores free of bays and points. By morphology, it is divided into two shallow basins in the north-south direction. The largest islands, Kirkkosaari and Kaukosaari, are in the middle of the lake and their ridges create a unique feature in the lake landscape. There are altogether five islands. Lake Köyliö is surrounded by intensively farmed fields and a total of 26 ditches run into the lake. The largest ditches are Ketelinoja, running from Säkylä, and Mustaoja, running from the northern shore of the lake. Lake Köyliö outflows along River Köyliö into Eura River and further into the Sea of Bothnia.

Lake Köyliö has been placed in the poor ecological category in the water management classification. It is rich in nutrients and calcareous. The biggest problems with the lake are the high external and internal nutrient loadings and eutrophication.



Area: 12.5 km²
Surface area of the catchment: 125 km²
Total surface area of the islands: 146 ha
Maximum depth: 12.8 km
Average depth: 3 m





Birds

The whole Lake Köyliö is an internationally important bird area. The flood meadows on the northern and middle parts of the lake and the reed banks from Vinnari to the northern part of the lake as well as the eastern shore of Kirkkosaari belong to the Waterflow Habitats Conservation Programme. The southern part of the lake is a significant rest and feeding place during migration. The birds are diverse and rich in species, including several breeding species mentioned in the Directive. In the area, one species under strict protection and one endangered species as well as 19 species mentioned in Annex 1 of the Directive have been observed. A bird observation tower has been built near the beginning of the river and this area is one of the best areas in terms of the number of species around the lake.

Vegetation

Vegetation is lush and the main characteristics of the water vegetation closely match the description of the lake's nature type. The signs of declining water quality can be detected in the water vegetation. One of these signs is that there is only a small amount of submerged vegetation. Leathery grapefern, which is a near-threatened and regionally threatened vascular plant, can be found in the Lake Köyliö area.

Fish

There is no professional fishing at Lake Köyliö but the lake is a lively location for recreational fishing. Some of the catch species at Lake Köyliö are for example perch, the northern pike, burbot, zander and representatives of the cyprinids (roach and bream). Zander and the northern pike are stocked by the Lake Köyliö Fishing Area (the owners of fishing waters).

Seminatural biotopes

There are representative seminatural biotopes in the Lake Köyliö area, such as dry and fresh leas that are rich in species, wooded pastures and grazed burnt-over woodland. There is a grove on the northern edge of Kirkkosaari as well as meadows, leas and wooded pastures in Kaukosaari. There is also a significant cultural-historical entity in the Kirkkosaari-Kaukosaar-enharju area (church, cemetery, ancient graveyards from the Iron Age and a protected commemorative stone for Saint Henrik).

Species under strict protection:

white-tailed eagle

Endangered species:

lesser black-backed gull

Near-threatened species or regionally threatened species (according to Annex 1 in the Birds Directive):

grey-headed woodpecker, common tern, bittern, crane, whooper swan, wood sandpiper, spotted crane, Slavonian grebe, red-backed shrike, hazel grouse, marsh harrier, ruff, black-throated loon, white-tailed eagle, little gull, corn crane, lesser black-backed gull, osprey, smew.

Other near-threatened or regionally threatened species:

garganey, common redshank, common pochard, tufted duck, common merganser, northern pintail, Eurasian curlew, bean goose, black-headed gull, velvet scoter, common rosefinch, common sandpiper, common snipe, red-breasted merganser, common kestrel, common ringed plover.

Assets and use:

Recreational use

Lake Köyliö is an important recreational destination throughout the year. In the wintertime, it is possible to ice fish, ski, kicksled and ice skate on the lake. In the summer time, you can fish and go boating. There are three official swimming areas by the shores of the lake. The attractions of Lake Köyliö are the cultural-historically valuable landscape, historical destinations and the diverse and species rich birds.

Lake Köyliö is a significant destination of recreational fishing for the local people. Biomanipulation has been implemented on a small scale since 1992. In 2009, crayfish pest was detected in the stock of the noble crayfish, which is why signal crayfish was introduced in the lake.

Cultural heritage

Lake Köyliö is, in the historical and the landscape context, an exceptionally valuable entity. It is one of the national landscapes of Finland as well as a nationally valuable cultural landscape.

Species

Several of the species mentioned in the Habitats and Birds Directives are found in Lake Köyliö and on its shores.

Threats:

Climate change can increase external nutrient loading to the lake, for example in the form of runoff caused by rain in the winter. External nutrient loading, in turn, promotes eutrophication, which reduces the representativeness of the nature type called "natural eutrophic lakes". Additionally, climate change may promote the spreading of invasive species.

Insufficient and ineffective water protection measures in catchment areas are a threat to the representativeness of the lake's nature type. The structural change in agriculture is another serious risk that may lead to a lack of management and maintenance of seminatural biotopes.

Reverting to bush through eutrophication is a threat to the assets of birds and landscape. Similarly, eutrophication affects recreational use, for example due to the increase of blue-green algae.

Slow development of services and unused development opportunities also form a threat to the usability of the area. These are for example low emphasis on the assets of birds in marketing and lack of services offering nature experiences.



Objectives of the Plan

- Stop the eutrophication and improve the quality of water in Lake Köyliö.
- Retain the representativeness of the seminatural biotopes.
- Maintain the assets of birds.
- Nature and cultural landscapes are representative.
- Lake Köyliö is an attractive and versatile recreational destination.



Implementation and procedures

Implement new water protection procedures in the catchment area.

- Strongly outline the opportunities and costs related to the remediation measures that would decrease eutrophication in the lake.
- Create 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.
- Promote the tilling of arable land so that it leads to a low sensitivity to erosion and a high ability to retain water during floods.

Renew the existing water protection methods.

Develop cultivating methods and agricultural practices so that the goal of reducing external burdens is promoted.

Sufficient selective fishing.

Secure the necessary financing to restore Lake Köyliö.

- Implementing water protection methods promotes improvements of the Natura 2000 nature type representativeness as well as the fulfilment of water management objectives in accordance with the Water Framework Directive.

Updates and implementation of the management plans of seminatural biotopes, and the use of special environment aids.

Cutting gaps in reed banks can improve the assets of birds.

Develop and support landscape management of the various areas.

- Management methods, for example grazing, clearance and mowing support the representation of areas with cultural and ancient remains.

Promotion of recreational use and knowledge via marketing, teaching materials and environmental education related to water, water conservation and cultural environment.

Maintenance and promotion of the existing service structures.

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 Lake Köyliö Natura project is to secure a favourable protection level of nature types and habitats of species mentioned in the Habitats Directive as well as the species mentioned in the Birds Directive. Additionally, this area includes private nature conservation areas, the purpose of which is the preservation of the precious nature, such as the birds and related assets as well as the management of the traditional landscape. 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 Lake Köyliö areas is restricted as follows:

- Access to Kirkkosaari and Kaukosaari is denied during birds' nesting period, May 1st – June 30th. Due to reasons related to grazing or nature management, access to the area is allowed during the restricted period.
- Lake Köyliö Fishing Area (the owners of fishing waters) has advised boaters to avoid using motorboats in areas of spring-spawning fish.
- Lake Köyliö Fishing Area determines the annual restrictions on traps and fishing.
- Declarations of preservation and the Fishing Area's decisions must be followed in private conservation areas.

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 Pyhäjärvisuon luonnosta (Competitiveness from the Pyhäjärvi Area Nature) 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. This brochure is made in project Pyhäjärven ja Köyliönjärven Natura 2000 alueiden hoito- ja käyttösuunnitelmat yleistajuisiksi esitteiksi.

Publisher: Pyhäjärvi Institute
www.pyhajarvi-instituutti.fi
Photos: Rauno Yrjölä and Pyhäjärvi Institute's photo archives
Brochure layout: Mainos Mariini, Mari Aarikka
Translation: Käännöstoimisto Lingo
Place of printing: Eura Print Oy