

to protect species



to protect  
peatland ecology



for people



in Europe



# Aapa Mire Wilderness Life

southernmost aapa  
mire wilderness  
areas in Northern  
Ostrobothnia  
and Kainuu

Final report  
2005



LIFE Nature project supported by the European Union

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Photo: Pekka Sillampää





## BACKGROUND TO THE AAPA MIRE WILDERNESS LIFE PROJECT

The Natura 2000 nature conservation programme aims to preserve European natural habitats by protecting typical species and biotopes in each area of the continent. Finland has a special responsibility in the conservation of peatland biotopes, as no other European country has such extensive and varied peatlands as Finland.

The Natura 2000 areas in Litokaira, Olvassuo and Iso Tilansuo-Housusuo, located in the municipalities of Ranua, Pudasjärvi, Puolanka and Utajärvi in northern Finland, are extensive, ecologically significant mire wilderness areas. A common denominator to all of them is a mosaic-like variation of peatland and forest. Typical features of these areas include treeless aapa mires and old-growth forests. These provide ideal living conditions for many endangered animal and plant species. The area has particularly high significance for the conservation of birds. The Natura areas also have great recreational importance. These areas have always had an important role in providing local inhabitants with enjoyment. However, until now no facilities have been set up to serve local recreational purposes or nature-based tourism, a fact that has caused erosion and littering in some areas and, on the other hand, prevented the creation of sustainable nature-based tourism.

The LIFE project carried out in 2002–2005 in the Litokaira, Olvassuo and Iso Tilansuo-Housusuo Natura 2000 areas aimed to secure an adequate conservation level in the project area, sustainably harmonise various land-use forms, restore areas which have changed due to human intervention, improve awareness and pro-conservation attitudes in the areas and develop the possibilities for local recreation and nature-based tourism in the area. The total budget of the project was 1.7 million euros, of which the EU LIFE funding accounted for one half.

Northern European mire and forest biotopes established in Finland provided the setting for the Aapa Mire Wilderness LIFE project.

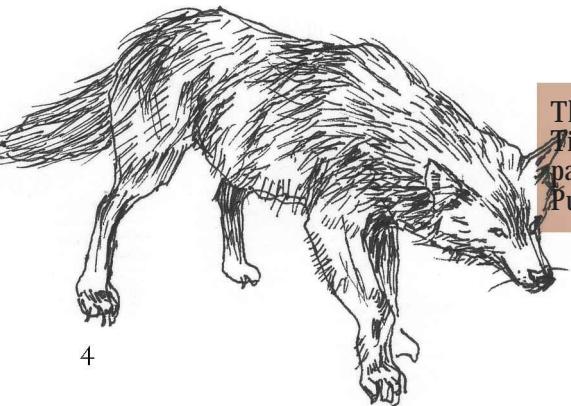
Photo: Jorma Luhta



The other half was jointly financed by Metsähallitus, the North Ostrobothnia Regional Environment Centre, the town of Pudasjärvi and the municipalities of Puolanka, Ranua and Utajärvi.

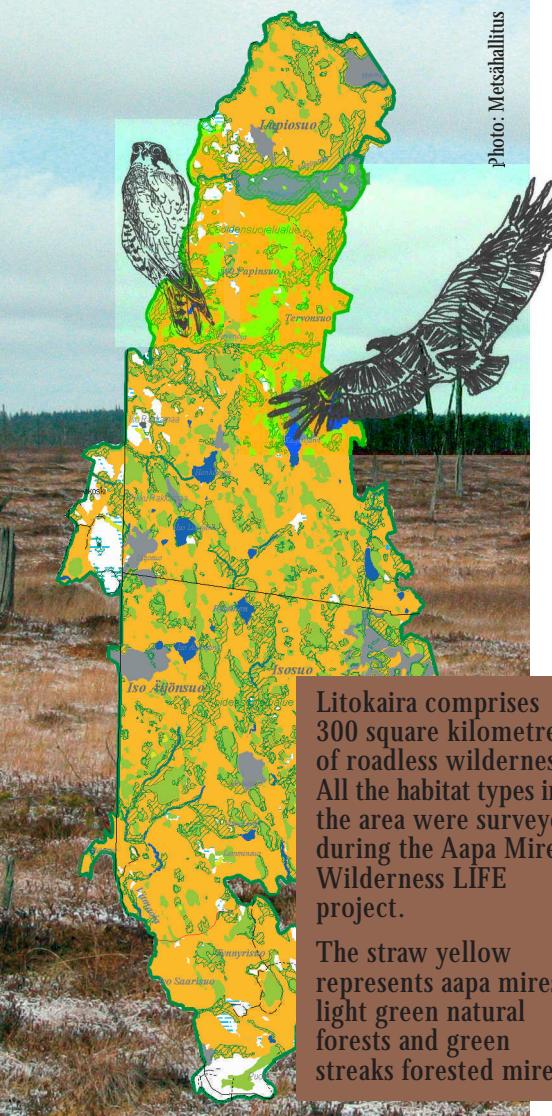
The scope of the project was rather extensive and the goals were ambitious. How to combine the conservation of sensitive habitats with local recreational use and nature-based tourism? When these objectives are considered side by side, they may even appear contradictory. However, each is a part of the greater whole. These individual goals as parts of the whole can yield benefits for both the environment and the local population.

This publication presents the results and process of the project as aspects of four categories: management and land use plans, restoration, information materials and local recreational use and nature-based tourism. With the project drawing to a close, we can state that the goals have been reached and that the significance of these areas as conservation and recreational areas is broadly recognised and that their adequate conservation is safeguarded far into the future.



The extensive wilderness areas of Litokaira, Olvassuo and Iso Tilansuo-Housusuo, consisting of treeless aapa mires and forested patches, are located in the municipalities of Pudasjärvi, Ranua, Puolanka and Utajärvi in the Northern Ostrobothnia province.





## MANAGEMENT AND LAND USE PLANS

A management and land use plan is a long-term plan covering the forms of management and land use intended for the area in question and basic information about its natural features. The main purpose of the plan is the protection of the local habitats and species, and sustainable harmonisation of the various forms of land use. Comprehensive basic surveys of the local plant and birdlife and the history of land use were completed for the Natura 2000 areas in Litokaira, Olvassuo and Iso Tilansuo-Housusuo for the management and land use plans.

All the sites in the project areas are wilderness. The areas have mainly been used for traditional forms of utilisation: hunting, berry picking, fishing and reindeer husbandry. Harmonisation of these forms of use has not been problematic as such, rather they continue to coexist peacefully, as they have for centuries. New elements created by modern times may, however, upset the balance. Accordingly, the biggest challenge for planning the management and use of the three Natura 2000 sites in the project area was to reconcile nature-based tourism and the traditional forms of use in way that preserves the wilderness character of the area and the species requiring such conditions. The challenge was met by creating small-scale recreational zones at the easily accessible fringes of the areas, to which the largest numbers of visitors will be diverted, while keeping intact the remote nature of the core areas. People may still move about in the remote areas under the public right of access ("everyman's right"), without any new restrictions. However, no facilities will be provided to make the areas more accessible, nor will people be actively guided to these areas. The zoning also makes it possible to exclude the areas most vulnerable to erosion and habitats of protected species from the active development of nature-based tourism. No restricted areas were established, except for the Olvassuo strict nature reserve in the Olvassuo Natura area. The management and land use plans furthermore define the most urgent areas as regards habitat restoration and lay down conservation plans for species requiring special protection.

Litokaira comprises 300 square kilometres of roadless wilderness. All the habitat types in the area were surveyed during the Aapa Mire Wilderness LIFE project.

The straw yellow represents aapa mires, light green natural forests and green streaks forested mires.

The management and land use plans for the Natura 2000 areas in the project area will be subjected to approval by the Ministry of the Environment, and as soon as approved, they will be available at Metsähallitus's service points.

## HABITAT RESTORATION



Habitat restoration refers to restoring the natural conditions of a given area. Some parts of the Litokaira, Olvassuo and Iso Tilansuo-Housusuo Natura 2000 areas have previously been used for forestry, and restoring these areas can significantly increase the number and representativeness of the habitat types and species in the project area.

Draining of peatlands and construction of roads has altered the water regime and nutrient balance in the mires, leading to drying and changes in the vegetation. The flow of waters may be restored to the natural state and forming of the mire restarted by plugging forest ditches, by removing trees which have grown because of drainage and by dismantling roads. A total of 606 ha of mires – 170 ha at Litokaira and 436 ha at Olvassuo – were restored during the project. Furthermore, a separate restoration plan was drawn up for an area of 164 ha at Olvassuo. The plan will be carried out during the validity period of the management and land use plan, i.e. during the next ten years. Ten kilometres of forest roads were dismantled. The dismantling of roads will restore the mires to a natural condition and also eliminate unnecessary vehicle traffic that easily disturbs the fragile fauna and flora and the wild character of the area's core parts.

The structure of commercially managed forests is unbalanced. They contain scarce amounts of decaying wood and usually comprise stands of similar age and a single tree species. Former commercially managed forests were restored by burning as well as by creating decaying wood and small clearings of various size. A total of 149 ha of forests were restored – 39 ha by burning and 110 ha by creation of decaying wood and small clearings. These sites will reintroduce the characteristics of a natural forest that have disappeared from formerly managed forests and provide habitats of special importance for many endangered species dependent on decaying and burnt wood.

Valuable biotopes associated with traditional agriculture have in many places become overgrown as the old practices, such as grazing of wooded pastures and mowing of natural meadows, have been abandoned. A total of 2.4 ha of such biotopes, valuable in terms of the species they support, were restored and managed in connection with the Aapa Mire Wilderness LIFE project at the river Piltuanjoki in the Olvassuo area.



Photo: Metähallitus



Burning is an efficient way to restore a commercially managed forest close to its natural condition. However, the method is expensive and requires extensive skills from those in charge of the operation.



Photo: Metsähallitus

## INFORMATION MATERIALS



A key goal of the project was to increase the familiarity of the Natura 2000 areas in Litokaira, Olvassuo and Iso Tilansuo-Housusuo and in this way promote both nature-based tourism and pro-conservation attitudes. These wonderful complexes of mire and forest wilderness have already become better known. Their promotion should be continued after the completion of the project, however, and the high-quality publications and exhibitions prepared for the Aapa Mire Wilderness LIFE project provide excellent support for this purpose.

Two permanent photo exhibitions were created in the context of the project, introducing the aapa mire wilderness and the role of people as its utiliser – cosily indoors. One of the exhibitions is located at the Ranua Zoo and the other at the edge of the Iso Tilansuo-Housusuo mire, at the Tiainen croft close to the shore of Lake Kalhama, in the municipality of Puolanka. The project also included a touring photo exhibition, which has toured the municipalities and nature centres of the project area. All the exhibitions were built around photos by Jorma Luhta, perhaps the best photographer of mire wildernesses in the world.

A DVD presenting the four seasons of the mire wilderness and its inhabitants, many of them species that have recently become scarce, was released in 2005. The DVD was made by one of Finland's foremost nature documentarians, Kari Kemppainen from Kuhmo. The public may see the DVD at the visitor centre of the Syöte National Park, for example.

One of the goals for this project was to evaluate what kind of nature-based tourism is appropriate in Natura 2000 areas. The peatland tourism guide prepared for mire-related tourism provides an answer. The guide discusses nature-based tourism, particularly activities related to mires, through practical examples. It also offers ideas and useful information about hiking in mire areas, both for independent travellers and businesses involved in nature-based tourism. Peatland tourism guides, leaflets on the Litokaira and Olvassuo areas, which were also prepared during the project, and publications on the nature and history of the Litokaira and Olvassuo & Iso Tilansuo areas, compiled from the results of the basic surveys, are available at the Metsähallitus offices of Pudasjärvi 7 and Kuusamo and the Syöte visitor centre.

A great deal of diverse information was produced and made available for the public by the Aapa Mire Wilderness LIFE project. Information points provide data about the sustainable recreational use of mires, among other things.

## LOCAL RECREATIONAL USE AND NATURE-BASED TOURISM

The Natura 2000 areas in Litokaira, Olvassuo and Iso Tilansuo-Housusuo have traditionally provided an important source of recreation for the local people. There has not, however, been any actual nature-based tourism in these areas, although Litokaira, for example, enjoys a legendary reputation in Finland as an area well suited for demanding hiking. The development of nature-based tourism has mainly been impeded by lack of information about suitable locations and almost non-existent hiking facilities. The lack of regularly maintained resting points has furthermore made itself felt through littering and the disappearance of standing dead trees in the most intensively used parts of the areas.

In addition to the information material promoting the areas, hiking facilities serving the needs of both local people and tourists were built in connection with the Aapa Mire Wilderness LIFE project. Three bird watching towers, including related nature trails and rest points were built at easily accessible fringes of the areas. One of the towers is located at Papinpalo, in the northeastern part of Litokaira, and two in the Olvassuo area. Furthermore, one shelter cabin was renovated in the core area of Litokaira, and one new cabin was also built. Another shelter cabin was built at Saunakangas, on the Piltuanjoki river, in the Olvassuo area. An old hut was replaced by a new lean-to shelter at Varpulampi Pond in the Iso Tilansuo-Housusuo area. Eight information points representing the project area, the project and goals of the Natura 2000 programme were established throughout the project area.

Information materials promoting peatland-related tourism and the project area in concert with high-quality hiking facilities, which sit well in the landscape and take into account the local building tradition, create a sound basis for the emergence of sustainable nature-based tourism in the area. In future, nature-based tourism, a source of new means of livelihood outside urban growth centres, will make a substantial contribution to socially and economically sustainable development of the project area. When managed and carried out appropriately, local recreation and nature-based tourism increases the environmental awareness of people and creates positive images of nature conservation areas and their use.



Photo: Metsähallitus



The bird watching tower at Kirkaslampi offers a breath-taking view to the wide open Olvassuo mires extending almost as far as the eye can see.



## Aapa Mire Wilderness LIFE project funding:

Forest and Park Service



METSÄHALLITUS

North Ostrobothnia Regional  
Environment Centre



LIFE Nature project supported by the European Union



Town of Pudasjärvi



Municipality of Puolanka



Municipality of Ranua



Municipality of Utajärvi



Photo: Metsähallitus



Kuva: Metsähallitus

