

## Metsähallitus Natural Heritage Services

## **Annual Report 2004**



#### National parks, strict nature reserves, wilderness areas, national hiking areas and state-owned public waters administered by Metsähallitus



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Dwarf Cornel (Cornus suecica)

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Cover photo: Jaakko Kullberg – A number of rare insect species were found on the island of Örö of Dragsfjärd. Back cover photo: Metsähallitus 2004 – Marine biologist Minna Boström surveying habitats in the Kvarken Archipelago.

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### **Director's Review**

Metsähallitus Natural Heritage Services manages national parks and strict nature reserves, other protected areas, wilderness areas and national hiking areas with the aim of preserving Finland's natural features and providing free facilities for outdoor recreation. We also manage State-owned waters in lakes and the sea. This wide-ranging work provides valuable employment and creates a suitable environment for nature tourism and scientific research. Our work also promotes the sustainable use of the Stateowned forests managed commercially by Metsähallitus. Objectives are set annually by Parliament, and defined in detail by the Ministry of the Environment regarding nature conservation, or by the Ministry of Agriculture and Forestry concerning facilities for visitors.

The year 2004 for Metsähallitus Natural Heritage Services was characterised by internationalisation, the implementation of large-scale projects in Finland, and surprising developments at the end of the year concerning the revision of legislation related to Metsähallitus.

A major international evaluation commissioned by Metsähallitus examined the effectiveness and impacts of the management of protected areas in Finland. The results of this survey indicate that our protected areas are generally well managed. The expert international evaluation team nevertheless also made many suggestions for possible improvements.

Metsähallitus has meanwhile organised wideranging transboundary co-operation, and hosted in Finland many international meetings related to the management of protected areas. A seminar organised in the Archipelago in May by Metsähallitus and various international organisations focussed on protecting marine life. The World Protected Area Leadership Forum and subsequently also the Steering Committee of the World Conservation Union's World Commission on Protected Areas (IUCN/WCPA) met in Savonlinna in June. The Second International Conference on the Monitoring and Management of Visitor Flows in Recreational and Protected Areas was organised in Rovaniemi largely by Metsähallitus and

the Finnish Forest Research Institute. Metsähallitus also participated in the meeting of the Conference of Parties to the Convention on Biolgical Diversity (CBD), which approved a binding international Programme of Work for Protected Areas.

The objectives set in the METSO Forest Biodiversity Programme for Southern Finland were achieved, including the clearing of a backlog of related forest and mire habitat restoration work. The quality of Metsähallitus's habitat restoration work has been overseen both internally and with support from independent evaluation teams.

Metsähallitus has also prepared reports required by the Ministry of the Environment and the Ministry of Agriculture and Forestry for the VILMAT action plan for developing nature tourism and the recreational use of natural areas, as well as a separate plan for improving basic services for boaters. Estimates indicate that the realisation of these plans will create thousands of new jobs and generate hundreds of millions of euros of income for regional economies.

The training of field staff continued during 2004, with 55 members of staff becoming fully qualified rangers.

Revisions to legislation in the Act on Metsähallitus have redefined Metsähallitus's Natural Heritage Services business unit as the authority responsible for Metsähallitus's public administration functions, which



now cover a wide range of activities including the management of log-floating infrastructure and tree seed banks, as well as the issuing of permits for off-road traffic, hunting and fishing.

fauno Vaisanen, Director,

Metsähallitus Natural Heritage Services

## Metsähallitus Natural Heritage Services

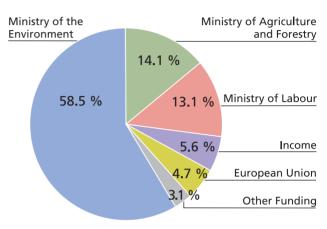
Metsähallitus manages and utilises State-owned lands and waters in Finland. Metsähallitus is a State-owned enterprise that runs business activities while also fulfilling many administrative tasks. These wider functions are mainly financed from the Government budget, and include the management of State-owned protected areas and hiking areas, the provision of outdoor recreation services, and administrative work related to log-floating infrastructure, tree seed banks, hunting and fishing. Metsähallitus Natural Heritage Services consists of six regional units and a central unit.

etsähallitus Natural Heritage Services manages most State-owned protected areas and national hiking areas in Finland, and plans their use. In 2004 these areas amounted to 38,367 km² of land (an increase of some 1,000 km² compared to 2003) and 31,100 km² of State-owned waters, making a total area of 69,748 km².

Statutory protected areas, wilderness areas, national hiking areas, recreational forests, areas reserved for future protection, and public water areas managed by Metsähallitus as of 31.12.2004.

Type of area	No. of areas	Total surface area (km²)
National parks	34	8.163
Strict nature reserves	17	1,508
Protected mires	173	4,526
Protected herb-rich woodland	49	11
Other protected areas*)	192	828
Areas established by		
Metsähallitus decisions	24	8
Statutory protected areas (total)	489	15,044
*) including previously privately-owned		
nature reserves transferred to Metsähallitu	S	
Areas reserved for		
protection programmes		7,875
Wilderness areas	12	14,904
National hiking areas	7	355
Recreational forests	99	1,644
Other areas (total)		24,778
Public water areas (not included	above)	24,320

Sources of Funding for Natural Heritage Services in 2004 (36.5 million euros)



We additionally protect and monitor the occurrences of threatened species in State-owned lands managed by Metsähallitus, and are responsible for the nationwide protection and monitoring of populations of Golden Eagle, Saimaa Ringed Seal and many other threatened species. We also provide a variety of outdoor recreational facilities free-of-charge for everyone visiting natural areas in Finland on the basis of everyman's right of free access to the land. From the beginning of 2005 our public services will include tasks related to the management of tree seed banks and log-floating infrastructure, as well as hunting and fishing.

Metsähallitus Natural Heritage Services participates in international nature conservation activities and promotes experimental and research activities that help to preserve biodiversity.

A total sum of 36.5 million euros was used to finance the operations of Natural Heritage Services in 2004 – 14% more than in 2003. The total work input amounted to 609 man-years (6.8% up on 2003); and at the end of 2004 a total of 318 people were employed by Metsähallitus Natural Heritage Services as permanent staff. Work done by 798 temporary employees accounted for almost half of the unit's total work during 2004.



New Web Services for Outdoor Recreation in Finland

Metsähallitus's visitor centres, customer service points, and other information points provide visitors with information on local natural features and facilities for outdoor recreation. Our 22 visitor centres also organise various types of events and exhibitions, and provide information about other services offered by Metsähallitus. At the end of 2004 a total of 26 visitor centres and other customer service points were in operation. These facilities welcomed 761,500 visitors over the whole year. We also manage some 12,500 km of trails and other routes, including almost 3,600 km of hiking trails and 930 km of boating routes. Firewood is provided for visitors at almost 2,000 locations, and more than 700 sites are equipped with waste collection facilities.

n March 2004 Metsähallitus launched new website services for everyone interested in outdoor recreation in natural areas in Finland, known as Luontoon.fi (in Finnish) and Utinaturen.fi (the Swedish-language version). This portal contains detailed information about many natural areas popular with hikers and other visitors, including national parks, national hiking areas and wilderness areas.

The site's search function has been specially designed to help users plan visits to areas of natural beauty all over Finland. It is hoped that the site will soon also cover areas managed by other organisations than Metsähallitus. The Koli National Park, which is run by the Finnish Forest Research Institute, is already included.

Useful information is regularly updated, and the site includes detailed descriptions of natural areas made by people with expert local knowledge. Information on local events and exhibitions will also help anyone planning a trip to the areas covered.

The Metsa.fi website now includes a special section in the Sámi language providing detailed information about issues affecting Northern Lapland, as well as other news and information about Metsähallitus's activities. Work on a Sámi-language version of the Luontoon.fi site has also begun.

Three short films about protecting the Baltic Sea have been produced by DocArt for different target audiences, in Finnish, Swedish and English. The



The Common Jellyfish (Aurelia aurita) and other wonders of the Baltic Sea can be seen in the films shown in visitor centres in coastal areas.

children's film "The Incredible Baltic Sea" illustrates marine life through stories. The film "The Child of the Ice Age" depicts the natural features of the Archipelago Sea, and is intended for boaters visiting the Archipelago National Park. The third film, "Metsähallitus at Sea" describes our work looking after the marine environment.

The European Day of Parks on 24th May was again marked by events at visitor centres around Finland under the overall theme "Natural diversity – from biology to geology". On the same day the travelling exhibition "Traces of the Ice Age" opened at the Häme and Pallastunturi Visitor Centres. This exhibition was designed in co-operation with the Geological Survey of Finland, and produced by Mosatonttu Oy. The Nordic Wild Flowers Day on 16th June was also marked by events and excursions organised at Metsähallitus visitor centres.

Facilities at the Teijo Hiking Area were improved with the opening of the Teijo Visitor Centre near Lake Matildanjärvi in April. The Kurjenrahka National Park has been equipped with a new nature information cabin, a birdwatching tower, duckboard trails and facilities for disabled visitors. The park's services are being improved in co-operation with the local conservation organisation Kurjenkello.

In the Lauhanvuori National Park, a new 22-metrehigh viewing tower was built to replace an older tower that had burnt down. During 2004 some 20,000 visitors enjoyed the panoramic views from the tower over southern Ostrobothnia and northern Satakunta.

A market research survey at the Leivonmäki National Park focussed on demand and visitors' wishes. The survey showed that the park's main attractions are its diverse natural habitats and facilities for hikers. The Evo Hiking Area in Lammi celebrated its 10th anniversary. At Petkeljärvi National Park in Ilomantsi, a park ranger's cabin dating back to the 1960s and its surroundings were restored to their original appearance.

The Kainuu Nature Centre has closed its doors temporarily, and is undergoing a major renovation, after which it will reopen as the Petola Visitor Centre, where EU funding is being used to set up a Large Carnivores Information Centre.

A new multivision presentation has been produced for the Pyhätunturi Visitor Centre, illustrating the natural features of Pyhätunturi and Luosto. Prepara-



On clear days one can even even catch a glimpse of the distant Gulf of Bothnia from the new viewing tower of Lauhanvuori.

tions were made for the opening of the greatly expanded Pyhä-Luosto National Park in March 2005, including the provision of new signs and information along a hiking trail at Luosto. Metsähallitus's Kiehinen Customer Service Point at Saariselkä moved to new premises in the new Siula Information and Shopping Centre in December. A new exhibition at Kiehinen features natural attractions within hiking distance of Saariselkä.

In June 2004, The Second International Conference on the Monitoring and Management of Visitor Flows in Recreational and Protected Areas (MMV2) was held in Rovaniemi for 130 participants from more than 30 countries. This seminar was organised by Metsähallitus in co-operation with the University of Lapland, the Finnish Forest Research Institute, the Arctic Centre and Rovaniemi Polytechnic.

### Estimated numbers of visits at visitor centres and customer service points in 2004

Blåmusslan Visitor Centre	
Ekenäs Visitor Centre	
Fell-Lapland Nature Centre	
Hautajärvi Visitor Centre	
Hossa Visitor Centre	
Häme Visitor Centre	
Kellokas Visitor Centre	
Kilpisjärvi Visitor Centre	
Koilliskaira Visitor Centre	
Nestori – Saimaa Nature Centre	
Oskari – Linnansaari Visitor Centre	
Oulanka Visitor Centre 69 000	
Pallastunturi Visitor Centre 34 000	
Petola Visitor Centre* 3 500	
Pyhätunturi Visitor Centre 34 800	
Ruunaa Visitor Centre 15 600	
Savukoski Visitor Centre 6 000	
Seitseminen Visitor Centre	
Siida – Northern Lapland Nature Centre 122 000	
Syöte Visitor Centre	
Teijo Visitor Centre	
Terranova – Kvarken Nature Centre	
Visitor centres (22) total 641 700	
* Was closed for a period of time owing to renovation	
Etiäinen Customer Service	
Customer Service at Ivalo 10 600	
Karhuntassu Customer Service 56 200	
Kiehinen Customer Service 12 500	
Customer service points (4) total 119 800	
Total (26)	

### Estimated numbers of visitors in national parks 2004

Archipelago National Park	80	000
Eastern Gulf of Finland National Park	15	000
Ekenäs Archipelago National Park	20	000
Helvetinjärvi National Park	32	000
Hiidenportti National Park	7	700
Isojärvi National Park	9	000
Kauhaneva-Pohjankangas National Park	6	000
Kolovesi National Park		
Kurjenrahka National Park	20	000
Lauhanvuori National Park		
Leivonmäki National Park	7	000
Lemmenjoki National Park	10	000
Liesjärvi National Park		
Linnansaari National Park	28	000
Nuuksio National Park		
Oulanka National Park	173	000
Pallas-Ounastunturi National Park	125	000
Patvinsuo National Park		
Perämeri National Park		
Petkeljärvi National Park	17	000
Puurijärvi-Isosuo National Park	15	000
Pyhä-Häkki National Park	11	000
Pyhätunturi National Park	25	000
Päijänne National Park		
Repovesi National Park		
Riisitunturi National Park		
Rokua National Park		
Salamajärvi National Park		
Seitseminen National Park		
Syöte National Park		
Tiilikkajärvi National Park	7	000
Torronsuo National Park		
Urho Kekkonen National Park		
Valkmusa National Park		
Total (34)	1 153	900

### Estimated numbers of visitors in national hiking areas 2004

Evo Hiking Area	50 000
Hossa Hiking Area	
Iso-Syöte Hiking Area	24 000
Kylmäluoma Hiking Area	34 000
Oulujärvi Hiking Area	25 500
Ruunaa Hiking Area	115 000
Teijo Hiking Area	60 000
Total (7)	350 500



The Kvarken Archipelago is the first site in Finland to be proposed for the natural heritage section of UNESCO's World Heritage List.

# The Kvarken Archipelago to Apply for World Heritage Status

Metsähallitus Natural Heritage Services manages almost all protected areas on State-owned lands, as well as the extensive wilderness areas of northern Lapland, national hiking areas and areas reserved for future protection under nature conservation programmes. We are also responsible for 19 recreational forests. All these areas are managed according to land use and management plans.

ata on the buildings, routes and other structures maintained by Metsähallitus Natural Heritage Services was incorporated into the new REISKA geographical information system during 2004. This system will provide up-to-date information on individual sites or specific types of structures, and it can also be used in the production of thematic maps.

An application for UNESCO world heritage site status for the Kvarken Archipelago on the grounds of the region's unique geological features was finalised in 2004 and submitted to the Ministry of the Environment in autumn.

A harmonised set of guidelines has now been adopted for planning processes in national nature reserves and other special sites managed by Metsähallitus. New land use and management plans were completed during 2004 for many areas, including the islands of Mikkelinsaari in the Kvarken Archipelago, the Evo Hiking Area in Lammi, the Siikalahti Nature Reserve in Parikkala, the Kurjenrahka National Park, four hiking areas in Oulu Province (Hossa, Oulujärvi, Kylmäluoma and Iso-Syöte), five protected mires in Central Lapland, and three extensive wilderness areas (Kaldoaivi, Tarvantovaara and Pöyrisjärvi).

Co-operation between Metsähallitus and the Criminal Sanctions Agency was expanded, with convicts involved in the restoration of wooded parkland and historic buildings in the Aulanko Nature Reserve, as well as in continued maintenance and habitat management work in the Nuuksio National Park.

The major natural resource plan drafted for Western Finland by Metsähallitus involves significant developments designed to promote nature conservation. A total

of 63 sites have been redesignated as protected forests (with a total land area of 24.5 km² and 6.1 km² of water. The largest of these sites is the Raasi Military Training Area in Yläne.

A major project involving the surveying of important aquatic and coastal habitats commenced in summer 2004 with divers surveying the shallow waters of the Kvarken Archipelago. Diving training was also provided for surveyors with valuable expert help from local diving enthusiasts.

The 10-kilometre-long dune belt at Vattajaniemi in Lohtaja on the shores of the Gulf of Bothnia, the largest such feature in Fennoscandia, is used by the Finnish defence forces for training and as a firing range. Vattajaniemi is however officially in the possession of Metsähallitus, who are actively involved in assessing the ecological impacts of the military use of the area.

During 2004 preparations were also made for the expansion of Finland's two oldest national parks. The legislation expanding Pallas-Yllästunturi National Park in NW Lapland was enacted at the end of the year.

A new 335-page book about Lemmenjoki, Finland's largest national park is packed with information and beautiful illustrations. The book includes an introductory chapter in English and all illustrations and maps are also labelled in English.

### EU LIFE-Nature projects involving Metsähallitus Natural Heritage Services during 2004

**Objectives:** to protect species and habitats primarily protected by means of the Habitats and Bird Directives; and to develop areas within the Natura 2000 Network.

areas within	n the Natura 2000 Network.
2004-2008	Natural forests and mires in the Green Belt of
	Koillismaa and Kainuu
2004-2008	Restoration and maintenance of valuable aquatic
	bird habitats of Pirkanmaa
2003-2008	Saving the endangered Fennoscandian Alopex
	lagopus (SEFALO+)
2003-2007	Management of wetlands along the Gulf of
	Finland migratory flyway
2002-2007	Karelian mires and virgin forests – pearls in the
	chain of geohistory
2002-2007	Restoration of boreal forests and forest-covered
	mires
2002-2006	Restoration of mire and bog ecosystems in North-

Savo with reference to environmental education

2001–2006	Protection of valuable bird-rich wetlands in Central Finland
2003-2005	Best practices in Finnish bird wetlands (Co-op)
<b>2002–200</b> 5	Evo Forest - Awareness-raising and protection of Southern Finland forest biotopes
2002-2005	Protection of aapa mire wilderness in
	Ostrobothnia and Kainuu
2001–2005	Herb-rich forests, forests of Dendrocopos leucotos
	and Western Taigas in North Karelia
2000-2005	Conservation of Cypripedium calceolus and
	Saxifraga hirculus in Northern Finland
2000–2005	Protection and usage of aapa mires with a rich avifauna in Central Lapland
2001-2004	'
	Finland, Sweden and Estonia
2001-2004	Protection and management of the valuable
	wetland Siikalahti
1999-2004	Management of the most valuable wetlands in SW
	Finland

## Projects financed through EU Structural Funds involving Metsähallitus Natural Heritage Services during 2004

**Objectives:** to reduce regional inequalities within the EU by supporting less developed areas; and to implement various environmental projects.

2004-2007 Wetlands, nature reserves and heritage land-

	scapes as resources in rural areas (Interreg III B)
2003–2006	Endangered Species in Common; Condition and
	Impacts on Conservation and Society (Interreg IIIA)
2003-2006	Historical Background to Nature Tourism on River
	Lieksanjoki (Interreg III A Karelia)
2003-2006	The occurrence and state of the populations of
	the freshwater pearl mussel in the NE parts of the
	North Calotte
2004-2005	Natura 2000 sites – a resource for Lapland
2004-2005	The Green Bridge III (Interreg III A)
2004-2005	Keropirtti construction project (Objective 1
	Programme)
2004-2005	Developing nature tourism along the Peuran
	Polku Trail
2004-2005	Developing nature tourism in the
	Kuninkaanpuisto Park
2003-2005	Kuninkaanpuisto Park

(Interreg III B)



On the island of Örö in Dragsfjärd, two moths new to Finland were found in lamplight surveys: *Euxoa vitta* and *Thisanotia chrysonuchella* (below).



# **Species Diversity Surveys Reveal Many New Species**

Natural Heritage Services is responsible for the protection of threatened animal and plant species on State-owned lands managed by Metsähallitus. We also have special responsibility for the conservation of 34 species in Finland, including the fairy slipper orchid (Calypso bulbosa), Primula nutans ssp. jokelae, arctic campion (Silene furcata), golden eagle (Aquila chrysaetos), arctic fox (Alopex lagopus), Saimaa ringed seal (Phoca hispida saimensis), and whitebacked woodpecker (Dendrocopos leucotos). Many of the species protected by Metsähallitus are also listed as important species in the EU Bird and Habitats Directives.

any significant but previously unknown occur rences of threatened insects and fungi were discovered in Finland's protected areas during 2004, during biodiversity surveys conducted jointly by specialists from Metsähallitus and other organisations.

The highest numbers of new threatened species occurrences were revealed during insect monitoring surveys of five areas of open sunlit habitat in Southern

Finland, which contained 15 threatened and 7 near threatened butterflies; 7 threatened and 6 near threatened beetles; 3 threatened and 4 near threatened ants, bees or wasps; and 1 threatened and 4 near threatened true bugs. Surveyors also discovered a new cicada species for Finland, *Psammotettix slovacus*, which lives on reed grasses in sandy soils.

Surveyors at the Komio Nature Reserve in Loppi found a spider-hunting wasp *Ferreola diffinis*, which is rare globally, and had not been seen in Finland since the 1970s. Another significant discovery was the presence of the endangered solitary mining bee *Andrena pilipes Fabricius* on Räyskälä Airfield.

More rare insects were found at Komio on a burnt forest site: the endangered cuckoo bee species *Coelioxys elongata*, the near threatened leaf-cutter bee *Anthidium strigatum*, and the cuckoo bee *Coelioxys inermis*.

The critically endangered polypore fungus *Stropharia dosrispora* was observed in two national parks, Nuuksio and Liesjärvi. A survey of polypore fungi in the Salamajärvi National Park and the Salamanperä Strict Nature Reserve revealed 110 previously unknown

occurrences of threatened polypores. The resultant data is to be used in the land use and management plan for the area, and in research conducted by the University of Jyväskylä.

A new polypore species for Finland, *Postia luteocaesia*, was found during a survey of the Repovesi National Park. This fungus particularly thrives on the decaying trunks of recently fallen trees in young pine stands on lakeshores. Such habitat exists naturally at Repovesi, where more areas of suitable habitat will be created. This species has previously only been recorded in France, Switzerland and Nepal.

Polypore surveys of the Ylläs-Aakenus area revealed two species that have only now been officially recognised by the scientific community. Specimens of *Postia* 



It can be estimated that 55-60 pairs of white-backed woodpeckers nest in Finland, where the species' numbers have recently been reinforced by birds moving in from the east.

basamina and Postia persicina had been collected during the 1960s in the Pisavaara Strict Nature Reserve, but the details of these two polypores have only now been officially defined and published.

Saimaa ringed seals (*Phoca hispida saimensis*) bred successfully in 2004, raising at least 65 pups, a record for recent times. Seal numbers are growing fastest in the central areas of the Saimaa Lake System.

An invasive plant species native to North America, downy ryegrass (*Leymus innovatus*), which was first observed in Finland just before the turn of the millennium, seems to be establishing itself in the Oulanka National Park. This grass thrives along sandy riverbanks, where it may compete with native threatened species. Plants were dug up together with their roots over an area of about one square metre, and samples were sent to be examined at botanical museums.

A total of 46 white-backed woodpecker (*Dendrocopos leucotos*) territories with nests were found in the field during intensified surveys, as well as 21 other territories where nesting could not be ascertained. The numbers of nests and territories are the highest recorded during the 15-year survey period.

In July 2004 an eyrie made by golden eagles (Aquila chrysaetos) was found to contain three eaglets. Gyrfalcons (Falco rusticolus) produced more young than in any of the five summers for which Metsähallitus has been responsible for the related monitoring. The 16 observed pairs raised 51 fledglings. This increase is thought to be due to the exceptionally high numbers of willow grouse currently found in Northern Finland.

Arctic fox (Alopex lagopus) populations have been surveyed throughout Fennoscandia in a joint Swedish-Finnish-Norwegian EU Life project. A total of 14 litters of cubs were recorded during 2004, but none of these were in Finland. Individual animals were nevertheless observed on 8 occasions in Finland, so this endangered animal can still be said to be part of Finland's arctic fauna.

Previously unknown freshwater pearl mussel (Margaritifera margaritifera) occurrences were found during surveys of Eastern Inari and the Paatsjoki Valley. The related three-year Interreg project, which also covers waters in the catchment area of the River Paatsjoki in Norway and Russia, is now at its halfway stage. Most of the newly discovered occurrences have been in previously unexplored small and rocky streams.

## Management of Open Sunlit Habitats Prioritised

Natural Heritage Services looks after threatened and rare species and their habitats. By carefully managing traditional agricultural habitats we protect valuable landscapes and their typical flora and fauna, while also preserving Finland's cultural heritage. Habitat restoration work aims to return areas disturbed by man to their natural state, or as similar a state as possible. The largest groups of threatened species in Finland are associated with traditional rural land-scapes and natural forests.



The Wild Thyme (*Thymus serpyllum*) flourishes on eskers and other open, sunlit sites. These are kept open by natural habitat management work. The sites rich in Wild Thyme are important for many threatened butterflies.

uring 2004 Metsähallitus restored 22 km² of forest habitat and 22 km² of mire habitat. A total area of about 10.8 km² of traditional rural landscape was also restored and managed. A national scheme for the monitoring of habitat restoration and natural habitat management work was planned during 2004 together with the help of experts from various organisations.

Open sunlit habitats on sandy south-facing slopes in Säkylä and on the island of Örö in Dragsfjärd were tended in summer 2004 to safeguard the local occurrences of species that thrive in the warm conditions that

prevail in such habitats during the summer. Slopes were burnt, and trees felled to allow more sunlight to reach the ground. Subsequent surveys should produce useful information about the plants and insect groups that thrive in such habitats. These measures have been urgently required, as many of Finland's threatened species only occur in such areas.

Heritage landscapes were managed and restored in various locations, including the lush waterside and woodland pastures of Sajaniemi in Lammi, and the hilly wooded pastures of Häntälännotko in Somero. Habitat management and restoration work in heritage landscapes on islands in the Archipelago Sea continued with the help of local residents. Shore meadows at Espoo's Laajalahti Bay Nature Reserve were mown mechanically where waterside pastures areas were becoming overgrown with reeds. This project has succeeded beyond expectations, and record numbers of waders and other bird species have been observed resting and feeding in the mown meadows. This work was done as part of the EU Life project for the Management of Wetlands along the Gulf of Finland Migratory Flyway.

Sheep were grazed on the Björkö Islands in the Kvarken Archipelago and on the Vattajanniemi dune belt in Lohtaja, as part of local habitat management schemes. Sheep have never completely disappeared from pastures in the Kvarken Archipelago, where hundreds of hectares of grazed birch woodland habitat have consequently survived. These unique woodlands are home to an isolated local population of the rare white-backed woodpecker. Other habitat management measures in these pastures included the clearing of junipers and spruce trees.

The Metsä-Life Project promotes habitat restoration in boreal forests and wooded mires. By the end of 2004 a total area of 1,035 ha of boreal forest had been restored, as well as 249 ha of esker forest and 187 ha of mire habitat. A total area of 62 ha of white-backed woodpecker habitat was also managed. The project has also involved habitat management training for more than 300 foresters and other officials of Metsähallitus Forestry and tens of Metsähallitus Natural Heritage



Habitat management and restoration schemes aim to preserve biodiversity. Habitat restoration work usually involves one-off measures designed to help forest and mire habitats previously used for commercial forestry to revert to their natural conditions. Habitat management work is carried out repeatedly to maintain valuable semi-natural habitats created by man. Small clearings help restore diversity to uniform forest habitat.

Services staff. This training aims to guarantee the quality and cost-effectiveness of habitat restoration work.

Unprecedented amounts of forest habitat restoration work have also been done elsewhere. The rainy summer hindered the controlled burning of forest habitats, but was favourable for mire habitat restoration schemes, since water levels rose surprisingly rapidly. Habitat restoration work was also carried out under the METSO Forest Biodiversity programme for Southern Finland. In Eastern Finland, natural forces also contributed to habitat restoration projects by felling large numbers of trees that will soon begin to decay, adding ecological diversity to the forests. On the island of Höytiäinen in Kontiolahti, for instance, trees were felled over an area of 30 ha by a whirlwind.

A lot of work has been done in recent years at the Siikalahti Nature Reserve to preserve its valuable wetland habitat, even though it may not be possible to fully evaluate the effects of such habitat management work for many years. Surveys conducted in 2004 indicated that the numbers of waterfowl pairs and the

numbers of young birds have both increased. The new meadows have also attracted increasing numbers of waders to Siikalahti. The reserve's status was upgraded during 2004, and Siikalahti is now classified as an internationally valuable staging area for migratory birds (Category I).

The only known occurrence in Northern Lapland of the hawksbeard subspecies *Crepis tectorum* ssp. *nigrescen* has been successfully managed by removing grass. Thanks to these measures the number of individual plants in the area has risen from nine to 116 over just two years.

The surroundings of a corral used to separate reindeer at Sallivaara in Inari have been managed, with trees cleared to create a more open setting. These measures were planned with the help of senior local reindeer herders. Preparations for the restoration of former reindeer herder Jouni Kaapi's reindeer farm in the Lemmenjoki National Park have included surveys of the condition of buildings and the drafting of a management plan for the clearings around them.

# METSO – Promoting Forest Biodiversity

The METSO Forest Biodiversity Programme for Southern Finland is helping to improve the protection of forest habitats in protected areas. Activities in protected areas include the collection of useful information, as well as habitat management and restoration work.

t is important to ensure that comprehensive information is available about habitats in protected areas, so that habitat management and restoration work can be prioritised where it is most needed. Such information also helps planners to channel visitors away from the most ecologically sensitive areas. Detailed data on habitats is also vital for research and monitoring work.

The data collected in protected areas is much more varied and detailed than the information obtained in traditional surveys of forests, whose scope is limited to tree cover. Data from protected areas includes plenty of additional information, for instance about the shrub layer and the presence of Natura 2000 habitat types or geomorphological features such as eskers.

A total area of 5,200 km² is to be surveyed in a special 4-year METSO project, mainly through field surveys. By the project's halfway stage at the end of 2004, some 60% of this total area had been surveyed. Metsähallitus has also participated in habitat surveying work in nature reserves on private land in co-operation with the regional environment centres. During 2004 data was collected from a total area of around 90 km².

Habitat restoration work is being carried out to help forest and mire habitats in protected areas to revert to their natural conditions, where they have been affected by their previous use for commercial forestry. The objective of mire habitat restoration is to restore natural hydrological conditions and reinitiate the process of peat formation. This also serves to restore natural peatland landscapes. Such schemes typically involve the blocking or damming of drainage ditches, and the clearing of trees to reduce losses of water through transpiration. Forest habitat restoration measures may increase the amounts of charred wood or other valuable features, or they can be designed to trigger natural

processes such as wood decay. Small clearings are often made to restore diversity to uniform forest habitats.

The METSO project will also lead to improvements in the management of ecologically valuable traditional woodland habitats including wooded pastures and meadows, and the forest habitats that develop where trees are periodically felled and burnt to create clearings for temporary cultivation. As such traditional farming practices have been abandoned, the habitats associated with them have gradually become overgrown, threatening their characteristic species. Such traditional agricultural biotopes need to be managed regularly to ensure their preservation. The first action needed is typically the clearing of vegetation. Such areas should then be grazed or otherwise managed to prevent them from becoming overgrown. Another part of the METSO project has involved the management of white-backed woodpecker habitat, herb-rich woodlands and other valuable wooded biotopes. The related habitat management and restoration measures have been designed to help protect rare and threatened species and habitats.

Habitat management and restoration work is carried out in co-operation with Metsähallitus Forestry, whose staff input for such projects is timed for the winter months wherever possible, to help provide year-round employment for forestry workers.

The METSO Programme will last 10 years in all. Forest and mire habitat restoration work has so far been completed over a total area of 64 km² – about a fifth of the total target. By the end of 2004, restoration work had additionally been completed in a total area of 6.2 km² of traditional wooded biotopes. Other sites adding up to a total area of almost 2 km² were managed during 2004.



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Etiäinen Customer Service, 96930 Napapiiri, tel.int. +358 205 64 7820

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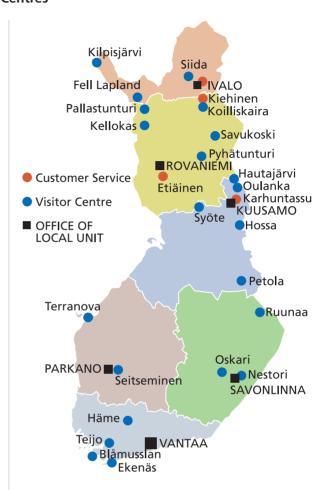
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\* in cooperation with the Ostrobothnian Museum



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### For nature and for people

Metsähallitus Natural Heritage Services protects and manages valuable and endangered natural areas in Finland, and provides a wide range of outdoor recreational facilities for visitors. We are responsible for the management of almost all of Finland's national parks, strict nature reserves and other protected areas owned by the State, as well as the extensive wilderness areas of Northern Lapland and many other State-owned areas where facilities are provided for visitors. These areas are managed by Natural Heritage Services' six regional units. Visitor centres and other customer service points provide a wealth of information on their natural features and facilities for visitors. More information in English for visitors is available on the new website www.outdoors.fi.

Details of all our activities are available on the website www.metsa.fi in Finnish, Swedish, Sámi and English.



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