# COUNCIL OF EUROPE — UT — CONSEIL DE L'EUROPE

Strasbourg, 26 February 1986

SN-ZP (86) 23



COE190466

EUROPEAN COMMITTEE FOR THE CONSERVATION
OF NATURE AND NATURAL RESOURCES

Committee of experts - protected areas

APPLICATION FOR THE AWARD OF THE EUROPEAN DIPLOMA submitted by Sweden for the

STORE MOSSE NATIONAL PARK

7.763 09.3

AS THIS DOCUMENT WILL NOT BE DISTRIBUTED DURING THE MEETING

Invironment Protection

Board

THE NATIONAL PARK STORE MOSSE

Application for the award of the European Diploma, submitted by Sweden.

Store Mosse National Park Name:

Name and address of the body responsible for its

#### management:

Statens naturvårdsverk (The National Swedish Environment Protection Board) Box 1302

S- 171 25 SOLNA Country: Sweden

#### 1. ADMINISTRATIVE DATA

Decision:

May 6, 1982

Municipalities:

Gnosjö, Vaggeryd and Värnamo In Sweden's southern province of

Location: Småland, just to the north-west of

the town of Värnamo.

Area:

7,750 hectares of which 6,592 hectares

are peatland,692 hectares coniferous forest,

20 hectares mixed forest, 65 hectares deciduous forest, 22 hectares meadow

and 359 hectares water surface.

Property Owner:

The Swedish state through the National Swedish Environment Protection Board

Nature conser-

vation manager:

The Swedish Forest Service

#### Purpose of the national park:

To preserve southern Sweden's largest continuous bog area in an essentially unchanged state, where the lakes and bogs and all the plant and animal species that they accomodate are allowed to develop freely.

Regulations concerning the rights of disposal in the national park (Paragraph 5 of the Nature Conservancy Act).

Beyond prohibitions and regulations set out in existing laws and other statutes the following activities are prohibited:

- To take sand, gravel, peat etc. (exception: two recognized cases of peat breaking for household needs)
- To open up ditches

- To drain, dam, dredge, excavate, drill, fill in, dump or blast (exception: necessary measures for the maintenance of existing roads and railways)
- To stockpile materials
- To lay ground or water cables
- To construct roads
- To construct entirely new buildings
- To fell trees or to conduct any other kind of forestry
- To use pesticides or to introduce artificial nutrients
- To treat with lime
- To conduct military manoeuvres
- To hunt
- To fish (exception: according to an easement agreement made with certain former property owners, these persons are allowed limited ice fishing privileges on Lake Kävsjön between Oct. 1 and Feb. 28)
- To introduce new plant or animal species. The above regulations should not be interpreted as an impediment for selective measures according to an established management plan.

## Regulations concerning visitors to the national park (Paragraph 5 of the Nature Conservancy Act)

Beyond prohibitions and regulations set out in existing laws and other statutes the following activities are prohibited:

- To visit Lake Kävsjön and its immediate environs, as marked on maps and out in the terrain, between Mar. 1 and Sept. 30
- To visit the area north of Lake Herrestadsjön, as marked on maps and out in the terrain, between April 1 and July 15
- To make fires other than at officially sanctioned sites
- To set up a caravan or trailer over night
- To tent, raise a shelter or hut or any similar arrangement
- To land with aircraft
- To use a snowmobile
- To bring in and use a boat, canoe or similar craft
- To destroy or damage natural objects or surfaces

- To deliberately disturb wildlife
- To bring a dog not on a leash
- To ride horses
- To arrange cross-country running checkpoints or to set up plastic trail markers
- To pick flowers, moss or lichens or to dig up vegetation
- To undertake scientific investigations without the permission of the National Swedish Environment Protection Board

## 2. DESCRIPTION OF THE NATURAL CONDITIONS General

Store Mosse (i.e. the Great Peat-bog) is southern Sweden's largest inter-connected bog area. Despite the fact that the park is situated in the south, it nevertheless conjures up visions of Lapland.

The national park's nature is still largely in an original state, quite unlike most other southern Swedish landscapes which have been extensively altered by man. This does not mean that the area is completely untouched, however. Both a railway and a road cross through the area. Certain areas of the park are also marked by peat digging from earlier years. Moreover, three of the lakes within the bog have either completely or partially been drained. But Store Mosse has neither been created by nor moulded by man. During the latter stages of the Ice Age, around 11,500 years ago, an enormous glacial lake known as Fornbolmen (i.e. the ancient lake Bolmen) was formed and it covered the entire western region of the province of Småland. When the general land elevation process began this area slowly began to slope southward and around 8,000 years ago the lake drained away leaving the expansive sandy bottom exposed. During the first period after the lake had disappeared the climate was cold and dry, but it became moister again about 6,000 years ago. The old lake bottom gradually became water-logged and Store Mosse was born. In many places the wind has succeeded in whipping the exposed sand into enormous sand dunes. These sand dunes gradually became covered with forest and formed islands and ridges in the bog. The dunes act as natural land bridges and trails through the swampy landscape. A couple of these islands, Lövö and Svänö, also consist of moraine soil. Farmers actually lived on these isolated islands in the middie of the bog for many centuries. Through the fruits of their labour these swampland islands were transformed into a cultivated landscape with pastures, ancient fields and groves of deciduous trees lik oak, elm and linden- nature pleasing to the eye and in direct contrast to the desolate bog which surrounds them.

Store Mosse rises to a height of 160-170 metres above sea level. Apart from a few isolated mountaintops the general terrain around the bog is slightly hilly reaching up to 10 metres above the water surface. An excellent bird's-eye view of the peatland can be obtained, however, at both Björnakullen and Kvarnberget in the south. The area is made up of both bogs and fens. Those peatland areas which depend on their moisture from rain water are known as bogs, fens on the other hand, remain moist with the help of running water above or below the surface. In certain cases a fen obtains an unusual amount of nutrients from its source of water. This is the case with Björnekulla fen in the south-east where the limestoneenriched water in the subsoil produces a rich flora. However, most fens in the national park do not have a great variety of species and the flora thus tends to be somewhat plain.

Typical bog vegetation covers the largest part of the peatland. The peat layers in Store Mosse are 5-7 metres thick and consist mainly of accumulated fragments of peat moss (Sphagnum sp.). The fens usually lie in the lower areas of the peatland for example along the edge of the forest. A wide and wet fen, known as Blådöpet, runs through the middle of the bog like a shiny green band. This effect is created by sedge (Carex sp.) growing in the water. The bog is otherwise a shade of brown, originating from the different species of peat-moss and from brushwood. The area's pines can be several hundred years old even though they're often not any taller than a man. In cerain areas the bogs are covered with a thin forest of these types of pine trees.

The national park's largest fen is called Stora Gungflyet (i.e. the Great Quagmire). It was created when Lake Kävsjön, which was at that time much larger, was partially drained in 1840. The former lake bottom was then colonized by fen plants and this vegetation was cut as hay every summer. Many of the quagmire's plants grow right out into the water of nearby Lake Kävsjön on a floating mesh of roots. The lake is a noteworthy place for birds. In former times, when grazing and haying occurred on the shores of the lake, birdlife was much richer than today. Even so, the lake is still very important for the bird fauna. Two other lakes, Horssjön and Häradsösjön, have also been drained to produce hay meadows. The old lake bottoms are today covered with fen and quagmire.

#### Vegetation

The peat-bog vegetation is distinctive but lacks a wide variety of species. Besides the usual plants like heather (Calluna vulgaris) and crowberry (Empetrum nigrum), the tussocks also support such species as cross-leaved heath (Erica tetralix) and dwarf birch (Betula nana)- the latter being an Ice Age relic.

Growing on the sides of these tussocks are such plants as hare's tail grass (Eriopherum vaginatum), marsh andromeda (Andromeda polifolia) and cranberry (Vaccinium oxycoccos). Various peat moss species (Sphagnum sp.) dominate in the wetter, lower parts of the bog.

The fens which lack even moderate quantities of nutrients are dominated by sedges such as Carex rostrata and Carex lasiocarpa as well as bogbean (Menyanthes trifoliata). Carpets of bog asphodel (Narthecium ossifragum) are very common. Sundew (Drosera sp.) is also common in this type of vegetation. Björnekulla fen is comparatively more fertile than the other parts of the peatland and consequently has a wider range of plants. This area has an entry restriction in effect from April 1 to July 15, with the exception of a hiking trail which passes through. Such rare wild orchid species as marsh helleborine (Epipactis palustris), fragrant gymnadenia (Gymnadenia conopsea) and Pugsley's marsh orchid (Dactylorhiza traunsteineri) bloom in abundance here.

Among the more common plant varieties can be added common butterwort (Pinguicula vulgaris), grass of Parnassus (Parnassia palustris) and the common tormentil (Potentilla erecta). Two more wild orchids, early marsh orchid (Dactylorhiza incarnata) and the lesser butterfly orchid (Platanthera bifolia) are found on Svänö Island which, like Lövö Island, is richer in species because of its history of former cultivation.

#### Fauna

Wildlife in the area is relatively diverse with a good supply of moose (Alces alces), roe deer (Capreolus capreolus) and foxes (Vulpes vulpes). Other species which make an appearance are, for example, blue hare (Lepus timidus) and brown hare (Lepus europaeus), badger (Meles meles), ermine (Mustela erminea), marten (Martes martes) and mink (Mustela vison). But the area is best known because of Lake Kävsjön, which has been recognized as an excellent site for viewing water birds since before the turn of the century. The lake functions as both a stopover point and a nesting area for a widely varied (especially for this general area) wild duck population. Species which nest here include the mallard (Anas platyrhynchos), teal (Anas crecca), garganey (Anas querquedula), pintail (Anas acuta), shoveller (Anas clypeata), tufted duck (Aythya fuligula) and the goldeneye (Bucephala clangula). Wading birds are most prominent in Stora Gungflyet (the Great Quagmire) and on the shores around the lake. Birds like lapwing (Vanellus vanellus), curlew (Numenius arquata), snipe (Gallinago gallingago), redshank (Tringa totanus) and the wood sandpiper (Tringa glareola) all breed here regularly, but even northern species like the jack snipe (Lymnocryptes minimus) greenshank (Tringa nebularia) and the broad-billed sandpiper (Limicola falcinellus) have been known to breed here. Wading birds have earlier in this century been even greater in number than what they are today. In an attempt to reverse this trend part of the park's maintenance program includes the re-introduction of clearance and grazing. Other birds which nest in the park include the blackthroated diver (Gavia arctica), great crested grebe (Podiceps cristatus), spotted crake (Porzana porzana), common gull (Larus canus),

common tern (Sterna hirundo), whooper swan (Cygnus cygnus), crane (Grus grus), golden plover (Pluvialis apricaria) and the raven (Corvus corax). The area is believed to have one of the densest crane populations in the country. Lake Kävsjön's importance as a stopover point for migrating birds may well be limited to regional significance for many species but for certain others like the teal (Anas crecca) and the tufted duck (Aythya fuliqula) the lake is an important habitat in the Swedish interior. Along with lakes Häradsösjön and Horssjön, Lake Kävsjön represents an internationally important stopover for the whooper swan (Cygnus cygnus). For that reason the Store Mosse area and Lake Kävsjön have been included on the Swedish list of wetlands worthy of international protection, the so-called CW list. The greatest variety of species exists around Lake Kävsjön and thus entrance restrictions are in force (apart form hiking trails) between Mar. 1 and Sept. 30.

### 3. OUTDOOR RECREATION

A comprehensive system of roads in the surroundings makes it easy to reach the park from every direction. The national park is well supplied with both parking areas and outlook points- eg. Björnekullen to the south-east and Horssjön to the north-east. The bird tower at Lake Kävsjön is easily reached from a road that crosses the area. A permanent display about the national park is located by the parking lot. It is also possible to take the car to Svänö and Lövö Islands. The old dwellings on both of these islands have been restored and made accessible for handicapped persons. They are now being used for short term rentals. Its is also possible to a limited extent to stay overnight in the relatively primitive stopover cabins around Svänö and Lövö Islands. From Svänö the visitor can walk around Lake Kävsjön on marked trails. The trail from Lövö connects Andersberg and Kittlakull. It follows the sanddunes over the bog.

#### 4. MAINTENANCE

The greatest part of the bog and forest is to be left to develop freely. The formerly cultivated landscapes on Lövö and Svänö and parts of the shore around Lakes Kävsjön and Häradssjön are to be open for grazing by domestic animals. Mowing i also to be done around parts of Lake Kävsjön.

#### 5. INTERNATIONAL VALUE

Store Mosse represents the largest bog complex in southern Sweden. The national park consists of three large bogs with a magnificently wide and wet fen area, known as Blådöpet, which runs through one of them. Lake Kävsjön also exists in the area, and along with adjacent wetlands it provides a habitat for a highly diverse group of nesting birds. It is also of international interest in that it is a stopover for migratory birds. For these and other reasons Store Mosse National Park has been included on the Swedish CW list (the Ramsar Convention) which contains the names of valuable wetlands. The national park has also been suggested as a bio-genetic reserve in the Council of Europe system.

#### 6. MAPS

Key map of the national park- Appendix 1.

#### 7. BIBLIOGRAPHY

Arbetsgruppen för Kävsjöns restaurering. 1974, Kävsjöns restaurering som fågelsjö. – Jönköping. The Lake Kävsjön restoration task force. The restoration of Lake Kävsjön as a lake for birds.

Fries, C. 1920. Store Mosse.- Svenska Turistföreningens Årsskrift. Stockholm. Store Mosse- The Swedish Tourist Association's annual publication.

Hamrin, S. 1973. Naturvårdsundersökningar inom Store Mosse, Kävsjön- resultat från limnologiska undersökningar under åren 1971-1973. Limnologiska Inst. Lunds universitet.
Nature conservation research in Store Mosse, Lake Kävsjön – the results of limnological research between 1971 and 1973. Limnological Institute, University of Lund.

Larsson, A. 1977. Effekterna av planerat dikningsföretag vid Björnekullekärret inom naturreservatet Store Mosse med Kävsjön, Jönköpings län. –Rapport till länsstyrelsen i Jönköping (stencil). The effects of planned drainage work in Björnekulle fen within the nature reserve Store Mosse-Kävsjön...

Larsson, A. och Svensson, G 1972. Naturvårdsundersökningar inom Store Mosse. Vegetation och vegetationsförändringar vid Kävsjön. Häradsösjön och Horssjön.- Meddn. Forskargr. Skötsel av Naturreservat nr 15. Avd, ekologisk botanik. Lund. Nature conservation research in Store Mosse. Vegetation and vegetational changes around Lakes Kävsjön, Häradsösjön and Horssjön.....

Nilsson, L. 1972. Naturvårdsundersökningar inom Store Mosse. Ornitologiska undersökningar vid Kävsjön 1972.- Meddn. Forskargr. Skötsel av Naturreservat nr 20. Avd. ekologisk botanik. Lund. Nature conservation research in Store Mosse. Ornithological research around Lake Kävsjön....

Nilsson, L. 1972. Fågelinventeringar i Kävsjöområdet 1976.-Rapport till länsstyrelsen i Jönköping (stencil). Bird inventories in the Lake Kävsjön area....

Nilsson, S. och Gustavsson, G. 1971. Fågelobsevationer kring Kävsjön våren 1971.- u.o. (stencil) Bird observations around Lake Kävsjön, Spring 1971.

Osvald, H. 1925. Kävsjö Store Mosse. Södra Sveriges största högmosse.- Sveriges natur. Svenska naturskyddsföreningens Årsskrift. Stockholm. Kävsjö- Store Mosse. Southern Sweden's largest bog..... Svesson, G. 1968. Store Mosse. -Svenska Turistföreningens Årsskrift. Stockholm. Store Mosse- The Swedish Tourist Association's annual publication.

Svensson, G. 1974. Naturvårdsundersökningar inom Store mosse. Vegetationsundersökningar inom Kävsjöområdet 1964 och 1965.-Meddn. Forskargr. Skötsel av Naturreservat nr 21. Avd. ekologisk botanik. Lund. Nature conservation investigations in Store Mosse. Vegetation

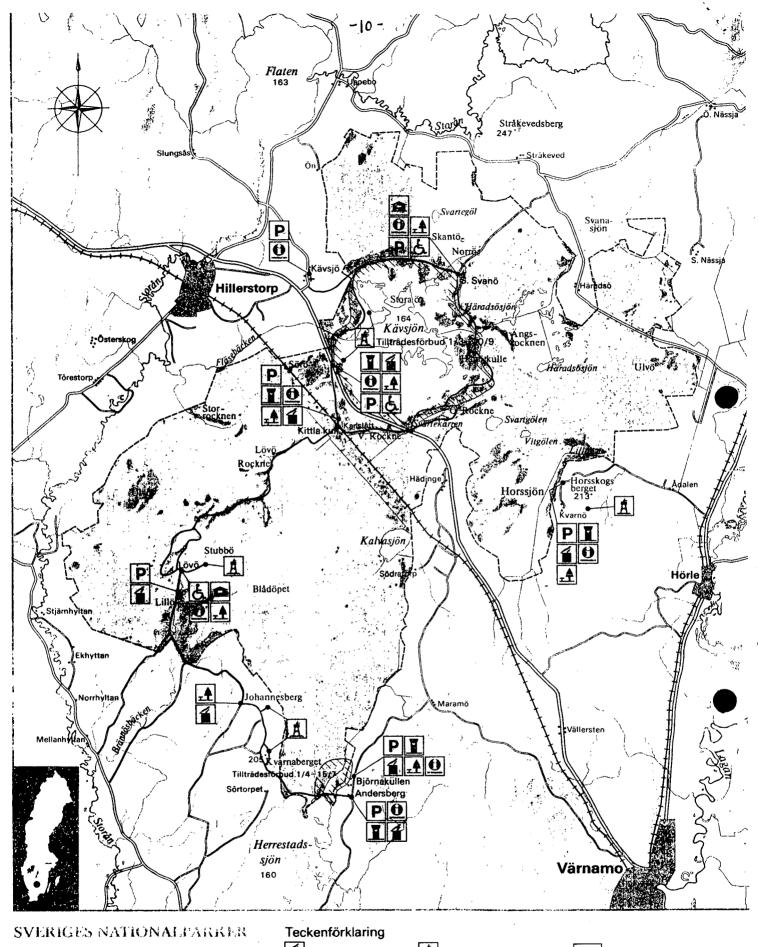
investigations in the Kävsjö area 1964-1965....

Wibeck, E. 1904. Fågellivet på Västra Smålands myrar och kärr.-Svenska Jägarförbundets Nya Tidskrift 42. Stockholm. Birdlife in western Småland's bogs and fens....

Wibeck, E. 1936. Kring Kävsjön, Smålands märkligaste fågelsjö. – Svenska Skogsvårdsföreningens Tidskrift 34. Stockholm. Kävsjön- Småland's most remarkable bird lake....

Wibeck, E. 1947. Med tranorna på Kävsjö mosse. – Sveriges Natur. Svenska Naturskyddsföreningens Årsbok 38. Stockholm. Among the cranes on Kävsjö bog....

KEY TO THE SIGNS ON THE MAP OF STORE MOSSE NATIONAL PARK					
4	Litter disposal	A	Outlook tower		Fen
b	Facilities adapted to physically handicapped persons		Overnight cabin	$\square$	Bog
0	Information		Park limit		Coniferuos forest
=			Marked trail		Deciduous and
P	Parking lot	<del></del>	Public road	LJ	mixed forest
<b>±</b>	Rest-stop		Private road (open for the public)		
		+++	Railway		
	Toilet				



Avfall Utsiktstorn Sankmark, tidvis vattenfylld **Store Mosse** Handikappan-passad anläggning Övernattningsstuga Sankmark i övrigt Gräns för nationalpark Information Barrskog Markerad vandringsled **36 Naturz**árdsz Parkering Löv- och blandskog Allmän väg Rastplats Skala 1:75 000 Enskild väg Godkänd ur sekretessynpunkt för spriching. Statens lantmäteriverk 1982-08-31 LiberKartor, Stockholm 186163-1933 Torrklosett Järnväg