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**COMMITTEE FOR THE ACTIVITIES OF THE COUNCIL OF EUROPE
IN THE FIELD OF BIOLOGICAL AND LANDSCAPE DIVERSITY**

(CO-DBP)

Group of specialists – European Diploma for Protected Areas

28-29 January 2002
Room 15, Palais de l'Europe, Strasbourg

MUDDUS NATIONAL PARK (SWEDEN)

RENEWAL

Expert report
by Mr Hervé Lethier, EMC²I Agency, Switzerland

*Document established by
the Directorate of Culture and Cultural and Natural Heritage*

The European Diploma for protected areas (category A) was awarded to the Muddus National Park in 1967 and has been renewed since then.

The Secretariat did not accompany the expert on his visit to the site.

Appendix 3 reproduces Resolution (97) 14 adopted when the Diploma was last renewed. Appendix 4 sets out a draft resolution prepared by the Secretariat for the purpose of extending the period of validity.

* * * * *

ACKNOWLEDGEMENTS

The present report has been drawn up on the basis of appraisal information gathered on the spot by the expert.

The views expressed are solely those of the author, who thanks all the individuals he met on his visit for their valuable assistance, particularly Alf Karlsson¹, Asa Lagerlof² and Bengt Landström³, who accompanied him throughout his visit. He would like to express his joy and good fortune in meeting the "queens of Muddus", one rainy, misty day, and tasting their cuisine ...

St Cergue, 26 November 2001

¹ Mountain unit.

² Swedish Environment Protection Agency (SEPA).

³ Länsstyrelsen i Norrbottens Län.

GENERAL POINTS

The aim of the visit was to make an appraisal for the renewal of the European Diploma held by the Muddus National Park, Sweden⁴.

It took place on 7 and 8 August 2001, and followed the terms of reference assigned to the expert by the Council of Europe⁵.

In keeping with the recommendations of the Group of Specialists⁶, the expert concentrated on the following points:

- the very worrying decline of the lynx and wolverine populations and the measures to be taken to remedy it;
- the new legislation on reindeer population control.

INTRODUCTION

Sweden's Muddus National Park was created in 1942 and expanded in 1986; it is at a mean altitude of 400 m⁷ and today covers a territory of 493 km² consisting mainly of lakes, marshland and mixed woodland⁸ in the northern part and a more densely wooded area stretching down to the Lulea river in the south; the latter sector includes spectacular gorges on the river Muddus, which drains much of the protected area.

The previous expert reports provide further details of the ecological interest of the Park, which is a habitat, at certain times of the year, for three large predators - the bear (*Ursus arctos*), the lynx (*Lynx lynx*) and the wolverine (*Gulo gulo*); the wolf (*Canis lupus*) is present only in the south of the country, by the Norwegian border.

The Council of Europe Diploma was granted to the Muddus National Park in 1967 in category A⁹, on grounds of its scientific interest; it has been renewed three times – in 1987¹⁰, 1992¹¹ and 1997¹².

⁴ Visit programme, Appendix 2.

⁵ Letter referenced FB/GMS of 11 June 2001.

⁶ Doc. PE-S-DE (2001) 15, p.10.

⁷ Varying between 166 m and 611 m.

⁸ Spruce (*Picea abies*, *spp. ovovata*), beech, pine etc.

⁹ Res. (67) 23.

¹⁰ Res. (87) 7, adopted on 27 June 1987 (report SN/ZP (85) 43, drawn up by Dr Broggi, Liechtenstein, and Dr Baum).

¹¹ Res. (92) 14 adopted on 18 May 1992 (report PE-S-DE (97), 49 drawn up by J. Mayol, Majorca/Spain).

¹² Res. (97) 14 adopted on 30 September 1997 (report PE-S-DE (97) 49, drawn up by J. Mayol, Majorca/Spain).

I HISTORIQUE

I-1 Review of the conclusions of the earlier appraisals

Table 1 summarises the recommendations set out in the resolutions adopted by the Council of Europe Committee of Ministers for previous renewals of the Diploma held by the National Park.

Decisions to award and renew the Diploma	Recommendations
1987	<ul style="list-style-type: none"> • the mountain unit must be provided with sufficient financial resources for dynamic management; • the information concept must be improved within the management plan, for incorporation in an overall strategy for all the national parks in northern Sweden; • applied research programmes must be developed, taking into account the specific features of the areas concerned; • there must be continued protection for Peregrine Falcon nests.
1992	<ul style="list-style-type: none"> • the Muddus management plan should be approved as soon as possible, the main priorities being the protection of the park and a guarantee that in the period ahead, when the management of the park becomes the responsibility of the region, its preservation will continue to be the objective pursued; • the number of wardens should be increased, if possible, in view of the diverse tasks they are called upon to perform; • efforts to protect the Peregrine Falcon should continue.

Table 1 Recommendations attached to decisions to renew the Diploma in 1987 and 1992.

I-2 Review of the conclusions of the last appraisal¹³

Five recommendations were made by the Committee of Ministers, namely that:

- the number of wardens be increased, especially in summer, when the number of visitors rises, and in the hunting season, principally at the edges of the park;
- adequate budget resources be granted in order to maintain proper management of the park;
- the necessary measures be taken to ensure that the park's landscapes conserve all their natural characteristics, and in particular that no access be provided to the northern part of the park;
- research work be continued, particularly as regards the monitoring of fauna populations; in this connection, it would be highly desirable to examine the impact of certain human activities on those populations;
- the possibility of actively involving the Samis in the management of the park be considered; it would be desirable to build greater awareness among these communities of the park's value for their everyday lives.

¹³ See note above.

II CURRENT SITUATION

II-1 General

On the whole – inasmuch as it was possible to make an assessment based on one day and one night spent within the protected area, following the trail between Skaite and Muddus lake, as far as the refuge at the end of the trail – Muddus Park seems to be in a good state of conservation and the facilities it makes available to visitors (laid-out trails, bridges (3), walkways, picnic areas (9), refuges (5), observation tower (1) etc) are very well maintained. Signposting has been renewed since the previous appraisal and is of high quality.

Responsibility for managing the Park lies with the County authorities of the Norrbotten region¹⁴. The Park does not have its own management plan despite the recommendations in 1997 and as long ago as 1987 by the expert responsible for the previous appraisals, but this has not significantly affected its conservation so far; a plan is being drawn up for the management of Laponia, the immense 9,400 km² expanse classified as a world heritage site by UNESCO in December 1996, which includes from south to north, in addition to the Muddus National Park, the Sjaunja, Stora Sjöfallet, Sarek and Padjelanta parks.

The Park has no staff exclusively assigned to it, nor does it have its own budget. It is managed on an everyday basis by the "Mountain" unit of the County authorities, made up of a small team of scientists and ground staff allocated by district; the unit has a global budget which covers all the costs of the facilities and running of the County's national parks; Table 2 below provides a breakdown of the budget and recent changes in it.

Type of expenditure	Period 1997/2000 (in M SKR)	Year 2001 (in M SKR)
Salaries	3,2-4,	4,2
Misc. Expenditure	1,8-2,4	2,5
Administration	0,8-1,0	1,0
Network of paths	0,9-1,5	1,0
Bridge maintenance	0,5-1,5	0,5
Studies and inventories	1,0-1,5	1,3

Table 2 Changes in the Mountain unit budget since the last appraisal (in millions of Swedish kroner).

Further financing comes from European Union structural funds and a number of study grants.

Four wardens are currently assigned on a part-time basis to the parks of Muddus, Sarek and Padjelanta.

Biodiversity is monitored within the framework of national monitoring of species; the populations of the three large predators are regarded as stable since the last appraisal and it is encouraging to see that bears, which reappeared at the beginning of the 1990s, continue to breed in the Park¹⁵.

Hunting, fishing, wood-cutting and mining are prohibited in the Park, as is even any gathering, with the exception of mushrooms and berries for personal consumption.

¹⁴ County administration board.

¹⁵ Three reproductive females are mentioned in the annual report for 2000.

II-2 Specific aspects

II-2-1 Questions relating to the terms of reference assigned by the Group of Specialists

A Trends in lynx and wolverine populations

Sweden's lynx population is estimated at 1,500 individuals which are in contact with another 500 or so individuals in neighbouring Norway. Although certain authors believe it necessary to reduce the number of animals in the north of the country¹⁶, the numbers located within the reindeer herding grounds remain low on the whole and the overall lynx population has declined drastically in recent years in the Norrbotten region specifically¹⁷. Lynxes are rarely sighted in Muddus Park; the wardens put the number of "families" regularly resident in the Park at only 1 or 2, and otherwise a few solitary individuals are sometimes seen.

Year	1992	1993	1994	1995	1996	1997	1998	1999
Norrbotten	9*	17*	18*	44	46	35	37**	23

* Partial inventory

** Probably an underestimate, owing to the difficult weather conditions

Table 3 Trends in lynx (*Lynx lynx*) births recorded in the Norrbotten region for the period 1992-99.

The number of wolverines present in Sweden is estimated at about 270, while the neighbouring populations in Norway and Finland number 230 and 60 individuals respectively. Their number is constantly increasing at national level¹⁸; wolverines are occasionally present in Muddus Park, with between 1 and 3 passing individuals.

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000
Norrbotten	15	22	26	33	50	47	40	37	28

Table 4 Trends in the number of breeding pairs of wolverines (*Gulo gulo*) recorded in the Norrbotten region for the period 1992-2000.

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000
Norrbotten	98	102	107	114	135	147	152	163	168

Table 5 Trends in the number of wolverine (*Gulo gulo*) breeding sites recorded in the Norrbotten region for the period 1992-2000.

These estimates are arrived at by direct sightings and, in winter-time, counting snow-tracks left by lynx and hibernating dens occupied by wolverines.

With so few specimens it is difficult to identify any trends. However, developments are worrying for both species at the level of the Norrbotten region, which is home to both populations, showing a decline of 30% and 40% respectively since 1996¹⁹. Views differ as to the causes of the decline; but two hypotheses, linked to the available trophic resources, are advanced as a partial explanation:

- the reindeer culls carried out in the region in recent years;
- the natural fixing of the lemming population at an extremely low level for some fifteen years now; an exercise to monitor rodent populations is to begin this winter.

¹⁶ Carnivore Commission, 1999.

¹⁷ County administration board internal memo, 26/9/2001.

¹⁸ Nature and environment, no. 112, p 54-55.

¹⁹ Annual report for 2000.

Winter-time poaching, facilitated by the use of skidoo snow scooters, is also regarded as one of the prime causes of this decline. The local authorities have attempted to limit the use of these vehicles and it seems that the new regulations have actually achieved a distinct reduction in their use; however, this remains a real problem and requires special attention from the authorities.

A further problem where the lynx is concerned is what is certainly an excessive number of kills by hunters at the edge of the protected area.

Even so, the Park's staff believe that the presence of these two species has remained stable in recent years²⁰. Given the Park's features and dimensions, there is little hope of them will significantly increasing in number or becoming permanently established, particularly the wolverine, within the protected area.

Clearly, the future of the lynx and the wolverine – and for that matter that of the bear – closely hinges on the management of these species throughout the Norrbotten territory, since the existing protected areas are not enough to guarantee viable populations of each in the long term, with the possible exception of Sarek Park where the wolverine is concerned. It is at this regional level, therefore, that protection of the large carnivores should be stepped up to reverse the current trend of decline.

B Reindeer population control

The Sami people²¹, to whom the law grants exclusive reindeer herding rights on nearly half the national territory²², are given quotas set by the County; although the number of Samis living off this activity has fallen in recent years at national level (from about 2,000²³ to 800 in the Norrbotten region alone, including 350 split into two groups²⁴ in the Jokkmokk sector) the number of head of reindeer has continued to grow over the same period²⁵, yielding larger herds and an overall total of 300,000 head, 200,000 of them in Norrbotten.

Since the beginning of the 1960s, though, the trend has gone the other way in the Norrbotten region, towards a steady decline. In the Jokkmokk sector, which contains Muddus Park, the herds are located in three main areas²⁶ and currently number about 20,000 head, compared with their previous level of 50,000.

There have been no changes in the law as regards reindeer herding since the last appraisal. The annual reports show that, notwithstanding the above information, the situation has not greatly changed since 1997.

However, unlike the other national parks in the region, Muddus seems relatively unaffected by over-grazing; the Park is first and foremost an area of transit for the herds, whose presence has more indirect and secondary effects, linked to the Samis' cutting of timber rather than their herding activities as such²⁷.

Nevertheless, the conflict between reindeer-herding and large predator conservation (essentially the wolverine) was mentioned several times during my visit, as was the poaching of wolverines. Predation by fauna – wolverine and lynx in equal proportions in the Norrbotten region – is said to have accounted for 1.7% of the herds during the financial year 1989-90, compared with an average

²⁰ The annual report for 2000 concluding that numbers of lynx and wolverine within Muddus Park might have declined by 30 to 40% must be treated with caution.

²¹ Gunslay, N., 1999.

²² about 40%, or 165,000 km².

²³ Anon.

²⁴ Compared with 17,000 Samis living in Sweden, including 2,500 reindeer-herders split into 600-700 families.

²⁵ Wallsten, P., 1997.

²⁶ Villages of Circas and Unna Cearus (winter), and Gällivar (summer).

²⁷ Personal comment.

level of 2.8% observed for the entire territory; this is clearly a phenomenon of real economic importance.

The Samis used to receive compensation for losses caused by large predators, under a dual system:

- in about half of the cases, the animal's owner was identified and awarded compensation, as was the village where the loss was recorded;
- if the owner was not identified, it was the Sami village where the loss was recorded that received the full amount of compensation.

Applying this scheme posed a number of problems:

- it was often difficult to find the animals killed by predators;
- the origin of the loss had to be determined with certainty, which was seldom possible;
- there was a risk of double-counting of animals found dead by different individuals, which could result in more than one compensation pay-out;
- certain differences in predation levels between villages could not be explained by differing densities of predators or by significantly different herding methods;
- compensation payment was slow and had to be made in several instalments in order so that compensation was not unduly delayed, with the balance paid to the herder at the end of the procedure;
- there was no ceiling limit for compensation.

The Swedish authorities decided to drop the scheme and replace it with one based not on the losses recorded but on the density of predators estimated for the year in question, with the direct participation of the Samis and coupled with the possibility of population control beyond a certain threshold per herding area²⁸.

The new scheme, set up in 1996, has a number of advantages over the previous one:

- no longer requiring that a killed animal be found;
- preventing any dispute over the origin of the killed animal, which in one of every two cases is difficult to establish;
- providing an indirect incentive to herders to round up their animals;
- avoiding situations in which individuals wander away from herds;
- fixing a compensation ceiling limit;
- attaching a certain economic "value" to the predator in terms of its conservation.

Whereas there was a distinct increase in the number of dens declared by the Samis in the initial years (see Table 5), the scheme was hampered by a mathematical reduction in the amount of the allowance paid, since the overall budget earmarked for compensation had not been updated²⁹.

II-2-2 Action taken on the recommendations made during the last appraisal

A Means of intervention:

The human resources assigned to park surveillance remain extremely limited³⁰, namely one individual part-time, who is also responsible for maintaining the Park's infrastructures. For information, the Mountain unit, which covers all the national parks in the Norrbotten territory, is in charge of maintaining 2,250 km of laid-out trails, 30 refuges and chalets and 230 bridges; maintaining these

²⁸ Wolverine culling may be authorised in cases where more than five or six wolverine dens are established in the same village area.

²⁹ Nature and Environment, no. 115, p 21.

³⁰ See p.6 above.

facilities is certainly expensive³¹. But overall, the funding allocated to the management of the region's parks has increased very little over the period 1997-2001 (cf Table 1) and just one warden's post has been created.

Progress is most apparent in the work carried out for the Laponia area where Muddus is located³², which has been geared to public relations. The direct involvement of the Samis in the management of the region's national parks³³ and their facilities³⁴ is also an interesting development but essentially concerns the Padjelanta Park.

B Biodiversity and landscape conservation

The Park's natural landscapes are in a remarkable state of conservation and a special effort is clearly made to integrate the facilities and other visitor infrastructures. Little or no development in the northern part has so far preserved its natural features as much as possible.

C Studies and research

Scientific work has been carried out since the last appraisal on the birdlife of the river Muddus, insects³⁵ and the effects of ancient human activity on the natural environment³⁶. The park authorities also handle surveillance of the Park's small population of Peregrine falcon (*Falco peregrinus*) and are involved in the radio-monitoring of the three large carnivores. Studies linked to climatic change are also under way.

This work is carried out in collaboration with Swedish research institutes³⁷ and NGOs³⁸, in conjunction with the SEPA.

In addition, the park authorities³⁹ have taken the following decisions:

- to cooperate with the neighbouring countries on large carnivore inventories and management for northern Scandinavia;
- to provide assistance for the preparation of research projects on the large carnivores;
- to train volunteer wardens;
- to improve cooperation between the County departments, police and customs in combating poaching;
- to revise the duties of the wardens;
- to improve cooperation between the local authorities and the Sami villages, where one individual is designated as a correspondent for counting large carnivores;
- to contribute to lemming population monitoring.

This set of measures, while neither solely nor specifically concerning the Muddus Park, is a step towards improving knowledge and conservation of its biodiversity.

³¹ By way of example, protecting the paths with wooden duckboards costs between KSR 1,000 and 2,000 per metre depending on the Swedish or Norwegian technique used, and the building of a bridge or walk-way over a river costs an average KSR 15,000 per unit and may cost up to KSR 600,000. The average cost of building a refuge is about KSR 500,000.

³² KSR 3 million have been spent on this work since 1996, when Laponia received its designation.

³³ Contribution to predator inventories.

³⁴ Direct management of tourist refuges.

³⁵ Mosquito group.

³⁶ Tree-cutting etc.

³⁷ Swedish University of Agriculture Sciences in Umea, Forest Production Science Department/University of Umea, Uppsala University Department of Biology etc.

³⁸ Swedish Society for Nature Conservation.

³⁹ County Administration Board.

III APPRAISAL

III-1 European interest of the Diploma area

The Muddus Park retains the European interest that gained it the Diploma in 1967. It is still a protected area of particular importance for the conservation of biological diversity in Europe, within the meaning of paragraph A.1 of the general criteria set out in Appendix 2 of the rules⁴⁰. It has also been designated a site of Community importance under Community Directive 92-43, thereby forming part of the Natura 2000 network.

Its management is deliberately geared to the conservation of biological and landscape diversity and of the ecosystems within it; tourist activity remains moderate and the consequences of animal grazing on the ecosystems are fairly secondary. The facilities are kept to a minimum to ensure that pressure from human activity remains at an acceptable level; the impact on natural balances does not appear significant.

III-2 Protection of the area – regulations and characteristics

The Park enjoys strong legal protection meeting the requirements of paragraph B of the general criteria set out in Appendix 2 of the rules. That protection now forms an integral part of the management of the area designated as a world heritage site and will soon be enhanced by management measures being prepared for this major reserve.

As regards the concerns of the Group of Specialists, I would add the following points:

III-2-1 Regarding the first concern over the conservation of lynx and wolverine populations

Action plans for the conservation of these species published within the framework of the Council of Europe's Bern Convention in 2000 provide sufficient guidance for the management's general efforts in this sphere.

Future work should focus on closer monitoring of the populations, stepping up measures for effectively combating poaching and increasing the funding earmarked for compensating losses, particularly those caused by wolverines; on the latter point, this is certainly less of a problem in the Muddus Park than in the other two Diploma-holding parks of Sarek and Padjelanta but it must be tackled at regional level, as a whole.

New regulations on the hunting of lynx introduced in 2000 now authorise hunters to keep the skin of the animal killed. This makes it easier to estimate actual kills of this species outside the protected area. However, a reduction in the hunting quotas allocated might be encouraged in the light of the declining numbers recorded in the region. Although this measure does not directly concern the Park, where hunting is prohibited, it does have ramifications for the overall lynx population and their presence in the Park.

III-2-2 Regarding the second concern over legislation on reindeer control

In the case of the Muddus Park, this does not appear to be a particularly serious problem that would call for any further measures than those applied to the Norrbotten region as a whole; what would be desirable is quite simply closer monitoring of the effects of this activity, both direct and indirect, on the Park.

⁴⁰ Res. (98) 29.

III-3 Other measures

At present, conservation efforts in the Muddus Park face three constraints of varying magnitude, linked to:

III-3-1 the way in which the Park is managed

The lack of an analytical approach to managing the region's protected areas makes it difficult to assess the effectiveness of this management, particularly in terms of conservation and biodiversity. This remark certainly applies less to Muddus than the other two Diploma parks, Sarek and Padjelanta, which cover a substantially larger area than the Muddus Park. However, as matters stand, it is sometimes difficult to obtain accurate information on the human and financial resources directly allocated to the Park; the future management plan for Lapponia will have to make it possible for the region's parks to be autonomously managed and therefore facilitate future appraisals.

III-3-2 the lack of human resources

The number of staff assigned to the surveillance and maintenance of the Park is scant, to say the least; the number of wardens should be increased to levels where patrols could be organised, particularly for obvious reasons of safety, which is not adequately ensured by the radio-telephone equipment currently provided. This is a recommendation that has been reiterated in each appraisal and should ultimately prompt a response from central and/or local authorities.

III-3-3 existing knowledge of the Park and resources allocated to conservation

The resources allocated to the study of biodiversity remain fairly modest and have not substantially increased since the last appraisal despite the recommendations made to the Swedish authorities in connection with the last renewal (see Table 2); they even seem to have been cut back in recent years.

CONCLUSION

It is proposed that the European Diploma awarded to the Muddus Park be renewed for a further five-year period, subject to the following recommendations:

- practice day-to-day park management based on analytical methods (staff, investment, operations); the park manager could usefully keep an ongoing activity chart, which would help to plan activities and to monitor and evaluate them;
- substantially increase the number of staff assigned to park surveillance and infrastructure maintenance; greater efforts to combat poaching and stronger enforcement of the regulations on the use of skidoos would certainly aid protection of the species particularly affected by snow, namely lynx and wolverine;
- step up study and research work on the Park's biodiversity and its trends, with a view to ultimately establishing a permanent observatory providing information and data on the Park;
- pursue current conservation strategies, more strongly integrating the landscape aspects;
- review lynx hunting quotas allocated in the region.

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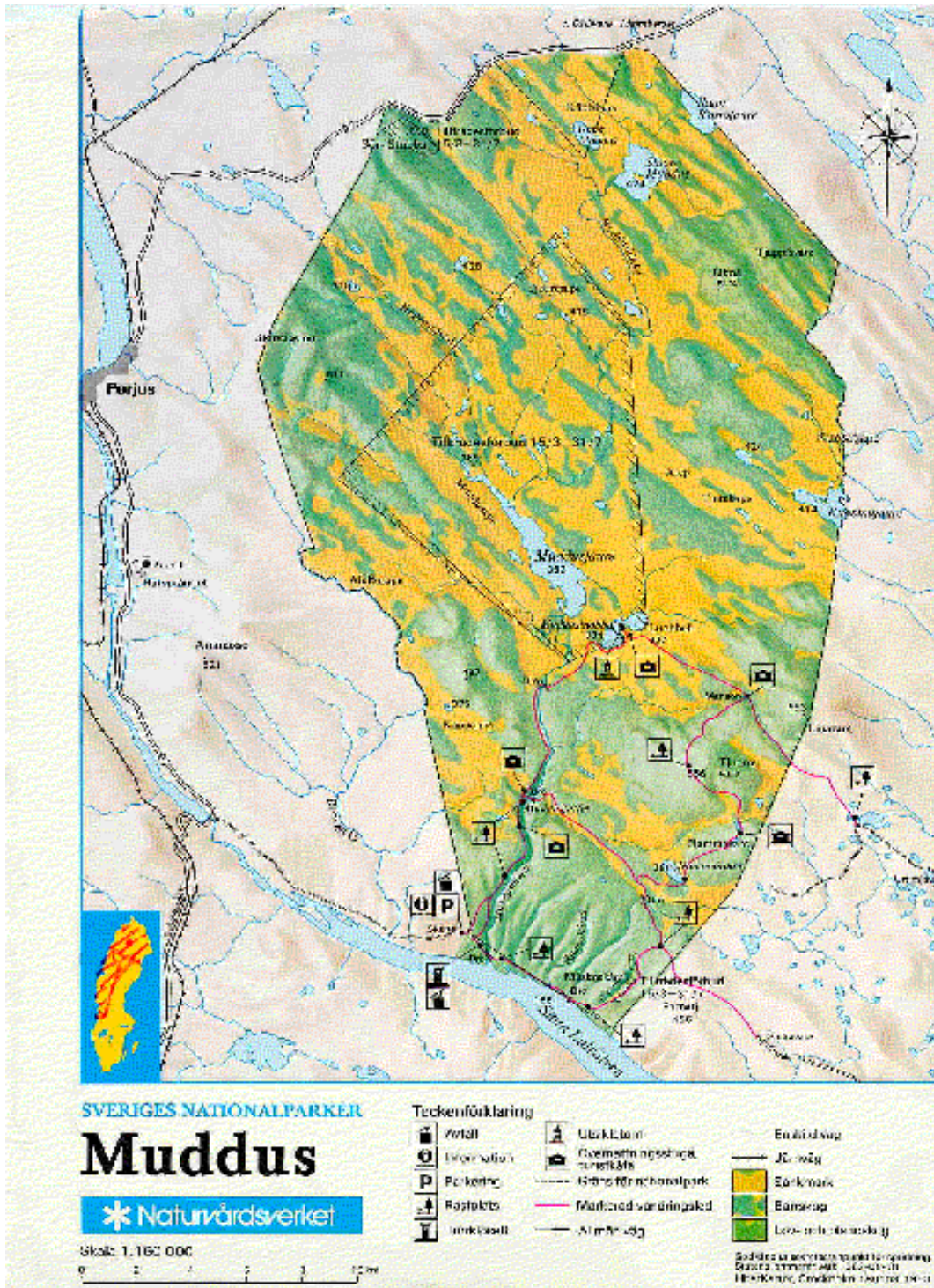
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APPENDIX 1

MAP OF THE PARK



APPENDIX 2**VISIT PROGRAMME**

- 06/08 Departure from Geneva
Arrival in Lulea via Stockholm
Lulea/Jokkmokk (car)
Welcoming dinner with Hans Anderson and Jan Stuge
- 07/08 Departure for Muddus/Skaite
Park Visit on the Skaite/lake Muddus trail
Lunch in a refuge (Muddus falls) with Dag Nilsson
Observations from the tower (end of the trail)
Night in the refuge
- 09/08 Departure from Muddus for Sarek (helicopter)
Overflying of the southern and central parts of Sarek
Lunch in Stora Sjöfallett
Overflying of the northern part of Sarek
Night in the refuge at Läddejäkkä
- 10/08 Visit to Padjelanta (hike on a trail)
Night in Arrasluokta
Arrasluokta/Stalaluokta (by boat)
Night in a refuge at Stalaluokta
- 11/08 Visit to Padjelanta/contd. (hike on a trail)
Stalaluokta/Tuottu
Visit to the area surrounding Tuottu
Night in a refuge at Tuottu
- 12/08 Departure from Tuottu (helicopter)
Overflying of the Njatsasjakka valley as far as Kvikkjokk
Kvikkjokk/Lulea (car)
Lulea/Geneva via Stockholm
Arrival in Geneva

APPENDIX 3

RESOLUTION (97) 14

**ON THE RENEWAL OF THE EUROPEAN DIPLOMA
AWARDED TO THE MUDDUS NATIONAL PARK**

(Sweden)

*(adopted by the Committee of Ministers on 30 September 1997
at the 602nd meeting of the Ministers' Deputies)*

The Committee of Ministers, under the terms of Article 15.a of the Statute of the Council of Europe,

Having regard to Resolution (65) 6 instituting the European Diploma;

Having regard to Resolution (67) 23 awarding the European Diploma to the Muddus National Park;

Having regard to the proposals of the Bureau for the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (BU-DBP),

Renews the European Diploma, awarded to the Muddus National Park in category A, until 27 October 2002;

Attaches to the renewal the following recommendations, that:

1. the number of wardens be increased, especially in summer, when the number of visitors rises, and in the hunting season, principally at the edges of the park;
2. adequate budget resources be granted in order to maintain proper management of the park;
3. the necessary measures be taken to ensure that the park's landscapes conserve all their natural characteristics, and in particular that no access be provided to the northern part of the park;
4. research work be continued, particularly as regards the monitoring of fauna populations; in this connection, it would be highly desirable to examine the impact of certain human activities on those populations,
5. the possibility of actively involving the Saami people in the management of the park be considered; it would be desirable to build greater awareness among these communities of the park's value for their everyday lives.

APPENDIX 4**Draft Resolution
on the renewal of the European Diploma for Protected Areas
awarded to the Muddus National Park (Sweden)**

The Committee of Ministers, under the terms of Article 15.a of the Statute of the Council of Europe,

Having regard to Resolution (65) 6 instituting the European Diploma;

Having regard to Resolution (67) 23 awarding the European Diploma to the Muddus National Park;

Taking into consideration the expert's report presented at the meeting of the Group of specialists – European Diploma for Protected Areas on 28 and 29 January 2002;

Having regard to the proposals of the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP),

Renews the European Diploma awarded to the Muddus National Park (Sweden) until 27 October 2007;

Attaches the following recommendations to the renewal:

- practice day-to-day park management based on analytical methods (staff, investment, operations); the park manager could usefully keep an ongoing activity chart, which would help to plan activities and to monitor and evaluate them;
- substantially increase the number of staff assigned to park surveillance and infrastructure maintenance; greater efforts to combat poaching and stronger enforcement of the regulations on the use of skidoos would certainly aid protection of the species particularly affected by snow, namely lynx and wolverine;
- step up study and research work on the Park's biodiversity and its trends, with a view to ultimately establishing a permanent observatory providing information and data on the Park;
- pursue current conservation strategies, more strongly integrating the landscape aspects;
- review lynx hunting quotas allocated in the region.