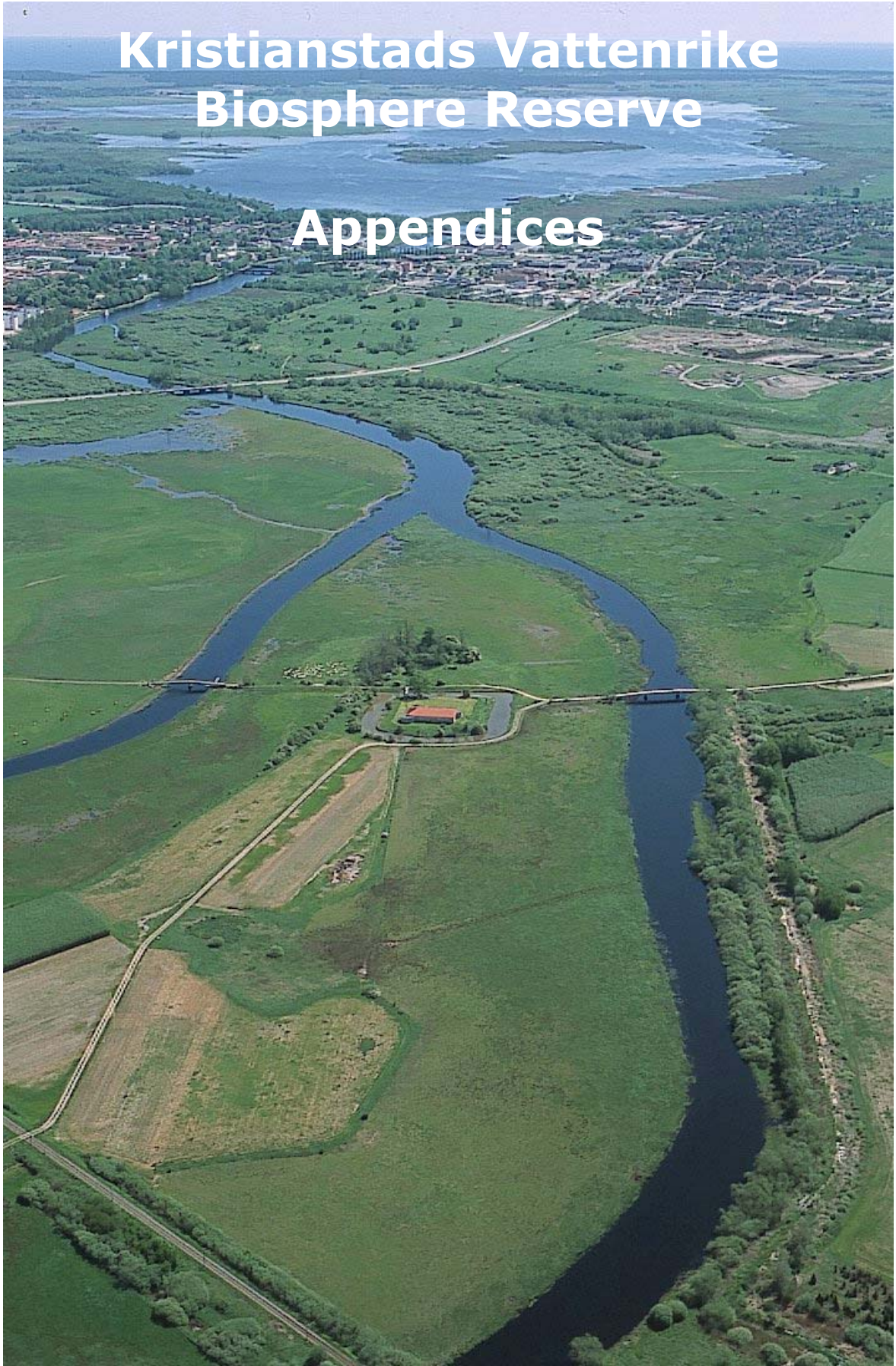


Kristianstads Vattenrike Biosphere Reserve

Appendices



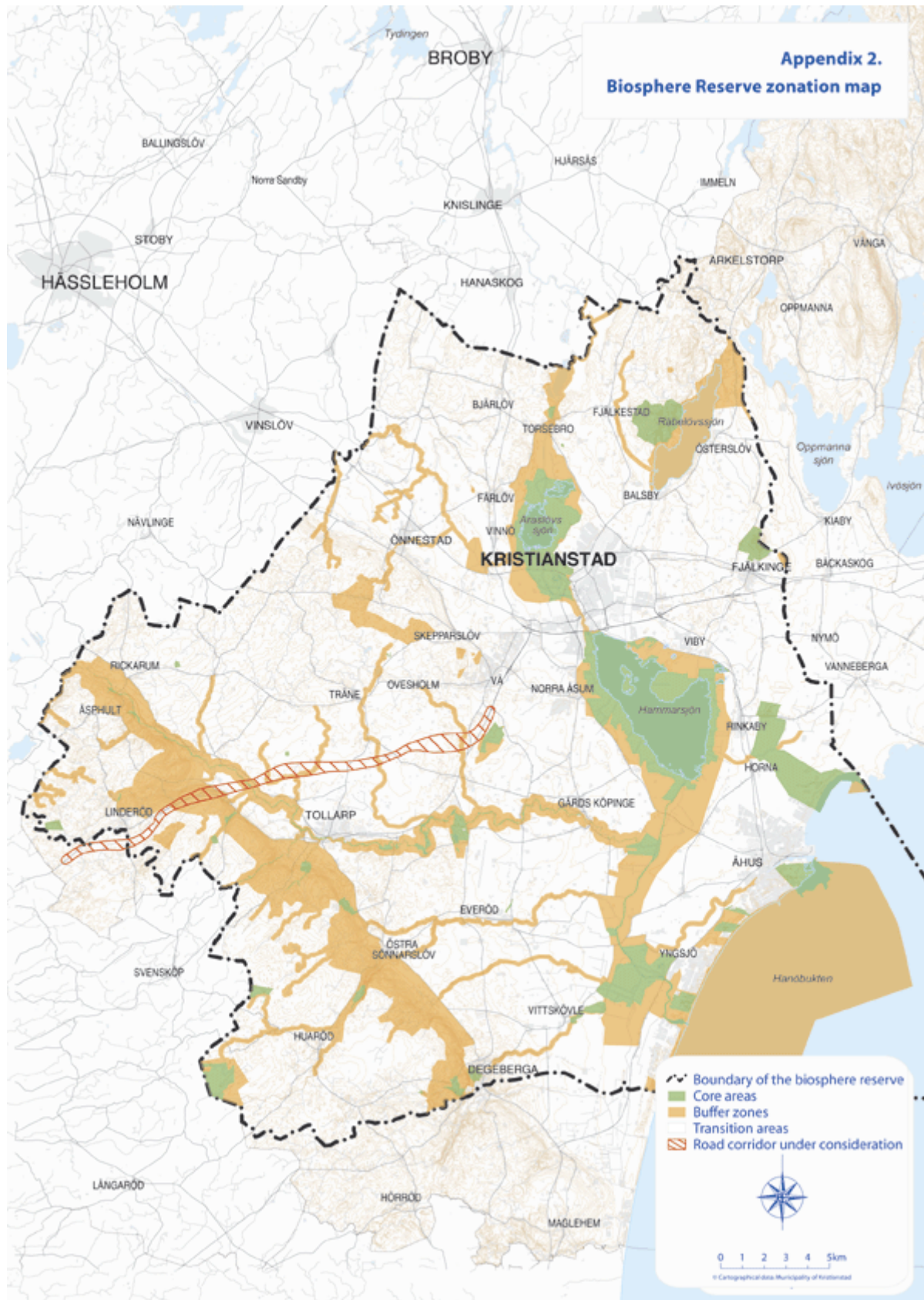
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Appendix 1. General location map

http://europa.eu.int/abc/maps/members/sweden_sv.htm

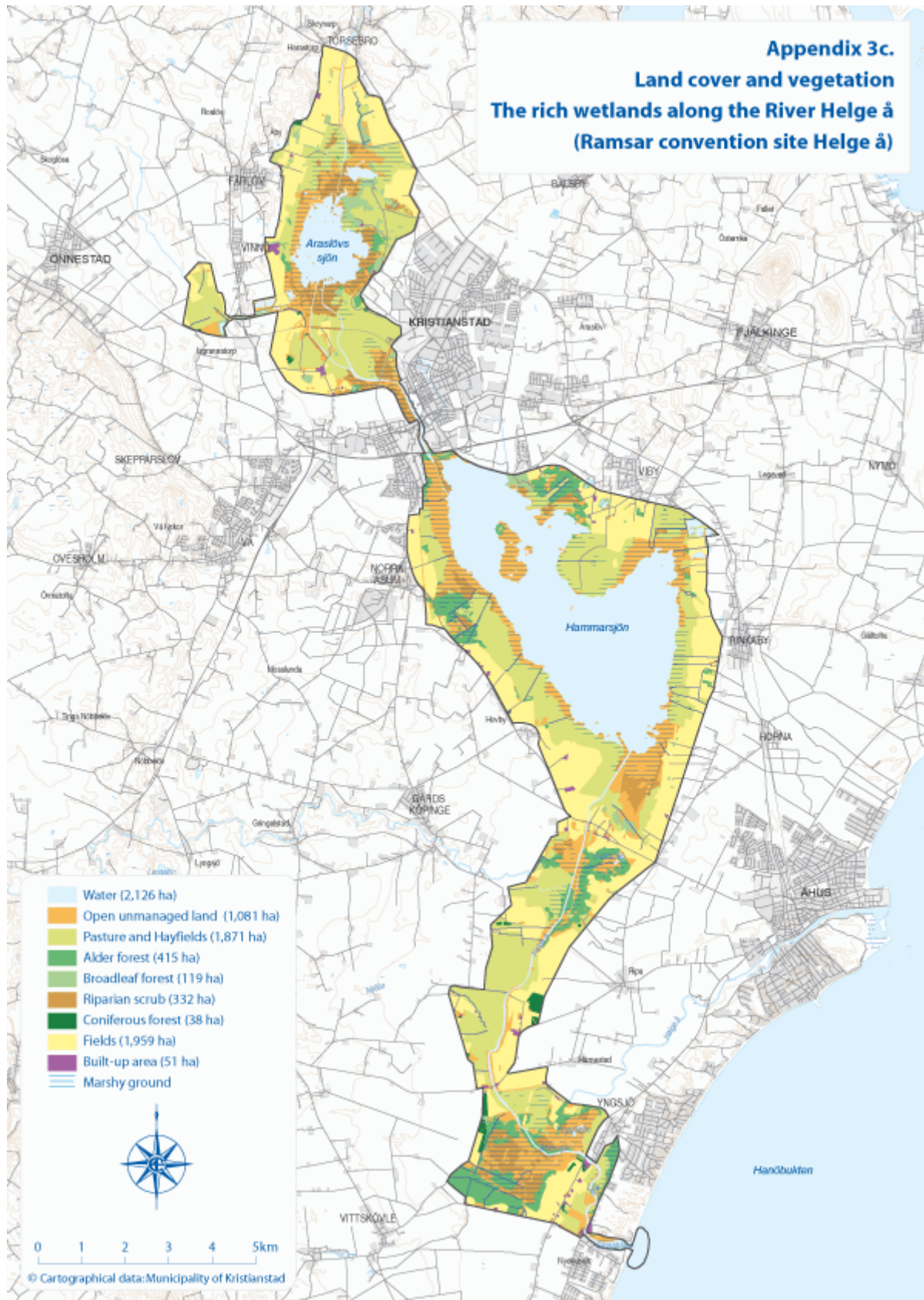








Appendix 3c.
Land cover and vegetation
The rich wetlands along the River Helge å
(Ramsar convention site Helge å)



Appendix 4a. List of legal documents

List of nature reserves, Natura 2000 sites and areas of national interest within the proposed Kristianstads Vattenrike Biosphere Reserve in the Municipality of Kristianstad.
Supporting document from the County Administrative Board of Skåne.



LÄNSSTYRELSEN
I SKÅNE LÄN

2004-09-06

1(3)

Vår referens
Miljöenheten
Naturresursfunktionen
Hans Cronert
040/044-25 26 87, 0708-77 77 35

Biosfärkandidatkontoret
Ekomuseum Kristianstads Vattenrike
Kristianstads kommun
291 80 Kristianstad

Beslutade naturreservat, Natura 2000-områden och riksintressen inom planerade biosfärområdet Kristianstads Vattenrike i Kristianstads kommun

Följande områden utgör fastställda naturreservat enligt 7 kap 4 § miljöbalken (SFS 1998:808) inom det planerade biosfärområdet Kristianstads Vattenrike.

Beslutsdatum	Namn	Areal (ha)
1928-12-28	Forsakar	2
1959-03-10	Lyngsjö äng	2
1967-04-25	Håslövs ängar	183
1968-06-28	Fjälkinge backe	129
1976-12-08	Gropahålet	31
1976-08-12	Boarps hed	30
1991-12-09	Fredriksdalsviken	100
1996-05-06	Åspet	217
1979-12-19	Balsberget	280
1999-11-26	Hercules	94
2001-03-26	Isternäset	107
2002-11-18	Rinkaby och Horna ängar	193
2002-11-18	Näsby fält	459
2003-10-14	Maltesholm	29

1855

Följande områden utgör av regeringen, med stöd av miljöbalken 7 kap 28 § (SFS 1998:808), föreslagna eller beslutade Natura 2000-områden enligt habitatdirektivet (pSCI) och fågeldirektivet (SPA) inom det planerade biosfärområdet Kristianstads Vattenrike:

Regerings- beslut,pSCI	Regerings- beslut,SPA	Senast reviderat	Obj.nr	Namn	Areal(ha) pSCI	Areal(ha) SPA
1995-12-21		2002-05	SE0420021	Boarps hed	30	
1997-01-30		2002-05	SE0420047	Norra Mosslunda	72	
1996-06-27		2003-04	SE0420128	Torsebroparken	14	

Postadress	Besöksadress	Telefon	Telefax	Postgiro/Bankgiro	E-post	www
205 15 Malmö	Kungsgatan 13	040-25 20 00 vx	040-25 22 55	6 88 11-9	lansstyrelsen@m.lst.se	www.m.lst.se
291 86 Kristianstad	Ö Boulevarden 62 A	044-25 20 00 vx	044-25 22 55	5050-3739		



1997-01-30	2002-05	SE0420137	Gropahålet	77	
1997-01-30	2002-05	SE0420138	Åspet	216	
1997-01-30	2002-05	SE0420141	Forsakar-Borråkra	37	
1997-01-30	2002-05	SE0420142	Söndreklack	32	
	1996-12-19	2004-04	SE0420144	Vramsåns mynningsområde	95
	1996-12-19	2004-04	SE0420145	Hammarsjöområdet	2641
	1996-12-19	2004-04	SE0420146	Araslövssjöområdet	1133
1997-01-30	2002-05	SE0420152	Södra Åspet	58	
1997-01-30	2002-05	SE0420202	Maltesholm	29	
1997-01-30	2003-04	SE0420203	Klintabäcken	21	
1998-01-22	2002-05	SE0420204	Mjölans dalgång	25	
1998-01-22	2002-05	SE0420234	Lyngby	4,7	
1998-01-22	2003-11	SE0420235	Lyngsjön	83	
1998-01-22	2002-05	SE0420236	Vittskövle driva	60	
1998-01-22	2002-05	SE0420239	Rinkaby skjutfält	775	
1998-12-22	2002-05	SE0420252	Lingenåsen	87	
1998-12-22	2003-11	SE0420253	Västra Fäladen	38	
1998-12-22	2002-05	SE0420254	Åsumallet	40	
1998-12-22	2002-05	SE0420255	Gamlegården	19	
1998-12-22	2002-05	SE0420256	Björkhäll	36	
1998-12-22	2002-05	SE0420257	Håslöv	150	
1998-12-22	2002-05	SE0420258	Hercules	39	
1998-12-22	2002-05	SE0420259	Vramsåns mynning	22	
1998-12-22	2002-05	SE0420260	Pulken	7,6	
1998-12-22	2002-05	SE0420261	Egeside	22	
	2004-04-01		SE0420264	Egeside-Pulken-Yngsjön	507
1998-12-22	2002-05	SE0430121	Fjällmossen	164	
2000-07-06		SE0420280	Everöds utmark	37	
2000-07-06	2002-05	SE0420282	Prästängen	15	
2002-01-24	2002-05	SE0420307	Helge å	112	
2002-01-24		SE0420308	Araslövssjön	369	
2002-01-24		SE0420309	Hammarssjön	1797	
2002-01-24	2002-05	SE0420310	Vramsån	242	
2002-01-24	2003-11	SE0420316	Balsbergsgrottan	1,3	
2003-11-06		SE0420324	Balsberget	195	
				Total areal 2004-09-03	4927 4376



Följande områden inom det planerade biosfärområde Kristianstads Vattenrike utgör riksintresse för naturvården enligt 3 kap 6 § miljöbalken, beslutade av Naturvårdsverket den 7 februari 2000:

<u>Beslutsdatum</u>	<u>Identitet</u>	<u>Områdesnamn</u>
2000-02-07	NRO11025	Tostebergakusten
2000-02-07	NRO11027	Oppmanna - Ivösjöområdet
2000-02-07	NRO11028	Fjälkinge backe Lilles backe
2000-02-07	NRO11029	Gummastorpasjön
2000-02-07	NRO11030	Hallabacken
2000-02-07	NRO11031	Helgeåns nedre lopp
2000-02-07	NRO11032	Mosslunda
2000-02-07	NRO11033	Kusten Åhus - Juleboda
2000-02-07	NRO11034	Lyngsjö
2000-02-07	NRO11035	Linderödsåsens nordsluttning med vattendrag
2000-02-07	NRO11036	Boarps fälad
2000-02-07	NRO11037	Knopparp
2000-02-07		Everöds Fälad
2000-02-07	NRO12022	Fjällmossen

Hans Cronert

Kopia till
Miljöenheten (HC, GM, AL, ALF)

Appendix 4b. List of legal documents

Habitat protection areas and Nature Conservation Agreements.

Supporting document from the Regional Forestry Board of Södra Götaland.



Skogs- och Miljöenheten
Bengt Nilsson
Tfn dir. 044-186730
Mobil 070-6260965
E-post bengt.nilsson@svssg.svo.se

Datum
2004-09-23

Diariernr
390/2004 4.44

Beslutad Biotopskydd och Naturvårdsavtal

Inom biosfärsområdet "Kristianstad Vattenrike" finns följande beslut om biotopskydd enligt § 6 i förordningen om områdesskydd enligt miljöbalken m.m. (SFS 1998:1252) samt upprättade naturvårdsavtal mellan Skogsvårdsstyrelsen Södra Götaland och resp. berörd markägare.

Biotopskydd

<i>År</i>	<i>Dnr</i>	<i>Biotopnamn</i>	<i>Areal</i>
1995	353001	Alkärr	0,7 ha
1995	353002	Alkärr	0,8 ha
1997	423	Äldre naturskogsartade skogar	2,6 ha
1999	77	Äldre naturskogsartade skogar	1,6 ha
2001	68	Alkärr	1,8 ha
2001	69	Äldre naturskogsartade skogar	0,6 ha
2001	121	Alkärr	3,6 ha
2001	343	Äldre naturskogsartade skogar	3,8 ha
2001	34401	Mindre vattendrag och småvatten	1,0 ha
2001	34402	Mindre vattendrag och småvatten	0,8 ha
2002	13	Äldre naturskogsartade skogar	1,0 ha
2002	14	Äldre naturskogsartade skogar	0,8 ha

Naturvårdsavtal

<i>År</i>	<i>Dnr</i>	<i>Biotopnamn</i>	<i>Areal</i>
2001	122	Ädellövskog	1,4 ha
2002	363	Kulturmark, hage, skogsbete	9,3 ha
2002	367	Kulturmark, hage, skogsbete	1,4 ha

På Skogsvårdsstyrelsens vägnar

Bengt Nilsson
Chéf, Skogs- och Miljöenheten



Postadress
Box 234
291 23 Kristianstad

Besöksadress
Björkhemsvägen 13

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044-186700
Fax
044-109761

Organisationsnr
202200-0109

E-post
svs@svssg.svo.se
www.svo.se

Appendix 5. List of land use and management plans

List of approved action plans and management plans for nature reserves within the proposed Kristianstads Vattenrike Biosphere Reserve in the Municipality of Kristianstad.
Supporting document from the County Administrative Board of Skåne.



LÄNSSTYRELSEN
I SKÅNE LÄN

2004-10-29

Vår referens
Miljöenheten
Naturresursfunktionen
Hans Cronert
040/044-25 26 87, 0708-77 77 35

Biosfärkandidatkontoret
Ekomuseum Kristianstads Vattenrike
Kristianstads kommun
291 80 Kristianstad

Förteckning över fastställda handlingsprogram samt beslutade skötselplaner för naturreservat inom det planerade biosfärområdet Kristianstads Vattenrike i Kristianstads kommun

Handlingsprogram	Beslutsdatum		
Handlingsprogram för naturvård i Kristianstads Vattenrike 2004-2006	2003-12-17	Kristianstads kommun	
	2003-12-18	Länsstyrelsen i Skåne län	
Kommunal naturvård - delprogram för naturvård och friluftsliv (kommunal naturvårdsfond)	1996-08-21	Kristianstads kommun	
Naturreservat	reservatsbeslut	skötselplanebeslut	
Boarps hed	1976-12-08	1991-06-13	
Fredriksdalsviken	1991-12-09	1991-12-09	
Fjälkinge backe	1968-06-28	1993-07-26	
Gropahålet	1976-12-08	1993-07-27	
Åspet	1963-01-07	1996-05-06	
Balsberget	1979-12-19	1997-10-23	
Hercules	1999-11-26	1999-11-26	
Isternäset	2001-03-26	2001-03-26	
Rinkaby och Horna ängar	2002-11-18	2002-11-18	
Näsby fält	2002-11-18	2002-11-18	
Maltesholm	2003-10-14	2003-10-14	
Forsakar	1928-12-28	-	
Lyngsjö äng	1959-03-10	-	
Häslövs ängar	1967-04-25	-	


Hans Cronert

Kopia till
Miljöenheten (HC, GM, AL, A-LF)

Postadress	Besöksadress	Telefon	Telefax	Postgiro/Bankgiro	E-post	www
205 15 Malmö	Kungsgatan 13	040-25 20 00 vx	040-25 22 55	6 88 11-9	lansstyrelsen@m.lst.se	www.m.lst.se
291 86 Kristianstad	Ö Boulevarden 62 A	044-25 20 00 vx	044-25 22 55	5050-3739		

Appendix 6a. Globally and nationally red-listed species and species from the EU Habitat Directive (Annex 2) and EU Birds Directive (Annex 1).

Both in Sweden and internationally lists are made of species that are threatened in some way or other. These compilations are known as “red lists”. A red list divides species into different threat categories (see the table below). The red list is, in other words, an objective tool that can be used to assess whether some kind of intervention is necessary to support conservation and, if so, what measures need to be taken.

In Sweden the Swedish Species Information Centre is one of the bodies that collects and compiles information about Sweden’s flora and fauna. The Species Information Centre conducts research into and provides information about the habits and range of red-listed species, their habitat demands and the reasons behind the various threats to their existence. Red lists are compiled and presented in accordance with guidelines issued by the World Conservation Union (IUCN). In Sweden the current red list, published on 10 May 2000, adopts the same division into categories.

Red List Categories in Sweden (2000)

RE Regionally Extinct	A species is Regionally Extinct when there is no reasonable doubt that the last individual potentially capable of reproduction within the country (region) has died or disappeared from the country (region) .
CR Critically Endangered	A species is <i>Critically Endangered</i> when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E for that category.
EN <i>Endangered</i>	A species is <i>Endangered</i> when it is not <i>Critically Endangered</i> but nevertheless faces a very high risk of extinction in the wild in the near future, as defined by any of the criteria A to E for that category.
VU <i>Vulnerable</i>	A species is <i>Vulnerable</i> when it is not <i>Critically Endangered</i> or <i>Endangered</i> but nevertheless faces a high risk of extinction in the wild in the medium-term future, as defined by any of the criteria A to D for that category.
NT <i>Near Threatened</i>	A species is <i>Near Threatened</i> when it does not satisfy the criteria of any of the categories <i>Critically Endangered</i> , <i>Endangered</i> or <i>Vulnerable</i> , but is close to qualifying for <i>Vulnerable</i> .
DD <i>Data Deficient</i>	A species is assigned to <i>Data Deficient</i> when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. According to the guidelines adopted for this Red List no species should, however, be placed in this category unless there is some indication that it may be threatened or even regionally extinct.

EU listed species

The EU Habitat Directive and the EU Birds Directive list more than 900 species of plants and animals and more than 170 habitats as endangered or unique from a European viewpoint. Appendix 6c lists the species that occur in the proposed biosphere reserve and which are named in the Habitat Directive (Annex 2) or the Birds Directive (Annex 1).

Red-listed species within the proposed biosphere reserve

At least 711 nationally red-listed species, 59 species listed by the EU and 22 globally red-listed species have been encountered within the proposed biosphere reserve. Up-to-date information has been compiled for many species groups, but much work in the form of inventories, syntheses, etc., remains to be done in order to provide details of the actual occurrence and range of all the groups.

The lists on the following pages are based on information from the Swedish Species Information Centre, supplemented by several hundred new observations from some 20 species experts. The data presented relate to observations from 1970 onwards. As far as red-listed species of birds are concerned, the lists report regularly breeding and regularly resting species.

Appendix 6b. Globally red-listed species

Species in the proposed biosphere reserve that are globally red-listed according to IUCN Red List of threatened species 2003.

Group	Scientific name	Common English name *	IUCN category	Distribution
Mammals	<i>Myotis dasycneme</i>	Pond Bat	VU	Occasional
Mammals	<i>Sciurus vulgaris</i>	Eurasian Red Squirrel	NT	Common
Birds	<i>Crex crex</i>	Corn Crake	VU	Occasional
Birds	<i>Gallinago media</i>	Great Snipe	NT	Rare, migrating
Birds	<i>Haliaeetus albicilla</i>	White-tailed Eagle	NT	Common in winter
Fishes	<i>Gadus morhua</i>	Atlantic Cod	VU	Common
Fishes	<i>Lampetra fluviatilis</i>	River Lamprey	LR(nt)	Occasional
Fishes	<i>Lampetra planeri</i>	Brook Lamprey	LR(nt)	Rare
Fishes	<i>Pelecus cultratus</i>	Ziege	DD	Occasional
Beetles	<i>Carabus intricatus</i>	Blue Ground Beetle	LR(nt)	Rare
Beetles	<i>Dytiscus latissimus</i>	Great Diving Beetle	VU	Common
Beetles	<i>Osmoderma eremita</i>	Hermit Beetle	VU	Rare
Dragonflies	<i>Aeshna viridis</i>	Green Hawker	LR(nt)	Rare
Butterflies	<i>Maculinea arion</i>	Large Blue	LR(nt)	Rare
Arachnids	<i>Dolomedes plantarius</i>	Great Raft Spider	VU	Rare
Ants	<i>Formica rufa</i>	Red Wood Ant	LR(nt)	Common
Crayfish	<i>Astacus astacus</i>	Noble Crayfish	VU	Distribution unknown
Molluscs	<i>Margaritifera margaritifera</i>	Freshwater Pearl Mussel	EN	Rare
Molluscs	<i>Pseudanodonta complanata</i>	Compressed River Mussel	LR(nt)	Rare
Molluscs	<i>Unio Crassius</i>	Thick-shelled River Mussel	LR(nt)	Rare
Molluscs	<i>Vertigo geyerii</i>	Geyer's Whorl Snail	LR(cd)	Rare
Molluscs	<i>Vertigo angustior</i>	Narrow-mouthed Whorl Snail	LR(cd)	Rare

* Common Swedish names of species are given in the Swedish version of the nomination form: <http://www.vattenriket.kristianstad.se/mab/ansokan/index.htm>

Categories used for the global red list:

Critically endangered (CR)

Endangered (EN)

Vulnerable (VU)

Lower risk (LR)

Conservation Dependent LR(cd)

Near Threatened LR(nt)

Least Concern LR(lc)

Appendix 6c. EU listed species

Species in the proposed biosphere reserve that are listed in the EU Birds Directive (Annex 1) and the EU Habitat Directive (Annex 2)

Group	Scientific name	Common English name *	EU Code
Species from Birds Directive (Annex 1) that regularly breed or regularly rest in the area			
	<i>Alcedo atthis</i>	Kingfisher	A229
	<i>Anthus campestris</i>	Tawny Pipit	A255
	<i>Aquila chrysaetos</i>	Golden Eagle	A091
	<i>Asio flammeus</i>	Short-eared Owl	A222
	<i>Botaurus stellaris</i>	Bittern	A021
	<i>Branta leucopsis</i>	Barnacle Goose	A045
	<i>Bubo bubo</i>	Eagle Owl	A215
	<i>Calidris alpina schinzii</i>	Dunlin	A466
	<i>Caprimulgus europaeus</i>	Nightjar	A224
	<i>Chlidonias niger</i>	Black Tern	A197
	<i>Ciconia ciconia</i>	White Stork	A031
	<i>Circus aeruginosus</i>	Marsh Harrier	A081
	<i>Circus cyaneus</i>	Hen Harrier	A082
	<i>Circus pygargus</i>	Montagu's Harrier	A084
	<i>Cygnus cygnus</i>	Whooper Swan	A038
	<i>Crex crex</i>	Corn Crake	A122
	<i>Dryocopus martius</i>	Black Woodpecker	A236
	<i>Emberiza hortulana</i>	Ortolan Bunting	A379
	<i>Falco columbarius</i>	Merlin	A098
	<i>Falco peregrinus</i>	Peregrine Falcon	A103
	<i>Gallinago media</i>	Great Snipe	A154
	<i>Gavia artica</i>	Black-throated Diver	A002
	<i>Gavia stellata</i>	Red-throated Diver	A001
	<i>Grus grus</i>	Crane	A127
	<i>Haliaeetus albicilla</i>	White-tailed Eagle	A075
	<i>Lanius collurio</i>	Red-backed Shrike	A338
	<i>Limosa lapponica</i>	Bar-tailed Godwit	A157
	<i>Lullula arborea</i>	Woodlark	A246
	<i>Mergus albellus</i>	Smew	A068
	<i>Milvus milvus</i>	Red Kite	A074
	<i>Pandion haliaetus</i>	Osprey	A094
	<i>Pernis apivorus</i>	Honey Buzzard	A072
	<i>Philomachus pugnax</i>	Ruff	A151
	<i>Porzana porzana</i>	Spotted Crake	A119
	<i>Recurvirostra avosetta</i>	Avocet	A132
	<i>Sterna albifrons</i>	Little Tern	A195
	<i>Sterna caspia</i>	Caspian Tern	A190
	<i>Sterna hirundo</i>	Common Tern	A193
	<i>Sterna paradisaea</i>	Arctic Tern	A194
	<i>Sterna sandvicensis</i>	Sandwich Tern	A191
	<i>Sylvia nisoria</i>	Barred Warbler	A307
	<i>Tetrao tetrix tetrix</i>	Black Grouse	A409
	<i>Tringa glareola</i>	Wood Sandpiper	A166
Species from Habitat Directive (Annex 2) that occur in the area			
Mammals	<i>Myotis dasycneme</i>	Pond Bat	1318
Reptiles and amphibians	<i>Triturus cristatus</i>	Great Crested Newt	1166
Fishes	<i>Cottus gobio</i>	Bullhead	1163
Fishes	<i>Salmo salar</i>	Atlantic Ssalmon	1106

Butterflies	<i>Hesperia comma catena</i>	Silver-spotted Skipper	1933
Beetles	<i>Dytiscus latissimus</i>	European Great Diving Beetle	1081
Beetles	<i>Lucanus cervus</i>	Stag Beetle	1083
Beetles	<i>Osmoderma eremita</i>	Hermit Beetle	1084
Arachnids	<i>Anthrenochernes stellae</i>	No common English name found	1936
Molluscs	<i>Margaritifera margaritifera</i>	Freshwater Pearl Mussel	1029
Molluscs	<i>Unio Crassius</i>	Thick-shelled River Mussel	1032
Molluscs	<i>Vertigo geyerii</i>	Geyer's Whorl Snail	1013
Molluscs	<i>Vertigo angustior</i>	Narrow-mouthed Whorl Snail	1014
Vascular plants	<i>Dianthus arenarius</i>	No common English name found	1954
Vascular plants	<i>Liparis loeselii</i>	Fen Orchid	1903
Vascular plants	<i>Najas flexilis</i>	Slender Naiad	1833

* Common Swedish names of species are given in the Swedish version of the nomination form:
<http://www.vattenriket.kristianstad.se/mab/ansokan/index.htm>

Appendix 6d. Nationally red-listed species in the Critically Endangered category (CR)

Species in the proposed biosphere reserve that are nationally red-listed according to the Official Swedish Red List by the Swedish Species Information Centre 2000 in the Critically Endangered (CR) category.

Group	Scientific name	Common English name *
Fishes	<i>Silurus glanis</i>	European Catfish
Butterflies	<i>Lamprotes c-aureum</i>	No common English name found
Beetles	<i>Aphodius merdarius</i>	No common English name found
Beetles	<i>Aphodius putridus</i>	No common English name found
Beetles	<i>Chalcophora mariana</i>	No common English name found
Vascular plants	<i>Ajuga genevensis</i>	No common English name found
Vascular plants	<i>Arenaria leptoclados</i>	No common English name found
Vascular plants	<i>Koeleria macrantha</i>	Crested Hair-grass
Vascular plants	<i>Minuartia viscosa</i>	No common English name found
Vascular plants	<i>Najas flexilis</i>	Slender Naiad
Vascular plants	<i>Rosa agrestis</i>	Small-leaved Sweet-briar
Vascular plants	<i>Taraxacum austrinum</i>	No common English name found
Vascular plants	<i>Tephrosieris palustris</i>	Marsh Fleawort
Fungi	<i>Antrodiella citrinella</i>	No common English name found
Fungi	<i>Disciseda bovista</i>	No common English name found
Fungi	<i>Ramaria roellinii</i>	No common English name found
Fungi	<i>Tulostoma melanocyclum</i>	No common English name found
Lichens	<i>Cyphelium notarisii</i>	No common English name found
Lichens	<i>Cyphelium trachylioides</i>	No common English name found

* Common Swedish names of species are given in the Swedish version of the nomination form:

<http://www.vattenriket.kristianstad.se/mab/ansokan/index.htm>

Appendix 6e. Nationally red-listed species in the Endangered category (EN)

Species in the proposed biosphere reserve that are nationally red-listed according to the Official Swedish Red List by the Swedish Species Information Centre 2000 in the Endangered (EN) category

Group	Scientific name	Common English name *
Bats	<i>Myotis dasycneme</i>	Pond Bat
Birds	<i>Anthus campestris</i>	Tawny Pipit
Birds	<i>Circus pygargus</i>	Montagu's Harrier
Birds	<i>Crex crex</i>	Corn Crane
Birds	<i>Sterna caspia</i>	Caspian Tern
Reptiles and amphibians	<i>Bufo calamita</i>	Natterjack Toad
Fishes	<i>Lampetra fluviatilis</i>	River Lamprey
Fishes	<i>Petromyzon marinus</i>	Sea Lamprey
Butterflies	<i>Agriphila poliellus</i>	No common English name found
Butterflies	<i>Earias vernana</i>	No common English name found
Butterflies	<i>Emmelia trabealis</i>	No common English name found
Butterflies	<i>Scotopteryx luridata</i>	No common English name found
Beetles	<i>Allecula rhenana</i>	No common English name found
Beetles	<i>Anoplodera scutellata</i>	No common English name found
Beetles	<i>Aphodius coenosus</i>	No common English name found
Beetles	<i>Aphodius quadriguttatus</i>	No common English name found
Beetles	<i>Bagous czwalinai</i>	No common English name found
Beetles	<i>Blaps mortisaga</i>	No common English name found
Beetles	<i>Ceutorhynchus pallidicornis</i>	No common English name found

Beetles	<i>Ceutorhynchus puncticollis</i>	No common English name found
Beetles	<i>Denticollis rubens</i>	No common English name found
Beetles	<i>Emus hirtus</i>	No common English name found
Beetles	<i>Euplectus bonvouloiri</i>	No common English name found
Beetles	<i>Harpalus hirtipes</i>	No common English name found
Beetles	<i>Heptaulacus sus</i>	No common English name found
Beetles	<i>Leptura revestita</i>	No common English name found
Beetles	<i>Melandrya barbata</i>	No common English name found
Beetles	<i>mycetophagus quadriguttatus</i>	No common English name found
Beetles	<i>Nicrophorus vestigator</i>	No common English name found
Diptera	<i>Chrysopilus erythrophthalmus</i>	No common English name found
Diptera	<i>Oxycera nigricornis</i>	No common English name found
Arachnids	<i>Alopecosa cursor</i>	No common English name found
Molluscs	<i>Cochlicopa nitens</i>	No common English name found
Molluscs	<i>Unio crassus</i>	Thick-Shelled River Mussel
Vascular plants	<i>Aethusa cynapium ssp. segetalis</i>	Fool's Parsley
Vascular plants	<i>Aristolochia clematitis</i>	Birthwort
Vascular plants	<i>Astragalus arenarius</i>	No common English name found
Vascular plants	<i>Botrychium matricariifolium</i>	No common English name found
Vascular plants	<i>Eryngium maritimum</i>	Sea-holly
Vascular plants	<i>Euphrasia rostkoviana ssp. rostkoviana</i>	No common English name found
Vascular plants	<i>Festuca filiformis</i>	Fine-leaved Sheep's-fescue
Vascular plants	<i>Festuca heterophylla</i>	Various-leaved Fescue
Vascular plants	<i>Gentianella campestris ssp. baltica</i>	No common English name found
Vascular plants	<i>Hypericum humifusum</i>	Trailing St John's-wort
Vascular plants	<i>Medicago minima</i>	Bur Medick
Vascular plants	<i>Mentha x gracilis</i>	No common English name found
Vascular plants	<i>Misopates orontium</i>	Weasel's-snout
Vascular plants	<i>Nepeta cataria</i>	Cat-mint
Vascular plants	<i>Oenanthe fistulosa</i>	Tubular Water-dropwort
Vascular plants	<i>Orobanche reticulata</i>	Thistle Broomrape
Vascular plants	<i>Potamogeton rutilus</i>	Shetland Pondweed
Vascular plants	<i>Rubus vestitus</i>	No common English name found
Vascular plants	<i>Rumex conglomeratus</i>	Clustered Dock
Vascular plants	<i>Sagina micropetala</i>	Common Pearlwort
Vascular plants	<i>Tephrosieris integrifolia</i>	Field Fleawort
Vascular plants	<i>Verbascum densiflorum</i>	Dense-flowered Mullein
Stonewort	<i>Nitella mucronata</i>	Pointed Stonewort
Stonewort	<i>Nitellopsis obtusa</i>	Starry Stonewort
Fungi	<i>Cortinarius humicola</i>	No common English name found
Fungi	<i>Hygrophorus poëtarum</i>	No common English name found
Fungi	<i>Lepiota hystrix</i>	No common English name found
Fungi	<i>Melanomphalia nigrescens</i>	No common English name found
Fungi	<i>Phylloporus rhodoxanthus</i>	No common English name found
Fungi	<i>Polyporus badius</i>	No common English name found
Fungi	<i>Polyporus tuberaster</i>	No common English name found
Fungi	<i>Tricholoma pardinum</i>	No common English name found
Fungi	<i>Tyromyces wynnei</i>	No common English name found
Lichens	<i>Bacidia friesiana</i>	No common English name found
Lichens	<i>Bacidia polychroa</i>	No common English name found
Lichens	<i>Bacidina delicata</i>	No common English name found

* Common Swedish names of species are given in the Swedish version of the nomination form:
<http://www.vattenriket.kristianstad.se/mab/ansokan/index.htm>

Appendix 6f. Nationally red-listed species in the Vulnerable category (VU)

Species in the proposed biosphere reserve that are nationally red-listed according to the Official Swedish Red List by the Swedish Species Information Centre 2000 in the Vulnerable (VU) category

Group	Scientific name	Common English name *
Bats	<i>Myotis mystacinus</i>	Whiskered Bat
Bats	<i>Myotis nattereri</i>	Natterer's (Red-grey) Bat
Birds	<i>Alcedo atthis</i>	Kingfisher
Birds	<i>Anas querquedula</i>	Garganey
Birds	<i>Aythya ferina</i>	European Pochard
Birds	<i>Aythya marila</i>	Greater Scaup
Birds	<i>Botaurus stellaris</i>	Great Bittern
Birds	<i>Calidris alpina schinzii</i>	Dunlin
Birds	<i>Caprimulgus europaeus</i>	Nightjar
Birds	<i>Carduelis flavirostris</i>	Twite
Birds	<i>Chlidonias niger</i>	Black Tern
Birds	<i>Circus cyaneus</i>	Hen Harrier
Birds	<i>Columba oenas</i>	Stock Dove
Birds	<i>Coturnix coturnix</i>	Quail
Birds	<i>Dendrocopos minor</i>	Lesser Spotted Woodpecker
Birds	<i>Emberiza hortulana</i>	Ortolan Bunting
Birds	<i>Falco peregrinus</i>	Peregrine Falcon
Birds	<i>Haliaeetus albicilla</i>	White-tailed Eagle
Birds	<i>Jynx torquilla</i>	Wryneck
Birds	<i>Limosa lapponica</i>	Bar-tailed Godwit
Birds	<i>Limosa limosa</i>	Black-tailed Godwit
Birds	<i>Oriolus oriolus</i>	Golden Oriole
Birds	<i>Pernis apivorus</i>	Honey Buzzard
Birds	<i>Porzana porzana</i>	Spotted Crake
Birds	<i>Remiz pendulinus</i>	Penduline Tit
Birds	<i>Serinus serinus</i>	Serin
Birds	<i>Sterna albifrons</i>	Little Tern
Birds	<i>Sterna sandvicensis</i>	Sandwich Tern
Birds	<i>Tachybaptus ruficollis</i>	Little Grebe
Reptiles and amphibians	<i>Lacerta agilis</i>	Sand Lizard
Reptiles and amphibians	<i>Natrix natrix</i>	Grass Snake
Reptiles and amphibians	<i>Rana dalmatina</i>	Agile Frog
Fishes	<i>Salmo salar</i>	Atlantic Salmon
Hymenoptera	<i>Tiphia minuta</i>	No common English name found
Butterflies	<i>Agonopterix subpropinquella</i>	No common English name found
Butterflies	<i>Brachmia dimidiella</i>	No common English name found
Butterflies	<i>Callimorpha dominula</i>	No common English name found
Butterflies	<i>Caryocolum schleichi</i>	No common English name found
Butterflies	<i>Cochylimorpha hilarana</i>	No common English name found
Butterflies	<i>Coleophora chalcogrammella</i>	No common English name found
Butterflies	<i>Coleophora scabrada</i>	No common English name found
Butterflies	<i>Costaconvexa polygrammata</i>	No common English name found
Butterflies	<i>Cucullia praecana</i>	No common English name found
Butterflies	<i>Denisia albimaculea</i>	No common English name found
Butterflies	<i>Eublemma minutata</i>	No common English name found
Butterflies	<i>Fabriciana niobe</i>	No common English name found
Butterflies	<i>Hadena filograna</i>	No common English name found
Butterflies	<i>Heterogenea asella</i>	No common English name found
Butterflies	<i>Horisme aquata</i>	No common English name found

Butterflies	<i>Infurctinea marianii</i>	No common English name found
Butterflies	<i>Lithostege farinata</i>	No common English name found
Butterflies	<i>Lithostege griseata</i>	No common English name found
Butterflies	<i>Lycia zonaria</i>	No common English name found
Butterflies	<i>Maculinea arion</i>	Large Blue
Butterflies	<i>Microstega hyalinalis</i>	No common English name found
Butterflies	<i>Myelois cirrigerella</i>	No common English name found
Butterflies	<i>Pyrausta cingulata</i>	No common English name found
Butterflies	<i>Sedina buettneri</i>	No common English name found
Butterflies	<i>Spuleria flavicaput</i>	No common English name found
Butterflies	<i>Teleiodes flavimaculella</i>	No common English name found
Butterflies	<i>Zygaena minos</i>	No common English name found
Hemiptera	<i>Adelphocoris ticinensis</i>	No common English name found
Hemiptera	<i>Polymerus brevicornis</i>	No common English name found
Beetles	<i>Abraeus granulum</i>	No common English name found
Beetles	<i>Achenium humile</i>	No common English name found
Beetles	<i>Aeletes atomarius</i>	No common English name found
Beetles	<i>Agathidium haemorrhoum</i>	No common English name found
Beetles	<i>Anoplodera sexguttata</i>	No common English name found
Beetles	<i>Anthonomus ulmi</i>	No common English name found
Beetles	<i>Aphodius luridus</i>	No common English name found
Beetles	<i>Aphodius scrofa</i>	No common English name found
Beetles	<i>Apion dispar</i>	No common English name found
Beetles	<i>Apion filirostre</i>	No common English name found
Beetles	<i>Apion laevigatum</i>	No common English name found
Beetles	<i>Apion pomonae</i>	No common English name found
Beetles	<i>Atheta negligens</i>	No common English name found
Beetles	<i>Athous mutilatus</i>	No common English name found
Beetles	<i>Calambus bipustulatus</i>	No common English name found
Beetles	<i>Carabus intricatus</i>	Blue Ground Beetle
Beetles	<i>ceutorhynchus angulosus</i>	No common English name found
Beetles	<i>Ceutorhynchus chalybaeus</i>	No common English name found
Beetles	<i>Ceutorhynchus constrictus</i>	No common English name found
Beetles	<i>Ceutorhynchus javeti</i>	No common English name found
Beetles	<i>Ceutorhynchus pervicax</i>	No common English name found
Beetles	<i>Ceutorhynchus sophiae</i>	No common English name found
Beetles	<i>Choragus horni</i>	No common English name found
Beetles	<i>Chrysolina sanguinolenta</i>	No common English name found
Beetles	<i>Claviger longicornis</i>	No common English name found
Beetles	<i>Claviger vexans</i>	No common English name found
Beetles	<i>Conicleonus hollbergi</i>	No common English name found
Beetles	<i>Copris lunaris</i>	No common English name found
Beetles	<i>Cossonus parallelepipedus</i>	No common English name found
Beetles	<i>Cryptocephalus exiguus</i>	No common English name found
Beetles	<i>Cypha hanseni</i>	No common English name found
Beetles	<i>Dibolia occultans</i>	No common English name found
Beetles	<i>Dicronychus equisetioides</i>	No common English name found
Beetles	<i>Dyschirius intermedius</i>	No common English name found
Beetles	<i>Ernoporicus caucasicus</i>	No common English name found
Beetles	<i>Eucnemis capucina</i>	No common English name found
Beetles	<i>Euthiconus conicicollis</i>	No common English name found
Beetles	<i>Galeruca interrupta</i>	No common English name found
Beetles	<i>Globicornis corticalis</i>	No common English name found
Beetles	<i>Gnorimus nobilis</i>	No common English name found
Beetles	<i>Graphoderus austriacus</i>	No common English name found
Beetles	<i>Hapalaraea vilis</i>	No common English name found
Beetles	<i>Harpalus melancholicus</i>	No common English name found
Beetles	<i>Hetaerius ferrugineus</i>	No common English name found

Beetles	<i>Hypera dauci</i>	No common English name found
Beetles	<i>Hypulus quercinus</i>	No common English name found
Beetles	<i>Labidostomis longimana</i>	No common English name found
Beetles	<i>Laemostenus terricola</i>	No common English name found
Beetles	<i>Longitarsus niger</i>	No common English name found
Beetles	<i>Lucanus cervus</i>	Stag Beetle
Beetles	<i>Maladera holosericea</i>	No common English name found
Beetles	<i>Manda mandibularis</i>	No common English name found
Beetles	<i>Medon castaneus</i>	No common English name found
Beetles	<i>Meligethes czwalinai</i>	No common English name found
Beetles	<i>Meligethes gagathinus</i>	No common English name found
Beetles	<i>Ocalea latipennis</i>	No common English name found
Beetles	<i>ocypus winkleri</i>	No common English name found
Beetles	<i>Opilo mollis</i>	No common English name found
Beetles	<i>Osmoderma eremita</i>	Hermit Beetle
Beetles	<i>Philonthus corruscus</i>	No common English name found
Beetles	<i>Platycis cosnardi</i>	No common English name found
Beetles	<i>Platysoma compressum</i>	No common English name found
Beetles	<i>Plegaderus dissectus</i>	No common English name found
Beetles	<i>Plegaderus saucius</i>	No common English name found
Beetles	<i>Procraerus tibialis</i>	No common English name found
Beetles	<i>Pseudomicrodota jelineki</i>	No common English name found
Beetles	<i>Psylliodes sophiae</i>	No common English name found
Beetles	<i>Quedius assimilis</i>	No common English name found
Beetles	<i>Quedius vexans</i>	No common English name found
Beetles	<i>Rhagium sycophanta</i>	No common English name found
Beetles	<i>Riolus cupreus</i>	No common English name found
Beetles	<i>Silpha obscura</i>	No common English name found
Beetles	<i>stenus bohemicus</i>	No common English name found
Beetles	<i>Stereocorynes truncorum</i>	No common English name found
Beetles	<i>Tetrops starkii</i>	No common English name found
Beetles	<i>Tychius polylineatus</i>	No common English name found
Stoneflies	<i>Brachyptera braueri</i>	No common English name found
Stoneflies	<i>Capnia nigra</i>	No common English name found
Caddisflies	<i>Odontocerum albicorne</i>	No common English name found
Caddisflies	<i>Wormaldia occipitalis</i>	No common English name found
Arachnids	<i>Anthrenochernes stellae</i>	No common English name found
Arachnids	<i>Micaria lenzi</i>	No common English name found
Arachnids	<i>Philodromus fallax</i>	No common English name found
Crayfish	<i>Astacus astacus</i>	Noble Crayfish
Molluscs	<i>Margaritifera margaritifera</i>	Freshwater Pearl Mussel
Molluscs	<i>Acicula polit</i>	No common English name found
Molluscs	<i>Bulgarica cana</i>	No common English name found
Vascular plants	<i>Coronopus squamatus</i>	Swine-cress
Vascular plants	<i>Agrostemma githago</i>	Corncockle
Vascular plants	<i>Aira caryophyllea</i>	Silver Hair-grass
Vascular plants	<i>Allium carinatum</i>	Keeled Garlic
Vascular plants	<i>Anthriscus caucalis</i>	Bur Chervil
Vascular plants	<i>Apium inundatum</i>	Lesser Marshwort
Vascular plants	<i>Bromus arvensis</i>	Field Brome
Vascular plants	<i>Catabrosa aquatica</i>	Whorl-grass
Vascular plants	<i>Centaureum erythraea</i>	Common Centaury
Vascular plants	<i>Chimaphila umbellata</i>	No common English name found
Vascular plants	<i>Cuscuta epithimum</i>	Dodder
Vascular plants	<i>Dianthus arenarius</i>	No common English name found
Vascular plants	<i>Digitaria ischaemum</i>	Smooth Finger-grass
Vascular plants	<i>Euphrasia micrantha</i>	No common English name found
Vascular plants	<i>Gymnocarpium robertianum</i>	Limestone Fern

Vascular plants	<i>Herminium monorchis</i>	Musk Orchid
Vascular plants	<i>Holosteum umbellatum</i>	Jagged Chickweed
Vascular plants	<i>Hypochoeris glabra</i>	Smooth Cat's-ear
Vascular plants	<i>Isolepis setacea</i>	Bristle Club-rush
Vascular plants	<i>Juncus capitatus</i>	Dwarf Rush
Vascular plants	<i>Lappula squarrosa</i>	Bur Forget-me-not
Vascular plants	<i>Lathyrus tuberosus</i>	Earth-nut Pea
Vascular plants	<i>Liparis loeselii</i>	Fen Orchid
Vascular plants	<i>Lunaria rediviva</i>	Perennial Honesty
Vascular plants	<i>Malva pusilla</i>	Small Mallow
Vascular plants	<i>Ornithopus perpusillus</i>	Bird's-foot
Vascular plants	<i>Peucedanum oreoselinum</i>	No common English name found
Vascular plants	<i>Phleum arenarium</i>	Sand Cat's-tail
Vascular plants	<i>Pilularia globulifera</i>	Pillwort
Vascular plants	<i>Potamogeton compressus</i>	Grass-wrack Pondweed
Vascular plants	<i>Potamogeton friesii</i>	Flat-stalked Pondweed
Vascular plants	<i>Potentilla anglica</i>	Trailing Tormentil
Vascular plants	<i>Primula elatior</i>	Oxlip
Vascular plants	<i>Pseudorchis albida</i>	Small-white Orchid
Vascular plants	<i>Ranunculus fluitans</i>	River Water-crowfoot
Vascular plants	<i>Rosa obtusifolia</i>	Round-leaved Dog-Rose
Vascular plants	<i>Rubus insularis</i>	No common English name found
Vascular plants	<i>Rubus mortensenii</i>	No common English name found
Vascular plants	<i>Salvia verticillata</i>	Whorled Clary
Vascular plants	<i>Scabiosa canescens</i>	No common English name found
Vascular plants	<i>Senecio paludosus</i>	Fen Ragwort
Vascular plants	<i>Sherardia arvensis</i>	Field Madder
Vascular plants	<i>Sparganium erectum ssp. oocarpum</i>	No common English name found
Vascular plants	<i>Taraxacum discretum</i>	No common English name found
Vascular plants	<i>Veronica praecox</i>	Breckland Speedwell
Vascular plants	<i>Vicia dumetorum</i>	No common English name found
Mosses	<i>Eurhynchium speciosum</i>	No common English name found
Mosses	<i>Loeskeobryum brevirostre</i>	No common English name found
Fungi	<i>Boletus pulverulentus</i>	No common English name found
Fungi	<i>Camarops tubulina</i>	No common English name found
Fungi	<i>Cortinarius anserinus</i>	No common English name found
Fungi	<i>Cortinarius citrinus</i>	No common English name found
Fungi	<i>Cortinarius elegantissimus</i>	No common English name found
Fungi	<i>Cortinarius fageticola</i>	No common English name found
Fungi	<i>Cortinarius vulpinus</i>	No common English name found
Fungi	<i>Cystolepiota adulterina</i>	No common English name found
Fungi	<i>Disciseda candida</i>	No common English name found
Fungi	<i>Entoloma queletii</i>	No common English name found
Fungi	<i>Flammulina fennae</i>	No common English name found
Fungi	<i>Geastrum saccatum</i>	No common English name found
Fungi	<i>Hygrocybe intermedia</i>	No common English name found
Fungi	<i>Inocybe fibrosoides</i>	No common English name found
Fungi	<i>Inonotus dryadeus</i>	No common English name found
Fungi	<i>Leccinum crocipodium</i>	No common English name found
Fungi	<i>Lepiota ignivolvata</i>	No common English name found
Fungi	<i>Lepiota ochraceofulva</i>	No common English name found
Fungi	<i>Mycenastrum corium</i>	No common English name found
Fungi	<i>Peziza saniosa</i>	No common English name found
Fungi	<i>Phleogena faginea</i>	No common English name found
Fungi	<i>Polyporus umbellatus</i>	No common English name found
Fungi	<i>Poronia punctata</i>	No common English name found
Fungi	<i>Russula melliolens</i>	No common English name found
Fungi	<i>Skeletocutis lenis</i>	No common English name found

Fungi	<i>Squamanita contortipes</i>	No common English name found
Fungi	<i>Xerula pudens</i>	No common English name found
Lichens	<i>Arthonia pruinata</i>	No common English name found
Lichens	<i>Bacidia incompta</i>	No common English name found
Lichens	<i>Bacidina phacodes</i>	No common English name found
Lichens	<i>Bactrospora corticola</i>	No common English name found
Lichens	<i>Caloplaca luteoalba</i>	No common English name found
Lichens	<i>Caloplaca ulcerosa</i>	No common English name found
Lichens	<i>Catinaria laureri</i>	No common English name found
Lichens	<i>Fellhaneropsis vezdae</i>	No common English name found
Lichens	<i>Lecanographa amylacea</i>	No common English name found
Lichens	<i>Melanelia elegantula</i>	No common English name found
Lichens	<i>Opegrapha vermicellifera</i>	No common English name found
Lichens	<i>Pertusaria multipuncta</i>	No common English name found
Lichens	<i>Xanthoria calcicola</i>	No common English name found

* Common Swedish names of species are given in the Swedish version of the nomination form:
<http://www.vattenriket.kristianstad.se/mab/ansokan/index.htm>

The category Near Threatened (NT) includes 360 species in the proposed biosphere reserve.

Appendix 6g. Economically important species

Group	Scientific name	Common English name *
Agriculture, crops	<i>Beta vulgaris</i>	Beet
Agriculture, crops	<i>Daucus carota</i>	Carrot
Agriculture, crops	<i>Fragaria x ananassa</i>	Strawberry
Agriculture, crops	<i>Hordeum vulgare</i>	Barley
Agriculture, crops	<i>Lactuca sativa</i>	Garden Lettuce
Agriculture, crops	<i>Triticum aestivum</i>	Bread Wheat
Agriculture, crops	<i>Secale cereale</i>	Rye
Agriculture, crops	<i>Solanum tuberosum</i>	Potato
Agriculture, livestock	<i>Bos taurus</i>	Cow, cattle
Agriculture, livestock	<i>Sus scrofa</i>	Pig
Forestry	<i>Fagus sylvatica</i>	Beech
Forestry	<i>Picea abies</i>	Norway Spruce
Forestry	<i>Pinus sylvestris</i>	Scots Pine
Fishing	<i>Anguilla anguilla</i>	Eel
Fishing	<i>Gadus morhua</i>	Atlantic Cod
Fishing	<i>Salmo trutta trutta</i>	Sea Trout

* Common Swedish names of species are given in the Swedish version of the nomination form:
<http://www.vattenriket.kristianstad.se/mab/ansokan/index.htm>

Appendix 7. List of main bibliographic references

Author	Year	Title	Publication data
von Linneus, C.	1751	Carl Linnaei Skånska Resa, På Öfwehetens Befallning förrättad år 1749	Stockholm 1751
Andersson, T.	1948	Boken om Lillöhus	Kristianstad
Enghoff, K.	1949	Kristianstads historia 1614-1948	Kristianstad
Sjöbeck, M.	1949	Bleking, Färdvägar och vandringstigar utgående från järnvägarna	?
Fries, C.	1963	Den svenska södern	?
Björk, S.	1971	Araslövssjön och Hammarsjön. Sjöarnas tillstånd och utveckling samt förslag till åtgärder för deras restaurering	Limnologiska institutionen, Lund
Gullander, B.	1975	Linné i Skåne	Norstedt och Söners förlag, Stockholm
red: von Sydow, C-O, Brusewitz, G.	1975	Carl Linnaeus Skånska Resa år 1749	Wahlström och Widstrand, Stockholm
Gustafsson, O. & De Geer, J.	1977	Skånes större grundvattentillgångar.	Sveriges Geologiska Undersökning. Rapporter och Meddelanden Vol 8.
Rollof, Y.	1977	Sverige inre vattenvägar	Raben och Sjögren
Kornfält, K-A, Bergström, J., Carsrud, L., Henkel, H. & Sundqvist, B.	1978	Beskrivning till berggrundskartan och flygmagnetiska kartan Kristianstad SO.	SGU Af 121.
Gustafsson, O., Andersson, J-E. & De Geer, J.	1979	Sammanställning av hydrogeologiska data från Kristianstadsslätten.	Sveriges Geologiska Undersökning. Rapporter och Meddelanden Vol 12.
Bergström, J.	1981	Kristianstadstrakten genom årmiljonerna	Skånes Naturvårdsförbunds Årsskrift, s 7-16
Magnusson, S-E.	1981	Helgeåns nedre sjösystem- något om människornas ingrepp under närmare 400 år	Skånes Naturvårdsförbunds Årsskrift, s 7-16
Herrmann, J., Malmquist, B., Sjöström, P. & Svensson, B	1983	Från Almaån till Östersjöbacken, en analys av Kristianstads läns vattendrag	Rheoekologiska gruppen, Ekologihuset, Lunds Universitet
Wikman, H., Bergström, J. & Lidmar-Bergström, K.	1983	Beskrivning till berggrundskarta Kristianstad NO.	SGU Af 127.
Adolfsson, K., Johansson, R. & Lorentzon, B.	1985	Araslövssjön förr och nu	Nordöstra Skånes Fågelklubb och Länsstyrelsen i Kristianstads län,
Magnusson, S-E.	1985	Jättegytor. Från Krittiden vid Åraslöv och Hallabacken i Nordöstra Skåne.	Särtryck ur Natur i Göinge, Nr 16
Ringberg, B.	1986	Beskrivning till jordartskartan Kristianstad SV.	SGU Ae 78.
Henriksson, L., Oscarson, H.	1987	Flodpärlmusslan i Kristianstads län	Zoologiska institutionen, Göteborgs universitet
Johansson, R. & Cronert, H.	1989	Hammarsjöns häckande fåglar: utveckling och nuvarande status 1956 – 1986.	Nordöstra Skånes Fågelklubb. Länsstyrelsen i Kristianstad län.
Larsson, T., Lindahl, H.	1989	Svenska våtmarker av internationell betydelse- våtmarkskonventionen och CW listan	Naturvårdsverkets förlag ISBN 91- 620-1068-9.
Magnusson, S-E., Andersson, J. & Vägren, G.	1989	Markhävdkartering 1989: Helgeåns nedre vattenområde från Torsebro till havet.	SPOVEN, supplement nr 1
Stadsbyggnadskontoret	1990	Kristianstads kommun översiktplan,	Kristianstads kommun,
Cronert, H	1991	Våtmarksområdet utmed nedre Helgeån – från Torsebro till havet: förslag till plan	Kristianstads kommun.
Ringberg, B.	1991	Beskrivning till jordartskartan Karlshamn SV.	SGU Ae 106.
Ringberg, B.	1991	Late Weichselian clay varve chronology and glaciolacustrine environment during deglaciation in southeastern Sweden.	SGU Ca 79
Weisner, S.	1991	Övertvattens-och flytbladsvegetationen i Hammarsjön. Utbredning, förändringar sedan 1970 samt förutsättningar för vegetation	Limnologiska avd. ekologiska inst. Lunds universitet
Cronert, H., Lindblad, T.	1992	Inventering av sex strandängar inom Helgeåns våtmarksområde våren 1990	Meddelande nr 3 från Nedre Helgeåns Fågelstation. Spoven 1992 nr 1: 3-18
Ringberg, B.	1992	Beskrivning till jordartskartan Kristianstad NV.	SGU Ae 111.
Wagnström, J. & Magnusson, S-E.	1992	Fiskar i Kristianstad vattenrike.	Länsstyrelsen i Kristianstad län.
Magntorn, K.	1993	Ekopedagogik- ett skolprojekt i Kristianstads Vattenrike	Biologen, Biologilärarnas förening, nr 4 1993
Wikman, H. & Sivhed, U.	1993	Beskrivning till berggrundskartan Kristianstad SV. Beskrivning till berggrundskartan Kristianstad NV.	SGU Af 155.
Mårtensson, A. W	1994	Attraktiv Kulturbyggd- på upptäcktsfärd i Kristianstads kommun	Kristianstads Boktryckeri
Magnusson S-E, Vägren G	1994	Alstubarna i sjön var 7500 år gamla	Fauna och Flora, Naturhistoriska Riksmuseet, NR 5.94
Ljungberg, H.	1995	Jordlöpare och kortvingar på öppna våtmarker längs nedre Helgeån: olika hävdformers betydelse för den marklevand skalbaggsfaunan.	Länsstyrelsen i Kristianstad län.

Magntorn, K., Vägren, G.	1996	Smådjur i Kristianstads Vattenrike - en liten skrift om vanliga småkryp i Kristianstads Vattenrikes vattendrag	?
Lorentzon, B. (red)	1996	Fågellokaler i Kristianstadstrakten	Nordöstra Skånes Fågelklubb
Malmberg, S.	1996	Från Bjäre till Österlen. Skånska natur-och kulturmiljöer	Länsstyrelsen i Kristianstads län, 1996
Nyström, J., Duncan, E., Mutvei, H. & Lindh, U.	1996	Environmental history as reflected by freshwater pearl mussels in the River Vramsån southern Sweden.	Ambio 25(5).
Persson, C. & Nilsson, M.	1996	Ängs- och hagmarker i Kristianstad län.	Länsstyrelsen i Kristianstads län.
Wendt- Rasch, L. & Cronert Hans	1996	Markhävdkartering 1996. Helgeåns nedre vattenområde i Kristianstads Vattenrike.	Spoven, supplement nr 5. Nordöstra Skånes Fågelklubb
Gustafsson, A.M., Gustafsson, L-G., Winberg, S. & Refsgaard, A.	1997	Safeguarding the Kristianstad Plain groundwater resource by using the MIKE SHE model.	Proceedings of the 1997 European Water Resources Association Conference. Copenhagen. Denmark.
Rundkrantz, K.	1997	Vattenöversikt för Kristianstads kommun,	Kristianstads kommun
Cronert, H., Lindblad, T.	1998	Häckande simänder och vadare på strandängarna i Kristianstads Vattenrike. Resultat från en inventering våren 1997	Meddelande nr 20 från Nedre Helgeåns Fågelstation. Anser 37 (1998) 89-102
Olsson, K.	1998	Inte en vackrare plats på jorden. Åhus historia	
Wallsten, E.	1998	Herkulesområdet med Rinkaby holme, Viby äng och Herkulesdammarna i Kristianstads Vattenrike. Dokumentation,	Skåne i utveckling 98:10 Länsstyrelsen i Skåne län
Daniel, E.	1999	Beskrivning till jordartskarta Kristianstad NO.	SGU Ae 134.
Magnusson, S-E.	1999	Verksamhetsberättelse 1999	Kristianstads kommun
Magnusson, S-E.	1999	Verksamhetsberättelse 2000	Kristianstads kommun
Wallsten E.	1999	Dokumentation av det förslagna naturreservatet Näsby fält med Västra fäladen, Lingenäsen och östra delen av Araslövssjön i Kristianstads vattenrike.	Skåne i utveckling 99:20 Länsstyrelsen i Skåne län.
Olsson, K-A.	2000	Hammarsjön – Dykungens sjö.	Svensk Botanisk Tidskrift. 94 (2)
Soller, B.	2000	Storken i Kristianstads Vattenrike	Accent förlag
Wallsten, E.	2000	Hammarsjöns västra sida med Åsums och Hovby ängar i Kristianstads Vattenrike	Skåne i utveckling 00:43 Länsstyrelsen i Skåne län
Cronert, H., Lindblad, T.	2001	Araslövssjöns häckfåglar under ett kvarts sekel	Meddelande nr 25 från Helge åns Fågelstation. Anser 4/ 2001
Cronert, H., Lindblad, T.	2001	Naturvård i Kristianstads Vattenrike-handlingsprogram 2001-2003	Länsstyrelsen i Skåne län och Kristianstads kommun
Kristianstad kommun	2001	Kristianstads vattenförsörjning: förutsättningar – möjligheter – konsekvenser.	Kristianstad kommun. Kristianstad.
Wallsten, E.	2001	Dokumentation av Egeside-området med Härnestads ängar/Pulken, Yngsjö fålad, Egeside sjö och Helge å i Kristianstads vattenrike, Kristianstads kommun.	Skåne i utveckling 2001: 36 Länsstyrelsen i Skåne län.
Wallsten E.	2001	Dokumentation av Rinkaby ängar med del av Horna ängar i Kristianstads Vattenrike.	Skåne i utveckling 2001: 37 Länsstyrelsen i Skåne län.
von Proschwitz, T.	2001	Landlevande mollusker i Kristianstads vattenrike och en översikt av landmolluskfaunan i Kristianstads kommun.	Skåne i utveckling 2001: 38 Länsstyrelsen i Skåne län.
Ödman A.	2001	Norra Åsum, Härlöv och Lillö, Gård, borg och slott.	Föreningen Gamla Christianstads årsskrift 2001.
Emanuelson, U. och Bergendorff, C. m.fl	2001	Det skånska kulturlandskapet	Årsbok för Naturskyddsföreningen i Skåne
Magnusson, S-E.	2002	Verksamhetsberättelse 2002	Kristianstads kommun
Sahlen G. och Birkedal L.	2002	Trollsländor längs nedre Helgeån i Kristianstads Vattenrike	Skåne i utveckling 2002:27 Länsstyrelsen i Skåne län
Svensson, M.	2002	Skog och trädmiljöer längs nedre helgeån i Kristianstads Vattenrike	Skåne i utveckling 2002:1 Länsstyrelsen i Skåne län
Olsson, P.	2003	Social-Ecological Transformations for Ecosystem Management: The Development of Adaptive C-management of a Wetland Landscape in Southern Sweden	Ur "Building capacity for resilience in social-ecological systems". Doctoral Dissertation
Olsson, K-A. m.fl (red)	2003	Florän i Skåne. Vegetation och utflyktsmål.	Lunds botaniska förening
Ovesson, P.	2003	Hävd tillståndet på betesmarker och slåtterängar inom nedre Helge åns våtmarksområde	Examensarbete i biologi 20 p. Institutionen för matematik och naturvetenskap. Högskolan Kristianstad
Cronert, H.	2004	Naturvård i Kristianstads Vattenrike-handlingsprogram 2004-2006	Länsstyrelsen i Skåne län och Kristianstads kommun

Appendix 8. Summary of environmental monitoring activities in the proposed UNESCO Biosphere Reserve of Kristianstads Vattenrike

This appendix presents a summary of the environmental monitoring carried out (currently and previously) in the proposed biosphere reserve. The presentation divides environmental monitoring into different programme areas as is the case with the environmental monitoring activities carried out at national level in Sweden.

Programme Area – Air

Air quality monitoring in Skåne is based on a number of national sub-programmes and international undertakings in combination with regional monitoring activities. Levels of air pollutants, the presence of various substances in precipitation and surface water chemistry are all measured.

Ongoing time series

Skånes Luftvårdsförbund (“The Skåne Air Quality Association”) has been surveying the levels and deposition of air pollutants and the surface water quality at a station in Åkeboda since 1996. Every five years since 1968, the national environmental monitoring authorities have measured metal levels in Mountain Fern Moss (*Hylocomium splendens*) at hundreds of different sites throughout Sweden, three of which are situated within the proposed biosphere reserve.

As part of a joint project with the Swedish Environmental Research Institute (IVL) known as *Urban-nätet* (“The Swedish Urban Air Quality Network”), the Municipality of Kristianstad has measured air quality at two locations (in central Kristianstad and in Nöbbelöv, south-west of Kristianstad) since 1989.

There is no data available on *concluded time series or from previously completed basic inventories*.

Programme Area – Sea and Coastal Areas

Environmental monitoring of the marine environment mainly incorporates chemical and physical parameters such as nutrient concentrations, oxygen levels, etc. Biological measurement programmes, involving the sampling of, for example, demersal fauna, have been included since the 1980s. In the proposed biosphere reserve, environmental monitoring activities within the Sea and Coastal Areas programme area take the form of measurements made by water conservation associations and the Municipality of Kristianstad.

Ongoing time series

Västra Hanöbukstens Vattenvårdsförbund (“The Western Hanöbukten Bay Water Conservation Association”) surveys soft-bottom fauna at two locations in Hanöbukten Bay; it also measures levels of hazardous substances in bottom sediment and in mussels, and monitors changes in seaweed volumes. Hydrography (salinity, nutrients, oxygen levels, etc.) is monitored at one location. The impact of hazardous substances on fish (eelpout) is measured at two reference locations. These surveys have been carried out once a year since 1998. The Municipality of Kristianstad has also been testing the water quality at bathing areas within its municipal boundaries for many years. Since 1995 these tests have been conducted in accordance with the guidelines laid down in the EU Bathing Water Directive at six bathing areas visited by more than 75–100 bathers per day. The tests assess the presence of, for example, coliform bacteria, algae, paint and oil residues. They also measure water transparency using the Secchi disc method.

There is no data available on *concluded time series or from previously completed basic inventories*.

Programme Area – Freshwater

Traditionally, the environmental monitoring of freshwater is well developed with long time series. Monitoring activities have been developed based on a number of national and regional sub-programmes. Further monitoring activities are conducted and funded by water conservation associations. Although these activities comprise mostly water chemistry measurements, they have now been extended to include various methods for monitoring demersal fauna and fish as well as biological diversity in general.

Ongoing time series

In the biosphere reserve there are time series for breeding wetland birds in Lake Hammarsjön and Lake Araslövssjön which date from the middle of the 1900s. For the most part, these inventories have been made by voluntary organisations. In addition, some threatened flora have been monitored more systematically: examples include River Water-crowfoot (*Ranunculus fluitans*) and Fen Ragwort (*Senecio paludosus*), two species which in Sweden occur more or less exclusively in Kristianstads Vattenrike. The number of River Pearl Mussels (*Margaritifera margaritifera*) in the River Vramsån has been counted on several occasions since 1986. Biological surveys are often performed by voluntary organisations.

The Municipality of Kristianstad has also monitored the water quality at bathing areas within its municipal boundaries since 1995 in accordance with the guidelines laid down in the EU Bathing Water Directive. Six bathing areas covered by the directive are located in lakes and watercourses within Kristianstads Vattenrike. Water chemistry measurements have been performed regularly since 1976 at around a dozen locations within the reserve by the River Helge å Water Conservation Association. The association also monitors demersal fauna and conducts exploratory fishing operations at the same locations. Lake Lyngsjön is a reference location for monitoring the effects of liming, where the County Administrative Board of Skåne takes water chemistry measurements, conducts exploratory fishing, etc. Within the framework of the sub-programme entitled *Skånska Sjöar* (“Lakes in Skåne”), the County Administrative Board has also taken water chemistry measurements since 1967, specifically in order to focus on the problems associated with eutrophication in Lake Hammarsjön and Lake Råbelövssjön. As part of the Swedish national environmental monitoring programme’s regular national inventories of lakes (which commenced in 1972) and rivers and streams (from 1995 onwards), samples of water chemistry parameters and demersal fauna are taken in five lakes and in the River Helge å once every five years.

The Swedish Meteorological and Hydrological Institute (SMHI) measures the water flow at four locations in the River Helge å system. The oldest station has measurement series dating back to 1908. The River Helge å is also one of the Swedish Environmental Protection Agency’s 50 river estuary stations around the country. These indicate changes in how nutrients are transported out to sea. Time series measurements in the River Helge å date back to 1969.

Regarding groundwater (also part of Freshwater programme area), three water supplies on Kristianstadslätten Plain are among the Geological Survey of Sweden’s reference stations as part of the Swedish National Groundwater Network. Regular measurements of both the level and quality of groundwater have been carried out since 1968. The Municipality of

Kristianstad has monitored nitrate levels at several locations within the proposed reserve. Regular measurements are also performed at other municipal water supplies.

Concluded time series:

Basic inventories

Exploratory fishing (electrical fishing) was carried out in the mid-1990s at eight locations in different rivers and streams within the proposed reserve. Inventories of all these locations were performed by Lund University in the 1960s. The County Administrative Board of Skåne surveyed mercury levels in fish from Lake Råbelövssjön in 2000.

Several surveys of large freshwater mussels, mostly the threatened Thick-shelled River Mussel (*Unio crassus*) and the River Pearl Mussel (*Margaritifera margaritifera*), have been conducted in recent years.

Programme Area – Forest

Many different parameters are monitored as part of Forest programme area. These include forest damage, air pollution, the condition of the soil and its productive capacity, biological diversity in key biotopes and inventories of bat fauna.

Ongoing time series

National monitoring activities in Sweden include the extensive sub-programme, the Swedish National Forest Inventory. There are 13 permanent sample areas within the borders of Kristianstads Vattenrike. Work on the National Forest Inventory began back in 1923 and inventories of sample areas have been carried out annually since 1953 with reference to vegetation, forest damage, stand composition, site productivity, etc. Since 1995 forest damage has been monitored by the Swedish Forestry Administration at a number of National Forest Inventory permanent sampling areas (especially those with older forest). All tree species are monitored once a year as part of this project. The forest damage surveys form part of the international cooperative project on the assessment and monitoring of air pollution effects on forests known as “ICP Forests”. In 1984 *Skånes Samrådsgrupp mot Skogsskador* (“The Skåne Consultation Group against Forest Damage”) established some 45 forest sampling areas across the county (one of which is inside the proposed biosphere reserve) in order to monitor forest damage, its development in tree stands of different ages and its relationship to soil chemistry analyses. Analyses were conducted in 1985, 1988, 1993 and 1999.

In addition, the County Administrative Board of Skåne has been monitoring bat fauna at five locations in the area since 1980. Some bird species have been monitored by voluntary organisations since the 1970s and 1980s.

Concluded time series: None.

Basic inventories

The National Forestry Administration documented biodiversity in certain key biotopes in Kristianstads Vattenrike in 2000 as part of its nationwide project entitled “Woodland Key Habitat Survey”. Older inventories of land-living molluscs originally conducted by the Göteborg Natural History Museum were repeated in 2000 at 13 locations in Kristianstads Vattenrike. The Swedish National Board of Forestry has carried out several inventories of forest damage in Skåne (coniferous trees, beech and oak), using techniques such as remote sensing and studying trees in open countryside. The Skåne Consultation Group against Forest Damage carried out a one-off damage inventory of trees in open countryside in 1985.

Programme Area – Agriculture

The environmental monitoring of agricultural land is fairly diverse and includes both national and regional monitoring activities. In addition, several incidental surveys have been conducted (as part of specific campaigns) at national level, including an inventory of meadows and pastures in Sweden.

Ongoing time series

The County Administrative Board of Skåne has counted the number of breeding birds on agricultural land since the mid-1990s and inventories have been made in some 15 areas in Kristianstads Vattenrike. Inventories of all bird species have been carried out in the form of periodical territory surveys once every four years. The Common Frog (*Rana temporaria*) and Moor Frog (*Rana arvalis*) have been counted in some of the ponds on Linderödsåsen Ridge since 1990, but the vast majority of the sampling areas are located in south-western Skåne. Furthermore, inventories of, for example, Curlew (*Numenius arquata*) and Tawny Pipit (*Anthus campestris*) have been conducted as voluntary initiatives.

There has been a national observation site within the proposed biosphere reserve since 1973. This is located at Kärrdala, where measurements are made to monitor nutrients leaching from agricultural land. This is one of 14 sites in Sweden where water quality and plant nutrient transport in groundwater and surface water are measured and related to agricultural activities such as fertilisation and soil processing. Water samples are taken in drainage pipes every two weeks.

Wet grassland management has been surveyed on three occasions, in 1989, 1996 and 2002. As part of these surveys, the breeding birdlife in wet grasslands around Lake Hammarsjön and Lake Araslövssjön has been studied in order to monitor developments brought about by changes in management practices. For further information, you are referred to the heading “Programme Area – Wetlands”.

Concluded time series

Gärds Köpinge was a “type area” between 1983 and 2002, where the main focus of attention was to monitor nutrients leaching from agricultural land and compare the results with prevailing methods of cultivation. This was discontinued in 2003.

Basic inventories

The inventory of meadows and pastures in Sweden was performed by the Swedish Environmental Protection Agency and the County Administrative Board of Skåne between 1987 and 1988 to examine the management status and natural values of meadows and grazing land across Sweden. A new inventory was made in 2002–2004. This inventory of meadows and pastures was carried out by the Swedish Board of Agriculture to monitor what has been happening in Sweden’s natural fodder-producing areas over the past 10 to 15 years, particularly with regard to the impact of environmental subsidies.

Agricultural land-surface surveys, for example in order to measure cadmium levels in soil and crops, were performed between 1988 and 1995 as part of Sweden’s national environmental monitoring activities.

Programme Area – Landscape

Environmental monitoring within the Landscape programme area is performed on a more generalised level, for example by monitoring various structures and elements in the landscape that constitute the key conditions for biodiversity.

Initiated time series

There is little or no data on changes in the landscape, even though there is plenty of usable information in the form of maps, official statistics, etc. Work on the National Inventory of Landscapes in Sweden (NILS) commenced in two or three areas within Kristianstads Vattenrike in 2003.

In addition to studies of how the landscape is changing, this programme area also incorporates the Swedish Bird Monitoring Programme. Standardised line transects were introduced as part of the Swedish Bird Monitoring Programme in 1996. One of the transects in the Swedish Breeding Bird Survey crosses the reserve and is monitored on an annual basis. Resting and wintering waterfowl have been counted at some locations since 1964 as part of the Swedish Seabird Inventory (one of the Ramsar Convention commitments). Annual counts have also been performed to monitor populations of resting and wintering geese (all species) since 1967.

Further systematic bird inventories are carried out by voluntary organisations. Breeding pairs of Eagle Owls (*Bubo bubo*), Montagu's Harriers (*Circus pygargus*), Common Terns (*Sterna hirunda*), Little Terns (*Sterna albifrons*), Golden Orioles (*Oriolus oriolus*), Serins (*Serinus serinus*), Black-tailed Godwits (*Limosa limosa*) and Ruffs (*Philomachus pugnax*) are monitored, and inventories of Sand Martins (*Riparia riparia*), Black Redstarts (*Phoenicurus ochruros*) and Collared Doves (*Streptopelia decaocto*) are performed by "species watchers". These inventories have been performed by voluntary organisations at irregular intervals since the 1970s and 1980s. Similarly, threatened and red-listed vascular plants have been monitored by voluntary organisations ("flora watchers") since 1988 in order to track development and provide an early opportunity for the introduction of any special measures that may be required.

Concluded time series: None.

Basic inventories

The National Land Survey of Sweden developed the Swedish CORINE Land Cover Programme during 2003 as Sweden's contribution to a European vegetation and land cover mapping project. This will probably be updated at approximately ten year intervals. A basic inventory of a completely different type is the nationwide "atlas inventory" of birds undertaken by Lund University during the 1970s (a new atlas is planned for 2004 and beyond).

Programme Area – Wetlands

Generally speaking, environmental monitoring activities within the Wetlands programme area are as yet rather poorly developed in Sweden. The only national programme to be implemented is the National Inventory of Wetlands in Sweden carried out across the country in the late 1980s. A number of follow-up monitoring activities have been performed in Kristianstads Vattenrike since 1989 as part of a collaborative venture involving several different organisations, whose efforts have been coordinated within the scope of Kristianstads Vattenrike's activities.

Ongoing time series

The management of wet grasslands has been surveyed on three occasions, in 1989, 1996 and 2002. As part of these surveys, the breeding birdlife in wet grasslands along the lower reaches

of the River Helge å has been studied in order to monitor developments brought about by changes in management practices. The number of Cranes (*Grus grus*) resting in the spring has been monitored since 1998, partly in order to track changes during the resting period and from one year to the next, partly to gather knowledge on which to base discussions about the birds with farmers. Some plant species have been monitored on a regular basis: these include Fen Ragwort (*Senecio paludosus*), an inventory of which has been performed annually at four different locations since 2000. The Natterjack Toad (*Bufo calamita*) has been monitored annually since 1998–99 at about 20 locations.

A number of bird species associated with wetlands (Grasshopper Warbler [*Locustella naevia*], Great Bittern [*Botaurus stellaris*], Black Tern [*Chlidonias niger*], Geese, Eagles, Osprey [*Pandion haliaetus*], etc.) are monitored by voluntary organisations on a regular basis. These monitoring activities belong to other programme areas and are presented under the relevant headings.

Concluded time series: None.

Basic inventories

A national wetland inventory was performed in the late 1980s. A regional update is currently in progress. A basic inventory of dragonflies was performed at about 25 locations in 2001.

Programme area – Toxic Substances Coordination

Ongoing time series

There are no permanent sub-programmes within this programme area, which does not include all toxic substance monitoring, but only more strategic surveys such as sample banking and screening.

No *basic inventories* have been compiled.

Other information

Three weather stations commenced air and precipitation measurements for SMHI as early as in the nineteenth century, and readings are still made continuously in Kristianstad.

Kristianstads Vattenrike has also had an on-line weather station since 1997. The address is: www.weather.vattenriket.kristianstad.se

Appendix 9. Photographs of Kristianstad Vattenrike's "theme areas"

The rich wetlands along the River Helge å



High water, Hovby ängar, Lake Hammarsjön
Photo: Patrik Olofsson/N 14 Feb 2002



Low water, Hovby ängar, Lake Hammarsjön
Photo: Patrik Olofsson/N 18 May 2002



High water, Hovby ängar
Photo: Sven-Erik Magnusson (SEM) 18 Feb 2002



Low water, Hovby ängar
Photo: SEM 15 May 2002



High water, Lillö, River Helge å
Photo: SEM 5 Apr 2004



Low water, Lillö, River Helge å
Photo: SEM 9 Sept 2004



Seasonally inundated grassland used for grazing,
Håslövs ängar Photo: SEM 8 July 2004



Seasonally inundated grassland used for grazing,
Hovby ängar Photo: SEM 17 June 2004



Seasonally inundated grassland used for haymaking,
Håslövs ängar Photo: SEM 10 May 2002



Seasonally inundated grassland used for grazing,
Hovby ängar Photo: SEM 25 June 2001



Harvesting hay on Hovby ängar
Photo: Patrik Olofsson/N



Birdwatching excursion, Håslövs ängar
Photo: SEM 10 May 2002



Lake Hammarsjön, Håslövs ångar
Photo: SEM 23 June 2002



Lake Hammarsjön, Ekenabben
Photo: SEM 3 Jan 2002



Reed and willows, Herculesviken Inlet, Lake Hammarsjön
Photo: SEM 6 June 2001



Wet Forest, Lillesjö, Yngsjö
Photo: SEM 6 June 2001



River Helge å, the Old Gunpowder Factory at Torsebro
Photo: SEM 3 Nov 2004



River Helge å (eastern channel), south of Lake Araslövssjön
Photo: SEM 6 July 2004

Tributaries of the River Helge å originating on Linderödsåsen Ridge



River Vramsån, Ö.Vram
Photo: Patrik Olofsson/N 18 May 2002



Forsakar Falls,
Degeberga
Photo: SEM 10 May
2002



River Vramsån, Forshult
Photo: SEM 10 May 2002

Rich woods and forests on the slopes of Linderödsåsen Ridge



Linderödsåsen Ridge, Borrestad Photo: SEM 14 May 2004



High stump, Maltesholm
Photo: SEM 14 May 2004



Beech forest, Linderödsåsen Ridge, Maltesholm
Photo: SEM 14 May 2004



Beech forest, Linderödsåsen Ridge, Maltesholm
Photo: SEM 14 May 2004

Balsberget Hill and Lake Råbelövssjön



View from Balsberget Hill towards Lake Råbelövssjön
Photo: SEM 7 July 2004



View from Lake Råbelövssjön towards Balsberget Hill
Photo: SEM 7 July 2004



Balsbergsgrottan Cave

Photo: SEM 7 July 2004



Oak and beech in landscape strewn with boulders,
Balsberget Hill

Photo: SEM 26 March 2003

Ancient trees and wooded habitats in cultivated areas



Pastureland with oaks, Önnestad
Photo: SEM 7 July 2004



Ancient oaks, the Old Gunpowder Factory at Torsebro
Photo: SEM 3 Nov 2004

Sandy grasslands formerly managed under a rotational system of cultivation and fallow



Grazing land, Ripa sandar Photo: SEM 14 June 2002



Fallow land, *Sheep's sorrel* (*Rumex acetosella*),
Ripa sandar Photo: SEM 14 June 2002



Unmarked track, grazing land, Ripa sandar
Photo: SEM 14 June 2002



Fallow land, *Sheep's Bit* (*Jasione montana*), Yngsjö
Photo: SEM 25 June 2001

**The coastal landscape with extensive sand dunes,
and
The coastal waters of Hanöbukten Bay**



Coastal dunes, Furuboda
Patrik Olofsson/N 18 May 2002



Coastal lagoon, Äspet, Åhus
Photo: SEM 7 July 2004



Sand dunes, Vantamansboden, Yngsjö SEM 13 July 2002



Bathing beach, Äspet, Åhus Photo: SEM 14 July 2003



Fishing for eel, trap-laying by boat, Yngsjö
Photo: SEM 23 Aug 2004



A catch of eel, Yngsjö
Photo: SEM 23 Aug 2004



Fishing for cod, Hanöbukten Bay, Åhus
Photo: SEM 2 July 2004



Fishing in coastal waters, Hanöbukten Bay, Åhus
Photo: SEM 7 July 2004

Urban natural values



River Helge å, Isterinäset Head, Kristianstad
Photo: SEM 11 Aug 2003



River Helge å, Kristianstad
Photo: SEM 19 Nov 2001



Canal House Outdoor Museum, Linnérundan Trail, Kristianstad. Nature studies with the Nature School
Photo: SEM 3 June 2002



The spire of the Church of the Holy Trinity (*Trefaldighetskyrkan*), Lake Hammarsjön, Kristianstad
View from the Water Tower
SEM 30 Aug 2001

Appendix 10 a. Letter of Endorsement from the Swedish MAB National Committee



Rekommendationsbrev från Programkommittén för svenska MAB angående Biosfärområde Kristianstads Vattenrike

Sverige har sedan 1986 endast ett biosfärområde, Torneträsk med Abisko och Vadvetjäkko nationalparker. Det var därför mycket glädjande, när Kristianstads Vattenrike år 1997 tog kontakt med MAB-kommittén för att utvärdera möjligheten att bli det andra biosfärområdet i landet. Inom Vattenriket hade man sedan länge arbetat efter de riktlinjer som fastställdes i Sevillastrategin år 1995 och man ville ha mer exakt information om vad som krävdes för att nå denna status.

Ett mycket intressant och fruktbart samarbete startade och ett stort antal gemensamma möten har hållits. MAB har även kunnat lämna visst ekonomiskt stöd för forskning inom området och till resor för biosfärkoordinatör i syfte att presentera Vattenriket på konferenser med andra biosfärområden i världen. Framför allt har MAB kunnat bidra med tolkning av kriterierna, att förmedla kontakter med olika intressenter samt att utgöra en länk gentemot centrala myndigheter och inte minst gentemot MAB/Unesco i Paris.

Ur svenska MAB-programmets synvinkel uppfyller Kristianstads Vattenrike samtliga de krav som kan ställas på ett biosfärområde. De sammanställningar och utredningar som de genomfört för att styrka sin kandidatur som biosfärområde visar prov på mycket god kvalitet och mycket gott omdöme. Då Kristianstads Vattenrike även omsluter ett urbant område med en medelstor stadsbefolkning har området redan fått en särskild betydelse för MAB/Unescos Urban Group. Genom det mycket ambitiösa arbetet som lagts ned i Kristianstad Vattenrike har vi i Sverige fått en modell för andra biosfärområdeskandidater.

Det är därför Programkommittén för svenska MAB kan lämna de absolut bästa rekommendationer till stöd för Kristianstad Vattenrikes framställan om att nå status som biosfärområde.

Lund den 29 november 2004

Olöf Wärneryd
professor,
ordförande i Programkommittén för Svenska MAB

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Translation of a Letter of Endorsement from the Swedish Research Council (Swedish MAB National Committee), dated 29 November 2004

Letter of Endorsement from the Swedish MAB National Committee concerning Kristianstads Vattenrike Biosphere Reserve

Since 1986 Sweden has had only one biosphere reserve, the Lake Torne Biosphere Area with Abisko and Vadvetjåkko national parks. For this reason it was, therefore, highly gratifying when Kristianstads Vattenrike contacted the MAB Committee in 1997 to investigate the possibility of becoming the country's second biosphere reserve. Work within the rich wetlands of Kristianstads Vattenrike had long been carried out in accordance with the guidelines formally codified in the Seville Strategy of 1995, and those responsible for day-to-day activities in the wetlands were keen to obtain more precise information about what was required to achieve this status.

This marked the start of an extremely interesting and highly fruitful collaboration, and a large number of joint meetings have been held. MAB has also been able to provide a limited amount of funding to support research within the area and to defray the costs of travel to enable the biosphere coordinator to make presentations of Kristianstads Vattenrike at conferences with other biosphere areas around the world. More important of all, however, MAB has been able to contribute by interpreting the criteria, liaising with a number of stakeholders and functioning as a link to central authorities and bodies, not least, MAB/Unesco in Paris.

It is the opinion of the Swedish MAB Programme that Kristianstads Vattenrike fulfils all the requirements that can be made on a biosphere reserve. The syntheses of research compiled and the investigations undertaken by Kristianstads Vattenrike to support its candidacy as a biosphere reserve demonstrate a very high quality and very good judgement. As Kristianstads Vattenrike also includes within its boundaries an urban area with what is, by Swedish standards, a medium-sized urban population, the area has already acquired particular importance for the MAB/Unesco Urban Group. The highly ambitious work that has been undertaken in Kristianstads Vattenrike has also provided Sweden with a model for other prospective biosphere reserve candidates.

For these reasons the Programme Committee for the Swedish MAB Committee gives its very strongest backing to Kristianstads Vattenrike's application for formal biosphere reserve status.

Professor Olof Wärneryd
Chairman of the Swedish MAB National Committee

Appendix 10b. Letter of Endorsement from the Municipality of Kristianstad



HELÉNE FRITZON
Kommunstyrelsens ordförande
Finanskommunälråd
Kristianstads kommun

Biosfärområde Kristianstads Vattenrike

Verksamheten Kristianstads Vattenrike startade 1989 på initiativ av Kristianstads kommun. Målet var att skydda, bevara och återskapa värden i anslutning till vattnet i området samt att kunna utnyttja dessa på ett för värdena uthålligt sätt. Redan från början fanns begreppet biosfärområde och dess arbetsmetoder med i verksamheten Kristianstads Vattenrike. Våren 2001 togs ett kommunalt beslut att försöka bilda ett biosfärområde. Ansökningsarbetet startade 2002 och redan från början knöt kommunen lokala, regionala och centrala intressenter till ansökningsprocessen, som nu lett fram till att en ansökan kan lämnas in för att få Kristianstads Vattenrike godkänt som ett biosfärområde.

Det område, som nu föreslås, omfattar en stor del av Kristianstads kommun, med Helgeåns våtmarksområde i centrum. Även stora delar av Linderödsåsen och Nävlingeåsen ingår, liksom de kustnära delarna av Hanöbukten. Här finns en mångfald av olika sorters värden, allt från kulturlandskapets biologiska och kulturhistoriska värden, som är ett resultat av människornas långvariga bruk av markerna, till biologiska värden som inte är betingade av mänsklig aktivitet.

Kommunen arbetar på många olika sätt med att både bevara och utveckla detta värdefulla landskap, som också omfattar staden Kristianstad. Biosfärområdet kommer att ge Kristianstads kommun många bra verktyg för att kunna fortsätta och även utöka arbetet med att bevara och utveckla värdena i samverkan med lokalbefolkningen och samtidigt få både nationellt och internationellt stöd.

Det är vår stora övertygelse att Kristianstads Vattenrike med dess människor och landskapsvärden kommer att kunna dra mycket stor nytta av att området blir ett godkänt biosfärområde. Kristianstads kommun anhåller därför om att regeringen nominerar Kristianstads Vattenrike som ett internationellt biosfärområde enligt MAB/UNESCOs kriterier. Kristianstads kommun kommer också att på olika sätt stödja arbetet i Biosfärområde Kristianstads Vattenrike med utgångspunkt från MAB/UNESCOs kriterier.

Heléne Fritzson
Kommunstyrelsen ordförande
Kristianstads kommun

Kristianstads kommun
Rådhuset
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Tfn 044-35 02 03

Kristianstads Vattenrike Biosphere Reserve

Operations within the framework of Kristianstads Vattenrike commenced in 1989 on the initiative of the Municipality of Kristianstad. The aim was to protect, conserve and restore the values relating to the water in the area and to ensure that these values may be utilised in a sustainable way. From the very outset, the concept of a biosphere reserve and the working methods associated with that were incorporated into the activities of Kristianstads Vattenrike. In spring 2001 a resolution was passed by the Municipality to endeavour to create a formal biosphere reserve. As soon as work with the nomination procedure began in 2002, the Municipality was quick to involve local, regional and national stakeholders in the process which has now led to the formal submission of a nomination form in which Kristianstads Vattenrike seeks approval as a biosphere reserve.

The proposed biosphere reserve extends over a large portion of the Municipality of Kristianstad, with the wetlands of the River Helge å at its centre. Large areas of Linderödsåsen and Nävlingeåsen Ridges are also included, as are the coastal waters of Hanöbukten Bay. These areas possess an abundance of different types of values, from the biological and cultural-historical values of the cultural landscape that are the result of long-term human cultivation of the land, to biological values which exist independent of human activity.

The Municipality works in many different ways to preserve and develop this valuable landscape, which also includes the town of Kristianstad itself. The biosphere reserve will equip the Municipality of Kristianstad with a choice of useful instruments to enable it not only to continue with, but also to expand the work of preserving and developing the values in collaboration with local residents, at the same time as these efforts are underpinned by national and international support.

We are firmly convinced that Kristianstads Vattenrike, its residents and the values of its landscapes will benefit enormously from official biosphere reserve status. The Municipality of Kristianstad therefore requests the Swedish government to nominate Kristianstads Vattenrike as an international biosphere reserve in accordance with the criteria laid down by MAB/UNESCO. The Municipality will also support work in Kristianstads Vattenrike Biosphere Reserve in a number of different ways, based on the MAB/UNESCO criteria.

Heléne Fritzon
Chairman of the Executive Committee
Municipality of Kristianstad

Appendix 10c.

Letter of Endorsement from the County Administrative Board of Skåne



LÄNSSTYRELSEN
I SKÅNE LÄN

2004-11-24

511-44560-04
1290-228

Biosfärkandidatkontoret
Kristianstads Vattenrike
Kristianstads kommun

Biosfärområde Kristianstads Vattenrike - rekommendationsbrev

Länsstyrelsen i Skåne län har varit nära involverad i processen att etablera ett biosfärområde i Kristianstads Vattenrike, från den inledande fasen i början av 1990-talet, till den fördjupade fasen med framtagande av ansökan, som inleddes för tre år sedan. Det är nu med stor glädje vi ser att en ansökan om etablering av Biosfärområde Kristianstads Vattenrike färdigställts.

Verksamheten i Kristianstads Vattenrike har påtagligt förstärkt det gemensamma arbetet med att bevara de internationellt och nationellt höga och varierande natur- och kulturmiljövärdena som finns i våtmarksområdet längs nedre delarna av Helgeån. Genom etableringen av biosfärområdet kommer möjligheterna att öppnas för att tillämpa detta arbetssätt för ytterligare värdefulla naturtyper, exempelvis sandmarkerna med sandstäppen och ädellövsbogen längs Linderödsåsens nordslutning. Länsstyrelsen är angelägen att fortsätta medverka i detta arbete, för vilket det utöver ett traditionellt skydd i form av naturreservat och liknande också krävs okonventionella metoder med ett engagemang och en ansvarskänsla baserad på kunskap hos boende och verksamma i bygden.

Länsstyrelsen anser att Kristianstads Vattenrike väl uppfyller de tre kriterier – bevarande, utvecklande och stödjande - som ställs på ett modernt biosfärområde. Kristianstads Vattenrike har goda möjligheter att fungera som ett viktigt modellområde för svensk naturvård, inte bara i Skåne och Sverige, utan även som länk ut i världen genom det väletablerade internationella nätverk av biosfärområden som finns för de mer än 450 biosfärområden som finns runt vårt jordklot.

Länsstyrelsen rekommenderar varmt att Kristianstads Vattenrike utses till biosfärområde enligt MAB-UNESCO:s kriterier.

Lise-Lotte Reiter
Länsöverdirektör

Kopia till
Akten
Miljödirektören

041122_rekbrev_lsty.doc

Postadress	Besöksadress	Telefon	Telefax	Postgiro/Bankgiro	E-post	www
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291 86 Kristianstad	Ö Boulevarden 62 A	044-25 20 00 vx	044-25 22 83	5050-3739		

Kristianstads Vattenrike Biosphere Reserve – Letter of Endorsement

The County Administrative Board of Skåne has been intimately involved in the process of establishing a biosphere reserve in the rich wetlands of Kristianstads Vattenrike, from the early days of the venture at the beginning of the 1990s to the phase that commenced three years ago and heralded the start of more intensive work with the drafting of the nomination form. It now gives us great pleasure to see that the documentation to support the nomination for the establishment of Kristianstad Vattenrike Biosphere Reserve has been completed.

The activities undertaken within the framework of Kristianstads Vattenrike have made a significant contribution to our joint efforts to preserve the internationally and nationally highly valued and highly varied natural and cultural environmental values that exist in the wetlands area along the lower reaches of the River Helge å. The establishment of the biosphere reserve will open up opportunities for applying this way of working to other valuable natural environments; for example, the dry grasslands with elements of xeric sand calcareous grasslands, and the broadleaf forests on the northern slopes of Linderödsåsen Ridge. The County Administrative Board is eager to continue to assist with this work, which, in addition to traditional protection in the form of nature reserves and the like, also demands less conventional approaches based on a strong sense of involvement from the local community and a sense of responsibility among those living and working in the area that is founded on knowledge and insight.

The County Administrative Board considers that Kristianstads Vattenrike more than satisfies the three criteria – for conservation, development and support – that a modern biosphere reserve must meet. The prospects are, indeed, good for Kristianstads Vattenrike to function as an important pilot site for nature conservation efforts, not only locally in Skåne and nationally within Sweden, but also as a link to the rest of the world via the well-established international network of biosphere reserves that serves as a forum for the more than 450 biosphere reserves around the world.

The County Administrative Board of Skåne warmly endorses Kristianstad Vattenrike's submission for nomination as a biosphere reserve in accordance with MAB/Unesco criteria.

Deputy County Governor
Lise-Lotte Reiter

Appendix 10d. Letter of Endorsement from the Swedish Environmental Protection



SWEDISH ENVIRONMENTAL PROTECTION AGENCY

Per Wallsten
Naturresursavdelningen
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Fax 08 – 698 16 62
per.wallsten@naturvardsverket.se

Rekommendationsbrev
2004-12-17 Dnr 310-3857-04 Ns

Biosfärkontoret
Ekomuseum Kristianstad Vattenrike
Kristianstads kommun
291 80 KRISTIANSTAD

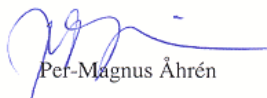
Rekommendationsbrev inför bildandet av biosfär- område i Kristianstads Vattenrike

Efter önskemål från Kristianstads kommuns Biosfärkontor om ett rekommendationsbrev inför ansökan till UNESCO om att bilda biosfärområde i Kristianstads vattenrike, vill Naturvårdsverket framhålla följande.

Naturvårdsverket har medverkat i arbetet med Kristianstads Vattenrike sedan starten 1989. Verkets insatser med finansiering, dialog och kompetensuppbyggnad har ökat under den treåriga projektiden med att utforma ansökan. Verkets satsningar har hittills främst gällt bevarandet av den biologiska mångfalden inom Ramsarområdet och naturreservaten. I Naturvårdsverkets fortsatta engagemang kommer det nya biosfärområdets stödfunktioner att få en mer framträdande roll, såsom naturinformation och andra åtgärder för besökare.

Naturvårdsverket anser att Kristianstads Vattenrike är en lämplig kandidat till att bli biosfärområde och stöder ansökan om detta. Ett biosfärområde där kommer att kunna vara en viktig nationell förebild för en helhetssyn på naturvård i ett landskapsperspektiv, samt ett gott exempel på hållbar utveckling i praktiken.

För Naturvårdsverket



Per-Magnus Åhrén



Per Wallsten

Letter of Endorsement to support the establishment of a biosphere reserve in Kristianstads Vattenrike

Following a request from the Biosphere Candidate Office of the Municipality of Kristianstad prior to the submission to UNESCO of a nomination form for the establishment of a biosphere reserve in the rich wetlands of Kristianstads Vattenrike, the Swedish Environmental Protection Agency would like to make the following comments.

The Swedish Environmental Protection Agency has been involved in cooperation with Kristianstads Vattenrike since the start in 1989. This involvement in the form of financial assistance, dialogue and initiatives to build up general levels of skills and competence has increased in the three-year period during which project has included work with the formulation of the nomination. To date the main thrust of the Agency's activities has been directed towards the conservation of biodiversity in the Ramsar site and the nature reserves. As part of the Environmental Protection Agency's future commitment to the area, work with the new biosphere reserve's support functions, such as the provision of information about nature and other measures for visitors, will be accorded a more prominent role.

In the opinion of the Swedish Environmental Protection Agency, Kristianstads Vattenrike is a suitable candidate for biosphere reserve status, and the Agency therefore supports the application for formal nomination. A biosphere reserve in the rich wetlands will not only provide an important example for the Swedish nation of how to adopt an overall approach to nature conservation within a particular type of landscape, but it will also serve as a model of sustainable development in practice.

For and on behalf of the Swedish Environmental Protection Agency

Per-Magnus Åhrén

Per Wallsten

Appendix 10e.

Letter of endorsement from Region Skåne



Planering och Miljö

Datum 2004-12-16

1 (1)

Rekommendationsbrev från Region Skåne angående Biosfärområde Kristianstads Vattenrike]

Region Skåne har deltagit i arbetet under tiden 2001-2004 med medfinansiering. Vi har vidare personligen deltagit i ett flertal work-shops och exkursioner.

Vi anser satsningen på ett Biosfärområde inom Kristianstads Vattenrike mycket viktig. Området i sig är betydelsefullt både ur nationellt och internationellt perspektiv. Många fågelarter rastar och häckar inom området. Arter som utsätts för hot ur ett internationellt perspektiv pga människans expansion. Samma synsätt kan användas på floran i området liksom arterna i de limniska systemen.

Området ligger i en del av Sverige där trycket utifrån är mycket stort. Storstadsregionen Malmö-Köpenhamn ligger inom 1 timmes väg med bil. Området är därför viktigt såväl ur rekreations- som bosättningsområde och många aktörer intresserar sig mer och mer för området. Det är därmed en delikat balansgång att både kunna utveckla och bevara området utan att misslyckas behålla den långsiktiga bärkraften.

Region Skåne förordar att Regeringen nominerar Kristianstads Vattenrike som ett internationellt biosfärområde enligt MAB/UNESCOs kriterier.

Vidare kommer Region Skåne på olika sätt att stödja arbetet i Biosfärområde Kristianstads Vattenrike med utgångspunkt från MAB/UNESCOs kriterier

A handwritten signature in blue ink, appearing to read "Bo Fransman".

Bo Fransman
Planering och Miljö
Region Skåne

R:\Skogarna\Region Skånes miljövärdningsfond\Rekommendationsbrev p 214.doc

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Besöksadress:

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Organisationsnummer: 23 21 00-0255 Internet: www.skane.se/pm

Letter of Endorsement from Region Skåne re: Kristianstads Vattenrike Biosphere Reserve

Region Skåne has participated in the work during the period 2001–2004 as a co-financier. We have also personally participated in a number of workshops and excursions.

It is our opinion that the efforts to create a biosphere reserve within Kristianstads Vattenrike are very important. The area itself is important from both a national and an international perspective. Many species of bird rest and breed in the area – species that are threatened in an international perspective as a result of the spread of human activity. The same applies to the area's flora and the species in the freshwater systems.

The area is in a part of southern Sweden where external pressure is very great. The Malmö-Copenhagen metropolitan region is less than one hour away by road. This makes the area important both from the point of view of recreational activities and as a residential area, and many different parties are showing an increasing interest in the area. This makes it a difficult balancing act to be able both to develop and to protect the area at the same time, without jeopardising long-term sustainability.

Region Skåne proposes that the Swedish government nominates Kristianstads Vattenrike as an international biosphere reserve in accordance with MAB/UNESCO criteria.

Region Skåne will also support work in Kristianstads Vattenrike Biosphere Reserve in a number of different ways, based on the MAB/UNESCO criteria.

Bo Fransman
Planning and Environment
Region Skåne

Appendix 10f.

Letter of Endorsement from the Regional Forestry Board of Södra Götaland



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Datum
2004-12-03

Diariernr
517/04 4.49

1(1)

Biosfärkandidatkontoret
Ekomuseum Kristianstads Vattenrike
Kristianstads kommun
291 80 Kristianstad

Rekommendationsbrev

Skogsvårdsstyrelsen har med intresse följt utvecklingen av Kristianstads Vattenrike och tagit del av föreslagna mål och insatser för att kvalificera sig som ett biosfärområde.

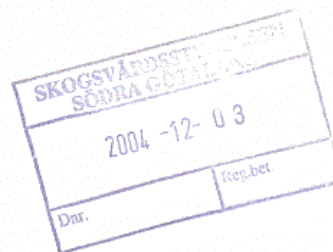
Områdets variation, från kusten till åsarnas skogsklädda sluttningar, från Helgeåns vattensystem till sandstärpsmarker, gradienten från det intensivt odlade och kulturpräglade landskapet till det i det närmaste orörda ger utomordentliga och spännande förutsättningar att utveckla och bevara den biologiska mångfalden i samklang med kommuninvånarnas behov.

Skogarnas betydelse för markägarnas ekonomi, deras värde för biologisk mångfald, för människornas rekreation och välbefinnande kan nu ses och tas tillvara i ett helhetsperspektiv som omfattar hela landskapet.

Vi stödjer helhjärtat Kristianstads Vattenrikes kandidatur.

På Skogsvårdsstyrelsens vägnar

Jan Linder
Länsjägmästare



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Organisationsnr E-post

Letter of Endorsement

The Regional Forestry Board has followed with interest the development of Kristianstads Vattenrike to ensure that it has remained informed of the proposed aims and the endeavours to qualify for biosphere reserve status.

The variations within the area – from the coast to the forested slopes of the ridges, from the drainage basin of the River Helge å to the sandy grasslands, from intensively cultivated cultural landscapes to virtually intact natural landscapes – provide unusual and exciting potential to develop and conserve biological diversity in harmony with the needs of local inhabitants.

The financial importance of the forests for the landowners and the forests' value for biodiversity as well as for human recreation and wellbeing can now be seen and safeguarded as part of a holistic approach that embraces the entire landscape.

We wholeheartedly support the candidacy of Kristianstads Vattenrike.

For and on behalf of the Regional Forestry Board
Jan Linder
Regional Chief Forester

**Appendix 10g.
Letter of Endorsement from the Consultation Group for Nature Conservation in
Kristianstads Vattenrike**

Samrådsgruppen för Naturvård
i Kristianstads Vattenrike

2002-11-10

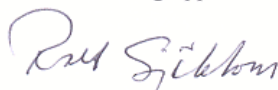
Bildande av Biosfärområde Kristianstads Vattenrike

Samrådsgruppen för Naturvård i Kristianstads Vattenrike har nära följt arbetet med att ta fram underlag till ansökan om bildande av Biosfärområde Kristianstads Vattenrike.

I samband med att en fördjupad presentation av ansökan lämnades vid samrådsgruppens möte den 28 april 2004 uttrycktes gemensamt en positiv uppfattning om biosfärområdets möjligheter att utvecklas till ett bra och kompetent redskap för att hantera utvecklingsfrågor och konflikter mellan olika intressen och värden. (§ 3, protokoll daterat 14 maj 2004)

Vid mötet den 28 april 2004 var representanter för Kristianstads kommun (politiker och tjänstemän), Länsstyrelsen i Skåne län, Högskolan i Kristianstad, LRF Kristianstads kommun, Nedre Helgeåns Fiskevårdsområde, Vramsåns Fiskevårdsförening, Naturskyddsföreningen i Kristianstad, Nordöstra Skånes Fågelklubb och Beckhovets fiskebods-förening närvarande.

För Samrådsgruppen


Rolf Sjöblom
/ordförande/

Translation of a Letter of Endorsement from the Consultation Group for Nature Conservation in Kristianstads Vattenrike, dated 10 November 2004

Creation of Kristianstads Vattenrike Biosphere Reserve

The Consultation Group for Nature Conservation in Kristianstads Vattenrike has followed the work of producing the necessary documentation for the establishment of Kristianstads Vattenrike Biosphere Reserve with close interest.

A detailed presentation of the proposed nomination at a meeting of the Consultation Group on 28 April 2004 provided the opportunity for those present to express clearly and unanimously their conviction that the biosphere reserve has excellent potential to develop into an effective and well-qualified instrument for dealing with development issues and the conflicts than can arise between differing interests and values (item §3 in the minutes, dated 14 May 2004).

Those present at the meeting on 28 April 2004 were representatives of the Municipality of Kristianstad (politicians and local government officers), the County Administrative Board of Skåne, Kristianstad University, the Federation of Swedish Farmers (LRF) in the Municipality of Kristianstad, the Lower River Helge å Fishery Conservation Association, the River Vramsån Fishery Conservation Association, The Bird Society of North-East Scania and Beckhovet's Fishery Association.

For and on behalf of the Consultation Group
Rolf Sjöblom
Chairman

Appendix 10h.
Letter of Endorsement from Kristianstad University



2004-12-06

Rekommendationsbrev från Högskolan Kristianstad

Högskolan Kristianstad har tagit aktiv del i arbetet att inrätta ett biosfärområde kring Kristianstads Vattenrike, där vi själva utgör en del. Biosfärområdet är en strategisk resurs för vår undervisning och forskning och utgör en viktig aspekt i vår framtida planering och utveckling. Detta har uppmärksammats på nationell nivå och vi har nyligen tilldelats Kung Carl XVI Gustafs miljöprofessur för att stärka vår forskning i anslutning till biosfärområdet. Detta innebär att vi med kraft kan driva samordning av den framtida forskningen i "vårt" biosfärområde.



Bengt Lörstad
rektor

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Letter of Endorsement from Kristianstad University

Kristianstad University has been actively involved in the work of establishing a biosphere reserve in and around the rich wetlands of Kristianstads Vattenrike, of which we ourselves are a part. The biosphere reserve is a strategic resource for teaching and research at the university, and it plays an important role in our development plans for the future.

This has been acknowledged on a national level, and the university has recently been awarded a new professorial post, the King Carl XVI Gustaf Chair in Environmental Sciences, to further consolidate our research activities relating to the biosphere reserve. This will equip the university to take a strong lead in coordinating forthcoming research initiatives in “our” biosphere reserve.

Bengt Lörstad
Vice Chancellor

Appendix 10h. Letter of Endorsement from Centre for Transdisciplinary Environmental Research, Stockholm University



CARL FOLKE
DIRECTOR
Centre for Transdisciplinary Environmental
Research
STOCKHOLM UNIVERSITY

2004-12-17

Man and the Biosphere/UNESCO

Letter of endorsement

The Centre for Transdisciplinary Environmental Research at Stockholm University strongly supports the Man and Biosphere application by the Ecomuseum Kristianstads Vattenrike. Kristianstads Vattenrike is an outstanding Swedish example of innovative collaboration among actors representing various sectors and organizational levels for ecosystem management. We have conducted research in Kristianstads Vattenrike since 2001. Our results suggest that the Ecomuseum has sufficient capacity to serve all three Man and Biosphere functions:

Preserving biological diversity: The Ecomuseum has increased the legitimacy for preserving biodiversity among local stewards by building trust and creating shared management goals among landowners, farmers and other local stewards.

Promoting local sustainable development: The Ecomuseum has integrated social, ecological and economic aspects into its activities, embedding nature conservation in to a broader social framework including tourism, agriculture, education and cultural history. Many local programs now reflect the Ecomuseum's ecosystem approach.

Providing opportunities for research, monitoring, education and information: We can attest to the willingness of the Ecomuseum to share information, files, steward network access and ideas with our scientists. The Ecomuseum has also attracted the interest of the international scientific community. Kristianstads Vattenrike has been approved by the Millennium Ecosystem Assessment as one of the so-called "Sub-Global Assessments" (<http://www.millenniumassessment.org/en/subglobal.kristianstad.aspx>). Further, the Resilience Alliance, an international network of research institutes, has approved Kristianstads Vattenrike as a case study for comparative analysis (www.resalliance.org).

This application receives our unreserved support.

A handwritten signature in blue ink, appearing to read 'Carl Folke'.

Carl Folke,
Coordinator of the Kristianstads Vattenrike case studies within the Millennium
Ecosystem Assessment and The Resilience Alliance
and associated researchers: Thomas Hahn, Per Olsson, Lisen Schultz, Jon Norberg

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Appendix 10h.

Letter of Endorsement from WWF, the World Wide Fund for Nature



WWF Världsnaturfonden
World Wide Fund For Nature

2004-11-26

Biosfärkandidatkontoret
Ekomuseum Kristianstads Vattenrike
Kristianstads kommun
291 80 Kristianstad

Biosfärområde Kristianstads Vattenrike – rekommendationsbrev

Världsnaturfonden WWF har tagit del av ansökan om att få Kristianstads Vattenrike godkänt som ett biosfärområde av MAB/UNESCO i Paris. Vi ger allt vårt stöd åt planerna att ge Kristianstads Vattenrike status av ett internationellt biosfärområde.

Världsnaturfonden WWF har medverkat i naturvårdsarbetet i Kristianstads Vattenrike redan från starten 1989. Samarbetet inleddes med olika åtgärder för att bevara och restaurera strandängarna i anslutning till sjöarna och flodområdena längs Helgeåns nedre delar. Växter, vadare- och andfåglar som förr var vanliga i stora delar av landet var på väg att försvinna när hävden med bete och slätter upphörde på många ställen i strandängarna. I Vattenriket fanns fortfarande kvar några av landets största arealer med hävdade inlandsstrandängar, men dessa var delvis i dåligt skick och höll på att växa igen. Eftersom detta våtmarksområde har klassats som ett område av stor internationell betydelse beslutade WWF att stödja arbete för att främja naturvärdena. Genom de loka initiativet i Vattenriket och det goda samarbetet med olika myndigheter bedömdes också projektet ha goda förutsättningar att lyckas. Finansiellt stöd för bl.a. röjning och stängsling kunde betes- och slätterhävden öka. Resultatet blev att ett flertal arter strandängsfåglar återkom samt ökade på strandängarna.

Under årens lopp har samarbetet utökats, både finansiellt och till nya projektområden. WWF har kunnat förmedla flera nationella företags önskemål om naturvårdssatsningar, till Vattenriket. Projekten på strandängarna har också utvidgats till de rinnande vattendragen och framöver ser vi goda möjligheter till gemensamma projekt knutna till bl a Linderödsåsen, Hanöbukten och sandstjäpp. WWF stöder även det viktiga arbetet med att göra naturvärdena tillgängliga för allmänheten genom exempelvis informationsanläggningar, fågeltorn, böcker mm.

WWF anser att det sätt som naturvårdsarbetet bedrivs på i Vattenriket och så som det också kommer att utökas i ett framtida biosfärområde ligger helt i linje med vår sätt att arbeta. Man bevarar värdena, allt från arter till landskap, man utvecklar och använder dessa på ett för värdena uthålligt sätt och allt detta sker i samarbete med lokalbefolkningen.

Världsnaturfonden WWF vill med anledning av ovanstående lämna de bästa rekommendationer till stöd för att Kristianstads Vattenrike utses till ett biosfärområde enligt MAB/UNESCO:s kriterier.

Lars Kristoferson
Generalsekreterare
Världsnaturfonden WWF

Stiftelsens ordförande: Hans Majestät Konungen

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Kristianstads Vattenrike Biosphere Reserve – Letter of Endorsement

The World Wide Fund for Nature, WWF has been informed of the application that Kristianstads Vattenrike has made to MAB/UNESCO in Paris for approval as a biosphere reserve. We give our full support to plans to bestow upon Kristianstads Vattenrike the official status of an international biosphere reserve.

The World Wide Fund for Nature, WWF, has assisted in the nature conservation activities carried out by Kristianstads Vattenrike right from the outset in 1989. Collaboration commenced with various measures to conserve and restore the seasonally inundated grasslands on the margins of lakes and watercourses along the lower reaches of the River Helge å. Many plants, waders and ducks that once were common throughout large parts of Sweden were on the verge of disappearing when the management of grazing land and haymaking meadows in such seasonally inundated grasslands ceased in many areas of the country. Some of the largest expanses of seasonally inundated inland grasslands still under human management in Sweden remained in Kristianstads Vattenrike, but these were, in part at least, in poor condition and were becoming overgrown. As this area of wetlands has been classed as an area of major international importance, WWF resolved to support the work of promoting its natural values. The local initiative in Kristianstads Vattenrike and the close links with various authorities convinced us that the prospects for success were good. Financial support for work with clearance, fencing, etc. made it possible to increase the scope of activities relating to the management of land used for grazing and haymaking. The result was that several species of birds began to return to the seasonally inundated wet grasslands and increase in number.

Over the years cooperation has been extended, both financially and to new project areas. WWF has been able to convey to Kristianstads Vattenrike the wishes that several Swedish companies have expressed to become involved in nature conservation activities. Projects originally focusing on the seasonally inundated grasslands have also been extended to include the watercourses themselves, and we believe that future prospects are good for establishing joint projects relating to Linderödsåsen Ridge, Hanöbukten Bay, the sandy grasslands, etc. WWF also supports the important work of making natural values more easily available to the general public, for example via information facilities, observation towers for birdwatchers, books, etc.

It is the opinion of WWF that the manner in which nature conservation work is carried out in Kristianstads Vattenrike today and the manner in which such activities will be expanded within the proposed biosphere reserve in the future are fully in line with our way of working. The region's natural values – everything from species to landscapes – are preserved, developed and utilised in a sustainable manner by working in close cooperation with the local population.

On the basis of what has been described above, WWF lends its wholehearted support to endorsing Kristianstads Vattenrike's nomination to be accorded formal biosphere reserve status in accordance with MAB/UNESCO criteria.

Lars Kristoferson
Secretary General
World Wide Fund for Nature, WWF, Sweden

