

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

1. Name and address of the compiler of this form:

Lars Dinesen
Danish Nature Agency - Nature Planning and Biodiversity
Ministry of the Environment
Haraldsgade 53
2100 København Ø
Phone +45 7254 4830
e-mail ladin@nst.dk

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Designation date

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Site Reference Number

Preben Clausen
DCE - Danish Centre for Environment and Energy, and
Department of Bioscience
Aarhus University
Grenåvej 14
DK-8410 Rønde
Denmark
Phone +45 8715 8857/ Fax +45 8715 8902
e-mail pc@dmu.dk

2. Date this sheet was completed/updated:

May 2012

3. Country:

Denmark

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Vejlerne and Løgstor Bredning
(International No. 145; National No. 6)

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
ii) the boundary has been extended ; or
iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

No major changes to the ecological character of the site are known.

7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List): ;
- ii) an electronic format (e.g. a JPEG or ArcView image) ; Denmark_ramsar6.pdf

iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

A comprehensive ESRI ArcView GIS 3.1 shapefile named DKRamsar_WGS84geo is submitted in conjunction with the Danish RIS 2008 update files. The shape is geo referenced and projected in datum WGS84. The shape is composed of five files:

- a. DKRamsar_WGS84geo.shp
- b. DKRamsar_WGS84geo.dbf
- c. DKRamsar_WGS84geo.shx
- d. DKRamsar_WGS84geo.sbn
- e. DKRamsar_WGS84geo.sbx

and is considered self-explanatory in its database fields.

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

All Danish Ramsar sites are also designated as Special Protection Areas for Birds (SPAs) under the EEC Birds Directive, and most of them as Special Areas of Conservation (SACs) under the EEC Habitats Directive, hence part of the Danish Natura 2000 network. Generally the delineation of the Ramsar-sites are identical to that of the SPAs, follow coastlines or lake shores, but also includes adjacent salt marshes.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

56°56'N, 09°03'E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The site is a part of the Limfjord sound in North Jutland. The locality is situated west of the town of Løgstør, where the Limfjord broadens. The administrative regions are Thisted and Jammerbugt municipalities.

10. Elevation: (in metres: average and/or maximum & minimum)

1-8 m

11. Area: (in hectares)

43,534 hectares

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The site is a shallow, brackish fjord with shoals and islands. Coastal areas with saltmarshes. Vejlerne and Lønnerup Fjord: partly drained fjords with dams to the Limfjord, lakes, reed swamps and saltmarshes.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 2: The site is an important breeding area for aquatic and salt marsh birds including several species from the current Danish red list (DMU 2007), e.g. Pintail (*Anas acuta*) (listed as VU on the Danish Red List), Black-tailed Godwit (*Limosa limosa*) (NT – IUCN, VU Denmark), Baltic Dunlin (*Calidris alpina schinzii*) (EN, Ann. I, EU Birds Directive), Ruff (*Philomachus pugnax*) (EN, Ann. I, EU Birds Directive), Little Gull (*Larus minutus*) (RE, Ann. I, EU Birds Directive), Black Tern (*Chlidonias niger*) (RE, Ann. I, EU Birds Directive), and several other species listed in Annex 1 of the EEC Birds Directive, i.e. Bittern (*Botaurus stellaris*), Marsh Harrier (*Circus auruginosus*), Avocet (*Recurvirostra avocetta*), Arctic Tern (*Sterna paradisaea*), and Common Tern (*Sterna hirundo*).

The site also holds a breeding population of Common Seals *Phoca vitulina* covered by Annex 2 of the EEC Habitats directive.

Criterion 4: The Ramsar site is an important moulting refuge for ducks and geese, and the fjord area includes a haunt for seals.

Criterion 5: The site regularly holds over 20,000 staging waterbirds. For bird count data see table provided under point 22.

Criterion 6: The site regularly supports more than 1% of the individuals in the populations of the following species (average of available count data tabulated below for 2004-2009 compared to WPE4):

Spoonbill (*Platalea leucorodia*) 133 birds – 1.2 % of the Atlantic population

Whooper Swan (*Cygnus cygnus*) 600 birds – 1.0% of the NW Mainland Europe population
Grey-lag Goose (*Anser anser*) 7,480 birds – 1.5% of the NW Europe/SW Europe population
Pink-footed Goose (*Anser brachyrhynchus*) 9,549 birds – 22.7% of the Svalbard/NW Europe population
Light-bellied Brent Goose (*Branta bernicla brota*) 171 birds – 2.4 % of the Svalbard/Denmark/UK population.
Teal (*Anas crecca*) 7,085 birds – 1.4% of the Northwestern Europe population
Golden Plover (*Pluvialis apricaria*) 14,193 birds. Exact flyway-affinity unknown, but most likely involves both the Northern Europe breeding population of the subspecies and *altifrons* (1% criterion 7,500 birds), and the Europe breeding population of the nominate subspecies *apricaria* (1% criterion 1,700 birds).

The site has in previous RIS been mentioned as internationally important for the Bewick's Swan (*Cygnus columbianus bewickii*) from the W Siberia/NE & NW Europe population, Shoveler (*Anas chipeata*) from the NW/Central Europe population, Red-breasted Merganser (*Mergus serrator*) from the NW/Central Europe population, and Goldeneye (*Bucephala clangula*) from the NW/Central Europe population. But internationally important average numbers of these species have not been recorded during the present reporting period (2004-2009).

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Biogeographical Regions Europe, 2005, European Environment Agency

For Criterion 2, species are listed either:

- i) with reference to their presence on the International lists of species of conservation concern, i.e. listed on the most recent IUCN Red list and according to most recent criteria for conservation concern (IUCN 2007).
- ii) or with reference to their presence on the National lists of species of conservation concern. The latter are under transition from published information to online information which means that for some taxa older IUCN criteria for red listing have been applied (e.g. fish, Stoltze & Pihl 1998), while for other taxa the most recent IUCN criteria are adopted (e.g. birds, amphibians DMU 2008).
- iii) or with reference to their presence on Annex 1 of the EEC Birds Directive, or Annex 2 of the EEC Habitats Directive, and are considered threatened in the European Union

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Vejlerne are former parts of the Limfjord. More than 100 years ago they were separated from the fjord by dams.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

No specific information.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

No specific information.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

A, B, H, G, E

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

No specific information.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

A number of rare plant species are found on site, some of which are red-listed species, including *Dactylorhiza purpurella* spp. *Purpurella*, *Dryopteris affinis*, *Selaginella selaginoides*, *Gentianella uliginosa*, *Pilularia globilifera*, *Ficaria verna* spp. *Fertilis* and *Alchemilla filicaulis*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

The fjord area Løgstør Bredning is an important moulting refuge for diving ducks and a haul-out for seals.

Vejlerne is one of the most important strongholds for breeding waterbirds in Denmark, the only breeding site for Little Gull (*Larus minutus*) in Denmark, the most important breeding locality in Denmark for Grey-lag Goose (*Anser anser*), Bittern (*Botaurus stellaris*), Marsh Harrier (*Circus aeruginosus*), Spotted Crake (*Porzana porzana*), and Black Tern (*Chlidonias niger*). Kjeldsen (2008) gives a comprehensive review of the sites breeding birds for the period 1978-2003.

Breeding birds in Vejlerne are surveyed annually in a joint venture between the Aage V. Jensen Naturfond and DCE/Department of Bioscience.

The latest report from 2011 summarises the counts results and tabulate some of the species that are mapped annually (Kjeldsen & Nielsen 2011).

Breeding Species in pairs \ years	2001	2002	2003	2005	2006	2007	2008	2009	2010	2011	Note
<i>Botaurus stellaris</i>	156	222	170	162	138	144	170	114	61	57	
<i>Circus aeruginosus</i>	49	51,5	46	53	49	43	55	50	42	54	
<i>Recurvirostra avocetta</i>	685	340	166	218	299	74	189	71	15	25	B-E
<i>Vanellus vanellus</i>	401	399	391	251	273	293	303	381	297	281	B-E
<i>Calidris alpina schinzii</i>	77	69	68	46	54	60	51	55	63	52	
<i>Philomachus pugnax</i>	17	43	44	16	5	4	7	7	5	7	
<i>Limosa limosa</i>	198	198	212	128	145	155	163	123	106	116	
<i>Rodben</i>	304	450	415	229	229	235	192	321	230	274	B-E
<i>Rodben</i>	70	83	96	52	72	78	32	58	51	61	V-A
<i>Larus minutus</i>	3	3	4	1	2	2-4	2	2	1-2	2	
<i>Sterna hirundo</i>	40	39	53	32	45	57	35	53	45	57	
<i>Sterna paradisaea</i>	79	93	102	89	132	71	64	84	14	24	
<i>Chlidonias niger</i>	40	42	46	36	37	40	35	22	29	31	pairs
	28	5	7	31	15	31	0	11	0	11	juveniles fledged
<i>Porzana porzana</i>	56	72	110	9	19	16	5	2	4	13	
<i>Grus grus</i>	1	1	2	3	1-2	2	3	4-6	5	6	

Note: there were no counts made during 2004. Some commoner species are only counted in the most important parts of the area, B-E: Bygholm-engen and V-A: Vesløs-Arup Vejler. The decline in Bittern (*Botaurus stellaris*) numbers in recent years are most likely explained by a run a cold winters, which are known to impact Bitterns survival. Many of the waders had exceptionally high numbers breeding around 2000-2003 – most likely in response to an outbreak in sarcoptic mange, a disease which reduced the local fox (= main predator) population by 80%, hence improved breeding productivity of the waders. Numbers recorded in recent years are for most still high compared to the 1980s.

The site has been known since the 1960s as being one of the most important staging and wintering area for waterbirds in Denmark.

Migratory waterbirds: Table giving the most recent information about staging waterbirds in the Ramsar site. Published and unpublished data from the NOVANA programme of the Ministry of Environment and DCE, supplemented with data from the Birdlife Denmark citizen science portal DOFbasen on migratory species of national responsibility (for details see Miljø- og Energiministeriet, Skov- og Naturstyrelsen 1999), and selected migrant species (e.g. some raptors and *Charadrius morinellus*) covered by the EEC Birds Directive Annex 1. Numbers given are annual maxima of the species listed. Counting intensity varies over the years. Note: 0 does not necessarily mean the species was absent – rather not counted/reported. Averages are thus computed based on years with numbers reported. Also note that counting intensity have been highest during 2008-2009.

Species \ Year	Annual Maxima						Average
	2004	2005	2006	2007	2008	2009	
<i>Tachybaptus ruficollis</i>	0	0	0	0	41	47	44
<i>Podiceps cristatus</i>	0	0	0	0	715	222	469
<i>Podiceps grisegena</i>	48	20	36	14	62	9	32
<i>Podiceps auritus</i>	0	1	0	2	5	2	3

<i>Podiceps nigricollis</i>	0	0	0	0	1	0	1
<i>Phalacrocorax carbo</i>	300	1500	530	1500	1188	1460	1080
<i>Botaurus stellaris</i>	0	0	0	0	33	26	30
<i>Ardea cinerea</i>	20	0	0	0	180	178	126
<i>Platalea leucorodia</i>	84	87	140	161	174	153	133
<i>Cygnus olor</i>	234	770	838	535	1621	1540	923
<i>Cygnus columbianus</i>	50	15	51	426	8	20	95
<i>Cygnus cygnus</i>	776	422	583	504	660	652	600
<i>Anser fabalis</i>	355	118	265	500	125	135	250
<i>Anser fabalis rossicus</i>	0	2	2	1	0	1	2
<i>Anser brachyrhynchus</i>	9800	6385	11224	10900	9980	9002	9549
<i>Anser albifrons albifrons</i>	0	0	511	0	59	49	206
<i>Anser erythropus</i>	0	0	1	0	2	1	1
<i>Anser anser</i>	4298	8826	3790	4337	6999	16627	7480
<i>Branta canadensis</i>	51	295	26	187	242	107	151
<i>Branta leucopsis</i>	700	1212	1500	3000	3760	7752	2987
<i>Branta bernicla bernicla</i>	3	12	2	10	30	50	18
<i>Branta bernicla brota</i>	300	92	67	128	177	261	171
<i>Alopochen aegyptiacus</i>	0	0	0	0	2	0	2
<i>Tadorna ferruginea</i>	0	0	0	0	0	1	1
<i>Tadorna tadorna</i>	17	0	0	0	568	311	299
<i>Anas penelope</i>	2700	2697	9200	2280	13789	5385	6009
<i>Anas strepera</i>	158	183	107	257	362	574	274
<i>Anas crecca</i>	6520	5388	7250	7060	9451	6841	7085
<i>Anas platyrhynchos</i>	3348	3380	1500	2750	3336	3840	3026
<i>Anas acuta</i>	145	226	85	529	536	315	306
<i>Anas querquedula</i>	0	0	0	0	6	24	15
<i>Anas clypeata</i>	323	282	315	268	250	315	292
<i>Aythya ferina</i>	290	124	935	557	666	428	500
<i>Aythya fuligula</i>	470	288	291	560	2500	744	809
<i>Aythya marila</i>	12	3	5	55	42	34	25
<i>Somateria mollissima</i>	3	0	0	2	22	2	7
<i>Clangula hyemalis</i>	0	0	0	0	3	0	3
<i>Melanitta nigra</i>	1	2	1	1	1	1	1
<i>Melanitta fusca</i>	1	0	1	0	0	0	1
<i>Bucephala clangula</i>	2100	1610	1658	861	3500	2100	1972
<i>Mergus albellus</i>	58	54	51	37	55	40	49
<i>Mergus serrator</i>	1960	1400	135	2000	2416	382	1382
<i>Mergus merganser</i>	384	468	124	631	512	268	398
<i>Haliaeetus albicilla</i>	1	2	3	3	5	5	3

<i>Circus aeruginosus</i>	0	0	0	0	32	30	31
<i>Circus cyaneus</i>	6	7	11	10	13	11	10
<i>Accipiter gentilis</i>	0	0	0	0	3	1	2
<i>Accipiter nisus</i>	0	0	0	0	2	2	2
<i>Buteo buteo</i>	0	0	0	0	34	38	36
<i>Buteo lagopus</i>	0	0	0	0	1	0	1
<i>Pandion haliaetus</i>	3	3	3	3	3	3	3
<i>Falco tinnunculus</i>	0	0	0	0	10	6	8
<i>Falco vespertinus</i>	0	1	0	0	0	0	1
<i>Falco columbarius</i>	2	3	2	1	2	1	2
<i>Falco rusticolus</i>	0	0	0	0	0	1	1
<i>Falco peregrinus</i>	5	4	5	4	6	4	5
<i>Rallus aquaticus</i>	0	0	0	0	15	10	13
<i>Gallinula chloropus</i>	0	0	0	0	3	3	3
<i>Fulica atra</i>	540	1550	685	1113	4000	4488	2063
<i>Grus grus</i>	0	0	0	0	104	142	123
<i>Haematopus ostralegus</i>	0	0	0	0	77	76	77
<i>Recurvirostra avosetta</i>	574	780	714	465	948	583	677
<i>Charadrius dubius</i>	0	0	0	0	2	0	2
<i>Charadrius hiaticula</i>	0	0	0	0	26	45	36
<i>Charadrius morinellus</i>	29	0	2	54	7	26	24
<i>Pluvialis apricaria</i>	14860	7650	13000	7740	23400	18510	14193
<i>Pluvialis squatarola</i>	0	0	0	0	21	11	16
<i>Vanellus vanellus</i>	3	0	0	0	4480	5868	3450
<i>Calidris canutus</i>	29	24	17	5	10	49	22
<i>Calidris alba</i>	2	0	0	0	1	3	2
<i>Calidris minuta</i>	0	0	0	0	2	1	2
<i>Calidris temminckii</i>	0	0	0	0	0	1	1
<i>Calidris ferruginea</i>	0	0	0	0	1	16	9
<i>Calidris alpina</i>	400	550	470	1520	1046	960	824
<i>Philomachus pugnax</i>	0	0	0	0	464	384	424
<i>Gallinago gallinago</i>	0	0	0	0	219	132	176
<i>Gallinago media</i>	0	0	0	1	0	0	1
<i>Limosa limosa</i>	0	0	0	0	42	37	40
<i>Limosa limosa islandica</i>	0	0	0	0	13	1	7
<i>Limosa lapponica</i>	6	40	292	64	30	64	83
<i>Numenius phaeopus</i>	0	0	0	0	24	4	14
<i>Numenius arquata</i>	1	0	0	0	116	113	77
<i>Tringa erythropus</i>	0	0	0	0	95	52	74
<i>Tringa totanus</i>	79	105	208	110	47	167	119

<i>Tringa nebularia</i>	97	125	110	46	84	60	87
<i>Tringa ochropus</i>	0	0	0	0	3	11	7
<i>Tringa glareola</i>	0	0	0	0	193	13	103
<i>Actitis hypoleucos</i>	0	0	0	0	13	13	13
<i>Arenaria interpres</i>	0	0	0	0	11	0	11
<i>Phalaropus lobatus</i>	2	2	2	2	1	1	2
<i>Larus minutus</i>	0	0	0	0	54	23	39
<i>Larus ridibundus</i>	0	0	0	0	620	1720	1170
<i>Larus canus</i>	0	0	0	0	190	0	190
<i>Larus argentatus</i>	0	0	0	0	390	0	390
<i>Larus marinus</i>	0	0	0	0	10	0	10
<i>Rissa tridactyla</i>	0	0	0	0	1	1	1
<i>Sterna caspia</i>	0	1	1	3	3	1	2
<i>Sterna sandvicensis</i>	0	0	0	0	2	0	2
<i>Sterna hirundo</i>	0	0	0	0	32	49	41
<i>Sterna paradisaea</i>	0	0	0	0	16	43	30
<i>Sterna albifrons</i>	0	0	0	0	2	0	2
<i>Chlidonias niger</i>	0	0	0	0	22	16	19
<i>Alca torda</i>	2	1	0	0	0	0	2
Sum of annual maxima	52150	46710	56749	51197	101038	93710	

23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

Fisheries, hay production, grazing with cattle, production of reeds.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

a) within the Ramsar site:

Most of the site is privately owned.

b) in the surrounding area:

Farmland. As most other Danish Ramsar-sites, this site is surrounded by a rural landscape composed of private owned agricultural areas and forests.

25. Current land (including water) use:

a) within the Ramsar site:

cattle grazing, reed harvesting, fishery

b) in the surroundings/catchment:

Agriculture. There are no larger urban developments (>25,000 people) within 10 km from the site.

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Ramsar site:

As a result of less water depth, the flora and fauna of Vejlerne are changing gradually.

b) in the surrounding area:

Eutrophication due to discharge of nutrients from adjacent agricultural areas. Cultivation of meadows bordering the wetlands.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

Nature conservation: Vejlerne, Skårup-Holm Tange, Livø, Løgstør (6,800 ha) and Bygholm Vejle (695 ha). Vejlerne was acquired by a private fund in 1992 and a ban on hunting for waterbirds has been implemented.

The whole Ramsar site is protected under EU legislation, and included in:

Natura 2000-site No. 16

Special Protection Areas for Birds (SPA) Nos. 8, 12, 13, 19 and 20, and

Special Area of Conservation (SAC) No. 16.

Major parts of the Ramsar site are wildlife reserves (with shooting-free areas in Vejlerne, Løgstør Bredning, and around the island Borreholm (Madsen et al. 1998, Clausen et al. 2004).

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

For all Danish Ramsar sites, being part of the Danish Natura 2000 network, conservation status base-line reports were finalised in 2006 by the former counties, and published by the regional Environment Centres of the Agency for Spatial and Environmental Planning in 2007. In 2011 Natura 2000 plans were issued by the Danish Ministry of Environment/Danish Nature Agency setting up site-specific nature goals and priorities for all Danish Natura 2000 sites, including all Danish Ramsar sites. Parallel to this initiative on Natura 2000 sites, river basin management plans were likewise issued by the Danish Ministry of the Environment/Danish Nature Agency for all Danish river basins in 2011, aimed at meeting demands from the EU Water Framework Directive, hence to improve water quality and ecological status in wetland catchments and coastal areas.

National Ramsar site No. 6 is covered by Natura 2000 plan No. 16 (Naturstyrelsen 2011a) and river basin management plan No. 1.2 (Naturstyrelsen 2011b).

d) Describe any other current management practices:

A management plan for the whole area has been implemented in 2009.

In the period 2000-2006 several research projects have been carried out on the hydrological and biological conditions of Vejlerne as a basis for projects aimed at restoring better conditions for biodiversity and especially waterbirds in both the eastern and western part of Vejlerne.

In the eastern part of Vejlerne the water level has been raised in Bygholmengen, Bygholm Nord and Han Vejle. In the western part of Vejlerne the water quality has been increased by a project in Tømmerby Fjord, and the water table will be regulated in Trekanten and Vesløs-Arup Vejler with the aim of optimizing the conditions for breeding waders and for grazing with cattle.

Kjeldsen (2008) summarizes many of the ecological benefits of the various management regimes, many of which are implemented in the mentioned management plan.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

The overriding aim of the activities in the Vejlerne scientific sanctuary is to re-establish a higher water level especially in the eastern section of the area.

During 2012 the Government and Municipalities will develop site-specific management action plans to meet the goals of the Natura 2000 and river basin management plans.

29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

In 2003 Denmark launched the NOVANA programme. This programme forms the basis for future nature and water quality assessments in Denmark, and as such also supports the administration of the Ramsar site networks. NOVANA is an acronym that could be translated to English as NMWANA (**N**ew **M**onitoring programme for **W**ater quality and **N**ature), and aims at fulfilling the Danish obligations with regards to reporting conservation status of species and habitats covered by the EEC Birds and Habitats Directives annexes, as well as water quality and associated target species covered by the National 3rd Action Plan for the Aquatic Environment (Vandmiljøplan 3) as well as the EEC Water Framework Directive. The programme is described by Bijl et al. (2007). A first 'pre'-NOVANA assessment of the national conservation status of birds was published in 2003, and translated to English in 2006 (Pihl et al. 2006). National criteria for assessing favourable conservation status for the listed species and habitats were likewise published in 2003, and translated to English in 2007 (Søgaard et al. 2007), except for marine habitats, published solely in Danish (Dahl et al. 2005a). First assessments of reference conditions and development of Ecological Quality Objectives (EQOs) related to the Water Framework Directive were published in 2005-2006 (Dahl et al. 2005b, Petersen et al. 2006). Water bird monitoring programmes

involves complete national mid-winter surveys every third year (e.g. Petersen et al. 2006b), and annual complete counts of selected species groups (e.g. swans, geese, dabbling ducks, rare breeding birds, e.g. e.g. Søggaard et al. 2006, 2007). The dabbling duck monitoring programme is built upon the much more comprehensive reserve monitoring programme from 1994-2001 (Clausen et al. 2004). Annual assessments of water quality are also available (latest summary report, Nordemann Jensen et al. 2010).

Monitoring of e.g. waterbirds is currently carried out in a joint venture between the main land-owner Aage V. Jensen Naturfond and DCE/Department of Bioscience.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

A new visitors center was opened in 2001 and several observations towers and hides have been established. A brochure and several books and reports about the area have been published.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Many tourists visit the bird hides and the new visitors center.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

National legislation on Nature Conservation and Hunting regulations, as well as national administration of the Ramsar Convention and EEC Birds and Habitats Directives: *Ministry of the Environment*.

National legislation on Agriculture and Fisheries: *Ministry of Food, Agriculture and Fisheries*.

Local administration and implementation of Nature Conservation: Municipalities listed below under point 33.

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Municipalities

Thisted Kommune
Asylgade 30
7700 Thisted

Jammerbugt Kommune
Toftevej 43
9440 Aabybro

Local unit of the Nature Agency

Skov- og Naturstyrelsen, Thy
Søholt, Søholtvej 6
Vester Vandet
7700 Thisted
Tel: +45 72543000
Email: thy@nst.dk

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Bijl, L. van der, Boutrup, S. & Nordemann Jensen, P. (ed.) (2007): NOVANA. Det nationale program for overvågning af vandmiljøet og naturen. Programbeskrivelse 2007-09 - del 2. Danmarks Miljøundersøgelser, Aarhus Universitet. - Faglig rapport fra DMU 615: 120 pp. <http://www2.dmu.dk/Pub/FR615.pdf>

- Clausen, P., Bøgebjerg, E., Hounisen, J.P., Jørgensen, H.E. & Petersen, I.K. (2004): Reservatnetværk for trækkende vandfugle. En gennemgang af udvalgte arters antal og fordeling i Danmark 1994-2001. Danmarks Miljøundersøgelser. - Faglig rapport fra DMU 490: 144 pp. http://www2.dmu.dk/1_viden/2_Publikationer/3_fagrappporter/rapporter/FR490.PDF
- Dahl, K., Petersen, J.K., Josefson, A.B., Dahllöf, I. & Søgaard, B. (2005a): Kriterier for gunstig bevaringsstatus for EF-habitatdirektivets 8 marine naturtyper. Danmarks Miljøundersøgelser. - Faglig rapport fra DMU 549: 39 pp. http://www2.dmu.dk/1_viden/2_Publikationer/3_fagrappporter/rapporter/FR549.PDF
- Dahl, K.(ed.), Andersen, J.H.(ed.), Riemann, B.(ed.), Carstensen, J., Christiansen, T., Krause-Jensen, D., Josefson, A.B., Larsen, M.M., Petersen, J.K., Rasmussen, M.B. & Strand, J. (2005): Redskaber til vurdering af miljø- og naturkvalitet i de danske farvande. Typeinddeling, udvalgte indikatorer og eksempler på klassifikation. Danmarks Miljøundersøgelser. - Faglig rapport fra DMU 535: 158 pp.
- DMU (2007). *Den danske rødliste / Fagdatacenter for Biodiversitet og Terrestrisk Natur (B-FDC)*. - Danmarks Miljøundersøgelser, [2004]. <http://redlist.dmu.dk>. Accessed 1 March 2008.
- Grell, M.B. (1998): Fuglenes Danmark. – Dansk Ornitologisk Forening, Gads Forlag, Copenhagen. 825 pp.
- IUCN (2007): 2007 IUCN Red List of Threatened Species. <http://www.iucnredlist.org/> Accessed 5 March 2008.
- Kjeldsen, J.P. (2008). Ynglefugle i Vejlerne efter inddæmningen, med særlig vægt på feltstationsårene 1978-2003. - Dansk Orn. Foren. Tidsskr. 102 (2008): 1-238. <http://www.dof.dk/sider/images/stories/publikationer/dof/dokumenter/vejlerne.pdf>
- Kjeldsen, J.P. & Nielsen, H.H. 2011. Ynglefugle i Vejlerne 2011. Aarhus Universitet, DCE. – Nationalt Center for Miljø og Energi, 40 s. - Teknisk rapport fra DCE – Nationalt Center for Miljø og Energi nr. 6. <http://www.dmu.dk/Pub/TR6.pdf>
- Madsen, J., Pihl, S. & Clausen, P. (1998): Establishing a Reserve Network for Waterfowl in Denmark. A Biological Evaluation of Needs and Consequences. - Biological Conservation 85: 241-255. [http://dx.doi.org/10.1016/S0006-3207\(97\)00172-9](http://dx.doi.org/10.1016/S0006-3207(97)00172-9)
- Miljø- og Energiministeriet, Skov- og Naturstyrelsen (1996): EF-fuglebeskyttelsesområder og Ramsarområder. Kort og områdebeskrivelser, status 1995. [With an English summary](*national report on delineation of and species found within the Danish SPA and Ramsar site network*). 273 pp.
- Miljø- og Energiministeriet, Skov- og Naturstyrelsen (1999): Birds of Danish SPAs – trends in occurrence. (*national report on the status of species found within the Danish SPA and Ramsar site network*). 119 pp. <http://www.sns.dk/natur/netpub/birds/helepubl.pdf>
- Naturstyrelsen 2011a: Natura 2000-plan 2010-2015. Løgstør Bredning, Vejlerne og Bulbjerg Natura 2000-område nr. 16 Habitatområde H16 Fuglebeskyttelsesområde F8, F12, F13, F19 og F20. - Miljøministeriet, Naturstyrelsen. All Natura 2000 plans are available at: http://www.naturstyrelsen.dk/Naturbeskyttelse/Natura2000/Natura_2000_planer/Se_Planer/
- Naturstyrelsen 2011b: Vandplan 2010 – 2015. Limfjorden. Hovedvandopland 1.2. Vanddistrikt: Jylland og Fyn. - Miljøministeriet, Naturstyrelsen. All river basin management plans are available at: http://www.naturstyrelsen.dk/Vandet/Vandplaner/Se_vandplanerne/
- Nordemann Jensen, P., Boutrup, S., Bijl, L. van der, Svendsen, L.M., Grant, R., Wiberg-Larsen, P., Jørgensen, T.B., Ellermann, T., Hjorth, M., Josefson, A.B., Bruus, M., Søgaard, B., Thorling, L. & Dahlgren, K. 2010: Vandmiljø og Natur 2008. NOVANA. Tilstand og udvikling. Danmarks Miljøundersøgelser, Aarhus Universitet. 106 s. – Faglig rapport fra DMU nr. 767. <http://www2.dmu.dk/Pub/FR767.pdf>
- Petersen, J.K., Andersen, J.H., Dahl, K., Hansen, O.S., Josefson, A.B., Karlsson, J., Loo, L.-O., Magnusson, J., Moy, F. & Nilsson, P. (2006a): Reference conditions and EQOs for aquatic vegetation and macrozoobenthos. Copenhagen: Nordic Council of Ministers. - TemaNord 2006:510 : 138 pp.
- Petersen, I.K., Pihl, S., Hounisen, J.P., Holm, T.E., Clausen, P., Therkildsen, O.R. & Christensen, T.K. (2006b): Landsdækkende optælling af vandfugle januar-februar 2004. Danmarks Miljøundersøgelser. - Faglig rapport fra DMU 606: 76 pp. <http://www2.dmu.dk/Pub/FR606.pdf>
- Pihl, S., Clausen, P., Laursen, K., Madsen, J. & Bregnballe, T. (2006): Conservation status of bird species in Denmark covered by the EU Wild Birds Directive. National Environmental Research Institute. - NERI Technical Report 570: 128 pp. <http://www2.dmu.dk/Pub/FR570.pdf>
- Stoltze, M. & Pihl, S. (1998): RØDLISTE 1997 over planter og dyr i Danmark. - Miljø- og Energiministeriet 1998, Danmarks Miljøundersøgelser og Skov- og Naturstyrelsen. <http://www.sns.dk/1pdf/rodlis.pdf>
- Søgaard, B., Pihl, S. & Wind, P. (2006): NOVANA Arter 2004-2005. Danmarks Miljøundersøgelser. - Faglig rapport fra DMU 582: 148 pp. http://www2.dmu.dk/1_viden/2_Publikationer/3_fagrappporter/rapporter/FR582.pdf

Søgaard, B., Skov, F., Pihl, S., Nygaard, B., Laursen, K., Fredshavn, J.R., Ejrnæs, R., Clausen, P., Bregnballe, T., Madsen, J., Baattrup-Pedersen, A., Lauridsen, T.L., Søndergaard, M., Aude, E., Riis-Nielsen, T., Buttenschøn, R.M., Møller, P. & Nielsen, K.E. (2007): Criteria for favourable conservation status in Denmark. - Natural habitat types and species covered by the EEC Habitats Directive and birds covered by the EEC Birds Directive. National Environmental Research Institute, University of Aarhus. - NERI Technical Report 647: 92 pp. <http://www2.dmu.dk/Pub/FR647.pdf>

Søgaard, B., Pihl, S. & Wind, P. (2007): Arter 2006. NOVANA. Danmarks Miljøundersøgelser, Aarhus Universitet. - Faglig rapport fra DMU 644: 88 pp. <http://www2.dmu.dk/Pub/FR644.pdf>

Vandmiljøplan 3. – see <http://www.vmp3.dk/>

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org