# Information Sheet on Ramsar Wetlands

# (RIS) - 2009-2012 version

	1. Name and address of the compiler of this form:	FOR OFFICE USE ONLY.
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_	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 parenthese	
	South Funen Archipelago.	
	(International No. 156; National No. 17.)	
	5. Designation of new Ramsar site or update of existing site	2:
	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 design	nation or earlier update:
	a) Site boundary and area	
	The Ramsar site boundary and site area are unchang	ed: □
	or	
	If the site boundary has changed:	
	i) the boundary has been delineated more accurately \(\omega\);	or
	ii) the boundary has been extended $\square$ ; or	
	iii) the boundary has been restricted**	
	and/or	

# If the site area has changed: i) the area has been measured more accurately X; or ii) the area has been extended $\Box$ ; 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): $\square$ ; ii) an electronic format (e.g. a JPEG or ArcView image) ⊠; Denmark\_ramsar17.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 2010 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):

# 54°55'N 010°32'E

# 9. General location:

one separate area, provide coordinates for each of these areas.

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

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

The archipelago south of Funen between the islands Ærø, Tåsinge and Langeland. Nearest large town is Svendborg. Administrative region is Fyn Region.

**10. Elevation:** (in metres: average and/or maximum & minimum) 0-25m

**11. Area:** (in hectares) 38,329 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.

Shallow waters with shoals and many, mostly uninhabited islands in a generally drowned, undulating moraine landscape. Salt marshes and reed swamps. Some islands with cultivated areas and scattered habitation.

#### 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

# 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 a breeding site for waterbirds, e.g. (Corn Crake (Crex crex, LC – IUCN, Ann. I, EU Birds Directive) (listed as NT on the Danish Red List) and Black-tailed Godwit (Limosa limosa) (NT – IUCN, listed as VU on the Danish Red List), and several other species on the current Danish Red List (DMU 2007), e.g. Pintail (Anas acuta) (VU), Teal (Anas crecca) (NT), Garganey (Anas querquedula) (NT), Baltic Dunlin (Calidris alpine schinzii) (EN, Ann- I, EU Birds Directive), Spotted Crake (Porzana porzana) (NT, Ann. I, EU Birds Directive), Little Tern (Sterna albiforns) (NT, Ann. I, EU Birds Directive), and Short-eared Owl (Asio flammeus) (EN, 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), Sandwich Tern (Sterna sandvicensis), Arctic Tern (Sterna paradisaea) and Common Tern (Sterna birundo).. White-tailed Eagles (Haliaetus albicilla) (VU) from breeding sites north and east of the Ramsar wetland frequently forage inside the area.

The site also holds breeding populations of some species covered by Annex 2 of the EEC Habitats directive, notably important Danish breeding sites for Fire-bellied Toad (Bombina bombina) (nationally redlisted, NT) and Great Crested Newt (Triturus cristatus), and Common Seals Phoca vitulina and Harbour Porpoise (Phocoena phocoena) are regular visitors (Fyns Amt 2006, Teilmann et al. 2008).

**Criterion 4:** The site is one of the most important moulting areas in Denmark for Mute Swan (*Cygnus olor*).

**Criterion 5:** The site regularly holds well over 20,000 staging waterbirds, especially during autumn and winter. For count data of the most numerous species see justification of criterion 6. For other species see also 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 2003-2009 compared to WPE4):

Mute Swan (Cygnus olor) 3,585 (wintering) – 1.4% of the NW Mainland & Central Europe population. In summer 2006 4,368 swans were counted in the area, equivalent to 1.7% of the NW Mainland & Central Europe population.

Whooper Swan (Cygnus cygnus) 901 – 1.5% of the of the Northwest Mainland Europe population Common Eider (Somateria molissima) 13,474 – 1.8% of the Baltic, Wadden Sea population

The site was in the past also internationally important for Dark-bellied Brent Goose (Branta bernicla bernicla) from the Siberian breeding population (e.g. van Nugteren 1997), but numbers in the present reporting period are slightly below current 1% criteria (annual average maxima of 1058 individuals 2003-2009 represents 0.5% of the fly-way population).

# **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:

Continental

# b) biogeographic regionalisation scheme (include reference citation):

Biogeographical Regions, Europe, 2005, European Environmental 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 listning 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 2007).
- 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.

No specific information provided here, but Fyns Amt (2006) lists several of these.

#### 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:  $\underline{A} \cdot \underline{B} \cdot C \cdot D \cdot \underline{E} \cdot F \cdot \underline{G} \cdot \underline{H} \cdot I \cdot J \cdot K \cdot Zk(a)$ 

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, E, G

### 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 provided here, but Fyns Amt (2006) lists several of these.

## 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.

No specific information provided here, but Fyns Amt (2006) lists several of these.

## 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 islands within the Ramsar site are a breeding area for regionally important concentrations of breeding marsh and meadow birds and colonial breeders (gulls and terns), including several nationally Red Listed and/or and species listed in Annex 1 of the EEC Birds Directive (mentioned above under point 14).

Fyns Amt (2006) summarises numbers of breeding birds on most islands within the site, but the information provided in several tables has not been summarised for this RIS.

Table giving the most recent information about staging waterbirds in the South Funen Archipelago area. Published and unpublished data from NERI. Numbers given are maxima of several species of waterbirds.

Counting intensity varies over the years, with most comprehensive coverage 2008-09.

Annual Maxima						Average		
Species \ Year	2003	2004	2005	2006	2007	2008	2009	
Tachybaptus ruficollis	-	-	-	-	-	15	5	10
Podiceps cristatus	6	12	28	15	56	25	33	25
Podiceps griseigena	-	-	-	2	-	-	28	15
Phalacrocorax carbo	1046	504	589	653	1053	2528	2168	1220
Ardea cinerea	8	14	13	1	4	43	34	17
Cygnus olor	4155	2535	2778	4136	2027	5810	3653	3585
Cygnus cygnus	605	1864	561	490	943	881	962	901
Anser fabalis	96	61	-	9	-	34	-	50
Anser albifrons	-	2	-	28	6	26	-	16
Anser anser	1493	796	2000	3372	3850	4465	4124	2871
Branta canadensis	210	374	72	69	125	19	12	126
Branta leucopsis	-	208	34	4	3	250	70	95
Branta bernicla hrota	-	-	-	2	-	-	-	2
Branta bernicla bernicla	882	4022	736	270	986	203	378	1068
Tadorna tadorna	354	453	263	39	281	536	217	306
Anas penelope	1774	1356	1450	1557	1779	1797	4919	2090
Anas strepera	-	-	-	2	-	8	10	7
Anas crecca	1	7	110	445	285	496	1340	383
Anas platyrhynchos	4233	2721	8220	10114	5710	3288	5454	5677
Anas acuta	45	-	1	-	-	18	26	23
Anas clypeata	-	-	-	-	-	3	101	52
Aythya ferina	110	131	20	75	12	933	1550	404
Aythya fuligula	3444	7298	2515	5230	6077	4690	5445	4957
Aythya marila	3200	-	-	30	-	-	10	1080
Somateria mollissima	8917	19078	8917	16190	12008	11534	17679	13475
Clangula hyemalis	29	17	-	33	11	4	-	19
Melanitta nigra	60	7	23	-	10	250	-	70
Melanitta fusca	-	13	28	-	-	7	11	15
Bucephala clangula	4195	1987	3752	2400	1726	1744	2516	2617
Mergus albellus	25	1	-	-	-	20	3	12
Mergus serrator	278	1509	218	327	344	777	2119	796
Mergus merganser	126	64	140	35	49	66	136	88
Haliaeetus albicilla	-	-	-	-	-	-	3	3
Circus cyaneus	-	-	-	-	-	-	1	1
Pandion haliaetus	-	-	-	-	-	2	-	2
Falco peregrinus	-	-	-	-	-	-	1	1
Fulica atra	14419	8930	8726	5376	6011	5722	7238	8060
Pluvialis apricaria	-	20	-	-	-	600	1297	639
Vanellus vanellus	-	-	-	-	60	386	239	228
Calidris alpina	3	55	23	-	95	1615	662	409
Limosa lapponica	-	-	-	-	-	16	-	16
Numenius arquata	75	140	-	-	252	250	222	188
Sum of annual maxima	49791	54193	41217	50909	43763	49066	62666	

Notes: - does not necessarily mean the species was absent – rather not counted/reported. Averages are thus computed based on years with numbers reported.

#### 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:

No specific information.

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  $\square$  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:
- 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:

Territorial waters, private, the State represented by the Ministry of Environment.

b) in the surrounding area:

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

# 25. Current land (including water) use:

a) within the Ramsar site:

Farmland, grazing, a few forests (some used for forestry).

b) in the surroundings/catchment:

Mainly farmland.

# 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:

Fyns Amt (2006) lists several current threats of which the more important are:

- 1) There is a decline in cattle grazing causing overgrowth of small islands; drainage and cultivation schemes have degraded the breeding habitats for waterbirds since the turn of the century.
- 2) Negative effects on submerged vegetation due to eutrophication. Increasing eutrophication has resulted in very low oxygen levels in the bottom substrate.
- 3) Human disturbance on uninhabited islands is a potential threat, especially for breeding terns (see Bisschop-Larsen 2003 for details).

At present the main factors adversely affecting the site's ecological character are eutrophication of saltmarshes and marine areas, environmentally harmfull substances in marine fauna, overgrowing of saltmarshes, drains and ditches in saltmarshes, dikes, disturbance from recreational activities, and predation.

b) in the surrounding area:

#### 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: Vejlen (50 hectares) and Monnet (122 hectares) on Tåsinge. Monnet and some of the small islands are protected against public access in the birds' breeding season.

A new wildlife reserve was established in the area between Ærø, Langeland and Tåsinge in 1996, and the 22,693 ha reserve includes areas with no public access in the breeding season of water birds on the most important salt marshes and breeding islets for breeding meadow birds and terns, as well as a zonation of shooting restrictions, involving areas with complete shooting bans, areas with restrictions on any mobile hunting activities, as well as restrictions on wind-surfing activities and speed boating. The reserve was established as parts of the new Danish hunting-free network of reserves (Madsen et al. 1998, Clausen et al. 2004). New supplementary restrictions for admittance to the breeding islands during the breeding season have been implemented.

The whole Ramsar site is protected under EU legislation, and included in: Natura 2000-site No. 127
Special Protection Area for Birds (SPA) No. 71, and
Special Area of Conservation (SAC) No. 111.

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

$I_{a} \square_{;} I_{b} \square_{;} II \square_{;} III \square_{;} IV \square_{;}$	V L	J; VIL	
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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. 17 is covered by Natura 2000 plan No. 127 (Naturstyrelsen 2011a) and river basin management plan No. 1.15 (Naturstyrelsen 2011b). A management plan for the protected area Monnet exists and is being implemented.

# d) Describe any other current management practices:

Grazing of the important breeding island St. Egholm has been supported by the Forest and Nature Agency, and EU-LIFE projects on the Fire-bellied Toad (Bombina bombina) and on Baltic coastal marshlands have been carried out. Fugleværnsfonden has restored the formerly drained area of Henninge Nor into a wetland area, and is currently managing the area of Tryggelev Nor as a bird reserve.

#### 28. Conservation measures proposed but not yet implemented:

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

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 (New Monitoring programme for WAter quality and NAture), 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. Søgaard 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, Boutrup et al. 2007).

# 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.

Observation hides and nature trails in Tryggelev Nor. Information booklet and information boards at the wildlige reserve. Nature school on Strynø. A nature trails around the whole archipelago.

#### 31. Current recreation and tourism:

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

The intensity of recreation and tourism is high, e.g. sailing and day visits to the inhabited islands. Kayak tourism is organised and a kayak sailing map has been published.

#### 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	Local unit of the Nature Agency
Svendborg Kommune	Naturstyrelsen Fyn
Ramsherred 5	Sollerup
5700 Svendborg	Sollerupvej 24
Tel: +45 62233000	5600 Faaborg
E-mail: svendborg@svendborg.dk	Tel: +45 72543000
	fyn@nst.dk
Ærø Kommune	
Rådhuset	
Statene 2	
5970 Ærøskøbing	
Tel: +45 63525000	
E-mail: post@aeroekommune.dk	
Langeland Kommune	
Fredensvej 1	
5900 Rudkøbing	
Tel: +45 63516000	
E-mail: post@langelandkommune.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

Bisschop-Larsen, L. (2003). Bestandsudviklingen hos terner (*Sterna* spp., *Aves*) i Det Sydfynske Øhav. – Flora & Fauna 109(3+4): 87-94.

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. <a href="http://www2.dmu.dk/1\_viden/2\_Publikationer/3\_fagrapporter/FR490.PDF">http://www2.dmu.dk/1\_viden/2\_Publikationer/3\_fagrapporter/FR490.PDF</a>

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. <a href="http://www2.dmu.dk/1\_viden/2\_Publikationer/3\_fagrapporter/rapporter/FR549.PDF">http://www2.dmu.dk/1\_viden/2\_Publikationer/3\_fagrapporter/rapporter/FR549.PDF</a>

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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. <a href="http://redlist.dmu.dk">http://redlist.dmu.dk</a>. Accessed 1 March 2008.

Fyns Amt (2006): Natura 2000 basisanalyse. Habitatområde H111, EFFuglebeskyttelsesområde 71 og 72 Sydfynske Øhav. Naturog Vandmiljøafdelingen, 155 pp. http://www2.blst.dk/download/ode/Habitatomr\_pdf/H111DetSydfynske.pdf

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.

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

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.sps.dk/natur/netpub/birds/helepubl.pdf

Naturstyrelsen 2011a: Natura 2000-plan 2010-2015. Sydfynske Øhav. Natura 2000-område nr. 127. Habitatområde H111 Fuglebeskyttelsesområde F71+72. - Miljøministeriet, Naturstyrelsen. All Natura 2000 plans are available at: <a href="http://www.naturstyrelsen.dk/Naturbeskyttelse/Natura2000

Naturstyrelsen 2011b: Vandplan 2010-2015, Det Sydfynske Øhav. Hovedvandopland 1.15. Vanddistrikt: Jylland og Fyn. - Miljøministeriet, Naturstyrelsen. All river basin management plans are available at: <a href="http://www.naturstyrelsen.dk/Vandet/Vandplaner/Se\_vandplanerne/">http://www.naturstyrelsen.dk/Vandet/Vandplaner/Se\_vandplanerne/</a>

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. <a href="http://www2.dmu.dk/Pub/FR767.pdf">http://www2.dmu.dk/Pub/FR767.pdf</a>

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. <a href="http://www2.dmu.dk/Pub/FR606.pdf">http://www2.dmu.dk/Pub/FR606.pdf</a>

Petersen, I.K., Nielsen, R.D., Pihl, S., Clausen, P., Therkildsen, O., Christensen, T.K., Kahlert, J. & Hounisen, J.P. (2010): Landsdækkende optælling af vandfugle i Danmark, vinteren 2007/2008. Danmarks Miljøundersøgelser, Aarhus Universitet. – Arbejdsrapport fra DMU nr. 261.78 s. <a href="http://www2.dmu.dk/Pub/AR261.pdf">http://www2.dmu.dk/Pub/AR261.pdf</a>

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. <a href="http://www2.dmu.dk/Pub/FR570.pdf">http://www2.dmu.dk/Pub/FR570.pdf</a>

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\_fagrapporter/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

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

Teilmann, J., Sveegaard, S., Dietz, R., Petersen, I.K., Berggren, P. & Desportes, G. (2008): High density areas for harbour porpoises in Danish waters. National Environmental Research Institute, University of Aarhus. 84 pp. – NERI Technical Report No. 657. <a href="http://www2.dmu.dk/Pub/FR657.pdf">http://www2.dmu.dk/Pub/FR657.pdf</a>

Vandmiljøplan 3. – see <a href="http://www.vmp3.dk/">http://www.vmp3.dk/</a>

Van Nugterne, J. (1997): Dark-bellied Brent Goose *Branta bernicla bernicla*. Flyway Mangement Plan. Dutch Society for the preservation of the Waddense Sea, 198 pp.

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