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

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

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DD MM YY

Designation date | Site Reference Number

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2. Date this sheet was completed/updated:

September 2013

3. Country:

the Netherlands

4. Name of the Ramsar site:

IJsselmeer

5. Designation of new Ramsar site or update of existing site:
This RIS is for:
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:

The IJsselmeer is one of the Ramsar sites in the larger area of the IJsselmeergebied. The ecological system of the IJselmeergebied is changing. Long term monitoring data indicate seven trends (Noordhuis, 2010), which may lead to changes in the ecological system of the IJsselmeergebied and the Ramsar sites concerned. These trends are:

1. Decrease in eutrophication of the water, mainly due to strong decreasing phosphate levels;
2. Improvement of the chemical contamination of the water since the eighties;
3. Increase of submerged vegetation;
4. Continued changes in fish community, though the decrease in fish biomass seems to have stopped;
5. The biomass of the Zebra Mussel (*Dreissena polymorpha)* in the bigger lakes, IJsselmeer, Markermeer and IJmeer decreased, while it increased in the smaller lakes. New exotic species may replace former sites of the Zebra mussel.
6. Birds follow the availability of food. Fish eating birds are highly dependent on Smelt, which availability decreased in the bigger lakes IJsselmeer, Markermeer and IJmeer. Mussel eating birds moved from the bigger lakes to the smaller lakes, where the availability of mussels increased. The development of submerged vegetation, especially in the smaller lakes, attracts herbivorous bird species.
7. Reed lands decrease due to the permanent water level. This also has a negative impact on reed breeding birds. Nature development created new habitat for breeding birds like gulls and terns. This new habitat requests intense nature management.

These trends may lead to irreversible (positive?) changes of the natural values and the application of the criteria for the Ramsar sites concerned (see 14).

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7. Map of site:

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) ❑;

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

b) Describe briefly the type of boundary delineation applied:

Ramsar site IJsselmeer has also been designated as the European Natura 2000-site IJsselmeer. For this RIS-version, the Ramsar site boundary has therefore been adjusted to the Natura 2000-boundary. The Friese IJsselmeerkust in the northeast has now been included within the Ramsar site. In total this new boundary resulted in an increase of +5219,5 ha.

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

51°45'N - 05°27'E

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9. General location:

The IJsselmeer is located in the Provinces of Friesland, Flevoland and Noord-Holland and is part of the municipalities of Andijk, Dronten, Enkhuizen, Gaasterlân-Sleat, Lelystad, Lemsterland, Medemblik, Nijefurd, Noordoostpolder, Urk, Wûnseradiel, Wervershoof, Wieringen and Wieringermeer. Several

larger towns border the site like the towns of Enkhuizen (population 18.315 per 1-1-2013; source: CBS, Netherlands Statistics) and Medemblik (population 43.117 per 1-1-2012) in Noord-Holland and Lelystad (population 75.778 per 1-1-2013) in Flevoland.

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

NAP -6 / -2 m

11. Area:

113.341,3 ha

12. General overview of the site:

The IJsselmeer in its present shape was formed in several stages. In 1932 the former Zuiderzee, now IJsselmeer, was cut of from the Wadden Sea by a dam named the Afsluitdijk. In 1968 the final polders were claimed from the IJsselmeer. In 1976 a dam, named the Houtribdijk, cut the IJsselmeer in two parts, the IJsselmeer in the North and the Markermeer & IJmeer in the South. After completion of the Afsluitdijk the system changed from marine to a fresh water system mainly due to the water from the Rhine river which enters the IJsselmeer through river IJssel and the Ketelmeer. The water became fresh within a couple of months. The site (still) lacks a brackish transition zone towards the Wadden Sea. The marine faunal community changed within a couple of years into a fresh water community having two food chain key species: the European Smelt (*Osmerus eperlanus*) and the Zebra Mussel (*Dreissena polymorpha).* Reed marshes and willow stands develop along the coast. Especially the Frisian coast is characterized by shallow waters with submerged plants and mud- en sandbanks. The site is especially important for a great number of water birds.

13. Ramsar Criteria:

1	2	3	4	5	6	7	8	9
☐	☒	☒	☒	☒	☒	☐	☒	☐

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

The Ramsar site IJsselmeer has been designated under Natura 2000 as well. Natura 2000 is the centrepiece of EU nature & biodiversity policy. It is an EU-wide network of nature protection areas which aims to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) designated under the Birds Directive. Natura 2000 applies to SACs and SPAs which are divided into biogeographical regions. The Ramsar site IJsselmeer applies to both and the justification for the application of each Ramsar criterion below, greatly refers to its designation as a SAC and SPA.

Justification criterion 2

The table below shows Annex II species (HD) and Annex I species (BD) for which the site has been designated as a SAC and SPA respectively, as well as their current status on the National Red List. Some other threatened species of the National Red Lists have also been added to the tables.

Species of Annex II of the European Habitat Directive (HD) and Annex I of the European Bird Directive for which the site has been designated as a SAC and SPA respectively, as well as species of Annex IV (HD) and some threatened species of the National Red Lists (- = Not Applicable). Year of adoption of the National Red List in parentheses.

Species	Species Code	HD Annex	BD Annex	National RL Category
Vascular plants				(2004)
Fen Orchid *Liparis loeselii*	H1903	II, IV	-	EN
Parsley Water-dropwort *Oenanthe lachenalii*	-	-	-	VU
Mammals				(2009)
Pond Bat *Myotis dasycneme*	H1318	II, IV	-	LC
*Root Vole *Microtus oeconomus arenicola*	H1340	II, IV	-	VU
Non-breeding birds				
Eurasian Spoonbill *Platalea leucorodia*	A034	-	I	-
Bewick`s Swan *Cygnus bewickii*	A037	-	I	-
Barnacle Goose *Branta leucopsis*	A045	-	I	-
Smew *Mergus albellu*	A068	-	I	-
Avocet *Recurvirostra avosetta*	A132	-	I	-
Eurasian Golden Plover *Pluvialis apricaria*	A140	-	I	-
Ruff *Philomachus pugnax*	A151	-	I	-
Little Gull *Larus minutus*	A177	-	I	-
Caspian Tern *Sterna caspia*	A190	-	I	-
Black Tern *Chlidonias niger*	A197	-	I	-
Breeding birds				(2004)
Bittern *Botaurus stellaris*	A021	-	I	EN
Western Marsh Harrier *Circus aeruginosus*	A081	-	I	LC
Spotted Crake *Porzana porzana*	A119	-	I	VU
Ruff *Philomachus pugnax*	A151	-	I	CR
Common Tern *Sterna hirundo*	A193	-	I	VU
Fish				(2004)
Barbel *Barbus barbus*	-	-	-	EN
Bullhead *Cottus gobio*	H1163	II	-	LC
Molluscs				(2004)
Theodoxus fluviatilis	-	-	-	VU

Justification criterion 3

The IJsselmeer is designated as a Natura 2000 site (both SAC and SPA) and can therefore be considered important for maintaining the biodiversity of the Atlantic biogeographic region. Besides the species mentioned under criterion 2, the site has also been designated as a SAC for a range of habitat types (Annex I of HD) and SPA for a number of bird species that are not on Annex I of the BD. See the tables below.

Habitat type (according to interpretation manual of EU-Habitat Directive) for which the site has been designated as a SAC.

Habitat code	Habitat type
H3150	Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation
H6430	Hydrophilous tall herb fringe communities of plains
H7140	Transition mires and quaking bogs

Bird species (not on Annex I of the BD) for which the site has been designated as a SPA, as well as their status on the National Red List (2004).

Non-breeding birds	Species code	National RL Category
Great Crested Grebe *Podiceps cristatus*	A005	-
Great Cormorant *Phalacrocorax carbo*	A017	-
Taiga Bean Goose *Anser fabalis rossicus*	A039	-
Pink-footed Goose *Anser brachyrhynchus*	A040	-
White-fronted Goose *Anser albifrons*	A041	-
Greylag Goose *Anser anser*,	A043	-
Common Shelduck *Tadorna tadorna*	A048	-
Eurasian Wigeon *Anas [Mareca] Penelope*	A050	-
Gadwall *Anas strepera*	A051	-
Common Teal *Anas crecca*	A052	-
Mallard *Anas platyrhynchos*	A053	-
Northern Pintail *Anas acuta*	A054	-
Northern Shoveler *Anas clypeata*	A056	-
Common Pochard *Aythya farina*	A059	-
Tufted Duck *Aythya fuligula*	A061	-
Greater Scaup *Aythya marila*	A062	-
Common Goldeneye *Bucephala clangula*	A067	-
Common Merganser *Mergus merganser*	A070	-
Common Coot *Fulica atra*	A125	-
Black-tailed Godwit *Limosa limosa*	A156	-
Eurasian Curlew *Numenius arquata,*	A160	-
Breeding birds		(2004)
Great Cormorant *Phalacrocorax carbo*	A017	LC
Common Ringed Plover *Charadrius hiaticula*	A137	VU
Savi`s Warbler *Locustella luscinioides*	A292	VU
Sedge Warbler *Acrocephalus schoenobaenus*	A295	LC

Justification criterion 4

The site is of particular importance for many breeding and non-breeding bird species (see criterion 2, 3 and 6), of which several species gather in relatively small areas like moulting Great Crested Grebes *Podiceps cristatus* or breeding colonies of Black-headed Gull *Larus ridibundus,* Eurasian Spoonbill *Platalea leucorodia,* Common Tern *Sterna hirundo* and Great Cormorant *Phalacrocorax carbo.*

Justification criterion 5

The site regularly supports more than 20,000 wintering waterbirds: the average peak number was 125.146 for the period 2005/2006-2009/2010, which is less than the average peak number of 224,033 for the period 1999/2000-2003/2004 (source: Sovon, Dutch Centre for Field Ornithology).

Justification criterion 6

Species meeting the 1% threshold (WPE-4, Wetlands International 2006; source: Sovon, Dutch Centre for Field Ornithology). (NB = nonbreeding, BR = breeding period 2006-2010 unless stated otherwise).

Species (UK)	Species	NB / BR	Biogeographic population	1% threshold	Average number between 2006-2010	% at site
Greylag Goose	*Anser anser*	NB	NW. Europe/ SW. Europe	5.000	5.175	1,0
Shoveler	*Anas clypeata*	NB	NW/ Central Europe	400	634	1,6
Eurasian Wigeon	*Anas penelope*	NB	W-Siberia/NW-NE Europe	15.000	22.261	1,5
Gadwall	*Anas strepera*	NB	NW-Europe	600	1.185	2,0
Tufted Duck	*Aythya fuligula*	NB	NW-Europe	12.000	32.111	2,7
Greater Scaup	*Aythya marila*	NB	North-/West-Europe	3.100	48.123	15,5
Barnacle Goose	*Branta leucopsis*	NB	Russia-Netherlands	4.200	10.463	2,5
Black Tern	*Chlidonias niger*	NB	Europe/ Asia	7.500	23.800	3,2
Black-headed Gull	*Larus ridibundus*	BR		20.000	31.491	1,6
Smew	*Mergus albellus*	NB	NW-/Central-Europe	400	1.063	2,7
Common Merganser	*Mergus merganser*	NB	NW-/Central-Europe	2.700	7.646	2,8
Great Cormorant	*Phalacrocorax carbo*	NB	Northern/Central Europe	3.900	18.258	4,7
Great Cormorant	*Phalacrocorax carbo*	BR	Northern/Central Europe	3.900	15.297	3,9
Eurasian Spoonbill	*Platalea leucorodia*	NB	Eastern Atlantic	110	180	1,6
Eurasian Spoonbill	*Platalea leucorodia*	BR	Eastern Atlantic	110	201	1,8
Great Crested Grebe	*Podiceps cristatus*	NB		3.600	3.823	1,1
Common Tern	*Sterna hirundo*	BR	South-/West-Europe	1.900	14.619	7,7
Mute Swan	*Sygnus olor*	NB		2.500	4.359	1,7

Compared to the period of 1992-98 (previous updated version) the species Great Cormorant (BR), Eurasian Spoonbill (BR), Black-headed Gull (BR) and Mute Swan (NB) now also meet the 1% threshold, while Common Pochard, Common Coot, Eurasian Curlew and Pink-footed Goose do not meet the 1%-standard anymore. The seven trends described under 6b are an important factor in the change of bird populations within the IJsselmeergebied.

Justification criterion 8

The site has an important function as a spawning, nursery and feeding ground for a range of fish species and it has among others been designated as a SAC for the conservation of Bullhead *Cottus gobio* (see criterion 2).

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15. Biogeography:

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Biogeographic regions of the EU (developed under council directive 92/43/CEE).

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16. Physical features of the site:

Lake IJsselmeer was formed by the cutting off from the Wadden Sea by the Afsluitdijk in 1932. The saline to brackish tidal area changed into a stagnant freshwater lake. The water level is kept high in summer (NAP – 0,20 m) and low in winter (NAP – 0,40 m), also because of agricultural purposes. The water level is more or less stable but due to the size of the lake the wind may cause fluctuations in water

level of up to 1 m.

Nowadays it is the largest freshwater basin of the country. The lake largely has a sandy soil and is four to five meters deep (in channels up to 9 m and in sand extraction areas up to 25 m deep). The lake shores concern mainly basalt dikes without much water fringe vegetation. The Frysian coast however has a vast area of marshland and sandbanks.

17. Physical features of the catchment area:

The surface area of the Rhine catchment is 185.000 km². Geologically and geomorphologically it consists mainly of Quarternary, Paleozoic and Mesozoic sediments and Tertiary mountains. The general soil types are: Alluvial, Brown forest soils and montane soils. The climates according to Köppen are rainy (Cbf) and montane (EH).

18. Hydrological values:

The river IJssel flows via lake Ketelmeer into the IJsselmeer. The IJsselmeer also receives water from a large proportion of the northern part of the country which drains into the IJsselmeer. Via sluices in the Afsluitdijk water is regularly discharged into the Wadden Sea. Surplus water also can be drained away via lake Markermeer and the North Sea Channel into the North Sea.

19. Wetland Types

a) presence:

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:

O (approx. 95%), Tp (approx. 5%).

20. General ecological features:

The water of the IJsselmeer is fairly clear. Reed marshes and willow stands develop along the coast, especially along the coast of Friesland. The marshes may still have a brackish environment. Grasslands with a calcareous soil are rich in species. The site is especially important for a great number and species of water birds.

A plant community of European interest that occurs is: *Ranunculo fluitantis-Potametum perfoliati*

The ecosystem services mainly refer to:

- the wetlands potential for water recreation;
- the ability to store fresh water (especially i.r.t. potential impacts of climate change) to be drained into the Wadden Sea;
- the ability for agriculture to take fresh water in (for irrigation or livestock drinking water) or drain it off.

21. Noteworthy flora:

Most noteworthy flora is listed under no. 14.

22. Noteworthy fauna:

Most noteworthy fauna is listed under no. 14.

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:
See 25. Current land use.

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?
No

24. Land tenure/ownership:

a) within the Ramsar site:

A small part of the site is owned by Staatsbosbeheer, the water is state owned.

b) in the surrounding area:

The water (Wadden Sea, Markermeer, Ketelmeer) is state owned, on land several private owners.

25. Current land (including water) use:

a) within the Ramsar site:

Angling 100%, Boating 20%, Tourism and leisure 100%, Extractive operations (sand) 10%, Commercial fisheries 100%, Shipping traffic 5%, Military training 12%, Conservation and research 100%, Water management 100%.

b) in the surroundings/catchment:

Main land-use in the surrounding refers to farming. On the broader scale of the catchment of the river Rhine the general land use is forestry, pasture farming, arable farming, inproductive land (high mountains);

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects: (A = serious threat covering large part of the area; B = moderate threat or local threat; C = minor threat):

a) within the Ramsar site (A = serious threat covering large part of the area; B = moderate threat or local threat; C = minor threat):

- Aquaculture/ fisheries (B – intensive commercial fisheries);
- Aquaculture/ fisheries (B - entanglement in fish nets);
- Construction/ impact dykes/dams/barrage (C);
- Industrialization and urbanization (B - wind turbines);

- Recreation/ tourism (B - pleasure navigation, increase of cycle paths, increase of harbour capacities);
- Other (A - water level deliberately kept high during summer);
- Other (C – Potential (partly) reintroduction of tidal dynamics between Wadden Sea and IJsselmeer).

b) in the surrounding area:

- Construction (C, Increase of wind turbine parks);
- Construction (B - Increase of recreational capacity of harbours in the region and potential increase of boating).

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27. Conservation measures taken:

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

- Special Protection Area (Birds Directive 79/409/EEC, 2000)
- Special Area of Conservation (Habitats Directive 92/43/EEC)
- Natura 2000-site

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

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

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

The Ramsar site matches 100% with the designation for Natura 2000.
The process for developing the Natura 2000-management plan has started.

d) Describe any other current management practices:

De Kreupel is a 70 hectares artificial island in the IJsselmeer which has been constructed between 2002 and 2004. It is located some 4,5 kilometers from the coast of Andijk (western border IJsselmeer). The island is managed by the State Forestry Service and serves as a breeding location for species breeding on bare ground like colonies of gulls and terns. The site is not open to the public.

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28. Conservation measures proposed but not yet implemented:

- Construction of islets and foreshores to create breeding and feeding areas for birds and spawning grounds for fish.
- Reintroduction of tidal dynamics between Wadden Sea and IJsselmeer aiming for a more natural gradient between the fresh water of the IJsselmeer and the salt water of the Wadden Sea. This would especially be beneficial for migratory fish species.

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29. Current scientific research and facilities:

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura2000 habitat types and species.
Most research and monitoring is carried out by the Institute for Inland Water Management and Waste
Main research in the Veluwerandmeren is carried out by Rijkswaterstaat IJsselmeergebied from the Ministry of Infrastructure and the Environment and SOVON Vogelonderzoek Nederland, the NGO for bird research in the Netherlands.
Relevant research is also carried out by the Institute for River Research, which is part of the Institute for Hydrolic Engineering (IHE, www.ihe.nl) in Delft, and the Center for Limnology (NIOO-CL, www.nioo.nl) in Nieuwersluis.

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

Visitors centre, excursions, hikes.

31. Current recreation and tourism:

The IJsselmeergebied (including the Ketelmeer en Vossemeer) is very important for water recreation and tourism in the Netherlands. Organisations like HISWA (www.hiswa.nl), Watersportverbond (www.watersportverbond.nl), Vereniging voor beroepschartervaart (www.bbz-charter.nl), Sportvisserij Nederland (www.sportvisserijnederland.nl), Stichting Waterrecreatie IJsselmeer en Randmeren (www.stichtingwaterrecreatie.nl) or Stichting Verantwoord Beheer IJsselmeer (www.vbij.nl) all are important stakeholders in the field of recreation and tourism. For details on recreation types and frequency/intensity please see studies on the recreational use of the area (like Waterrecreatie Advies, 2010). In 2012 a formal code of conduct for recreation in the IJsselmeergebied was accepted by the Secretary of State of the Ministry of Economic affairs.

32. Jurisdiction:

Territorial: Municipalities of Andijk, Dronten, Enkhuizen, Gaasterlân-Sleat, Lelystad, Lemsterland, Medemblik, Nijefurd, Noordoostpolder, Urk, Wûnseradiel, Wervershoof, Wieringen and Wieringermeer; Functional jurisdiction (conservation purposes): Ministry of Economic Affairs.

33. Management authority:

Rijkswaterstaat, Ministery of Infrastructure and Environment, Regional Direction RWS IJsselmeergebied, PO Box 600, 8200 AP Lelystad, the Netherlands, +31 320 299111

34. Bibliographical references:

The number of scientific/technical references is too extended to list here. For a complete list please surf to the publication lists of the research institutes on the internet. For an arbitrary selection see below:

- BirdLife International, 2004. Birds in Europe, population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No. 12).
- Hornman, M., Hustings, F., Koffijberg, K., Kleefstra, R., Klaassen, O., van Winden, E., SOVON Ganzen- en Zwanenwerkgroep & L. Soldaat, 2012. Watervogels in Nederland 2009/2010. SOVON-rapport 2012/02, Waterdienst-rapport 12.06. SOVON Vogelonderzoek Nederland, Nijmegen.
- Janssen, John, A.M. & Joop, H.J. Schaminée, 2009. Europese Natuur in Nederland. Zee en kust Natura 2000-gebieden. KNNV-Uitgeverij. 296p.
- Ministerie van EL&I, 2009. Aanwijzingsbesluit Natura-2000 gebied IJsselmeer.
- Rijkswaterstaat & Deltares, 2010. Noordhuis R. (ed.) Ecosysteem IJsselmeergebied nog altijd in ontwikkeling. Trends en ontwikkelingen in water en natuur van het Natte Hart van Nederland; 421p.
- Roomen, van, M.W.J, Boele A., van der Weide M.J.T., van Winden E.A.J, Zoetebier D. 2000. Belangrijke vogelgebieden in Nederland, 1993-97. Actueel overzicht van Europese vogelwaarden in aangewezen en aan te wijzen speciale beschermingszones en andere belangrijke gebieden. SOVON-informatierapport 2000/01. SOVON Vogelonderzoek Nederland, Beek-Ubbergen.
- Waterrecreatie Advies, 2010. Ontwikkeling watersport IJsselmeergebied 2010. Deelrapportages provincies Flevoland, Fryslân, Gelderland, Noord-Holland en Overijssel. 178p.
- Wetlands International, 2006. Waterbird Population Estimates – Fourth Edition. Wetlands International, Wageningen.