

Designation date: 08/02/11 Ramsar Site no. 2022

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

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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

Estonian Wetland Society
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Kai Kimmel (kkimmel@hotmail.ee)

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

30 January 2012

3. Country:

Estonia

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.

HAAPSALU-NOAROOTSI

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:

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

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.

The boundary follows the borders of the three protected areas (Silma Nature Reserve, Osmussaar Landscape Reserve and Nõva-Osmussaar Limited-conservation Area).

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.

59° 8' 4 " N 23° 27' 29" 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.

Haapsalu-Noarootsi wetland complex is situated at the Estonian north-western coast in Lääne County, north and north-east from Haapsalu (administrative centre of the County with population about 11 000 inhabitants).

10. Elevation: (in metres: average and/or maximum & minimum)
0-10 metres above sea level

11. Area: (in hectares)
27 450 ha

12. General overview of the site:

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

Haapsalu-Noarootsi wetland site is a large mosaic marine/coastal wetland complex situated along the Northwest Estonian coast. The site embraces vast shallow coastal sea areas from Haapsalu to Keibu Bay (Nõva-Osmussaar Limited-conservation Area), circa five kilometres long and one-and-a-half wide Osmussaar Island by the entrance to the Gulf of Finland (Osmussaar Landscape Reserve) and an area of numerous shallow bays formed in place of a former straight that separated the Noarootsi Peninsula from the mainland (Silma Nature Reserve). It consists of coastal seascape, shallow inlets and bays, coastal lagoons, coastal meadows, reed-beds and flooded mud- and sandflats and is important due to its well preserved marine biota and abundance of birds.

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 1

The site is a good representative of the following habitat types listed in the Annex I of the EU Habitats Directive: sandbanks slightly covered by sea water all the time (1110), mudflats and sandflats not covered by seawater at low tide (1140), coastal lagoons (1150*), large shallow inlets and bays (1160), reefs (1170), annual vegetation of drift lines (1210), perennial vegetation of stony banks (1220), vegetated sea cliffs of the Baltic coast (1230), boreal Baltic islets and small islands (1620), boreal Baltic coastal meadows (1630*), boreal Baltic sandy beaches with perennial vegetation (1640) and alkaline fens (7230).

The sign * indicates priority habitat types under the Habitats Directive.

The wetland complex plays a substantial hydrological, biological and ecological role in the region and has been identified both as an IBA and Natura 2000 site (both SPA and SCI).

Criterion 2

The site supports an appreciable assemblage of rare, vulnerable and endangered species of plants and animals, some of them occurring in great numbers or densities.

It supports the following bird species of EU conservation interest, listed in the Annex I of Council directive 2009/147/EC: Slavonian Grebe *Podiceps auritus* (3-5 pairs), Bittern *Botaurus stellaris* (7-9 pairs), Black Stork *Ciconia nigra*, Lesser White-fronted Goose *Anser erythropus*, White-tailed Eagle *Haliaeetus albicilla*, Marsh Harrier *Circus aeruginosus* (6-7 pairs), Montagu's Harrier *Circus pygargus*, Hazel Grouse *Bonasa bonasia*, Black Grouse *Tetrao tetrix*, Common Crane *Grus grus* (8-10 pairs), Corncrake *Crex crex* (5-15 pairs), Spotted Crake *Porzana porzana* (30-130 pairs), Southern Dunlin *Calidris alpina schinzii* (10-11 pairs), Ruff *Philomachus pugnax*, Common Tern *Sterna hirundo* (20-40 pairs), Arctic Tern

Sterna paradisaea, Black Tern *Chlidonias niger* (5-15 pairs), Eagle Owl *Bubo bubo*, Short-eared Owl *Asio flammeus*, Nightjar *Caprimulgus europaeus*, Woodlark *Lullula arborea*, Tawny Pipit *Anthus campestris*, Barred Warbler *Sylvia nisoria* (30-35 pairs), Red-backed Shrike *Lanius collurio* (30-35 pairs). Data from 2004-2005.

Highly endangered and nationally strongly protected (I protection category) of them are Black Stork, White-tailed Eagle and Ruff.

More detailed information on nationally and internationally protected plant and animal species is provided in points 21 and 22.

Criterion 3

The site supports particular elements of biological diversity that are rare or particularly characteristic of the Boreal biogeographic region such as coastal grasslands (semi-natural meadows), coastal lagoons and marine ecosystems with high biodiversity (at the coastal sea 33 taxon of phytobenthos and 43 taxon of zoobenthos are found). See also points 21 and 22.

Criterion 4

The site is known as the most important wintering area for Long-tailed Duck *Clangula hyemalis* in the Northern Baltic Sea (20 000-40 000 ind.). The site is regular stop over site for globally threatened Lesser White-fronted Goose *Anser erythropus* (2-30 ind.) and nationally important breeding area for Southern Dunlin *Calidris alpina* ssp. *schinzii* (up to 10 pairs).

Criterion 5

The site is an important stop over site for more than 20 000 waterbirds during spring and autumn migration. For details see point 22 and justification of Criterion 6.

Criterion 6

The site is an important wintering area for Long-tailed Duck *Clangula hyemalis* (20-40 000 ind.), important moulting area for Eider *Somateria mollissima* (7600 ind.) and important stop over site for Bewick's Swan *Cygnus columbianus* (up to 1700 ind.), Barnacle Goose *Branta leucopsis* (10 000 ind.), Smew *Mergus albellus* (more than 600 ind) and Wigeon *Anas penelope* (more than 30 000 ind.).

Criterion 8

It is one of the biggest spring spawning grounds in Western Estonia for freshwater fish (Pike *Esox lucius*, Ide *Leuciscus idus*, Roach *Rutilus rutilus*).

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:

A: Boreal Biogeographic region according to the EEA

B: terrestrial area Sarmatic mixed forests
freshwater area Southern Baltic Lowlands temperate floodplain rivers and wetlands

b) biogeographic regionalisation scheme (include reference citation):

A: EEA, European Environment Agency,

http://www.eea.europa.eu/publications/report_2002_0524_154909

B: Olson, D. M, E. Dinerstein, E.D. Wikramanayake, N.D. Burgess, G.V.N. Powell, E.C. Underwood, J.A. D'amico, I. Itoua, H.E. Strand, J.C. Morrison, C.J. Loucks, T.F. Allnutt, T.H.

Ricketts, Y. Kura, J.F. Lamoreux, W.W. Wettengel, P. Hedao, & K.R. Kassem. 2001. Terrestrial Ecoregions of the World: A New Map of Life on Earth. - *BioScience* 51:933-938

Abell, R., Thieme, M. L., Revenga, C., Bryer, M., Kottelat, M., Bogutskaya, N., Coad, B., Mandrak, N., Contreras Balderas, S., Bussing, W., Stiassny, M., Skelton, P., Allen, G., Unmack, P., Naseka, A., Ng, R., Sindorf, N., Robertson, J., Armijo, E., Higgins, J., Heibel, T.J., Wikramanayake, E., Olson, D., Lopez, H. L., Reis, R. E., Lundberg, J.G., Sabaj Perez, M.H., Petry P., 2008, Freshwater Ecoregions of the World: A New Map of Biogeographic Units for Freshwater Biodiversity Conservation. - *BioScience* 58: 403-414.

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.

The site extending from the Keibu Bay of the Gulf of Finland to the latitudes of the Noarootsi Peninsula and Haapsalu Bay is a part of West-Estonian Lowland. Terrestrialization began here about 9300 years ago. The region has risen more than 90 m and rises nowadays about 3 mm/year. As a result of neotectonic uplift and accumulation of sediments the bays and the coastal sea have become and are continuously becoming shallower.

The sea conditions are exceptional, because the eastern part of the Väinameri having almost 85% of water exchange, lower salinity and higher nutrient concentration. The water level changes due to eastern and western winds and it may vary within 1,5 to 2 m.

The limestone bedrock is covered by clay and marine sediments. Osmussaar Island is unique due to its geological landmarks: the cliff, being one of the best examples of the Baltic Clint, high shingle ridges along the western coast and gneiss-breccia boulders formed about 540 million years ago when the Neugrund meteorite fell into the sea 10 km North-East from Osmussaar Island.

Dominant soils are Leptosols, Regosols, Cambisols and Gleysols. Soils are humus-rich, but stony.

Climate is maritime. The mean temperature is -3°C in January and 16°C in July. The average rainfall is 650 mm per year.

17. Physical features of the catchment area:

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

The catchment area of the Haapsalu Bay (412 km²) is relatively flat with absolute height reaching only 15-20 meters above sea level. The share of arable land in the catchment area is approx. 25% while forests, pastures and wetlands cover around 75% of the catchment area. The number of inhabitants in the Haapsalu bay catchment area is approx. 17,000.

18. Hydrological values:

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

Haapsalu Bay is a typical brackish water body with limited water exchange between the inner part of the bay and the open Baltic Sea, where nutrients (N, P) get trapped into bottom sediments. Due to its shallowness the mean annual river discharge exceeds the volume of the bay by approx. two and half times.

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: A, H, Ts, O, J, D, E, U, Xp

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.

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.

The site is located in the area of neotectonic uplift (2-3 mm per year). In Haapsalu Bay area the inland bays and remnant lakes cut off from the sea due to land uplift are very shallow (0.5–1 m) and are surrounded by dense reed beds. Reed bed also stretches along the coastline in a belt up to 1 km wide and also covers over 50 small offshore islets and consists mainly of Common Reed *Phragmites australis* and smaller stands of Saw-sedge *Cladium mariscus*.

At the shallow coastal sea most widely distributed are sandbanks slightly covered by sea water, mudflats and sandflats and reefs. The main coastal habitats are Baltic coastal meadows, coastal lagoons, large shallow inlets and bays.

On Osmussaar Island alvars cover more than one third of the area, but moist calcareous meadows, swamp meadows and small rich fens can be also found. Several small lakes with swampy shores but clear water and rich birdlife in the south-western part of the island are what remain of a former bay.

In Haapsalu Bay area coastal meadows are widespread. In areas which are better preserved these comprise a low grass layer - typically Black Rush *Juncus gerardii* meadows and patches of saline Annual Seablite *Suaeda maritima* meadow. This is an important breeding habitat of coastal waders (*Calidris alpina schinzii*, *Limosa limosa*, *Tringa totanus*) and potential spawning ground for Natterjack Toad (*Bufo calamita*). 15 species of orchids have also been recorded. Coastal meadows in good condition are the popular resting place for migratory geese and cranes.

Management of semi-natural grasslands is of critical importance: due to natural succession (overgrowing) appropriate management (grazing and cutting) is needed to keep the biodiversity and habitats for endangered breeding birds.

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.*

Several rare and nationally protected plant species can be found on coastal meadows such as Woolly Milkvetch *Oxytropis pilosa*, Gravel sedge *Carex glareosa*, Mackenzie's sedge *Carex mackenziei*, Annual Seablite *Suaeda maritima*, Stalked Orache *Halimione pedunculata*, Musk orchid *Herminium monorchis*, Fen Orchid *Liparis loeselii* (listed also in Annex II, Habitats Directive) and several other orchid species.

Also the Osmussaar Island is rich in rare and nationally protected species like Danish Scurvy-grass *Cochlearia danica*, Wall Whitlow-grass *Draba muralis*, Perennial Honesty *Lunaria rediviva*, Sea Pearlwort *Sagina maritima*, Sanguineous Kidney Vetch *Anthyllis coccinea*, Fly Orchid *Ophrys insectifera* but also Woolly Milkvetch, Musk and Fen orchid.

At the low sea water areas of the Nõva-Osmussaar Limited-conservation Area 33 taxon of phytobenthos are found.

22. Noteworthy fauna:

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., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

In total 225 different bird species have been observed, 119 of which breed.

The open seascape between Osmussaar Island and the Põõsaspea Cape is important as a flyway for migratory waterfowls where the migration is concentrated into a very narrow area. At least 20% of the water birds migrating over the Baltic Sea pass through this distinctive bottleneck site of Siberian/East-Atlantic Flyway. During the autumn monitoring of numbers of migrating waterbirds in 2004 and 2009 in Cape Põõsaspea respectively 1,9 and 2,1 million waterbirds were counted. About 600 000-800 000 Common Scoters *Melanitta nigra*, 350 000-500 000 Long-tailed Ducks *Clangula hyemalis*, 150 000-200 000 Barnacle Geese *Branta leucopsis*, 120 000-130 000 Eurasian Wigeons *Anas penelope*, 50 000- 100 000 Brent Geese *Branta bernicla*, 25 000-30 000 Red-throated Divers *Gavia stellata*, 5000-10 000 Black-throated Divers *Gavia arctica* and 10 000- 20 000 Common Terns *Sterna hirundo* have been counted migrating through.

The 2007-2008 aerial survey of seabirds showed that the marine areas in surrounding of Osmussaar Island are important stopover and wintering site for Long-tailed Duck *Clangula hyemalis* (20 000 – 40 000 in) and moulting site for Eider *Somateria molissima* (7600 in).

Haapsalu Bay together with the Noarootsi lakes forms a very important staging site for waterbirds. The very shallow and surrounded by dense reed beds inland bays and remnant lakes offer good feeding conditions for both bottom-feeding and fish-eating waterbirds. Together with the surrounding coastal meadows and reed beds these form an important staging area for migrating grebes, swans, geese, coots, ducks and diving ducks. During the spring migration up to 40 000 water birds may stop here at one time and up to 100 000 in autumn.

Reed beds of the Silma Nature Reserve are one of the most important breeding area (top 5) in Estonia for Great Crested Grebe *Podiceps cristatus* (50-110 pairs), Red-necked Grebe *Podiceps grisegena* (4-8 pairs), Bittern *Botaurus stellaris* (7-9 pairs), Mute Swan *Cygnus olor* (130-230 pairs), Greylag Goose *Anser anser* (70-90 pairs), Water Rail *Rallus aquaticus* (25-40 pairs), Spotted Crake *Porzana porzana* (30-130 pairs), Little Crake *Porzana parva* (0-3 pairs), Coot *Fulica atra* (30-50 pairs) and Great Reed Warbler *Acrocephalus arundinaceus* (260-420 pairs).

Coastal meadows are important breeding site for endangered Baltic population of the Dunlin *Calidris alpina schinzii* (10-11 pairs).

Haapsalu shallow bays are especially massive spawning places of the Pike *Esox lucius*, Ide *Leuciscus idus* and Roach *Rutilus rutilus*; altogether 25 fish species are found here. The lagoon lakes are very rich on Crucian carp *Carassius carassius*. During the last decade the population of *Carassius auratus gibelio*, an alien species, has been increasing.

At the coastal sea 43 taxon of zoobenthos are found. Macrozoobenthos communities in open sea area around the Osmussaar Island are represented mostly by *Mytilus edulis* and *Macoma balthica*. High biomass of *M. edulis* was found in the upwelling areas, *M. balthica* preferred sedimentation areas.

Near the Hara bay the spawning ponds of rare amphibians – the Natterjack Toad *Bufo calamita* and Pool Frog *Rana lessonae* (both Annex IV, Habitats Directive) are located. Otters *Lutra lutra* (Annex II, Habitats Directive) and beavers are common in small rivers of the site.

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:

Coastal grasslands have been managed centuries since these coastal areas raised from the sea. Semi-natural communities are part of the national heritage. Nowadays these grasslands are maintained for nature conservation purposes and this has important social impact for local community. Characteristic for the region is the unique tradition of using reed as building material for reed roofs. In the Osmussaar Island and the surrounding coastal sea there are a lot of archaeological findings, which are preserved as archaeological monuments.

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:

Two international nature conservation projects have been carried out. During Life-Nature project "Restoration of habitats of endangered species in the Silma Nature Reserve" (2002-2006) 780 ha of valuable coastal grasslands has been restored. During the project "Wings over Wetlands" (2007-2009) ecotourism facilities have been enhanced and 150 ha of wetlands restored.

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: mostly private land

b) in the surrounding area: mostly private land

25. Current land (including water) use:

a) within the Ramsar site: agricultural use (livestock grazing), reed cutting, fishing, hunting. About 1000-2000 m³ of mud is extracted annually (for its curative properties) outside the Silma Nature Reserve.

b) in the surroundings/catchment: mainly agricultural use

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: 1) Overgrowing of coastal grasslands due to abandonment and negative impact of this to the water birds. At the end of the 20th century most of the coastal meadows in the area became overgrown with reeds because pastoral herding was economically unviable. Restoration of these meadows began in 2002, currently farmers manage more than 1000 hectares of coastal meadows. 2) Continuing eutrophication of the Haapsalu Bay caused by the active use of fertilizers

in the past. The agricultural pollution load decreased considerably over the past 15 years due to reduced amounts of fertilizers applied and decreased numbers of livestock. Despite these changes and the overall decrease in pollution load to the bay the ecological quality of the bay has not been improved. Today, ecological conditions of the Bay are mainly affected by waste water of Haapsalu Town. Even though treatment efficiency of the waste water treatment plant is high it is still not sufficient due to highly concentrated sewage water in the inlet, which makes it difficult to achieve necessary quality levels in the outlet. 3) Increase in alien species (the population of *Carassius auritus gibelio*) is recorded during the last decade. 4) One of the greatest dangers for the site and especially for seabirds is potential risk of oil pollution.

b) in the surrounding area: interest and pressure to build offshore wind farms.

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.

The Haapsalu-Noarootsi Ramsar site consists of three nationally protected areas: Osmussaar Landscape Reserve (487 ha, established in 1996), Silma Nature Reserve (4795 ha, established in 1998), and Nõva-Osmussaar Limited-conservation Area (22 168 ha, established in 2005).

The site is Important Bird Area and belongs to the Natura 2000 network (both as SPA and SCI): Nõva-Osmussaar Limited-conservation Area and Osmussaar Landscape Reserve correspond to Nõva-Osmussaar SPA and SCI, and also IBA (in the same borders). Silma Nature Reserve forms a part of the larger Väinamere Natura 2000 site (SPA and SCI) and IBA.

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?:

Management plans for Osmussaar Landscape Reserve (2004-2008) and for Silma Nature Reserve (2004-2008) have been implemented.

New management plan for Osmussaar Landscape Reserve (2010-2014) is officially approved. Drafted management plan for Nõva-Osmussaar Limited-conservation Area (2010-2014) is waiting for approval.

New management plan for Silma Nature Reserve (2011-2020) is in preparation.

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

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

29. Current scientific research and facilities:

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

Cape Põõsaspea is an excellent site to monitor the trends of arctic birds, as birds are passing in big numbers close by and are also flying low enough to get good sample of age structure (in autumns, not in springs). The site is maybe only place in Europe to get with relatively small costs the good overview of reproduction success of many arctic ducks related with Siberian/East-Atlantic Flyway. Monitoring results in autumn 2004 and 2009 included totals equal to 10-60% of the flyway's

populations of several species, including Red-throated Diver *Gavia stellata*, Scaup *Aythya marila*, Pintail *Anas acuta*, Brent Goose *Branta bernicla* and Barnacle Goose *Branta leucopsis*. The collapse of Long-tailed Duck's *Clangula hyemalis* population was clearly showed by monitoring results. Unfortunately the monitoring in Cape Põõsaspea has not been carried out systematically in every autumn and there is no sign that it would happen in the future neither. Further information, see <http://www.eoy.ee/poosaspea/home>.

During the seabird inventory conducted in 2007-2008 (Kuresoo et al., 2009) main waterbird congregation areas (key areas) were identified in the offshore coastal sea area.

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.

Supported by the Wings over Wetlands project (2007-2009) a Nature Information Centre has been set up for visitors in the Environmental Board office in Haapsalu, where information about the wetland site, multimedia presentation on waterbird migration, a reed-bed exhibit, etc. is offered. Information booklets are available. Environmental Board organizes approximately 15-20 educational events per year.

Hiking trails and camp sites are prepared for visitors in Silma Nature Reserve (2 trails with towers) and Osmussaar Island. Bird towers and watching platforms have been built around Haapsalu Bay and near the Sutelepa, which create good opportunities for birdwatching and recreation.

31. Current recreation and tourism:

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

Main tourism load is concentrated on the short period of summer months. From May to August regular boat trips are organized to Osmussaar Island. On the mainland, nature trails and bird towers are actively used by ecotourists. There is one specialized company providing guided eco-tours (especially birdwatching trips). The annual number of visitors is approximately 5000.

32. Jurisdiction:

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

Territorial: Noarootsi, Oru and Nõva municipalities of the Lääne county, Padise municipality of the Harju County.

Functional: Environmental Board under the Ministry of Environment (Narva mnt 7a, 15172 Tallinn, ESTONIA).

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.

Environmental Board, Hiiu-Lääne-Saare Region (Kiltsi tee 10, 90403 Haapsalu, Läänemaa, ESTONIA)

Mrs. Kaja Lotman, director of the Hiiu-Lääne-Saare Region of Environmental Board, kaja.lotman@keskkonnaamet.ee, phone: +372 4724223

34. Bibliographical references:

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

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Valker, T.; Ojaste, I. 2003. Osmussaare haudelinnustik 2003. a. – Linnurada: 3-17.

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