Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties

Note: It is important that you read the accompanying Explanatory Note and Guidelines document before completing this form.

1. Date this sheet was completed/updated:

16.01.2002

2. Country:

Germany

3. Name of wetland:

Niederung der Unteren Havel / Gülper See / Schollener See

4. Geographical coordinates:

52° 45’ N  12° 13’ E

5. Elevation: (average and/or maximum and minimum)

23 – 40 m above sea level, on the average 25 m above sea level

6. Area: (in hectares)

Total Area: 8920 ha; therefrom 5744 ha in Sachsen-Anhalt and 3176 ha in Brandenburg

7. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)

The wetland comprises large parts of the bottom land in the lower reach of the Havel as well as two adjacent shallow lakes between Havelberg and Hohennauen. The area has an outstanding meaning as a breeding, resting and wintering place for grassland, wading and waterbirds and is part of two EU-Bird conservation areas. To this area belong two landscape reserves as well as several nature reserves (designated, current procedure); part of the biosphere reserve „Flusslandschaft Elbe“ and the natural park „Westhavelland“.

8. Wetland Type: (please circle the applicable codes for wetland types as listed in Annex I of the Explanatory Note and Guidelines document)
Please now rank these wetland types by listing them from the most to the least dominant:

M, O, 4, Ts, U, P, Tp, Xf, W, 9

9. **Ramsar Criteria:** (please circle the applicable criteria; see point 12 below)

1 4 5 6

Please specify the most significant criterion applicable to this site: 5,6

10. **Map of site included?** YES

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits.)

See also the map included

11. **Name and address of the compiler of this form:**

G. Dornbusch, Staatliche Vogelschutzwarte im Landesamt für Umweltschutz Sachsen-Anhalt
Zerpster Str. 7, D-39264 Steckby
Tel.: +49-39244-94090, Fax: +49-39244-940919, e-mail: gdornbusch@lau.mu.lsa-net.de

T. Heinicke, Staatliche Vogelschutzwarte Buckow, Landesumweltamt Brandenburg
Dorfstr. 34, D-14715 Buckow b. Nennhausen
Tel.: +49-33878-60257, Fax.: +49-33878-60600, e-mail: torsten.langgemach@lua.brandenburg.de

*Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):*

12. **Justification of the criteria selected under point 9, on previous page.** (Please refer to Annex II in the *Explanatory Note and Guidelines* document).

To criterion 1:
This lowland section in the lower reach of the Havel, a tributary of the Elbe, represents still a nature-related part of the Havel floodplain. Inspite of anthropogenic changes (embankments, hydrologic engineering of the Havel, melioration of adjacent lowland areas) a dynamic floodplain development with regular floodings of the adjacent lowland areas occurs at a reduced level. The dynamics of flooding is caused by a water tailback at the estuary of the Havel into the Elbe. To this system belong also both of the naturally eutrophic shallow lakes - the Gülper See and the Schollener See. The lowland areas are characterized by gley soil influenced by ground water (sediments, clay, sands, gravel, floodplain loam soil), in which partly fen soil is sprinkled.

To criterion 4:
Both of the shallow lakes - the Gülper See and the Schollener See - are outstanding places as molting, resting and sleeping waters for wading and waterbirds. Especially the Gülper See plays an important role for the geese species *Anser anser, A. fabalis, A. albifrons* as a main gathering and resting place in the total East-German inland. Moreover, a large number of swans *Cygnus sp.*, of
geese *Anser spec.*, *Anas sp.* and wading birds gathers in spring upon the appearance of large-area bottom land in the Havel region. The Gülper See is at present the most important resting area for limicolae during the autumn migration in the Havel region. Moreover, many significant rest populations of several birds brooding in the meadows (e. g. *Tringa totanus*, *Limosa limosa*, *Numenius arquata*, *Philomachus pugnax*, *Crex crex*) and further typical species of the wetlands occur in the RAMSAR-area.

To criterion 5:
The RAMSAR-area shelters regularly clearly more than 20,000 waterbirds for an extended period of the year (mainly in spring, late summer, autumn and winter). Especially large resting groups are formed by the following species: *Cygnus cygnus* up to 1,200 exs., *Anser fabalis* up to 200,000 exs., *Anser albifrons* up to 150,000 exs., *Anser anser* up to 20,000 exs., *Anas penelope* up to 5,000 exs., *Anas platyrhynchos* up to 12,000 exs., *Grus grus* up to 11,000 exs., *Vanellus vanellus* to 15,000 exs. (see appendix 1).

To criterion 6:
The area accommodates at least 1 % of a biogeographic population of the following wading and waterbirds: *Cygnus bewickii*, *Cygnus cygnus*, *Anser fabalis*, *Anser albifrons*, *Anser anser*, *Grus grus* (see appendix 1)

13. **General location:** (include the nearest large town and its administrative region)

**General location:**
0-24 km SE or SSE of Havelberg/district Stendal (Sachsen-Anhalt; in Havelberg <50,000 inhabitants); the Ramsar area covers both sides of the border between the federal states of Sachsen-Anhalt and Brandenburg between Havelberg in the north and Hohennauen/district Havelland (north of Rathenow) in the south.

**Area extension:**
N-S-extension: 52°50′ N to 52°39′ N
W-O-extension: 12°06′ E to 12°20′ E

14. **Physical features:** (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

The Havel flows in its lower reach through a large-area lowland landscape, whose geomorphology during the Weichselglaciation (Brandenburg stage) originated. This lowland has been influenced till now by numerous ruptures of the Elbe dikes causing overlyings of holocene flood-plain clay, loam, sand and gravel on extended parts of the plain valley sandy areas. Large-area swamp peat developed on these sediments. The soil relief is characterized by cut-off meanders, sinks, tributaries of the Havel, ditches and slight upheavals (valley sandy islands). Aperiodically appear large-area floodings, mainly in spring, sometimes also in summer and winter. These floodings are caused by a tailback of the Elbe. The lower reach of the Havel functions as reliever for the Elbe.

The Havel is an eutrophic river with a low primary and high nutrient pollution. It runs through the area north-westward. It contains loops, tributaries and cut-off meanders including smaller and larger islands. Due to the high nutrient pollution phytoplankton develops abundantly in summer making the water turbid. At the end of the 70th large parts of the Havel lowland were embanked, so that only an 1 – 2 km wide stripe on both side of the stream could be taken by the flood. The embanked areas are kept dry mainly by scooping. In the second half of the 70th the ditches were
deepened and enlarged within the RAMSAR-area, too, whereby a faster drainage during flooding
was intended.
The Gülper See is an eutrophic shallow lake fed by the Rhin with water. The water level is
maximal 2 m in depth (on the average less than 1 m). At the Rhin estuary the lake deposits sand, at
the Rhin outflow exist, however, strong muddy places. Otherwise, the largest part of the lake soil is
covered with „Mudden“ enriched with nutrients. In summer the plankton develops occasionally
into a high density. In late summer/autumn the water level is reduced to establish suited resting
places for limicolae.
The Schollener See is also an eutrophic shallow lake, whose water level is strongly influenced by
the water level of the Havel. Water is flowing by the connection between the Havel and the lake
from the Havel into the Schollener See at high water while at low water the latter one is flowing
into the opposite direction. In the lake exist huge sediments consisting of diatomeae-„Mudden“, that are partly economically used.
The climate is characterized by the inner climate in the lowlands of the Rhin and the Havel. The
mean annual temperature is 8,5 °C, whereby the mean temperature in January is 0,4 °C, the
temperature in July is 18,6 °C. The mean precipitation is about 530 mm. The low morphologic
structure brings about no special differentiation of the local climate.

15. Hydrological values: (groundwater recharge, flood control, sediment trapping, shoreline
stabilization, etc.)

By anthropogenic interferences the hydrology of this area was in parts strongly modified. The
water levels of the Havel and the two shallow lakes can be adjusted by hydraulic works. The most
important adjustment device is the Gnevsdorf on-site preflooder with its estuary gates, that shifts
the Havel estuary downstream. By the corresponding adjustments can the floodings be prevented or
reduced. The flooding water and the groundwater close to the grasslands are quickly drained by
systems consisting of ditches and partly by scooping in some areas. As a rule embankment areas
with land use exhibit a higher drainage degree. Due to the use of the Havel as a central waterway
regularly hydraulic engineering operations are performed. The application of rubble-stone on the
river bank can be regarded as especially severely due to the profound interference in the bank
vegetation and the willow bush community in the vicinity of the bank.

16. Ecological features: (main habitats and vegetation types)

Besides the Havel with its tributaries and cut-off meanders as well as both of the shallow lakes
characterize floodplain meadows the landscape. Wet and moist meadows of different types, among
others meadows with Phalaris arundinacea and Poa palustris as well as flood swards alternate
with drier places. Here and there floodplain meadows with Cnidium dubium occur. In permanent
moist places dense willow and alder groups have developed as floodplain relicts. Isolated old Salix
alba-trees with enormous tree-tops exist also in the meadows. The bank of the Havel is occupied by
tree rows, mostly willows, poplars or alders. The Schollener See, the northern bank of the Gülper
See as well as the estuary of the Rhin are occupied by large-area reed. Moreover, the lakes as well
as the cut-off meanders and tributaries of the Havel show an abundant macrophytic flora, which is
dominated by Myriophyllum-Nupharetum-communities, as well as by Sparganium-erecti- and
Glycerion-maximae-communities. In some places exists also the Hydrocharo-Stratiotetum yet.
The open vegetation can be assigned to the following groups: Cane and large-sedge reeds (Phragmitetum and Magnocaricion), flood and treaded swards, Bidentetea, meadows and pastures
(Molinio-Arrhenatheretea), sand dry grassland (Sedo-Scleranthetea), dwarf rush- and strandlings-
communities (Nano-Juncetea and Littorelletea) as well as river bank herbs and fringe communities
in wet habitats (Convolvuletalia sepium).
Concerning the [%] cover of the main habitat classes present in the area see appendix 2.
17. **Noteworthy flora:** (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

The habitats of nature-related plant communities are affected by aperiodically appearing floodings and by the floodplain loam sedimentation. The region possesses an species-abundant vegetation with a lot of rare and endangered species. Most of the plantgeographically important species are river valley plants adapted to continental habitats, which border their northwestern distribution here. Nearly all of these plant species are endangered, because they are dependent on nature-related habitats with floodplain dynamics. Besides this some prominent representatives of the atlantic floral element can also be found, which occupy here far to the southeast shifted habitats (e. g. *Erica tetralix*, *Genista anglica*, *Lonicera periclymenum*). At all more than 40 endangered plant species can be found in this area. Plant species worth being emphasized are: *Baldellia ranunculoides*, *Euphorbia palustris*, *Gentiana pneumonanthe*, *Gnidium dubium*, *Iris sibirica*, *Juncus atratus*, *Orchis morio*, *Veronica longifolia*, *Senecio paludosus*, *Viola stagnina*.

18. **Noteworthy fauna:** (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

The importance for the fauna bases upon the occurrence of numerous wading and waterbirds. The area is important for breeding birds as well as for resting birds and migratory birds.

The following species use the area as a place for resting and wintering: *Podiceps cristatus*, *Cygnus bewickii*, *Cygnus cygnus*, *Anser fabalis* (Subspecies rossicus), *Anser albifrons*, *Anser anser*, *Anas penelope*, *Anas crecca*, *Anas querquedula*, *Anas platyrhynchos*, *Anas strepera*, *Anas acuta*, *Anas clypeata*, *Aythya ferina*, *Aythya fuligula*, *Bucephala clangula*, *Mergus merganser*, *Mergus albellus*, *Haliaeetus albicilla*, *Pandion haliaetus*, *Fulica atra*, *Grus grus*, numerous wading birds (among others *Vanellus vanellus*, *Pluvialis apricaria*, *Numenius arquata*, *Limosa limosa*, *Gallinago gallinago*, *Philomachus pugnax*, *Tringa glareola*) (see appendix 1).

Among breeding birds are the following noteworthy: *Podiceps grisegena*, *Botaurus stellaris*, *Ixobrycus minutus*, *Anser anser*, *Tadorna tadorna*, *Anas strepera*, *Anas crecca*, *Anas acuta*, *Anas querquedula*, *Anas clypeata*, *Haliaeetus albicilla*, *Circus aeruginosus*, *Porzana porzana*, *Crex crex*, *Grus grus*, *Haemotopus ostralegus*, *Vanellus vanellus*, *Philomachus pugnax*, *Gallinago gallinago*, *Limosa limosa*, *Numenius arquata*, *Tringa totanus*, *Sterna hirundo*, *Chlidonias niger*, *Luscinia svecica cyanecula*, (see also appendix 1).

In addition to the birds also the following noteworthy species occur in the area: *Lycaena dispar*, *Cerambyx cerdo*, *Petromyzon marinus*, *Lampetra fluviatilis*, *Aspius aspius*, *Cobitis taenia*, *Misgurnus fossilis*, *Rhodeus sericeus*, *Bombina bomina*, *Triturus cristatus*, *Lutra lutra*, *Castor fiber albicus*, *Myotis dasycneme*, *Myotis myotis*.

19. **Social and cultural values:** (e.g., fisheries production, forestry, religious importance, archaeological site, etc.)

The area offers favorable opportunities for research and education with respect to the conservation of nature. The use of the grassland is accomplished by mowing and grazing; the territorial waters (the Havel with cut-off meanders and tributaries, Schollener See, Gülper See) are used for fishing; hunting is carried out nearly area-wide. The touristic activities increase in this area. The degradation of „Mudden“ (so-called Pelose) in the Schollener See and the application as healing mud plays a role.

The use of grassland and the fishery are not always performed in accordance with the nature. The same proves right for recreation, whereby interferences are increasingly called forth. Inspite of
existing guidelines and agreements problems arise regularly with the hunting, especially with the hunting for waterbirds.

20. Land tenure/ownership of: (a) site (b) surrounding area

To a) many parted areas, mainly cultivated by private owners and lessees; sometimes extensive use; the overwhelming number of the fields is private property

To b) different owners: state property, private property, community property, BVVG

21. Current land use: (a) site (b) surroundings/catchment

To a) conservation of nature, grassland use (mowing and grazing), to less extent agricultural use, freshwater fishery, Pelose-healing mud exploitation, forestry, hunting, recreation, shipping traffic, research and education (ecological field station Gülpe of the university of Potsdam)

To b) conservation of nature, grassland and agricultural use, fishery, forestry, settlements, system of water distribution (ditches, hydraulic works, scooping, embankment system), recreation, shipping traffic, hunting

Uses marked in boldface type dominate in each case.

22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects: (a) at the site (b) around the site

To a) Insufficient measures for catchment and for improving the water resources of the territory, hunting (especially hunting for waterbirds), fishery (e.g. big loss of waterbirds by set net and bow net fishery at the Gülper See), eutrophication of the waters and wetlands by land use (atmospheric input of substances, input by agriculture, input by waters, e.g. the Havel, the Rhin, the Dosse, Neue Jäglitz, degradation of fens), changes in the land use, growing recreation activities, using the Havel as a main waterway.

To b) Ideas for further water regulation activities, intended extension of the Havel between the towns of Berlin and Brandenburg with possible negative influences on the RAMSAR- area, changes in the land use (especially its intensification), increasing recreation activities, eutrophication of the territory, increasing degradation of fens, hunting.

23. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented)

Part of two landscape reserves; part of two EU-Bird conservation areas: „Untere Havel/Sachsen/Anhalt und Schollener See“„, „Niederung der Unteren Havel“; part of several FFH-areas: „Untere Havel und Schollener See“, „Niederung der Unteren Havel/Gülper See“ et al.; part of several nature reserves: Gülper See, Untere Havel Nord (current procedure), Schollener See, Stremel, Untere Havel Sachsen-Anhalt; part of the biosphere reserve „Flusslandschaft Elbe“ and of the natural park „Westhavelland“. Subarea-related guidelines for water and extensive grassland uses exist. At present the extensive use of grasslands in accordance with the conserved nature is performed within the bounds of contracts (KULAP, contracts for conserved nature), that, however, on strength of their voluntariness, the pretty short period of validity and uncertain financing no long-lasting protection provides. The frequently failing floods are substituted by contracts for
damming up the Havel in winter and spring. For this reason the soil users demand financial compensation. Since 1992 about 2000 ha of the agricultural area (financed by the federal states of Brandenburg, Sachsen-Anhalt and the EU) have been purchased for ensuring the fields and the following implementation of an extensive way of utilization. Since the middle 80th attempts have been made to prevent by a management concept the ecological deterioration. Furthermore, some measures are implemented for the management of northern geese and swans as well as cranes in the natural park „Westhavelland“.

**24. Conservation measures proposed but not yet implemented:** (e.g, management plan in preparation; officially proposed as a protected area, etc.)

Area-specific cultivation and development concept, that ensures an ecologically orientated, with the users balanced exploitation of the fields and measures for improving the hydrological situation; final designation of the nature reserves „Untere Havel Nord“ and „Untere Havel-Sachsen-Anhalt“; implementation of a state-spanning large-scale project for nature conservation“, „Restoration of nature-related structures at the lower reach of the Havel“; building a cultivation and development plan for the natural park „Westhavelland“.

**25. Current scientific research and facilities:** (e.g., details of current projects; existence of field station, etc.)

**Area monitoring:**
Field station for nature conservation „Untere Havel“ at Schollene-Ferchels, natural park administration Westhavelland with residence at Parey, nature watch Brandenburg, ecological field station Gülpe of the university Potsdam

**Special investigations:**
Waterbird monitoring by the centre for waterbird research in Germany (ZWFD), limicolae fowling program around the Gülper See by the NABU-district association „Westhavelland“ or the association for ornithology at Rathenow (within the bounds of WWI-program), monitoring in the EU-bird conservation area, vegetation and utilization monitoring, hydrological monitoring

**Scientific institutions:**
Ecological station Gülpe of the university of Potsdam, additional projects, e.g. in cooperation with the WWF-Germany as well as extensive activities of unsalaried working people (especially in connection with monitoring activities)

**26. Current conservation education:** (e.g., visitors centre, hides, information booklet, facilities for school visits, etc.)

Centre of information at the field station for nature conservation „Untere Havel“ in Schollene-Ferchels; centre of information in the house of the natural park „Westhavelland“ in Parey; Info-centre at the local museum Großderschau; numerous observation points and informative presentation boards distributed in the area; publishing of diverse information booklets by the field station of nature conservation „Untere Havel“, by the natural park „Westhavelland“ as well as by the NABU district association „Westhavelland“ and by the supporting association for landscape development „Untere Havel e. V.“. Members of the nature watch care for visitors.
In 2002 the establishment of an centre of information is intended by the natural park „Westhavelland“ in Milow.
27. **Current recreation and tourism:** (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

Taking into consideration the nature conservation aspect large parts of the area are not suited for tourism and, therefore, closed for such use. Schollener See and Gülper See are closed for shipping traffic. The latter one is only allowed on the Havel. Guidelines are required for using fishing-rods, because restrictions have been issued so far only for the Gülper See and the Schollener See. For directing visitors numerous paths and observation points were set up. The whole area is exposed to a growing recreation, whereby the interferences connected with it increase (e. g. by sports ships, sports aeroplanes, camping etc.). In summer and during the bird migration in spring and autumn is the area a popular destination for people interested in nature.

28. **Jurisdiction:** (territorial, e. g., state/region and functional, e. g., Dept. of Agriculture/Dept. of Environment etc.)

Bezirksregierung Magdeburg, Obere Naturschutzbehörde, Olvenstedter Str. 1-2, 39108 Magdeburg
Ministerium für Landwirtschaft, Umweltschutz und Raumordnung des Landes Brandenburg, Albert-Einstein-Str. 42-46, 14473 Potsdam

29. **Management authority:** (name and address of local body directly responsible for managing the wetland)

Landkreis Stendal, Untere Naturschutzbehörde, Hospitalstr. 1-2, 39576 Stendal
Landkreis Havelland, Untere Naturschutzbehörde, Goethestr. 59-60, 14641Nauen
Landesanstalt für Großschutzgebiete im Land Brandenburg, Tramper Chaussee 2, 16225 Eberswalde
Naturpark Westhavelland, Dorfstr. 5, OT Parey, 14715 Havelaue

30. **Bibliographical references:** (scientific/technical only)

Zentrale für Wasservogelforschung in Deutschland (1993): Die Feuchtgebiete Internationaler Bedeutung in der Bundesrepublik Deutschland. Münster, Potsdam, Wesel. 232 S.

Please return this Information Sheet to:
The Ramsar Convention Bureau, Rue Mauverney 28, CH-1196 Gland, Switzerland
(tel +41 22 999 0170, fax +41 22 999 0169, e-mail ramsar@ramsar.org)
Appendix 1:


<table>
<thead>
<tr>
<th>Species</th>
<th>Breeding pairs</th>
<th>Passage birds/Winter guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podiceps cristatus</td>
<td>nearly 60</td>
<td>400 – 600</td>
</tr>
<tr>
<td>Podiceps grisegena</td>
<td>3 – 5</td>
<td></td>
</tr>
<tr>
<td>Podiceps nigricollis</td>
<td>0 – 2</td>
<td></td>
</tr>
<tr>
<td>Tachybaptus ruficollis</td>
<td>nearly 10</td>
<td></td>
</tr>
<tr>
<td>Phalacrocorax carbo</td>
<td>300 – 400</td>
<td>up to 800</td>
</tr>
<tr>
<td>Ardea cinerea</td>
<td>nearly 120</td>
<td>100 – 150</td>
</tr>
<tr>
<td>Egretta alba</td>
<td>-</td>
<td>up to 10</td>
</tr>
<tr>
<td>Egretta garzetta</td>
<td>-</td>
<td>up to 4</td>
</tr>
<tr>
<td>Botaurus stellaris</td>
<td>8 – 11</td>
<td></td>
</tr>
<tr>
<td>Ixobrychus minutus</td>
<td>0 – 3</td>
<td></td>
</tr>
<tr>
<td>Ciconia nigra</td>
<td>1</td>
<td>up to 10</td>
</tr>
<tr>
<td>Ciconia ciconia</td>
<td>15 – 20 (places)</td>
<td>up to 35</td>
</tr>
<tr>
<td>Cygnus olor</td>
<td>10 – 20</td>
<td>300 – 500</td>
</tr>
<tr>
<td>Cygnus cygnus</td>
<td>-</td>
<td>1.000 – 1.200</td>
</tr>
<tr>
<td>Cygnus bewickii</td>
<td>-</td>
<td>400 – 500</td>
</tr>
<tr>
<td>Anser fabalis</td>
<td>-</td>
<td>150.000 – 200.000</td>
</tr>
<tr>
<td>Anser brachyrhynchus</td>
<td>-</td>
<td>5 – 10</td>
</tr>
<tr>
<td>Anser albifrons</td>
<td>-</td>
<td>100.000 – 150.000</td>
</tr>
<tr>
<td>Anser erythropus</td>
<td>-</td>
<td>up to 2</td>
</tr>
<tr>
<td>Anser anser</td>
<td>200 – 250</td>
<td>15.000 – 20.000</td>
</tr>
<tr>
<td>Branta leucopsis</td>
<td>-</td>
<td>200 – 400</td>
</tr>
<tr>
<td>Branta ruficollis</td>
<td>-</td>
<td>up to 4</td>
</tr>
<tr>
<td>Tadorna tadorna</td>
<td>12 – 15</td>
<td>50 – 100</td>
</tr>
<tr>
<td>Anas penelope</td>
<td>-</td>
<td>4.000 – 5.000</td>
</tr>
<tr>
<td>Anas strepera</td>
<td>10 – 20</td>
<td>400 – 500</td>
</tr>
<tr>
<td>Anas platyrhynchus</td>
<td>150 – 250</td>
<td>8.000 – 12.000</td>
</tr>
<tr>
<td>Anas crecca</td>
<td>2 – 5</td>
<td>1.500 – 2.000</td>
</tr>
<tr>
<td>Anas querquedula</td>
<td>10 – 20</td>
<td>100 – 150</td>
</tr>
<tr>
<td>Anas acuta</td>
<td>0 – 3</td>
<td>up to 1.000</td>
</tr>
<tr>
<td>Anas clypeata</td>
<td>5 – 10</td>
<td>800 – 1200</td>
</tr>
<tr>
<td>Aythya fuligula</td>
<td>?</td>
<td>1.500 – 2.000</td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>15 – 20</td>
<td>2.000 – 3.000</td>
</tr>
<tr>
<td>Bucephala clangula</td>
<td>-</td>
<td>400 – 600</td>
</tr>
<tr>
<td>Mergus merganser</td>
<td>-</td>
<td>350 – 450</td>
</tr>
<tr>
<td>Mergus albellus</td>
<td>-</td>
<td>70 – 120</td>
</tr>
<tr>
<td>Haliaeetus albicilla</td>
<td>4</td>
<td>15 – 20</td>
</tr>
<tr>
<td>Fulica atra</td>
<td>150 – 200</td>
<td>2.000 – 3.000</td>
</tr>
<tr>
<td>Gallinula chloropus</td>
<td>40 – 60</td>
<td></td>
</tr>
<tr>
<td>Rallus aquaticus</td>
<td>40 – 60</td>
<td></td>
</tr>
<tr>
<td>Porzana porzana</td>
<td>5 – 15</td>
<td></td>
</tr>
<tr>
<td>Crex crex</td>
<td>15 – 25</td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td><em>Grus grus</em></td>
<td>8 – 10</td>
<td>8,000 – 11,000</td>
</tr>
<tr>
<td><em>Haematopus ostralegus</em></td>
<td>1 – 3</td>
<td></td>
</tr>
<tr>
<td><em>Pluvialis apricaria</em></td>
<td></td>
<td>2,000 – 3,000</td>
</tr>
<tr>
<td><em>Charadrius dubius</em></td>
<td></td>
<td>up to 40</td>
</tr>
<tr>
<td><em>Charadrius hiaticula</em></td>
<td></td>
<td>up to 50</td>
</tr>
<tr>
<td><em>Vanellus vanellus</em></td>
<td>80 – 120</td>
<td>10,000 – 15,000</td>
</tr>
<tr>
<td><em>Philomachus pugnax</em></td>
<td>0 – 3</td>
<td>500 – 1,000</td>
</tr>
<tr>
<td><em>Gallinago gallinago</em></td>
<td>40 – 50</td>
<td>500 – 1,000</td>
</tr>
<tr>
<td><em>Limnocryptes minimum</em></td>
<td></td>
<td>up to 10</td>
</tr>
<tr>
<td><em>Limosa limosa</em></td>
<td>12 – 20</td>
<td>up to 150</td>
</tr>
<tr>
<td><em>Numenius arquata</em></td>
<td>10 – 15</td>
<td>200 – 400</td>
</tr>
<tr>
<td><em>Calidris alpina</em></td>
<td></td>
<td>up to 200</td>
</tr>
<tr>
<td><em>Calidris minutus</em></td>
<td></td>
<td>up to 50</td>
</tr>
<tr>
<td><em>Calidris temminckii</em></td>
<td></td>
<td>up to 10</td>
</tr>
<tr>
<td><em>Calidris ferrugineus</em></td>
<td></td>
<td>20 – 30</td>
</tr>
<tr>
<td><em>Tringa totanus</em></td>
<td>20 – 30</td>
<td>up to 80</td>
</tr>
<tr>
<td><em>Tringa nebularia</em></td>
<td></td>
<td>up to 100</td>
</tr>
<tr>
<td><em>Tringa erythropus</em></td>
<td></td>
<td>up to 100</td>
</tr>
<tr>
<td><em>Tringa glareola</em></td>
<td></td>
<td>up to 1,000</td>
</tr>
<tr>
<td><em>Tringa ochroenus</em></td>
<td></td>
<td>20 – 30</td>
</tr>
<tr>
<td><em>Actitis hypoleucos</em></td>
<td>0 – 1</td>
<td>up to 20</td>
</tr>
<tr>
<td><em>Larus minutus</em></td>
<td></td>
<td>up to 270</td>
</tr>
<tr>
<td><em>Larus ridibundus</em></td>
<td>0 – 50</td>
<td>up to 8,000</td>
</tr>
<tr>
<td><em>Larus canus</em></td>
<td></td>
<td>up to 9,000</td>
</tr>
<tr>
<td><em>Larus argentatus</em></td>
<td></td>
<td>150 – 200</td>
</tr>
<tr>
<td><em>Larus cachinnans/michahellis</em></td>
<td></td>
<td>20 – 30</td>
</tr>
<tr>
<td><em>Sterna hirundo</em></td>
<td>25 – 30</td>
<td>up to 150</td>
</tr>
<tr>
<td><em>Sterna paradisea</em></td>
<td></td>
<td>1 – 5</td>
</tr>
<tr>
<td><em>Sterna caspia</em></td>
<td></td>
<td>1 – 3</td>
</tr>
<tr>
<td><em>Chlidonias niger</em></td>
<td>90 – 120</td>
<td>up to 600</td>
</tr>
<tr>
<td><em>Chlidonias leucopterus</em></td>
<td>0 – 10</td>
<td>10 – 1,050</td>
</tr>
<tr>
<td><em>Chlidonias hybridus</em></td>
<td></td>
<td>2 – 6</td>
</tr>
<tr>
<td><em>Asio flammeus</em></td>
<td>0 – 1</td>
<td>2 – 10</td>
</tr>
<tr>
<td><em>Alcedo atthis</em></td>
<td>5 – 10</td>
<td></td>
</tr>
<tr>
<td><em>Luscinia svecica cyanecula</em></td>
<td>10 – 15</td>
<td></td>
</tr>
<tr>
<td><em>Locustella luscinoides</em></td>
<td>40 – 60</td>
<td></td>
</tr>
<tr>
<td><em>Acrocephalus schoenabenus</em></td>
<td>100 – 150</td>
<td></td>
</tr>
<tr>
<td><em>Acrocephalus arundinaceus</em></td>
<td>50 – 70</td>
<td></td>
</tr>
<tr>
<td><em>Panurus biarmicus</em></td>
<td>40 – 60</td>
<td></td>
</tr>
<tr>
<td><em>Remiz pendulinus</em></td>
<td>15 – 20</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2:

Review of habitat types occurring in the RAMSAR-area

a) Brandenburg (according to the data from CIR aerial photographs)

<table>
<thead>
<tr>
<th>Habitat classes</th>
<th>[%] cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running waters</td>
<td>6,0</td>
</tr>
<tr>
<td>Standing waters</td>
<td>12,7</td>
</tr>
<tr>
<td>Bogs, Marshes, Fens</td>
<td>5,1</td>
</tr>
<tr>
<td>Grassland and Tall herb</td>
<td>54,1</td>
</tr>
<tr>
<td>Deciduous bushes, Field trees, Tree rows</td>
<td>1,2</td>
</tr>
<tr>
<td>Woods and forests</td>
<td>7,4</td>
</tr>
<tr>
<td>Arable land</td>
<td>9,6</td>
</tr>
<tr>
<td>Anthropogenic habitats</td>
<td>9,6</td>
</tr>
<tr>
<td>Settlements, Transport and Industrial facilities</td>
<td>2,8</td>
</tr>
</tbody>
</table>

b) Sachsen-Anhalt (according to data of the standard data form EU SPA „Untere Havel/Sachsen-Anhalt und Schollener See“)

<table>
<thead>
<tr>
<th>Habitat classes</th>
<th>[%] cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh waters</td>
<td>7</td>
</tr>
<tr>
<td>Habitats of vegetation-less or -poor soil</td>
<td>1</td>
</tr>
<tr>
<td>Arable land</td>
<td>9</td>
</tr>
<tr>
<td>Dry grassland</td>
<td>1</td>
</tr>
<tr>
<td>Mesophile grassland</td>
<td>20</td>
</tr>
<tr>
<td>Fens (on org. Soil)</td>
<td>11</td>
</tr>
<tr>
<td>Humid grasslands and floodplain habitats on mineral soil</td>
<td>26</td>
</tr>
<tr>
<td>Reed</td>
<td>10</td>
</tr>
<tr>
<td>Deciduous woodland (up to 30 % coniferous trees)</td>
<td>8</td>
</tr>
<tr>
<td>Forest deciduous monocultures (habitat-extra-neous or exotic trees)</td>
<td>1</td>
</tr>
<tr>
<td>Mixed woodland (30 – 70 % coniferous trees)</td>
<td>1</td>
</tr>
<tr>
<td>Coniferous woodland</td>
<td>3</td>
</tr>
<tr>
<td>Anthropogenic strongly influenced habitats</td>
<td>1</td>
</tr>
<tr>
<td>Large-area shrubbery/ forest-like habitats</td>
<td>1</td>
</tr>
</tbody>
</table>