**Ramsorsite "De Biesbosch"**

Ad 22.

Count data of bird species in De Biesbosch, which numbers exceed a great
near to the 1% criterion (based on Meininger et al., 1984).

<table>
<thead>
<tr>
<th>Species</th>
<th>Average yearly number</th>
<th>Season</th>
<th>Max. numbers</th>
<th>% criterion</th>
<th>Function of area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boves cristatus</td>
<td>450</td>
<td>Nov.-Apr.</td>
<td>-</td>
<td>f, r</td>
<td></td>
</tr>
<tr>
<td>Phalacrocorax carbo</td>
<td>400</td>
<td>Aug.-Oct.</td>
<td>300</td>
<td>f, r</td>
<td></td>
</tr>
<tr>
<td>Anser fabalis</td>
<td>1,500</td>
<td>Dec.-Feb.</td>
<td>700</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>A. albirostris</td>
<td>9,700</td>
<td>Nov.-Mch.</td>
<td>2,000</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>A. anser</td>
<td>2,000</td>
<td>Oct.-Apr.</td>
<td>400</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>Anas penelope</td>
<td>3,000</td>
<td>Nov.-Apr.</td>
<td>5,000</td>
<td>(f), r</td>
<td></td>
</tr>
<tr>
<td>A. crecca</td>
<td>3,000</td>
<td>Nov.-Apr.</td>
<td>2,000</td>
<td>f, r, m</td>
<td></td>
</tr>
<tr>
<td>A. platyrhynchos</td>
<td>6,000</td>
<td>Sep.-Apr.</td>
<td>10,000</td>
<td>f, r, m</td>
<td></td>
</tr>
<tr>
<td>A. acuta</td>
<td>1,000</td>
<td>Oct.-Apr.</td>
<td>700</td>
<td>f, r</td>
<td></td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>2,800</td>
<td>Oct.-Apr.</td>
<td>2,000</td>
<td>f, r</td>
<td></td>
</tr>
<tr>
<td>A. fuligula</td>
<td>2,400</td>
<td>Nov.-Apr.</td>
<td>5,000</td>
<td>f, r</td>
<td></td>
</tr>
<tr>
<td>Meguro merganser</td>
<td>610</td>
<td>Jan.-Feb.</td>
<td>710</td>
<td>f, s</td>
<td></td>
</tr>
<tr>
<td>Fulica atra</td>
<td>3,300</td>
<td>Oct.-Apr.</td>
<td>12,000</td>
<td>r</td>
<td></td>
</tr>
<tr>
<td>Phalulemurus pusillus</td>
<td>700</td>
<td>Mei./Aug.-Okt.</td>
<td>10,000</td>
<td>(f), s</td>
<td></td>
</tr>
<tr>
<td>Limosa limosa</td>
<td>350</td>
<td>Mei.</td>
<td>3,000</td>
<td>(f), s</td>
<td></td>
</tr>
<tr>
<td>Numenius arquata</td>
<td>200</td>
<td>Nov.-Meh.</td>
<td>3,000</td>
<td>(f), s</td>
<td></td>
</tr>
<tr>
<td>Platalea leucorodia</td>
<td>max. 70</td>
<td>Aug.</td>
<td>20</td>
<td>f</td>
<td></td>
</tr>
</tbody>
</table>

1) conform Van der Neut (1984)
2) numbers of today are probably lower
3) in soft winters the number is max. some few hundreds
4) conform Gebauer (1984)

f = foraging
r = resting
s = sleeping
m = molting
24. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)

There is no field station or something alike in De Biesbosch. Current research projects concern several monitoring projects including the study of recently released Beavers (Castor fiber) and a study to the pollution by river sediments and to the possibilities for a further restoration of the former tidal character.

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

There are two visitors centres in the area, well equipped with information booklets and facilities for group visits.

26. Current recreation and tourism: (state if wetland used for recreation/tourism; indicate type & frequency/intensity)

The area has an intensive recreation pressure as De Biesbosch is very popular for watersports. Many of the larger creeks can be reached by large boats. Small strips of land have been developed into recreation areas with landing-stages.

27. Management authority: (name and address of body responsible for managing the wetland)

State Forestry Service (Staatsbosbeheer), Region Brabant-West
Bosbaan 1397
5004 AJ TILBURG

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

Functional: Ministry of Agriculture, Nature Management and Fisheries
Ministry of Traffic and Public Affairs

Territorial: Provinces of Zuid-Holland and Noord-Brabant
several municipalities

29. Bibliographical references: (scientific/technical only)

30. Reasons for inclusion: (state which Ramsar criteria - as adopted by Rec.C.4.15 of the Montreux Conference - are applicable)

1 (c)
2 (c) (b) (c)
3 (a) (b) (c)

31. Map of site (please enclose the most detailed and up-to-date map available - preferably at least 1:25,000 or 1:50,000)

already in your possession
Information Sheet on Ramsar Wetlands

As approved by Rec.C.4.7 of the Conference of the Contracting Parties, Montreux, Switzerland - July 1990

NOTE: Please read the accompanying guidelines before attempting to complete this form. An example of a completed data sheet is also included.

Completed sheets should be returned to: T.A. Jones, Ramsar Database, IWRB, Slimbridge, Gloucester GL2 7BX, England

1. Country: The Netherlands

2. Date: 1-2-88

3. Ref: office use only

4. Name and address of compiler:
   Ministry of Agriculture, Nature management and Fisheries
   P.O. Box 204101
   2500 EK The Hague / The Netherlands

5. Name of wetland: Biesbosch (south part)

6. Date of Ramsar designation: 23 May 1980

7. Geographical coordinates: 51° 56' N 4° 48' E

8. General location: (e.g. administrative region and nearest large town)
   In the province of Noord Brabant, approximately 12 km southeast of the city Rotterdam

9. Area: (in hectares) 1,700

10. Wetland type: (see attached classification, also approved by Montreux Rec.C.4.7)

11. Altitude: (average and/or maximum & minimum)

12. Overview: (general summary, in two or three sentences, of the wetland’s principal characteristics)
   The Biesbosch is a former tidal-freshwater wetland in the Rhine-Meuse delta. After the building of several barrier dams in the Meuse delta and the Hollandsch Diep, only a very slight marine influence is remaining. The area now develops into a more stagnant system.

13. 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)
   A former tidal estuary, closed off from the sea since 1990. The land is intersected by many former tidal creeks and consists of polders (which are in agricultural use) and nature areas. Only the Sluices area and the Biesbosch are remnants of a former tidal influence. This part of the Biesbosch lays outside the Ramsar site.
   The river Nieuwe Merwede, a branch of the Rhine, flows through the Biesbosch and divides it into two parts. Only the part south of the Nieuwe Merwede, the so-called Broedersche Biesbosch, is included in the Ramsar site. Some polders have been transformed into water basins (for water supply).

14. Ecological features: (main habitats and vegetation types)
   The wetland consists of a large number of small creeks, marshland and wooded areas. The polders have been left outside the Ramsar site.
   After the building of the barrier dams, most inter-tidal mudflats disappeared and many creeks and creek banks started to evolve. Reed beds and salt marshes were left and developed into marshland and willow woodland. Smaller creeks are filled with river sediments.
15. Land tenure/ownership of:

   (a) site
       Party owned by the state and partly by private persons and bodies.

       The Brabantse Biesbosch (Ramsar site) is managed by the State Forestry Service.
       The Dierlize Biesbosch is managed by the State Forestry Service and the Society
       for the Preservation of Birds. The Scheldehezer Biesbosch is owned and managed by the
       multiple private ownership Recreation Board "Hollandse Biesbosch".

   (b) surrounding area

16. 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)

   The South part of the Biesbosch, the so-called Brabantse Biesbosch, was
designated as Ramsar site on 12 May 1992. Large parts of the Biesbosch
are nature reserves owned and managed by the State Forestry Service.
In the framework of the National Park an integral management plan has
been made including a zonation plan in order to regulate the intensive recreation.

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

   The total area including the South part (Brabantse Biesbosch), the Dierlize
and the Scheldehezer Biesbosch will be designated as National Park as
late as 1999. Furthermore, the total area is short-listed to be designated as
SPA under the EC Wild Birds Directive.

18. Current land use: principal human activities in:

   (a) site
       Nature conservation, recreation, boating, shipping

   (b) surroundings/catchment
       Agriculture, water basins functioning as drinking-water
       reserves.

19. Disturbances/threats, including changes in land use and major development projects: (factors which may have a negative impact on the ecological character of the wetland)

   (a) at the site
       Recreation (notably water-sports), see 16.
       Industrial pollution of the river system, see 24.

   (b) in the surroundings/catchment
       Barrage dams in the Elingkiet and Hollandse Diep, minimizing tidal effects
20. Hydrological and physical values: (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc.)

see 19.

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

The area is a very important recreation area with high scenic values. The site is also of archaeological importance as remnants of the villages which were drowned by the St. Elizabeth flood in 1421 must still be present in the wetland. (De Biesbosch was originally part of a rich polter which was drowned by this flood).

22. Noteworthy fauna: (e.g. unique, rare, endangered, abundant or biogeographically important species; include count data etc.)

A table is adjusted which lists all bird species exceeding the 1% criterion.

Despite the changes in character of the wetland the area has become more important as a breeding area for marsh birds. For more information about birdlife one is referred to Grimmett and Jones (site 41).

Concerning mammals the introduction of beavers (Castor fiber) must be mentioned. The area is also important for Microtus arvalis, an endangered species in The Netherlands.

23. Noteworthy flora: (e.g. unique, rare, endangered, or biogeographically important species/communities etc.)

After the building of the barrier dams several rare plant species occurred in the area: Limosella aquatica, Impatiens noli-tangere, Stellaria nemorum, Pulicaria vulgaris and Seriphidium c. umbrosa.

Although the tidal character has disappeared the area still counts some places with Calothra palustris araneosa and Scirpus triquestr.

For further information on fauna and flora one is referred to the explanatory note.