POLAND
MACIEJ GROMADZKI AND MARIA WIELOCH

GENERAL INTRODUCTION

Poland covers about 312,700 km² within the temperate forest zone of Europe. It is a low-lying country, with only 9% of its land surface above 300 m, although mountain ranges in the south (dominated by the Western Carpathians) rise up to a maximum of 2,499 m. Poland has a population of 38,612,000 (1996 estimate), with a moderate overall population density of 124 people per km², the highest densities being in the southern upland areas and the lowest in the north-west and north-east.

A total of 77 Important Bird Areas (IBAs) are currently recognised in Poland, covering 19,867 km² or equivalent to about 6.4% of the land surface (Table 1). The IBAs are distributed more or less evenly over the whole country, but with a preponderance in the east and north. The previous pan-European IBA inventory (Grimmett and Jones 1989) listed 126 sites for Poland—thus, a relatively large number of these have since lost their IBA status (see Table 1), especially since 19 of the current 77 sites are completely new IBAs. This is mainly because the IBA criteria have been revised since 1989—only a few of the 1989 sites have lost their IBA status because of actual changes in bird numbers at the site. Apart from amalgamations of previous IBAs (thirteen now form part of current sites 025, 054, 061 and 073), most of the other 54 sites from 1989 that still meet current IBA criteria are largely unchanged in extent, although the numbering system and many of the site names have been altered.

ORNITHOLOGICAL IMPORTANCE

A total of 128 species of European conservation concern (SPEC) breed regularly in Poland (Tucker and Heath 1994). In addition, 24 SPECs do not breed but are regular visitors to the country on passage or in winter.

Six species of global conservation concern breed in Poland (Table 2)—Aythya nyroca, Haliaeetus albicilla, Aquila clanga, Crex crex, Gallinago media and Acrocephalus paludicola. The most important site for Aythya nyroca is the Barycz river valley (site 054), where 20–30% of the national population breed. All of the breeding Aquila clanga in Poland nest in the Biebrza river valley (site 025), as do most of the national population of Acrocephalus paludicola (Table 2). The number of breeding Crex crex in Poland, currently estimated at about 30,000 calling males (1997 survey), represents a major proportion of the European total, and this species played a very important role in identifying IBAs during previous inventories (Grimmett and Jones 1989; Gromadzki et al. 1994).

<table>
<thead>
<tr>
<th>IBA code</th>
<th>National code</th>
<th>1989 code</th>
<th>International name</th>
<th>National name</th>
<th>Administrative region</th>
<th>Area (ha)</th>
<th>Criteria (see p. 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>001</td>
<td>PL001</td>
<td>Delta of the Świna river</td>
<td>Delta Świny</td>
<td>zachodnio-pomorskie</td>
<td>4,000</td>
<td>A1, A4i, A4ii, B1i, B2, B3</td>
</tr>
<tr>
<td>002</td>
<td>002</td>
<td>PL005</td>
<td>Szczecin lagoon</td>
<td>Zalew Szczecinski</td>
<td>zachodnio-pomorskie</td>
<td>48,000</td>
<td>A1, A4i, A4ii, B1i, B2</td>
</tr>
<tr>
<td>003</td>
<td>004</td>
<td>PL007</td>
<td>Rozwawo marshes</td>
<td>Bagna Rozwawo</td>
<td>zachodnio-pomorskie</td>
<td>1,600</td>
<td>A1</td>
</tr>
<tr>
<td>004</td>
<td>008</td>
<td>PL009</td>
<td>Świdwice lake</td>
<td>Jezioro Świdwic</td>
<td>zachodnio-pomorskie</td>
<td>900</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>005</td>
<td>010</td>
<td>PL011</td>
<td>Wely lakes</td>
<td>Jezioro Welysiki</td>
<td>zachodnio-pomorskie</td>
<td>4,600</td>
<td>B3</td>
</tr>
<tr>
<td>006</td>
<td>009</td>
<td>PL010</td>
<td>Lower Odra river valley</td>
<td>Dolina Dolnej Odry</td>
<td>zachodnio-pomorskie, lubuskie</td>
<td>75,000</td>
<td>A1, A4i, A4ii, B1i, B4, B2, B3</td>
</tr>
<tr>
<td>007</td>
<td>011</td>
<td>PL012</td>
<td>Miedwie lake</td>
<td>Jezioro Miedwie</td>
<td>zachodnio-pomorskie</td>
<td>3,200</td>
<td>A4i, B1i</td>
</tr>
</tbody>
</table>

Table 1. Summary of Important Bird Areas in Poland

77 IBAs covering 19,867 km²
<table>
<thead>
<tr>
<th>IBA code</th>
<th>National code 1</th>
<th>National name</th>
<th>Administrative region</th>
<th>Area (ha)</th>
<th>Criteria (see p. 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>008</td>
<td>021</td>
<td>PL013</td>
<td>Irisk Landscape Park</td>
<td>17,763</td>
<td>A1, B3</td>
</tr>
<tr>
<td>009</td>
<td>013</td>
<td>PL019</td>
<td>Słowiński National Park</td>
<td>18,247</td>
<td>A4i, B1</td>
</tr>
<tr>
<td>010</td>
<td>023</td>
<td>PL018</td>
<td>Słupia Valley Landscape Park</td>
<td>37,040</td>
<td>A1</td>
</tr>
<tr>
<td>011</td>
<td>025 —</td>
<td>Middle part of Tuchola forest</td>
<td>Wietki Sand Brdy</td>
<td>38,815</td>
<td>B1i, B2, B3</td>
</tr>
<tr>
<td>012</td>
<td>015, 016</td>
<td>PL022</td>
<td>Park Bay</td>
<td>56,000</td>
<td>A4i, A4ii, B1i</td>
</tr>
<tr>
<td>013</td>
<td>017</td>
<td>PL023</td>
<td>Wiśla river mouth</td>
<td>485</td>
<td>A1, A4, A4ii, B1i, B2</td>
</tr>
<tr>
<td>014</td>
<td>018</td>
<td>PL024</td>
<td>Wiśla lagoon</td>
<td>33,000</td>
<td>A4i, A4ii, B1</td>
</tr>
<tr>
<td>015</td>
<td>019</td>
<td>PL025</td>
<td>Drużno lake</td>
<td>3,021</td>
<td>A4i, A4ii, B1, B2</td>
</tr>
<tr>
<td>016</td>
<td>027</td>
<td>PL026</td>
<td>Ilawa forests</td>
<td>25,279</td>
<td>A1, A4i, B1i, B2</td>
</tr>
<tr>
<td>017</td>
<td>047</td>
<td>PL109</td>
<td>Dymierskie meadows</td>
<td>300</td>
<td>A4i, B1</td>
</tr>
<tr>
<td>018</td>
<td>045</td>
<td>PL111</td>
<td>Napinezdka-Ramocka forest</td>
<td>65,000</td>
<td>A1, B1i, B2, B3</td>
</tr>
<tr>
<td>019</td>
<td>020</td>
<td>PL104</td>
<td>Olwin lake</td>
<td>2,500</td>
<td>B3</td>
</tr>
<tr>
<td>020</td>
<td>050</td>
<td>PL103</td>
<td>Borecka forest</td>
<td>22,000</td>
<td>B2</td>
</tr>
<tr>
<td>021</td>
<td>048</td>
<td>PL108</td>
<td>Łuknajno lake</td>
<td>710</td>
<td>A4i, A4ii, B1i, B2, B3</td>
</tr>
<tr>
<td>022</td>
<td>051</td>
<td>PL106</td>
<td>Nietlickie marshes</td>
<td>1,200</td>
<td>A1, A4i, B1i, B1x, B2, B3</td>
</tr>
<tr>
<td>023 —</td>
<td>—</td>
<td>Pisz forest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>024</td>
<td>053</td>
<td>PL027</td>
<td>Augustów forest</td>
<td>102,000</td>
<td>B2</td>
</tr>
<tr>
<td>025</td>
<td>083</td>
<td>PL100—</td>
<td>Biebrza river valley</td>
<td>126,047</td>
<td>A1, A4i, B1i, B2, B3</td>
</tr>
<tr>
<td></td>
<td>PL102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>026</td>
<td>084</td>
<td>—</td>
<td>Narew river gaps</td>
<td>4,200</td>
<td>A1, B2</td>
</tr>
<tr>
<td>027</td>
<td>085</td>
<td>PL098</td>
<td>Marszy valley of the Narew river</td>
<td>9,332</td>
<td>A1, B2</td>
</tr>
<tr>
<td>028</td>
<td>086</td>
<td>PL099</td>
<td>Krzyżyński forest</td>
<td>110,000</td>
<td>B2, B3</td>
</tr>
<tr>
<td>029 —</td>
<td>—</td>
<td>Greshold—Michałowo basin</td>
<td>Niecka Gдресеđko—Michałowo</td>
<td>4,700</td>
<td>A1, B2</td>
</tr>
<tr>
<td>030 —</td>
<td>—</td>
<td>Upper Narew river valley</td>
<td>Dolna Górnej Narwi</td>
<td>8,400</td>
<td>A1, B2, B3</td>
</tr>
<tr>
<td>031</td>
<td>089</td>
<td>PL097</td>
<td>Białowieża forest</td>
<td>62,500</td>
<td>A1, A4i, B1, B2</td>
</tr>
<tr>
<td>032</td>
<td>030</td>
<td>PL039</td>
<td>Warta flood-plain—Słotn</td>
<td>4,244</td>
<td>A1, A4i, A4ii, B1i, B2, B3</td>
</tr>
<tr>
<td>033</td>
<td>031</td>
<td>PL035</td>
<td>Noteć river flood-plain</td>
<td>10,000</td>
<td>A1</td>
</tr>
<tr>
<td>034</td>
<td>040</td>
<td>PL033</td>
<td>Obra river flood-plain</td>
<td>16,000</td>
<td>B2</td>
</tr>
<tr>
<td>035</td>
<td>041</td>
<td>PL045</td>
<td>Włosień reservoir</td>
<td>900</td>
<td>B2</td>
</tr>
<tr>
<td>036</td>
<td>066</td>
<td>PL031</td>
<td>Middle Warta river valley</td>
<td>32,000</td>
<td>A1, A4i, B1i, B2</td>
</tr>
<tr>
<td>037 —</td>
<td>—</td>
<td>Ostiaweł and Smogulec ponds</td>
<td>Stawy Ostrowek &amp; Smogulec</td>
<td>1,000</td>
<td>B1i</td>
</tr>
<tr>
<td>038 —</td>
<td>—</td>
<td>Ślesin and Występ ponds</td>
<td>Stawy Ślesin &amp; Wstęp</td>
<td>3,200</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>039 —</td>
<td>—</td>
<td>Lower Wiśla river</td>
<td>Dolna Dolnej Wisły</td>
<td>32,000</td>
<td>A1, A4i, A4ii, B1i, B2</td>
</tr>
<tr>
<td>040 —</td>
<td>—</td>
<td>Marszy valley of the Drwęca river</td>
<td>Dolina Dąbrowsy Drwęcy</td>
<td>3,400</td>
<td>B1i</td>
</tr>
<tr>
<td>041 —</td>
<td>—</td>
<td>Gropio Millennium Park</td>
<td>Nadpopławski Park Świąteczecia</td>
<td>12,700</td>
<td>A4i, A4ii, B1i, B2</td>
</tr>
<tr>
<td>042</td>
<td>044</td>
<td>PL028</td>
<td>Rakotowskie swamps</td>
<td>800</td>
<td>A4ii, B1</td>
</tr>
<tr>
<td>043 —</td>
<td>—</td>
<td>Not river valley</td>
<td>Dolna Neru</td>
<td>4,800</td>
<td>A1</td>
</tr>
<tr>
<td>044 —</td>
<td>—</td>
<td>Jezioro reservoir</td>
<td>Zbiornik Jezioro</td>
<td>4,300</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>045</td>
<td>060</td>
<td>PL122</td>
<td>Kampinos forest</td>
<td>35,700</td>
<td>A1, B2, B3</td>
</tr>
<tr>
<td>046</td>
<td>061</td>
<td>PL086</td>
<td>Middle Warta river valley</td>
<td>19,000</td>
<td>A1, A4i, B1i, B2</td>
</tr>
<tr>
<td>047</td>
<td>058</td>
<td>PL120</td>
<td>Zegrzyński reservoir</td>
<td>12,000</td>
<td>A4ii, B1i</td>
</tr>
<tr>
<td>048 —</td>
<td>—</td>
<td>Olmów river valley</td>
<td>Dolna Ołmów</td>
<td>6,000</td>
<td>A1, B2</td>
</tr>
<tr>
<td>049</td>
<td>059</td>
<td>PL121</td>
<td>Biała forest</td>
<td>120,000</td>
<td>A1, B2</td>
</tr>
<tr>
<td>050</td>
<td>063</td>
<td>PL094</td>
<td>Liwia river valley</td>
<td>11,800</td>
<td>A1, B2</td>
</tr>
<tr>
<td>051 —</td>
<td>—</td>
<td>Lower Bug river valley</td>
<td>Dolna Dolnego Buga</td>
<td>55,000</td>
<td>A1, B2</td>
</tr>
<tr>
<td>052</td>
<td>055</td>
<td>PL044</td>
<td>Przemków ponds</td>
<td>1,046</td>
<td>A4ii, B2</td>
</tr>
<tr>
<td>053</td>
<td>057</td>
<td>PL046</td>
<td>Odra riverine forests</td>
<td>18,000</td>
<td>A1, B2, B3</td>
</tr>
<tr>
<td>054</td>
<td>072-077</td>
<td>PL047—</td>
<td>Barycz river valley</td>
<td>25,700</td>
<td>A1, A4ii, B1i, B2, B3</td>
</tr>
<tr>
<td></td>
<td>PL052</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>055 —</td>
<td>—</td>
<td>Slup reservoir</td>
<td>Zbiornik Slup</td>
<td>500</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>056 —</td>
<td>—</td>
<td>Metków reservoir</td>
<td>Zbiornik Metków</td>
<td>920</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>057</td>
<td>079</td>
<td>PL053</td>
<td>Crak-humbreum forests in the Odra valley</td>
<td>31,000</td>
<td>B2, B3</td>
</tr>
<tr>
<td>058</td>
<td>080</td>
<td>PL057</td>
<td>Tatarów reservoir</td>
<td>2,200</td>
<td>A4ii, B1</td>
</tr>
<tr>
<td>059</td>
<td>091</td>
<td>PL054</td>
<td>Ołtuchów reservoir</td>
<td>2,300</td>
<td>A4ii, A4ii, B1i</td>
</tr>
<tr>
<td>060</td>
<td>092</td>
<td>PL055</td>
<td>Nysa reservoir</td>
<td>3,000</td>
<td>A4ii, A4ii, B1i</td>
</tr>
<tr>
<td>061</td>
<td>098</td>
<td>PL060,</td>
<td>Upper Wiśla river valley</td>
<td>130,000</td>
<td>A1, A4ii, B1i, B2</td>
</tr>
<tr>
<td></td>
<td>PL061</td>
<td></td>
<td>Dolna Górnej Wisły</td>
<td></td>
<td></td>
</tr>
<tr>
<td>062 —</td>
<td>—</td>
<td>Middle Nida flood-plain</td>
<td>Rogoźnicka Śródeckiej Nidy</td>
<td>2,000</td>
<td>A1</td>
</tr>
<tr>
<td>063</td>
<td>095</td>
<td>PL085</td>
<td>Małopolska Wiśla river gap</td>
<td>1,300</td>
<td>B2</td>
</tr>
<tr>
<td>064</td>
<td>092</td>
<td>PL090</td>
<td>Tyśmienica river valley</td>
<td>14,500</td>
<td>A1, B2, B3</td>
</tr>
<tr>
<td>065</td>
<td>093</td>
<td>PL084</td>
<td>Parczew forests</td>
<td>8,000</td>
<td>A1, B2</td>
</tr>
</tbody>
</table>
### Table 1 ... continued. Summary of Important Bird Areas in Poland

<table>
<thead>
<tr>
<th>IBA code</th>
<th>National code 1</th>
<th>1989 code</th>
<th>International name</th>
<th>National name</th>
<th>Administrative region</th>
<th>Area (ha)</th>
<th>Criteria (see p. 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>066 097</td>
<td>PL082</td>
<td></td>
<td>Bubnów marshes</td>
<td>Bagnio Bubnów</td>
<td>lubelskie</td>
<td>2,104</td>
<td>A1, B2</td>
</tr>
<tr>
<td>067 100</td>
<td>—</td>
<td>Middle Bug river valley</td>
<td>Dolina Środkowego Bugi</td>
<td>lubelskie</td>
<td>5,100</td>
<td>A1, B2, B3</td>
<td></td>
</tr>
<tr>
<td>068 098</td>
<td>PL081</td>
<td></td>
<td>Chełm calcareous marshes</td>
<td>Chełmskie Torfowiska Węglanowe</td>
<td>lubelskie</td>
<td>1,700</td>
<td>A1, B2, B3</td>
</tr>
<tr>
<td>069 099</td>
<td>—</td>
<td>Stiezelke forests</td>
<td>Lasy Stiezelke</td>
<td>lubelskie</td>
<td>8,500</td>
<td>B2, B3</td>
<td></td>
</tr>
<tr>
<td>070 110</td>
<td>—</td>
<td>Niepolomice forest</td>
<td>Puszcza Niepolomicka</td>
<td>małopolskie</td>
<td>11,000</td>
<td>B3</td>
<td></td>
</tr>
<tr>
<td>071 112</td>
<td>PL067</td>
<td></td>
<td>Gorce mountains</td>
<td>Gorce</td>
<td>małopolskie</td>
<td>7,030</td>
<td>B2, B3</td>
</tr>
<tr>
<td>072 113</td>
<td>PL065</td>
<td></td>
<td>Tatry mountains</td>
<td>Tatry</td>
<td>małopolskie</td>
<td>21,164</td>
<td>A1, B2, B3</td>
</tr>
<tr>
<td>073 111</td>
<td>PL073, PL074</td>
<td></td>
<td>Janów forests</td>
<td>podkarpaccie, lubelskie</td>
<td>50,000</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>074</td>
<td>—</td>
<td>Solska Forest Landscape Park</td>
<td>Park Krakowsko-Puszczy Sokolskie</td>
<td>podkarpaccie, lubelskie</td>
<td>28,980</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>075</td>
<td>—</td>
<td>Przemysl Plateau Landscape Park</td>
<td>Park Krakowsko-Pogórze Przemyskiego</td>
<td>podkarpaccie, lubelskie</td>
<td>62,000</td>
<td>A1, B2, B3</td>
<td></td>
</tr>
<tr>
<td>076 112</td>
<td>PL080</td>
<td></td>
<td>Starzawa ponds</td>
<td>Stawy Starzawskie</td>
<td>podkarpaccie, lubelskie</td>
<td>950</td>
<td>Aii, ii, B3</td>
</tr>
<tr>
<td>077 118</td>
<td>PL077</td>
<td></td>
<td>Bieszczady mountains</td>
<td>Bieszczady mountains</td>
<td>podkarpaccie, lubelskie</td>
<td>11,000</td>
<td>A1, B2, B3</td>
</tr>
</tbody>
</table>

1. Gumłaki et al. (1994)

Sites identified in the previous inventory of IBAs in Europe (Grimmett and Jones 1989) but no longer considered to be IBAs:

- PL002 Załęż Kamienne (Kamień Bay); PL003 Jezioro Liwia Łuża (Lake Liwia Łuża); PL004 Bagna doliny rzek Swiniec i Niemica (Marshes in the valley Swiniec and Niemica); PL006 Łąki Skośnowskie (Skośnow Meadow); PL008 Jezioro Karpino (Lake Karpino); PL014 Dąbrówka Park Krakowsko-Podkarpacki (Dąbrówka Landscape Park); PL015 Jeziora Ścierczak (Lake Ścierczak); PL016 Okolice Zdzieja—Biłgoraj Boru (Zdzieja—Biłgoraj Forest region); PL017 Kościelisko i dąbki pas nad moniki (coastal area of Koszalin and Slupsk); PL020 Jeziora Krzywiąk–Szczytynskie (Lakes Krzywiąk and Szczytyn and surrounding region); PL021 Bielskie Biłki (Bielawy Biełk); PL023 Jezioro Karaz (Lake Karaz); PL030 Krakowskie Blota (Kramskie Marshes); PL031 Dolina Warty kolo Kąpkowa (River Warta valley near Kąpkowa); PL036 Jezioro Wielkie (Lake Wielkie); PL037 Dolina Warty kolo Santok (River Warta valley near Santok); PL038 Ujście Noteci (Mouth of River Noteć); PL040 Dolina Leniwej Obry (Leniwa Obra valley); PL041 Jeziora Chobienickie (Chobienickie Lakes); PL042 Pojezierze Sławieńskie (Sławieńskie Lakes); PL043 Stawy rybne Dątuska (Dątuska fish-ponds); PL056 Stawy rybne w Niemodlinie: zespół Dątuska (Niemodlin fish-ponds: Dątuska complex); PL058 Stawy rybne Łęczacz (Łęczacz fish-ponds); PL059 Zbiornik Świętokrzyski (Świętokrzyski Reservoir); PL062 Zespół stawów rybnich w Przemęcie i Spytowicach (Przemęcze and Spytowice fish-pond complex); PL063 Ojcowski Park Narodowy (Ojców National Park); PL064 Rabiejócki Park Narodowy (Rabiejów National Park); PL066 Piemien Park Narodowy (Piemien National Park); PL068 Zespół stawów w Górkach (Górki fish-pond complex); PL069 Zespół stawów rybnich w Młodowsie (Młodowice fish-pond complex); PL070 Zespół stawów rybnich koło Grobl (Grobla fish-pond complex); PL071 Stawy rybne w Ościerzynach (Ościerzyn fish-ponds); PL072 Zespół stawów rybnich w Budzie Stalowej (Buda Stalowska fish-pond complex); PL073 Stawy rybne w Porębach Kupińskich (Poręby Kupińskie fish-ponds); PL076 Zbiornik Rzeczowski (Rzeczów Reservoir); PL077 Zbiornik Przemyski (Przemysł fish-ponds); PL079 Starorzecze Sanu koło Hurka (Former bed of River San, near Hurka); PL083 Jezioro Uciechów i przyległe torfowiska (Lake Uciechów and adjacent peat-bogs); PL087 Dolina Polic (River Polic valley); PL088 Zbiornik Sulęciowski (Sulęcin Reservoir); PL089 Ujście Rybne Mysłajsko (Ujście Rybne Mysłajsko: reservoir and forest); PL091 Bagna Czarnica; PL092 kompleks Krzyżkaszcz (Krzyczewcz forest complex); PL093 Zespół stawów rybnich koło Kotorz (Kotorz fish-pond complex); PL096 Łasy Lochockie (Lochockie forests); PL103 Jezioro Dobie (Dobie lake); PL107 Półwysp Czarny Róg (Czarny Róg Peninsula); PL110 Batory Wielkie; PL112 Łasy Łaskie (Łaskie forests); PL113 Dolina Czarny (River Czarny valley); PL115 Gilcica; PL116 Dolina rzeki Orzyc; PL117 Dolina Mławska (River Mławska valley); PL118 Łuki Raczyce (Raczyce Meadows); PL119 Łasy Olszowisko (Olszowisko forest complex); PL121 Stawy rybne koło Łęczica/Stawy Mysłaków (Łęczica and Mysłaków fish-ponds); PL124 Stawy rybne Ołęt i Rysów (Ołęt and Rysów fish-ponds); PL125 Stawy rybne Walewice (Walewice fish-ponds); PL126 Stawy rybne Psary (Psary fish-ponds).

**Map 1. Location, area and criteria category of Important Bird Areas in Poland.**
The vast extent of wetlands in Poland is reflected in the country’s importance for congregatory waterbirds (Table 3), particularly during the breeding and migration seasons. These IBAs are most up-to-date for waterbirds and raptors. Also, the individual site count for a species may be the maximum or average over recent years, and summing these may record more birds than are present in the national population estimate has not been updated recently whilst the IBA population is most significant breeding populations at Important Bird Areas in Poland (Table 4).
Poland holds the largest national breeding population of *Ciconia ciconia* in the world, estimated at more than 40,000 pairs, and other species of non-intensive agricultural landscapes, e.g. *Hirundo rustica*, are also very common. The large rivers in Poland have a semi-natural character and hold important numbers of breeding *Larus canus* and *Sterna albifrons*, nesting in their natural habitat (sandy river islands).

Other SPECs that have an unfavourable conservation status in Europe (Tucker and Heath 1994) and that have important breeding populations in Poland include *Botaurus stellaris* (1,100–1,400 pairs), *Aquila pomarina* (1,600–1,800 pairs), *Perdix perdix* (250,000–1,500,000 pairs), *Chlidonias niger* (5,000–7,000 pairs), *Alcedo atthis* (4,000–8,000 pairs), *Alula arvensis* and *Riparia riparia*. In addition, the following SPECs (which have a favourable status in Europe but are concentrated there on a global scale) also breed in Poland in important numbers: *Aythya ferina*, *Colomba palumbus*, *Sterix aluco*, *Dendrocopos medius*, *Luscinia luscinia*, *Saxicola rubetra*, *Locustella fluviatilis*, *Locustella luscinioides*, *Acrocephalus palustris*, *Sylvia nisoria*, *Sylvia communis* and *Emberiza citrinella*.

Fourteen out of the 77 IBAs qualify solely under the B2 or B3 criteria (Table 1). Although the national breeding populations of some SPECs are well covered by the IBA network in Poland, those of other SPECs are not (Table 4). The latter group of species (e.g. *Ciconia ciconia*) tend to be well dispersed over the countryside when breeding and, at least during this season, cannot be adequately conserved in Poland by a system of IBAs or protected areas. For these species, habitat conservation measures for the wider countryside are needed (Tucker and Evans 1997).

**HABITATS**

Before the advent of man, most of Poland was forested and open habitats were limited. Today Poland is an agrarian country, with open agricultural landscapes covering 60% of its area. Small farms of 5–10 ha are the most numerous type of land-holding in many regions, and arable fields are often very small, creating a very diverse mosaic together with other landscape features. In the last decade the amount of abandoned farmland has increased, involving both small farms all over the country as well as large ones (previously state farms) mostly in the north. Part of the abandoned farmland has been afforested, but much has been left fallow and is now in the process of reverting naturally to scrub and woodland. Agricultural habitats are mainly represented in the IBA network by ‘Grassland’ and ‘Artificial landscape’ (Figure 1), although not in as high a proportion as the national total.

Forest and woodland currently cover 29% of the country, although only 19% of this growth is older than 80 years. More than 75% of forest is coniferous at present but the deciduous proportion has been increasing in recent decades. In the north-east there are still tracts of natural forest (some large in comparison with other European countries) dominated by broadleaved deciduous species (especially oak *Quercus*, lime *Tilia* and hornbeam *Carpinus*), while in the south there are fragments of more montane forest-types. Forest habitats are well represented within the IBA network (Figure 1).

Mires are still extensive, and cover 1.5 million ha (4.2% of the country). The most widespread are fens, comprising 89% of the total area, although many have already been drained and are used as hay-meadows and pastures; raised bogs comprise 6.5% and transitional mires 4.5%. Small mires (less than 10 ha) are the norm. The largest intact mires (undrained or incompletely drained) are in the north-east, in the Narew and Biebrza river basins.

Standing water covers about 1.5% of the national surface area. The country is relatively rich in lakes—there are 5,600 over 1 ha in size—which are clustered into a number of ‘lakelands’, mainly in the north. There are also some large lagoons along the Baltic coast. Several large rivers run through Poland into the Baltic Sea, e.g. the Odra (Oder), the Wisła (Vistula) and its tributaries the Narew and Bug. These rivers are relatively unregulated, being in many areas not isolated from their flood-plains by embankments, and they thus have a diverse physical structure. In a few areas, e.g. along the Odra river, some good-quality tracts of natural flood-plain forest have also been preserved. Wetlands are disproportionately well represented in the IBA network in Poland (Figure 1), due to their ease of definition as discrete sites and their great importance for congregatory waterbirds.

**IMPACTS ON IBAs – LAND-USE AND THREATS**

Agriculture is the most widespread land-use in Poland, covering about 55% of the country, with about five times more land devoted to arable cultivation as to livestock-grazing. Forestry is the second largest sector in terms of national area covered. These two main land-uses also dominate within the Polish IBA network (Figure 2). However, the relatively high preponderance of water-related uses at IBAs does not reflect national land-cover statistics, since wetlands cover a mere c.3% of the country. Thus, the importance of wetlands as IBAs is underlined. Figure 2 shows how widespread hunting is in the IBAs; the only types of land exempted from hunting in Poland are human settlements, Nature Reserves and National Parks.

The threats to birds and habitats at IBAs in Poland are presented in Figure 3. Generally speaking, there are three main threats to riverine sites. First, the current law aimed at the reduction of flooding, which results in the engineering of river channels, dam construction, and clear-felling of riverine forests. Second, the current plans to construct series of large dams on the Wisła and Odra rivers (cascadization). For example, the ‘Lower Vistula Cascade’ involves the creation of 8–10 dams along the lower Wisła, raising water-levels by the construction of side embankments. Third, the current plan to construct an ‘East–West Waterway’, for barges of up to 1,500 tonnes, to join Germany with the Dniepr river system via the Noteci, middle Wisła, Narew and Bug rivers. This would completely destroy the natural character of these major Polish rivers or, in the case of the Narew, at least seriously affect it.
The main threat to birds at fish-pond IBAs is the likelihood that fisheries will be abandoned as a result of economic changes, leading to the disappearance of these man-maintained wetlands. At agricultural IBAs, the main threat is posed by an anticipated change in the Polish farming system, away from the predominance of small, more or less sustainable farms towards a landscape dominated by large, intensive farms. The main threat at forest IBAs is the possible privatization and commercialization of forests in Poland, which continues to be proposed by some lobbies, and which would lead to intensified management including clear-felling, selective felling and afforestation with non-native species. The proposed network of new highways in Poland may also damage some IBAs, of various habitat-types, across the country.

In Figure 3, recreation is the most frequently cited threat to birds at IBAs, although this may be an overestimate since the impact is considered to be high at only three sites. On the other hand, the consequences of introduced animal species to IBAs may have been underestimated—mammalian predators such as American mink *Mustela vison* and raccoon-dog *Nyctereutes procyonoides*, introduced to Poland after the Second World War, may be important in determining the breeding numbers of many waterbird species in Poland in the long term.

**PROTECTION STATUS**

**National protection**

The main piece of national legislation relevant to the protection of sites for nature conservation is the 1991 Law on Nature Conservation which governs the general organization of nature conservation in Poland and which defines eight categories of protected area, listed below.

1. **National Park (Park Narodowy)**
   An area over 1,000 ha in size, with special values for science, nature, social life, culture and education, where the whole of nature and specific characteristics of landscape are protected. National Parks can have strictly protected and/or partially protected zones (Nature Reserves) within them, and have huge buffer zones. National Parks are designated by decision of the Council of Ministries, and each is managed by a board which reports to the Board of National Parks at the Ministry for Environment Protection, Natural Resources and Forestry. Park guards are organized and employed by each park’s board.

2. **Nature Reserve (Rezerwat Przyrody)**
   An area preserved for its valuable ecosystem, flora, fauna, vegetation, abiotic elements or landscape, either strictly (no management allowed) or partially (management allowed). Nature Reserves have buffer zones, and are designated by decision of the Minister for Environment Protection, Natural Resources and Forestry (up to 1998) or by a voivode (since 1999). They are administered by the owner (if estate is private) or by a manager (if land is state-owned) and supervised by a voivode. Only in some Nature Reserves are wardens employed by a voivode.

3. **Landscape Park (Park Krajobrazowy)**
   An area protected for its natural, cultural and historical values, under conditions of sustainable development and under prohibition of mineral exploitation, industrial development and urbanisation. Landscape Parks have buffer zones, and are designated by decision of a voivode. Each park is supervised by a board, which organizes and employs park guards.

4. **Protected Landscape Area (Obszar Chronionego Krajobrazu)**
   This is an area valuable for its landscape, designated by a voivode.

5. **Site for Geological Documentation (Stanowisko Dokumentacyjne Przyrody Nieożywionej)**
   A place of interest and importance for science or education, designated by a voivode.

6. **Ecological Area (Użytek Ekologiczny)**
   An area worthy of protection because of its high natural values, e.g. a small water-body, mire, clump of trees, area of dunes, oxbow lake, etc.; designated by a voivode.

7. **Natural Landscape Complex**
   An area protected because of its valuable natural or cultural landscape; designated by a voivode.

8. **Nature Monument (Pomnik Przyrody)**
   A valuable and interesting object or feature, such as a tree, cliff, rock, etc.; designated by a voivode.

‘Private reserves’, owned by private persons or non-governmental conservation bodies, are not recognised by Polish law unless they are officially designated as Nature Reserves. Sites classed as IBAs, or as other types of site under European conventions, do not have any legal status.

The protection status of IBAs in Poland is shown in Table 5 and in Figures 4 and 5. Those IBAs which are protected as National Parks or Nature Reserves are protected adequately, so long as the legal status of the designation is respected. The same is true for IBAs protected as Landscape Parks, although the application of this designation has only recently commenced in Poland.
### Table 5. Protection status of Important Bird Areas in Poland.

A tick (✓) indicates that an IBA overlaps with a protected area (to any extent).

<table>
<thead>
<tr>
<th>IBA code name</th>
<th>National Park</th>
<th>Nature Reserve</th>
<th>Landscape Park</th>
<th>Marine Park</th>
<th>Ecological Area</th>
<th>Important Bird Areas</th>
<th>Partial</th>
<th>High</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>δ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>67 IBAs (87%)</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>97</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Of the other designations, only Ecological Areas have real meaning and value in protecting IBAs. This designation has been used in two main ways. In the past (although no longer), it was used as a preliminary protection measure, to quickly achieve protection for an area definitely proposed as a Nature Reserve. This was because the bureaucracy at the voivodeship level was less complex than at the ministerial level, and the application could therefore be concluded in a short period. The second, and very important, way in which the designation has been used is to avoid an obligatory duty to economically manage any area of land in the country. For instance, according to regulations any forested peatbog was classed as wasteland, and the forestry authorities were therefore obliged to drain it and then attempt afforestation. By declaring the site as an Ecological Area, the authorities were able to avoid this management obligation and leave the area undamaged.

International protection
Poland has ratified all of the international conventions relevant to site protection for nature conservation (Box 1). Such global designations, e.g. Ramsar Sites, World Heritage Sites and Biosphere Reserves, have legal status, although this does not mean that better protection follows such designation (Figure 5, Table 5).

CONSERVATION

- The data in this chapter originate from a variety of mostly local or regional projects, and were not collected specifically for the IBA inventory. An IBA-oriented data-gathering project started in 1998 (run by OTOP) but is limited to the Baltic coast and the adjacent Pomeranian lakeland. In the last decade country-wide censuses were carried out for only a few bird species: for Ciconia ciconia by ProNatura (a non-governmental organisation based in Wroclaw) during 1994–1995, for Accrocephalus paludicola by OTOP during 1993 and 1997, for Crex crex by OTOP during 1997 and 1998, and for Cygnus olor by Gdansk Ornithological Station in 1998. Annual censusing of the nests of large raptors and Accipiter gentilis has been carried out by the Eagle Protection Committee (a non-governmental organisation based in Olsztyn) since the mid-1980s. This is the only country-wide ornithological monitoring project in Poland at the moment. There are many local monitoring projects, oriented towards species or habitats, run by various institutions.

- Management plans exist, or are in preparation, for all National Parks, and some have already been implemented. Such plans are also obligatory for Nature Reserves and Landscape Parks, and many have already been prepared (of which only a few are for Landscape Parks so far), but this process is still in full flow. If the management plan for a Landscape Park is prepared and signed by a voivode, its implementation is obligatory for communes (the administrative unit below the voivode), which means that it may be a very powerful tool for real protection.

- The nest-sites of 11 species of raptor and Ciconia nigra are protected efficiently by the designation of protection zones around their nests, and such zones are incorporated into the management plans of forest superintendencies. However, the protection zones declared by law for Tetrao urogallus, Tetrao tetrix, Busbus ovicolum, Merops apiaster and Coracius garrulus are of no practical help in protecting these species. A country-wide nest-protection scheme for Ciconia ciconia is run by ProNatura and a similar scheme for Pandion haliaetus is run by the Eagle Protection Committee.

- OTOP carries out habitat management at Karsiborska Kępa (part of site 001) for breeding waders and Accrocephalus paludicola, and at Beka Nature Reserve (part of site 012) for breeding waders, amongst other sites. A national action plan is being prepared by OTOP for the management of habitat for Accrocephalus paludicola.

- OTOP is involved in campaigns, in cooperation with other Polish NGOs, for the designation of the entire Polish part of the Białowieża forest as a National Park; against the construction of a long series of dams along the middle and lower Wisła river (the ‘Lower Vistula Cascade’), against a similar series of dams along the Odra river; and against the siting of the Winter Olympic Games 2006 in the Tatras mountains.

- The most urgent tasks in the near future are to prepare and implement management plans for all Nature Reserves and Landscape Parks of importance for birds, to increase the amount of the national IBA network which is covered by officially designated protected areas, to create and implement IBA monitoring and care-taking schemes, and to implement ornithological monitoring over the whole country.

ANALYTICAL METHODS

- The numbers quoted for breeding pairs are yearly maxima (given as a range when there are data for a series of years), those for passage and wintering birds are daily maxima.

- The administrative regions listed are voivodeships (provinces) and refer to the situation as from 1 January 1999; before this date, a different system of regions was in place.

- For some IBAs, the only available information was in Gromadzki et al. (1994). In such cases, data are less complete—fewer bird species are listed, and information on the number of pairs or individuals is lacking.

- Most of the original data used in this inventory were gathered during the period 1994–1997. In a few cases only (e.g. sites 021, 025, 047, 049), the data used are mainly from the late 1980s.

- Information on threats is given as provided by contributors, and may therefore depend on subjective judgements in some instances.

- As a rule, the information on threats relates to recent years. For all National Parks, this information is up-to-date.

- In the period during which data were being collected for this inventory, new parks, reserves and other protected areas have been established and the protection status of IBAs has been changing accordingly. This process has not been completed yet, and is still going on. The numbers quoted for breeding pairs are yearly maxima (given as a range when there are data for a series of years), those for passage and wintering birds are daily maxima.

GLOSSARY

IUCN The World Conservation Union

OTOP Ogólnopolskie Towarzystwo Ochrony Ptaków—the Polish Society for the Protection of Birds—the Partner Designate of BirdLife International in Poland (a registered charity with headquarters in Gdansk).

voivode the person in charge of a province (voivodeship).

voivodeship a province; the most recent regulation, in 1999, divides Poland into 16 voivodeships.

WCU Wetland Conservation Unit of IUCN.

ACKNOWLEDGEMENTS

We are grateful to the following people, who kindly submitted materials from which the IBA site-accounts were compiled: Artur Adamski, Wiesław Bagiński, Magdalena Bartoszewska, Piotr Barsanowski, Jan Bednorz, Jacek Beliau, Paweł Bielecki, Wojciech Błoniarski, Grzegorz Bobrowicz, Tomasz Brauze, Alicja Buczek, Tomasz Buczek, Dorota Bukaćkisca, Dariusz Bukacinski, Stanisław Burdziej, Zdzisław Cenian, Sławomir Chmielewski, Przemysław Chylarecki, Włodzimierz Cichocki, Marian Cieślak, Andrzej Czapulak, Ryszard Czereszkiewicz, Cezary Ćwikowski, Barbara Diefel, Kazimierz Dobrowolski, Paweł T. Dolata, Andrzej Dombrowski, Andrzej Dyrcz, Jacek Enge, Piotr Indykiewicz, Tomasz Janiszewski, Zbigniew Jaszcz, Stanisław Jazdyk, Marek Kalisiński, Robert...

**Delta of the Świna river**

**Site description**

A delta (growing in the direction of Szczecin lagoon) which contains natural and artificial channels of the Świna river, with numerous islands. The site also covers the south-west coast of Wolin island and the south-east part of Uznam island adjoining the Piastowski channel. The plant community is very rich. Most of the forest is old-growth (130–150 years), dominated by alder **Alnus** argentatus (two pairs). A total of 140 bird species have been recorded breeding.

**Protection status**

National Partial International None

2,000 ha of IBA covered by National Park (Woliński, 10,937 ha).

**Conservation issues**

Threats: Abandonment/reduction of land management (A), Agricultural intensification/expansion (B), Aquaculture/fisheries (B), Deforestation (commercial) (U), Disturbance to birds (C), Industrialization/urbanization (A), Infrastructure (A), Recreation/tourism (B).

Threats include the expansion of reedbeds onto saltmarsh following reductions in grazing, and unsuitable forestry practices (clear-cutting). Birds are disturbed by fishermen, tourism and forestry. Eggs of **Larus argentatus** are sometimes stolen from the colonies (probably by fox farmers), causing disturbance to birds. A part of the IBA (Karsiborska Kęp, 180 ha) is managed by OTOP (the concept of ‘private reserve’ does not exist in current Polish law). OTOP projects here are: (1) Distribution, numbers and habitat selection of **Acrocephalus paludicola** (as part of a wider BirdLife International project); (2) action plan for plant community; (3) permanent study of bird numbers and distribution. Projects by the West Pomeranian Ornithological Society include inventory of breeding and migrating birds (June–August 1995).

---

**Szczecin lagoon**

**Site description**

The Polish part of Szczecin lagoon. The waters are shallow (mean depth 2–3 m) and extremely productive in fish, with high density of benthic organisms. Aquatic plants dominate in places, and shores are covered by reedbeds **Phragmites** and rushes **Scirpus**. The lagoon is used for shipping.

**Habitats**

Grassland (humid grassland), Wetland (100%; standing fresh water; water-fringe vegetation; fen/transition mire/spring)

**Land-use**

Fisheries/aquaculture (50%), Tourism/recreation (40%), Urban/industrial/transport (10%)

**Threats**

Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Industrialization/urbanization (U), Recreation/tourism (U)

The lagoon is heavily polluted by industry, domestic and agricultural sewage.

**Protection status**

National None International None

**Conservation issues**

Threats: Abandonment/reduction of land management (A), Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Deforestation (commercial) (U), Disturbance to birds (C), Industrialization/urbanization (A), Infrastructure (A), Recreation/tourism (B).

---

**Important Bird Areas in Europe – Poland**

**Delta of the Świna river**

**Site accounts**

**Admin region**: zachodnio-pomorskie

**Coordinates**: 53°50'N 14°20'E

**Altitude**: 0–10 m

**Area**: 4,000 ha

**Habitats**

Forest and woodland (15%, native coniferous forest; alluvial/wet forest), Grassland (10%; humid grassland), Wetland (75%; saltmarsh; standing fresh water; river/stream; water-fringe vegetation), Artificial landscape (5%; ruderal land)

**Land-use**

Agriculture (30%), Fisheries/aquaculture (10%), Forestry (5%), Nature conservation/research (5%), Other (10%), Tourism/recreation (10%)

**Threats**

Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Industrialization/urbanization (U), Recreation/tourism (U)

---

**Szczecin lagoon**

**Site accounts**

**Admin region**: zachodnio-pomorskie

**Coordinates**: 53°46'N 14°28'E

**Altitude**: 20–20 m

**Area**: 48,000 ha

**Habitats**

Grassland (humid grassland), Wetland (100%; standing fresh water; water-fringe vegetation; fen/transition mire/spring)

**Land-use**

Fisheries/aquaculture (50%), Tourism/recreation (40%), Urban/industrial/transport (10%)

**Threats**

Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Industrialization/urbanization (U), Recreation/tourism (U)

---

**SITE ACCOUNTS**

**Delta of the Świna river**

**Species**

**Year**

**Pop min**

**Pop max**

**Acc**

**Criteria**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amer alam</strong> Greylag Goose</td>
<td>W</td>
<td>1993</td>
<td>2,000</td>
<td>2,000</td>
<td></td>
<td>B1i</td>
</tr>
<tr>
<td><strong>Anas strepera</strong> Gadwall</td>
<td>B</td>
<td>1993</td>
<td>50</td>
<td>57</td>
<td>A2</td>
<td></td>
</tr>
<tr>
<td><strong>Mergus albellus</strong> Mergiez</td>
<td>W</td>
<td>1993</td>
<td>2,000</td>
<td>1,500</td>
<td>A6i</td>
<td></td>
</tr>
<tr>
<td><strong>Mergus merganer</strong> Goosander</td>
<td>W</td>
<td>1993</td>
<td>6,000</td>
<td>4,000</td>
<td>A4i</td>
<td></td>
</tr>
<tr>
<td><strong>Locustella loricóide</strong> Sav's Warbler</td>
<td>B</td>
<td>1993</td>
<td>2,000</td>
<td>1,000</td>
<td>A1</td>
<td></td>
</tr>
<tr>
<td><strong>Acrocephalus paludicola</strong> Aquatic Warbler</td>
<td>B</td>
<td>1993</td>
<td>169</td>
<td>182</td>
<td>A1</td>
<td></td>
</tr>
</tbody>
</table>

**Protection status**

National None International None

**Conservation issues**

A very attractive area for breeding, migrating and wintering birds with very rich food sources available. Breeding species of global conservation concern that do not meet IBA criteria: Crec crex (two pairs). A total of 140 bird species have been recorded breeding.

**Important Bird Areas in Europe – Poland**

**Rozwarcowo marshes**

**Site description**

The marshy valley of the Grzybnica and Wloćzenia rivers, containing numerous channels. There are considerable areas of fen with large stretches covered with reedbeds **Phragmites** and wet, flooded meadows; bushes of alder **Alnus** are abundant. Land-uses include cattle-farming.

**Habitats**

Grassland (20%; humid grassland), Wetland (75%; standing fresh water; river/stream; fen/transition mire/spring)

**Land-use**

Agriculture (80%), Hunting (10%), Not utilized (10%)

551
A total of 151 species have been recorded, 107 as breeders.

**Protection status**
National None International None

**Conservation issues**

<table>
<thead>
<tr>
<th>Threats</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural intensification/expansion (U)</td>
<td></td>
</tr>
<tr>
<td>Drainage (U)</td>
<td></td>
</tr>
<tr>
<td>Dredging/canalization (U), Infrastructure (U)</td>
<td></td>
</tr>
</tbody>
</table>

Effluent from cattle-farming is a threat. In 1993 part of the marshes were altered by reedbed planting, damaging the habitat for breeding _Acreephila paludicola_ (immediately before the damage there were 40–60 singing males). New roads are making access to the marshes easier for anglers and poachers.

**Birds**

Species | Season | Year | Pop min | Pop max | Acc | Criteria |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anser albifrons</em> Bean Goose</td>
<td>P</td>
<td>1993</td>
<td>5,000</td>
<td>—</td>
<td>—</td>
<td>B1i</td>
</tr>
<tr>
<td><em>Anser fabalis</em> White-fronted Goose</td>
<td>P</td>
<td>1993</td>
<td>8,000</td>
<td>—</td>
<td>—</td>
<td>B1i</td>
</tr>
<tr>
<td><em>Crex crex</em> Crane</td>
<td>N</td>
<td>110</td>
<td>250</td>
<td>—</td>
<td>B1i</td>
<td></td>
</tr>
<tr>
<td><em>Bittern</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| _Haleatus albicilla_ (1 pair feeds in the area, nesting nearby), _Crex crex_ (1–3 pairs).

Species of global conservation concern that do not meet IBA criteria: _Haliaeetus albicilla_ (one breeding pair), _Haleatus albicilla_ (one pair feeds in the area, nesting nearby).

**Protection status**
National High International High

900 ha of IBA covered by Nature Reserve (Świdwie, 900 ha). 900 ha of IBA covered by Ramsar Site (Świdwie, 900 ha).

**Conservation issues**

Recent information (March 1998) indicates that all known threats to Świdwie lake have been removed. Previously these had been (1) drainage in the surrounding area in 1976 (40% of water supply lost), (2) agricultural effluent, which had been causing strong nutrient pollution of the lake, and (3) hunting in the surrounding area which had been disturbing birds within the site. An EU-funded project being implemented in the area involves replacing the water lost in 1976. The new water supply will be stored at Zurawie reservoir, south of the lake, and cleaned there. According to the Nature Conservancy Officer hunting has also been stopped in the surrounding area.

**Birds**

Species | Season | Year | Pop min | Pop max | Acc | Criteria |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cygnus cygnus</em> Whooper Swan</td>
<td>W</td>
<td>1995</td>
<td>20</td>
<td>100</td>
<td>A</td>
<td>B3</td>
</tr>
</tbody>
</table>

Species of global conservation concern that do not meet IBA criteria: _Aythya nyroca_ (one breeding pair), _Haleatus albicilla_ (one pair feeds in the area, nesting nearby).

**Protection status**
National None International None

**Conservation issues**

<table>
<thead>
<tr>
<th>Threats</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural intensification/expansion (U), Drainage (B), Infrastructure (B), Recreation/tourism (C), Selective logging/cutting (C), Unsustainable exploitation (C)</td>
<td></td>
</tr>
</tbody>
</table>

Water pollution from agriculture is a threat, as are drainage and recreation.

**Habitats**

Forest and woodland (8%); alluvial/very wet forest; Grassland (humid grassland), Wetland (90%; standing fresh water; river/stream; water-fringe vegetation; fen/transiton mire/spring), Artificial landscape (other urban/industrial areas; ruderal land)

**Land-use**

Agriculture (30%), Hunting (55%), Tourism/recreation (10%), Urban/industrial/transport (5%)

**Birds**

Species | Season | Year | Pop min | Pop max | Acc | Criteria |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cygnus cygnus</em> Whooper Swan</td>
<td>W</td>
<td>1995</td>
<td>20</td>
<td>100</td>
<td>A</td>
<td>B3</td>
</tr>
</tbody>
</table>

Species of global conservation concern that do not meet IBA criteria: _Aythya nyroca_ (one breeding pair), _Haleatus albicilla_ (one pair feeds in the area, nesting nearby).

**Protection status**
National None International None

**Conservation issues**

<table>
<thead>
<tr>
<th>Threats</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural intensification/expansion (U), Deforestation (commercial) (C), Drainage (B), Infrastructure (B), Recreation/tourism (C), Selective logging/cutting (C), Unsustainable exploitation (C)</td>
<td></td>
</tr>
</tbody>
</table>

Water pollution from agriculture is a threat, as are drainage and recreation.

**Habitats**

Forest and woodland (8%); alluvial/very wet forest; Grassland (humid grassland), Wetland (90%; standing fresh water; river/stream; water-fringe vegetation; fen/transiton mire/spring), Artificial landscape (other urban/industrial areas; ruderal land)

**Land-use**

Agriculture (30%), Hunting (55%), Tourism/recreation (10%), Urban/industrial/transport (5%)

**Birds**

Species | Season | Year | Pop min | Pop max | Acc | Criteria |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cygnus cygnus</em> Whooper Swan</td>
<td>W</td>
<td>1995</td>
<td>20</td>
<td>100</td>
<td>A</td>
<td>B3</td>
</tr>
</tbody>
</table>

Species of global conservation concern that do not meet IBA criteria: _Aythya nyroca_ (one breeding pair), _Haleatus albicilla_ (one pair feeds in the area, nesting nearby).
One of the most important places in Poland for roosting geese Anser and Grus grus on autumn passage, with up to 40,000–45,000 Anser fabalis and A. albifrons in the area.

**Protection status**
National Partial International None
31 ha of IBA covered by Nature Reserve (Kuwrowskie Błota, 31 ha). 30,850 ha of IBA covered by Landscape Park (Cedynia, 30,850 ha). 6,009 ha of IBA covered by Landscape Park (Dolina Dolnej Odry, 6,009 ha).

**Conservation issues**
Heavy water-pollution is a threat, originating from agriculture, industry (chemical, harbour operations, ships and energy) and domestic sewage (from local and upstream sources). Disturbance of birds also occurs.

**Miedwie lake**
Admin region zachodnio-pomorskie
Coordinates 53°16’N 14°52’E
Altitude — Area 3,200 ha

A large lake with a moderate level of nutrients, bordered to the south and west by extensive chalk fens and meadows, and to the east by adjoining alder Alnus forest. The Plonia river goes through the lake and flows into Dąbie lake. The lake is a drinking water reservoir for the city of Szczecin and also supports a fishery.

Habitats Scrub, Grassland (10%), humid grassland, Wetland (90%), standing fresh water; river/stream; fen/transition mire/spring.

Land-use Agriculture (30%), Fisheries/aquaculture (20%), Hunting, Water management (50%).

**Birds**
Species Season Pop min Pop max Acc Criteria
1. Anser albifrons Bean Goose P 1991 — — — — A4i, B1i
2. Anser fabalis White-fronted Goose P 1991 — — — — B1i
3. Crex crex Crex crex P 1993 — — — — A4i, B1i
4. Adana sandvicki White-tailed Eagle B 1997 3 4 — A1
5. Circus pygargus Circus pygargus P 1993 20 30 — A1

Up to 12,000–14,000 Anser fabalis and A. albifrons stage here in autumn, with up to 1,500 such birds in winter. Breeding species of global conservation concern that do not meet IBA criteria: Haliaetus albicilla (one pair feeds in the area, nesting nearby), Crex crex (one pair), Acrocephalus paludicola (nine singing males).

**Protection status**
National None International None

**Conservation issues**
Pollution from agricultural sources affects drinking water and poses a threat to the site.

---

**Important Bird Areas in Europe – Poland**

**Irisk Landscape Park**
Admin region zachodnio-pomorskie
Coordinates 53°24’N 15°30’E
Altitude 0–180 m Area 17,763 ha

**Site description**
Irisk Landscape Park protects the moraine landscape of the Irisk lake-lake. The site is drained by the Ina river and its tributaries and partly by the tributaries of the Rega river. There are 63 lakes, most of them flow-lakes. The largest is Irisko lake with a depth of 42 m and an extensive shoreline. Forest is widely distributed across the park and is dominated by broadleaved forest of Quercus/Fagus. In stagnant hollows there are many swamps and cave lakes.

**Birds**
Species Season Pop min Pop max Acc Criteria
1. Milvus milvus Red Kite B 1996 5 8 — B3
2. Circus pygargus Circus pygargus P 1993 20 30 — A1
3. Aquila chrysaetos Eagle B 1997 3 4 — — A1
4. Milvus milvus Red Kite B 1996 5 8 — — B3

Species of global conservation concern that do not meet IBA criteria: Crex crex (3–5 pairs).

**Protection status**
National High International None
79 ha of IBA covered by Nature Reserve (Golowacz, 79 ha). 11 ha of IBA covered by Nature Reserve (Kamienna Buczyna, 11 ha). 17,763 ha of IBA covered by Landscape Park (Iriski, 17,763 ha).

**Conservation issues**
There is some erosion of morainal areas by vehicle and foot traffic.

**Słowiński National Park**
Admin region pomorskie
Coordinates 54°41’N 17°16’E
Altitude 0–115 m Area 18,247 ha

**Site description**
The site protects a coastal landscape containing one of the largest areas of mobile sand-dunes in Europe (up to 40 m high), and three brackish coastal lakes, the largest being Lebsko (7,140 ha, 5–6 m deep) and the second largest Gardno (2,468 ha, 2–6 m deep). The lakes are surrounded by wet meadows, pastures, and forests of alder Alnus and oak Quercus, and are bordered by extensive beds of reed Phragmites and reed-mace Typha. The Łupawa and Leba rivers flow in to the lakes. Some hollows between dunes are covered by pioneer plant communities and by heathland in various stages of development.

**Birds**
Species Season Pop min Pop max Acc Criteria
1. Anser fabalis Bean Goose P 1995 — 6,500 — — A4i, B1i
2. Anser albifrons White-fronted Goose P 1995 — 6,500 — — A1i, B1i
3. Meru merganser Goosander P 1995 2,500 3,000 — — A4i, B1i

Breeding species of global conservation concern that do not meet IBA criteria: Haliaetus albicilla (4 pairs), Crex crex (10–15 pairs). Other notable breeding species are Bubo bubo (4 pairs) and Circus pygargus (7–10 pairs).
Conservation issues

**Habitats** Forest and woodland (66%); broadleaf deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest; Grasland (8%); stepped/calcareous grassland; humid grassland; mesophile grassland; Wetland (6%); standing fresh water; river/stream; raised bog; water-fringe vegetation; fen/transition mire/spring; Artificial landscape (15%); highly improved reseeded grassland; arable land; ruderal land

**Land-use** Agriculture (17%), Fisheries/aquaculture (8%), Forestry (57%), Hunting, Nature conservation/research (12%), Urban/industrial/transport (30%)

Heavy water-pollution poses a threat, stemming from agriculture, industry, domestic sewage and fisheries. Reduced cattle-grazing has caused a long-term reduction in the number of breeding waders. Drainage of a large area adjacent to the National Park has destroyed extensive areas of wet meadow and bog within the park.

**Birds**

A total of 138 species have been recorded breeding, including *Haliaeetus albicilla* (three pairs). An important wintering site for swans *Cygnus* (all three European species), which also holds 10% of the national population of *Pandion haliaetus* on passage. A total of 107 species have been recorded breeding; breeding species of global conservation concern that do not meet IBA criteria: *Haliaeetus albicilla* (three pairs).

**Conservation status**

*National High* International None

31,279 ha of IBA covered by Landscape Park (Zaborski, 31,279 ha).

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cygnus cygnus</em></td>
<td>Whooper Swan</td>
<td>W</td>
<td>1995</td>
<td>50</td>
<td>400</td>
</tr>
<tr>
<td><em>Mergus serrator</em></td>
<td>Red Kite</td>
<td>B</td>
<td>1991</td>
<td>15</td>
<td>A</td>
</tr>
<tr>
<td><em>Bubo bubo</em></td>
<td>Eagle Owl</td>
<td>R</td>
<td>1996</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

A total of 138 species have been recorded breeding, including *Haliaeetus albicilla* (one pair; species is of global conservation concern but does not meet IBA criteria) and *Gus grus* (34-45 pairs).

**Protection status**

*National High* International None

31,279 ha of IBA covered by Landscape Park (Zaborski, 31,279 ha).

**Conservation issues**

**Threats** Abandonment/reduction of land management (U), Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Drainage (A), Industrialization/urbanization (U)

**Threats** Abandonment/reduction of land management (U), Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Drainage (A), Industrialization/urbanization (U)

There is accidental disturbance to birds by tourism. A project has been begun to improve reseeded grassland; arable land; ruderal land.

**Land-use** Agriculture (21%), Forestry (72%), Hunting, Water management (6%)

Forestry work close to, or in, buffer zones designated for nesting *Haliaeetus albicilla*, *Bubo bubo* and *Ciconia nigra* disturbs these particular species, as does tourism/recreation.

**Site description**

The north-westernmost part of the Gulf of Gdańsk, divided into a shallow western part (also called Puck lagoon); 10,400 ha, average depth 3 m) and a deeper eastern part. The eastern border of this site is the nominal line between the top of Hel peninsula and Gdańsk city. The total length of coastline is c.100 km. Also included in this site are various remnant coastal meadows (totalling 388 ha). Around Puck Bay there are some small fishing harbours and, further to the south-west, there are large harbours at Gdynia and Gdańsk.

**Habitats** Forest and woodland (66%); broadleaf deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest; Grasland (8%); stepped/calcareous grassland; humid grassland; mesophile grassland; Wetland (6%); standing fresh water; river/stream; raised bog; water-fringe vegetation; fen/transition mire/spring; Artificial landscape (15%); highly improved reseeded grassland; arable land; ruderal land

**Land-use** Agriculture (5%), Fisheries/aquaculture (45%), Nature conservation/research (5%), Tourism/recreation (15%), Urban/industrial/transport (30%)

**Important Bird Areas in Europe – Poland**

**Slupia Valley Landscape Park**

Admin region pomorskie
Coordinates 54°18’N 17°19’E
Altitude 20–160 m Area 37,040 ha

There are many ravines. Forest is 40–100 years old, mainly pine *Pinus*, beech *Fagus* and hornbeam *Carpinus* on dry ground, with some mixed *Pinus* and oak *Quercus*. In the swamps there is bog forest of alder *Alnus*; and in the stream valleys there are alder *Alnus* scrub.

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Corncrake</em></td>
<td>B</td>
<td>1996</td>
<td>15</td>
<td>20</td>
<td>A1, A1</td>
</tr>
</tbody>
</table>

A total of 138 species have been recorded breeding, including *Haliaeetus albicilla* (one pair; species is of global conservation concern but does not meet IBA criteria) and *Grus grus* (34-45 pairs).

**Protection status**

*National High* International None


**Conservation issues**

**Threats** Abandonment/reduction of land management (U), Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Drainage (A), Industrialization/urbanization (U)

**Threats** Abandonment/reduction of land management (U), Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Drainage (A), Industrialization/urbanization (U)

There is accidental disturbance to birds by tourism. A project has been begun to improve reseeded grassland; arable land; ruderal land.

**Land-use** Agriculture (21%), Forestry (72%), Hunting, Water management (6%)

Forestry work close to, or in, buffer zones designated for nesting *Haliaeetus albicilla*, *Bubo bubo* and *Ciconia nigra* disturbs these particular species, as does tourism/recreation.

**Site description**

The area is part of the great Tuchola ‘sand’ (outwash plain of glacial origin). The terrain is varied, with elevated plains, extensive hills, many hummocks, valleys and troughs, and is drained by the Brda river and its many tributaries (the largest being the Zbrzyca). Some of the rivers have steep gradients and strong flows. Of 60 lakes in this area, the largest is Charzykowskie lake (1,363 ha), and the deepest is Ostrowite lake (43 m deep). Many are flow-lakes, being part of the Brda river system, and most have low to moderate levels of nutrients. Forests are dominated by pine *Pinus*. On richer soils there are dry-ground forests of hornbeam *Carpinus*, birch *Betula*, beech *Fagus* and oak *Quercus*, and near watercourses and reservoirs there is riverside carr and forest of alder *Alnus*. There are fens, connected with rivers and lakes, as well as (in hollows) raised bogs and transitional mires.
Important Bird Areas in Europe – Poland

**Birds**

A very important site for wintering and migrating waterbirds, holding well over 20,000 waterbirds during winter, sometimes exceeding 50,000 birds. During severe winters the bay is covered by ice and birds have to move elsewhere. During autumn and spring migration the coastal meadows (sometimes flooded) attract large numbers of waterbirds, particularly waders (up to some thousands), and overhead migration of raptors is pronounced in spring. Beka Nature Reserve supports the largest concentration of breeding Calidris alpina schinzii in Poland (c.10–12 pairs) and meadows near Mechelenki support a few additional pairs. More than 300 bird species have been recorded in the area.

**Conservation issues**

Tourism/recreation, hunting and uncontrolled human access along the coast disturb nesting and staging birds. Oil pollution resulting from oil-tanker accidents is a potential hazard. Water-pollution by domestic sewage has been very heavy in the past; discharges are now regulated. Storms in spring/summer flood the tern colony on islets, forcing birds to re-nest in less safe areas of the Wisła (Vistula) river deriving from the uplands. The water-level fluctuates significantly on a daily basis (up to 1.5 m) because of wind effects. There are extensive reedbeds (Phragmites) along the shore, forming one or two belts up to 100 m wide, as well as rich floating and submerged vegetation (Nymphaea, Potamogeton) which supports a very rich invertebrate and fish fauna. Land-uses include intensive reed-harvesting (‘Other’).

**Site description**

The site comprises the Polish part of this large, shallow coastal lagoon (up to 5 m deep) of brackish water, which is cut off from the Baltic Sea by the Wisła spit. A narrow channel in the Russian part of the lagoon, through which sea water flows during heavy storms, joins the water-body with the Baltic Sea (Gulf of Gdańsk). There is some river flow to the Polish part of the lagoon from the west, comprising a few safe branches of the Wisła (Vistula) river deriving from the uplands. The water-level fluctuates significantly on a daily basis (up to 1.5 m) because of wind effects. There are extensive reedbeds (Phragmites) along the shore, forming one or two belts up to 100 m wide, as well as rich floating and submerged vegetation (Nymphaea, Potamogeton) which supports a very rich invertebrate and fish fauna. Land-uses include intensive reed-harvesting (‘Other’).

**Birds**

A very important site for wintering, migrating and breeding waterbirds, regularly holding well over 20,000 individuals, sometimes exceeding 150,000 birds. In late summer and early autumn wader passage is intense, with very high rates of turn-over; Calidris species dominate (up to 8,000 waders ranged in a season). When flooded, the meadows near the southern border of the IBA support thousands of ducks and waders. Other waterbirds supported in high numbers include Clangula hyemalis (30,000, winter) and non-breeding terns in summer/autumn (max. 1,000 Sterna sandvicensis; max. 3,000 Sterna hirundo). Overall, at least 22 waterbird species have been recorded breeding, with at least 120 waterbird species recorded in the non-breeding season.

**Protection status**

National Partial International None

200 ha of IBA covered by Nature Reserve (Beka, 200 ha). About 11,000 ha of IBA covered by Landscape Park (Nadmorski, 17,850 ha).

**Conservation issues**

Tourism/recreation, hunting, poaching and uncontrolled human access all lead to significant disturbance of birds. Storms in spring/summer flood the tern colony on islets, forcing birds to re-nest in less safe areas of the Wisła (Vistula) river deriving from the uplands. The water-level fluctuates significantly on a daily basis (up to 1.5 m) because of wind effects. There are extensive reedbeds (Phragmites) along the shore, forming one or two belts up to 100 m wide, as well as rich floating and submerged vegetation (Nymphaea, Potamogeton) which supports a very rich invertebrate and fish fauna. Land-uses include intensive reed-harvesting (‘Other’).

**Site description**

The site comprises the Polish part of this large, shallow coastal lagoon (up to 5 m deep) of brackish water, which is cut off from the Baltic Sea by the Wisła spit. A narrow channel in the Russian part of the lagoon, through which sea water flows during heavy storms, joins the water-body with the Baltic Sea (Gulf of Gdańsk). There is some river flow to the Polish part of the lagoon from the west, comprising a few safe branches of the Wisła (Vistula) river deriving from the uplands. The water-level fluctuates significantly on a daily basis (up to 1.5 m) because of wind effects. There are extensive reedbeds (Phragmites) along the shore, forming one or two belts up to 100 m wide, as well as rich floating and submerged vegetation (Nymphaea, Potamogeton) which supports a very rich invertebrate and fish fauna. Land-uses include intensive reed-harvesting (‘Other’).
general are Elbląg Bay and the Pasłęka mouth. Non-breeding birds occur mainly in the coastal zone, from Przebrno village to the Pasłęka mouth.

**Protection status**
National Low International None

**Conservation issues**

**Threats** Agricultural intensification/expansion (U), Aquaculture/fisheries (A), Industrialization/urbanization (U), Natural events (U), Recreation/tourism (U), Other (U)

Heavy nutrient pollution from agriculture, industry and domestic sewage is a threat. Hunting in the nature reserve is intense. Nutrient pollution by agriculture, industry and domestic sewage poses a threat. Hunting in the nature reserve is intense.

**Site description**

A shallow, nutrient-rich lake (up to 1.5 m deep) surrounded by extensive mires and swamp-forest. There is a significant daily fluctuation in water-level, caused by wind-related water-level fluctuations in the Wisłany lagoon, which connects with this site via the Elbląg river. There is a rich vegetation of floating (Nymphaea) and submerged (Potamogeton) plants, as well as extensive reedbeds Phragmites. Alder Alnus carr occurs along marshy shores.

Habitats Forest and woodland (10%; broadleaved deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest); Wetland (80%; standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (19%; arable land; ruderal land)

**Land-use Agriculture (80%), Fisheries/aquaculture (20%), Forestry (62%), Hunting, Not utilised (1%), Tourism/recreation (5%)**

Birds are disturbed by fishery activities and also accidentally by forestry and tourism. Rare raptors are kept under surveillance each year by the Eagle Protection Committee.

**Site description**

An area of wet meadows on the site of a former lake (drained in the 1930s), with a drainage system of channels and ditches, and partly covered with reedbed Phragmites and willow Salix scrub. Part of the site is cultivated, as is all of the surrounding area. Reed-harvesting is a land-use (‘Other’).

Habitats Scrub (3%; scrub), Grassland (80%; humid grassland), Wetland (15%; standing fresh water; water-fringe vegetation)

**Land-use Agriculture (20%), Hunting, Not utilised (70%), Other (10%)**

Birds

Breeding species of global conservation concern that do not meet IBA criteria: Crex crex (7–10 pairs).

**Protection status**
National High International None

300 ha of IBA covered by Ecological Area (Łąki Dymerskie, 300 ha).
Conservation issues

Threats: Drainage (U), Industrialization/urbanization (U), Other (U)

A planned new housing estate nearby poses a threat, as does the intensification of reed-harvesting (‘Other’).

Site description

This varied moraine landscape is drained by the Omluwe and Łyna rivers (both rise here). There are many hollows or basins, covering 30% of the site and occupied by lakes, cave-lakes or mires. Thus there are 60 lakes, most of them rather small, with the largest being Łośskie (1,070 ha), Kośo (552 ha) and Omluwe (549 ha). The water-bodies are moderate to rich in nutrients, with only a few of the nutrient-poor type. Aquatic vegetation is species-rich and diverse. Lakes are surrounded by reed Phragmites, etc., beyond which are periodically flooded sedge-beds. In the wide valley there are fens and transitional mires; raised bogs are scarce. Forests are mainly coniferous, dominated by pine Pinus, and extend onto mires. Broadleaved forest is not common, dominated by hornbeam Carpinus on dry ground and by alder Alnus trees and willow Salix scrub along riversides.

Habitats: Forest and woodland (75%; native coniferous forest; mixed forest; alluvial/very wet forest), Scrub (scrub), Grassland (5%; mesophile grassland), Wetland (10%; standing fresh water; river/stream; raised bog; water-fringe vegetation; fen/transition mire/spring), Artificial landscape (10%; highly improved reseeded grassland; arable land; ruderal land)

Land-use: Agriculture (15%), Fisheries/aquaculture (5%), Forestry (70%), Hunting, Nature conservation/research (5%), Tourism/recruitment (5%)

About 160 species have been recorded breeding, with particularly high numbers of a variety of raptors. The site is also important for ducks, Graus grus, and waders during autumn migration, and is a moulting place for 500–600 Cygnus olor.

Protection status

National: Low
International: None

Conservation issues

Threats: Afforestation (B), Agricultural intensification/expansion (B), Burning of vegetation (A), Drainage (U), Dredging/canalization (U), Infrastructure (B), Intensified forest management (A), Other (U), Recreational/burn (B), Selective logging/cutting (U), Unsustainable exploitation (U)

Threats include nutrient pollution and subsequent plant encroachment in water-bodies, drainage, poaching and excessive hunting, grass burning in spring, intensive transportation, disturbance of nesting birds, impact of fishery on birds, unsustainably intense forest management (tree-cutting, removal of old trees), and over-collection of wild foodstuffs (‘Other’). The site comprises the planned Napiwodzko-Ramucka Landscape Forest Park and its surroundings.
**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ciconia nigra</em> Black Stork</td>
<td>B</td>
<td>1995</td>
<td>10</td>
<td>15</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td><em>Aquila potana</em> Lesser Spotted Eagle</td>
<td>B</td>
<td>1995</td>
<td>30</td>
<td></td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td><em>Grus grus</em> Crane</td>
<td>B</td>
<td>1995</td>
<td>100</td>
<td>A</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td><em>Ficedula albicilla</em> Collared Flycatcher</td>
<td>B</td>
<td>1995</td>
<td>100</td>
<td>C</td>
<td>B1</td>
<td></td>
</tr>
</tbody>
</table>

A total of 130 species have been recorded breeding or probably breeding. Breeding species of global conservation concern that do not meet IBA criteria: *Halaeutus albicilla* (two pairs), *Crex crex* (rare).

**Protection status**

National Low International None


**Conservation issues**

<table>
<thead>
<tr>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture intensification/expansion (C), Aquaculture/ fisheries (C), Deforestation (commercial) (A), Drainage (B), Dredging/ canalization (A), Intensified forest management (A), Recreation/tourism (A), Selective logging/cutting (B)</td>
</tr>
</tbody>
</table>

Tourism/recreation causes disturbance to birds. Intensive tree-felling, and drainage, are also threats.

**Luknajno lake**

Admin region warmińsko-mazurskie Coordinates 53°49’N 21°38’E Altitude 100–100 m Area 710 ha

A very shallow (up to 3 m deep) nutrient-rich lake, with adjoining sedge-beds, transitional mires, alder *Alnus* woodland and willow *Salix* scrub. The lake shores are covered by beds of bulrush *Scirpus*, reed *Phragmites* and reed-mace *Typha*. Three-quarters of the lake bottom is covered by stonewort *Chara* and pondweed *Potamogeton*. The lake and a surrounding 100-m-wide belt are protected, but the area beyond is cultivated.

**Habitats**

Forest and woodland (35%; alder/very wet forest), Grassland (25%; humid grassland), Wetland (70%; standing fresh water; water-fringe vegetation; fen/transition mire/spring)

**Land-use**

Agriculture (15%), Forestry (5%), Not utilized (75%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Porzana porzana</em> Spotted Crake</td>
<td>B</td>
<td>1994</td>
<td>30</td>
<td>34</td>
<td>A1</td>
<td></td>
</tr>
<tr>
<td><em>Crex crex</em> Corncrake</td>
<td>B</td>
<td>1994</td>
<td>22</td>
<td>25</td>
<td>A1</td>
<td></td>
</tr>
<tr>
<td><em>Grus grus</em> Crane</td>
<td>P</td>
<td>1994</td>
<td>5,000</td>
<td>A4i, B1i</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Charadrius hemprichii</em> Black Tern</td>
<td>B</td>
<td>1994</td>
<td>105</td>
<td>A</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td><em>Acrocephalus paludicola</em> Aquatic Warbler</td>
<td>B</td>
<td>1997</td>
<td>13</td>
<td>A</td>
<td>A1</td>
<td></td>
</tr>
</tbody>
</table>

**Important Bird Areas in Europe – Poland**

**Nietlickie marshes**

Admin region warmińsko-mazurskie Coordinates 53°52’N 21°48’E Altitude 100–150 m Area 1,200 ha

**Site description**

The site is the remnant of the drained Wąg lake, now a fen covered by a system of drainage channels and surrounded by marshy forest of birch *Betula* and alder *Alnus*, willow *Salix* scrub and non-intensively used meadows. The site is drained by the Wężówka river, which flows into Buwelno lake. The Nietlickie marshes are the largest and most intact fens in the whole of the Mazury lakeland, and are covered by sedge-beds, reedbeds *Phragmites* and *Salix* scrub. In 1993 hay harvesting and hunting were stopped there. Because of the large roost of *Grus grus* this area is intensively visited by birdwatchers. Minor land-uses include chalk mining.

**Protection status**

National Partial Ecological Area None 546 ha of IBA covered by Ecological Area (Bagna Nietlickie, 546 ha).

**Conservation issues**

<table>
<thead>
<tr>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abandonment/reduction of land management (U), Afforestation (U), Agricultural intensification/expansion (U), Banning of vegetation (U), Drainage (A), Extraction industry (U), Industrialization/urbanization (B), Other (U), Recreation/tourism (C)</td>
</tr>
</tbody>
</table>

Any expansion of lake-chalk mining is a threat to the site, as are tourism (birdwatching) and associated bird disturbance, grass burning, the abandonment of cattle-grazing and of grass-mowing at the margins, hunting, and reed-harvesting (‘Other’ threat).

**Pisz forest**

Admin region warmińsko-mazurskie, podlaskie Coordinates 53°39’N 21°29’E Altitude 175–200 m Area 163,000 ha

**Site description**

Pisz forest lies on the border between the Great Mazury lake region and the Mazury lowlands, and the Pisa and Krutynia rivers flow through this area. The largest lake in Poland—Śniardwy (1,097 km²)—is located in the north-western part of the site, and there are also a dozen other lakes. Many tree species reach the limit of their range here. There are coniferous forests of pine *Pinus* with some smaller areas of spruce *Picea* and broadleaved dry-ground forest of lime *Tilia* and hornbeam *Carpinus*. Around the lakes in wet areas there are alder *Alnus* forests and different kinds of mire.

**Protection status**

National High Ecological Area None 710 ha of IBA covered by Nature Reserve (Jezioro Łuknajno, 710 ha). 710 ha of IBA covered by Ramsar Site (Jezioro Łuknajno, 710 ha).

**Conservation issues**

<table>
<thead>
<tr>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture intensification/expansion (U), Recreation/tourism (U)</td>
</tr>
</tbody>
</table>

Water overflow from Śniardwy lake threatens the shallow end of this lake with nutrient pollution, following agricultural run-off in the surrounding area.
Species of global conservation concern that do not meet IBA criteria: Aythya nyroca (rare on passage), Crex crex (frequent breeder).

**Protection status**

National Partial: International None

5,078 ha of IBA covered by 10 Nature Reserves (Czapłisko-Lawny Laszk [Bird Reserve]; Jeziorno Lisiny [Plethog Reserve]; Jeziorno Niżkie [Landscape Reserve]; Jeziorno Pogubie Wielkie [Bird Reserve]; Jeziorno Warnolny; Krutyńnia; Królewska Sosna; Pierwos; Puszy; Strzalowö; total area 5,078 ha). 53,265 ha of IBA covered by Landscape Park (Mazurski, 53,655 ha).

**Conservation issues**

Afforestation with non-native tree species is a threat, and recreation/tourism disturbs birds.

**Augustów forest**

Admin region podlaskie

Coordinates 53°54'N 23°16'E

Altitude 135–190 m Area 102,000 ha

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anas querquedula</td>
<td></td>
<td>1996</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Haliaeetus albicilla</td>
<td></td>
<td>1996</td>
<td>80</td>
<td>—</td>
</tr>
<tr>
<td>Aquila pomarina</td>
<td></td>
<td>1996</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Crex crex</td>
<td></td>
<td>1993</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Buho hibou</td>
<td></td>
<td>1996</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

**Protection status**

National Partial: International None

15,113 ha of IBA covered by National Park (Wigierski, 15,113 ha). 761 ha of IBA covered by Nature Reserve (Kależyty, 761 ha). 314 ha of IBA covered by Nature Reserve (Kukle, 314 ha). 386 ha of IBA covered by 10 Nature Reserves (Jeziorno Białe; Jeziorno Długie; Kamionka; Maniówka; Ostoj Bogrów Stary Folwark; Suchar Wielki; Suche bagno; Wądrożna I & II; total area 386 ha).

**Conservation issues**

Afforestation with beech Fagus (outside its natural range) poses a threat to Tetrao urogallus (its preferred habitat is conifers).

**Biebrza river valley**

Admin region podlaskie

Coordinates 53°30'N 22°50'E

Altitude 100–125 m Area 126,047 ha

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anas querquedula</td>
<td></td>
<td>1990</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>Ixobrychus minutus</td>
<td></td>
<td>1979</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Haliaeetus albicilla</td>
<td></td>
<td>1994</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Etagua nyroca</td>
<td></td>
<td>1991</td>
<td>800</td>
<td>—</td>
</tr>
<tr>
<td>Circus pyrgarun</td>
<td></td>
<td>1980</td>
<td>72</td>
<td>—</td>
</tr>
<tr>
<td>Crex crex</td>
<td></td>
<td>1992</td>
<td>43</td>
<td>51</td>
</tr>
<tr>
<td>Aquila clanga</td>
<td></td>
<td>1992</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Crex crex</td>
<td></td>
<td>1987</td>
<td>185</td>
<td>220</td>
</tr>
<tr>
<td>Aquila pomarina</td>
<td></td>
<td>1996</td>
<td>370</td>
<td>—</td>
</tr>
<tr>
<td>Aquila clanga</td>
<td></td>
<td>1996</td>
<td>500</td>
<td>—</td>
</tr>
<tr>
<td>Botaurus stellaris</td>
<td></td>
<td>1996</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Crex crex</td>
<td></td>
<td>1996</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

**Habitats**

Forest and woodland (28%; beech-dominated deciduous forest; native coniferous forest; mixed forest; aluvial/very wet forest); Scrub (20%; scrub); Grassland (6%); humid grassland; Wetland (26%; river/stream; raised bog; water-fringe vegetation; fen/transition mire/spring); Artificial landscape (20%; highly improved reseeded grassland; other urban/industrial areas; ruderal land); Land-use: Agriculture (26%), Forestry (28%), Hunting, Nature conservation/research (47%), Not utilized (43%).

**Birds**

This is the most important breeding place in central and western Europe for some threatened or localized species such as Gallinago media, Crex crex, Porzana parva, Aquila clanga and Chlidonias leucopterus, and is also an important site for migrating waders, ducks, geese and Grus grus. Breeding species of global conservation concern that do not meet IBA criteria: Aythya nyroca (1–3 pairs), Gallinago media (four pairs), Crex crex (common).
**Narew river gaps**

Admin region podlaskie

Coordinates 53°07'N 22°11'E

Altitude 100–120 m Area 4,200 ha

### Site description

The site comprises the Narew river valley between the drained Wizna marshes and the town of Łomża. The valley is narrow (up to 1.2 km wide) and deeply cut into the plain, with a close to natural character. The valley bottom is covered mainly by peat, to varying depths. There are yearly floods, especially in spring. Flood-plain vegetation includes wide) and deeply cut into the plain, with a close to natural character.

**Habitats**
- Forest and woodland
- Wetland
- Forest and woodland
- Wetland
- Forest and woodland
- Wetland

**Land-use**
- Agriculture
- Forestry
- Hunting
- Nature conservation/research
- Tourism/recreation

### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gallinago media</td>
<td>Great Snipe</td>
<td>B</td>
<td>1993</td>
<td>30</td>
<td>—</td>
<td>A1</td>
</tr>
<tr>
<td>Limosa limosa</td>
<td>Black-tailed Godwit</td>
<td>B</td>
<td>1993</td>
<td>78</td>
<td>85</td>
<td>B2</td>
</tr>
<tr>
<td>Acrocephalus paludicola</td>
<td>Aquatic Warbler</td>
<td>B</td>
<td>1993</td>
<td>43</td>
<td>—</td>
<td>A1, B2</td>
</tr>
</tbody>
</table>

1. Displaying males at four sites.
2. Males.

A total of 178 species have been recorded, including 125 breeders. Breeding species of global conservation concern that do not meet IBA criteria: Gallinago media (6–8 pairs).

### Protection status

National None International None

### Conservation issues

**Threats**
- Agricultural intensification/expansion
- Dredging/canalization

During 1978–1981 the riverbed between Rędziny and Żółtki towns was straightened, broadened and deepened, and meanders were cut off. This drastically reduced water-levels in the river channels and adjoining areas, and the area became intensively used for agriculture. However, soils became parched, water was lost from wells in the surrounding area, and the vegetation composition changed. There are efforts to stop further degradation by reconstruction of river rilles in the area of Rędzyny Dam.

**Habitats**
- Forest and woodland
- Wetland
- Forest and woodland
- Wetland
- Forest and woodland
- Wetland

**Land-use**
- Agriculture
- Forestry
- Hunting
- Nature conservation/research
- Tourism/recreation

### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botaurus stellaris</td>
<td>Bittern</td>
<td>B</td>
<td>1994</td>
<td>19</td>
<td>45</td>
<td>B2</td>
</tr>
<tr>
<td>Porzana porzana</td>
<td>Spotted Crake</td>
<td>B</td>
<td>1994</td>
<td>—</td>
<td>74</td>
<td>B1</td>
</tr>
<tr>
<td>Porzana parva</td>
<td>Little Crake</td>
<td>B</td>
<td>1992</td>
<td>10</td>
<td>50</td>
<td>B1</td>
</tr>
<tr>
<td>Crex crex</td>
<td>Corncrake</td>
<td>B</td>
<td>1994</td>
<td>—</td>
<td>70</td>
<td>A1</td>
</tr>
<tr>
<td>Luscinia luscinia</td>
<td>Thrush Nightingale</td>
<td>B</td>
<td>1992</td>
<td>—</td>
<td>400</td>
<td>B1</td>
</tr>
<tr>
<td>Locustella luscinioides</td>
<td>Savin’s Warbler</td>
<td>B</td>
<td>1994</td>
<td>—</td>
<td>400</td>
<td>B1</td>
</tr>
<tr>
<td>Acrocephalus paludicola</td>
<td>Aquatic Warbler</td>
<td>B</td>
<td>1994</td>
<td>—</td>
<td>50</td>
<td>B1</td>
</tr>
</tbody>
</table>


Breedig species of global conservation concern that do not meet IBA criteria: Aythya nyroca (formerly one pair, now extinct here), Gallinago media (6–8 pairs).

### Protection status

National Partial International None

### Conservation issues

**Threats**
- Agricultural intensification/expansion
- Dredging/canalization

A marshy stretch of the Narew valley, spanning 58 km between Suwałk town and Żółtki village, and from 300 m to 4 km wide. The valley has a natural character between Suwałk and Rzędzyni towns and is periodically flooded. The Narew is a braided, meandering river, and creates a system which occupies the whole width of the valley floor in some places. There is a very rich mosaic of plant communities—mainly beds of reed Phragmites and sedge Carex, alder Alnus forest and riverside scrub of willow Salix.

**Habitats**
- Forest and woodland
- Wetland
- Forest and woodland
- Wetland
- Forest and woodland
- Wetland

**Land-use**
- Agriculture
- Forestry
- Hunting
- Nature conservation/research
- Tourism/recreation

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| 1. Displaying males at four sites.
2. Males.

A fragmented forest, historically divided into the Błudowska, Knyszyń, Malawiwicka, Odełska and Supraśl forests, with numerous seepages, springs (c.450), clean streams and small rivers. The terrain is varied. River valleys, mainly drained, are occupied by fens and transitional mires covered by reedbeds Phragmites and sedge-beds Carex. In stagnant hollows there are transitional mires and, more rarely, raised

### Protection status

National None International None

### Conservation issues

**Threats**
- Infrastructure

A new bridge system is planned as part of a new ring road around Łomża and poses a potential threat to the site.
bogs. Although many stands still have a natural character, most are rather young (40–70 years old). About 80% of the forest is coniferous, dominated by pine *Pinus* and spruce *Picea*. Broadleaved Forest is dominated by lime *Tilia* and hornbeam *Carpinus*, with ash *Fraxinus* and alder. *Alnus* in riverine habitats and birch *Betula* in marshy areas. Open areas are occupied by fields, meadows, pastures and human settlements.

**Habitats and Land-use**
- Forest and woodland (70%; native coniferous forest; mixed forest; alluvial/wet forest), Grassland (10%; humid grassland; mesophile grassland), Wetland (10%; standing fresh water; river/stream; raised bog; fen/transition mire/spring), Artificial landscape (10%; arable land; ruderal land)
- Agriculture, Forestry, Hunting.

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Act</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cicinnia nigra</em></td>
<td>B</td>
<td>1993</td>
<td>14</td>
<td>16</td>
<td>—</td>
<td>B2</td>
</tr>
<tr>
<td><em>Pernis apivorus</em></td>
<td>B</td>
<td>1993</td>
<td>60</td>
<td>70</td>
<td>—</td>
<td>B3</td>
</tr>
<tr>
<td><em>Aquila pomarina</em></td>
<td>B</td>
<td>1993</td>
<td>48</td>
<td>50</td>
<td>—</td>
<td>B2</td>
</tr>
<tr>
<td><em>Podiceps cristatus</em></td>
<td>B</td>
<td>1993</td>
<td>—</td>
<td>100</td>
<td>—</td>
<td>B2</td>
</tr>
</tbody>
</table>

1. Displaying males.

A total of 154 species have been recorded, including 139 breeding. Breeding species of global conservation concern that do not meet IBA criteria: *Haliaeetus albicilla*.

**Protection Status**

National Partial International None

**Conservation issues**

Threats: Agricultural intensification, expansion (U), Deforestation (commercial) (U), Dredging/canalization (U). Water pollution from agriculture poses a threat.

**Gródek–Michałowo basin**

**Site description**

The site consists of a large basin covered by a thick layer of peat. The basin drains into the upper course of the *Suprawa* river, which traverses the northern part of the site. Most of the area has been drained by man, but in many places there are still mires. The central part of the basin is occupied by fens (mainly sedge-beds, occasionally reedbeds, Phragmites), while the southern part is raised bog, with marshy forest and a variety of bog mires. There are two small lakes, Gorbacz and Wiejki. The marshy forest is dominated by birch *Betula* and pine *Pinus*, with alder *Alnus* scrub also common.

**Habitats and Land-use**
- Forest and woodland (5%; broadleaved deciduous forest; mixed forest; alluvial/wet forest), Grassland (50%; humid grassland; mesophile grassland), Wetland (15%; standing fresh water; river/stream; fen/transition mire/spring), Artificial landscape (10%; arable land; ruderal land), Unknown (15%)
- Agriculture (70%), Fisheries/aquaculture (10%), Forestry (5%), Hunting, Unknown (15%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Act</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Circus aeruginosus</em></td>
<td>B</td>
<td>1993</td>
<td>42</td>
<td>44</td>
<td>—</td>
<td>B3</td>
</tr>
<tr>
<td><em>Porzana porzana</em></td>
<td>B</td>
<td>1993</td>
<td>30</td>
<td>40</td>
<td>—</td>
<td>B3</td>
</tr>
<tr>
<td><em>Porzana parva</em></td>
<td>B</td>
<td>1993</td>
<td>35</td>
<td>35</td>
<td>—</td>
<td>B3</td>
</tr>
<tr>
<td><em>Crex crez</em></td>
<td>B</td>
<td>1993</td>
<td>310</td>
<td>370</td>
<td>—</td>
<td>A1, B2</td>
</tr>
<tr>
<td><em>Gallinago media</em></td>
<td>B</td>
<td>1993</td>
<td>80</td>
<td>110</td>
<td>—</td>
<td>A1</td>
</tr>
<tr>
<td><em>Limosa limosa</em></td>
<td>B</td>
<td>1993</td>
<td>330</td>
<td>330</td>
<td>—</td>
<td>B2</td>
</tr>
<tr>
<td><em>Ardea cinerea</em></td>
<td>B</td>
<td>1993</td>
<td>215</td>
<td>215</td>
<td>—</td>
<td>B2</td>
</tr>
<tr>
<td><em>Lagopus muta</em></td>
<td>B</td>
<td>1993</td>
<td>100</td>
<td>130</td>
<td>—</td>
<td>B3</td>
</tr>
<tr>
<td><em>Acanchrophalus palidica</em></td>
<td>B</td>
<td>1993</td>
<td>18</td>
<td>23</td>
<td>—</td>
<td>A1</td>
</tr>
<tr>
<td><em>Aquatic Warbler</em></td>
<td>B</td>
<td>1993</td>
<td>100</td>
<td>130</td>
<td>—</td>
<td>B3</td>
</tr>
</tbody>
</table>

1. Displaying males.

A total of 145 species have been recorded breeding. Species of global conservation concern that do not meet IBA criteria: *Aylia nyroca* (one breeding pair), *Haliaeetus albicilla* (non-breeding visitor).

**Protection status**

National None International None

**Conservation issues**

Threats: Abandonment/reduction of land management (U), Aquaculture/fisheries (B), Groundwater abstraction (U). Fish-farming activities include the dredging of ponds and lowering of the water-level in the area of the ponds. Abandonment of management of hay meadows and pasture has reduced the suitability of these habitats for some birds.

**Upper Narew river valley**

**Site description**

The site comprises a stretch of the upper Narew valley between the dam at Bondary village and the town of Suraż, as well as the Pietkowo pond complex near Suraż. The Narew river has a natural character, and the valley is up to 3 km wide. Flood-plain plant communities depend on annual river flooding: beds of sedge and reed-grass *Glyceria* dominate, while small patches of reed *Phragmites*, scrub and willow *Salix* woodland occur along the river. Forest covers only 5% of the valley; open areas are mainly pastures and hay meadows. The Pietkowo pond complex adjoins extensive mixed and broadleaved forests. The ponds are densely overgrown with rushes and reeds *Phragmites*, with smaller amounts of sedge, reed-mace *Typha* and bulrush *Scirpus*.
Białowieża forest
Admin region podlaskie
Coordinates 52°46’N 23°43’E
Altitude 135–197 m Area 62,500 ha

■ Site description
The site comprises the Polish part of the Białowieża forest, one of the largest and best preserved areas of primary lowland temperate forest in Europe, together with small remnants of the Ladika forest. The forest covers 1,500 km² of flat plain, of which 620 km² are in Poland, the rest in Belarus. Moraine hills rise only c.30 m above the landscape. All rivers which run through the forest have water sources there or on its periphery. Most of the forest lies in the Narew and Bug tributaries of the Wiśla (Vistula) catchment. The northern part is drained by tributaries of the Niemen, and the western part is part of the Dniestr catchment. There is an almost total lack of standing water, apart from its periphery. Most of the forest is on dry ground, dominated by lime (Tilia) and hornbeam (Carpinus), while the most interesting ornithologically is dominated by oak (Quercus). Along valley watercourses there is carr of alder (Alnus) and and ash (Fraxinus), with Alnus forest in swampy hollows. There is mixed forest of pine (Pinus) and Quercus, as well as coniferous forest (mainly on wet soils) dominated by spruce (Picea) and Pineus. As a result of centuries of man’s activities there are clearings, forest settlements, hay-meadows along rivers, road systems and trails, narrow-gauge railways, felling sites, hunting areas and gravel-pits.

Habitats
Forest and woodland (85%; broadleaved deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest), Grassland (3%; humid grassland; mesophile grassland), Wetland (5%; standing fresh water; river/stream; raised bog; water-fringe vegetation), Artificial landscape (5%; highly improved reseeded grassland; arable land; urban parks/gardens; other urban/industrial areas; ruderal land).

Land-use
Agriculture (5%), Forestry (70%), Hunting, Nature conservation/research (20%), Urban/industrial/transport (15%).

A total of 250 species have been recorded, including 177–180 breeding. The site is especially rich in breeding raptors (15 species extant, two extinct), owls (eight species, one extinct) and woodpeckers (eight species, out of nine in Europe). Breeding species of global conservation concern that do not meet IBA criteria: Gallinago media (rare).

■ Protection status
National Partial International Partial 10,502 ha of IBA covered by National Park (Białowieża, 10,502 ha). 3,463 ha of IBA covered by Nature Reserve (Berezowo; Dolina Śluńsk; Bia³owie¿a National Park, 10,502 ha). 10,502 ha of IBA covered by World Heritage Site (Białowieża National Park, 10,502 ha).

■ Conservation issues
Threats Abandonment/reduction of land management (B), Afforestation (C), Agricultural intensification/expansion (C), Construction/impact of dyke/dam/barage (B), Deforestation (commercial) (B), Filling-in of wetlands (B), Groundwater abstraction (B), Industrialization/urbanization (C), Intensified forest management (A), Other (A), Recreation/tourism (C), Selective logging/cutting (A).

The greatest threat is from the ongoing replacement of primeval forest by plantations, through intensified forest management, clear-felling, selective logging, and afforestation with conifers. Railway transport carries very large quantities of highly toxic chemicals through the forest (more than 100,000 tonnes per year) is a threat (‘Other’), and forestry and tourism cause disturbance to birds. Since 1991 efforts have been made to protect the whole of Białowieża forest in Poland, involving OTOP and other nature-conservation organisations. About 80 projects relevant to nature conservation have been carried out in the area.

Warta flood-plain
Słoñsk
Admin region lubuskie
Coordinates 52°34’N 14°43’E
Altitude 10-16 m Area 4,244 ha

■ Site description
The site includes the flood-plain of the Warta river, where it meets the Odra river, and the lower course of the Postomia river. There are unregulated stretches of river, oxbow lakes, old drainage channels, small lakes, periodically flooded meadows, and pastures. The area floods almost every year, with annual fluctuations in water-level of up to 3.5 m. Highest levels are in March and April. In some years the whole area is underwater all year, in others for only a few months or not at all. Accordingly, the vegetation varies in different years. During heavy floods water-fringe vegetation predominates, mainly reed Phragmites and especially reed-grass Glyceria and canary-grass Phalaris, occupying a few hundred hectares. Large areas that have recently emerged from water are occupied by ruderal herbs Polygonum/Bidens. When the flood is limited or does not occur, such vegetation dies and is replaced by dry-ground vegetation and willow Salix bushes.

Habitats
Forest and woodland (5%; alluvial/very wet forest), Scrub (scrub), Grassland (15%; humid grassland), Wetland (80%; standing fresh water; river/stream; water-fringe vegetation)

Land-use
Agriculture (10%), Water management (100%).

■ Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Ppm min</th>
<th>Ppm max</th>
<th>Acc.</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ciconia nigra Black Stork</td>
<td>B</td>
<td>1987</td>
<td>34</td>
<td>34</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Penis gavius Honey Buzzard</td>
<td>B</td>
<td>1986</td>
<td>83</td>
<td>86</td>
<td>A</td>
<td>B1</td>
</tr>
<tr>
<td>Aquila pomarina Lesser Spotted Eagle</td>
<td>B</td>
<td>1991</td>
<td>68</td>
<td>68</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Corncrake B — Frequent — A1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dendrocygna medius Middle Spotted Woodpecker</td>
<td>R</td>
<td>—</td>
<td>Abundant</td>
<td>—</td>
<td>B1</td>
<td></td>
</tr>
</tbody>
</table>

A very important area for moulting, staging, wintering and roosting waterbirds, mainly wildfowl. Up to 33,000 duck (Anatidae) stage here during spring migration, with up to 78,000 in autumn. Over 240 species have been recorded, including 160 breeding species. Data in table are for 1991–1996 unless otherwise stated.

■ Protection status
National High International High 4,244 ha of IBA covered by Nature Reserve (Słoñsk, 4,244 ha). 4,244 ha of IBA covered by Landscape Park (Ujście Warty, 28,000 ha). 4,244 ha of IBA covered by Ramsar Site (Słoñsk, 4,244 ha).

■ Conservation issues
Threats Abandonment/reduction of land management (B), Dredging/canalization (B), Infrastructure (C).

Threats include a lack of water in some years (due to management of water-levels primarily for human uses), overgrazing by domestic geese and cattle, strong expansion of willow Salix scrub (partly due to
abandonment of agriculture), disturbance of birds, river dredging, and recreation, tourism and hunting.

**Site description**
The site comprises the stretch of the lower Noteć river valley between the Gwda inflow and Wielęń town. Along the river there are floodplain terraces and oxbow lakes, with extensive riverine forests, large reedbeds, fens and flooded meadows, and peat workings covered by water-fringe vegetation and scattered trees. Soils range from permanently wet to highly drained, and in some places have been converted to arable land.

**Birds**
Species of global conservation concern that do not meet IBA criteria: *Haliaeetus albicilla* (one pair feeds in the area, nesting nearby). Other notable breeding species include *Limosa limosa* (70 pairs) and *Chlidonias niger* (52 pairs).

**Protection status**
**National High** International None
5 ha of IBA covered by Nature Reserve (Czapliniec Kuźnicki, 5 ha). 10,000 ha of IBA covered by Protected Landscape Area (Dolina Noteci, 68,840 ha).

**Conservation issues**
Threats include the cutting of trees and shrubs.

**Obra river flood-plain**

**Site description**
The widest part of the valley of the middle Obra river is characterized by forests and meadows, without larger settlements or a developed road system. The valley is divided up by channels and ditches which drain to the west (two main channels) or to the east to the Warta river via the Mosiężki channel. The principal valley habitats are wet fields, marshes, and swamp forests of *Alnus*. Fields are intensively cultivated; wet grassland and scrub are not common. Forest of pine *Pinus* and oak *Quercus* covers the higher elevations.

**Birds**

Other notable breeding species include *Grus grus* (20 pairs) and *Milvus migrans* (six pairs). Breeding species of global conservation concern that do not meet IBA criteria: *Crex crex* (5–6 pairs).

**Protection status**
National None International None

**Conservation issues**
The main threats are further drainage and intensification of forest management. The site is adjacent to the Przemęcki Landscape Park (21,400 ha).

**Wonieść reservoir**

**Site description**
A storage reservoir (777 ha) on the Samica river, connected by the Wonieść channel to the Obra river. The reservoir comprises five former lakes (Drzeczowskie, Witosławskie, Wojnowskie, Jeżeryckie, Wonieść), connected by a narrow channel (c. 13 km long, 200–1,300 m wide), with meadows between them. A dam and sluice divide the upper part of the reservoir, where aquatic vegetation is well-developed, from the lower, where such vegetation is very localized. Adjacent there are fish-ponds, forests, meadows and cultivated fields. The reservoir stores water for agriculture and fire-fighting.

**Birds**

The globally threatened *Aythya nyroca* has not bred here since 1995, but the habitat remains and it is believed there is a good chance that it could breed here again, therefore criterion B2 is still applied. Breeding species of global conservation concern that do not meet IBA criteria: *Haliaeetus albicilla* (one pair). Other notable breeding species include *Anas strepera* (22 pairs) and *Chlidonias niger* (20–60 pairs).

**Protection status**
**National High** International None
900 ha of IBA covered by Protected Landscape Area (Krzywińsko–Osiecki, 71,425 ha).

**Conservation issues**
Birds are disturbed by fisheries, hunting, tourism and angling, and are also threatened by rapid changes in water-level.

**Middle Warta river valley**

**Site description**
A 120 km stretch of the middle Warta river between Babin village (near Umijejów town) and Pogorzela village (near Pyzdry town), including the Kolo valley (Kotlina Kolska) and the Konin basin (Dolina Koniniska). Much of the valley used to flood each spring, but after the construction of the Jeziorsko reservoir, spring flooding stopped completely, and habitats changed greatly. As a result of river...
embankment, the Kolo valley is now a mosaic of cultivated fields, intensively used meadows, pastures, small stands of woodland and settlements. The main land-use is grazing. The Konin basin, however, has a more natural character. Here, the river floods onto wet meadows in April and hollows within meadows are permanently flooded and not cultivated. Low-lying oxbow lakes and their surrounding areas are covered mainly with water-fringe vegetation. There are also Riverside beds of osier Salix, scattered plantations, small areas of carr, and sand-dunes covered with pine Pinus forest. Land-use here is mainly non-intensive agriculture, including haymaking in meadows and livestock-grazing on private farms.

Habitats Forest and woodland (native coniferous forest; mixed forest; alluvial/wet forest), Scrub (scrub), Grassland (steppe/dry calcareous grassland; humid grassland; mesophile grassland), Wetland (sand-dunes/sand beach; standing fresh water; river/stream; raised bog; water-fringe vegetation), Artificial landscape (highly improved reseeded grassland; arable land; ruderal land)

**Land-use** Agriculture (90%), Hunting, Water management (10%)

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falco tinnunculus</td>
<td>Krestel</td>
<td>B</td>
<td>1995</td>
<td>25</td>
<td>35</td>
<td>A</td>
</tr>
<tr>
<td>Columba columbae</td>
<td>Quail</td>
<td>B</td>
<td>1995</td>
<td>20</td>
<td>50</td>
<td>A</td>
</tr>
<tr>
<td>Porzana porzana</td>
<td>Spotted Crane</td>
<td>B</td>
<td>1995</td>
<td>20</td>
<td>30</td>
<td>B3</td>
</tr>
<tr>
<td>Crex crex</td>
<td>Corncrake</td>
<td>B</td>
<td>1995</td>
<td>55</td>
<td>70</td>
<td>A1</td>
</tr>
<tr>
<td>Limosa limosa</td>
<td>Black-tailed Godwit</td>
<td>B</td>
<td>1995</td>
<td>—</td>
<td>250</td>
<td>A2</td>
</tr>
<tr>
<td>Tringa totanus</td>
<td>Redshank</td>
<td>B</td>
<td>1995</td>
<td>150</td>
<td>180</td>
<td>A2</td>
</tr>
<tr>
<td>Chlidonias niger</td>
<td>Black Tern</td>
<td>B</td>
<td>1995</td>
<td>100</td>
<td>150</td>
<td>A2</td>
</tr>
</tbody>
</table>

1. 1993–1995
2. 170–300 pairs in 1980s; max. 1,000–4,000 on passage, near B1i threshold.

Up to 35,000 or more waterbirds roost here, mainly wildfowl Anser Anas with lesser numbers of waders (Charadrii). Breeding species of global conservation concern that do not meet IBA criteria: Aythya nyroca (recently extinct here), Gallinago media (two pairs). A total of 153 species have been recorded breeding.

**Protection status**

National Partial International None

13,428 ha of IBA covered by Landscape Park (Nadwarciański, 13,428 ha). 10,000 ha of IBA covered by Protected Landscape Area (Pyrzdzki, 16,572 ha). 5,000 ha of IBA covered by Protected Landscape Area (Uniejowski, 18,000 ha).

**Conservation issues**

Hunting is a threat, as is disturbance of nesting birds by harvesting activity (reeds and hay).

**Slesin and Wyszęp ponds**

Admin region kujawsko-pomorskie

Coordinates 53°38’N 17°42’E

Altitude 60–80 m Area 3,200 ha

**Habitats** Forest and woodland (10%; broadleaf deciduous forest; native coniferous forest; alluvial/wet forest), Scrub (5%); Scrub, Grassland (65%; steppe/dry calcareous grassland; humic grassland; mesophile grassland), Wetland (18%; standing fresh water; river/stream; raised bog; water-fringe vegetation)

**Land-use** Agriculture (70%), Fisheries/aquaculture (20%), Forestry (10%), Hunting

**Birds**

Threats Abandonment/reduction of land management (B), Agricultural intensification/ expansion (U), Construction/impact of dyke/dam/barriage (U), Drainage (U), Dredging/ correlates (U)

The main threats are posed by changes in the water-regime of the Warta river following the construction of Jeziorsko reservoir upstream, by the abandonment of agricultural management of meadows, by the conversion of meadows to arable land following damming and drainage, and by agricultural intensification locally.

**Ostrowek and Smogulec ponds**

Admin region kujawsko-pomorskie, wielkopolskie

Coordinates 53°35’N 17°20’E

Altitude 80–100 m Area 1,000 ha

**Habitats** Grassland (30%; humid grassland; mesophile grassland), Wetland (60%; standing fresh water; river/stream; water-fringe vegetation), Artificial landscape (10%; ruderal land)

**Land-use** Agriculture (30%), Fisheries/aquaculture (60%), Hunting, Not utilized (10%)

The Ostrówek and Smogulec fish-pond complexes and adjoining wet meadows (Osieckie) in the Notec river valley, 45–49 km west of Bydgoszcz. The 35 ponds comprise c.500 ha of water and are full (1 m deep) from April to October when fish (carp Cyprinus) are being farmed. Large areas of the ponds are covered with beds of reed Phragmites and reed-mace Typha. The meadows are covered with canals and ditches; they are not intensively used, and succession to willow Salix scrub is occurring in some parts.

**Protection status**

National Low International None

42 ha of IBA covered by Nature Reserve (Łaki Elesiński, 42 ha).

**Conservation issues**

Hunting is a problem. Part of the meadows may be converted into arable fields; dry grasslands are slowly reverting to shrubland through lack of grazing/mowing. Numbers of swans Cygnus during spring migration have been reduced due to later filling of the ponds, and more efficient drainage of ponds in the autumn means that birds are only able to stay for a shorter period.
**Site description**

The site comprises a 260-km stretch of the Wisła (Vistula) river floodplain (of which about 190 km is embanked against floods), between Włocławek town in the south and Przegalinia sluice (6 km from the Wisła river mouth) in the north. The terrain is highly varied. Riverbanks or slopes are dozens of metres high in some places, very flat and low-lying in others. The riverbed itself constitutes about quarter of the site’s area; the rest consists of meadows, scrub (mainly willow Salix), small patches of riverine forest, and numerous oxbow lakes and wetlands. The river passes through some quite large towns (e.g. Toruń, Bydgoszcz, Grudziądz, Tczew).

**Conservation issues**

- **Threats**
  - Agricultural intensification/expansion (B), Construction/impact of dyke/dam/barrage (A), Dredging/canalization (A), Industrialization/urbanization (C), Infrastructure (C)

- **Protection status**
  - National Partial International None
  - About 10,000 ha covered by Landscape Park (Zespół Nadwiślańskich, 35,400 ha).

- **Protection status**
  - National Partial International None
  - About 10,000 ha covered by Landscape Park (Zespół Nadwiślańskich, 35,400 ha).

- **Habitats**
  - Forest and woodland (5%); alluvial/very wet forest; Scrub (20%); Scrub (20%); Grassland (30%; humid grassland; mesophile grassland); Wetland (45%; standing fresh water; river/stream; water-fringe vegetation; fen/transition mire/spring); Artificial landscape (25%; other urban/industrial/areas);

- **Land-use**
  - Agriculture (20%); Fisheries/aquaculture (25%); Hunting; Tourism/recreation (5%); Urban/industrial/transport (20%); Not utilized (15%); Unknown (15%)

**Important Bird Areas in Europe – Poland**

**Lower Wisła river**

<table>
<thead>
<tr>
<th>A1, A4i, A4ii, B1i, B2</th>
<th>039</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site description</strong></td>
<td>The site comprises a 260-km stretch of the Wisła (Vistula) river floodplain (of which about 190 km is embanked against floods), between Włocławek town in the south and Przegalinia sluice (6 km from the Wisła river mouth) in the north. The terrain is highly varied. Riverbanks or slopes are dozens of metres high in some places, very flat and low-lying in others. The riverbed itself constitutes about quarter of the site’s area; the rest consists of meadows, scrub (mainly willow Salix), small patches of riverine forest, and numerous oxbow lakes and wetlands. The river passes through some quite large towns (e.g. Toruń, Bydgoszcz, Grudziądz, Tczew).</td>
</tr>
<tr>
<td><strong>Protection status</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Habitats</strong></td>
<td>Forest and woodland (5%); alluvial/very wet forest; Scrub (20%); Scrub (20%); Grassland (30%; humid grassland; mesophile grassland); Wetland (45%; standing fresh water; river/stream; water-fringe vegetation; fen/transition mire/spring); Artificial landscape (25%; other urban/industrial/areas);</td>
</tr>
<tr>
<td><strong>Land-use</strong></td>
<td>Agriculture (20%); Fisheries/aquaculture (25%); Hunting; Tourism/recreation (5%); Urban/industrial/transport (20%); Not utilized (15%); Unknown (15%);</td>
</tr>
<tr>
<td><strong>Conservation issues</strong></td>
<td>Threats: Agricultural intensification/expansion (B), Construction/impact of dyke/dam/barrage (A), Dredging/canalization (A), Industrialization/urbanization (C), Infrastructure (C).</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td>Species</td>
</tr>
<tr>
<td></td>
<td>Bucephala clangula</td>
</tr>
<tr>
<td></td>
<td>Mergus merganser</td>
</tr>
<tr>
<td></td>
<td>Crex crex</td>
</tr>
<tr>
<td></td>
<td>Alcedo atthis</td>
</tr>
</tbody>
</table>

Over 200 species have been recorded, 140 of them breeding. Species of global conservation concern that do not meet IBA criteria: Aythya nyroca (up to two birds on passage), Haliaeetus albicilla (up to five non-breeding birds), Crex crex (4–9 breeding pairs).

**Gopło Millennium Park**

<table>
<thead>
<tr>
<th>A4i, A4ii, B1i, B2</th>
<th>041</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site description</strong></td>
<td>The park covers Gopło lake and surroundings, as well as the Skulskie lakes (Skulskie, Skulskia Wieś, Czartowo) that are part of the Noteć river system. Gopło lake (25 km long) has flat, unforested shores with extensive beds of reed Phragmites. There are some islands (25 ha) covered mainly with reed. The surrounding area is mainly covered with wet meadows, fields and small forests.</td>
</tr>
<tr>
<td><strong>Protection status</strong></td>
<td>National High International None</td>
</tr>
<tr>
<td><strong>Habitats</strong></td>
<td>Forest and woodland (15%); broadleaved deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest); Grassland (15%); steppe; dry calcareous grassland; humid grassland; mesophile grassland); Wetland (15%); standing fresh water; river/stream; raised bog; water-fringe vegetation; fen/transition mire/spring); Artificial landscape (25%; highly improved reseeded grassland; arable land; ruderal land);</td>
</tr>
<tr>
<td><strong>Land-use</strong></td>
<td>Agriculture (40%); Fisheries/aquaculture (40%); Hunting (10%); Other (5%); Tourism/recreation (5%);</td>
</tr>
<tr>
<td><strong>Conservation issues</strong></td>
<td>Threats: Abandonment/reduction of land management (B), Afforestation (B), Agricultural intensification/expansion (B), Aquaculture/fisheries (C), Deforestation (commercial) (B), Drainage (A), Dredging/canalization (A), Extraction industry (B), Industrialization/urbanization (B), Recreation/tourism (B), Unsustainable exploitation (B)</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td>Species</td>
</tr>
<tr>
<td></td>
<td>Botaurus stellaris</td>
</tr>
<tr>
<td></td>
<td>Anser fabalis</td>
</tr>
<tr>
<td></td>
<td>Anser albifrons</td>
</tr>
<tr>
<td></td>
<td>Anser nyroca</td>
</tr>
</tbody>
</table>

During autumn passage a total of 20,000 or more waterbirds stage regularly at the site, mainly wildfowl, and especially geese Anser. Breeding species of global conservation concern that do not meet IBA criteria: Anas crecca (one pair). A total of 198 species have been recorded, including 74 waterbirds.

**Protection status**

- National High International None
  - 402 ha of IBA covered by 7 Nature Reserves (Bachorze: Bąbiule; Katy Kickowskie; Potrzmiesiek; Trzciny Giżewskie; Zatora Biała Osoba;
Zatoka Sucha; total area 402 ha), 12,684 ha of IBA covered by Landscape Park (Nadgoplański Park Tysiąclecia, 12,684 ha).

## Conservation issues

**Threats**

- Abandonment/reduction of land management (A)
- Agricultural intensification/expansion (A)
- Aquaculture/fisheries (A)
- Other (A)
- Recreation/tourism (A)
- Selective logging/cutting (A)
- Logging/cutting (A)
- Agriculture (20%), Fishery/aquaculture (10%), Forestry (35%), Nature conservation (30%)
- Water management (80%)

The drainage of adjoining land has resulted in a lower water-level in the lake. Agriculture has resulted in nutrient pollution of the lake, through fertilizer run-off from fields. Reed-harvesting is also a threat ('Other'). Fisheries, angling and sailing cause disturbance to birds, and hunting is a problem.

## Site description

The site covers Rakutowskie lake (c.300 ha) and the surrounding, periodically flooded sedge meadows, as well as adjoining wet riverine forest and carr. The eastern part of the site includes a wet area of the Klętnia river with overgrown peat-workings. Rakutowskie lake is rather shallow (average 2.5 m) with a flat shore fringed by a broad belt (100–150 m) of marginal vegetation. Due to (relatively small) water-level fluctuations, the lake area can vary by up to 60–70 ha. Floating and submerged vegetation is rich and a large part of the lake bottom is covered by stonewort Chara.

**Altitude**

90–120 m

**Coordinates**

51°47’N 18°41’E

**Habitats**

- Forest and woodland (5%; mixed forest; alluvial/very wet forest)
- Grassland (5%; mesophile grassland), Wetland (95%; standing fresh water; river/stream; water-fringe vegetation)
- Artificial landscape (14%; arable land)

**Land-use**

- Agriculture (25%), Fishery/aquaculture (10%), Forestry (35%), Nature conservation (30%)

The most attractive area in central Poland for staging geese and ducks during spring migration. Breeding species of global conservation concern that do not meet IBA criteria: Acrocephalus paludicola (2–3 pairs).

## Protection status

**National Partial International** None

2,500 ha of IBA covered by Protected Landscape Area (Dolina Brzury, 13,500 ha).

## Conservation issues

**Threats**

- Disturbance to birds (U), Drainage (U), Unsustainable exploitation (U)

## Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anser anser</td>
<td>Spring</td>
<td>1993</td>
<td>250</td>
<td>600</td>
<td>B1i</td>
</tr>
<tr>
<td>Crex crex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

More than 20,000 waterbirds use the area in winter, and notable numbers (peak daily counts exceeding 10,000 birds) stage during autumn migration, mainly Anser, Anas, Vanellus vanellus, Larus and waders Charadrii. Species of global conservation concern that do not meet IBA criteria: Halieutus albicilla (one pair), Crex crex (1–2 calling males), Acrocephalus paludicola (one singing male).

## Site description

A storage reservoir (16 km by 3.5 km) in the lowland valley of the unregulated Warta river, between Sękcezniew and Warta towns. Meadows and pastures adjoin the reservoir near Proboszęcowice and Dzierżążna villages. Its shoreline is formed by natural valley slopes, side dams (which block the mouths of the Teleszyna and Pichna rivers), and also backwater dams, which limit the flooding area when the water-level is at its highest (maximum area is 4,200 ha). The reservoir bottom was not modified before flooding and, when the water-level is low (minimum area 1,700 ha), a varied terrain with scattered small hollows is exposed. The southern part of the reservoir, which floods only during times of high water, is occupied by a mosaic of meadows and willow Salix scrub with groups of partly dead trees. Highest water-levels are reached in April and May, followed by a slow fall.

## Protection status

**National Partial International** None


## Conservation issues

**Threats**

- Groundwater abstraction (A)

The sedge meadows are included in Jeziorno Rakutowskie Nature Reserve, and part of the forest/carr is included in Olszyn Rakutowskie Nature Reserve.

## Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anser fabalis</td>
<td></td>
<td>1993</td>
<td>7,500</td>
<td>41,000</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>Crex crex</td>
<td></td>
<td>1993</td>
<td>20</td>
<td>1,700</td>
<td>B1i</td>
</tr>
</tbody>
</table>

A notable site for breeding and migrating waterbirds; breeding numbers vary from year to year, depending on the water-level. Breeding species of global conservation concern that do not meet IBA criteria: Crex crex (one pair, irregularly).

## Site description

The Ner valley is a marshy stretch of the Warszawa–Berlin valley between the towns of Łęczyca and Dąbie, and adjoins the Brza river valley. Wet meadows dominate the area, but on low-lying land and adjacent to water there are reedbeds Phragmites in some places, as well as riverine forest and scrub, on the more elevated, drier ground, dry broadleaved forest. The easternmost part of the valley (around Łęczyca and Blonia towns) was drained in 1980, and is now less attractive to waterbirds. Other parts of the valley flood annually. The most interesting area ornithologically is around Dąbie town.

## Protection status

**National Partial International** None

## Conservation issues

**Threats**

- Aquaculture/fisheries (U), Construction/impact of dyke/dam/barge (U), Recreation/tourism (U)

Birds are disturbed by tourism/recreation. Lowering of the water-level too early in the season destroys many nests. The southern part of reservoir is a ‘silence zone’, and is planned as a bird reserve (not yet designated).
Kampinos forest
Admin region mazowieckie
Coordinates 52°20’N 20°33’E
Altitude 70–110 m Area 35,700 ha

![Site description]
A highly fragmented forest in the Wisła valley, between the Brzura and Wisła (Vistula) rivers. Coniferous and mixed forests cover banks of sand-dunes along the river terrace, below which lies the marshy valley floor, with watercourses flowing to the Brzura. Marshy areas are covered with reedbeds Phragmites, sedge-beds, meadows, and riverine forest and scrub. Marshy areas higher up the terrace are covered by broadleaved deciduous forest. Former agricultural land, now abandoned (including whole villages), is situated mainly in the centre of the marshy zone, and is reverting to forest, aided by active afforestation.

Habitats
- Forest and woodland (71%); native coniferous forest; mixed forest; alluvial/very wet forest
- Scrub (12%); scrub; Artificial landscape (17%); arable land; other urban/industrial areas; ruderal land
- Deciduous forest (10%); Forestry (6%); Nature conservation/research (15%); Not utilized (12%)

Protection status
National High \International None

The site is very important for breeding *Crex crex*. A total of 133 species have been confirmed breeding. In recent years (1980–1996) 5–7 species stopped breeding compared with the 1950–1979 period. Over the last quarter-century there have been 13 breeding species of raptor and seven non-breeding visitors or winters. Three raptors (*Falco peregrinus, Milvus migrans* and *Circus cyaneus*) stopped breeding in the 1970s, one (*Circus gallicus*) in the 1980s, and *Aquila pomarina* is decreasing. Non-raptors which have stopped breeding in recent years at the site include *Tetrax tetrax, Barbinus oedicnemus, Coracias garrulus* and *Lamias minor*.

Protection status
National High \International None

The purchase of arable land by the National Park and the subsequent abandonment of agricultural management (reversion to forest) has reduced the abundance of wildlife of open, non-forest habitats. The water-level fell by c.2 m over the past few decades as a result of drainage and lower-than-average precipitation. Since 1997 the average water-level has risen somewhat as a result of very high rainfall in summer.

Middle Wisła river valley
Admin region lubelskie, mazowieckie
Coordinates 52°03’N 20°37’E
Altitude 50–80 m Area 19,000 ha

![Site description]
A large unregulated stretch of the Wisła (Vistula) river, from Goląb village to Plock town (226 km long), with numerous sand islands. Some islands are bare, others have a herb layer, and high islands have scrub of willow *Salix* and poplar *Populus*. There are sand-dunes. The riverbanks and flood terrace are used mainly for intensive collection of willow *Salix* stems (for planting on riverbanks, dunes, etc., and as material for crafts), and intensive cattle-grazing on meadows and pastures. The river is used by boat traffic.

Habitats
- Forest and woodland (20%); alluvial/very wet forest; Grassland (10%); humd grassland; mesophile grassland; Wetland (60%); sand-dunes/sand/beach; standing fresh water; river/stream, Marvelous areas are covered by broadleaved deciduous forest. Former agricultural land, now abandoned (including whole villages), is situated mainly in the centre of the marshy zone, and is reverting to forest, aided by active afforestation.

Habitats
- Forest and woodland (71%); native coniferous forest; mixed forest; alluvial/very wet forest
- Scrub (12%); scrub; Artificial landscape (17%); arable land; other urban/industrial areas; ruderal land
- Deciduous forest (10%); Forestry (6%); Nature conservation/research (15%); Not utilized (12%)

Protection status
National High \International None

An important site for migrating species that waders and passerines, and for wintering waterbirds, of which more than 20,000 occur regularly, mainly ducks. Breeding species of global conservation concern that do not meet IBA criteria: *Aythya nyroca* (two pairs), *Crex crex* (five pairs).

Protection status
National High \International None

The purchase of arable land by the National Park and the subsequent abandonment of agricultural management (reversion to forest) has reduced the abundance of wildlife of open, non-forest habitats. The water-level fell by c.2 m over the past few decades as a result of drainage and lower-than-average precipitation. Since 1997 the average water-level has risen somewhat as a result of very high rainfall in summer.

Middle Wisła river valley
Admin region lubelskie, mazowieckie
Coordinates 52°03’N 20°37’E
Altitude 50–80 m Area 19,000 ha

![Site description]
A large unregulated stretch of the Wisła (Vistula) river, from Goląb village to Plock town (226 km long), with numerous sand islands. Some islands are bare, others have a herb layer, and high islands have scrub of willow *Salix* and poplar *Populus*. There are sand-dunes. The riverbanks and flood terrace are used mainly for intensive collection of willow *Salix* stems (for planting on riverbanks, dunes, etc., and as material for crafts), and intensive cattle-grazing on meadows and pastures. The river is used by boat traffic.

Habitats
- Forest and woodland (20%); alluvial/very wet forest; Grassland (10%); humd grassland; mesophile grassland; Wetland (60%); sand-dunes/sand/beach; standing fresh water; river/stream, Marvelous areas are covered by broadleaved deciduous forest. Former agricultural land, now abandoned (including whole villages), is situated mainly in the centre of the marshy zone, and is reverting to forest, aided by active afforestation.

Habitats
- Forest and woodland (71%); native coniferous forest; mixed forest; alluvial/very wet forest
- Scrub (12%); scrub; Artificial landscape (17%); arable land; other urban/industrial areas; ruderal land
- Deciduous forest (10%); Forestry (6%); Nature conservation/research (15%); Not utilized (12%)

Protection status
National High \International None

An important site for migrating species that waders and passerines, and for wintering waterbirds, of which more than 20,000 occur regularly, mainly ducks. Breeding species of global conservation concern that do not meet IBA criteria: *Aythya nyroca* (two pairs), *Crex crex* (five pairs).

Protection status
National High \International None

The purchase of arable land by the National Park and the subsequent abandonment of agricultural management (reversion to forest) has reduced the abundance of wildlife of open, non-forest habitats. The water-level fell by c.2 m over the past few decades as a result of drainage and lower-than-average precipitation. Since 1997 the average water-level has risen somewhat as a result of very high rainfall in summer.

Middle Wisła river valley
Admin region lubelskie, mazowieckie
Coordinates 52°03’N 20°37’E
Altitude 50–80 m Area 19,000 ha

![Site description]
A large unregulated stretch of the Wisła (Vistula) river, from Goląb village to Plock town (226 km long), with numerous sand islands. Some islands are bare, others have a herb layer, and high islands have scrub of willow *Salix* and poplar *Populus*. There are sand-dunes. The riverbanks and flood terrace are used mainly for intensive collection of willow *Salix* stems (for planting on riverbanks, dunes, etc., and as material for crafts), and intensive cattle-grazing on meadows and pastures. The river is used by boat traffic.

Habitats
- Forest and woodland (20%); alluvial/very wet forest; Grassland (10%); humd grassland; mesophile grassland; Wetland (60%); sand-dunes/sand/beach; standing fresh water; river/stream, Marvelous areas are covered by broadleaved deciduous forest. Former agricultural land, now abandoned (including whole villages), is situated mainly in the centre of the marshy zone, and is reverting to forest, aided by active afforestation.

Habitats
- Forest and woodland (71%); native coniferous forest; mixed forest; alluvial/very wet forest
- Scrub (12%); scrub; Artificial landscape (17%); arable land; other urban/industrial areas; ruderal land
- Deciduous forest (10%); Forestry (6%); Nature conservation/research (15%); Not utilized (12%)

Protection status
National High \International None

An important site for migrating species that waders and passerines, and for wintering waterbirds, of which more than 20,000 occur regularly, mainly ducks. Breeding species of global conservation concern that do not meet IBA criteria: *Aythya nyroca* (two pairs), *Crex crex* (five pairs).

Protection status
National High \International None

The purchase of arable land by the National Park and the subsequent abandonment of agricultural management (reversion to forest) has reduced the abundance of wildlife of open, non-forest habitats. The water-level fell by c.2 m over the past few decades as a result of drainage and lower-than-average precipitation. Since 1997 the average water-level has risen somewhat as a result of very high rainfall in summer.
**Wildlife**

Total 6,800. Breeding species of global conservation concern that do not meet IBA criteria: Crex crex (12 pairs).

### Protection status

**National High**

International None

1 ha of IBA covered by Nature Reserve (Dzierżenińska Kępa, 1 ha).

### Conservation issues

Recreation/tourism activity is too intense in summer (all kinds of water-sports), so birds tend to use this area after the tourist season, on migration and in winter. The waterworks for Warszawa lie 3 km beyond Dębe Dam (downstream from the IBA), therefore the water is rather clean.

### Site description

Large areas of fen are located in the middle stretch of this river valley and in flooded parts of the upper river valley. In the lower stretches there is natural old-growth riverine forest, and sandy grasslands.

### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crex crex</strong></td>
<td>Conacre</td>
<td>B</td>
<td>1996</td>
<td>80</td>
<td>100</td>
<td>A1, B2</td>
</tr>
<tr>
<td><strong>Coracias garrulus</strong></td>
<td>Roller</td>
<td>B</td>
<td>1992</td>
<td>4</td>
<td>4</td>
<td>A1, B2</td>
</tr>
</tbody>
</table>

A total of 193 species have been recorded. Breeding species of global conservation concern that do not meet IBA criteria: Gallinago media.

### Protection status

**National Low**

International None


### Conservation issues

Current forest management poses a threat to birds.

### Site description

A 140 km long stretch of the Liwiec river valley. Some stretches have a natural character, along others the river is regulated. In some places the riverbanks are flat, covered by meadows and wet pastures, in other places they are high. There are fens and transitional mires, used as meadows and pastures, as well as riverine forests. On the riverbanks and some higher areas there are also pine *Pinus* woods. There are two small pond complexes (48 ha, 70 ha).

### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corncrake</strong></td>
<td>B</td>
<td>1993</td>
<td>100</td>
<td>—</td>
<td>—</td>
<td>A1, B2</td>
</tr>
</tbody>
</table>

A total of 120 species had been recorded breeding by 1980. Breeding species of global conservation concern that do not meet IBA criteria: Gallinago media (one pair).

### Protection status

**National Partial**

International None

1,500 ha of IBA covered by Landscape Park (Nadbużański, 53,680 ha).

### Conservation issues

In 1992 and 1993 the valley was drained, which caused a significant reduction in bird numbers. A Landscape Park (‘Dolina Liwca’) is planned, as are some Nature Reserves.

### Site description

The site contains the channel and valley of the Bug river between the Krzna river tributary and the Zegrzyński reservoir (260 km), with...
adjacent extensive dry pastures. The whole area floods in spring. There are some swamps and mires at the mouths of tributaries entering the Bug. The river channel is generally natural, not too modified by man, so there are numerous bare sand islands and others overgrown with ruderal herbs or willow Salix scrub. Elsewhere there are also local remnants of willow or poplar Populus scrub. On the lowest river terrace there are numerous oxbow lakes, differing in size, depth and extent of aquatic vegetation (Potamogeton, Lemna).

Habitats Forest and woodland (5%; aliosia/vet forest), Scrub (5%; scrub), Grassland (60%; humid grassland; mesophile grassland), Wetland (30%; standing fresh water; river/stream; water-fringe vegetation; fen/transition mire/spring)
Land-use Agriculture, Hunting

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anas platyrhynchos</em></td>
<td>1990</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. No more recent breeding records.

The site supports more breeding Charadrius hiaticula than any other inland site in Europe.

**Protection status**
National Partial International None
133 ha of IBA covered by Nature Reserve (Leg Dębowy, 133 ha). 2 ha of IBA covered by Nature Reserve (Skarpa Molożewka, 2 ha). 64 ha of IBA covered by Nature Reserve (Wydma Molożewka, 64 ha). 33,000 ha of IBA covered by Landscape Park (Nadbużański, 53,680 ha). 15,000 ha of IBA covered by Landscape Park (Podlaski Przelon Bugu, 30,904 ha). 17,500 ha of IBA covered by Protected Landscape Area (Nadbużański, 55,300 ha).

**Conservation issues**

Threats Abandonment/reduction of land management (U), Construction/impact of dyke/dam/barrage (A), Dredging/canalization (U), Infrastructure (U), Tourism (U)

Threats include dam-building, conversion of meadows to arable land, building of infrastructure for recreation, and reduced numbers of cattle with consequent reductions in extent of pasture.

**Odra riverine forests**

Admin region dolnośląskie
Coordinates 51°25′N 16°27′E
Altitude 72-131 m Area 18,000 ha

**Site description**

The site covers a 105-km-long stretch of the Odra valley from Głoska village (near Brzeg Dolny town) to Głogów town, as well as a 7 km long stretch from the mouth of the Barycz river to the Odra river. The valley is up to 4 km wide, and is bordered by flood embankments. There are broadleaved forests (totaling 5,800 ha) and oxbow lakes. Old-growth forest is common, with trees often over 100 years in age. The oxbow lakes are at different stages of silting up.

**Habitats**
Forest and woodland (30%; broadleaved deciduous forest; native coniferous forest; mixed forest; aliosia/vet forest), Scrub (6%; scrub), Grassland (39%; humid grassland; mesophile grassland), Wetland (15%; standing fresh water; river/stream; water-fringe vegetation; fen/transition mire/spring), Artificial landscape (10%; highly improved reseeded grassland; arable land; forestry plantation)
**Land-use**
Agriculture (60%), Forestry (35%), Hunting, Water management (6%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
</table>

Over 200 species have been recorded, c.150 as breeding species, with more than 60 breeding in riverine forest. Breeding species of global conservation concern that do not meet IBA criteria: Crex crex (eight pairs). Other notable breeders are Pernis apivorus (12-14 pairs) and Grus grus (30 pairs).

**Protection status**
National Low International None
5 ha of IBA covered by Nature Reserve (Odryszyko, 5 ha). 1,270 ha of IBA covered by Protected Landscape Area (Dolina Odry, 1,270 ha). 21 ha of IBA covered by Ecological Area (Ścinawskie Bagna, 21 ha).

**Conservation issues**

Threats Abandonment/reduction of land management (B), Construction/impact of dyke/dam/barrage (A), Groundwater abstraction (B), Intensified forest management (B), Selective logging/cutting (U)

Forests are at risk of clear-cutting to improve flood control. Many of the old-growth trees are Nature Monuments. Three Landscape Parks and eight Nature Reserves are planned.

**Przemków ponds**

Admin region dolnośląskie
Coordinates 51°34′N 15°49′E
Altitude 150-150 m Area 1,046 ha

**Site description**

Two pond complexes (769 ha and 179 ha) on the Szprotawa river catchment (a tributary of the Bôr river), with scattered forest of ash Fraxinus and alder Alnus (75 ha). Shoreline reedbeds Phragmites cover 6% of the ponds’ area. Dams are generally treeless. Extensive meadows, sedge-beds and willow Salix bushes adjoin this area.

**Habitats**
Forest and woodland (3%; aliosia/vet forest), Scrub (3%; scrub), Grassland (45%; humid grassland; mesophile grassland), Wetland (45%; standing fresh water; river/stream; water-fringe vegetation), Artificial landscape (3%)
**Land-use**
Fishing/accelerating vegetation (100%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anas platyrhynchos</em></td>
<td>1990</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

More than 20,000 waterbirds occur regularly on autumn passage, mainly wildfowl and Fulica atra. Breeding species of global conservation concern that do not meet IBA criteria: Haliaeetus albicilla (one pair), Crex crex (one pair).
**Barycz river valley**

Admin region dolnośląskie, wielkopolskie  
Coordinates 51°32’N 17°25’E  
Altitude 95–140 m  
Area 25,700 ha

**Site description**

A stretch of the Barycz river valley between Żmigród in the west and the vicinity of Przygodzice in the east. Habitats include five large and five small complexes of fishponds, totalling 130 ponds in all, as well as surrounding meadows, arable fields, marshy areas and forests. Extensive meadows at Odolanów are mainly wet and have a dense drainage system which is cleared few every few years with limited effectiveness. Mechanized hay-cutting is carried out in June and July. Some fish-eating birds are controlled (mainly *Ardea cinerea* and *Phalacrocorax carbo*).

**Habitats**  
Forest and woodland (23%); broadleaved deciduous forest; native coniferous forest; mixed forest; alidend (very wet forest); Grassland (23%); steppe-grassland; meadow-grassland; humid grassland; mesophile grassland; wetland (28%); standing fresh water; river/stream; raised bog; water-fen vegetation; fen/spring. Artificial landscape (28%); highly improved meadowland; arable land; forestry plantation; urban park/land; other urban/industrial/area; ruderal land

**Land-use**  
Agriculture (47%), Fisheries/aquaculture (25%), Forestry (23%), Hunting, Urban/industrial/transport (5%)

**Birds**

A stretch of the Barycz river valley between Żmigród and S³up and has small patches of willow *Salix* scrub along its eastern and southern banks. The smaller one, Zbiornik Górny, is situated close to a backwater, near Starý Jawor, and has reedbeds *Phragmites*, islands and patches of *Salix* scrub. The whole area floods in spring, creating large expanses of shallow water and silt.

**Protection status**

National High  
International Partial

5,324 ha of IBA covered by Nature Reserve (Stawy Mileckie, 5,324 ha). 49 ha of IBA covered by Nature Reserve (Wydymacz, 49 ha). 25,700 ha of IBA covered by Landscape Park (Dolina Barycz, 87,040 ha). 1,700 ha of IBA covered by Protected Landscape Area (Węgorza Ostrzeszowskie i Kotlina Odolanowska, 68,000 ha). 5 ha of IBA covered by Nature Monument (Las Pardolifolius, 5 ha). 5,324 ha of IBA covered by Ramsar Site (Stawy Mileckie, 5,324 ha).

**Conservation issues**

Changes in water-level lower the breeding success of some species. Anglers disturb nesting birds, and unsustainable hunting occurs. The site lies in the buffer zone of Chelmny Landscape Park.

**Mietków reservoir**

Admin region dolnośląskie  
Coordinates 50°58’N 16°37’E  
Altitude 160–165 m  
Area 920 ha

**Site description**

A large storage reservoir situated in a hilly agricultural landscape, used to control water-flow for navigation on the Odra river. It is surrounded by arable land and two small broadleaved forests. Gravel is extracted by mechanical diggers. The area is also used for hunting and angling.

**Habitats**  
Wetland (100%); standing fresh water

**Land-use**  
Hunting, Not utilized (10%), Tourism/recreation (10%), Water management (80%)

**Birds**

The largest roosting place for migrating and wintering *Anser fabalis* in Poland.

**Protection status**

National None  
International None

**Conservation issues**

Changes in water-level lower the breeding success of some species. Anglers disturb nesting birds, and unsustainable hunting occurs. The site lies in the buffer zone of Chelmny Landscape Park.
Birds are disturbed by recreation/tourism (including anglers), by gravel excavators working on the reservoir, and by hunting.

**Site description**
The site comprises the 70 km stretch of the Odra valley between Narok town (by Opole town) and Wrocław city. The valley is forested mainly with hornbeam *Carpinus*, but there is also some riverine forest. Much of the site is meadows, pastures and fields. There are also numerous streams, oxbow lakes, areas of shallow water and bare silt remaining from former floods, and fishponds.

**Habitats**
- Forest and woodland (40%; broadleaved deciduous forest; mixed forest; alluvial/very wet forest);
- Grassland (30%; humd grassland; mesophile grassland);
- Wetland (15%; standing fresh water; river/stream; water-fringe vegetation);
- Artificial landscape (15%; highly improved reseeded grassland; arable land; ruderal land)

**Land-use**
- Agriculture (50%);
- Fisheries/aquaculture (10%);
- Forestry (40%);
- Hunting

**Protection status**
National None International None

**Conservation issues**
- Threats Natural events (A)

**Threats**
- Agricultural intensification/expansion (U);
- Deforestation (commercial) (U);
- Construction/impact of dyke/dam/barrage (U);
- Natural events (A)

**Site description**
A large storage reservoir on the Nyssa Klodzka river, situated amongst hills in an agricultural landscape, not far from Nyssa reservoir. Broadleaved forest adjoins the embanked eastern side. The western and southern shores have a more natural character, being covered with a wide belt of willow *Salix* bushes. The northern part is used for recreation. The reservoir controls water flow for navigation on the Odra river, and there are considerable fluctuations in water-level. Although some parts of the shore are shingle, the bottom of the reservoir is generally muddy and sandy.

**Habitats**
- Forest and woodland (5%; broadleaved deciduous forest; alluvial/very wet forest);
- Wetland (95%; standing fresh water; water-fringe vegetation);
- Land-use Hunting, Tourism/recreation (20%); Water management (80%)

**Protection status**
National None International None

**Conservation issues**
- Threats Natural events (A)

**Site description**
This storage reservoir on the Malą Panew river is used for facilitating navigation on the Odra river. The eastern part of this long reservoir, between the Lubawka river mouth and Szczedrzyk village, is important for birds. The water-body is surrounded mainly by forest. The western and part of the southern shores are embanked, the northern and eastern shores are covered with water-fringe vegetation, mainly reed-grass *Glyceria* and willow *Salix* bushes. There are considerable fluctuations in water-level. At low water a large area of sandy and muddy bottom is exposed at the eastern end. The reservoir is only periodically full.

**Habitats**
- Wetland (100%; standing fresh water; water-fringe vegetation)
- Land-use Tourism/recreation (20%); Water management (80%)

**Protection status**
National None International None

**Conservation issues**
- Threats Construction/impact of dyke/dam/barrage (U), Natural events (A)

**Site description**
This storage reservoir in the Odra valley is located near the town of Nysa, within a hilly agricultural landscape, and near Otmuchów reservoir. It is an artificial landscape and is used mainly for recreation. The reservoir is periodically full.

**Habitats**
- Wetland (100%; standing fresh water; water-fringe vegetation)
- Land-use Tourism/recreation (10%); Water management (90%)

**Protection status**
National None International None

**Conservation issues**
- Threats Construction/impact of dyke/dam/barrage (U), Natural events (A)

**Site description**
More than 20,000 ducks and waders occur here on migration or in winter, the main species being *Anas platyrhynchos*, *A. crecca*, *Gallinago gallinago*, *Calidris alpina*, *C. ferruginea*, *C. minuta*, *Tringa nebularia*, *T. glareola*, and *Actitis hypoleucos*. Since 1976 the abundance and species-richness of birds have grown as the vegetation has developed. Breeding species of global conservation concern that do not meet IBA criteria: *Crex crex* (1–2 pairs).

**Protection status**
National None International None

**Conservation issues**
- Threats Natural events (A)

Rapid filling of the reservoir during floods reduces or eliminates suitable foraging/resting habitat for staging waders on migration.

**Site description**
A large storage reservoir on the Nyssa Klodzka river, situated amongst hills in an agricultural landscape, not far from Nyssa reservoir. Broadleaved forest adjoins the embanked eastern side. The western and southern shores have a more natural character, being covered with a wide belt of willow *Salix* bushes. The northern part is used for recreation. The reservoir controls water flow for navigation on the Odra river, and there are considerable fluctuations in water-level. Although some parts of the shore are shingle, the bottom of the reservoir is generally muddy and sandy.

**Habitats**
- Forest and woodland (5%; broadleaved deciduous forest; alluvial/very wet forest);
- Wetland (95%; standing fresh water; water-fringe vegetation);
- Land-use Hunting, Tourism/recreation (20%); Water management (80%)

**Protection status**
National None International None

**Conservation issues**
- Threats Natural events (A)

Rapid filling of the reservoir (during river floods) reduces or eliminates suitable foraging/resting habitat for staging waders on migration.

**Site description**
A large storage reservoir on the Nyssa Klodzka river, used mainly for recreation and tourism. The reservoir is periodically full.

**Habitats**
- Wetland (100%; standing fresh water; water-fringe vegetation);
- Land-use Tourism/recreation (10%); Water management (90%)

**Protection status**
National None International None

**Conservation issues**
- Threats Natural events (A)

Rapid filling of the reservoir (during river floods) reduces or eliminates suitable foraging/resting habitat for staging waders on migration.
Upper Wisla river valley

**Admin region**: śląskie, małopolskie
**Coordinates**: 49°57'N 19°11'E
**Altitude**: 219–397 m  **Area**: 130,000 ha

### Conservation issues

**Threats**: Extraction industry (B), Natural events (A)

### Site description

This site comprises the Goczałkowice drinking-water reservoir (3,200 ha) and many pond complexes and forest fragments in the valley of the upper Wisła (Vistula) river, from Cieszyn to Szytulowice towns. Valley width is c. 12 km. The western and south-western shores of the reservoir are embanked, with the dam forming the eastern shore, but northern and southern parts have a more natural character. Large areas of shore are covered by reed-grass Glyceria, and in some places by scrub; wet meadows cover the western part. Water-levels can vary by up to 4 m. The reservoir supports a fishery. The more important pond complexes are Goczałkowice Zdroj (300 ha), Mnich (80 ha), Landek (150 ha), Ligota (170 ha), Pod Borem (150 ha), Dębówiec (400 ha), Przyrzęd (396 ha) and Szytulowice (350 ha). Mixed forest (80 ha) adjoins the Przędzal pond, and some ponds are partly covered with reed Phragmites. The whole area is used for hunting.

**Habitats**: Forest and woodland (8%; broadleaved deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest); Grassland (8%; humid grassland; mesophile grassland); Wetland (9%; standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (75%; highly improved reseeded grassland; arable land; other urban/industrial areas; natural land)

**Land-use**: Agriculture (74%), Fisheries/aquaculture (5%), Forestry (8%), Hunting, Urban/industrial/transport (8%), Water management (5%)

### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podiceps nigricollis</td>
<td>Black-necked Grebe</td>
<td>B 1996</td>
<td>936</td>
<td>936</td>
<td>A</td>
<td>A4i, B1i</td>
</tr>
<tr>
<td>Botaurus stellaris</td>
<td>Little Bittern</td>
<td>B 1996</td>
<td>55</td>
<td>55</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Anas strepera</td>
<td>Gadwall</td>
<td>B 1995</td>
<td>50</td>
<td>100</td>
<td>C</td>
<td>B2</td>
</tr>
<tr>
<td>Tringa totanus</td>
<td>Redshank</td>
<td>B 1996</td>
<td>82</td>
<td>82</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Chlidonias hybridus</td>
<td>Whiskered Tern</td>
<td>B 1996</td>
<td>10</td>
<td>299</td>
<td>A</td>
<td>B1i</td>
</tr>
<tr>
<td>Chlidonias aegia</td>
<td>Black Tern</td>
<td>B 1996</td>
<td>17</td>
<td>98</td>
<td>A</td>
<td>B2</td>
</tr>
</tbody>
</table>


Up to 60,000 ducks, geese, gulls and waders occur on migration and in winter.

### Protection status

**National**: None  **International**: None

### Site description

The site comprises the stretch of the Nida river valley between the villages of Mostowice and Skworrono Dolne, as well as a wedge of a few square kilometres’ area between Umianowice and Skworrono. The valley widens gradually up to 6 km width, to the gorge near the village of Sobowice. The whole of the site is covered by a system of small watercourses, and there are four low hills. There are many oxbow lakes, mires and seasonally flooded areas with aquatic vegetation (e.g. Potamogeton) and reed Phragmites. Amongst the meadows there are areas of wet alder Alnus forest and clumps of willow Salix, while the riversides are lined with trees/scrub of Salix and poplar Populus.

**Habitats**: Forest and woodland (5%; native coniferous forest; allobashalv wet forest); Grassland (60%; steppe excalessus grassland; humid grassland; mesophile grassland); Wetland (30%; standing fresh water; river/stream; water-fringe vegetation; fen;transition mire/spring); Artificial landscape (5%; highly improved reseeded grassland; arable land)

**Land-use**: Agriculture (70%), Hunting, Not utilized (30%)

A total of 125 species have been recorded breeding, including 47 waterbirds.

### Protection status

**National**: High  **International**: None

2,000 ha of IBA covered by Landscape Park (Nadniidzianka, 22,850 ha). 300 ha of IBA covered by Ecological Area (Umianowice, 300 ha).

### Conservation issues

**Threats**: Abandonment/reduction of land management (C), Agricultural intensification/expansion (C), Drainage (A), Dredging/canalization (A)

The main threats are drainage and dredging/canalization. As a result of this and also of agricultural abandonment, open habitats such as the meadows of wet grassland are reverting to scrub and woodland, which is reducing the value of the site for some key bird species.

Małopolska Wisła river gap

**Admin region**: małopolskie, świętokrzyskie
**Coordinates**: 51°13'N 21°50'E
**Altitude**: 120–120 m  **Area**: 1,300 ha

### Site description

An unmodified part of the Wisła (Vistula) riverbed, 36 km long, with meanders, high banks, numerous islands and sandbars, from Jędrów town to Kazimierz Dolny town. The islands vary in character, from low, bare sandy islets to larger, higher islands, covered with willow Salix scrub, forest of Salix and poplar Populus, hay meadows and pasture. The river is extensively used by boat traffic.

**Habitats**: Forest and woodland (3%; alluvial/very wet forest); Scrub (3%; scrub); Grassland (5%; humid grassland), Wetland (81%; river/stream; water-fringe vegetation); Artificial landscape (5%; highly improved reseeded grassland)

**Land-use**: Agriculture (89%), Hunting, Tourism/recreation (20%)

Breeding species of global conservation concern that do not meet IBA criteria: **Crex crex** (10–20 pairs).
**Protection status**

National Partial  International  None

62 ha of IBA covered by Nature Reserve (Krowia Wyssa, 62 ha). 400 ha of IBA covered by Landscape Park (Kazimierski, 13,670 ha).

**Conservation issues**

**Threats** Construction/impact of dyke/dam/harbour (U), Dredging/canalization (U), Industrialization/urbanization (U)

There is pollution from industrial development. Further canalization of the river is planned.

---

**Tyśmienica river valley**

**Admin region lubelskie**

**Coordinates** 51°36'N 22°49'E

**Altitude** 132–165 m  Area 14,500 ha

**Site description**

The site contains the Tyśmienica river valley (right-bank tributary of the Wieprz river) and is covered by wet meadows with some remnant sedge-beds and scrub of willow *Salix* and alder *Alnus* that are used for agriculture. There are eleven small pond complexes, a few hundred peat pits, oxbow lakes, and the large Siemiench pond complex (790 ha). In that complex 20% of large ponds and 40–50% of small ones are overgrown with reed *Phragmites* and reed-mace *Typha*. The site is surrounded by agricultural land.

**Habitats**

- Forest and woodland (5%; native coniferous forest; mixed forest; alluvial/very wet forest), Scrub (5%; scrub), Grassland (70%; humid grassland; mesophile grassland), Wetland (15%; standing fresh water; water-fringe vegetation; fen/transition mire/spring), Artifical landscape (5%; highly improved reseeded grassland; arable land)

**Land-use**

- Agriculture (85%), Fisheries/aquaculture (10%), Forestry (5%), Hunting

**Conservation issues**

**Threats** Abandonment/reduction of land management (C), Afforestation (C), Agricultural intensification/expansion (A), Drainage (A), Groundwater abstraction (B), Selective logging/cutting (B)

Fishermen, and reed burning in spring, cause some disturbance to birds, especially to geese and some ducks. Also, early filling of some ponds reduces breeding numbers of *Charadrius dubius* and *C. hiaticula*, and filling ponds too high destroys nests of gulls and terns.

**Tyśmienica river valley**

**Admin region lubelskie**

**Coordinates** 51°36'N 22°49'E

**Altitude** 132–165 m  Area 14,500 ha

**Site description**

The site contains the Tyśmienica river valley (right-bank tributary of the Wieprz river) and is covered by wet meadows with some remnant sedge-beds and scrub of willow *Salix* and alder *Alnus* that are used for agriculture. There are eleven small pond complexes, a few hundred peat pits, oxbow lakes, and the large Siemiench pond complex (790 ha). In that complex 20% of large ponds and 40–50% of small ones are overgrown with reed *Phragmites* and reed-mace *Typha*. The site is surrounded by agricultural land.

**Habitats**

- Forest and woodland (5%; native coniferous forest; mixed forest; alluvial/very wet forest), Scrub (5%; scrub), Grassland (70%; humid grassland; mesophile grassland), Wetland (15%; standing fresh water; water-fringe vegetation; fen/transition mire/spring), Artifical landscape (5%; highly improved reseeded grassland; arable land)

**Land-use**

- Agriculture (85%), Fisheries/aquaculture (10%), Forestry (5%), Hunting

**Conservation issues**

**Threats** Abandonment/reduction of land management (C), Afforestation (C), Agricultural intensification/expansion (A), Drainage (A), Groundwater abstraction (B), Selective logging/cutting (B)

Fishermen, and reed burning in spring, cause some disturbance to birds, especially to geese and some ducks. Also, early filling of some ponds reduces breeding numbers of *Charadrius dubius* and *C. hiaticula*, and filling ponds too high destroys nests of gulls and terns.

**Birds**

**Species**

- *Botaurus stellaris* Bittern
- *Isabryctus minutus* Little Bittern
- *Aythya nyroca* Ferruginous Duck
- *Hulaeetus albicilla* White-tailed Eagle
- *Circus pygargus* Montagu’s Harrier
- *Falco tinnunculus* Kestrel
- *Porzana parva* Little Crake
- *Crex crex* Corncrake
- *Limosa limosa* Black-tailed Godwit
- *Chlidonias niger* Black Tern

**Protection status**

National  None  International  None

2,104 ha of IBA covered by National Park (Poleski, 9,648 ha). 1,469 ha of IBA covered by Nature Reserve (Jezioro Piwonia-Bobrówka, Konotopa. Forest is mainly pine *Pinus* (stands up to 160 years old in some places) and mixed oak *Quercus/pine*, with some small stands dominated by other broadleaved species. In places there are transitional mires covered by sedge-beds (*Scheuchzeria Carex*), and there are meadows along the Ochoża.

**Bubnów marshes**

**Admin region lubelskie**

**Coordinates** 51°22'N 23°17'E

**Altitude** 175–176 m  Area 2,104 ha

**Site description**

Two marshes—Bubnów and Staw—located in the Łęczyńsko-Włodawskie lakeland. The marshes are separated by a small river, and are drained by a watercourse from the Włodawka catchment. The habitat is mainly fens with sedge-beds. Open areas are covered in some places by sparse reed *Phragmites*. About 10 ha is covered with great fen sedge *Cladium*, and there are characteristic hummocks of dry grassland in the marshes, with small patches of willow *Salix* scrub at the margin-edges.

**Habitats**

- Forest and woodland (18%; alluvial/very wet forest), Grassland (10%; steppe/dry calcareous grassland; humid grassland), Wetland (72%; standing fresh water; water-fringe vegetation; fen/transition mire/spring), Nature conservation/research (100%)

**Conservation issues**

**Threats** Abandonment/reduction of land management (C), Agricultural intensification/expansion (A), Drainage (A), Selective logging/cutting (B)

**Birds**

**Species**

- *Corncrake B* 1995 30 — C A1
- *Bubo bubo* Eagle Owl

**Protection status**

National  None  International  None


**Conservation issues**

**Threats** Abandonment/reduction of land management (C), Agricultural intensification/expansion (A), Drainage (A), Selective logging/cutting (B)

The greatest threats are drainage, selective logging of the most mature stands in the forest, and the abandonment of agricultural management of meadows (which leads to overgrowth of scrub).

**Parczew forests**

**Admin region lubelskie**

**Coordinates** 51°33'N 22°55'E

**Altitude** 143–170 m  Area 8,000 ha

**Site description**

A forest complex in the north-west part of the Łęczyńsko-Włodawskie lakeland, between the Wieprz-Krza Canal and the Tyśmienica river. The forest is drained by tributaries of the Tyśmienica (Ochoża, Piwonia-Bobrówka, Konotopa. Forest is mainly pine *Pinus* (stands up to 160 years old in some places) and mixed oak *Quercus/pine*, with some small stands dominated by other broadleaved species. In places there are transitional mires covered by sedge-beds (*Scheuchzeria Carex*), and there are meadows along the Ochoża.

**Protection status**

National High  International  None

2,104 ha of IBA covered by National Park (Poleski, 9,648 ha). 1,469 ha of IBA covered by Nature Reserve (Bagno Bubnów, 1,469 ha).

**Conservation issues**

**Threats** Abandonment/reduction of land management (C), Agricultural intensification/expansion (A), Drainage (A), Selective logging/cutting (B)

**Birds**

**Species**

- *Acrorhynchus paludicola* Aquatic Warbler

A total of 90 species have been recorded, 50 of them breeding. Breeding species of global conservation concern that do not meet IBA criteria: *Crex crex* (three pairs).

**Reed-burning is a threat to nesting birds.**
Middle Bug river valley
Admin region lubelskie
Coordinates 51°20’N 23°38’E
Altitude 128–179 m Area 5,100 ha

- Site description
  A 340 km long stretch of the Bug river valley along the border with Ukraine and Belarus, from Gołębie village (where the Bug enters Poland) to the mouth of the Krzna tributary. The main tributaries flowing into the Bug along this stretch are (largest first) the Huczwa, Welniakwa, Udal, Uherka, Włodawka and Hanna. This stretch is 2–3 km wide, and includes the Husyne storage reservoir on the Udal tributary. The channel of the Bug is deeply incised and has a natural character (no dredging or regulating work has been undertaken), while the relatively flat valley is covered by meadows with variably wet soils, small areas of degraded riverside forest of alder *Alnus* and willow *Salix* scrub, and arable land. Oxbow lakes are common. Husyne reservoir (112 ha, 2.5 m deep) is half-overgrown with reedbeds *Phragmites* and water-soldier *Pistia*.

Habitats
- Forest and woodland (5%): broadleaved deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest.
- Grassland (65%): steppe/dry calcareous grassland; humid grassland; mesophile grassland.
- Wetland (10%): standing fresh water; river/stream; water-fringe vegetation; fen/transition mire/spring.
- Artificial landscape (10%): highly improved reseeded grassland; arable land; other urban/industrial areas; ruderal land.

Land-use
- Agriculture (75%)
- Forestry (5%)
- Hunting
- Nature conservation/research (30%)
- Not utilized (5%)
- Urban/industrial/transport (3%)

- Conservation issues
  The enlargement of border crossings in five places poses a threat—some important species no longer breed in these places. Since 1997 a project by IUCN and the Lublin Ornithological Society has investigated status, function and threats in the Bug valley, in cooperation with Ukraine on the right bank.

- Protection status
  National None International None

- Conservation issues
  Threats: Burning of vegetation (B), Drainage (A), Industrialization/urbanization (U), Infrastructure (I)

Strzeleckie forests
Admin region lubelskie
Coordinates 50°58’N 23°53’E
Altitude 175–200 m Area 8,500 ha

- Site description
  A densely forested area at the confluence of the Bug and Welniakwa rivers. Forest is dominated by dry-ground species, e.g. hornbeam *Carpinus*; riverside forest (alder *Alnus*) and coniferous forest (spruce *Picea*) cover only a small part of the area. The site is surrounded by meadows on almost all sides.

Habitats
- Forest and woodland (80%): broadleaved deciduous forest; native coniferous forest; alluvial/very wet forest.
- Grassland (10%): humid grassland; mesophile grassland.
- Artificial landscape (10%): arable land.

Land-use
- Agriculture (20%)
- Forestry (80%)
- Hunting

- Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aquila pomarina</em></td>
<td>Lesser Spotted Eagle</td>
<td>B</td>
<td>1998</td>
<td>15</td>
<td>20</td>
<td>B2</td>
</tr>
<tr>
<td><em>Ficedula albicollis</em></td>
<td>Collared Flycatcher</td>
<td>B</td>
<td>1993</td>
<td>408</td>
<td>500</td>
<td>B1</td>
</tr>
</tbody>
</table>

- Conservation status
  National High International None

- Conservation issues
  Threats: Abandonment/reduction of land management (U), Afforestation (U)

The main threat is the loss of meadows (especially in glades within the forest), due to abandonment of hay harvesting and to afforestation. This is considered to have reduced the number of breeding pairs of *Aquila pomarina* in the forest (from 17–20 pairs at the start of the 1990s to 15 pairs currently).
Niepołomic forest
Admin region małopolskie
Coordinates 50°04'N 20°20'E
Altitude 175–200 m Area 11,000 ha

**Site description**
Niepołomic forest lies in lightly undulating country at the confluence of the Wisła (Vistula) and Raba rivers (the Karpaty Plateau rapids). The forest is drained by the Drwinka river, which bisects the site. The southern part is densely forested, dominated by pine *Pinus* or mixed oak *Quercus/Pinus*. Dry-ground forest of hornbeam *Carpinus* is dominant in the northern part, but there is also riverine forest of alder *Alnus*, wooded meadows, and oxbow lakes at various stages of silting up. Stands are predominantly young, but in some places there is still some old-growth forest. The forest is surrounded by meadows and arable land, and adjoins a dozen or so villages.

**Habitats**
- Forest and woodland (75%; broadleaved deciduous forest; native coniferous forest; mixed forest; aluvial/very wet forest).
- Grassland (20%; humid grassland; mesophile grassland).
- Wetland (3%; river/stream).
- Artificial landscape (3%).

**Land-use**
- Agriculture (15%).
- Forestry (85%).
- Hunting.

**Conservation issues**
Destruction of forest habitats (U), Forest regeneration (U), Industrialization/urbanization (U), Hunting (U), Tourism/recreation (U).

A total of 180 species have been recorded, including 115 breeders or probable breeders, and 60 migrants.

**Protection status**
National Low International None
25 ha of IBA covered by Nature Reserve (Długosz Królewski, 25 ha).
13 ha of IBA covered by Nature Reserve (Dębeta, 13 ha). 29 ha of IBA covered by Nature Reserve (Gibiel, 29 ha).

Gorce mountains
Admin region małopolskie
Coordinates 49°31'N 20°10'E
Altitude 600–1,288 m Area 7,030 ha

**Site description**
A tract of the Gorce mountains (part of the Western Beskidy range), comprising the upper part of the Kamiencza river catchment and parts of other catchments. The peaks of Jaworzyna (1,288 m), Kudłoń (1,276 m) and Mostownica (1,251 m) lie within the National Park, which is covered mainly by semi-natural subalpine forest, dominated by spruce *Picea*, oak *Quercus* and fir *Abies*. Mountain pasture occurs at higher elevations.

**Habitats**
- Forest and woodland (71%; native coniferous forest; mixed forest).
- Treeline ecotone.
- Grassland (3%; alpine/subalpine/boreal grassland).
- Rocky areas (24%; screes/forests; inland cliffs).
- Artificial landscape (1%; ruderal land).

**Land-use**
- Agriculture (15%).
- Forestry (5%).
- Nature conservation/research (70%).
- Tourism/recreation (10%).

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Picaeus canus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Turdus torquatus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Tichodroma muraria</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Breeding species include *Crex crex* (of global conservation concern but not meeting IBA criteria) and two of the 10 species in Europe that are restricted to the European high-mountain biome when breeding (*Prunella collaris* in especially good numbers). A total of 200 species have been recorded.

**Protection status**
National High International High
21,164 ha of IBA covered by National Park (Tatrański, 21,164 ha).

**Conservation issues**
Deforestation/commercial (U), Industrialization/urbanization (U), Tourism/recreation (U).

Some mountain pastures (privately owned) are reverting to forest following the cessation of grazing. Birds are disturbed by the large number of tourists and local people collecting wild foodstuffs. Some privately owned forests along the border of the National Park are being clear-felled. Tree-death from acid rain (air pollution originating from industry upwind) is also a problem. An overhead cable-car to the highest peak (Turbacze) is proposed, which would further increase the number of tourists and the amount of infrastructural development in the region.

**Tatra mountains**
Admin region małopolskie
Coordinates 49°15'N 19°55'E
Altitude 844–2,499 m Area 21,164 ha

**Site description**
Tatra National Park covers the whole of the Polish part of the Tatra range (Western Tatras), the youngest and highest mountains in Poland (up to 2,499 m). At lower altitudes there is heavily modified subalpine spruce *Picea* forest, followed by upper subalpine forest, then the mountain pine *Pinus mugo* zone, followed by alpine pastures and rock towers at the highest elevations. There is a great variety of land-forms with many mountain lakes (High Tatras) and karst features (Western Tatras; e.g. caves). The site is contiguous with the "Tatry" IBA across the border in Slovakia.

**Habitats**
- Forest and woodland (71%; native coniferous forest; mixed forest).
- Treeline ecotone.
- Grassland (3%; alpine/subalpine/boreal grassland).
- Rocky areas (24%; screes/forests; inland cliffs).
- Artificial landscape (1%; ruderal land).

**Land-use**
- Agriculture (15%).
- Forestry (5%).
- Nature conservation/research (70%).
- Tourism/recreation (10%).

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Tetrao tetrix</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Bubo bubo</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Prunella collaris</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Turdus torquatus</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Tichodroma muraria</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Breeding species include *Crex crex* (of global conservation concern but not meeting IBA criteria) and two of the 10 species in Europe that are restricted to the European high-mountain biome when breeding (*Prunella collaris* in especially good numbers). A total of 200 species have been recorded.

**Protection status**
National High International High
21,164 ha of IBA covered by National Park (Tatrański, 21,164 ha).

**Conservation issues**
Industrialization/urbanization (U), Infrastructure (U), Recreation/tourism (U).

Threats include air and water pollution (airborne deposits from industry upwind), tourism/recreation, transportation, infrastructure development up to the Park border, and a proposal to hold the Winter Olympic Games here.
### Janów forests

**Admin region**: Podkarpackie, Lubelskie  
**Coordinates**: 50°40’N 22°15’E  
**Altitude**: 200–240 m  
**Area**: 50,000 ha

**Site description**

The north-western part of Solska Solska forest. Wet soils cover half of the area, which is drained by many natural watercourses, channels and ditches. Forest vegetation is dense and species-rich, dominated in places by pine *Pinus*, fir *Abies*, spruce *Picea*, oak *Quercus*, beech *Fagus*, ash *Fraxinus* and alder *Alnus*. Many stands have a natural character with some old-growth trees. Raised bogs and transitional mires occur in areas with little water flow, and were used in the last century for fish-ponds. There are 150 such former ponds, each with an area of 10–50 ha and a varying amount of plant cover.

**Habitats**: Forest and woodland (80%); broadleaved deciduous forest; native coniferous forest; mixed forest; alluvial/very wet forest; Grassland (3%); Wetland (15%); standing fresh water; river/stream; raised bog; water-fringe vegetation; Artificial landscape (1%).

**Land-use**: Fisheries/aquaculture (20%), Forestry (80%), Hunting.

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aythya nyroca</em></td>
<td>B</td>
<td>1993</td>
<td>10</td>
<td>20</td>
<td>—</td>
<td>B2</td>
</tr>
<tr>
<td><em>Aquila pomarina</em></td>
<td>B</td>
<td>1993</td>
<td>15</td>
<td>—</td>
<td>—</td>
<td>B2</td>
</tr>
</tbody>
</table>

Breeding species of global conservation concern that do not meet IBA criteria: *Aythya nyroca* (2-3 pairs), Crex crex.

### Protection status

National High

None

### Conservation issues

- Threats: Aquaculture/fisheries (A), Drainage (B), Groundwater abstraction (B), Selective logging/cutting (B)

Fish-farming involves the cutting of grass and sedge during the breeding season, which disturbs nesting birds.

### Przemyśl Plateau Landscape Park

**Admin region**: Podkarpackie  
**Coordinates**: 49°43’N 22°30’E  
**Altitude**: 100–616 m  
**Area**: 62,000 ha

**Site description**

A varied area of foothills, mainly covered with broadleaved forest of beech *Fagus* and hornbeam *Carpinus* and mixed forest of fir *Abies* and oak *Quercus*. In valley-bottoms there is riverside forest and scrub of alder *Alnus*. Open areas comprise fields and meadows with dry grassland. Some of the area used to be state farms, but has been abandoned and is now used by hunters.

**Habitats**: Forest and woodland (80%); broadleaved deciduous forest; mixed forest, Grassland (10%); steppe/dry calcareous grassland; humid grassland, Wetland (5%); river/stream; raised bog; water-fringe vegetation; Artificial landscape (15%); arable land

**Land-use**: Agriculture (10%), Forestry (80%), Hunting (5%), Nature conservation/research (5%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aythya nyroca</em></td>
<td>B</td>
<td>1995</td>
<td>4</td>
<td>6</td>
<td>A</td>
<td>B2</td>
</tr>
</tbody>
</table>

A total of 112 breeding species (and five probable breeders) have been recorded.

### Protection status

National High

None


### Conservation issues

- Threats: Forest management (B), Dredging/canalization (A), Intensified forest management (A), Selective logging/cutting (A)

### Solska Forest Landscape Park

**Admin region**: Lubelskie, Podkarpackie  
**Coordinates**: 50°23’N 23°08’E  
**Altitude**: 50–280 m  
**Area**: 28,980 ha

**Site description**

The site is covered by large expanses of forest, mainly coniferous and dominated by pine *Pinus* and fir *Abies*. There are many fish-ponds, mainly in the area of Ruda Różaniecka village, and wet areas of *Pinus* forest with bilberry * Vaccinium* and small reed-grass *Calamagrostis*.

**Habitats**: Forest and woodland (85%); native coniferous forest; Grassland (10%); Wetland (5%); standing fresh water; river/stream

**Land-use**: Agriculture (10%), Forestry (85%), Hunting, Water management (5%)

### Conservation issues

- Threats: Aquaculture/fisheries (A), Drainage (B), Groundwater abstraction (B), Selective logging/cutting (B)

A pond complex with adjacent wet meadows, riverine forests and arable land, situated between the Wiszna river (the San tributary) and the Bucowski Canal near to the Polish–Ukrainian border. Most
of the pond area is overgrown with submerged pondweed Potamogeton, floating water-lilies Nymphaea and fringing belts of reed Phragmites. The ponds are intensively used for fish-farming.

Habitats Forest and woodland (15%; alder/twill very wet forest), Grassland (33%; humid grassland), Wetland (50%; standing fresh water, river/stream, water-fringe vegetation), Artificial landscape (5%; stable land, ruderal land)

Land-use Agriculture (71%), Fisheries/aquaculture (10%), Hunting.

An important area for waterbirds migrating along the Wisła (Vistula), San and Dniestr rivers, with up to 10,000–40,000 staging here in autumn, mainly Anas platyrhynchos, Aythya ferina, Fulica atra, Vanellus vanellus and Larus ridibundus. Species of global conservation concern that do not meet IBA criteria: Aythya nyroca (3–4 pairs), Haliaeetus albicilla (one non-breeding bird), Crex crex.

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
</table>

**Protection status**

National None International None

**Conservation issues**

Threats include reed-cutting during the breeding season ('Other').

**Bieszczady mountains**

Admin region podkarpackie Coordinates 49°10’N 22°30’E Altitude 500–1,346 m Area 114,000 ha

**Site description**

The site covers part of the Western Bieszczady range, the only part of the Eastern Carpathians lying within Poland. The lowest part of the site is mainly deforested, above which is subalpine forest (covering 84% of the site), dominated mainly by beech Fagus sylvatica. Above that are extensive alpine meadows and Vaccinium heath, with alder Alnus shrubs.

**Habitats**

- Forest and woodland (70%; broadleaved deciduous forest, native coniferous forest, mixed forest), Scrub (3%; scrub), Grassland (15%; steppic calcareous grassland, alpine/subalpine/boreal grassland), Wetland (5%; river/stream), Rocky areas (3%), Artificial landscape (5%; stable land; ruderal land)
- Land-use Agriculture (71%), Fisheries/aquaculture (10%), Hunting.

**REFERENCES**


