GENERAL INTRODUCTION

Bulgaria covers 110,994 km² and is bounded to the east by the Black Sea, to the south by Turkey and Greece, to the west by Yugoslavia and the Former Yugoslav Republic of Macedonia, and to the north by Romania. The country can be divided into five main regions: (1) the fertile plain of the River Danube along the border with Romania; (2) the Stara Planina mountains, a 600-km-long chain running east–west across the country, with the highest point (Botev) at 2,376 m; (3) the central plain and valleys of the Maritsa river immediately south of the Stara Planina mountains; (4) the high mountains of Rila, Pirin and Rhodopi in the south-west, with the highest point at 2,925 m; and (5) the Black Sea coast, which is mostly flat but with some sea cliffs in the north.

There are 50 Important Bird Areas (IBAs) in Bulgaria (Table 1), covering a total area of 7,002 km², or 6.3% of the land area of the country (Kostadinova 1997). The IBAs lie mainly along the River Danube and the Black Sea coast, as well as in the central and eastern Stara Planina mountains and in the south-west of the country. The first pan-European IBA inventory (Grimmett and Jones 1989)
Table 1. Summary of Important Bird Areas in Bulgaria. 50 IBAs covering 7,002 km²

<table>
<thead>
<tr>
<th>IBA code</th>
<th>National code1</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 BG001 —</td>
<td>—</td>
<td>Rayanovci meadows</td>
<td>Vlazni Livadi Rayanovci</td>
<td>Sofia</td>
<td>1,500</td>
<td>A1, B2</td>
<td></td>
</tr>
<tr>
<td>002 BG002 —</td>
<td>—</td>
<td>Tchuprene</td>
<td>Tchuprene</td>
<td>Montana</td>
<td>1,960</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>003 BG003 —</td>
<td>—</td>
<td>Tisata</td>
<td>Tisata</td>
<td>Sofia</td>
<td>1,450</td>
<td>A3, B2</td>
<td></td>
</tr>
<tr>
<td>004 BG004 —</td>
<td>—</td>
<td>Dolni Bogrov-Kazichene</td>
<td>Dolni Bogrov-Kazichene</td>
<td>Sofia</td>
<td>1,000</td>
<td>A1</td>
<td></td>
</tr>
<tr>
<td>005 BG005 —</td>
<td>—</td>
<td>Zimevitsa meadows</td>
<td>Vlazni Livadi Zimevitsa</td>
<td>Sofia</td>
<td>500</td>
<td>A1</td>
<td></td>
</tr>
<tr>
<td>006 BG006 —</td>
<td>—</td>
<td>Orsoya fish-ponds</td>
<td>Ribamansi Orsoya</td>
<td>Montana</td>
<td>360</td>
<td>A1, B2</td>
<td></td>
</tr>
<tr>
<td>007 BG007 —</td>
<td>—</td>
<td>Ibisha island</td>
<td>Ostrov Ibisha</td>
<td>Montana</td>
<td>70</td>
<td>A1, B2</td>
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</tr>
<tr>
<td>008 BG008 —</td>
<td>—</td>
<td>Island near Gimi Tzibar</td>
<td>Ostrov do Gimi Tzibar</td>
<td>Montana</td>
<td>60</td>
<td>A1, A6, B1i</td>
<td></td>
</tr>
<tr>
<td>009 BG009 —</td>
<td>—</td>
<td>Fumiyata</td>
<td>Fumiyata</td>
<td>Montana</td>
<td>50</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>010 BG010 —</td>
<td>—</td>
<td>Pysachnik reservoir</td>
<td>Yazovir Pysachnik</td>
<td>Plovdiv</td>
<td>4,000</td>
<td>A4i, A4iii, B1i</td>
<td></td>
</tr>
<tr>
<td>012 BG012 —</td>
<td>—</td>
<td>Krumovitsa</td>
<td>Krumovitsa</td>
<td>Khaskovo</td>
<td>3,500</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>013 BG013 BG013</td>
<td>—</td>
<td>Studen Kladenetz</td>
<td>Studen Kladenetz</td>
<td>Khaskovo</td>
<td>18,000</td>
<td>A3, B2</td>
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<tr>
<td>014 BG014 —</td>
<td>—</td>
<td>Madjarovo</td>
<td>Madjarovo</td>
<td>Khaskovo</td>
<td>8,700</td>
<td>B2</td>
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<tr>
<td>015 BG015 —</td>
<td>—</td>
<td>Konush reservoir</td>
<td>Yazovir Konush</td>
<td>Plovdiv</td>
<td>30</td>
<td>A1, A6, B1i, B2</td>
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<tr>
<td>016 BG016 —</td>
<td>—</td>
<td>Plovdiv fish-ponds</td>
<td>Ribamansi Plovdiv</td>
<td>Plovdiv</td>
<td>98</td>
<td>A1, A6, B1i</td>
<td></td>
</tr>
<tr>
<td>017 BG017 BG017</td>
<td>—</td>
<td>Belene islands complex</td>
<td>Complex Belenski Ostrovi</td>
<td>Lovech</td>
<td>1,714</td>
<td>A1, B2</td>
<td></td>
</tr>
<tr>
<td>018 BG018 BG018</td>
<td>—</td>
<td>Vardim island</td>
<td>Ostrov Vardim</td>
<td>Lovech</td>
<td>458</td>
<td>B1i, B2</td>
<td></td>
</tr>
<tr>
<td>019 BG019 —</td>
<td>—</td>
<td>Byala Reka</td>
<td>Byala Reka</td>
<td>Khaskovo</td>
<td>18,000</td>
<td>A1, A3, B2</td>
<td></td>
</tr>
<tr>
<td>020 BG020 —</td>
<td>—</td>
<td>Radinchevo</td>
<td>Radinchevo</td>
<td>Khaskovo</td>
<td>5,000</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>021 BG021 —</td>
<td>—</td>
<td>Southern Sakar</td>
<td>Yuzen Sakar</td>
<td>Khaskovo</td>
<td>45,000</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>022 BG022 —</td>
<td>—</td>
<td>Rozov Kladenetz reservoir</td>
<td>Yazovir Rozov Kladenetz</td>
<td>Khaskovo</td>
<td>600</td>
<td>A1, A4i, B1i</td>
<td></td>
</tr>
<tr>
<td>023 BG023 BG013</td>
<td>—</td>
<td>Orvichanta reservoir</td>
<td>Yazovir Orvichanta</td>
<td>Khaskovo</td>
<td>610</td>
<td>A1, A6, A4iii, B1i</td>
<td></td>
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<tr>
<td>024 BG024 —</td>
<td>—</td>
<td>Mechka fish-ponds</td>
<td>Ribamansi Mechka</td>
<td>Kuse</td>
<td>800</td>
<td>A1, A6, B1i, B2</td>
<td></td>
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<tr>
<td>025 BG025 BG014</td>
<td>—</td>
<td>Lomovete</td>
<td>Lomovete</td>
<td>Kuse</td>
<td>4,120</td>
<td>B2</td>
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<tr>
<td>026 BG026 —</td>
<td>—</td>
<td>Dervetinski Vyuvezhenia</td>
<td>Dervetinski Vyuvezhenia</td>
<td>Burgas</td>
<td>20,000</td>
<td>B2</td>
<td></td>
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<tr>
<td>027 BG027 BG014</td>
<td>—</td>
<td>Malko Shalovo reservoir</td>
<td>Yazovir Malko Shalovo</td>
<td>Burgas</td>
<td>380</td>
<td>A4i, B1i</td>
<td></td>
</tr>
<tr>
<td>028 BG028 —</td>
<td>—</td>
<td>Tzarkovsko reservoir</td>
<td>Yazovir Tzarkovski</td>
<td>Burgas</td>
<td>500</td>
<td>A1, B1i</td>
<td></td>
</tr>
<tr>
<td>029 BG029 —</td>
<td>—</td>
<td>Kotlenska mountain</td>
<td>Kotlenska Planina</td>
<td>Burgas</td>
<td>156,000</td>
<td>A1, B2, B3</td>
<td></td>
</tr>
<tr>
<td>030 BG030 BG012</td>
<td>—</td>
<td>Kalimok complex</td>
<td>Complex Kalimok</td>
<td>Kuse</td>
<td>1,000</td>
<td>A1, A6, B1i, B2, B3</td>
<td></td>
</tr>
<tr>
<td>031 BG031 —</td>
<td>—</td>
<td>Stenata</td>
<td>Stenata</td>
<td>Kuse</td>
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<td>B2</td>
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<tr>
<td>032 BG032 —</td>
<td>—</td>
<td>Pozharevo island</td>
<td>Ostrov Pozharevo</td>
<td>Kuse</td>
<td>170</td>
<td>A1, A6, B1i, B2</td>
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</tr>
<tr>
<td>033 BG033 BG018</td>
<td>—</td>
<td>Srebarna lake</td>
<td>Ezeni Srebarna</td>
<td>Kuse</td>
<td>1,445</td>
<td>A1, A6, B1i, B2, B3</td>
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</tr>
<tr>
<td>034 BG034 BG015</td>
<td>—</td>
<td>Mandra-Poda complex</td>
<td>Complex Mandra-Poda</td>
<td>Burgas</td>
<td>2,270</td>
<td>A1, A6, A4iii, A4iv, B1i, B1iv, B2, B3</td>
<td></td>
</tr>
<tr>
<td>035 BG035 BG007</td>
<td>—</td>
<td>Burgasko lake</td>
<td>Burgasko Ezero</td>
<td>Burgas</td>
<td>2,800</td>
<td>A1, A6, A4iii, B1i</td>
<td></td>
</tr>
<tr>
<td>036 BG036 BG010</td>
<td>—</td>
<td>Atanasov lake</td>
<td>Atanasovsko Ezero</td>
<td>Burgas</td>
<td>1,950</td>
<td>A1, A6, A4iv, B1iv, B2, B3</td>
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<tr>
<td>037 BG037 —</td>
<td>—</td>
<td>Pomorie lake</td>
<td>Pomorie Ezero</td>
<td>Burgas</td>
<td>850</td>
<td>A1, A6, B1i, B3</td>
<td></td>
</tr>
<tr>
<td>038 BG038 —</td>
<td>—</td>
<td>Provdajko-Koyalsko Plata</td>
<td>Provdajko-Koyalsko Plata</td>
<td>Varna</td>
<td>100,000</td>
<td>B2, B3</td>
<td></td>
</tr>
<tr>
<td>039 BG039 —</td>
<td>—</td>
<td>Hunovska Reka</td>
<td>Hunovska Reka</td>
<td>Varna</td>
<td>20,000</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>040 BG040 —</td>
<td>—</td>
<td>Strandja</td>
<td>Strandja</td>
<td>Burgas</td>
<td>116,136</td>
<td>A4iv, B1iv, B2, B3</td>
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</tr>
<tr>
<td>041 BG041 BG015</td>
<td>—</td>
<td>Ropotamo complex</td>
<td>Complex Ropotamo</td>
<td>Burgas</td>
<td>4,800</td>
<td>A1, A6, B1i, B1iv, B2</td>
<td></td>
</tr>
<tr>
<td>042 BG042 —</td>
<td>—</td>
<td>Zhegene Skle</td>
<td>Zhegene Skle</td>
<td>Burgas</td>
<td>160</td>
<td>A1, B2</td>
<td></td>
</tr>
<tr>
<td>043 BG043 BG018</td>
<td>—</td>
<td>Emite</td>
<td>Emite</td>
<td>Burgas</td>
<td>100</td>
<td>A1, A4iv, B1iv, B2</td>
<td></td>
</tr>
<tr>
<td>044 BG044 —</td>
<td>—</td>
<td>Kamchijsko mountain</td>
<td>Kamchijsko Planina</td>
<td>Varna</td>
<td>55,000</td>
<td>A4iv, B1iv, B2, B3</td>
<td></td>
</tr>
<tr>
<td>045 BG045 BG022</td>
<td>—</td>
<td>Kamchia complex</td>
<td>Complex Kamchia</td>
<td>Varna</td>
<td>3,000</td>
<td>A4iv, B1iv, B2, B3</td>
<td></td>
</tr>
<tr>
<td>046 BG046 BG011</td>
<td>—</td>
<td>Yatata</td>
<td>Yatata</td>
<td>Varna</td>
<td>154</td>
<td>B1i, B2</td>
<td></td>
</tr>
<tr>
<td>047 BG047 —</td>
<td>—</td>
<td>Varna-Beloslov lakes complex</td>
<td>Varnensko-Beloslovsko Ezero</td>
<td>Varna</td>
<td>2,100</td>
<td>A1, A6, A4iv, B1iv, B2, B3</td>
<td></td>
</tr>
<tr>
<td>048 BG048 —</td>
<td>—</td>
<td>Suh Reka</td>
<td>Suh Reka</td>
<td>Varna</td>
<td>15,000</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>049 BG049 BG006</td>
<td>—</td>
<td>Shabla lake complex</td>
<td>Shableni Ezero Complex</td>
<td>Varna</td>
<td>3,100</td>
<td>A1, A6, A4iii, B1i, B1iv, B2</td>
<td></td>
</tr>
<tr>
<td>050 BG050 BG009</td>
<td>—</td>
<td>Durunkulak lake</td>
<td>Durunkulak</td>
<td>Varna</td>
<td>2,000</td>
<td>A1, A6, B1i, B2</td>
<td></td>
</tr>
</tbody>
</table>


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

<table>
<thead>
<tr>
<th>Code</th>
<th>1989 Code</th>
<th>National 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>
</table>

ORNITHOLOGICAL IMPORTANCE

There are 140 species of European conservation concern (SPECs) which regularly breed in Bulgaria. Five of these are globally threatened (Pelicans crispus, Aythya nyroca, Aquila heliaca, Falco naumanni and Crex crex), three of them are near-threatened (Phalacrocorax pygmeus, Haliaeetus albicilla and Aegypius monachus), and a further 81 have an unfavourable conservation status in Europe (Tucker and Heath 1994). Thirteen other globally

identified 22 IBAs in Bulgaria, and field surveys during the last eight years, combined with literature research and collaboration with other organisations in 1997, have resulted in a further 32 IBAs being identified in this review (Table 1). Three of the original (1989) IBAs (former sites 019–021) have been merged into one site (Central Balkan, site 011) in this review, and two of the original sites (former sites 016 and 017) no longer qualify as IBAs, after comparison of improved and updated information against the current (revised) IBA criteria (see Table 1).
threatened species occur mainly on migration and in winter, and an additional 14 species, which have an unfavourable conservation status in Europe due to the state of their European wintering populations, occur regularly in winter in Bulgaria.

Twenty-nine sites qualify as IBAs because they support important numbers of species of global conservation concern, i.e. they qualify under criterion A1 (Tables 1 and 2). Of particular note is the occurrence of more than half of the European wintering population (and almost all of the Bulgarian wintering population) of Branta ruficollis at two IBAs, Durankulak lake (050) and Shabla lake complex (049). Twenty-three of the IBAs in Bulgaria support important congregations of waterbirds (Tables 1 and 3), mainly in winter or while staging on migration. Nineteen of the 23 qualify on the basis of their globally important congregations of waterbirds (A4i).

Table 2. Important Bird Areas in Bulgaria that are important for species of global conservation concern (meeting criterion A1).

<table>
<thead>
<tr>
<th>Species</th>
<th>IBA code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalacrocorax pygmeus</td>
<td>P017, P022</td>
</tr>
<tr>
<td>Pelecanus crispus</td>
<td>P023, P024</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>P025, P026</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>P027, P028</td>
</tr>
<tr>
<td>Oxyura leucocephala</td>
<td>P029</td>
</tr>
<tr>
<td>Anas crecca</td>
<td>P030, P031</td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>P032, P033</td>
</tr>
<tr>
<td>Anas strepera</td>
<td>P034, P035</td>
</tr>
<tr>
<td>Branta ruficollis</td>
<td>P036, P037</td>
</tr>
<tr>
<td>Platalea leucorodia</td>
<td>P038, P039</td>
</tr>
</tbody>
</table>

Table 3. Important Bird Areas in Bulgaria that support important numbers of one or more congregate species (i.e. meeting criteria A4 and/or B1). IBAs meeting both criteria A4 and B1 for the species are shown in bold. IBAs meeting only criterion B1 for the species concerned, and not A4, are shown in normal type. For key to ‘Season’, see p. 7.

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>IBA code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalacrocorax carbo</td>
<td>R</td>
<td>P019</td>
</tr>
<tr>
<td>Phalacrocorax pygmeus</td>
<td>B</td>
<td>P020, P021</td>
</tr>
<tr>
<td>Pelecanus crispus</td>
<td>W</td>
<td>P022, P023</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>P</td>
<td>P024</td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>P025, P026</td>
<td></td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>P027, P028</td>
<td></td>
</tr>
<tr>
<td>Oxyura leucocephala</td>
<td>P029</td>
<td></td>
</tr>
<tr>
<td>Anas strepera</td>
<td>P030, P031</td>
<td></td>
</tr>
<tr>
<td>Branta ruficollis</td>
<td>P032, P033</td>
<td></td>
</tr>
<tr>
<td>Platalea leucorodia</td>
<td>P034, P035</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Species of European conservation concern with significant breeding populations at Important Bird Areas in Bulgaria (meeting any IBA criteria).

<table>
<thead>
<tr>
<th>Species</th>
<th>Minimum national breeding population</th>
<th>Proportion (%) of national population breeding at all IBAs in Bulgaria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalacrocorax pygmeus</td>
<td>60</td>
<td>78</td>
</tr>
<tr>
<td>Pelecanus crispus</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>199</td>
<td>60</td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>60</td>
<td>98</td>
</tr>
<tr>
<td>Anas strepera</td>
<td>50</td>
<td>29</td>
</tr>
<tr>
<td>Platalea leucorodia</td>
<td>100</td>
<td>57</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>50</td>
<td>34</td>
</tr>
<tr>
<td>Pelecanus crispus</td>
<td>150</td>
<td>29</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>100</td>
<td>39</td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>50</td>
<td>44</td>
</tr>
</tbody>
</table>

1. Only those species of European conservation concern (see Box 1, p. 12) that meet IBA criteria in any IBA.
2. Data are taken from the BirdLife/BBC European Bird Database 1998 (Hartdl and Bergq gorv 2000). The percentage of the national population in IBAs records 100. Usually this is because the national population estimate has not been updated recently whilst the IBA population estimate has been recently updated with new data as a result of a comparison surveys of IBAs themselves. 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 nationally in any single year.
The lowlands of Bulgaria have been largely converted to agricultural land. In 1995, 61,640 km² (56% of the land surface) was used for agriculture, of which 46,930 km² (42% of the land surface) was cultivated. In 1995, forests covered 38,760 km² (35% of the land surface), of which 34% were conifer-dominated and 26% were oak-dominated. The climax vegetation is dominated by Quercus up to an altitude of 1,000 m, by beech Fagus between 1,000 m and 1,500 m, and by coniferous woodland up to 2,200 m. Forests of pine Pinus peuce are particularly well developed, forming stands above 1,700 m in the Rila, Pirin and Rhodopes mountains. However, vast areas of forest in the uplands have been severely damaged, mainly by sheep-grazing. The main wetlands lie along the River Danube and the Black Sea coast, but many of Bulgaria’s marshlands and coastal lakes have been drained or modified since 1944, mainly for agriculture, but also as a result of touristic and industrial development. The north-eastern part of the Black Sea coast has some remnant steppe, similar to the adjacent Dobrudja plain of Romania.

**HABITATS**

The lowlands of Bulgaria have been largely converted to agricultural land. In 1995, 61,640 km² (56% of the land surface) was used for agriculture, of which 46,930 km² (42% of the land surface) was cultivated. In 1995, forests covered 38,760 km² (35% of the land surface), of which 34% were conifer-dominated and 26% were oak-dominated. The climax vegetation is dominated by Quercus up to an altitude of 1,000 m, by beech Fagus between 1,000 m and 1,500 m, and by coniferous woodland up to 2,200 m. Forests of pine Pinus peuce are particularly well developed, forming stands above 1,700 m in the Rila, Pirin and Rhodopes mountains. However, vast areas of forest in the uplands have been severely damaged, mainly by sheep-grazing. The main wetlands lie along the River Danube and the Black Sea coast, but many of Bulgaria’s marshlands and coastal lakes have been drained or modified since 1944, mainly for agriculture, but also as a result of touristic and industrial development. The north-eastern part of the Black Sea coast has some remnant steppe, similar to the adjacent Dobrudja plain of Romania.

**IMpacts on IBAs – land-use and Threats**

The most common forms of land-use in IBAs in Bulgaria are summarized in Figure 2. Sixty-eight percent of IBAs are used for hunting, a result of most IBAs being unprotected or only partly protected by national law. Forty-six percent of IBAs are used for forestry, and in 36% of IBAs the major economic activity, impacting more than 50% of the IBA's area. Approximately two-thirds of IBAs in Bulgaria experience some agricultural activity, many being under intensive crop production, especially in north- and south-
eastern Bulgaria where the largest congregations of wintering geese are found. Grasslands are grazed by cattle, and wet meadows are used for haymaking. Wetlands are used mainly for fisheries and for water management, and the wetlands along the Black Sea coast are surrounded by industrial and recreation areas. Typical and traditional salt-production activities endure at two coastal salt-lakes, Atanasovo (036) and Pomorie (037). The ownership of most IBAs is mixed, which may give rise to difficulties in managing these sites in the future.

Key threats and impacts to IBAs in Bulgaria are presented in Figure 3. Unsustainable exploitation of birds, particularly through illegal or excessive hunting, is the most widespread threat at IBAs, affecting 54% of sites, and in most cases it is believed to have a high impact. Hunting pressure is particularly high in wetland areas such as Shabla lakes complex (site 049) and Durankulak lake (050) which hold large concentrations of wintering waterfowl.

Other serious impacts on IBAs include the development of recreation and urbanization, very rapid in recent years, especially along the Black Sea coast. Wetlands near large settlements and industrial zones are particularly vulnerable, with the most affected sites including those bordering the towns of Burgas and Varna—the Mandra–Podaka complex (site 034), Burgasko lake (035), Atanasovo lake (036) and Varna–Beloslav lakes complex (047). Some sites, such as Srebarna lake (033), Shabla lakes complex (049) and Durankulak lake (050), are affected by dyke construction which in turn lowers water-levels and destroys habitats such as temporary freshwater bodies and areas of shallow or open water. Forest habitats are also under threat from intensified forest management in all unprotected IBAs. At the moment, agricultural and grassland areas are relatively little threatened. However, the expected forthcoming membership of Bulgaria in the European Union and the ensuing processes of agricultural intensification pose a potential threat to such habitats.

**PROTECTION STATUS**

The Ministry of the Environment and Water is the central authority responsible for nature conservation in Bulgaria, and the Central Laboratory for General Ecology coordinates ecological research within the Bulgarian Academy of Science. Table 5 and Figures 4 and 5 summarize the national and international protection status of Bulgarian IBAs.

### National protection

Until recently, there were four types of protected area relevant to nature conservation: National Parks, Protected Landscapes, Nature Reserves and Natural Monuments. The definitions for these are given below, and the details of protection afforded to IBAs follow this classification (Table 5, Figure 4). These protected areas may also have Buffer Zones, in which land-use is less strictly controlled. The extent of these Buffer Zones is included within the summary statistics on national protection status.

1. **National Parks**

These are territories distinguished by their outstanding natural beauty. They cover comparatively large areas and are suitable for recreation and tourism.
2. Protected Landscapes

These are part of the natural scenery (such as mountain ridges and gorges) and other characteristic landscapes which are suitable for rest and recreation.

3. Nature Reserves

These areas are defined by rare plant or animal communities of scientific value. Activities which may adversely affect the site are strictly prohibited, including agricultural or industrial activities. Admittance to, and movement within, the reserves are strictly controlled.

4. Natural Monuments

These are natural phenomena where preservation is a matter of public interest.

However, according to the new Protected Areas Act (not yet adopted) there are now six categories of protected area relevant to nature conservation in Bulgaria. All protected areas will have to be re-categorized, following this Act, by the year 2000. This re-classification is not yet complete and the new system has therefore been ignored in this publication, but the categories are presented below.

1. Reserve

These areas are model natural ecosystems that include typical or remarkable wild plant and animal species and their habitats.

2. National Park

National Parks should not contain populated areas within their boundaries. They include natural ecosystems with a high flora, fauna and habitat diversity, with typical and remarkable scenery and non-living natural features.

3. Natural Monument

Natural Monuments are typical or remarkable non-living natural features such as rock formations, rock excavations of scientific value, earth pyramids, caves, caverns, waterfalls, fossil and mineral deposits, sand-dunes and other features of exceptional value due to their inherent rarity, representativeness, aesthetic value, or scientific or cultural significance.

4. Maintained Reserve

Maintained Reserves contain ecosystems that include rare and/or endangered wild plant and animal species and their habitats.

5. National Park

These areas include diverse ecosystems with multififormity of plant and animal species and habitats thereof, with typical and remarkable scenery and non-living natural features.

6. Protected Locality

Protected Localities include:

i. Areas with typical or remarkable scenery including those that are the result of the harmonious existence of man and nature and which stand out for their significant aesthetic value;

ii. Habitats of endangered, rare or vulnerable plant and animal species and communities.

National Parks, Reserves and Maintained Reserves will be owned, administered and monitored by the state, while Natural Monuments, National Parks and Protected Localities will be owned and administered by their owners (not necessarily the state).

Only about 35% of the total area of all IBAs in Bulgaria is protected by national law, with just 5% of the IBA area under strict protection as Nature Reserves (Figure 4). Twenty-seven IBAs are afforded some legal protection through their overlap with the national protected-area network (Figure 4). Three IBAs overlap fully or partly with National Parks, 13 IBAs with Nature Reserves, 12 IBAs with Protected Landscapes, and 11 IBAs with Natural Monuments (Table 5). It should be stressed that large portions of many of these IBAs are not legally protected (Figure 4), and for eight sites (013, 014, 029, 030, 038, 043, 044, 047), this unprotected portion comprises more than 90% of the IBA’s area. In addition, 23 IBAs are not afforded any protection by national law.
**International protection**

Bulgaria is party to all of the international agreements that are relevant to site protection (Box 1). There are five designated Ramsar Sites in Bulgaria, which are covered by five IBAs (003, 036, 049, 050 and part of 041). Given that 15 other IBAs qualify as potential Ramsar Sites, since they meet relevant criteria (A4i, A4iii; see Tables 1 and 3), it should be a priority to obtain official Ramsar status for these very important sites (008, 010, 015, 016, 022, 023, 024, 027, 028, 030, 032, 034, 035, 037 and 047). Srebarna lake (033) is a World Heritage Site. Five IBAs contain Biosphere Reserves, including Central Balkan (011) which holds four Biosphere Reserves (Tsartichina, Boatin, Steneto and Djendema). Overall, 41 IBAs are unprotected at the international level (Figure 5).

Twenty-three IBAs receive no protection at all through official national or international legislation (Table 5), although ten of these are in the process of being designated. Nine of the unprotected IBAs are considered of global importance for the numbers of waterbirds that they support, and thirteen of them support important numbers of globally threatened species.

**CONSERVATION**

- Mapping of breeding birds in Bulgaria is conducted throughout the entire IBA network and aims to determine the current status of breeding bird populations in Bulgaria, as well as to provide data for a forthcoming edition of the Bulgarian Red Data Book.
- Monitoring of migrating birds is carried out at IBAs along the Black Sea coast.
- Midwinter counts of waterbirds are carried out each year at all wetland IBAs by the Bulgarian Society for the Protection of Birds (BSPB), together with the Regional Offices of the Ministry of Environment and Water and some other NGOs.
- Management plans have been written for only seven of the IBAs. Plans for a further two IBAs are in preparation.
- The National Parks of Central Balkan (011) and Strandja (040) have administrations under the control of the Ministry of Environment and Water.

**ANALYTICAL METHODS**

- The quoted size of the breeding population of any particular bird species at an IBA is based on mapping of its breeding populations during the 1990–1997 period. Figures are given as a minimum/maximum number of pairs (or calling males) on an annual basis.
- Midwinter waterbird counts are of good quality and are based on counts during the 1990–1997 period.
- Counts of passage birds are given as the minimum/maximum number of individuals per season on an annual basis for the 1990–1996 period. For some sites, e.g. Ropotamo complex (041), exact figures for one-off observations are given, because of the lack of monitoring throughout the whole migration period. This means that the real figures may be higher than is presented.
- Sites not meeting criteria are not included in this review. Some sites that meet criteria are very important for certain species which, however, are not mentioned in the text for reasons of confidentiality. Qualifying criteria are not given for these species or for the relevant site.
- Most bird data are based on field research or publications from the 1990–1997 period. Only the data for some strict forest reserves are taken from publications before 1990, but no earlier than 1985.
- Estimations of land-uses and threats at the IBAs are based on information available up to 1996. Excessive or illegal hunting has been included under the threat category ‘Unsustainable exploitation’ for Bulgaria.
- With regard to land-use, it is difficult to determine the ownership of the sites. The privatization of land in Bulgaria has not yet been completed, and until now there has not been any good information source to check the ownership.

**ACKNOWLEDGEMENTS**

We thank the BSPB expert and fieldworkers group comprising Antoaneta Petrova, Anton Antonov, Anton Kovachev, Boris Burov, Boris Ivanov,Bozhidar Ivanov, Christo Christov, Dimitar Georgiev, Eberhard Undzian, Emilian Stoïnov, Georgoi Gruve, Jeko Spirdonov, Iordan Kutzarow, Irina Kostadinova, Ivan Mitov, Kalin Veliev, Konstantin Niagolov, Lubomir Profirov, Marin Kurtev, Milen Marinov, Milko Dimitrov, Nikola Mihov, Nikolai Petkov, Pavel Zelindzitvet, Petar Iankov, Sergei Derechev, Snejana Kotseva, Stoicho Stoichev, Tseno Petrov, Venealdelov, Ursula Georgieva, Valentin Katrandziev and Viktor Vasilev. BSPB also cooperated with the following experts and organizations: Atanas Lalev, Milko Dimitrov, Tanu Michev, Ministry of the Environment and Water, Bulgarian-Swiss Biodiversity Conservation Programme, and the European Commission’s CORINE Biotope Programme. Funds have been generously provided by the Royal Society for the Protection of Birds (BirdLife Partner in the UK) and by the Bulgarian–Swiss Biodiversity Conservation Programme.

**SITE ACCOUNTS**

### Rayanovci meadows

**Admin region** Sofia  
**Coordinates** 42°56’N 23°02’E  
**Altitude** 800-900 m  
**Area** 1,500 ha

#### Site description

Rayanovci meadows, together with the former Dragomansko marsh, is in western Bulgaria. Vegetation is dominated by *Carex, Pou and Alopecurus*, and there are groups of *Salix* and *Populus* trees along drainage canals. Human activities include cattle-grazing and haymaking.

**Habitat** Grassland (80%), humid grassland, Wetland (20%; standing fresh water; water fringe vegetation)  
**Land-use** Agriculture (80%), Hunting (100%)

#### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
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<th>Pop. max</th>
<th>Pop. min</th>
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<tbody>
<tr>
<td>Coturnix coturnix</td>
<td>Quail</td>
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<td>Crex crex</td>
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</tr>
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<td>Lullula arborea</td>
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<td>1996</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Lanius collurio</td>
<td>Red-backed Shrike</td>
<td>B</td>
<td>1996</td>
<td>1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

The site is important for breeding species such as *Crex crex*, *Coturnix coturnix*, *Lullula arborea* and *Lanius collurio*. Species of global conservation concern that do not meet IBA criteria: *Falco naumanni* (rare, on passage).

**Protection status**  
National None  
International None

**Conservation issues**

- Threats  
  **Agricultural intensification/expansion (B)**

Conversion of the meadows to arable land is a possible threat. The site is proposed as a Protected Landscape. Investigation of the flora and fauna of the meadows by BSPB is ongoing.

### Tchuprene

**Admin region** Montana  
**Coordinates** 43°26’N 22°41’E  
**Altitude** 1,350-2,100 m  
**Area** 1,990 ha

#### Site description

Old-growth coniferous, broadleaved and mixed forests on the slopes of the western Balkan mountains at 1,400–2,004 m, near the border with Serbia. Nearly 10% of the area is covered by high mountain grasslands, rocky outcrops and pastures, as well as some...
bogs. The forests are dominated by Picea, Abies, Fagus, Acer and Betula. Human activities are forbidden within the strict nature reserve.

Habitats Forest and woodland (96%); broadleaved deciduous forest; native coniferous forest; Scrub (3%); scrub; Grassland (1%); dry siliceous grassland

Land-use Agriculture (27%), Not utilized (73%), Tourism/recreation (27%)

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>
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<tbody>
<tr>
<td>Alectoris graeca</td>
<td>Rock Partridge</td>
<td>R 1996</td>
<td>10 —</td>
<td>B</td>
<td>B2</td>
<td></td>
</tr>
</tbody>
</table>

1. Site qualifies according to 1997 national population estimate.

The area is important for Alectoris graeca. Species of global conservation concern that do not meet IBA criteria: Crex crex (max. 3 pairs breeding). Significant proportion (≥1%) of national population breeding at site: Hieraaetus pennatus (1 pair), Buho bubo (1 pair).

Protection status

National High International Partial
1,440 ha of IBA covered by Nature Reserve (Tchuprene, 1,440 ha). 542 ha of IBA covered by Buffer Zone (Tchuprene, 542 ha). 1,440 ha of IBA covered by protected area (Tchuprene, 1,440 ha).

Conservation issues

Threats Recreation/tourism (B), Unsustainable exploitation (A)

Illegal recreation and hunting are threats (the Midzhur hunting area is nearby).

Site description

An area in the southern part of Kresna gorge, along the Struma river, where the slopes are steep and rocky, and covered in Mediterranean forest and shrubland. The forests are dominated by Juniperus excelsa (100–200 years old), Juniperus oxycedrus, Phyllirea and other Mediterranean tree species (Pyrus, Pistacia, Jasminum, etc.). There are also secondary Quercus forests, alluvial forests (Platanus, Celtis, Tamarix), and some forestry plantations of Pinus. Human activities are forbidden in the strict nature reserve. Grazing, mainly of goats, is allowed in the buffer zone, and forests are used for forestry and cattle-grazing.

Tissata

Admin region Sofia Coordinates 41°45’N 23°10’E Altitude 250–850 m Area 1,450 ha

The area is important for breeding Crex crex. Species of global conservation concern that do not meet IBA criteria: Aythya nyroca (one breeding pair), Falco naumanni (rare, on passage), Aegithalos caudatus (rare, on passage).

Protection status

National None International None

Conservation issues

Threats Agricultural intensification/expansion (B), Unsustainable exploitation (A)

Meadows and marshes, drained by canals, in the Sofia region. The vegetation is dominated by meadows of Festuca, Poa and Lolium, stands of Phragmites and Typha, and Salix thickets. Human activities include cattle-grazing and haymaking.

Site description

An area in the southern part of Kresna gorge, along the Struma river, where the slopes are steep and rocky, and covered in Mediterranean forest and shrubland. The forests are dominated by Juniperus excelsa (100–200 years old), Juniperus oxycedrus, Phyllirea and other Mediterranean tree species (Pyrus, Pistacia, Jasminum, etc.). There are also secondary Quercus forests, alluvial forests (Platanus, Celtis, Tamarix), and some forestry plantations of Pinus. Human activities are forbidden in the strict nature reserve. Grazing, mainly of goats, is allowed in the buffer zone, and forests are used for forestry and cattle-grazing.

Habitats Forest and woodland (62%); broadleaved deciduous forest; native coniferous forest; alluvial/very wet forest), Scrub (12%); scrub; sclerophyllous scrub/garrigue/maquis), Grassland (8%); steppe/dry calcareous grassland), Wetland (2%); river/stream), Rocky areas (2%; inland cliff), Artificial landscape (8%); perennial crops/orchards/groves)

Land-use Agriculture (50%), Forestry (30%), Not utilized (40%)

Forest and woodland (96%; broadleaved deciduous forest), Scrub (3%; scrub), Grassland (1%; dry siliceous grassland)

Agriculture (50%), Forestry (30%), Not utilized (40%)

Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
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<th>Pop min</th>
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<tbody>
<tr>
<td>Corncrake</td>
<td>B 1996</td>
<td>27</td>
<td>27</td>
<td>A A1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Site qualifies according to 1997 national population estimate.

The area is important for breeding Crex crex. Significant proportion (≥1%) of national population breeding at site: Buteo rufinus (2 pairs), Buho bubo (1 pair).

Protection status

National None International None

Conservation issues

Building activity is a potential threat. The three types of protected area cover the whole IBA.

Dolni Bogrov–Kazichene

Admin region Sofia Coordinates 42°42’N 23°28’E Altitude 500–500 m Area 1,000 ha

The area is important for breeding Crex crex. Species of global conservation concern that do not meet IBA criteria: Aythya nyroca (one breeding pair), Falco naumanni (rare, on passage), Aegithalos caudatus (rare, on passage).

Zimevitza meadows

Admin region Sofia Coordinates 43°03’N 23°15’E Altitude 1,000–1,100 m Area 500 ha

The area is important for breeding Crex crex. Significant proportion (≥1%) of national population breeding at site: Buteo rufinus (2 pairs), Buho bubo (1 pair).

Protection status

National None International None

Conservation issues

Building activity is a potential threat. The three types of protected area cover the whole IBA.
Conversion of the grasslands to arable land is a possible threat. An investigation of the flora and fauna of the meadows by BSPB is ongoing.

**Site description**

The former Orsoya marshes, on the bank of the River Danube, which have been converted to fish-ponds and overgrown by stands of Phragmites and Typha. In deep parts of the ponds there are water-lilies Nymphaea and Nymphoides. The ponds are surrounded by meadows, scrub and trees. Land-uses include fish-farming, haymaking, and hunting.

**Habitats**
- Forest and woodland (15%; alluvial/very wet forest)
- Grassland (20%; humid grassland)
- Wetland (70%; standing fresh water; water-fringe vegetation)
- Artificial landscape (5%; perennial crops/orchards/groves)

**Land-use**
- Fisheries/aquaculture (60%)
- Hunting (70%)
- Other (20%)

This site is important for species of global conservation concern (Aythya nyroca and Phalacrocorax pygmeus), and supports large numbers of breeding Isoyrhynchus minutus. Breeding species of global conservation concern that do not meet IBA criteria: Crex crex (uncommon).

**Protection status**

National: None, International: None

**Conservation issues**

- Threats: Burning of vegetation (A), Unsustainable exploitation (A)

The main problem is the cutting and burning of reedbeds during the breeding season.

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
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<tr>
<td>Phalacrocorax pygmeus</td>
<td>P</td>
<td>1996</td>
<td>40</td>
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<td>Aythya nyroca</td>
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<td>Ixobrychus minutus</td>
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<td>100</td>
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<tr>
<td>Ardea intermedia</td>
<td>Dusky Moorhen</td>
<td>1996</td>
<td>20</td>
<td>20</td>
<td>A</td>
<td>A1</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>Ferruginous Duck</td>
<td>1996</td>
<td>48</td>
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<td>Aythya nyroca</td>
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<tr>
<td>Pelecanus crispus</td>
<td>Dalmatian Pelican</td>
<td>1996</td>
<td>150</td>
<td>252</td>
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</table>

The island supports the largest nesting colonies of herons and cormorants in the country, being especially important for its large numbers of Phalacrocorax pygmeus, Nycticorax nycticorax, Ardea ralloides and Platalea leucorodia.

**Protection status**

National: Partial, International: None

34 ha of IBA covered by Nature Reserve (Ibisha, 34 ha).

**Site description**

A newly formed island on kilometre 715 of the River Danube. The island is sandy, encloses a small lake, and is covered by forest of Salix and Populus in the central part. Human activities include firewood-collection during the summer (‘Other’ land-use, below) and recreation, as well as boat-traffic in surrounding waters.

**Habitats**
- Forest and woodland (40%; alluvial/very wet forest)
- Wetland (11%; river/stream)
- Rocky areas (59%; inland sand-dunes)

**Land-use**
- Tourism/recreation, Other

The island is an important resting place for Pelecanus crispus (which uses sandy areas) and Phalacrocorax carbo during the breeding season and migration. Species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus (min. 15 in winter), Aythya nyroca (min. 3 on passage).

**Protection status**

National: None, International: None

**Conservation issues**

- Threats: Allorestation (A), Disturbance to birds

The main problems are afforestation of the sandy areas with Salix, and disturbance of nesting birds by human activities during the summer.

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
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<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
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<tr>
<td>Phalacrocorax carbo</td>
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<tr>
<td>Nycticorax nycticorax</td>
<td>Night Heron</td>
<td>1996</td>
<td>250</td>
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<td>B2</td>
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<tr>
<td>Ardea intermedia</td>
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<td>50</td>
<td>A</td>
<td>B2</td>
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<tr>
<td>Fovetalia leucorodia</td>
<td>Spoonbill</td>
<td>1996</td>
<td>10</td>
<td>10</td>
<td>A</td>
<td>B2</td>
</tr>
</tbody>
</table>

1. Also occur on passage.

The island supports the largest nesting colonies of herons and cormorants in the country, being especially important for its large numbers of Phalacrocorax pygmeus, Nycticorax nycticorax, Ardea ralloides and Platalea leucorodia.

**Protection status**

National: Partial, International: None

34 ha of IBA covered by Nature Reserve (Ibisha, 34 ha).

**Site description**

The main problem is disturbance to nesting birds caused by people visiting the island during the breeding season. There is some illegal cutting of trees in the reserve.

**Habitats**
- Forest and woodland (100%; inland cliff)

**Land-use**
- Agriculture, Urban/Industrial/Transport

The island is an important resting place for Pelecanus crispus (which uses sandy areas) and Phalacrocorax carbo during the breeding season and migration. Species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus (min. 15 in winter), Aythya nyroca (min. 3 on passage).

**Protection status**

National: None, International: None

**Conservation issues**

- Threats: Allorestation (A), Disturbance to birds

The main problems are afforestation of the sandy areas with Salix, and disturbance of nesting birds by human activities during the summer.

**Birds**

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<tr>
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<tbody>
<tr>
<td>Merops apiaster</td>
<td>Bee-eater</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This is one of the most important nesting colonies of Merops apiaster in the country.

**Protection status**
- National: None
- International: None

**Conservation issues**
There are no serious threats to this site.

---

This is one of the most important nesting colonies of Merops apiaster in the country.

**Protection status**
- National: None
- International: None

**Conservation issues**
There are no serious threats to this site.

---

**Species**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anser albirostris</td>
<td>White-fronted Goose</td>
<td>W 1996 9,072 25,388</td>
<td>A4i, B1i</td>
<td></td>
</tr>
</tbody>
</table>

**Site description**
A freshwater reservoir in south-eastern Bulgaria, surrounded by low hills with forests of Quercus and forestry plantations of Pinus. Land-uses include hunting, fishing and irrigation.

**Habitats**

- Forest and woodland (15%); broad-leaved deciduous forest; Grassland (10%); steppe/old calcareous grassland; Wetland (3%); standing fresh water; Artificial landscape (2%); perennial crops/orchards/groves
- Land-use: Agriculture (2%), Fisheries/aquaculture (17%), Hunting (60%), Water management (73%)

**Birds**

**Central Balkan**

- **Admin region**: Khaskovo, Lovech, Sofia, Plovdiv
- **Coordinates**: 42°43′N 24°56′E
- **Altitude**: 500–2,376 m
- **Area**: 73,262 ha

**Site description**
The northern and southern slopes of the highest, central part of the Stara Planina mountains. The limestone karst topography is outstanding, with ancient forests, pastures, subalpine scrub and grasslands. Deciduous forests (up to 250 years old) of Quercus, Carpinus, Ostrya and Fagus occur in the higher parts of the area, mixed with Pinus and with Abies. Coniferous forests are dominated by Picea and Pinus, and subalpine scrub by Juniperus and Vaccinium. Human activities (outside the strict reserves) include tourism, and cattle-grazing in the high mountain grasslands.

**Habitats**

- Forest and woodland (45%); broad-leaved deciduous forest; native coniferous forest; Scrub (21%); scrub; sclerophyllous scrub (arungeons/massais); Grassland (25%); steppe/dry calcareous grassland; dry siliceous grassland; alpine/subalpine/boreal grassland; humid grassland; Wetland (1%); standing fresh water; river/stream; fen/transition mire/spring; Rocky areas (6%); inland cliff; caves; Artificial landscape (1%); perennial crops/orchards/groves
- Land-use: Agriculture (43%), Forestry (20%), Tourism/recreation (72%)

**Birds**

This IBA is important for its alpine-restricted species, including two subspecies that are endemic to the Balkans (Prunella collaris subalpinum and Eremophila alpestris balcanica), and for its large numbers of a wide variety of other breeding species, especially raptors such as Aquila heliaca, A. chrysaetos and Falco cherrug. Significant proportion (21%) of national population breeding at site: Circus gallus (1–2 pairs), Aquila pomarina (1 pair), Dendrocopos medius (7–8 pairs).

**Protection status**
- National: High
- International: Partial

**Conservation issues**
Illegal and uncontrolled hunting of waterbirds poses a serious threat.

---

**Species**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anser albirostris</td>
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<td>W 1996 9,072 25,388</td>
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<td></td>
</tr>
</tbody>
</table>

**Site description**
The northern and southern slopes of the highest, central part of the Stara Planina mountains. The limestone karst topography is outstanding, with ancient forests, pastures, subalpine scrub and grasslands. Deciduous forests (up to 250 years old) of Carpinus, Quercus, Ostrya and Fagus occur in the higher parts of the area, mixed with Pinus and with Abies. Coniferous forests are dominated by Picea and Pinus, and subalpine scrub by Juniperus and Vaccinium. Human activities (outside the strict reserves) include tourism, and cattle-grazing in the high mountain grasslands.

**Habitats**

- Forest and woodland (45%); broad-leaved deciduous forest; native coniferous forest; Scrub (21%); scrub; sclerophyllous scrub (arungeons/massais); Grassland (25%); steppe/dry calcareous grassland; dry siliceous grassland; alpine/subalpine/boreal grassland; humid grassland; Wetland (1%); standing fresh water; river/stream; fen/transition mire/spring; Rocky areas (6%); inland cliff; caves; Artificial landscape (1%); perennial crops/orchards/groves
- Land-use: Agriculture (43%), Forestry (20%), Tourism/recreation (72%)
slopes. The rivers flow through deep canyons and open valleys, with the vegetation along the riverbanks dominated by *Alnus*, *Salix*, *Populus*, *Rubus*, *Rosa* and *Tamurix*. Dry grassland, scrub and broadleaved forests cover the neighbouring hills. The forests are dominated by *Quercus*, *Carpinus* and Mediterranean tree species.*Juniperus* is predominant in the sclerophyllous scrub. Land-uses are extensive rearing of sheep and cattle, hunting and forestry, but the area is becoming progressively depopulated due to local emigration.

<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></td>
<td>Black Stork</td>
<td>B</td>
<td>1996</td>
<td>10</td>
<td>10</td>
<td>A</td>
</tr>
<tr>
<td><em>Neophron percnopterus</em></td>
<td>Egyptian Vulture</td>
<td>B</td>
<td>1996</td>
<td>7</td>
<td>7</td>
<td>A</td>
</tr>
<tr>
<td><em>Hieraaetus pennatus</em></td>
<td>Booted Eagle</td>
<td>B</td>
<td>1996</td>
<td>2</td>
<td>2</td>
<td>A</td>
</tr>
</tbody>
</table>

The site is one of the most important areas in Bulgaria for breeding *Ciconia nigra* and *Neophron percnopterus*. Significant population proportion (21%) of national population breeding at site: *Circaetus gallicus* (1 pair), *Bubo bubo* (1–2 pairs), *Hippolais olivetorum* (2–5 pairs).

**Protection status**

National: None
International: None

**Conservation issues**

The rural depopulation has led to decreases in available food resources (livestock carrion) for vultures in the region. Uncontrolled hunting and fishing are further threats.

**Site description**

A dam in a rocky gorge of the Arda river, east of the town of Kardjali. The numerous rocky cliffs and banks are covered by sub-Mediterranean vegetation, mainly forests of *Quercus* with *Carpinus*, *Fraxinus* and Mediterranean tree species. *Juniperus*, *Jasminum* and *Palurus* are predominant in the sclerophyllous scrubland. *Dichanthium* and *Poa* dominate in the grasslands. Human activities include hunting, forestry, fishing, and extensive rearing of sheep and cattle.

<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></td>
<td>Black Stork</td>
<td>B</td>
<td>1996</td>
<td>10</td>
<td>10</td>
<td>A</td>
</tr>
<tr>
<td><em>Neophron percnopterus</em></td>
<td></td>
<td>B</td>
<td>1996</td>
<td>7</td>
<td>7</td>
<td>A</td>
</tr>
<tr>
<td><em>Hieraaetus pennatus</em></td>
<td></td>
<td>B</td>
<td>1996</td>
<td>2</td>
<td>2</td>
<td>A</td>
</tr>
</tbody>
</table>

**Birds**

The site is important for its assemblage of Mediterranean-restricted species and, for its high numbers of breeding *Ciconia nigra*, *Neophron percnopterus* (the best site in Bulgaria) and *Bubo bubo*. Breeding species of global conservation concern that do not meet IBA criteria: *Aegypius monachus* (1–2 pairs), *Falco naumanni* (3–5 pairs). Significant proportion (21%) of national population breeding at site: *Circaetus gallicus* (1–3 pairs), *Aquila pomarina*, *Hieraaetus pennatus* (1 pair).

The site is one of the most important sites in Bulgaria for breeding *Ciconia nigra* and *Otus scopus*. It also supports the only breeding colony of *Gyps fulvus* in Bulgaria. Species of global conservation concern that do not meet IBA criteria: *Aegypius monachus* (common non-breeding resident). Significant proportion (21%) of national population breeding at site: *Neophron percnopterus* (3 pairs), *Circaetus gallicus* (1 pair), *Bubo bubo* (3 pairs).

**Protection status**

National: Low
International: None

79 ha of IBA covered by National Monument (Kovan Kaya, 79 ha).
19 ha of IBA covered by Protected Landscape (Momina Skala, 19 ha).
180 ha of IBA covered by Protected Landscape (Patronka, 180 ha).

**Conservation issues**

One problem is rural depopulation, which has led to a decrease in food resources (livestock carrion) for vultures in the region. A BSPB project for eastern Rhodopi mountains (the IBA is part of this region) is ongoing under the Bulgarian–Swiss Biodiversity Conservation Programme.
Mining drives away vultures and other large cliff-nesting birds, through open-air and underground explosions, drilling activities, and the disposal of waste material. In addition, rural depopulation has led to a decrease in available food (livestock carrion) for vultures in the region. Only a very small area of the IBA has been protected. A BSPB project for the eastern Rhodopi mountains (of which this area is a part) is ongoing under the Bulgarian–Swiss Biodiversity Conservation Programme.

**Konush reservoir**

Admin region Plovdiv
Coordinates 42°04’N 25°02’E
Altitude 150–1,500 m Area 30 ha

**Site description**
A small, open reservoir near Konush village, with beds of *Typha*, and a group of trees on its south bank, and surrounded by arable land. Land-uses include fish-farming, irrigation and 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>Phalacrocorax pygmeus</em></td>
<td>P</td>
<td>1996</td>
<td>30</td>
<td>800</td>
<td>A</td>
<td>A1, A4i, B1i</td>
</tr>
<tr>
<td><em>Pygmeus</em></td>
<td>W</td>
<td>1997</td>
<td>50</td>
<td>800</td>
<td>A</td>
<td>A1, A4i, B1i</td>
</tr>
<tr>
<td><em>Nycticorax nycticorax</em></td>
<td>Night</td>
<td>1996</td>
<td>100</td>
<td>160</td>
<td>A</td>
<td>B2</td>
</tr>
</tbody>
</table>

The site is important for migrating and wintering *Phalacrocorax pygmeus*, and supports one of the most important breeding colonies of *Nycticorax nycticorax* in Bulgaria.

**Protection status**

National None International None

**Conservation issues**

- **Threats**: Disturbance to birds (A), Unsustainable exploitation (A)

The main problems are the cutting-down of nesting trees at the colonies, the burning of reedbeds, hunting, and disturbance of nesting birds by people close to colonies.

**Belene islands complex**

Admin region Lovech
Coordinates 43°40’N 25°10’E
Altitude 25–26 m Area 1,714 ha

**Site description**

The eastern part of the largest Bulgarian island (Belene) along the River Danube. Three large marshes, with open-water areas partly covered by floating water-plants and fringed by reedbeds of *Phragmites*, *Spartium* and *Alisma*, and which are surrounded by seasonally flooded forest (*Salix*, *Populus*) and wet meadows (*Cynodon*, *Scirpus*). There are two smaller islands (one called Kitka), also covered with flooded forest. The complex lies between kilometres 576 and 560 of the Danube. Human activities include cattle-grazing in the buffer zone of the Persinski marshes reserve, agriculture in surrounding areas and hunting (including international hunting tourism).

**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>Phalacrocorax pygmeus</em></td>
<td>P</td>
<td>1992</td>
<td>—</td>
<td>55</td>
<td>C</td>
<td>A1</td>
</tr>
</tbody>
</table>

Formerly one of the most important breeding sites in the country for *Phalacrocorax pygmeus* (max. 40 pairs) and *Plegadis falcinellus* (max. 60 pairs), which stopped breeding on the island about 10 years ago. They would probably breed again if water-levels were restored, but such site-management depends on finding the necessary funding. Breeding species of global conservation concern that do not meet IBA criteria: *Haliatus albicilla* (1 pair). Significant proportion (21%) of national population breeding at site: *Platalea leucorodia* (rare).

**Protection status**

National Partial International None


**Conservation issues**

- **Threats**: Construction/impact of dyke/dam/barrage (A), Drainage (A), Filling-in of wetlands (B), Industrialization/urbanization (A), Unsustainable exploitation (B)

The main problems are the lowered water-levels in the Danube and the subsequent drying-out of wetlands, resulting from the ‘Iron Gate’ Dam in Serbia and from dykes built along the banks of Belene. Special measures are needed to restore water-levels. Illegal tree-cutting, grazing and hunting are also problems, as is the potential construction of a nuclear power-station near Belene.

**Vardim island**

Admin region Lovech
Coordinates 43°17’N 25°28’E
Altitude 16–16 m Area 458 ha

**Site description**

An island in the River Danube located between kilometres 576 and 560, lying opposite Vardim village, east of the town of Svistov. Alluvial forest of *Quercus*, *Ulmus* and *Populus* covers the eastern part of the
island, while a *Populus* plantation covers the western part. There are also sandbars covered by seasonally flooded forest. Human activities include intensive management of the plantation, and hunting including international hunting tourism) during the winter.

| Land-use | Forestry (78%), Hunting (100%) |

### Birds

#### Species

<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>Phalacrocorax carbo</em></td>
<td>Common</td>
<td>B</td>
<td>1996</td>
<td>350</td>
<td>373</td>
<td>A</td>
</tr>
<tr>
<td><em>Nycticorax noctitherus</em></td>
<td>Night Heron</td>
<td>B</td>
<td>1996</td>
<td>40</td>
<td>45</td>
<td>A</td>
</tr>
<tr>
<td><em>Platalea leucorodia</em></td>
<td>Spoonbill</td>
<td>B</td>
<td>1996</td>
<td>9</td>
<td>20</td>
<td>A</td>
</tr>
</tbody>
</table>

#### Conservation issues

- **Threats:** Construction/impact of dyke/dam/barrage (B), Deforestation (commercial) (A)

Problems are (1) the disturbance to nesting waterbirds caused by forestry activities near the colonies, (2) the lowered water-levels of the Danube (due to the 'Iron Gate' dam in Serbia) have caused the drying-out of forest, and (3) breeding colonies have shifted outside of the protected area. The eastern part of the IBA is protected.

### Site description

The Byala Reka valley and neighbouring hills, situated in the eastern Rhodopi mountains in southern Bulgaria. The vegetation is rich, consisting of old broadleaved deciduous forests of *Fagus, Quercus* and *Carpinus*, and sclerophyllous scrub (pseudo-maquis) of *Juniperus, Phyllirea, Palusites* and *Praxinus*, with *Salix* trees along the riverbanks. There are also coniferous plantations and rocky outcrops. Land-uses include hunting, forestry, fishing, extensive stock-rearing and cultivation. There is a small abandoned marble quarry, but drilling for minerals and other geological investigations still go on.

#### Species

<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>Aegypius monachus</em></td>
<td>Common</td>
<td>N</td>
<td>1996</td>
<td>15</td>
<td>—</td>
<td>A</td>
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<tr>
<td><em>Circus gallicus</em></td>
<td>Short-toed Eagle</td>
<td>B</td>
<td>1996</td>
<td>2</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td><em>Accipiter brevipes</em></td>
<td>Levant Sparrowhawk</td>
<td>B</td>
<td>1996</td>
<td>1</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td><em>Hieraaetus pennatus</em></td>
<td>Booted Eagle</td>
<td>B</td>
<td>1996</td>
<td>4</td>
<td>4</td>
<td>A</td>
</tr>
<tr>
<td><em>Otus scops</em></td>
<td>Scops Owl</td>
<td>B</td>
<td>1996</td>
<td>54</td>
<td>90</td>
<td>A</td>
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<tr>
<td><em>Lullula arborea</em></td>
<td>Woodcock</td>
<td>B</td>
<td>1996</td>
<td>190</td>
<td>500</td>
<td>A</td>
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<tr>
<td><em>Oenanthe hispanica</em></td>
<td>Black-eared Wheatear</td>
<td>B</td>
<td>1996</td>
<td>25</td>
<td>45</td>
<td>A</td>
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<tr>
<td><em>Nigella damascena</em></td>
<td>Olive-tree Warbler</td>
<td>B</td>
<td>1996</td>
<td>80</td>
<td>165</td>
<td>A</td>
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<tr>
<td><em>Sylvia melanocephala</em></td>
<td>Sardinian Warbler</td>
<td>B</td>
<td>1996</td>
<td>30</td>
<td>40</td>
<td>A</td>
</tr>
<tr>
<td><em>Lanius nubicus</em></td>
<td>Masked Shrike</td>
<td>B</td>
<td>1996</td>
<td>3</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td><em>Emberiza melanocephala</em></td>
<td>Black-headed Bunting</td>
<td>B</td>
<td>1996</td>
<td>475</td>
<td>900</td>
<td>A</td>
</tr>
</tbody>
</table>

#### Protection status

National None International None

#### Conservation issues

- **Threats:** Construction/impact of dyke/dam/barrage (B), Deforestation (commercial) (A)

Problems include the disturbance and persecution of nesting raptors by local people (and treasure-hunters), illegal hunting, and wild-fires during the summer. A part of the site is proposed as a protected area.

### Site description

A rugged region of low, rounded hills and relatively open valleys, with few small villages and a poorly developed network of roads, close to the border with Turkey. There are dry grasslands, Mediterranean shrubland of *Palusites* and *Juniperus*, scattered forests of Mediterranean broadleaved type (mainly *Quercus* and *Carpius*), and...
some rocky areas. Land-uses are extensive stock-rearing and cultivation, hunting and forestry.

**Habitats** Forest and woodland (30%); broadleaved deciduous forest; Scrub (10%); scrub; spurge-thickets (on banks and ditches); Tapeweed / Phragmites; Water-lily / Nymphaea
**Land-use** Agriculture (70%); Forestry (30%); Hunting.

### 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>Butor harris</td>
<td>B</td>
<td>1996</td>
<td>3</td>
<td>3</td>
<td>A B2</td>
</tr>
<tr>
<td>Picus canus</td>
<td>R</td>
<td>1996</td>
<td>6</td>
<td>—</td>
<td>A B2</td>
</tr>
</tbody>
</table>

One of the most important breeding areas for *Butor harris* and *Picus canus* in Bulgaria. Significant proportion (21%) of national population breeding at site: *Neophron percnopterus* (1 pair), *Circucaetus gallicus* (1 pair), *Hippopolutions olivetorum* (min. 3 pairs).

### Protection status

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

### Conservation issues

**Threats** Selective logging/cutting (A)

The main problem is the cutting of mature trees along the rivers. There are large populations of this rodent and of brown hare *Lepus europaeus* in the area, providing much small-mammal prey for raptors.

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**Rozov Kladenetz reservoir**

**Admin region** Khaskovo
**Coordinates** 42°08’N 25°55’E
**Altitude** 100–100 m **Area** 600 ha

**Habitats** Wetland (99%); standing fresh water; Artificial landscape (1%); perennial crops/orchards/groves; other urban/industrial areas
**Land-use** Fisheries/aquaculture (99%); Urban/industrial/transport (1%); Water management (99%)

The reservoir supports large and important numbers of *Phalacrocorax carbo* and *P. pygmeus* in winter. Species of global conservation concern that do not meet IBA criteria: *Pelecanus crispus* (6–17 in winter), *Aythya nyroca* (max. 2 in winter).

### Protection status

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

### Conservation issues

**Threats** Industrialization/urbanization (B), Unsustainable exploitation (A)

The main problem is illegal and uncontrolled hunting. The reservoir is proposed as a protected area.

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**Ovtcharizta reservoir**

**Admin region** Khaskovo
**Coordinates** 42°13’N 26°10’E
**Altitude** 100–100 m **Area** 630 ha

**Habitats** Forest and woodland (30%); broadleaved deciduous forest; Scrub (10%); scrub; spurge-thickets (on banks and ditches); Tapeweed / Phragmites; Water-lily / Nymphaea
**Land-use** Agriculture (70%); Forestry (30%); Hunting.

A dam on the Ovtcharizta river, surrounded by low hills with arable land (mainly winter wheat). The reservoir is used for cooling an electric power-station at the site (‘Other’ land-use, below), and therefore the water does not freeze in winter. Human activities include hunting, fishing and irrigation.

**Habitats** Grassland (3%); steeply/dry calcareous grassland; Wetland (81%); standing fresh water; river/stream; Artificial landscape (11%); arable land; Unknown (5%)
**Land-use** Agriculture (20%); Fisheries/aquaculture (80%); Hunting (100%); Other (80%); Urban/industrial/transport (5%)

The ponds are of global importance for breeding and migrating *Aythya nyroca*, migrating *Phalacrocorax pygmeus* and wintering *Pelecanus crispus*, and are one of the most important sites in Bulgaria for breeding *Ixobrychus minutus*. Species of global conservation concern that do not meet IBA criteria: *Anser erythropus* (max. 1 in winter), *Branta ruficollis* (max. 20 in winter), *Halyaeus alchibila* (1 breeding pair; 2–7 birds along river in winter), *Aquila heliaca* (max. 2 on passage), *Acrocephalus paludicola* (max. 1 on passage). Significant proportion (21%) of national population breeding at site: *Tadorna ferruginea* (1 pair), *Porzana pusilla* (1 pair).

### 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>Phalacrocorax carbo</td>
<td>C</td>
<td>1997</td>
<td>116</td>
<td>8,016</td>
<td>A A4i, B1i</td>
</tr>
<tr>
<td>Phalacrocorax pygmeus</td>
<td>C</td>
<td>1997</td>
<td>16</td>
<td>142</td>
<td>A A1</td>
</tr>
</tbody>
</table>

Important in winter for fish-eating birds (*Phalacrocorax spp.*, *Pelecanus crispus*) and for *Anser albiros*. The site holds 20,000 or more waterbirds on a regular basis.

### Protection status

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

### Conservation issues

**Threats** Unsustainable exploitation (A)

Uncontrolled hunting of waterbirds is a serious threat. The reservoir is proposed as a protected area.

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**Mechka fish-ponds**

**Admin region** Ruse
**Coordinates** 43°44’N 25°49’E
**Altitude** 150–150 m **Area** 800 ha

**Habitats** Forest and woodland (14%); broadleaved deciduous forest; alluvial/very wet forest; Grassland (6%); humid grassland; Wetland (70%); standing fresh water; river/stream; water-fringe vegetation; Artificial landscape (11%); arable land
**Land-use** Agriculture (16%), Fisheries/aquaculture (60%), Hunting (70%), Other (30%)

Fish-ponds overgrown with reeds, situated close to the bank of the River Danube. The aquatic vegetation is dominated by *Phragmites*, *Trapa*, *Nymphaea*, as well as by *Typha* in some places. In the western part of the ponds there is a seasonally flooded forest of *Fraxinus*, *Tilia*, *Ulmus* and *Acer*, as well as a small river fully overgrown with shrubs, acacia and grass. The ponds are surrounded by dry hills overgrown with acacia and steppe-like vegetation. Human activities include fishery, reed-cutting (‘Other’ land-use, below), and hunting.

### 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>Phalacrocorax carbo</td>
<td>C</td>
<td>1997</td>
<td>116</td>
<td>8,016</td>
<td>A A4i, B1i</td>
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<tr>
<td>Phalacrocorax pygmeus</td>
<td>C</td>
<td>1997</td>
<td>16</td>
<td>142</td>
<td>A A1</td>
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</table>

**Avocet** W 1997 6,635 8,020 A A4i, B1i
**Pygmy Cormorant** W 1997 — 52 A A1
**Dalmation Pelican** W 1997 8 211 A A1, A4i, B1i
**White-fronted Goose** W 1997 200 34,755 A A4i, B1i

**Threats** Industrialization/urbanization (B), Unsustainable exploitation (A)

The main problem is illegal and uncontrolled hunting. The reservoir is proposed as a protected area.
Protection status
National None International None

Conservation issues

Threats: Drainage (A), Natural events (C), Unsustainable exploitation (A), Other (A)

The main problems are reed-cutting and the drying-out of ponds during the breeding season.

Site description
A complex of river valleys, of the Beli Lom, Cherni Lom, Malki Lom and Rusenski Lom rivers, south-east from the town of Ruse. Limestone cliffs form vertical canyons up to 100 m deep. Forests of Quercus, Carpinus, Fraxinus and Tilia predominate, and there are also plantations of Robinia and Pinus, meadows, and arable land. The riverbanks are overgrown with Salix and Populus. The main human activities are forestry, cultivation, livestock-grazing and recreation.

Habitats: Forest and woodland (70%), broadleaved deciduous forest; Scrub (12%); scrub; Grassland (8%); steppe/scrub/calcareous grassland; Wetland (1%); river/stream. Rocky areas (7%); inland cliff; Artificial landscape (10%); perennial crops/orchards/groves

Land-use: Agriculture (8%), Fisheries/aquaculture (1%), Forestry (70%), Hunting (50%), Tourism/recreation (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>Aquila pomarina (Eagle Owl)</td>
<td>B</td>
<td>1996</td>
<td>3</td>
<td>6</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Hieraaetus pennatus (Lesser Spotted Eagle)</td>
<td>B</td>
<td>1996</td>
<td>5</td>
<td>6</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Circus cyaneus (Short-toed Eagle)</td>
<td>B</td>
<td>1996</td>
<td>3</td>
<td>4</td>
<td>A</td>
<td>B2</td>
</tr>
</tbody>
</table>

Protection status
National None International None

Conservation issues
Threats: Unknown

Site description
A water-storage reservoir in south-eastern Bulgaria, which does not freeze in winter. It is surrounded by low hills covered by arable land (mainly winter wheat). Human activities include hunting, fishing and irrigation.

Habitats: Forest and woodland (broadleaved deciduous forest), Scrub (scrub), Wetland (standing fresh water), Artificial landscape (arable land)

Land-use: Agriculture (10%), Hunting (100%), Water management (90%)

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>Anser albifrons (White-fronted Goose)</td>
<td>W</td>
<td>1997</td>
<td>16,000</td>
<td>16,810</td>
<td>A</td>
<td>A4i, B1i</td>
</tr>
</tbody>
</table>

Protection status
National None International None

Conservation issues
Threats: Unsustainable exploitation (A)

Site description
The reservoir which replaced the former Straldza marsh, surrounded by meadows and arable land. It does not freeze in winter. Typha is predominant along the banks. Wet meadows are dominated by Carex, Poa and Lolium. There are lines of Populus and Robinia trees. Land-uses include hunting, fish-farming and haymaking.

Habitats: Grassland (10%); humid grassland, Wetland (90%); standing fresh water; water fringe vegetation; Artificial landscape (permanent crops/scrub/woodland/woodland with water fringe vegetation)

Land-use: Agriculture (9%); Fisheries/aquaculture (90%); Hunting

Important Bird Areas in Europe – Bulgaria

Lomovete

Admin region: Ruse
Coordinates: 43°30’N 26°02’E
Altitude: 50-150 m Area: 4,320 ha

Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
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<th>Pop min</th>
<th>Pop max</th>
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<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td>Tadorna ferruginea (Ruddy Shelduck)</td>
<td>B</td>
<td>1996</td>
<td>10</td>
<td>12</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Neophron percnopterus (Egyptian Vulture)</td>
<td>B</td>
<td>1996</td>
<td>5</td>
<td>6</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Circus cyaneus (Short-toed Eagle)</td>
<td>B</td>
<td>1996</td>
<td>3</td>
<td>4</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Aquila pomarina (Eagle Owl)</td>
<td>B</td>
<td>1996</td>
<td>6</td>
<td>6</td>
<td>A</td>
<td>B2</td>
</tr>
</tbody>
</table>

Malko Sharkovo reservoir

Admin region: Burgas
Coordinates: 42°05’N 26°50’E
Altitude: 100-100 m Area: 380 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>Anser albifrons (White-fronted Goose)</td>
<td>W</td>
<td>1997</td>
<td>16,000</td>
<td>16,810</td>
<td>A</td>
<td>A4i, B1i</td>
</tr>
</tbody>
</table>

Protection status
National None International None

Conservation issues
Threats: Unknown

Site description
A reservoir which replaced the former Straldza marsh, surrounded by meadows and arable land. It does not freeze in winter. Typha is predominant along the banks. Wet meadows are dominated by Carex, Poa and Lolium. There are lines of Populus and Robinia trees. Land-uses include hunting, fish-farming and haymaking.

Habitats: Grassland (10%); humid grassland, Wetland (90%); standing fresh water; water fringe vegetation; Artificial landscape (permanent crops/scrub/woodland/woodland with water fringe vegetation)

Land-use: Agriculture (9%); Fisheries/aquaculture (90%); Hunting

Derventski Vuzvishenia

Admin region: Burgas
Coordinates: 42°00’N 26°45’E
Altitude: 100-556 m Area: 20,000 ha

Site description
The Derventski hills are situated between the Tundza river and the border with Turkey. They are partly covered by broadleaved deciduous forests of Quercus and Carpinus, with Mediterranean trees and shrubs, and there are also open grassy and bushy areas with scattered trees, and arable land. Shrubland is dominated by Paliurus, Jasminum and Nigella. Land-uses are extensive stock-rearing and cultivation, hunting and forestry.

Habitats: Forest and woodland (58%); broadleaved deciduous forest; Scrub (23%); scrub; sclerophyllous scrub/garrigue/maquis, Grassland (7%); steppe/dry calcareous grassland; mesophile grassland, Artificial landscape (12%); arable land

Land-use: Agriculture (42%), Forestry (58%), Hunting
Important for waterbirds in winter, especially Anser albifrons, the globally threatened Branta ruficollis, and Phalacrocorax carbo.

**Protection status**

National None International None

**Conservation issues**

Illegal and uncontrolled hunting of waterbirds poses a serious threat.

**Kotlenska mountain**

Admin region Burgas
Coordinates 42°53’N 26°21’E
Altitude 315–1,128 m Area 156,000 ha

**Site description**

The central ridge of the eastern Stara Planina mountains, covered by mixed broadleaved deciduous forests, pasture and arable land. A great number of minor but distinct ridges slope down north and south to the valleys of the Rivers Titcha and Luda Kametcha. These side-valleys are narrow and deeply incised, with steep slopes. The underlying rock is limestone and sandstone, and there are some sand quarries in the region. The forests are dominated by Fagus or Quercus, with Carpinus in some places, and there are natural mixed forests of Abies and Fagus in the western part of the area.

**Habitats**

Forest and woodland (67%; broadleaved deciduous forest), Scrub (1%; scrub), Grassland (15%; steppe/dry calcareous grassland; mesophase grassland), Wetland (1%; standing fresh water; river/stream), Rocky areas (1%; inland cliff), Artificial landscape (15%; arable land; forestry plantation; other urban/industrial areas)

**Land-use**

Agriculture (27%), Forestry (46%), Tourism/recreation (5%), Urban/industrial/transport (15%)

**Conservation issues**

Problems include the unsustainable exploitation of forests, and disturbance to breeding raptors and Ciconia nigra caused by uncontrolled recreation, tourist activity and quarrying near nests.

**Site description**

A former fish-farm, situated on the bank of the River Danube, north of the village of Nova Cherna. The open water of the ponds is partly covered by rich marsh vegetation of Hydrocharis, Nymphaea, Nympheoides and Trapa. The ponds are fringed by dense reedbeds of Phragmites, Typha and Schoenoplectus, with some groups of Salix trees, and are separated from the river by a seasonally flooded forest of Salix and Populus, which also covers a nearby island in the Danube (part of this complex). Plantations of Robinia and Elaeagnus cover the surrounding hills. Fish-farming ceased in 1993 because of financial problems. ‘Other’ land-use (below) is reed-cutting.

**Habitats**

Forest and woodland (7%; alluvial/wet forest), Grassland (29%; steppe/dry calcareous grassland; humid grassland), Wetland (64%; standing fresh water; river/stream; water-fringe vegetation)

**Land-use**

Fisheries/aquaculture, Tourism/recreation, Other

**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>Ciconia nigra</td>
<td>B</td>
<td>1996</td>
<td>11</td>
<td>12</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Cercopsis gallica</td>
<td>B</td>
<td>1996</td>
<td>2</td>
<td>4</td>
<td>A2</td>
<td>B2</td>
</tr>
<tr>
<td>Buteo buteo</td>
<td>R</td>
<td>1996</td>
<td>3</td>
<td>4</td>
<td>A</td>
<td>B2</td>
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<tr>
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<td>1996</td>
<td>3</td>
<td>4</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Aquila heliaca</td>
<td>B</td>
<td>1996</td>
<td>1</td>
<td>2</td>
<td>A1</td>
<td>B2</td>
</tr>
<tr>
<td>Aquila chrysaetos</td>
<td>R</td>
<td>1996</td>
<td>4</td>
<td>6</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Crex crex</td>
<td>R</td>
<td>1996</td>
<td>28</td>
<td>34</td>
<td>A</td>
<td>A1</td>
</tr>
<tr>
<td>Pica canus</td>
<td>R</td>
<td>1996</td>
<td>6</td>
<td>8</td>
<td>B</td>
<td>B2</td>
</tr>
<tr>
<td>Dendrocopos medius</td>
<td>R</td>
<td>1996</td>
<td>20</td>
<td>22</td>
<td>B1</td>
<td>B3</td>
</tr>
<tr>
<td>Middle Spotted Woodpecker</td>
<td>R 1996</td>
<td>16</td>
<td>15</td>
<td>B B2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An important breeding area for globally threatened species (Crex crex, Aquila heliaca) as well as for Ciconia nigra, a wide variety of large raptors, and two woodpeckers (Picus canus and Dendrocopos medius).

Species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus (3–12 on passage), Pelecanus crispus (max. 1 on passage), Aythya nyroca (1 breeding pair; 4–16 on passage), Aquila clanga (max. 1 on passage), Falco naumanni (max. 3 pairs). Significant proportion (21%) of national population breeding at site: Bubo bubo (2–4 pairs).

**Protection status**

National Low International None

100 ha of IBA covered by Nature Reserve (Kersenlika-Ardachlaka, 100 ha), 567 ha of IBA covered by Nature Reserve (Orlitza, 567 ha). 5 ha of IBA covered by National Monument (Orolovi Pesteri, 5 ha). 10 ha of IBA covered by National Monument (Ursuliki Skali, 10 ha). 358 ha of IBA covered by National Monument (Zlosoten, 358 ha). 74 ha of IBA covered by Protected Landscape (Bezimenen Island, 74 ha).

**Conservation issues**

Problems include reductions in water-levels, and disturbance of birds by reed-cutters and collectors of herbs and snails. The procedure for designation of 663 ha of the site as a protected area is not finished.
**Pozharevo island**

**Admin region** Ruse

**Coordinates** 44°04'N 26°40'E

**Altitude** 45–45 m

**Area** 170 ha

**Site description**

An island located between kilometres 424–423 in the River Danube, covered by seasonally flooded forest of *Salix* and *Populus*. There are sandbars near the banks. Human activities include hunting during the winter.

**Habitats** Forest and woodland (98%); alluvial/very wet forest, Wetland (2%; river/stream)

**Land-use** Fisheries/aquaculture (2%), Hunting (98%)

**Situation**

**Protection status**

National None International None

**Conservation issues**

There are no serious threats to this site. Children sometimes disturb the birds and destroy nests.

**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>Phalacrocorax pygmeus</em></td>
<td>Breeder</td>
<td>1997</td>
<td>500</td>
<td>1,200 A</td>
<td>A1, B1</td>
<td></td>
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<tr>
<td><em>Pygym Cormorant</em></td>
<td>Breeder</td>
<td>1996</td>
<td>10</td>
<td>30 A</td>
<td>A1, B2</td>
<td></td>
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<tr>
<td><em>Pelecanus crispus</em></td>
<td>Breeder</td>
<td>1997</td>
<td>20</td>
<td>40 A</td>
<td>A1, B1</td>
<td></td>
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<tr>
<td><em>Ardea ralloides</em></td>
<td>Breeder</td>
<td>1996</td>
<td>5</td>
<td>50 A</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td><em>Branta ruficollis</em></td>
<td>Breeder</td>
<td>1997</td>
<td>100</td>
<td>500 A</td>
<td>B2</td>
<td></td>
</tr>
</tbody>
</table>

The island is important for its breeding colonies of *Phalacrocorax pygmeus*, *Nycticorax nycticorax* and *Ardea ralloides*, and for the large numbers of some wintering waterbirds, notably of the globally threatened *Pelecanus crispus* and *Branta ruficollis*. Significant proportion (21%) of national population breeding at site: *Platalea leucorodia* (1–2 pairs).

**Protection status**

National Partial International None

71 ha of IBA covered by Protected Landscape (Maluk Pozarevo, 71 ha).

**Conservation issues**

**Threats** Disturbance to birds (A)

The main problem is disturbance of nesting birds by bird-ringers.

---

**Srebarna lake**

**Admin region** Ruse

**Coordinates** 44°07'N 27°04'E

**Altitude** 11–13 m

**Area** 1,445 ha

**Site description**

A hyper-eutrophic freshwater lake directly east of the village of Srebarna, on the bank of the River Danube between kilometres 393 and 391. The open-water surface is partly covered by Hydrocharis, *Nymphaea* and *Potamogeton*, and is fringed by reedbeds of *Phragmites* and *Typha*. There are some groups of *Salix* in the reedbeds. Komluka island (in the Danube), which is part of the reserve, is covered by flooded forest of *Salix* and *Populus*. 

**Habitats** Wetland (100%; standing fresh water; water-fringe vegetation)

**Land-use** Nature conservation/research (100%), Not utilized (63%), Tourism/recreation (37%)

**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>Phalacrocorax carbo</em></td>
<td>Cormorant</td>
<td>1996</td>
<td>98</td>
<td>540 A</td>
<td>B1, B2</td>
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<tr>
<td><em>Phalacrocorax pygmeus</em></td>
<td>Cormorant</td>
<td>1997</td>
<td>5</td>
<td>50 A</td>
<td>B1, B2</td>
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</tr>
<tr>
<td><em>Pygym Cormorant</em></td>
<td>Cormorant</td>
<td>1996</td>
<td>15</td>
<td>100 A</td>
<td>B1</td>
<td></td>
</tr>
<tr>
<td><em>Pelecanus crispus</em></td>
<td>Cormorant</td>
<td>1997</td>
<td>3</td>
<td>5 A</td>
<td>B1</td>
<td></td>
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<tr>
<td><em>Nycticorax nycticorax</em></td>
<td>Breeder</td>
<td>1996</td>
<td>20</td>
<td>74 A</td>
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<tr>
<td><em>Ixobrychus minutus</em></td>
<td>Breeder</td>
<td>1997</td>
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<td>15 A</td>
<td>B2</td>
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<tr>
<td><em>Nycticorax pygmeus</em></td>
<td>Breeder</td>
<td>1996</td>
<td>50</td>
<td>150 A</td>
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<tr>
<td><em>Ardea ralloides</em></td>
<td>Breeder</td>
<td>1996</td>
<td>60</td>
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<tr>
<td><em>Plegadis falcinellus</em></td>
<td>Breeder</td>
<td>1996</td>
<td>5</td>
<td>5 A</td>
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</tr>
<tr>
<td><em>Platalea leucorodia</em></td>
<td>Breeder</td>
<td>1997</td>
<td>6</td>
<td>20 A</td>
<td>B2</td>
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<tr>
<td><em>Anser albifrons</em></td>
<td>Breeder</td>
<td>1997</td>
<td>1,000</td>
<td>50,550 A</td>
<td>A1, B1</td>
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<tr>
<td><em>Anser anser</em></td>
<td>Breeder</td>
<td>1996</td>
<td>17</td>
<td>505 B</td>
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<tr>
<td><em>Turtur pilaris</em></td>
<td>Breeder</td>
<td>1997</td>
<td>5,000</td>
<td>10,000 B</td>
<td>B3</td>
<td></td>
</tr>
</tbody>
</table>

The site is important for breeding waterbirds, especially the globally threatened *Pelecanus crispus*, and for wintering geese. Species of global conservation concern that do not meet IBA criteria: *Anser erythropus* (has occurred in the past), *Branta ruficollis* (12–50 in winter), *Halaeus albigula* (1–5 in winter; extinct as a breeding species).

**Protection status**

National High International Partial

902 ha of IBA covered by Nature Reserve (Srebarna, 902 ha). 543 ha of IBA covered by Buffer Zone (Srebarna, 543 ha). 600 ha of IBA covered by Ramsar Site (Srebarna, 600 ha). 902 ha of IBA covered by Biosphere Reserve (Srebarna, 902 ha). 902 ha of IBA covered by World Heritage Site (Srebarna, 902 ha).

**Conservation issues**

**Threats** Construction/impact of dyke/dam/barrage (A), Filling-in of wetlands (A), Groundwater abstraction (A), Natural events (A)

Threats include nest-predation by foxes *Vulpes vulpes*, jackals *Canis aureus* and boars *Sus scrofa*, which affect the pelican colony (‘Natural events’, above). Some restoration measures were taken by the Ministry of Environment in response to the disturbed water-levels in the lake.

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**Mandra–Poda complex**

**Admin region** Burgas

**Coordinates** 42°25'N 27°23'E

**Altitude** 0–3 m

**Area** 2,270 ha

**Site description**

A dammed reservoir on the Black Sea coast, below which lies a brackish lagoon linked by an outlet to the sea, next to the town of Burgas. The open-water surface covers 1,300 ha, and is fringed by *Phragmites*, *Typha*, *Juncus* and *Bolboschoenus*. Along the shore, salt-tolerant vegetation is dominated by *Puccinellia* and *Salicornia*.
The lake is surrounded by wet meadows, marshes, arable land and areas of Palustris scrub, with some forest of Quercus and Acer on the south bank.

**Habitats**
- Grassland (1%), mesophile grassland,
- Wetland (98%); standing fresh water; standing brackish and salt water; water-fringe vegetation.
- Artificial landscape (1%); arable land
- **Land-use** Agriculture (2%), Fisheries/aquaculture (90%), Forestry (1%), Hunting (95%), Nature conservation/research (4%), Urban/industrial/transport (10%)

**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>
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</thead>
<tbody>
<tr>
<td>Phalacrocorax carbo</td>
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<td>W 1997</td>
<td>15</td>
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<td>W 1997</td>
<td>19</td>
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<tr>
<td>Pygmy Cormorant</td>
<td>P 1996</td>
<td>9</td>
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<tr>
<td><em>Pelecanus onocrotalus</em></td>
<td>White Pelican</td>
<td>P 1996</td>
<td>203</td>
<td>2,000</td>
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<td><em>Pelecanus crispus</em></td>
<td>Dalmatian Pelican</td>
<td>W 1997</td>
<td>11</td>
<td>203</td>
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<td>Ardeola ralloides</td>
<td>Squacco Heron</td>
<td>B 1996</td>
<td>30</td>
<td>30</td>
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<tr>
<td><em>Egretta alba</em> Great White Egret</td>
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<tr>
<td>Plegadis falcinellus</td>
<td>Glossy Ibis</td>
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<td>30</td>
<td>A</td>
<td>B2</td>
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<tr>
<td>Platalea leucorodia</td>
<td>Spoonbill</td>
<td>B 1996</td>
<td>37</td>
<td>37</td>
<td>A</td>
<td>B2</td>
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<tr>
<td>Cygnus cygnus</td>
<td>Whooper Swan</td>
<td>W 1997</td>
<td>9</td>
<td>599</td>
<td>A</td>
<td>A1</td>
</tr>
<tr>
<td>Anser albifrons</td>
<td>White-fronted Goose</td>
<td>1997</td>
<td>10,000</td>
<td>30,770</td>
<td>A</td>
<td>A1, B1i</td>
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<tr>
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<td>Red-breasted Goose</td>
<td>W 1997</td>
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<td>Glossy Ibis</td>
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<td>24</td>
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<td>A1, A1i, B1i</td>
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<td>Recurvirostra avosetta</td>
<td>Avocet</td>
<td>B 1996</td>
<td>5</td>
<td>15</td>
<td>A</td>
<td>B1</td>
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<tr>
<td>Numenius tenuirostris</td>
<td>Sand-billed Curlew</td>
<td>P 1996</td>
<td>0</td>
<td>1</td>
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</tr>
</tbody>
</table>

1. Formerly listed.

The complex is important for many bird species, notably for globally threatened species (e.g. Numenius tenuirostris, Oxyura leucocephala), breeding waterbirds (e.g. Platalea leucorodia, Recurvirostra avosetta), and wintering waterbirds. The site holds 20,000 or more waterbirds on a regular basis, and is also a notable migratory bottleneck site in autumn, where more than 3,000 raptors (notably Aquila pomarina) and up to 20,000 Ciconia ciconia pass overhead. Species of global conservation concern that do not meet IBA criteria while staging at the site: Pelecanus crispus, Aythya nyroca. Significant proportion (21%) of national population breeding at site: Nycticorax nycticorax (28–30 pairs).

**Protection status**

**National Partial International**
- 151 ha of IBA covered by Protected Landscape (Poda Lagoon, 151 ha).

**Conservation issues**

**Threats**
- Burning of vegetation (C), Industrialization/urbanization (B), Infrastructure (B), Unsustainable exploitation (A)

Problems include illegal hunting in the protected area, mining of sand from sand-dunes, and chemical pollution of water. The management plan for Poda Lagoon Protected Landscape was prepared by BSPB under the Bulgarian–Swiss Biodiversity Conservation Programme, and BSPB manages this area.

**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>
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<tr>
<td>Pygmy Cormorant</td>
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<td>92</td>
<td>B</td>
<td>A1</td>
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<tr>
<td>Cygnus cygnus</td>
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<td>Branta ruficollis</td>
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<td>Aythya ferina</td>
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<td>151</td>
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<td>Aythya fuligula</td>
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<td>15,807</td>
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<td>A1</td>
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<tr>
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<td>White-headed Duck</td>
<td>P 1997</td>
<td>19</td>
<td>43</td>
<td>A</td>
<td>A1</td>
</tr>
</tbody>
</table>

1. Breeding not confirmed over last 7 years.

The IBA and surroundings suffer from high levels of industrial and chemical pollution, and the continued construction of industrial and residential districts also poses a threat. The lake is monitored by BSPB under the Bulgarian–Swiss Biodiversity Conservation Programme.

**Atanasovo lake**

**Admin region** Burgas
**Coordinates** 42°14'N 27°29'E
**Altitude** 0–2 m, Area 1,950 ha

A hyper-saline lake on the Black Sea coast, just north of the suburbs of the town of Burgas. Most of the lake is now a complex of evaporation salt-pans, with smaller settling pools for salt-extraction. Smaller freshwater marshes, including a system of canals overgrown with marsh vegetation, surround the lake. The banks of the salt-pans are covered by Salicornia, while the freshwater areas are fringed by beds of Typha and Phragmites. Most of the area is used for salt production, but traditional and non-intensive production methods continue to be used (‘Other’ land-use, below).

**Habitats**
- Grassland (mesophile grassland), Wetland (100%); saltmarsh; standing brackish and salt water; water-fringe vegetation
- **Land-use** Agriculture (1%), Nature conservation/research (100%), Urban/industrial/transport (1%)

**Birds**

The lake is a very important staging, wintering and breeding area for migratory waterbirds, including globally threatened species such as Numenius tenuirostris, Pelecanus crispus, Branta ruficollis, Aythya nyroca and Aythya clanga. It is also a major migratory bottleneck site, where huge numbers of soaring raptors and waterbirds pass overhead in autumn. The commonest such species are as follows (minimum and maximum seasonal totals over the 1990–1996 period are given): Pelecanus onocrotalus (17,645–37,228), Ciconia nigra (2,781–4,574), Ciconia ciconia (80,592–204,423), Pernis apivorus (13,406–23,052), Buteo buteo (14,441–30,662), Aquila pomarina (9,009–25,796) and Falco vespertinus (438–3,110). Species of global conservation concern that do not meet IBA criteria: Anser erythropus (max. 1 in winter), Marmaronetta angustirostris (one winter record), Oxyura leucocephala (max. 10 in winter), Haliaetus albicilla (max. 2 on passage), Circus macrourus (7–20 per season on...
passage), *Aquila heliaca* (2–4 on passage), *Falco naumanni* (max. 3 on passage), *Crepus crex* (max. 3 pairs breeding). Significant proportion (21%) of national population breeding at site: *Tadorna ferruginea*.

### Conservation issues

Some problems are bird mortality from collision with powerlines, as well as possible expansion of the airport (which might increase bird-scaring activities, to reduce the risk of collision with aircraft), and intensification of salt-production methods (‘Other’ threat, above). The management plan for Atanasovo lake was prepared by the Ministry of Environment under the Bulgarian–Swiss Biodiversity Conservation Programme.

### Important Bird Areas in Europe – Bulgaria

#### Hursovska Reka

Admin region Varna

Coordinates 43°54’N 27°23’E

Altitude 100–300 m Area 20,000 ha

#### Provadijsko–Royaksko Plato

Admin region Varna

Coordinates 43°15’N 27°23’E

Altitude 100–389 m Area 100,000 ha

The lake is important for breeding *Recurvirostra avosetta*, migrating *Pelecanus crispus* and wintering *Cygnus olor*. Species of global conservation concern that do not meet IBA criteria: *Phalacrocorax pygmeus* (min. 24 in winter; max. 29 on passage), *Aythya nyroca* (max. 15 on passage), *Oxyura leucocephala* (3–5 in winter), *Crepus crex* (occurs on passage). Significant proportion (≥1%) of national population breeding at site: *Ixobrychus minutus* (5 pairs).

### Protection status

National None International None

#### Conservation issues

Threats Abandonment/reduction of land management (C), Industrialization/urbanization (B), Unsustainable exploitation (B)

The main problems are caused by intensification of salt-production techniques (including abandonment of some salt-pans), restitution of pans to former owners, and water pollution from the surrounding area (all are classed under ‘Industrialization/urbanization’ threat, above). Hunting is also a problem. The IBA has been proposed as a Protected Landscape.

### Important Bird Areas in Europe – Bulgaria

#### Pomorie lake

Admin region Burgas

Coordinates 42°35’N 27°37’E

Altitude 0–5 m Area 850 ha

#### Site description

A hyper-saline lake on the Black Sea coast (a former coastal lagoon), most of which is utilized for salt production. There are shallow saltpans of varying salinity, separated by narrow dykes; a freshwater canal between the saltpans; freshwater marshes with rich vegetation; dry, saline areas covered by salt-tolerant vegetation; and a sand beach along the coast. The vegetation around the saltpans is dominated by *Succisa ruminata* and *Puccinellia*, while *Typha*, *Phragmites* and *Schoenoplectus* dominate in the more freshwater areas. Most of the lake is used for artisanal (non-intensive) salt-production (‘Other’ land-use, below). There is a mud-cure establishment.

### Conservation issues

Some current problems are excessive exploitation of forests for timber, disturbance of nesting raptors by forestry activities, and illegal hunting.

### Important Bird Areas in Europe – Bulgaria

#### Hursyovska Reka

Admin region Varna

Coordinates 43°54’N 27°23’E

Altitude 50–300 m Area 20,000 ha

#### Site description

An arid river valley with rocky massifs, covered by broadleaved forest...
and dry grassland on the ridges of the hills. Forests are dominated by Quercus, Carpinus and Acer.

Habitats Forest and woodland (70%); broadleaved deciduous forest, Grassland (15%); dry siliceous grassland, Rocky areas (3%; inland cliff), Artificial landscape (10%; arable land; perennial crops/orchards/groves)

Land-use Agriculture (25%), Forestry (70%), Hunting (60%)

**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>
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<tr>
<td>Tadorna ferruginea</td>
<td>R</td>
<td>1994</td>
<td>3</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>Butorides rufulus</td>
<td>L</td>
<td>1994</td>
<td>3</td>
<td>4</td>
<td>A</td>
</tr>
</tbody>
</table>

The area is one of the most important breeding sites for Tadorna ferruginea and Butorides rufulus in the country. Gyps fulvus and Aquila chrysaetos used to breed in the area many years ago. Significant proportion (21%) of national population breeding at site. Neophron percnopterus (1 pair), Circus garrulus (1 pair), Aquila pomarina (1 pair), Hieraaetus pennatus (1 pair), Bubo bubo (3 pairs).

**Protection status**

National None International None

**Conservation issues**

Threats Disturbance to birds (A), Extraction industry (B)

The main problem is disturbance of nesting birds (by treasure-hunters).
The IBA is important as a breeding site for *Ficedula semitorquata* and is also a notable migratory bottleneck site, where a minimum of 10,000 *Ciconia ciconia* pass overhead each autumn. Breeding species of global conservation concern that do not meet IBA criteria: *Phalacrocorax pygmeus* (4 pairs; max. 54 in winter), *Aythya nyroca* (3 pairs). Significant proportion (≥2%) of national population breeding at site: *Isobrychus minutus* (10–15 pairs).

**Protection status**

**National Partial International Low**

167 ha of IBA covered by National Reserve (Rojobato, 1,001 ha).

18 ha of IBA covered by National Monument (Maslent Nos, 18.1 ha).

12 ha of IBA covered by National Monument (Pashmidzhi Dyuna, 12 ha).

40 ha of IBA covered by Protected Landscape (Stamopolu, 40 ha).

771 ha of IBA covered by Buffer Zone (Rojobato, 771 ha).

97 ha of IBA covered by Ramsar Site (Arkoutino, 97 ha).

**Conservation issues**

**Threats** Construction/impact of dyke/dam/barrage (B), Industrialization/urbanization (B), Recreation/tourism (A), Unsustainable exploitation (B)

The main problems are heavy tourist pressure, building encroachment, and changes to the water regime (caused by upstream water-abstraction, and eutrophication of marshes). The management plan for Rojobato Complex was prepared by the Ministry of Environment under the Bulgarian–Swiss Biodiversity Conservation Programme.

**Site description**

The mouth of a small river in a small bay on the Black Sea coast. There is a sand beach and a mudflat, a large area of reedbeds of *Phragmites*, *Typha* and *Schoenoplectus*, and secondary broadleaved woodland on the nearby slopes.

**Habitats** Forest and woodland (20%; broadleaved deciduous forest), Wetland (74%; mudflats/sandflats/sand beach; river/stream; water-fringe vegetation), Marine areas (5%; sea inlet/coastal features), Rocky areas (1%; sea cliff/rocky shore)

**Land-use** Fisheries/aquaculture (70%), Urban/industrial/transport (2%)

**Threats** Disturbance to birds (B), Unsustainable exploitation (B)

Illegal hunting occurs in the protected area. People and nearby road traffic disturb birds during the breeding season.

**National Low International None**

1 ha of IBA covered by National Monument (Cape Emine, 1 ha).

**Conservation issues**

**Threats** Industrialization/urbanization (C)

There are no serious problems now, but urbanization of the area is possible in the future.

**Site description**

This mountainous area forms the north-easternmost part of the Stara Planina mountains. There are rocky massifs, two reservoirs—Eleshnitza (100 ha) and Tzzonevo (300 ha)—and three rivers. Broadleaved forests of *Quercus*, *Fagus* and *Tilia* predominate, with cultivated land and pastures scattered between forests and villages. Human activity is only absent from the Strict Reserves.

**Habitats** Forest and woodland (85%; broadleaved deciduous forest), Scrub (1%; scrub), Grassland (7%; steppe/dry calcareous grassland), Wetland (1%; sand-dunes/sand beach; standing fresh water; river/stream; water-fringe vegetation), Rocky areas (1%; sea cliff/rocky shore; inland cliff), Artificial landscape (5%; arable land; perennial crops/orchards/vegetable gardens), Cultural landscape (5%)

**Land-use** Agriculture (85%), Forest (1%), Hunting (10%), Military, Tourism/recreation (10%)
Important Bird Areas in Europe – Bulgaria

Kamchia complex

Admin region Varna
Coordinates 43°01′N 27°53′E
Altitude 0–10 m Area 3,000 ha

Site description

The lower reaches and estuary of the Kamchia river, with remnant riverine forests, small freshwater marshes of Phragmites and Typha along the riverbank, arable land (the former Staro–Oryachovo marshes), a beach with sand-dunes, and a sea. The forests are dominated by Fraxinus, Ulmus, Quercus, Acer and Alnus, with scrub of Crataegus, Cornus, Pulsatilla and Ligustrum, and lianas of Clematis, Smilax and Periploca.

Habitats

- Forest and woodland (40%; aluvial/very wet forest)
- Scrub (1%; scrub)
- Wetland (19%; tidal river/enclosed tidal water; sand-dunes/land/chain; standing fresh water; river/stream; water-fringe vegetation)
- Marine areas (4%; open sea), Artificial landscape (46%; arable land; forestry plantation)
- Land-use
  - Agriculture (34%), Forestry (40%), Nature conservation/research (30%), Tourism/recreation (15%), Urban/industrial/transport

Protection status

National Low International None

Conservation issues

Some current problems are caused by unsustainable forest exploitation for timber (forestry activity near raptors’ nests also causes disturbance), uncontrolled recreation, and quarries. There are three Strict Reserves with Buffer Zones and three National Monuments, covering less than 1% of the area.

Nesting birds are disturbed by passing people and cars. BSPB monitors the site.

The IBA is important for wading birds. It is one of the most important breeding sites in the region for Ciconia ciconia and is one of the most important breeding sites in the country for Tadorna ferruginea. Species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus (max. 20 on passage, max. 9 in winter), Pelecanus crispus (max. 5 on passage). Aythya nyroca (1 pair sometimes breeds; max. 18 on passage). Significant proportion (21%) of national population breeding at site: Recurvirostra avosetta (3 pairs).

Protection status

National High International None

Conservation issues

Nesting birds are disturbed by passing people and cars. BSPB monitors the site.

The water regime has been altered following the construction of embankments (along the riverside) and of reservoirs (six; throughout the catchment), and the periphery of the dense forest is gradually drying out. Part (30 ha) of the Protected Landscape was afforested with Pinus. A management plan has been prepared for Kamchia Biosphere Reserve by the Ministry of Environment under the Bulgarian–Swiss Biodiversity Conservation Programme.

Varna–Beloslav lakes complex

Admin region Varna
Coordinates 43°12′N 27°44′E
Altitude 0–5 m Area 2,300 ha

Site description

A natural coastal lake to the west of Varna, the largest Bulgarian sea-port. The northern shore is fringed by reedbeds of Phragmites, Typha and Schoenoplectus, while other parts are steeply sloping. There are sand-banks, as well as small salt pans in the westernmost

Nesting birds are disturbed by passing people and cars. BSPB monitors the site.

Important conservation zones

- 842 ha of IBA covered by Nature Reserve (Kamchia, 842 ha).
- 373 ha of IBA covered by Protected Landscape (Kamchiyskii Pyasatsi, 373 ha).
- 230 ha of IBA covered by Buffer Zone (Kamchia, 230 ha).
- 842 ha of IBA covered by Biosphere Reserve (Kamchia, 842 ha).

Protection status

National Partial International Partial

Conservation issues

- Threats: Consequences of animal/plant introductions (B), Drainage (A), Recreation/tourism (A), Unsustainable exploitation (B).

The IBA is important for wintering Cygnus olor and is one of the most important breeding sites in the country for Tadorna ferruginea. Species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus (max. 20 on passage, max. 9 in winter), Pelecanus crispus (max. 5 on passage). Aythya nyroca (1 pair sometimes breeds; max. 18 on passage). Significant proportion (21%) of national population breeding at site: Recurvirostra avosetta (3 pairs).

Protection status

National High International None

Conservation issues

Nesting birds are disturbed by passing people and cars. BSPB monitors the site.

Important conservation zones

- 154 ha of IBA covered by National Monument (Yatata, 154 ha).

Site description

A former sedimentation reservoir, close to the town of Beloslav, south of Varnensko lake. There are reedbeds of Phragmites and Typha, open-water areas, and low cliffs along the southern margin. The banks are covered by Salicornia, with Poa/Lolium grasslands and forests of Quercus, Ulmus and Carpinus on surrounding hills. The reservoir is not used for human activity, which is prohibited under the protected-area status.

Habitats

- Grassland (40%; dry siliceous grassland), Wetland (58%; standing fresh water; river/stream; water-fringe vegetation), Rocky area (2%; inland cliff)
- Land-use
  - Agriculture (53%), Not utilized (47%)

Protection status

National Partial International Partial

Conservation issues

- Threats: Disturbance to birds (B), Drainage (B), Unsustainable exploitation (B)

Nesting birds are disturbed by passing people and cars. BSPB monitors the site.

Important conservation zones

- 154 ha of IBA covered by National Monument (Yatata, 154 ha).
part of the complex, whose banks are overgrown with Salicornia. The lake was converted in the 1970s into a ship-channel connecting the Black Sea and Lake Beloslav, and there are many industrial installations (factories, ports, etc.), roads and railways along the lake-shore.

**Habitats** Wetland (95%; standing fresh water; standing brackish and salt water; water-fringe vegetation), Artificial landscape (5%; other urban/industrial areas)

**Land-use** Fisheries/aquaculture (90%), Hunting (90%), Urban/industrial/transport (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>Phalacrocorax pygmeus</td>
<td>W</td>
<td>1996</td>
<td>14</td>
<td>145</td>
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<td>1996</td>
<td>200</td>
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<td>A1</td>
</tr>
<tr>
<td>Pelecanus crispus</td>
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<td>P</td>
<td>1996</td>
<td>30</td>
<td>—</td>
<td>C, A1, A4i, B1i</td>
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<tr>
<td>Aythya ferina</td>
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<td>1997</td>
<td>1,125</td>
<td>10,240</td>
<td>A1, B1i</td>
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<tr>
<td>Recurvirostra avosetta</td>
<td>Ascot</td>
<td>B</td>
<td>1996</td>
<td>13</td>
<td>13</td>
<td>A B3</td>
</tr>
</tbody>
</table>

1. Max. 25 on passage.

The complex is important for breeding Recurvirostra avosetta, which nest at the saltplants. It is the only wetland between Shabla and Durankulak lakes in the north and the Burgas lakes to the south, and thus is an important staging and wintering area for waterbirds, especially Pelecanus crispus and Phalacrocorax pygmeus. It is also a major migratory bottleneck site, where up to 50,000 Ciconia ciconia pass overhead each autumn. Species of global conservation concern that do not meet IBA criteria: Aythya nyroca (min. 9 on passage), Oxyura leucocephala (max. 3 in winter).

**Protection status**

**National** Low **International** None

125 ha of IBA covered by Protected Landscape (Kazashko, 125 ha).

**Conservation issues**

**Threats** Industrialization/urbanization (A), Unsustainable exploitation (B)

Problems include water pollution by industry and the overexploitation of fish stocks.

**Site description**

Suha Reka

**Admin region** Varna

**Coordinates** 43°44’N 27°36’E

Altitude 100–300 m Area 15,000 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>
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<td>Phalacrocorax pygmeus</td>
<td>P</td>
<td>1997</td>
<td>5</td>
<td>392</td>
<td>A</td>
<td>A1</td>
</tr>
<tr>
<td>Pygmy Cormorant</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cypreus cygnus</td>
<td>W</td>
<td>1997</td>
<td>162</td>
<td>261</td>
<td>B</td>
<td>B1i</td>
</tr>
<tr>
<td>Anser albifrons</td>
<td>White-fronted Goose</td>
<td>W</td>
<td>1997</td>
<td>61,900</td>
<td>177,335</td>
<td>A, A4i, B1i</td>
</tr>
<tr>
<td>Branta ruficollis</td>
<td>Red-breasted Goose</td>
<td>W</td>
<td>1997</td>
<td>20,000</td>
<td>55,845</td>
<td>A1, A4i, B1i</td>
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<tr>
<td>Anas platyrhynchos</td>
<td>Mallard</td>
<td>W</td>
<td>1997</td>
<td>3,045</td>
<td>62,210</td>
<td>A1, B1i</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>Ferruginous Duck</td>
<td>P</td>
<td>1996</td>
<td>10</td>
<td>88</td>
<td>A</td>
</tr>
<tr>
<td>Limus minor</td>
<td>Lesser Grey Shrike</td>
<td>B</td>
<td>1996</td>
<td>8</td>
<td>14</td>
<td>A</td>
</tr>
</tbody>
</table>

The area is one of the most important breeding sites in the country for Tadorna ferruginea, Buteo raufinus and Aquila pomarina. Significant proportion (24%) of national population breeding at site. Neophron percnopterus (1 pair), Circus gallicus (1 pair), Hieraaetus pennatus (1 pair), Bubo bubo (1–3 pairs).

**Protection status**

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

**Conservation issues**

**Threats** Agricultural intensification/expansion (U), Disturbance to birds (A)

The main problems are the disturbance of nesting birds (by treasure-hunters), and water pollution by waste-water from farms. The exact sources of the pollution are unknown because of the well-drained karst terrain.

**Shabla lake complex**

**Admin region** Varna

**Coordinates** 43°34’N 28°34’E

Altitude 0–4 m Area 3,100 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>
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<tbody>
<tr>
<td>Phalacrocorax pygmeus</td>
<td>W</td>
<td>1997</td>
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<td>A</td>
</tr>
</tbody>
</table>

The complex is very important in winter for the globally threatened Branta ruficollis and for Anser albifrons, which both occur in huge numbers, as well as for other wintering and migrating waterbirds such as Phalacrocorax pygmeus, Cygnus cygnus, Anas platyrhynchos and Aythya nyroca (one pair sometimes remains to breed). The site is also a notable migratory bottleneck site in autumn, when up to 6,500 Ciconia ciconia have been counted passing overhead (the site may qualify under the A4iv criterion but more counts are needed). Species of global conservation concern that do not meet IBA criteria: Anser erythrophus (1 or 2 on passage and in winter). Significant proportion (21%) of national population breeding at site: Tadorna ferruginea.

**Protection status**

**National** Partial **International** Partial

511 ha of IBA covered by Protected Landscape (Shabla lake, 511 ha). 403 ha of IBA covered by Ramsar Site (Shabla lake, 403 ha).

**Conservation issues**

**Threats** Agricultural intensification/expansion (U), Aquaculture/fisheries (U), Groundwater abstraction (A), Unsustainable exploitation (A)

The main problem is illegal hunting, including international hunting tourism. Illegal net-fishing and cattle-grazing cause disturbance to birds using the site. The management plan for Durankulak lake was prepared by Ministry of Environment under the Bulgarian–Swiss Biodiversity Conservation Programme.

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**Durankulak lake**

Admin region: Varna  
Coordinates: 43°40′0″ N 28°33′3″ E  
Altitude: 0–3 m  
Area: 2,000 ha

- **Habitats**: Scrub (45%); scrub; Grassland (3%); steppe/dry calcareous grassland; humid grassland; mesophile grassland; Wetland (22%); sand-dunes/sand beach; standing brackish and salt water; water- fringe vegetation; Artificial landscape (6%); arable land; perennial crops/orchards/groves  
- **Land-use**: Agriculture (74%); Hunting (7%); Nature conservation/research (2%); Water management (2%)

**Site description**

A natural firth on the Black Sea coast in north-western Bulgaria, near the Romanian border. The water is fringed with reedbeds of Phragmites, Typha and Schoenoplectus, and is surrounded by arable land and plantations of Populus, Fraxinus and Prunus. The water-level varies widely, due to demand for irrigation and household-consumption in summer. There are some groups of Salix trees around the lake, and scrub to the south-west is dominated by Palinus, Crataegus and Rosu.

**Birds**

The site is of global importance for wintering Branta ruficollis, Anser albifrons and Phalacrocorax pygmeus, and also important for some other wintering or migrating waterbirds, e.g. Cygnus olor. Species of global conservation concern that do not meet IBA criteria: Anser erythropus (max. 5 on passage and in winter).

**REFERENCES**


BONDEV, I. (1991) [The vegetation of Bulgaria: 1,600,000 map with explanatory text.] Sofia: St. Kliment Ohridski University Press. (In Bulgarian.)


DOKOV, V. (1990) [Vardim Island.] Priroda 2: 43–44. (In Bulgarian.)

FILIPPOVA-MARINOVA, M., DIMITROV, D. AND IVANOV, D. (in prep.) [Flora and vegetation of ‘Shabla Lake’ Protected Area.] Varna: Bulgarian-Swiss Biodiversity Conservation Programme. (In Bulgarian.)


MICHEV, T. AND KOVACHEV, A. (1995) [On migration of the White Stork Phalacrocorax pygmeus, and also important for some other wintering or migrating waterbirds, e.g. Cygnus olor. Species of global conservation concern that do not meet IBA criteria: Anser erythropus (max. 5 on passage and in winter).]


**Protection status**

National Partial International  
Partial 350 ha of IBA covered by National Monument (Durankulak lake, 350 ha). 350 ha of IBA covered by Ramsar Site (Durankulak lake, 350 ha).

**Conservation issues**

- **Threats**
  - Agricultural intensification/expansion (B), Filling-in of wetlands (B),  
  - Groundwater abstraction (B), Unsustainable exploitation (A)

The main problem is illegal hunting, including international hunting tourism. The management plan for Durankulak lake was prepared by the Ministry of Environment under the Bulgarian-Swiss Biodiversity Conservation Programme.