Yugoslavia lies mostly in the central Balkan peninsula, while its northern part spreads over the southern belt of the Pannonian plain. Yugoslavia covers an area of 102,173 km², of which Serbia comprises 88,361 km² and Montenegro comprises 13,812 km². The main geographic units in Serbia are the Pannonian region in the north, the Peripannonian region in the centre, and the Mountain-and-basin region in the south, while in Montenegro they are the Coastal and the Mountain-and-basin regions. More than 60% of Yugoslavia is made up of hilly to mountainous landscapes, above 500 m elevation. There are three main drainage basins in the country: the Black Sea basin, which comprises 88,919 km² (87% of the total territory of the country), and the Adriatic and Aegean basins. Montenegro has a c.200 km long coastline along the Adriatic Sea. Annual precipitation in Serbia is 550–1,000 mm, and in Montenegro is 700–5,000 mm.

This inventory identifies 40 Important Bird Areas (IBAs) in Yugoslavia (Table 1, Map 1). They have a total area of 8,617 km², equivalent to c.8% of the country’s surface area. Within Serbia there are 35 IBAs with an area of 7,670 km², while in Montenegro there are five IBAs with an area of 947 km². Totals of IBAs by administrative region are: Vojvodina (16); Kosovo and Metohija (two); central Serbia (17); southern Montenegro (three); northern Montenegro (two). In general, Serbia is well-surveyed ornithologically and the identification of IBAs is comprehensive.

### Table 1. Summary of Important Bird Areas in the Federal Republic of Yugoslavia.

<table>
<thead>
<tr>
<th>IBA 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>
<tbody>
<tr>
<td>001 SER001 YU029</td>
<td>Gornje Podunavlje</td>
<td>Gornje Podunavlje</td>
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<td>30,000</td>
<td>A1, A4i, A4iii, B1i, B2, B3</td>
<td></td>
</tr>
<tr>
<td>002 SER002 YU032, YU033</td>
<td>Subotica lakes and sandy terrain</td>
<td>Subotica jezera i pustare</td>
<td>Serbia</td>
<td>20,000</td>
<td>A1, B2, B3</td>
<td></td>
</tr>
<tr>
<td>003 SER003</td>
<td>Bečej fish-pond</td>
<td>Bečejski ribnjak</td>
<td>Serbia</td>
<td>4,000</td>
<td>A4i, B1i, B2, B3</td>
<td></td>
</tr>
<tr>
<td>004 SER004</td>
<td>Jezička</td>
<td>Jezička</td>
<td>Serbia</td>
<td>5,400</td>
<td>A1, A4i, B1i, B2, B3</td>
<td></td>
</tr>
<tr>
<td>005 SER005 YU037</td>
<td>Kouljški rit</td>
<td>Kouljški rit</td>
<td>Serbia</td>
<td>5,500</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>006 SER006 YU031</td>
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<td>Fruška Gora</td>
<td>Serbia</td>
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<td>A1, B2</td>
<td></td>
</tr>
<tr>
<td>007 SER007 YU030</td>
<td>Botska forest</td>
<td>Botska sume</td>
<td>Serbia</td>
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<td>A1, B1i, B2, B3</td>
<td></td>
</tr>
<tr>
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<td>Zavavica</td>
<td>Serbia</td>
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</tr>
<tr>
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<td>Obreda bara</td>
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</tr>
<tr>
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<td>Danube loess bluffs</td>
<td>Danuva lesni odsek</td>
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<td>A1, A4i, B1i, B2</td>
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<tr>
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<td>Zajozov-Mokrin</td>
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<td>8,000</td>
<td>A1, B2</td>
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<tr>
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<td>Slano kopovo</td>
<td>Serbia</td>
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<td>B1iv, B2, B3</td>
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<tr>
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<td>Carska bara</td>
<td>Carska bara</td>
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<tr>
<td>014 SER014</td>
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<td>Uzdimski ribnjak</td>
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</tr>
<tr>
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<td>Višarci breg</td>
<td>Serbia</td>
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<td>B2, B3</td>
<td></td>
</tr>
<tr>
<td>016 SER016 YU038</td>
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<td>Deliblaška peščara</td>
<td>Serbia</td>
<td>38,000</td>
<td>B2, B3</td>
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</table>
### Table 1. Summary of Important Bird Areas in the Federal Republic of Yugoslavia.

<table>
<thead>
<tr>
<th>IBA code</th>
<th>National code</th>
<th>1989 code</th>
<th>International name</th>
<th>National name</th>
<th>Administrative region</th>
<th>Area (ha)</th>
<th>Criteria (see p. 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>017</td>
<td>SER017</td>
<td>—</td>
<td>Cer mountain</td>
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<td>10,200</td>
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<tr>
<td>018</td>
<td>SER018</td>
<td>—</td>
<td>Valjevské mountains</td>
<td>Valjevské planine</td>
<td>Serbia</td>
<td>11,000</td>
<td>B2</td>
</tr>
<tr>
<td>019</td>
<td>SER019</td>
<td>—</td>
<td>Tara mountain</td>
<td>Tara planina</td>
<td>Serbia</td>
<td>36,000</td>
<td>B2</td>
</tr>
<tr>
<td>020</td>
<td>SER020</td>
<td>—</td>
<td>Ovcar–Kablar gorge</td>
<td>Ovcaransko-Kablarska klisura</td>
<td>Serbia</td>
<td>5,400</td>
<td>A1</td>
</tr>
<tr>
<td>021</td>
<td>SER021</td>
<td>—</td>
<td>Uvac–Mileševo</td>
<td>Uvac-Mileševo</td>
<td>Serbia</td>
<td>30,000</td>
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</tr>
<tr>
<td>022</td>
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<td>—</td>
<td>Kopaonik</td>
<td>Kopaonik</td>
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<tr>
<td>023</td>
<td>SER023</td>
<td>—</td>
<td>Prokletije</td>
<td>Prokletije</td>
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</tr>
<tr>
<td>024</td>
<td>SER024</td>
<td>YU048</td>
<td>Šara mountain</td>
<td>Šar planina</td>
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<td>80,000</td>
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<td>—</td>
<td>Pečinja</td>
<td>Pečinja</td>
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<td>—</td>
<td>Vlasište</td>
<td>Vlasište</td>
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<tr>
<td>027</td>
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<td>—</td>
<td>Jerman</td>
<td>Jerman</td>
<td>Serbia</td>
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<tr>
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<td>SER028</td>
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<td>Sova planina</td>
<td>Sova planina</td>
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</tr>
<tr>
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<td>—</td>
<td>Stara planina–Vidlic</td>
<td>Stara planina–Vidlic</td>
<td>Serbia</td>
<td>44,000</td>
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</tr>
<tr>
<td>030</td>
<td>SER030</td>
<td>—</td>
<td>Sirovica klisura</td>
<td>Sirovica klisura</td>
<td>Serbia</td>
<td>9,800</td>
<td>B2</td>
</tr>
<tr>
<td>031</td>
<td>SER032</td>
<td>YU047</td>
<td>Zlotgor–Dubačnica</td>
<td>Zlotgorška klisura</td>
<td>Serbia</td>
<td>10,000</td>
<td>B2</td>
</tr>
<tr>
<td>032</td>
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<td>YU046</td>
<td>Resavska klisura</td>
<td>Resavska klisura</td>
<td>Serbia</td>
<td>9,500</td>
<td>B2</td>
</tr>
<tr>
<td>033</td>
<td>SER034</td>
<td>YU039</td>
<td>Dubovac–Ram</td>
<td>Dubovac–Ram</td>
<td>Serbia</td>
<td>12,000</td>
<td>A1, A4i, A4iii, B1i, B2, B3</td>
</tr>
<tr>
<td>034</td>
<td>SER035</td>
<td>—</td>
<td>Đerdap gorges</td>
<td>Đerdapska klisura</td>
<td>Serbia</td>
<td>65,000</td>
<td>A1, A4i, A4iii, B1i, B2</td>
</tr>
<tr>
<td>035</td>
<td>SER036</td>
<td>—</td>
<td>Mala vrblica</td>
<td>Mala vrblica</td>
<td>Serbia</td>
<td>2,000</td>
<td>B2</td>
</tr>
<tr>
<td>036</td>
<td>YU042</td>
<td>—</td>
<td>Durmitor</td>
<td>Durmitor</td>
<td>Montenegro</td>
<td>33,000</td>
<td>B2, B3</td>
</tr>
<tr>
<td>037</td>
<td>—</td>
<td>—</td>
<td>Biogradska gora</td>
<td>Biogradska gora</td>
<td>Montenegro</td>
<td>20,000</td>
<td>B2, B3</td>
</tr>
<tr>
<td>038</td>
<td>YU043</td>
<td>—</td>
<td>Lake Skadar</td>
<td>Skadarsko jezero</td>
<td>Montenegro</td>
<td>40,000</td>
<td>A1, A3, A4i, A4iii, B1i, B2</td>
</tr>
<tr>
<td>039</td>
<td>YU044</td>
<td>—</td>
<td>Lake Skako</td>
<td>Sanko jezero</td>
<td>Montenegro</td>
<td>350</td>
<td>B1i, B2, B3</td>
</tr>
<tr>
<td>040</td>
<td>YU045</td>
<td>—</td>
<td>Ulcinski solane</td>
<td>Ulcinski solane</td>
<td>Montenegro</td>
<td>1,350</td>
<td>A1, A4i, B1i, B2</td>
</tr>
</tbody>
</table>

**Map 1.** Location, area and criteria category of Important Bird Areas in the Federal Republic of Yugoslavia.
while in Montenegro there are still areas which potentially fulfil the IBA criteria but which have not been confirmed as IBAs due to a scarcity of recent data.

The previous pan-European IBA inventory in 1989 (Grimmett and Jones 1989) identified 20 IBAs in Yugoslavia, with an area of 1,803 km², equivalent to c.2% of the country’s surface area. Sixteen of the IBAs were in Serbia and four in Montenegro. All 20 of these sites have been confirmed as IBAs under the revised IBA criteria, and feature in this inventory (see Table 1), but mostly with new boundaries and with larger surface-areas.

### HABITATS

Yugoslavia is an ecologically diverse country, and the biogeographical origins of its fauna and flora are unusually heterogeneous in a European context. Six main habitat-zones can be distinguished: high-montane rocky areas and pastures; coniferous forests; southern European and sub-Mediterranean forests (mainly deciduous); upland Mediterranean vegetation; steppe; and wooded steppe. In the north of Serbia, the Pannonian plain is a lowland landscape with large rivers (Danube, Sava, and Tisa), while to the south hilly/mountainous landscapes are intersected by river valleys (the mountain systems being the Dinaric, Tisa), while to the south hilly/mountainous landscapes are intersected by river valleys (the mountain systems being the Dinaric, Tisa). The coast, and one of the largest freshwater lakes in Europe, Lake Skadar, is also situated here.

At least 23 IBAs (58% of the total) have more than 5% of their extent covered by some form of wetland (Figure 1), and this extent is considered significant at 19 of the 23 sites, among them eight areas of fish-ponds. These 19 sites comprise almost all of the most important breeding colonies of herons (Ardeidae) and cormorants (Phalacrocoracidae) in Yugoslavia, as well as regions important for staging and wintering waterbirds. Four IBAs cover mainly open habitats with steppes, saltmarshes, saltpans, lowland meadows and pastures, which together support nationally threatened species such as Otis tarda, Aquila heliaca, Falco cherrug, Charadrius alexandrinus.

### ORNITHOLOGICAL IMPORTANCE

The total number of regularly occurring bird species in Yugoslavia is 333, of which 260 occur regularly during the breeding season (Vasić 1995). Among the latter group there are 140 species of European conservation concern (SPECs: Tucker and Heath 1994), which include five species of global conservation concern (Aythya nyroca, Aquila heliaca, Falco naumanni, Otis tarda and Crex crex) as well as a further 82 species that have an unfavourable conservation status in Europe (Tucker and Heath 1994). A total of 16 sites support internationally important numbers of globally threatened or near-threatened species, thus qualifying as IBAs under the A1 criterion (Table 2). Thirteen sites in Yugoslavia support important congregations of 18 species of migratory waterbird at some point during their annual life-cycle, with 10 of the 13 sites being globally important as they meet the A4i criterion (Table 3). Of special note for wintering waterbirds are Lake Skadar (site 038) in Montenegro where c.200,000 winter regularly (Vasić et al. 1992) and the River Danube near Dubovac-Ram in Serbia (site 033) where 80,000 winter on average (Paunović et al. 1994).

Three sites in Yugoslavia meet the A3 criterion (Table 1), being important for bird-species assemblages of particular biomes. One of the three sites holds six of the 21 species whose breeding distributions (in Europe) are largely or wholly confined to the Mediterranean biome, while the other two sites hold four of the 10 such species that are similarly restricted to the Eurasian high-montane biome. All but one of the IBAs (site 020) are considered to support important breeding numbers of SPECs, thus meeting B2 and/or B3 criteria, and 19 sites qualify as IBAs solely under these criteria (Table 1).

For many bird species that are rare and threatened in Yugoslavia, the majority of the national breeding population currently nests within the IBA network, notably Phalacrocorax pygmeus (100%), Pelecanus crispus (100%), Ciconia nigra (80%), Plegadis falcinellus (100%), Platalea leucorodia (100%), Aythya nyroca (50%), Neophron percnopterus (100%), Gyps fulvus (100%), Haliaeetus albicilla (75%), Aquila heliaca (80%), Aquila pomarina (50%), Alectoris graeca (70%), Crex crex (60%), Otis tarda (100%), Lanius lilomus (90%), Prunella collaris (100%), Eremophila alpestris (80%), Tachybaptus ruficollis (80%), Montifringilla nivalis (90%) and Emberiza melanocephala (60%).

### Table 2. Important Bird Areas in the Federal Republic of Yugoslavia 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>Pygmy Cormorant</td>
</tr>
<tr>
<td>Pelecanus crispus</td>
<td>Dalmatian Pelican</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>Ferruginous Duck</td>
</tr>
<tr>
<td>Lulius episcopus</td>
<td>White-tailed Eagle</td>
</tr>
<tr>
<td>Aquila heliaca</td>
<td>Imperial Eagle</td>
</tr>
<tr>
<td>Crex crex</td>
<td>Comcakae</td>
</tr>
<tr>
<td>Otis tarda</td>
<td>Great Bustard</td>
</tr>
</tbody>
</table>

### Table 3. Important Bird Areas in the Federal Republic of Yugoslavia that support important numbers of one or more congregatory 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>Tachybaptus ruficollis</td>
<td>Little Grebe</td>
<td>B 013</td>
</tr>
<tr>
<td>Podiceps cristatus</td>
<td>Great Crested Grebe</td>
<td>W 038</td>
</tr>
<tr>
<td>Podiceps nigricollis</td>
<td>Red-necked Grebe</td>
<td>B 004</td>
</tr>
<tr>
<td>Podiceps nigricollis</td>
<td>Black-necked Grebe</td>
<td>W 038</td>
</tr>
<tr>
<td>Phalacrocorax pygmeus</td>
<td>Pygmy Cormorant</td>
<td>R 038</td>
</tr>
<tr>
<td>Ardea alba</td>
<td>Squacco Heron</td>
<td>B 033</td>
</tr>
<tr>
<td>Nycticorax nyroca</td>
<td>Night Heron</td>
<td>W 010, 014, 033, 034, 038</td>
</tr>
<tr>
<td>Ardea ralloides</td>
<td>Squacco Heron</td>
<td>B 038</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>Ferruginous Duck</td>
<td>P 033</td>
</tr>
<tr>
<td>Platalea leucorodia</td>
<td>Spoonbill</td>
<td>B 039</td>
</tr>
<tr>
<td>Aythya nyroca</td>
<td>Ferruginous Duck</td>
<td>W 038</td>
</tr>
<tr>
<td>Anas crecca</td>
<td>Teal</td>
<td>P 031</td>
</tr>
<tr>
<td>Aythya fuligula</td>
<td>Tufted Duck</td>
<td>W 038</td>
</tr>
<tr>
<td>Bucephala clangula</td>
<td>Goldeneye</td>
<td>P 031</td>
</tr>
<tr>
<td>Fulica atra</td>
<td>Pochard</td>
<td>W 038</td>
</tr>
<tr>
<td>Glenarida pratincola</td>
<td>Collared Pratincole</td>
<td>B 040</td>
</tr>
<tr>
<td>Limosa limosa</td>
<td>Black-tailed Godwit</td>
<td>P 014</td>
</tr>
<tr>
<td>Larus ridibundus</td>
<td>Black-headed Gull</td>
<td>W 013</td>
</tr>
</tbody>
</table>

### Figure 1. Habitats at Important Bird Areas in the Federal Republic of Yugoslavia (see Appendix 3 for definitions of habitats).
Recurvirostra avosetta, Limosa limosa, Himantopus himantopus, Burhinus oedicnemus, Glareola pratincola, Sterna albifrons, Haematopus ostralegus and
728 all of the national breeding populations of such species as
the major habitat within seven IBAs. All alpine terrain above
pastures and bare, alpine terrain, above the height of 1,700 m, are
of karst and rocky areas with scrub and low vegetation. Highland
valuable refuges for a large number of raptors and for species typical
seven IBAs there are protected gorges, mainly in Serbia, which are
predominant habitat within 13 of these 17 IBAs (Figure 1). Within
coniferous forest in high mountain regions—and forest is the
contain large tracts of forest—deciduous forest in the lowlands and
in Serbia, and up to 30% in Montenegro. Seventeen IBAs (44%)
70% cover of this habitat-type (Figure 1). Mostly it comprises
but it is not usually predominant, and only 5% of IBAs have more
than 50% cover of this habitat-type (Figure 1). Mostly it comprises
plantations of poplar Populus or non-native conifers, arable land
on plains, and perennial crops (orchards and groves) in hilly and
mountainous regions.

IMPACTS ON IBAS—LAND-USE AND THREATS

Most IBAs are state-owned. Agriculture, hunting, forestry and
tourism/recreation, being present at 75–90% of all IBAs, are the
most widespread land-uses in Yugoslavian IBAs (Figure 2). Slightly
less frequent uses are nature conservation/research and urban/
industrial/transport uses, which are present at 55–70% of all IBAs.
Agriculture is the dominant land-use in Vojvodina, while hunting
and forestry are equally present in all regions where IBAs are
located. Within agriculture, land is most commonly used for arable
cultivation. Forest management is, in general, intensive and thus
poses problems at some IBAs (Figure 3), being limited or forbidden
only within protected areas such as National Parks and Nature
Reserves. The spread of huge poplar plantations in the riparian
zones of Vojvodina, currently covering about 500 km², is a great
threat to riparian IBAs in this region (Figure 3). In general, within
the IBAs, the area covered by forest is increasing gradually, but
the average age of stands and the tree species-richness are both
decreasing. Hunting is particularly widespread in Vojvodina, where
there are numerous areas for hunting big game within IBAs.
Hunting is a threat locally (Figure 3), especially when large birds
of prey are hunted as trophies, but there are also cases where hunting
clubs are caretakers of nature reserves and the rare birds within
them (e.g. a reserve for Otis tarda in Banat).

Fisheries/aquaculture are present at 19 IBAs (Figure 2),
including eight fish-pond areas where the persecution of waterbirds
and burning of vegetation are very common. Disturbance of birds
occurs at almost all IBAs (Figure 3). Disturbance has increased
recently due to the economic crisis in Yugoslavia, which has led to
increased collection of wood, medicinal herbs, mushrooms and
forest fruits, as well as increased hunting, fishing and nomadic
grazing of cattle. Drainage still poses a threat at some wetland IBAs
in Vojvodina, and burning of vegetation is a problem in the
mountains of Prokletije and Šara (Figure 3).

PROTECTION STATUS

At present 5% of Serbia is protected as National Parks and Nature
Reserves, while in Montenegro the total protected area covers 10%
of the region. A total of 29 IBAs overlap to some extent with areas
protected by national law (Figure 4, Table 4). Eight of the nine
National Parks in Yugoslavia are included within IBAs, as is the future Prokletije National Park which is likely to become legally protected soon, and 13 Strict/Special Nature Reserves lie within IBA boundaries too (Table 4). Yugoslavia is a contracting party to several international conventions and initiatives concerning the conservation of sites of nature conservation value (Box 1), and four IBAs fully enclose the four Ramsar Sites in the country (Table 4, Figure 5): Obedska Bara; Ludaško Lake; Stari Begej/Carska Bara; and Turčanska Góra. Overall, more than 50% of the total IBA surface area receives no legal protection, which represents a serious problem for management programmes.

## CONSERVATION

- Management plans exist or are in preparation for the 21 IBAs which overlap with a National Park or Nature Reserve, but the plans mostly do not embrace the total IBA surface area, only the part that is legally protected. In addition, the plans are of a standard whereby they cannot yet be implemented effectively, and therefore their improvement and advancement is one of the major priorities for the future. Since the existing plans only cover protected areas, a satisfactory management plan will also need to be drawn up for each IBA.

## ANALYTICAL METHODS

- Within a country, the B2/B3 criteria are normally applied only to those species of European conservation concern (SPECs: Tucker and Heath 1994) which have 1% or more of their total European population breeding within the country concerned.

### Table 4. Protection status of Important Bird Areas in the Federal Republic of Yugoslavia. A tick (✓) indicates that an IBA overlaps with a protected area (to any extent).

<table>
<thead>
<tr>
<th>IBA code</th>
<th>International name</th>
<th>Relevant Site</th>
<th>National Park</th>
<th>Special/Strict Nature Reserve</th>
<th>Regional Park</th>
<th>Water Site</th>
<th>World Heritage Site</th>
<th>Pan-European Agreement</th>
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<td>001</td>
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<td>✓</td>
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<td>002</td>
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<td>✓</td>
<td>✓</td>
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<tr>
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<tr>
<td>040</td>
<td>Uljčići saline springs</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Total number of IBAs**: 8 13 5 5 4 1
This is not possible for Yugoslavia, since the standardized European data-set of national population sizes of breeding birds during 1970–1990 (Tucker and Heath 1994) does not contain data for Yugoslavia. Thus B2/B3 criteria have been applied by different means in Yugoslavia. This involved examining, for each SPEC that was listed as breeding in one or more of the proposed Yugoslavian IBAs, its population size at the Yugoslav site in question, and comparing this with the spread of similar values at all other sites in Europe where the B2 or B3 criterion had been met for this species. Where the population size at the Yugoslav site was clearly of the same magnitude as the population sizes at most other B2/B3-qualifying sites for the species elsewhere in Europe, then B2 or B3 was applied to the species for that site in Yugoslavia.

GLOSSARY
kastr a limestone region with underground drainage and many cavities and passages caused by the dissolution of the rock.

SITE ACCOUNTS

**Gornje Podunavlje**

Admin region: Serbia

Coordinates: 45°37’N 18°58’E

Altitude: 82–95 m

Area: 3,000 ha

**Site description**

An inundated area along the eastern bank of the Danube, forming a transboundary IBA with sites across the border in Hungary (‘Béda-Karapancsa’; Hungarian site 009) and Croatia (‘Alluvial wetlands of the River Danube’ and ‘Kopacki rit’; Croatian sites 001 and 002 respectively). The site comprises extensive alluvial forest (oak Quercus, willow Salix) and poplar Populus) interspersed with pools, rivers and streams, lowland forest of Quercus and ash Fraxinus, reedbeds and damp meadows (with sedge Carex and grass Glyceria) and large tracts of Populus plantation. Grazing-pasture, saltmarsh and arable fields occur in areas that remain free from flooding. The main economic activities are forestry and hunting.

Habitats

- Forest and woodland (35%; broadleaved deciduous forest; alluvial/very wet forest; forest plantation)
- Grassland (30%; steppe/dry calcareous grassland; forest pasture/woodland)
- Scrub (5%; scrub)
- Scrub (5%; alluvial vegetation)
- Wetland (20%; standing fresh water; river/stream; water-fringe vegetation)
- Artificial landscape (20%; arable land; settlement)
- Semi-natural vegetation (5%; scrub, grassland) (35%)
- Forest and woodland (35%; broadleaved deciduous forest; alluvial/very wet forest; forest plantation)

Land-use

- Agriculture (7%), Fisheries/aquaculture (7%), Forestry (7%), Hunting (7%), Nature conservation/research (10%), Not utilized, Tourism/recreation (5%), Urban/industrial/transport (5%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botaurus stellaris</td>
<td>Spring</td>
<td>1996</td>
<td>14</td>
<td>17</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>Ischyrychus minutus</td>
<td>Spring</td>
<td>1996</td>
<td>80</td>
<td>100</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td>Nycticorax nyroca</td>
<td>Spring</td>
<td>1997</td>
<td>130</td>
<td>150</td>
<td>A2</td>
<td></td>
</tr>
<tr>
<td>Ardea purpurea</td>
<td>Spring</td>
<td>1997</td>
<td>60</td>
<td>80</td>
<td>A2</td>
<td></td>
</tr>
<tr>
<td>Ciconia nigra</td>
<td>Spring</td>
<td>1997</td>
<td>35</td>
<td>45</td>
<td>A2</td>
<td></td>
</tr>
<tr>
<td>Ciconia nigra</td>
<td>Spring</td>
<td>1997</td>
<td>200</td>
<td>300</td>
<td>A1i, B1i</td>
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</tr>
<tr>
<td>Ciconia nigra</td>
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<td>1997</td>
<td>30</td>
<td>40</td>
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<td>Platalea leucorodia</td>
<td>Spring</td>
<td>1993</td>
<td>200</td>
<td>300</td>
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<td></td>
</tr>
<tr>
<td>Ixobrychus minutus</td>
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<td>1997</td>
<td>30</td>
<td>50</td>
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<tr>
<td>Milvus migrans</td>
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<td>18</td>
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<td>1997</td>
<td>7</td>
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<td>Ficedula albicilla</td>
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<td>1997</td>
<td>200</td>
<td>300</td>
<td>B3</td>
<td></td>
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<tr>
<td>Lanius collurio</td>
<td>Autumn</td>
<td>1997</td>
<td>200</td>
<td>250</td>
<td>B2</td>
<td></td>
</tr>
</tbody>
</table>

1. Mainly on Kolut fish-pond.

The site is important for breeding, wintering and passage waterbirds, holding 20,000 or more individuals on a regular basis during the winter.

**Protection status**

National Partial International None

10,000 ha of IBA covered by Regional Nature Park (Gornje Podunavlje, 10,000 ha).

**ACKNOWLEDGEMENTS**

Work on the IBA project in Yugoslavia was accomplished at the Institute for the Protection of Nature of Serbia. Significant help with the compilation of general data and information on bird species at IBAs in Yugoslavia was given by the following collaborators: Ištvan Balog, Kanjo Bela, Berisa Dželav, Milan Dević, Boris Garovnikov (IBA consultant and former coordinator of Yugoslavian IBA project), Jožef Gergelj, Mihajo Hadži-Pavlovic, Ištvan Ham, Florijan Horvat, Ištvan Hulo, Milica Ivovc, Dejan Kristojević, Jovan Lakatović, Šandor Lukač, Saša Marinković, Zoran Milovanović, Milan Mirić, Aleksandar Nikolić, Boris Obućina, Aleksandar Pantelić, Milan Pasunovic, Zvonimir Popović, Javor Rašajski, Dragića Savić, Otto Sekeran, Goran Sekulić, Međin Selmanji, Dragan Simić, Nataša Simonov, Teodor Stefanović, Bogdan Sojić, Tibor Ternovac, Marko Tucakov, Antun Zuljević and Ondrej Vizi.

**Conservation issues**

The main threats are losses of natural forest and meadows to afforestation, and drainage. Water is artificially transferred to marshes separated from the Danube by an embankment, with funding provided by domestic sources. The Institute for the Protection of Nature of Serbia has an ongoing research programme. A management plan exists for the site.

**Subotica lakes and sandy terrain**

Admin region: Serbia

Coordinates: 46°04’N 19°49’E

Altitude: 80–110 m

Area: 20,000 ha

**Site description**

Situated in the far north-east of Backa, in the vicinity of Subotica. Numerous wetlands are present, with extensive reedbeds and aquatic vegetation: Paličko jezero, Ludjaško jezero, Kapetanjski rit (now a fish-pond) and Velebit reservoir. The sandy ground in Selevenjske pustare and Mali pesak supports a complex of wooded steppe, steppe, and plant communities of sandy ground. Human activities include sport-fishing; recreational tourism has been developed at Paličko jezero and Ludjaško jezero. This site includes former sites YU032 and YU033 from the previous pan-European IBA inventory (Grimmett and Jones 1989).

Habitats

- Forest and woodland (30%; broadleaved deciduous forest; alluvial/very wet forest; wooded steppe), Scrub (5%; scrub), Grassland (30%; steppe/dry calcareous grassland; humid grassland; mesophile grassland), Wetland (20%; mudflats/sandflats; standing fresh water; river/stream; water-fringe vegetation), Artificial landscape (20%; arable land; perennial crops/orchards/groves; forestry plantation; urban/park/jardens)
- Land-use Agriculture (60%), Fisheries/aquaculture (5%), Forestry (5%), Hunting (80%), Nature conservation/research (25%), Tourism/recreation (25%), Urban/industrial/transport (5%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
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<td>100</td>
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<tr>
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<td>35</td>
<td>50</td>
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<td>Falco tinnunculus</td>
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<td>1997</td>
<td>20</td>
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</table>
This is an important site for breeding and passage waterbirds, and breeding species of open grassland/shrub habitats. Species of global conservation concern that do not meet IBA criteria: Oxyura leucocephala (last bred 1947; 1–2 on passage and in winter).

Protection status
National Low International Low

Conservation issues
Threats: Agricultural intensification/expansion (B), Disturbance to birds (B), Drainage (B), Dredging/canalization (B), Infrastructure (B), Other (U), Recreation/tourism (B), Unsustainable exploitation (B).

This includes nutrient-enrichment and pollution (‘Other’ threat), erosion and disturbance. Members of the Bird Protection and Study Society of Vojvodina undertook intensive ornithological research between 1989 and 1997. Artificial nest-cavities are provided for Otus scops. A management plan exists for the site.

Site description
Situated in an alluvial plain in Backa (Vojvodina), between Bečej and Backo Gradište, and bordering the Tisa–Veliki canal. The fish-pond supports fringing vegetation, and is surrounded by pasture, arable land and a narrow strip of riverine forest (poplar Populus, willow Salix and ash Fraxinus). Human activities include crop production and cattle-rearing.

Habitats: Forest and woodland (broadleaved deciduous forest; alluvial/wet forest); Grassland (10%; humid grassland; mesophile grassland); Wetland (60%; standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (30%; arable land; perennial crops/orchards/groves; forestry plantation; other urban/industrial areas).

Land-use: Agriculture (30%), Fisheries/aquaculture (40%), Forestry (5%), Hunting (60%), Urban/industrial/transport (5%), Water management (5%).

Birds

<table>
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<tr>
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<td>B2</td>
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</tr>
<tr>
<td>Anser anser</td>
<td>B</td>
<td>1997</td>
<td>150</td>
<td>200</td>
<td>B</td>
<td>B2</td>
</tr>
<tr>
<td>Phalacrocorax carbo</td>
<td>B</td>
<td>1997</td>
<td>300</td>
<td>400</td>
<td>B</td>
<td>B3</td>
</tr>
<tr>
<td>Crassostoma hybrida</td>
<td>B</td>
<td>1997</td>
<td>400</td>
<td>400</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Merops apiaster</td>
<td>B</td>
<td>1997</td>
<td>70</td>
<td>70</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Lanius collaris</td>
<td>B</td>
<td>1997</td>
<td>150</td>
<td>200</td>
<td>B</td>
<td>B2</td>
</tr>
</tbody>
</table>

1. Main site in Serbia.
2. Fluctuating.

The site is important for breeding, wintering and passage waterbirds. Breeding species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus and Aythya nyroca.

Protection status
National None International None

Conservation issues
Threats: Agricultural intensification/expansion (C), Aquaculture/fisheries (C), Disturbance to birds (B), Drainage (B), Dredging/canalization (C), Infrastructure (C), Recreation/tourism (B), Unsustainable exploitation (U).

This includes disturbance of birds, mowing of marsh vegetation and hunting. Members of the Bird Protection and Study Society of Vojvodina undertook intensive ornithological research between 1989 and 1997.

Site description
A narrow, 60–km stretch of river with fringing reed Phragmites; the lower reaches have been dammed to form a fish-pond. There are three major settlements in the vicinity of Jegrička, which is surrounded by arable land.

Habitats: Scrub, Grassland, Wetland (80%; mudflat/sandflat; standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (20%; arable land; perennial crops/orchards/groves; forestry plantation; other urban/industrial areas).

Land-use: Agriculture (30%), Fisheries/aquaculture (60%), Hunting (70%), Nature conservation/research (10%), Tourism/recreation (5%), Water management (5%).

Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
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<td>Podiceps grisegena</td>
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<td>Botaurus stellaris</td>
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<td>Heraclea minuta</td>
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<td>1997</td>
<td>200</td>
<td>400</td>
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<tr>
<td>Nycticorax nyroca</td>
<td>B</td>
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<td>150</td>
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<td>B2</td>
</tr>
<tr>
<td>Anhima ridibunda</td>
<td>B</td>
<td>1997</td>
<td>60</td>
<td>70</td>
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<td>B2</td>
</tr>
<tr>
<td>Anser anser</td>
<td>B</td>
<td>1997</td>
<td>150</td>
<td>200</td>
<td>B</td>
<td>B2</td>
</tr>
<tr>
<td>Phalacrocorax carbo</td>
<td>B</td>
<td>1997</td>
<td>300</td>
<td>400</td>
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<td>B3</td>
</tr>
<tr>
<td>Crassostoma hybrida</td>
<td>B</td>
<td>1997</td>
<td>400</td>
<td>400</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Merops apiaster</td>
<td>B</td>
<td>1997</td>
<td>70</td>
<td>70</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td>Lanius collaris</td>
<td>B</td>
<td>1997</td>
<td>150</td>
<td>200</td>
<td>B</td>
<td>B2</td>
</tr>
</tbody>
</table>

1. Main site in Serbia.
2. Fluctuating.

An important site for breeding and passage waterbirds.

Protection status
National Low International None

Conservation issues
Threats: Afforestation (C), Agricultural intensification/expansion (B), Aquaculture/fisheries (U), Disturbance to birds (C), Drainage (B), Dredging/canalization (C), Infrastructure (C), Recreation/tourism (B), Unsustainable exploitation (U).

This includes disturbance to birds, and the effects of fishing and hunting. One wet depression has been polluted by waste-water from a local cattle farm. Members of the Bird Protection and Study Society of Vojvodina undertook intensive ornithological research between 1989 and 1997.

Site description
A wetland bordering the River Danube in the vicinity of Novi Sad–Koviljski rit, near the settlements of Kovižl and Gardinovci in Backa, and Petrovaradinski rit at the foot of Fruska Gora in Srem. A complex of naturally inundated forest (poplar Populus, willow Salix and ash Fraxinus), stagnant tributaries, canals, marshes, wet meadows, pasture and Populus plantations. Human activities include seasonal pig-grazing.

Habitats: Forest and woodland (30%); broadleaved deciduous forest; alluvial/wet forest; Grassland (55%; humid grassland); Wetland (10%; standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (40%; arable land; perennial crops/orchards/groves; forestry plantation).
**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>Black Stork</td>
<td>B</td>
<td>1997</td>
<td>8</td>
<td>10</td>
<td>B2</td>
</tr>
<tr>
<td>Haliaeetus albicilla</td>
<td>White-tailed Eagle</td>
<td>R</td>
<td>1997</td>
<td>2</td>
<td>2</td>
<td>A2</td>
</tr>
</tbody>
</table>

The site is important for breeding and passage waterbirds. Species of global conservation concern that do not meet IBA criteria: *Aythya nyroca* (breeding).

**Protection status**

National Partial International None

4,820 ha of IBA covered by Special Nature Reserve (Koviljsko-Petrovaradinski rit, 4,820 ha).

**Conservation issues**

Threats: Afforestation (A), Aquaculture/fisheries (B), Construction/impact of dyke/dam/barrage (B), Disturbance to birds (B), Drainage (B), Dredging/Canalization (C), Forest grazing (C), Intensified forest management (A), Selective logging/cutting (B), Unsustainable exploitation (U)

Threats include replacing natural woodland with plantations, afforestation of open areas, drainage, and uncontrolled hunting. A management plan exists for the site.

**Fruška Gora**

Admin region Serbia

Coordinates: 45°04′N 19°34′E

Altitude: 100-539 m Area: 42,000 ha

**Site description**

A large, forest-covered massif situated in the north of Srem. Broadleaved forests (oak *Quercus*, lime *Tilia*, beech *Fagus*, hornbeam *Carpinus* and ash *Fraxinus*) are interspersed with steppe and wooded steppe, pasture, meadows, vineyards and arable land. Recreational tourism is well developed due to the proximity of Belgrade and Novi Sad.

**Habitats**

Forest and woodland (70%; broadleaved deciduous forest), Scrub, Grassland (10%; steppe/dry calcareous grassland; mesophile grassland), Wetland (5%; river/stream), Artificial landscape (15%; arable land; perennial crops/orchards/groves; forestry plantation; urban parks/gardens; other urban/industrial areas; rural land) Land-use Agriculture (10%), Forestry (75%), Hunting (60%), Nature conservation/research (80%), Tourism/recreation (30%), Urban/industrial/transport (5%), Water management

**Important Bird Areas in Europe – Federal Republic of Yugoslavia**

**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>Black Stork</td>
<td>B</td>
<td>1995</td>
<td>10</td>
<td>15</td>
<td>B2</td>
</tr>
<tr>
<td>Ciconia nigra</td>
<td>Black Stork</td>
<td>P</td>
<td>—</td>
<td>100</td>
<td>200</td>
<td>A1</td>
</tr>
<tr>
<td>Ciconia ciconia</td>
<td>White Stork</td>
<td>R</td>
<td>1994</td>
<td>20</td>
<td>30</td>
<td>A2</td>
</tr>
<tr>
<td>Haliaeetus albicilla</td>
<td>White-tailed Eagle</td>
<td>R</td>
<td>1994</td>
<td>4</td>
<td>5</td>
<td>A1</td>
</tr>
<tr>
<td>Strix aluco</td>
<td>Tawny Owl</td>
<td>R</td>
<td>1993</td>
<td>3</td>
<td>—</td>
<td>B1</td>
</tr>
</tbody>
</table>

This is an important site for forest-nesting species.

**Protection status**

National Low International None


**Conservation issues**

Threats: Afforestation (B), Agricultural intensification/expansion (C), Disturbance to birds (U), Drainage (B), Dredging/Canalization (B), Forest grazing (B), Infrastructure (C), Intensified forest management (A), Selective logging/cutting (B)

The main threats are disturbance, logging of old-growth forest and gradual drainage of wetland areas.

**Zasavica**

Admin region Serbia

Coordinates: 44°56′N 19°31′E

Altitude: 77-83 m Area: 5,200 ha

**Site description**

A wetland situated along the River Sava in the plains of Macva, near to the town of Sremska Mitrovica. Fed by underground aquifers and with a depth of up to 2.5 m, it supports abundant marsh vegetation—mostly reed *Phragmites*. The site is surrounded by agricultural land, and remnants of forest remain (oak *Quercus*, ash *Fraxinus*, poplar *Populus* and willow *Salix*). Human activities include cattle-rearing; ecological tourism is a recent development.

**Habitats**

Forest and woodland (10%; broadleaved deciduous forest), alvar/very wet forest, Scrub, Grassland (10%; humid grassland; mesophile grassland), Wetland (10%; standing fresh water; river/stream; water-fringe vegetation), Artificial landscape (10%; arable land; perennial crops/orchards/groves; forestry plantation; urban parks/gardens) Land-use Agriculture (60%), Forestry/aquaculture (20%), Forestry (20%), Hunting (80%), Nature conservation/research (79%), Tourism/recreation (10%), Urban/industrial/transport (5%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nycticorax nycticorax</td>
<td>Night Heron</td>
<td>B</td>
<td>1996</td>
<td>70</td>
<td>75</td>
<td>A B2</td>
</tr>
<tr>
<td>Porzana porzana</td>
<td>Spotted Crake</td>
<td>B</td>
<td>1996</td>
<td>20</td>
<td>50</td>
<td>B3</td>
</tr>
</tbody>
</table>
Important for breeding waterbirds. Wintering species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus and Haliaeetus albicilla.

**Protection status**
National Partial International None

670 ha of IBA covered by Special Nature Reserve (Zasavica, 670 ha).

**Conservation issues**

Threats: Afforestation (B), Agricultural intensification/expansion (C), Deforestation (commercial) (B), Disturbance to birds (C), Drainage (B), Industrialization/urbanization (C), Recreation/tourism (B)

Artificial nest-sites are provided for Cicconia ciconia. A management plan exists for the site.

**Obledska bara**

Admin region: Serbia Coordinates: 44°43'N 20°01'E
Altitude: 71–82 m Area: 23,000 ha

**Site description**

A vast area of wet forest stretching along the River Sava in southern Serbia (Vojojina). The site is a complex of forest (willow Salix and poplar Populus and oak Quercus), stagnant tributaries, marshes and wet meadows. Human activities include cattle-grazing.

**Habitats**

Forest and woodland (60%); broadleaved deciduous forest; alluvial/very wet forest; Grassland, Wetland (15%; mudflat/sandflat; standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (25%; arable land; perennial crops/orchards/groves; forest plantation; urban parks/gardens)

**Land-use**

Agriculture (30%); Forestry (70%); Hunting (80%); Nature conservation/research (50%); Tourism/recreation (10%); Urban/industrial/transport (5%); Water management (10%)

**Birds**

Species | Season | Year | Pop min | Pop max | Acc | Criteria
---|---|---|---|---|---|---
Isabrychus minorus | Little Bittern | B | 1996 | 22 | 29 | A | B2
Nycticorax nycticorax | Night Heron | B | 1996 | 195 | 195 | A | B2
Ciconia nigra | Black Stork | B | 1996 | 17 | 20 | A | B2
Ciconia nigra | Black Stork | P | 1996 | 100 | 200 | — | B1i
Ciconia ciconia | White Stork | B | 1996 | 30 | 32 | A | B2
Halatecus albicilla | White-tailed Eagle | R | 1996 | 2 | 2 | A | B2
Falco tinnunculus | Common Buzzard | R | 1996 | 10 | 20 | — | B1i
Porzana porzana | Spotted Crane | B | 1996 | 28 | 46 | C | B3
Porzana porzana | Little Crane | B | 1996 | 15 | 30 | C | B3
Alectoris calandra | Common Pheasant | B | 1996 | 40 | 40 | — | B3
Alectoris alboviridis | Grey Partridge | R | 1996 | 50 | 70 | B | B2
Dendrocopos major | Black Woodpecker | B | 1996 | 30 | 45 | B | B3
Dendrocopos medius | Middle Spotted Woodpecker | B | 1996 | 140 | 220 | B | B3
Locustella luscinioides | Yellow Wagtail | B | 1996 | 70 | 90 | B | B3
Sylvia atricapilla | Blackcap | B | 1996 | 7,000 | 8,600 | B | B3
Ficedula albicilla | Collared Flycatcher | B | 1996 | 260 | 335 | A | B3
Certhia brachydactyla | Short-tailed Shrike | R | 1996 | 1,260 | 1,370 | B | B3

The main threats are nutrient-enrichment (‘Other’ threat) and the afforestation of alluvial depressions and meadows with Populus plantations. Dams along the Vok canal, which supplies and drains Obledska bara, have raised the dry-season water-level by 60 cm and have significantly reduced a previous problem whereby vegetational succession was converting wetland and meadows to scrub. In addition, a work camp in 1997 cleared 10 ha of overgrown meadows. A management plan exists for the site.

**Danube loess bluffs**

Admin region: Serbia Coordinates: 45°05'N 20°22'E
Altitude: 75–131 m Area: 2,500 ha

**Site description**

Steep loess bluffs up to 50 m in height, bordering the Danube between Banovci and Sklankamen. Individual trees and abundant herbaceous vegetation survive along the upper edges of the bluffs; low-lying areas are undermined by the main river current at times of high flow. Human activities include extracting loess for use as building material.

**Habitats**

Grassland (50%); IBA site (40%); scrub (10%); Forest (50%); Scrub (5%); Grassland (5%; steppe/dry calcareous grassland); Wetland (70%); standing fresh water; river/stream; water-fringe vegetation); Artificial landscape (20%; arable land; perennial crops/orchards/groves; forest plantation; ruderal land)

**Land-use**

Agriculture (10%); Fisheries/aquaculture (50%); Forestry (5%); Hunting (60%); Tourism/recreation (10%); Urban/industrial/transport (5%); Water management (70%)

**Birds**

Species | Season | Year | Pop min | Pop max | Acc | Criteria
---|---|---|---|---|---|---
Phalacrocorax pygmeus | Pygmy Cormorant | R | 1996 | 100 | 200 | — | A1, A4i, B1i
Falco tinnunculus | Kestrel | R | 1996 | 60 | 90 | B | B2
Mergus apstelleri | Little Grebe | B | 1996 | 300 | 600 | B | B2

Wintering species of global conservation concern that do not meet IBA criteria: Branta ruficollis and Haliaeetus albicilla.

**Protection status**
National None International None

**Conservation issues**

Threats: Afforestation (B), Agricultural intensification/expansion (C), Aquaculture/fisheries (B), Disturbance to birds (B), Industrialization/urbanization (C), Infrastructure (B), Unsustainable exploitation (U)

The main threats are disturbance and hunting.
**Site description**

An inundation area between the Tisa and Begej rivers in the western part of Backa, south-west of the town of Zrenjanin. Habitats include pools, fish-ponds, meadows and willow/poplar Salix/Populus woodland. Includes Carska bara, Tiganjica, Perleska bara and Ecka fish-pond. Human activities include reed-cutting (‘Other’ land-use).

**Habitats** Forest and woodland (5%), broadleaved deciduous forest; alluvial/very wet forest; Grassland (5%); humid grassland; mesophile grassland; Wetland (65%); mudflats/sandflats; standing freshwater; river/stream; water-fringe vegetation; Artificial landscape (20%); arable land; perennial crops/orchards/groves; forestry plantation; urban parks/gardens

**Land-use** Agriculture (30%), Fisheries/aquaculture (70%), Forestry (5%), Hunting (80%), Urban/Industrial/transport (5%), Water management (5%)

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**Protection status**

National Partial International Partial

1,676 ha of IBA covered by Special Nature Reserve (Stari Begej–Carska Bara, 1,676 ha). 1,767 ha of IBA covered by Ramsar Site (Stari Begej/Carska Bara Special Nature Reserve, 1,767 ha).

**Conservation issues**

Threats Agricultural intensification/expansion (B), Disturbance to birds (C), Drainage (B), Dredging/canalization (B), Forest grazing (C), Recreation/tourism (C)

Threats include disturbance from visitors and fishermen, and inappropriate water management (‘Other’ threat). A management plan exists for the site.
The site is important for breeding, wintering and passage waterbirds, holding 20,000 or more individuals on a regular basis during winter and migration periods. Species of global conservation concern that do not meet IBA criteria: Haliaeetus albicilla (resident).

**Protection status**

National None International None

**Conservation issues**

Threats Agricultural intensification/expansion (C), Disturbance to birds (C), Dredging/canalization (B), Industrialization/urbanization (C), Infrastructure (C), Intensified forest management (B), Recreation/tourism (B), Selective logging/cutting (C)


**Deliblatska peščara**

Admin region Serbia Coordinates 44°49’N 21°00’E Altitude 84–250 m Area 38,000 ha

**Site description**

Located in the south-east of Vojvodina, south Banat, the IBA comprises an elongated elliptical tract of sand, spreading from the Danube north towards Vladimirac and Banatski Karlovac. It covers grazing-pasture, steppe habitats, woodland, scrub, conifer plantations, vineyards and agricultural land.

Habitats Forest and woodland (45%); broadleaved deciduous forest; woodland, scrub; conifer woodlands; garrigue/matorral. Agriculture (20%); cereal; orchards and vines; arable land; perennial crops/orchards/groves; forestry plantation; urban parks/gardens; ruderal land

Land-use Agriculture (20%), Forestry (80%), Hunting (90%), Nature conservation/research (80%), Tourism/recreation (5%), Urban/industrial/transport (5%)

**Birds**

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Caprimulgus europaeus</em></td>
<td>N</td>
<td>1995</td>
<td>200</td>
<td>300</td>
<td>B2</td>
<td></td>
</tr>
<tr>
<td><em>Pycnonotus sinensis</em></td>
<td>N</td>
<td>1995</td>
<td>50</td>
<td>80</td>
<td>B2</td>
<td></td>
</tr>
</tbody>
</table>

An important site for breeding species of forest and scrub. Species of global conservation concern that do not meet IBA criteria: Aquila heliaca (breeding), Crex crex (breeding).

**Protection status**

National Partial International None 29,640 ha of IBA covered by Strict Nature Reserve (Deliblatska Peščara, 29,640 ha).

**Conservation issues**

Threats Afforestation (A), Agricultural intensification/expansion (C), Burning of vegetation (C), Infrastructure (C), Intensified forest management (A), Recreation/tourism (C), Unsustainable exploitation (B)

The main threats are the afforestation of pasture and steppe habitats with pine Pinus and false acacia Robinia, overgrowth by scrub, and intensive hunting. Work to remove Robinia and Crataegus from grasslands has begun, and watering holes have been constructed. Plans exist to propose the area as a Biosphere Reserve. A management plan exists for the site.

**Cer mountain**

Admin region Serbia Coordinates 44°16’N 19°30’E Altitude 120–687 m Area 10,200 ha

**Site description**

A low mountain located in Mačva at the edge of the Pannonian lowlands, between the towns of Loznica and Sabac. Almost completely

The site is important for forest-nesting species. Species of global conservation concern that do not meet IBA criteria: Aquila heliaca (non-breeding) and Crex crex (breeding).
covered by forest of oak *Quercus* and beech *Fagus*, with pasture and mown meadows. Numerous conifers have been planted in previously bare areas. Human activities include cattle-rearing.

**Habitats** Forest and woodland (80%); broadleaved deciduous forest; Scrub, Grassland (10%); dry siliceous grassland; humid grassland; Wetland (river/stream); Artificial landscape (10%); arable land; perennial crops/orchards/groves; forestry plantation; other urban/industrial areas

**Land-use** Agriculture (15%); Forestry (80%); Hunting (60%); Not utilized (5%); Tourism/recreation (5%); Urban/industrial/transport (5%)

This is an important site for breeding species of forest and forest-edge habitats. Species of global conservation concern that do not meet IBA criteria: *Aquila heliaca* (breeding).

**Protection status**

National None International None

**Conservation issues**

Threats: Afforestation (C), Consequences of animal/plant introductions (B), Deforestation (commercial) (C), Firewood collection (C), Intensified forest management (B)

The main threat is uncontrolled felling of old growth forest and subsequent replacement with younger plantations, as well as afforestation of the remaining bare terrain. Intensive ornithological research was undertaken between 1995 and 1997.

**Site description**

Situated in the far west of Serbia along the Drina river, between the towns of Valjevo and Bejina Basta. The deciduous forests (predominantly beech *Fagus* and oak *Quercus*) are interspersed with pasture, meadows, limestone features, orchards and villages. Human activities include intensive agriculture and cattle-rearing.

**Habitats** Forest and woodland (60%); broadleaved deciduous forest; treeline ecotone; Scrub (5%); scrub; Grassland (10%); steppe/dry calcareous grassland; dry siliceous grassland; mesophile grassland; Wetland (river/stream); Rocky areas (10%); screes/boulders; inland cliff; caves; Artificial landscape (15%); arable land; perennial crops/orchards/groves; forestry plantation; ruderal land

**Land-use** Agriculture (10%); Fisheries/aquaculture; Forestry (70%); Hunting (80%); Nature conservation/research (20%); Not utilized; Tourism/recreation (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>
</tr>
</thead>
<tbody>
<tr>
<td><em>Dendrocopus sylvestris</em></td>
<td>R</td>
<td>1997</td>
<td>40</td>
<td>70</td>
<td>B</td>
<td>B1</td>
</tr>
<tr>
<td>Yellow Woodpecker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Lullula arborea</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Lanius collurio</em></td>
<td></td>
<td>1997</td>
<td>150</td>
<td>250</td>
<td>B</td>
<td>B2</td>
</tr>
</tbody>
</table>

This is an important area for a variety of breeding raptors, including *Gyps fulvus* (together with Milesevka–Uvac, this is the only breeding site in Yugoslavia).

**Protection status**

National Low International None

**Conservation issues**

Threats: Afforestation (B), Burning of vegetation (C), Deforestation (commercial) (C), Disturbance to birds (C), Extraction industry (C), Forest grazing (C), Intensified forest management (C), Recreation/tourism (C), Unsustainable exploitation (U)

There are no immediate threats, other than the effects of disturbance and hunting. A feeding point for raptors was established in 1987 and is still operational. A management plan exists for part of the site.

**Site description**

Located near the Drina river in western Serbia, with coniferous, broadleaved and mixed forests (spruce *Picea*, fir *Abies*, pine *Pinus*, beech *Fagus* and oak *Quercus*) covering the majority of the land area. Human activities include cattle-grazing.

**Habitats** Forest and woodland (65%); broadleaved deciduous forest; native coniferous forest; mixed forest; treeline ecotone; Scrub (5%); scrub; *scrophuliferous scrub* (*agaricae* RF); Grassland (10%); steppe/dry calcareous grassland; mesophile grassland; Wetland (5%); river/stream; raised bog); Rocky areas (10%); screes/boulders; inland cliff; caves; Artificial landscape (5%); perennial crops/orchards/groves; forestry plantation; ruderal land

**Land-use** Agriculture (10%); Forestry (70%); Hunting (90%); Nature conservation/research (70%); Tourism/recreation (30%); Water management (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>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aquila chrysaetos</em></td>
<td></td>
<td>1997</td>
<td>3</td>
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<tr>
<td><em>Falco peregrinus</em></td>
<td></td>
<td>1997</td>
<td>4</td>
<td>4</td>
<td>A</td>
<td>B2</td>
</tr>
<tr>
<td><em>Otus scops</em></td>
<td></td>
<td>1997</td>
<td>20</td>
<td>30</td>
<td>B</td>
<td>B2</td>
</tr>
<tr>
<td><em>Picus canus</em></td>
<td></td>
<td>1995</td>
<td>40</td>
<td>60</td>
<td>C</td>
<td>B2</td>
</tr>
<tr>
<td><em>Picus viridis</em></td>
<td></td>
<td>1996</td>
<td>80</td>
<td>150</td>
<td>B</td>
<td>B2</td>
</tr>
<tr>
<td><em>Phoenicurus phoenicurus</em></td>
<td></td>
<td>1995</td>
<td>40</td>
<td>70</td>
<td>C</td>
<td>B2</td>
</tr>
</tbody>
</table>

This is an important breeding raptors and forest-nesting species. Species of global conservation concern that do not meet IBA criteria: *Crex crex* (breeding).

**Protection status**

National Partial International None

19,200 ha of IBA covered by National Park (Tara, 19,200 ha).

**Conservation issues**

Threats: Afforestation (C), Burning of vegetation (C), Construction/impact of dyke/dam/barage (C), Deforestation (commercial) (C), Disturbance to birds (C), Extraction industry (C), Forest grazing (C), Infrastructure (C), Intensified forest management (B), Recreation/tourism (B)

The main threats are the effects of intensified forest management and recreation/tourism. A management plan exists for the National Park.

**Site description**

A gorge on the Zapadna Morava river, situated between the towns of Cacak and Požega in western Serbia. Limestone cliffs and rocky terrain are interspersed with sparse tree cover and thickets comprising oak *Quercus*, ash *Fraxinus*, hornbeam *Carpinus*, elm *Ulmus* and lime *Tilia*. Areas of meadow and pasture, small reservoirs, houses and orchards are also present.

**Habitats** Forest and woodland (30%); broadleaved deciduous forest; treeline ecotone; Scrub (20%); scrub; Grassland (15%); steppe/dry calcareous grassland; mesophile grassland; Wetland (5%); standing fresh water; river/stream); Rocky areas (20%); screes/boulders; inland cliff; Artificial landscape (10%); arable land; perennial crops/orchards/groves; ruderal land

**Land-use** Agriculture (5%); Fisheries/aquaculture (5%); Forestry (20%); Hunting (30%); Not utilized (30%); Tourism/recreation (5%); Urban/industrial/transport (5%); Water management (10%)
Beech

Conservation issues

Protection status

Site description

Birds

The main threats are disturbance, hunting and infrastructure development.

Uvac–Mileševka

Site description

Birds

The limestone gorges of the Uvac and Mileševka rivers, situated between the Zlatar, Zlatibor and Jadovnik mountains and the Sjenicka plateau in western Serbia. The central part of the IBA is covered with dense coniferous or mixed forest (spruce Picea, fir Abies, pine Pinus, beech Fagus and oak Quercus); the periphery is mostly bare mountainous terrain. Extensive pasture and pown meadows exist towards the Sjenicka plateau. Human activities include cattle-rearing.

Habitats

Forest and woodland (60%; broadleaved deciduous forest; native coniferous forest; mixed forest; woodland), Scrub (5%; scrub; sclerophyllous scrub/garrigue/matrix), Grassland (10%; steppe/dry calcareous grassland; humid grassland; mesophile grassland), Wetland (5%; standing fresh water; river/stream; fen/transitional marsh/spring), Rocky areas (10%; scree/boulders; inland cliff; caves), Artificial landscape (10%; perennial crops/orchards/groves; forestry plantation; urban parks/gardens; rural land), Land-use Agriculture (10%), Fisheries/aquaculture (5%), Forestry (60%), Hunting (80%), Nature conservation/research (20%), Not utilized (10%), Tourism/recreation (10%), Urban/industrial/transport (5%), Water management (5%)
of global conservation concern that do not meet IBA criteria: *Crex crex* (breeding).

### Protection status

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

IBA overlaps with a few small protected areas (unknown type).

### Conservation issues

**Threats:** Burning of vegetation (A), Deforestation (commercial) (B), Disturbance to birds (C), Firewood collection (B), Forest grazing (B), Intensified forest management (B), Selective logging/cutting (B), Unsustainable exploitation (B)

Threats include disturbance, hunting, deforestation, burning and nomadic cattle-grazing. Proposed as a National Park (Prokletije, 100,000 ha).

### Site description

Sited in the far south of Serbia in Kosmet province, being a transboundary IBA that stretches across into Macedonia ('Sara mountains'; Macedonian site 001). The main mountain-ridge is surrounded by low-lying valleys and glacial lakes, with dry grassland slopes broken by numerous rivers/streams. Coniferous and broadleaved forest (pine *Pinus*, beech *Fagus* and oak *Quercus*) and alpine pastures are also present. Human activities include cattle-grazing.

**Habitats:** Forest and woodland (40%; broadly deciduous forest; native coniferous forest; mixed forest; tree-line ecotone), Scrub (5%; scrub), Grassland (40%; dry siliceous grassland; alpine/substrate/boreal grassland; humid grassland; mesophile grassland), Wetland (5%; standing fresh water; river/stream; raised bog; water-fringe vegetation; floodplain/mire/segment), Forest and woodland (35%; broadleaved deciduous forest; wooded steppe), Scrub (25%; scrub; sclerophyllous scrub/garrigue/masugi), Grassland (10%; steppe/dry calcareous grassland; dry siliceous grassland), Wetland (3%; river/stream), Rocky areas (15%; scrub/boulders; inland cliff), Artificial landscape (10%; arable land; perennial crops/orchards/groves; forestry plantation; urban parks/gardens; ruderal land)

**Land-use:** Agriculture (15%), Forestry (30%), Hunting, Not utilized (30%), Tourism/recreation (5%), Urban/industrial/transport (10%)

This is an important site for a number of species associated with open, heterogeneous landscapes.

### Birds

**Species** | **Season** | **Year** | **Pop min** | **Pop max** | **Acc.** | **Criteria**
--- | --- | --- | --- | --- | --- | ---
*Pyrrhocorax pyrrhocorax* | B | 1997 | 10 | 12 | B | B2
*Circus gallicus* | B | 1997 | 6 | 7 | B | B2
*Falco peregrinus* | R | 1997 | 6 | 7 | A | B2
*Alectoris graeca* | R | 1996 | 150 | 200 | B | B2
*Otus scops* | B | 1997 | 80 | 100 | B | B2
*Bubo bubo* | E | 1997 | 15 | 20 | A | B2
*Caprimulgus europaeus* | B | 1997 | 100 | 150 | C | B2
*Lullula arborea* | B | 1997 | 200 | 300 | B | B2
*Prunella collaris* | B | 1997 | 200 | 300 | B | B2
*Lanius collurio* | B | 1997 | 1,000 | 1,500 | B | B2
*Circaetus gallicus* | R | 1997 | 10 | 12 | A | A3
*Lanius collurio* | B | 1997 | 1,000 | 1,500 | B | B2
*Pyrrhocorax graculus* | B | 1997 | 100 | 130 | A | A3
*Montifringilla nivalis* | B | 1997 | 10 | 15 | A | A3
*Emberiza citrinella* | B | 1997 | 1,000 | 2,000 | B | B2
*Emberiza cia* | B | 1997 | 150 | 250 | B | B2
*Limicola falcinellus* | B | 1997 | 100 | 150 | B | B2
*Emberiza cirlus* | B | 1997 | 100 | 150 | B | B2
*Alauda arvensis* | B | 1997 | 100 | 150 | B | B2
*Pyrrhocorax graculus* | B | 1997 | 100 | 150 | B | B2
*Lanius collurio* | B | 1997 | 1,000 | 1,500 | B | B2
*Pyrrhocorax graculus* | B | 1997 | 100 | 150 | B | B2
*Crex crex* | B | 1997 | 100 | 150 | B | B2
*Emberiza cia* | B | 1997 | 100 | 150 | B | B2

### Site description

A plateau surrounded by the summits of Kozjak, Rujen and Vlasinske in south-east Serbia, on the borders with Macedonia and Bulgaria. The diverse vegetation reflects sub-Mediterranean influences. Degraded oak *Quercus* forest occurs with open, dry grassland and areas of scrub. Human activities include cattle-rearing and some agriculture, as well as tourism at a low level.

**Habitats:** Forest and woodland (35%; broadleaved deciduous forest; wooded steppe), Scrub (25%; scrub; sclerophyllous scrub/garrigue/masugi), Grassland (10%; steppe/dry calcareous grassland; dry siliceous grassland), Wetland (3%; river/stream), Rocky areas (15%; scrub/boulders; inland cliff), Artificial landscape (10%; arable land; perennial crops/orchards/groves; forestry plantation; urban parks/gardens; ruderal land)

**Land-use:** Agriculture (15%), Forestry (30%), Hunting, Not utilized (30%), Tourism/recreation (5%), Urban/industrial/transport (10%)

The main threat is the illegal hunting of birds. A management plan exists for the site.
### Important Bird Areas in Europe – Federal Republic of Yugoslavia

#### Jerna

**Admin region** Serbia  
**Coordinates** 42°57‘N 22°37‘E  
**Altitude** 620–1,442 m  
**Area** 10,000 ha

**Habitats** Forest and woodland (20%; broadleaved deciduous forest; native coniferous forest; mixed forest), Scrub (30%; scrub, sclerophyllous scrub/garrigue/maquis), Grassland (15%; dry grassland, pastures), Human activity (25%; cultivation, urban areas, infrastructure, roads, railroads), Tourism (25%), Recreation and tourism (10%), Nature conservation (10%), Unsustainable exploitation (10%), Agriculture (10%), Forestry (40%), Hunting (60%), Nature conservation (5%), Tourism (5%)

**Protection status** National None International None

**Conservation issues**  
- Threats: Afforestation (B), Banning of vegetation (C), Consequences of animal/plant introductions (C), Disturbance to birds (C), Firewood collection (C), Forest grazing (C), Intensified forest management (C), Recreation/tourism (C), Unsustainable exploitation (C)

#### Suva mountain

**Admin region** Serbia  
**Coordinates** 43°12‘N 22°12‘E  
**Altitude** 470–1,808 m  
**Area** 20,000 ha

**Habitats** Forest and woodland (25%; broadleaved deciduous forest; native coniferous forest; mixed forest), Scrub (5%; scrub, Grassland (30%; dry siliceous grassland, alpine/subalpine/boreal grassland), Humid grassland, Pastures (25%; wetlands, to subalpine pasture on the highest summits), Grassland (35%; dry grassland, pastures), Human activity (25%; agriculture and livestock, infrastructure, roads, railroads), Tourism (25%), Recreation and tourism (15%), Nature conservation (15%), Unsustainable exploitation (15%), Agriculture (70%), Fisheries/aquaculture (30%), Forestry (40%), Hunting (90%), Nature conservation/ research (10%), Not utilized (40%), Tourism/recreation (5%)

**Protection status** National Partial International None

**Conservation issues**  
- Threats: Afforestation (C), Consequences of animal/plant introductions (C), Disturbance to birds (C), Forest grazing (C), Intensified forest management (B), Recreation/tourism (C), Unsustainable exploitation (C)

#### Stara mountain–Vidlic

**Admin region** Serbia  
**Coordinates** 43°15‘N 22°45‘E  
**Altitude** 400–2,169 m  
**Area** 44,000 ha

**Habitats** Forest and woodland (20%; broadleaved deciduous forest; native coniferous forest; mixed forest), Scrub (30%; scrub, sclerophyllous scrub/garrigue/maquis), Grassland (15%; dry grassland, pastures), Human activity (25%; agriculture and livestock, infrastructure, roads, railroads), Tourism (25%), Recreation and tourism (15%), Nature conservation (15%), Unsustainable exploitation (15%), Agriculture (10%), Forestry (40%), Hunting (60%), Nature conservation (10%), Not utilized (40%), Tourism (5%)

**Protection status** National None International None

**Conservation issues**  
- Threats: Afforestation (B), Banning of vegetation (C), Consequences of animal/plant introductions (C), Disturbance to birds (C), Firewood collection (C), Forest grazing (C), Intensified forest management (C), Recreation/tourism (C), Unsustainable exploitation (C)

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**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>
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<tr>
<td>Cisticola juncidis</td>
<td>Quail</td>
<td>B</td>
<td>1992</td>
<td>500</td>
<td>1,000</td>
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<tr>
<td>Lullula arborea</td>
<td>Woodlark</td>
<td>B</td>
<td>1991</td>
<td>100</td>
<td>300</td>
<td>B</td>
</tr>
<tr>
<td>Alauda arvensis</td>
<td>Red-backed Shrike</td>
<td>B</td>
<td>1991</td>
<td>1,000</td>
<td>4,000</td>
<td>B</td>
</tr>
<tr>
<td>Luscinia megarhynchos</td>
<td>Nightingale</td>
<td>B</td>
<td>1996</td>
<td>—</td>
<td>—</td>
<td>B</td>
</tr>
</tbody>
</table>

**Protection status** National Low International None

**Conservation issues**  
- Threats: Afforestation (C), Banning of vegetation (C), Disturbance to birds (C), Intensified forest management (C), Research (10%), Not utilized (40%), Tourism/recreation (5%)

This is a prominent limestone massif that adjoins the Juzna Morava river valley. Its southern side is covered with dense vegetation and pasture, whereas the northern slopes are barren. A range of habitats is present, ranging from sub-Mediterranean rocky terrain and scrub at lower levels, to subalpine pasture on the highest summits. Broadleaved forests (oak *Quercus* and beech *Fagus*) are significantly degraded. Human activities include husbandry and hay-cutting.
Important Bird Areas in Europe – Federal Republic of Yugoslavia

**Site description**
Situated in eastern Serbia between Nis and Bela Palanka, this limestone gorge contains the Nisava river and supports sub-Mediterranean vegetation. Vegetation is dominated by hornbeam Carpinus, Syringa, ash Fraxinus and oak Quercus. A heavily used road passes through the valley.

**Protection status**
National Low International None
860 ha of IBA covered by Regional Nature Park (860 ha).

**Conservation issues**

**Birds**

**Protection status**
National Partial International None
885 ha of IBA covered by Strict Nature Reserve (Klisura Gornje, 885 ha), 70 ha of IBA covered by Strict Nature Reserve (Vinatovaca, 70 ha).

**Conservation issues**

**Birds**

**Site description**
A limestone gorge situated in the mountainous area of Juzni Kucaj in eastern Serbia, near Despotovac and Zagubica. Cliffs, rocky terrain, forest (beech Fagus, oak Quercus, hornbeam Carpinus) and pasture are present; a coniferous plantation was recently established. Human activities include cattle-grazing.

**Protection status**
National Partial International None
885 ha of IBA covered by Strict Nature Reserve (Klisura Gornje, 885 ha), 70 ha of IBA covered by Strict Nature Reserve (Vinatovaca, 70 ha).

**Conservation issues**

**Birds**

**Site description**
Situated in eastern Serbia and surrounded by the Malinik and Dubasnica mountains. The cliffs in the limestone gorge are up to 500 m high; scree and diverse vegetation are also present. The Dubasnica plateau supports dry pasture and beech Fagus forest, interspersed with typical karst relief. Human activities include husbandry and hunting of large mammals.

**Protection status**
National Partial International None

**Conservation issues**

**Birds**

An important site for breeding species of forest and forest-edge habitats.

**Protection status**
National Partial International None

**Birds**

The main threats are intensified forest management and recreation/tourism.

**Site description**
A section of the Danube flood-plain, situated at the entrance to Dardap gorge in the south-east Pannonian lowlands. Natural forests (willow Salix, poplar Populus, ash Fraxinus, oak Quercus), extensive Populus plantations, wet meadows and marsh, and dry grassland are present. There is heavy boat traffic on the Danube.

**Protection status**
National Partial International None

**Birds**

The site is important for breeding, wintering and passage waterbirds, regularly holding 60,000–100,000 individuals during winter and
migration periods. This is also believed to be an important area for migrating storks—during autumn migration in 1985, 2,000 Ciconia ciconia and 100 C. nigra were counted over five days from part of the site—and also raptors, but further data on numbers are needed. Species of global conservation concern that do not meet IBA criteria: Haloayetis albicilla (resident) and Crex crex (5–10 breeding pairs).

### Site description

Situated in north-east Serbia on the border with Romania, the site covers a section of the River Danube gorge and adjacent belt of land, about 6 km in width and some 100 km in length. This is a transboundary IBA shared with Romanian site 032 ‘Portile de Fier reservoir’. Human activities include boat traffic on the Danube.

- **Habitats**: Forest and woodland (60%; broadleaved deciduous forest; treeline ecotone), Scrub (15%; scrub), Grassland (10%; alpine/dry calcareous grassland; mesophile grassland), Wetland (5%; standing freshwater; water- fringe vegetation), Artificial landscape (5%; arable land; perennial crops/orchards/groves; ruderal land).
- **Land-use**: Fisheries/aquaculture (5%), Forestry (60%), Hunting (5%), Nature conservation/research (95%), Not utilized (5%), Recreation/tourism (10%), Urban/industrial/transport (5%), Water management (5%).

### Birds

The site is important for breeding raptors and wintering waterbirds, holding 20,000 or more individuals on a regular basis during winter (45,000 in January 1999). This is also believed to be an important area for migrating storks and raptors but further data on numbers are needed. Species of global conservation concern that do not meet IBA criteria: Haloayetis albicilla (wintering), Aquila heliaca (passage) and Crex crex (3–7 breeding pairs).

### Conservation issues

- **Threats**: Agriculture/forestry (20%), Fisheries/aquaculture (60%), Hunting (20%), Intensified forest management (5%), Unsustainable exploitation (5%).
- **Habitats and Land-use**: Forest and woodland (5%; wooded steppe), Scrub (5%; scrub), Grassland (10%; steppe/dry calcareous grassland; mesophile grassland), Wetland (5%; standing fresh water; water-fringe vegetation), Artificial landscape (20%; arable land; perennial crops/orchards/groves; ruderal land).

### Important Bird Areas in Europe – Federal Republic of Yugoslavia

**Protection status**

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

**Conservation issues**

- **Threats**: Aliens (C), Agricultural intensification/expansion (C), Drainage (C), Intensified forest management (B), Unsustainable exploitation (B), Agriculture (20%), Fisheries/aquaculture (60%), Hunting (20%), Not utilized (5%).

**Birds**

Species of global conservation concern that do not meet IBA criteria: Phalacrocorax pygmeus (wintering) and Aythya nyroca (breeding).
Parus lugubris, Emberiza cirlus and Emberiza cia. The B3 criterion has been assigned at the site level as the following species of European conservation concern are present, but in unknown breeding numbers: Columba palumbus, Strix aluco, Dendrocopos syriacus, Prunella modularis, Erithacus rubecula, Luscinia megarhynchos, Turdus philomelos, Sylvia communis, Regulus regulus, Parus cristatus, Carduelis cannabina and Emberiza citrinella. Species of global conservation concern that do not meet IBA criteria: Crex crex (small numbers breed regularly).

Protection status
National High International High
33,000 ha of IBA covered by National Park (Durmitor, 39,000 ha).
32,000 ha of IBA covered by World Heritage Site (Durmitor National Park, 32,000 ha).

Conservation issues
Threats
Disturbance to birds (B), Firewood collection (C), Forestry activities (B), Intensified forest management (B), Recreation/tourism (B), Selective logging/cutting (C), Unsustainable exploitation (A)

Site description
A largely mountainous area in the Bjelasica mountains, including several small lakes and large old-growth forests. The largest lake is Biogradsko jezero. The nearest settlements are Mojkovac and Kolasin, where there is a skiing centre.

Habitats
Forest and woodland, Broad-leaved deciduous forest, Mixed forest, Scrub, Grassland, Steppeland, Calcareous grassland, Alpine/subalpine/boreal grassland, Mesophilous grassland, Wetland (standing fresh water), River/Stream, Rocky areas (scree/shrubs), Island (cliff), Artificial landscape

Land-use
Agriculture, Forestry, Hunting, Nature conservation/research, Tourism/recognition, Urban/Industrial/transport

Biogradska woods
Admin region Montenegro Coordinates 42°40′N 19°50′E
Altitude 800–2,116 m Area 20,000 ha

Birds
The B2 criterion has been assigned at the site level as the following species of European conservation concern are present, but in unknown breeding numbers: Circus cyaneus, Aquila chrysaetos, Falco tinnunculus, Falco subbuteo, Falco peregrinus, Alectoris graeca, Perdix perdix, Coturnix coturnix, Bubo bubo, Otus scops, Caprimulgus europaurus, Picus canus, Picos viridis, Lullula arborea, Alauda arvensis, Turdus torquatus, Saxicola rubetra, Monticola saxatilis, Luscinia luscinia, Certhia brachydactyla, Parus lugubris, Emberiza cirlus and Emberiza cia. The B3 criterion has also been assigned at the site level as the following species of European conservation concern are present, but in unknown breeding numbers: Columba palumbus, Strix aluco, Dendrocopos syriacus, Prunella modularis, Erithacus rubecula, Luscinia megarhynchos, Turdus philomelos, Sylvia communis, Regulus regulus, Parus cristatus, Carduelis cannabina and Emberiza citrinella.

Protection status
National Partial International None
5,400 ha of IBA covered by National Park (Biogradska Gora, 5,400 ha).

Conservation issues
Threats
Agricultural intensification/expansion (B), Aquaculture/fisheries (A), Disturbance to birds (B), Drainage (B), Other (A), Unsustainable exploitation (A), Recreation/tourism (B)

Large quantities of chemicals are thought to have entered the lake several years ago, with devastating consequences for fish and birds (‘Other’ threat). Many bird species are thought to have suffered large declines as a result. Additional threats include fishing and poaching.

Lake Sasko
Admin region Montenegro Coordinates 41°58′N 19°22′E
Altitude 5–350 m Area 40,000 ha

Site description
A small lake south of Lake Skadar (site 038) and part of the Bojana

Tourism and recreation have an impact which, though currently limited in its extent, could worsen if further development of skiing facilities takes place.

Biogradska woods
Admin region Montenegro Coordinates 42°40′N 19°50′E
Altitude 800–2,116 m Area 20,000 ha

Birds
The B2 criterion has been assigned at the site level as the following species of European conservation concern are present, but in unknown breeding numbers: Circus cyaneus, Aquila chrysaetos, Falco tinnunculus, Falco subbuteo, Falco peregrinus, Alectoris graeca, Perdix perdix, Coturnix coturnix, Bubo bubo, Otus scops, Caprimulgus europaurus, Picus canus, Picos viridis, Lullula arborea, Alauda arvensis, Turdus torquatus, Saxicola rubetra, Monticola saxatilis, Luscinia luscinia, Certhia brachydactyla, Parus lugubris, Emberiza cirlus and Emberiza cia. The B3 criterion has also been assigned at the site level as the following species of European conservation concern are present, but in unknown breeding numbers: Columba palumbus, Strix aluco, Dendrocopos syriacus, Prunella modularis, Erithacus rubecula, Luscinia megarhynchos, Turdus philomelos, Sylvia communis, Regulus regulus, Parus cristatus, Carduelis cannabina and Emberiza citrinella.

Protection status
National Partial International None
5,400 ha of IBA covered by National Park (Biogradska Gora, 5,400 ha).

Conservation issues
Threats
Abandonment/reduction of land management (U), Deforestation (commercial) (B), Disturbance to birds (B), Firewood collection (C), Forestry activities (B), Intensified forest management (B), Recreation/tourism (B), Selective logging/cutting (C), Unsustainable exploitation (B)

This is a very important site for breeding, wintering and passage waterbirds, holding more than 20,000 individuals throughout the year. Numbers in winter range from 150,846 to 223,792, and in November numbers on passage regularly average 250,000. Breeding landbirds include six of the 21 species in Europe that are restricted (when breeding) to the Mediterranean biome.

Protection status
National High International Partial 40,000 ha of IBA covered by National Park (Skadarsko Jezero, 40,000 ha). 20,000 ha of IBA covered by Ramsar Site (Skadarsko Jezero, 20,000 ha).

Conservation issues
Threats
Agricultural intensification/expansion (B), Aquaculture/fisheries (A), Disturbance to birds (B), Drainage (B), Other (A), Unsustainable exploitation (A), Recreation/tourism (B)

Large quantities of chemicals are thought to have entered the lake several years ago, with devastating consequences for fish and birds (‘Other’ threat). Many bird species are thought to have suffered large declines as a result. Additional threats include fishing and poaching.
A colony of breeding herons and cormorants existed at Lake Sasko formerly, but shifted in the late 1980s and early 1990s, probably to the Albanian side of the border, near the Bojana river. Birds from the colony still visit Lake Sasko regularly to feed. The B2 criterion has been assigned at the site level as the following species of European conservation concern are present during the breeding season, but in largely unknown numbers: *Phalacrocorax pygmeus*, *Botaurus stellaris*, *Ixobrychus minutus*, *Nycticorax nycticorax* (20 pairs), *Ardea ralloides*, *Ardea purpurea*, *Plegadis falcinellus* (a few pairs), *Anas querquedula*, *Falco tinnunculus*, *Perdix perdix*, *Tringa totanus*, *Chlidonias niger*, *Chlidonias hybridus*, *Bubo bubo*, *Athene noctua*, *Otus scops*, *Picus viridis*, *Galerida cristata*, *Lanarius senator* and *Emberiza hortulana*. The B3 criterion has been assigned at the site level as the following species of European conservation concern are present during the breeding season, but in unknown numbers: *Aythya ferina*, *Erithacus rubecula*, *Sylvia megalopygas*, *Turdus merula*, *Locustella luscinioides*, *Sylvia melanocephala*, *Sylvia communis*, *Pyrrhocorax pyrrhocorax*, *Corvus monedula* and *Emberiza citrinella*.

**Protection status**  
National None International None

**Conservation issues**  
Threats Unknown

**Site description**  
An area of salt-pan (with fresh water in winter and spring; saline in summer and autumn), largely without vegetation, bored by agricultural land. Human activities include salt-extraction. The site lies close to Lake Sasko (site 039) and is a transboundary IBA with ‘Velipoja’ in Albania (site AL013).

**Habitats**  
Scrub, Wetland (standing brackish and salt water)

**Land-use**  
Hunting (80%), Urban/industrial/transport

**Birds**  

<table>
<thead>
<tr>
<th>Species</th>
<th>Season</th>
<th>Year</th>
<th>Pop min</th>
<th>Pop max</th>
<th>Acc Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ardea purpurea</em></td>
<td></td>
<td></td>
<td>25</td>
<td>25</td>
<td>B1i</td>
</tr>
</tbody>
</table>

Due to the presence of the salt-extraction plant, hunting and human disturbance are controlled, but the industry itself causes some disturbance, and changes in water-level sometimes flood nests.

**REFERENCES**


Serbian.)

Serebeljan, B. (1975) La gestion des salines en Yougoslavie. (In French.)


Yugoslavia: The Institute for Protection of Nature of Voivodina. (In Serbian.)


Important Bird Areas in Europe – Federal Republic of Yugoslavia

Ulcinj salt pans  
Admin region Montenegro  
Coordinates 41°55’N 19°18’E  
Altitude 0-2 m  
Area 1,350 ha


