

THE STATUS OF BIRDS OF PREY IN YUGOSLAVIA, WITH PARTICULAR REFERENCE TO MACEDONIA

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ABSTRACT

An account is given of the status and population trends of the 36 species of diurnal raptor found in Yugoslavia, either as breeders, winter visitors or as passage migrants. The main conservation problems are discussed.

INTRODUCTION

The Accipitriformes and Falconiformes have suffered almost the same degree of persecution and habitat degradation in Yugoslavia as in other European countries. Obstacles to their study may, however, be greater here than elsewhere. A mere handful of professional ornithologists, together with a small number of amateurs, are unable to assemble adequate data. However, a summary of what is known of our birds of prey is necessary, both for national protection measures and for publicity abroad. This report attempts to give as objective a picture as possible of the present status of raptors in Yugoslavia, with particular reference to the Yugoslav part of Macedonia. This Federal Republic bordering the Mediterranean is outstanding for the abundance and diversity of its species. Moreover, since the ICBP World Conference held at Ohrid in 1978 there has been a widely held view among foreign ornithologists that the situation has greatly deteriorated in Macedonia in recent years, 'as many good field ornithologists explored this area, no-one saw any birds of prey larger than *Buteo buteo*, and there were very few there of any kind' (S. Cramp, pers. comm.). This gloomy view has stimulated us to concentrate our field work on Macedonia and the preliminary results of our efforts are given here.

This report is based on data which, while fairly substantial, are heterogeneous and in parts incomplete, even fragmentary for several species. Our personal observations from 1977 to the present form its basis; observations by other ornithologists, bird-watchers (mainly foreign) and egg-collectors, scattered through various journals or in unpublished reports, are used to complete the picture. Estimates of bird of prey numbers are often subjective and sometimes contradictory. In this paper we shall compare our results only with estimates given in certain standard works or with some obviously misleading records.

SYSTEMATIC LIST OF SPECIES

Honey Buzzard (*Pernis apivorus*)

Regularly observed throughout Yugoslavia during spring migration (April/May to early June), but of late only sporadically thereafter. One nest record in the past ten years and very few previously.

Macedonia: During the breeding season observed July 1980 and 1982 in N. Macedonia and Vardar valley. Only a few earlier observations in July and August (Gengler 1920; Bijleveld 1974). No nest records.

Black Kite (*Milvus migrans*)

Breeds along the Danube and its tributaries (Drava, Tisza, Morava, Sava, etc.) and in Macedonia. After a period of decline the population now seems to be stabilizing at about 100 breeding pairs, isolated or concentrated in suitable areas such as Kopački Rit near Osijek and Obedska Bara (Lower Sava River).

Macedonia: Two pairs in 1980–82 near Vardar River (but only one nest checked); another pair observed June 1981 near Crna River. Formerly observed in the breeding season in the Skopje area, at Lakes Prespa and Dojran (Terrasse & Terrasse 1961; Sage 1966; Dimovski 1972).

Red Kite (*Milvus milvus*)

Formerly distributed through N. Yugoslavia and Macedonia. After a marked decline at the turn of the century, regular breeding became doubtful: last recorded in Sava valley 1968. Occasional sightings in the post-war period. Of recent years seen near Apatin in Northwest Serbia (Lakatos 1979) and near Pančevo, Belgrade area, April 1980.

Macedonia: Last bred in the Bitola area 1906 (McGregor 1906). Last observed 1929 (winter) in the Skopje area (Makatsch 1950).

White-tailed Eagle (*Haliaeetus albicilla*)

Most breeding pairs concentrated in Kopački Rit area near Osijek, where 15 or even more persist in spite of toxic chemicals (as recently as 1976 at least 6 birds died: Mikuska 1980, 1982). Other isolated pairs breed along the Danube and Sava Rivers and one (two according to Reichholf 1977) at Lake Skadar. Total population estimated at up to 40 breeding pairs.

Macedonia: Extinct. Said to have bred at Lake Prespa in 1970. Former nest record near Bitola and Skopje (Makatsch 1950). In the past seen during the breeding season; also in Vardar valley, at Lakes Ohrid and Dojran (Thorpe *et al.* 1936; Makatsch 1950).

Bearded Vulture (*Gypaetus barbatus*)

One, maybe the last, pair bred in Macedonia in 1980 (results unknown). In 1981 only the female visited the eyrie, obviously not breeding. In 1982 a new pair formed of an adult female and subadult male seen in the same area, the centre of the territory being shifted c. 2km from the 1980 nest site. Also observed at five different localities in Macedonia 1979–82. In the past, said to have bred about four times (Makatsch 1950; Matvejev & Vasić 1973) and observed sporadically throughout Macedonia.

Disappeared from other parts of Yugoslavia: Bosnia & Hercegovina 1893, Montenegro 1894, Serbia 1956.

Egyptian Vulture (*Neophron percnopterus*)

Main breeding population restricted to southeastern parts of Yugoslavia, presum-

ably Macedonia, apart from which two pairs bred in N. Adriatic 1982; two others in Hercegovina 1981 and 1982; two more in W. Serbia 1979 (Simonov, pers. comm.) and one in Kosovo province 1976. More bred formerly along Adriatic coast. Regularly observed in S. Montenegro 1975–82 and once in E. Serbia, April 1980.

Macedonia: Still breeds among most of the suitable gorges and cliffs in isolated pairs or small colonies, above all in such areas as Demir Kapija and Titov Veles—famous for their concentrations of birds of prey. Population apparently stable, estimated at c. 40 pairs. In 1980/81, two breeding pairs in Topolka Gorge; one in upper and two in lower Babuna Gorge; two or three in Demir Kapija; one in lower Pcinja Gorge; one near Rajec and three more in two different localities. Has also bred in Treska Gorge (Karaman 1928). Many more recent sightings away from nest sites throughout Macedonia. Nests in Titov Veles area and Demir Kapija robbed every year (1981, 1982) by organized groups of foreigners.

Griffon Vulture (*Gyps fulvus*)

Population estimated at 200+ breeding pairs, of which c. 180 recently counted in 20 colonies. The possibility of six or seven more undiscovered colonies in Bosnia and Hercegovina, Dalmatia, Montenegro and Macedonia is not excluded. On N. Adriatic islands 50–60 breeding pairs (43 nestlings counted in 1982); N. (mainland) Dalmatia, 10 breeding pairs in 2 colonies (1982); Hercegovina, 15–17 breeding pairs in 3 colonies (1972–82); S. Dalmatia, 2–3 pairs (Tutman, pers. comm.); W. Serbia, about 37 pairs in 3 colonies, one of them markedly reduced last year (Simonov, pers. comm.) and a few pairs in each of three colonies in S. Serbia, not recently checked. Other colonies in Macedonia. Birds regularly observed in Montenegro, but no colony yet found.

Macedonia: In Topolka Gorge two breeding pairs 1973–80; three to four pairs in lower Babuna Gorge 1973–81, and two pairs in upper gorge (but up to 12 birds usually seen flying together). 15–20 pairs in Demir Kapije 1973–82, 2 pairs in Matka Gorge 1979 and 1982, and 3 more colonies with 3, 2 and 10–15 pairs 1980–82. Over the past two years at least, more than 30 nests robbed by organized groups of foreigners and the number of breeding pairs slightly on the decline.

Black Vulture (*Aegypius monachus*)

Extinct in Yugoslavia outside Macedonia, where occasionally seen. In Serbia, last bred on Mt Fruska Gora 1878, and last observed on Mt Kopaonik 1956 (Matvejev & Vasić 1973). In Bosnia and Montenegro, disappeared at the turn of the century (Reiser & Fuehrer 1896; Obratil 1971).

Macedonia: No nest found in recent times. Seen in Vardar valley April 1973 (Geiger *et al.* 1974), near Titov Veles August 1972 (Kratzer 1973) and in March and July 1980 and 1982 in three different localities in S. Macedonia. Formerly observed throughout the region but precise breeding records notably lacking. A report of 22 individuals seen together April 1970 (Kalaber 1970) seems an over-estimate.

Short-toed Eagle (*Circaetus gallicus*)

Distributed over many parts of Yugoslavia. Unlike most other medium-sized birds of prey, the population has not declined. Total population at a rough estimate c. 200 breeding pairs, most of them in southern and eastern parts of the country. Despite relative abundance, nests rarely found (other, earlier breeders usually detected while trees still leafless). One nest in N. Serbia 1980 (Ham, pers. comm.); another in N. Dalmatia 1981.

Macedonia: One active nest near Lake Prespa 1978 (Carlson, pers. comm.);

another in Vardar valley 1980. Formerly bred in Babuna and Pcinja Gorges (Knoetsch 1965; Danko & Szilard 1971). Also observed several times 1978–82, mostly in the south-west.

Marsh Harrier (*Circus aeruginosus*)

Widely distributed throughout Yugoslavia on all undrained marshes.

Macedonia: As major marshes mostly drained, very few pairs persist. About two pairs bred at Lake Dojran 1982. Carlson (pers. comm.) saw another pair in May and June 1978 at Lake Prespa. Formerly bred in marshes near Bitola, Skopje and Katlanovo, now drained.

Hen Harrier (*Circus cyaneus*)

A winter and passage visitor, occasionally seen during breeding period, but no proof of ever having bred (cf. Bijleveld 1974).

Pallid Harrier (*Circus macrourus*)

A passage visitor to Yugoslavia, including Macedonia.

Montagu's Harrier (*Circus pygargus*)

A very rare breeding bird in northern parts of Yugoslavia. Recent nest records lacking. Also said to have bred in Istria (Rucner, pers. comm.) where recently observed August 1980. Probably breeds in open, wet upland valleys such as Krbava (Croatia), where seen June 1981.

Macedonia: Understandably replaced Marsh Harrier on drained wetlands of S. and E. Macedonia, where at least six pairs with territorial behaviour observed June and July 1979–82. Gengler (1920) observed it July 1917 near Skopje.

Goshawk (*Accipiter gentilis*)

Breeds throughout Yugoslavia, varying from common in low and hilly woodlands to scarce in high mountains and broad, open cultivated areas.

Macedonia: About 50 pairs. One nest near Bitola 1980 and two others in Vardar valley 1981 and 1982. Seven more sightings May to August 1980–82 throughout Macedonia.

Sparrowhawk (*Accipiter nisus*)

Breeds throughout the country in low numbers: scarce in conifer forests; sporadic in deciduous woodlands.

Macedonia: About 20 breeding pairs. No recent nest records. Observed June and July 1980–82 in N., Central and S. Macedonia. In the past observed elsewhere, and breeding reported near Gostivar Prespa Lake and on Mt Pelister (Sage 1966; Makatsch 1950).

Levant Sparrowhawk (*Accipiter brevipes*)

Breeds in southern and eastern parts of Yugoslavia in low numbers. Northernmost nest record near Vrsac 1964 (Pelle *et al.* 1977). In Central Serbia one active nest 1973. Observed at many localities April, May, June and July 1977–82 in Central, S.E. and E. Serbia. Nest-building observed in S. Montenegro late April 1975, where regularly and probably more frequently seen than elsewhere.

Macedonia: No nest record. Seen in Vardar valley July 1976 (Reichholf 1977). Several sightings in the past along Vardar valley (Stresemann 1920; Dimowski 1972; Terrasse, in litt.).

Buzzard (*Buteo buteo*)

Breeds throughout Yugoslavia: common in many areas, especially in lowland woods with surrounding fields.

Macedonia: No nest found recently, but regularly observed in May–June 1979–82 at many localities throughout whole region. At least 50 pairs breed.

Long-legged Buzzard (*Buteo rufinus*)

Breeding distribution now confined to Macedonia. Accidental records elsewhere. Recently at Lake Skadar (Montenegro) May 1975 (Reichholf 1977).

Macedonia: Population estimated at 20 breeding pairs. The well-known sites at Babuna and Topolka Gorges robbed every year, as well as others published by Danko & Szilard (1971). Other less publicized nests shared the same fate in 1981 and 1982. Seen at several other localities in 1979–82 in S. and E. Macedonia. Observed also in northern areas in the past.

Rough-legged Buzzard (*Buteo lagopus*)

A winter visitor throughout Yugoslavia, usually in small numbers.

Macedonia: Seen occasionally, the last time being January 1964 near Gevgelis (S. Macedonia).

Lesser Spotted Eagle (*Aquila pomarina*)

Breeds sporadically, mainly in northern lowlands and hilly deciduous forests. Total estimated at 40 breeding pairs. No recent nest record published, but scattered pairs regularly observed from end of April to June in N. Serbia and along Danube and Sava Rivers 1978–82. Recorded in S. Montenegro late April and early May 1974 (Boswall & Dawson 1975).

Macedonia: A single nest recorded on Mt Pelister 1939 (Makatsch 1950). Observed recently only in April: at Lake Dojran 1973 (Geiger *et al.* 1974) and in N. Macedonia 1980.

Spotted Eagle (*Aquila clanga*)

After complete disappearance, breeding again recorded 1976–80 in Slovenia (Smerdu 1981), Drava valley 1981 (Z. Tadic, pers. comm.) and also two pairs in N. Serbia 1980 and 1981.

Macedonia: McGregor (1906) reported a nest in Bitola area 1905, probably mistakenly. No other data.

Steppe Eagle (*Aquila rapax*)

One single record at Nin, N. Dalmatia, in October 1928 (Hirtz 1936).

Imperial Eagle (*Aquila heliaca*)

Two main areas still inhabited: (1) N. Serbia where, concentrated among the sand dunes at Deliblatska Pescara, there is a minimum of six pairs with low breeding success (Ham 1977, 1980 and pers. comm.) and at least four more along the Danube and Sava rivers; (2) S. Serbia and Macedonia, where considerably decreased in number. In S. Serbia 1977–80 seen several times but no nest records.

Macedonia: In 1982, two cases of breeding recorded but success unknown. In 1980 two other previously occupied nests abandoned. Nesting formerly recorded in N. and E. Macedonia (Makatsch 1950, Kalaber 1970). Seen 1972–82 in various places. Recorded much more often in the past.

Golden Eagle (*Aquila chrysaetos*)

About 100 pairs breed throughout Yugoslavia, apart from the northern lowlands. In spite of persecution, decline slowed down over past decade. Outside Macedonia, 20 eyries recorded 1971–82: Istria 1, N. Dalmatia 2, W. Bosnia 1, Hercegovina 1, S. Montenegro 1, E. Serbia 9, S. Serbia 2, and Sutjeska National Park 3 (Rucner & Obratil 1973). Also frequently observed from Slovenia to Macedonia.

Macedonia: About 30 breeding pairs. Nine different eyries recorded 1978–82, and regularly observed throughout Macedonia. In the past, four further eyries known (Makatsch 1950; Terrasse & Terrasse 1961; Danko & Szilard 1971; Kalaber 1970).

Booted Eagle (*Hieraaetus pennatus*)

A sporadic breeder, mostly in eastern half of Yugoslavia. Total population about 50 pairs. Breeding recorded 1981 in Slavonia and N. Serbia. Observed many times 1972–82 in Serbia and S. Adriatic from May to June.

Macedonia: One pair breeding in Vardar valley 1980–82, but nest regularly robbed. A former nest found near Lake Ohrid (Makatsch 1950). Two birds observed in Vardar valley June 1976 (Sterbetz 1980) and one in Treska valley May 1979. In the past seen near Debar (Terrasse, in litt.) and on Mt Babuna.

Bonelli's Eagle (*Hieraaetus fasciatus*)

Occasionally observed during breeding season but no nest recorded. Recently seen May and June in N. Adriatic, and quite regularly in S. Montenegro 1974–81.

Macedonia: Seen on Mt Karadziva June 1953 and at Lake Dojran May 1954 (Matvejev & Vasić 1973). No recent data.

Osprey (*Pandion haliaetus*)

Has not bred since World War II. Seen occasionally along rivers and lakes, mainly juveniles from Sweden and Finland.

Macedonia: Last bred Demir Kapija 1939 (Petrov, pers. comm.). Formerly nested at Lake Dojran and near Bitola (Makatsch 1950). No recent sightings.

Lesser Kestrel (*Falco naumanni*)

Breeds in Slovenia in fluctuating numbers, occasionally in Vojvodina, Istria, Dalmatia and regularly but decreasingly in southern Serbia and Macedonia. Few recent nest records: S. Montenegro 1976 and S. Serbia 1980.

Macedonia: Rapidly decreasing (or fluctuating with a downward trend). No longer gregarious in towns as in the past. Small colonies persist in Titov Veles area and N. Macedonia. Very few recent sightings elsewhere (Sterbetz 1980). Formerly much more widely distributed (Dimovski 1957; Sage 1966; Bodenstein & Kroymann 1967 etc.).

Kestrel (*Falco tinnunculus*)

Common throughout Yugoslavia, including Macedonia, especially in northern lowlands and broad river valleys, as well as in gorges and on cliffs.

Red-footed Falcon (*Falco vespertinus*)

Breeds in northern lowlands and probably also in southern Montenegro and Macedonia. Population estimated at 80 breeding pairs. Two colonies with eight and seven nests checked in 1976 in N.E. Vojvodina (Dimitrijevic 1980). Observed June 1981 in sand dunes near Ram (N.E. Serbia). Regularly seen in summer in S. Montenegro but breeding not yet proved.

Macedonia: Normal passage visitor in April, early May and September, but several sightings in June suggest possible breeding.

Merlin (*Falco columbarius*)

A rare winter visitor.

Macedonia: Last observed November 1928 near Skopje (Karaman 1928).

Hobby (*Falco subbuteo*)

Breeds throughout Yugoslavia. Common in northern lowlands and broad river valleys.

Macedonia: No nest recorded, but regularly observed May, June, July and August 1972–82 in Vardar valley, Ovce Pole, Prespa area, etc. Many past records.

Eleonora's Falcon (*Falco eleonora*)

About twelve pairs bred 1961 and 1971 on remote Central Adriatic islands (Krapan 1965; Jovanovic 1972). Observed on two more islands of northern and central Adriatic in recent times (Pfeiffer, pers. comm.; Boeck & Walter 1976). Laursen's record (1972) in August 1970 in S. Montenegro (Inland) is open to doubt.

Lanner Falcon (*Falco biarmicus*)

Possibly not more than 20 pairs breed in Dalmatia, Bosnia, Hercegovina, Montenegro, Serbia and Macedonia. In recent times, a pair obviously breeding observed 1977 in S.E. Serbia and another in W. Serbia in 1981. Also observed several times April and May 1974–75 in S. Montenegro, once in June 1981 in W. Bosnia and several times 1980–82 in Hercegovina.

Macedonia: Two cases of breeding, in 1980 and 1982; but nest robbed 1982. Sightings in April, June and July 1973, 1980 and 1982 in different parts of Macedonia.

Saker Falcon (*Falco cherrug*)

About 40 pairs breed in northern plains. A fluctuating population (up to 9 pairs) concentrated in Deliblatska Pescara (sand dunes) according to I. Ham (pers. comm.).

Macedonia: A winter and passage visitor November to April, but information scarce (Dimovsky 1972). Unusual sightings early June 1976 in Vardar valley (Sterbetz 1980).

Peregrine (*Falco peregrinus*)

Population declining more slowly in recent years: estimated at 60 breeding pairs minimum. Three different active nests in S. and one in Central Serbia 1977–82; one in E. Bosnia 1981; one in N. Adriatic islands, and three in N. Dalmatia. Many sightings in breeding season 1974–82 in Dalmatia, Bosnia, Hercegovina, Montenegro and Serbia.

Macedonia: An active nest in 1981 and 1982 (robbed) in S.E. Macedonia. Seen May and June 1978, 1980–82 throughout Macedonia. Many sightings in the past (Makatsch 1950; Niestle 1952; Bodenstein & Krymann 1967, etc.).

MAIN PROTECTION PROBLEMS

According to Yugoslavia's federal organization, there are eight independent sets of legislation governing bird protection. Nevertheless, all birds of prey are legally

protected despite some differences between various Federal Republics and autonomous provinces. For example, the Goshawk is not fully protected in all the republics but rare species (vultures, eagles, large falcons etc.) are. In general, raptors enjoy official protection throughout the country, but in practice persecution still continues and in some forms is even on the increase.

Birds of prey were formerly shot as pests. Today the main incentive is to have the rarer species stuffed. These 'ornaments' are to be found in restaurants, barbers' shops, bedrooms. The dream of most hunters is to have a stuffed eagle above the door. Another major threat derives from the fringes of the scientific world: most of the illegal international trade in raptors is orientated towards Yugoslavia, and every year clandestine expeditions from European zoos and museums, as well as private collectors, come to steal eggs, young and adult birds of prey, encouraged by the lack of serious control in the field and on the frontiers. The eggs and young of Long-legged Buzzard, Egyptian Vulture, Griffon Vulture and Saker Falcon are systematically robbed from various well-known sites every year. Very few groups or individuals are ever detected or arrested, and if they are, they are usually released soon after or sentenced symbolically. The customs officials in Austria and West Germany are far more successful and we greatly appreciate their efforts to suppress the destructive export of birds from Yugoslavia.

Some species, however, have been showing the first signs of stabilization in recent years. The reasons are varied, only a few particular ones being cited here. The depopulation of mountain villages and the migration to the cities, a natural process in a developing country such as Yugoslavia, is beneficial to the survival of raptors. In this way quite large areas spontaneously become sanctuaries without official sanction. Similarly, the development of modern traffic is also favourable in some cases: people cross large areas at high speed without stopping. It is not unusual for some eyries to be sited just above the highway.

Active protection is still undeveloped in Yugoslavia. There are very few reserves devoted to birds of prey. The only project for the artificial feeding of Griffon Vultures was started this year with the help of the WWF. Two more projects are being planned.

Due to the variability of the habitat and food supply there are more raptors in Macedonia than elsewhere in Yugoslavia, but they are proportionally under greater threat, especially from nest robbers. Macedonian birds of prey need much more positive protection than they enjoy at present. Some new measures are being planned (by the Institute for Nature Conservation at Skopje) but international support will be needed to back them up.

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