

SREBRNI SOKOL

Silver Falcon



Minilo je 25 let.

Ne bom govoril o tem, kakšno je bilo to četrstoletje, niti kaj se je v tem času dogajalo v Društvu za opazovanje in proučevanje ptic Slovenije. Glede tega obstaja toliko mnenj, kolikor je ljudi, ki nosijo izkaznico, na kateri piše DOPPS. Pravzaprav še več, saj teh sprva majcenih rumenih, kasneje pa malce večjih zelenkastih papirčkov ne delimo več. Člani so zdaj člani le v bazah, na spiskih plačnikov članarin in tistih, ki jim pošiljamo pošto. Nekaj izmed njih pa jih je članov tudi v srcu, morda celo večina, vendar sam lahko zagotovo trdim to vsaj za nekaj desetih, ki mi jih je usoda velikodušno splašila na križišče skupnih poti. In prav o slednjih bi ob tej priložnosti rad povedal besedo ali dve.

Pred nekaj meseci sem se, podobno kot kar nekaj sotrpinov, prebijal skozi decimetrsko svežnje »doppsovske« kronologije, kronologije zapisnikov in poročil, pobud, prizadevanj, dopisov, protestov in končno predlogov, kontrapredlogov, kontrakontrapredlogov ter, če si v tem zaporedju dovolim nekoliko površno preskočiti nekaj stopenj naprej (ali nazaj), nekih arhiviranih zadev, ki bi jim bilo verjetno težko najti povsem primerno ime. Skratka, da ne bi po nepotrebnem sitnaril, sem med vso to šaro našel obilo prav tistih reči, o katerih sem na začetku tega besedila zapisal, da o njih ne bom govoril. In res ne bom, kajti prepričan sem, da bi bilo to kot prvo dolgočasno, osebno obarvano in nazadnje prav nič drugačno od kronike odnosov katere koli podobno naravnane družčine, ki je v večji ali manjši slogi premerila primerljivo količino let. Ne le, da za to sploh nisem kompetenten, saj sam s tokom, ob toku ali celo malo proti toku ideološke reke, imenovane DOPPS, hodim »zgolj« zadnjih 15 let, omenjeni prostor pa bi po svojih močeh in presoji rad izkoristil tudi malenkost bolj smotrno.

Ta uvodnik naj bo namenjen vsem, v katerih se pretaka kri sokola.

Vselej rad posežem po Erjavčevih spisih, čeprav njega jezik skozi ušesa sodobnega bralca včasih prav do zob zaskeli zaradi svoje neprikrite antropocentričnosti. Pri tem pa opazovalec današnjega časa pogosto pozablja na zlagano ponižnost in ceneno pretvarjanje dandanašnjega zagovornika narave glede empatije do slednje. V primerjavi s to svetohlinsko držo tačas prevladujoče konzumistično naravnane, pa čeprav naravovarstvene srenje, se Erjavčev opis zdi otroško iskrena izpoved neobremenjenega uma. In res me, ko sem stikal za opisom sokola, Fran Erjavec tudi tokrat ni pustil na cedilu. O prelestih teh roparic govori takole: »Brez pomisleka lahko rečemo, da so sokoli najlepše in najpopolnejše ujede. Vsi se ponosno drže, so hitri in gibčni, zraven pa tudi močni, pogumni in drzni...«.

Med vprašanja otroškega uma sodijo tudi tista klasična, ki se med dvema ptičarjema zastavijo ob kakšni res prešerni priložnosti, češ »kateri ptič bi bil, če bi bil ptič«. Čeprav se sam ob omenjenem vprašanju navadno odločam bolj avantgardno, pa moram vendarle priznati, da me večinski odgovor »sokol« nikoli ne pusti ravnodušnega. Nasprotno, mislim, da ga ni med nami, ki si ne

bi želel kdaj smukniti v kožo tega izjemnega bitja in ujeti veter v vajeti svojega izjemnega telesa.

DOPPS je sokol na slovenskem naravovarstvenem nebu. Kljub temu da so ga preganjali in zastrupljali, zaradi česar so nekateri njegovi otroci ostali strti pod tanko lupino jajc, še vedno prost in mogočen, drzen in pogumen lovi in usmerja vetrove slovenske ornitologije in varstva narave.

Pred nekaj dnevi je DOPPS praznoval srebrni jubilej, za 25 let vsega občudovanja vrednega delovanja smo se obdarili s potico, ki gre vsem ptičarjem najbolj v slast – kolažem strokovnih dognanj in ugotovitev posameznih poznavalcev ptic. Prvič po razpadu nekdanje skupne države med Triglavom in Vardarjem smo bili priča kongresu ornitologov. 1. kongres ornitologov Slovenije je dosegel dvoje; prvič v zgodovini je združil vse pomembnejše slovenske inštitucije in posameznike, ki profesionalno ali amatersko delujejo na področju ornitologije. Komur svojega znanja ni uspelo predstaviti na kongresu, je svoje zamisli in poglede na svetlo postavil v vlogi člana eminentnega 15-članskega Znanstvenega odbora kongresa. Drugi dosežek dogodka je nekoliko bolj subtilne narave, vendar zato nič manjšega pomena, celo nasprotno. Kongres je po eni strani v deželo na sončni strani Alp pripeljal impresivno število ornitologov iz sosednjih držav, ki jih je obseg dogodka vidno ganil, po drugi strani pa je isto nalezljivo občutje, ki se je s slovesnim zaključkom ob 25. letnici DOPPS razbohotilo v pojav epidemičnih razsežnosti, zajelo veliko večino domače strokovne srenje. V opisovanih dejstvih nikakor ne iščem razlogov za DOPPSovo samohvalo, ki bi jo društvu utegnil kdo očitati. Gre namreč za nekaj drugega – uspeh velike skupine nesebičnih navdušencev, zaradi katerih je dogodek ne le sploh ugledal luč dneva, temveč bil tudi spodobno izpeljan. Moje občudovanje gre prav tem ravnokar omenjenim – izjemni množici požrtvovalnih posameznikov, katerih notranjost ves čas prekipeva od »sokolskega« duha, ter vsem tistim, ki s svojo energijo razpihujete veter, po katerem ta sokol tako prešerno in neizmerno lahko plahuta.

Po velikem dogodku in nedvomno tudi zaradi silovitega vzgornika, ki ga je dogodek sprožil, je sokol zaplaval visoko nad najvišje alpske vrhove. Želim mu veličasten pogled in ugoden veter še naprej!

BORUT RUBINIČ

BREEDING OF DALMATIAN PELICAN *Pelecanus crispus* ON SKADAR LAKE

Gnezdenje kodrastega pelikana *Pelecanus crispus* na Skadarskem jezeru

DARKO SAVELJIĆ¹, BORUT RUBINIĆ², MARTIN SCHNEIDER-JACOBY³ & ONDREJ VIZI⁴

¹ National Institute for Nature Conservation, Trg Bećir bega Osmanagića 16, P.O. Box 2, 81000 Podgorica, Montenegro, e-mail: dasav@cg.yu

² Društvo za opazovanje in proučevanje ptic Slovenije (DOPPS – BirdLife Slovenia), Tržaška cesta 2, SI-1000 Ljubljana, Slovenia, e-mail: borut.rubinic@dopps-drustvo.si

³ Euronatur, Konstanzer Str. 22, D-78315 Radolfzell, Germany, e-mail: martin.schneider-jacoby@euronatur.org

⁴ Natural History Museum of Montenegro, Trg Bećir bega Osmanagića 16, 81000 Podgorica, Montenegro, e-mail: vizi@cg.yu

*Kongres ornitologov Slovenije ob 25. obletnici DOPPS
Slovene Ornithologists' Congress at the 25th anniversary of DOPPS – BirdLife Slovenia*

Historical data on Dalmatian Pelican *Pelecanus crispus* breeding at Skadar Lake, the largest lake in the Balkans, are presented. Breeding was first confirmed in 1894 but there is then a gap in the literature relating to nesting of this species at the Lake from 1896 to 1965. Intensive research started in 1972 and still continues. The size of the breeding population reached a maximum in 1977 with 52 pairs. The Dalmatian Pelicans at Skadar Lake nest on the floating peat islands with the exception of two years when they nested on the rocky island. Most of the data gathered relate to the Pančeva oka ornithological reserve. Although their population is estimated as stable in the Mediterranean area, the population at Skadar Lake is still highly endangered, although with a small tendency to growth. The most significant impact on the success of this species' nesting at the Lake results from flooding of nests and human disturbance.

Key words: Dalmatian Pelican, *Pelecanus crispus*, breeding, Skadar lake, Montenegro, population dynamics

Ključne besede: kodrasti pelikan, *Pelecanus crispus*, gnezdenje, Skadarsko jezero, Črna gora, populacijska dinamika

1. Introduction

Dalmatian Pelican *Pelecanus crispus* is a globally threatened species. It was formerly listed as vulnerable and recently reassessed as conservation dependent, mostly due to an increase of population based on active preservation, particularly at its largest colony of 500 pairs on Mikri Prespa Lake in Greece (CRIVELLI *et al.* 2000, BIRDLIFE INTERNATIONAL 2001). The species' breeding population is local and confined to SE Europe, the Middle East and Central Asia. The world population is estimated to have stabilized at between 15,000 and 20,000 individuals (BIRDLIFE INTERNATIONAL 2002). The latest estimates of breeding population range from 4,031 to 5,196 pairs (CRIVELLI *et al.* 2000, WETLANDS INTERNATIONAL 2002). Only about 15% of the global population breeds in the Mediterranean region: 15 – 20 pairs in Montenegro,

50 pairs in Albania, 500 pairs in Greece, and 120 pairs in Turkey (HOFFMAN *et al.* 1996). The Mediterranean population is considered to be stable (PERENNOU *et al.* 2000). In Montenegro, Dalmatian Pelican was recorded for the first time in 1891 by BRUSINA (1891), who recorded the species on Skadar Lake. There are no records from Skadar Lake for the period between 1896 and 1965. The first serious investigations were conducted in 1972, with annual censuses up to the 1990's. Since then, breeding of Dalmatian Pelicans has not been confirmed on Skadar Lake (*unpubl. data*).

In this study, records of breeding Dalmatian Pelicans on Skadar Lake in Montenegro are presented, from the first breeding record by FÜHRER (1894) to the most recent records in 2003. Data on breeding of Dalmatian Pelican on Skadar Lake are summarized for the first time.

2. Study area and methods

2.1 Study area

Skadar Lake is situated in the very south-eastern part of Montenegro (19°30' N, 42°30' E). It is the largest lake on the Balkan Peninsula with a water surface of between 354 and 505.8 km², according to the season and water level. It is 44 km long and 15 km wide. Its main water source is the Morača river, which provides more than 60% of the lake's water. Besides the Morača there are many other smaller rivers and sublacustric springs flowing into the lake. Occasionally it is provided with water from the river Drim that flows into the river Bojana, by which the lake is connected to the Adriatic Sea (BURIĆ & RADULOVIĆ 1983).

Skadar Lake is situated in a crypto-depression with an average depth between 5 and 6 m. Its maximum depth is found in the sublacustric spring Raduš that is more than 90 m in depth. Water temperature can reach 30°C in summer (BURIĆ & RADULOVIĆ 1983). Two thirds of the lake area is situated in Montenegro and one third in Albania. The Montenegrin part was declared as a national park in 1983 and got IBA status in 1989 (GRIMMETT & JONES 1989). Since 1995 this part of the lake is also a Ramsar site. The Albanian part of the lake remains without any legal protection. 281 species of birds have been recorded on Skadar lake (DHORA & SAVELJIĆ 2001). With about 2,000 breeding pairs of Pygmy Cormorants *Phalacrocorax pygmeus* Skadar Lake hosts the second largest European colony of this globally threatened species (VASIĆ *et al.* 1992, own data). It is known as the westernmost breeding site of the Dalmatian Pelican in the world and is one of the most important wetlands for wintering water-birds in the Mediterranean basin, where more than 250,000 water-birds are counted annually (VASIĆ & VIZI 2000).

2.2 Methods

In spring 2002 we counted nesting Dalmatian Pelicans in Pančeva oka from a small aeroplane flying over the colony at a height of 300 m. In spring 2003 we visited the same colony twice (May and June) with a boat and approached the inaccessible pelican nests by foot and by swimming. Young pelicans were counted. Records for the previous years were summarized from published sources.

3. Results

3.1. Historical data

The presence of Dalmatian Pelicans at Skadar Lake was first recorded by BRUSINA (1891). In 1894 in Hum bay (from 1968 the ornithological reserve Pančeva oka) 29 pairs were recorded building nests (FÜHRER 1894). As FÜHRER (1894) explains, he took eggs from 15 nests, leaving the eggs from the remaining 14 nests untouched. The latter nests were later destroyed by flooding (FÜHRER 1894). In 1896 REISER & FÜHRER (1896) again recorded a colony of 20 pairs (Table 1). From then until 1972 detailed research on the birds of Skadar Lake is lacking and records on the presence of pelicans are also lacking. Only in 1965 were 42 pelicans recorded in the mating season at the former breeding place (IVANOVIĆ 1970). The colony was then disturbed by hunters.

Intensive research on Dalmatian Pelican started in 1972 (VIZI 1975; Table 1). In May 1972 the colony was visited for the first time and 20 nests with 16 to 18 young birds were recorded. In subsequent years severe disturbance of the colony by predators and flooding was recorded (VIZI 1975). The original colony location, Pančeva oka, was displaced in 1975, because of human disturbance, to another place, Crni žar, an area consisting of floating peat islands and floating vegetation, situated about 1.5 km to the south (VIZI 1979). Until 1977, when a maximum of 52 pairs was reached, the number of nesting pelicans had been increasing. In 1978 the colony was once more destroyed by high water levels (VIZI 1979). During the 80's pelicans were mainly nesting on both Crni žar and on Pančeva oka.

3.2. Recent status

In the 1990's, the number of successfully fledged pelicans was low, although disturbances were not recorded. In 1990, 21 pairs were recorded on Crni žar, but all the eggs and a young bird were later destroyed by hail.

During 1991 and 1992 the colony was located on the stone island of Grmožur. Continuous disturbance by tourists resulted in complete abandonment of the colony in subsequent years (VIZI 1995A). Between 1993 and 2001 nesting of Dalmatian Pelicans has not been recorded on Skadar Lake.

The first recent record of nesting pelicans on Skadar Lake was confirmed on 11 Jul 2002 when five

Table 1: Number of breeding pairs of Dalmatian Pelicans *Pelecanus crispus* on Skadar Lake from 1894 to 2003 with number of successfully fledged young, breeding success, type of disturbance (F – flood, H – hunting, E – egg collecting, P – predation, G – hail, T – tourism), and nesting location (* years when all the eggs and/or young were completely destroyed but there were pairs present, ? exact number not known, – missing data).

Tabela 1: Število gnezdečih parov kodrastega pelikana *Pelecanus crispus* na Skadarskem jezeru med letoma 1894 in 2003 s številom uspešno speljanih mladičev, uspešnostjo gnezdenja in tipi motenj (F – poplave, H – lov, E – jemanje jajc, P – plenilstvo, G – toča, T – turizem) in lokacijo gnezdišč (* leta, ko so bila v celoti uničena jajca in/ali mladiči, a so pari ostali v območju, ? ni natančnega števila parov, – ni podatkov).

Year / leto	No. of breeding pairs / št. gnezdečih parov	No. of young / št. mladičev	Breeding success/ gnezditveni uspeh (young/pair)	Type of disturbance/ tip motenj	Nesting location/ lokacija gnezdišč	Source / vir
1894	29	–	–	E, F	Pančeva oka	FÜHRER (1894)
1896	20	–	–		Pančeva oka	REISER & FÜHRER (1896)
1965	21	–	–	H	Pančeva oka	IVANOVIĆ (1970)
1967	30	–	–		–	TERRASSE & TOILLARD (1967)
1972	20	16 – 18	0.8 – 0.9		Pančeva oka	VIZI (1975)
1973	24	18	0.7		Pančeva oka	VIZI (1975)
1974*	16	0	0.0	P	Pančeva oka	VIZI (1975)
1975	29	11	0.4		Crni žar	VIZI (1979)
1977	52	46	0.9		Crni žar	VIZI (1979)
1978*	–	0	0.0	F	Crni žar	VIZI (1979)
1979	–	3	?		–	VIZI (1979)
1983	11	6	0.5		Crni žar, Pančeva oka	O. VIZI
1984	11	5	0.4		Crni žar, Pančeva oka	O. VIZI
1986	8	9	1.1		Crni žar	O. VIZI
1987	14	19	1.4		Crni žar	O. VIZI
1989	29	7	0.2		Crni žar	O. VIZI
1990*	21	0	0.0	G	Crni žar	O. VIZI
1991	7	2	0.3	T	Grmožur	VIZI (1991 & 1995B)
1992	15	11	0.7	T	Grmožur	VIZI (1995B)
2002	5	2	0.4		Pančeva oka	VIZI (2003)
2003	7	10	1.4		Pančeva oka	this work / to delo
Average (SD)	19.0 (±11.7)	9.8 (±11.2)				

pairs, followed by two fledged young, were seen at the colony in Pančeva oka. At the same place, during two visits in 2003, seven pairs with 10 fledged young were recorded only 20 m away from the nesting rafts, which were set there according to PERENNOU *et al.* (2001) (Table 2).

3.3. Nesting ecology

Dalmatian Pelicans have bred on three ecologically different sites on Skadar Lake. The first and most frequently occupied nesting locality is Pančeva oka. Pančeva oka (meaning “Pelican’s springs” in local language) is a vast complex of dead and live flooding vegetation that has formed up to 11 m deep layers of

peat-moss. It consists of floating peat islands accessible only with difficulty, freshwater pools, and thick *Salix* vegetation. Among other vegetation found there is *Salix alba*, *S. fragilis*, *Typha angustifolia*, and *T. latifolia*. The pelican colony is situated on a floating island of peat on the southern edge of the Pančeva oka complex and is surrounded by large colonies of Cormorants *Phalacrocorax carbo*, Pygmy Cormorants *Ph. pygmeus*, Little Egrets *Egretta garzetta* and Squacco Herons *Ardeola ralloides*. The Pelican colony is situated in the basin, not far from the open water.

The second breeding site was in Crni žar. The area covers a few km² and lies to the south of Pančeva oka. It is a complex of mostly live floating vegetation formed mainly by *Nuphar luteum*, *Nymphaea alba*, *Phragmites australis* and *Trapa natans*. Numerous small islands are formed by dead vegetation and peat. The larger islands were also formed from *Salix alba* and *S. fragilis*. The pelican colony was situated on an island of dead vegetation, surrounded by a colony of Common *Sterna hirundo* and Whiskered Terns *Chlidonias hybridus* and a few other water-bird species.

The third locality where pelicans were found breeding in 1991 and 1992 is Grmožur island. This rocky island is found close to the north-west shore of the lake, near Virpazar. The island is a few hundred

square metres in area. Vegetation, present mainly on the highest points of the island, consisted of a few *Ficus carica*, *Punica granatum* and *Vitex agnus-castis* plants. Pelicans' nests were situated close to the water, only a few metres from the shore.

4. Discussion

Historical data and recent observations of Dalmatian Pelicans at Skadar Lake show large changes in population numbers. The average breeding population per year is 19 pairs, making it one of the smallest colonies in the Western Palearctic. Regardless of its small size, the species' population has survived more than 100 years in the area. The absence of nesting was recorded only between 1993 and 2001, most probably due to the increased boat traffic and other intensive human disturbance. With diminution of human activities, the pelican nesting population started to breed again, but still in a very low numbers.

Nests of pelicans on Skadar Lake were typically situated on floating islands of dead vegetation (mostly peat islets). Only in 1991 and 1992 was the rocky island used as a breeding site. The shallow freshwater lake, rich in fish, reed beds and floating water plants provides good foraging and nesting possibilities.

Table 2: Comparison of breeding habitat, food prevalence and types of threat to Dalmatian Pelican *Pelecanus crispus* during the breeding period between different breeding localities throughout the area of distribution of the species

Tabela 2: Primerjava gnezditvenega habitata, prevladujoče hrane in tipov ogrožanja kodrastega pelikana *Pelecanus crispus* v gnezditvenem obdobju med različnimi gnezditvenimi lokacijami v območju razširjenosti vrste

Locality/ lokaliteta	Habitat / habitat	Food / hrana	Threats / tipi ogrožanja	Source / vir
Skadar (Montenegro)	Peat and reed rafts, solid rocky island	<i>Scardinius erythrophthalmus</i> , <i>Rutilus rubilio</i> , <i>Anguilla anguilla</i> , <i>Carassius auratus gibellio</i>	Flood, hail, human disturbance, predators (<i>Corvus corone cornix</i>)	VIZI (1981)
Mikri Prespa (Greece)	Reedbeds, reed islets, artificial islands	<i>Alburnus alburnus</i> , <i>Rutilus rubilio</i>	Flood, degradation and erosion of reed islets, human disturbance, predators (<i>Vulpes vulpes</i>)	CRIVELLI (1987), CATSADORAKIS <i>et al.</i> (1996), CATSADORAKIS & CRIVELLI (2001)
Amvrakikos (Greece)	?	<i>Anguilla anguilla</i>	?	CRIVELLI (1987)
Karavasta (Albania)	Reedbeds, reed islets, artificial islands	<i>Anguilla anguilla</i> , <i>Mugil</i> spp., <i>Gobius bucchichi</i> , <i>Belone belone</i>	Hunting, collecting chicks, destruction of nests, human disturbance, flood	PEJA <i>et al.</i> (1996), BINO (2000)

(continuation of table 2 / nadaljevanje tabele 2)

Locality/ lokaliteta	Habitat / habitat	Food / hrana	Threats / tipi ogrožanja	Source / vir
Tengiz- Kurgal'džin Lakes (Kazakhstan)	Steppe covered sandy/silty islands	<i>Cyprinus carpio</i> , <i>Carassius carassius</i> , <i>C. auratus</i> , <i>Rutilus sp.</i> , <i>Perca fluviatilis</i> , <i>Esox lucius</i> , <i>Tinca tinca</i> , <i>Gasterosteus</i> spp.	?	ANDRUSENKO (1994)
Sarakamyš (Turkmenistan)	Flat muddy/sandy islands with or without sparse vegetation, temporary islands	<i>Cyprinus carpio</i> , <i>Stizostedion lucioperca</i> , <i>Silurus glanis</i> , <i>Abramis brama</i> , <i>Pelecus cultratus</i> , <i>Aspius aspius</i> , <i>Barbus barbus</i>	Flood, predators (<i>Canis lupus</i> , <i>Sus scrofa</i>)	POSLAVSKI & CHERNOV (1994)
Ili Delta (Kazakhstan)	Sandy islands, rocky island, rafts of reed	?	Predators (<i>Corvus corone cornix</i> , <i>Larus cachinnans</i> , <i>Silurus glanis</i>), reed cutting, drying of lakes, fire, poaching, pesticide intoxication, lack of food	ŽATKANBAEV (1994A & B), B. RUBINIČ
Caspian Sea, Volga Delta (Russia)	Reed beds, sandy islands	<i>Cyprinus carpio</i> , <i>Abramis brama</i> , <i>Perca fluviatilis</i> , <i>Rutilus rutilus</i> , <i>Blicca bjoerkna</i> , <i>Neogobius</i> spp., <i>Cobitis caspia</i>	Flood, predators (<i>Sus scrofa</i> , <i>Vulpes vulpes</i> , <i>Corvus corone cornix</i> , <i>Larus cachinnans</i>), human disturbance	KRIVONOSOV <i>et al.</i> (1994), ROMAŠOVA (1994)
N Kazakhstan	Poaceae, Chaenopodiaceae, reed, Tamarix	<i>Carassius carassius</i> , <i>C. syratuyus</i>	Lack of food, predators (<i>Larus cachinnans</i> , <i>L. ichthyaetus</i> , <i>Aquila heliaca</i> , <i>A. chrysaetos</i> , <i>Haliaeetus albicilla</i> , <i>Canis lupus</i>)	GORDIENKO (1994)
S Tyumen (Russia)	Dead floating vegetation, reed beds	<i>Carassius carassius</i>	Shooting of breeding birds	AZAROV (1994)
Saltaim-Tengiz Lakes (Russia)	Dead floating vegetation, silty sand-bar	?	Predators (<i>Larus</i> spp.)	BLINOV <i>et al.</i> (1994)
Alakol' Lake (Kazakhstan)	Reed rafts, rocky island	?	Shooting, human disturbance, drying, fires	ANNEKOV (1994), N.N.BEREZOVIKOV (<i>pers comm.</i>)
Manych, Manych Gudilo lakes, Kalmykija (Russia)	Temporary islands, floating reed	<i>Cyprinus carpio</i> , <i>Stizostedion</i> spp., <i>Pungitius pungitius</i>	Human disturbance, flood	KAZAKOV <i>et al.</i> (1994), LINKOV (1994)

Table 3: Breeding success (fledglings per pair) of Dalmatian Pelicans *Pelecanus crispus* on different breeding localities**Tabela 3:** Gnezditveni uspeh (število speljanih mladičev na par) kodrastega pelikana *Pelecanus crispus* na različnih gnezditvenih lokalitetah

Locality / lokaliteta	Years of research/ leta raziskav	Breeding success/ gnezditveni uspeh	Source / vir
Skadar (Montenegro)	1972 – 2003	0.0 – 1.4	this work / to delo
Mikri Prespa (Greece)	?	1.0 – 1.2	CRIVELLI (1987)
Amvrakikos (Greece)	?	0.6 – 0.9	CRIVELLI (1987)
Karavasta (Albania)	1992 – 1993	0.5 – 0.8	PEJA <i>et al.</i> (1996)
Camalti Tuzlasi (Turkey)	1982 – 1993	0.0 – 0.8	PEJA <i>et al.</i> (1996)
Tengiz-Kurgal'džin (Kazakhstan)	1974 – 1990	0.2 – 1.4	ANDRUSENKO (1994)
Volga Delta (Russia)	1974 – 1990	0.0 – 1.1	KRIVONOSOV <i>et al.</i> (1994)
N Kazakhstan	1983 – 1989	0.8 – 1.1	GORDIENKO (1994)
Bolšoe Beloe Lake (Russia)	1982 – 1987	0.7 – 1.6	AZAROV (1994)
Tundrovo Lake (Russia)	1986 – 1987	1.2 – 1.8	AZAROV (1994)
Omelina Lake (Russia)	1990	1.2	AZAROV (1994)

Similar nesting requirements have been recorded all over the species' range (Table 2). Additional feeding sites used by pelicans are in the Bojana Delta, Ulcinj salt pans and Šasko Lake.

The recorded breeding success of 0.0 – 1.4 successfully fledged young per pair in the period 1972 – 2003 is similar to the range of breeding success in other Dalmatian Pelican colonies (Table 3). However, the Dalmatian Pelican at Skadar Lake is endangered, as only a few pairs have survived, most probably quite old birds. It will take several years with good breeding success to close the age gap in the population.

Dalmatian Pelican's food at Skadar Lake consisted of the commonest fish species of the area, *Scardinius erythrophthalmus*, *Rutilus rubilio*, *Anguilla anguilla*, and *Carassius auratus gibelio* (VIZI 1981, own data), similarly to that recorded by other authors in different areas (Table 2).

The types of disturbance at Skadar Lake are similar to those recorded at other breeding places (Table 2). The most common cause of destruction of eggs and young was flooding. Other causes were human disturbance and predation by aerial predators.

Natural disturbance factors have caused lower breeding success, substitutive or late broods, and nest site changes between nesting seasons (Table 3). In the years of most intense human disturbance between 1993 and 2001 no breeding was recorded on the Lake. It may well be, therefore, that the most important factor of disturbance, limiting nesting pair numbers, is the above mentioned human disturbance. During the last few years, the National Park earned money by selling hunting licenses. As the hunting season in Montenegro on waterfowl starts at 15 Aug and ends not before 15 Mar for Garganey *Anas querquedula*, all water birds are extremely shy.

We suppose that a total lack of effective protection is a reason for the low number of breeding Dalmatian Pelicans at Skadar Lake. For example, at the same time as the decrease in the Skadar population, the population at the smaller but ecologically similar Mikri Prespa Lake increased significantly. Effective protection at Skadar Lake would therefore not only provide more stable conditions for the nesting pelicans but very likely also result in an increase of the breeding population, like that on the nearby Mikri Prespa Lake in Greece.

The Albanian proposal to declare Skadar Lake and the Bojana (Albanian Buna) River as a Ramsar site and as a protected area consisting of different categories of protected areas is a great step forward in conservation efforts on Skadar Lake. Only a clear zoning concept on Lake Skadar and a hunting ban at the most important waterfowl sites in Montenegro and Albania could, however, save the extremely small population of the Dalmatian Pelican (see also SCHNEIDER-JACOBY 2000 & 2001).

Acknowledgement: We would like to thank to Rockefeller Brothers Fund and DEG for supporting the flight over Lake Skadar and the Bojana–Buna Delta in 2002, UNDP Office in Podgorica for financial support and for assistance for rafts and monitoring of Dalmatian Pelicans on Skadar Lake.

5. Povzetek

Predstavljena je zgodovina gnezdenja kodrastega pelikana *Pelecanus crispus* na Skadarskem jezeru. Prvič je bilo gnezdenje pelikanov na tem največjem balkanskem jezeru ugotovljeno leta 1894. Za njihovo gnezdenje na jezeru med letoma 1896 in 1965 ni literaturnih podatkov. Intenzivnejše raziskave so se začele leta 1972 in trajajo še danes. Maksimalno velikost je gnezdeča populacija pelikanov dosegla v letu 1977, in sicer 52 parov. Kodrasti pelikani so gnezdili na Skadarskem jezeru na plavajočih otočkih šotnega mahu, z izjemo dveh let, ko so gnezdili na skalnatem otočku. Večina zbranih podatkov se nanaša na ornitološki rezervat Pančeva oka. Kljub temu da je sredozemska populacija kodrastega pelikana stabilna, so skadarski pelikani zelo ogroženi. V zadnjih nekaj letih pa je vendarle zaznati trend počasne rasti gnezdeče populacije. Glavna omejitvena dejavnika gnezditvenega uspeha kodrastih pelikanov na Skadarskem jezeru sta poplavljanje gnezd in vznemirjanje s strani človeka.

6. References

- ANDRUSENKO, N.N. (1994): Ecology of *Pelecanus crispus* in the Tengiz-Kurgaldzhin depression. pp. 69–75 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- ANNEKOV, B.P. (1994): Trends in the breeding distribution of *Pelecanus onocrotalus* and *P. crispus* on the Alakol' Lakes, Kazakhstan. pp. 64–66 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- AZAROV, V.I. (1994): *Pelecanus crispus* in the south of Tyumen region. pp. 51–59 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- BINO, T. (2000): Action plan for the Dalmatian pelican in Albania. – Museum of Natural Sciences, Tirana.
- BIRDLIFE INTERNATIONAL (2001): Threatened birds of Asia: the BirdLife International Red Data Book. – BirdLife International, Cambridge.
- BIRDLIFE INTERNATIONAL (2002): European bird populations: estimates and trends. – BirdLife International (BirdLife Conservation Series No.10), Cambridge.
- BLINOV, V.N., BLINOVA, T.K. & YAKIMENKO, V.V. (1994): *Pelecanus crispus* on the Saltaim-Tengiz lakes in Omsk Region. pp. 59–60 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- BRUSINA, S. (1891): Beitrag zur Ornithologie von Cattaro und Montenegro. – Ornithol. Jahrb. 2(1): 1–27.
- BURIĆ, M. & RADULOVIĆ, M. (1983): Skadarsko jezero – najveći hidrografski objekat kopna SR Crne Gore. – Crnogorska Akademija nauka i umjetnosti. Radovi sa Simpozijuma 9: 37–44.
- CATSADORAKIS, G. & CRIVELLI, A. (2001): Nesting Habitat Characteristic and Breeding Performance of Dalmatian Pelicans in Lake Mikri Prespa, NW Greece. – Waterbirds 24(3): 386–393.
- CATSADORAKIS, G., MALAKOU, M. & CRIVELLI, A. (1996): The Effects of the 1989/1990 drought on the Colonial Waterbirds Nesting at Lake Mikri Prespa, Greece, with Special Emphasis on Pelicans. Ecology, Conservation and management of colonial waterbirds in the Mediterranean region. – Colonial waterbirds, special publication 19: 207–218.
- CRIVELLI, A.J. (1987): The ecology and behaviour of the Dalmatian Pelican, *Pelecanus crispus* Bruch, a world-endangered species. – Commission of the European Communities and Station Biologique de la Tour du Valat, Arles.
- CRIVELLI, A., CATSADORAKIS, G., HATZILACOU, D., HULEA, D., MALAKOU, M., MARINOV, M., MICHEV, T., NAZIRIDES, D., PEJA, N., SARIGUL, G. & SIKI, M. (2000): Status and population development of Great White Pelican *Pelecanus onocrotalus* and Dalmatian Pelican *Pelecanus crispus* breeding in the Palearctic. – Monitoring and Conservation of Birds, Mammals and Sea Turtles of the Mediterranean and Black Sea. Proceedings of the 5th Medvaravis Symposium Gozo, Environment Protection Department Malta, Malta.
- DHORA, D. & SAVELJIĆ, D. (2001): Bibliography and check list on Shkodra/Skadar lake. Section VII – Ornithology – Birds. – Promotion of networks and exchanges in the countries of the South Eastern Europe. REC & SDC, Podgorica & Shkodra: 52–65.
- FÜHRER, L. (1894): Jedna godina ornitološkog izučavanja u Crnoj Gori. – Glasnik Zemaljskog muzeja u Bosni i Hercegovini 7: 241–258.

- GORDIENKO, N.S. (1994): Pelicans in northern Kazakhstan. pp. 45–49 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- GRIMMETT, R.F.A. & JONES, T.A. (1989): Important Bird Areas in Europe (IBA). – ICBP Technical public 9, International Council for Bird Preservation, Cambridge.
- HOFFMANN, L., HAFNER, H. & SALATHE, T. (1996): The Contribution of Colonial Waterbird Research to Wetland Conservation in the Mediterranean Region, Ecology, Conservation and management of colonial waterbirds in the Mediterranean region. – Colonial waterbirds, special publication 19: 12–30.
- IVANOVIĆ, B. (1970): Neka ornitološka zapažanja na Skadarskom jezeru. – *Larus* 21/22: 137–160.
- KAZAKOV, B.A., KHOKHLOV, A.N., PISHVANOV, Y.V. & YEMTYL, M.K. (1994): Pelicans on wetlands of Predkavkaz'e region (north of the Caucasus). pp. 9–17 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- KRIVONOSOV, G.A., RUSANOV, G.M. & GAVRILOV, N.N. (1994): Pelicans on the northern Caspian Sea. pp. 25–32 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- LINKOV, A.B. (1994): *Pelecanus onocrotalus* and *P. crispus* in Kalmykia. pp. 20–25 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- PEJA, N., SARIGUL, G., SIKI, M. & CRIVELLI, A. (1996): The Dalmatian Pelican, *Pelecanus crispus*, Nesting in Mediterranean Lagoon in Albania and Turkey. Ecology, Conservation and management of colonial waterbirds in the Mediterranean region. – Colonial waterbirds, special publication 19: 184–189.
- PERENNOU, C., SADOUL, N., PINEAU, O., JOHNSON, A. & HAFNER, H. (2000): Management of nest sites for colonial waterbirds. – Conservation of Mediterranean Wetlands, 4. Tour du Valat, Arles.
- POSLAVSKI, A.N. & CHERNOV, Y.Y. (1994): Spring/summer sightings and breeding of *Pelecanus crispus* and *P. onocrotalus* in Turkmenia. pp. 79–91 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- REISER, O. & FÜHRER, L. (1896): Materialien zu einer Ornithologie der Balkanica, 4 Montenegro. – Carl Gerold's Sohn, Wien.
- ROMAŠOVA, A.T. (1994): Breeding biology and feeding ecology of *Pelecanus crispus* and *P. onocrotalus* in the northern Caspian. pp. 96–99 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- SCHNEIDER-JACOBY, M. (2000): Freizeit und Entenschutz am Wasser – Sicherung der Brut- und Rastplätze von Kolbenenten und Moorenten in Deutschland. – Schriftenreihe Landschaftspflege Naturschutz 60: 81–93.
- SCHNEIDER-JACOBY, M. (2001): Auswirkung der Jagd auf Wasservogel und die Bedeutung von Ruhezeiten. – ANL, Laufener Seminarbeiträge „Störungsökologie“ 1/01: 49–61.
- TERASSE, M. & TOILLARD, B. (1967): Compte-rendu d'un voyage ornithologique en Yougoslavie (27.6.67 au 1.8.67). *unpubl. data*.
- VASIĆ, V., PUZOVIĆ, S. & VIZI, O. (1992): Capacities of Skadar lake in relation to European regional populations of water birds. – Glasnik Republičkog zavoda za zaštitu prirode Prirodnjačkog muzeja Podgorica 25: 53–62.
- VASIĆ, V. & VIZI, O. (2000): Rezultati zimskog prebrojavanja ptica na Skadarskom jezeru. – Republički zavod za zaštitu prirode Podgorica, Podgorica.
- VIZI, O. (1975): O gnezdenju pelikana kudravog (*Pelecanus crispus* Bruch 1832) na Skadarskom jezeru i problem njegove zaštite. – Glasnik Republičkog zavoda za zaštitu prirode Prirodnjačkog muzeja 8: 5–13.
- VIZI, O. (1979): New data on breeding of Dalmatian Pelican (*Pelecanus crispus* Bruch, 1832) on Skadar Lake. – Glasnik Republičkog zavoda za zaštitu prirode Prirodnjačkog muzeja 12: 125–139.
- VIZI, O. (1981): Ornithology of Skadar Lake. p.p. 419–424 – The biota and limnology of Skadar Lake. Univerzitet Veljko Vlahovic, Institut za medicinska istraživanja u SRCG, Biološki zavod Titograd & Smithsonian Institution Washington, D.C.
- VIZI, O. (1991): Ornitološke odlike ostrvceta Grmožur na Skadarskom jezeru. – Glasnik Republičkog zavoda za zaštitu prirode Prirodnjačkog muzeja 24: 13–28.
- VIZI, O. (1995A): Zaštita Skadarskog jezera od zagađenja. – Naučni skup “Prirodne vrijednosti i zaštita Skadarskog jezera, CANU 44: 31–37.
- VIZI, O. (1995B): Uticaj povećanog uznemiravanja na neke ugrožene vrste ptica na Skadarskom jezeru. – Naučni skup “Prirodne vrijednosti i zaštita Skadarskog jezera, CANU 44: 321–330.
- VIZI, O. (2003): Ornitološki doživljaji sa Skadarskog jezera. – *Natura Montenegrina* 2 (I-IX).
- WETLANDS INTERNATIONAL (2002): Waterbird Population Estimates, Third Edition. – Wetlands International Global series 12, Wageningen.
- ŽATKANBAEV, A.Z. (1994A): Present status of pelicans in the Ili Delta, Kazakhstan. pp. 60–64 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.
- ŽATKANBAEV, A.Z. (1994B): Some aspects of the ecology of *Pelecanus crispus* and *P. onocrotalus* in the Ili Delta, Kazakhstan. pp. 91–96 In: CRIVELLI, A.J., KRIVENKO, V.G. & VINOGRADOV, V.G. (eds.): Pelicans in the former USSR. – IWRB Publ. 27, Gloucester.

Arrived / Prispelo: 5.10.2004

Accepted / Sprejeto: 7.3.2005

AKCIJSKI NAČRT ZA VARSTVO RUŠEVCA *Tetrao tetrrix* NA OBMOČJU KOŠENJAKA (SSV SLOVENIJA)

Action plan for the conservation of Black Grouse *Tetrao tetrrix* in the area of Mt. Košenjak (NNE Slovenia)

JURIJ GULIČ

Zavod RS za varstvo narave OE Maribor, Pobreška c. 20/II, SI-2000 Maribor, Slovenija, e-mail: jurij.gulic@zrsvn.si

Kongres ornitologov Slovenije ob 25. obletnici DOPPS

Slovene Ornithologists' Congress at the 25th anniversary of DOPPS – BirdLife Slovenia

A decline in numbers of the Black Grouse *Tetrao tetrrix* all over Europe was noted as early as at the end of the 19th century, whereas a truly dramatic decrease in its population became evident after 1970. Slovenia was no exception in this respect; the available data indicate a characteristic decrease and fragmentation of its population in the entire country. Due to the fact that in Slovenia the Black Grouse reaches the southern limit of its distribution, it can be expected that owing to the border effect its habitat will continue to decrease and that the heaviest losses will be suffered by the bird's subpopulations in the mountainous ranges of medium height. The Black Grouse's habitat is presumed to be shrinking primarily as a result of gradually overgrown montane grasslands, a rise in the upper treeline, degradation of its habitat (tourism, traffic, etc.) and the ever-increasing pressures by its predators. The numbers of Black Grouse in Slovenia are estimated at 2300 to 2600 individuals, 1% of which inhabit the area of Mt. Košenjak. The proposed action plan includes certain measures to be taken in the area (with overgrowing grasslands and forests), monitoring and further study of the species, informing of the people taking part in the action plan and the public itself, and measures that are to affect the population of its predators. The area, in which the action plan is to be implemented in the 2005 – 2011 period, covers 26 ha.

Key words: Black Grouse, *Tetrao tetrrix*, action plan, Košenjak, land use, Slovenia

Ključne besede: ruševca, *Tetrao tetrrix*, akcijski načrt, Košenjak, raba tal, Slovenija

1. Uvod

Koconoge kure Tetraonidae so dober kazalec spreminjanja in ohranjenosti krajine. Ker veljajo za izrazite specialiste, uveljavljajo svojo ozko ekološko nišo le v ugodnih bivanjskih razmerah (INGOLD 2005). V pričujočem delu bom obravnaval le ruševca *Tetrao tetrrix*. Ruševca naseljuje celoten pas palearktičnih gozdov, večinoma v borealnih, subarktičnih in alpskih območjih. Lokalno se pojavlja v coni step. Tako je razširjen v borealnih in subarktičnih gozdovih severne Evrope, osrednje in severne Rusije. Proti zahodu in jugu Evrope se razdeli celovito območje v izolirane skupine (KLAUS *et al.* 1990). Izolirane populacije živijo v Alpah ter v nekaterih gorstvih Evrope, v manjšem deležu pa

po resavah osrednje Evrope (CRAMP 1994, AHRENS & NÖSEL 1998).

Poselitveno območje ruševca nominantne podvrste *Tetrao tetrrix tetrrix* v Sloveniji danes leži v skrajnem južnem delu areala razširjenosti. Pri nas se njegovo območje razteza nekako med 1500 in 1800 m n.v. (SMILJIČ 1995); na Pohorju in Kobanskem nad 1400 m n.v. (GULIČ 2002). Delež, ki zajema prostor nad 1500 m n.v., pokriva 2,5% slovenskega ozemlja (PERKO 2001).

Najvišje je razširjen v Julijcih, Karavankah, sledijo Savinjske Alpe, na vzhodu pa naseljuje vrhove Pohorja in skrajne severne grebene Kobanskega. Slovenska populacija je glede mejnega areala razširjenosti izpostavljena večjim nihanjem številčnosti zaradi robnega efekta. Problem je tudi oddaljenost od

preostalih populacij (»hot stones«), kar lahko pripelje do robnega izginjanja vrste (BAUER & KALCHREUTER 1984).

Številčno stanje ruševčeve populacije na območju Slovenije za obdobje 2003/04 je bilo ocenjeno na 1100 in 1300 samcev. Zgornja meja oziroma dodatnih 200 osebkov verjetno ponazarja nepojoče juvenilne samce. Kot skupno število vseh osebkov ruševca lahko pri spolnem razmerju 1:1,1 v prid samicam opredelimo nekje med 1100 samcev + 1,1 x 1100 in 1300 + 1,1 x 1100, kar pomeni med 2300 in 2600 osebkov (ŠTEVILČNO STANJE RUŠEVCA V SLOVENIJI 2004). V Zimskem ornitološkem atlasu Slovenije (SOVINC 1994) je navedena ocena 1500 do 2500 osebkov. V Ornitološkem atlasu Slovenije pa je ruševac opredeljen kot redko razširjena vrsta z reproduktivno številčnostjo med 500 in 1000 osebki (GEISTER 1995).

Glede na dejstvo, da je ruševac ena od tistih pričjih vrst, ki so ogrožene v evropskem merilu, je njegovo aktivno varstvo prek varstvenih organizacij kajpak izjemno pomembno. Najdemo ga v Prilogi I evropske Direktive o ohranjanju prostoživečih vrst ptic (Council Directive 79/409/ EEC, OJ C 139, 13.6.1977), hkrati pa tudi v Prilogi II/2, ki dovoljuje odstrel zunaj gnezditvene sezone (v osmih državah članic Evropske unije), in v Prilogi III/2, ki dovoljuje shranjevanje za prodajo, transport in prodajo živih in mrtvih ptic v vseh oblikah in izpeljavah. Vrsta se poleg tega pojavlja v Prilogi III Bernske konvencije, bolj znane kot Konvencija o varstvu prostoživečega evropskega rastlinstva in živalstva ter njenih naravnih življenjskih prostorov (URADNI LIST RS 1999). Konvencija poziva podpisnike, naj zagotovijo ruševčev varstveni status in da je vsaka izraba (npr. odlov) regulirana tako, da ni prizadeta njegova populacija oziroma da niso povzročene resne motnje. Uredba o zavarovanju ogroženih živalskih vrst (URADNI LIST RS 1993) že od leta 1993 med drugim prepoveduje lov in ubijanje vseh vrst koconogih kur v Sloveniji. Ruševac je po novem Zakonu o divjadi in lovstvu ZDLov-1 (URADNI LIST RS 2004A) ter na podlagi Uredbe o določitvi divjadi in lovnih dob (URADNI LIST RS 2004B) izvzet iz lova.

Cilji akcijskega načrta so doseči ugodno stanje ohranjenosti ruševčeve populacije in habitata na območju Košenjaka. Za ključne kazalce naj bi šteli:

- stabilnost delne populacije ter njena rast v daljšem časovnem obdobju,
- stabilnost distribucijskih parametrov,
- vzdrževanje ali povišanje kakovosti in obsega habitata vrste,
- izboljšanje statusa, preučevanja in varovanja vrste,
- povečati nivo raziskanosti lokalne populacije in izboljšati varstveni status vrste,

- posvetiti pozornost upravljanju prostora in zmanjšanju vpliva omejujočih dejavnikov,
- zagotoviti zadostno evidentiranje sprememb v številčnosti vrste.

Za ohranitev ruševca na območju Košenjaka si že prek 20 let prizadeva lovska družina Dravograd. Pričujoči akcijski načrt naj bi jim bil nekakšna opora za strokovno opravljanje zadane naloge. Za uspešno izvedbo načrta bo potrebno konstruktivno sodelovanje z Zavodom za gozdove Slovenije, Območna enota Slovenj Gradec, lastniki zemljišč in Zavodom RS za varstvo narave.

2. Predstavitev območja akcijskega načrta

2.1. Opis širšega območja

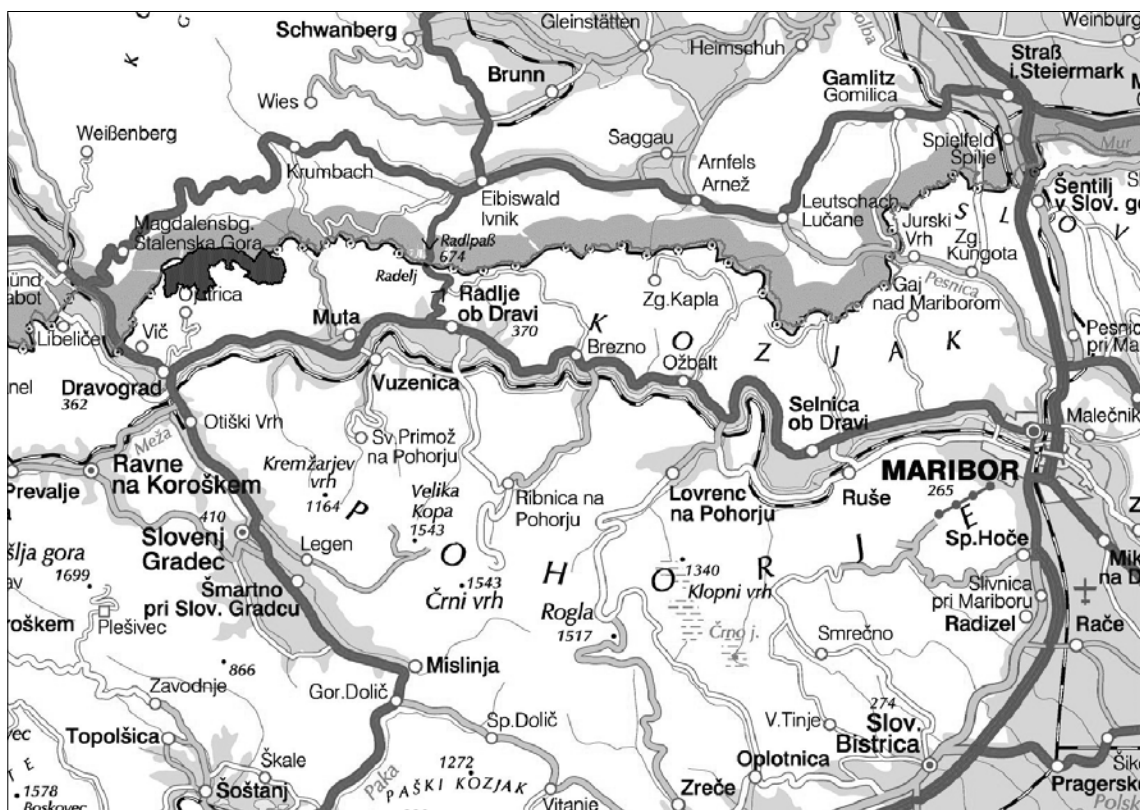
Območje obsega del alpskega hribovja v vzhodnem delu alpskega prostora in leži znotraj regije, ki jo sestavljajo Pohorje, Strojna in Kozjak (slika 1). V širšem smislu je to območje del vzhodnih Alp in se proti severu navezuje na pogorje Golice (2140 m n.v.) v sosednji Avstriji (PERKO & OROŽEN ADAMIČ 1998). Severno od reke Drave pri Dravogradu se vzpenjajo strma pobočja Košenjaka (1522 m n.v.), ki je obenem najvišji vrh Kozjaka. Za celotno območje je značilna silikatna geološka podlaga, ki omogoča rast kisloljubnih bukovih gozdov, ter široko razvejen sistem površinskih voda s številnimi izviri in mokrišči.

Pokrajina je razmeroma redko naseljena. Prevladuje poselitev v obliki celkov in raztresenih zaselkov, kot so Goriški vrh, Ojstrica, Sv. Duh, Velka, Pernice, Mlake in Kozji vrh nad Dravogradom. Prevladujoča gospodarska raba je gozdarstvo, v manjši meri pa tudi kmetijstvo, predvsem travništvo, pašništvo in sadjarstvo (JEŽ 2003). V geološki podlagi prevladujejo blestniki s prehodi v gnajs in diabaz (MIČIČ & ŽNIDARČIČ 1976).

Gre za ekološko pomembno območje Košenjak EPO 43500 (URADNI LIST RS 2004C), naravna vrednota Košenjak – Kozji vrh (URADNI LIST RS 2004D), ki je predlagano za zavarovanje kot krajinski park Košenjak – Velka (URADNI LIST RS 2004E).

2.2. Ornitološki pomen

Območje je pomembno za divjega petelina *Tetrao urogallus*, ki ima na območju Košenjaka in Kozjega vrha šest aktivnih rastišč. Stabilno stanje subpopulacije odseva uspešnost večnamenskega gozdnogospodarskega načrtovanja. Ob popisu rastišč divjega petelina v letu 2003 je bilo zabeleženih 23 aktivnih samcev (LISIČNIK 2003). Tukaj se pojavljata tudi ruševac (4 aktivna rastišča, 5 – 10 aktivnih samcev)



Slika 1: Lega območja akcijskega načrta za varstvo ruševca *Tetrao tetrix* v prostoru. Predvidene akcije se bodo uresničevale le na določenem delu predlaganega območja, zlasti v njegovem severnem delu (šrafura ponazarja širše območje akcijskega načrta za ruševca; vir za kartografsko osnovo: Topografska karta Slovenije 1:500.000, © Geodetska uprava Republike Slovenije).

Figure 1: The area covered by the action plan for the conservation of Black Grouse *Tetrao tetrix*. The planned activities are to be implemented only in a specific part of the proposed area, particularly in its northern section (with the hatching indicating the broader area of the action plan; cartographic source: Topographical map of Slovenia 1:500,000, © Geodetic Administration of the Republic of Slovenia).

in gozdni jereb *Bonasa bonasia* (GULIČ 2002, LISIČNIK 2003). Kot kažejo novejša opazovanja, je gozdni jereb, katerega številčnost v Sloveniji v zadnjih letih sicer pada (MIHELIČ 2004), tukaj še razmeroma številen (BOŽIČ 2003, L. BOŽIČ *ustno*). Na območju Košenjaka živijo izmed vrst iz Priloge I Direktive o pticah še črna žolna *Dryocopus martius*, pivka *Picus canus*, triprsti detel *Picoides tridactylus* in mali skovik *Glaucidium passerinum*, občasni obiskovalec pa je planinski orel *Aquila chrysaetos* (LISIČNIK 2003, A. LISIČNIK *ustno*).

Pojavljanje ruševca na Košenjaku je verjetno antropogenega izvora, kar lahko povežemo s strukturo habitata na sosednjem Pohorju (GULIČ 2002 & 2003, GULIČ *et al.* 2003). Ugodne razmere za vrsto je treba pripisati intenzivnemu izkoriščanju gozdov in tradicionalnemu načinu rabe prostora (novinarjenje,

paša živine) od 17. st. pa vse do sredine 20. stoletja. Že stara ledinska imena za Košenjak, ki so ga imenovali Kokošnjak (KARTOGRAFSKI IZVOR 1:50.000, SLOVENJ GRADEC LIST 3, 1956) ter Hühnerberg, Hühnerkogel in Hühnerhgel (ARHIV REPUBLIKE SLOVENIJE AS 178), pričajo o kar dolgotrajnem pojavljanju koconogih kur na tem območju. Ruševčev habitat na območju Košenjaka leži na stičišču dveh subpopulacij, in sicer tistih na Pohorju in avstrijski Golici. Populacija ruševca na Košenjaku in Golici, skupaj s populacijo na Pohorju, leži na JV meji areala vrste v Evropi. Med subpopulacijami ruševca na Košenjaku, Golici, Uršlji gori in zahodnem Pohorju obstajajo migracijske povezave, ki so odločilnega pomena za ruševčeve preživetje na območju SPA Pohorje.

2.3. Predlagano območje akcijskega načrta

Košenjake je gorski vrh (1522 m n.v.), ki se strmo dviga severno od Drave in Dravograda ter se naslanja na široko gorsko gmoto avstrijske Golice kot njen južni odrastek. Od 2140 m visoke Golice ga loči pas nižjega sveta ob zgornjem toku Bistrice. Od kopastega vrha, ki deloma sega tudi na avstrijsko ozemlje, se cepijo trije glavni grebeni, ki se strmo spuščajo v Dravsko dolino: Goriški vrh na zahodu, Ojstrica v sredini in Kozji vrh na vzhodu. Za vzhodne Alpe, ki vključujejo tudi Košenjak in Pohorje, je značilen vzhodnoalpski endemizem. Zaradi specifičnega geografskega položaja ima Košenjak značaj biološkega mostu, prek katerega potekajo naravne povezave. Značilni biotopi so gorski iglasti do mešani gozdovi na silikatih, antropogena, pretežno suha travišča na južnih pobočjih (lokalno tudi bolj vlažna travišča) na silikatih ter bukovi gozdovi v dolini Velke. Samo ovršje pokriva v glavnem sekundaren smrekov gozd, na negozdnih površinah se pojavljajo kisl travišča in submontanske (predgorske) resave (JEŽ 2003).

Predlagano območje, kjer naj bi uresničevali ukrepe za ohranjanje ugodnega stanja subpopulacije ruševca, obsega površino 965 ha (slika 2). Večinoma gre za zasmrečene gozdove tipa *Avenello flexuosae–Piceetum* (MARINČEK & ČARNI 2002), tu in tam se pojavljajo gorska travišča in resave. Na severu se predlagano območje dotika državne meje z Avstrijo, južna meja pa poteka po parcelnih mejah nad izohipso 1050 m n.v.

Lastništvo zemljišč na območju predlaganega akcijskega načrta je v večji meri zasebno (71,6%), preostali delež (28,4%) pa je v državni lasti, pri čemer gre predvsem za gozdne površine (ZGS OE SLOVENJ GRADEC 2000). Na ožjem območju ruševčevih rastišč so od štirih znanih rastištevni prostorov na zasebnem zemljišču tri rastišča.

Na ovršju Košenjaka se pojavljajo sekundarna travišča, ki se glede na habitatne tipe uvrščajo med suha volkovja in podobna kisl travišča pod gozdno mejo (koda 35.1) ter med submontanske resave z borovnico, jesensko vreso in drugim grmičevjem (koda 31.21), tu in tam pa se lahko pojavljajo še gozdne čistine z grmovno vegetacijo (koda 31.872; JOGAN *et al.* 2004). Pojavlja se še asociacija alpskega planinščka in volka *Homogyno alpinae–Nardetum* (LONČAR 2004). Iz popisov vegetacije travišč na Košenjaku se kaže večje število evtrofnih vrst, kar nakazuje prehod h gnojenim traviščem razreda *Molinio–Arrhenatheretea* (LONČAR 2004).

Območje Košenjaka je s stališča varstva biodiverzitete in zanj ključnih elementov krajine izredno pomembno ter hkrati dovolj veliko in kompleksno,

da omogoča dolgoročno ohranjanje narave brez večjih upravljaljskih ukrepov, posebej pomembno pa je tudi kot povezovalno območje, biogenetski most, ki povezuje Pohorje z osrednjim delom vzhodnih Alp (Golica). Je tudi območje evropsko pomembnih habitatnih tipov in habitatov rastlinskih in živalskih vrst (JEŽ 2003).

3. Akcijski načrt

V okviru akcijskega načrta predvidevam sledeče ukrepe oziroma akcije:

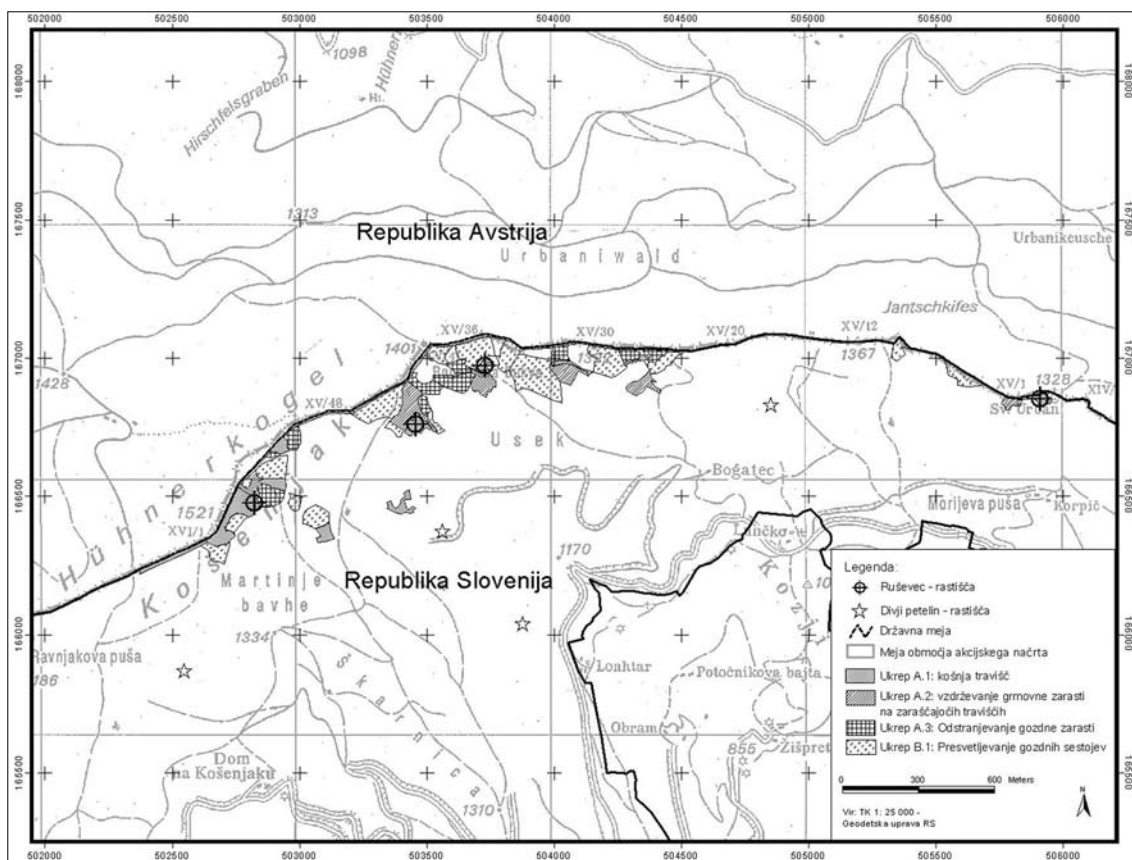
- ukrepe v prostoru (travišča v zaraščanju in gozdovi),
- ukrepe v populacijah plenilcev,
- monitoring in preučevanje vrste,
- informiranje udeležencev in javnosti.

Ruševcevi potrebuje raznolik habitat, kjer gnezdi, prenočuje in je zavarovan pred plenilci, se pari in prehranjuje. Pomembne zanj so površine z grmovno in drevesno zarastjo za prehranske potrebe v času debele snežne odeje. Ruševčev območje gibanja je veliko nekaj kvadratnih kilometrov, vendar se radij 1,5 km (700 ha) od centra rastišča šteje za najbolj kritično območje (BLACK GROUSE ACTION PLAN UK 2003).

Glavna prehrana ruševcev v spomladanskem času so socvetja šašev in muncev, poganjki grmovnih in drevesnih vrst (rušje *Pinus mugo*, jerebika *Sorbus aucuparia*, macesen *Larix decidua*, rdeči bor *Pinus sylvestris*), v jesenskem in zimskem času pa resa *Erica carnea*, borovnica *Vaccinium myrtillus*, popje bukve *Fagus sylvatica*, brin *Juniperus communis*, bor *Pinus* sp., breza *Betula* sp., vrba *Salix* sp., jelša *Alnus* sp., trepetlika *Populus tremula* (GLUTZ VON BLOTZHEIM 1992). Poleg teh vrst sta v njihovi prehrani pomembni še brusnica *Vaccinium vitis-idaea* in sleč *Rhododendron* sp. (FILACORDA *et al.* 1995).

3.1. Travišča in travišča v zaraščanju

Na območju ruševčevega življenjskega prostora na slovenski strani je glede na rabo tal (tabela 1, slika 3) v letu 2000 pod travišča uvrščeno 46,8 ha ekstenzivnih travnikov in 26,5 ha intenzivnih travišč, kar pomeni okoli 7% površin. Na ožjem območju gibanja vrste, predvsem v okolici rastišč (radij 400 metrov), je teh površin precej manj – okrog 5 ha. Če k temu prištejemo še travišča v zaraščanju, je na tem območju skupno okrog 8 ha delno razgozdenih površin. Ob upoštevanju dejanskega stanja na terenu je teh površin okoli 9 ha. Skupna površina travišč, travišč v zaraščanju oziroma mlade faze gozdnih sestojev na avstrijski strani, ki smo jih zajeli na podlagi interpretacije digitalnih



Slika 2: Predlagano območje akcijskega načrta s predvidenimi ukrepi z vrisanimi rastišči ruševca *Tetrao tetrix* in divjega petelina *Tetrao urogallus*

Figure 2: The proposed area of the action plan with measures to be taken in it, and drawn in display grounds of the Black Grouse *Tetrao tetrix* and Capercaillie *Tetrao urogallus*

ortofoto posnetkov DOF5 (leto snemanja 2000), je okoli 13 ha. Tako je na območju radija 400 metrov okrog centrov ruševčevih rastišč skupaj okrog 22 ha površin omenjene rabe tal. Na treh rastiščih ruševca je to glede na površino radijev (skupno 150 ha) okoli 15% skupne površine.

Grožnja: Zaraščanje travnišč in travnišč v zaraščanju

Funkcija travnišč in travnišč v začetni fazi zaraščanja je z vidika ekoloških zahtev vrste naslednja (KLAUS *et al.* 1990, STORCH 2000A, GULIČ 2002):

a) za optimalen rastišveni prostor v času parjenja; izbira rastišča temelji na več strategijah, na primer antipredatorski in oglašanju. Območje okoli rastišča je prostor, ki mora samcu ponujati akustične lastnosti, koridor za beg v primeru nevarnosti, ugodne prehranske razmere, prenočevanje;

b) za potrebe valjenja; kura gnezdi v gosti podrasti do višine 40 cm;

c) za zadovoljevanje prehranskih potreb v času odraščanja kebcikov (pester izbor beljakovinske prehrane, kot so mravlje Formicidae, ličinke dvokrilcev Diptera);

d) za prehranske potrebe v jesenskem in zimskem času; v jesenskem času so to borovnice, brusnice in vrese *Calluna vulgaris*, v zimskem obdobju pa popki in plodovi grmičevja in posameznih dreves (iglice bora, popki in plodovi jerebrike, macesna, brina);

e) kot skrivališče pred plenilci (lisica *Vulpes vulpes*, kuna belica *Martes foina*, kuna zlatica *M. martes*, jazbec *Meles meles*, kragulj *Accipiter gentilis*).

Kakovost, velikost in porazdelitev primernih travnišč (zaplat) so eden izmed glavnih dejavnikov, ki vplivajo na gostoto vrste (BAINES 1995).

Tabela 1: Izkaz površin rabe tal v maju 2000 na območju predlaganega akcijskega načrta (vir: MKGP 2002)

Table 1: Land-use surfaces in May 2000 in the area of the proposed action plan (source: MKGP 2002)

Raba tal / Land use	Površina/ Surface area (ha)	Delež/ Share (%)
Gozd / Forest	852,63	89,62
Ekstenzivni travniki/ Extensively farmed grassland	46,76	4,92
Intenzivni travniki/ Intensively farmed grassland	26,46	2,78
Zemljišča v zaraščanju/ Gradually overgrown land	16,98	1,79
Pozidano / Built up	7,87	0,83
Njive in vrtovi / Fields and gardens	0,62	0,06
Vode / Waters	0,01	0,00
Skupaj / Total	951,33	100,00

Ukrep A.1: Košnja travnišč

Košnja kislih travnišč in altimontanskih resav, na katerih je bilo pred časom opuščeno pridobivanje krme za živino. Obstoječa travnišča bi bilo treba kositi po prostorskem redu strukturirano, to je v presledkih po več let. Košnja naj obsega predvsem tiste dele travnišč, ki se zaraščajo z invazivnimi vrstami trav, kot so *Calamagrostis* sp., pokošeno biomaso pa je treba odstraniti. Košnjo je treba ponoviti enkrat v treh letih. Površine, ki so bogate z zeliščno plastjo borovnice, brusnice in jesenske vrese, naj se ohranjajo in izvzamejo iz košnje; okrog teh površin je priporočljiva košnja v manjših zaplatah (do 5 m²) enkrat v treh letih, dokler se površina ne zaraste z omenjenimi vrstami.

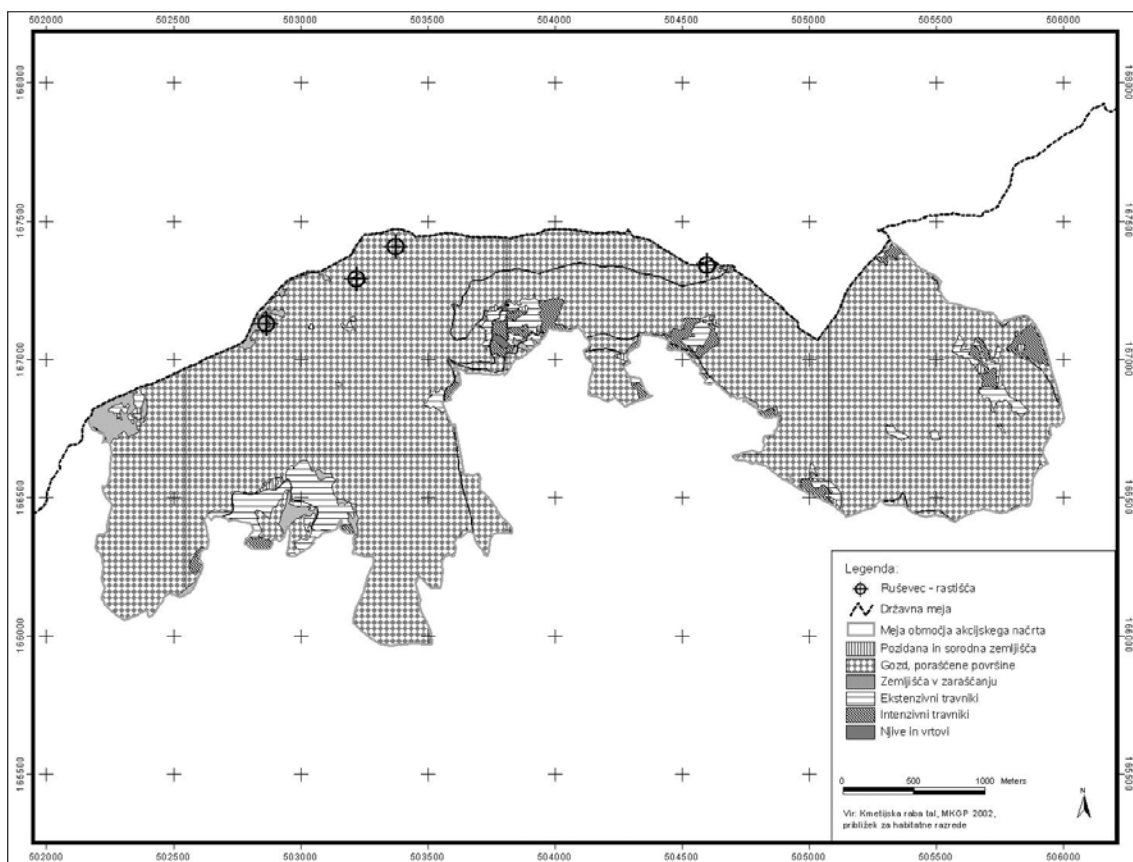
Ukrep A.2: Vzdrževanje grmovne zarasti na zaraščajočih se travniščih

Posamezne grmovne in drevesne vrste, kot so jerebika, smreka *Picea abies*, jelka, macesen, navadni brin, naj se na območju travnišč puščajo, tako kot tudi šopi omenjenih drevesnih vrst, zlasti v okolici rastišč. Drevesne vrste v fazi mladovja naj se ohranjajo kot manjše zaplate (velikosti do 50 m²), pri čemer je treba dati prednost čim bolj heterogeni porazdelitvi (nikakor ne v obliki kvadrata, ampak s čim večjimi jeziki v zaplato).

Tabela 2: Sklep krošenj in razvojne faze gozdov na območju predlaganega akcijskega načrta (PS – ŠP – posamezno do šopasto raznomerno, SK – GN – skupinsko do gnezdasto raznomerno; vir: ZGS OE SLOVENJ GRADEC 2000)

Table 2: Canopy density and development phases of forests in the area of the proposed action plan (PS – ŠP – individual to clustered uneven aged, SK – GN – joint to nest-like uneven aged; source: ZGS OE SLOVENJ GRADEC 2000)

Razvojne faze/ Development phases	Sklep krošenj / Canopy density (closure)								Skupaj / Total	
	Tesen / Tight		Normalen/ Normal		Rahel / Loose		Vrz elast/ With gaps		ha	%
	ha	%	ha	%	ha	%	ha	%		
Mladovje/ Seedlings	9,4	1,1	22,8	2,8	0,6	0,1	0,0	0,0	32,8	4,0
Drogošnjak/ Polewood stand	20,7	2,5	66,8	8,1	0,0	0,0	0,0	0,0	87,5	10,6
Debeljak / Stand of mature trees	0,0	0,0	339,8	41,1	135,4	16,4	0,0	0,0	475,2	57,4
Razn. (PS-ŠP)/ Uneven aged	0,0	0,0	12,0	1,4	51,2	6,2	66,7	8,1	130,0	15,7
Razn. (SK-GN)/ Uneven aged	0,0	0,0	0,0	0,0	44,5	5,4	17,1	2,1	61,6	7,4
Pionirski gozd/ Pioneer forest	0,0	0,0	0,0	0,0	0,0	0,0	4,0	0,5	4,0	0,5
Skupaj / Total	30,1	3,6	446,0	53,9	238,2	28,8	113,0	13,7	827,3	100,0



Slika 3: Raba kmetijskih zemljišč v maju 2000 na območju predlaganega akcijskega načrta (vir: MKGP 2002)

Figure 3: Use of arable land in May 2000 in the area of the proposed action plan (source: MKGP 2002)

Ukrep A.3: Odstranjevanje gozdne zarasti

Krčenje gozdov naj poteka skladno s fazo presvetljevanja gozdnih sestojev. Sprva naj se krčijo površine, ki mejijo na državno mejo. Proces krčenja površin je opredeljen na obdobje 10 let. Krčitve naj potekajo tako, da se ohranjajo posamezna večja drevesa; krčenje naj poteka prek stopnje močnih gozdnih trav (zlasti *Calamagrostis* sp.), ki bi drugače prerastle celotne ogolele površine. Nastale krčitve naj imajo gozdni rob čim bolj strukturiran, tako da po krčitvi ne bodo nastajale ravne linije med nastalimi travišči in gozdom. Ustvarjajo se manjši jeziki (do ene drevesne višine sestoja). Prehod prek presvetljevanja sestojev (ukrep B.1) naj bo postopen.

3.2. Gozdovi

Kljub velikem naboru habitatnih tipov, ki jih ruševci naseljuje, vrsta ni izrazito navezana na gozdnato

krajino (BEICHLÉ 1987 citirano po BAINES 1995, STORCH 2000A). Ugodnejša je čim manjša zastrtost tal s krošnjami. Posledica manjše zastrtosti tal s krošnjami iglavcev (smreka, rdeči bor, macesen) so boljše svetlobne in rastiščne razmere za rast bujnih zeliščnih plasti z borovnico in brusnico (KLAUS *et al.* 1990, BAINES 1995, FILACORDA *et al.* 1995). Ti dve rastlinski vrsti sta zanj v prehrani bistvenega pomena predvsem v jesenskem času. Povzamemo lahko, da so strjeni gozdni kompleksi brez pritalne vegetacije zanj neugodni. Ruševci biva samo v predelih z znatnimi površinami odprtega terena ali zgodnjih sukcesijskih stadijev gozdov kot tudi starih in močno presvetljenih sestojev. Na območju predvidenega akcijskega načrta prevladujejo debeljaki (57%), sledijo raznomerni gozdovi (skupaj 23%), manj je drogovnjakov in pomlajencev (tabela 2). Delež mladovij in pionirskih gozdov je majhen (pod 5%). Glede sklepa krošenj prevladujejo gozdovi z normalnim (446 ha) do rahlim sklepom (283 ha); zavzemajo 83% območja. Gozdov s tesnim sklepom krošenj je malo (pod 4%), z vidika

Tabela 3: Lesna zaloga gozdov v naraščajočih stopnjah po 100 m³/ha v letu 1998 na območju predvidenega akcijskega načrta (vir: ZGS OE SLOVENJ GRADEC 2000)

Table 3: Timber-growing stock at increasing grades at 100 m³/ha in 1998 in the area of the proposed action plan (source: ZGS OE SLOVENJ GRADEC 2000)

Lesna zaloga/ Timber-growing stock (m ³ /ha)	Površina / Surface area	
	ha	%
< 100	51,3	6,2
101 – 200	39,7	4,8
201 – 300	308,7	37,3
301 – 400	333,0	40,2
> 401	94,6	11,4
Skupaj / Total	827,3	100,0

ruševčeve biologije pa je najpomembnejši vrzelasti sklep krošenj, katerih površina presega 13%. Rahlega do vrzelastega sklepa je največ v fazi raznomernih gozdov in pomlajencev. V gozdovih na območju Košenjaka je bil pozimi 2002/03 močan snegolom, ki je tu in tam še dodatno presvetlil gozdne sestoje, zlasti nad 1300 m n.v. Znatno delež gozdov (77%) ima lesno zalogo med 200 in 400 m³/ha (tabela 3).

Najugodnejša struktura habitata ruševca ob upoštevanju lesne zaloge so močno presvetljeni stari debeljaki, katerih lesna zaloga ne presega 300 m³/ha. Takšni gozdovi se razprostirajo povečini nad 1300 m n.v. Glede vrste gozdov (tabela 4) prevladujejo jelovja s sekundarnim smrečjem, sledijo visokogorska smrekovja ter bukovi gozdovi.

Groznja: Tesen sklep krošenj gozdov na ožjem območju rastišč

Kljub močnemu snegolomu v letu 2002/2003, ki je prizadel gozdove Košenjaka, je na ožjem območju ruševčevih rastišč prevelik delež sestojev z izrazito neprimernim sklepom krošenj za ruševca. Ti sestoji so v fazi debeljakov, drogovnjakov in ponekod v raznomerni fazi.

Ukrep B.1: Presvetljevanje gozdnih sestojev okrog centrov rastišč

Presvetljeni gozdovi naj imajo po izvedbi del videz značilnih vrzelastih gozdov na zgornji gozdni meji. Za ohranjanje stabilne strukture sestojev naj se gozdno gojitvena dela opravljajo tako, da so sestoji čim manj ogroženi pred vremenskimi vplivi, še posebej pred vetrovi. Vzgoja in nega takšnih struktur mora biti opredeljena tudi v gozdnogospodarskem načrtu enote. Tu in tam naj se puščajo posamezni šopi dreves, zlasti z ohranjanjem plodonosnih drevesnih vrst. Posekana drevesa naj se v manjši meri puščajo na mestu poseka, preostali del (3/4) pa naj se iz gozdov odstrani, gozdni red (vejevje in vrhovi naj se zlagajo ob drevesne panje – izboljšanje razmer kritja za vrsto). Obvezno naj se puščajo starejša markantnejša drevesa, ki so že ali so potencialna za mesta posedanja ptic. To so zlasti drevesa smrek, macesna, rdečega bora in bukve. Presvetljevanje sestojev naj se opravlja postopoma (v obdobju 10 let); ohranjajo naj se mravljišča, puščajo naj se vejnate smreke. Razpored površin, namenjenih presvetljevanju, naj se med posameznimi rastišči prostorsko dopolnjuje in povezuje z razgozdenimi in zaraščajočimi se površinami onkraj državne meje.

Tabela 4: Gospodarski razredi gozdov na območju predvidenega akcijskega načrta (vir: ZGS OE SLOVENJ GRADEC 2000)

Table 4: Managed forest classes in the area of the proposed action plan (source: ZGS OE SLOVENJ GRADEC 2000)

Gospodarski razred gozda / Managed forest class	Površina / Surface area	
	ha	%
Visokogorski smrekovi gozdovi na revnejših rastiščih / High altitude spruce forests at poorer natural sites	150,1	17,9
Revna jelovja s sekundarnim smrečjem / Poor fir-wood with secondary spruce-wood	609,8	72,6
Bogatejše jelovje na silikatu / Richer fir-wood on silicate	71,1	8,5
Zmerno acidofilni bukov gozd / Moderate acid-loving beech forest	3,5	0,4
Rastišča zmerno kislih bukovih gozdov / Sites with moderately acid beech forests	5,3	0,6
Skupaj / Total	839,8	100,0

Ukrep bo pripomogel k povečanju ugodnejših prehranskih in gnezditvenih površin (več podrasti), kot tudi k večji povezanosti med rastišči.

Grožnja: Vrstna sestava drevesnih vrst

Na določenih površinah manjkajo tiste drevesne vrste, ki so pomembne za zadovoljevanje prehranskih potreb ruševca v zimskem obdobju. Poleg smreke so to predvsem jerebika, macesen in rdeči bor.

Ukrep B.2: Ohranjanje in saditev jerebike in macesna

Ohranjajo naj se obstoječa drevesa, tako da se jim zagotavlja primeren rastni prostor, ozaveščati je treba lastnike gozdov o pomenu teh vrst. Kot ukrep naj se sadita jerebika in macesen v manjših skupinah z individualno zaščito. Saditi ne smemo na samem rastištem prostoru, ampak na prisojnih legah na območjih presvetlitev gozdnih sestojev. Z ukrepom bo sčasoma dosežena boljša zastopanost teh vrst.

3.3. Saditev grmovne zarasti

V grmovni plasti prevladuje skorajda izključno smreka. Pojavljajo se še jerebika, bukev in macesen, manj je rdečega bora in navadnega brina. V više ležečih gozdovih nad 1300 m n.v. se gozdno mladje pojavlja posamično in v manjših zaplatah (ZGS OE SLOVENJ GRADEC 2000).

Grožnja: Pomanjkanje pestrosti vrst v grmovni plasti

Pomanjkanje vrstne pestrosti v grmovni plasti zmanjšuje ugodne prehranske razmere.

Ukrep C.1: Saditev grmovnih vrst

Sadijo naj se vrste, kot sta navadni brin in rušje. Brin naj se ponekod sadi na prisojnih zaraščajočih se površinah nad 1350 m n.v. Predvidevam, da bi bilo treba skupno posaditi do 100 sadik navadnega brina. Rušje naj se prav tako sadi na zaraščajočih se površinah, kjer ni velike bojazni, da ga bodo v naslednjih 20ih letih prerasla drevesa. Rušje naj se sadi v skupinicah po nekaj sadik nad 1350 m n.v.

3.4. Uravnavanje populacije plenilcev

Kot plenilce ruševca navajajo kragulja, skobca *Accipiter nisus*, kanjo *Buteo buteo*, planinskega orla, veliko uharico *Bubo bubo*, krokarja *Corvus corax*, lisico,

volka *Canis lupus*, kuno belico in rosomaha *Gulo gulo*, v Srednji Evropi pa so glavni plenilci lisica, kuna belica in kragulj (STORCH 2000A). V Sloveniji je lisica splošno razširjena vrsta, živi vse do zgornje gozdne meje, ponekod še višje (KRYŠTUFEK 1991). Lisica živi na celotnem območju Košenjaka in Velke. Gostota lisičine populacije v zadnjem obdobju nekoliko niha. Trendi odstrela kažejo na rast številčnosti vse do leta 1999 (ZGS OE SLOVENJ GRADEC 2001). Povečanje je izrazito zlasti po letu 1992. Iz podatkov o upravljanju z lisico v desetletnem obdobju (ZGS OE SLOVENJ GRADEC 2001) je zanesljivo le, da je odstrel naraščal med letoma 1990 in 1998. Glede na leto 1990 je bil v letu 1998 večji kar za 2,7-krat. Leta 1998 je bil odstrel najvišji, in sicer 0,9 lisice na 100 ha lovne površine. S cepljenjem lisic proti steklino smo zavrli tudi naravne regulacijske mehanizme. Sicer je lisica prehranski oportunist (LABHARDT 1994), njen glavni plen pa so glodalci, ki lahko sestavljajo do 90% prehrane (KRYŠTUFEK 1991). Prehranska pestrost je odvisna predvsem od letnega časa in razpoložljivega plena v določenem prostoru (PILLI & DE BATTISTI 2000).

Odstrel kune belice je bil povečan po letu 1992 (150 osebkov). Najvišji je bil leta 1996, ko je bil glede na leto 1991 (127 osebkov) skoraj 3-krat višji (ZGS OE SLOVENJ GRADEC 2001). Previsoka gostota populacije kaže, da ukrepi varstva in gojitve niso bili uspešni oziroma so bili morda usmerjeni v napačne akcije.

Grožnja: Prevelika številčnost plenilcev koconogih kur

Zaradi občutnih sprememb v krajini, lovstvu in naravovarstvu (zaščita vrst naravnih plenilcev), se je pritisk predatorjev na koconoge kure v zadnjih 30 letih izrazito povečal (STORCH 2000A & B). Gozdna razdrobljenost, gnojenje površin, velike količine odpadkov kot vir hrane so vplivali na velik porast plenilcev glodalcev in ptic (SCHMALZER & UHL 2000). Številčnost lisic je po Evropi drastično narasla po uvedbi vakcinacije zoper steklino v 80ih letih (Vos 1995). Kaže, da je v srednji Evropi največji plenilec gnezdnik ruševca divji prašič *Sus scrofa*, katerega številčnost se je v habitatih koconogih kur lokalno zelo povečala (KLAUS 1985). V območjih srednje Evrope, kjer je ptica kritično prizadeta, je kontrola plenilcev eden izmed ključnih ukrepov za izboljšanje populacijskih kazalcev vrste (HOLST JØRGENSEN 1995).

Ukrep D.1: Uravnavanje populacije plenilcev

Zaradi pomanjkanja konkretnih podatkov o številčnosti plenilcev v ruševčevem habitatu na

območju akcijskega načrta je vsakršno uravnavanje populacije vprašljivo in neargumentirano. Pri lisici in kuni belici je treba spremljati številčnost oziroma trend in zdravstveno stanje populacije, na osnovi tega pa oceniti, v kakšni meri vplivata ta dva plenilca na ruševčevu populacijo.

Številčnost lisic in kun je mogoče ocenjevati z direktnimi in indirektnimi metodami. Med indirektno metode uvrščamo: sledove, zasedenost lisičin – legla, oglašanje v obdobju parjenja ipd. Direktno metode, ki so v uporabi pri monitoringu lisic, so telemetrijsko spremljanje osebkov, ulov, označevanje in ponovni ulov, radioaktivno označevanje iztrebkov, naključno videvanje in sistematično štetje (BELTRÁN *et al.* 1991, SADLIER *et al.* 2004). Številčnost lisic lahko ocenjujemo na podlagi najdenih iztrebkov in mest uriniranja (WEBBON *et al.* 2004), lahko pa se ugotavlja tudi na podlagi transektne metode in nočnim štetjem lisic s pomočjo reflektorjev (RUETTE *et al.* 2003).

Na podlagi rezultatov bo mogoče pripraviti ukrepe, ki bodo usmerjeni k morebitnemu zmanjšanju številčnosti lisice in kune belice. Postavljanje krmišč in mrhovišč za divje prašiče v življenjski prostor ptice ne sodi.

3.5. Monitoring in preučevanje

Dosedanje vedenje o okoljskih parametrih osrednjega življenjskega prostora ruševca kot tudi o delni populaciji na Košenjaku je pomanjkljivo. Podatki o pojavljanju vrste na tem območju izvirajo le iz statistike, ki jo vodi LD Dravograd. Lastnosti ruševčevega habitata na Košenjaku so v določeni meri lahko primerljive s habitatom na Pohorju (GULIČ 2002, GULIČ *et al.* 2003).

Grožnja: Nezadostno poznavanje populacijskih parametrov vrste in njenega življenjskega prostora.

Grožnja se kaže predvsem v pomanjkljivem poznavanju parametrov subpopulacije, kot sta starostna in spolna struktura. Prav tako je pereče dejstvo, da je ptica lovna vrsta na sosednji avstrijski strani meje. Tudi podatki o rastiščih in številu pojočih petelinov v spomladanskem času kot tudi trendi v subpopulaciji na sosednji strani meje niso zbrani.

Ukrep E.1: Monitoring vrste in habitata

V območjih, kjer se za potrebe načrtovanja gozdnega prostora že tradicionalno opravlja štetje koonogih kur, so se sčasoma izoblikovale številne metode štetja. Ločimo spomladansko in jesensko štetje osebkov;

čas popisovanja je odvisen predvsem od tipa ptice in lovske tradicije. Spomladanski čas je primeren za štetje pojočih samcev, ki lahko poteka na rastiščnih prostorih ali pa po začrtanih transektih. Za reprodukcijsko sposobnost vrste se upošteva število pojočih samcev in število aktivnih rastišč na velikost območja. Pri jesenskem štetju prevladuje transektna metoda; za vrednotenje stanja v populaciji se upošteva starostna in spolna struktura. Tretji pristop, ki je razširjen v Severni Ameriki, temelji na pridobljenih podatkih o odstreljenih pticah iz kontrolnih lovskih postaj ter iz vprašalnikov (STORCH 2000A). V nekaterih delih Evrope in Severne Amerike je monitoring ruševca eden od pogojev za gospodarjenje z gozdovi. Posamezne evropske države imajo v ta namen zasnovane standardizirane in statistične sheme monitoringa, kjer spremljajo velikost, strukturo in trende v populaciji (LINDÉN 1996 citirano po STORCH 2000A). Kakovost podatkov, zbranih na podlagi tradicionalnih načinov štetja osebkov na rastiščih, je pri določenih vrstah koonogih kur nezanesljiva (KLAUS *et al.* 1989).

Za potrebe pričujočega akcijskega načrta se bomo odločili za spomladansko štetje vrste, ki se uporablja tudi drugod po Sloveniji (POROČILO O ŠTETJU RUŠEVCA... 1997 – 2004). Opazovanje in štetje osebkov naj se opravi v spomladanskem času na območju rastiščnega prostora. Poskuša naj se zagotoviti popis vseh aktivnih ter deloma aktivnih rastišč, tako da je opazovanje opravljeno v teku enega dne. Takšno opazovanje naj se opravi dvakrat v rastišveni sezoni. Najprimernejši čas za opazovanje je med koncem meseca marca do sredine maja v zgodnjih jutranjih urah. Opazovanja naj se zapisujejo v za to izdelane obrazce ter zbirajo na enem mestu. S pomočjo programskih orodij GIS naj se dobljeni podatki o pojavljanju ptice in spremembah v življenjskem prostoru poskušajo ovrednotiti skozi modeliranje. Za poglobljeno vrednotenje habitata vrste bi bilo treba opraviti večletne telemetrijske raziskave, kar pa ni predmet tega akcijskega načrta.

3.6. Informiranje udeležencev in javnosti

Koonoge kure so prvenstveno ogrožene zaradi človeških motenj v prostoru, zato je informiranje in izobraževanje prebivalstva pomemben ukrep tovrstnih varstvenih programov. Ozaveščena javnost lahko bistveno pripomore k uspehu naravovarstvenih naporov.

Grožnja: Pomanjkanje naravovarstvene ozaveščenosti

Javnost ni dovolj dobro seznanjena s pomenom varstva narave. Tudi v vzgojno-izobraževalnem procesu se te

Tabela 5: Velikost površin, kjer naj bi se opravljala dela v prostoru po predvidenih ukrepih na Košenjaku

Tabela 5: Surface areas at Mt. Košenjak where various activities as per proposed measures are to be carried out

Predvidene akcije/ Proposed activities	Obseg površin/ Surface areas	
	ha	%
Vzdrževanje grmovne zarasti Brushwood maintenance	3,9	15
Presvetljevanje gozdnih sestojev/ Canopy opening in forest stands	12,5	48
Košnja travnišč/ Mowing of grasslands	5,7	22
Odstranjevanje gozdne zarasti/ Removal of trees	4,2	16
Skupaj / Total	26,3	100

tematike vse premalo poudarjajo. Obiskovalci nimajo ključnih informacij, ki bi jih seznanile o pomenu varstva narave na Košenjaku. Obstaja grožnja, da se na grebenu naredijo nove poti, da se postavi dodatna turistična infrastruktura ter da se poveča dostopnost obiskovalcev v mirnejša območja.

Ukrep F.1: Izobraževanje in ozaveščanje javnosti

S pomočjo naravovarstvenih organizacij (npr. Zavod RS za varstvo narave, Društvo za opazovanje in proučevanje ptic Slovenije) naj se zagotovi predstavitev na temo »Ruševca in varstvo narave« v osnovni šoli v Dravogradu in pripravi posvet z okoliškimi lovskimi društvi. Informiranje mladine naj poteka v sklopu šolskega programa in obsegu ene šolske ure. V ta namen naj se pripravi ilustrirana zloženska. Na planinskem domu na Košenjaku naj se obiskovalcem v poletnem času delijo zloženske. Ob planinski poti, ki vodi na Košenjak, naj se na parkirnem mestu ob domu postavi opozorilna tabla, ki bo izletniku na poljuden način predstavila ruševca, njegov življenjski prostor ter vzroke ogroženosti. Omeji naj se nadelava novih planinskih in pohodniških poti po samem grebenu ter v gozdovih nad 1100 m n.v. V sam proces izobraževanja in informiranja javnosti je treba vključiti vse udeležence v prostoru, od lastnikov zemljišč, izletnikov, športnih organizacij do lovskih organizacij in planinskih društev.

3.7. Izvedba in obseg predvidenih del

Predvidena dela v prostoru se bodo na območju akcijskega načrta opravljala na površini 26 ha

(tabela 5), pri čemer se bodo posamezne akcije dopolnjevale. Največji poudarek bo na presvetljevanju gozdnih sestojev ter posamičnih košnjah znotraj novo nastalih svetlobnih zaplat. Predvideni ukrepi naj bi se izvajali predvsem v tretjem (juliju, avgustu, septembru) in četrtem (med oktobrom in koncem decembra) obdobju leta (tabela 6). Z vidika življenjskega cikla vrste je to še dopusten čas za usmerjeno ukrepanje v njihovem življenjskem okolju.

4. Zaključek

Košnjak (1522 m n.v.) je skrajni zahodni in obenem najvišji vrh Kozjaka, ki se naslanja na široko gorsko gmoto avstrijske Golice (2140 m n.v.). Na območju Košenjaka živi 1% ruševčeve populacije v Sloveniji. Pojavljanje ruševca na Košenjaku je verjetno posledica antropogenih dejavnikov. Ugodne razmere za to vrsto so posledica intenzivnega izkoriščanja gozdov, novinarjenja in paša živine vse od 17. do sredine 20. stoletja. Življenjski prostor obsega zasmrečene gorske gozdove, na samem grebenu se pojavljajo gorska travnišča in resave. Zaradi opuščanja tradicionalne rabe prostora se travnišča naglo zaraščajo, gozdni sestoji tvorijo sklenjen sklep krošenj. Cilji pričujočega akcijskega načrta so doseči ugodno stanje ruševčeve subpopulacije in njegovega habitata. Predvideni ukrepi so usmerjeni v vzdrževanje in večanje kakovosti in obsega habitata vrste (košnja travnišč, presvetljevanje sestojev, sadnja grmovnih vrst), v izboljšanje statusa, preučevanja in varovanja vrste. Nadalje bo treba zagotoviti stabilnost delne populacije ter njeno rast v daljšem časovnem obdobju kot tudi zadostno evidentiranje sprememb v številčnosti vrste. Da bi dosegli boljše raziskanost lokalne populacije in izboljšati varstveni status vrste, bo potrebno sodelovanje z upravljalci lovišč onkraj državne meje. Posebno pozornost bo treba nameniti javnosti in jo prek informativnih sredstev ozaveščati o pomenu varstva narave na Košenjaku. Predlagano širše območje, kjer naj bi se uresničevali ukrepi za ohranjanje ugodnega stanja subpopulacij ruševca, obsega 965 ha. Območij, kjer bi se opravljali posegi v sam osrednji habitat, je 26 ha. Akcijski načrt je predviden za obdobje 2005 – 2011.

5. Povzetek

Upadanje številčnosti ruševca *Tetrao tetrix* po vsej Evropi je bilo zaznati že ob koncu 19. stoletja, prav dramatično pa se je njegova populacija začela zmanjševati po letu 1970. Slovenija pri tem ni nobena izjema; dostopni podatki za celotno državo kažejo na značilen upad in fragmentiranje populacije. Zaradi

dejstva, da ruševca pri nas dosega južno mejo areala razširjenosti vrste, lahko pričakujemo, da se bo njegov življenjski prostor zaradi robnega efekta še naprej zmanjševal. Pri tem bodo največjih izgub deležne prav subpopulacije v sredogorju. Predvidevamo, da se ruševčev habitat zmanjšuje predvsem zaradi zaraščanja gorskih travnišč in dvigovanja zgornje gozdne meje, degradacije habitata (turizem, promet ipd.) in povečanega pritiska plenilcev. Številčno stanje ruševca v Sloveniji se giblje med 2300 in 2600 osebkov, od tega na območju Košenjaka živi 1% njegove populacije. Akcijski načrt predvideva ukrepe v prostoru (travniki v zaraščanju in gozdovi), monitoring in preučevanje vrste, informiranje udeležencev akcijskega načrta in javnosti, ukrepe v populaciji plenilcev. Predvidena dela na območju akcijskega načrta zajemajo površino 26 ha. Predvideni ukrepi naj bi se uresničevali v obdobju med letoma 2005 in 2011.

6. Literatura

- AHRENS, M. & NÖSEL, H. (1998): Birkwild in Brandenburg. – Wild und Hund 4: 34–37.
- ARHIV REPUBLIKE SLOVENIJE, AS 178: Franciscejski kataster za Koroško, 1823-1869, katastrske občine/Gemeinde: Goriški vrh – Goritzenberg (1828); Ojstrica – Kienberg (1827).
- SADLER, L.M.J., WEBBON, C.C., BAKER, P.J. & HARRIS, S. (2004): Methods of monitoring red foxes *Vulpes vulpes* and badgers *Meles meles*: are field signs the answer?. – Mammal Review 34 (1/2): 75–98.
- BAINES, D. (1995): Habitat requirements of black grouse. pp. 147–150 In: JENKINS, D. (ed.): Proceeding of 6th International Grouse Symposium. Udine, 20–24 sept. 1993. – World Pheasant Association, Reading, UK.
- BAUER, S. & KALCHREUTER, H. (1984): A chance for Conservation of the Black Grouse (*Lyrurus tetrix*) in Central Europe? 3th International Grouse Symposium, York. – World Pheasant Association, UK: 551–575.
- BELTRAN, J.F., DELIBES, M. & RAU, J.R. (1991): Methods of censusing red fox (*Vulpes vulpes*) populations. – Hystrix 3: 199–214.
- BLACK GROUSE ACTION PLAN UK (2003): <http://www.blackgrouse.info/>; 3.5.2004.
- BOŽIČ, L. (2003): Mednarodno pomembna območja za ptice v Sloveniji 2. – DOPPS – BirdLife Slovenia, Ljubljana.
- CRAMP, S., ed. (1994): Handbook of the Birds of Europe, the Middle East and North Africa, Vol. II. – Oxford University Press, Oxford.
- FILACORDA, S., LAVRENČIČ, A. & FRANCESCHI, P.F. (1995): Chemical characteristics of some Black Grouse foods in September in the eastern Italian Alps. pp. 134–136 In: JENKINS, D. (ed.): Proceeding of 6th International Grouse Symposium. Udine, 20–24 sept. 1993. – World Pheasant Association, Reading, UK.
- GEISTER, I. (1995): Ornitološki atlas Slovenije. – DZS, Ljubljana.
- GLUTZ VON BLOTZHEIM, U.N. (1992): Rauhfußshühner. – Vogelwarte Sempach, Switzerland.
- GULIČ, J. (2002): Ovrrednotenje primernosti habitata ruševca (*Tetrao tetrix* L.) na Pohorju. – Diplomsko delo, Biotehniška fakulteta, Univerza v Ljubljani, Ljubljana.
- GULIČ, J. (2003): Habitat requirements of Black Grouse in the Pohorje Mts., NE Slovenia. pp. 108–109 In: MALKOVA, P. & PROCHAZKA, P. (ed.): Proceeding of the European conference Black Grouse – Endangered Species of Europe, Prague, 8–12 September 2003. – Sylvia 39, Praha.
- GULIČ, J., KOTAR, M., ČAS, M. & ADAMIČ, M. (2003): Ovrrednotenje vegetacijske primernosti habitata ruševca na Pohorju. – Zbornik gozdarstva in lesarstva 71: 41–70.
- HOLST JØRGENSEN, B. (1995): The Black Grouse in Denmark, 1978–1993. pp. 163–164 In: JENKINS, D. (ed.): Proceeding of 6th International Grouse Symposium. Udine, 20–24 sept. 1993. – World Pheasant Association, Reading, UK.
- INGOLD, P. (2005): Freizeitaktivitäten im Lebensraum der Alpentiere. – Haupt, Switzerland.
- JEŽ, M. (2003): Opisi ekološko pomembnih območij v SV Sloveniji. – Zavod RS za varstvo narave, OE Maribor. (interno gradivo)
- JOGAN, N., KALIGARIČ, M., LESKOVAR, I., SELIŠKAR, A. & DOBRAVEC, J. (2004): Habitatski tipi Slovenije HTS 2004. – Agencija Republike Slovenije za varstvo okolja, Ljubljana.
- KARTOGRAFSKI IZVOR 1: 50 000, SLOVENJ GRADEC LIST 3, 1956.
- KLAUS, S. (1985): Predation among capercaillie in a reserve in Thuringia. pp. 334–346 In: LOVEL, T.W.I. & HUDSON, P.J. (eds.): Proceedings of the Third International Grouse Symposium. – World Pheasant Association, Reading, UK.
- KLAUS, S., ANDREEV, A.V., BERGMANN, H., MÜLLER, F., PORKERT, J. & WIESNER, J. (1989): Die Auerhühner. – Die neue Brehm-Bucherei, Leipzig.
- KLAUS, S., BERGMANN, H., MARTI, C., MÜLLER, F., VITOVIĆ, O.A. & WIESNER, J. (1990): Die Birkhühner. – Die neue Brehm-Bucherei, Leipzig.
- KRYŠTUFEK, B. (1991): Sesalci Slovenije. – Prirodoslovni muzej Slovenije, Ljubljana.
- LABHARDT, F. (1994): Lisica. – Zlatorogova knjižnica 22, Lovska zveza Slovenije, Ljubljana.
- LISIČNIK, A. (2003): Popis rastišč divjega petelina v LD Dravograd. – interno gradivo.
- LONČAR, M. (2004): Vegetacija suhih travnišč na ovršnih predelih Pohorja, Kozjaka in Smrekovskega pogorja. – Diplomsko delo, Pedagoška fakulteta, Univerza v Mariboru, Maribor.
- MARINČEK, L. & ČARNI, A. (2002): Vegetacijska karta gozdnih združb Slovenije v merilu 1:400.000. – SAZU, Ljubljana.
- MIHELIC, T. (2004): Prezrti gozdni petelinček – gozdni jereb (*Bonasa bonasia*). – Svet ptic 10 (3): 6–9.

- MIOČ, P. & ŽNIDARČIČ, M. (1976): Osnovna geološka karta Slovenj Gradec L 33 – 55, 1:100.000. – Zvezni geološki zavod Beograd, Beograd.
- MKGP (2002): Raba tal. – CD, Ministrstvo za kmetijstvo, gozdarstvo in prehrano, Ljubljana.
- PERKO, D. (2001): Analiza površja Slovenije s stometrskim digitalnim modelom reliefa. Geografija Slovenije 3. – Geografski inštitut Antona Melika ZRC SAZU, Ljubljana.
- PERKO, D. & OROŽEN ADAMIČ, M. (1998): Slovenija: Pokrajine in ljudje. – Mladinska knjiga, Ljubljana.
- PILLI, R. & DE BATTISTI, R. (2000): First methodological-experimental contribution to the study of the diet of the red fox *Vulpes vulpes*. – *Hystrix* 11 (2): 89–93.
- POROČILO O ŠTETJU RUŠEVCA NA SLOVENSKE IN AVSTRIJSKE STRANI KARAVANK 1997 – 2004. – Kärtner Jägerschaft Villach, Klagenfurt, Völkmarkt, Lovska zveza Slovenije: ZLD Gorenjsko, ZLD Celje, ZLD Maribor (neobjavljeno).
- RUETTE, S., STAHL, P. & ALBARET, M. (2003): Applying distance-sampling methods to spotlight counts of red foxes. – *Journal of Applied Ecology* 40 (1): 32–43.
- SCHMALZER, A. & UHL, H. (2000): Present situation of grouse species (Tetraonidae) in the Freiwald area (Austria). pp. 28–32 In: MALKOVA, P. (ed.): Proceedings of the Inter. Conf. Tetraonids, Tetraonidae at the break of the millennium. 24–26 March 2000 – Česke Budejovice.
- SMILJIĆ, L. (1995): Zgradba habitata ruševca (*Tetrao tetrix* L.) v Triglavskem narodnem parku. – Diplomsko delo, Oddelek za gozdarstvo, Biotehniška fakulteta, Univerza v Ljubljani, Ljubljana.
- SOVINC, A. (1994): Zimski ornitološki atlas Slovenije. – Tehniška založba Slovenije, Ljubljana.
- STORCH, I., ed. (2000A): Grouse Status Survey and Conservation Action Plan 2000 – 2004. – WPA/BirdLife/SSC Grouse Specialist Group. IUCN, Gland and Cambridge, the World Pheasant Association, Reading, UK.
- STORCH, I. (2000B): An Overview to population Status and Conservation of Black Grouse Worldwide. – *Cahiers d'Ethologie* 20(2/3/4): 153–164.
- ŠTEVILČNO STANJE RUŠEVCA V SLOVENIJI (2004): Zavod RS za varstvo narave, zbiranje podatkov (neobjavljeno).
- URADNI LIST RS (1999): Konvencija o varstvu prosto živečega evropskega rastlinstva in živalstva ter njihovih naravnih življenjskih prostorov – Bernska konvencija (Zakon o ratifikaciji Konvencije o varstvu prosto živečega evropskega rastlinstva in živalstva ter njihovih naravnih življenjskih prostorov, MP 17/99).
- URADNI LIST RS (1993): Uredba o zavarovanju ogroženih živalskih vrst (št. 57/93).
- URADNI LIST RS (2004A): Zakon o divjadi in lovstvu ZDLov-1 (št.16/04).
- URADNI LIST RS (2004B): Uredba o določitvi divjadi in lovnih dob (št. 101/04).
- URADNI LIST RS (2004C): Uredba o ekološko pomembnih območjih (št. 48/04).
- URADNI LIST RS (2004D): Pravilnik o določitvi in varstvu naravnih vrednot (št. 111/04).
- URADNI LIST RS (2004E): Odlok o spremembah in dopolnitvah prostorskih sestavin dolgoročnega plana Občine Dravograd za obdobje 1986–2000 in srednjeročnega družbenega plana Občine Dravograd za obdobje 1986–1990, dopolnjen leta 2001 (št. 72/04).
- VOS, A. (1995): Population dynamics of the red fox (*Vulpes vulpes*) after the disappearance of rabies in county Garmisch-Partenkirchen, Germany, 1987–1992. In: HELLE, E. & HENTTON, J. (eds.): North Europ. Symp. on the Acology of Small and Medium-sized Carnivores, Lammi, Finland, April 1994. – *Ann. Zool. Fenn.* 32(1): 93–97.
- WEBBON, C.C., BAKER, P. & HARRIS, S. (2004): Faecal density counts for monitoring changes in red fox numbers in rural Britain. – *Journal of Applied Ecology* 41: 768–779.
- ZGS OE SLOVENJ GRADEC (2000): Gozdnogospodarski načrt GE Dravograd, obdobje 1998–2007.
- ZGS OE SLOVENJ GRADEC (2001): Desetletni lovskogojitveni načrt za Pohorsko lovskogojitveno območje, obdobje 2001–2010.

Prispelo / Arrived: 28.9.2004

Sprejeto / Accepted: 7.3.2005

PRILOGA / APPENDIX

Tabela 6: Pregled ukrepov in čas izvedbe za potrebe načrtovanja del v okviru akcijskega načrta za varstvo ruševca *Tetrao tetrix* na Košenjaku (siva polja ponazarjajo časovna obdobja uresničevanja ukrepov: I – januar do marec, II – april do junij, III – julij do avgust, IV – oktober do december)

Table 6: An overview of the measures and time of their implementation required for the planning of works to be carried out within the action plan for the conservation of Black Grouse *Tetrao tetrix* framework in the area of Mt. Košenjak (with grey surfaces indicating the periods in which measures are to be carried out: I – January to March, II – April to June, III – July to August, IV – October to December)

Leto / Year	2005				2006				2007				2008				2009				2010				2011			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
A. Travišča in zaraščajoča se travnišča / Grasslands and gradually overgrown grasslands:																												
A.1 Košnja travišč/ Mowing																												
A.2 Vzdrževanje grmovne zarasti na zaraščajočih se travišč/ Maintenance of brushwood in gradually overgrown grasslands																												
A.3 Odstranjevanje gozdne zarasti/ Removal of trees																												
B. Gozdovi / Forests:																												
B.1 Presvetljevanje gozdnih sestojev okrog centrov rastišč/ Opening of forest stands around display site centers																												
B.2 Ohranjanje, sadnja jerebike in macesna/ Preservation and planting of Mountain Ash and Larch																												
C. Saditev grmovne zarasti / Planting of brushwood:																												
C.1 Saditev plodonosnih grmovnih vrst / Planting of fructiferous brush species																												

Leto / Year	2005				2006				2007				2008				2009				2010				2011							
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV				
Ukrep / Measure																																
D. Uravnavanje populacije plenilcev / Regulation of predator populations:																																
D.1 Uravnavanje populacije plenilcev / Regulation of predator populations																																
E. Monitoring vrste in habitata / Monitoring of the species and its habitat:																																
E.1 Monitoring vrste in habitata / Monitoring of the species and its habitat																																
F. Izobraževanje in ozaveščanje javnosti / Public awareness building and education:																																
F.1 Izobraževanje in ozaveščanje javnosti / Informing of the public and its awareness building																																

Aprocta sp. (Aproctoidea, Nematoda) FOUND IN THE GREAT TIT *Parus major* IN SLOVENIA

Aprocta sp. (Aproctoidea, Nematoda) najdena v veliki sinici *Parus major* v Sloveniji

ALEKSANDRA VERGLES RATAJ¹, MARIJA NEMEC², KSENIJA VLAHOVIĆ³, RENATA LINDTNER-KNIFIC⁴
& ALENKA DOVČ⁴

¹ University of Ljubljana, Veterinary faculty, Institute of Microbiology and Parasitology, Gerbičeva 60, SI-1000 Ljubljana, Slovenia, e-mail: aleksandra.vergles@vf.uni-lj.si

² University of Ljubljana, Veterinary faculty, Clinic for ruminants with ambulatory clinic, Cesta v Mestni log 47, SI-1000 Ljubljana, Slovenia, e-mail: marija.nemec@vf.uni-lj.si

³ University of Zagreb, Faculty of Veterinary Medicine, Department of Biology, Heinzelova 55, HR-1000 Zagreb, Croatia, e-mail: vlahovic@vef.hr

⁴ University of Ljubljana, Veterinary faculty, Institute for Health Care of Poultry, Cesta v Mestni log 47, SI-1000 Ljubljana, Slovenia, e-mail: renata.lindtner@vf.uni-lj.si, alenka.dovc@vf.uni-lj.si

*Kongres ornitologov Slovenije ob 25. obletnici DOPPS
Slovene Ornithologists' Congress at the 25th anniversary of DOPPS – BirdLife Slovenia*

The abdominal cavity of a dead Great Tit *Parus major* was found to be full of soft, dirty white and yellowish parasites. Exhaustion, dehydration, airsacculitis and perihepatitis were recorded in the dead bird. The digestive tract and faeces were examined using the flotation method, and found to be parasitologically negative. The parasites from the abdominal cavity were filariae, which belong to the genus *Aprocta* sp. The size of the female parasite was between 10.5 and 12.2 cm. The male was smaller, between 9.0 and 9.5 cm. The eggs had thick walls with larvae and the egg size was 450 x 250 µm. This is the first record and description of *Aprocta* sp. in the Great Tit in Slovenia.

Key words: *Parus major*, Great Tit, parasites, filariae, *Aprocta* sp., Slovenia

KLjučne besede: *Parus major*, velika sinica, zajedavci, filarije, *Aprocta* sp., Slovenija

1. Introduction

The Great Tit *Parus major* is widespread and numerous in most parts of Europe. It is common and widespread species in Slovenia, although it is scarcer at higher altitudes. In Slovenia there are about 300,000 breeding pairs (GEISTER 1995). In winter, the species is present in large numbers in urban areas, and very common in mixed flocks with other passerine species (SOVINČ 1994).

The nematode superfamily Aproctoidea is divided into two families, Aproctidae and Desmidocercidae. Little is known about their life cycles but it is likely that the family Aproctidae is more present in land birds, living in their air sacs, while the Desmidocercidae family is more frequent in piscivorous water birds, e.g. cormorants and albatrosses. Species from the latter family are found in air sacs, kidneys, livers, lungs, gall bladder, intestines and gizzard (ANDERSON 2000).

Haematophagous arthropods transmit eggs or larvae (microfilariae) to vertebrates, where adult filariae develop. Developmental forms move through lymphatic ducts or blood vessels in the host's body. Adult filariae live in tissue or the peritoneal cavity where they breed, producing eggs (LOYE & ZUK 1991).

PINTO *et al.* (1997) described the species *Aprocta pyrthurae* (Railliet & Henry 1910), which they recorded in the body cavity of *Cyanocorax* Jays from Brazil. They had also found these species in parrots (PINTO *et al.* 1993). ONIKI *et al.* (2002) recorded the species *Aprocta golvani* (DIAZ-UNGRIA 1963) in birds in Brazil. In addition, *Aprocta* sp. was often found in intraorbital sinuses and eye cavities (QUENTIN *et al.* 1976, BRGLEZ 1981, OKULEWICZ 1984, HERNANDEZRODRIGUEZ *et al.* 1986, LEPOJEV *et al.* 1990, MANFREDI *et al.* 1992). BRGLEZ (1981) recorded the filarian species *Aprocta turgida* in the nasal cavity of Black-headed Gull *Larus ridibundus* in Slovenia. LEPOJEV *et al.* (1990) were the

first to describe the same species of parasites in nasal sinuses of a Black-headed Gull in Serbia (LEPOJEV *et al.* 1990). MANFREDI *et al.* (1992) found *Aprocta matronensis* (Raillet & Henry 1910) in the eye cavity of Carrion Crows *Corvus corone corone* from Northern Italy. *Aprocta cylindrica* (Linstow 1883), which was recorded in songbirds in Africa, also lives in eye cavities (QUENTIN *et al.* 1976). In Poland, *Aprocta cylindrica* was first recorded in 1984 in the Robin *Erithacus rubecula*. The species *Aprocta intraorbitalis* was found in nasal sinuses of crows and songbirds (HERNANDEZRODRIGUEZ *et al.* 1986).

In the present study we describe, for the first time in Slovenia, filariae from the genus *Aprocta* sp. in the Great Tit.

2. Material and methods

A single Great Tit was found dead in the area of Kresnice near Litija in January 2001. A post mortem examination was performed. Liver, intestine and parasites from the abdominal cavity were examined bacteriologically and parasitologically. Liver was exposed to general bacteriological examination. Faecal samples were examined for the presence of endoparasites, using the flotation method (THIENPONT *et al.* 1979). We found parasites in the abdominal cavity, washed them out with water, separated them with an entomological needle and identified them by morphological criteria.

3. Results

Necropsy of the Great Tit showed general exhaustion and dehydration. Macroscopically, airsacculitis and perihepatitis were also recorded. Air sacks and surface of liver were clotted with white-yellowish fibrinous thick masses measuring about 1 mm. Bacteriological examination of liver was negative. Examination of the digestive tract revealed no parasites, but rather minor catarrhal enteritis. During macroscopic examination of the ball of soft, yellowish dirty white parasites from the abdominal cavity, we found a large number of adult filariae of both sexes. The body of the parasite was cylindrical, fragile and yellowish dirty white colour. The size of the female parasite was between 10.5 and 12.2 cm. The male was smaller, between 9.0 and 9.5 cm. In its mouthpart we noticed four small tubes, which continued into the interior like wide pipes. Males had spicula of unequal size, one was spindly twisted, the other flat with the back distal part gently curved. Both spicula were distally flat. The female had a mouthpart similar to that observed in males. The

vulva was near the mouthpart (Figure 1). The back part of the female had a semi-circular shape (Figure 2). A large number of eggs with larvae of the first stage were recorded in the uterus. The eggs had thick walls with larvae and the egg size was 450 x 250 µm. The nematode was determined as the genus *Aprocta* sp.



Figure 1: The anterior end of an adult female of *Aprocta* sp. found in a Great Tit *Parus major* from Slovenia (magnification 100x)

Slika 1: Sprednji del odrasle samice filarije *Aprocta* sp., najdene v veliki sinici *Parus major* iz Slovenije (100x povečava)

4. Discussion

This study presents the first record and description of filariae, which belong to the genus *Aprocta* sp., in the Great Tit in Slovenia. According to the morphological data the parasite belongs to the family Aproctidae (Skrjabin & Stikhobalova 1945), genus *Aprocta* sp. BRGLEZ (1981) found the parasite from the same genus in the body cavity of Hooded Crow *Corvus corone cornix* in Slovenia where, according to him, the genus *Aprocta* sp. is frequent in Hooded Crows. Our description reveals differences from the parasites



Figure 2: The back distal part of the adult female with eggs of *Aprocota* sp. found in a Great Tit *Parus major* from Slovenia (magnification 100x)

Slika 2: Zadnji distalni del odrasle samice filarije *Aprocota* sp. z jajčeci, najdene v veliki sinici *Parus major* iz Slovenije (100x povečava)

described previously. The males of filaria recorded in the Great Tit were up to 3.0 cm longer than those in the Hooded Crow. Other morphological differences have not been established.

Representatives of the superfamily Aprocotoidea are small to medium-sized nematodes found in air sacs, nasal cavities and subcutaneous tissues of head and neck of birds and often also in eye cavities (ANDERSON 2000).

The primary site of nematode infection is hard to determine, since nematodes easily migrate to neighbouring organs (ANDERSON 2000). In our case it was also hard to determine whether the filariae were primarily present in the abdominal cavity of the Great Tit although the whole abdominal cavity was filled with the parasites.

References often mention filarial parasites from the genus *Aprocota* in Passeriformes. They were found mostly in intraorbital sinuses, eye cavities and nasal

cavity but not in the abdominal cavity. We have confirmed that filariae from genus *Aprocota* sp. can live also in the abdominal cavity.

5. Povzetek

V trebušni votlini mrtve velike sinice *Parus major* je bilo polno mehkih umazano belih in rumenkastih parazitov. Pri ptici so bili ugotovljeni: splošna izčrpanost, dehidracija, aerosakulitis in perihepatitis. Pregled prebavnega trakta in iztrebkov, opravljen s flotacijsko metodo, je bil parazitološko negativen. Pregledani paraziti iz trebušne votline so bile filarije iz rodu *Aprocota* sp. Velikost samice parazita je bila med 10,5 in 12,2 cm. Samec je bil manjši, dolg med 9,0 in 9,5 cm. Jajčeca so bila debelostena z larvami in velika 450 x 250 µm. To je prvi zapis in opis *Aprocota* sp., najdenega v veliki sinici v Sloveniji.

6. References

- ANDERSON, R.C. (2000): Nematode Parasites of Vertebrates. – CABI Publishing, Wallingford.
- BRGLEZ, J. (1981): Zajedavci pri pticah v Sloveniji – Cestoda, Nematoda, Acanthocephala. – Zbornik Biotehniške fakultete Univerze v Ljubljani, suplement 5, Veterinarstvo, Ljubljana.
- DIAZ-UNGRIA, C. (1963): Nématodes parasites, nouveaux ou intéressants du Vénézuéla. – Ann. Parasit. Hum. Comp. 38: 893–913.
- GEISTER, I. (1995): Ornitolški atlas Slovenije: razširjenost gnezdičk. – DZS, Ljubljana.
- HERNANDEZRODRIGUEZ, S., GUTIERREZPALOMINO, P. & MARTINEZGOMEZ, F. (1986): *Aprocota intraorbitalis* n. sp. (Nematoda, Aprocotoidea) parasite of the azure winged magpie *Cyanopica cyanus* (Passeriformes, Corvidae). – Ann. Parasitol. Hum. Comp. 61: 65–69.
- LEPOJEV, O., KULISIC, Z., ALEKSIC, N. & DIMITRIJEVIC, S. (1990): Nematodes of gulls (*Larus ridibundus* L.) in the Belgrade area. – Acta Veterinaria-Beograd 40: 159–162.
- LOYE, L.E. & ZUK, M. (1991): Bird Parasite Interaction. Ecology evolution and behaviour. – Oxford University Press, New York.
- MANFREDI, M.T., SAINO, A. & GENCHI, C. (1992): *Aprocota matronensis* in crows (*Corvus corone corone*) from northern Italy. – Parasitologia 34: 97–101.
- OKULEWICZ, A. (1984): Parasitic Nematoda of the robin *Erithacus rubecula* L. (Turdidae) from the region of Wrocław. – Wiad. Parazytol. 30: 585–594.
- ONIKI, Y., KINSELLA, J.M., WILLIS, E.O. (2002): *Pelecitus helycinus* Railliet & Henry, 1910 (Filarioidea, Dirofiliariinae) and other nematode parasites of Brazilian birds. – Mem. Ins. Oswaldo Cruz 97: 597–598.
- PINTO, R.M., VICENTE, J.J. & NORONHA, D. (1993): Nematode parasites of Brazilian psittacid birds, with emphasis on the genus *Pelecitus* Railliet and Henry, 1910. – Mem. Ins. Oswaldo Cruz 88: 279–284.

- PINTO, R.M., VICENTE, J.J. & NORONHA, D. (1997): Nematode Parasites of Brazilian Corvid Birds (Passeriformes): A General Survey with a Description of *Viktorocara brasiliensis* n. sp. (Acuariidae, Schistorophinae). – Mem. Ins. Oswaldo Cruz 92: 209–214.
- QUENTIN, J.C., TRONCY, P.M. & BARRE, N. (1976): *Aprocta cylindrica* Linstow, 1883, an oviparous filaria parasite of ploceid birds from Tchad. Larval morphogenesis. – Ann. Parasitol. Hum. Comp. 51: 83–93.
- SOVINC, A. (1994): Zimski ornitološki atlas Slovenije. – Tehniška založba Slovenije, Ljubljana.
- THIENPONT, D., ROCHETTE, F. & VANPARIJS, O.F.J. (1979): Diagnosing helminthiasis through coprological examination. – Janssen Research Foundation, Beerse.

Arrived / Prispelo: 25.10.2004

Accepted / Sprejeto: 7.3.2005

CONTRIBUTION TO THE KNOWLEDGE OF AVIFAUNA OF KARACADAĞ, SOUTH-EASTERN ANATOLIA (TURKEY)

Prispevek k poznavanju avifavne Karacadağa v jugovzhodni Anatoliji (Turčija)

RECEP KARAKAŞ

University of Dicle, Science & Art Faculty, Department of Biology, 21280 Diyarbakir, Turkey,
e-mail: rkarakas@dicle.edu.tr

1. Introduction

Turkey possesses diverse habitat types due to the varying climatic and topographic conditions and it lies on two main bird migratory routes. The avifauna is therefore rich. The ornithological importance of Turkey has been demonstrated by many researchers, national and international (e.g. ERGENE 1945, KUMERLOEVE 1963, BEYAZIT 1982, BEAMAN 1986, SIKI 1988, KIZIROĞLU 1989, MARTINS 1989, EAMES 1990 & 1991, KASPAREK 1992, AYVAZ 1993, KIRWAN & MARTINS 1994 & 2000, KIRWAN 1995, KILIÇ 1999, KIRWAN *et al.* 1999). In spite of this, some parts of Anatolia have not been studied adequately due to the recent security restrictions and to the extreme climatic conditions (KIRWAN & MARTINS 1994, MAGNIN & YARAR 1997). However, a few studies are available from certain localities in South-eastern Anatolia (BIRICIK 1996, KILIÇ 2001, KARAKAŞ & KILIÇ 2001 & 2002). The region constitutes the intersection area between Anatolia and the Middle East. An avifaunistic survey will help to evaluate and monitor future changes in the avifauna. It will also be helpful in preparing distribution maps in the region and for establishing its conservation status.

2. Study area and Method

2.1. Study area

Karacadağ (7200 km²) is an isolated, inactive volcanic mountain in South-eastern Anatolia, which divides the region in the Diyarbakir basin from the Şanlıurfa plateau. The highest peak of the mountain is Mergimir (1981 m a.s.l.). Other high peaks are Kollubaba (1957 m a.s.l.) and Besrek (1350 m a.s.l.). Some streams exist in the area, many of which dry out during the summer. The region has a typical steppe climate with an average temperature of 15°C, maximum of 42°C (July) and minimum of -2.7°C (January). Precipitation occurs primarily in winter and spring with an average of 491 mm/year (based on data of last 61 years); snowfalls

occur during the winter, sometimes also in November and March (TURKISH STATE METEOROLOGICAL SERVICE *unpubl.*). In some parts of the area there are paddy fields.

On Karacadağ the most important tree species are two species of Oak (*Quercus brantii*, *Q. infectoria boissieri*), two species of *Celtis* (*C. glabrata*, *C. tournefortii*), three species of *Crataegus* (*C. aronia* var. *aronia*, *C. monogyna monogyna*, *C. orientalis* var. *orientalis*), Nettle *Pistacia khinjuk*, Wild Pear *Pyrus syriaca* var. *syriaca* and Ash tree *Fraxinus angustifolia angustifolia*. In the open areas, especially above 1300 – 1400 m a.s.l., some species of Milk Vetch (e.g. *Astragalus gummifer*, *Acantholimon acerosum*) are found as dominant in steppe vegetation. The forest is predominant at south and southeast slopes of the mountain. Mountain foothills are covered mainly by meadows. There are a few small settlements with some nomadic family who are staying near the summit of mountain during spring and summer season for stockbreeding aim. In some parts of the area negative anthropogenic effects, including raising livestock, have caused erosion, and the area has been turned to desert. Hunting is very intensive, especially during the winter in January and February. Human activities such as cattle and sheep-grazing are widespread (ERTEKIN 2002).

2.2. Methods

Ornithological observations were carried out between March 2001 and March 2002, covering six survey routes (Figure 1). Routes were examined by vehicle and by walking from early morning to afternoon. In total, 20 field days were conducted (Table 1). During the breeding season, the field day frequency and the observation time were increased. Standard ornithological equipment and identification methodology has been used for identifying birds with line transects methodology. The transects were not evenly spaced, and observations were carried out on

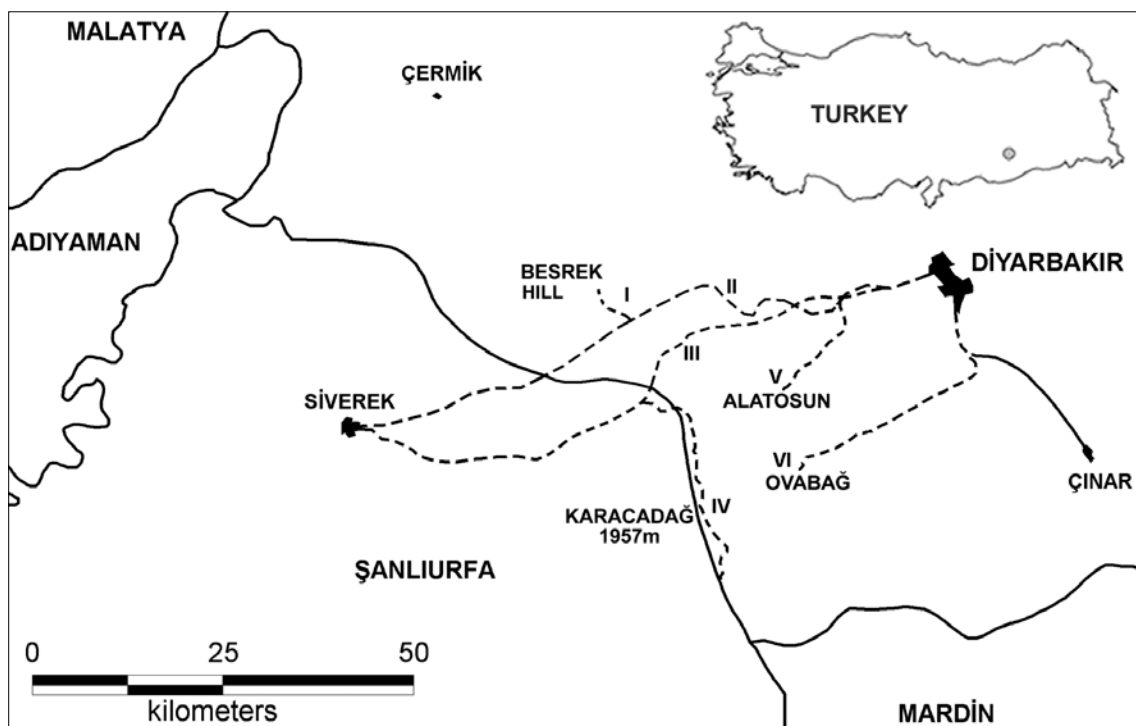


Figure 1: Study area of Mt. Karacadağ with survey routes marked: I. Diyarbakir to Besrek hill, II. the new road Diyarbakir to Siverek, III. the old road Diyarbakir to Siverek, IV. the road Diyarbakir to the summit of Karacadağ, V. the road Diyarbakir to Alatosun, VI. the road Diyarbakir to Ovabağ

Slika 1: Obravnavano območje gore Karacadağ z označenimi popisnimi linijami: I. Diyarbakir – Besrek hrib, II. nova cesta Diyarbakir – Siverek, III. stara cesta Diyarbakir – Siverek, IV. cesta Diyarbakir – summit na Karacadağu, V. cesta Diyarbakir – Alatosun, VI. cesta Diyarbakir – Ovabağ

routes (see Figure 1). All observed birds were registered. In surveys we collected mainly qualitative and not quantitative data. For the systematic list of birds, KASPAREK & BILGIN (1996) was followed. Courtship behaviour, sighting of egg, chick or nest during field excursions were taken as criteria of species reproductive status – if courtship behaviour was observed and egg, chick or nest was recorded, the species was considered as a confirmed breeder (C). All species showing signs of courtship behaviour in an appropriate breeding

habitat during the breeding season were considered as probable breeders (P). Resident species (R) were those found in the area in all seasons, and summer migrants (SM) during spring and summer; the latter could also breed in the area. Winter visitors (WV) were those seen in the area only during the winter season. Passage migrant (PM) were seen only during the spring and autumn migration times.

Table 1: Number of field days per month carried out in Karacadağ area

Tabela 1: Število terenskih dni v posameznih mesecih, opravljenih na območju Karacadağa

Years / leta	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total/ skupaj
2001	–	–	–	3	3	2	3	1	1	1	1	1	16
2002	1	1	2	–	–	–	–	–	–	–	–	–	4
Total / skupaj	1	1	2	3	3	2	3	1	1	1	1	1	20

3. Results and Discussion

Altogether 85 bird species were registered (Table 2). There were 35 confirmed breeders, 19 probable breeders, 33 summer migrants, 21 residents, 14 winter visitors, and 17 passage migrants. According to the Red Data Book criteria (KIZIROĞLU 1993) I found, among breeders, one species threatened with extinction (A.1.2), 12 severely endangered species (A.2), 15 endangered species (A.3), 11 potentially endangered species (A.4) and, among non-breeders, four severely endangered species (B.2) and one endangered species (B.3). The largest number of bird species was recorded in spring time (Figure 2).

Some species recorded in this study, such as Honey Buzzard *Pernis apivorus*, Griffon Vulture *Gyps fulvus*, Short-toed Eagle *Circaetus gallicus*, Lesser Spotted Eagle *Aquila pomarina*, Lesser Kestrel *Falco naumanni*, Red-footed Falcon *Falco vespertinus*, Peregrine Falcon *Falco peregrinus*, Black-eared Wheatear *Oenanthe hispanica* and Masked Shrike *Lanius nubicus* were not reported in Diyarbakır in earlier studies (KUMERLOEVE 1967, VIELLIARD 1968).

Lesser Kestrel, listed as vulnerable according to IUCN categorization, is a colony breeder in the area (HILTON-TAYLOR 2000). 38 birds of prey Falconiformes occur in Turkey (KASPAREK & BILGIN, 1996), and 19 of them were observed in the study area (Table 2).

In the present study, some species were recorded for the first time in South-eastern Anatolia: Hen Harrier *Circus cyaneus*, Lesser Spotted Eagle, Red-footed Falcon, Merlin *Falco columbarius*, and Peregrine Falcon. In contrast, some species that were noted in the other studies of South-eastern Anatolian avifauna

(BEAMAN 1986, KASPAREK 1986, MARTINS 1989, EAMES 1990, KIRWAN 1995) were not found in our study, e.g. Elenora's Falcon *Falco elenora*, Red-wattled Plover *Vanellus indicus*, Pin-tailed Sandgrouse *Pterocles alchata*, Scops Owl *Otus scops*, Eagle Owl *Bubo bubo*, Long-eared Owl *Asio otus*, Desert Lark *Ammomanes deserti*, Pale Rock Sparrow *Petronia brachydactyla*, Yellow-throated Sparrow *Petronia xanthocollis*, and Cinereous Bunting *Emberiza cineracea*. In all mentioned studies breeding probability was recorded for the Birecik and Halfeti area, and not especially for Karacadağ. There are also historical records for Little Bustard *Tetrax tetrax* and Desert Finch *Rhodospiza obsoleta* from South-eastern Anatolia (PARR 1981), but no recent records. Rose-coloured Starling *Sturnus roseus* was recorded (MURPHY 1984), but breeding was not confirmed. In this study we confirmed its breeding in the region the first time.

In the area near Diyarbakır 102 bird species were recorded (BIRICIK 1996), but here the water reservoir area was included. Furthermore 136 bird species were recorded at Göksu Dam, which is situated about 45 km south-east of Karacadağ (KARAKAŞ & KILIÇ 2002). The present study shows some differences, especially in waterbird species due to the habitat differences. Karacadağ has mainly steppe habitats and so is important as a foraging area for the Montagu's Harrier *Circus pygargus*, Long-legged Buzzard *Buteo rufinus*, Lesser Kestrel etc., as already mentioned by MAGNIN *et al.* (2000).

In their description of the distribution of 49 species in South-eastern Turkey KIRWAN & MARTINS (1994) mentioned another 10 species not found in our study: Pygmy Cormorant *Phalacrocorax pygmeus*,

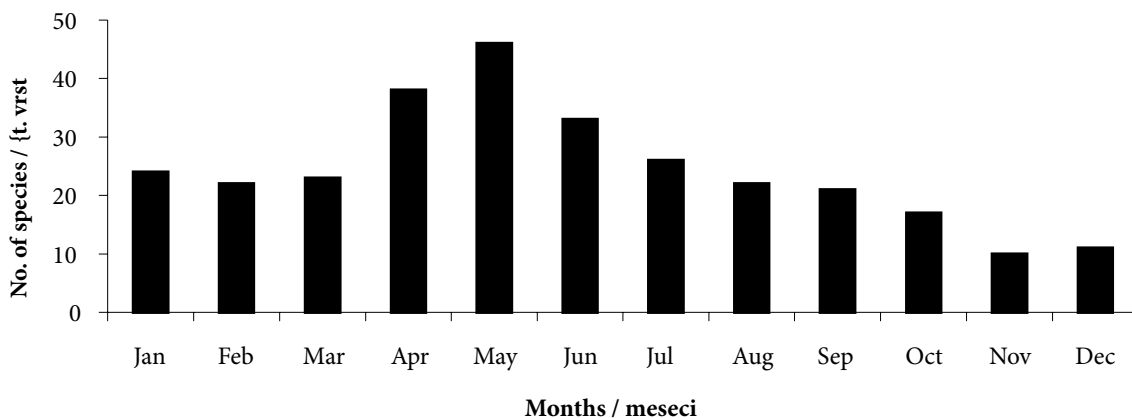


Figure 2: Maximum number of recorded species in Karacadağ area according to the time of year

Slika 2: Maksimalno število ugotovljenih vrst na območju Karacadağa po posameznih mesecih

Bittern *Botaurus stellaris*, Marbled Teal *Marmaronetta angustirostris*, Smew *Mergellus albellus*, Eleonora's Falcon, Black-winged Pratincole *Glareola nordmanni*, Broad-billed Sandpiper *Limicola falcinellus*, Pied Wheatear *Oenanthe pleschanka*, Bearded Tit *Panurus biarmicus*, and Cinereous Bunting. According to them the seasonal status for Spotted Flycatcher *Muscicapa striata* was uncertain, but we found it to be a passage migrant in the area.

Local people in Karacadağ reported that Chukar *Alectoris chukar* was seen from time to time in the region until some years ago, but during our study we had no sightings. The reason may be the decreased population of this species as a result of increased hunting pressure. Breeding of Spectacled Warbler *Sylvia conspiciliata* has been recorded from Karacadağ in a recent study (WELCH & WELCH 2004), but was not found in this study.

The results of this study show that the region has an important bird potential. The data presented constitute a basis for further research and conservation.

Acknowledgements: I thank Dr. Al Vrezec for his help with the manuscript. Also, thanks are due to Engin. GEM for his help in mapping the study area and the Turkish State Meteorological Service, Diyarbakır Station for meteorological data.

Summary

Ornithological observations were carried out between March 2001 and March 2002 in certain parts of Karacadağ, which is located south-west of Diyarbakır, South-eastern Anatolia, Turkey. Karacadağ is an isolated, inactive volcanic mountain, and its surface is mainly coated with basaltic stone and soil with some cultivated areas on foot hills. 85 bird species were recorded in the area. Among these, breeding was confirmed for 35 species, and another 19 species were presumed to breed in the area. 44 species are listed as endangered, e.g. Short-toed Eagle *Circaetus gallicus* is in the A.1.2 category (threatened with extinction), 12 species are in A.2 (severely endangered), 15 in A.3 (endangered), 11 in A.4 (potentially endangered), four in B.2 (severely endangered, not breeding) and one species in B.3 category (endangered, not breeding), according to the Turkish "Red Data Book". However, Lesser Kestrel *Falco naumanni*, which is listed as vulnerable (VU A1) according to IUCN classification, is breeding in the area. The list of bird species will help to evaluate and compare the changes in the bird fauna in the future and serve as the basis for future research and conservation efforts in the region.

Povzetek

Pričujoči prispevek predstavlja rezultate ornitoloških raziskav, opravljenih med marcem 2001 in marcem 2002 v nekaterih delih Karacadağa, ki leži jugozahodno od Diyarbakirja v jugovzhodni Anatoliji, Turčija. Karacadağ je osamljena nedejavna ognjeniška gora, prekrita predvsem z bazaltnimi kamninami, ob njenem vznožju pa je tudi nekaj obdelovanih površin. V obravnavanem območju je bilo zabeleženih 85 vrst ptic, med njimi 35 potrjenih in 19 domnevnih gnezdičk. 44 izmed teh vrst je v Turčiji uvrščenih v "Rdeči seznam": kačar *Circaetus gallicus* v kategoriji A.1.2 (vrsta, ki ji grozi izginotje), 12 vrst v kategoriji A.2 (močno ogrožena vrsta), 15 v kategoriji A.3 (ogrožena vrsta), 11 v kategoriji A.4 (potencialno ogrožena vrsta), 4 v kategoriji B.2 (močno ogrožena negnezdeča vrsta) in 1 vrsta v kategoriji B.3 (ogrožena negnezdeča vrsta). Na obravnavanem območju gnezdi tudi južna postovka *Falco naumanni*, ki jo je IUCN klasificiral kot ranljivo vrsto (VU A1). Predstavljeni seznam ptičjih vrst, ugotovljenih v območju, naj bi bil v pomoč pri vrednotenju in primerjavi sprememb ptičje favne v prihodnosti in osnova tako za bodoče raziskovalce kot naravovarstvene aktivnosti v tej regiji.

References

- AYVAZ, Y. (1993): Elaziğ Bölgesi Kuşları [Birds of Elaziğ Region]. – Doğa-Tr. J. of Zoology 17: 1–10.
- BEAMAN, M. (1986): Turkey Bird Report 1976-81. – Sandgrouse 8: 1–41.
- BEYAZIT, V. (1982): Malatya Pınarbaşı Gölü Kuşları [Birds of Malatya Pınarbaşı Lake]. – Atatürk Üniv. Fen Fak. Der. C 1, Özel Sayı 1: 80–87.
- BIRİCİK, M. (1996): Birds of Kabaklı Reservoir, Diyarbakır. – Tr. J. of Zoology 20: 155–160.
- EAMES, J. (1990): Selected bird observations from Turkey: Spring and Summer 1987. – OSME Bulletin 23: 6–13.
- EAMES, J. (1991): More selected bird observations from Turkey: Spring and Summer 1990. – OSME Bulletin 27: 29–31.
- ERGENE, S. (1945): Türkiye Kuşları [Birds of Turkey]. – İst. Üniv.Fen Fak. Monografileri S. 4, İstanbul.
- ERTEKİN, A.S. (2002): Plant Diversity in Karacadağ Area. – Association for Sustainable Rural & Urban Development Association and UNDP-GEF, Diyarbakır.
- HILTON-TAYLOR, C., ed. (2000): 2000 IUCN Red List of Threatened Species. – IUCN/SSC, Gland, Switzerland and Cambridge.
- KARAKAŞ, R. & KILIÇ, A. (2001): GAP'ta Yeni Bir Baraj (Dicle) Avifaunası [Avifauna of a New Dam (Dicle) in GAP]. – IV. Ulusal Ekoloji ve Çevre Kongresi, 5–8 Ekim, Bodrum.

- KARAKAŞ, R. & KILIÇ, A. (2002): Birds of Göksu Dam (Diyarbakır) and new records in south-east Turkey. – Sandgrouse 24 (1): 38–43.
- KASPAREK, M. (1986): New records of the Red-tailed Wheatear, *Oenanthe xanthopyrmyna*, in Turkey. – Zoology in the Middle East 1: 51–54.
- KASPAREK, M. (1992): Die Vögel der Türkei: eine Übersicht. – Kasperek Verlag, Heidelberg.
- KASPAREK, M. & BILGIN, C.C. (1996): Kuşlar (Aves). Species List of Vertebrates of Turkey-Birds) pp. 27–87 In: KENCE, A. & BILGIN, C.C. (eds.): Türkiye Omurgalılar Tür Listesi. – Tübitak, Ankara.
- KILIÇ, A. (1999): Karapınar (Konya) Yöresinin Kuşları [Birds of Karapınar (Konya) Region]. – Tr. J. of Zoology 23(1): 91–97.
- KILIÇ, A. (2001): Güneydoğu Anadolu Bölgesi avifaunası üzerine bir lokalite çalışması [A Local Study on Avifauna of Southeastern Anatolia Region]. – IV. Ulusal Ekoloji ve Çevre Kongresi, 5–8 Ekim 2001, Bodrum.
- KIRWAN, G. (1995): Recent records of rare birds in Turkey. – Zoology in the Middle East 11: 37–46.
- KIRWAN, G.M. & MARTINS, R.P. (1994): Turkey Bird Report 1987–91. – Sandgrouse 16: 76–117.
- KIRWAN, G.M. & MARTINS, R.P. (2000): Turkey Bird Report 1992–1996. – Sandgrouse 22: 13–35.
- KIRWAN, G.M., MARTINS, R.P., EKEN, G. & DAVIDSON, P. (1999): A checklist of the birds of Turkey. – Sandgrouse Supplement 1: 1–32.
- KIZIROĞLU, İ. (1989): Türkiye Kuşları [Birds of Turkey]. – OGM Yayınları, Desen Ofset, Ankara.
- KIZIROĞLU, İ. (1993): The Birds of Türkiye (Species List in Red Data Book). – Turkish Association for the Conservation of Nature and Natural Resources. Pub. Nr: 20, Ankara.
- KUMERLOEVE, H. (1963): H. Zur Kenntnis der Avifauna Kleinasiens. – Bonn. Zool. Beitr. 12: 1–318.
- KUMERLOEVE, H. (1967): Doğu ve Kuzeydoğu Küçük Asya'nın Kuşları [The Birds of East and Northeast of Small Asia]. – İstanbul Üniv. Fen Fak. Mecmuası. XXXII, 3/4: 79–213.
- MAGNIN, G. & YARAR, M. (1997): Important Bird Areas in Turkey. – Doğal Hayatı Koruma Derneği, İstanbul.
- MAGNIN, G., EKEN, G. & YARAR, M. (2000): Turkey. pp. 651–689. In: HEATH, M.F. & EVANS, M.I. (eds): Important Bird Areas in Europe. – BirdLife International (BirdLife Conservation series No. 8), Cambridge.
- MARTINS, R.P. (1989): Turkey Bird Report 1982–86. – Sandgrouse 11: 1–41.
- MURPHY, C. (1984): Recent trips to eastern Turkey. – Ornithological Society of the Middle East Bulletin 13: 8–12.
- PARR, D. (1981): Notes on A Journey Through Turkey, Spring 1981. – Ornithological Society of the Middle East Bulletin 7: 4–6.
- SIKI, M. (1988): Çamaltı Tuzlası – Homa Dalyanı Kuş Türleri [Bird species of Çamaltı Saltpan-Homa Dalyanı]. – Tr. J. of Zoology 12(3): 272–283.
- VIELLARD, J. (1968): Türkiye'de Bir Ornitolojik Gezinin Neticeleri [Results of One Ornithological Excursion in Turkey]. – İstanbul Üniv. Fen Fak. Mecmuası, Seri B, Cilt XXXIII 3/4: 67–170.
- WELCH, G. & WELCH, H. (2004): Spectacled Warbler *Sylvia conspiciolata*: a new breeding species for Turkey. – Sandgrouse 26(1): 55–58.

Arrived / Prispelo: 12.7.2004

Accepted / Sprejeto: 7.3.2005

APPENDIX / PRILOGA

Table 2: List of bird species recorded in the study area surrounding Mt. Karacadağ, with risk status and maximum numbers of individuals counted each month (+ species was recorded, but not counted; Migration status: R – Resident, SM – Summer migrant, WW – Winter visitor, PM – Passage migrant; Breeding status: C – Confirmed breeding, P – Probable breeding). Risk status (according to KIZIRO LU 1993): A.1.2 Threatened with extinction, A.2 severely endangered, A.3 endangered, A.4 potentially endangered, B.2 severely endangered (not breeding), B.3 endangered (not breeding).

Tabela 2: Pregled ptičjih vrst, ugotovljenih na območju gore Karacadağ, z gnezditvenim statusom, selitvenim statusom in ogroženostjo vrst ter maksimalnim številom ptic, ugotovljenih v posameznih mesecih (+ ugotovljeno le pojavljanje vrste; selitveni status: R – stalnica, SM – poletni gost, WW – zimski gost, PM – preletni gost; gnezditveni status: C – potrjena gnezditvev, P – verjetna gnezditvev). Ogroženost (KIZIRO LU 1993): A.1.2 vrsta, ki utegne v celoti izginiti, A.2 močno ogrožena vrsta, A.3 ogrožena vrsta, A.4 potencialno ogrožena vrsta, B.2 močno ogrožena vrsta (ne gnezdi), B.3 ogrožena vrsta (ne gnezdi).

Species / vrsta	Month / meseci												Status / status		
	2002						2001						Breeding/ gnezditvev	Migration/ selitev	Risk/ ogroženost
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII			
<i>Ciconia ciconia</i>			6	19	30	4	8	2					C	SM	A.3
<i>Anser albifrons</i>	23												-	WV	B.2
<i>Pernis apivorus</i>					3								-	PM	A.3
<i>Milvus migrans</i>				I	I	I	2	I	I				P	SM	A.4
<i>Neophron percnopterus</i>					I	I							P	SM	A.3
<i>Gyps fulvus</i>				I									P	SM	A.2
<i>Circus gallicus</i>				I				I					-	PM	A.1.2
<i>Circus aeruginosus</i>				3	2								-	PM	A.3
<i>Circus cyaneus</i>	I			4	2							I	-	WV	A.3
<i>Circus pygargus</i>				I									-	PM	A.3
<i>Accipiter nisus</i>	I	2										I	-	WV	A.4
<i>Buteo buteo</i>				18	2	2	I						P	R	A.3
<i>Buteo rufinus</i>	I					I	3						P	R	A.2
<i>Aquila pomarina</i>					I								-	PM	A.2
<i>Aquila chrysaetos</i>	I												P	R	A.3
<i>Hieraaetus pennatus</i>					I			I	I				P	SM	A.2
<i>Falco naumanni</i>		6	8	11	30	20	29	13	48				C	SM	A.3
<i>Falco tinnunculus</i>	I	I	4	5	5				I	2	4		C	R	A.4
<i>Falco vespertinus</i>									7				-	PM	A.2
<i>Falco columbarius</i>	I												-	WV	B.2
<i>Falco peregrinus</i>					2			I	I				-	PM	A.2
<i>Gallinago gallinago</i>										2			-	PM	B.2
<i>Tringa ochropus</i>								2		I			-	WV	B.2
<i>Actitis hypoleucos</i>										I			-	PM	A.3
<i>Larus ridibundus</i>													P	R	B.3
<i>Larus armenicus</i>													P	R	-

Species / vrsta	Month / meseci												Status / status		
	2002						2001						Breeding/ gnezditvev	Migration/ selitev	Risk/ ogroženost
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII			
<i>Irania gutturalis</i>							3						P	SM	-
<i>Phoenicurus ochruros</i>												2	-	WV	-
<i>Phoenicurus phoenicurus</i>				18		5		27	3				C	SM	-
<i>Oenanthe isabellina</i>		8	10	15	19	16	15	60	29	12			C	SM	-
<i>Oenanthe oenanthe</i>					2	3		3					P	SM	A.3
<i>Oenanthe hispanica</i>					5		2	1					C	SM	-
<i>Oenanthe finschii</i>		2	3	6	9	4	1	2					C	SM	-
<i>Turdus merula</i>	3									1			-	WV	-
<i>Sylvia communis</i>								8					P	SM	-
<i>Sylvia atricapilla</i>				5		1							P	SM	-
<i>Phylloscopus collybita</i>				27	2			16	25				P	SM	-
<i>Muscicapa striata</i>								23					-	PM	-
<i>Parus major</i>	35	2										30	-	WV	-
<i>Sitta neumayer</i>		2			5			6					C	R	-
<i>Oriolus oriolus</i>					2	2							C	SM	-
<i>Lanius collurio</i>		8		11	4								P	SM	-
<i>Lanius minor</i>					2								-	PM	-
<i>Lanius senator</i>					16	2	10						C	SM	-
<i>Lanius nubicus</i>								3					-	PM	-
<i>Pica pica</i>		2	5	2	2	3	4		7	5	1	6	C	R	-
<i>Corvus frugilegus</i>	50		1									26	-	WV	-
<i>Corvus corone cornix</i>	23												-	WV	-
<i>Sturnus vulgaris</i>	25	1	497	40			220	12	46		43	64	C	R	-
<i>Sturnus roseus</i>					2390	2550	20						C	SM	-
<i>Passer domesticus</i>	+	+	+	+	+	+	+	+	+	+	+	+	C	R	-
<i>Passer hispaniolensis</i>				53	150	200							C	SM	-

Species / vrsta	Month / meseci												Status / status		
	2002						2001						Breeding/ gnezditvev	Migration/ selitev	Risk/ ogroženost
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII			
<i>Petronia petronia</i>			8		5				100			20	C	R	-
<i>Fringilla coelebs</i>	35	30							45			53	-	WV	-
<i>Carduelis carduelis</i>	9	33	16		13			12				8	C	R	A.4
<i>Carduelis cannabina</i>												17	-	WV	A.4
<i>Emberiza schoeniclus</i>	150											100	-	WV	A.4
<i>Emberiza melanocephala</i>				47	105	16							C	SM	A.3
<i>Miliaria calandra</i>		75	55	71	83	3	53	15					C	SM	-

ORNITHOLOGY AND BIRD PROTECTION IN BOSNIA AND HERZEGOVINA: SITUATION AND PERSPECTIVES

Ornitologija in varstvo ptic v Bosni in Hercegovini: razmere in perspektive

DRAŽEN KOTROŠAN¹, JASMINKO MULAOMEROVIĆ² & ADI HABUL²

¹ Zemaljski muzej Bosne i Hercegovine, Zmaja od Bosne 3, 71000 Sarajevo, Bosnia and Herzegovina,
e-mail: kotrosan@bih.net.ba

² Ornitološko društvo «Naše ptice», Semira Frašte 6, 71000 Sarajevo, Bosnia and Herzegovina,
e-mail: naseptice@hotmail.com

*Kongres ornitologov Slovenije ob 25. obletnici DOPPS
Slovene Ornithologists' Congress at the 25th anniversary of DOPPS – BirdLife Slovenia*

1. Introduction

The first records on birds in Bosnia and Herzegovina (BiH) can be found in travel books edited during the mid-19th century. Expeditions organized by German and Austrian museums, aimed at collecting biological materials, collected specimens of birds hunted in BiH. Organized investigations started with the foundation of the National Museum of BiH, in 1888, and were connected to the name of Otmar Reiser, the founder of ornithology in BiH (OBRATIL 1980, KOTROŠAN 2002). In the period that followed, the development of ornithology was limited by political, economical and social factors, and this situation was reflected in the development of organized movements for the protection of habitats and bird population. The same situation may pertain today. In spite of the rather long history of ornithology, BiH still represents “terra incognita” for those interested in the field. Numerous serious consequences resulted, for example, in the appearance of incorrect data on birds and their habitats in BiH, in the “Bird check list of the World, Bosnia and Herzegovina” (LEPAGE 2004). Also, the expected cooperation and support in the development of programs for nature and bird protection by international and specialist European associations, which could improve the situation, are lacking.

2. Ornithology in Bosnia and Herzegovina

The first reliable information on BiH birds is published in the works of Dombrowski, Kadisha, Platz and others, during the 1880s. But the foundation of the National Museum of BiH was the precondition for establishing a research centre for ornithological investigation in BiH (OBRATIL 1980). Up to now two main periods of centre activities could be recognized.

The first one, from 1888 up to 1920, was marked by the work of Otmar Reiser in the area of fauna and taxonomy. An all-inclusive review of his research was presented in the first, and the only, monograph on BiH avifauna (REISER 1939). The second period, 1964 – 1992, was connected to the work of Svjetoslav Obratil dedicated to fauna and bird ecology. Special significance is attached to the work done in the areas of Hutovo blato and Bardača, which present the first systematic investigations of these very important bird areas. Together with Obratil, a few researchers from Serbia and Croatia contributed significantly to the recognition of BiH avifauna, especially Dragutin Rucner with his work in the delta area of the river Neretva (KOTROŠAN & PAPES *unpubl.*).

Between these two periods very little was published about birds in BiH, as well as in the period after 1992. Of course, the war and post-war period did not favour bird investigations. The mine fields, and lack of material and human resources contributed to the very slow recovery of these activities. But it is worth underlining that the National Museum of BiH has been the only institution that employed ornithologists throughout the whole period.

It is also important to note that Branislav Gašić, curator of the Museum of the Republic of Srpska in Banja Luka, is engaged in ornithology and some results can be expected. But in general, from 1995 till 2004, very few publications appeared (GAŠIĆ 2001, MULAOMEROVIĆ *et al.* 2002, RUBINIĆ 2002A, B, C, D & E, ŠURINA 2002 A & B, ŠTUMBERGER 2002 A & B). Some efforts have been made by NGOs, especially in monitoring, numbering and surveying some species. The foundation of the NGO “Naše ptice” (“Our birds”), which is aimed at developing bird research, is welcome (KOTROŠAN 2003).

2.1. Inventory

The first, all-inclusive review on avifauna in BiH was prepared by REISER (1939). A more detailed review, which included Reiser's results as well as those of other ornithologists during 1888 – 1920, was made by OBRATIL (1980) in his six papers published in the period 1967 – 1977.

Two inventories of BiH avifauna have been made by MATVEJEV & VASIĆ (1973) and OBRATIL (1980). The latter listed 315 species. According to MATVEJEV & VASIĆ (1973) 218 species were recorded as nesting. Comparison of the two lists showed highly significant differences. For example Pallid Swift *Apus pallidus* was on the list in 1973 as a breeding bird (nesting was notified in Neum), but not on the second list. The list published by LEPAGE (2004), which includes 318 – 319 bird species, should also be mentioned. In all these lists, probably based on the 1973 inventory, some species are missing that have been recorded in BiH, such as Spanish Sparrow *Passer hispaniolensis* and Zitting Cisticola *Cisticola juncidis*, while some others as Rufous Bush Robin *Cercotrichas galactotes* that is listed by mistake and Bewick's Swan *Cygnus columbianus*, never notified in BiH, are on the list. Generally, it could be concluded that there is no list that can be authorized.

All this led to the preparation of the new, revised systematic list of BiH avifauna, based on inventories in the 19th and 20th centuries. According to the new list, 322 bird species were registered in BiH (KOTROŠAN & PAPES *unpubl.*). Also, having in mind identified changes, it will be necessary to prepare a new atlas of breeding birds. Even OBRATIL & MATVEJEV (1989) stated 15 breeding bird species that have become extinct. Some new preliminary investigations have confirmed this increasing trend.

2.2. Collections

The National Museum of BiH possesses the largest bird collection in the country. It consists of 9528 specimens from 350 species, of which 4783 (305 species) originate from BiH. Besides this collection, the Museum possesses collections of eggs (5000) and nests (55), again mainly from BiH. These collections form the basis for scientific research in the areas of fauna, taxonomy, biogeography and ecology. Up to now they are used mainly for research in the field of bird fauna and ecology. Very limited investigations have been made in taxonomy (KOTROŠAN & LEO 2002).

Less rich but important collections are found in the museums in Banja Luka, Travnik and Tuzla. The only

published catalogue belongs to the Museum of the Republic of Srpska in Banja Luka (GAŠIĆ 1999).

There is no evidence concerning private collections or collections of hunter associations.

3. Bird protection

The first sign of decrease of bird populations in BiH was observed in the first decade of the 19th century (BREŽANČIĆ 1984). It is known that the population of breeding Dalmatian Pelican *Pelecanus crispus* population in BiH had expired by the middle of 19th century (OBRATIL & MATVEJEV 1989).

Up to 1992 bird protection was defined by the "Law on nature protection". Under this law 252 bird species are protected. In 1954 the reserve Hutovo blato was put under protection and in 1969 the colony of water birds at Bardača, also. All the legislatives were in accordance with the International Conventions for bird protection and the protection of wetlands (La Convention de Ramsar, La Convention de Paris), ratified by ex-Yugoslavia. But in spite of the legislatives, protection of bird species and their habitats was at a low level and without adequate control (BREŽANČIĆ 1984).

After independence and signing of the Dayton Agreement the State of BiH realised the obligation to obey international conventions on environmental protection. But still BiH has not ratified any convention on bird protection or their habitats. Even, it is better to say that bird protection does not exist officially in BiH. The situation with regard to once protected areas, such as Hutovo blato and Bardača, is also unsatisfactory. The special focus is on illegal hunting and illegal trade of threatened and rare species (PANJETA 2003).

It is important to emphasize that BiH still has no "Red data book". The only suggestion on categorization of the threat to birds was made by OBRATIL & MATVEJEV (1989). Their dossier included 97 species that belong to different levels or categories of threat. Of course war activities (1992 – 1995) as well as poisoning, notified in the last 15 years, caused drastic changes in numbers of some endangered species, which influenced the threat category for some of them. The best example is the Griffon Vulture *Gyps fulvus* designated as V – vulnerable, which is nowadays totally extinct and needs to be designated as Ex – extinct. According to the preliminary investigation (B. GAŠIĆ *pers. comm.*) a similar situation can be expected with some other birds of prey. Further, the dossier was based mainly on species distribution, less on the numbers that need to be revised. In short, BiH has to get a "Red data book".

3.1. IBAs

The special topics, when the bird protection in BiH is in focus, belong to the Internationally Important Bird Areas – IBAs. Namely, three areas in BiH are marked as IBAs (GRIMMETT & JONES 1989): Hutovo blato, Bardača and Boračko Lake. The accepted categorization needs to be discussed again knowing the levels of investigations. It is not clear why Lake Boračko belongs to the same group with Hutovo blato and Bardača. Its area is not systematically explored. For avifauna there are some old and a few, mainly insufficient data. The only systematic exploration of avifauna of Bardača was done in the period 1970 – 1983. New data are based on short visits (1 to 2 days). In the last 2 – 3 years indications of drastic changes are recorded. Up to now only Hutovo blato is the area that is systematically explored. Even in the last period (OBRATIL 2001) there are data, which indicate changes, mainly decrease of bird populations.

However, some other areas in BiH could probably fulfill the criteria for IBAs, as Livanjsko polje or the Park of nature Blidinje. Consequently it is really urgent to revise IBAs program in BiH and include other potential important areas.

At the end, there are needs to emphasize that birds investigation in BiH are based on recording of bird species, very rare on population and numbering.

4. Discussion

The history of avifauna in BiH shows very close connection between research, scientific exploration and protection of birds and their habitats. In spite of the fact that BiH ornithology was based on the work of only one person, there was very limited number of ornithologists, the fauna of birds in BiH is studied on the rather high level, on special aspects of fauna and ecology (area and space distribution). However, quantitative data are missing. That influenced the categorization of threatened species: some species just missed from the list of endangered birds. This fact for sure, shapes actual relation to the bird protection, if any.

In the post war period the development of ornithology was very limited by lacking of human and material resources. There are three active ornithologists, who could shape the efforts of a few bird observers whose work was uncoordinated. It is also important to emphasize foundation of the first ornithology association in BiH, as much as the fact that we possess potentials, e.g. museums and other collections, which are making develop of different areas in ornithology possible. Ornithology development, with the stress on

monitoring and census projects, will make adequate access to the bird conservation. Passing a law entries and signing the international conventions are the first prerequisite for the bird protection and protection of their habitats. It is necessary to stress a need for improvement of BiH institutions as National museum of BiH, and other NGOs which are trying to solve problems connected with ornithology in BiH. Because of that, help and cooperation of institutes and organizations from abroad is very important and helpful.

Summary

In the paper, the base information about ornithology in Bosnia and Herzegovina (BiH) is carried out, the level of avifauna knowledge in BiH, potentials and current conditions about protection of birds and their habitats in BiH. In spite of difficulties the ornithologists, especially after the last war, succeeded to carry on long tradition of ornithology in BiH. One of the most important things is that numbers of new ornithologist and bird observers is increasing. Besides the National museum in BiH, big role in affirmation of ornithology in BiH has NGO "Naše ptice". Unfortunately, BiH economic and politic situation is not good, so it makes impossible to run any bigger scientific project. This situation has negative effects on protection of birds and their habitats. After all, this situation is result of the fact that BiH did not sign even one international agreement about bird protection. The main goal is to deal these problems and for that the help and improvement of connections with another organizations and institutes from other countries is needed.

Povzetek

V članku so predstavljeni osnovni podatki o ornitologiji v Bosni in Hercegovini (BiH), raven avifaunističnega znanja ter potenciali in trenutne razmere glede varstva ptic in njihovih habitatov v državi. Ornitologom se je kljub mnogim težavam, posebno po zadnji vojni, posrečilo nadaljevati dolgoletno ornitološko tradicijo v BiH, pri čemer je še posebej pomembno, da število novih ornitologov in opazovalcev ptic nenehno narašča. Pomembno vlogo pri uveljavljanju ornitologije igra poleg Narodnega muzeja nevladna organizacija "Naše ptice". Žal pa je ekonomski in politični položaj v državi trenutno tako slab, da ni mogoče izpeljati niti enega večjega znanstvenega projekta, kar seveda ni dobro za varstvo ptic in njihovih habitatov v BiH. Navsezadnje je takšno stanje posledica dejstva, da država ni podpisala

nobenega mednarodnega sporazuma o varstvu ptic. Poglavitni cilj je zatorej spopasti se s temi problemi, za kar pa v BiH potrebujejo pomoč in boljše povezave z organizacijami in institucijami iz drugih držav.

References

- BREŽANČIĆ, V. (1984): Neke rijetke i ugrožene ptice Bosne i Hercegovine. – *Naše starine* 16/17: 231–238.
- GAŠIĆ, B. (1999): Ptice Republike Srpske. Iz ornitološke zbirke Muzeja Republike Srpske. – Muzej Republike Srpske, Banja Luka.
- GAŠIĆ, B. (2001): Rezultati novih istraživanja faune ptica Republike Srpske. – *Ciconia* 10: 108–128.
- GRIMMETT, R.F.A. & JONES T.A. (1989): Important Bird Areas in Europe. – International Council for Bird Preservation (Technical. publication No. 9), Cambridge.
- KOTROŠAN, D. (2002): Pionir zoo-istraživanja u BiH. – *Fondeko svijet* 10: 34–35.
- KOTROŠAN, D. (2003): Osnovano ornitološko društvo “Naše ptice”. – *Fondeko svijet* 15: 17.
- KOTROŠAN, D. & LELO, S. (2002): Prilog poznavanju problema funkcije, održavanja i korišćenja ornitoloških kolekcija. – *Muzeologija* 39: 88–94.
- LEPAGE, D. (2004): Bird check list of the World, Bosnia and Herzegovina. – Website: www.bsc-eoc.org
- MATVEJEV, S.D. & VASIĆ, V.F. (1973): Catalogus faune Jugoslaviae IV/3, Aves. – Slovenska akademija znanosti in umetnosti, Ljubljana.
- MULAOMEROVIĆ, J., KOTROŠAN, D. & BAJRAKTAREVIĆ, A. (2002): Dodatak poznavanju gnježdenja žutokljune galice, *Pyrrhocorax graculus* (Linnaeus, 1758), na području planine Vranice. – *Naš Krš* 22 (35): 65–73.
- OBRATIL, S. (1980): Avifauna Bosne i Hercegovine. pp. 131–144 In: Naučni skup “Problemi inventarizacije životinjskog svijeta Bosne i Hercegovine”. – Akademija nauka i umjetnosti Bosne i Hercegovine knj. 47, Odjeljenje za prirodnih nauka knj. 8, Sarajevo.
- OBRATIL, S. (2001): Research of the ornithofauna in Hutovo blato in the period January – December 2000. – Report for project “Development of new management policy for the Hutovo blato marshland”. EU – Life Third Country Program 1999.
- OBRATIL, S. & MATVEJEV, S. (1989): Predlog “Crvene liste” ugroženih ptica SR Bosne i Hercegovine. – *Naše starine* 18/19: 227–235.
- PANJETA, A. (2003): Krijumčarenje pticama postaje unosan posao u BiH. – *Start* 108: 38–39.
- REISER, O. (1939): Materialien zu einer Ornithologie in Bosnien und Herzegovina. – Naturhistorischen Museum Wien, Wien.
- RUBINIČ, B. (2002A): Great Crested Grebe *Podiceps cristatus*. – *Acrocephalus* 23 (112): 106.
- RUBINIČ, B. (2002B): Common Crane *Grus grus*. – *Acrocephalus* 23 (112): 106–107.
- RUBINIČ, B. (2002C): Red-rumped Swallow *Hirundo daurica*. – *Acrocephalus* 23 (112): 107.
- RUBINIČ, B. (2002D): Northern Wheater *Oenanthe oenanthe* and Black-eared wheater *Oe. hispanica*. – *Acrocephalus* 23 (112): 108.
- RUBINIČ, B. (2002E): Črnoglav starnad *Emberiza melanocephala*. – *Acrocephalus* 23 (112): 108–109.
- SURINA, B. (2002A): Kotorna *Alectoris graeca*. – *Acrocephalus* 23 (112): 106.
- SURINA, B. (2002B): Wallcreeper *Tichodroma muraria*. – *Acrocephalus* 23 (112): 107.
- ŠTUMBERGER, B. (2002A): Yellow-billed Chough *Pyrrhocorax graculus*. – *Acrocephalus* 23 (112): 108.
- ŠTUMBERGER, B. (2002B): Corn Bunting *Miliaria calandra*. – *Acrocephalus* 23 (112): 109.

Arrived / Prispelo: 28.9.2004
Accepted / Sprejeto: 7.3.2005

ODNOS LJUDI DO ZLATOVRANKE *Coracias garrulus* NA POSEBNEM OBMOČJU VARSTVA (SPA) »DOLI SLOVENSКИH GORIC«

The people's attitude towards European Roller *Coracias garrulus* at »Doli Slovenskih goric«, a Special Protected Area (SPA) in NE Slovenia

BARBARA ZAKŠEK¹, MAJA GARBAJS² & DAMIJAN DENAC³

¹ Zg. Voličina 128, SI-2232 Voličina, Slovenija, e-mail: barbara.zaksek@guest.arnes.si

² Prušnikova 48, SI-2000 Maribor, Slovenija

³ Nacionalni inštitut za biologijo, Večna pot 111, SI-1000 Ljubljana, Slovenija, e-mail: damijan.denac@nib.si

*Kongres ornitologov Slovenije ob 25. obletnici DOPPS
Slovene Ornithologists' Congress at the 25th anniversary of DOPPS – BirdLife Slovenia*

1. Uvod

Številčnost zlatovranke *Coracias garrulus* se je hkrati z njenim gnezditvenim arealom od konca 19. stoletja močno zmanjšala (BIRDLIFE INTERNATIONAL/EUROPEAN BIRD CENSUS COUNCIL 2000). Stanje je postalo še posebej zaskrbljujoče po letu 1970; ponekod so zlatovrankine gnezditvene populacije celo izumrle (na primer v Nemčiji), medtem ko je druge njena številčnost kritično upadla (na primer Latvija, Avstrija, Slovaška, Češka; HAGEMEIJER & BLAIR 1997). Tudi v Sloveniji se je njena populacija od tedaj močno skrčila (BRAČKO 1986), tako da na posebnem območju varstva (SPA) Doli slovenskih goric (BOŽIČ 2003), ki je bilo utemeljeno in opredeljeno za ohranitev populacije zlatovranke pri nas (URADNI LIST RS 2004), danes gnezdi le še od 3 do 7 parov. Doli Slovenskih goric so tradicionalno oblikovana kulturna krajina. Za tak tip krajine je značilno, da brez tradicionalnih oblik rabe prostora s strani človeka ne more obstajati (BEZZEL 1982).

Ker je ohranitev zlatovranke na posebnem območju varstva neposredno povezana z načini kmetovanja in rabe, ima pri njenem varstvu pomembno vlogo lokalno prebivalstvo. Naš namen je bil opraviti raziskavo v obliki ankete o poznavanju in mnenju domačinov o tej ptici in sodelovanju pri njenem varstvu. Želeli smo zbrati tudi ljudska imena za zlatovranko in podatke o njeni nekdanji in trenutni razširjenosti. Novejše raziskave o ljudskih imenih ptic v Sloveniji so redke, kot je denimo imenski ornitološki atlas Istre, Lexicon ornithologicum Histriae Slovenicae (FILIP 1993). Poleg dragocenih podatkov iz ljudskega izročila, ki jih je moč pridobiti z anketo med domačini, je lahko takšna metoda tudi pomembno dopolnilo populacijskih raziskav vrst (SCHULZ 1999).

2. Metoda

Podatke smo zbrali z anketo, ki smo jo opravili na posebnem območju varstva »Doli Slovenskih goric«. Na območju smo naključno izbrali ceste (slika 1), ob katerih smo obiskali vse hiše in opravili intervjuje z domačini. V posamezni hiši smo anketirali tudi več ljudi, vendar kot ločene zapise. V anketo smo poleg splošnih podatkov o anketirancu (prebivališče, starost, spol) vključili še preizkus poznavanja zlatovranke, da bi bili podatki karseda natančni. Preizkus smo opravili podobno kot SERRA (2003). Anketiranci so zlatovranko morali prepoznati med slikami zlatovranke, velikega skovika *Otus scops* in smrdokavre *Upupa epops*. Intervju smo nadaljevali le, če je anketiranelec zlatovranko prepoznal. Z anketo smo zbirali podatke o imenu vrste, anketirančevih opazovanjih zlatovranke in o njihovi pripravljenosti, da sodelujejo pri varstvu ptice. Podatke o opazovanjih smo vrisovali na karto TTN 1:50.000. Po zaključku anketiranja smo vse zbrane podatke vnesli v bazo, izdelano s programskim orodjem Access verzija 2000, s katero smo opravili tudi vse analize.

3. Rezultati in diskusija

Anketo smo opravili med 5. in 14.12.2003. Dolžina prevožene poti je bila 78 km, na kateri smo obiskali 178 hiš. Anketirali smo 203 domačine, 100 moških in 103 ženske. Vsi anketiranci so bili starejši od 30 let. Povprečna starost anketirancev je bila 56 let. Zlatovranko je pri preizkusu s slikami uspešno prepoznalo 96 (47%) anketiranih. Skupina starejših ljudi (> 50 let) je zlatovranko prepoznala uspešneje (56%) kot skupina mlajših (30 – 50 let; 31%). Razlog za to je verjetno njeno vse manjše število v zadnjih desetletjih v Slovenskih goricah.

Tabela 1: Ljudska imena za zlatovranko *Coracias garrulus* na posebnem območju varstva »Doli slovenskih goric« v letu 2003

Table 1: Folk names for the European Roller *Coracias garrulus* in the Special Protected Area (SPA) »Doli slovenskih goric« in the year 2003

Ljudska imena/ Folk names	Število ljudi/ No. of people	Odstotek ljudi [%]/ Percentage of people [%]
zlatovrenka	45	47
zlatovranka	36	38
laška vrana	12	12
zlata vrana	3	3
Skupaj / Total	96	100

Domačini so najpogosteje uporabljali imeni *zlatovrenka* in *zlatovranka*, redkeje pa *laška vrana* in *zlata vrana* (tabela 1). Ime zlatovrenka so uporabljali v izpeljankah *zlatovrenkla* in *zlatovrenklja*. Ime laška vrana smo zasledili na S in SZ delu območja (Slatenik, Drankovec, Sp. Jakobski dol, Ročica), ime zlatovrenka



Slika 1: Lokacije gnezdišč zlatovranke *Coracias garrulus*, dobljene s pomočjo ankete v letu 2003 (○ – nekdanje gnezdišče, ▲ – gnezdišče leta 2003, ■ – območje, kjer so domačini zlatovranko največkrat opazovali, črna črta – meja posebnega območja varstva, sive črte – prevožene ceste med opravljanjem ankete, sivo polje – območje rabe imena zlatovrenka)

Figure 1: European Roller's *Coracias garrulus* breeding sites obtained with the aid of questionnaire (○ – former breeding site, ▲ – breeding site in 2003, ■ – area where Rollers were most frequently observed by the locals, black line – SPA border, grey lines – roads covered during the questionnaire, grey field – area where folk name »zlatovrenka« was used)

pa na J in JV delu (Vukovje, Zg. Partinje, Jurovski dol, Malna, Zg. Gasteraj, Žitence; slika 1). Izjem ni bilo. Najverjetneje sta nekdanja razširjenost zlatovranke in pogosta raba imen botrovali njihovi pestrosti. Imen *zelena vrana* in *smrdovranka*, ki ju omenja ERJAVEC (1870), anketiranci niso uporabljali in zanju menimo, da sta že mrtvi besedi. Zelena vrana je tudi najstarejše in izvorno zapisano ime zlatovranke, ki ga najdemo v delu Žige Zoisa *Nomenclatura carniolica* iz leta 1797 (JANČAR 1999).

Izvedeli smo za šest nekdanjih in eno aktivno gnezdišče zlatovranke (slika 1). Ocenjujemo, da so dobljeni podatki o gnezdenju in območjih najpogostejših opazovanj (slika 1) informativne narave, njihovo ovrednotenje pa bi zahtevalo dodatno terensko delo.

Polovica (50%) anketiranih domačinov (n = 102) je bila pripravljena aktivno sodelovati pri ohranitvi zlatovranke. Neopredeljenih je bilo 25% ljudi, prav toliko jih ni bilo pripravljeno aktivno sodelovati. Rezultat se nam zdi pomembno naravovarstveno izhodišče in kaže na ugodne razmere za ukrepe varstva zlatovranke. Tu je treba upoštevati, da anketiranim domačinom niso bili predstavljeni nobeni konkretni primeri ali prednosti sodelovanja (na primer finančna podpora za območja Natura 2000) in so odgovarjali neobremenjeno. Menimo, da lahko zlatovranko na obravnavanem posebnem območju varstva štejejo za karizmatično vrsto (KRYŠTUFEK 1999), saj ji je javno mnenje naklonjeno in se ljudje zavzemajo za to, da bi jo zavarovali.

Zlatovranka je pri nas kritično ogrožena vrsta s populacijo, ki lahko propade zaradi stohastičnih dogodkov. Povečanje populacije je znano v Avstriji (SACKL *et al.* 2004), kjer varstveni program (EU – ÖPUL) za zlatovranko temelji na prostovoljnem sodelovanju lastnikov zemljišč. Kmetje opravljajo natančno določene ukrepe pri upravljanju s travniki in drugih oblikah kmetovanja. Zanje prejmejo letne subvencije (DAS LEBENSMINISTERIUM *pisno*). O zadovoljstvu ljudi, vključenih v program, priča podatek, da se jih iz leta v leto več odloča za sodelovanje. Leta 2003 je tako v programu, ki se je začel leta 1996, sodelovalo že 450 kmetov, noben pa se ni sodelovanju odpovedal (B. WIESER *pisno*). Glede na stanje populacije in odnos ljudi do zlatovranke pri nas menimo, da bi s podobnim programom lahko ohranili vrsto v Sloveniji.

Povzetek

Na posebnem območju varstva Doli slovenskih goric smo ugotavljali, ali so ljudje pripravljeni aktivno sodelovati pri varstvu zlatovranke *Coracias garrulus*. Zbirali smo tudi ljudska imena za zlatovranko in podatke o njeni nekdanji in trenutni razširjenosti. Anketirali smo 203 domačine, 100 moških in 103 ženske, vsi so bili starejši od 30 let. Ljudje so za zlatovranko najpogosteje uporabljali imeni *zlatovrenka* in *zlatovranka*, redkeje pa *laška vrana* in *zlata vrana*. Ime *zlatovrenka* so uporabljali v izpeljankah *zlatovrenkla* in *zlatovrenklja*. Od domačinov smo izvedeli za njenih sedem nekdanjih gnezdišč, in polovica anketiranih je bila pripravljena aktivno sodelovati pri njenem ohranjanju. Zlatovranka je zato primerna karizmatična vrsta z velikim varstvenim potencialom na obravnavanem območju. Menimo, da bi bila izvedba projekta varstva zlatovranke z aktivno vlogo domačinov uspešen način za ohranitev in povečanje populacije te močno ogrožene vrste v Sloveniji.

Summary

The main objective of the research was to determine the willingness of the locals to take active part in the conservation of European Roller *Coracias garrulus* in the Special Protected Area (SPA) Doli slovenskih goric. The area is interwoven by traditional cultural landscape, created and maintained by the local people. No conservation projects have been carried out in the SPA so far, and our goal was to establish the people's general attitude towards the species and its conservation. Simultaneously we gathered the Roller's folk names in the area and data on the species' former and present distribution. Data were obtained with the aid of questionnaire filled by the locals. 203 people took part, 100 men and 103 women, all aged above 30. Most commonly used folk names for the Roller were »zlatovrenka« and »zlatovranka«, the last being its regular name in Slovenia. The name »zlatovrenka« was used in derivatives »zlatovrenkla« and »zlatovrenklja«. Less frequently used names were »laška vrana« and »zlata vrana«. The people told us about seven breeding sites of the Roller. Six were abandoned and one was still active. Half of all participators were willing to take active part in the conservation regarding the bird under consideration, one quarter refused to participate, and one quarter of them were ambivalent. We believe that the introduction of a conservation project including the locals and based on promotion of the traditional way of land-use could be a successful way for the conservation of this critically endangered species in Slovenia.

Literatura

- BEZZEL, E. (1982): Vögel in der Kulturlandschaft. – Eugen Ulmer, Stuttgart.
- BIRDLIFE INTERNATIONAL/EUROPEAN BIRD CENSUS COUNCIL (2000) European bird populations: estimates and trends. – BirdLife International (BirdLife Conservation Series No. 10), Cambridge.
- BOŽIČ, L. (2003): Mednarodno pomembna območja za ptice v Sloveniji 2. Predlogi Posebnih zaščitnih območij (SPA) v Sloveniji. – DOPPS, Monografija DOPPS št. 2, Ljubljana.
- BRAČKO, F. (1986): Naglo upadanje številčnosti zlatovranke *Coracias garrulus* v Sloveniji. – *Acrocephalus* 7 (30): 49–52.
- ERJAVEC, F. (1870): Domače in tuje živali v podobah. III. del: Ptice. – Družba sv. Mohora, Celovec.
- FILIPPI, G. (1993): Lexicon ornithologicum Histriae Slovenicae. – Zgodovinsko društvo za južno Primorsko, Koper.
- HAGEMEIJER, E.J.M. & BLAIR, M.J. (1997): The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. – T & AD Poyser, London.
- JANČAR, T. (1999): Nomenclatura carniolica barona Žige Zoisa – ob 200. obletnici rokopisa. – *Acrocephalus* 20 (94/96): 71–86.
- KRYŠTUFEK, B. (1999): Osnove varstvene biologije. – Tehniška založba Slovenije, Ljubljana.
- SACKL, P., TIEFENBACH, M., ILZER, W., PFEILER, J. & WIESER, B. (2004): Monitoring of the Austrian relict population of European Roller (*Coracias garrulus*) – preliminary data and conservation implications. – *Acrocephalus* 25 (121): 51–57.
- SCHULZ, H. (1999): The 5th International White Stork Census 1994/95 – Preparation, realisation and methods. p.p. 39–48 In: SCHULZ, H. (ed.): Weißstorch im aufwind? – Proceedings, Internat. Symp. on the White Stork, Hamburg, NABU (Naturschutzbund Deutschland e.V.), Bonn.
- SERRA, G. (2003): Discovery of Northern Bald Ibises in Syria. – *World Birdwatch* 25 (1): 10–13.
- URADNI LIST RS (2004): Uredba o posebnih varstvenih območjih (območjih Natura 2000), št. 49/2004, 30.4.2004.

Prispelo / Arrived: 2.12.2004
Sprejeto / Accepted: 7.3.2005

POVZETKI DIPLOMSKIH, MAGISTRSKIH IN DOKTORSKIH DEL

Thesis Summaries

VREZEC, A. (2000): Vpliv nekaterih ekoloških dejavnikov na razširjenost izbranih vrst sov (Strigidae) na Krimu [The effects of some ecological factors on the distribution of selected owl species (Strigidae) on Krim Mountain]. – Graduation Thesis, University of Ljubljana, Biotechnical Faculty, Department of Biology, Ljubljana.

Mentor / Supervisor: doc. dr. Boris Kryštufek

Somentor / Co-Supervisor: doc. dr. Davorin Tome

UDC 598.88:591.5(497.4Krim)(043.2)=863, 94 pages

Avtorjev elektronski naslov / Author's e-mail:

al.vrezec@nib.si

Mt. Krim is the north-western part of the Velika Notranjska plateau, which rises over the southern border of Ljubljansko barje. The main altitude of this plateau is between 800 and 850 m a.s.l. and the highest peak is Krim (1107 m a.s.l.). The area belongs to the Dinaric zoogeographical region. The greater part of the slopes of Mt. Krim are covered by Dinaric beech and fir forest *Abieti-Fagetum dinaricum*, with some different subassociations. The dominant tree species are White Fir *Abies alba* and Beech *Fagus sylvatica*. On the southern slopes there are also some termophilus forest associations as *Ostryo-Fraxinetum* and *Quercu-Ostryetum*. The forest on Mt. Krim is relatively well preserved, with a high proportion (48%) of thick-trunk trees growth phase (diameter of trunks is >30 cm). In these forests three owl species typical of forest habitats are breeding: Ural Owl *Strix uralensis*, Tawny Owl *Strix aluco* and Tengmalm's Owl *Aegolius funereus*.

A census of owls was performed as a point transect with 41 census points on three transects. The census points were 1000 to 1500 m apart. The playback method for owl detection was used. One transect was surveyed three times every month. The other two transects were additional for covering a larger part of the area. The range of hearing the playback in the forest habitat was estimated as 0.5 km. For this reason the survey area round every census point was defined as 0.78 km². The whole survey area covered 32.2 km². The surveys were carried out at night. The stops were approximately 15 to 20 minutes long with 10 minutes of playback, then few minutes listening, and again playback followed by monitoring of trees for owls with

a lamp. For every survey area certain ecological factors were defined: altitude, slope, proportion of clearings, presence of settlement, exposition, type of forest (mixed, coniferous or deciduous forest), dominant vegetation, and growth phase. The data were collected from maps and written sources.

The number of pairs per survey area were recorded. Two estimates of ecological density are presented: the number of pairs per forest area, and the number of pairs per area inside species' altitudinal distribution. The Ural Owl exhibited a high density of 0.98 – 3.17 pairs/10km² (forest: 1.14 – 3.57 pairs/10km² of forest; altitude: 1.06 – 3.41 pairs/10km²) compared to other European data. The densities of the Tawny Owl (2.38 – 5.88 pairs/10km²; forest: 2.68 – 6.82 pairs/10km² of forest; altitude: 2.56 – 5.88 pairs/10km²) and Tengmalm's Owl (0.98 – 3.97 pairs/10km²; forest: 1.14 – 4.61 pairs/10km² of forest; altitude: 2.56 – 8.06 pairs/10km²) were lower compared with other European data. The population sizes of owls on Mt. Krim were estimated to be 13 – 45 pairs for Ural Owl, 33 – 82 pairs for Tawny Owl and 13 – 56 pairs for Tengmalm's Owl. A large population decrease was observed for Tengmalm's Owl between 1997 and 2000 on transect 1. The reasons for this decrease are still unknown.

A similar dynamic of seasonal vocal activity has been observed for all three owl species. Seasonal vocal activity probably depends mainly on the night length and breeding activity of the owls. The first peak of vocal activity is reached in spring (from February to March), followed by a break in vocal activity from June to July. The second peak occurs in autumn (from August to October) and is followed by the second break in winter (from November to December). Tawny and Tengmalm's Owls start to vocalize in January and Ural Owls in March. A break in summer divides the breeding and non-breeding periods. Ural and Tawny Owls vocalize mainly with singing or advertising calls through the whole year. Autumn singing by Tengmalm's Owl is rare, because in this part of the year it vocalizes significantly with smacking calls.

The Ural Owl is the species with the greatest tolerance in its altitudinal distribution, for it is found in districts ranging from 410 to 1060 m a.s.l. The Tawny Owl is a lowland species, selecting significantly only lower altitudes (320 – 850 m a.s.l.). The Tengmalm's

Owl is a highland species, which significantly selects a very narrow altitudinal zone (700 – 940 m a.s.l.). It seemed that in the non-breeding period, owls moved to lower altitudes, but differences between breeding and non-breeding altitudinal distributions were not significant.

Ural Owls live in areas covered mainly with mixed forests (85%), but no significant selection of any of the ecological factors mentioned above was observed. The Tawny Owl is a lowland species, and also significantly selects areas with settlements and areas covered by coniferous forests. Tengmalm's Owl is a highland species, which significantly selects areas covered by forest subassociation, *Abieti-Fagetum dinaricum omphalodetosum* (77%). Discriminant analysis was used for searching rules of owl distribution on Mt. Krim. The Ural Owl and Tengmalm's Owl have been shown to be the most similar species in terms of ecological factors. This similarity was confirmed by testing differences between owl distribution patterns on Mt. Krim. The differences were significant between distributions of Ural and Tawny Owl ($D^2=15.4$, $p=0.004$) and between Tawny and Tengmalm's Owl ($D^2=22.07$, $p<0.0001$). The difference between distributions of Ural and Tengmalm's Owl was not significant.

To understand competition and coexistence it is important to know the species' ecological niches. Tengmalm's Owl is the most specialized of the three owl species as it has the narrowest ecological niche (0.45; Shannon-Wiener diversity index). Overlap of ecological niches (measured by MacNaughton – Wolf similarity index) was the greatest between the Ural and Tengmalm's Owl (0.80) and the least between the Tawny and Tengmalm's Owl (0.57). Larger overlap of niches, however, does not necessarily mean greater competition. The situation on Mt. Krim is probably the consequence of former competitive exclusion which resulted in narrowing of the ecological niche of some species (e.g. Tawny Owl). On the other hand, coexistence between some species is also possible (e.g. Ural and Tengmalm's Owl). The reason probably lies in strong ecological isolation mechanisms between these two owl species.

DENAC, K. (2003): Smrtnost vretenčarjev na cestah Ljubljanskega barja [Road mortality of vertebrates on Ljubljansko barje (Slovenia)]. Graduation Thesis, University of Ljubljana, Biotechnical Faculty, Department of Biology, Ljubljana.

Mentor / Supervisor: doc. dr. Ivan Kos
UDC 656.11:596(497.4Ljubljansko barje) (043.2)=863,
62 pages
Avtorjev elektronski naslov / Author's e-mail:
katarina.senegacnik@guest.arnes.si

Environmental fragmentation due to increasingly dense road networks limits dispersion and causes isolation of (sub)populations and a decrease in their viability. Traffic directly causes an increase in animal mortality. Roads alter the behaviour (size and location of home ranges, dispersion, foraging) and reproductive success of animals, as well as the physical and chemical properties of the environment. They enable spreading of non-native species and increased use of environment by people. Due to roads the species' composition of communities and their population sizes change. The main factors influencing the presence of a species on the road are: species' ecology and activity pattern, weather, season, topography and vegetation along the roadside and illumination of the road. Some species search for food or gastroliths on the roads. Roads and road verges are warmer and free of snow earlier in the season than other parts. Road verges can offer breeding places or perches to some species. Numerous reptiles use roads for thermoregulation. The probability of an animal getting hit by a vehicle depends on the following factors: physical characteristics of the road, animal's size, speed, activity pattern and the direction of its road crossing; vehicles' speed and their »activity pattern«. Traffic greatly affects slow species, species with low reproduction potential, species with high population densities along the roads and species with large home ranges and long dispersion distances. The correlation between traffic density and mortality can be positive, negative or absent. The influence of roads on populations depends on the sex and age of road casualties and the time of death. It is most pronounced in the case of adult female casualties before reproduction. In my thesis I tried to evaluate the influence of traffic on vertebrate species of Ljubljansko barje. I determined the influence of different types of habitat along the road on the number of casualties and species' composition of thanatocenosis. I also attempted to determine the correlation between traffic density and the density of casualties. I located black spots for amphibians.

Data was gathered on the roads of the central part of Ljubljansko barje between 1 Sep 2000 and 30 Aug 2001. The total length of roads was 26.1 km. Carcasses on both sides of the road were surveyed at least once a week. The whole length was divided into 9 sections according to the type of habitat alongside the road. The sections with the same type of habitat were then joined in analysis (settlements: 15.3 km, open landscape: 5.55 km and forest edge: 5.25 km). Open landscape comprised intensively managed meadows, extensively managed wet meadows and fields. The censuses were done by bicycle or car (max. speed 40 km/h). During spring night censuses one section of the road was counted on foot because of migrating Common Newts *Triturus vulgaris*. Their numbers would have been greatly underestimated if surveyed from a car. From February to May roads were surveyed in each rainy night because of the migration of amphibians. Carcasses were determined to the lowest taxonomic level possible. Where possible, sex and age were also determined. The location of each carcass (side or middle of the road) was noted. Carcasses were removed from the road in order to avoid double counting.

Altogether 2045 carcasses were found, belonging to 4 vertebrate classes and 59 different species (8 species or 1788 individuals of amphibians, 4 sp. or 48 ind. of reptiles, 27 sp. or 98 ind. of birds and 20 sp. or 111 ind. of mammals). Eudominant taxa were Common Toad *Bufo bufo*, Brown Frogs, *Rana temporaria* and *R. dalmatina*, and Common Newt; dominant was Common Tree Frog *Hyla arborea*. The highest density of casualties (286.3 ind./km) was found at forest edge and is largely attributable to amphibian migration from wintering to spawning sites and back. Amphibians and reptiles reached highest densities at forest edge (274.5 ind./km and 6.5 ind./km, respectively), the latter due mostly to juvenile and subadult dispersal and migration to wintering sites in the forest. The most common reptile species were the Grass Snake *Natrix natrix* and the Slow-worm *Anguis fragilis*. Birds and mammals showed lowest densities at forest edge (2.1 ind./km and 3.2 ind./km, respectively). Small mammals inhabiting forests are reluctant to venture out to open areas such as roads, because of the greater chance of being preyed upon. In my opinion, the same holds true for many birds that breed in the forest (with the exception of Song Thrush *Turdus philomelos*, Blackbird *T. merula* and Robin *Erithacus rubecula* which can often be seen foraging on roadsides, forest edges and field edges). The middle density of casualties (56.4 ind./km) was found on roads in open landscape. Birds and

mammals reached highest densities in this type of habitat (5.8 ind./km and 6.1 ind./km, respectively) with Tree Sparrow *Passer montanus*, Arvicolidae and Soricidae being the most common taxa. The most of the birds were killed during autumn migration. At that time corn harvesting is in full run with many spilled grains remaining on the roads for birds to feed on. In the time of autumn floods on Ljubljansko barje (November) many small mammals are killed while attempting to cross roads which are flooded up to their verges. At the same time birds are killed by passing vehicles when feeding on earthworms that come onto the roads. The lowest density of casualties was recorded in settlements (15.0 ind./km) – they consist mostly of birds and mammals (3.6 ind./km and 3.9 ind./km, respectively), with House Sparrow *Passer domesticus*, Eastern Hedgehog *Erinaceus concolor* and Feral Cat *Felis silvestris* being the commonest species. The lower densities of casualties in this type of habitat are attributable to several factors: (1) lower population densities of non-synantropic species due to traffic, (2) absence of amphibian migration routes and (3) experience in avoiding traffic.

The majority of vertebrates were killed in March, which reflects the migration time of amphibians from wintering to spawning sites. A lesser peak was detected in September and October and is largely due to amphibian migration in the opposite direction. The least vertebrates were killed from December to January (hibernation of amphibians, reptiles, bats, hedgehogs; absence of certain bird species; decreased activity of most other species). The majority of amphibians were killed from February to May (maximum in March) and September to October. The lowest numbers were detected in January. These data reflect the temporal pattern of their migrations among different habitats (wintering, spawning and summer feeding sites). Their migration began in the first week of February, but massively one month later in the beginning of March, with the ambient temperature of 6°C. There was an increase of migrating individuals during rainy nights. The presence on the road of some amphibians even during winter is probably a consequence of a very mild winter 2000/01 with unusually high temperatures. Reptiles were killed from April to October with a peak in August – September (dispersion of juvenile and subadult individuals, migration to wintering sites). The majority (69.6%) of reptiles were juveniles and subadults. Juveniles were found from the second week of August (Grass Snake) to the last week of September (Slow-worm). They were absent in late autumn and winter due to hibernation. Birds were killed in all months, except in December. In winter, there is less

food on the roads and many species of birds migrate south and are therefore absent. 91.8% of casualties belonged to passerines and 8.2% to non-passerines. The majority of birds (76.5%) were killed from May to September (that roughly encompasses breeding time, juvenile dispersal and autumn migration). Among those with known age there were 25.8% juveniles but this percentage is underestimated due to difficult age determination in the genus *Passer*. Mammals were killed throughout the whole year, but significantly less in the winter. This is a result of some species' hibernation (Eastern Hedgehog, bats) and decreased activity of others.

When determining the correlation between traffic density and the density of casualties, there was insufficient data on traffic density to make a reliable correlation diagram (the data was available only for three sections). The negative relationship between the two is very obvious when using data for all vertebrates. That is due to the fact that the section with lowest traffic density crosses the amphibian migration route and the road with highest traffic density does not. With the exclusion of amphibian data there is still a negative relationship but now the differences are very small. The data on traffic density for all sections should be obtained and population densities of vertebrates alongside road monitored.

Two black spots for amphibians were discovered. The first one is located on the first 1400 m of section no. 2 (open landscape). The second one comprises the entire section no. 5 (5.25 km) passing through forest edge. Six more such spots were discovered on the rest of Ljubljansko barje.

The established number of killed vertebrates should be regarded as minimal for a one year period. The carcasses disappear between censuses (due to carrion feeders, removal by hunters, rain, ploughing, high traffic density and sticking to tyres), they are less visible if lying on road verges and when surveyed from a car.

In my opinion, road mortality does not endanger the long-term survival of vertebrate populations on Ljubljansko barje, taking into consideration the present density of roads and traffic. The only exception to this might be some slow moving amphibian species such as Common Toad and Common Newt. In this case, roads cause massive elimination of sexually mature specimens before they can reproduce.

IZ ORNITOLOŠKE BELEŽNICE

From the ornithological notebook

SLOVENIJA / SLOVENIA

RUMENOKLJUNI SLAPNIK *Gavia adamsii* &
BELOLISKA *Melanitta fusca*

Yellow-billed Diver & Velvet Scoter – 1 Yellow-billed Diver and 2 Velvet Scoters at Sečovlje salt pans (UTM UL83, SW Slovenia) on 19 Mar 2004. Fourth record of the Yellow-billed Diver in Slovenia.

Dne 19.3.2004 sem sklenil izkoristiti svoj nekajdnevni obisk v Sloveniji na Obali. V Sečoveljskih solinah je bilo nenavadno tiho. V nekaterih bazenih sploh ni bilo vode, drugi pa so bili, z izjemo nekaj rečnih *Larus ridibundus* in rumenonogih galebov *Larus cachinnans*, prazni. Poleg muzeja solinarstva se je oglašal samotni beločeli deževnik *Charadrius alexandrinus*, na vodi pa se je pozibal par srednjih žagarjev *Mergus serrator*. Poleg teh ptic sem opazil še nekaj velikih belih *Egretta alba* in sivih čapelj *Ardea cinerea* ter nekaj malih ptic, kot so na primer bela pastirica *Motacilla alba*, rumeni strnad *Emberiza citrinella* in poljski vrabec *Passer montanus*. Ob izlivu Dragonje v Piranski zaliv sem začel pregledovati morsko gladino. Teleskop sem najprej usmeril proti hrvaškim školjčičščem, na katerih je posedalo nekaj kormoranov *Phalacrocorax carbo*, in ga nato počasi premikal proti portoroškim plažam. V vidnem polju sem srečeval posamezne čopaste *Podiceps cristatus*, rjavovrate *Podiceps griseogenus* in črnovrate ponirke *Podiceps nigricollis* ter nekaj mlakaric *Anas platyrhynchos*. Nato sem v smeri portoroških skladišč, na oddaljenosti okoli 200 m od brega, zagledal dve raci, črni in večji od vseh drugih. Bili sta beloliski. To vrsto ptice dobro poznam iz Poljske, kjer na baltiški obali prezimuje v velikih jatah. Uro kasneje sem na približno istem mestu zagledal ptico, ki sem jo dobro poznal z različnih slik. Šlo je za rumenokljunega slapnika v zimskem perju. Bila je velika, siva ptica z velikim, svetlim kljunom z rumenkasto konico, ki ga je držal navzgor. V primeri z meni znanimi rdečeglrimi slapniki je bil kljun opazovanega slapnika očitno močnejši. Sivi trup ptice, dokaj globoko potopljen v vodo, je bil prekrit z vzorcem, ki je ustvarjal vtis velikih, svetlih lusk. Prsi, ki so samo neznatno molile iz vode, so bile bele, debeli in kratki vrat pa je bil na straneh temnejši. Le spredaj in na grlu je bil svetel.

Črno oko se je izrazito razločevalo od svetlejšega ozadja. Na licih so bile izrazite temnejše lise. Čelo je bilo dokaj temno in nekoliko izbočeno. Ptica se je gugala na majhnih valovih in si čistila peruti. Čez nekaj časa se je potopila in ostala pod vodo okoli pol minute. Opisano opazovanje rumenokljunega slapnika je Nacionalna komisija za redkosti potrdila za četrto opazovanje v Sloveniji. Zadnjič je bila vrsta v Sloveniji opazovana le leto prej, 2003, ravno tako na morju, in sicer v Strunjanu [VREZEC, A. & RUBINIČ, B. (2003): Rumenokljuni slapnik *Gavia adamsii*. – *Acrocephalus* 24 (118): 109]. Namen mojega obiska na slovenski obali je bil preveriti, ali južne vrste ptic, ki še niso priletele na Poljsko, prebivajo na sončni strani Alp, kjer čakajo na lepše vreme. Namesto njih pa sem srečal severne vrste, ki bi jih prej pričakoval na Poljskem kot v Sloveniji.

Maciej Szymariski, ul. Bernardyńska 1a/67, 02-904 Warszawa, Poland, e-mail: macszym@yahoo.com

ČRNA ŠTORKLJA *Ciconia nigra*

Black Stork – regularly occurring along the Sava river near Kresnice (260 m a.s.l., UTM VM80, central Slovenia) in the summer months from 2002 to 2004, and observation of 1 individual near Črni vrh in Tuhinjska valley (600 m a.s.l., UTM VM81, central Slovenia) on 11 Jul 2004

V Kresnicah na južnem bregu Save (260 m n.v.), približno 200 m V od mostu čez Savo, se je od leta 2002 do 2004 v poletnih mesecih redno pojavljala črna štorcklja. Navadno je stala na gruču tik ob vodi, kjer se je verjetno prehranjevala. Čeprav je ob Savi več gozdičkov, kjer bi utegnili gnezdit, gnezda nisem nikoli našel. Očitno je Sava na tem predelu pomembno prehranjevališče črne štorcklje, saj je bila vrsta tu opazovana že daljnjega leta 1983 [MATVEJEV, S.D. (1984): Črna štorcklja *Ciconia nigra*. – *Acrocephalus* 5 (19/20): 22]. Sicer pa sem črno štorckljo v bližini opazoval tudi 11.7.2004 v Tuhinjski dolini pri Črnem vrhu (600 m n.v.).

Andrej Kapla, Cesta Hermana Debelaka 21, SI-1430 Hrastnik, Slovenija, e-mail: trechus@volja.net

ČOPASTA ČRNICA *Aythya fuligula*

Tufted Duck – female leading 6 chicks at Hrašče pools on 1 Sep 2004 (UTM VM51, N Slovenia); first confirmed breeding record for the Gorenjska region since 1992

Med bolj ali manj rednimi obiski Hraških mlak pri Smledniku v zadnjih desetih letih sem se nemalokrat spraševal, zakaj tu čopasta črnica ne gnezdi že vse od leta 1991, ko sta bila tu opazovana 2 para z 8 mladiči [BIBIČ, A. (1992): Čopasta črnica *Aythya fuligula*. – *Acrocephalus* 50: 21]. Dejstvo je namreč, da se tu pojavlja v kar lepem številu v vseh letnih časih in mlaki zapusti šele tedaj, ko ju prekrije led. Toda 1.9.2004 se mi je naposled le prikradel nasmeh na usta, ko sem zagledal samico, vodečo 6 napol odraslih mladičev. Od leta 1992, ko je bil na Brdu pri Kranju opazovan par teh rac s sedmimi mladiči [GEISTER, I. (1995) Ornitološki atlas Slovenije – DZS, Ljubljana], je to prvi potrjeni podatek o gnezdenju čopaste črnice na Gorenjskem. Sicer pa je povsem mogoče, da čopasta črnica med popisi v preteklosti ni bila v Sloveniji zabeležena kot gnezdilka kratko malo zato, ker glede na večino podatkov pri nas gnezdi razmeroma pozno. Seveda pa se hkrati vsiljuje vprašanje, ali ni mogoče, da je mlaka v Hrašah glede na svojo velikost že »preobremenjena« z drugimi podobnimi gnezdkami in je bila čopasta črnica kratko malo prisiljena gnezdit pozneje.

Henrik Ciglič, Likozarjeva 7, SI-4000 Kranj, Slovenija, e-mail: cigi@s5.net

ČRNI ŠKARNIK *Milvus migrans*

Black Kite – late observation of 1 individual on 12 Oct 2004 at Medvedce reservoir SE of Pragersko (UTM WM53, NE Slovenia)

Dne 12.11.2004 sem med obhodom vodnega zadrževalnika Medvedce jugovzhodno od Pragerskega v SV Sloveniji opazoval prvoletnega črnega škarnika. Gre za redke pozen podatek. V pregledu *Acrocephalus* 2000 – 2004 nisem našel kasnejšega datuma. Večina teh ptic se namreč seli iz Evrope avgusta, le malo pa jih ostane do septembra ali dlje [CRAMP S., ed. (1978): Handbook of the birds of Europe, the Middle East, and North Africa, Vol. I: Ostrich to Ducks. – Oxford University Press, Oxford].

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenija, e-mail: dejanonih@email.si

ŠKRJANČAR *Falco subbuteo*

Hobby – an individual pursuing a flock of bats at dusk on 11 Sep 1996 near Ormož (UTM WM94, NE Slovenia)

Z Borutom Štumbergerjem sva jasen in hladen večer, 11.9.1996, preživela pri bazenih za odpadne vode Tovarne sladkorja d.d. v Ormožu. Spremljala sva intenzivno selitev pobrežnikov *Charadriiformes*, posebej prodnikov treh vrst, malega *Calidris minuta*, spremenljivega *C. alpina* in srpokljunega prodnika *C. ferruginea*, ki jih je bilo skupaj čez 100. V mraku so najino pozornost pritegnile »ptice«, ki so letale iz smeri Drave proti bazenom. Hitro sva ugotovila, da gre pravzaprav za večje netopirje, najverjetneje so bili mračniki *Nyctalus* sp., za katere je znano, da se selijo [KRYŠTUFEK, B. (1991): Sesalci Slovenije. – Prirodoslovni muzej Slovenije, Ljubljana]. Nad lagunami je jata netopirjev lovila žuželke, njihovo število pa je naraslo čez 500. V tej jati sva nenadoma zagledala škrjančarja, ki jih je lovil kot za šalo, in videti je bilo, da netopirji nimajo prav nobene obrambe pred njim. Mrak je zakril njihov ples, škrjančar pa je z gostijo nadaljeval v noč. Očitno netopirji Chiroptera v prehrani škrjančarja niti niso takšna redkost, saj so bili najdeni med ostanki plena denimo tudi na škrjančarjevem gnezdu v Lescah [KOZINC, B. (1999): Analiza ostankov plena iz gnezda škrjančarja *Falco subbuteo*. – *Acrocephalus* 20 (93): 50–52].

Damijan Denac, Gorkičeva 14, SI-1000 Ljubljana, Slovenija, e-mail: damijan.denac@nib.si

GOZDNI JEREB *Bonasa bonasia*

Hazel Grouse – late brood; female with 2 chicks (approx. 2 weeks old) observed on 19 Jun 2003 near Loški potok (UTM VL66, S Slovenia)

Na makadamski cesti med Loškim potokom in Loško dolino je 19.6.2003 moj avto preletela samica gozdnega jereba z mladičem. Ustavil sem in pregledal okolico, kjer sta vzletela. Nenadoma sem opazil še enega operjenega mladiča, ki je otrpnil na suhi veji na tleh. Približal sem se mu na dva metra, vendar ni zletel. Tedaj se je v bližini oglasila samica, kličeč svojega mladiča. Stopil sem za glasom in tedaj zagledal dva mladiča in samico v zraku. Habitat je primeren za gozdnega jereba – mozaičen z zaraščajočimi travniki in odraslim gozdom ter pestro sestavo drevesnih in grmovnih vrst. Preseneča zelo pozno leglo. Mladiči so bili po oceni stari okoli dva tedna. Običajno se izvalijo v drugi polovici maja [BERGMAN, H.H., KLAUS, S.,

MULLER, F., SCHERZINGER, W., SWENSON, J.E. & WIESNER, J. (1996): Die Haseluhner. – Die Neue Brehm-Bucherei Bd. 77, Westarp Wissenschaften, Magdeburg], to leglo pa je zamujalo za dober mesec. Verjetno so bili mladiči iz nadomestnega legla.

Mirko Perušek, Jurjevica 2A, SI-1310 Ribnica, Slovenija, e-mail: mirko.perusek@zgs.gov.si

ŽERJAV *Grus grus*

Common Crane – observation of a flock of 32 individuals on 7 Nov 2004 on Menišija plateau near Pokojišče (UTM VL48, Central Slovenia); the area of Menišija could possibly serve as an important corridor for migration of large bird species, considering that data on observation of several other migrating species are also at hand, including Marsh Harrier *Circus aeruginosus*, Honey Buzzard *Pernis apivorus*, and Griffon Vulture *Gyps fulvus*

Dne 7.11.2004 sem pred hišo na Pokojišču v daljavi zaslišal znano oglašanje in kmalu opazil jato žerjavov v značilnem klinu. Naštel sem 32 ptic, ki so nekaj časa krožile nad Sebonjim lazom (804 m n.v.) zahodno od Pokojišča ter kmalu zatem izginile v oblaku v smeri proti zahodu. V zadnjih letih se redno pojavljajo poročila o opazovanjih žerjavov v Sloveniji, predvsem z območja SV Slovenije [VREZEC, A. (1995): Žerjav *Grus grus*. – *Acrocephalus* 16 (71): 128; BRAČKO, F. (2003): Žerjav *Grus grus*. – *Acrocephalus* 24 (117): 75; LABUS, N. & KROFEL, M. (2003): Žerjav *Grus grus*. – *Acrocephalus* 24 (118): 111; D. BORDJAN *ustno*]. Iz osrednje Slovenije so znani podatki s Cerknškega jezera [KMECL, P. & RIŽNER, K. (1993): Pregled vodnih ptic in ujed Cerknškega jezera; spremljanje številčnosti s poudarkom na preletu in prezimovanju. – *Acrocephalus* 14 (56/57): 4–31; VREZEC, A. & ELERŠEK, T. (2003): Žerjav *Grus grus* & togotnik *Philomachus pugnax*. – *Acrocephalus* 24 (116): 32], Ljubljane [LEGIŠA, P. (1998): Žerjav *Grus grus*. – *Acrocephalus* 19 (89): 118] in Ljubljanskega barja (E. VUKELIČ *ustno*). Območje Menišije bi lahko bilo pomemben koridor za selitev žerjavov in tudi nekaterih drugih večjih vrst, ki izkoriščajo termiko. Dne 10.9.2004 sem na primer opazoval mladosten osebek rjavega lunja *Circus aeruginosus*, ki je preletel Mali Trebelnik (807 m n. v., UTM VL58) v smeri proti Ljubljanskemu barju. Trije (3) sršenarji *Pernis apivorus* so bili očitno na selitvi, ko so dne 23.5.2003 krožili nad vasjo Zabočevo v Borovniški dolini (A. VREZEC *pisno*). Z Ljubljanskega barja ob vznožju Menišije v bližini Borovnice pa je bil opazovan tudi beloglavi

jastreb *Gyps fulvus* [SZYMAŃSKI, M. (2002): Beloglavi jastreb *Gyps fulvus*. – *Acrocephalus* 23 (112): 110].

Miha Krofel, Zavrh pri Borovnici 2, SI-1353 Borovnica, Slovenija, e-mail: mk_lynx@yahoo.co.uk

VELIKI SKOVIK *Otus scops*

Scops Owl - an adult (brown morph) sitting on 2 eggs in a hollow of an old apple tree on 28 Jun 1997 in the village of Markovci (UTM WM99, Goričko, NE Slovenia). On 9 Aug, 2 fledged young were found crouching in the hollow.



Leta 1997 smo v okviru ornitološkega raziskovalnega tabora v Markovcih sistematično popisovali ptice mozaične kulturne krajine na Goričkem za potrebe opredelitve območja IBA. Med popisovanjem po metodi štetja na površini smo pregledali tudi vsa večja dupla v visokodebelnih sadovnjakih. Dne 28.6.1997 smo v skupini, ki smo jo sestavljali Dominik Bombek, Barbara Pislak, Jakob Smole in pisec, naleteli na gnezdo velikega skovika. Odrasli veliki skovik, rjava različica, je negibno sedel v duplu na dveh jajcih. Jablana z duplom je rasla v manjšem odprtem visokodebelnem

sadovnjaku, ki je obkrožal hišo in gospodarsko poslopje nad pokopališčem v vasi Markovci (glej sliko). Drevo je bilo od neprometne vaške ceste oddaljeno približno 5 m, od najbližje stavbe pa 10 m. Travnik v sadovnjaku je bil košen, duplo je bilo približno 1,5 m nad tlemi. Vhodna odprtina je bila velika 25 × 19 cm, duplo je bilo globoko 20 cm. Dne 9.8.1997 sta v duplu čepela že 2 povsem operjena mladiča, ki sta gotovo že letela, kar pa je zanimivo, saj se mladiči skovikov, potem ko zapustijo duplo, po literaturnih podatkih praviloma vanj ne vračajo več [CRAMP, S., ed. (1994): Handbook of the birds of Europe, the Middle East and North Africa. The birds of the eastern Palearctic. Vol. 4, Terns to Woodpeckers. – Oxford University Press, Oxford]. Populacija velikega skovika na Goričkem je največja kontinentalna populacija v Sloveniji [ŠTUMBERGER, B. (2000): Veliki skovik *Otus scops* na Goričkem. – *Acrocephalus* 21 (98/99): 23–26], skoviki pa so najpogostejši na območjih mozaične krajine z visokodebelnimi sadovnjaki. Podatkov o najdenih gnezdh velikega skovika pri nas, posebej v SV Sloveniji, praktično ni, in naše vedenje o gnezditveni ekološki niši te sovce je zelo skopo.

Damijan Denac, Gorkičeva 14, SI-1000 Ljubljana, Slovenija, e-mail: damijan.denac@nib.si

TRIPRSTI DETEL *Picoides tridactylus*

Three-toed Woodpecker – late nest in a dead Norway Spruce *Picea abies*. An adult feeding the young on 15 Jul 2004 in the Beech and Fir forest *Omphalodo-Fagetum* s. lat. with predominant deciduous trees at Stojna in the Kočevsko region (UTM VL58, S Slovenia)

Navadno sem dupla z mladiči triprstega detla opazoval v drugi polovici maja. Na jugozahodni strani kočevske Stojne sem 15.7.2004 opazoval krmljenje že precej velikih mladičev triprstega detla v jelovo bukovem gozdu *Omphalodo-Fagetum* s.lat. Gnezditilno duplo v višini 4,5 m je triprsti detel izdolbel v odmrli smreki *Picea abies* prsnega premera 25 cm. Habitat je nekoliko neobičajen za to vrsto, saj prevladujejo listavci, odmrlih dreves pa je v okolici malo. Razlog za gnezdenje je verjetno treba iskati v neobičajnih razmerah, saj se v tem delu Stojne že od leta 2002 pojavljajo prenamnožitve podlubnikov Scolytidae na jelki *Abies alba* in smreki. Obilje hrane na posameznih drevesih je izkoristil tudi triprsti detel z zelo pozno gnezditvijo, in to v pretežno listnatem sestoj.

Mirko Perušek, Jurjevica 2A, SI-1310 Ribnica, Slovenija, e-mail: mirko.perusek@zgs.gov.si

ČOPASTA SINICA *Parus cristatus*

Crested Tit – fledged young observed on 30 Jun 2004 in orchard at Mala Slavšina (UTM WM75, Slovenske gorice, NE Slovenia)

Dne 30.6.2004 smo se Luka Božič, Klarisa Sipoš, Jan Vodovnik, Barbara Zakšek in pisec teh vrstic odpravili popisovat ptice kulturne krajine na območje Slovenskih goric. Okoli 6.00 zjutraj smo v sadovnjaku v kraju Mala Slavšina na jablanah opazili sinice. Podrobnejši pregled je razkril, da gre za speljane mladiče čopaste sinice. Ornitološki atlas gnezdilok [GEISTER, I. (1995): Ornitološki atlas Slovenije. – DZS, Ljubljana] za območje Slovenskih goric čopaste sinice ne navaja, saj na tem območju ni večjih iglastih gozdov, ki so glavni habitat vrste.

Jurij Hanžel, Židovska ulica 1, SI-1000 Ljubljana, Slovenija

HRVAŠKA / CROATIA

BEWICK'S SWAN *Cygnus columbianus*

Mali labod – prvi podatek za naravni park Kopački rit in drugi veljavni podatek za Hrvaško; 3 osebkii so bili opazovani 4.11.2004 v družbi 800 gosi (600 sivih gosi *Anser anser*, 120 beločelih gosi *A. albifrons*, 80 njivskih gosi *A. fabalis*) na ribnikih Podunavlje v naravnem parku Kopački rit (UTM CR25, V Hrvaška). Avtorji navajajo še pregled dosedanjih podatkov o pojavljanju malega laboda na Hrvaškem: (1) delta reke Neretve (nezanesljiv podatek; CSÖRGEY 1902), (2) Lonjsko polje, 14.2.1998 (KRIVOŠIĆ 1998, MUŽINIĆ & VASILIK 2002). (barvna priloga – slika 1)

During a regular bird monitoring on 4 Nov 2004 at Podunavlje fishponds, Kopački Rit Nature Park, the first author observed three swans landing in the midst of a flock of 800 geese. The birds landed approximately 800 metres from the observer and at first glance appeared to be Snow Goose in view of their short necks and small size. A closer look, however, revealed that they were larger than geese, but smaller than Mute or Whooper Swans, two species that are relatively common during the winter in this area. Also, their clearly visible diagnostic black and yellow bills, with yellow base with rounded end, as opposed to the sharply ending yellow base in Whooper Swans that extends well beyond nostrils, revealed that the observed birds were Bewick's Swans (Colour appendix – Figure 1). The birds joined the flock of 600 Greylag Geese *Anser anser*, 120 White-fronted Geese *A. albifrons*, and 80

Bean Geese *A. fabalis* at around 11:00 when geese return from arable land to the fishponds for drinking and resting. After landing, the swans began to swim and bathe, occasionally chasing Greylag Geese that approached them too close. Later they sat on the tree-stump, resting and preening. Later on, the Bewick's Swans were also observed by the second author, Stjepan Tkalčević, and Vatroslav Škrnjug. Breeding in Russian tundra and wintering mainly in northwestern Europe, Bewick's Swan is a very rare species in Croatia. The first occurrence of Bewick's Swans in Croatia was confirmed on the basis of a killed specimen from the Neretva delta in Dalmatia [CSÖRGEY, T. (1902): Fünf Monate in Spalato. – *Aquila* 10 (1/4): 66–104]. However, CSÖRGEY (1902) did not give the exact date of its recovery nor mentioned the fate of the body. According to some resources, the specimen ended in the Natural History Museum Trieste, but since there is no such account in Sadini's catalogue, recent authors consider this record as doubtful [SADINI, G. (1960/61): La raccolta regionale degli uccelli conservata nel Museo Civico di Storia naturale in Trieste. – *Atti Mus. Civ. St. Nat. Trieste* 22: 67–131; KRALJ, J. (1997): Croatian ornithofauna in the last 200 years. – *Larus* 46: 1–122]. The first accepted record of Bewick's Swan in Croatia dates back to 14 Feb 1998 when four birds were observed between Mužilovčica and Kratečko villages in Lonjsko Polje Nature Park. These birds were photographed by Lea Krivošić from Sisak. From these photographs, Bewick's Swans could be determined without any doubts [KRIVOŠIĆ, L. (1998): U Lonjskom polju – 243. ptičja vrsta. – *Večernji List*, 26.02.1998; MUŽINIĆ, J. & VASILIK, Ž. (2002): The first tundra swan (*Cygnus columbianus*) in Croatia. – *Israel Journal of Zoology* 48(3): 248–249]. Based on these data, we can conclude that our observation is the third possible occurrence and second valid record of Bewick's Swans in Croatia. Also it is the first record for Kopački Rit Nature Park, whose total number of bird species has now reached 292.

Jozsef Mikuska, Department of Biology, University of Osijek, L. Jagera 9, HR-31000 Osijek, Croatia

Tibor Mikuska, Kopački rit Nature Park Management Office, Ul. P. Sandora 33, HR-31327 Bilje, Croatia, e-mail: tibor@kopacki-rit.com
Alma Mikuska, Department of Biology, University of Osijek, L. Jagera 9, HR-31000 Osijek, Croatia, e-mail: almaogresevic@yahoo.com

ČAPLJICA *Ixobrychus minutus*

Little Bittern – four records from the end of April 2004 on the island of Korčula (S Dalmatia): (1) exhausted individual at the village of Račišće (UTM XH65) on 27 Apr, (2) 1 individual at Donje Blato

(UTM XH75) on 29 Apr, (3) 1 exhausted female at Donje Blato on 30 Apr, and (4) 5 individuals on pond near Vela Luka (UTM XH45) on 29 Apr

Ob prihodu s terena na biološkem taboru na Korčuli v južni Dalmaciji dne 27.4.2004 sem zvedel, da je skupina pod mentorstvom Andreja Kaple v naselju Račišće našla izčrpano čapljico. Le-to so si lokalni otroci dobesedno podajali med sabo. Kljub hitremu posredovanju je čapljica kmalu poginila. Drugo čapljico smo opazili 29.4. na Donjem Blatu. Tam se je spreletela z enega grma na drugega. Naslednjega dne je na tem istem mestu Andrej Kapla našel samico čapljice. A tudi ta je čez nekaj ur poginila. Predvidevam, da sta bila oba osebka popolnoma izčrpana. Istega dne je Vesna Cafuta opazovala jato petih čapljic ob kalu blizu Vele Luke. Morda je otok Korčula pomemben kot počivališče te ptice na njeni poti čez Sredozemsko morje.

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenija, e-mail: dejanonih@email.si

LANNER FALCON *Falco biarmicus*

Južni sokol – nova vrsta za naravni park Vransko jezero (UTM WJ46, S Dalmacija); dne 31.10.2004 je osebek lovil v kmetijskem območju med Benkovcem in Biogradom

At 10.40 on 31 Oct 2004, a Lanner Falcon flying from the direction of Vransko Jezero Nature Park tried to settle down on dry branches of a thick poplar along the Benkovac – Biograd road some four kilometers before the town in the agricultural area near the main canal. I could clearly see its thin beard and the more elegant, slenderer jizz as that of the larger Peregrine with longer wings and tail, but smaller in size. The bird was attacked by two Hooded Crows *Corvus corone cornix*, and while comparing the sizes of the two species, the falcon seemed to be slightly larger with longer wings. It flew off low over the cultivated area westwards in chase of birds. The area was full with smaller migrants such as pipits and wagtails, but also flocks of Yellow-legged *Larus cachinnans* and Black-headed Gulls *L. ridibundus*. The Lanner is a new bird species for Vransko Jezero, as it does not appear in the list of 234 species occurring in the Park [RADOVIĆ, D., TUTIŠ, V. & KRALJ, J. (2004): Inventarizacija i valorizacija ornitofaune Parka prirode Vransko Jezero. – Zavod za Ornitologiju HAZU, Zagreb]. The Croatian population is estimated at only 5 pairs [RADOVIĆ, D., KRALJ, J., TUTIŠ, V. & ČIKOVIĆ, D.

(2003): Crvena knjiga ugroženih ptica Hrvatske. – MZOPU, Zagreb].

Martin Schneider-Jacoby, Euronatur, Konstanzer Str. 22, D-78315 Radolfzell, Germany, e-mail: martin.schneider-jacoby@euronatur.org

BAILLON'S CRAKE *Porzana pusilla*

Pritlikava tukalica – tri vrste tukalica, verjetno na selitvi, opazovane v mrtvici Tišina v Budaševem pri Sisku (UTM XL13, Lonjsko polje, V Hrvatska): (1) 1 osebek grahaste tukalice *Porzana porzana* 16.8.2002, (2) 1 osebek male tukalice *Porzana parva* 15.8., 16.8., 1.9. in 8.9.2002 in (3) 1 osebek pritlikave tukalice 11., 15. in 16.8.2002. Gre za prva opazovanja pritlikave tukalice na Lonjskem polju.

In August and September 2002, I frequently visited the Tišina oxbow at Budaševo near Sisak. I was paying special attention to crakes, which during my visits fed on water lilies and dried-up mud along the reed belt. I was able to observe them particularly well from the angling platforms, in some places even less than 2 metres away from the observed birds. I managed to identify all three *Porzana* species. I saw one (1) specimen of Spotted Crane *Porzana porzana* on 16 Aug 2002. Little Crane *Porzana parva* was recorded on 15 Aug 2002 (1), 16 Aug 2002 (2), 1 Sep 2002 (1), and 8 Sep 2002 (1). Baillon's Crane, on the other hand, was seen on 11 Aug 2002 (3), 15 Aug 2002 (1), and 16 Aug 2002 (1). Let me underline that I was dealing strictly with individuals, mainly males. Apart from the above stated birds, I saw a few more individuals which, however, could not be identify with utmost certainty. I presume that the recorded birds were on migration and that these unusually frequent observations were due to the extremely dry summer and, consequently, the very low water level in the oxbow. Namely, the birds searching for food moved to more open spaces, out of the reed and willow shelter, and were therefore much easier to observe. The observation of Baillon's Crane was no doubt of the greatest interest. The occurrence of crakes in the area of Lonjsko polje has been so far reported only by M. Schneider-Jacoby [SCHNEIDER-JACOBY, M. (1988): Endangered and rare birds in the alluvial wetlands of the Sava river on the Posavina/Croatia. – *Larus* 40: 167–178], who registered, on 23 Apr 1986 at Krapji Dol, a male Little Crane during its display calling, and at least 10 pairs of Spotted Crane at four different localities. In the same work, he reported on his observations of four small crakes at Poganovo polje on 15 Aug 1986, which he was apparently unable

to identify with certainty (Little or Baillon's Crane). However, according to his dissertation [SCHNEIDER-JACOBY, M. (1993): Vögel als Indikatoren für das ökologische Potential der Saveue und Möglichkeiten für deren Erhaltung. – Dissertation zur Erlangung des Doktorgrades der Biologische Fakultät der Universität Konstanz, Konstanz], he observed only Little and Spotted Crakes. Upon my enquiry he confirmed that that the disputable observation probably concerned Little Crane (M. SCHNEIDER-JACOBY *pers. comm.*). Consequently, this is the first confirmed record of the Baillon's Crane for the area of Lonjsko polje. Baillon's Crane is a rare breeder in Croatia, both in the interior and in the coastal parts of the country. It has been known to breed at Jelas polje and Slavonska Podravina [KRALJ, J. (1997): Ornitofauna Hrvatske tijekom posljednjih dvjesto godina. – *Larus* 46: 1–112] and in the Neretva valley [SACKL, P., BOŽIČ, L. & ŠTUMBERGER, B. (2003): Baillon's Crane *Porzana pusilla* on the lower Neretva river: notes on a possible breeding location in southern Dalmatia. – *Acrocephalus* 24 (116): 21–27], whereas in the area of Baranja it has been registered only as a rare passage migrant [MIKUSKA, J., MIKUSKA, T. & ROMULIĆ, M. (2002): Vodič kroz biološku raznolikost Kopačkog rita, Knjiga I: Ptice. – Matica hrvatska Osijek i Javna ustanova Park prirode "Kopački Rit", Osijek].

Željko Vasilik, S.Bereka 11, HR-44202 Topolovac, Croatia, e-mail: zeljko.vasilik@ina.hr

ČOKETA *Gallinago media*

Great Snipe – 1 individual observed on 30 Apr 2004 in a wet meadow at Donje Blato near the town of Korčula (UTM XH75, Korčula Island, S Dalmatia)

Na biološkem taboru na Korčuli v južni Dalmaciji sem 30.4.2004 obiskal Donje Blato pri mestu Korčula. Takoj ob prihodu na delno poplavljeni del kompleksa travnikov sem splašil srednje veliko ptico. Bila je čoketa. Ptica me je večkrat obkrožila in se kakih sto metrov stran spustila v travo. Čoketa je dopolnila bogato avifavno, na katero smo do tistega trenutka naleteli na Donjem Blatu. Gre za opazovanje redke ptice v Dalmaciji [RUCNER, D.(1998): Ptice hrvatske obale Jadrana. – Hrvatski prirodoslovni muzej, Ministarstvo razvitka i obnove, Zagreb].

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenija, e-mail: dejanonih@email.si

WHITE WAGTAIL *Motacilla alba*

Bela pastirica – počivališče v trstičju na zahodni strani Vranskega jezera (UTM WJ46, S Dalmacija); vsaj 1400 ptic je bilo opazovanih 31.10.2004 na preletu med 16.30 in 16.55 v jatah s 50 do 150 osebk

On 31 Oct 2004, between 16.30 and 16.55 hrs, at least 1400 White Wagtails flew over the new built ornithological ringing station in Vransko Jezero Nature Park to the reed beds at the west end of the Lake, arriving from the cultivated areas west of the Lake. The flock sizes were estimated at 50 to 150 individuals. As the eastern wind was blowing, the birds flew very low only 10 m above the vegetation. The reed belt is protected as the Park's core zone and as one of the most important reed beds on the Eastern Adriatic coast. It would be interesting to describe the functions of the area for bird species, which use this site as their night quarters throughout the year.

Martin Schneider-Jacoby, Euronatur, Konstanzer Str. 22, D-78315 Radolfzell, Germany, e-mail: martin.schneider-jacoby@euronatur.org
Gojko Pintur, Vransko Jezero Nature Park, Kralja Petra Svačića 2, HR-23210 Biograd n/m, Croatia, e-mail: pp-vransko-jezero@zd.hinet.hr

TRAVNIŠKI VRABEC *Passer hispaniolensis*

Spanish Sparrow – two new colonies found on Pelješac Peninsula (S Dalmatia); on 13 Jun 2004, a large colony (at least 50 breeding pairs) was found in the village Praprotno on the coast (UTM YH14), and a colony with approximately 20 nests on 14 Jun 2004 in Trpanj park (UTM XH86)

Travniški vrabec je gnezdilka polotoka Pelješac v južni Dalmaciji. Območje naseljuje v manjših kolonijah, ki jih večinoma najdemo v naseljih [VREZEC, A. (2003): Travniški vrabec *Passer hispaniolensis*. – *Acrocephalus* 24 (118): 115–116]. Doslej so bile kolonije najdene v sedmih naseljih [RUCNER, D. (1998): Ptice hrvatske obale Jadrana. – Hrvatski prirodoslovni muzej, Ministarstvo razvitka i obnove, Zagreb; VREZEC, A. (2001): Travniški vrabec *Passer hispaniolensis*. – *Acrocephalus* 22 (106/107): 132; VREZEC 2003]. Večina kolonij, z izjemo kolonije v Malem Stonu, je manjših z le nekaj gnezdečimi pari (VREZEC 2003). V juniju 2004 sva se s Petro Vrh namenila poiskati še kakšno kolonijo te na Hrvaškem sicer precej ekspanzivne vrste [npr. KRALJ, J. (1997): Ornitofauna Hrvatske tijekom posljednjih dvjesto godina. – *Larus* 46: 1–112; RUBINIČ, B. (2001): Širjenje severozahodne meje gnezditvenega areala travniškega vrabca *Passer hispaniolensis* vzdolž Jadranske obale: kako se vede

nova populacija v hrvaški Istri. – *Acrocephalus* 22 (109): 207–211]. Našla sva dve koloniji, in sicer prvo dne 13.6.2004 v vasi Praprotno tik ob morju, kjer sva ocenila, da v krošnjah borov *Pinus* sp. gnezdi vsaj 50 parov, in v naselju Trpanj, kjer sva dne 14.6.2004 v mestnem parku ravno tako v krošnjah borov našla kakih 20 gnezd. Obe koloniji sodita med večji na Pelješcu, vprašanje pa je, ali gre za stari ali za povsem novo nastali koloniji.

Al Vrezec, Pražakova 11, SI-1000 Ljubljana, Slovenija, e-mail: al.vrezec@nib.si

SRBIJA (SRBIJA IN ČRNA GORA)/
SERBIA (SERBIA & MONTENEGRO)RED-NECKED GREBE *Podiceps griseogena*

Rjavovrati ponirek – 14 osebkov (13 odraslih, 1 mladosten) 3.4.2004 na ribnikih v Bečeju (UTM DR14, Vojvodina, S Srbija) v treh skupinah (5, 5 in 4 os.)

The spring migration of Red-necked Grebe in Vojvodina (N Serbia) starts in the second half of March and ends in the first half of May. However, migration flocks with more than 10 birds are very rare [HULO, I. (1997): Migration of birds from orders of Gaviidae, Podicipedidae and Anatidae on Palić lake between 1981 – 1996. – *Ciconia* 6: 51–70]. So far, its migration in central part of the Tisa valley has been documented only during the autumn [ŠĆIBAN, M. (2004): New data on some rare species recorded on Biserno ostrvo and Bečej fishpond. – *Ciconia* 12, *in print*]. Together with Milan Ružić and Robert MacCurrach, the author visited Bečej fishponds on 3 Apr 2004. On "Pond 3", 14 Red-necked Grebes (13 adults and 1 immature) were observed in 3 separate flocks (5, 5 and 4 individuals). These flocks were observed among 100 Black-necked Grebes *Podiceps nigricollis*, 70 – 80 Wigeons *Anas penelope* and about 120 Shovelers *Anas chlypeata*. This is the first documented spring observation of this species on the fishponds and, so far, the biggest flock of Red-necked Grebes recorded in Serbia.

Marko Šćiban, Bate Brkića 18, 21000 Novi Sad, Serbia and Montenegro, e-mail: sciban@eunet.yu

PYGMY CORMORANT *Phalacrocorax pygmeus*

Pritlikavi kormoran – več primerov kršitev varstva vrste s strani lovcev na območju Zapadne Morave v okolici Čačka (Z Srbija); najdbe kadavrov ustreljenih

ptic: (1) 1 kadaver na bregu Zapadne Morave pri vasi Trnava (UTM DP55) 18.3.2002, (2) 1 star kadaver blizu Trbušanov (UTM DP45) 24.3.2002, (3) 1 svež kadaver v gramoznici na Ateničkem polju (UTM DP55) 30.1.2002 (glej sliko), (4) kakih 10 dni star kadaver v gramoznici na Trnavskem polju (UTM DP55) 8.2.2003



On the Zapadna Morava and its four reservoirs in the vicinity of Čačak (W Serbia), up to 300 Pigmy Cormorants regularly spend the winter [RUŽIĆ, M. (2004): Evaluation of predation levels of fish-eating birds on fish of the Međuvršje reservoir with special reference to cormorants *Phalacrocorax* spp. – Beležnik Ovčarsko-Kablarske klisure 3, *in print*]. During our survey of the wintering flocks, local hunters were seen on several occasions pursuing the flocks and shooting at them. Cadaver of the first shot bird was found on 18 Mar 2002 on the bank of the Zapadna Morava next to the village of Trnava (UTM DP55). On 24 Mar 2002, an old corpse was found in the scrubs close to the river near Trbušani (UTM DP45). In the gravel-pit at Ateničko polje (UTM DP55), one freshly killed specimen was found on 30 Jan 2002 floating on the water surface (see photo). In the gravel-pit of Trnavsko polje (UTM DP55), about ten days old corpse, stuck in willow branches, was found on 8 Feb 2003. Most probably, all these birds were shot during the intensive winter waterfowl hunting season. According to our observations, illegal hunting performed by local hunting clubs are the main threat to this species in the Zapadna Morava valley, especially in the autumn and winter months. The reason is most likely the hunters' widespread lack of knowledge about its legal protection. According to the Action Plan for the Pygmy Cormorant in Europe, it is recommended that a ban on hunting should be implemented in all areas where more than 100 individuals of Pygmy Cormorants spend the winter [CRIVELLI, A.J., NAZIRIDES, T. & JERRENTUP, N. (1996): The Action Plan for the

Pygmy Cormorant (*Phalacrocorax pygmeus*) in Europe. – BirdLife International & European Commission, Brussels].

Milan Ružić, Ul.8/8 N. N. Atenica, 32000 Čačak, Serbia and Montenegro, e-mail: rob@eunet.yu
Marko Šćiban, Bate Brkića 18, 21000 Novi Sad, Serbia and Montenegro, e-mail: sciban@eunet.yu

GLOSSY IBIS *Plegadis falcinellus*

Plevica – gnezditveno sumljiv osebek opazovan na ribnikih v Bečeju (UTM DR14, V Bačka) dne 1.6.2004

One of the special features of Bečej fishponds (eastern Bačka, Vojvodina, UTM DR14) in 2004 were tiny ponds created in the former „Pond 1“ after its partitioning. The works aimed at deepening the ponds as well as constructing and consolidating the embankments, created numerous shallow depressions full of water. The ditch, in which a sluice was built, was connected with one of the fishponds' channels, which provided water for the shallow depressions. This niche, gradually overgrown by sedge *Carex* sp., was obviously very rich in food, which has been proved by the presence of numerous foraging ducks, waders, herons and Spoonbills *Plalatelala leucorodia* throughout March, April and May. The water, however, started to evaporate very fast during May, leaving just small patches in early June. Near the edge of one of them, 1 Glossy Ibis foraged on 1 Jun 2004. This species has already been observed on migration at Bečej fishponds: five records are known so far, the latest one from the spring migration on 13 May 1991, when two individuals were recorded [LUKAČ, Š. & LUKAČ, A (1992): Ornitofauna ribnjaka “Bečej”. – Ciconia 4: 4–27]. Although the June observation may indicate possible breeding in the local mixed heron colony [PUZOVIĆ, S., GERGELJ, J. & LUKAČ, Š. (1999): Heron and cormorant colonies in Serbia 1998. – Ciconia 8: 11–114], this possibility is minimal due to the absence of Glossy Ibis during inspection on 30 May and 20 June 2004, and during the very frequent visits paid to the fishpond this year. However, a possibility of one or two pairs of Glossy Ibises breeding in the heron colony on Jazovo fishpond (UTM DR38) in 2004 is greater. Namely, two adults were seen circling above the colony during its inspection for the purpose of Spoonbill colour ringing on 20 Jun at 18:00 hrs. The ibises came from the north, where vast saline meadows are known to spread, and after circling continued to the east. On Jazovo fishpond, where migrating Glossy Ibises were seen almost regularly, possibly 3 [GERGELJ, J., TOT, L. & FRANK Z. (2000): Birds of Tisa area from

Kanjiza to Novi Becej. – *Ciconia* 9: 121–158] or 4 pairs bred in 1998 (PUZOVIC *et al.* 1999) in one of the two large local heron colonies.

Marko Tucakov, Marka Oreškovića 9, 25275 Bački Breg, Serbia and Montenegro, e-mail: mtucakov@eunet.yu
Marko Šćiban, Bate Brkića 18, 21000 Novi Sad, Serbia and Montenegro, e-mail: sciban@eunet.yu
Antun Žuljević, Vere Gucunje 20, 25000 Sombor, Serbia and Montenegro, e-mail: buza@Zravangrad.net

BLACK STORK *Ciconia nigra*

Črna štoklja – 7 osebkov opazovanih na selitvi pri zaselku Podvorce v mestu Leskovac (UTM EN87, JV Srbija) dne 18.5.2003

On 18 May 2003 afternoon, 2 plus 5 Black Storks were seen flying over Podvorce, the old part of Leskovac (SE Serbia), towards the west. It is possible that these birds landed on Turekovac field, where dump of the “Mesoprodukt” meat processing company is situated and where I had already observed several heron species and White Stork *Ciconia ciconia* on some earlier occasions, but never the Black Stork. As there are no suitable breeding sites for the Black Stork nearby, it can be stated that I actually observed a migrant flock.

Slobodan Kulić, 28. marta 25, 16000 Leskovac, Serbia and Montenegro, e-mail: avikula@ptt.yu

PINTAIL *Anas acuta*

Dolgorepa raca – večja jata 150 – 200 osebkov na jezeru Mezgarica pri Kruševlju (SZ Bačka, Vojvodina, UTM CR59) dne 13.3.2004 in okoli 100 osebkov dne 14.3.2004

On 13 Mar 2004, a rather cloudy but warm spring day, I and Draženko Rajković visited Lake Mezgarica near Kruševlje (NW Bačka, Vojvodina UTM CR59) where, according to our experience from the previous years, several waterbird species should be seen at this time of the year. On the very small natron lake, we saw several ducks and geese resting. The most numerous among them was the Pintail with 150 – 200 individuals. Although this species is a regular spring migrant in Vojvodina, large flocks of migrating birds are rarely seen here [ŠOTI, J. & DIMITRIJEVIĆ, S. (1974): Prilog poznavanju ornitofaune Vojvodine (Gaviiformes, Podicipediformes, Pelecaniformes, Ciconiformes, Anseriformes zapadnog dela Banata). – Zbornik Matice srpske za prirodne nauke 46: 127–160]. Apart from these birds, we saw about 80 Shovelers *Anas clypeata*, 50 White-fronted Geese *Anser albifrons*, 1

Curlew *Numenius arquata* and 100 Lapwings *Vanellus vanellus* on the same lake and on its banks. I visited the lake again on the following day, 14 Mar 2004. In its central part, I counted 100 Pintails, 50 Wigeons *Anas penelope*, 10 Mallards *A. platyrhynchos*, one Ferruginous Duck *Aythya nyroca*, 35 Godwits *Limosa limosa* and 10 Redshanks *Tringa totanus*. In the surrounding meadows, I recorded 300 foraging Lapwings and about 600 Starlings *Sturnus vulgaris*, and no less than 100 Cranes *Grus grus* in the adjoining field.

Dejan Đapić, Vuka Karadžića 134, 25284 Stanišić, Serbia and Montenegro, e-mail: mrki04@neobee.net

RED-NECKED PHALAROPE *Phalaropus lobatus*

Ozkokljuni liskonožec – 1 osebek 3.9.2004 na jezeru Rusanda pri Melencih (UTM DR44, Z Banat, Vojvodina); jezero je zelo pomembno za seleče se vodne ptice, še zlasti, ko so okoliška mokrišča suha

On 3 Sep 2004, Milan Ružić, Robert MacCurrach and I decided to pay a visit to the Rusanda natron lake near Melenci (UTM DR44, W Banat, Vojvodina). The water area was diminishing due to the summer heath; in its central part, the lake was only 20 – 30 cm deep. On its northern side, we observed one Red-necked Phalarope, slowly swimming and feeding close to the bank, just about 10 m from us, which enabled us to observe it thoroughly for more than 10 minutes. This is the first documented observation of this species on Rusanda in 42 years; the last specimen was recorded in autumn 1962 [ANTAL, L., FERENBACH, J., MIKUŠKA, J., PELLE, I. & SZLIVKA, L. (1971): Register of birds of the Autonomous Province of Vojvodina. – *Larus* 23: 73–121]. Apart from the Red-necked Phalarope we observed large numbers of other migrants resting and feeding on the lake, mainly waders. There were around 400 Curlews *Numenius arquata*, 10 – 20 Whimbrels *N. phaeopus*, 90 – 100 Avocets *Recurvirostra avosetta*, at least 2 Black-winged Stilts *Himantopus himantopus*, 60 – 70 Lapwings *Vanellus vanellus*, 35 – 40 Spotted Redshanks *Tringa erythropus*, 1 Greenshank *T. nebularia*, 3 – 4 Wood Sandpipers *T. glareola*, around 20 Ruffs *Philomachus pugnax*, about 20 Little Ringed Plovers *Charadrius dubius*, 1 Ringed Plover *Ch. hiaticula*, 5 – 10 Shovelers *Anas clypeata*, and 2 – 3 Garganey *A. querquedula*. This indicates huge importance of the lake for waterbird migration, especially when other local natron lakes, Slano Kopovo and Okanj, are dry.

Marko Šćiban, Bate Brkića 18, 21000 Novi Sad, Serbia and Montenegro, e-mail: sciban@eunet.yu

JAY *Garrulus glandarius*

Šoja – opazovana jesenska selitev; 29.9.2004 je bilo med 9:45 in 12:30 nad mrtvico Mrtva Tisa pri Bačkem Gradištu (UTM DR24, V Bačka, Vojvodina) opazovanih 38 osebkov, največ, 32, med 12:10 in 12:25 uro, ki so leteli v smeri SZ-JV

Between 9:45 and 12:30 on 29 Sept 2004, I and Robert MacCurrach counted 38 Jays flying over the Mrtva Tisa oxbow near Bačko Gradište (UTM DR24, E Bačka, Vojvodina). The highest influx of birds was recorded between 12:10 and 12:25, when 32 birds were seen flying individually or in groups containing up to 4 individuals, once with 4 Rooks *Corvus frugilegus*. The Jays were flying in NW-SE direction. Arable land, cottages, gardens, orchards (especially Common Walnut *Juglans regia*) and this large oxbow with its reedbeds predominate in the area. Similar flocks had also been observed in Slovenia, although during spring migration [BRAČKO, F. (2001): Šoja *Garrulus glandarius*. – *Acrocephalus* 22 (109): 238]. On the same day, we also saw a solitary bird on the embankment along the Tisa river on Biserno ostrvo and one individual in the orchard situated next to the Rusanda natron lake near the village of Melenci.

Marko Ščiban, Bate Brkića 18, 21000 Novi Sad, Serbia and Montenegro, e-mail: sciban@eunet.yu

ČRNA GORA (SRBIJA IN ČRNA GORA)/ MONTENEGRO (SERBIA & MONTENEGRO)

GRIFFON VULTURE *Gyps fulvus*

Beloglavi jastreb – beloglavi jastreb velja v Črni gori za izumrlo gnezdilko, a je bil v zadnjem času dvakrat opazovan na deponiji pri Podgorici (UTM CN50, osrednja Črna gora): (1) 5 osebkov se je hranilo na kadavrih januarja 2001 in (2) 3 osebkovi dne 13.2.2002

In the 19th century, the Griffon Vulture was classified as a breeder in Montenegro. On Mt. Durmitor it bred in Crvena stijena [REISER, O. & FÜHRER, L. VON (1896): Materialien zu einer Ornithologia Balcanica, Teil IV, Montenegro. – Carl Gerold's Sohn, Wien]. However, the research carried out in the 1980s did not confirm its breeding in the area [VASIĆ, V., MARINKOVIĆ, S. & VIZI, O. (1990): Fauna Durmitora. – Crnogorska akademija nauka i umjetnosti, knjiga 23, Odjeljenje prirodnih nauka, knjiga 14, sveska 4, Podgorica]. This has been further corroborated by the latest investigations, in which this species is classified as

„reproductively extinct” [MARINKOVIĆ, S. & GRUBAČ, B. (2000): Beloglavi sup, *Gyps fulvus*. Atlas of Serbian Birds of Prey. – Institute for The Protection of Nature of Serbia, Beograd]. In the last few decades, the Griffon Vulture has been recorded in the Prokletije Mts. and at city landfill in Podgorica. At this 54 ha large dump even dead cattle are deposited. In the winter months, Griffon Vultures were registered twice at the Podgorica landfill, feeding on the dead animals' corpses. In January 2001, five Griffon Vultures were seen on the carcasses, whereas on 13 Feb 2002 three individuals were recorded there. At the end of the 19th century, a colony of these birds was known to inhabit the canyon of the Cijevna river, no more than about 2 km from the present landfill [FIRER, L. (1894): Jedna godina ornitološkog izučavanja u Crnoj Gori. – Glasnik Zemaljskog muzeja u Bosni i Hercegovini, 7: 241–258].

Darko Saveljić, National Institute for the Protection of Nature, Trg Bećir bega Osmanagića 16, 81000 Podgorica, Montenegro, e-mail: dasav@cg.yu

BONELLI'S EAGLE *Hieraetus fasciatus*

Kragulji orel – dve opazovanji iz južne Crne gore: (1) 1 odrasel osebek 27.4.2003 v letu nad Veliko Plažo SV od Ulcinja blizu izliva reke Bojane (UTM CM53), (2) 1 odrasel osebek 16.10.2004 med kroženjem nad goro Sveti Đorđe nad reko Bojano blizu Ulcinjskih solin (UTM CM54). Avtorji domnevajo, da kragulji orel gnezdi v gorskem zaledju reke Bojane.

During the last century, the Bonelli's Eagle's population numbers drastically declined throughout its core European breeding area in the western Mediterranean. With its status largely unknown, its population estimates for the Balkans are lacking or widely differ [SNOW, D.W. & PERRINS, C.M., eds. (1998): The Birds of the Western Palearctic, Concise Edition. – Oxford University Press, Oxford & New York; HEATH, M., BORGREVE, C. & PEET, N. (2000): European Bird Populations: Estimates and Trends. – BirdLife Conservation Ser. 10, BirdLife International, Cambridge]. The Montenegrin numbers were estimated by SNOW & PERRINS (1998) at 3 – 5 breeding pairs. Their estimate appears to be based on the published records by F. Agnew (18 Aug 1935, Zogaj), V. Wendland (~1944, between Cetinje and Lake Skadar), V.F. Vasić and M.R. Shepherd (30 Apr 1974, 30 Apr and 9 May 1975, Lake Šasko) [THORPE, W.H., COTTON, P.T. & HOLMES, P.F. (1936): Notes on the birds of lakes Ohrid, Malik, and Prespan and adjacent parts of Yugoslavia, Albania, and

Greece. – Ibis 6 (Ser. 13): 557–580; KATTINGER, E. (1958/59): Contribution to the study of the birds of Albania (Shqipëria) and certain adjacent Yugoslav regions. – *Larus* 12/13: 123–216; VASIĆ, V.F. (1979): Popis faune ptica područja Ulcinja (južna Crna Gora). – *Biosistematika* 5: 71–111]. In contrast, VIZI [VIZI, O. (1981): Ornithology of Lake Skadar. pp. 391–424 In: KARAMAN, G.S. & BEETON, A.M. (eds.): The Biota and Limnology of Lake Skadar. – Univerzitet “Veljko Vlahović”, Smithsonian Institution & Center for Great Lake Studies, University of Wisconsin – Titograd, Washington D.C. & Milwaukee] lists Bonelli's Eagle as irregular winter visitor for the Lake Skadar area. During the breeding bird surveys and waterfowl counts in the Bojana/Buna delta and the Ulcinj salt-pans for EURONATUR we saw the species on two occasions between Apr 2003 and Oct 2004. Around 19:30 p.m. on 27 Apr 2003 a Bonelli's Eagle glided a few metres above the ground inland from the sea, putting up a group of Oystercatchers *Haematopus ostralegus*, which rested in sand dunes of Velika Plaža, south-east of Ulcinj, close to the Bojana river mouth, before perching in a high White Poplar *Populus alba* on the edge of coastal woodlands. According to its almost white underparts, very pale forearms, black mid-wing bars and subterminal tail-band we identified it as an adult bird. During later bird surveys in spring and summer 2003 and 2004 in the entire river corridor we found no other evidence for the presence of the species. But, another adult was seen during the wader counts at the Ulcinj salt-pans in the early afternoon of 16 Oct 2004. We watched the eagle for 5 to 10 minutes, soaring up very high above the hills behind Sveti Đorđe and afterwards gliding, without losing height, above the Bojana river into Albanian territory. Bonelli's Eagles are highly sedentary and even outside the breeding season usually do not go beyond a radius of 50 km of eyrie or roost (SNOW & PERRINS 1998). According to our recent sightings of adult birds during the breeding season (late Jan – May), the species appears to nest in the mountainous hinterland of the Bojana river. Regular sightings of the species between 1974 and 1981 in southern Montenegro are also mentioned in a review for raptors of the former Yugoslavia [VASIĆ, V., GRUBAČ, B., SUŠIĆ, G. & MARINKOVIĆ, S. (1985): The status of birds of prey in Yugoslavia, with particular reference to Macedonia. pp. 45–53 In: NEWTON, I. & CHANCELLOR, R.D. (eds.): Conservation Studies on Raptors. – ICBP Technical Publ. 5, Cambridge].

Peter Sackl, Stmk. Landesmuseum Joanneum, Raubergasse 10, A-8010 Graz, Austria, e-mail: peter.sackl@stmk.gv.at
Tina Lončar, Gosposvetska 12, SI-2000 Maribor, Slovenia, e-mail: martina_loncar@yahoo.com

Jakob Smole, Cafova 4, SI-2000 Maribor, Slovenia, e-mail: jakob.smole@email.si
Borut Štumberger, SI-2282 Cirkulane 41, Slovenia, e-mail: stumberger@siol.net

LANNER FALCON *Falco biarmicus*

Južni sokol – 5 opazovanj iz južne Črne gore: (1) 1 odrasel osebek kroži 5.5.2003 nad goro Sutjel pri Reču na desnem bregu Bojane (UTM CM64), (2) 1 odrasel osebek lovi 2.11.2003 ob obali v mestu Ulcinj (UTM CM54), (3) 1 mladostni osebek opažen 4.5.2003 pri Donji Klezni na Briškem polju ob Šaskem jezeru (UTM CM64), (4) 1 samec lovi 18. in 25.10.2004 blizu prelaza Vidikovac ob Skadarskem jezeru (UTM CM65). Avtorji ocenjujejo, da na 850 km² velikem območju okoli Šaskega jezera in na gorskem grebenu ob Skadarskem jezeru gnezditna 1 do 2 para.

The European breeding area of the Lanner Falcon is restricted to the central and eastern Mediterranean, with its total population currently estimated at 200 to 370 breeding pairs. While Italy hosts > 55% of the population, only scarce or unclear information is at hand for the Balkan Peninsula [HEATH, M., BORGGREVE, C. & PEET, N. (2000): European Bird Populations: Estimates and Trends. – BirdLife Conservation Ser. 10, BirdLife International, Cambridge; RADOVIĆ, D., KRALJ, J., TUTIŠ, V. & ČIKOVIĆ, D. (2003): Crvena knjiga ugroženih ptica Hrvatske. – Ministarstvo zaštite okoliša i prostornog uređenja, Zagreb]. In Montenegro, REISER & FÜHRER [REISER, O. & FÜHRER, L. VON (1896): Materialien zu einer Ornithologia Balcanica, IV. Montenegro. – Carl Gerold's Sohn, Wien] found inland nesting sites in the mountains of the upper Morača river, the Kuči Mountains along the Albanian border, and near Građani, Crmnica Highlands, between Lake Skadar and the Adriatic Sea during the late 19th century. Between Apr and May 1967 – 1975, the species was seen several times in Petrovac, Ulcinj and at Lake Šasko in southern Montenegro [BOSWALL, J. & DAWSON, R. (1975): Spring notes on the birds of southern Montenegro with special reference to wetlands. – Bull. B.O.C. 95: 4–5; VASIĆ, V., GRUBAČ, B., SUŠIĆ, G. & MARINKOVIĆ, S. (1985): The status of birds of prey in Yugoslavia, with particular reference to Macedonia. pp. 45–53 In: NEWTON, I. & CHANCELLOR, R.D. (eds.): Conservation Studies on Raptors. – ICBP Technical Publ. 5, Cambridge]. For Albania, reliable data are more or less lacking. But in March 1944, E. Kattinger saw two solitary Lanners on the southern Albanian coast [KATTINGER, E. (1958/59): Contribution to the study of the birds of Albania (Shqipëria) and certain adjacent

Yugoslav regions. – *Larus* 12/13: 123–216], whereas H. Kolbe noticed a specimen on the old castle of Shkoder in Jun/Jul 1959 [KOLBE, H. (1962): Ornithologische Beobachtungen in Albanien. – Beitr. Vogelkd. 8: 121–139]. Recently, scattered observations from the Kurvelesh Mountains, Thethi area and the south-east of the country are mentioned [LEONARDI, G. (2001): Lanner Falcon *Falco biarmicus*. – BWP Update 3(3): 157–174]. Concentrating on waterbirds and wader surveys we visited, with the aid of EURONATUR, the Ulcinj salt-pans, the lowlands of the Bojana/Buna river corridor in southern Montenegro and Albania, and the coastal mountains south of Lake Skadar during the six expeditions between late Apr 2003 and Oct 2004. Together with D. Saveljić (Podgorica) we noted solitary Lanners on various occasions, including (1) an adult falcon circling above Mount Sutjel in Reč along the right bank of the Bojana river, before hunting along the Reci i Ri hills into the Albanian part of the river corridor on 5 May 2003, and (2) an adult hunting along the coastline at the old town of Ulcinj on 2 Nov 2003. (3) A bird in juvenile plumage was seen during point counting soaring above the hills near Donja Klezna in Briško polje at Lake Šasko in the late morning of 4 May 2003. On two occasions, i.e. on (4) 18 and (5) 24 Oct 2004 between 11:00 – 11:20, during daytime watching of bird migration across the pass Vidikovac, a solitary male was seen hunting along the mountain ridge into the Albanian part of Lake Skadar. On 18 Oct the falcon swooped down from the ridge across the northern slope of the mountain, unsuccessfully attacking a small flock of White Wagtails *Motacilla alba*, which fed along the lake's shoreline. According to our data, the area of approximately 850 km² may host 1 – 2 bp around Lake Šasko and on the mountain ridge along the southern shore of Lake Skadar. LEONARDI (2001) estimated the population for the Balkans at < 30 bp, with 10–20 bp along the Dalmatian coast, 3 – 5 bp in Serbia, and 2 – 5 bp for Montenegro. In the EBCC Atlas of European Breeding Birds, numbers for the Balkans are given with < 100 bp [HAGEMEIJER, W.J.M. & BLAIR, M.J. (1997): The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance. – T & AD Poyser, London].

Peter Sackl, Stmk. Landesmuseum Joanneum, Raubergasse 10, A-8010 Graz, Austria, e-mail: peter.sackl@stmk.gv.at

Tina Lončar, Gosposvetska 12, SI-2000 Maribor, Slovenia, e-mail: martina_loncar@yahoo.com

Jakob Smole, Cafava 4, SI-2000 Maribor, Slovenia, e-mail: jakob.smole@email.si

Borut Štumberger, SI-2282 Cirkulane 41, Slovenia, e-mail: stumberger@siol.net

CRANE *Grus grus*

Žerjav – več novejših podatkov o pojavljanju žerjava v južni Črni gori: (1) jata 24.3.2004 na Čemavskem polju pri Podgorici (UTM CN50); (2) 1 osebek 8.4.2004 na severni obali Skadarskega jezera (UTM CM47); (3) 18 osebkov 9.4.2004 v Ulcinjskih solinah (UTM CM54); (4) 7 ptic leti dne 26.10.2004 nad goro Lovčen (1300 – 1750 m n.v.) pri Boki Kotorski (UTM CM29); (5) 23 žerjavov počiva dne 9.11.2004 v skupini s čapljami in kodrastimi pelikani *Pelecanus crispus* v Ulcinjskih solinah (UTM CM54)

South of their main resting sites in the Carpathian Basin, the Dalmatian and Montenegrin coast is situated along the western or central Balkan section of the Cranes' east European flyway. This section of the flyway across the Adriatic Sea and southern Italy into North Africa is used by north-eastern European populations during spring and autumn migrations. Till the early 20th century, cranes were found in large numbers as passage and very irregular winter visitors throughout the wetlands of Lake Skadar area and Bojana/Buna river corridor in southern Montenegro and northern Albania [REISER, O. & FÜHRER, L. VON (1896): Materialien zu einer Ornithologia Balcanica, Teil IV, Montenegro. – Carl Gerold's Sohn, Wien; IVANOVIĆ, B. (1970): Neka ornitološka zapažanja na Skadarskom jezeru. – *Larus* 21/22: 137–160]. E. Kattinger saw various flocks migrating northwards along the Albanian coast in March 1942 [KATTINGER, E. (1958/59): Contribution to the study of the birds of Albania (Shqipenija) and certain adjacent Yugoslav regions. – *Larus* 12/13: 123–216]. In the wake of large-scale destruction of wetlands, unregulated hunting and other disturbances, stop-over sites at Lake Skadar and the former Zogajsko lake (Ulcinj salt-pans) were largely deserted during the 1970s and 1980s [VASIĆ, V.F. (1979): Popis faune ptica područja Ulcinja (južna Crna Gora). – *Biosistematika* 5: 71–111; VIZI, O. (1981): Ornithology of Lake Skadar. pp. 391–424 In: KARAMAN, G.S. & BEETON, A.M. (eds.): The Biota and Limnology of Lake Skadar. – Univerzitet "Veljko Vlahović", Smithsonian Institution & Center for Great Lakes Studies, University of Wisconsin – Titograd, Washington D.C. & Milwaukee]. Currently no information on crane migration is available for the area. During spring and autumn 2004, we noted various flocks at historically known resting sites in southern Montenegro. On 24 Mar 2004, Cranes rested at Čemovsko polje near Podgorica. But according to the local newspapers, more flocks were present in the lowlands between the northern shore of Lake Skadar and the Lovčen Mountains in late March,

with unknown numbers shot by local hunters. Around 17:00 on 8 Apr, a solitary adult was seen soaring up at the northern shore of Lake Skadar, close to the Albanian border, and migrating to the north, while another flock of 18 birds rested in the Ulcinj salt-pans on 9 Apr. In the autumn, around 14:15 on 26 Oct, we noticed from the road at the northern coastline of Risanski zaljev in the Bay of Kotor (Boka Kotorska) a flock of 7 Cranes migrating during sunny and almost windless weather approximately 800 metres above the ridge of the Lovćen Mountains (1300 – 1750 m a.s.l.) to the south-east. In the late afternoon of 9 Nov, during heavy rain with strong easterly winds, a flock of 23 Cranes was found resting among herons and Dalmatian Pelicans *Pelecanus crispus* in the Ulcinj salt-pans. Numbers of resting and wintering Cranes in Hungary and Israel's Hula valley have significantly increased to approximately 85,000 birds since the 1970s, while numbers frequenting the central Balkan flyway following a long-term decrease are currently estimated at 12,000 birds [PRANGE, H. (1999): Der Zug des Kranichs *Grus grus* in Europa. – Vogelwelt 120: 301–315]. Our data illustrate the recent use of stop-over sites at Lake Skadar and in the Ulcinj salt-pans and the need for adequate control of shooting and other human disturbances throughout the wetlands along the Adriatic east coast.

Darko Saveljić, National Institute for the Protection of Nature, Trg Bećir bega Osmanagica 16, 81000 Podgorica, Montenegro, e-mail: dasav@cg.yu
 Martin Schneider-Jacoby, Euronatur, Konstanzer Strasse 22, D-78315 Radolfzell, Germany, e-mail: martin.schneider.jacoby@euronatur.org
 Jakob Smole, Cafova 4, SI-2000 Maribor, Slovenia, e-mail: jakob.smole@email.si
 Tina Lončar, Gosposvetska 12, SI-2000 Maribor, Slovenia, e-mail: martina_loncar@yahoo.com
 Peter Sackl, Stmk. Landesmuseum Joanneum, Raubergasse 10, A-8010 Graz, Austria, e-mail: peter.sackl@stmk.gv.at

GREAT BLACK-HEADED GULL *Larus ichthyaetus*
Ribji galeb – verjetno prvi podatek za Srbijo in Črno goro; dne 7.11.2004 je bil odrasel osebek opazovan v Ulcinjskih solinah (UTM CM54, J Črna gora)

Between 15.20 and 15.30 on 7 Nov 2004, a Great Black-headed Gull was observed at the Ulcinj salt-pans. The conditions were poor with heavy easterly wind (about 5) and rainfall. The observation was made out of the car. Some documentary photos were also made. The bird was observed at a distance of about 100 to 200 m changing from the second row of basins to the first. The bird was as big as the Yellow-legged Gulls *Larus cachinnans* and much bigger than the Black-headed Gulls *L. ridibundus*, which were in the same ponds. It was an adult. The black head was only slightly

lighter at the front of the head. Some brown feathers at the wings and between the legs under the belly could originate from pollution. Using the telescope, the white ring around the eye was visible. The great yellow bill was very prominent with the black band at the end. Very good visible identification marks were the extensively white primaries, which were also seen during its flight. The white pattern on the upper wing was similar to that of the Black-headed Gulls. Thus the grey colour on the wings is separated from the black and white tips of the primaries by a broad white band in contrast to other large gulls. The observation was made during the monitoring programme of Euronatur in cooperation with the Solana Ulcinj and the Centre for the Preservation and Monitoring of the Birds of Montenegro. According to literature [MATVEJEV, S.D. & VASIĆ, V.F. (1973): Catalogus Faunae Jugoslaviae, IV/3, Aves. – SAZU, Ljubljana], the record is probably the first for the species in Serbia and Montenegro.

Martin Schneider-Jacoby, Euronatur, Konstanzer Strasse 22, D-78315 Radolfzell, Germany, e-mail: martin.schneider.jacoby@euronatur.org

BOLGARIJA / BULGARIA

SHOVELER *Anas clypeata*

Raca žličarica – možno gnezdenje na močvirju Dragoman (42°56'N, 23°04'E; Z Bolgarija); 8.7.2003 opazovana 2 samca in 1 samica

On 8.7.2003, while investigating the composition of the breeding avifauna of Dragoman Marsh situated in the northwestern part of Sofia Plain (42°56'N, 23°04'E; Western Bulgaria), two male and one female Shovelers flew away. Given the good environmental conditions there (extensive reedbeds with small open water bodies, deep and overgrown with Reed *Phragmites australis* canals etc.), the habitat was rather favourable for breeding of this species. According to Yeatman [YEATMAN, L. (1976): Atlas des oiseaux nicheurs de France de 1970 à 1975. – Société Française d'Ornithologie, Paris], the observation could be classified as probable breeding. The last records of nesting Shovelers in the region of Sofia originate from 1973 [IVANOV, B. & NANKINOV, D. (1978): [Breeding of the Shoveler (*Anas clypeata*) in Bulgaria]. – Orn. Inf. Bull. 3: 13–18 (in Bulgarian)]. It is likely that solitary pairs or possibly even non-breeding individuals remain irregularly in the wetlands within this area, but sometimes successful breeding may also occur.

Ivailo Nikolov, Bulgarian Ornithological Centre, Institute of Zoology, Bulgarian Academy of Sciences, 1 "Tsar Osvoboditel" Blvd., BG-1000 Sofia, Bulgaria, e-mail: ivailo_nikolov@abv.bg

ELEONORA'S FALCON *Falco eleonora* & GRIFFON VULTURE *Gyps fulvus*

Sredozemski sokol & beloglavi jastreb – opazovanje skupine 4 sredozemskih sokolov in 1 beloglavega jastreba 3.8.2002 južno od vasi Kesten v zahodnih Rodopih ob bolgarsko-grški meji (1600 m n.v., 41.55N, 24.40E; J Bolgarija)

On 3 Aug 2002, between 13:00 and 16:30 p.m., a group of four Eleonora's Falcons (three specimens of the light morph and one dark coloured) were observed south of Kesten village in the Western Rhodopi Mts., South Bulgaria (41.55N, 24.40E). The locality is situated on the Bulgarian-Greek border, at 1600 m a.s.l. The falcons were flying above the montane meadows surrounded by old primeval Spruce forests. From the Greek side of the border, there were also an old Austrian pine *Pinus nigra* forest and some high rocks. The falcons were present during all three hours we spent there. They were probably feeding on large insects. At about 14:00 p.m., a Griffon Vulture came from a southerly direction and entered Bulgarian territory. It stayed close only for few minutes and soon flew away in a northeasterly direction. Eleonora's Falcon is a rare and irregular, non-breeding, summer visitor in Bulgaria [SIMEONOV, S., MICHEV, T. & NANKINOV, D. (1990): Fauna na Balgaria, vol. 20, Aves.-1. – BAS, Sofia (in Bulgarian)]. The closest breeding localities of the species are on some Aegean islands in Greece [HANDRINOS, G. & AKRIOTIS, T. (1997): The birds of Greece. – A & C Black, London]. In Bulgaria, the observations were made mostly in summer and late spring and were restricted to the lowlands or low hilly areas in the south part of the country – around Burgas, eastern low parts of Rhodopi Mts., the Struma river valley between Petrich and Sandanski (SIMEONOV *et al.* 1990, B. NIKOLOV & I. HRISTOV *pers. comm.*). According to some local people, a group of three Griffon Vultures had been seen at Kesten in the summer 2001. Griffon Vulture breeds in the Bulgarian part of the eastern Rhodopi Mts. (SIMEONOV *et al.* 1990). The breeding sites are situated 100 km east of Kesten. There are some breeding pairs also in the Greek part of Rhodopi Mts. (HANDRINOS & AKRIOTIS 1997). Probably, some Griffon Vultures from the Greek population visit the rocks in the border area to the south of Kesten regularly.

Peter Shurulinkov, Institute of Zoology (Bulgarian Academy of Sciences), BG-1000 Sofia, Tzar Osvoboditel, 1, Bulgaria, e-mail: shurulinkov@mail.bg
Emil Komitov, Prof. Asen Vassilev str., 8, BG-4700 Smolyan, Bulgaria
Tsvetan Zlatanov, 132, K. Ohridski, BG-1756 Sofia, Bulgaria, e-mail: tzvetan_zlatanov@yahoo.com
Kostadin Vultchev, "Vitosha" Nature Park, Antim I str., 17, BG-1303 Sofia, Bulgaria, e-mail: kdvalchev@abv.bg

WOODCOCK *Scolopax rusticola*

Sloka – dve redki opazovanji pojočih samcev v okolici mesta Devin v zahodnih Rodopih (UTM KG82, JZ Bolgarija): (1) 2 samca dne 20.4.2004 v starem gozdu rdečega bora *Pinus sylvestris* (1500 m n.v.), (2) 1 samec dne 21.4.2004 v starem gozdu rdečega bora in smreke *Picea abies* (1650 m n.v.)

On 20 and 21 Apr 2004, 3 displaying Woodcocks were registered in the region of Devin town, Western Rhodopes (UTM KG82, SW Bulgaria). On 20 Apr, 2 males were observed displaying continuously between 5.40 and 6.00h local time in about 60-year old Scots Pine *Pinus sylvestris* forest at approximately 1500 m a.s.l. On the following morning (21 Apr), a third male was heard singing at about 5.30h local time in mature Scots Pine and Spruce *Picea abies* mixed forest few kilometres away from the foregoing locality and at approximately 1650 m a.s.l. The Woodcock is considered a very rare species during the breeding season in the Rhodope Mountains [MICHEV, T. & PETROV, T. (2000): Birds of the Rhodopes. – Mari – 90, Sofia]. The nearest known breeding site is the area around the town of Chepelare (UTM LG02) [NANKINOV, D., SIMEONOV, S. & MICHEV, T. (1997): Fauna of Bulgaria. Vol. 26, Aves, Part II. – Prof. M. Drinov, Sofia]. The birds observed were found in their typical habitat. The Woodcock's preferred breeding habitat in Europe is deciduous or mixed woodland, as well as conifer plantations, especially in Fennoscandia, where it breeds mainly in mature spruce forests [HAGEMEIJER, E.J.W. & BLAIR, M.J., eds. (1997): The EBCC Atlas of European breeding birds: their distribution and abundance. – T & AD Poyser, London]. In Bulgaria, it inhabits different types of forests at different altitudes (NANKINOV *et al.* 1997), although following HAGEMEIJER & BLAIR (1997), in S Europe it breeds only at higher altitudes. The Woodcock is probably much more widely distributed and numerous in the Western Rhodopes and also at the national level than suspected [STOYANOV, G., SHURULINKOV, P., KJUTCHUKOV, D., SPAKOVSKI, P., DELOV, V. VULTCHEV, K. & STOYANOV, A. (2003): Vom Bruten der Waldschnepfe *Scolopax rusticola* in Bulgarien. – Orn. Mitt. 55 (6): 211–217]. In Bulgaria, it is poorly studied as it is difficult to count them accurately [HIRONS, G. (1983): A five-year study of the breeding behaviour and biology of the Woodcock in England – a first report. pp. 51–67 In: KALCHREUTER, H. (ed.): Proceedings of the 2nd European Woodcock and Snipe Workshop. – IWRB, Slimbridge], and in the majority of regional bird studies it lacks a special

method of Woodcock detection to be applied due to its shy behaviour, camouflage plumage and crepuscular activity.

Stoyan Ch. Nikolov, Central Laboratory of General Ecology, 2 Gagarin Str., BG-1113 Sofia, Bulgaria, e-mail: snikolov@ecolab.bas.bg

NORTHERN WHEATEAR *Oenanthe oenanthe*

Kupčar – prvo opazovanje leucističnega osebk a v Bolgariji. Dne 25.8.2004 je bil opazovan leucistični osebek ob črnomoški obali v zaselku Momchil blizu mesta Balchik (220 m n.v., UTM NJ90, SZ Bolgarija) v družbi nekaj normalno obarvanih kupčarjev. Območje leži na selitveni poti “Via Pontica”. Avtorji navajajo nekaj primerov vrst, kjer so v Bolgariji našli popolnoma albinistične ali leucistične osebke: močviriska ali srpična trstnica *Acrocephalus palustris / scirpaceus*, mlakarica *Anas platyrhynchos*, poljski vrabec *Passer montanus*, mestna lastovka *Delichon urbica*, rjavoglavi srakoper *Lanius senator* in veliki strnad *Miliaria calandra*. (barvna priloga – slika 2)

On 25 Aug 2004, we observed a leucistic Northern Wheatear on the Black Sea coast next to the Momchil quarter near the town of Balchik (UTM NJ90, NW Bulgaria). The site was at 220 m a.s.l. and 700 m from the sea and was located along the Via Pontica migratory route. The bird was observed twice in the same place – between 18.43 and 18.57 and between 19.21 and 19.25 h local time. It was with white-buff coloured head, back, breasts and sides of the body, lighter belly and undertail and with snow-white wings, with pinkish-yellow bill and legs and dark eyes (Colour appendix – Figure 2). Two markings were visible, snow-white supercilium on the white-buff head and grayish margin of the snow-white tail. Owing to its coloration, the bird was well visible from afar, but it was comparatively shy and difficult to approach. It was moving on the ground in search of insects, sometimes flying from one place to another and keeping more or less together with few Northern Wheatears. Comparing it with the other present wheatears in shape, posture, proportions and behaviour, we identified it as Northern Wheatear. It is the first record of leucistic Wheatear in Bulgaria. There have been many records of different albino variations in bird coloration so far in Bulgaria, but most of them have remained unpublished. Albino variations for 15 passerine species from different European countries for the 1800 – 1900 period are presented in the royal collection of the National Museum of Natural History [GRAEZER (1907): Collection du musée d'histoire naturelle de

son Altesse Royale Ferdinand I. - Imprimerie de l'état, Sofia], but the albino wheatear variation is missing. After this period and especially in the last decade of the past century, there were some more observations of leucistic birds in Bulgaria: Reed or Marsh Warbler *Acrocephalus palustris / scirpaceus* [GEORGIEV, D., PODLESNII, P. & MLADENOV, K. (1997): Observations of albino birds. – About birds 2: 12], Mallard *Anas platyrhynchos* [GEORGIEV, D. & NIKOLOV, S. (1997): Observations of albino birds. – About birds 2: 12], Tree Sparrow *Passer montanus* [NIKOLOV, S. & STOJNOV, E. (1997): Observations of albino birds. – About birds 2: 12], House Martin *Delichon urbica* [PANAJOTOV, S. (1997): Observations of albino birds. – About birds 2: 12], but even considering the unpublished data, such as leucistic Woodchat Shrike *Lanius senator* in the NE Bulgaria during the summer 2004 (NIKOLOV *et al.* in prep.), we have been unable to find any information about observation of leucistic Wheatears in Bulgaria. The majority of announcements about records of white birds in Bulgaria do not state clearly, whether it was pure albinism or leucism, which might be due to the long distance of observation. Albino birds have been classified into few groups [PETTINGILL, J. (1958): A Laboratory and Field Manual of Ornithology. – Burgess Publishing, Minneapolis]. The above-mentioned white Northern Wheatear belongs to the partial albinos, as it exhibits lack of pigment in the plumage, eyes, or unfeathered parts, but not all three. Partial albino birds are also known as “leucistic birds” as they lack normal pigmentation and appear white [HAWKINS, J. & REIDL, W. (2003): A white Downy Woodpecker at Haines Junction. – Yukon Warbler, Spring (2003): 13]. There was lack of eumelanine (black pigmentation), but some pheomelanine (beige pigmentation) was present in the plumage coloration of the white Northern Wheatear, which explains the pale nuances observed. It is interesting that most of the observations are concentrated along the Black Sea coast in northeast Bulgaria. Our opinion is that this is due to the high concentration of birds along the Via Pontica migration road and to the intensive research around the numerous wetlands located in this area. In this observation as well as in other observations of leucistic birds keeping together with normal coloured birds (PANAJOTOV 1997), observations of white House / Sand Martin *Delichon urbica / Riparia riparia* near the Tjulenov village during the autumn migration in 2003 and leucistic Corn Bunting *Miliaria calandra* in the area of the village Radovec in the Sacar Mountains in September 2004 (own data), no aggressive or some other negative intraspecific attitude towards the light individuals was recorded. What is more, the leucistic

Northern Wheatear was even seen chasing a Lesser Grey Shrike *Lanius minor*, which came close to it.

Acknowledgements: We thank Dr. Prof. Zlatozar Boev and Frédéric Malher for their support during the preparation of this report.

Stoyan Ch. Nikolov, Central Laboratory of General Ecology, 2 Gagarin Str., BG-1113 Sofia, Bulgaria, e-mail: snikolov@ecolab.bas.bg
Svetoslav D. Spasov, Bulgarian Society for the Protection of Birds / BirdLife Bulgaria, BG-1111 Sofia, P.O. Box 50, Bulgaria, e-mail: svetoslav.spasov@bspb.org
Thierry Meeùs, Rue Arthur Hardy 34, A 1300 Limal, Belgium, e-mail: thierry.meeus@skynet.be

REDSTART *Phoenicurus phoenicurus*

Pogorelček – doslej največja seleča se jata na sofijskem območju; jata 54 osebkov je bila opazovana 23.10.2004 ob ribnikih Petrach, 20 km zahodno od Sofije (573 m n.v., 42.833 N, 23.133 E; osrednja Bolgarija)

On 23 Oct 2004, during a regular bird census in the wetlands around Sofia, a fairly big flock of Redstarts was recorded at Petarch fishponds, located some 20 km to the west of Sofia along the Blato River (573 m a.s.l.; 42.833 N, 23.133 E). There were 54 individuals, feeding on Plum *Prunus* sp. and Willow *Salix* sp. trees close to the last fishpond. This is probably the most numerous compact migrating group of Redstarts observed in the Sofia region during the last few decades. According to Nankinov [NANKINOV, D. (1982): [The birds of Sofia region]. – Orn. Inf. Bull. 12: 1–386], the autumn passage of Redstarts around Sofia lasts until the beginning of November.

Radoslav Stanchev, "Gen. Danail Nikolaev" 10 Blvd., Entr. C, Ap. 55, BG-1527 Sofia, Bulgaria, e-mail radoslav_stanchev@mail.bg

TURČIJA / TURKEY

WHITE PELICAN *Pelecanus onocrotalus*

Rožnati pelikan – več tisočglava jata (ocena 1000 – 10000 osebkov) dne 2.10.2004 med vzletanjem s površine somornične lagune Akyatan gölü južno od Adane (J Turčija)

On 2 Oct 2004, we were on our way from the town of Karataş south of Adana in S Turkey to the Akyatan gölü IBA site. On the water surface of the lagoons, we saw a huge flock of White Pelicans. The flock lifted from the surface and flew towards us. We estimated the flock at least a thousand individuals. We made a film of it and later on showed it to other ornithologists, who estimated the number of individuals at around 10,000. Other interesting birds in the lagoon were Caspian Terns *Sterna caspia*, Slender-billed Gulls

Larus genei, Mediterranean Gulls *L. melanocephalus*, and Greater Flamingos *Phoenicopterus ruber*.

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenia, e-mail: dejanonih@email.si
Ana Vidmar, Polanškova 8, SI-1000 Ljubljana, Slovenia, e-mail: ana_vidmar@email.si

LESSER SPOTTED EAGLE *Aquila pomarina*

Mali klinkač – med poldrugo uro trajajočim štetjem selečih se ujed dne 6.10.2004 smo v eni izmed dolin v pogorju Nur dağlar pri mestu Dörtyol (J Turčija) zabeležili naslednje ptice: 150 malih klinkačev, 1 egiptovskega jastreba *Neophron percnopterus*, 1 kragulja *Accipiter gentilis*, 1 malega orla *Hieraetus pennatus* svetle oblike, 5 kačarjev *Circaetus gallicus*, 10 kratkoprstih skobcev *Accipiter brevipes*, 40 sršenarjev *Pernis apivorus*, 40 rjastih kanj *Buteo rufinus* in 3 sokole plenilce *Falco cherrug*

On 6 Oct 2004, we arrived to one of the valleys in the Nur dağlar mountain range near Dörtyol in S Turkey. These mountains constitute a well-known migration route for various birds of prey. In an hour and a half, we counted 150 Lesser Spotted Eagles, 1 Egyptian Vulture *Neophron percnopterus*, 1 Goshawk *Accipiter gentilis*, 1 light form of Booted Eagle *Hieraetus pennatus*, 5 Short-toed Eagles *Circaetus gallicus*, 10 Levant Sparrowhawks *Accipiter brevipes*, 40 Honey Buzzards *Pernis apivorus*, 40 Long-legged Buzzards *Buteo rufinus*, and 3 Saker Falcons *Falco cherrug*.

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenia, e-mail: dejanonih@email.si
Ana Vidmar, Polanškova 8, SI-1000 Ljubljana, Slovenia, e-mail: ana_vidmar@email.si

HOBBY *Falco subbuteo*

Škrjančar – obalna selitev škrjančarjev med 7. in 9.10.2004 na območju mesta Anamur (J Turčija); skupaj opaženih 15 osebkov

Between 7 and 9 Oct 2004, we observed a coastal migration of Hobbies in the area of Anamur in S Turkey. On 7 Oct 2004, we spotted 10 individuals in the dusk on the coast of Anamur. On the next day we saw 4 individuals at the same place. On 9 Oct 2004 we observed a single individual in the ancient town of Anamurium. In all cases, the birds flew in an E-W direction. Only the last individual stayed for a longer time in the area, whereas the remaining birds just flew over and continued their flight along the coast. This species has a very wide migration route without any

obvious bottlenecks [CRAMP S., ed. (1978): Handbook of the birds of Europe, the Middle East, and North Africa, Vol. I: Ostrich to Ducks. – Oxford University Press, Oxford]. Common Terns *Sterna hirundo*, Red-rumped Swallows *Hirundo daurica* and a solitary Osprey *Pandion haliaetus* took the same migration route.

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenija, e-mail: dejanonih@email.si

Ana Vidmar, Polanškova 8, SI-1000 Ljubljana, Slovenija, e-mail: ana_vidmar@email.si

CASPIAN SNOWCOCK *Tetraogallus caspius*

Kaspijska skalna kokoš – dve opazovanji v zahodnem delu pogorja Ala Dağlar blizu mesta Çukurbag (osrednja Turčija) dne 28.9.2004: (1) kita 15 osebkov na travnatem pobočju (2500 m n.v.) in (2) kita 4 osebkov med letom na skalno polico (2000 m n.v.)

In the afternoon of 28 Oct 2004, on the second day of our trip to the western part of Ala Dağlar mountain range near Çukurbag, we startled a flock of 15 Caspian Snowcocks from a high mountain meadow. In the evening of the same day, we saw 4 individuals landing on a cliff ledge. The observed birds belong to the westernmost population of this rare and shy species. Although the area is a well-known breeding place of the species, no estimates of its population are at hand. The first group of these birds was spotted at approximately 2500 m a.s.l., and the second at around 2000 m a.s.l. In the summer, they are usually found at an altitude over 2800 m a.s.l., and lower down from October onwards [CRAMP, S., ed. (1978): Handbook of the birds of Europe, the Middle East, and North Africa, Vol. I: Ostrich to Ducks. – Oxford University Press, Oxford].

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenia, e-mail: dejanonih@email.si

Ana Vidmar, Polanškova 8, SI-1000 Ljubljana, Slovenia, e-mail: ana_vidmar@email.si

ARMENIAN GULL *Larus armenicus*

Armenski galeb – več osebkov na jezeru Egridir (osrednja Turčija) med 12. in 13.10.2004

Between 12 and 13 Oct 2004, while birdwatching at Lake Egridir, the fifth largest lake in Turkey, we saw several Armenian Gulls there. We noticed, however, that the species was not mentioned for this area in our field guide [MULLARNEY, K., SVENSSON, L., ZETTERSTRÖM, D & GRANT, P. (1999): Collins Bird

Guide. – HarperCollins, London] nor in other literature [CRAMP, S., ed. (1978): Handbook of the birds of Europe, the Middle East, and North Africa, Vol. I: Ostrich to Ducks. – Oxford University Press, Oxford; BIRDLIFE INTERNATIONAL (2004): Birds in Europe: population estimates, trends and conservation status. – BirdLife Conservation Series No. 12, BirdLife International, Cambridge]. Armenian Gull was the commonest waterbird on this part of the lake.

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenia, e-mail: dejanonih@email.si

Ana Vidmar, Polanškova 8, SI-1000 Ljubljana, Slovenia, e-mail: ana_vidmar@email.si

WALLCREEPER *Tichodroma muraria*

Skalni plezalček – 2 osebkov v pogorju Ala dağlar blizu mesta Çukurbag (osrednja Turčija); 1 osebek pri gorskem izviru 29.9.2004, drugi 28.9.2004 v eni izmed suhih sotesk

On 29 Sep 2004, during our visit of Ala dağlar Mts. near Çukurbag in central Turkey, we chanced upon a small mountain spring after a long and tiresome walk to the mountain pass. After about five minutes, a Wallcreeper joined us at the spring. The bird was clearly thirsty, as it flew very close to us. One day earlier, on 28 Sep 2004, we had the opportunity of seeing another Wallcreeper in a gorge of dried up stream in the same mountains.

Dejan Bordjan, Ulica 8. februarja 50, SI-2204 Milklavž, Slovenia, e-mail: dejanonih@email.si

Ana Vidmar, Polanškova 8, SI-1000 Ljubljana, Slovenia, e-mail: ana_vidmar@email.si

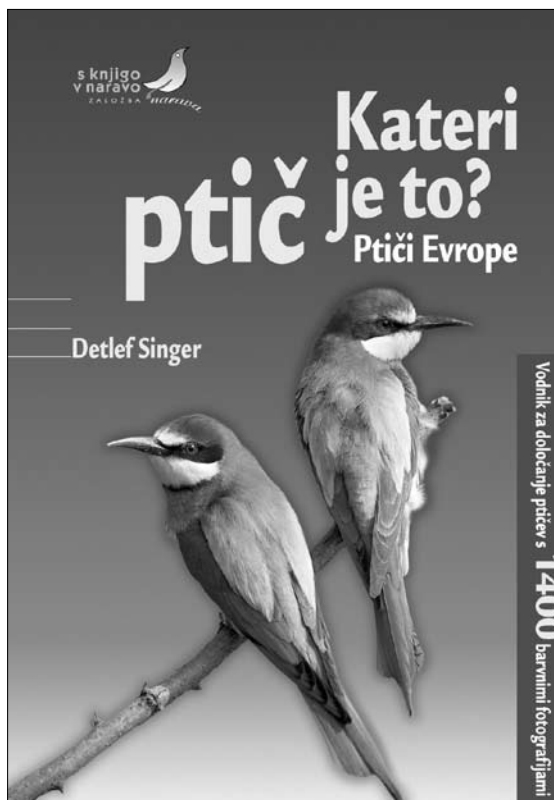
NOVE KNJIGE

New books

Singer, D. (2004): Kateri ptič je to? Ptiči Evrope (prevod T. Kern & J. Gregori) – Založba Narava, Olševek, Kranj. 430 str., ISBN 961-91407-2-9. Cena: 5900 SIT (4500 SIT za člane DOPPS)

Evropska ornitološka knjižnica je dandanes zelo dobro založena z najrazličnejšimi priročniki za določanje ptic. To je seveda razumljivo, saj je osnova za vsakršno ornitološko delo, tako ljubiteljsko kot znanstveno, pravilna določitev vrste. Med ključi za določanje so gotovo najbolj v ospredju priročniki z barvnimi risbami ptic, denimo JONSSONOV (1992) in Collinsov (MULLARNEY *et al.* 1999). Za večje podrobnosti sta v rabi za pevce SVENSSONOV (1970) in za nepevce BAKERJEV (1993) priročnik, za določanje ptic v roki pa denimo dihotomni tekstovni ključ KRYŠTUFEK & JANŽEKOVIČ (1999). Navkljub vsemu pa imajo ornitološki začetniki s temi ključi kar nekaj težav, saj večinoma nimajo stika s pticami v roki ali pa jih prevelike podrobnosti, kot so natančni opisi starosti in podvrst, zmedejo pri določanju. Za začetnika je najprimernejši slikovni ključ, ki z bogato zbirko slik oziroma fotografij na karseda preprost način uporabnika pripelje do pravilne določitve v naravi opazovanega ptiča. Vse to je združeno v priročniku **Welcher Vogel ist das?** avtorja Detlefa Singerja, izdanem v letu 2002 pri založbi Kosmos. Priročnik je za Slovenijo v letu 2004 pripravila Založba Narava, prevod pa je za slovenski prostor strokovno priredil Janez Gregori.

V priročniku bomo našli bogato zbirko odličnih fotografij vseh naših ptic, z izjemo nekaj neavtohtonih ubežnic, in večine vrst, ki se pojavljajo v Evropi. Ustvarjalci so pri pripravi težili k temu, da bralcu predstavijo ptičji svet Evrope s kar najbolj kakovostnimi in nazornimi fotografijami, ki so tudi glavna odlika dela. Med fotografi so namreč tudi nekatera vodilna imena evropske naravoslovne in ornitološke fotografije, denimo Peter Buchner, Benny Gensbøl, Dick Forsman, Dietmar Nill, če naštejemo le nekatere nam bolj znane. Večina vrst je predstavljenih s serijo fotografij, ki prikazujejo ptico v različnih obarvanostih perja, glede na starost in spol ter v različnih pozicijah, kar je za terensko določanje pogosto ključnega pomena. Ob tem pa se ključ pri nekaterih za določanje starosti bolj kompleksnih skupinah, denimo galebih, ne spušča v prevelike podrobnosti, saj bi to lahko preveč zmedlo novepečene ornitologe.



Delo je namenjeno predvsem določanju, zato je temu primerno tudi strukturirano. V uvodu je pojasnenih nekaj pojmov, pomembnih za nadaljnje razumevanje ključa. Posebej dobrodošlo za terensko opazovanje je primerjalno velikostno določevanje z referenčnimi splošno znanimi vrstami, kot so domači vrabec *Passer domesticus*, kos *Turdus merula*, domači golob *Columba livia* f. *domestica*, rečni galeb *Larus ridibundus*, siva vrana *Corvus corone cornix*, kanja *Buteo buteo*, mlakarica *Anas platyrhynchos* in srebrni galeb *Larus argentatus*, čeprav v slovenskem prostoru pri slednjem pride bolj v poštev sorodni rumenonogi galeb *Larus cachinnans*. Vse referenčne vrste so opisane z dolžino in maso ter ilustrirane na platnici priročnika. Takšno opredeljevanje velikosti je za opazovanje v naravi precej bolj uporabno kot pa centimetrske primerjave. Drugi del uvodnih poglavij so pravzaprav navodila za opazovanje, ki bodo prišla prav vsakemu začetniku. Tretji del pa s kratkimi opisi predstavi vse v Evropi pojavljajoče se družine ptic, kar je že prvi vtis o pestrosti evropske avifaune.

Določevalni del, jedro knjige, je poleg bogate slikovne opremljenosti bogat tudi z opisi ptic. Vsak opis zajema, poleg posodobljene karte razširjenosti vrste v zahodni Palearktiki, še besedni opis, razdeljen

na sedem podnaslovov: (1) posebnost (izjemna značilnost, po kateri ptico najhitreje prepoznamo), (2) značilnosti (kratek opis ptice), (3) podobne vrste (da se izognemo zamenjavam), (4) oglašanje (besedni opis oglašanja, ki opozori na neke značilnosti), (5) habitat (kratek opis življenjskega prostora z navedbo statusa v Sloveniji), (6) razmnoževanje (gnezditvene navade) in (7) prehrana (glavni viri hrane). Besedni opis je tudi prvi vpogled v ekologijo vrst, kar nam bo v pomoč ne le pri določevanju, pač pa tudi kot začetek za bolj podrobno preučevanje. Na koncu je zato dodan še seznam literature s pomembnejšimi domačimi in tujimi ornitološkimi deli, kjer bomo svoje znanje o pticah lahko še poglobili.

Nenazadnje naj omenim še platnice, ki so pri tem priročniku nekaj posebnega. Tu so z besedo in sliko predstavljeni glavni elementi, pomembni pri terenskem opazovanju ptic, od telesnih značilnosti do vedenjskih in prostorskih posebnosti. Nič ni torej narobe, če z opazovanjem začnemo kar pri platnicah. Ključ nas bo potem vodil k pravilni določitvi. Lahko rečem, da smo s prevodom knjige **Kateri ptič je to?** Slovenci dobili pravi terenski ornitološki priročnik, ki mu je bolj kot na knjižni polici mesto v naravi, torej tam, kjer se bomo srečali z nepoznano ptičjo vrsto. Pridani podnaslov **s knjigo v naravo** je zato povsem ustrezna oznaka!

Al Vrezec

NAJAVE IN OBVESTILA

Announcements

Nagrada Zlati legat 2003 The Golden Bee-eater Award 2003

Zlati legat je nagrada, ki jo DOPPS podeljuje za najboljše slovensko delo s področja ornitologije. Letos smo podelili nagrado za leto 2003, denarna sredstva zanjo je ponovno prispevalo podjetje Biotech d.o.o. iz Ljubljane. Upravni odbor DOPPS je imenoval komisijo v sestavi: Damijan Denac (član), prof. dr. Alenka Gaberščik (članica), dr. Primož Kmecl (član) in Tomaž Mihelič (predsednik), ki se je sestala 10.2.2005 in izbrala dela v ožji izbor, nominirana dela in nagrajeno delo.

Dela ožjega izbora so vsa tista, ki jih predlaga vsak član komisije. Seznam ožjega izbora del se je bil:

- Božič, L. (2003): Mednarodno pomembna območja za ptice v Sloveniji 2. Predlogi posebnih zaščiteneh območij (SPA) v Sloveniji. – DOPPS, Monografija DOPPS št.2, Ljubljana.
- DENAC, D. (2003): Upad populacije in sprememba rabe tal v lovnem habitatu rjavega srakoperja *Lanius collurio* v Šturmovcih. – *Acrocephalus* 24 (119): 97–102.
- DENAC, K. (2003): Population dynamics of Scops Owl *Otus scops* at Ljubljansko barje. – *Acrocephalus* 24 (119): 127–134.
- GOVEDIČ, M., JANŽEKOVIČ, F. & KOS, I. (2002): Prehrana kormorana *Phalacrocorax carbo* na območju reke Save od Ljubljane do Zagorja. – *Acrocephalus* 23 (110/111): 5–20.
- RUBINIČ, B. (2003): Fenologija in številčnost galebov Laridae na območju južne Dalmacije. – *Acrocephalus* 24 (119): 135–144.
- ŠTUMBERGER, B. & VELEVSKI, M. (2002): White Stork *Ciconia ciconia* survey in Pelagonia indicates a decrease in its breeding population and colony disintegration. – *Acrocephalus* 23 (112): 67–74.
- TOME, D. (2002): Effect of floods on the distribution of meadow birds on Ljubljansko barje. – *Acrocephalus* 23 (112): 75–79.
- TRONTELJ, P. (2001): Popis kosca *Crex crex* v Sloveniji leta 1999 kaže na kratkoročno stabilno populacijo. – *Acrocephalus* 22 (108): 139–147.
- VREZEC, A. (2003): Slovensko poimenovanje tipov ptičjih mladičev. – *Acrocephalus* 24 (117): 67–72.
- VREZEC, A. (2003): Breeding density and altitudinal distribution of the Ural, Tawny and Boreal Owls in north Dinaric Alps. – *Journal of Raptor Research* 37(1): 55–62.

Sledil je izbor nominirancev, pri katerem pa ni bilo težav, saj so glede na kakovost posebej izstopala naslednja tri dela: Božičeva Mednarodno pomembna območja za ptice, Veliki skovik (Scops Owl) Katarine Denac in Vrezčeve sove (Owls).

Delo Luke Božiča odlikujejo obsežnost, izvirnost in uporabnost podatkov, jasno razdelana metoda in kriteriji za opredeljevanje območij. Območja, pomembna za ptice, so predstavljena celovito (geografski opis, habitati, ornitološki pomen, ogroženost), poljudno in strokovno suvereno hkrati. Dodaten pomen delu so tudi za vsa območja napisane naravovarstvene smernice. Zaobjema vso državo na enovit način, kar se je izkazalo za ključno pri uresničevanju obveznosti do Evropske skupnosti pri slovenskem priključevanju uniji. Uporabno ni samo za naravovarstvenike, temveč si lahko z njim pomagajo tudi obiskovalci območij, uporabniki in domačini.

Katarina Denac je v svojem delu zaobjela populacijsko dinamiko velikega skovika *Otus scops* na Ljubljanskem barju. Metoda je jasno predstavljena in vključuje veliko število popisovalcev, kar daje delu dodatni pomen in je omogočilo, da je bilo celotno območje spremljano v več zaporednih letih. Je klasičen primer monitoringa vrste, ki je v Sloveniji praktično še ne poznamo. Delo je uporabno z vidika varstva vrste kot tudi pri argumentaciji in nadaljnjem opredeljevanju Barja kot območja pomembnega za ptice.

Članek Ala Vrezca je bil objavljen v mednarodni znanstveni reviji s faktorjem vpliva (IF), kar je garancija za izjemno kvaliteto, metodološko jasno in izvirno delo. Za prepoznavnost slovenske ornitologije v mednarodnih krogih imajo takšna dela zato največjo veljavo in izbrani članek za ožji izbor ni tu nobena izjema. Avtor je štiri leta sistematično popisoval tri vrste sov na območju severnih Dinaridov in zbiral podatke o njihovih gostotah in višinski razširjenosti. Poleg populacijskih sprememb je s podatki v diskusiji nakazal tudi možnost zanimivih medvrstnih interakcij in jih prikazal v povsem novi dimenziji. Te je v kasnejših raziskavah tudi potrdil.

Izmed nominiranih del je največje število točk prejelo delo Luke Božiča, zato je bila nagrada Zlati legat 2003 podeljena njemu.

Vsem, ki ste sodelovali s svojimi prispevki, predvsem pa nominirancem in pa seveda nagrajencu Luki Božiču, iskreno čestitam.

Tomaž Mihelič, predsednik žirije Zlati Legat 2003

Čestitam

LUKI BOŽIČU

ob podelitvi nagrade *Zlati legat 2003*

za delo

»Mednarodno pomembna območja za ptice
v Sloveniji 2«

**DOPPS, Monografija DOPPS št.2,
Ljubljana**

Al Vrezec, *glavni urednik*



Figure 1: Three Bewick's Swans *Cygnus columbianus* accompanied by two Mute Swans *C. olor* on the Podunavlje fishponds, Kopački rit Nature Park (E Croatia), during winter 2004/2005 (photo: M. Romulić) – see page 164

Slika 1: Trije mali labodi *Cygnus columbianus* v družbi dveh labodov grbcev *C. olor* na ribnikih Podunavlje, naravni park Kopački rit (V Hrvatska), v zimi 2004/2005 (foto: M. Romulić) – glej stran 164



Figure 2: Leucistic individual of Northern Wheater *Oenanthe oenanthe*, the Black Sea coast next to the Momchil quarter near the town of Balchik (NW Bulgaria), 25 Aug 2004 (photo: T. Meeüs) – see page 175

Slika 2: Leucistični osebek kupčarja *Oenanthe oenanthe*, črnomska obala v zaselku Momchil blizu mesta Balchik (SZ Bolgarija), 25.8.2004 (photo: T. Meeüs) – glej stran 175



Mobitel
in Društvo za
opazovanje in
proučevanje
ptic
Slovenije

9.)

fotografski natečaj
Svoboden kot ptica:
“Ptice iz naše soseske”

Letošnja tema mednarodnega fotografskega natečaja je »Ptice iz naše soseske«.



Natečaja se lahko udeležijo amaterski in profesionalni fotografi z vsega sveta, ki bodo svoja dela poslali **do 16. septembra 2005** v skladu z razpisnimi pogoji. **Pošljite digitalne fotografije ali diapozitive, po novem pa tudi fotografije, posnete z mobilnikom.** Vsak avtor lahko pošlje največ deset fotografij, ne glede na obliko nosilca slike. Natečaj je anonimen, prispela dela bo ocenila in nagradila mednarodna strokovna žirija.

Podrobnejše informacije:
DOPPS, vsak delavnik 10. do 14. ure, tel: 01 426 58 75,
www.ptice.org in www.mobitel.si/fotonatečaj.



ŽIVLJENJE NISO LE BESEDE
WWW.MOBITEL.SI