

OHRANJANJE OGROŽENIH GOZDNIH PTIC – NOV IZZIV PRI GOSPODARJENJU Z GOZDOM

The conservation of threatened forest birds – a new challenge for forest economy



Slovensko gozdarstvo ima dolgo tradicijo gozdnogospodarskega načrtovanja, ki je pri uvajjanju sonaravnega gospodarjenja z gozdom odigralo pionirsko vlogo tudi v širšem prostoru. Gozd je postal eden izmed simbolov prepoznavnosti naše države in s sloganom »Gozdovi za prihodnost« smo se v Nacionalnem gozdnem programu obvezali našim zanamcem, da jim bomo prepustili v upravljanje ohranjene gozdove. Gozdove torej, v katerih bodo z vidika trajnosti optimalno prepletene njihove ekološke, socialne in proizvodne funkcije. Funkcije, ki bi želeli, da jih gozd izpolnjuje, pa so si neredko nasprotuječe, včasih celo izključujoče. To se še največkrat pokaže med tistimi, ki izhajajo iz direktnih potreb človeka (proizvodne in socialne) ter funkcijami gozda kot naravnega ekosistema (ekološke). Ravno ta navzkrižja so izviv uspešnega gospodarjenja z gozdom.

Uvajanje Ptičje direktive v slovenski pravni red je tudi v gozdarstvo prineslo nekaj sprememb. O nekaterih komponentah gozda, ki so bile sicer tudi pred tem zastopane v gozdarski zakonodaji se je začelo govoriti poimensko. V primeru ptic je bil preskok jasen. Pred Uredbo o posebnih varstvenih območjih, ki je v Sloveniji uvedla Natura 2000 območja za ptice, se je pri gozdnogospodarskem načrtovanju o pticah govorilo po večini na splošno, z nekaj izjemami vrst, ki so bile v preteklosti uvrščene med lovno divjad. Funkcija ohranjanja biotske raznovrstnosti, ki je v teoriji zaobjela vse vrste gozdnega ekosistema, se je v praksi pogosto dotikala le lovnih vrst. Danes še vedno govorimo o isti funkciji gozda, pa so se kljub temu stvari spremenile. O vrstah se je vsaj na SPA območjih začelo govoriti poimensko. S spremembami v zakonodaji so se pojavili povsem novi cilji, vezani na posamezno varovanje vrsto in njeno ohranitveno stanje. Tega pri posamezni vrsti opredeljujemo kot ugodno, kadar ocenujemo, da se bo vrsta dolgoročno ohranila kot preživetja sposoben sestavni del svojih naravnih habitatov in neugodno, kadar po naših ocenah iz takšnih ali drugačnih razlogov temu ni tako.

Vezanje ciljev na posamezno vrsto pa je hitro pokazalo na veliko pomanjkanje znanja pri prilaganju gospodarjenja zahtevam teh vrst in ta znanja bomo v bližnji prihodnosti morali nujno pridobiti. Veliko vrzeli je že v samem poznavanju ekologije vrst, še manj znanja je o tem, kako posamezen tip gospodarjenja vpliva na posamezno vrsto oz. nabor vrst z različnimi ekološkimi zahtevami. Trenutno stanje ptičjih vrst je prav gotovo posledica gospodarjenja z gozdom, ne glede na to, ali so bile vrste pri tem upoštevane ali ne. Nekaterim vrstam je gospodarjenje z gozdom v preteklosti ustrezalo, spet drugim ne. Črna žolna npr. se je kljub gospodarjenju ohranila v zdravi številčnosti, po drugi strani pa je to isto gospodarjenje dobesedno zdesetkalo njej sorodno vrsto, belohrbtega detla. Vrsta je v Sloveniji vezana na stare bukove sestoje, torej je njen potencialni habitat večina slovenskega gozda. Da je temu res tako nam nakazuje podatek, da smo v zadnjih letih vrsto našli praktično povsod, kjer

so ta bukovja v majhnih otočkih ohranjena v kolikor toliko naravnem stanju. Detel, ki bi lahko bil eden najpogostejših predstavnikov iz družine žoln pri nas, je najredkejši. Na rob izumrtja je to vrsto v Sloveniji pripeljalo ravno gospodarjenje z gozdom.

Natura 2000 je v gospodarjenje z gozdom prinesla povsem nove, konkretnе cilje, ki jih bo potrebno vtkatи v sistem gospodarjenja. Prepričan sem, da bomo s pomočjo teh novih ciljev in obveznosti, lahko postavili sistem sonaravnega in trajnega gospodarjenja z gozdom na višji nivo, ki bo služil širšemu krogu interesov.

Na nove usmeritve pri gospodarjenju z gozdom z vidika varstva vrst ptic torej ne glejmo kot na nepotrebne omejitve, temveč kot na nov izziv pri upravljanju z gozdovi, pri tem pa bo potrebno združiti veliko gozdarskega, biološkega in naravovarstvenega znanja. Samo tako bomo lahko gozdove peljali v smeri, ko nam jih bo v ponos puščati našim zanamcem.

TOMAŽ MIHELIČ

BREEDING SUCCESS OF LESSER KESTREL *Falco naumanni* BREEDING IN NEST BOXES AND OTHER SITES IN URBAN AREAS IN SOUTHERN ITALY

Gnezditveni uspeh južne postovke *Falco naumanni* v gnezdilnicah in drugih gnezdiščih na urbanih območjih južne Italije

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Renovation of historic buildings has a strong negative impact on Lesser Kestrel, by reducing nest site availability and reproductive success. In order to test the efficacy of nest boxes as conservation tools, we studied the occupancy rate of nest boxes and compared Lesser Kestrel breeding success in nest boxes and urban nests sites in southern Italy. The results showed that nest boxes are a useful management strategy. The reproductive parameters (mean laying date, brood size, number of fledged young) observed in nest boxes do not vary significantly from those in natural urban sites (wall cavities and attics).

Key words: Lesser Kestrel, *Falco naumanni*, breeding success, nest boxes and urban sites, Apulia, Italy

Ključne besede: južna postovka, *Falco naumanni*, gnezditveni uspeh, gnezdilnice in urbana območja, Apulija, Italija

1. Introduction

The Lesser Kestrel *Falco naumanni* is a colonial species that breeds in cavities in rocky cliffs, on man-made structures and, more rarely, on the ground (PALUMBO 1997, VLACHOS *et al.* 2004, MASCARA & SARÀ 2006). In western Europe, this species is closely tied to human activities, feeding in agricultural areas (PALUMBO *et al.* 1997) and nesting primarily within urban areas (NEGRO 1997, PALUMBO 1997, BUX *et al.* 2005). This is the case for colonies in Apulia and Basilicata (southern Italy), where pairs breeding in rural or natural habitats are extremely rare (PALUMBO 1997).

One of the major threats to populations breeding in Mediterranean countries is the destruction of cavities in walls and roofs, due to building renovation (CATRY *et al.* 2007).

The use of man-made nest boxes has proved to be a useful conservation tool for many bird species (PREMUDA *et al.* 2000), which can partly compensate for the loss of urban breeding sites, however, data on the use of nest boxes by Lesser Kestrels and their breeding success is still scarce (GONZALES & MERINO

1990, POMAROL 1996, CATRY *et al.* 2004 & 2007, SHULMAN-LIVEN *et al.* 2004).

The aims of this study were: (1) to quantify the occupancy rate of nest boxes by Lesser Kestrels; and (2) to compare the reproductive parameters of pairs breeding in nest boxes with other pairs breeding in 'natural urban' sites such as cavities in walls and attics.

2. Methods

2.1. Data collection

In January–February 2007 we installed 200 nest boxes in the towns of Gravina in Puglia (40°49'N, 16°25'E; N = 102), Altamura (40°49'N, 6°33'E; N = 50), Acquaviva delle Fonti (40°53'N, 16°50'E; N = 22), Cassano delle Murge (40°53'N, 16°46'E; N = 12) and Laterza (40°37'N, 16°47'E; N = 14). The study area includes SPA "Murgia Alta" (code IT9120007) and "Area delle Gravine" (code IT9130007) located in the southern part of Apulia region, between 300 and 580 m a.s.l. The Lesser Kestrel breeding population



Figure 1: Nest box distribution in Gravina di Puglia (Ba) in 2007; empty black circles: nest boxes not used; filled black circles: nest boxes used or visited by Lesser Kestrel *Falco naumanni*; the size of the circles denotes number of nest boxes for each site: small circle 1–2 nest boxes, intermediate circle: 3–6 nest boxes, big circle: 7–10 nest boxes; N = 102

Slika 1: Razporeditev gnezdljnic v mestu Gravina di Puglia (Ba) leta 2007; prazni črni krogi: gnezdljnice niso bile uporabljene; polni črni krogi: gnezdljnice, ki so jih obiskale ali uporabljale južne postovke *Falco naumanni*; velikost krogov označuje število gnezdljnic za posamezno območje: mali krogi 1–2 gnezdljnic, srednji krogi 3–6 gnezdljnic, veliki krogi 7–10 gnezdljnic; N = 102

in the 5 colonies is estimated at 2784–3132 pairs (Bux 2008). The area belongs to the Mediterranean phytogeographical region, with wide extensions of pastures alternating with extensive farming and arboreal stands (olive and almond). Nest box distribution in Gravina di Puglia is shown in Figure 1.

Nest boxes were placed on the roofs of private and public buildings, both in historic town centres and in modern neighbourhoods; entrance holes were oriented away from the wall of the building. The nest boxes were constructed of fir and pine wood (approx. 10 kg weight). (Figure 2)

The base was 45 x 55 cm; 15 cm height at the front, 25 cm height at the back and a waterproof sheath was placed on the roof which made nest boxes better protected and more durable. In many cases, the nest boxes were placed in groups, 4–5 together on a single building. These nest boxes were placed 1–2 m from each other.

Additionally, four small disks were placed at the foot of each nest box in order to prevent them from

touching the ground, and to keep humidity at bay. Soil was added to about 1 cm depth inside each box, both to provide a soft substrate for the eggs to be laid on and to prevent eggs from unnecessary rolling.

The entrance hole – 6 cm in diameter – was sized specifically for Lesser Kestrels, and allowed only this species to occupy the nest boxes, thus excluding e.g. Feral Pigeons *Columba livia* var. *domestica*. A side entrance of 9 x 9 cm panel located on the side (left or right) of each nest box made it easier to clean and provided easy access for measuring and ringing the chicks. Each nest box was numbered to facilitate its identification during the monitoring carried out in the breeding season.

Nest boxes considered visited by Lesser Kestrels were those in which traces of the species' presence were found, such as tracks on the nest substrate inside the nest box, presence of pellets, and prey remains. Nest box breeding attempts (defined as a nests in which eggs were laid; STEENHOF 1987) by Lesser Kestrels were those in which egg-laying and the reproductive cycle



Figure 2: An example of a nest box for Lesser Kestrel *Falco naumannni* placed on the roof of a building

Slika 2: Primer gnezdišnice za južno postovko *Falco naumannni*, nameščene na strehi stavbe

took place. Breeding success parameters were also monitored in 38 'natural' nests located in the colonies in Gravina in Puglia and Altamura and the results compared with those for nest boxes.

We compare the main reproductive parameters between nest boxes and nests placed in attics or wall cavities. The attics are trampling space between roof and extrados of attic. Generally, the Lesser Kestrel breeds on the floor and enters through holes of ventilation or crevices in the roof (made of tiles).

The cavities in the walls are holes and niches in the perimetric bearing walls of buildings and are inaccessible to man and, largely, to terrestrial predators (i.e. rats).

All the nest categories were visited at least twice between 15 May and 20 Jun 2007. This is the period in which egg-laying (between 15 May and 30 May) and initial chick rearing take place (BUX *et al.* 2005). If egg-laying did not take place in this period the nests were no longer monitored.

We determined the reproductive parameters (clutch size – number of eggs laid, egg-laying date, hatching success, brood size and number of fledged young) by visiting each occupied nest 4 or 5 times. Means \pm SE (standard errors of the mean) are presented

and differences between nest sites were determined using one-way ANOVA, Mann-Whitney U Test and Kruskall-Wallis post hoc test.

3. Results

In total we examined 58 nests, of which 27 (46.6%) were in attics (category a) 20 (34.5%) in nest boxes (category b) and 11 (19.0%) in cavities (category c). The occupancy rate of 200 nest boxes installed in 2007 was 8.0% (at least one egg laid) and in addition 39 (19.5%) boxes were visited by Lesser Kestrels (Table 1).

Overall, the average clutch size of the 58 occupied nests we checked was 3.9 ± 1.17 ($N = 58$) eggs. Nests with three, four and five eggs were the most frequent clutch sizes representing 88% of all nests surveyed (Figure 3). The average clutch size was 3.81 ± 1.36 ($N = 27$) eggs for nests in attics, 4.00 ± 0.77 ($N = 11$) eggs for nests in cavities and 3.95 ± 1.10 ($N = 20$) eggs for nest boxes. Overall, the first egg was laid in May in more than 90% of the cases, with a peak in the second decade. The earliest egg was laid on 9 May, and the latest on 3 Jun. The mean laying date was 12 May ($N = 9$) in attics, 11 May ($N = 7$) in cavities and 17 May

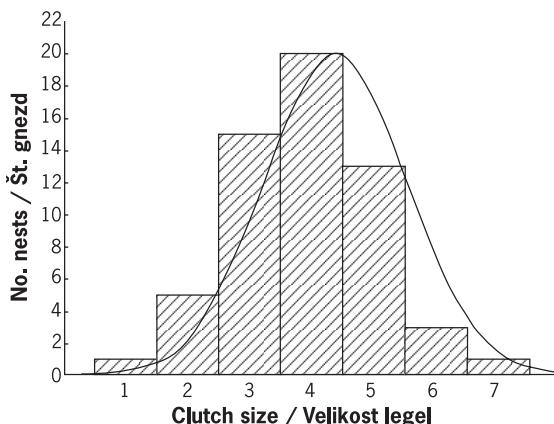


Figure 3: Clutch size for 58 Lesser Kestrel *Falco naumanni* nests studied in 2007. The variable shows a tendency towards normality (Kolmogorov-Smirnov test $d = 0.17331$, $P < 0.10$).

Slika 3: Velikost legel 58 južnih postovk *Falco naumanni*, zajetih v raziskavi leta 2007. Parameter kaže tendenco k normalnosti (test Kolmogorov-Smirnov $d = 0.17331$, $P < 0.10$).

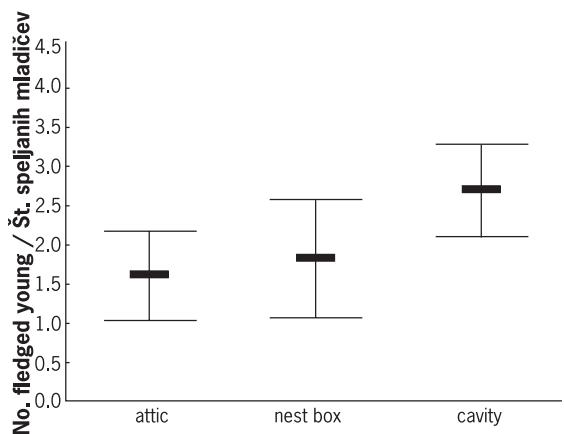


Figure 5: Numbers of fledged young of Lesser Kestrels *Falco naumanni* for each of the three nest types: (a) attic, (b) nest box, (c) cavity. Means and standard errors of the means are shown.

Slika 5: Število speljanih mladičev južne postovke *Falco naumanni* za tri tipe gnezd: (a) na podstresju, (b) v gnezdlilnici, (c) v stenskih odprtinah. Prikazana sta povprečje in standardna napaka povprečja.

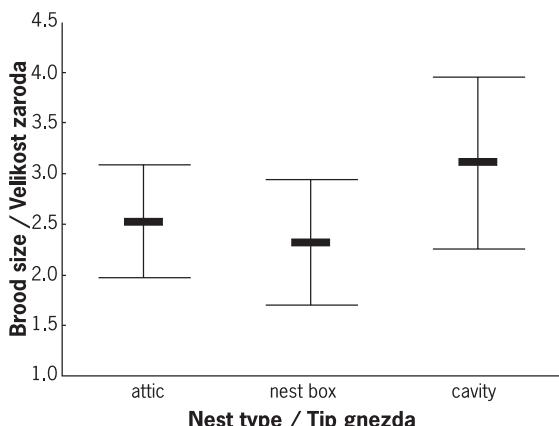


Figure 4: Brood size of Lesser Kestrels *Falco naumanni* for each of the three nest types: attic, nest box and cavity. Means and standard errors of the means are shown.

Slika 4: Velikost zaroda južne postovke *Falco naumanni* za tri tipe gnezd: na podstresju, v gnezdlilnici in v stenskih odprtinah. Prikazana sta povprečje in standardna napaka povprečja.

($N = 9$) in nest boxes. The differences in mean laying date were not statistically significant (Kruskall-Wallis test; $H = 3.55$, $df = 25$, $P = 0.169$). The variation in the average clutch was not statistically significant (one-way ANOVA $F_{2,55} = 0.127$, $P = 0.88$).

Overall hatching success was 67% ($N = 52$), with an average brood size of 2.56 ± 1.33 ($N = 52$) chicks. In 63% of the cases the eggs hatched in the second

decade of June. Cavity nests had a greater brood size i.e. 3.10 ± 0.74 ($N = 10$), compared to nests in attics with the mean 2.52 ± 1.31 ($N = 23$) and nest boxes with 2.32 ± 1.56 ($N = 19$). These differences were not statistically significant (one-way ANOVA $F_{2,49} = 1.153$, $P = 0.32$ – Figure 4). Taken together, the two 'natural' nest categories (attics and cavities) showed no statistically significant differences from nest boxes (t -test, $t_{50} = 0.99$, $P = 0.326$).

The average number of fledged young, calculated for all nest types, was 1.9 ($N = 45$), without statistically significant variation between all three nest types (Kruskal-Wallis test; $H = 4.681$, $df = 45$, $P = 0.096$). Nests in cavities had an average number of fledged young 2.70 ± 0.82 ($N = 10$), which was higher than those in attics, 1.66 ± 1.14 ($N = 18$) and nest boxes, 1.82 ± 1.47 ($N = 17$) (Figure 5). Paired comparisons show that the average number of fledged young in cavities is significantly higher than in attics (Mann-Whitney U Test, $U = 36$, $P = 0.035$) but there were no significant differences between nest boxes and either of the other two types (Mann-Whitney U Test, $U = 54$, $P = 0.119$).

4. Discussion

The occupancy rate for nest boxes installed in 2007 was not particularly high. Only 16 (8.0%) nest boxes had at least one egg laid. As many studies have shown (LACK 1955 & 1958, PERRINS 1979, ULFSTRAND *et al.*

Table 1: The overview of 200 nest boxes installed in Gravina in Puglia (Ba), Altamura (Ba), Acquaviva delle fonti (Ba), Cassano delle Murge (Ba) and Laterza (Ta) in 2007**Tabela 1:** Pregled 200 gnezdilnic, nameščenih v mestih: Gravina in Puglia (Ba), Altamura (Ba), Acquaviva delle fonti (Ba), Cassano delle Murge (Ba) in Laterza (Ta) v letu 2007

| Town | Installed | | Visited | | Occupied | |
|-------------------|-----------|-----|---------|---|----------|------|
| | No. | No. | No. | % | No. | % |
| Gravina in Puglia | 102 | 30 | 29.4 | | 11 | 10.8 |
| Altamura | 50 | 2 | 4.0 | | 2 | 4.0 |
| Acquaviva | 22 | 6 | 27.3 | | 3 | 13.6 |
| Cassano | 12 | 0 | 0.0 | | 0 | 0.0 |
| Laterza | 14 | 0 | 0.0 | | 0 | 0.0 |
| Total | 200 | 39 | 19.5 | | 16 | 8.0 |

1981, PREMUDA *et al.* 2000), the occupancy rate of nest boxes in their first year is low, and it is often necessary to wait one or two years for them to be fully accepted by birds. This is the case for Lesser Kestrels in Spain and Portugal (POMAROL 1996, CATRY *et al.* 2004 & 2007). In Italy, during a study on the breeding biology of Lesser Kestrels in the Santeramo in Colle colony, during 2003 and 2005, occupancy rates were 12% in the first year and 60% in the third year (BUX *et al.* 2005). CATRY *et al.* (2007) suggested, as has been found in many types of nest boxes for different birds, that nest boxes could be better quality nesting sites than natural ones, particularly with regards to protection from predators and reduced interspecific competition for limited nesting sites, and may provide an efficient conservation measure for Lesser Kestrels.

In our study nest boxes were used as nest sites for the first time (in the first year) and still provided similar breeding success rates as the other cavities, as there were no significant differences between the main breeding parameters between nest sites. The data we gathered in another study shows that the tendency to occupy new nesting sites (such as nest boxes) is often strongly influenced by the state of the breeding season. In 2007, the worst breeding performance of the last five years was recorded (M. Bux *in prep.*; in the analysis using only nest in cavities and attics).

In conclusion, our research shows that wooden nest boxes are an effective conservation measure and can help to minimize potential negative effects of the disappearance of natural nesting sites for Lesser Kestrels (FRANCO *et al.* 2005, CATRY *et al.* 2004 & 2007), and they can provide a successful alternative in

cases that require rapid intervention, such as natural cavities being destroyed by renovation of buildings.

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5. Povzetek

Prenova zgodovinskih stavb ima močan negativen vpliv na južno postovko, saj zmanjšuje razpoložljivost njenih gnezdišč in tudi njenega gnezditvenega uspeha. Avtorji so z namenom, da ugotovijo učinkovitost gnezdilnic kot varstvenega orodja, preučevali stopnjo zasedenosti gnezdilnic in primerjali gnezditveni uspeh južne postovke v gnezdilnicah s tistim v drugih urbanih območjih južne Italije. Rezultati so pokazali, da so gnezdilnice uspešno in koristno strateško orodje pri poskusih, da se ohrani ta vrsta. Parametri njenega razmnoževanja (srednji datum leženja jajc, velikost zaroda, število speljanih mladičev), zabeleženi v gnezdilnicah, se namreč bistveno niso razlikovali od parametrov na gnezdiščih v urbanih območjih (odprtine v zidovih in podstrešja).

6. References

- BUX, M., PERNIOLA, M. & SCILLITANI, G. (2005): Biologia riproduttiva del Grillao *Falco naumanni* in Italia meridionale. – Avocetta 29: 176.
- BUX, M. (2008): Grillao *Falco naumanni*. Pp. 38–41 In: BELLINI, F., CILLO, N., GIACOTA, V. & GUSTIN, M. (eds.): L’Avifauna di interesse comunitario delle gravine ioniche. – Oasi Lipu Gravina di Laterza, Laterza (Ta).
- GONZALES, J.L. & MERINO, M. (1990): El Cernicalo primilla (*Falco naumanni*) en la Península Iberica – Serie técnica, Publicaciones del Instituto Nacional para la Conservación de la Naturaleza, ICONA, Madrid.
- CATRY, I., REIS, S., ALCAZAR, R., CORDEIRO, A., ROCHA, P. & FRANCO, A. (2004): Será o aumento da disponibilidade de locais de nidificação uma medida de gestão eficaz para a recuperação do francelho em Portugal? – Airo 14: 21–28.
- CATRY, I., ALCAZAR, R., & HENRIQUES, I. (2007): The role of nest-site provisioning in increasing lesser kestrel *Falco naumanni* numbers in Castro Verde Special Protection Area, southern Portugal. – Conservation Evidence 4: 54–57.
- FRANCO, A.M.A., MARQUES, J.T. & SUTHERLAND, W.J. (2005): Is nest-site availability limiting Lesser Kestrel populations? A multiple scale approach. – Ibis 147: 657–666.

- LACK, D. (1955): British Tits (*Parus* sp.) in nesting boxes. - Ardea 43: 50–84.
- LACK, D. (1958): A quantitative breeding study of British Tits. - Ardea 46: 91–124.
- MASCARA, R. & SARÀ, M. (2006): Densità e biologia riproduttiva del grillaio *Falco naumanni* nella piana di Gela (Sicilia). - Avocetta 30: 51–60.
- NEGRO, J.J. (1997): *Falco naumanni* Lesser Kestrel. - BWP Update 1: 49–56.
- PALUMBO, G. (1997): Il Grillaio. - Altrimedia Edizioni, Matera.
- PALUMBO, G., RIZZI, V. & MALACARNE, G. (1997): Contributo alla conoscenza di biologia riproduttiva, distribuzione e consistenza della popolazione di grillaio (*Falco naumanni*) dell'Italia peninsulare. - Avocetta 21 (2): 206–212.
- PERRINS, C.M. (1979): British Tits. - Collins, London.
- POMAROL, M. (1996): Artificial Nest Structure Design and Management Implications for the Lesser Kestrel. - Journal of Raptor Research 30 (3): 169–172.
- PREMUDA, G., BEDONNI, B. & BALLANTI, F. (2000): Nidi artificiali. - Calderini, Edagricole, Bologna.
- SHULMAN-LIVEN, I., LESHEM, Y., ALON, D. & YOM-TOV, Y. (2004): Causes of population declines of the Lesser Kestrel *Falco naumanni* in Israel. - Ibis 146: 145–152.
- STEENHOF, K. (1987): Assessing raptor reproductive success and productivity. pp. 157–170 In: PENDLETON, B.A., MILLSAP, B.A., CLINE, K.W. & BIRD, D.M. (eds.): Raptor management techniques manual. - National Wildlife Federation, Washington.
- ULFSTRAND, S., ALATALO, R.V., CARLSON, A. & LUNDBERG, A. (1981): Habitat distribution and body size of the Great Tit *Parus major*. - Ibis 123: 494–499.
- VLACHOS, C., BAKALOUDIS, D. & CHATZINIKOS, E. (2004): Unusual nesting of the Lesser Kestrel (*Falco naumanni*) in Thessaly, Greece. - Journal of Raptor Research 38: 161–163.

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GNEZDITVENI USPEH KMEČKE LASTOVKE *Hirundo rustica* V HLEVIH Z RAZLIČNIMI REJNIMI ŽIVALMI IN V OPUŠČENIH HLEVIH V HALOZAH (SV SLOVENIJA)

Breeding success of Barn Swallow *Hirundo rustica* in animal enclosures for different types of farm animals and in abandoned animal enclosures at Haloze (NE Slovenia)

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Raziskava je potekala v vzhodnih Halozah (SV Slovenija) med aprilom in julijem 2007. Avtor je primerjal gnezditveno uspešnost kmečke lastovke *Hirundo rustica* med skupinami hlevov z različnimi rejnimi živalmi in opuščenimi hlevi. Primerjal je tudi strukturne sprememb živinoreje v zadnjih 10 letih in nekatere za gnezdenje vrste ključne dejavnike: prehranske razmere v okolini hlevov, temperaturne razmere v hlevih, dostopnost in strukturiranost hleva. Ugotovil je, da je bilo največ zasedenih gnezd v hlevih z govedom, sledijo prašičji hlevi in hlevi z drobnico. V opuščenih hlevih ni bilo zasedenih gnezd. Delež vseh zasedenih gnezd v 16 preučevanih hlevih je bil nizek (38.9%), najnižji je bil v opuščenih (0.0%), najvišji pa v prašičjih hlevih (70.8%). Največ speljanih mladičev na zasedeno gnezdo je bilo v hlevih z drobnico (4.67 ± 0.33), sledijo prašičji hlevi (3.75 ± 0.25) in hlevi z govedom (3.71 ± 0.18). Razlike v gnezditvenem uspehu med skupinami hlevov so verjetno posledica strukturnih sprememb v živinoreji v zadnjih 10 letih, ki so bile največje v opuščenih hlevih in hlevih z drobnico in posledica različnih prehranskih ter temperaturnih razmer med skupinami hlevov. Slednja dejavnika sta bila za vrsto ugodna v hlevih z govedom, neugodna pa v opuščenih hlevih in hlevih z drobnico. V prašičjih hlevih so bile neugodne le prehranske razmere. Dostopnost in strukturiranost hleva se med skupinami hlevov nista bistveno razlikovali.

Ključne besede: kmečka lastovka, *Hirundo rustica*, gnezditveni uspeh, Haloze, Slovenija

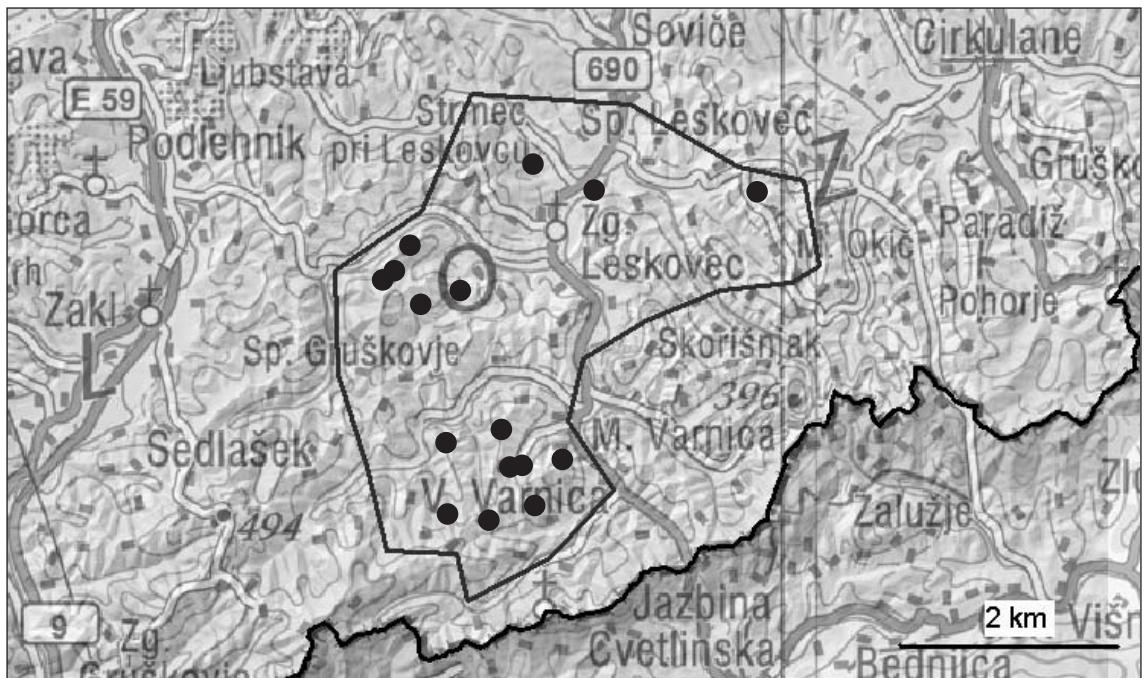
Key words: Barn Swallow, *Hirundo rustica*, breeding success, Haloze, Slovenia

1. Uvod

Kmečka lastovka *Hirundo rustica* živi v naseljih, najpogosteje na deželi in v manjših mestih. Prehranjuje se z velikimi letečimi žuželkami, ki jih lovi v zraku. Je selivka, ki na gnezditveno območje v srednji Evropi prileti konec marca in aprila. Samec in samica začneta takoj znašati gnezdo, oziroma popravljati staro. Gnezdi v hlevih in drugih stavbah, kjer gnezdo iz bilk in blata, pomešanega s slino, pritrdi na rob zidu, svetliko, električno žico in podobno. Valjenje traja 12–16 dni, mladiči ostanejo v gnezdu 19–23 dni. Starša jih nekaj

časa hrana ita še zunaj gnezda. Navadno prvemu sledi še en ali dva zaroda v istem gnezdu. (GLUTZ VON BLOTZHEIM 1985)

Evropska populacija se je v zadnjih desetletjih zmanjšala za več kot 50%, kar je predvsem posledica spremenjanja kmetijstva v Evropi in sprememb v afriških prezimovališčih (MØLLER 2001). Upadanje v Evropi se časovno ujema z upadanjem števila govedorejskih kmetij, na katere je vezan pretežni del populacije kmečke lastovke (GLUTZ VON BLOTZHEIM 1985). Vrsta je v Sloveniji splošno razširjena in pogosta gnezdilka (GEISTER 1995).



Slika 1: Zemljevid preučevanega območja z označenimi lokacijami preučevanih hlevov. Tanka siva črta – meja preučevanega območja; črni krogi – lokacije preučevanih hlevov; črna črta – državna meja med Slovenijo in Hrvaško; debele sive in bele črte – ceste; sivi kvadratki – pozidane površine. Vir: [http://gis.arso.gov.si/atlasokolja/profile.aspx?id=Atlas_Okolja_AXL@Arso].

Figure 1: Map of the survey area with marked locations of the studied animal enclosures. Thin grey line - boundary of the survey area; black dots – locations of the studied enclosures; black line – state border between Slovenia and Croatia; thick grey and white lines – roads; grey squares – urban areas. Source: [http://gis.arso.gov.si/atlasokolja/profile.aspx?id=Atlas_Okolja_AXL@Arso].

Namen raziskave je bil med seboj primerjati gnezditveni uspeh kmečke lastovke med skupinami hlevov z različnimi rejnimi živalmi in opuščenimi hlevi v Halozah. Na podlagi podobnih raziskav sem predvideval, da so za kmečko lastovko najbolj ugodni hlevi z govedom, najmanj pa opuščeni hlevi. Poskušal sem ugotoviti, kateri ekološki dejavniki vplivajo na razlike med skupinami hlevov, in jih oceniti z oznako ugodno ali neugodno.

2. Opis preučevanega območja in metode

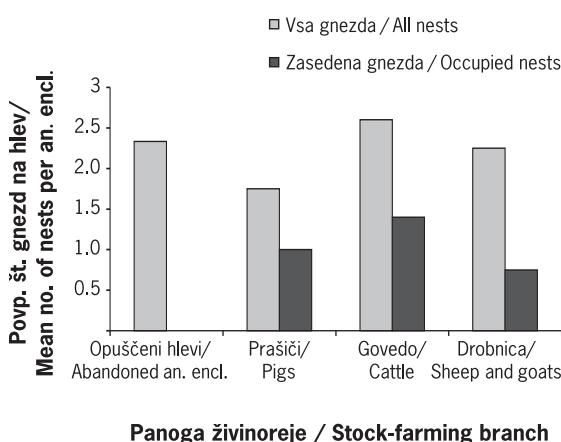
2.1. Opis preučevanega območja

Območje raziskave leži v osrednjem delu vinorodnih Haloz v SV Sloveniji (UTM WM73) in obsega približno 1200 ha površine (slika 1). Relief je gričevnat, s kratkimi slemenimi, ki potekajo v različne smeri. Večina območja leži na nadmorski višini med 200 in 400 metri. Prevladujejo nakloni med 6° in 20°, kar omejuje kmetijsko rabo območja. Gozd pokriva približno 40%

ozemlja, preostalih 60% zavzemajo predvsem pašniki, travniki in vinogradi, delež njiv in urbanih površin je manjši od 5%. V zadnjih desetletjih sta se manjšala deleža vinogradov in njiv na račun travnikov, pašnikov in opuščenih površin. Številni pašniki in travniki so hkrati visokodebelni sadovnjaki. Večje sklenjeno naselje znotraj območja je Zgornji Leskovec. Naselja Slatina, Sp. Leskovec, Trdobojci in Velika Varnica so razložena po slemenih. Kmetije na območju raziskave so razmeroma majhne, saj prevladujejo kmetijska gospodarstva, velika do 5 ha (KRAJNC 1999, PERKO & OROŽEN ADAMIČ 1998).

2.2. Metode

Raziskava gnezditvenega uspeha kmečke lastovke je potekala med 28.4. in 9.7.2007. Na preučevanem območju sem obiskal približno enako število arbitralno izbranih hlevov iz vsake panoge živinoreje in opuščenih hlevov. Iz raziskave sem izključil hleva, ki niso ustrezali naslednjima kriterijema: nespremenjena



Slika 2: Povprečno število gnezd in povprečno število zasedenih gnezd na hlev glede na panogo živinoreje

Figure 2: Average number of nests and average number of occupied nests per animal enclosure in relation to stock-farming branch

panoga živinoreje v zadnjih 5 letih in oddaljenost do najbljžjega hleva vsaj 400 m. Kriterija za izbor hlevov sta bila potrebna zaradi značilnosti vrste. Maksimalna življenska doba kmečke lastovke je 5 let (AMBROSINI *et al.* 2002). Za vrsto je značilna tudi nizka gnezditvena disperzija, osebki se vsako leto vrnejo v isto gnezditveno kolonijo. Spremembe razmer, ki vplivajo na gnezdenje, se zato na koloniji pokažejo šele kasneje (AMBROSINI *et al.* 2002). V raziskavo sem zato vključil hleve, v katerih se panoga živinoreje v zadnjih 5 letih ni spremenila. Prav tako so vsi izbrani hlevi starejši od 5 let. Kmečke lastovke večinoma lovijo znotraj 400-metrskega pasu okrog hleva, približno 50% hrane ujamejo manj kot 100 metrov od hleva (MØLLER 2001). Z dovolj veliko oddaljenostjo hleva od sosednjega sem zmanjšal možnost vplivov sosednjih kmetij predvsem na prehranske razmere v okolici izbranega hleva. Ta kriterij ni bil upoštevan v primeru dveh hlevov. V raziskavo sem vključil 16 hlevov: 3 opuščene, 5 z govedom, 4 prašiče in 4 z drobnico. V treh hlevih so bili skupaj z govedom tudi prašiči. Ker je bilo število (ali biomasa) prašičev nižje in je prav govedo določalo kmetijsko rabo prostora v okolici hleva, sem jih opredelil kot hlev z govedom.

Med raziskavo sem vsak hlev obiskoval vsaj enkrat v 14 dneh. Preštel sem število gnezd, število zasedenih gnezd in zabeležil gnezditveni uspeh parov. Kot zasedena gnezda sem štel vsa gnezda v hlevu, v katerih sem v času raziskave našel jajca ali mladičev. Gnezditveni uspeh parov ponazarja število speljanih mladičev v posameznem leglu, kot približek pa sem štel število mladičev v gnezdu po dveh tednih od izvalitve.

Izvaljeni mladiči v gnezdu ostanejo približno tri tedne, njihova smrtnost po desetem dnevu starosti pa je manj kot 5% (AMBROSINI *et al.* 2002). Delež zasedenih gnezd sem predstavil kot razmerje med zasedenimi in vsemi v hlevu obstoječimi gnezdi. V tej raziskavi sem upošteval samo prve zarode, čeprav imajo mnogi pari dva, nekateri tudi tri zarode v sezoni (GLUTZ VON BLOTZHEIM 1985).

V preučevanih hlevih sem z oceno ugodno (+) ali neugodno (-), glede na navedbe v literaturi, ocenil štiri ekološke dejavnike, ki so pomembni za gnezdenje kmečke lastovke. To so strukturiranost hleva, dostopnost hleva, prehranske razmere v okolici hleva in temperaturne razmere v hlevu.

Arhitekturne značilnosti hleva lahko pomembno vplivajo na gnezditvene možnosti kmečke lastovke (AMBROSINI *et al.* 2002). Pri vsakem hlevu sem ocenil njegovo strukturiranost in dostopnost. Kot ugodno strukturirane sem ocenil hleva z lesenimi tramovi, grobim ometom sten, stebri, primernimi lučmi ali namensko izdelanimi strukturami za pritrjevanje gnezd (lesene police, zabití žeblji). Na teh strukturah je bila namreč pritrjena večina gnezd. Pri oceni dostopnosti hleva sem upošteval obstoj odprtih oken ali drugih odprtin, skozi katere je v hlev v času gnezditvene sezone lastovkam omogočen dostop.

Kmečka lastovka se prehranjuje z letičimi žuželkami v bližini hleva (GLUTZ VON BLOTZHEIM 1985). Količino in strukturo potencialne hrane sem določil s pomočjo izlova s pastmi. Uporabil sem rumene lepljive plošče velikosti 17×24 cm, ki privabljajo predvsem žuželke in se v sadjarstvu uporabljajo za zatiranje škodljivcev. Iz vsake skupine hlevov sem naključno izbral enega, skupaj torej štiri hleva. V vsakega sem namestil dve pasti, eno znotraj hleva in eno zunaj, v bližini vhoda. Izlov je trajal od 20.5. do 27.5.2007. Izlovljene živali sem določil do redov, jih preštel ter izračunal povprečno število osebkov na past. Izračunana števila osebkov sem zaokrožil do celih števil. Na podlagi dobljenih rezultatov sem ocenil prehranske razmere v okolici hlevov. Glavnino hrane kmečke lastovke sestavljajo veliki dvokrilci Diptera, pomembni pa so tudi hrošči Coleoptera in metulji Lepidoptera (GLUTZ VON BLOTZHEIM 1985). Prehranske razmere sem ocenil na podlagi števila ujetih osebkov iz omenjenih treh redov žuželk.

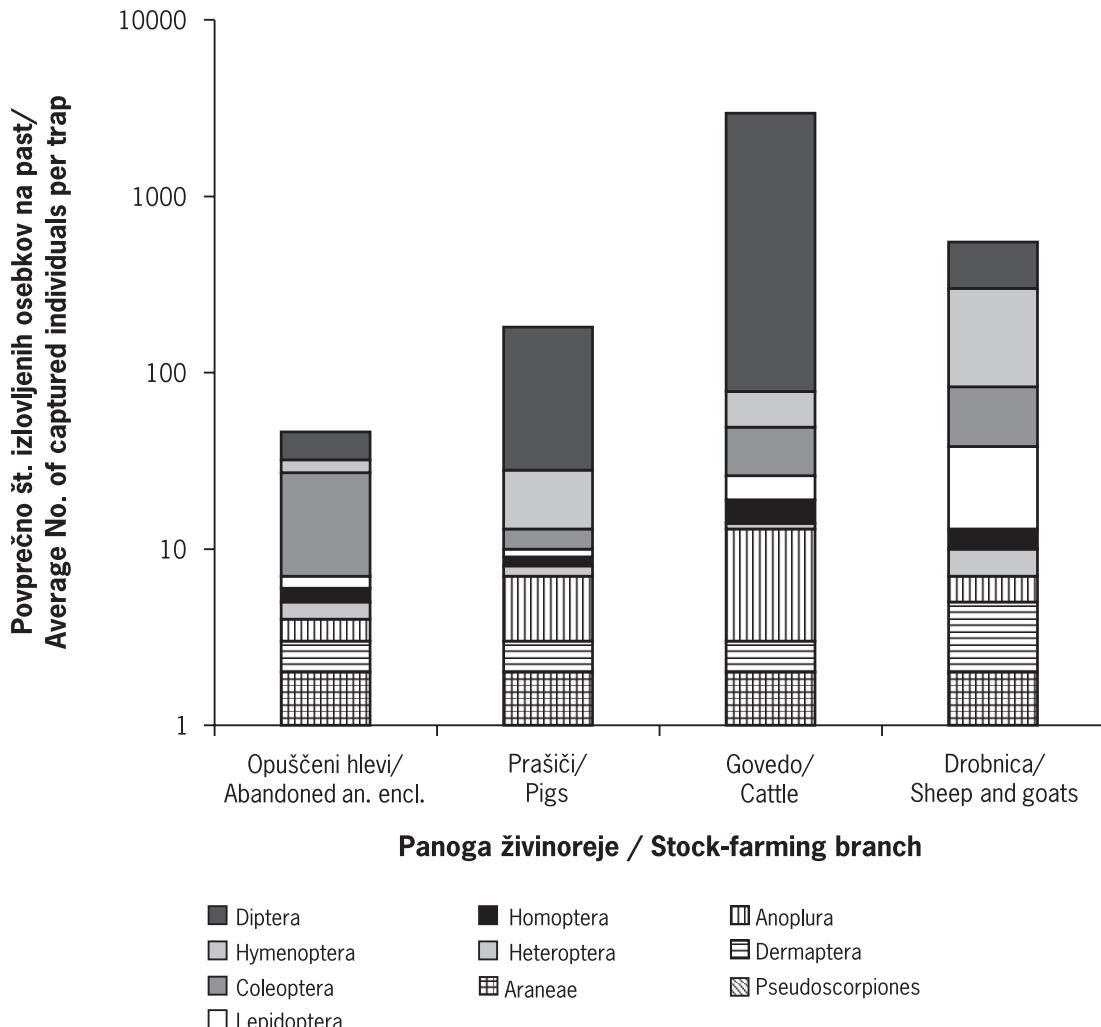
Živali v hlevu zvišujejo temperaturo, kar zmanjšuje energetske stroške reprodukcije (MØLLER 2001). Temperaturne razmere v hlevih sem ocenjeval posredno glede na to, ali so v njih bile domače živali ali ne. Ugodno sem ocenil temperaturne razmere v hlevih, v katerih so bile domače živali v hlevu vsaj prek noči v času gnezditvene sezone kmečke lastovke.

A. KOREN: Gnezditveni uspeh kmečke lastovke *Hirundo rustica* v hlevih in v posameznih skupinah hlevov; SE – standardna napaka povprečja

Tabela 1: Povprečja, standardne napake povprečij, minimumi in maksimumi gnezditvenih parametrov v vseh preučevanih hlevih in v posameznih skupinah hlevov; SE – standardna napaka povprečja

Table 1: Means, standard errors of the means, minimums and maximums of breeding parameters in all studied animal enclosures and in each individual group of enclosures; SE – standard error of the mean

| | Opusčeni hlevi/ enclosures | Abandoned animal enclosures | Govedo / Cattle | Prašiči / Pigs | Drobniča / Sheep and goats | Skupno / Total |
|---|-------------------------------|--------------------------------|-----------------|----------------|-------------------------------|----------------|
| Št. hlevov v raziskavi / No. of animal enclosures in the study | 3 | 5 | 4 | 4 | 4 | 16 |
| Povp. št. gnezd na hlev / Mean no. of nests per animal enclosure | 2,33 | 2,60 | 1,75 | 2,25 | 2,25 | |
| SE | 1,86 | 0,81 | 0,48 | 0,25 | 0,40 | |
| min | 0 | 1 | 1 | 2 | 0 | |
| max | 6 | 5 | 3 | 3 | 6 | |
| Povp. št. zasedenih gnezd na hlev / Mean no. of occupied nests per animal enclosure | 0,00 | 1,40 | 1,00 | 0,75 | 0,88 | |
| SE | 0,00 | 0,51 | 0,00 | 0,25 | 0,20 | |
| min | 0 | 0 | 1 | 0 | 0 | |
| max | 0 | 3 | 1 | 1 | 3 | |
| Delež zasedenih gnezd / Proportion of occupied nests | 0,00 | 0,63 | 0,71 | 0,33 | 0,39 | |
| Skupno št. speljanih mladičev / Total No. of nestlings | 0 | 26 | 15 | 14 | 55 | |
| Povp. št. mladičev na zasedeno gnezdo / Mean No. of nestlings per nest | / | 3,71 | 3,75 | 4,67 | 3,93 | |
| SE | / | 0,18 | 0,25 | 0,33 | 0,16 | |
| min | / | 3 | 3 | 4 | 3 | |
| max | / | 4 | 4 | 5 | 5 | |



Slika 3: Logaritmirano povprečno število in struktura izlovljenih členonožcev v hlevih z različnimi panogami živinoreje; za lov so bile uporabljene lepljive plošče

Figure 3: Log mean number and structure of captured arthropods in relation to stock-farming branch; sticky plates were used for capture

Za vsak hlev sem od lastnika dobil podatke o številu in vrstah živali, ki so bile v hlevu leta 1997, 2002 in 2007. Za hlev, opuščene več kot 10 let, sem dobil podatek o panogi živinoreje pred opustitvijo. S pomočjo pridobljenih podatkov sem analiziral strukturne spremembe živinoreje in spremembe števila živali v zadnjih 10 letih.

3. Rezultati

V 16 hlevih sem popisal 36 gnez, delež zasedenih gnez je bil 38.9%. Povprečno število gnez na hlev

je bilo najvišje v hlevih z govedom, sledijo opuščeni hlevi in hlevi z drobnico. Najvišje je bilo v prašičjih hlevih (slika 2, tabela 1). Najvišje povprečno število zasedenih gnez na hlev je bilo v hlevih z govedom, sledijo prašičji in hlevi z drobnico. V opuščenih hlevih ni bilo zasedenih gnez (slika 2, tabela 1). Delež zasedenih gnez je bil v prašičjih hlevih 70.8%, v hlevih z govedom 63.0%, v hlevih z drobnico 33.3% in v opuščenih hlevih 0.0% (tabela 1).

Skupno je bilo v 14 zasedenih gnezdih speljanih 55 mladičev, kar je 3.93 ± 0.16 mladiča na zasedeno gnezdo. Največ speljanih mladičev na zasedeno gnezdo

A. KOREN: Gnezditveni uspeh kmečke lastovke *Hirundo rustica* v hlevih z različnimi rejnimi živalmi in v opuščenih hlevih v Halozah (SV Slovenija)

Tabela 2: Ocena ekoloških dejavnikov v hlevih z ugodno (+) ali neugodno (-). Ekološke dejavnike smo vrednotili *ad hoc* na podlagi navedb v literaturi.

Table 2: Evaluation of ecological factors in animal enclosures with good (+) and bad (-). Ecological factors were evaluated *ad hoc* on the basis of published data.

| Hlev/ Animal enclosure | Dostopnost hleva/ Accessibility of the animal enclosure | Strukturiranost hleva / Architectural structures in animal enclosure | Temperaturne razmere / Temperature conditions | Količina, struktura potencialnega plena/ Prey quantity and structure |
|-----------------------------------|---|---|---|---|
| Opuščeni / Abandoned | | | | |
| Koren | + | + | - | - |
| Otenski | + | + | - | + |
| Kozel | + | + | - | - |
| Prašiči / Pigs | | | | |
| Juroški | - | + | + | + |
| Otenski | + | - | + | - |
| Vidovič | + | + | + | - |
| Kalček | - | + | + | - |
| Govedo / Cattle | | | | |
| Juroški | + | - | + | + |
| Slivni | + | + | + | + |
| Johanovi | - | + | + | + |
| Otenski | + | - | + | + |
| Vertek | - | + | + | + |
| Drobnica / Sheep and goats | | | | |
| Sorkač | + | + | - | - |
| Bedrač | + | + | + | - |
| Črepjak | + | + | - | - |
| Kuček | + | + | - | - |

je bilo v hlevih z drobnico (4.67 ± 0.33), sledijo prašičji hlevi (3.75 ± 0.25) in hlevi z govedom (3.71 ± 0.18) (tabela 1).

Največ s pastmi izlovljenih živali je pripadalo žuželkam Insecta. Zabeleženih je bilo 8 redov. Druge so pripadale dvema redovoma pajkovcev Arachnida (slika 3). V hlevu z govedom sem ujel 2953 osebkov, pri drobnici 548, v prašičjem hlevu 176 in v opuščenem hlevu 40 osebkov. V hlevu z govedom so dvokrilci sestavljeni 97.5% ujetih živali, podoben delež so zavzemali pri prašičih (86.9%), pri drobnici je bil delež približno polkrat nižji (45.3%). V opuščenem hlevu jih je bilo najmanj. Metuljev in hroščev je bilo največ v hlevu z drobnico, a je bil njihov delež nizek. Hrošči so sestavljeni polovico izlovljenih živali v opuščenem hlevu (slika 3).

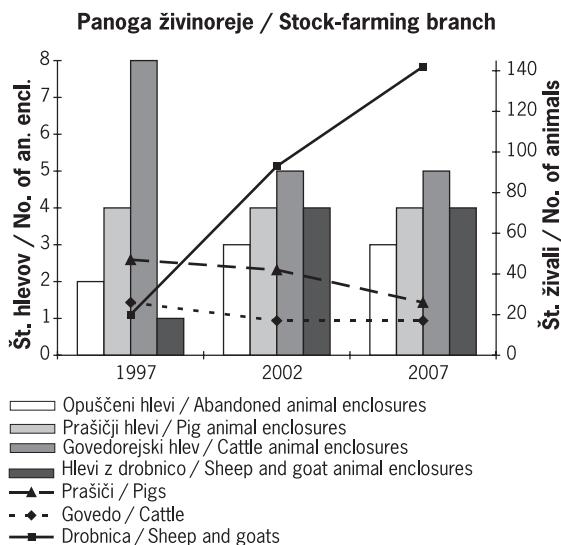
Na sliki 4 prikazujem strukturne spremembe v živinoreji v preučevanih hlevih med letoma 1997 in 2007. V obdobju med 1997 in 2002 se je znižalo število hlevov z govedom, zvišalo pa število hlevov z drobnico in opuščenih hlevov. En hlev z govedom je bil v tem obdobju zgrajen na novo. Skupno število vseh živali se je v preučevanih hlevih v zadnjih 10 letih

zvišalo z 88 v letu 1997 na 185 v letu 2007. Število goveda in prašičev se je v tem obdobju nižalo, število drobnice pa močno povečalo (slika 4).

V dostopnosti in strukturiranosti med kategorijami hlevov ni bistvenih razlik, saj se nobena izmed kategorij hlevov bistveno ne razlikuje po številu neugodno ocenjenih hlevov. V času raziskave znotraj opuščenih in v večini hlevov za drobnico ni bilo živali, zato so temperaturne razmere ocenjene negativno. Ugodne prehranske razmere so okrog hlevov z govedom in dveh drugih hlevov, ki sta oddaljena manj kot 400 m od najbližjega hleva z govedom (tabela 2).

4. Diskusija

Velikost vzorca posameznih kategorij hlevov ne dopušča kompleksnejše statistične analize, kljub temu pa lahko oblikujemo nekatere kvalitativne trditve na podlagi predstavljenih rezultatov. Povprečno število gnezd na hlev se med opuščenimi hlevi in hlevi z govedom ter z drobnico ne razlikuje bistveno, opazno nižje pa je v prašičjih hlevih. Takšne razmere so najverjetneje posledica strukturnih sprememb v



Slika 4: Spreminjanje panoge živinoreje preučevanih hlevov in sprememba skupnega števila živali posamezne živinorejske panoge v teh hlevih v zadnjih 10 letih. Skupno število hlevov je bilo 15 v letu 1997 in 16 v letih 2002 ter 2007.

Figure 4: Changing of stock-farming branch in the studied animal enclosures and changing of total number of animals in each branch for the last ten years. Total number of animal enclosures was 15 in 1997 and 16 in 2002 and 2007.

živinoreji v preučevanih hlevih v preteklosti. V vseh opuščenih in večini hlevov za drobnico so v preteklosti gojili govedo, zato je danes v teh hlevih število gnezd podobno. V prašičjih hlevih takšnih sprememb ni bilo. Boljšo primerjavo med skupinami hlevov z različnimi panogami živinoreje zato daje povprečno število zasedenih gnezd na hlev, ki je posledica sedanjih razmer na kmetiji. Rezultati raziskav v tujini kažejo, da so hlevi z govedom v primerjavi z drugo živilo in opuščenimi hlevi najugodnejši za kmečko lastovko (MØLLER 2001). To je povezano z dvema ključnima ekološkima dejavnikoma: količino potencialnega plena in razmeroma visoko temperaturo zraka v hlevu, ki znižuje energetske stroške vzreje mladičev (MØLLER 2001). Z najvišjim povprečnim številom zasedenih gnezd na hlev so tudi v moji raziskavi razmere najugodnejše v hlevih z govedom. Način reje goveda je bil podoben na vseh preučevanih kmetijah; živali pasejo čez dan, noči pa prezivijo v hlevih. V hlevih so čez dan le teleta. Takšna reja pozitivno vpliva tako na temperaturne razmere v hlevu kot na količino potencialnega plena v okolici hleva. Ponoči govedo segreva hlev, čez dan pa živali, ki se pasejo v okolici hleva, privabljam veliko število žuželk, ki jih lovijo kmečke lastovke. Količina s pastmi izlovljenih nevretenčarjev,

predvsem pa struktura, s prevladujočimi dvokrilci, to potrjuje. V prašičjih hlevih so živali vedno v hlevu, kar je ugodno za temperaturne razmere, neugodno pa vpliva na količino potencialnega plena. Prašičereja namreč poleg dejstva, da zunaj hlevov ni živali, določa tudi drugačno rabo prostora v okolici hlevov. Namesto pašnikov in travnikov, ki prevladujejo okrog hlevov z govedom, je bilo okrog prašičjih hlevov veliko več njiv. Raziskave drugih avtorjev so pokazale, da je število potencialnega plena na travnikih in pašnikih nekajkrat višje kot na njivah in drugih površinah (EVANS *et al.* 2007). Majhno število s pastmi izlovljenih živali v prašičjem hlevu kaže na očitno slabše prehranske razmere v okolici prašičjih hlevov. Posledici sta manjše povprečno število gnezd in zasedenih gnezd na hlev v prašičjih hlevih v primerjavi s hlevi z govedom. Glavni negativni dejavnik v večini hlevov za drobnico je bil ta, da v njih v glavnem ni bilo živali, saj drobnica v času gnezditvene sezone kmečkih lastovk v hlevih prebije kvečemu nekaj ur dnevno. Sklepamo lahko, da so temperaturne razmere v teh hlevih neugodne. Slabše so najverjetneje tudi prehranske razmere. V primerjavi s hlevom z govedom je bilo bistveno nižje število izlovljenih dvokrilcev, ki sestavljajo glavnino prehrane kmečke lastovke. V literaturi podatkov o neugodnosti ali neprimernosti hlevov z drobnico za gnezdenje kmečke lastovke nisem zasledil, zato je zelo nizko povprečno število zasedenih gnezd na hlev v hlevih z drobnico ob velikem povečevanju števila teh domačih živali v vseh preučevanih hlevih v zadnjih 10 letih presenetljivo. V opuščenih hlevih je bilo število izlovljenega potencialnega plena najmanjše, kar je v kombinaciji z odsotnostjo živali vzrok za odsotnost lastovk v teh hlevih.

Povprečni 39% delež zasedenih gnezd v vseh 16 preučevanih hlevih ocenjujem kot nizek. Kmečke lastovke, ki se spomladi vrnejo s selitve, za gnezdenje praviloma izberejo stara gnezda, da prihranijo čas in energijo, potrebno za izdelavo novega gnezda. Veliko število nezasedenih gnezd torej pomeni manjšo populacijo, kot je bila v času graditve teh gnezd. Manjše število gnezdečih parov kot pred leti v preučevanih hlevih opažajo tudi lastniki hlevov. Manjša trenutna populacija je lahko posledica naključnega populacijskega nihanja, ki je za vrsto značilno (MØLLER 1989), ali trenda zmanjševanja populacije. Upad populacije je v zadnjih desetletjih opazen v večjem delu Evrope (AMBROSINI *et al.* 2002). Pogosti so tudi lokalni upadi, kljub stabilnim nacionalnim populacijam (EVANS *et al.* 2003). Vzroki za zmanjševanje populacije so posledice sprememb v kmetijstvu na gnezditvenem območju in prezimovališčih (MØLLER 2001). Razlike

v deležu zasedenih gnezd med skupinami hlevov so verjetno povezane predvsem s spremenjanjem števila in vrste domačih živali v hlevih v zadnjih 10 letih. V prašičjih hlevih se je število živali zmanjšalo šele v zadnjih petih letih, kar se je zgodilo v dveh od štirih preučevanih hlevov. Ker so za kmečko lastovko značilne zvestoba domači koloniji, nizka gnezditvena disperzija in maksimalna življenska doba pet let, je možno, da se zmanjšanje števila prašičev še ni pokazalo v padcu zasedenosti gnezd, kljub poslabšanju razmer. Število goveda se je v obdobju zadnjih desetih let zmanjšalo v večini preučevanih hlevov z govedom, močno pa se je povečalo v enem hlevu. Skupno število goveda je zaradi omenjenega hleva na sliki 4 v zadnjih desetih letih stabilno. Ker so se večje spremembe zgodile že v obdobju med 1997 in 2002, so se te že pokazale v znižani zasedenosti gnezd. Nizek delež zasedenih gnezd v hlevih z drobnico je posledica prestrukturiranja večine teh hlevov iz govedorejskih v hlev za drobnico. Rezultati te raziskave pa nakazujejo, da je drobnica sposobna podpirati precej nižje število parov kmečkih lastovk na hlev kot govedo.

Kljub najvišji gostoti zasedenih gnezd na hlev je gnezditveni uspeh v hlevih z govedom nižji od prašičjih in hlevov z drobnico. Podoben pojav opisujejo tudi druge sorodne raziskave. Možen vzrok je v večjih kolonijah znotraj hlevov z govedom. Večje kolonije bolj privabljajo enoletne osebke, ki imajo nižji reprodukcijski uspeh od starejših lastovk (MØLLER 2001). V večjih kolonijah obstaja tudi večja intraspecifična tekmovalnost za hrano in prostor (AMBROSINI *et al.* 2002). Manjši gnezditveni uspeh v hlevih z govedom je lahko tudi posledica večje verjetnosti za drugi in tretji zarod v teh hlevih (WILSON *et al.* 1997), ki jih moja raziskava ni zajela.

Pri interpretaciji rezultatov izlova potencialnega plena je treba upoštevati, da na število potencialnega plena poleg že omenjenih (obstoj živali, raba prostora) vplivajo še številni drugi dejavniki. Pomembni so: količina in način gnojenja, čas in pogostost košnje ter paše, uporaba fitofarmacevtskih sredstev na domačih živalih in obdelovalnih površinah (EVANS *et al.* 2007). Vsi ti dejavniki so na posamezni izbrani kmetiji v različni meri vplivali na rezultate. Na rezultate je vplivala tudi metoda izlova s pastmi. Te so bile postavljene v hlev in pred vhod, kar je omogočilo standardizacijo metode v vseh izbranih hlevih. Vendar kmečka lastovka lovi predvsem v bližnji okolici hleva (MØLLER 2001), kjer so prehranske razmere lahko drugačne. Uporabljene plošče so tudi do določene mere selektivne, saj so primarno namenjene privabljanju škodljivcev v sadjarstvu, njihova površina pa je razmeroma majhna. Kljub pomanjkljivostim metodam so dobljeni rezultati v

precejšnji meri primerljivi z rezultati drugih podobnih raziskav, kjer so bile metode izlova precej bolj zapletene (EVANS *et al.* 2003, MØLLER 2001).

Arhitekturne značilnosti hleva so za kmečko lastovko prav tako pomemben ekološki dejavnik (AMBROSINI *et al.* 2002). V posameznih hlevih z neugodno strukturiranjem ali slabo dostopnostjo hleva je bilo število gnezdečih parov opazno nižje kot v primerljivih ugodno strukturiranih in dobro dostopnih hlevih. Kljub temu se v pogostosti takšnih hlevov bistveno ne razlikuje nobena živinorejska panoga, zato ta dejavnika verjetno nista v večji meri vplivala na rezultate raziskave. Neugodne arhitekturne razmere so pogosto značilne za novejše hleva (AMBROSINI *et al.* 2002), kar sem opazil tudi v moji raziskavi. Njihov pomen bo zato v podobnih raziskavah in varstveni biologiji vrste v prihodnje vse večji.

5. Summary

The research was carried out between April and July 2007 in the area of eastern Haloze (NE Slovenia). The author compared the breeding success of Barn Swallow *Hirundo rustica* between diverse groups of indoor enclosures for different types of farm animals and abandoned animal quarters. He also compared the structural changes in stock-farming during the last 10 years and some of the factors crucial for the nesting of this species: prey conditions around the indoor animal quarters, temperature conditions in them, as well as their accessibility and architectural structure. The number of occupied nests was higher in cowsheds than in pigsties and goat & sheep pens. There were no occupied nests in the abandoned indoor animal enclosures. The share of all occupied nests in the 16 studied enclosures was quite low (38.9%), the lowest in the abandoned animal quarters (0.0%) and the highest in pigsties (70.8%). The number of nestlings per occupied nest was highest in goat and sheep pens (4.67 ± 0.33), lower in pigsties (3.75 ± 0.25) and lowest in cowsheds (3.71 ± 0.18). The differences in breeding success between the groups of animal enclosures are probably the consequence of structural changes in stock-farming within the last 10 years, which were greatest in the abandoned quarters and goat & sheep pens, as well as the consequence of the differences in prey and temperature conditions between groups of animal enclosures. The last two factors were favourable in cowsheds and unfavourable in abandoned quarters and in goat & sheep pens. In pigsties, only prey conditions were unfavourable. Accessibility and architectural structure were the factors that did not substantially differ between individual groups of indoor animal enclosures.

6. Literatura

- AMBROSINI, R., BOLZERN, A.M., CANOVA, L., ARIENI, S., MØLLER, A.P. & SAINO, N. (2002): The distribution and colony size of barn swallows in relation to agricultural land use. – Journal of Applied Ecology 39 (3): 524–534.
- EVANS, K.L., BRADBURY, R.B. & WILSON, J.D. (2003): Barn swallow *Hirundo rustica* population trends in England: data from repeated historical surveys. – Bird Study 50: 178–181.
- EVANS, K.L., WILSON, J.D. & BRADBURY, R.B. (2007): Effects of crop type and aerial invertebrate abundance on foraging barn swallows *Hirundo rustica*. – Agriculture, Ecosystems and Environment 2007 (122): 267–273.
- GEISTER, I. (1995): Ornitološki atlas Slovenije. – DZS, Ljubljana.
- GLUTZ VON BLOTZHEIM, U.N. (1985): Handbuch der Vögel Mitteleuropas. – AULA-Verlag, Wiesbaden, Germany.
- KRAJNC, D. (1999): Strukturne spremembe v kmetijstvu subpanonske severovzhodne Slovenije po letu 1990 in možnosti nadaljnje razvoja. – Geografski vestnik 1999 (71): 27–39.
- MØLLER, A.P. (1989): Population dynamics of a declining swallow *Hirundo rustica* L. population. – Journal of Animal Ecology 58: 1051–1063.
- MØLLER, A.P. (2001): The effect of dairy farming on barn swallow *Hirundo rustica* abundance, distribution and reproduction. – Journal of Applied Ecology 38: 378–389.
- PERKO, D. & OROŽEN ADAMIČ, M. (1998): Slovenija: pokrajine in ljudje. – Mladinska knjiga, Ljubljana.
- WILSON, J.D., EVANS, J., BROWNE, S.J. & KING, J.R. (1997): Territory distribution and breeding success of skylarks *Alauda arvensis* on organic and intensive farmland in southern England. – Journal of Applied Ecology 34: 1462–1478.

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STATUS OF THE MASKED SHRIKE *Lanius nubicus* IN BULGARIA

Status zakrinkanega srakoperja *Lanius nubicus* v Bolgariji

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The data on the status of the Masked Shrike *Lanius nubicus* in Bulgaria is summarized. The research carried out by the authors and literature data for the periods 1963–1990 and 1991–2005 on the map of Bulgaria with UTM squares are presented. The northward and westward expansion of the species' breeding range is quite obvious, e.g. along the Maritsa River. The authors estimate the population of the Masked Shrike in Bulgaria to be 600–800 pairs.

Key words: Masked Shrike, *Lanius nubicus*, Bulgaria, status, distribution, population trends, areal expansion

Ključne besede: zakrinkani srakoper, *Lanius nubicus*, Bolgarija, status, razširjenost, populacijski trendi, širitev areala

1. Introduction

The Masked Shrike *Lanius nubicus* is distributed over the Balkans (Bulgaria, Greece, Macedonia) and in Turkey, Cyprus, the Near East (Syria, Lebanon, Israel, Jordan), northern Iraq, western Iran, probably southern Turkmenistan, and north-western Afghanistan (CRAMP & PERRINS 1993, LEFRANC & WORFOLK 1997). In Europe its population is greatest in Cyprus (4,000–10,000 pairs). The Turkish population is estimated at 30,000–90,000 pairs, located mainly in the Asian part of the country. The rest of the population is in Greece (500–2,000 pairs), Macedonia (100–150 pairs) and Bulgaria (50–100 pairs; as estimated in BIRDLIFE INTERNATIONAL 2004).

In Bulgaria, the species was first reported in 1963 in the Eastern Rhodope Mountains, near the village of Gorna Kula, Kroumovgrad region (MAUERSBERGER & STUBBS 1963, DONCHEV 1964). Breeding was proven in 1976 in the Malashevska Mountains (VATEV *et al.* 1980). Isolated sightings of the species in various areas of the country are reported in the works of PASPALEVA–ANTONOVA (1965), NANKINOV *et al.* (1979), PETROV (1981, 1987 & 1988), SCHUBERT & SCHUBERT (1982), LAMBUROV (1985), UHLIG (1984), SIMEONOV (1986), SIMEONOV & BAEVA (1988), NANEV (1988), SPIRIDONOV & SIMEONOV (1988), IANKOV (1991),

MILCHEV (1994), STOYCHEV (1997) and MILCHEV & KOVACHEV (1998). NANKINOV (2001) made an overview of the existing information on the distribution and added some new data. DEMERDZIEV *et al.* (2007) made a partial overview of the status of Masked Shrike in Bulgaria in the new Atlas of Breeding Birds in Bulgaria.

The aim of the present work is to present all the existing data on Masked Shrike in Bulgaria.

2. Methods

Field studies were carried out in the period 1992–2005. The transect method (BIBBY *et al.* 1999) was used and transects were set in various typical habitats of the species – riparian forests, poplar *Populus* sp. and orchard plantations along river valleys, and open oak *Quercus* sp. forests in plains and mountain foothills. The degree of breeding reliability was described with the methodology of HAGEMEIJER & BLAIR (1997). The birds were recorded with visual and sound identification at distances of 0–25 m and 25–50 m, and by visual identification only at distances of 50–100 m. The transects were of different length, depending on the availability or lack of suitable habitats.

Altogether, 17 transects were done to cover a total length of 127 km. They were studied once during

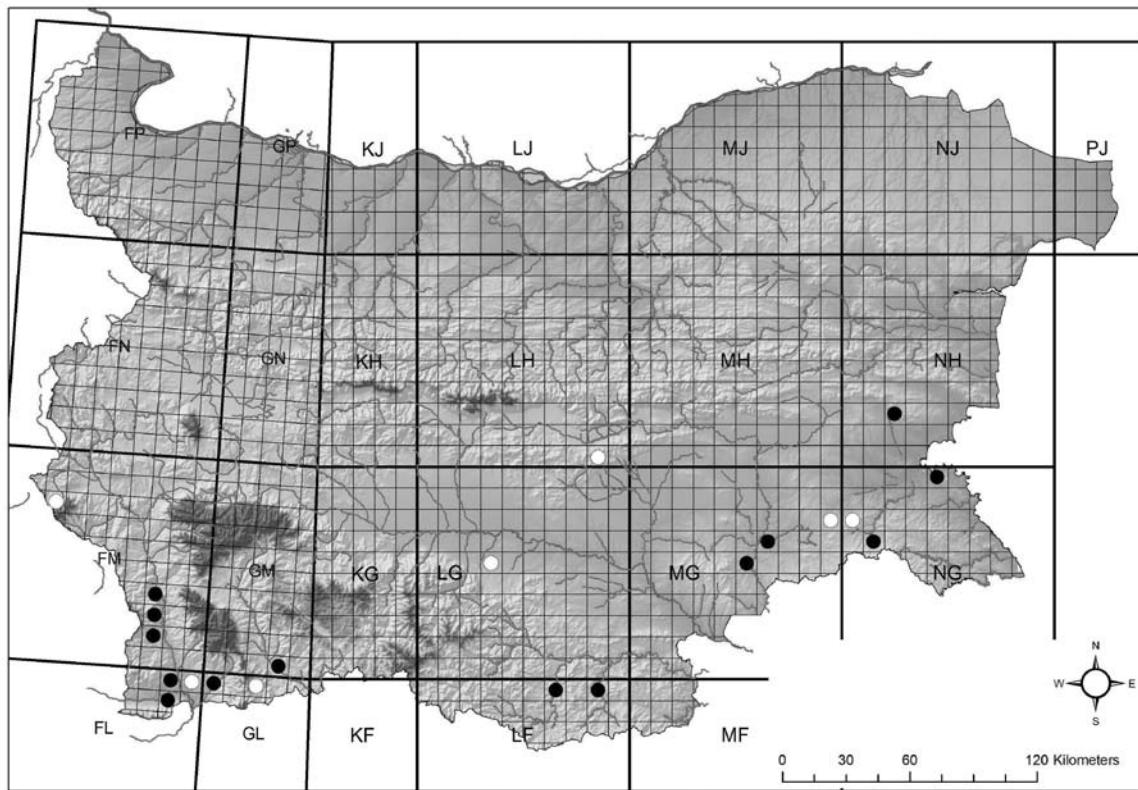


Figure 1: Breeding distribution of the Masked Shrike *Lanius nubicus* in Bulgaria in the period 1963–1990; black circles indicate certain breeding, white circles indicate possible breeding. Circles indicate at least one pair.

Slika 1: Gnezditvena razširjenost zakrlinkanega srakoperja *Lanius nubicus* v Bolgariji v obdobju 1963–1990; polni krožci ponazarjajo zanesljivo gnezdenje, prazni pa morebitno gnezdenje. Krožci označujejo najmanj en par.

the breeding season (15 May–15 Jun) in the period 2003–2005, and seven of them, covering a length of 49 km, were studied twice, the second time being in July. In calculating the breeding density, only the data in a 100 m belt (up to 50 m on either side of all transects) was taken into account. The density was calculated as the absolute number of birds recorded along all transects in a particular habitat, divided by the transect area. We used this method in order to ensure that this density would be the minimum of the real one.

In addition, the present article includes the data gathered by various field trips of the authors in the period 1992–1999.

3. Results

The species breeds in the southern part of the country. The breeding localities are found from sea level up to 387 m a.s.l. In the Upper Thracian lowland the species is found mainly along the middle and lower

reaches of the Maritsa River and some of its tributaries (UTM LG17, LG36, LG45, LG46, LG55, LG56, LG66, LG76, LG85, MG04, MG13, MG14, MG22, MG23, MG32), as well as on the lower reaches of the Tundja River (MG55, MG64, MG66, MG67), particularly on sites of the northern foothills of the Rhodope Mountains (LG35, LG44). It is well represented in the Sakar Mountains (MG24, MG33, MG35, MG36, MG43, MG46, MG53, MG56). Also, the species was found along the lower reaches of the Struma and Mesta rivers, including their tributaries (FM70, FM72, FM80, FL88, FL89, FL90, GM20, GM21, GM30, GL29, GL39). The Masked Shrike has a patchy distribution in the Western Strandja Mountains (MG88, MG97, NG07, NG16, NG19) and Eastern Rhodope Mountains (mainly along the valleys of the Krumovitsa and Arda rivers, from the Studen Klodenets dam to the vicinities of the town of Madjarovo and the Byala Reka River (MF18, MF28, LF89, LG70, LG80, MG01, MG11).

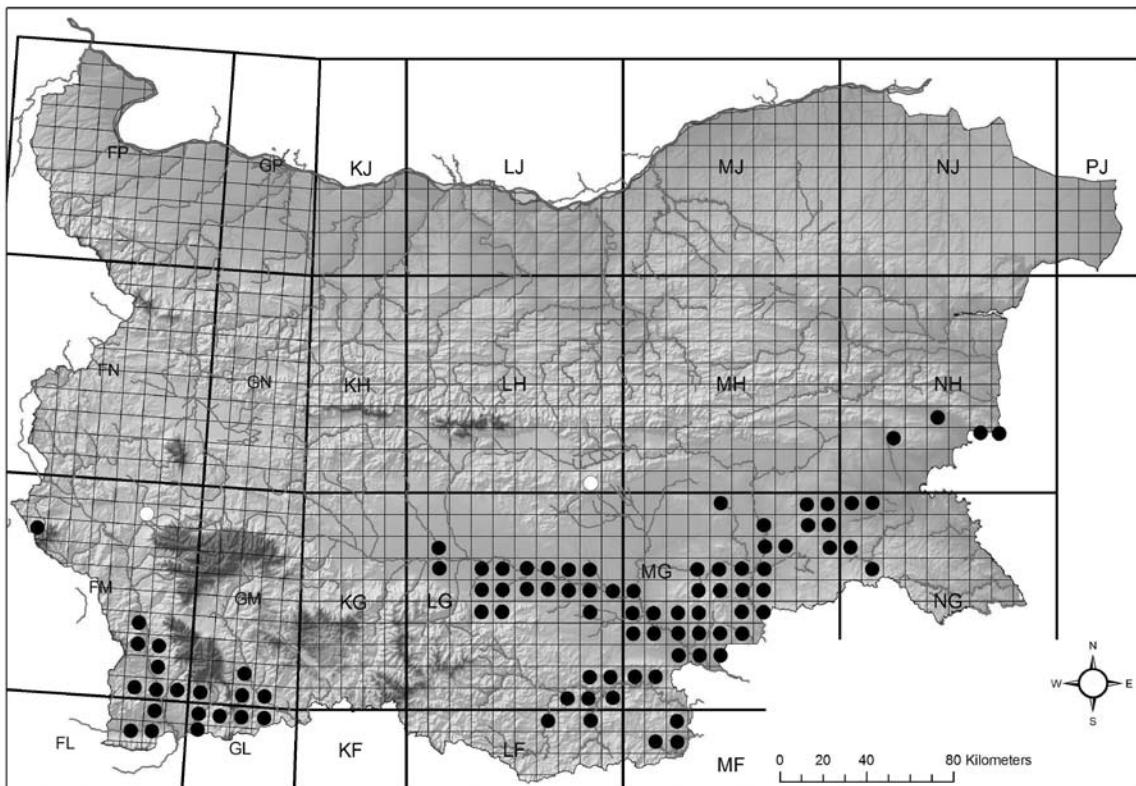


Figure 2: Breeding distribution of the Masked Shrike *Lanius nubicus* in Bulgaria in the period 1991–2005; black circles indicate certain breeding, white circles indicate possible breeding. Circles indicate at least one pair.

Slika 2: Gnezditvena razširjenost zakrlinkanega srakoperja *Lanius nubicus* v Bolgariji v obdobju 1991–2005; polni krožci ponazarjajo zanesljivo gnezdenje, prazni pa morebitno gnezdenje. Krožci pomenijo najmanj en par.

The species is territorial, forming loose colonies in suitable habitats. We determined a density of up to 3 pairs per 1 ha in poplar cultures along the Maritsa River and its tributaries, as well as in a riparian high-stemmed forest of Ashes *Fraxinus* sp. in the Maritsa river valley. The species had a lower density of up to 2 pairs per 1 ha in forests of Downy Oak *Quercus pubescens* and Hungarian Oak *Quercus frainetto* in the Thracian lowland, and in the Sakar and Strandja Mountains.

We are able to make some arbitrary claims about the species' habitat. In lowlands it nests in riparian poplar *Populus* sp. trees along the Maritsa and Tundja rivers and their tributaries, as well as along the Krumovitsa and Byala Reka rivers. It is less numerous in riparian patches of willow trees *Salix* sp., False-acacia *Robinia pseudacacia*, and lowland woods of ashes *Fraxinus* sp. The species was also found in coppiced Downy Oak and Hungarian Oak forests, sometimes with bushes, preferring wood outskirts, orchards, plantations of Walnuts *Juglans regia*, and almonds *Amygdalus* sp.

In the mountain foothills we found the species to inhabit open oak *Quercus* sp. woods, Mediterranean type shrub vegetation, represented by Greek Juniper *Juniperus excelsa*, Prickly Juniper *Juniperus oxycedrus*, and Christ's Thorn *Paliurus spina-christi*. The Masked Shrike was also recorded in town parks and private yards in villages ("Kenana" Park in the town of Haskovo, the park of the town of Dimitrovgrad, and two private yards in the village of Levka, Southern Sakar Mountains).

Our research and literature data for the periods 1963–1990 and 1991–2005, on the map of Bulgaria with UTM squares, are presented jointly in Figures 1 and 2.

4. Discussion

In Bulgaria the species was first reported in 1963 in the Eastern Rhodope Mountains, near the village of Gorna Kula (MAUERSBERGER & STUBBS 1963, DONCHEV 1964). Later, single pairs or individuals were also found during

the breeding season in other parts of southern Bulgaria: the Belasitsa Mountains (PASPALEVA-ANTONOVA 1965), the Sredna Gora Mountains (PETROV 1981), the Eastern Rhodope Mountains (SCHUBERT & SCHUBERT 1982, IANKOV 1991), the Sakar Mountains (LAMBUROV 1985, MILCHEV & KOVACHEV 1998, STOYCHEV 1997), the Pirin Mountains (SIMEONOV 1986, SPIRIDONOV & SIMEONOV 1988), the Western Rhodope Mountains (PETROV 1987 & 1988), the Ograzhden Mountains (SIMEONOV & BAEVA 1988), and the Strandja Mountains (MILCHEV 1994, NANKINOV 2001). Breeding of the species was registered in 1976 in the Malashevska Mountains (VATEV *et al.* 1980, ROBERTS 1980). During the decades after the first record of the Masked Shrike in Bulgaria in 1963, there were mostly occasional sightings of the species. Most likely in the early 1990s, the population of the Masked Shrike started to increase, and expansion of the species' range was recorded (Figures 1 & 2).

During our current study the species was found in many new localities and increase in the number of the breeding pairs was recorded in some of the previously known localities. Since 1990 we have recorded certain breeding of the Masked Shrike in 91 UTM squares in total. DEMERDZHIEV *et al.* (2007) recorded certain breeding in 34 UTM squares. Although the study period of this current work partly coincides with that of the Atlas of the Breeding Birds in Bulgaria, it should be taken into account that the data on the Masked Shrike published in the Atlas refers mainly to the period 1990–2003. The data gathered in the period 2003–2005 sheds new light on the development of the species' areal and population. Therefore, the population estimate of 200–350 pairs reported by DEMERDZHIEV *et al.* (2007) was underestimated.

The northward and westward expansion of the species' breeding range is quite evident. The increase of the numbers and the expansion of the species range are evident along the Maritsa River. In the 1960s and 1970s the species was not registered there, despite the ornithological studies (BOEV *et al.* 1964). In the period 1990–1995, individual birds and pairs were observed, as the westernmost locality was reported to be the village Vinitsa – 37 km southeast from the city of Plovdiv along the Maritsa River. Since the year 2000, the Masked Shrike was established as breeding species 40 km northwest from that point and there have been groups of more than ten pairs in many sites along the Maritsa River and its tributaries. There is also clear evidence of an increase in the population in the Sakar Mountains. The species was not found there by BOEV *et al.* (1964). The first observation in

the Sakar Mountains was in 1983 (LAMBUROV 1985) – a pair with three juveniles. The species was not recorded during the detailed study on birds in the south-western part of the Sakar Mountains carried out in 1984–1987 (BORISOV 1988). The first sightings of the species in the area studied by BORISOV (1988) were made in 1991 (STOYCHEV 1997). Five to ten breeding pairs bred in the same area after 1997. It is possible that some pairs bred irregularly in the southern part of the Thracian plain and remained unrecorded by BOEV *et al.* (1964) and BORISOV (1988). Also, the species was not registered during the annual ornithological boat expedition along the Maritsa River carried out in May in the period 1986–1994. It was recorded for the first time during the expedition in 1995 (B. BORISOV, *pers. comm.*). It reaches the Sredna Gora Mountains (PETROV 1981, YANKOV *et al.* 2003) to the north (LH80). The same kind of expansion was found in neighbouring Macedonia along the rivers Vardar and Pčinja (VELEVSKI 2001).

The species is rarely found along the Black Sea coast, reaching the area of the cape of Emine and the foothills of the Eastern Balkan Mountains, where the northernmost proven breeding site of the species is Poroy village (NH43) (L. PROFIROV, *pers. comm.*). NANKINOV (2001) suggests the Danube River as the northern border of the species breeding range. However, since there are no data about breeding in the northern part of Bulgaria, we consider the Balkan Mountains as the northern edge of the species' areal. The single bird observed some twenty kilometres from the Danube on 18 Jul 1986 (STANCHEV 1988) was probably a vagrant individual.

Till the mid 1990s, the Masked Shrike population in Bulgaria was estimated to be about 100–300 pairs (KOSTADINOVA 1997). NANKINOV *et al.* (2004) and NIKOLOV *et al.* (*in print*) accept an estimate of 1,800–2,200 breeding pairs for the country. On the basis of the implemented studies we estimate the population of the Masked Shrike in Bulgaria to be about 600–800 pairs (best expert opinion).

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in this research. Without their assistance this study would not be as thorough as it is.

5. Povzetek

Avtorja povzemata podatke o statusu zakrinkanega srakoperja *Lanius nubicus* v Bolgariji in predstavlja lastne raziskave kot tudi podatke iz literature za obdobji 1963–1990 in 1991–2005 na bolgarskem zemljevidu s kvadrati UTM. Očitna je širitev gnezditvenega areala te vrste proti severu in zahodu, torej vzdolž reke Marice. Avtorja ocenjujeta, da populacija zakrinkanega srakoperja v Bolgariji šteje med 600 in 800 pari.

6. References

- BIBBY, C., JONES, M. & MARSDEN, S. (1999): Expedition Field Techniques. Bird Surveys. – Royal Geographical Society, London.
- BIRD LIFE INTERNATIONAL (2004): Birds in Europe: population estimates, trends and conservation status (BirdLife Conservation Series No. 12). – BirdLife International, Cambridge.
- BOEV, N., GEORGIEV, J. & DONCHEV, S. (1964): Birds of Thracia. pp. 55–105 In: Fauna of Thracia. Volume 1. S. Zool. Inst. Museum BAS. (In Bulgarian).
- BORISOV, B. (1988): [Ornithological studies in South-western Sakar Mountains]. – Orn. Inf. Bulletin. 23/24: 24–38. (In Bulgarian).
- CRAMP, S. & PERRINS, C. (eds.) (1993): The Birds of the Western Palearctic. Vol. 7. – Oxford Univ. Press, Oxford, New York.
- DEMERDZHIEV, D., RUSKOV, K., IVANOV, B., STOYCHEV, S. & GERDJIKOV, G. (2007): Masked Shrike (*Lanius nubicus*). pp. 572–573 In: IANKOV, P. (ed.): Atlas of Breeding Birds in Bulgaria. Conservation Series 10. – Bulgarian Society for the Protection of Birds, Sofia, BSPB.
- DONCHEV, S. (1964): On the distribution of some new and rare birds in Bulgaria. – Zool. Inst. Museum BAS, 16: 23–28. (In Bulgarian).
- HAGEMEIJER, W.J.M. & BLAIR, M.J. (1997): The EBCC Atlas of European Breeding Birds: their distribution and abundance. – T&AD Poyser, London.
- IANKOV, P. (1991): The Birds of the Eastern Rhodopes. I. Terms of occurrence and dynamic of the bird fauna. – Ecology 24: 26–42. (In Bulgarian).
- KOSTADINOV, I. (ed.) (1997): Important bird areas in Bulgaria. Conservation Series 1. – BSPB, Sofia. (In Bulgarian).
- KOSTADINOV, I. & GRAMATIKOV, M. (eds.) (2007): Important Bird Areas in Bulgaria and Natura 2000. Conservation Series 11. – BSPB, Sofia.
- LAMBUROV, G. (1985): New locality of Masked Shrike (*Lanius nubicus*, Lichtenstein). – Ornith. Inf. Bulletin 17/18: 17. (In Bulgarian).
- LEFRANC, N. & WORFOLK, T. (1997): Shrikes: A Guide to the Shrikes of the World. – Pica Press, London.
- MAUERSBERGER, G. & STUBBS, J. (1963): Drei für Bulgarien neue Vogelarten. – J. Ornith. 104: 440–441.
- MILCHEV, B. (1994): Breading bird atlas of the Strandja Mountains (Southeastern Bulgaria). – Sandgrouse 16: 2–27.
- MILCHEV, B. & KOVACHEV, A. (1998): A Contribution to the bird fauna of the Sakar Mountains. – Annual of Sofia University “St. Kliment Ohridski”. Book 1. – Zoology 88/90: 45.
- NANEV, K. (1988): On the totals of some Mediterranean bird species in the Southern edge of the Kresna gorge. – Ornith. Inf. Bulletin 23/24: 106–108. (In Bulgarian).
- NANKINOV, D., MICHEV, T., KOSTOVA, V., IVANOV, B. & PENKOV, V. (1979): First results of the ornithological studies carried out by the “Rupite” Station (South-western Bulgaria). – The Zoologia Journal 3: 45–52. (In Russian).
- NANKINOV, D. (2001): On the first and following observations of the Masked Shrike (*Lanius nubicus*, Lichtenstein) in Bulgaria. pp. 177–181 In: Geological and bio-ecological problems of the Northern Black Sea Coast. Materials of an International Scientific and Practical Conference – Tiraspol’, 28–30 March 2001, RIO PGU – Eco-Dnester. (In Russian).
- NANKINOV, D., DUTSOV, A., NIKOLOV, B., BORISOV, B., STOYANOV, G., GRADEV, G., GEORGIEV, D., POPOV, D., DOMUSCHEV, D., KIROV, D., TILOVA, E., NIKOLOV, I., IVANOV, I., DICHEV, K., POPOV, K., KARAIVANOV, N., TODOROV, N., SHURULINKOV, P., STANCHEV, R., ALEKSOV, R., TZONEV, R., MARIN, S., STAIKOV, S., NIKOLOV, S., DALAKCHIEVA, S., IVANOV, S. & NIKOLOV, H. (2004): Breeding totals of the ornithofauna in Bulgaria. – Green Balkans, Plovdiv.
- NIKOLOV, B., VATEV, I. & DEMERDZHIEV, D. (in print): Masked Shrike (*Lanius nubicus*, Lichtenstein). – Bulgarian Red Data Book.
- PASPALEVA-ANTONOV, M. (1965): Reports on new and rare Bulgarian bird species. – Zool. Inst. Museum BAS 19: 33–38. (In Bulgarian).
- PETROV, T. (1981): Birds of the Sredna Gora Mountains. – Newsletter of the Museums of Southern Bulgaria 7: 9–49. (In Bulgarian).
- PETROV, T. (1987): Contribution to the ornithofauna of the Rhodope Mountains. – Newsletter of the Museums of Southern Bulgaria 14: 47–49. (In Bulgarian).
- PETROV, T. (1988): Birds of the Dobrostanski hill and the adjacent areas (Western Rhodope Mountains). I. – Newsletter of the Museums of Southern Bulgaria 15: 59–72. (In Bulgarian).
- ROBERTS, J. (1980): Observations on birds of the Bulgarian seaboard, with new breeding records for S.W. Bulgaria of Masked Shrike (*Lanius nubicus*), Bonelli’s Warbler (*Phylloscopus bonelli*), and Blue Rock Thrush (*Monticola solitarius*). – Bonn. zool. Beitr. 31 (1/2): 20–37.
- SCHUBERT, G. & SCHUBERT, M. (1982): Ornithologische beobachtungen aus Bulgarien. – Der Falke 11: 366–372.
- SIMEONOV, S. (1986): [Birds of the Pirin Mountains]. – Fauna of South-western Bulgaria. Part 1. – BAS, Sofia. (In Bulgarian).

- SIMEONOV, S. & BAEVA, V. (1988): [Birds of the Ograzhden Mountains]. – Fauna of South-western Bulgaria. Part 2. – BAS, Sofia. (In Bulgarian).
- SPIRIDONOV, G. & SIMEONOV, P. (1988): Study on the breeding ornithofauna of the “Tisata” Reserve. – Fauna of South-western Bulgaria. Part 2. – BAS, Sofia. (In Bulgarian).
- STANCHEV, S. (1988): Studies on the ornithofauna of the Rousensky Lom River (1985–1987). – Ornith. Inf. Bulletin 23/24: 140–151. (In Bulgarian).
- STOYCHEV, S. (1997): [Study on the breeding ornithofauna of the Sakar Mountains]. – BSc Thesis, University of Plovdiv. (In Bulgarian).
- UHLIG, R. (1984): Kurze Mitteilung zum Vorkommen des Maskenwürgers (*Lanius nubicus*) in Bulgarien. – Beitr. Vogelkunde. 30 (2): 152.
- VATEV, I., SIMEONOV, P., MICHEV, T. & IVANOV, B. (1980): Masked Shrike (*Lanius nubicus*, Lichtenstein) – nesting species in Bulgaria. – Acta zool. bulg. 15: (115–118). (In Bulgarian).
- VELEVSKI, M. (2001): New data on distribution of the Masked Shrike *Lanius nubicus* in Macedonia: further evidence for the expansion of its range on the Balkan Peninsula. – Acrocephalus 22 (108): 159–161.
- YANKOV, L., ZHELEV, P., ARABADZHIEV, N. & GEORGIEV, D. (2003): Northern breeding locality of Masked Shrike (*Lanius nubicus*) (Aves: Laniidae) in Bulgaria. – The Bulletin, Green Balkans Federation 8: 8. (In Bulgarian).

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THE FIRST RECORD OF USE OF A NEST BOX BY HOOPOE *Upupa epops* IN ISRAEL

Prvi zapis uporabe gnezdilnice za smrdokavro *Upupa epops* v Izraelu

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The Hoopoe *Upupa epops* is a secondary cavity nester with a large distribution, being found in Europe, Asia and Africa (CRAMP 1985). The Hoopoe uses a wide range of cavity nest sites, including trees and buildings (CRAMP 1985). Very few studies have dealt with the breeding success of this bird in Europe and Asia (KUBIK 1960, GUPTA & AHMAD 1993, BALDI & SORACE 1996, MARTIN-VIVALDI *et al.* 1999, FOURNIER & ARLETTAZ 2001), and nest box use by the Hoopoe has been published only for Europe (KUBIK 1960).

In Israel, the Hoopoe is a resident, migrating and winter species (SHIRIHAI 1996), but despite its common status no studies have as yet been published. Here we present the results of a one year study to determine whether the Hoopoe will breed in nest boxes in Israel, and describe the breeding success. In addition, the

Hoopoe's diet, which has rarely been studied elsewhere (BATTISTI *et al.* 2000, FOURNIER & ARLETTAZ 2001), is also presented.

Altogether 31 nest boxes (20 cm wide, 23 cm deep and 40 cm high; entrance hole 64 mm diameter), were mounted at 3.5–4.5 m height on Eucalyptus trees *Eucalyptus* sp. and Mediterranean Cypress *Cupressus sempervirens* on 15 Mar 2008, in the Yizre'el and Beit Shean valleys. From 1 May 2008 to 1 Aug 2008, all nest boxes were visited at least three times to determine occupancy and to collect breeding parameters: dates of egg-laying, hatching, and fledging of young when possible; clutch size, brood size (number of young observed in a nest during first visit), and the number of young fledged. Since adult Hoopoes do not remove their dead young (MARTIN-VIVALDI *et al.* 1999) the total number of young could be determined even if we were unable to visit the nest during the first few days after hatching. When laying date was unknown, it was determined by back-calculating, using an incubation period of 17 days (MARTIN-VIVALDI *et al.* 1999).

Prey remains were collected from two nests after the young had fledged and were brought back to Tel Aviv University where they were separated and the items counted according to head, mandibles, chelicerae and wings. Unknown prey items were identified by comparing with the collection of the National Museum of Natural History at Tel Aviv University. Data were listed as the minimum number of individuals (MNI) per species.

Even though the nest boxes were added late in the year, three were nonetheless occupied by Hoopoes located in three villages: Kibbutz Nir David (32°30'18.89"N, 35°27'30.03"E, nest 1) Kibbutz

Table 1: Breeding parameters of three Hoopoe *Upupa epops* pairs breeding in nest boxes during the breeding season 2008 in Israel

Tabela 1: Gnezditveni podatki treh parov smrdokavre *Upupa epops*, ki so leta 2008 gnezdzili v gnezdilnicah v Izraelu

| | Nest 1 | Nest 2 | Nest 3 |
|---|-------------------|---------------------|---------------|
| Location / Lokacija | Kibbutz Nir David | Kibbutz Sde Eliyahu | Moshav Ram On |
| Laying date / Datum valjenja | 31 Mar 2008 | 27 Apr 2008 | 4 May 2008 |
| Number of eggs / Število jajc | unknown | 5 | 3 |
| Number of nestlings hatched/ Število izleženih mladičev | 4 | 4 | 0 |
| Number of young fledged/ Število speljanih mladičev | 2 | 3 | 0 |
| Percentage of young fledged/ Odstotek speljanih mladičev | 50.0% | 75.0% | - |

Table 2: Prey remains found in two Hoopoe *Upupa epops* nests in Israel during the 2008 breeding season. (MNI – Minimum number of individuals, co – common, uc – uncommon)

Tabela 2: Ostanki plena najdeni v dveh smrdokavrih *Upupa epops* gnezdih v Izraelu leta 2008 (MNI – minimalno število osebkov, co – pogost, uc – redek)

| Species / Vrsta | MNI | |
|----------------------------------|--------|--------|
| | Nest 1 | Nest 2 |
| Apidae | | |
| <i>Bombus terrestris</i> | o | 1 |
| Gryllotalpidae | | |
| <i>Gryllotalpa</i> sp. | - | co |
| Scarabaeidae | | |
| <i>Pentodon algerinus dispar</i> | 18 | - |
| <i>Obthophagus</i> ssp. | 3 | - |
| <i>Onitis ezechias</i> | 3 | - |
| <i>Onitis humerosus</i> | - | uc |
| Tenebrionidae | | |
| <i>Albitobius diaperrinus</i> . | - | 4 |
| <i>Gonocephalum</i> sp. | uc | 5 |
| Blattodea | | |
| <i>Arenivaga africana</i> | 2 | 6 |

Sde Eliyahu (32°26'44.39"N, 35°30'47.34"E, nest 2, Figure 1), and Moshav Ram-On (32°32'08.98"N, 35°15'50.57"E, nest 3). Breeding data are presented in Table 1. Two out of the three nests successfully fledged young (66.7%). In nest 2, the young fledged at 24 days; and in nest 3, the pair abandoned the clutch for some unknown reason. The diet contained mainly terrestrial invertebrates, except for one Buff-tailed Bumblebee *Bombus terrestris* (Table 2).

The results of this study, despite the small sample size, demonstrate that Hoopoes will use nest boxes in Israel. The number of young fledged was within the range reported in Spain (KUBIK 1960, GUPTA & AHMAD 1993, BALDI & SORACE 1996, MARTIN-VIVALDI *et al.* 1999). Nest boxes are used by researchers and conservationists for many species of birds as a popular management tool to increase nest site availability in sites where these are lacking (NEWTON 1998). Similar to many secondary cavity nesters, we found that the Hoopoe will also breed in nest boxes when these are provided. In Europe, the Hoopoe status is listed as declining (BIRDLIFE INTERNATIONAL 2004) and the ability to add nest boxes may assist in increasing its population in certain areas.

Similar to that found in other studies, the diet of the Hoopoe was made up of terrestrial invertebrates (FOURNIER & ARLETTAZ 2001, BATTISTI *et al.* 2000). Unlike the other studies that used photographs at nests sites, we attempted to identify the diet remains at nest sites. This proved somewhat difficult, because of the efficient digestive system of the Hoopoe, which leaves few remains. Furthermore, our results are most likely over-represented by adult invertebrates, because larvae and pupae will leave fewer remains to identify. Interestingly, some of the same invertebrates are also preyed on by Little Owls *Athene noctua* in the same area (CHARTER *et al.* 2006).

On 29 May 2008, the Hoopoe was selected in a nation-wide campaign to be Israel's national bird. Both the status of the Hoopoe and public interest have greatly increased since then, and due to the results of this pilot study additional nest boxes will be added within the next few years. The presence of Hoopoes is welcome, as they prey on many terrestrial invertebrates that are considered pests to both homes (lawns) and agriculture. The ability to provide nest boxes for Hoopoes will encourage them to breed in cities and villages, and allow future studies, both observational and experimental, which are needed in order to better understand the Hoopoe's breeding ecology.

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Povzetek

Avtorji poročajo o treh parih smrdokavre *Upupa epops*, gnezdečih v gnezdilnicah, postavljenih v izraelskih dolinah Yizre'el in Beit Shean. Skupno je bilo nameščenih 31 gnezdilnic. Dva para sta uspešno izvalila in speljala mladiče. Analizirali so ostanke plena iz dveh gnezdilnic. Plen so v veliki večini sestavljal hrošči Coleoptera. Gre za prvi podatek o gnezdenju smrdokavre v gnezdilnici v Izraelu ter prav tako za prve podatke o njeni prehrani v Izraelu.



Figure 1: An adult Hoopoe *Upupa epops* from nest 2 in the nest box (Photo: Amir Ezer)

Slika 1: Odrasla smrdokavra *Upupa epops* na gnezdljnici (gnezdo 2) (foto: Amir Ezer)

References

- BALDI, G., & SORACE, A. (1996): Reproductive parameters and nestling growth in Hoopoe *Upupa epops* in an area of Central Italy. – Avocetta 20: 158–161.
- BATTISTI, A., BERNARDI, M. & GHIRALDO, C. (2000): Predation by the Hoopoe (*Upupa epops*) on pupae of *Thaumetopoea pityocampa* and the likely influence on other natural enemies. – BioControl 45: 311–323.
- BIRD LIFE INTERNATIONAL. (2004): Birds in Europe: Population Estimates, Trends and Conservation Status, BirdLife Conservation Series No. 12, BirdLife International, Cambridge.
- CHARTER, M., LESHEM, Y., IZHAKI, I., GUERSHON, M. & KIAT, Y. (2006): The diet of the Little Owl, *Athene noctua*, in Israel. – Zoology in the Middle East. 39: 31–40.
- CRAMP, S. (ed.) (1985): The Birds of the Western Palearctic, Vol 4. – Oxford University Press, UK.
- FOURNIER, J. & ARLETTAZ, R. (2001): Food provision to nestlings in the Hoopoe *Upupa epops*: implications for the conservation of a small endangered population in the Swiss Alps. – Ibis 143: 2–10.
- GUPTA, R.C. & AHMAD, I. (1993): On the clutch size, egg laying schedule, hatching patterns and stay of nestlings of Indian Hoopoe (*Upupa epops*). – Geobios, 20: 148–150.
- KUBIK, V. (1960): Beiträge zur Fortpflanzungs – bionomie des Wiedehopfes. – Zool. Listy, 9: 97–110.
- MARTIN-VIVALDI, M., PALOMINOM, J.J., SOLER, M. & SOLER, J.J. (1999): Determinants of reproductive success in the Hoopoe (*Upupa epops*), a hole-nesting non-passine bird with asynchronous hatching. – Bird Study 46: 205–216.
- NEWTON, I. (1998): Population Limitation in Birds. – Academic Press, London.
- SHIRIHAI, H. (1996): The birds of Israel. – Academic Press, London.

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SOME NOTES ON THE WINTER DIET AND FEEDING BEHAVIOUR OF THE ROCK BUNTING *Emberiza cia* IN SOUTHERN MONTENEGRO

Nekaj opazovanj skalnega strnada *Emberiza cia* pri prehranjevanju v zimskem času v južni Črni gori

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Figure 1: Rock Bunting *Emberiza cia* in winter plumage feeding on the caryopsis of Arrow Reed *Arundo plinii* while perched on the erect culm; Velika Plaža, Ulcinj, Montenegro, 15 Nov 2006 (photo: P. Sackl)

Slika 1: Skalni strnad *Emberiza cia* v zimskem perju med hraneњjem z golimi zrnji plinijeve trstenike *Arundo plinii*, sedeč na pokončnem steblu; Velika Plaža, Ulcinj, Črna gora (foto: P. Sackl)

The summer diet of Rock Buntings *Emberiza cia* consists of adult and larval invertebrates, while the species moves to almost exclusively plant food in late summer. According to studies in continental Europe and Asia the birds feed during winter mainly on the seeds (caryopsis) and leaves of grasses and low herbs, including the grains of wheat *Triticum* sp. (CRAMP & PERRINS 1994, GLUTZ VON BLOTZHEIM & BAUER 1997). Although Rock Bunting is a widespread resident in mountainous Mediterranean climates and a common winter visitor to coastal lowlands (KRIŠTÍN & MOSIMANN 1997), aside of stomach contents analysed by RUCNER (1971) and a summer study from Spain cited by CRAMP & PERRINS (1994), there is very little information on the winter diet and feeding habits of the species in the Mediterranean region.

According to bird surveys which we conducted for Euronatur (Radolfzell, Germany) in 2003 and annual visits since November 2004, the species is an irregular winter visitor to the alluvial floodplains of the Bojana/Buna Delta at the east coast of the Adriatic Sea in Albania and Montenegro. Although we noted a number of singing males in the mountainous hinterlands of the delta around Ulcinj, Saško Jezero, on Mount Vidikovac and the old castle of Shkodra in spring and summer, between October – January we saw only solitary birds and a small flock in Ulcinj in Montenegro (SCHNEIDER-JACOBY *et al.* 2006).

Together with Jakob Smole and Borut Štumberger we observed solitary Rock Buntings at Mala Plaža in the centre of the city on 14 Nov 2003 and in the rocks below the old town (Stari Grad / Kajala) on 30 Jan 2004.

Both records are < 1 km from the nesting sites of ≥ 3 singing males in the outskirts of the city. In November 2003 the bird was feeding on the ground below a Fig *Ficus carica* in a narrow green space between the steep rock face of the old town and the quay of the modern city. The latter is heavily used by traffic. On the ground below the Fig which was sparsely covered with low grasses (Poaceae), we noted scattered pieces of bread and the rotten leaves of discarded salad. Before it was disturbed by traffic, the bird was obviously feeding on the salad.

In addition, in the late morning of 15 Nov 2006 we encountered a mixed flock of 6 Rock, 3 Reed *E. schoeniclus* and a female Cirl Bunting *E. cirlus* on the sandy track which runs along the inland side of the coastal sand dunes of Velika Plaža outside of Ulcinj (VASIĆ 1979, SCHNEIDER-JACOBY *et al.* 2006). The birds were feeding on the bare sand close to the edge of the track, which is covered on both sides with low herbs, grasses, blackberries *Rubus* sp., sedges, and taller reeds. The reed we later identified as *Arundo plinii*, a relative of the better known Giant Reed *A. donax*. After a few minutes, while we observed the flock from the car, a Rock Bunting flew up to the reeds and started to feed on the lower part of a seed-head by sitting on the erect culm below the panicle (Figure 1). The genus *Arundo* is not listed as food for the Rock Bunting in either English or German handbooks (CRAMP & PERRINS 1994, GLUTZ VON BLOTZHEIM & BAUER 1997).

A few seconds later three more Rock Buntings started to feed in the same way in nearby tussocks of

A. plinii by working up the panicle till the culms bent down and they were sitting horizontally above ground while feeding (Figure 2). We later measured their perching height to 1.8 – 2 m above ground. Rock Buntings are known to take seeds and other plant materials mostly from the ground, and from stems, leaves and seed-heads, which they reach from ground, neighbouring perches or by pulling them down while standing on ground (CRAMP & PERRINS 1994). In contrast to the Reed Bunting which according to GLUTZ VON BLOTZHEIM & BAUER (1997) prefers to sit horizontally on reeds and seed-heads while singing or feeding, to our knowledge a similar feeding behaviour



Figure 2: Feeding Rock Bunting *Emberiza cia* by sitting on the panicle of the Arrow Reed *Arundo plinii*; Velika Plaža, Ulcinj, Montenegro, 15 Nov 2006 (photo: P. Sackl)

Slika 2: Skalni strnad *Emberiza cia* med hranjenjem na plinijevi trsteniki *Arundo plinii*, sedeč na latu; Velika Plaža, Ulcinj, Črna gora (foto: P. Sackl)

and perching height for *E. cia* is mentioned only by SCHWABE & MANN (1990) for southern Germany, while feeding on the panicles of *Calamagrostis arundinacea* grasses. The central European forms of this grass, whose scientific name derives from the similarity of its habitus to giant reeds of the genus *Arundo*, reach maximum heights of 0.6 – 1.2 m (HEGI 1935).

Povzetek

Vprispevk sodokumentirana opažanjaskalnegastrnada *Emberiza cia* v zimskem času med prehranjevanjem. Novembra 2003 je bil opažen en osebek, ki se je hrani z gniliimi listi odvržene solate na Mali plaži v središču Ulcinja v Črni gori. Novembra 2006 sva opazovala na peščenih sipinah Velike plaže manjšo jato skalnih strnadov. Ta je sedela na pokončnem steblu ter na upognjenem latu plinijeve trstenike *Arundo plinii*. Strnadi so sedeli na rastlini 1.8 – 2 m visoko (slika 1

& 2). Po znanih podatkih je to prvi primer opažanja skalnih strnadov pri prehranjevanju s trsteniko in prvi primer opisanega načina prehranjevanja.

References

- CRAMP, S. & PERRINS, C. M. (1994): Handbook of the Birds of Europe, the Middle East, and North Africa. The Birds of the Western Palearctic, Vol. 9. – Oxford University Press, Oxford & New York.
- GLUTZ VON BLOTZHEIM, U.N. & BAUER, K.M. (1997): Handbuch der Vögel Mitteleuropas, Bd. 14/III (Passeriformes, 5. Teil). – Aula-Verlag, Wiesbaden.
- HEGI, G. (1935): Illustrierte Flora von Mittel-Europa, Bd. I, 2. Aufl. – J. F. Lehmanns Verlag, München.
- KRIŠTÍN, A. & MOSIMANN, P. (1997): Rock Bunting. pp. 749 – In: Hagemeijer, W.J.M. & Blair, M.J. (eds.), The EBCC Atlas of European Breeding Birds. – T. & A. D. Poyser, London.
- RUCNER, R. (1971): Osvrt na životna staništa vrste *Emberiza cia* L. u zapadnim predjelima Jugoslavije. – Larus 25: 27 – 46.
- SCHNEIDER-JACOBY, M., SCHWARZ, U., SACKL, P., DOHRA, D., SAVELJIĆ, D. & STUMBERGER, B. (2006): Rapid Assessment of the Ecological Value of the Bojana-Buna Delta (Albania/Montenegro). – Stiftung Europäisches Naturerbe (Euronatur), Radolfzell.
- SCHWABE, A. & MANN, P. (1990): Eine Methode zur Beschreibung und Typisierung von Vogelhabitaten, gezeigt am Beispiel der Zippammer (*Emberiza cia*). – Ökol. Vögel 12: 127 – 157.
- VASIĆ, V.F. (1979): Sinekoloska skica ornitofaune Ulcinjskog primorja u periodu gnezdenja. Proc. II. Kongress, Savez drustva ekologa Jugoslavije, 1681 – 1689, Beograd.

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IZ ORNITOLOŠKE BELEŽNICE

From the ornithological notebook

SLOVENIJA / SLOVENIA

BELA ŠTORKLJA *Ciconia ciconia*

White Stork – an adult observed on 27 Apr 2008 on a house roof in the village of Rašica near Velike Lašče (UTM VL77, central Slovenia)



Slika 1 / Figure 1: Bela štorklja / White Stork *Ciconia ciconia*, 27.4.2008, Rašica pri Velikih Laščah. Foto: A. Stritar

Na strehi hiše v osrednjem delu vasi Rašica pri Velikih Laščah (UTM VL77) se je 27.4.2008 zadrževala odrasla bela štorklja (slika 1). Najbližja lokacija, kjer je bila bela štorklja prav tako opazovana v gnezditvenem obdobju, a gnezdo ni bilo najdeno, je Žlebič pri Ribnici na Dolenjskem (VRH 2004). Mestu opazovanja najbližja gnezdišča belih štorkelj so na Cerkniškem jezeru (KEBE 2004) in na Ljubljanskem barju (DENAC 2001). Kasneje bela štorklja v vasi ni bila več opažena, zato lahko gnezdenje v letu 2008 izključimo. Kljub temu vedno večje število opažanj belih štorkelj v gnezditvenem obdobju na območju Velikolaščanskega hribovja in Ribniško-kočevske doline kaže na verjetno novo območje kolonizacije te vrste v Sloveniji.

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BRKATI SER *Gypaetus barbatus*

Lammergeier – 1 individual observed on top of Mt Batognica (2164 m a.s.l., UTM UM92, W Slovenia); named Hubertus2, it hatched on 4 Apr 2004 in Goldau (Switzerland), released on 2 Jul 2004 in Kals (E Tyrol); the record was confirmed by the National Rarities Committee (2nd record for Slovenia)

V soboto 2.7.2005 sem se P. Bizjanom odpravil v pogorje Krna popisovati še preostalo tetrado Novega ornitološkega atlasa gnezdk Slovencije. Po popisu sva imela v načrtu preiskati še bližnjo goro Batognico ter dolino onkraj nje. Potem ko sva se okreplčala z dobrim čajem in kočji na Krnu, sva se namenila proti vrhu. Najino pozornost je pritegnila čreda ovac, ki se je po ozkem stopnišču premikala proti vrhu Batognice. Pri sestopu s Krna sva slišala oglašanje svizca, ves čas pa sva se morala izogibati iztrebkom ovac. Ko sva že bila na sedlu med tema dvema gorama, sva na vrhu Batognice (2164 m nm.v., UTM UM92) opazila veliko ptico. Jadrala je nad vrhom, saj je bil lep sončen dan z dobro termiko. Ob pogledu nanjo sva najprej pomislila na planinskega orla *Aquila chrysaetos*, toda opazovani osebek je imel izrazito dolg rep. Po hitrem pomisleku sva enoglasno izstrelila, da opazujeva brkatega sera. Hitro sva se povzpela na vrh Batognice, da bi si ga bolje ogledala, in res sva ga videla na razdalji približno 30 metrov. Opazovala sva mladosten osebek, vendar se je že videl rahlo svetel trebuhs. Najino pozornost je pritegnila lisa na njegovi desni peruti, imel je nekaj razbarvanih peres. Prve tri so bile temne – naravne, naslednje tri pa bele in nato normalno naprej. Imel je tudi rdeč obroček na desni nogi. Po vrnitvi domov se je začel lov za identitetno opazovanega brkatega sera. Ob pomoči prijateljev, ki se jim zahvaljujem za trud, smo ugotovili, da sva s Primožem opazovala osebek, imenovan Hubertus2, izvalil se je 4.4.2004 v živalskem vrtu Goldau (Švica). Izpuščen je bil 2.7.2004 v Kalsu (vzhodna Tirolska). Podatek je potrdila Nacionalna komisija za redkosti – KRED (2. zapis za Slovenijo).

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BELOREPEC *Haliaeetus albicilla*

White-tailed Eagle – one observed on 20 Oct 2007 near Podplešivica at Ljubljansko barje (UTM VL59, central Slovenia)

Z družino smo se 20.10.2007 ob 12.30 h vračali z izleta na Ljubljansko barje. Pri Podplešivici (UTM VL59) sem nizko v zraku opazila ogromno ptico, ki je zaradi enakomerno širokih peruti spominjala na letečo desko. Z Damijanom sva že zaradi njene značilne oblike in jasno vidnega belega repa lahko s prostim očesom ugotovila, da gre za odraselga belorepca. Nekaj časa je krožil nad Podplešivico, pri čemer sta ga preganjali dve kanji *Buteo buteo*, nato pa je odletel v smeri Bevk.

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BELOREPEC *Haliaeetus albicilla*

White-tailed Eagle – one observed chasing a Coot *Fulica atra* on 13 Oct 2008 at Vrbina near Brežice (UTM WL48, E Slovenia)

O belorepcu na območju Vrbine pri Brežicah (UTM WL48) sem že poročal (KLENOVŠEK 1998). V desetih letih so si sledila številna opažanja, tako nad Savo kot v dveh velikih gramoznicah na levem bregu. V tem časom se je izkazalo (FIGELJ 2007), da gre najverjetnejše za opažanje para, ki sicer gnezdi v Krakovskem gozdu. Opažanje v gramoznici Stari Grad [ekosistemski in zoološka naravna vrednota lokalnega pomena zaradi gnezdenja in preleta ptic, URADNI LIST RS (2004)], dne 13.10.2008 pa si vsekakor zasluzi zapis v beležkah. Ob prihodu na območje gramoznice (9.40 h) je bilo opaziti številne vrste rac (mlakarica *Anas platyrhynchos*, sivka *Aythya ferina*, čopasta črnica *Aythya fuligula*, kostanjevka *Aythya nyroca*), liske *Fulica atra*, male *Tachybaptus ruficollis* in čopaste ponirke *Podiceps cristatus*. A pogled je pritegnil odrasel belorepec na severovzhodnem delu. Dobre 3 do 5 metrov nad gladino je vztrajno krožil in se pri tem približno na deset sekund spuščal do vodne gladine. Pogled skozi spektiv je razkril razlog vedenja. Pred njegovimi kremljji se je z nenehnim potapljanjem skušala rešiti liska, ki se ji ni uspelo pravočasno zateči in sicer skromno obrežno zarast. Za tek po gladini ni bilo možnosti, plavanje pod gladino do obrežja pa tudi ni odlika teh ptic. Po petih minutah se je liska le nekako umaknila v bližnjo obrežno zarast, belorepec pa je pristal na veji robinije na strmi brežini. Tam je čkal na primeren trenutek za ponovni napad. Race, predvsem sivke, so v času belorepčevega lova sicer poletele v zrak, a se slabih 50 metrov vstran hitro vrstile na vodno gladino. Ker so me čakale nujne obveznosti, nisem mogel spremljati nadaljnje poteka belorepčevega lova. Ob tem sem se

spomnil dogodka, ko sem se pred leti med januarskim štetjem vodnih ptic prebijal skozi pol metra debelo svežo plast snega proti brežiški gramoznici. Na odprttem delu, dobrih 100 metrov od gramoznice, je bila obglavljeni liska. V sneg je padla »od zgoraj«, in to še živa, saj je bilo v snegu opaziti sledi premikanja. Verjetno sem takrat s prihodom zmotil belorepca pri dotej uspešnem lovru.

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BELOREPEC *Haliaeetus albicilla*

White-tailed Eagle – two observed at Vrbina gravel pits near Brežice (UTM WL48, E Slovenia) on 14 Nov 2008, when successfully hunting a Coot *Fulica atra* by simultaneously flying over it until the Coot was exhausted and unable to dive



Slika 2 / Figure 2: Belorepec / White-tailed Eagle *Haliaeetus albicilla*, 19.4.2008, Vrbina pri Brežicah. Foto: B. Brečko

Vsakokrat, ko običsem Vrbino pri Brežicah (UTM WL48), se oziram proti Savi v upanju, da bom kje zagledal belorepca. Presenetil me je že večkrat, saj se pogosto prikaže tam, kjer ga ne pričakujem. Navadno leti nizko nad Savo, se dvigne nad visoka drevesa na obrežju in zaokroži nad drugim in tretjim jezerom. Redko sem ga videl prileteti nad najmlajše četrto jezero, kjer ob vzhodnem delu še koplje gramozi (slika 2). Veliko vedo o pticah povedati delavci, ki delajo v gramoznici. Ko sem se dne 14.11.2008 odpravil po svojih ustaljenih poteh, sem opazoval dogajanje na najnovejšem, vzhodnem jezeru. K meni je pristopil star znanec, buldožerist Martin, in mi z navdušenjem pripovedoval o skupnem lovru dveh belorepcov tistega dne. Na severni strani tretjega jezera, ki ima že precej zaraščeno obrežje, je mirno plavala večja jata lisk *Fulica atra*. Bliže obali so se zadrževale mlakarice *Anas platyrhynchos*. V ta mir sta nenašoma, kot bi treščilo, priletela dva belorepca. Nastala je strašna zmeda – mlakarice so se ob hrupnem oglašanju hitro dvignile v zrak, liske pa so

se skušale rešiti z značilnim tekom po gladini. Nekaj jih je tudi poletelo v drugi del jezera. Le labodi grbci *Cygnus olor* so, sicer vidno vznemirjeni, plavali naprej. Eni izmed lisk, ki ji ni uspelo pobegniti, ni preostalo drugega, kot da se potopi, vendar jo je voda takoj spet vrgla na površje. V obupu se je še nekajkrat potopila, a belorepca sta jo izkušenim načinom lova navzkrižno preletavala. Dvigovala sta se nekaj metrov v zrak in jo vsak s svoje strani izmenično napadala, dokler ni omagala. Eden jo je s kremlji zagrabil ter se dvignil nad savsko strugo. Drugi belorepec mu je sledil.

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RIBJI OREL *Pandion haliaetus*

Osprey – one individual observed on 19 Apr 2008 near the village of Idrsko (UTM UM91, W Slovenia)



Slika 3 / Figure 3: Ribji orel / Osprey *Pandion haliaetus*, 19.4.2008, Idrsko pri Tolminu. Foto: T. Berce

Dne 19.4.2008 sva bila z očetom v zgornjem Posočju. Ob vračanju domov sem iz avta na hitro uzrl veliko ujedo s precej svetlo glavo; takoj sem vedel, da gre za ribjega orla. Ptica je sedela na smrekovem vrhu v bližini reke Soče. Avto sva pustila na prvem možnem odstavnem pasu, pograbil sem fotoaparat in se počasi približal kraju, od koder sem si lahko skozi drevesne krošnje ogledal ribjega orla. Ptica je mirno sedela na vrhu smreke ob vodi in se ozirala proti rečnemu toku (slika 3). Ko je zletela v smeri proti toku reke, pa mi je uspelo napraviti nekaj fotografij. Omenjeni dogodek se je zgodil kakšna 2 kilometra od vasi Idrsko v smeri Tolmina (UTM UM91).

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JUŽNA POSTOVKA *Falco naumanni* & ČRNA ŠTORKLJA *Ciconia nigra*

Lesser Kestrel & Black Stork – on 11 May 1993, four Lesser Kestrels were noticed circling in the air in the centre of Ljubljana (UTM VL69); on 10 Aug 1994, a Black Woodpecker *Dryocopus martius* was found dead at the same site; on 10 Apr 1995, a Black Stork was observed circling in the air in the same locality

Ti podatki bi po tolikšnem času sodili v rubriko z naslovom Iz zaprašene ornitološke beležnice. Še vedno pa imajo svojo vrednost, saj nobene od teh vrst nisem več videl v tem delu Ljubljane. Mogoče pa bo prispevek spodbudil tudi druge ornitologe k pisanku starejših, že skoraj pozabljenih podatkov in doživetij. Poslušal sem svoje zapiske na diktafonu od leta 1993 do 1995 in zapisal naslednje zanimive favnistične podatke. Dne 11.5.1993 sem nad Prirodoslovnim muzejem Slovenije v središču Ljubljane (UTM VL69) zaslišal značilno pihanje, šumenje (š, š, š, š), ki me je takoj spomnilo na južne postovke. V zraku so krožile štiri južne postovke in se ves čas značilno oglasale. Od spodaj je bilo videti zelo svetlo podperutno perje, spola nisem mogel določiti, ker bi za to moral imeti daljnogled. V krogih so se počasi oddaljevale proti stolpnici Iskre in Maximarketa. V tem času so južne postovke v Sloveniji že bile na svojih gnezdiščih, in samo ugibam lahko, ali so bile te še na selitvi ali ne. Dodal bi še podatek, da so v letu 1994 v širši okolici Ljubljane južne postovke zadnjjič poskušale gnezdit (legle so celo jajca), nato pa so skrivnostno izginile. Zanimiv je tudi podatek o črni žolni *Dryocopus martius*, ki je bila 10.8.1994 najdena mrtva pod stolpnico Iskre v Ljubljani in je zdaj v študijski zbirki ptic Prirodoslovnega muzeja Slovenije. Dne 10.4.1995 pa je nad stolpnico Iskre in nato še nad našim muzejem krožila črna štorklja. Iz tega lahko zaključim, da je mogoče tudi v samem centru Ljubljane videti zelo zanimive vrste ptic. Skoraj vsako spomlad tako lahko v parku pred muzejem opazujemo različne vrste penic, trstnic, listnic in še kaj. O tem pa kdaj drugič.

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Slika 5 / Figure 5: Žerjav / Crane *Grus grus*, 24.1.2009, Ljubljansko barje. Foto: M. Omerzel

MALI SOKOL *Falco columbarius*

Merlin – one individual observed chasing Tree Sparrows *Passer montanus* on 13 Jan 2008 near Ajdovščina dumpsite (UTM VL18, W Slovenia)

Srečanja s sokoli so vedno posebna, navadno kratka, a polna navdušenja. Z najmanjšim evropskim sokolom, malim sokolom, sem se nazadnje srečal med zimskim popisom vodnih ptic. Zgodilo se je dne 13.1.2008 v bližini smetišča pri Ajdovščini (UTM VL18), kjer vsakoletno popisujem odsek reke Vipave. Tega dne je bilo vodnih ptic na omenjenem območju zelo malo zaradi neugodnih vremenskih razmer. Tako sem si privočil še pregled okolice smetišča, kjer sta mojo pozornost brž pritegnila krokarja *Corvus corax*, ki sta trgala ostanek nekakšne škatle. V daljnogledu sem medtem zagledal precej veliko jato poljskih vrabcev, ki je švignila mimo. Razlog za masovni preplah je bil mali sokol, ki se je približeval jati z bliskovitim letom tik nad tlemi. Poljske vrabce in njihovega plenilca sem imel priložnost opazovati kakih 10 sekund, potem pa so izginili za smetiščem. Krokarja sta ob tem le za trenutek dvignila pogled na mimo letečo maso ptic in še naprej trgala kose blaga ob smetišču.

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Slika 4 / Figure 4: Gozdni jereb / Hazel Grouse *Bonasa bonasia*, 10.5.2008, Ržišče na Menišiji. Foto: M. Krofel

ŽERJAV *Grus grus*

Crane – a flock of 52 seen on 24 Jan 2009 on the ground at Ljubljansko barje (UTM VL59, central Slovenia)

Na levem bregu reke Iške pri Črni vasi na Ljubljanskem barju (UTM VL59) sem v dopoldanski megli opazil čudovit in prav neverjeten prizor. Sredi zime, 24.1.2009, je na koruznem polju stala ogromna jata žerjavov. A prehitro so jih sprehajalci s psi dvignili v zrak in jata 52 žerjavov je kriče odletela proti zahodu. Previdno sem jim sledil in jih našel kakšen kilometer dlje. Jata se je nato še dva dni pasla na poljih in poplavnih travnikih med Podpečjo in Mateno in med Bevkami in Črno vasjo. Res izjemni prizori v izjemnem času; uspelo mi jih je tudi fotografirati (slika 5).

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GOZDNI JEREB *Bonasa bonasia*

Hazel Grouse – one male observed on 4 Jul 2008 near Ržišče on Menišija plateau (UTM VL47, central Slovenia)

Dne 4.7.2008 sem se z avtomobilom peljal prek Menišije od Pokojišča proti Cerknici. Pri Ržišču (UTM VL47, osrednja Slovenija) sem na makadamski gozdni cesti sredi mešanega dinarskega gozda opazil večjo ptico. Ustavl sem se in z veseljem ugotovil, da opazujem samca gozdnega jereba. Napravil sem nekaj dokumentarnih posnetkov (slika 4), nato pa je ptica odletela v gozd. Doslej se s to vrsto na Menišiji še nisem srečal. Prav tako mi za to območje ni znan noben podatek iz literature.

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DIVJA GRLICA *Streptopelia turtur*

Turtle Dove – two observed on 14 Jun 2008 in the Branica valley (UTM VL07, W Slovenia)

Dne 14.6.2008 smo se spodaj podpisani odpravili iskat kraške ornitološke bisere, in sicer z namenom, da preverimo nekaj zanimivih opazovanj naših kolegov v prejšnjem tednu (npr. zlatovranke *Coracias garrulus*). Ker je pa je na našo žalost tega dne na Komenskem in Goriškem Krasu pihala burja v kombinaciji z dežjem, smo se s praznim izkupičkom vračali v Vipavsko dolino. Spotoma smo zavili v vedno zanimivo dolino reke Branice, in tudi tokrat nas ni pustila praznih rok. V vasi Spodnja Branica (UTM VL07) smo namreč imeli polne roke dela s fotoaparati in teleskopom, saj sta nam na žicah daljnogorda pozirali dve divji grlici. Na tem območju je ta vrsta precej redka, za vse nas je bilo to prvo opazovanje vrste v Braniški dolini. Dodobra smo se ju nagledali in ob odhodu domov v vasi Zavino opazovali še repnika *Carduelis cannabina*.

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MALA UHARICA *Asio otus*

Long-eared Owl – one individual observed on 5 Apr 2008 near Čaven in Trnovski gozd (UTM VL08, W Slovenia), and another one heard (territorial calls) on the same night near Smrečje Forest Reserve (UTM VL09)



Slika 6 / Figure 6: Mala uharica / Long-eared Owl *Asio otus*, 5.4.2008, Trnovski gozd blizu Čavna. Foto: E. Šinigoj

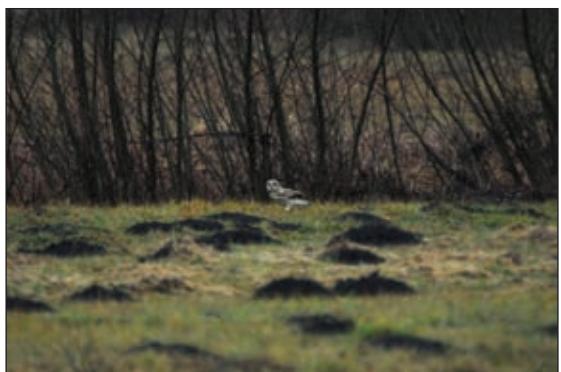
Trnovski gozd je kot dinarsko pogorje bogat z različnimi sestoji bukve *Fagus sylvatica*, smreke *Picea abies* in jelke *Abies alba*. Ta kombinacija je razlog, da tu najdemo sove, ki so vezane na omenjene sestoje in jih zato lahko skoraj načrtovano pričakujemo na posameznih delih gozda. BENUSSI & GENERO

(1995) sicer omenjata malo uharico kot gnezdko Trnovskega gozda, vendar je AMBROŽIČ (2002) na popisih sov tega gozda leta 2001 in 2002 ni zaznala, čeprav drži, da je načrtno niti ni iskala. Na letošnjem skupinskem popisu smo dne 5.4.2008 Erik Šinigoj, Ivan Kljun in podpisani pregledovali območje južnega dela območja Trnovskega gozda na predelu Čavna (UTM VL08). S posnetkom smo izzivali malega skovika *Glaucidium passerinum*, a zaman. Na poti nazaj proti bazi, kjer smo prespali, je pred avtomobil zletela z žarometi osvetljena svetla ptica. Na prvi pogled je silhueta spominjala na lesno sovo *Strix aluco*. Sovo sem s snopom ročne svetilke spremjal kakih 50 metrov, kjer je naposled pristala na bukovi veji. Pograbili smo daljnoglede, Eriku pa je medtem, ko je bila osvetljena s svetilko, sovo uspeло tudi fotografirati (slika 6). Z daljnogledi v rokah smo se vsi čudili temu, kar smo opazovali. Z nasmehom smo se spraševali, zakaj ima opazovana sova vidna ušesca na glavi. Zrli smo namreč v malo uharico. Na fotografiji smo nato prepoznali tipično silhueto male uharice, lepo vidna ušesca ter značilne oranžno obarvane oči, kar je seveda izključilo vsak dvom o tem, da bi lahko v slabih vidljivosti sovo zamenjali z lesno sovo. Isti večer je tudi druga skupina popisovalcev poslušala območno petje male uharice pri Gospodovi Senožeti blizu gozdnega rezervata Smrečje (A. FIGELJ osebno; UTM VL09). S tem smo potrdili pojavljanje male uharice v Trnovskem gozdu in s tem tudi govorice domačinov, ki so nam pripovedovali, da v tem območju živijo male uharice.

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MOČVIRSKA UHARICA *Asio flammeus*

Short-Eared Owl – On 3 Feb 2008, altogether seven individuals resting on the ground were observed at Ljubljansko barje (UTM VL69, central Slovenia); they were also observed on the following dates: 4 Feb 2008 (8 ind.), 7 Feb 2008 (2 ind.), 9 Feb 2008 (2 ind.)



Slika 7 / Figure 7: Močvirska uharica / Short-Eared Owl *Asio flammeus*, 3.2.2008, Ljubljansko barje. Foto: I. Esenko



Slika 8 / Figure 8: Močvirska uharica / Short-Eared Owl *Asio flammeus*, 3.2.2008, Ljubljansko barje. Foto: I. Esenko



Slika 9 / Figure 9: Močvirska uharica – izbljuvki / Short-Eared Owl – pellets, 3.2.2008, Ljubljansko barje. Foto: I. Esenko

Dne 3.2.2008 sem na Ljubljanskem barju pozno popoldan opazoval skupino šestih velikih belih čapelj *Egretta alba*, ki se je zadrževala na polju, nedaleč od izliva potoka Podvin v Ižico (UTM VL69). Padal je droben dež in nad barjansko ravnico se je zgrinjala meglja. Ko sem hodil po 30 cm visoki rjavi močvirski travi, je dva metra pred mano iz trave zletela močvirska uharica. Takoj sem jo prepoznal, čeprav sem jo videl prvič v življenju. Hip zatem je nedaleč stran zletelo še nekaj osebkov, skupaj sedem. Letele so s počasnimi zamahi peruti, pri čemer se jim je telo zibalo v ritmu zamahov. Niso se oglašale, večina pa jih je kmalu posedla na tla na sosednjem travniku, ena na drevo v mejici nedaleč proč in ena na krtino na istem travniku, na katerem sem jih nehote prepodil. Uspelo mi je napraviti nekaj dokumentarnih posnetkov, kar pa je bilo ob zelo slabih svetlobi in hitrosti dogajanja skoraj nemogoče (slike 7 & 8). Sove so na tleh pustile vidne sledi. Na vsakem počivališču v visoki travi so bili na poležani travi izbljuvki temne grafitne barve (slika 9), na nasprotni strani pa iztrebki, kar je jasno govorilo o legi ptice na počivališču. Počivališča posameznih ptic so bila nekaj metrov vsaksebi.

Obiske na počivališču močvirskih uharic sem uspešno opravil še v dneh 4.2.2008 (8 ptic), 7.2.2008 (2 ptici) in 9.2.2008 (2 ptici). Počivališče sem pokazal tudi ornitologom Janezu Gregoriju in Daretu Šeretu iz Prirodoslovnega muzeja Slovenije. Moja informacija je verjetno botrovala najdbam tudi drugih počivališč močvirske uharice na Ljubljanskem barju, saj me je takoj potem, ko sem o tem poročal na spletni strani Ljubljanske sekcijs DOPPS, klicalo veliko ljubiteljev ptic in ornitologov.

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MOČVIRSKA UHARICA *Asio flammeus*

Short-Eared Owl – on 8 Feb 2008, two individuals spotted along the river Iščica near Ig at Ljubljansko barje (UTM VL69, central Slovenia), and another individual on 6 Apr 2008 near the right bank of Iščica approx. 1 km downstream the bridge at Zeleni mah (UTM VL69)



Slika 10 / Figure 10: Močvirska uharica / Short-Eared Owl *Asio flammeus*, 6.4.2008, Ljubljansko barje. Foto: M. Omerzel

Dne 8.2.2008 sem se sprehajal ob Iščici v bližini Ig na Ljubljanskem barju (UTM VL69). Na zaraščenem travniku se je pred menoj dvignila v zrak ena, nato pa še druga sova. Leteli sta nizko nad tlemi in se nato usedli na rob njive. Samo kratek pogled z daljnogledom je povedal vse, v mene je zvedavo z rumenimi očmi zrla močvirska uharica. Tudi druga je bila iste vrste, ki pa je nato zletela na vrbo ob Iščici. Vse to sem slikal, obe sovi sta se nato vrnila na isti travnik. Minila sta dva meseca in prijatelj iz šolskih dni Matjaž mi je v začetku aprila sporočil, da je slikal ob Iščici sovo, ki se je spreletavala pred njim na travniku (slika 10). Pregledal sem posnetke in ugotovil, da je slikal močvirska uharico. Prosil sem ga, naj opiše ta dogodek, in predlagal, da skupaj napiševa kratko notico o obeh opazovanjih. Matjaž je poročal takole: Dne 6.4.2008 sem hodil po poljih in travnikih na desnem bregu

Iščice na Ljubljanskem barju, kakšen kilometer nizvodno od mostu pri Zelenem mahu (UTM VL69). Nenadoma mi je izpod nog neslišno zletela rjava siva ptica. V hitrem obratu sem poskusil narediti nekaj posnetkov, kasneje pa ugotovil, da se na posnetku vidi rumena barva očesa. Sova je poletela kakšnih 50 m naprej in pristala v plevelu, od koder me je zvedavo gledala.

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MOČVIRSKA UHARICA *Asio flammeus*

Short-Eared Owl – two individuals spotted on 30 Mar 2008 SE of the village of Dolenje jezero (UTM VL56, Lake Cerknica, central Slovenia); both were startled from a bushy area of Vodonos

Dne 30.3.2008 sem med opazovanjem ptic na območju Vodonosa pri Dolenjem jezeru na Cerkniškem jezeru (UTM VL56, osrednja Slovenija) splašil dve sovi, ki sta na prvi pogled spominjali na malo *Asio otus* oziroma na močvirsko uharcico. Okoli 16 h sem se vračal domov s štetja ptic na jezeru in takrat splašil prvo sovo. Ptica se je v počasnem letu sprejetela na zahodni konec grmičevja. Kljub kratkemu opazovanju sem si na videni ptici lahko ogledal temno masko okoli oči in vzorec na trebuhi z ostro ločnico med temnim oprsjem in svetlim trebuhom. S pomočjo določevalnega ključa sem v splašeni ptici prepoznal močvirsko uharcico. Po dobrih sto metrih sem splašil še en osebek. Obe sovi sta sedeli na tleh na odprttem delu med grmičevjem in bili aktivni podnevi, kar prav tako ni značilno za malo uharcico. Moje opazovanje je bilo zabeleženo po obdobju večjega števila opazovanj v tisti zimi po vsej Sloveniji (D. BORDJAN *osebno*). Nazadnje je bila močvirsko uharcica na Cerkniškem jezeru opazovana leta 2006 na vzhodnem delu jezera jugozahodno od naselja Žerovnica (BRINKE & VICTORA 2006).

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VELIKI SKOVIK *Otus scops*

Eurasian Scops Owl – a male singing on 18 Jul 2008 at the Strunjan church (UTM UL94, SW Slovenia), but suddenly stopped; a few minutes later, the Little Owl *Athene noctua* called in the immediate vicinity, but when it stopped, the Scops Owl began to sing again after 10 minutes; staying silent is known avoidance effect of small owls in the near vicinity of larger species, which reduces possible intraguild predation

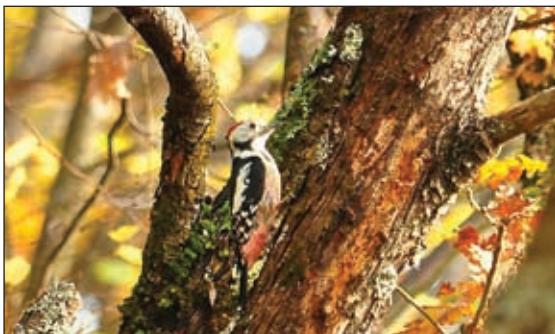
Intenziteta petja velikega skovika navadno upade v poletnem času, kljub temu pa nekateri samci še v juliju intenzivno prepevajo. Na Slovenski obali veliki skovik ni redek gnezdilec in tudi v okolici Strunjana je pogosta vrsta. Ponoči dne 18.7.2008 sva enega samca poslušala v drevoredu divjega kostanja *Aesculus hippocastanum* pri strunjanski cerkvi (UTM UL94). Samec je intenzivno pel, nenadoma pa je navidez brez razloga utihnil. Čeprav je bila noč svetla, v temičnih krošnjah dreves ni bilo videti, kaj se dogaja. A nekaj minut za skovikom se je iz bližine 5 do 10 metrov od poprej pojočega skovika glasno oglasil čuk *Athene noctua*, ravno tako gnezdilec tega dela Slovenije. Čuk se je oglasil le enkrat, šele kakih 10 minut zatem pa je spet pričel prepevati veliki skovik, z bolj ali manj enakega mesta kot prej. Znano je namreč, da se manjše sove, v tem primeru veliki skovik (20 cm; MEBS & SCHERZINGER 2008), potuhnejo v neposredni bližini večje sove, v našem primeru čuka (21–23 cm). Pri tem se prenehajo intenzivno oglašati in se prično zopet oglašati, ko se večja vrsta umakne (ZUBEROGOITIA *et al.* 2008). Razlog je v izogibanju potencialnega pljenjenja in glede na opazovano reakcijo je možno sklepati, da tudi med malimi sovami, torej med velikim skovikom in čukom, obstaja medvrstna agresija, morda celo pljenjenje, čeprav vrsti pogosto sobivata v istem prostoru.

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SREDNJI DETEL *Dendrocopos medius*

Middle Spotted Woodpecker – one individual observed on 5 Nov 2008 on southern slope of Ahac, approx. 600 m a.s.l. above Ilirska Bistrica and on the margin of Snežnik plateau (UTM VL44, SW Slovenia)



Slika 11 / Figure 11: Srednji detel / Middle Spotted Woodpecker *Dendrocopos medius*, 5.11.2008, nad Ilirsko Bistrocico. Foto: A. Jagodnik

Ahac (UTM VL44) je izletniški vrh tik nad mestom Ilirska Bistrica. Na južnem pobočju je poraščen z mešanim gozdom črnega bora *Pinus nigra*, hrasta *Quercus* sp., bukve *Fagus sylvatica* in smrekе *Picea abies*. Iz družine žoln tu pogosto videvam črno *Dryocopus martius* in zeleno žolno *Picus viridis*, pivko *Picus canus* ter velikega detla *Dendrocopos major*, medtem ko srednjega detla še nisem srečal. Dne 5.11.2008 sem naletel na osebek srednjega detla na hrastu nekje na sredini pobočja (~600 m nm.v.). Niže v bližini so tudi že sadovnjaki. Ko sem ga fotografiral, sem sprva mislil, da gre za mladega velikega detla, ki ga je tu pogosto videti, ob podrobnejši analizi fotografije pa se je izkazalo, da gre za srednjega detla (slika 11). V tem času so sicer veliki detli že dolgo pregoljeni in zamenjava ni možna (srednji detel ima proge na bokih in nima zaprte črne proge na vratu itd.). Iz časa selitve mi ni znan noben podatek iz naše regije.

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RUMENA PASTIRICA *Motacilla flava*

Yellow Wagtail – two flew over Mt Zvoh (1971 m nm.v.; UTM VM62, N Slovenia) on 13 Sep 2007

Dne 13.9.2007 sem se po dopoldanskem obročkanju ptic na Krvavcu odpravil na vrh Zvoha (1971 m nm.v.; UTM VM62). Tam je manjše umetno akumulacijsko jezerce, ki je namenjeno zasneževanju smučarskih prog v zimskem času. Razen vriskaric *Anthus spinolletta* in šmarnic *Phoenicurus ochruros* ni bilo videti drugih ptic. Bilo je delno jasno in toplo za tisti čas. Nenadoma me je v daljavi, in to v zraku, presenetilo značilno oglašanje rumene pastirice. Čakal sem, da se bom lahko od blizu prepričal, za koliko osebkov gre. Kmalu sem nad seboj zagledal dve, ki sta naredili dva kroga nad jezercem in nato nadaljevali let proti jugozahodu. Opazovanje je zanimivo zato, ker sta bili pastirici opazovani na tej nadmorski višini (~ 2000 m nm.v.). Zanesljivo sta bili na selitvi, ker je omenjena vrsta tipično nižinska.

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ŠMARNICA *Phoenicurus ochruros* & SKALNA LASTOVKA *Ptyonoprogne rupestris*

Black Redstart & Crag Martin – On 26 Jun 2006, a Black Redstart was noticed to nest in a nest of Crag Martin in Belce gorge near Mojstrana (UTM VM14, NW Slovenia) (five warm eggs); the same was noticed again on 15 Jun 2008



Slika 12 / Figure 12: gnezdo šmarnice / Black Redstart nest, 26.6.2006, soteska Belce pri Mojstrani. Foto: D. Šere

Dne 26.6.2006 sva imela z našim zunanjim sodelavcem Rudijem Tekavčičem običajni vsakoletni pregled gnezdlcev Belce pri Mojstrani (UTM VM14). Skalne lastovke so že valile v dveh gnezdih, v vsakem po pet jajc. Presenetilo pa je naju tretje gnezdo, kjer navadno gnezdi tretji par skalnih

lastovk, saj sva opazila, da je gnezdo nadgrajeno (slika 12). Kmalu sva ugotovila, da je gnezdo skalne lastovke iz prejšnjih let nadgradila šmarnica, ki se je ves čas pred nama svarilno oglašala. Pogled v to gnezdo je povedal vse: v gnezdu je bilo pet toplih belih jajc, ta barva pa je tudi značilna za šmarnico. Ko so se šmarnice že speljale, sem njihovo gnezdro odstranil iz gnezda skalne lastovke in ta je spet uspešno gnezdila v letu 2007 in 2008. V letu 2007 so skalne lastovke spet uspešno gnezdile v vseh svojih gnezdih. Na isti lokaliteti sva bila z Rudijem 15.6.2008. Tokrat je šmarnica vnovič zasedla gnezdo skalne lastovke in v njem so bili že popolno operjeni mladiči. Razlika je bila samo v tem, da je tokrat zasedla drugo gnezdo skalnih lastovk kot v letu 2006.

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BRŠKINKA *Cisticola juncidis*

Zitting Cisticola – one individual observed at Iški morost on Ljubljansko barje (UTM VL69, central Slovenia)

Dne 12.10.2008 sem obiskal ornitološki rezervat Iški morost na Ljubljanskem barju (UTM VL69). Tam sem sprva iz opazovalnice opazoval kozice *Gallinago gallinago* in velikega srakoperja *Lanius excubitor*. Nato sem iz daljave zaslišal neznano ptičje oglašanje, ki pa se mi je vse bolj približevalo. Ker je ptica pristala le nekaj metrov od opazovalnice, sem brez težav ugotovil, da gre za bršinko, ki je v Sloveniji znana predvsem iz Primorske. Delo Ptice Ljubljanskega barja zanj navaja status izginule gnezdlake (TOME et al. 2005).

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ČRNOČELI SRAKOPER *Lanius minor*

Lesser Grey Shrike – a pair feeding the young observed on 7 Jul 2006 between Škrilje and Zemelj (UTM WL25, Bela krajina, SE Slovenia)



Slika 13 / Figure 13: Črnočeli srakoper / Lesser Grey Shrike *Lanius minor*, 7.7.2006, Zemelj – Škrilje, Bela krajina. Foto: D. Šere

Dne 7.7.2006, ko sem v Beli krajini opazoval ptice med vasjo Škrilje in Zemelj (UTM WL25), sem zaslišal svarilno oglašanje srakoperja. Na cesti je sicer pristal rjav srakoper *Lanius collurio*, vendar se mi je zdelo, da je oglašanje bolj močno in odločno, pa tudi iz druge strani je prihajalo. Na sredini travnika sem nato na grmu zagledal dva odrasla črnočela srakoperja. Ko sta se spreletela, sem opazil, da hrani tri speljane mladiče. Starša sta jih tako intenzivno hranila, da se nista dala motiti, in uspeло mi je narediti tudi nekaj dokumentarnih posnetkov (slika 13). Podatek o gnezdenju te vrste v Beli krajini je zanimiv zato, ker je ta nekdaj tako številna vrsta v Sloveniji skoraj izginila. Pri pregledovanju slik pa sem tudi opazil, da ima eden od staršev neobičajno veliko črnine na čelu, saj je ta segala skoraj do vrha glave. Iz literature sem razbral, da gre v takem primeru za samca.

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OSTROGLEŽ *Calcarius lapponicus*

Lapland Longspur – one female observed on 12 Nov 2007 at Sečovlje salt-pans (UTM UL93, SW Slovenia); the record was confirmed by the National Rarities Committee (6th record for Slovenia)



Slika 14 / Figure 14: Laponski ostroglež (♀) / Lapland Longspur (♀) *Calcarius lapponicus*, 12.11.2007, Sečoveljske soline. Foto: D. Šere

Dne 12.11.2007 sva z Dejanom Groharjem na povabilo Iztoka Škornika (Krajinski park Sečoveljske soline) obiskala omenjene soline (UTM UL93). Glavni najin namen je bil videti snežnega strnada *Plectrophenax nivalis*, ki so ga tam opazili nekaj dni pred najinim prihodom. Iztok nama je natančno opisal lokaliteto na Leri in nemudoma sva se odpravila tja. Ob opazovanju in slikanju snežnega strnada so pred nama zleteli bela pastirica *Motacilla alba* ter nekaj repnikov *Carduelis cannabina* in travniških cip *Anthus pratensis*. Med plevelom, kipi kamenja in odpadnega materiala sem opazil še eno ptico, ki pa je na pogled delovala popolnoma nedoločeno. Tako sva si jo z Dejanom začela natančnejše ogledovati in jo ob tem tudi slikala (slika 14). Kmalu nama je izginila spred oči, zato sva začela pregledovati slike na svojih aparatih. Vedela sva, da je to neka druga vrsta in da nima nič skupnega z malo prej opazovanim snežnim strnadom. Na osnovi obarvanosti peres na celotni glavi, barvi kljuna in skoraj ravnega zadnjega kremlja na prstu noge sva ugotovila, da gre za samico laponskega ostrogleža. Podatek je potrdila Nacionalna komisija za redkosti – KRED (6. zapis za Slovenijo).

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HRVAŠKA / CROATIA

KVAKAČ *Nycticorax nycticorax*

Night Heron – eight individuals observed on 31 May 2007 at Velo blato, Pag Island (UTM WK01, Dalmatia, Croatia); three were in adult plumage, five in 2y plumage



Slika 15 / Figure 15: Kvakač / Night Heron *Nycticorax nycticorax*, 31.5.2007, Velo blato, Pag. Foto: D. Šere

Dne 31.5.2007 sem opazoval ptice na Velem blatu, otok Pag (UTM WK01, Dalmacija, Z Hrvaška). Ob 20.45 h, ko je sonce že zahajalo, sem na tleh opazil osem kvakačev. Od teh so bili trije odrasli osebki (Ad) v svatovskem perju, pet pa jih je bilo v drugoletnem perju (2y). Sedeli so na kamnih v vodi in na betonski cevi, napeljani v vodo. Kvakače mi je uspelo tudi digiskopirati (slika 15). Presenetil me je datum opazovanja (31.5.), še bolj pa sem bil presenečen nad obarvanostjo preostalih petih osebkov. Ti so bili bolj progasti spredaj in rahlo svetlo pikčasti po perutih, prevladovala je sivkasta barva (verjetno lanski mladiči). S tem v zvezi bi rad opozoril na možnost zamenjave in obarvanosti perja mladičev in drugoletnih osebkov v času gnezdenja.

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ČOPASTA ČAPLJA *Ardeola ralloides*

Squacco Heron – one caught on 8 Apr 2007 at Velo blato, Pag Island (UTM WK01, Dalmatia, Croatia), and observed catching European Mole Cricket *Gryllotalpa gryllotalpa* in shallow water



Slika 16 / Figure 16: Čopasta čaplja / Squacco Heron *Ardeola ralloides*, 8.4.2007, Velo blato, Pag. Foto: D. Šere

Dne 8.4.2007 sem obročkal ptice na Velem blatu na otoku Pagu (UTM WK01, Dalmacija, Hrvaška). Ob obali sem imel na čistini postavljeno mrežo za lov ptic, in ko sem se se ji po določenem času začel približevati mreži, sem pred seboj na poplavljenem travniku zagledal dve čopasti čaplji. Ena je zletela naprej mimo mreže, druga pa je pristala tik pred mrežo in s kljunom začela nekaj vleči iz plitve vode. Ko sem se ji bolj približal, je zletela s »plenom« naravnost v mrežo. Zelo sem bil presenečen, ker se je čaplja ujela v mrežo, saj ta sploh ni namenjena za tako veliko ptico. Še bolj pa sem bil presenečen, ko sem opazil, da ji je iz kljuna padel v mrežo plen, to pa je bil bramor *Gryllotalpa gryllotalpa*. Nato sem v mreži slikal bramorja, v roki pa tudi to čapljo, ki sem jo še prej označil z obročkom ZAGREB LA 2801 (slika 16). Potem sem tako bramorja kot čopasto čapljo izpustil. Podatek pomeni, da se lahko čopasta čaplja prehranjuje tudi z bramorji. Postavlja pa se vprašanje, ali lahko bramor živi tudi nekaj časa pod vodo, zlasti takrat, ko so travniki poplavljeni, in ali se takrat tudi oglaša. Na tem območju živi namreč tudi zelena krastača *Pseudepidalea viridis*, ki se oglaša zelo podobno kot bramor in ju zato lahko po »petju« zamenjam.

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GREY PLOVER *Pluvialis squatarola*

Crna prosenka – dne 26.10.2008 opažen en osebek na otoku Olibu (UTM VK81, Dalmacija, Hrvaška)

Quite a few data have been recently published on the occurrence of Grey Plovers in the coastal areas of Croatia (RUCNER 1998). This species appears regularly in the Dalmatian region during the spring and autumn migrations and may even overwinter there in small numbers (KRALJ 1997). The threatened overwintering population in the northwestern coastal areas of the northern Dalmatian wintering area is estimated at about 50–80 individuals (RADOVIĆ *et al.* 2003). On 26 Oct 2008, one Grey Plover was observed in a barren wetland area with marshy soil somewhat inland from Slatina Bay, Olib Island (UTM VK81, Dalmatia, W Croatia). It is interesting to note that there were no other waders in the area, but we found plenty of empty shotgun cartridges in the 10–20 m wide land strip extending between the salty marshland and the bay area. This observation suggests that the site is probably well known among hunters. Considering that little is known about the avifauna of Olib, it is important to record the occurrence of the Grey Plover. The island of Olib is located in the northern part of the Zadar island region, which forms part of the Croatian “National Ecological Network – areas important for birds in Croatia” (RADOVIĆ *et al.* 2005).

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GULL-BILLED TERN *Gelochelidon nilotica*

Črnonoga cigra – dva osebka opažena 26.10.2008 in 29.10.2008 v bližini otoka Olib (UTM VK81, Dalmacija, Hrvaška)

At 10.00 a.m. on 26 Oct 2008, two Gull-billed Terns, both occupied with catching fish, were observed about 0.5 km southwest from the harbour of Olib Island (UTM VK81, Dalmatia, W Croatia). Once again, three days later (29 Oct 2008), two Gull-billed Terns were spotted along the eastern coast of the island in Samotvorac Bay (it is possible that these were the same birds that had been recorded previously). There are only few published data on the occurrence of Gull-billed Terns in the region of Dalmatia; mostly solitary specimens were observed during autumn and spring migration (KRALJ 1997). In addition to the fact that this species is a rare migrating bird, our observation is important also because of its location, since the area of Zadar islands (Premuda, Silba, Olib, Škarda, Ist, Molat etc.)

between the islands of Lošinj and Dugi otok are part of the “National Ecological Network – important areas for birds in Croatia” (RADOVIC *et al.* 2005).

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EUROPEAN ROLLER *Coracias garrulus*

Zlatovranka – en osebek opazovan na otoku Šolta (UTM WJ90, Dalmacija, Hrvaška); zabeležen je bil med snemanjem naravoslovnega filma, ki je potekalo med 30.4. in 10.5.2007

The most recent observation of European Roller in Croatia refers to a spring migration over its coastal area (MUŽINIĆ & ENDE 2006). Earlier observations in this area include the Adriatic islands of Pag (BORDJAN 2006), Krk (RUCNER 1998), Rab (ASH 1970) and Vis with their neighbouring unpopulated islets: Biševo, Sv. Andrija, Brusnik, Jabuka and Palagruža (KRPAN 1965). Thus the film recording of the European Roller on the island of Šolta (UTM WJ90, Dalmatia, Croatia) by film director Miro Andrić between 30 Apr and 10 May 2007 is the first recorded occurrence of the species on this island. While filming terrestrial sites in the biotope of Brown Bullhead *Ictalurus nebulosus* and maquis for the natural history series „The Croatian Seabed: the Island of Šolta”, some birds were captured on film on one of the filming days, among them a European Roller sitting on the top of the shrub, flying away shortly afterwards. The Croatian Radiotelevision broadcast the film in autumn 2007, which is when I actually noticed that this was the European Roller, a former breeding species in Croatia.

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RUMENOGLAVI KRALJIČEK *Regulus regulus*

Goldcrest – several hundred individuals observed on 5 Nov 2007 on Pag Island (UTM VK93, Dalmatia, Croatia) feeding on ground (exact type of food unknown)



Slika 17 / Figure 17: Rumenoglavi kraljiček / Goldcrest *Regulus regulus*, 5.11.2007, Novalja, Pag. Foto: D. Šere

Dne 5.11.2007 popoldne sem pred odhodom z otoka Paga v lepem sončnem vremenu bolj po naključju obiskal kamp Straško pri Novalji (UTM VK93, Dalmacija, Z Hrvaška). Že pred prihodom v kamp sem zagledal večje število (pribl. 25) manjših ptic, ki so se z bližnjimi borovci v letu spuščali na bližnji travnik. Po tleh so se med travo in kamenčki spreletavali in iskali hrano. Ko sem prišel bliže, sem bil zelo presenečen, saj sem ugotovil, da gre za rumenoglave kraljičke. Poskušal sem jih fotografirati, a mi to ni najbolje uspelo, saj so tako hitro pobirali hrano z listov različnih rastlin ali tal, da so bili posnetki v glavnem neostri (slika 17). Pustili so se opazovati tako od blizu, da sem pomis�il, da bi katerega celo ujel. Medtem ko sem nadaljeval pot v kamp, so me vso pot spremljali tudi ti kraljički. Nekateri so iskali hrano po različnih plevelih za cesto, drugi so se prehranjevali kar po tleh med prikolicami, tretji pa so iskali hrano po različnih okrasnih grmih ali cvetlicah. Kamp je bil praktično poln rumenoglavih kraljičkov, ki so me s svojim spreletavanjem spominjali na kako izmed številnih žuželk. Ni se jih dalo prešteti, zanesljivo pa jih je bilo nekaj sto. Ko sem kasneje na trajektu obujal prijetne trenutke tistega dne, sem ugotovil, da sem naredil nepopravljivo napako! Moral bi bil vzeti vzorce listov, stebel, vejic ali kamenčkov in v našem muzeju bi lahko kasneje ugotovili, natančno s čim so se prehranjevali ti rumenoglavi kraljički.

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SRBIJA / SERBIA

MUTE SWAN *Cygnus olor*

Labod grbec – par s skoraj odraslimi mladostnim osebkji opažen dne 12.8.2008 na ribnikih Bečeji (UTM DR24, Vojvodina)

On 12 Aug 2008, during a short visit to the Bečeji fishponds (UTM DR24, Vojvodina), we noticed a pair of Mute Swans together with nearly full-grown juveniles, which were still in their grey plumage and unable to fly. Birds were observed on Lake 4 of the fishpond, which is the nearest to the village of Bačko Gradište. Mute Swan had been previously recorded on Bečeji fishpond, although only on a couple of occasions (LUKAČ & LUKAČ 1992). Nowadays it is much more common with many, still unpublished observations by the authors and other observers since the early 2000s. This is the first confirmed breeding of the species for the fishpond and one of just few localities along the Tisa River valley in Serbia.

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RED-CRESTED POCHARD *Netta rufina*

Tatarska žvižgavka – dne 25.5.2008 opaženi trije pari in dvorjenje na ribnikih Bečeji (UTM DR24, Vojvodina)



Slika 18 / Figure 18: Tatarska žvižgavka / Red-crested Pochard *Netta rufina*, 25.5.2008, Bečeji. Photo: M. Šćiban

During a visit to the Bečeji fishponds (UTM DR24, Vojvodina) on 25 Apr 2008, we were able to make some partial observations only on Lakes 3 and 4 due to the tough restrictions enforced by the new fishpond owner. On the northern bank of Lake 4, near the fish-feeding station, I noticed several water birds in a small bay surrounded by a thick belt of reedbeds. Among numerous Pochards *Aythya*

ferina (around 30), Coots *Fulica atra* (around 200) and Great Crested Grebes *Podiceps cristatus*, there were 6 Red-crested Pochards (3 males and 3 females), which were photographed on that occasion (Figure 18). Birds were in fact separated in pairs and several times even their typical courtship was observed. In close company of the Red-crested Pochards were also 4 Ferruginous Ducks *Aythya nyroca*, which normally breed on the fishpond. Unfortunately, the fishpond was not visited later in the year, so possibilities for a further breeding of Red-crested Pochard has not been checked. Red-crested Pochards had been recorded previously on the Bečeji fishponds (LUKAČ & LUKAČ 1992), and there were even some speculations as to possible breeding in the early 1990s. Since then, this species has become very rare, and this is possibly the first confirmed record of this rare species since those published observations.

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SHORT-TOED EAGLE *Circaetus gallicius*

Kačar – kratko poročilo o pojavljanju vrste v okolici Kraljeva (UTM DP74, JZ Srbija): največ štirje osebki opazovani 12.5.2006 na gori Stolovi; dne 21.7.2005 opazovana dva odrasla osebka skupaj z mladostnim osebkom nad gozdom v Šošanici; dne 20.5.2006 opazovana dva osebka (par) nad vasjo Lopatnica na pobočjih gore Čemerno, na isti lokaliteti pa dne 16.7.2005 še dva odrasla in en mladosten osebek; dne 2.5.2006 je bil opazovan par v letu nad vasjo Drakčići; dne 7.5.2006 je bil opažen en osebek na gori Suvobor

This is a short report on the occurrence of Short-toed Eagle in the surrounding of Kraljevo (UTM DP74, SW Serbia). Two pairs were observed on 12 May 2006 on Mt Stolovi. One adult male bird was standing on top of a Scots Pine *Pinus sylvestris* in the Scots Pine-juniper stand at Šošanica. After a longer period of observation, the bird flew southeast towards Brezna. In the lower parts of the forest, a pasture spreads with a rocky meadow rich in potential prey (snakes, lizards). At 9.25 a.m., 3 individuals circling above the Ravni Sto reef (south slopes of Mt Stolovi and above the Usovica peak (1375 m a.s.l.) were seen. After a while, one pair separated and flew towards Velike Livade on Mt Goč. On 21 Jul 2005, a Short-toed Eagle family circled above the forest at Šošanica. It consisted of 2 adults and one young. On the same day we spotted one adult male above the Usovica peak. On 20 May 2006, one pair of Short-toed Eagles was observed in the village of Lopatnica on the slopes of mountain Čemerno (35 km southwest of Kraljevo). Birds were flying above an oak forest, pastures and orchards. On 16 Jul 2005 we observed, at almost the same site, 2 adult

and one young Short-toed Eagles. One pair was observed on 2 May 2006 during its flight above the village of Drakčići (8 km SW of Kraljevo). Birds flew northwest towards Ovčar-Kablar Gorge. Observation of one bird took place on one more occasion on 7 May 2006, during its flight above an beech-oak forest, pastures and rocky meadows on Mt Suvobor in W Serbia. At two localities on this mountain, in a Beech *Fagus sylvatica* forest, nests that were and still are used by this species were found. Based on previous research (PUZOVIĆ & MARINKOVIĆ 2000), the existence of nesting places was proven on the mountains of Goč (30 km southeast of Kraljevo) and Suvobor.

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CORNCRAKE *Crex crex*

Kosec – oglašanje dveh osebkov podnevi dne 17.7.2008 na severnih obronkih vrha Vražja glava, na približno 1800 m nm.v. (UTM FN30, Stara planina, V Srbija)

Between 16 and 18 Jul 2008, a team (6 people) from the "Stara planina 2008" expedition visited the vicinity of the village Topli Do (UTM FN30, E Serbia), situated in a small valley on the Stara Planina Mountain ridge (Stara planina Nature Park). On 17 Jul, the team researched the upper part of the Javor River and its smaller tributaries up to the peaks of the main and highest parts of the mountain ridge – northern surroundings of the Vražja glava peak (1934 m a.s.l.). The whole area is covered by high mountain meadows with only few bushes and with tree-line at around 1650 m a.s.l. The slopes are steep (more than 30°), while numerous small springs create small streams (nearly dry in July), which have made smaller and steeper incisions in some parts of the slopes. Meadows around such incisions are usually wet owing to the spring waters. In one such incision north from the Vražja glava peak (on around 1800 m a.s.l.), we heard, at around 17.00 hrs, one and yet another territorial Corncrake call in a repeated series. Meadows where we listened to Corncrakes were still partially wet and had western orientation. Afterwards, a territory of about 100 ha was investigated, but no additional males were recorded. Considering that this type of habitat is quite extensive and always has western projection, it is expected that the Corncrake population is probably much higher. Date and time of the observation, no use of playback and short stay at the locality are probably the reasons for locating just two

territorial males. In general, it is estimated that the Corncrake population in Serbia (200–300 pairs) survived only on wet mountain meadows between the elevations of 700–1300 m a.s.l., where extensive animal husbandry and agriculture are still practiced. Therefore, these new observations of Corncrakes on Stara Planina Mountain represent some of the highest ever recorded in Serbia. Earlier, Corncrakes had been recorded (including breeding) only at two localities on the Stara Planina Mountain – upper flow of the Dobrodol River and in vicinity of the Dojkinci village (Duboki Dol locality) when complete clutch was found (PUZOVIĆ & GRUBAČ 1999). Therefore, this is only the second locality for the mountain where this endangered species might breed. Further and more precise Corncrake research is necessary to determine its real breeding status and numbers inside the Stara planina Nature Park.

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ALBANIJA / ALBANIA

DALMATIAN PELICAN *Pelecanus crispus* & WHITE PELICAN *Pelecanus onocrotalus*

Kodrasti & rožnati pelikan – 32 kodrastih pelikanov v laguni Karavasta ($40^{\circ}55'N$, $19^{\circ}29'E$, Z Albanijska), 31 kodrastih in 2 rožnata pelikana v solinah Vlori (laguna Narta; $40^{\circ}32'N$, $19^{\circ}25'E$, Z Albanijska), opaženih v obdobju 26.–29.9.2008

In the period from 26 to 29 Sep 2008 we registered, in cooperation with Taulant Bino, Albanian ornithologist, 32 Dalmatian Pelicans in Karavasta Lagoon ($40^{\circ}55'N$, $19^{\circ}29'E$, W Albania) and 33 pelicans in Vlorë Salina - Narta lagoon ($40^{\circ}32'N$, $19^{\circ}25'E$, W Albania). In Karavasta, the unique Albanian breeding site of Dalmatian Pelicans, the pelicans were resting and hunting. It is interesting that two pelicans were hunting in the centre of the lagoon, some 100 m away from two traditional fishing boats. During the work in Karavasta, a few shots and many cartridges along the lagoon were registered. In Vlorë salina (Narta Lagoon), 33 pelicans were registered, two of which were White Pelicans. Pelicans rested in this salina until they were disturbed by shots and presence of 4 hunters. After this disturbance, they spent more than half an hour flying over the salina. It was reported that 19 pairs of Dalmatian Pelicans bred in Albania in the 1992–2002 period (BIRD LIFE INTERNATIONAL 2004).

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GOLDEN EAGLE *Aquila chrysaetos*

Planinski orel – en osebek opažen dne 27.9.2008 v kraju Lukove (39°58'N, 19°55'E, osrednja Albanija)

One Golden Eagle was registered on 27 Sep 2008 when hunting at Lukove (39°58'N, 19°55'E, central Albania). The current estimate is that 50–200 pairs of Golden Eagles breed in Albania (BIRD LIFE INTERNATIONAL 2004). This was the only record of this species during the 4 days of visiting Albanian natural habitats between 26 and 29 Sep 2008.

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**Literatura za celo rubriko/
References for the whole section**

- AMBROŽIČ, Š. (2002): Sove Trnovskega gozda: gostota, višinska razširjenost in medvrstni odnosi. – *Acrocephalus* 23 (113/114): 129–134.
- ASH, J.S. (1970): An observation from Rab, autumn 1966. – *Larus* 21–22: 121–129.
- BENUSSI, E. & GENERO, F. (1995): L'Alloco degli Urali (*Strix uralensis macroura*) nel Trnovski gozd (Slovenia), censimento in una campione. – *Suppl. Ric. Biol. Selvagiga* 22: 563–568.
- BIRDLIFE INTERNATIONAL (2004): Birds in Europe: population estimates, trends and conservation status. BirdLife International Conservation Series No. 12. – BirdLife International, Cambridge.
- BORDJAN, D. (2006): European Roller *Coracias garrulus*. – *Acrocephalus* 27 (128/129): 99–113.
- BRINKE, T. & VICTORA, L. (2006): Short-eared Owl *Asio flammeus*. – *Acrocephalus* 27 (130/131): 173–181.
- DENAC, D. (2001): Gnezditvena biologija, fenologija in razširjenost bele štoklje *Ciconia ciconia* v Sloveniji. – *Acrocephalus* 22 (106/107): 89–103.
- FIGELJ, A. (2005): Belorepec *Haliaeetus albicilla*. – *Acrocephalus* 28 (134): 127–134.
- KEBE, L. (2004): Bela štoklja *Ciconia ciconia*. – *Acrocephalus* 25 (120): 33–42.
- KLENOVŠEK, D. (1998): Zanimivosti odkoderkoli: Okolica Sevnice. – *Acrocephalus* 19 (87/88): 72–74.
- KRALJ, J. (1997): Ornitofauna Hrvatske tijekom poslednjih dvjesta godina. – *Larus* 46: 1–112.
- KRPAN, M. (1965): Birds of the island of Vis and nearby islets. – *Larus* 16–18: 106–150.
- LUKAČ, Š. & LUKAČ, A. (1992): Ornitofauna of the “Bečeј” fishpond. – *Ciconia* 4: 4–27.
- MEBS, T. & SCHERZINGER, W. (2008): Die Eulen Europas. – Franckh-Kosmos, Stuttgart.
- MUŽINIĆ, J. & ENDE, B. (2006): Roller *Coracias garrulus*. – *Acrocephalus* 27 (128/129): 99–113.
- PUZOVIĆ, S. & GRUBAČ, B. (1999): Birds of Stara Planina and Vidlič. – Institute for Protection of Nature of Serbia.
- PUZOVIĆ, S. & MARINKOVIĆ, S. (2000): Short-toed Eagle. pp. 69v/74 In: Puzović, S. (ed.): Atlas of the birds of prey of Serbia, their breeding distribution and abundance 1977–1996. – Institute for Protection of Nature of Serbia, Belgrade.
- RADOVIĆ, D., KRALJ, J., TUTIŠ, V. & ĆIKOVIĆ, D. (2003): Crvena knjiga ugroženih ptica Hrvatske. – Ministarstvo zaštite okoliša i prostornog uređenja, Zagreb.
- RADOVIĆ, D., KRALJ, J., TUTIŠ, V., RADOVIĆ, J. & TOPIĆ, R. (2005): Nacionalna ekološka mreža – važna područja za ptice u Hrvatskoj. – Zavod za zaštitu prirode, Zagreb.
- RUCNER, D. (1998): Ptice hrvatske obale Jadrana. – Hrvatski prirodoslovni muzej, Ministarstvo razvitiča i obnove, Zagreb.
- TOME, D., SOVINC, A. & TRONTELJ, P. (2005): Ptice Ljubljanskega barja. Monografija DOPPS št. 3. – DOPPS, Ljubljana.
- URADNI LIST RS (2004): Pravilnik o določitvi in varstvu naravnih vrednot. (no. 111/04, 70/06).
- VRH, P. (2004): Bela štoklja *Ciconia ciconia*. – *Acrocephalus* 25 (121): 94.
- ZUBEROGOITIA, I., MARTÍNEZ, J.E., ZABALA, J., MARTÍNEZ, J.A., AZKONA, A., CASTILLO, I. & HIDALGO, S. (2008): Social interactions between two owl species sometimes associated with intraguild predation. – *Ardea* 96 (1): 109–113.

NOVE KNJIGE

New books

IANKOV, P. (ed.) (2007): *Atlas of Breeding Birds in Bulgaria. Conservation Series, Book 10.* – Bulgarian Society for the Protection of Birds, Sofia. pp. 679.

The atlas is the first ever breeding atlas of the whole country to be produced by Bulgarian ornithologists. And there is no doubt that they can proudly put it side by side with the ornithological atlases of other nations.

It consists of a very detailed introduction section, which comprehensively presents technical and geographical terms, main goals and purpose of the atlas, history of atlases in Bulgaria, methods, species accounts and overview of results.

Species accounts are very detailed and leave little to be desired. The categories of conservation concern for Bulgaria, Europe and globally are presented, as well as species' legal status, estimated population size, estimated trends, distribution pattern, density pattern, historical changes, habitats and altitudinal range. The atlas is completely bilingual (Bulgarian and English), which greatly facilitates the understanding of a non-native reader. Two maps are presented: one concerns distribution, with circles in UTM squares denoting possible, probable and confirmed breeding, while the other denotes the estimated number of pairs in each UTM square. An illustration is added to each species account at a high artistic level. The book as a whole is very thoroughly produced and gives impression of a strong editors' hand. The texts are excellent, very informative and extremely detailed especially in the part describing historical changes in the population. The charts, too, are very clearly made. All the breeding species in Bulgaria are presented, including extinct (with historical records) and introduced species whose background is additionally explained. The atlas also has a function of historical comparison with the mentioned detailed accounts of historical background. The editorial board covered all the major scientific institutions in Bulgaria (academic and university).

If I were to point out any weaknesses of this magnificent book, I would mention the not so clear numbers (density) charts. Since they have no legend,



it is difficult to find out the scale (numbers range) of different sizes of squares. Moreover, the methodology is difficult to find in the voluminous introductory section. The maps would be clearer if they were »self-standing« i.e. with titles and legends. This, however, is just a minor complaint. There is no doubt this is a milestone work, which will be used as a starting point and comparison for any future conservation and atlas work. It is also a very useful handbook for day-to-day conservation work and a stimulus for further work on Bulgarian avifauna. Being aware of the huge amount of organisational, scientific and editorial work done in sometimes not so favourable circumstances, we can only congratulate our colleagues from BSPB for this excellent result.

I thank Nada Tosheva (Executive Director of BSPB) for the copy of the book (although the luggage was indeed pretty heavy!).

Primož Kmecl

NAJAVE IN OBVESTILA

Announcements

Nagrada Zlati legat 2007

The Golden Bee-eater Award 2007

Predstavitev dela komisije za podelitev nagrade Zlati legat 2007

Zlati legat je nagrada, ki jo DOPPS podeljuje slovenskim ornitologom za najboljše delo s področja ornitologije, objavljeno v preteklem letu doma ali na tujem. Nagrado sestavlja pisno priznanje in denarna premija. Tokratna podelitev nagrade je bila deseta zapored – prvič je bila podeljena leta 1999. Komisijo za podelitev nagrade Zlati legat za leto 2007 v sestavi prof. dr. Lovrenc Lipej (Nacionalni inštitut za biologijo), Dejan Bordjan (DOPPS), Urša Koce (Nacionalni inštitut za biologijo) in predsednik dr. Damijan Denac (Nacionalni inštitut za biologijo) je imenoval UO DOPPS na korespondenčni seji 27.1.2009. Komisija se je sestala 25.2.2009 ob 9:30 na Nacionalnem inštitutu za biologijo v Ljubljani. Po pravilniku podelitve te nagrade je najprej vsak član komisije izmed del, ki so prišla v poštev za nagrado, izbral pet najboljših in utemeljil njihov izbor. Ta dela, skupaj jih je bilo 12, so sestavljala ožji izbor (po abecednem vrstnem redu):

1. Božič, L. (2005): Populacija kosca *Crex crex* na Ljubljanskem barju upada zaradi zgodnje košnje in uničevanja ekstenzivnih travnikov. – *Acrocephalus* 26(124): 3-21.
2. DE GROOT, M. & BORDJAN, D. (2007): Possibilities for fire as a management tool on Kras (SW Slovenia): a bird's perspective. – *Acrocephalus* 28(2007): 3-15.
3. DENAC, D. (2006): Chick shelters did not prevent raptor predation on chicks in a mixed Common Tern *Sterna hirundo* and Black-headed Gull *Larus ridibundus* colony in Slovenia. – *Vogelwelt* 127: 187-192.
4. DENAC, D. (2006): Intraspecific Exploitation Competition as Cause for Density Dependent Breeding Success in the White Stork. – *Waterbirds* 29(3): 391-394.
5. JANČAR, T., KMECL, P., MIHELIČ, T. & KOZINC, B. (2007): Pregled vodnih ptic Blejskega in Bohinjskega jezera ter jezera HE Moste (Gorenjska, SZ Slovenija). – *Acrocephalus* 28(135): 141-157.
6. MIHELIČ, T. & GENERO, F. (2005): Occurrence of Griffon Vulture *Gyps fulvus* in Slovenia in the period from 1980 to 2005. – *Acrocephalus* 26(125): 73-79.

7. PURNAT, Z., ČAS, M. & ADAMIČ, M. (2007): Problematika ohranjanja habitata divjega petelina *Tetrao urogallus* na Menini (osrednja Slovenija) in vpliv pašništva. – *Acrocephalus* 28(134): 105-117.
8. TOME, D. (2007): Nest defense and some rare breeding events in Long-eared owls (*Asio otus*). – *Journal of Raptor Research* 41(2): 170-173.
9. TOME, D., SOVINC, A. & TRONTELJ, P. (2005): Ptice Ljubljanskega barja. DOPPS, Monografija DOPPS Št. 3, Ljubljana.
10. TORKAR, G. & BAJD, B. (2006): Trainee teachers' ideas about endangered birds. – *Journal of Biological Education* 41(1): 1-4.
11. VREZEC, A. (2006): Ali je vzrok upada populacije jerebice *Perdix perdix* v Sloveniji prikrita kompeticija s fazanom *Phasianus colchicus*? – *Acrocephalus* 27(128-129): 73-81.
12. VREZEC, A. & TOME, D. (2004): Altitudinal segregation between Ural Owl *Strix uralensis* and Tawny Owl *S. aluco*: evidence for competitive exclusion in raptorial birds. – *Bird Study* 51: 264-269.

Iz ožjega izbora je nato vsak član neodvisno izbral štiri najboljša dela in jih točkoval. Komisija ni ne izbirala ne točkovala del, katerih avtorji so bili člani komisije. Tri dela, ki so prejela največ točk, so nominirana dela za nagrado. Kratka utemeljitev nominiranih del:

Tome, D., Sovinc, A. & Trontelj, P. (2005): Ptice Ljubljanskega barja. DOPPS, Monografija DOPPS Št. 3, Ljubljana. Monografija o pticah Ljubljanskega barja je obsežno in pregledno delo, ki obravnava vse vrste ptic opažene na Ljubljanskem barju, posebej podrobno gnezditelke. Podatke za delo so zbrali prostovoljci DOPPS v večletnem sistematičnem delu, ki je bilo posebej intenzivno v letih 1989-1996, nadaljevalo pa se je do leta 2002. Splošnemu, uvodnemu delu sledi sistematični del, kjer so predstavljene posamezne vrste. Za gnezditelke so izdelane karte gnezditvene razširjenosti, za pogosteje pojavljajoče se vrste pa selitveni fenogrami. Pri izdelavi slednjih so uporabili podatke rednega lova ptic z mrežami na postaji PMS v Vrhniku. V dodatku sta seznama vseh opazovanih vrst s statusi na Ljubljanskem barju in vseh gnezditelcev z velikostjo gnezditvenih populacij. To pregledno in sistematično delo mora postati osnoven pripomoček vseh načrtovalcev različnih posegov na Barju, še posebej ob dejству, da je Barje eno izmed območij Natura 2000 v Sloveniji. Prav tako pa ne sme manjkati na polici vsakogar, ki se želi podrobnejše seznaniti z bogastvom sveta ptic tega območja.

Vrezec, A., Tome, D. (2004): Altitudinal segregation between Ural Owl *Strix uralensis* and Tawny Owl *S. aluco*: evidence for competitive exclusion in raptorial birds. – Bird Study 51: 264–269. V delu sta avtorja raziskovala habitatne zahteve lesne sove in kozače in jih primerjala glede na njuno sobivanje. Odgovor na takšno raziskovalno vprašanje je mogoče podati le s skrbno načrtovano in metodološko standardizirano raziskavo, ki sta jo izvedla na območjih, kjer biva vsaka vrsta sama in kjer bivata skupaj. Izbor raziskovanih območij je bil primerno obsežen – Krim, Kum, Bohor, Boč in Pohorje – in z analizo habitatnih značilnosti jima je uspelo korektno in nedvoumno dokazati, da v simpatriji ekološko nišo lesne sove omejuje kozača kot močnejši kompetitor. Realizirana ekološka niša lesne sove je torej v prisotnosti kozače manjša kot v njeni odsotnosti. Gre za fenomen kompeticijskega izključevanja, ki v primeru lesne sove in kozače doslej še ni bil raziskan. Delo je znanstvene narave in je bilo objavljeno v eni najprestižnejših znanstvenih ornitoloških revij na svetu – Bird Study, z visokim faktorjem vpliva. Delo odlikujejo jasnost, obsežno terensko delo, multivariatni pristop v analizi, domišljena idejna zasnova in sodelovanje z izkušenimi tujimi znanstveniki najvišjega kova, zato je odličen zgled za podobne bazične ornitološke raziskave pri nas in po svetu.

Vrezec, A. (2006): Ali je vzrok upada populacije jerebice *Perdix perdix* v Sloveniji prikrita kompeticija s fazanom *Phasianus colchicus*? – Acrocephalus 27(128-129): 73–81. Posredna razmerja ali posredne interakcije so predmet novejših ekoloških raziskav. Pri posrednih interakcijah vrsti nista v neposrednem medvrstnem odnosu, ampak vplivata druga na drugo prek mediatorja – skupnega plenilca ali parazita. V zadnjem času so ugotovili, da je njihov učinek lahko celo veliko večji kot učinek neposrednih interakcij in da zaradi njih lahko pride do drastičnega zmanjšanja števila ene vrste v naravnih ekosistemih, možna so celo izumrtja vrst. V tem delu avtor s posrednimi interakcijami – prikrito kompeticijo – pojasnjuje upad populacije jerebice. Fazan, ki so ga in ga še vedno intenzivno naseljujejo lovci, predstavlja rezervoar gliste *Heterakis gallinarum*, na katero je fazan ob infekciji prizadet precej manj kot jerebica. Glista se prenaša s fazana na jerebico, zato je lahko končni učinek naseljevanja fazana izključitev jerebice iz sistema. Da je hipoteza o zmanjšani populaciji jerebice zaradi naseljevanja fazana in prikrite kompeticije med njima zelo verjetna tudi v Sloveniji, je avtor potrdil s konkretnimi zgodovinskimi podatki. To delo je pomembno predvsem zato, ker nas opozarja na možne

posledice umetnega naseljevanje vrst v ekosisteme, kjer le-teh prej ni bilo. Naseljene vrste vstopajo v neposredne in posredne interakcije z drugimi vrstami. Posledice teh interakcij pa so lahko za domorodne vrste povsem uničujoče. Gre torej za pomembno delo, ki je postavilo pod vprašaj lovsko naseljevanje fazana in hkrati izpostavilo njihovo odgovornost za posledice tega početja.

Izmed nominiranih del je žirija dodelila največ točk delu Vrezec, A., Tome, D. (2004): Altitudinal segregation between Ural Owl *Strix uralensis* and Tawny Owl *S. aluco*: evidence for competitive exclusion in raptorial birds. – Bird Study 51: 264–269 in tako odločila, da avtorja prejmeta nagrada Zlati legat za leto 2007. Nagrada je bila podeljena na 30. rednem letnem zboru članov DOPPS, 28.2.2009.

Komisija se vsem avtorjem zahvaljuje za sodelovanje s prispevki, nagrajencema pa iskreno čestita!

Damijan Denac, predsednik komisije Zlati legat 2007

Čestitam

DAMIJANU DENACU

ob podelitvi nagrade **Zlati legat 2006**

za delo

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