

Summary on raptors and owls ringing in Slovakia in 2007 and 2008

Sumarizácia krúžkovania dravcov a sov v rokoch 2007 a 2008 na Slovensku

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Abstract: This article provides brief information about the number, species and reports about ringed raptors and owls in Slovakia during the period 2007–2008. It is a continuation of similar results of the ringing of raptors and owls in the periods 2002–2004, 2005–2006. In 2007, from 1346 individuals of raptorial birds, 941 raptors and 405 owls of 24 species (16 species of raptors and 8 species of owls) including 805 raptors' and 218 owls' nestlings were ringed. In 2008, a total of 856 individuals were ringed, including 542 raptors and 314 owls of 25 species (15 species of raptors and 10 species of owls) including 421 raptors' and 113 owls' nestlings. Also in 2008, the number of ringed raptors and owls decreased by 36.4% in comparison to 2007.

Abstrakt: Článok poskytuje základnú informáciu o počte, druhoch a spätných hláseniach krúžkovaných druhov dravcov a sov na Slovensku za obdobie rokov 2007–2008. Správa kontinuálne naväzuje na obdobne spracované výsledky krúžkovania dravcov a sov z období 2002–2004, 2005–2006. V roku 2007 sa okružkovalo na Slovensku spolu 1346 ex., z toho 941 ex. dravcov a 405 ex. sov 24 druhov (16 druhov dravcov a 8 druhov sov), z toho mláďat v počte 805 ex., dravcov a 218 ex. sov. V roku 2008 sa okružkovalo spolu 856 ex. z toho 542 ex. dravcov a 314 ex. sov 25 druhov (15 druhov dravcov a 10 druhov sov), z toho mláďat v počte 421 ex. dravcov a 113 ex. sov. V roku 2008 poklesol počet okružkovaných dravcov a sov v porovnaní s rokom 2007 o 36,4 %.

Key words: raptors, owls, ringing, ring recoveries, Slovakia

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Introduction

Bird ringing is one of the basic and traditional methods of biological monitoring of raptors and owls, especially for acquiring data on the migration of migratory raptors, their wintering grounds as well as the fidelity of the species and its attachment to the natal site (Meyburg et al. 2005, Danko & Maderič 2008), nesting environment, and also further knowledge about the movement of individual birds within the nesting area of the species. To acquire this kind of data a high number of individuals has to be ringed. However, the frequency of recovery reports remains rather low, and due to the low density of raptors and owls it is difficult to foresee an increase (Danko et al. 1996). Apart from traditional ringing, other methods are starting to be used e.g. colour rings (Dravecký et al. 2008a, Dravecký et al. 2008b), wing tags (Danko 1989b) or simultaneous combination of ringing and radio or satellite telemetry transmitter tagging (in Slovakia used e.g. in species *A. pomarina*, *A. heliaca* and *Falco cherrug*; Meyburg et al. 2004, Demeter et

al. 2006, 2007, Chavko et al. 2006, Uhrin et al. 2008, Prommer et al. 2009). Results and experiences from the ringing of raptors and owls in Slovakia have been published since 1975 (Danko 1977–1992, Danko et al. 1995a, b, Danko et al. 2000). Reports on bird ringing in Slovakia between 1989–1992 were presented by Formánek & Škopek (1989, 1992) and Kropil (1992). Since 1991, all results of raptor ringing were published in the collective reports on the ringing of birds in Slovakia (Kropil 1993, Korňan 1994a, b, 1995, Slobodník 2000, 2003–2006, 2008, Slobodník & Šnirer 2001, Slobodník & Sárossy 2007). The summary of ringed birds (including raptors and owls) and recovery reports were also published by individual bird ringers (Kaňuščák 1998, Kubán & Matoušek 1999, Hrdlovič 1999, Danko 2000, 2008, Šnirer et al. 2001, Sviečka 2004). Since 2002 individual reports on the ringing of raptors and owls in Slovakia have been published (Slobodník 2007, 2008), followed by this article on the evaluation of raptor and owl ringing in the period 2007–2008.

Tab. 1. List of raptors and owls ringed in Slovakia between 2007–2008**Tab. 1.** Prehľad krúžkovaných dravcov a sov na Slovensku v rokoch 2007 a 2008

species / druh	2007			2008		
	pullus ¹	others / ostatné ²	Σ	pullus ¹	others / ostatné ²	Σ
<i>Pernis apivorus</i>	6	1	7	2	3	5
<i>Milvus migrans</i>	0	0	0	0	0	0
<i>Milvus milvus</i>	1	0	1	2	0	2
<i>Haliaeetus albicilla</i>	2	0	2	7	0	7
<i>Circus aeruginosus</i>	30	0	30	7	2	9
<i>Circus cyaneus</i>	0	4	4	0	0	0
<i>Circus pygargus</i>	9	1	10	3	0	3
<i>Accipiter gentilis</i>	33	4	37	26	6	32
<i>Accipiter nisus</i>	0	21	21	14	18	32
<i>Buteo buteo</i>	132	89	221	63	49	112
<i>Buteo lagopus</i>	0	0	0	0	0	0
<i>Aquila pomarina</i>	91	2	93	81	1	82
<i>Aquila heliaca</i>	46	0	46	51	0	51
<i>Aquila chrysaetos</i>	20	0	20	30	0	30
<i>Falco tinnunculus</i>	326	13	339	22	42	64
<i>Falco vespertinus</i>	0	0	0	0	0	0
<i>Falco columbarius</i>	0	0	0	0	0	0
<i>Falco subbuteo</i>	20	1	21	17	0	17
<i>Falco cherrug</i>	45	0	45	39	0	39
<i>Falco peregrinus</i>	44	0	44	57	0	57
Σ raptors / dravce	805	136	941	421	121	542
<i>Tyto alba</i>	10	17	27	21	19	40
<i>Otus scops</i>	0	0	0	8	3	11
<i>Bubo bubo</i>	14	0	14	23	1	24
<i>Glaucidium passerinum</i>	0	3	3	0	1	1
<i>Athene noctua</i>	0	0	0	0	4	4
<i>Strix aluco</i>	64	2	66	23	5	28
<i>Strix uralensis</i>	95	0	95	24	1	25
<i>Asio otus</i>	27	136	163	12	110	122
<i>Asio flammeus</i>	0	29	29	0	57	57
<i>Aegolius funereus</i>	8	0	8	2	0	2
Σ owls / sovy	218	187	405	113	201	314
Σ	1023	323	1346	534	322	856
Number of species / Počet druhov	24			25		

¹a chick, a young bird in the downy stage or in first plumage up to the fledging / mláďa v prachovom perí alebo v prvom perí do začiatku lietania

²including: f.g., fully grown bird where the difference between this year's nestling and older birds cannot be distinguished; 1. year, bird hatched in the year when ringed, yearling; +1. year, bird older than a year, may have been hatched last year or earlier, certainly not the same year as ringed; 2. year, bird born in the last year; +2. year, bird older than 2 years, certainly not hatched in the last year; + year, bird older than the given year / zahŕňa: f.g., úplne vyvinutý vták, nedá sa u neho určiť či sa jedná o vtáka tohtoročného, alebo staršieho; 1. rok, vták vyliahnutý v roku krúžkovania, tohtoročný mladý vták; +1. rok, vták po prvom kalendárnom roku, vták môže byť minuloročný i viac ročný, určite nie tohtoročný; 2. rok, vták vyliahnutý v minulom kalendárnom roku; +2. rok, po druhom kalendárnom roku, vták najmenej dvojročný, určite nie minuloročný; +rok/+year, vták starší ako uvedený rok

Tab. 2. Activity of ringers in ringing of raptors and owls during 2007. n – number of all ringed individuals, pull – no. of ringed nestlings from total**Tab. 2.** Aktivita krúžkovateľov dravcov a sov v roku 2007. n – počet všetkých okružkovaných jedincov, pull – počet krúžkovaných mláďat z celkového počtu

species / druh	n	pullus ¹	ringers / krúžkovatelia
<i>Pernis apivorus</i>	7	6	Šotnár (6 pull), Danko (1)
<i>Milvus milvus</i>	1	1	Maderič (1 pull)
<i>Haliaeetus albicilla</i>	2	2	Mihók (2 pull)
<i>Circus aeruginosus</i>	30	30	Kaňuščák (20), Lengyel (8), Mihók (2) – all pulli
<i>Circus cyaneus</i>	4	0	Lengyel (2), Fulín (1), Matis (1)
<i>Circus pygargus</i>	10	9	Lengyel (9 pull + 1)
<i>Accipiter gentilis</i>	37	33	Mihók (18 pull), Šotnár (11 pull), Kaňuščák (4 pull + 1), Slobodník V (2), Fulín (1)
<i>Accipiter nisus</i>	21	0	Olekšák (5), Kočí and Polanský (3 each), Dravecký (2), Dobšovič, Gálffyová, Matis, Mikšík, Slobodník V, Szentandrassy, Šiška and Vrabel (1 each)
<i>Buteo buteo</i>	221	132	Šotnár (89 pull), Mihók (40 pull), Olekšák and Matis (24 each), Danko (17), Slobodník R (6), Murin (5), Slobodník V (4), Kaňuščák (3 pull), Fulín (3), Lengyel (2), Demko, Karaska, Krišovský and Šiška (1 each)
<i>Aquila pomarina</i>	93	91	Kaňuch (31 pull), Dravecký (22 pull), Mihók (11 pull), Šotnár (11 pull), Maderič (8 pull), Danko (2 pull + 2), Karaska (3 pull), Krištín (2 pull), Slobodník V (1 pull)
<i>Aquila heliaca</i>	46	46	Danko (17), Mihók (11), Chavko (10), Šnír (8) – all pulli
<i>Aquila chrysaetos</i>	20	20	Korňan (14), Mihók (3), Šimák (2), Šnír (1) – all pulli
<i>Falco tinnunculus</i>	339	326	Mihók (301 pull + 1), Šrank (6 pull), Fecko (5 pull + 1), Chavko and Slobodník V (5 pull each), Kerestúr (4 pull), Krišovský and Olekšák (3 each), Lengyel (2), Karaska, Matis and Šiška (1 each)
<i>Falco subbuteo</i>	21	20	Mihók (19 pull), Lengyel (1 pull), Slobodník R (1)
<i>Falco cherrug</i>	45	45	Chavko (45 pull)
<i>Falco peregrinus</i>	44	44	Chavko (16), Matis (14), Šnír (12), Hošek (2) – all pulli
<i>Tyto alba</i>	27	10	Šrank (12), Kerestúr (10 pull), Lengyel (3), Olekšák (2)
<i>Otus scops</i>	0	0	
<i>Bubo bubo</i>	14	14	Mihók (9), Fábry (2), Demko, Karaska and Matis (1 each) – all pulli
<i>Glaucidium passerinum</i>	3	0	Olekšák (2), Murin (1)
<i>Strix aluco</i>	66	64	Mihók (37 pull), Slobodník V (13 pull + 2), Karaska (7 pull), Šotnár (4 pull), Baláž (3 pull)
<i>Strix uralensis</i>	95	95	Mihók (81), Karaska (10), Šotnár (4) – all pulli
<i>Asio otus</i>	163	27	Lengyel (89), Kerestúr (1 pull + 15), Mihók (13 pull), Olekšák (1 pull + 10), Matis (9), Krišovský (6 pull), Šotnár (5 pull), Fulín (1 pull + 4), Slobodník V (4), Pjenčák and Slobodník R (2 each), Murin and Vrabel (1 each)
<i>Asio flammeus</i>	29	0	Lengyel (25), Kerestúr (4)
<i>Aegolius funereus</i>	8	8	Matis (8 pull)

¹ a chick, a young bird in the downy stage or in first plumage up to the fledging / mláďa v prachovom perí alebo v prvom perí do začiatku lietania. In parentheses numbers of ringed individuals / v zátvorke počet okružkovaných jedincov.

Summary of results

In 2007, 1 346 individuals of raptors and owls were ringed in Slovakia (4.4% of all ringed birds). The species spectrum of all ringed birds includes 156 species with raptors and owls comprising 15.4% of all species (24 species). A similar percentage of raptors and birds can be seen among the ringed nestlings. In 2007, 1 023 nestlings of raptors and owls were ringed, accounting for as

much as 30.7% of the total all birds ringed nestlings. In 2008, 856 individuals of raptors and owls were ringed, comprising 2.0% from all ringed birds in Slovakia. The species spectrum of all ringed birds comprises 165 species including 15.2% raptors and owls (25 species). Ringed raptor and owl nestlings (534) represented 13.8% from total ringed bird nestlings in Slovakia. In 2007, 24 species of raptors and owls were ringed (16 species of raptors

Tab. 3. Activity of ringers in ringing of raptors and owls during 2008. n – number of all ringed individuals, pull – no. of ringed nestlings from total**Tab. 3.** Aktivita krúžkovateľov dravcov a sov v roku 2008. n – počet všetkých okružkovaných jedincov, pull – počet krúžkovaných mláďat z celkového počtu

species / druh	n	pullus ¹	ringers / krúžkovatelia
<i>Pernis apivorus</i>	5	2	Šotnár (2 pull), Fecko (2), Olekšák (1)
<i>Milvus milvus</i>	2	2	Maderič (2 pull)
<i>Haliaeetus albicilla</i>	7	7	Chavko (4), Mihók (2), Danko (1) – all pulli
<i>Circus aeruginosus</i>	9	7	Kaňuščák (4 pull), Kerestúr (3 pull), Kern and Olekšák (1 each)
<i>Circus pygargus</i>	3	3	Lengyel (3 pull)
<i>Accipiter gentilis</i>	32	26	Šotnár (13 pull + 2), Mihók (13 pull), Dravecký, Fulín, Olekšák, Slobodník V (1 each)
<i>Accipiter nisus</i>	32	14	Mihók (14 pull), Olekšák (5), Slobodník V (3), Pjenčák (2), Dobšovič, Fulín, Fecko, Hošek, Kaňuščák, Karaska, Matis, Szentandrassy (1 each)
<i>Buteo buteo</i>	112	63	Šotnár (42 pull), Mihók (21 pull), Olekšák (16), Matis (11), Danko (7), Fulín, Slobodník R (4 each), Balla, Slobodník V (2 each), Fecko, Hrdlovič and Vrábel (1 each)
<i>Aquila pomarina</i>	82	81	Kaňuch (31 pull), Dravecký, Maderič (12 pull each), Mihók (11 pull), Šotnár (8 pull), Karaska (3 pull), Danko (2 pull), Šnír, Slobodník V (1 pull each), Olekšák (1 after rehabilitation)
<i>Aquila heliaca</i>	51	51	Mihók (18), Chavko (14), Šnír (11), Danko (8) – all pulli
<i>Aquila chrysaetos</i>	30	30	Macek (13), Dravecký, Korňan, Mihók (4 each), Šimák (2), Chavko, Šnír, Šotnár (1 each) – all pulli
<i>Falco tinnunculus</i>	64	22	Slobodník V (16 pull + 5), Fecko (12), Šrank (6), Fulín (2 pull + 2), Mihók (3 pull), Olekšák, Slobodník R (4 each), Dobšovič (3), Danko (2), Lengyel (1 pull), Gálffyová, Krišovský, Matis and Mikšík (1 each)
<i>Falco subbuteo</i>	17	17	Mihók (17 pull)
<i>Falco cherrug</i>	39	39	Chavko (35), Maderič (4) – all pulli
<i>Falco peregrinus</i>	57	57	Chavko (25), Maderič (12), Šnír (9), Matis (8), Šotnár (3) – all pulli
<i>Tyto alba</i>	40	21	Kerestúr (12 pull), Hošek (9 pull), Šrank (9), Slobodník (5), Lengyel (4), Sviečka (1)
<i>Otus scops</i>	11	8	Šotnár (8 pull + 1), Šiška (2)
<i>Bubo bubo</i>	24	23	Mihók (8 pull), Matis (7 pull), Šnír (4 pull), Balla (3 pull), Šotnár (1 pull), Slobodník (1 after rehabilitation)
<i>Glaucidium passerinum</i>	1	0	Olekšák (1)
<i>Athene noctua</i>	4	0	Šnír (4)
<i>Strix aluco</i>	28	23	Slobodník V (8 pull + 1), Karaska, Šotnár (5 pull each), Fecko (3 pull), Baláž (2 pull), Šrank (2), Olekšák, Slobodník R (1 each)
<i>Strix uralensis</i>	25	24	Mihók (18 pull), Karaska (4 pull), Šotnár (2 pull + 1)
<i>Asio otus</i>	122	12	Lengyel (1 pull + 52), Kerestúr (17), Pavelčík, Pjenčák, Sviečka (10 each), Mihók (5 pull), Slobodník R (4), Balla (3 pull), Olekšák (3), Fulín (2), Hošek, Slobodník V, Šiška (1 pull each), Karaska, Šrank (1 each)
<i>Asio flammeus</i>	57	0	Lengyel (46), Sviečka (4), Kerestúr and Pavelčík (3 each), Šnír (1)
<i>Aegolius funereus</i>	2	2	Karaska (2 pull)

¹ a chick, a young bird in the downy stage or in first plumage up to the fledging / mláďa v prachovom perí alebo v prvom perí do začiatku lietania. In parentheses numbers of ringed individuals / v zátvorke počet okružkovaných jedincov.

and 8 species of owls) with a total of 1 346 individuals (Tab. 1). This number includes 1023 nestlings (76.0%). The five most abundant species of raptors and owls were presented by more than 90 individuals. This was the first recorded example of such a prevalence in the history of

our data collection. Five most frequently ringed species comprised 911 individuals or 67.7% of all raptors and owls ringed in 2007. The most dominant species included *Falco tinnunculus*, *Buteo buteo*, *Asio otus*, *Strix uralensis* and *Aquila pomarina*.

Tab. 4. Individuals ringed abroad, sighted in Slovakia

Tab. 4. Jedince krúžkované v zahraničí zastihnuté na Slovensku

species ¹	ring no. / age, sex ²	date of ringing / recovery ³	site of ringing / recovery ⁴	distance/ time [y m d] ⁵	finder / note ⁶
<i>Pandion haliaetus</i>	HELSINKI M 54372 pull.	2 Jul 2006 18 Apr 2008	Uusimaa (FIN) Budmerice (SVK)	1463 km 1y 9m 16d	P. Puchala wounded, released / poranený, vypustený 16. 6. 2008
<i>Accipiter nisus</i>	HELSINKI S 255365 F, fg, odchyt	22 Aug 2005 18 Jan 2007	Uusimaa (FIN) Senica (SVK)	1292 km 1y 4m 27d	Ondrovič trapped, released / odchytený, vypustený
<i>Falco cherrug</i>	BUDAPEST LY 00219 pull.	21 May 2008 21 Aug 2008	Jász–Nagykon–Szol- nok (HU) Senec (SVK)	239 km 3m 1d	J. Chavko wounded / poranený
<i>Falco peregrinus</i>	GDANSK DA 22323 F, pull.	11 Jul 2008 2 Aug 2008	Malopolskie (PL) Námestovo (SVK)	74 km 22d	R. Trnka wounded / poranený
<i>Falco tinnunculus</i>	HELSINKI S 29185 pull.	14 Jun 2008 16 Nov 2008	Turku/Pori (FIN) Komárno (SVK)	1479 km 5m 2d	dead, electrocuted / uhynutý po náraze na el. vedenie
<i>Falco tinnunculus</i>	PRAHA EX 76127 pull	6 Jun 2007 25 May 2008	Plzeň (CZ) Galanta (SVK)	352 km 11m 19d	A. Vďačný dead / uhynutý
<i>Tyto alba</i>	PRAHA D 175492 pull.	28 Sep 2007 13 Feb 2008	Hodonín (CZ) Skalica (SVK)	16km 4m 16d	L. Priatková dead on road / uhynutý na ceste
<i>Tyto alba</i>	PRAHA D 172681 1 year	23 Oct 2007 4 Mar 2008	Uherské Hradište (CZ) Sliač (SVK)	117 km 4m 9d	cf. M. Adamec dead on airport / uhynutý na letisku
<i>Asio otus</i>	PRAHA D 174051 F, fg	30 Aug 2007 2 Apr 2008	Uherské Hradište (CZ) Turčianske Teplice (SVK)	91 km 7m 3d	M. Boďová freshly dead / čerstvo uhynutá
<i>Asio flammeus</i>	HIDDENSEE EA 148069 F, 1 year	15 Oct 2008 2 Nov 2008	Ostvorpommern (D) Nové Zámky (SVK)	746 km 18d	J. Lengyel controlled and released by a ringer / kontrolovaná a vypustená

¹ druh; ² číslo krúžku / vek, pohlavie; ³ dátum krúžkovania / nálezu; ⁴ lokalita krúžkovania / nálezu; ⁵ vzdialenosť preletu [km] / čas [roky.mesiace.dni]; ⁶ nálezca / poznámka

In 2007, the quantity of ringed raptors was noticeably higher than the number of ringed owls; 941 raptors and 405 owls were ringed, with owls comprising 30.1% of the evaluated species spectrum. The percentage of ringed nestlings is also higher within raptors in comparison to owls; 805 raptor nestlings (78.7%) and 218 owl nestlings (21.3%) were ringed. In 2008, 25 species of raptors and owls were ringed (including 15 raptor species and 10 owl species). 856 individuals were ringed (Tab. 1) of which 534 were nestlings, comprising 62.5% of all ringed raptors and owls. In 2008, the most frequently ringed species of

raptors and owls included: *Asio otus*, *Buteo buteo*, *Aquila pomarina*, *Asio flammeus* and *Falco peregrinus*.

The total numbers of ringed raptors and owls in 2008, as well as the total number of ringed nestlings, decreased to 63.6% of the 2007 level. The number of owls in the total was lower than in 2007, but formed a higher proportion. Raptors comprised 542 individuals (36.6%) and owls 314 individuals (33.6%) from the studied group. Raptor nestlings comprised 77.9% of all ringed raptors (421 individuals) and owl nestlings comprised 36.1% (113 individuals). In total 37 bird ringers have marked 1023 nestlings and

Tab. 5. Individuals ringed in Slovakia and recorded abroad.**Tab. 5.** Jedince krúžkované na Slovensku a zaregistrované v zahraničí

species ¹	ring * no. / age, sex ²	date of ringing / recovery ³	site of ringing / recovery ⁴	distance/ time [y m d] ⁵	finder / note ⁶
<i>Haliaeetus albicilla</i>	BRATISLAVA A 830	31 May 2005	Klokočov (SVK)	157 km	Š. Danko
		27 April 2007	Tiszacsege (HU)	150 km	J. Tar; ring read from distance / odčítaný krúžok
		1 Febr. 2008	Újszentmargita	140 km	
<i>Haliaeetus albicilla</i>	BRATISLAVA A 938 pull.	11 Jun 2006	Michalovce (SVK)	214 km	J. Mihók
		9 Jun 2007	Jász–Nagykom–Szolnok (HU)	11m30d	freshly dead, electrocuted / čerstvo uhynutý po náraze na el. vedenie
<i>Accipiter gentilis</i>	BRATISLAVA D 2887 F, pull.	30 May 2007	Košice (SVK)	124 km	J. Mihók
		17 Sep 2007	Podkarpacie (PL)	3m18d	freshly dead, electrocuted / čerstvo uhynutý po náraze na el. vedenie
<i>Buteo buteo</i>	BRATISLAVA D 2868 pull.	25 May 2007	Košice (SVK)	51 km	J. Mihók
		15 Feb 2008	Borsód–Abaúj–Zemplén (HU)	8m21d	not freshly dead / uhynutý dlhšiu dobu
<i>Buteo buteo</i>	BRATISLAVA D 2892 pull.	31 May 2007	Košice (SVK)	248 km	J. Mihók
		30 Jan 2008	Bács Kiskun (HU)	8m	freshly dead / čerstvo uhynutý
<i>Aquila pomarina</i>	BRATISLAVA BL 04 pull.	3 Jul 2004	Partizánske (SVK)	76 km	L. Šnír
		29 Jun 2008	Nógrád (HU)	3y11m26d	ring read from distance / odčítaný krúžok ďalekohľadom (!)
<i>Aquila pomarina</i>	BRATISLAVA BL 463 pull.	10 Jul 2006	Košice (SVK)	1628 km	J. Mihók
		29 Apr 2007	Espiye, Giresun (TUR)	9m19d	wounded (broken wing), consistent / poranený (zlomené krídlo) a následne utratený
<i>Aquila heliaca</i>	BRATISLAVA A 010 pull.	18 Jun 2004	Topolčany (SVK)	94 km	L. Šnír
		13 Jul 2007	Győr–Moson–Sopron (HU)	6y21d	freshly dead (poisoned through chemical pollution) / čerstvo uhynutý (chemicky otrávený)
<i>Aquila heliaca</i>	BRATISLAVA A 523 pull.	22 Jun 2001	Nitra (SVK)	169 km	L. Šnír
		20 Oct 2007	Fűzesabony (HU)	3y4m2d	wounded, later released / poranený, neskôr vypustený
	pull.	27 Apr 2007	Tiszacsege (HU)	1y10m27d	ring read from distance / odčítaný krúžok ďalekohľadom
<i>Aquila heliaca</i>	BRATISLAVA A 835 pull.	30 Jun 2005	Michalovce (SVK)	195 km	Š. Danko
		10 Apr 2007	Törökszentmiklós (HU)	1y9m11d	freshly dead (chemically poisoned) / čerstvo uhynutý (chemicky otrávený)

323 other raptors and owls (Tab. 1, 2) in 2007 and 534 nestlings and 322 other raptors and owls in 2008 (Tab. 1, 3). The comparison of the studied years shows a marked decline of the number of ringed raptor and owl nestlings

by as much as 48.2%, whereas the number of ringed raptors and owls in the category „other“ remained almost the same (Tab. 1). In the period 2007–2008, approximately 900 recovery reports were collected. Most records came

Tab. 5. continuation / pokračovanie

species ¹	ring * no. / age, sex ²	date of ringing / recovery ³	site of ringing / recovery ⁴	distance/ time [y m d] ⁵	finder / note ⁶
<i>Aquila heliaca</i>	BRATISLAVA A 978 pull.	26 Jun 2005 5 Apr 2007	Pezinok (SVK) Győr–Moson–Sopron (HU)	84 km 1y9m10d	J. Chavko wounded, electrocuted / poranení po náraze na el. drôty
<i>Aquila heliaca</i>	BRATISLAVA A 2116 pull.	9 Jun 2007 20 Nov 2007	Nové Mesto n/Váhom (SVK) Našice (CRO)	354 km 5m11d	J. Chavko found wounded, bad condition / nájdený poranení, v zlej kondícii
<i>Aquila heliaca</i>	BRATISLAVA A 1664 pull.	21 Jun 2007 15 Feb 2008	Michalovce (SVK) Sabac (SRB)	462 km 7m25d	J. Mihók found shot-up, rehabilitate in ZOO Palic, 4.4.2008 released in Frushka Gora / nájdený postrelený, rehabilitovaný v ZOO Palic, 4. 4. 2008 vypustený v NP Frushka Gora
<i>Falco tinnunculus</i>	BRATISLAVA H 11491 pull.	20 May 2007 17 Sep 2007	Košice-okolie (SVK) Kutná Hora (CZ)	448 km 3m28d	J. Mihók found wounded / nájdený poranení
<i>Falco tinnunculus</i>	BRATISLAVA H 2862 F, 2 year	22 Aug 2006 2 Jun 2008	Sobrance (SVK) Kuopio (FIN)	1642 km 1y9m11d	Š. Danko found in nest box, incubate on 6 eggs / nájdený v búde, inkubujúci znášku 6 vajec
<i>Falco peregrinus</i>	BRATISLAVA D 2470 pull.	18 May 2005 28 May 2008	Zvolen (SVK) Košice (SVK)	143 km 3y10d	J. Chavko controlled and released by a ringer / kontrolovaný a vypustený
<i>Bubo bubo</i>	BRATISLAVA B 427 pull.	11 May 2004 16 Oct 2007	Košice (SVK) Borsód-Abaúj-Zemplén (HU)	21 km 3y5m7d	J. Mihók dead, electrocuted / uhynutý po náraze na el. vedenie
<i>Bubo bubo</i>	BRATISLAVA B 650 pull.	21 May 2006 7 May 2007	Prešov (SVK) Borsód-Abaúj-Zemplén (HU)	65 km 11m17d	J. Mihók dead, electrocuted / uhynutý po náraze na el. vedenie

¹ druh; ² číslo krúžku / vek, pohlavie; ³ dátum krúžkovania / nálezu; ⁴ lokalita krúžkovania / nálezu; ⁵ vzdialenosť preletu [km] / čas [roky.mesiace.dni]; ⁶ nálezca / poznámka; * Slovak ornithological aluminium rings: N. MUSEUM BRATISLAVA SLOVAKIA. Evidence led by SOS/BirdLife Slovakia / Slovenské ornitologické hliníkové krúžky : N. MUSEUM BRATISLAVA SLOVAKIA. Evidencia vedená SOS/BirdLife Slovensko

from Hungary, Czech Republic, Poland and Austria. The majority of recovery reports include swans and gulls based on the readings of colour rings or neck rings obtained using a monocular. In the period 2007–2008, 28 recovery reports of raptors and owls were collected, comprising only 3.1% of all recovery reports. To increase the number of recovery

reports of owls and raptors, a combination of traditional ringing with modern methods of raptor tagging is needed. The results of raptors and owls ringed in other countries and recorded in Slovakia are presented in Tab. 4. The data about the individual raptors and owls ringed in Slovakia and sighted abroad are presented in Tab. 5.

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