The migration of Wood Pigeon (Columba palumbus) and Turtle Dove (Streptopelia turtur) in Hungary

Bankovics, Attila Hungarian Natural History Museum Baross u. 13 1088 Budapest. Hungary

E-mail: bankovic@zoo.zoo.nhmus.hu

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Hungarian hegaztiei eraztuna jartzeko bulegoan bildutako Pagausoaren eta Usapalaren berreskurapenak aztertu dira. Espezie bakoitzean 29 berreskuratu dira. Emaitzek erakutsi dutenez, pagausoek udazkenero Hegomendebalderantz jotzen dute Hungaria atzean utzita. Berreskurapenak Italia eta Frantziaren hegoaldetik jakinarazi ziren. Usapalak ere alde egiten du udazkenero, baina beste bide bat hartuta: Hegoaldea, Hego-hegoekialdea eta Hego-hegomendebaldea. Batez ere Hegoalderantz abiatzen dira, Grezia, Italiaren hegoaldea eta Malta zeharkatuz, Afrikaren iparraldeko kostaldera heltzeko.

Giltz-Hitzak: Eraztuna. Migrazioa. Pagausoa. Usapala. Korsika. Sardinia.

Se analizan las recuperaciones de Paloma Torcaz y Tórtola Común almacenadas en la Oficina de Anillamiento de Aves húngara. Se han recopilado 29 recuperaciones para cada especie. Los resultados muestran que las palomas torcaces abandonan Hungría en dirección suroeste durante el otoño. Las recuperaciones fueron comunicadas desde Italia y Francia meridional. La migración otoñal de la Tórtola Común tiene una dirección diferente, hacia sur, sur-sureste y sur-suroeste. Migran principalmente hacia el sur, cruzando Grecia, Italia meridional y Malta hasta la costa norteafricana.

Palabras Clave: Anillamiento. Migración. Paloma Torcaz. Tórtola Común. Córcega. Cerdeña.

Les récupérations accumulées dans l'office hongroise de baguage d'oiseaux de Pigeon Ramier et de Tourterelles des Bois ont éte analysées. 29 observations de chaque espèce ont été compilées. Les résultats montrent que les pigeons ramiers quittent la Hongrie en direction du sud-ouest en automne. Les récupérations ont été communiquées depuis l'Italie et la France méridionale. La direction de la migration automnale de la Tourterelle des Bois est différente, dirigée vers le sud sud-est et le sud sud-ouest. Elles migrent principalement vers le sud, traversant la Grèce, l'Italie méridionale et Malte vers la côte nord-africaine.

Mots Clés: Baguage. Migration. Pigeon Ramier. Tourterelle des Bois. Corse. Sardaigne.

1. INTRODUCTION

The bird ringing activity in Hungary has begun rather early in the last century, in 1908. In spite of this long period doves and pigeons were ringed relatively in small number. The number of recoveries of course is even much less. In my presentation I would like to speak only about the ringing results of Wood Pigeon and Turtle Dove.

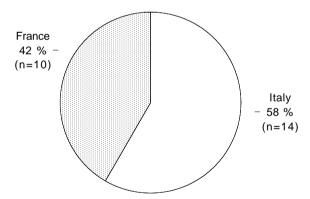
2. WOODPIGEON

Twenty nine recoveries of Wood Pigeons (*Columba palumbus*) are documented in the Hungarian Ringing Centre. The first one was ringed in 1913 and the last one was found in 1997, thus the data analysed cover 85 years. From the total of 29 records there are five short-distance recoveries. These birds were ringed and captured inside the Carpathian basin in Hungary. The remaining 24 long-distance recoveries are divided between Italy (14 recoveries) and France (10 recoveries; table 1., fig. 1).

Table 1. The timing of longdistance recoveries of Hungarian ringed Wood Pigeon.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Italy		4	1							6	3		14
France	2	4								1	3		10
Total	2	8	1							7	6		24

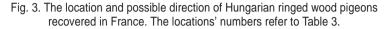
Fig. 1. The number of Hungarian ringed wood pigeons recovered in Italy and France.



This amount of data is not quite enough to get statistically exact results. Despite of this they show the tendencies, the general directions of migration, therefore we can make a preliminary study. The Wood Pigeon migrate from Hungary at end of September and October. As the ringing results show they arrive in Italy in October and they can fly either further to southern France along the coastline or crossing the Ligur Sea to Corsica and Sardinia. Until now there are not any recoveries from the Iberian peninsula.

The French recoveries (fig. 3, table 3, table 5) show a very interesting migration pattern. From the ten recoveries only three came from the continent, the remaining seven came from Corsica. The longest distances of recoveries -more than 1.500 kilometres- came from Sima-

courbe and Eauze from Southern France. The time pattern of the seven Corsican record show two captures from January, that means that this area probably is one of the wintering places of Hungarian woodpigeons.



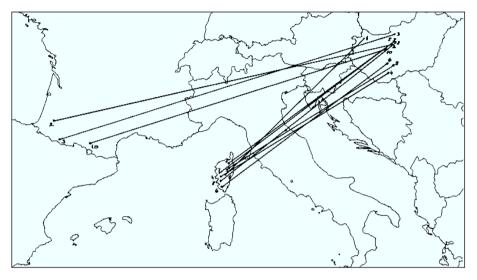


Table 3. The ringing and recovery locations of Hungarian ringed wood pigeons found in France.

1.	Lébénymiklós	Pancheraccia, Corsica
2.	Dömsöd	Eauze
3.	Vác	Simacourbe
4.	Szekszárd	Plateau D'eze, Corsica
5.	Alsónémedi	Vico, Corsica
6.	Tengelic	Sarténe, Corsica
7.	Alsónémedi	Arbellara, Corsica
8.	Ócsa	Pieve, Corsica
9.	Harta	Antisante, Corsica
10.	Sárszentmihály	Paulinat

Table 5. The ringing and recovery dates, locations and distances travelled for Hungarian ringed wood pigeons and found in France.

Ringed			Distance	
When	Where	When	Where	(km)
14 Aug 1932	Lébénymiklós	05 Feb 1933	Pancheraccia, Corsica	885
11 Aug 1986	Dömsöd	04 Nov 1987	Eauze	1.515
07 Sep 1978	Vác	06 Nov 1978	Simacourbe	1.573
14 Jul 1982	Szekszárd	24 Feb 1985	Plateau D'eze, Corsica	917
29 Jun 1980	Alsónémedi	06 Feb 1981	Vico, Corsica	999
09 Jul 1981	Tengelic	21 Jan 1984	Sartene, Corsica	951
03 Aug 1980	Alsónémedi	09 Feb 1981	Arbellara, Corsica	1.022
16 Jul 1989	Ócsa	14 Okt 1990	Pieve, Corsica	944
21 Aug 1990	Harta	19 Jan 1992	Antisanti, Corsica	919
24 Jun 1992	Sárszentmihály	08 Nov 1992	Paulinat	1.300

From the fourteen Italian recoveries (fig. 2, table 1, table 2, table 4) four came from Sardinia and the rest from the Appeninian Peninsula. There aren't any midwinter records (December and January) from Italy. It means that either the birds were only on their migration routs or the hunting activity was less in Italy in December and January.

Fig. 2. The location and possible direction of migration of Hungarian wood pigeons ringed in the Carpathian-basin and recovered in Italy. The locations' numbers refer to Table 2.

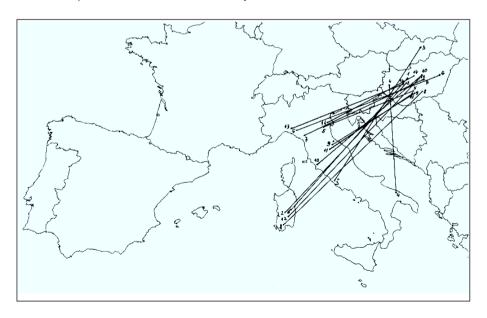


Table 2. The ringing and recovery locations of Hungarian ringed wood pigeons found in Italy.

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1. 1.	Iszkaszentgyörgy	Nuoro, Sardinia
2.	Balatonvilágos	Pian Di Spilli, Sardinia
3.	Kürt	Roma
4.	Egervár	Bari
5.	Dunaszentgyörgy	S. Agata, Sul Santermo
6.	Nagyiván	Campiglia, Marittima
7.	Jászalsószentgyörgy	San Vittore, Gambassi Terme
8.	Balástya	Santo (Monte), Pula, Sardinia
9.	Fadd	Serra Di Senatello
10.	Tápiószele	Montebottigli
11.	Mözs	Arezzo
12.	Lajosmizse	Montes, Nuoro, Sardinia
13.	Siófok	Centocroci, Tornolo
14.	Apaj	Valle Giralda, Codigoro

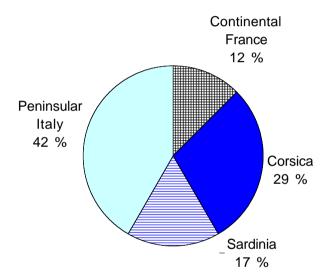
Table 4. The ringing and recovery dates, locations and distances travelled for Hungarian wood pigeons ringed in the Carpathian-basin and found in Italy.

R	inged		Found			
When	Where	When	Where			
14 Aug 1958	Iszkaszentgyörgy	21 Feb 1960	Nuoro, Sardinia	1.053		
09 Jul 1959	Balatonvilágos	15 Feb 1960	Pian Di Spilli, Sardinia	1.072		
08 Jul 1937	Egervár	11 Mar 1938	Bari	646		
16 Aug 1980	Dunaszentgyörgy	17 Okt 1983	S. Agata Sul Santermo	592		
10 Jul 1983	Nagyiván	07 Okt 1985	Campiglia Marittima	944		
06 Jul 1984	Jászalsószentgyörgy	20 Nov 1985	San Vittore, Gambassi Terme	832		
27 Jun 1987	Balástya	03 Feb 1991	Santo (Monte), Pula, Sardinia	1.220		
07 Jul 1979	Fadd	08 Okt 1981	Serra Di Senatello, Pesaro	594		
04 May 1983	Tápiószele	25 Nov 1984	Montebottigli	856		
27 May 1982	Mözs	02 Okt 1983	Arezzo	630		
27 May 1983	Lajosmizse	13 Nov 1983	Montes, Nuoro, Sardinia	1.136		
23 Jul 1989	Siófok	15 Okt 1990	Centocroci, Tornolo	712		
29 Jun 1991	Apaj	21 Feb 1992	Valle Giralda, Codigoro	589		
06 Jul 1928	Kürt	13 Okt 1931	Roma	884		

Conclusions are:

- According to the ringing results the main autumn migration rout of the Hungarian Wood Pigeon population lead to the south-west direction.
- The 58,3 % (14) of the long-distance recoveries came from Italy and the 41,7 % (10) came from France.
- Corsica and Sardinia play an important role in the Wood Pigeon migration. 11 longdistance recoveries came from these two islands (fig. 4).
- Until now there was not any recoveries from the real supposed wintering places.
- Although Corsica may be one of the wintering place of Hungarian wood pigeons because of the two recoveries from mid-winter time (January).

Fig. 4. The location and distribution of the migrating and wintering (?) wood pigeons from the Hungarian population, showing the relative importance of Corsica and Sardinia.



3. TURTLE DOVE

Similarly to the Wood Pigeon, also 29 recoveries of Turtle Doves (*Streptopelia turtur*) are documented in the Hungarian Ringing Centre. The first-one was ringed 12 June, 1927 and the last one was captured 10 September, 1996, thus the data analysed here cover 69 years.

The Turtle Dove wintering place stretches horizontally from Senegal to Eritrea, in the Sahel zone south from the Sahara (Cramp, 1985). Until now there is not any recovery of the Hungarian population of Turtle Dove from their wintering place.

From the total of 29 records there are ten short-distance and 19 are long-distance recoveries. I deal only with the later 19 long-distance data. Of course that amount of recoveries is not enough to get a complete picture about the migration, but is enough to outline the situation and to show the tendencies.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Greece				3	1				5				9
Yugoslavia								1					1
Malta			2										2
Italy			1	1					1				3
Egypt									1				1
Libya									1				1
Total			6	2				1	8				17

Table 6. The timing of long-distance recoveries of Hungarian ringed Turtle Dove.

In Hungary the Turtle Dove gatherings are high in number in August before they migrate south. Their gathering places usually follow the sunflower fields. That time, in August, the sunflower seeds ripen and this food gives the biggest supply of their fat deposit for the migration. They are in very good condition in August. Investigating some hundred birds I found high fat deposit in each specimen. These facts are supported by Rékási (1979). He studied in a 900 ha large sunflower field in August and he found around 7.000 Turtle Doves feeding in smaller groups in that area. He dissected a specimen and found 159 sunflower seeds in its crop and glizzard. During the course of September their number is gradually decreasing. At the end of September and in early October hardly to see any of them in Hungary (table 6).

Fig. 6. The location and possible direction of migration of Hungarian ringed turtle doves recovered in Greece. The locations' numbers refer to table 7.

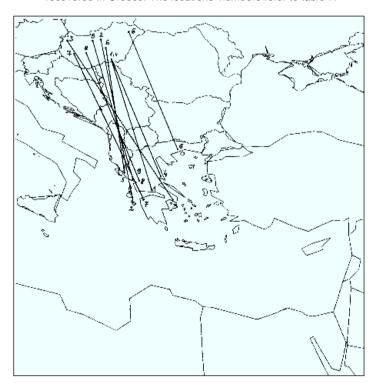


Fig. 7. The location and possible direction of migration of Hungarian ringed turtle doves recovered in Italy, Malta, Yugoslavia, Libya and Egypt. The locations' numbers refer to table 7.

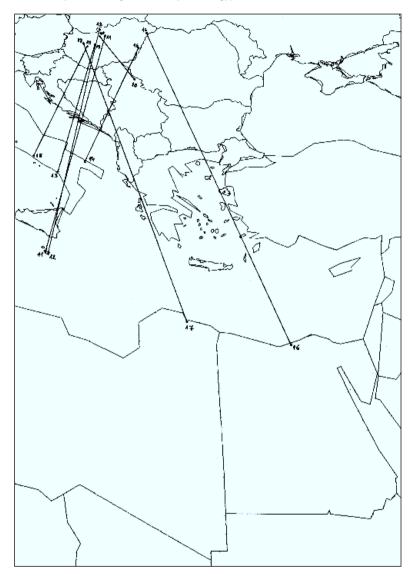


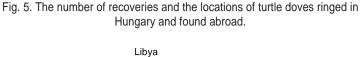
Table 7. The ringing and recovery locations of Hungarian ringed turtle doves found in Greece, Yugoslavia, Malta, Italy, Egypt, Libya.

1.	Szeged, Fehér-tó	Sterea Ellas	GR
2.	Gödöllö	Zakinthos	GR
3.	Nagylozs	Athen	GR
4.	Szeged	Volos	GR
5.	Tápiószele	Gaion, Paxi Is.	GR
6.	Sóstóhegy	Kabala	GR
7.	Egervár	Bolines Ano, Zante	GR
8.	Siófok, Töreki-puszta	Mytikas, Preveza, Epirus	GR
9.	Budakeszi	Preveza	GR
10.	Budapest	Velike Livade, Srpska Crnja	YU
11.	Gödöllı	Gudja	ML
12.	Szokolya-Királyrét	Marsaxlokk	ML
13.	Iszkaszentgyörgy	Caselvelino	1
14.	Geszt	S. Lucia Di Brindisi	1
15.	Veszprém	Casacella, Giugliano In Campan.	1
16.	Bátorliget	Sidi Kreir, Alexandria	EG
17.	Ajka	Tobruk	LIB

As we can see in fig. 6 and fig. 7, most of the turtle doves ringed in Hungary migrate to South, South-southeast, and a little bit to South-southwest. According to the direction of theoretical lines we can divide into two groups of the long-distance data. Five of them (29 %) fly to the South-southwest, and the rest twelve (71 %) fly to the South-southeast (table 7).

The birds flying to South-southwest are crossing southern Italy and Malta. They supposedly migrate further in the same direction crossing the Mediterranean Sea and reach the southern seacoast in Tunisia and western part of Libya, and they are continuing their way to the wintering place with a trans Saharan flight.

The more common other direction crossing Greece and supposedly into the same direction crossing the Mediterranean Sea and reach the southern cost of the Mediterranean Sea in Egypt and eastern part of Libya, then crossing the Sahara to the Sahel zone (fig. 5, table 8).



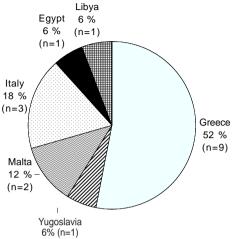


Table 8. The ringing and recovery date, location and distance travelled for Hungarian ringed turtle doves found in Greece, Yugoslavia, Malta, Italy, Egypt and Libya.

Ri	inged		Found [Distance (km)
When	Where	When	Where	
20 Jun 1952	Szeged, Fehér-tó	23 Apr 1954	Sterea Ellas, Greece	910
08 Sep 1953	Gödöll_	26 Apr 1957	Zakinthos, Greece	1.183
21 Jul 1930	Nagylozs	18 Sep 1930	Athén, Greece	1.210
22 Jun 1929	Szeged	14 May 1930	Bolos, Greece	796
01 Jul 1932	Tápiószele	03 Sep 1932	Giaon, Paxi Is., Greece	906
16 Jul 1937	Sóstó-hegy	15 Sep 1937	Kabala, Greece	815
30 Jun 1936	Egervár	20 Apr 1946	Bolines Ano, Zante, Greece	1.056
13 Aug 1988	Siófok-Töreki puszta	08 Sep 1990	Mytikas, Preveza, Epirus, Greece	903
23 Sep 1980	Budakeszi	18 Sep 1981	Preveza, Greece	960
23 Jul 1977	Budapest	15 Aug 1977	Velike Livade, Srpska Crnja, Yugo	slavia 250
01 May 1976	Gödöll_	29 Apr 1977	Gudja, Malta	1.370
13 Aug 1982	Szokolya-Királyrét	23 Apr 1984	Marsaxlokk, Malta	1.391
25 Jul 1958	Iszkaszentgyörgy	10 May 1959	Caselvelino, Italy	828
04 Jun 1947	Geszt	24 Sep 1948	S. Lucia Di Brindisi, Italy	752
15 Jun 1992	Veszprém	15 Apr 1994	Casacella, Giuliano In Champan,	Italy 751
30 Jul 1995	Bátorliget	13 Sep 1995	Sidi Kreir, Alexandria, Egypt	1.971
03 Jul 1992	Ajka	10 Sep 1996	Tobruk, Libya	1.761

We have also two recoveries of turtle doves, ringed in Italy and these are the only two ringed Columbidae specimens banded in abroad and found in Hungary. Both were ringed in Italy during the spring migration and were found in Hungary in the gathering period in August each in the same year as they were banded.

Conclusions are:

- The autumn migration of the Hungarian Turtle Dove population lead mainly to South, South-southeast and South-southwest.
- They reach the southern coast of the Mediterranean Sea in Libya and in Egypt.
- Until now there are not any recoveries from the wintering place.

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