INFORMATION

SE EUROPEAN BIRD MIGRATION NETWORK
Workshop 1-3 July 2005, Przebendowo, Poland

30 participants from 12 countries took part in the 7th SEEN workshop. For the first time we had guests working on the Western flyway – a group of Spanish ornithologists. In total, there were 26 presentations that included station reports and several presentations on specific topics that composed two sessions – "*Birds on migration*" and "*Directional preferences of migrants – methods, results*". As this time the meeting was in summer, a special technical session was organized. Participants could learn on and discuss work procedures at the bird ringing stations.

Friday, 1 July 2005

PRESENTATIONS

Reports and information / Ringing results

RINGING RESULTS OF BIOLOGICAL STATION "RYBACHY" AT THE COURISH SPIT IN YEAR 2004

Nadejda Zelenova (Russia)

Biological Station Rybachy, Zoological Institute, Russian Academy of Sciences

During 2004, in total 47 587 birds of 106 different species were ringed at the Courish Spit. It is only 43.9% of our maximum reached in 1983, and slightly higher than yearly average for 1956-2003.

Most birds – 59% were caught with big Rybachy-type traps (27 865 birds of 91 species); 23% (11 060 birds of 75 species) – with mist-nets in Rybachy, 3% (1 582 birds of 25 species) were ringed as nestlings in nests or in nestboxes, and 15% were trapped with a use of other methods.

Comparatively numerous species were: the Reed Warbler (*Acrocephalus scirpaceus*) – 62.9% of yearly maximum registered at our place; the Middle Spotted Woodpecker (*Dendrocopus medius*) – maximum of 9 birds was reached second time after the year 2001; the Lesser Woodpecker (*Dendrocopus minor*) – 89% of maximum registered; the Barn Swallow (*Hirundo rustica*) – 86.8%; the Red-backed

Shrike (*Lanius collurio*) – 61.5%; the Red Crossbill (*Loxia curvirostra*) – 68.2%; the Marsh Tit (*Parus palustris*) – 68.2%; the Chiffchaff (*Phylloscopus collybita*) – 72.6% and the Blackcap (*Sylvia atricapilla*) – 61.8%. Birds of some species rare for the region were trapped, *e.g.* 3 indiv. of the Short-toed Treecreeper (*Certhia brachydactyla*), 1 indiv. of the Booted Warbler (*Hippolais calligata*), 1 indiv. of the Two-barred Crossbill (*Loxia leucoptera*), 7 indiv. of the Greenish Warbler (*Phylloscopus trochiloides*) and 5 indiv. of the Firecrest (*Regulus ignicapillus*).

Among ringed birds, 1781 individuals of 54 bird species were retrapped (caught at least twice in the same year), hence 2780 retraps were recorded. 487 birds of 39 species ringed at the Courish Spit before 2004 were retrapped in 2004.

152 birds of 27 species with foreign rings were controlled, and 114 birds of 27 species, ringed at the Courish Spit, found abroad. The most interesting recoveries were: a Reed Warbler that flew from the Courish Spit to Belgium in 9 days (more than 1200 km), a Swallow from South Africa (9461 km), a Thrush Nightingale from Kenya (6689 km), *etc.*

Some aspects of migration timing and dynamics were discussed.

RINGING RESULTS OF VENTĖS RAGAS ORNITHOLOGICAL AND NERINGA BIRD RINGING STATIONS (LITHUANIA) IN 2004

Ričardas Patapavičius, Vytautas Jusys and Vytautas Pareigis (Lithuania)

R. Patapavičius, Lithuanian Bird Ringing Centre, Zoological Museum, Lithuania; V. Jusys, Ornithological Station, Ventės Ragas, Lithuania; V. Pareigis, Miško g. 4, Juodkrantė, LT-93102 Neringa, Lithuania

Ventės Ragas Ornithological Station is located in the western part of Lithuania (55°21'N, 21°13'E). The station operated all year round. Different traps (one "Great" trap, four "Zigzag" traps, mist-nets and other traps) were used for catching birds. A total of 75 520 birds of 121 species were ringed. The most numerous (2000 birds ringed) species were: the Great Tit (*Parus major*) – 20 316, Blue Tit (*Parus caeruleus*) – 14 539, Starling (*Sturnus vulgaris*) – 5233, Chaffinch (*Fringilla coelebs*) – 4434, Goldcrest (*Regulus regulus*) – 4159, Barn Swallow (*Hirundo rustica*) – 3212, Robin (*Erithacus rubecula*) – 2847, Coal Tit (*Parus ater*) – 2738, Long-tailed Tit (*Aegithalos caudatus*) – 2526, Willow Warbler (*Phylloscopus trochilus*) – 2302. A total of 420 recoveries and recaptures of birds of 32 species ringed at the station were reported abroad in 2004. They were recovered or recaptured in 20 countries of Europe and Asia (Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Israel, Latvia, Lebanon, the Netherlands, Poland, Russia, Spain, Sweden, Switzerland, Turkey and the United Kingdom). Number of foreign ringed birds trapped at the station was: 101 birds of 19 species ringed in 14 countries (Belgium, Estonia, Finland, France, Germany, Italy, Latvia, the Netherlands, Poland, Russia, Slovenia, Spain, Sweden and the United Kingdom).

Neringa Bird Ringing Station is located on the Courish (Curonian) Spit, which is a narrow land between the Baltic Sea and the Courish (Curonian) Bay. The station has two field stations – Neringa Field Station and Juodkrant Field Station.

Neringa Field Station with one Rybachy type trap is located *ca* 30 km from the northern tip of the spit (55°27'N, 21°04'E). The trap is adopted to catch birds flying in south-west direction. In 2004 the station operated from 17 September till 12 November.

Juodkrant Field Station is located on the coast of Courish Bay just *ca* 0.5 km to the north from the Juodkrant settlement (55°31'N, 21°07'E). In 2004 the station operated from 12 April till 15 June and from 29 July till 1 November. Birds were trapped with mist-nets. An overall length of all mist-nets was *ca* 230 m.

A total of 8939 full-grown birds of 85 species were trapped and ringed at Neringa Bird Ringing Station. The most numerous (>200 birds ringed) species were: the Great Tit – 2810, Robin – 2276, Blue Tit – 947, Reed Warbler (*Acrocephalus scirpaceus*) – 335, Goldcrest – 273, Long-tailed Tit – 245, Siskin (*Carduelis spinus*) – 218, Chaffinch – 211. A total of 94 recoveries and recaptures of birds of 12 species ringed at the station were reported abroad in 2004. They were recovered or recaptured in 10 countries (Belgium, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Italy, Poland, Russia and the United Kingdom). 14 birds of 5 species ringed in 6 countries (Belgium, Estonia, Latvia, Russia, Sweden and the United Kingdom) were recovered at the station.

RINGING RESULTS OF TUROV RINGING STATION IN 2000-2004

Dimitri Zhuravliev (Belarus)

Institute of Zoology NAS, Turov Bird Ringing Station, Belarus

Study area is located in Southern Belarus in Middle Pripyat (Central Polessia). We caught birds on small island of about 1 km^2. About 60% of this island are flood plain meadows, 20% is fen mire with sedges (*Carex sp.*) and willow bushes (*Salix sp.*), and 20% is oak forest.

From 2000 till 2002 the ringing station worked on the island. Each year nets were located at the same places. We used on average 250 m of mist-nets (min – 150 m in 2000, max – 373 m in 2001). In 2003 ringing was carried out *ca* 0.5 km from previous place, and birds were caught with traps and mist-nets (about 70 m). In 2004 ringing was carried out in Turov vicinity (20 km from the ringing station) sporadically, not every day, during morning hours (Table 1).

In total 10 226 birds of 98 species were caught and ringed. A bird species list and number of caught individuals are given in Table 2. The most numerous species was the Chiffchaff (*Phylloscopus collybita*) – 17.4% of the total number of caught birds (2000-2002 data). The most common species were: the Great Tit (*Parus major*), Blue Tit (*Parus caeruleus*), Robin (*Erithacus rubecula*), Willow Warbler (*Phylloscopus trochilus*) and Blackcap (*Sylvia atricapilla*). A number of orientation experiments were performed (Table 3).

Table 1
Ringing activities terms

Year	Date
2000	31 Aug. – 17 Sep.
2001	1 Aug. – 17 Oct.
2002	15 Aug. – 18 Sep.
2003	11 Jun. – 8 Sep.
2004	24 Aug. – 10 Oct.

Table 2
Number of birds caught in different years

	2000	2001	2002	2003	2004	**Total**
Ixobrychus minutus	-	1	-	-	-	**1**
Anas strepera	-	-	-	1	-	**1**
Anas platyrhynchos	-	-	-	5	-	**5**
Anas clypeata	-	-	-	2	-	**2**
Aythya fuligula	-	1	-	-	-	**1**
Accipiter nisus	-	3	7	5	-	**15**
Gallinago gallinago	-	18	1	-	-	**19**
Tringa totanus	-	1	-	-	-	**1**
Tringa nebularia	-	2	-	-	-	**2**
Tringa ochropus	-	2	-	-		**2**
Tringa glareola	-	15	-	-	-	**15**
Actitis hypoleucos	-	3	-	-	-	**3**
Cuculus canorus	-	2	1	1	-	**4**
Glaucidium passerinum	-	-	1	-	-	**1**
Strix aluco	-	1	3	-	-	**4**
Asio otus	-	-	3	-	-	**3**
Aegolius funereus	-	-	1	-	-	**1**
Caprimulgus europaeus	-	2	1	2	-	**5**
Alcedo atthis	1	18	8	4	-	**31**
Upupa epops	-	-	1	9	-	**10**
Jynx torquilla	-	-	-	2	-	**2**
Picus canus	-	1	1	-	-	**2**
Dendrocopos major	1	9		-	-	**10**
Dendrocopos medius	2	4	3	-	-	**9**
Dendrocopos leucotos	2	2	5	-	-	**9**
Dendrocopos minor	6	6	9	3	1	**25**
Alauda arvensis	-	-	-	4	3	**7**
Riparia riparia	-	4	-	19	-	**23**
Delichon urbica	-	-	-	4	-	**4**
Hirundo rustica	1	47	3	5		**56**
Hirundo rustica × *Delichon urbica*	-	1	-	-	-	**1**
Anthus trivialis	7	12	13	22	-	**54**
Anthus pratensis	-	-	-	15	2	**17**
Motacilla flava	1	-	2	321	2	**326**
Motacilla alba	-	1	1	190	10	**202**
Troglodytes troglodytes	11	27	5	-	1	**44**
Prunella modularis	10	88	38	-	-	**136**

	2000	2001	2002	2003	2004	**Total**
Erithacus rubecula	148	459	211	4	12	**834**
Luscinia luscinia	2	25	7	-	-	**34**
Luscinia svecica	-	14	8	2	1	**25**
Phoenicurus ochruros	-	-	-	1	-	**1**
Phoenicurus phoenicurus	4	16	7	2	-	**29**
Saxicola rubetra	-	11	1	19	-	**31**
Turdus merula	3	41	14	1	-	**59**
Turdus pilaris	3	50	2	1	1	**57**
Turdus philomelos	14	47	22	1	2	**86**
Turdus iliacus	-	1	-	-	-	**1**
Locustella naevia	1	-	-	-	-	**1**
Locustella fluviatilis	2	11	12	2	-	**27**
Locustella luscinioides	4	8	7	1	-	**20**
Acrocephalus schoenobaenus	35	143	132	29	7	**346**
Acrocephalus palustris	3	21	19	1	-	**44**
Acrocephalus scirpaceus	2	15	39		2	**58**
Acrocephalus arundinaceus	1	1	2	-	-	**4**
Hippolais icterina	2	8	6	-	-	**16**
Sylvia nisoria	-	1	2	1	-	**4**
Sylvia curruca	12	70	71	14	1	**168**
Sylvia communis	8	62	52	27	1	**150**
Sylvia borin	11	124	44	4	2	**183**
Sylvia atricapilla	37	223	176	2	-	**438**
Phylloscopus trochiloides	-	1	-	-		**1**
Phylloscopus sibilatrix	5	32	31	1		**69**
Phylloscopus collybita	159	993	306	8	133	**1599**
Phylloscopus trochilus	53	286	168	34	23	**564**
Regulus regulus	4	26	6	-	-	**36**
Muscicapa striata	14	91	99	2	1	**207**
Ficedula parva	-	6	6	1	-	**13**
Ficedula albicollis	-	1	1	-	-	**2**
Ficedula hypoleuca	4	74	61	3	1	**143**
Aegithalos caudatus	29	141	59	-	10	**239**
Parus palustris	3	2	3	-	-	**8**
Parus montanus	23	95	25	3	1	**147**
Parus ater	-	12	3	-	-	**15**
Parus caeruleus	195	445	200	1	13	**854**
Parus cyanus	6	12	11	-	-	**29**
Parus major	176	551	147	7	34	**915**
Sitta europaea	9	20	6	-	-	**35**
Certhia familiaris	16	34	20	-	-	**70**
Remiz pendulinus	-	-	2	-	-	**2**
Oriolus oriolus	-	1	-	3	1	**5**
Lanius collurio	3	19	4	8	-	**34**
Lanius excubitor	-	2	1	-	1	**4**
Garrulus glandarius	18	5	11	1	2	**37**
Pica pica	-	1	-	-	-	**1**
Corvus corone	-	-	-	1	-	**1**
Sturnus vulgaris	-	-	-	26	-	**26**

	2000	2001	2002	2003	2004	**Total**
Passer montanus	26	19	17	37	-	**99**
Passer domesticus	-	-	-	-	1	**1**
Fringilla coelebs	16	118	48	23	2	**207**
Fringilla montifringilla	-	19	-	-	-	**19**
Carduelis chloris	1	9	13	1	-	**24**
Carduelis carduelis	-	1	-	7	-	**8**
Carduelis spinus	-	36	-	-	-	**36**
Carpodacus erythrinus	-	1	-	-	-	**1**
Pyrrhula pyrrhula	-	15	-	-	8	**23**
Coccothraustes coccothraustes	-	9	-	-	1	**10**
Emberiza citrinella	-	19	7	3	1	**30**
Emberiza schoeniclus	66	148	611	170	45	**1040**
Total	**1160**	**4867**	**2807**	**1066**	**326**	**10226**

Table 3
Number of orientation experiments

	2000	2001	2002	**Total**
Erithacus rubecula	56	89	71	**216**
Sylvia atricapilla	20	64	42	**126**
Acrocephalus schoenobaenus	16	34	46	**96**
Phylloscopus collybita	34	17	43	**94**
Phylloscopus trochilus	2	35	26	**63**
Sylvia borin	7	32	16	**55**
Sylvia communis	3	32	18	**53**
Muscicapa striata	-	19	21	**40**
Sylvia curruca	3	19	16	**38**
Ficedula hypoleuca	-	14	16	**30**
Luscinia luscinia	-	16	-	**16**
Acrocephalus scirpaceus	-	-	16	**16**
Phylloscopus sibilatrix	1	13	2	**16**
Turdus pilaris	-	9	-	**9**
Luscinia svecica	-	7	-	**7**
Locustella fluviatilis	-	5	-	**5**
Acrocephalus palustris	-	-	4	**4**
Hippolais icterina	1	-	1	**2**
Total	**143**	**405**	**338**	**886**

Passerine autumn migration dynamics in Prypyat valley was characterized by two peaks. The first peak (in the second half of August) was caused by passage of birds from genus *Sylvia*, *Acrocephalus,* and family *Muscicapidae*. The second (on the turn of September) – by genus *Parus*, *Phylloscopus* and the Robin.

Two foreign recoveries of our birds were obtained. A Reed Bunting (*Emberiza schoeniclus*) ringed on 15 September 2001 was caught on 25 January 2002 in Pest (Hungary). A Song Thrush (*Turdus philomelos*) ringed on 17 September 2001 was shot on 10 October 2001 in Cesena (Italy). On 24 September 2001 we caught an adult female Great Tit with Belgrade ring.

RESULTS OF RINGING STUDIES AT CERNEK STATION, SAMSUN

Arzu Gürsoy, Kiraz Erciyas, A. Cemal Özsemir, Y. Sancar Barış and Fazilet Üker (Turkey)

A. Gürsoy, Ondokuz Mayıs University, Faculty of Art and Sciences, Department of Biology, Kurupelit Samsun, Turkey; K. Erciyas, A.C. Özsemir, Y.S. Barış, F. Üker, Ondokuz Mayıs University, Ornithological Research Center, Kurupelit Samsun, Turkey

In 2004 spring ringing activity was carried out between 15 March – 27 May. In total 1817 birds of 70 species were ringed. The most numerous species were: the Chiffchaff (*Phylloscopus collybita*) – 255, Robin (*Erithacus rubecula*) – 242, Willow Warbler (*Phylloscopus trochilus*) – 216, Blackcap (*Sylvia atricapilla*) – 103, Chaffinch (*Fringilla coelebs*) – 96. The Long-tailed Tit (*Aegithalos caudatus*), Little Bittern (*Ixobrychus minutus*), Tawny Pipit (*Anthus campestris*), Water Rail (*Rallus aquaticus*), Swift (*Apus apus*), Lesser Grey Shrike (*Lanius minor*) and Starling (*Sturnus vulgaris*) were ringed for the first time at our station.

Autumn study was conducted from 16 August till 25 October. In total 5329 birds of 73 species were ringed. The top five species of the season were the Garden Warbler (*Sylvia borin*) – 860, Blackcap – 762, Willow Warbler – 650, Chiffchaff – 456, Robin – 451. The new species for our station were: the Little Grebe (*Tachybaptus ruficollis*), Garganey (*Anas querquedula*), Mallard (*A. platyrhynchos*), Steppe Buzzard (*Buteo buteo vulpinus*), Green Warbler (*Phylloscopus trochiloides nitidus*) and Meadow Pipit (*Anthus pratensis*).

513 orientation experiments in spring, 1222 experiments in autumn were done.

A Reed Warbler (*Acrocephalus scirpaceus*) ringed at Cernek Station in spring was reported from Ukraine, a Lesser Whitethroat (*Sylvia curruca*) – from Poland, a Blackcap – from Israel, a Song Thrush (*Turdus philomelos*) – from Cyprus. Another Reed Warbler ringed at Manavgat station was retrapped 12 days later at Cernek station.

STATUS OF RINGING STATIONS IN PALESTINE

Riad Abu Sada (Palestine)

Talitha Kumi Ringing Station, Palestine

- Palestine is a unique location, connecting Africa, Asia, and Europe, with diverse environment making it an ideal annual migration stopover for approximately 500 million birds.
- In 1998 the Environmental Education Center began monitoring birds to study migration patterns, by opening two ringing stations (*Talitha Kumi* in Beit Jala and *Jericho*) in 2000, as the first in the Arab World.

- The Talitha Kumi Ringing Station (TKRS) is located on Al-Rass Mountain, 913 m a.s.l., 2 km west of the Nativity Church and 10 km southwest of Jerusalem, at the core of the western bird migration route in Palestine.
- The Jericho Ringing Station (JRS) is found at the Rift Valley bird migration route, but has been inactive since the beginning of September 2000 due to political situation and uprising in the region.
- Several ways of using bird ringing as a tool:

– **education** – many teachers and students visit our stations to learn about the ringing process,
– **ecotourism** – the station is open to the public, attracting birdwatchers and bird lovers,
– **study/research** – many research projects have been conducted as a direct result of stations' work.

- Future plans include resuming operations in Jericho and opening the third ringing station in Gaza to gain a cross section for the migration of birds in Palestine.

FIRST CATARACT ISLANDS PROTECTED AREA

Hosny Helmy Aly (Egypt)

Saluga and Ghazal Protected Area, Aswan, Egypt

Protected areas in Egypt

Number of protected areas in Egypt is 24, which represent about 9% of total country area. By 2017 this number will increase to 40.

First Cataract Islands Protected Area (Saluga and Ghazal)

Saluga and Ghazal were declared as protected areas in Aswan in 1986. Vegetation of these areas comprises 120 species, and five species of acacia trees dominate in the islands' habitat. Some species found on the islands are unique to the Nile valley.

Saluga and Ghazal islands are important stop-over sites for migratory birds. The unique natural habitats provide superb conditions for birds: up to 124 species were recorded, among these are: migrants, rare visitors and residents.

Moreover, there are many species of insects, reptiles and amphibians found on these islands.

Results of ringing station

- Autumn 2003:

– number of migrants – 521 from 33 species
– number of residents – 216 from 10 species
– recovery – 1 individual of the Reed Warbler (*Acrocephalus scirpaceus*) ringed in Hungary (ring no.: BUDAPEST A131385)

- Spring 2004:

– number of migrants – 840

– number of residents – 212
• Autumn 2004:
– number of migrants – 424 from 30 species
– number of residents – 120 from 12 species
– recovery – 1 individual of the Reed Warbler ringed in Israel (ring no.: W97804 ITL-AVIVUNIV Israel)
• Spring 2005:
– number of migrants – 484 from 21 species
– number of residents – 60 from 8 species

A NETWORK OF RINGING STATIONS IN NORTHERN SPAIN

Alejandro Onrubia, Jose María Unamuno and Mariano Torres (Spain)

A. Onrubia, Consultora de Recursos Naturales, S.L.; J.M. Unamuno, Urdaibai Hegaztiak; M. Torres, Fundación Global Nature

The Iberian Peninsula in the context of the western European migration flyway:
– important "stepping stone" for both short- and long-distance migratory birds,
– important wintering area for short-distance migrants

Aims of the ringing stations:
– to characterize bird communities, beside other surveying tools,
– to study stopover characteristics of migrating birds,
– conservation interest of the places for migrating birds, especially for some endangered species: the Aquatic Warbler (*Acrocephalus paludicola*), Reed Bunting *Emberiza schoeniclus lusitanica*

Ringing stations location and characteristics:
• URDAIBAI BIOSPHERE RESERVE (www.urdaibai-hegaztiak.com):
– coastal marshes
– active all year round since 2002
– routine – once a week all year round and daily during migration
– 2600-4000 captures/year from 70-75 species
– managed by the Basque government
• SALBURUA-GARAIO:
– inland wetland
– active since 2003
– routine – daily during autumn migration
– 2000-3300 captures/summer season from 38-50 species
– financed by the city council of Vitoria-Gasteiz
• LA NAVA:
– inland wetland
– active since 1999
– routine – active daily during spring and autumn migration
– 9000-11 000 captures/autumn season from 70-80 species

– 800-1600 captures/spring season from 38-50 species
– managed by the local government

More ringed species:

– *Acrocephalus* species: the Reed Warbler (*A. scirpaceus*), Sedge Warbler (*A. schoenobaenus*), Great Reed Warbler (*A. arundinaceus*) and Aquatic Warbler
– *Sylvia* species: the Garden Warbler (*S. borin*), Blackcap (*S. atricapilla*) and Whitethroat (*S. communis*)
– *Phylloscopus* species: the Willow Warbler (*P. trochilus*), Chiffchaff (*P. collybita*), Iberian Chiffchaff (*P. ibericus*), Bonelli's Warbler (*P. bonelli*)
– *Hirundinidae*: the Barn Swallow (*Hirundo rustica*), Sand Martin (*Riparia riparia*)
– others: the Pied Flycatcher (*Ficedula hypoleuca*), Yellow Wagtail (*Motacilla flava*), Zitting Cisticola (*Cisticola juncidis*), Cetti's Warbler (*Cettia cetti*), Bluethroat (*Luscinia svecica*), Melodious Warbler (*Hippolais polyglotta*), Grasshopper Warbler (*Locustella naevia*), Tree Sparrow (*Passer montanus*), Dunlin (*Calidris alpina*), Robin (*Erithacus rubecula*), Chaffinch (*Fringilla coelebs*), Reed Bunting, Whinchat (*Saxicola rubetra*), ...

Our objectives, programmes, studies:

– migratory patterns
– phenology
– breeding/wintering areas and flyways
– distances and migration speed
– fidelity
– factors: age, sex, weather
– populations changes and trends

- **Stopover ecology:** phenology; age, sex, origins; stopover duration; fattening rates; flight distances; population estimates; activity patterns; habitat use; feeding and competence; influencing factors.
- **Migration strategies:** long jumps; short jumps (progressive fattening, fattening just before Sahara, without fattening).
- **Study of moult:** moult patterns; relation with annual cycle; variations and influencing factors; age determination.
- **Demography:** longevity and life span; mortality and survival rates; immigration and emigration rates; age and sex ratios; breeding success; causes of mortality.
- **Morphometrics studies:** species identification; population characterization; ageing and sexing birds; body condition and environmental stress.
- **Population studies:** population estimates – recovery rates, capture-recapture methods; population monitoring – capture index, trends.
- **Bird communities studies:** community structure, composition and dynamics; community parameters (richness, abundance, diversity, changing rates, *etc.*…); individual scales.
- **Other subjects:** energetic studies; feeding studies; behavioural studies; parasites and diseases (EVITAR program).

- **Some coordinates programs:** Constant Effort Sites; *Passer* program; Biometry program; *Calidris* project; Euring Swallow
- **About the Aquatic Warbler...:** migration strategy; stopover characteristics; habitat use (radiotracking); breeding and wintering areas (isotopic analysis); migration flyway; identification of important areas for migration of the Aquatic Warbler.

Saturday, 2 July 2005

Birds on migration

AUTUMN MIGRATION OF LONG-EARED OWLS (*Asio otus*) COUNTED VISUALLY AT PAPE IN 1985-2004

Guntis Graubics, Janis Baumanis and Karlis Millers (Latvia)

G. Graubics, Riga Zoo, Latvia; J. Baumanis, K. Millers, Institute of Biology Latvian University, Latvia

The Long-eared Owl is both resident and migratory species of which migration ecology is still poorly understood. Owls feed mainly on small rodents and obviously whole life cycle of these birds including migration strategy depends on prey population fluctuations. North European population may spend winter in the territory from Finland to north-eastern Russia during years of abundant prey. Unfavourable feeding conditions cause a considerable part of northern population to migrate to wintering grounds further south to western Europe. Their migration route goes along the south-eastern coast of the Baltic Sea.

Autumn bird migration studies at Pape Ornithological Station started in 1967 with mass-scale trapping and ringing of migratory birds including owls. However, trapping results did not reflect the actual number of migrating owls, nor made it possible to compare the migration intensity in different years, as trapping results highly depend on weather conditions. In 1985 we introduced a completely new device enabling visual censuses of migrating birds during the night. A system of three spotlights (1000 W halogen bulbs) was in use. The spotlights were installed 4 m above the ground in open field about 200 m away from the seacoast. Spotlights were positioned in order to create a continued illuminated semicircle (*ca* 200 m in radius) perpendicular to the main direction of owl migration. Visual observations were continued during the whole migration season of the Long-eared Owl from September to late November. Observations were carried out each night. They lasted 30 minutes each and were repeated every 1.5-2 hours. The total number of migrating owls was estimated by extrapolation. During 20 years a total of 13 284 migrating Long-eared Owls were recorded.

In the years of abundant migration, first migrants appeared at Pape as early as in the first or second decade of September. However, in the years of minimal migration their movements started in the third decade of September. Migration usually

ends in late November. Since juveniles start to migrate earlier in the season, the maximum migration date is later when the adult ratio in migration movements is higher. The estimated migration intensity in a season ranges from 443 (in 1998) to 4805 (in 1986) individuals. Our data show that the number of migrating owls fluctuates every 2-5 years. During 20 years of investigations some long-term decreasing tendency of migrating Long-eared Owls was recorded in Pape.

THE LONG-EARED OWL (*Asio otus*) SEX STRUCTURE AND AUTUMN MIGRATION DYNAMICS AT BUKOWO-KOPAŃ STATION IN 1999-2004

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This work presents an analysis of Long-eared Owls sex composition and migration dynamics at Bukowo-Kopań bird ringing station. Data were collected during autumn seasons 1999-2004. Over 2400 of Long-eared Owls were caught (796 males and 1618 females). Data collection was done according to the standard Operation Baltic methods – continuous mist-netting during whole migration season (special raptor mist-nets were used).

Passage of this species is characterized by three distinct waves. Relations between migrants' sex composition and migration time were analysed. There were differences in males' and females' passage in several migration waves (statistically significant in autumns 2000, 2002 and 2004; in other years differences were statistically non-significant – probably because of too low number of birds in one sex category). The χ^2-test applied to pooled data from 1999-2004 years showed highly significant differences ($\chi^2 = 43.9$, $p < 0.0001$). Females prevailed in all autumns (on average: 67%), but there were variations in several seasons. Males migrated earlier (from 1 to 6 days in different years) and their percentage was the highest in the last passage wave. In years when the highest number of owls was caught, mean migration date of males was 7 days later than in years of a low number of caught birds. Similar difference was found in females but it was 3 days. The observed pattern was probably a result of small rodent number fluctuations.

SEX-AGE COMPOSITION OF MIGRATING BLUE TITS (*Parus caeruleus*) AT POLISH SEEN STATIONS

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This work presents analysis of Blue Tits sex-age composition during migration at two ringing stations located on the southern Baltic coast – Mierzeja Wiślana and Bukowo-Kopań. In total nearly 50 000 individuals were caught in 1967-2004. Data

collection was done according to standard Operation Baltic methods that included continuous mist-netting during whole migration season. Details of the methods are given in the "Bird Station Manual" (Busse 2000). It was found that sex-age composition at both Polish stations did not differ. Immature birds composed 90% of caught birds. In both age groups (*ad.* and *imm.*) more females (60%) than males were observed. There was no correlation between age-sex composition and migration intensity (*ns*). Sex-age composition general pattern was similar to that observed at other bird ringing stations in the area. However sex-age composition at Falsterbo ringing station was different. There were more young females in Falsterbo than at Polish stations.

Generally, migrants' sex-age composition is a result of differentiated migration disposition of individuals of different sex and age groups as well as different individual status in population. Still, details of the phenomenon should be studied.

THE AQUATIC WARBLER (*Acrocephalus paludicola*) RINGING IN BELARUS

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The Aquatic Warbler biology study started in 1995 and was supported by Otto Foundation (Germany), Darwin Initiative (Great Britain), and UNDP in Belarus. We were discovering nest places of the species from 1995 to 1997. Breeding biology studies were carried out from 1998. Ringing of the Aquatic Warbler has been conducted along with this work.

The investigation was carried out at 5 sites, most of them situated in SW Belarus. Most intensive surveys were conducted at Dikoe, Peschanka and Zvanets study areas.

During studies on breeding biology of the Aquatic Warbler, we had to find all nests at sample plot. We controlled all nests till fledgling period. The 8-10 days old nestlings were ringed. Males were lured with a tape-recorder and caught in the mist-net, females – with a special method near a nest: three mist-nets were put in a triangle around the nest. Catching of females was carried out during feeding of nestlings.

In total, 507 nestlings and 167 full-grown birds were ringed during the studied period.

Three local and 4 foreign ring recoveries were noted during this study. Only birds ringed as adults were found next time in the same place. Among them two males were controlled next year and a female was caught in two years at 7 km distance from the ringing place. Three birds ringed as nestlings were controlled in the same year in France and Spain. A female ringed as immature in France was breeding at Zvanets next year.

MEASURING BODY COMPOSITION OF SMALL MIGRATING BIRDS WITH DUAL-ENERGY X-RAY ABSORPTIOMETRY AT A MIGRATORY STOPOVER IN EILAT (ISRAEL)

Michał S. Wojciechowski, Reuven Yosef, Carmi Korine and Berry Pinshow

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Dual-energy X-ray absorptiometry (DEXA) is a method of measuring body composition in animals. It gives a tissue signature separated into bone, fat and non-fat masses. We used DEXA to measure body composition of 600 individual birds of 21 species. Analysis of four passerine and one wader species supports the concept that when birds increase body mass (m_b) while feeding at staging sites during migration, fat-free mass is replenished first, and only after it asymptotes does fat mass increase. The clear correlations of body composition with m_b allow a "reverse" analysis of body composition of small migrants based on m_b data. Frequency distributions of body masses of birds ringed in spring and autumn indicate that most Blackcaps (*Sylvia atricapilla*) and Garden Warblers (*S. borin*), both mostly frugivorous during migration, arrive at Eilat in the spring with their fat mass at its lowest but beginning to rebuild non-fat mass. By contrast, in autumn south-bound Blackcaps arrive at Eilat in the final stages of rebuilding their fat-free mass. In invertebrate-eating birds – the Little Stint (*Calidris minuta*), Reed Warbler (*Acrocephalus scirpaceus*), Chiffchaff (*Phylloscopus collybita*) and Bluethroat (*Luscinia svecica*) – we did not observe seasonal changes in m_b and body composition of birds caught in Eilat.

We suggest that because availability of fruit and invertebrates differ, birds that have different diets use different refueling strategies during migration. Frugivores probably need larger fuel stores before flight because the distances between patches rich in fruit are large, whereas invertebrate eaters may feed on the way during both spring and autumn because insects, although temporarily unpredictable, are present in both seasons. In addition, above data may provide a useful tool for ringers. To date most stations evaluate fat and muscle using a subjective score. Presented relationship between body composition and m_b allows to estimate with high confidence the amount of fat and non-fat tissue in a bird based on body mass alone and provides an objective method of estimating body composition of small migrants.

MORPHOLOGICAL VARIATION IN THE ROBIN *(Erithacus rubecula)* DURING AUTUMN MIGRATION AT THE POLISH BALTIC COAST

Katarzyna Rosińska, Małgorzata Ginter and Magdalena Remisiewicz (Poland)

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The aim of this study was to show intra-seasonal variation in leg colour in Robins. The material was collected during autumn migration at two Operation Baltic stations located on the southern Baltic coast – Bukowo-Kopań (in 2001-2004) and Mierzeja Wiślana (in 2002-2004). We determined leg colour in *ca* 10 800 immature Robins, according to the four-score scale (from pinkish to almost black legs) proposed by Pettersson *et al*. (1990) and modified by the authors.

We analysed frequencies of leg colour classes in all seasons at both ringing stations separately, with the *G*-test. Leg colouration was compared between stations and seasons for birds from the whole season jointly, and then among pentades within seasons and between stations.

At Mierzeja Wiślana dark-legged birds (scores 3 and 4) predominated over other classes more than at Bukowo-Kopań. The tendencies of changes in leg colour categories proportions in subsequent pentades were visible at Bukowo-Kopań (except for 2004). Birds with dark legs dominated at the beginning of the season and on the turn of September or in the first decade of October. At Mierzeja Wiślana this trend was unnoticeable and tendencies of changes in leg colour categories proportions were different every year. Only in 2004 the sequence and timing of these trends were much more synchronized between the two stations.

The observed intra-seasonal changes in proportion of Robins with different leg colour we interpret as the result of subsequent migration of different populations through the Baltic coast. Comparison with literature data suggests that in September, *i.e.* during the period of prevalence of dark-legged Robins, most birds migrating through the Polish Baltic coast head to western winter-quarters. Domination of dark-legged Robins on the turn of September can be explained by occurrence of migrants heading to the Balkans, reported from this winter-quarter as having dark legs.

INTRA-SEASONAL VARIATION IN NUMBER OF UNMOULTED COVERTS IN ROBINS *(Erithacus rubecula)* MIGRATING THROUGH THE POLISH BALTIC COAST

Katarzyna Rosińska, Małgorzata Ginter and Magdalena Remisiewicz (Poland)

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The aim of our study was to show intra-seasonal variation in the number of unmoulted coverts in Robins caught during autumn migration in 2002-2004 at two ringing stations (Mierzeja Wiślana and Bukowo-Kopań) located at the Polish Baltic coast. In total data on 11 000 Robins were used. The analysis was done separately for each station in subsequent seasons. Firstly, seasonal trends of changes in mean number of unmoulted coverts were assessed. To explain these tendencies percentage distributions of wing spots for each pentade were presented, grouped in three categories according to the number of unmoulted coverts: 0-3 (low), 4-5 (medium), 6-8 (high). In addition, comparisons among pentades by Kruskal-Wallis and *post-hoc* Dunn's tests were done, based on ungrouped data.

The same tendencies were observed within all seasons at both ringing stations: mean number of unmoulted coverts fluctuated in September, but from the end of this month and in October the trend was clearly increasing. This was due to changes in frequencies of the distinguished categories – in September birds with medium number of spotted coverts comprised over 50% of all migrants, while later individuals with high number of these coverts predominated.

These intra-seasonal differences in moult advancement can be explained by two phenomena – subsequent migration of populations with different moult characteristics and less advanced moult of birds from later broods. Observed trends correspond with literature data on migration timing of Robins of different breeding origin and winter quarters and indicate that the populational differentiation plays an important role in the observed variation.

AVIAN MIGRANT MITIGATION: CONSERVATION, EDUCATION, SCIENCE AND ECO-TOURISM. AN ALL-IN-ONE DEAL*

Reuven Yosef and Lynette Mitchell (Israel)

International Birding & Research Centre in Eilat, Israel
* project supported by ICA in Israel

Eilat is situated at the northern edge of over 2000 km of continuous Sahel, Sahara and Sinai deserts and is an important staging area for millions of migratory birds of over 230 species. Establishment of agricultural communities in the Arava

Valley in the past 5 decades has resulted in a conflict between local farmers and migratory bird populations. An example of such a conflict is that of the migratory European Bee-eater (*Merops apiaster*) and Blue Cheeked Bee-eater (*M. persicus*) and the agricultural community. The peak flowering and pollination periods of sunflower, onion seeds, melons and watermelons coincide with the peak migration period of the bee-eaters. During this period apiarists are hired to put out beehives near the flowering crops in order to maximize the pollination. The bee-eaters feast on the bees reducing significantly the amount of pollination, and thus the total yield for the farmer and honey for the apiarists. Also *Sylvia* warblers feast on ripening grapes, reducing the quantity and quality of the grapes to be marketed, resulting in a significantly reduced profit margin for the farmers.

Since 1996 the IBRCE has proffered eco-friendly techniques to try and resolve these conflicts. The degree of efficacy was not always easy to evaluate until a comparative experiment was forced on us. For the past 6 years we have helped the owners of a local farm with their crops by removing bee-eaters from the watermelon fields and warblers from the vineyards. However, in autumn 2004 the owners chose not to hire our services (*ca* 2500 EUR per season) out of financial considerations. For six autumn seasons (1998-2003) on average 8.5 tons of watermelons per ha were picked; 6 tons being of export quality. In autumn 2004 the net result was a 4-ton crop, with only 1 ton of export quality fruit. This translated into a financial loss of over 130 000 EUR. In addition, damage in the vineyards resulted in a loss of another 40 000 EUR. (I lack data of the losses to the apiarist.) I conclude that although our sample size is of one season only, this is a case in which it will not be economically sound to increase the sample size. The above has allowed the IBRCE not only to have an income from ringing as a profession but also to promote active conservation and education of the farming community. Research analysis of the data collected enables us to better understand the migration strategies and foraging ecology of the species involved and to market our activities to eco-sensitive tourists. This multi-purpose method of work can profit all involved – the farmers their crops, the birds their lives, we our science and the birdwatcher his list.

BIRD CONSERVATION ACTIVITIES IN EGYPT

Wed Ibrahim (Egypt)

Wadi El Rayan Protected Area, Egypt

Importance of Egypt for birds

Millions of birds pass through Egypt during the migration seasons. Egypt is located on one of the main flyways for birds coming from northern and eastern Europe to spend winter in northern, central, western and southern Africa.

Habitat diversity

Egypt is situated within the Mediterranean and Saharo-Sindian biomes which encompass fairly variable habitat. More than 470 species have been recorded in Egypt, about 20 of the species recorded are globally threatened, such as the Ferruginous Duck (*Aythya nyroca*), White-eyed Gull (*Larus leucopthalmus*), Peregrine Falcon (*Falco peregrinus*).

Altogether 34 sites in Egypt have been declared as IBAs according to BirdLife International criteria.

Conservation Activities

- regional – cooperation in preparation of regional action plans for globally vulnerable species such as the Lappet-faced Vulture (*Torgos tracheliotus*), Houbara Bustard (*Chlamydotis undulata*). In addition – an action plan for breeding seabirds in the Red Sea and the Gulf of Aden.
- national – Egyptian strategy, implemented by the Egyptian Nature Conservation Sector for the biodiversity welfare in addition to species and habitat protection. Three main Egyptian laws are protecting the wild bird species: Agriculture Law no. 53/1969, Law no. 4/1994 and 102/1983.
- international – Egypt signed many of the conventions concerning the conservation of biodiversity and wild species from extinction.

Current Monitoring Program

Bird Ringing Scheme started in the beginning of 2001 in cooperation with SEEN network, with the establishing of a bird ringing station in Wadi El Rayan as a base for Egyptian Bird Ringing Center and bird migration studies.

Objectives:

– studying migration dynamics of passerines
– investigating bird migration routes through Egypt
– updating available information on passerines in Egypt
– establishing network of bird ringing stations in Egypt
– training the staff of protected areas in bird monitoring and ringing activities

Directional preferences of migrants – methods, results

ORIENTATION TESTS DATA ELABORATION – PRESENT STATE AND FUTURE PROSPECTS

Agnieszka Ożarowska and Krzysztof Muś (Poland)

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The orientation cage tests data elaboration procedures used up till now were based on an assumption of unimodal pattern of bird behaviour. According to avail-

able data multimodal behaviour of migrants tested in orientation cages was common phenomenon. It did not depend on cage type that was used for tests nor time when the tests were performed (day- *vs* night-time tests). As a consequence a new method of cage tests data elaboration was proposed.

Applying of this method to unimodal distributions gave results similar to those obtained with a method used up till now. Applying of the new method to multimodal distributions resulted in patterns that reflected real complex behaviour of tested migrants. This was in contrast with the previous method, which resulted in final patterns that differed from the experimental data, because of averaging procedures applied. Some disadvantages of the new method were also discussed. To overcome these problems advanced mathematical data modelling procedures based on Bayesian statistics are proposed. Results are very promising…

THE RAW DATA FROM EMLEN'S CAGE EXPERIMENTS – WHAT CAN THEY TELL US?

Przemysław Busse (Poland)

Bird Migration Research Station, University of Gdańsk, Poland

Dr Gudrun Hilgerloh, who worked on directional preferences of migrants in Spain some years ago using the Emlen's cage, was so kind and supplied us with the raw data that were the basis for her paper in 1989: *Orientation of Trans-Saharan Passerine migrants in Southwestern Spain* (Auk 106: 502-503). The data contain results of experiments performed on the Spotted Flycatcher (*Muscicapa striata*), Willow Warbler (*Phylloscopus trochilus*), Pied Flycatcher (*Ficedula hypoleuca*), Nightingale (*Luscinia megarhynchos*), Whitethroat (*Sylvia communis*), Garden Warbler (*S. borin*) and Reed Warbler (*Acrocephalus scirpaceus*). In that analysis only experiments done under clear sky conditions were included into further analysis. Originally, the data were elaborated using the classic procedure based on standard circular statistics that included calculation of the total sample azimuth that was later tested for statistical significance using the Rayleigh's test. The results were rather obscure – except for some species that showed significant directionality (Pied Flycatcher, Spotted Flycatcher, Willow Warbler), others showed directionality statistically insignificant and one of them was called as "totally disoriented" (Garden Warbler).

To compare both methods the same data were elaborated using the ORIENT program based on a new approach of the analysis of orientation cage experiments' data proposed by Busse and Trocińska (1999) and developed later. Results confirmed directionality of the bird species that have shown high directional tendencies in the original study, but gave interesting insight into behaviour of other species and even "disoriented" Garden Warbler showed reasonable directional pattern. That means that classic method gives correct results in simple, unimodal, directionality while it cannot cope successfully with more complicated patterns. On the contrary, the new elaboration method can be successful with complicated directional patterns.

One of questions discussed nowadays within our group is whether eight sectors used in our cage give results precise enough or the number of sectors should be higher, for example sixteen. The answer, based on Hilgerloh's data (she has given the original data counted in 24 sectors) is surprising...

DIRECTIONAL PREFERENCES OF THE SEDGE WARBLER (*Acrocephalus schoenobaenus*) DURING AUTUMN MIGRATION IN WESTERN UKRAINE

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The study of the spatial orientation of the Sedge Warbler in the western Ukraine was carried out in the "Cholginski" ornithological reserve during last nine years (1996-2004). In total 414 orientation experiments were done, in 379 of them directional preferences were significantly different from random (see Table 4).

Table 4
Terms and numbers of orientation experiments. Differentiation of "uniform – not uniform" distribution of scratches according to χ^2-test.

	Period of work	Number of experiments	Not uniform distribution	Uniform distribution
1996	19 Aug. – 5 Sep.	43	42	1
1997	3 – 27 Aug.	25	24	1
1998	2 – 20 Aug.	32	29	3
1999	22 Jul. – 29 Aug.	37	36	1
2000	1 – 15 Aug.	40	33	7
2001	9 – 27 Aug.	62	56	6
2002	4 – 30 Aug.	46	35	11
2003	6 – 28 Aug.	67	63	4
2004	3 – 26 Aug.	62	61	1
		414	**379**	**35 (8.4%)**

One of the goals of this study was to find out if bird activity in the cage depends on physiological parameters (fat content, weight) or environmental conditions (time, sky conditions, wind direction). However, I found no relationship between the bird activity level and the parameters and factors listed above.

Sedge Warblers choose three directions during the autumn migration in the western Ukraine, *i.e.*: SE, SSW, WSW. The SE direction is the most prominent, while the WSW direction is less distinct.

Since all orientation experiments were conducted each year in the same period (except 1999, when experiments were conducted also in July), I could analyse all data together, or compare annual results with each other.

All three directions mentioned above were clearly pronounced in most of the years (1996-97, 99, 2003-2004). Only two (in 1998, 2001-2002) or even just one (2000) direction dominated in the other years. The SE direction predominated in 2000 and 2002, SSW – in 1997-1999 and in 2003, WSW – only in 2001.

Presence of some minor directions observed could be explained by the errors resulting from the stress of a bird, mistakes and attempts to escape from the cage.

Directional preferences in 1999 were not clear. I think that a cause for such results could be the terms of the study (end of July – end of August), as well as age of tested birds, *i.e.* immature birds that could be during post-fledging dispersal.

Similar orientation experiments were held in Poland in the "Lake Drużno" reserve. The SSW direction was also found there (45%), just like in Ukraine. However, on the territory of Ukraine the SE direction is a dominating one, probably because larger part of birds that fly through the territory of the western Ukraine, migrate along the south-east direction. It is known that Sedge Warblers from the south Scandinavia and western Europe winter in western Africa, whereas birds from Finland and eastern Europe winter in central and eastern Africa.

In 77.3% of 379 analysed tests, birds chose one direction, while in 22.7% – two or more. The latter group consists of interpopulationary hybrid individuals (in the sense of migrational populations), and can have two or more migratory directions, coded in their genome. It was also found that most young birds chose just one direction, while most adults – two or more.

I tried to verify the hypothesis about the occurrence of more than one population of the Sedge Warbler migrating through the territory of Western Ukraine. I searched for morphometric differences between birds divided into groups according to their orientation preferences. I compared bill, tarsus, tail and wing length, with a special attention to the wing length. There was a significant difference in bill length between SSW and WSW (t-test: $t = -1.73$, $p < 0.04$) and between SE and WSW ($t = -1.74$, $p < 0.04$) groups of birds, a significant difference in wing length between SE and WSW groups of birds ($t = 1.88$, $p < 0.03$), and a close to significant difference in wing length between SE and SSW groups of birds ($t = 1.59$, $p < 0.06$). An analysis of young and adult individuals revealed no additional differences.

Data on ringed and recovered birds support the existence of south-western migration directions, while there is no information at all that can support the migration of the Sedge Warbler along the south-east flyway. However number of recovered birds depends not only on a number of ringed individuals, but also on human population density and cultural traditions in regions along the migratory route. Thus, the number of recovered Sedge Warblers in the south and south-eastern regions of Europe is still small.

I also found some differences between the main migration directions of adult and young birds. Most adult birds preferred WSW direction, while young birds – SE

and SSW directions. The standard choice of three directions may be genetically determined. Moreover, young birds prefer genetically determined migratory direction while adults choose the route taking into consideration also previous migratory experience.

The presence of three distinct directions may also be caused by the presence of more than one different Sedge Warbler populations, which fly through the territory of western Ukraine.

SUMMER-AUTUMN MIGRATION AND ORIENTATION OF THE YELLOW WAGTAIL (*Motacilla flava*) IN WESTERN UKRAINE

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The main orientation directions of the Yellow Wagtail during the summer-autumn migration in the western Ukraine are described in the present note. Western Ukraine is a territory, which is interesting and rather poorly studied in the respect of what subspecies of the Yellow Wagtail migrate through its territory and whether Baltic populations migrate here. Observations, ringing and migration directions studies, using special cages following the method of Busse (1995), were conducted on the territory of "Cholginski" ornithological reserve (50 km west from Lviv – 49°58'N, 23°28'E) during ten-year period (1995-2004). In total 10 313 individuals of the Yellow Wagtail were caught and ringed, while 63 orientation tests were performed, which included 58 tests that were statistically significant. We analysed raw data using computer software ORIENT 4.0, Statistica and Quattro Pro 8.0 for Windows. The results confirmed two preferred directions of the Yellow Wagtail on the autumn migration. The SE direction was more characteristic for adult birds, while SW direction – for young individuals. The *M. flava thunbergi* specimens were captured among numerous birds of the *M. flava flava.*

DIRECTIONS OF AUTUMN MIGRATION OF THREE PASSERINE TRANS-SAHARAN MIGRANTS IN BULGARIA: RESULTS FROM ORIENTATION CAGE EXPERIMENTS

Mihaela Ilieva and Pavel Zehtindjiev (Bulgaria)

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Data for directional preferences of certain species and populations from the Balkan Peninsula are scarce. During the autumns of 2001, 2003 and 2004, we performed orientation experiments to examine the migratory directions of three species of trans-Saharan migrants, *i.e.* the Sedge Warbler (*Acrocephalus schoenobaenus*), Great Reed Warbler (*A. arundinaceus*) and Willow Warbler (*Phylloscopus trochilus*).

Using two types of cages, Emlen funnels and Busse's cages, 624 birds of these species were tested at Kalimok Field Station (NE Bulgaria – 41°00'N, 26°26'E). The distribution of the directions in the three species showed bimodality, with most of the birds directed in SE or SW. Nevertheless, considerable proportions of Great Reed Warblers and Willow Warblers exhibited SSE and SSW-SW directions, respectively, while almost equal numbers of Sedge Warblers were directed SE and SW. The variations of the directionality within the species studied correlated with morphometric traits; this may indicate migratory preferences of different populations. The results obtained support the hypothesis for simultaneous passage of populations with different migratory directions through the territory of the Balkan Peninsula.

DIRECTIONAL PREFERENCES OF PASSERINES CAUGHT DURING AUTUMN MIGRATION AT KIZILIRMAK DELTA (N TURKEY)

Kiraz Erciyas, Cemal Özsemir, Sancar Barış and Jarosław K. Nowakowski

K. Erciyas, A.C. Özsemir, Y.S. Barış, Ondokuz Mayıs University Ornithological Research Center, Kurupelit Samsun, Turkey; J.K. Nowakowski, Bird Migration Research Station, University of Gdańsk, Poland

There is a general assumption that birds are able to find their way towards a goal or home position using a bicoordinate navigation system. However, the environmental variables constituting the navigatory coordinates have not yet been studied very well. In 2004, in two localities – Cernek (41°36'N, 36°05'E) and Karabogaz (41°37'N, 35°46'E) – at Kızılırmak Delta, Samsun (N Turkey), a total of 1506 birds were tested with the Busse's method (Busse 1995) for directional behaviour.

The data demonstrated that the birds' headings were grouped in two main axes. Birds in Cernek showed mainly SW, and birds in Karabogaz showed mainly SE direction. Both directions recorded lead to the Kızılırmak valley, which penetrates the coastal mountain belt in the north-south direction. Our results suggest that orientation experiments show directional preferences related to the local topography/conditions.

NOCTURNAL BIRD MIGRATION IN THE BALKAN AREA: SPATIAL AND TEMPORAL DISTRIBUTION OF PASSERINE MIGRANTS

Pavel Zehtindjiev and Felix Liechti

P. Zehtindjiev, Institute of Zoology, Bulgarian Academy of Sciences, Bulgaria; F. Liechti, Swiss Ornithological Institute, Switzerland

The spatial and temporal distribution of nocturnal migration in the Balkan Region was studied during the spring and autumn of 2000-2002. The East-European Flyway was not covered by direct registrations of the night migration until now. By means of moon watching technique, the nocturnal passage was recorded simultane-

ously at 39 sites in Bulgaria, south-eastern Romania, northern Greece and the Black Sea coast of Turkey. The composition of species was registered in the course of the observations at stopover site in north-eastern Bulgaria. Orientation behaviour of most numerous species has been tested in orientation cages.

Mean migratory traffic was 1600 birds/km per hour in autumn and 900 birds/km per hour in spring. The migration intensity was similar between E-W and N-S gradient. Slight shift from SSW to S during the autumn and from NNE to N during the spring coincides with the change of trans-Saharan and short-distance migrants. The scatter of directions decreases in the course of migration. Flight directions were virtually opposite between seasons, but the prevalence of south directions in autumn changes to NE in spring. On a large-scale view, an interaction between topography, winds and innate directions of migrants was revealed in the pattern of seasonal migration of Balkan region. The results indicate that a substantial proportion of nocturnal migrants along the eastern flyway crosses the sea on a broad front and do not need to adjust their innate migratory direction to reach their winter quarters in Africa.

Sunday, 3 July 2005

Minutes from the session on formal matters

1. SE European Bird Migration Network (SEEN) – report from 2004 activities of the Network and future plans – Przemysław Busse

REPORT / FUTURE PLANS

- SEEN Network

SEEN members come from 22 countries, which means that activities of our Network cover area from Belgium, Finland, Omsk (Russia) to Egypt, Jordan, Palestine and Israel in the Middle East and SAFRING in South Africa.

- Trainings/Visits

Pilot studies were conducted at a new ringing place in Egypt (Wadi Gemal) and Turkey (Kars). The aim of all trainings and visits was: (1) to establish uniform methodology for SEEN members, so effectiveness of research of bird migration could be increased and (2) at the new stations – to train local ringers that will be able to continue SEEN ringing programmes on their own.

– in Poland:
  – one ornithologist from Bulgaria and four ornithologists from Spain were trained in bird migration fieldwork methods in autumn 2004;
  – one of our Turkish colleagues came for few weeks' training in elaboration of data collected at bird ringing stations.
– SEEN ringers went to:
  – Egypt (Saluga and Ghazal), Turkey (Diyarbakır) in spring 2004,

– Jordan (Wadi Dana) and Turkey (Diyarbakır) in autumn 2004,
– Egypt (Wadi Gemal) and Turkey (Kars) in spring 2005,

to train local ringers in methods of fieldwork and/or help in ringing stations.

• Egypt project (2004/2005)

Ringing station at Wadi El Rayan Protected Area continued to work run by Egyptian ringers. Studies near Aswan in Saluga and Ghazal Protected Area were continued in spring 2004 (19 March – 16 May) and run by SEEN ringers. Altogether 1050 individuals of 49 bird species were caught; this number included 838 migrants of 38 species. In total 343 orientation tests were performed. Once again work at this station was very successful both according to ringing results as well as to training of new Egyptian ringers. In autumn 2004 and spring 2005 work was continued by our Egyptian colleagues. Once again thanks to effort of Wed Ibrahim pilot studies were conducted in spring 2005 at a new place in Egypt – Wadi Gemal, the Red Sea Protectorates. Work started on 16 March and lasted till 29 April; in total 1043 individuals of 55 species were caught. 430 orientation tests were performed.

• Jordan project (2004)

In 2004 ringing at Azraq in spring was successfully conducted. It started on 20 March and lasted till 13 May. In total 2882 birds of 56 species were caught – these included: 2581 individuals ringed, 264 recaptured and 22 controlled. In autumn 2004 all three Jordanian colleagues were recognized as qualified SEEN ringers! Thanks to their effort pilot studies were conducted in Wadi Dana in autumn 2004 – 328 individuals of 28 species were caught.

• Turkey project (2004 / spring 2005)

Cernek ringing station continued to work both in spring and autumn seasons – detailed results are given in an abstract of this station presentation. Despite some man-power difficulties also colleagues from Akyatan ringing station continued their work in spring 2004 (20 March – 1 May). In spring and autumn 2004 Polish ringers continued work at Diyarbakır ringing station. In spring 2005 pilot studies were conducted at a new place – Kars. Bird ringing programme was run in cooperation with Americans. Work lasted two months, the studies were conducted by SEEN ringers from Turkey and Poland. Results were very promising and the programme will be continued in spring 2006.

FINANCES

Development of SEEN is very promising but it also means facing financial problems of many stations. At the moment following projects support work of SEEN stations:

• Polish Committee of Scientific Research grant

This grant finished in 2004 but as SEEN development was well recognized, we applied for and got next grant that will last till 2007.

• "Orientation" grant

First grant finished in 2004 as well, and was recognized as a very good one, hence following grant that we applied for was approved for 2005-2007. This time money that are available can be used only to cover costs of Polish ringers going abroad but still these money can be used abroad to cover at least some expenses.

• Local sources / new projects

In 2005 joint research project with Bulgarian Academy of Science was signed. Main goal of this project is to present a pattern of the eastern part of European migration system of passerines migrating during night. The project will last till 2008. All SEEN members are kindly encouraged to apply for funds in any projects available in their countries. Usually joined programmes are welcome; any documents that could help to apply for funds can be obtained from the SEEN Board.

ELECTION OF THE SEEN BOARD

In 2000-2005, the SEEN Board was as follows:
– Chairman: Przemysław Busse (Poland)
– Vice-Chairman: Reuven Yosef (Israel)
– Members of the Board: Ričardas Patapavičius (Lithuania), Siarhei Darafeyev (Belarus)
– Secretary: Agnieszka Ożarowska (Poland)

Words of appreciation and simple "thank you" were addressed to the Board members.

Following persons were proposed as new SEEN board members:
– Chairman: Przemysław Busse (Poland)
– Vice-Chairman: Y. Sancar Barış (Turkey)
– Members of the Board: Oksana Zakala (Ukraine), Wed Ibrahim (Egypt)
– Secretary: Agnieszka Ożarowska (Poland)

The SEEN Board was approved unanimously.

NEXT Workshop
– Will be held in Prague – in February 2006.

Compiled by **Agnieszka Ożarowska**