

Aquatic Warbler Conservation Team

Upper Pripyat Field Trip 2005
11th to 17th of June

***‘Recently discovered new breeding sites in
NW-Ukraine and discussion of ecological
monitoring methods in Zvanets (Belarus)’***



Photo: Renatas Jakaitis

Final Report

written by Martin Flade, chairman
Aquatic Warbler Conservation Team

Upper Pripyat Field Trip 2005

‘Recently discovered new breeding sites in NW-Ukraine and discussion of ecological monitoring methods in Zvanets (Belarus)’

Objectives of the project:

- Visit and discussion (importance, habitat features, monitoring) of the recently discovered new AW breeding-sites in NW-Ukraine (Chornohuzka river floodplain, Lakes Bile and PISOCHNE).
- Visit and evening count of AW at its key breeding site in Ukraine (lower Tsrir); discussion of habitat structure, succession processes, threats and management. Discussion of measures proposed on regulation of the water regime.
- Visit of the Byelorussian upper Pripyat, introduction of aims and measures in course of the GEF Project. Visit of Zvanets (global key breeding site of AW).
- Zvanets: Morning survey of breeding birds, evening count of AW;
- introduction to methods of insect monitoring (Malaise traps, ground cylinders, butterfly nets) and discussion; introduction to monitoring of AW diet by ligature application and discussion.
- Zvanets: inspection of water retention facilities constructed in 2004 and discussion of water management in AW habitats.
- Visit to Novoselki fish farm and evaluation of threats by fish farm functioning for AW breeding sites.

Participants:

1. Victor Fenchuk	Belarus
2. Martin Flade	Germany
3. Benedikt Giessing	Germany
4. Oleg Gnatyuk	Ukraine
5. Igor Gorban	Ukraine
6. Oskars Keiss	Latvia
7. Renatas Jakaitis	Lithuania
8. Grzegorz Kiljan	Poland
9. Janusz Kloskowski	Poland
10. Sebastian Koerner	Germany
11. Alexander Kozulin	Belarus
12. Jarek Krogulec	Poland
13. Ivan Legeyda	Ukraine
14. Piotr Marczakiewicz	Poland
15. Anatoly Poluda	Ukraine
16. Zydrunas Preiksa	Lithuania
17. Torsten Ryslav	Germany
18. Arcady Skuratovitch	Belarus
19. Franziska Tanneberger	Germany
20. Lyuba Vergeychik	Belarus

Schedule of the AWCT 2005 fieldtrip, June 11 – June 17, 2005

Date	Country	Activities
11 th June	UA	<ul style="list-style-type: none"> ▪ Arrival Kovel ▪ Transfer to Lutsk and to the floodplain of river Chornoguzka ▪ Evening census and inspection of floodplain (evening and next morning).
12 th June	UA	<ul style="list-style-type: none"> ▪ Transfer to village Lyubohyny (140 km) ▪ Day visit of AW breeding habitat in the middle Styr valley ▪ Inspection of AW habitats between lakes Bile (White Lake) and PISOCHNE (Sandy Lake), evening census.
13 th June	UA	<ul style="list-style-type: none"> ▪ Transfer to village Birki (100 km). ▪ Inspection of AW habitats between rivers Pripyat and Tsrir ▪ Introduction to measures proposed on regulation of water regime. ▪ AW evening census.

14 th June	UA BY	<ul style="list-style-type: none"> Transfer to Zvanets (via Lyubyaz - Dolsk). Introduction to the Belarus part of the trip (A. Kozulin) Evening AW count in Zvanets (northern part)
15 th June	BY	<ul style="list-style-type: none"> Morning survey of breeding birds Introduction to methods of insect monitoring (Malez traps, ground cylinders, butterfly nets) (M. Maksimenko). Free time for photographing AW and habitats Introduction to monitoring nestling food by ligature application
16 th June	BY	<ul style="list-style-type: none"> Travel around Zvanets and inspection of water retention facilities constructed in 2004 Visit to Novoselki fishfarm, evaluation of threats by fishfarm functioning AWCT general discussion; field trip closure meeting Farewell dinner
17 th June	BY	<ul style="list-style-type: none"> Departure to Brest

Results

11th/12th of June – river valley of Chornoguzka near Lutsk

Sharply carved, but wide valley of a small river in the black soil region; river is smaller than Yaselda near Berioza. Habitat is rather similar to Supoj valley in central Ukraine. Dominant species are *Carex elata* and *Menyanthes trifoliata*. Other *Carex* species (*C. acutiformis*, *C. appropinquata*, and *C. diandra*), *Calamagrostis canescens*, *Equisetum fluviatile*, *Lysimachia thyrsiflora* and *Pedicularis palustris* are present throughout the area with smaller cover. On several small, slightly higher islands *C. limosa*, *C. lepidocarpa*, *C. panicea*, and *C. rostrata* as well as *Salix rosmarinifolia*, *Epipactis palustris*, and *Equisetum variegatum* grow. *S. aurita* occurs sparsely. The moss layer is well developed (e.g. *Drepanocladus spec.*, *Calliergon spec.*). On small islands under minerogenic water influence, the area is regularly mown and was cut in the previous year. Current water table is 5-10 cm above ground level. – Huge stands of *Dactylorhiza incarnata*, especially along the edges of the mire.

Result of sunset transect counts (350 ha covered; [] = birds observed outside the counting transect):

species	team				total (territories)	estimated density (terr./100 ha)
	Martin, Fran- ziska <i>et al.</i>	Lyuba <i>et al.</i>	Igor <i>et al.</i>	Polish group		
<i>Acrocephalus paludicola</i>	35	22	70	11	138	39.4
<i>Coturnix coturnix</i>	1 [+4]	[2]	[2]	-	1 [+8]	+
<i>Botaurus stellaris</i>	[2]	2	[2]	-	2	+
<i>Circus pygargus</i>	3	3	2	5 (night)	10	2.9
<i>Circus aeruginosus</i>	1	1	9	2	13	3.7
<i>Crex crex</i>	[6]	-	-	-	[6]	+
<i>Porzana porzana</i>	-	-	-	-	??	??
<i>Vanellus vanellus</i>	[1]	-	-	-	[1]	
<i>Gallinago gallinago</i>	1	-	-	-	1	+
<i>Tringa totanus</i>	[1]	-	-	-	[1]	
<i>Cuculus canorus</i>	[1]	-	3	1	4 [+1]	1.1
<i>Asio flammeus</i>	-	1	-	-	1	+
<i>Alauda arvensis</i>	-	-	1	-	1	
<i>Locustella naevia</i>	4	1	12	8	25	7.1
<i>Locustella fluviatilis</i>	[1]	-	-	-	[1]	
<i>Locustella luscinioides</i>	5	5	4	4	18	5.1
<i>Acrocephalus schoenobaenus</i>	7	2	6	8	23	6.6
<i>Acrocephalus scirpaceus</i>	1	1	-	-	2	
<i>Acrocephalus arundinaceus</i>	1	1	9	2	13	3.7
<i>Saxicola rubetra</i>	12	4	1	6	23	6.6
<i>Anthus pratensis</i>	13	2	6	2	23	6.6
<i>Motacilla flava</i>	12	4	2	3	21	6.0
<i>Emberiza schoeniclus</i>	20	18	34	11	83	23.7



River valley of Chornoguzka (above)
(Photo: RENATAS JAKAITIS)



Camp at the Chornoguzka valley
(Photo: RENATAS JAKAITIS)



Franziska and Martin discussing
Plant communities
(Photo: RENATAS JAKAITIS)

Total area of suitable sedge fen is c. 430 ha, but only 350 ha have been surveyed (not 80 ha at the other side of the river).

The total number of AW is estimated at c. 170 singing males.

12th/13th of June - fen mires between Lake Bile and Lake PISOCHNE

Description of survey sites (in total c. 265 ha, divided in 5 subsites)

1.) Large area W Lake PISOCHNE (Franziska, Arcady *et al.*)

C. 110 ha; dominant species are *Carex elata*, *Equisetum fluviatile*, *Potentilla palustris*, and *Menyanthes trifoliata*. The site is fairly species-rich (67 vascular plant species). In the sparse shrub layer, *Salix aurita* is most abundant, whereas *S. lapponum*, *S. nigricans*, *S. pentandra*, and *S. rosmarinifolia* occur very rarely. - The area is regularly mown and was cut in the previous year. Current water table is 10-20 cm above ground level.

On the lake: *Cygnus olor*, *Aythya ferina*, *Tachybaptus ruficollis*, *Fulica atra*, 2 *Sterna hirundo*, *Rallus aquaticus* calling.

2.) Small river valley S Lake Solinka (Oskars, Anatoly)

C. 45 ha of sedge fen, only 300 m wide, 2.0 km in length along the small river, surrounded by forest; out of 2 km surveyed, 1.5 km are suitable habitat. High water table; area not cut in the previous year.

3.) Directly at Lake PISOCHNE (Viktor, Luba)

C. 25 ha sedge fen with *Iris pseudacorus* and *Eriophorum polystachion*. Big colony of *Chlidonias leucopterus*.

4.) Directly at Lake Bile (Martin, Renatas, Zydrunas)

C. 80 ha sedge fen in total within an area of very diverse, shallow relief, comprising small crop fields on small ridges, short-grazed pastures and wet to very wet, rather mesotrophic sedge meadows, all cut in the previous year. AW nearly exclusively singing in small willow bushes. Dominant sedge species is *Carex elata* (no big tussocks because of regular mowing); thick cover of green mosses; *Carex panicea* is common; large patches with dominance of *Equisetum fluviatile*; *Pedicularis palustris* and *Dactylorhiza incarnata* very abundant (flowering), patches with *Eriophorum polystachion* and (smaller) with *Iris pseudacorus*; sedge vegetation everywhere with *Menyanthes trifoliata*, *Lysimachia thyrsiflora*, *Comarum palustre* etc.



**Sedge fen between
Lakes PISOCHNE and Bile**
(Photo: RENATAS JAKAITIS)

5.) N Lake Gribnoe (Janusz, Jarek, Gregorz)

C. 50 ha of sedge fen, mostly pure stands of *Carex elata* with *Menyanthes trifoliata*, *Equisetum fluviatile*, *Pedicularis palustris*; along the edges also *Iris pseudacorus* and *Acorus calamus*.

Results of evening counts at Lake Pischne/Lake Bile area; [] = outside the surveyed transect

species	subsite					total 310 ha	minimum density (bp/ 100 ha)
	W Lake Pischne 110 ha	S Lake Solinka 45 ha	Lake Pischne 25 ha	Lake Bile 80 ha	N Lake Gribnoe 50 ha		
<i>Acrocephalus paludicola</i>	56	12	0	25	>12	>105	>33.9
<i>Anas platyrhynchos</i>	4		+		4	>8	>2.6
<i>Botaurus stellaris</i>	[2]		[1]	[3]			
<i>Circus aeruginosus</i>	1					1	
<i>Rallus aquaticus</i>	5					5	>1.6
<i>Porzana porzana</i>	5	4	5	1	6	21	6.8
<i>Vanellus vanellus</i>	1			5		6	1.9
<i>Numenius arquata</i>				3	1	4	1.3
<i>Limosa limosa</i>	5		1	>5	1	>12	3.9
<i>Gallinago media</i>				>4		>4	>1.3
<i>Gallinago gallinago</i>	15 ind.	4	+	++	3 (nest)	>30	>9.7
<i>Tringa totanus</i>	3		1	>10	5	>19	>6.1
<i>Larus ridibundus</i>					+	+	
<i>Chlidonias leucopterus</i>	35		+++	>100	200	>400	>130
<i>Cuculus canorus</i>	2					2	
<i>Alauda arvensis</i>	2					2	
<i>Locustella naevia</i>				1		1	
<i>Locustella luscinioides</i>	2			[+]	2	4	1.3
<i>Acrocephal. schoenobaenus</i>	4	1	1	4	2	12	3.9
<i>Acrocephalus scirpaceus</i>					1	1	
<i>Acrocephalus arundinaceus</i>				[+]	[2]		
<i>Sylvia communis</i>	2					2	
<i>Phylloscopus trochilus</i>	3					3	1.0
<i>Saxicola rubetra</i>	1			few	1	>3	>1.0
<i>Anthus pratensis</i>	15			2		17	5.5
<i>Motacilla flava</i>	1			few		>2	>1.0
<i>Emberiza schoeniclus</i>	33	6		few	6	>46	>14.8

Comments: several pairs of Redshanks seen with chicks; 3 pairs of Curlews alarming; Great Snipe: small lek, 4 ind. flew off; Snipe: 1 nest found; Whinchat only few at the edges.



**Sebastian, Martin and Torsten
in a sedge fen near Lake Pischne**
(Photo: JAREK KROGULEC)

13th of June – Lower Cyr/Pripyat floodplain near Birki (= Borki)

Largest continuous sedge meadows in the upper Ukrainian Pripyat area; the habitat between Vetly, Birki and Cyr mouth was discovered and firstly described by the 1996 expedition. Key AW breeding site in UA.

Habitat: Dominant species are *Carex elata* and *C. lasiocarpa*; *Equisetum fluviatile*, *Potentilla palustris*, *Menyanthes trifoliata* and *Thelypteris palustris* are common. *Symphytum officinale* indicates higher trophic conditions. The shrub layer mainly consists of *Salix aurita*. The area is partly mown, current water table is 10-20 cm above ground level. - Large parts of the area are rather bushy, other parts are used as hay meadows (sedges predominating) and pastures; many channels crossing the area and draining it, mainly in summer. First rewetting/damming measures have been initiated by Anatoly Poluda and realised by the people of Birki. Main reason for cooperation by the Birki collective farm is the experience that droughts during summer can cause severe loss in hay yield – sedge meadows then are too dry, growing slowly and thus the harvest is smaller. Damming measures in the main channels around the regularly cut sedge meadows are done in order to stop quick runoff of the spring flood water.

Three teams were doing sunset counts on 13th of June:

- 1.) South of river Cyr, mainly wet cattle and horse pastures (very special habitat type, different to 2 and 3)
2,400 x 300 m width = 72 ha: Igor & Luba.
- 2.) Along western main Channel, vast, more or less bushy sedge meadows (cut once for hay making):
 - a) 1,200 x 700 m = 84 ha: Jarek, Janusz, Benedikt, Sebastian, Arcady, Piotr.
 - b) c. 20 ha: Zydrunas, Renatas, Ivan.
- 3.) Along eastern main Channel (similar to site 2):
 - a) 1,000 x 400 m = 40 ha: Franziska, Grzegorz, Martin, Torsten, Viktor.
 - b) 1,200 x 400 m = 48 ha: Anatoly, Oskars, Sasha

Results of evening counts lower Cyr/upper Pripyat floodplain ; [] = outside the surveyed transect

species	subsite					total 2 + 3 192 ha	minimum density (bp/100ha)
	1 72 ha	2a 84 ha	2b 20 ha	3a 40 ha	3b 48 ha		
<i>Acrocephalus paludicola</i>	44	48	24	63	34	213	80.7
<i>Anas platyrhynchos</i>	10	1	-	-	1	2	+
<i>Circus aeruginosus</i>	1	-	1	-	-	1	+
<i>Rallus aquaticus</i>	6	-	-	1	-	1	+
<i>Porzana porzana</i>	2	-	-	-	1	1	+
<i>Vanellus vanellus</i>	16	-	-	-	-	-	
<i>Numenius arquata</i>	1	1	-	-	-	1	+
<i>Limosa limosa</i>	21	1	-	-	-	1	+
<i>Gallinago media</i>	15	-	-	1	-	1	+
<i>Gallinago gallinago</i>	21	4	-	-	3	7	3.6
<i>Tringa totanus</i>	16	-	-	-	-	-	
<i>Chlidonias leucopterus</i>	110	-	-	-	-	-	
<i>Cuculus canorus</i>	-	2	-	9	++	>12	>6.3
<i>Alauda arvensis</i>	7	6	-	1	1	8	4.2
<i>Locustella naevia</i>	8	11	-	4	7	22	11.5
<i>Locustella fluviatilis</i>	-	3	-	-	1	4	2.1
<i>Locustella luscinioides</i>	2	16	4	8	7	35	18.2
<i>Acrocephalus schoenobaenus</i>	30	2	2	6	1	11	5.7
<i>Acrocephalus palustris</i>	1	-	-	2	2	4	2.1
<i>Sylvia communis</i>	-	2	-	9	++	>13	6.8
<i>Saxicola rubetra</i>	2	2	-	-	-	2	+
<i>Luscinia luscinia</i>	-	8	6	2	7	23	12.0
<i>Luscinia svecica</i>	-	3	1	4	1	9	4.7
<i>Anthus pratensis</i>	11	1	-	1	-	2	+
<i>Motacilla flava</i>	2	-	-	-	-	-	
<i>Motacilla citreola</i>	4	-	-	-	-	-	
<i>Carpodacus erythrinus</i>	-	9	3	2	3	17	8.9
<i>Emberiza schoeniclus</i>	12	7	6	20	10	43	22.4

Cyr river near Birki (RENATAS JAKAITIS / JAREK KROGULEC)



Discussion group 16th of June, Novoselki fish farm

Topics of discussion:

1. Results of site surveys in Ukraine
2. Current results of DNA analysis (Lithuanian and Hungarian samples)
3. Current results of stable isotopes analyses (situation in Africa)
4. Possible AWCT contribution for the IOC in 2006 in Hamburg
5. Current situation of the AW in Belarus: conservation and management measures
6. Balkan flyway project
7. Current situation of the Pomeranian population
 - a) population trend
 - b) EU-LIFE project
 - c) Franziskas doctoral thesis work
 - d) invertebrate sampling
 - e) ligatures/faeces
 - f) any other issues
8. AWCT Field Trip 2006 (Servech, European Russia)

1. Results of site surveys in Ukraine

New breeding sites: Anatoly's population estimates for Chornoguzhka and Lake Bile/Lake Pischne could be fully confirmed. Despite unsuitable season and weather conditions in 2004 when this sites have been discovered, localisation and demarcation of potential breeding habitats as well as the population estimates from Anatoly have been extremely accurate; big compliment for his work!

Conservation status of AW breeding sites in Ukraine (report Anatoly):

Major breeding sites in the Supoy and Uday valleys (central Ukraine) are protected areas at a national level (zakazniks on national importance), with the exception of a recently discovered new small population (20 males in 2004) in Uday valley; this site is only zakaznik of local importance, but should be included in an adjacent zakaznik of national importance.

Upper Pripjat population:

- Chornoguzhka: zakaznik of local importance;
- Lakes Bile/Pischne: not protected – zakaznik supposed;
- Balota Wzhery (very important site on the lower Turiya river): only parts are protected as zakaznik; currently running negotiations to enlarge the zakaznik;
- Middle Styr, Chetvernya: not yet protected; currently negotiations to create a zakaznik;
- Upper Pripjat:
 - Birki/lower Cyr: zakaznik of local importance (only!!!); but creation of a National Park is in preparation, reaching from Balota Zalesye upstream Nevir until Oblast border (Svaloviche), including Stochid valley from Stare Tcherivitchche downstream. But 'National Park' does not mean: without land use! Problem are the forests – it has to be clarified, whether the forests (at the margins of the floodplain) should be included or not; when this is decided, the procedure will take 1-2 more years.

Management measures in Ukraine:

Birki/Cyr mouth: damming of main channels (in compartments) is planned, some dams are already realized; elaboration of a management plan for the whole AW Pripjat population is suggested (and strongly recommended by AWCT); UTOP has prepared a project application for the British Council (= > *Victar to add details please*).

Discussion:

Sasha: AWCT Report should be send to the responsible bodies (Ministry etc.) in Ukraine.

Anatoly: This year (2005), the sedge meadows near the river around Shchedrogir and Vetly were flooded (60 cm high); good for the sedge fen, bad for AW: all early broods have been destroyed!

Jarek: a Polish entomologist who knows the AW from the Chelm marshes has reported that he heard singing AW in the forest steppe/steppe region in SE-Ukraine. If this is true, that would be a sensation. Jarek will provide Anatoly with detailed site information (coordinates etc.); Anatoly will try to check this area as soon as possible.

2. Current results of DNA analysis (Lithuanian and Hungarian samples)

Benedikt has just finished a complete new analysis including the Lithuanian and Hungarian samples. Result: as before, the Pomeranian population is very distant from the others, even more than in the old analysis. The Lithuanian population is closely related to the Biebrza/Polesse population. The Hungarian population is a little separated, but by far not as much as the Pomeranians.

3. Current results of stable isotopes analyses (situation in Africa)

No new results. The winter moulting sites can be roughly located in the subsahelian Africa between Mauritania/Senegal and Lake Chad. It is not possible to narrow down this area further, but together with the habitat modeling from the Copenhagen University (Bruno Walther) and the known mid-winter records there it is rather clear, that the wintering sites must be located mainly in the Senegal delta and possible also in the inner Niger delta in Mali. It is regarded unlikely that the stable isotopes study can provide more precise information. So there is no other possibility than to go to Africa for field work in the most promising areas.

4. Possible AWCT contribution for the IOC in 2006 in Hamburg

We should apply for an oral presentation on the present global status of AW und the phenomenon of 'partial extinction' (Alexander, Benedikt, Debbie), and we should prepare as many as possible posters focused on special items (breeding ecology, diet, flyways, Siberia, conservation management etc.).

5. Current situation of the AW in Belarus: conservation and management measures (report Sasha)

Zvanets: the mire is now fully protected, management is implemented; minor problems occur with the water management (periodical surplus of water, too high flooding), but these problems can be solved in the near future.

Yaselda: currently there is an intensive discussion between responsible Ministries and collective farms about the appropriate water management, in order to avoid too high flooding. There is a new report (two days old only!) analysing the different interests of various land users und suggesting solutions. A compromise seems to be feasible; major problem is the management of the Selets fish farm near Berioza.

Dikoe: ecological situation of the mire appears to be rather stable, but this is misleading. "The mire needs fire!" There was no cutting since at last 40 years. Actually, however, a very quick overgrowing with scrub (shrub succession) has to be stated, coming from the south. In 2005, several dams (to dam up the water table) are in construction (works were running until May, should be finished until end of June); the effects have to be monitored. There occur some problems concerning the cooperation with the National Park administration.

Servech: protected as zakaznik; ecological situation stable, not cutting, sometimes fire.

Research:

There exists a huge amount of data now that need thorough analysis.

In 2004, 200 AW have been ringed; in total now c. 1,000 (10 % adults).

Ringed activity will be intensified.

Many own ring recoveries, but also some from abroad: 1 x Belgium, 2 x France, 1 x Spain.

Currently of major interest:

- importance of shrew predation;
- strongly fluctuating breeding success;
- differences in ecology and population parameters between different mire types.

Diet: Species included in the diet study (using ligatures): AW, Sedge Warbler, Reed Bunting, Meadow Pipit, Grasshopper Warbler, Citron Wagtail; investigated parameters: size, number, biomass and dry

weight of prey items. According to the Belarusian results, in some mires AW take no bigger prey items compared with Sedge Warbler (different to Biebrza results!), and, in tendency, smaller prey size than other reedbed birds (e.g. Reed Bunting, Meadow Pipit); the proportion of large prey animals is very different in different mires. Generally: species that do longer foraging flights take larger prey items. AW takes everything that is abundant, e.g. in dry years many mosquitoes.

Eight permanent monitoring plots have been installed as follows:

- Zvanets North and South;
- Dikoe;
- Postyr;
- Servech;
- Yaselda Kostiuki, Peschanka, Kokoritsa.

Investigation of breeding success is shifting among plots every year (full annual investigation not possible).

Discussion:

It would be of interest to compare breeding success of very different habitat types, e.g. Supoy/Uday or Nemunas delta in Lithuania.

Anatoly: Oleg Gnadyuk shall make a doctoral thesis on AW breeding success in Ukraine.

Sasha: please use always the Mayfield method to assess the breeding success.

Lyuba has observed, that males obviously know all nests in their wider territory; they regularly visit these nests and show e.g. alarming behaviour together with the females. For instance, she has observed a shrew at an AW nest killing the chicks, and female and male showed were alarming together and showed anti-predator behaviour.

6. Balkan flyway project

No new information. The project is on the list of projects that could be funded by the CMS Secretariat.

Short discussion about situation in Bulgaria:

There still exist no confirmed (well-documented) records from Bulgaria.

Torsten will try to collect more information via Bulgarian friends.

Gregorz knows an ornithologist who tried to catch AW in Bulgaria with tape lures, but was not successful.

Lyuba could try to collect more/better information, especially a documentation of possible ringing records (at least measurements, better photographs).

7. Current situation of the Pomeranian population

Population trend: No further decline in 2005 (2003: 79-96, 2004: 71-74, 2005: 75-82 singing males).

EU-LIFE Project

The Polish-German project has a high ranking, decision on 22nd June.

Project period 2005-2010; project areas: Biebrza and Pomerania; three main actions: a) management plans, b) guidelines for potential breeding sites, c) development of long-term management techniques (e.g. biomass use). – Franziska described the Pomeranian breeding habitats.

Franziskas doctoral thesis work, studies on AW diet, question of using ligature samples or faeces

Sasha: we studied faeces, ligature samples and nest videos; a substantial part of the prey items from ligature samples could not be found in faeces. Also, the determination of biomass is more difficult in using faeces.

Benedikt: there are standard methods to calculate biomass values from faeces samples; through the use of alcohol there is also a loss of biomass when using ligature samples.

Sasha: reasons for ceasing the faeces sampling: analyses not efficient and very time-consuming; ligature samples provide much quicker results, is more effective.

Benedikt offers to take the faeces with him to Germany and to give it to Heiner Flinks for detailed analysis (Belarus samples are still in the fridge) [information November 2005: samples not available any more!].

Sasha: main reason for ceasing the video filming: small insects are merged by the AW to clumps, which make further identification of prey impossible; this could lead to the (wrong) conclusion, that AW take big prey items.

Diurnal pattern: no clear differences identified yet, number of samples of different daytime is still too small. But there seems to be a pronounced dynamic: in the morning, inactive flight insects are preferred, in the evening specific large insects.

Dynamics of diet during the nestling period: has been studied in Belarus. Result: seasonal differences are much more different between species than with respect to different nestlings age classes.

Food biomass according to nestling age: in Dikoe, 8 nests have been investigated. Sample size was the same for all nests (beginning from the 3rd/4th day until 13th day, c. 20 samples per day); according to these data, there is an increase in food biomass with increasing nestlings age, but a minimum on the 12th day (but this is valid only for Dikoe, not for Zvanets!) – this could be in order to stimulate the fledging process. This food biomass minimum on the 12th day was also found in other species. Sasha concludes, that the age of nestlings does not significantly effect the efficiency of food investigation, but the second broods show a stronger specialisation on only a few prey species.

The following sample size is recommended: ≥ 30 sample per species; ≥ 15 samples per day and species.

Food overlap between species: overlap in general is big; when there occurs a strongly dominating, abundant prey species it is taken by all investigated bird species. Dominant prey species within the taxa are the same in all bird species, but the proportions of prey taxa are different between the bird species.

Question: which bird species are most similar regarding the proportions of prey taxa?

Answer: this is a question of foraging strategy:

- (A) Reed Bunting and Meadow Pipit make foraging flights over very long distances.
- (B) Aquatic and Sedge Warblers collect food in the medium strata.
- (C) Grasshopper Warbler moves (walks) nearly exclusively on the ground when foraging.

AW walks only sometimes, when upper vegetation layer is very light whilst on the ground there is a lot of old vegetation biomass (litter layer); AW move always in the stratum where the vegetation has the highest density.

What Franziska should do is a comparison between the two study sites in Pomerania and Belarus regarding

- the three bird species investigated in both regions,
- results of the sweeping net samples,
- results of the ligature samples.

8. AWCT Field Trip 2006 (Servech, European Russia)

Two proposals from Sasha were supported by the others:

- 1.) Mist-netting in Servech: the question of the true sex ratio in adult AW is still mysterious. Whilst the sex ratio in nestlings is 50 : 50 (according to Benedikt's data), the Belarussians found almost much more males than females in their study sites (c. 1.5 : 1 – 2 : 1; but notice, that in the Dyrz plot in Biebrza marshes the sex ratio was also almost balanced). The male surplus could have two reasons: either there are really more males than females present in the sites, or a part of the females was not detected because these birds are inactive (non-breeders). The Servech mire, which is completely isolated and situated in large forest tracts would provide ideal conditions to study this question. We could make very intensive mist-netting for a full week and try to catch as many as possible AW (ideally - the whole population).
- 2.) Expedition to central and northwestern European Russia. Sasha found vegetation and habitat descriptions of fen mires in Russia between Moscow and St. Petersburg that fit very well in the habitat scheme of AW, but are located rather far north (this could be the limiting factor). He thinks that it would be worthwhile to check these mires in a special expedition (which would have to be prepared by Mikhail Kalyakin).

Since Servech and the Russian target region are relatively close to each other, both targets could be combined (e.g. 6-7 days Servech, then 5-6 day Russia, starting from Smolensk).



Birki

Little Owl at our Camping site in Birki
(Photo: RENATAS JAKAITIS)



Camping site in Zvanets,
Novoselki fish farm
(Photo: RENATAS JAKAITIS)



Field work in Zvanets, from left: Zydrunas, Sebastian, Martin, Franziska, Benedikt, Grzegorz, Alexander (Photo: RENATAS JAKAITIS)



Zvanets, with flowering *Dactylorhiza incarnata* (Photo: JAREK KROGULEC).



Chief entomologist Mikhail Maksimenko, sweep-netting in Zvanets (Photo: JAREK KROGULEC)



Malaise trap in Zvanets (Photo : JAREK KROGULEC)

Great Snipes, caught for ringing in Zvanets



Taking young AW off the nest for ligature application (Photos: JAREK KROGULEC)





Annex I: Plant species list, AWCT field trip, upper Pripyat 2005 (FRANZISKA TANNEBERGER)

Date	11.06.2005	12.06.2005	12.06.2005	13.06.2005	13.06.2005
Location	Chornoguzka river	Stir river	Pesochnoe lake	Mokroe village	Borki village (Lower Tsir river)
appr. size (ha)	350		110		
nb. AW (sm)	138	0	55	0	approx. 200
water (cm) above ground	5 to 10	30 to 40	10 to 20	10 to 20 (30)	10 to 20
land use	mown	not mown	mown	not mown	partly mown
<i>Acorus calamus</i>	r				
<i>Agrostis stolonifera</i>		1	+		
<i>Alisma plantago-aquatica</i>		+			+
<i>Alnus glutinosa</i>			+		
<i>Alopecurus geniculatus</i>					r
<i>Betula humilis</i>			r		
<i>Betula pubescens</i>			r		
<i>Briza media</i>			+		
<i>Calamagrostis neglecta</i>	1		1		1
<i>Caltha palustris</i>	+	+	+	+	1
<i>Calystegia sepium</i>					r
<i>Cardamine dentata</i>	r	+	+	+	
<i>Carex acuta</i>					
<i>Carex acutiformis</i>	1			1	r
<i>Carex appropinquata</i>	1		+		1
<i>Carex chordorrhiza</i>			+		r
<i>Carex davalliana</i>			r		
<i>Carex diandra</i>	1		1	+	1
<i>Carex dioica</i>	+				
<i>Carex disticha</i>			+		1
<i>Carex elata</i>	4		3	1	2b
<i>Carex flava</i>			+		
<i>Carex gracilis</i>		3	+		r
<i>Carex lasiocarpa</i>			+	+	2a
<i>Carex lepidocarpa</i>	1		+		
<i>Carex limosa</i>	1				
<i>Carex nigra</i>			+	+	+
<i>Carex panicea</i>	1		r		
<i>Carex pseudocyperus</i>				+	
<i>Carex rostrata</i>	1		+	+	
<i>Carex serotina</i> agg.			r		
<i>Carex vesicaria</i>		r		+	+
<i>Chara spec.</i>				r	
<i>Cicuta virosa</i>	+	+			
<i>Cirsium palustre</i>	+		+	+	r
<i>Dactylorhiza incarnata</i> agg.	1		+		r
<i>Drosera obovata</i>			r		
<i>Eleocharis palustris</i>		r	r	r	r
<i>Eleocharis quinqueflora</i>			r		
<i>Eleocharis uniglumis</i>	+		+		
<i>Epilobium palustre</i>	+				
<i>Epipactis palustris</i>	+				+
<i>Equisetum fluviatile</i>	1	+	2b	4	1
<i>Equisetum palustre</i>	+		+		
<i>Equisetum variegatum</i>	r				
<i>Eriophorum angustifolium</i>	+		+	+	+

<i>Festuca pratensis</i>			+		
<i>Festuca rubra</i> agg.	+		+		
<i>Filipendula ulmaria</i>	r	+			r
<i>Galium palustre</i>	+	+	+	+	r
<i>Galium uliginosum</i>	+		+	+	+
<i>Gentiana pneumonanthe</i>					r
<i>Glyceria fluitans</i>		r			
<i>Glyceria maxima</i>	+	1			
<i>Hippuris vulgaris</i>					
<i>Iris pseudo-acorus</i>	+	+	+		r
<i>Juncus effusus</i>			+		
<i>Lathyrus palustris</i>		+			+
<i>Lemna minor</i>		+			
<i>Lemna trisulca</i>		+			
<i>Lychnis flos-cuculi</i>	+		r		r
<i>Lycopus europaeus</i>	+	r	+	+	+
<i>Lysimachia nummularia</i>	+	1	+		
<i>Lysimachia thyrsoflora</i>	1	+	1	+	
<i>Lysimachia vulgaris</i>	+		1	+	+
<i>Lythrum salicaria</i>	+	1	+	+	+
<i>Mentha aquatica</i>		+			
<i>Mentha arvensis</i>	+	+	+		r
<i>Menyanthes trifoliata</i>	2a	+	2a	1	1
<i>Myosotis palustris</i>	+	r	r	r	
<i>Pedicularis palustris</i>	1				
<i>Peucedanum palustre</i>	+		r	+	+
<i>Phalaris arundinacea</i>		1			r
<i>Phragmites australis</i>	+	1			+
<i>Pinus sylvestris</i>			r		
<i>Poa palustris</i>	+		+		r
<i>Poa pratensis</i>	+		+	+	+
<i>Polygonum amphibium</i>		1	+		r
<i>Potentilla erecta</i>			r		
<i>Potentilla palustris</i>	1		2a		1
<i>Pseudolysimachion longifolium</i>					r
<i>Ranunculus acris</i>			r		
<i>Ranunculus cincinatus</i>		+			
<i>Ranunculus lingua</i>	+		+		
<i>Ranunculus repens</i>	+	+	+	+	+
<i>Rorippa amphibium</i>		+			
<i>Rorippa palustris</i>			+		+
<i>Rumex crispus</i>		r			
<i>Rumex fontana-paludosa</i>	+				
<i>Rumex hydrolapathum</i>	r	+	+	+	
<i>Salix aurita</i>	+		1	+	1
<i>Salix lapponum</i>			r		
<i>Salix nigricans (=myrsinifolia)</i>			+		
<i>Salix pentandra</i>			r		+
<i>Salix rosmarinifolia</i>	1		+		+
<i>Scirpus lacustris</i>		+		+	
<i>Scutellaria galericulata</i>	r	r	r		
<i>Sium latifolium</i>		1		+	
<i>Spirodella polyrhiza</i>		+			
<i>Stellaria crassifolia</i>	+				
<i>Stellaria palustris</i>	+	+	+	+	+
<i>Symphytum officinale</i>		+			1
<i>Thalictrum flavum</i>		+			+

<i>Thelypteris palustris</i>	1		+		1
<i>Tolcrum scordium</i>		r			
<i>Typha latifolia</i>	r		r	+	
<i>Utricularia intermedia</i>				r	
<i>Utricularia minor</i>				r	
<i>Valeriana officinalis</i>		+			r
<i>Veronica scutellaria</i>		r		+	
not in VA Ob floodplain					
Mineral soils island					

Annex II: List of bird species observed on the AWCT Field Trip 2005 (TORSTEN RYSLAVY)

No.	Species		
1	<i>Podiceps cristatus</i>		
2	<i>P. griseigena</i>		
3	<i>P. ruficollis</i>		
4	<i>Ciconia ciconia</i>		
5	<i>C. nigra</i>		
6	<i>Phalacrocorax carbo</i>		
7	<i>Botaurus stellaris</i>		
8	<i>Ardea cinerea</i>		
9	<i>A. alba</i>		
10	<i>Cygnus olor</i>		
11	<i>C. cygnus</i>		
12	<i>Anas platyrhynchos</i>		
13	<i>A. crecca</i>		
14	<i>A. clypeata</i>		
15	<i>A. penelope</i>		
16	<i>A. strepera</i>		
17	<i>Aythya ferina</i>		
18	<i>A. fuligula</i>		
19	<i>Milvus migrans</i>		
20	<i>Circus pygargus</i>		
21	<i>C. aeruginosus</i>		
22	<i>C. cyaneus</i>		
23	<i>Buteo buteo</i>		
24	<i>Haliaeetus albicilla</i>		
25	<i>Falco subbuteo</i>		
26	<i>F. tinnunculus</i>		
27	<i>Perdix perdix</i>		
28	<i>Coturnix coturnix</i>		
29	<i>Grus grus</i>		
30	<i>Rallus aquaticus</i>		
31	<i>Crex crex</i>		
32	<i>Porzana porzana</i>		
33	<i>Porzana pusilla</i>		
34	<i>Fulica atra</i>		
35	<i>Gallinula chloropus</i>		
36	<i>Charadrius dubius</i>		
37	<i>Vanellus vanellus</i>		
38	<i>Tringa ochropus</i>		
39	<i>T. totanus</i>		
40	<i>T. erythropus</i>		
41	<i>Calidris alpina</i>		
42	<i>Philomachus pugnax</i>		
43	<i>Gallinago gallinago</i>		
44	<i>G. media</i>		
45	<i>Limosa limosa</i>		
46	<i>Scolopax rusticola</i>		
47	<i>Larus ridibundus</i>		
48	<i>L. cachinnans</i>		
49	<i>Chlidonias leucopterus</i>		
50	<i>Ch. hybridus</i>		
51	<i>Ch. niger</i>		
52	<i>Sterna hirundo</i>		
53	<i>Columba oenas</i>		
54	<i>C. palumbus</i>		
55	<i>C. livia domestica</i>		
55	<i>Streptopelia decaocto</i>		
56	<i>S. turtur</i>		
57	<i>Cuculus canorus</i>		
58	<i>Asio otus</i>		
59	<i>A. flammeus</i>		
60	<i>Athene noctua</i>		
61	<i>Apus apus</i>		
62	<i>Upupa epops</i>		
63	<i>Alcedo atthis</i>		
64	<i>Jynx torquilla</i>		
65	<i>Dendrocopos major</i>		
66	<i>D. medius</i>		
67	<i>D. syriacus</i>		
68	<i>D. minor</i>		
69	<i>Picus canus</i>		
70	<i>Riparia riparia</i>		
71	<i>Delichon urbica</i>		
72	<i>Hirundo rustica</i>		
73	<i>Gallerida cristata</i>		
74	<i>Alauda arvensis</i>		
75	<i>Lullula arborea</i>		
76	<i>Anthus pratensis</i>		
77	<i>A. trivialis</i>		
78	<i>Motacilla flava</i>		
79	<i>M. alba</i>		
80	<i>M. citreola</i>		
81	<i>Troglodytes troglodytes</i>		
82	<i>Lanius collurio</i>		
83	<i>L. minor</i>		
84	<i>L. excubitor</i>		
85	<i>Muscicapa striata</i>		
86	<i>Ficedula hypoleuca</i>		
87	<i>Erithacus rubecula</i>		
88	<i>Saxicola rubetra</i>		
89	<i>Phoenicurus phoenic.</i>		

90	<i>Ph. ochruros</i>
91	<i>Oenanthe oenanthe</i>
92	<i>Luscinia luscinia</i>
93	<i>L. svecica</i>
94	<i>Turdus pilaris</i>
95	<i>T. philomelos</i>
96	<i>T. merula</i>
97	<i>Locustella luscinioides</i>
98	<i>L. naevia</i>
99	<i>L. fluviatilis</i>
100	<i>Acrocephalus schoenob.</i>
101	<i>A. paludicola</i>
102	<i>A. arundinaceus</i>
103	<i>A. scirpaceus</i>
104	<i>Hippolais icterina</i>
105	<i>Sylvia borin</i>
106	<i>S. nisoria</i>
107	<i>S. communis</i>
108	<i>S. curruca</i>
109	<i>S. atricapilla</i>
110	<i>Phylloscopus trochilus</i>
111	<i>Ph. trochiloides</i>
112	<i>Ph. sibilatrix</i>
113	<i>Panurus biarmicus</i>
114	<i>Remiz pendulinus</i>
115	<i>Parus major</i>
116	<i>P. caeruleus</i>
117	<i>P. palustris</i>
118	<i>P. montanus</i>
119	<i>P. cristatus</i>
120	<i>P. ater</i>
121	<i>Sitta europaea</i>

122	<i>Emberiza calandra</i>
123	<i>E. schoeniclus</i>
124	<i>E. citrinella</i>
125	<i>Fringilla coelebs</i>
126	<i>Serinus serinus</i>
127	<i>Carduelis chloris</i>
128	<i>C. carduelis</i>
129	<i>C. cannabina</i>
130	<i>Carpodacus erythrinus</i>
131	<i>Coccothr. coccothraustes</i>
132	<i>Passer domesticus</i>
133	<i>P. montanus</i>
134	<i>P. hispaniolensis</i>
135	<i>Sturnus vulgaris</i>
136	<i>Oriolus oriolus</i>
137	<i>Pica pica</i>
138	<i>Garrulus glandarius</i>
139	<i>Corvus monedula</i>
140	<i>C. frugilegus</i>
141	<i>C. (corone) cornix</i>
142	<i>C. corax</i>

→

The winner of the big ice-creame is Martin (141).

Second winner (shashlik) is Benedikt (144).

Annex III: Financial Balance AWCT Activities 2005

1. Travel expenses

Name	country	total travel costs spent	date of payment	comments
Benedikt Giessing	Germany	78.20	11.6.	Berlin-Kovel' (for missed first train)
Igor Gorban	Ukraine	70.00	14.6.	
Oskars Keiss	Latvia	150.00	16.6.	
Grzegorz Kiljan	Poland	78.20	10.6.	train Gryfino/Szczecin to Kovel'
		30.00	16.6.	
		75.00	17.6.	train Brest-Poznan
Janusz Kloskowski	Poland	80.00	14.6.	
Alexander Kozulin	Belarus	50.00	17.6.	for Dima Dubovik, expenses 2004
Jarek Krogulec	Poland	80.00	14.6.	
Piotr Marczakiewicz	Poland	80.00	14.6.	
Anatoly Poluda	Ukraine	120.00	16.6.	
Zydrunas Preiksa & Renatas Jakaitis	Lithuania	150.00	16.6.	joint travel in car
Arcady Skuratovich	Belarus	20.00	17.6.	paid to Viktor Fenchuk
Lyuba Vergeychik	Belarus/ Bulgaria	390.00	16.6.	flights Sophia-Kiew, train Kiew-Kovel' + hotel, flight Minsk-Kiew
Total travel exp.		1,451.40		

2. Total budget

Position	date of payment	in €
1. expenses		
Total travel expenses participants (see separate table above)		1,451.40
Bus rent & petrol, and field accommodation in Belarus (to Viktor)	14.+16.6.	1,560.00
Food in Ukraine and restaurant in Ratno (to Viktor/Anatoly)	11.+13.6.	373.26
House rent at Novoselki fishfarm (to fishfarm manager)	17.6.	100.00
Local transport Novoselki - Brest (to Viktor for driver)	17.6.	40.00
Eco tax, Brest train station, 7 persons (5 Germans, Rita, Gregorz)	17.6.	20.00
Local transport in Brest (Taxi)	17.6.	8.00
Various small expenses	11.-17.6.	166,34
<i>subtotal</i>		3,719.00
Salary, accommodation and travel costs for Rita Minets in Germany (see separate budget list from Franziska)		400.00
Train ticket Brest – Berlin for Rita Minets	17.6.	75.00
<i>subtotal</i>		475.00
Small W-Siberia expedition - search for AW and 'Irtys Warbler' in the Lake Busly area (northern Omsk Oblast), see separate budget from Mikhail Kalyakin	30.1.2006	988.00
<i>total expenses</i>		5,182.00
2. income		
RSPB Small Grant Agreement		5,182.00