



Conserving Aquatic Warblers in Poland and Germany



Aquatic Warbler, singing male photo: Cezary Pióro

EDITORIAL

Lars Lachmann
LIFE Project coordinator



Many things have happened since we started developing this project in 2004. In 2006, we finally were able to start the project in full, and the end is foreseen for 2011. Please read on to find out what has been done so far, what we plan to do in the coming years, and especially how the Aquatic Warbler will be protected after our project ends.

Welcome to the first edition of the Aquatic Warbler LIFE Project Newsletter! Starting with this number, we want to regularly update you about the progress of our project and share with you information about many interesting aspects of the conservation of Europe's rarest migratory songbird and its wetland habitat.

If you read this, then you probably live near one of our nine project sites, you are interested in the conservation of nature or birds in particular, or you are even supporting our project as a local landowner, volunteer, as an expert, contractor or sponsor of the project. Or maybe you just happened to visit one of the project sites and are curious to find out what's going on. You all are very important to us, because it is impossible to protect nature, not even a little striped brown bird, without the support and understanding of many people.

If you want to know more after reading this newsletter you can visit our website www.wodniczka.pl, or the German version under www.seggenrohrsaenger.eu. There, you can submit your comments to us online, but you can also do this by writing to our project office.

Our project brings together six organisations from three countries (Poland, Germany and the UK) and focuses on nine project sites of together 42,000 ha. It is financially supported by the LIFE Nature Programme of the European Union with additional funds from the RSPB (BirdLife in the UK), Cemex Polska and Swarovski Optics, and is probably the largest species protection project in Poland. All this for a little bird?

Yes, but it is a special little bird: It is the only small bird that has its own international agreement, the Memorandum of Understanding for the Conservation of the Aquatic Warbler, signed as sub-agreement to the Convention on Migratory Species by twelve range states of the species, including Poland, Germany, the UK and Senegal. Our project is helping Poland and Germany to fulfil their obligations from this treaty. In particular, we aim to prevent the extinction of the isolated Pomeranian population of the species along the Polish-German border, and to strengthen the Polish core population in the Biebrza valley in northeast Poland.

Lars Lachmann



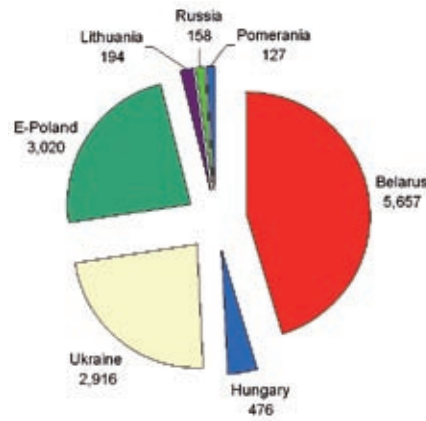
Aquatic Warbler, feeding female photo: G.T. Klosowsky



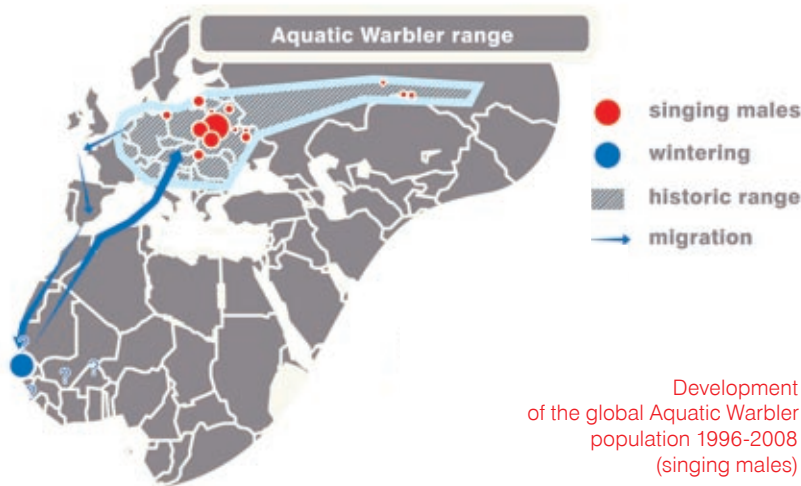
Lars Lachmann
 LIFE Project Coordinator and
Martin Flade
 Chairman of the BirdLife International
 Aquatic Warbler Conservation Team

National/regional shares
 of the global Aquatic Warbler
 population (average number
 of singing males 1996 – 2008)

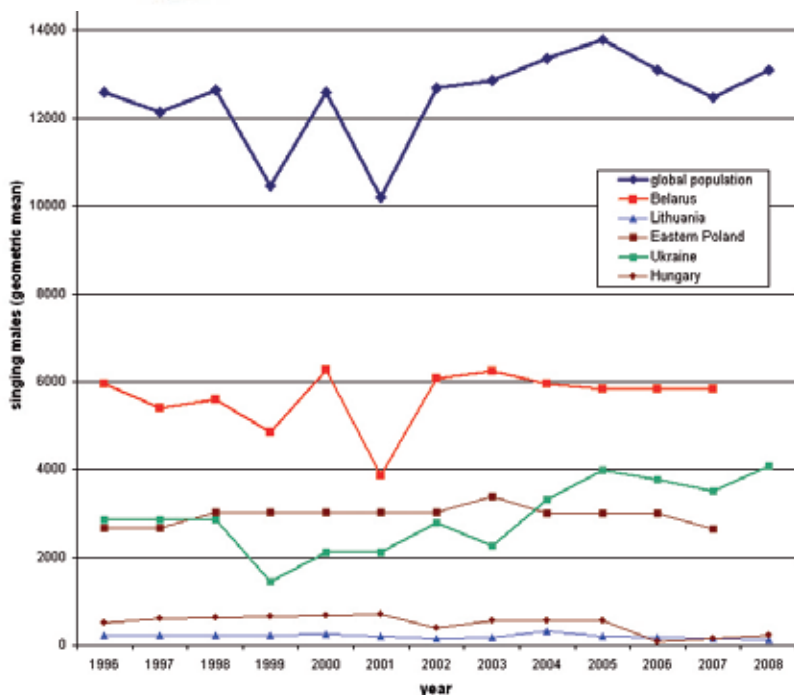
The Aquatic Warbler is the rarest and most threatened species of songbird on the European mainland. It became classified as a globally threatened species in the category “vulnerable” because of its rapid population decline of about 95% during the last century. The remaining world population of 12,100-14,700 singing males is concentrated in less than 50 regularly occupied sites, together covering an area of less than 30x30 km! This is an extremely small area for a little bird that additionally has to master an annual journey to its wintering grounds in Africa. Therefore, the species will further be classified as “vulnerable”, even though it has been possible to halt the rapid overall decline of the species since intensive conservation work started in 1996.



How rare is the Aquatic Warbler?



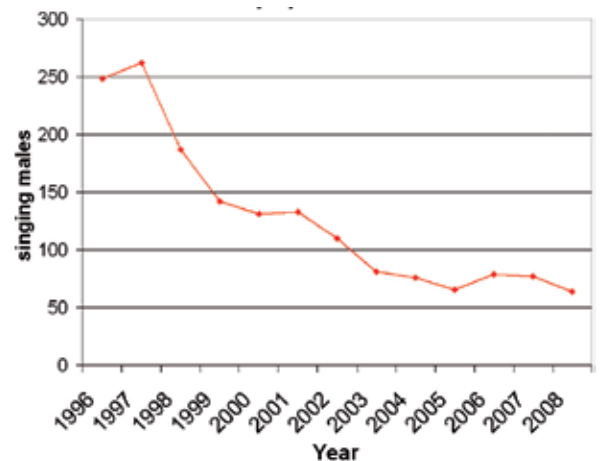
Development of the global Aquatic Warbler population 1996-2008 (singing males)



Despite of its recently stable world population, the species is highly dependent on continued conservation action. The species is also threatened by a phenomenon called “partial extinction”: 92% of the world population is concentrated in the three-country-corner of Poland, Belarus and Ukraine. All other populations, in Western Siberia, Hungary, Lithuania and especially the Pomeranian population shared between western Poland and Germany are very small and declining and therefore acutely threatened with extinction. The Siberian population may already have disappeared.

More than one quarter of the world population lives in Poland, making it the species for which this country has the biggest global responsibility.

Aquatic Warbler: development of the Pomeranian population 1996-2008



Invertebrate monitoring
photo: Marek Kalisiński

Monitoring system in the LIFE project

Janusz Kloskowski

Chief Technical Advisor
to the LIFE Project
(University of Lublin)

Aquatic Warbler numbers are estimated by counting singing males. Because the BACI monitoring transects cover only a small part of the project sites, additional full inventories of singing Aquatic Warblers are being conducted annually throughout the project duration in all potential sites along the German-Polish border, the area occupied by the small and isolated Pomeranian population. In the Biebrza Valley, additionally to the transects full counts covering the whole valley take place annually, with 2005 and 2008 counts being restricted to Bagno Ławki, the core area within the Biebrza Valley and no counts conducted in 2006. In 2009, a countrywide census of Aquatic Warblers will be conducted, covering not only all project sites, but also all other sites in Poland, which will be a repetition of the previous countrywide censuses in 1997 and 2003.

Timing of the monitoring is adjusted to the Aquatic Warbler breeding phenology: Counts of singing males take place during the peak mating periods at the end of May (first broods) and the end of June (second broods). Vegetation and invertebrate monitoring take place at the time of expected hatching of Aquatic Warbler first broods (the first decade of June); and second broods (the first decade of July), while hydrological monitoring is conducted over the entire year with the highest monitoring frequency between March and September.

The Aquatic Warbler is a stenotopic species with a narrow ecological niche and very specific habitat requirements. Therefore, population monitoring in the LIFE project has been accompanied by habitat monitoring necessary to address questions related to the impact of management measures. Most management impacts planned in the LIFE project are to influence vegetation structure. To monitor their effects, permanent monitoring plots are required in all project sites, with separate transects established in areas differing in land use or planned management impact. In areas where impacts has been implemented to improve Aquatic Warbler breeding conditions, habitat monitoring will be conducted on the transects following the Before - After - Control - Impact (BACI) approach, allowing for comparison of habitat changes prior to and following management impacts.

The most important vegetation parameters are height, density and composition of vegetation, litter height and abundance and height of bushes. Vegetation monitoring will be complemented by monitoring of food availability (sampling of invertebrates suitable as prey for Aquatic Warbler) and hydrological monitoring in order to obtain a full picture of all important habitat parameters. In each project site a set of gauges has been established to monitor ground and surface water level and the potential impact of local hydrological structures and management activities.

The Aquatic Warbler LIFE Project Technical Task Force

The Technical Task Force (TTF) of the LIFE Project is a voluntary group of international specialists with detailed knowledge of Aquatic Warbler ecology and habitat management whose responsibility is to ensure that all of the science, ecology, land management and site protection issues in the project are carefully planned and effectively implemented. A key activity of the TTF is to regularly visit all of the project sites to look at work 'on the ground'. This is an excellent opportunity to discuss progress with site staff, share experience, answer questions and make recommendations for future actions. Current members of the TTF come from Poland, Germany, Belarus and the UK and represent both project partners and academic institutes. These are:

- Andrzej Dyrz (University of Wrocław, Poland)
- Tomasz Okruszko (Warsaw University of Life Sciences, Poland)
- Aleksander Kozulin (APB-BirdLife Belarus, Belarus)
- Martin Flade (Brandenburg State Office for Nature Conservation, Germany)
- Franziska Tanneberger (University of Greifswald, Germany)
- Geoff Welsh (RSPB, UK)

In 2007 and 2008, the TTF visited all project sites once a year between June and August. As well as looking at site-specific matters, these visits highlighted a number of issues common to all project sites, which are now being addressed by the Project Team. TTF visits have also proved to be a valuable tool for generating media interest in the project, both locally and nationally.

Geoff Welsh



Vegetation monitoring
photo: Marek Kalisiński



Technical Task Force visit in the Biebrza Valley
photo: Lars Lachmann

Aquatic Warbler numbers in Pomerania

Franziska Tanneberger

Technical Advisor to the LIFE Project
(University of Greifswald)

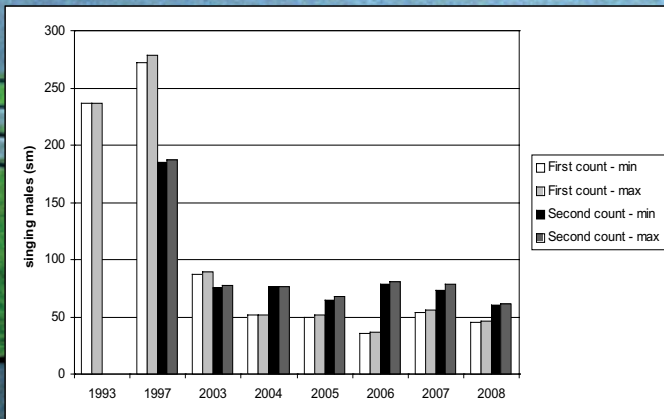


Fig.1: Preliminary minima and maxima of first and second counts in Pomerania 1993-2008.

To evaluate the LIFE project activities and to assess the Aquatic Warbler population trend in Pomerania, reliable baseline data are of utmost importance. In particular, only synchronously counted data should be used for population estimates as Aquatic Warblers move during breeding season between the Pomeranian sites. There has been evidence for such movements in recent years, e.g. the observation of a colour-ringed Aquatic Warbler from Poland (ringed at Krajnik) in the Lower Oder National Park in 1999 and the observation of a male ringed at Karsiborska Kępa on 18 June 2006 at the Rozwarowo Marshes on 15 July the same year.

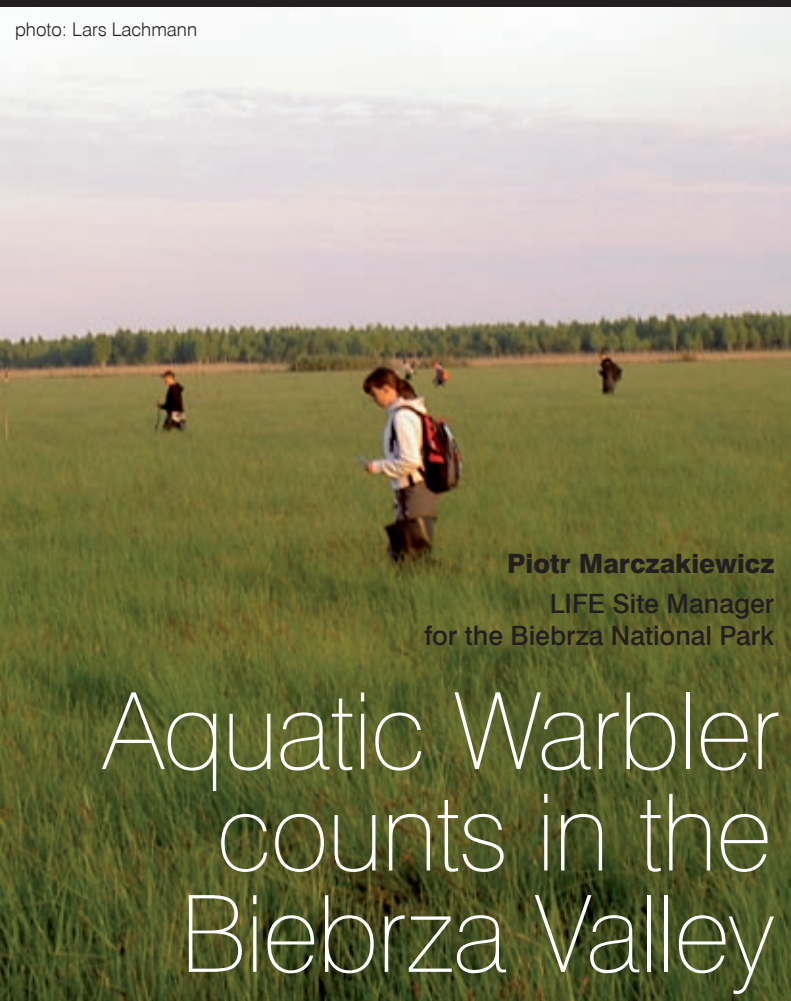
To create a consistent set of reference data, we have created a Microsoft Access database of Pomeranian Aquatic Warbler records in October 2006. All monitoring data available at OTOP have been imported into the database in spring 2007 by Susanne Bärtsch as part of her internship at the OTOP headquarters in Marki. New and existing data from other sources than official monitoring reports are continuously being added.

The database currently includes 358 Aquatic Warbler counts from 47 sites for the period 1969-2007. Data collected by 25 observers are included. Habitat information according to the standard data sheet monitoring scheme is provided for 166 full sites and 458 sub-sites. In an attached folder, digital versions of all full monitoring reports (1993, 1997, 2003-2007) and maps are stored. With the new database, we can now easily prepare minimum and maximum numbers of the first and second counts, respectively, for all years. These figures are a better estimate than overall sums, which might be biased by intra-seasonal movements of birds between sites. Most importantly, the same type of data can be used for between-year comparisons.

Preliminary minima and maxima of first and second counts in Pomerania 1993-2008 are given in Fig. 1. These figures are still to be classified as "preliminary", because we are still hoping to receive additional data for past years from local ornithologists. Several points need to be noted when interpreting the data presented: In 1993 only one count has been conducted, in 1997 periods of the first and second counts overlap, in 2005 data of the first count in Ujście Warty National Park and Wolin National Park are missing, in 2006 data of the first count in Ujście Warty National Park are missing while they are incomplete for Rozwarowo, and in 2007 data of the first count in Ujście Warty National Park and Kostrzyneckie Rozlewisko are missing. The total number of Aquatic Warbler breeding sites has decreased from 11 in 1993 to 6 in 2006. In 2007, there were records of singing males from two new or previously not discovered sites increasing the number of occupied sites to 8.

We would like to thank all persons who have contributed data to this data base and especially all park administrations which enabled the monitoring to take place and have contributed invaluable data. In order to fill the remaining gaps (especially in order to be able to include data from years between the official counts), Michal Radziszewski is currently collects such data. Please, send all Aquatic Warbler count data you might have to his attention to the LIFE project office! As soon as the dataset is nearing completion, we plan to further analyse the data.

Islands of the Swina-Delta, one of the last breeding sites of the Aquatic Warbler in Pomerania
photo: Andrzej Ryfzyński



Piotr Marczakiewicz
LIFE Site Manager
for the Biebrza National Park

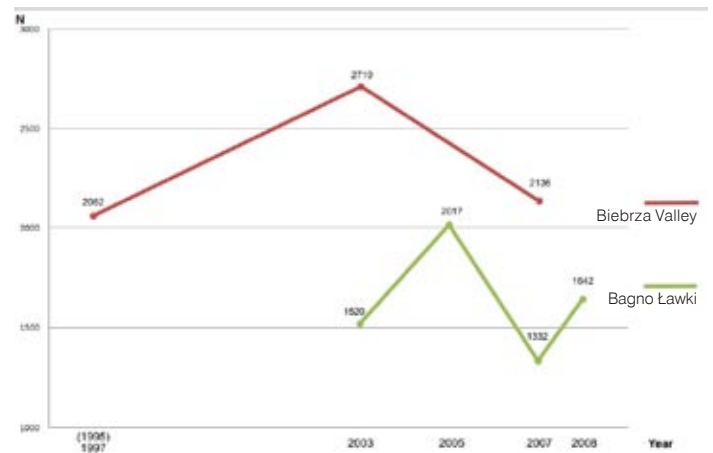
Aquatic Warbler counts in the Biebrza Valley

To effectively protect Aquatic Warblers it is necessary not only to know how many birds there are, but also where they are. This is the reason why regular Aquatic Warbler counts are organized in the Biebrza Valley. From 2005, counts are organized within the Aquatic Warbler LIFE project.

Singing Aquatic Warblers are usually counted during their peak of activity, at sunset in May or June. Areas where there is appropriate habitat for Aquatic Warbler are divided into smaller parts, which can be counted by one team consisting of five to six people during one evening. The observers, standing 50-70 m from each other, form a line and move forward at equal speed looking for singing males of Aquatic Warblers between themselves and their nearest neighbour to one side. The records are marked on a map or directly on a GPS receiver. At the end of the day, all records are summed up and copied onto a general map. Each evening there are usually several counting teams working in the field.

Counting Aquatic Warblers demands the co-operation of many people. The majority of them are volunteers, usually students of nature faculties, but not only. For some of them this is the first contact with ornithology. Although the first impression might be different, no special knowledge is needed to be able to participate in Aquatic Warbler counts in the field. One evening's training is usually enough to acquire the necessary skills. What is needed however is an average level of physical fitness and some degree of dedication. The observers have to endure long walks through swamps - sedges,

reeds, bushes, often in heat and in the company of insects, such as mosquitoes and horseflies. Because the ground is wet, everyone wears waist-high rubber boots, but sometimes even that is not enough, if somebody happens to "discover" an old draining ditch.



The first Aquatic Warbler count in the Biebrza Valley was conducted in 1995 (Lower Basin) and 1997 (Middle Basin). In total 2,060 singing males were recorded at that time. After that, the next counts took place in 2003 (the whole valley – c. 2,710 males), 2005 (Bagno Ławki only – c. 2,015 males) and 2007 (the whole valley - 2,135 males). As the results show, the population of Aquatic Warblers in the Biebrza Valley during the last decade was generally stable, although their numbers are fluctuating from year to year.

Numbers alone are not enough: Information on distribution is also very important. Thanks to this, we know which areas are more and which are less significant for Aquatic Warblers. If we have data from more than one year, we can notice from which areas Aquatic Warbler disappeared, and where they chose to settle. Such information is invaluable, when conservation activities are planned and their effectiveness is measured.

Since the beginning, counts of singing males of Aquatic Warblers in the Biebrza Valley have been coordinated in the field by staff from the Lublin University of Agriculture. The counts in 2005 and 2007 were coordinated by Dr Grzegorz Grzywaczewski and Szymon Cios. Most of the team was made up by students of Lublin University. In total, 43 people took part in the count in 2005, and 57 in 2007.

Taking part in Aquatic Warbler counts is a memorable adventure. Above all, it provides a possibility to observe Biebrza's wildlife from close, beyond the trails, in places not accessible for tourists. This is an occasion to meet other people interested in nature, especially birds, exchange experiences and learn many new things. In 2008, a count of Aquatic Warblers has taken place in Bagno Ławki, and in 2009 the whole Biebrza Valley will be counted as part of an all-country survey. Volunteers are always welcome (although the number of volunteers which can be accommodated is limited). Please contact Piotr Marczakiewicz at piotr.marczakiewicz@otop.org.pl if you are interested.

The first Aquatic Warbler found at its wintering habitat in Senegal photo: Martin Flade



feathers would have been grown on the African wintering grounds, the researchers looked for patterns of isotopes, in conjunction with surrogate species, which would give a hint on the wintering grounds. This study revealed that the birds spend the winter at sites in the Sahelian zone just south of the Sahara in Africa. An analysis of all of the scarce previous African records of the species in combination with a computer modelling of potentially suitable climatic conditions led researchers to likely areas bordering the Senegal River. Finally, the expedition, working with African colleagues, discovered good numbers of Aquatic Warblers in an area of about 100 square kilometres within and outside the Djoudj National Park, in north-west Senegal.

Discovery of the Aquatic Warbler's wintering grounds

Grahame Madge (RSPB) and Paweł Szałański (LIFE Communications Officer)

One of Europe's last remaining ornithological mysteries has been solved in January and February 2007, thanks to an international expedition to Senegal organised by the BirdLife International Aquatic Warbler Conservation Team, which was financially supported by the RSPB (BirdLife in the UK), the UK government (DEFRA), the Bonn Convention (CMS), and the German Ornithological Society (DOG).

The expedition team has identified the wintering grounds of Europe's most threatened migratory songbird – the Aquatic Warbler – in western Africa. This bird nests in summer in the marshes of eastern central Europe and some pass through southern England on migration to its previously unidentified wintering grounds.

"This is a tremendous success because knowledge about where they spend the winter will be a turning point and allow protecting them also in Africa" - says Lars Lachmann, co organizer of the ex-

pedition and manager of the EU LIFE project "Conserving Aquatic Warblers in Poland and Germany".

- **Who knows where they are?**

To solve the mystery of the Aquatic Warbler's wintering grounds, researchers have combined state-of-the-art scientific analysis with traditional fieldwork to unravel the secrets that this bird has been hiding. Before this discovery, it was assumed the birds, like many other warblers, spent the winter in Africa, but no one knew where.

- **Following the ... feather**

To find the exact place the research team used isotope analysis of Aquatic Warbler feathers to help narrow their search. Catching Aquatic Warblers on the bird's European nesting sites, researchers took feathers from the birds subjecting them to an isotope analysis. Knowing that the



Habitat of the Aquatic Warbler in Africa photo: Arnaud Le Névé

- **Without wintering grounds in Africa they will disappear also from Poland**

Preliminary estimates range from 5-15,000 birds at this single site. It is 30% of their global population and can be comparable in number with the Polish Aquatic Warbler population in summer. That discovery is very important for the success of conservation actions in the Aquatic warbler's breeding range in Europe.

- **Will we manage to save Aquatic Warblers?**

The Aquatic Warbler has declined dramatically in Europe over the last century, and now its global population is down to around 13,000 pairs – largely because of drainage of its wetland nesting sites. The precipitous decline of the Aquatic Warbler in Europe has made it the focus of an international conservation effort,



The Djoudj National Park is a wetland at the edge of the Sahara photo: Lars Lachmann

Looking beyond the project: Saving Germany's last Aquatic Warblers

Franziska Tanneberger
Technical Advisor of the LIFE Project

In contrast to the former Aquatic Warbler breeding site Peene Valley, the last existing breeding site in Germany – the National Park Lower Oder Valley – is not a project partner of the LIFE project, because it was not possible to clarify internal land use policies in time for the preparation of the LIFE project. However, the need for immediate conservation action has been identified as a high priority issue at the First Conference of the Parties of the CMS Memorandum of Understanding in 2006, and our German colleagues have worked hard to start a national Aquatic Warbler conservation project. One year before the huge international biodiversity conference (CBD COP-9), which took place in May 2008 in Bonn/Germany, the federal state of Brandenburg approached the federal Ministry of Environment for funding for a special Aquatic Warbler conservation project. After some delay, in January 2008 the Ministry advised the preparation of a three-year project 2009-2011. The main project activity will be the implementation of rotational mowing at the current breeding sites in the National Park, including GPS-aided nesting site protection, purchase of mowing equipment for late summer mowing, and compensation schemes for farmers.

For further details on threats to the Aquatic Warbler and management recommendations in the Lower Oder Valley National Park we recommend the following publication:

Tanneberger, F., Bellebaum, J., Helmecke, A., Fartmann, T., Just, P., Jehle, P. & J. Sadlik (2008): Rapid deterioration of Aquatic Warbler *Acrocephalus paludicola* habitats at the western margin of its breeding range. *Journal of Ornithology* 149 (1):105-115.

which is currently showing its first successes.

Although delighted by their discovery, the research team has raised fears for the bird's future in Africa. Thankfully, substantial parts of the newly discovered wintering site fall within the protected area, of the Djoudj National Park. This wetland, on the southern edge of the Sahara desert, is likely to be threatened by the southward advance of the Sahara desert fuelled by climate change. This encroachment is likely to limit the water supply for the national park. Other sites thought to have formerly held this bird in winter, have long since been converted into fresh water reservoirs, farmland and sugarcane plantations, while other sites that may still be out there will get under even higher pressure by increasing drought conditions.

A second expedition in January/February 2008 tried to find additional wintering sites around the Djoudj National Park and in southern Mauritania, but the results were little encouraging, as Janusz Kloskowski, Chief Technical Advisor of OTO's Aquatic Warbler LIFE Project recounts: „All potential wintering sites that we controlled turned out to be already completely destroyed or in principal suitable, but already completely dry, when we visited. And even in the Djoudj NP habitat conditions were worse than in the previous year.” For the time being Djoudj is still the only known wintering site of the species. But can one good site be enough for a whole species?

Bizarrely, the story of the Aquatic Warbler in Africa seems to mirror the dis-

astrous loss of the species' European nesting sites, where the bird now nests regularly on fewer than 40 sites.

The good reaction of Aquatic Warblers to conservation measures in their breeding habitats indicates that for the time being, the breeding sites are still the limiting factor of the species' population. But with more conservation effort in Europe and continuing habitat loss in Africa, this may soon change.

- **After first success we wait for others**

For the conservation of the species, it is therefore very important to quickly identify other key wintering sites in Africa, and to ensure these sites are being protected.

A PhD student is currently researching the habitat use and conservation situation of the Aquatic Warbler in the Djoudj National Park. All other sites have still to be found. To this end, scientists are analysing satellite images of the Sahelian zone in Africa and will continue the analysis of stable isotopes of the feathers of the birds caught in the Djoudj National Park. Hopes are to discover new key sites in Mauritania or western Mali.

Finding the wintering grounds is a major step in the implementation of the International Action Plan for the Conservation of the Aquatic Warbler, which had been agreed and signed as a Memorandum of Understanding under the Bonn Convention (CMS) by 12 range states of the species, including Poland and Senegal, in 2003.



Record mowing in the Biebrza Valley

Piotr Marczakiewicz

LIFE Site Manager for the Biebrza National Park

Currently, the primary threats for the Aquatic Warbler habitat in the Biebrza River Valley is the secondary succession of plants, not draining, as many other parts of the species' breeding range. In the past, farmers in the Biebrza Valley were collecting hay from the breeding grounds of Aquatic Warblers. The vegetation, mostly sedges were mown by hand, hay was piled up on hay stacks, which were then transported by horse sleigh in winter, when the ground was frozen. In the swampy terrain, this work was very hard,

alder and birches. The Aquatic Warbler's habitat started to deteriorate and shrink in size.

From its very beginnings in 1993, the Biebrza National Park has been making efforts to prevent this process from happening. Lack of funds in the state budget forced the National Park to apply for funding from different subsidiary funds. The Aquatic Warbler LIFE project is the biggest of all these projects which aim to stop the secondary succession, and the National Park takes an active role in

with twin-wheels (additional wheels installed to make the pressure on the ground smaller) were used. The cutters - devices with solid blades, rotating with high speed parallelly to the ground - were mounted at the back. The cutters mow and shred not only the grassy vegetation but also bushes and trees up to several centimetres in diameter. Unfortunately, after mowing it is not possible to remove the biomass which was mown and shredded in this way. The activities were implemented in very difficult areas - being overgrown by bushes, where there



Hand mowing
photo: Lars Lachmann



Tractor mowing
photo: Piotr Marczakiewicz



„Ratrak”
photo: Lars Lachmann

but important for local farmers. At these times, large areas of land were used this way. Apart from Aquatic Warblers, this area was home to large numbers of many other, now rare bird species, especially waders.

Due to the modernisation of agriculture, its mechanisation and the introduction of new breeds of cattle, the fen mires at Biebrza lost their significance. The new highly productive cattle breeds refuse to eat hay from sedges, and these wetlands are too swampy for the use of farming machines. Hence, from the beginning of the second half of the previous century, the farmers started to abandon the haymaking in the fen mires. On the mire called Bagno Ławki, the main breeding site of Aquatic Warblers in Poland, the traditional use of fen mires finally ceased in the 1980s. The sedge mires abandoned by farmers, started to overgrown with reeds, willows,

it. One of the park's most important aims is to improve the habitat of Aquatic Warbler through the implementation of conservation activities. These actions are implemented in places, where Aquatic Warblers do not breed anymore, where there are few birds, or soon there will be none, if such an area is abandoned. On the best breeding habitat no technical activities need to be realised. Hence, there is no danger, that the birds will not be able find any place to breed because the whole area has been mown, when they arrive.

Most of the activities were planned for Bagno Ławki, because of the fact, that in this very place alone more than 50 % of all Polish Aquatic Warblers breed. The first conservation activities within the LIFE project were implemented in 2005, but only in late September 2007 the works started in full. At the beginning, four-wheel-drive farming tractors

was no mowing conducted for a long time. Therefore, as an exception, this method was chosen, to prepare these areas to be mown in the coming year with the use of methods which make collection of the biomass possible. Leaving mown biomass on the site just once is acceptable on sites with a low nutrient content like the mires in the Biebrza Valley, but repeating this in the following years results in creating a litter layer, which is too thick and makes the area unsuitable for the birds. The effect could be opposite to the desired one.

Farming tractors are not the ideal solution for working in such boggy places. Although twin-wheels were mounted, a drier period and drier places were chosen, the machines left deep tracks. When autumn rains appeared, the ground became too wet for the tractors to access the mires. Only the arrival of winter could make it possible to con-



Border between mown and unmown fen mire
photo: Lars Lachmann

duct the works on the frozen ground. As it is known, the winter of 2007/2008 was very warm - the period of time when it was possible to access the mires lasted only two weeks. In total, from September 2007 until March 2008, mowing and bush removing with tractors was conducted on 377 ha in Bagno Ławki. However, much more was originally planned. A solution of this problem was invented by a local producer - Mariusz Grunwald, who especially for conducting works within the LIFE project bought a used piste basher, called "ratrak" in Polish, and adjusted it for mowing on boggy terrain. It came out, that this machine, invented for working in deep snow, works very well on swamps. With the help of its caterpillar tracks, it can move over swampy grounds, even when the moisture reaches its highest level (when the water is over the ground level), without leaving tracks, just traces of squashed vegetation.

Mr Grunwald, is now planning to construct a system, that will make it possible to remove biomass without leaving it on the site. Because such a harvester for mowing in fen mires was a prototype, it demanded constant adjustments and in its first year could not yet work at its full capacity. Still, by the end of March 2008, this machine had mown and removed bushes on 565 ha.

In 2007, additional mowing took place outside the LIFE project on Bagno Ławki, mainly supported by agri-environmental schemes. The combined area of mowing and bush removal within and outside the project exceeded 1000 ha for the mowing season 2007/2008. This is a record, at least since the establish-

ment of the National Park and probably even before this. Such a large area was mown last time, when farmers were still implementing large-scale hand scything, many years ago.

In spring 2008, the freshly mown areas proved to be a magnet for breeding wader species which hadn't bred in these areas for a long time. E.g. in the area around the boardwalk at Bagno Ławki you could observe good numbers of displaying Lapwings, Black-tailed Godwits and Redshanks there. As the results of the 2008 Aquatic Warbler census on Bagno Ławki show, the management has also proven beneficial for the Aquatic Warbler: The overall number of singing males on Bagno Ławki increased by 300 males against the previous year, with areas mown by the "ratrak" showing the largest increase, while areas mown by tractor in average showed even a small decline during the first year after mowing.

We are aware, that a lot of work still needs to be done. The bushes and reeds which were cut, will grow again, so the mowing will need to be repeated many times. The area covered by the activities will be enlarged, because apart from the LIFE project, the Biebrza National Park is planning to lease out part of its grounds to farmers, which will be able to conduct the activities supported by the Aquatic Warbler package of the agri-environmental schemes. The monitoring activities which allow evaluating the results of the conservation activities, will be conducted all the time. Thanks to that, we will be able to react immediately, if something wrong happens, and will be happy if our efforts bring the results we all hope for.

Big Return to Zajęcze Łęgi

Paweł Jabłoński

**LIFE Site Manager
at Karsiborska Kępa and Zajęcze Łęgi**

Zajęcze Łęgi is one of the project sites of the Aquatic Warbler LIFE project and is located within the administrative borders of the town of Świnoujście. Until 2002, this site was occupied by singing males of the Aquatic warbler. In the early 1990s, over 100 singing males occurred here. Later, Aquatic warblers disappeared from this place because their habitat deteriorated due to abandonment and changes of the previous agricultural land use.

Fortunately, in 2007 two singing males of the Aquatic warbler were spotted. Their return is an effect of several years of effort to restore Aquatic warbler habitat. In consultation with OTOP and supported by agri-environment payments, Zbigniew Szychulski, the owner of the land to which the Aquatic Warblers returned - had re-introduced extensive grazing and mowing on abandoned land since 2005. The LIFE Project enabled him to build the necessary fencing to introduce extensive grazing. The re-introduction of mowing and extensive grazing stopped the expansion of reeds and generally improved the structure of the vegetation for the Aquatic Warbler.

From 2009 onwards, Mr Szychulski plans to move on to the new "bird package", an agri-environmental scheme ideally suited to the protection of rare bird species including the Aquatic Warbler.

This gives us the hope that the Aquatic Warblers will return to this site in the future and will be able to increase their numbers.



Aquatic Warbler
photo: Mateusz Matysiak
www.mateuszmatysiak.pl

Marek Jobda
OTOP
 Agriculture
 Policy Officer

“The Bird Package” – big chance for Aquatic Warblers

Developing Management Plans

Michał Radziszewski
 LIFE Project Management Assistant

Management Plans are documents, containing an inventory and evaluation of nature and economic values of a site and recommendations or prescriptions for its management. Within the LIFE Project, management plans focusing especially on the conservation needs of the Aquatic Warbler without ignoring other natural values are being developed for all nine project sites, an area covering 42,000 ha. These plans will then be presented to the appropriate authorities with the aim to include these detailed plans into the general management plans for the Natura 2000 sites, within which the LIFE project sites are located.

For the needs of the LIFE project, an international group of specialists has developed guidelines and templates for the preparation of these plans for the use of local experts who will prepare the management plans for each of the project sites.

Each plan will be consulted with local stakeholders (land owners, farmers, local authorities etc.) during at least two public meetings, before it is finalised. All site management plans should be produced until the end of 2009 and from then on will guide and advise all conservation work at these sites for the benefit of the Aquatic Warbler.



Consultation with stakeholders in Rozwarowo
 photo: Geoff Welsh



New agri-environmental schemes have been elaborated by the Polish Ministry of Agriculture with key contributions from OTOPI and other Polish NGOs. They were approved by the European Commission in September 2007 and will be implemented for the first time in 2009. According to these, every farmer interested in extensive management of meadows and pastures, will be able to implement the so-called package 3 “Extensively managed permanent pastures and meadow”, without having to prove a special natural values of his land. In this situation, consulting an expert naturalist is not needed, but what is enough is an agri-environmental activity plan developed by a consultant. If a farmer possesses meadows or pastures of high nature value - e.g. breeding Aquatic Warblers, what is to be proved by an expertise elaborated by a botanist or ornithologist, he will be able to apply for the so-called “nature packages”.

Nature packages consist of ten different variants - one of them was developed in co-operation with OTOPI - “Conservation of breeding habitats of birds”, commonly called the “bird package”. Its aim is to conserve breeding habitats of Montagu’s Harrier, Corncrake, Lapwing, Black-tailed Godwit, Redshank, Common Snipe, Great Snipe, Curlew, Dunlin and Aquatic Warbler.

This bird package signifies a big step forward for Aquatic Warblers in Poland, both on the sites covered by the LIFE project and outside their borders. The protection of birds is guaranteed by the postponement of mowing until 1 August, when most of them have reared their young, and the extensification of grazing cattle, which leads to a reduced risk of nest trampling and ensures a suitable vegetation structure. At the same time, the attractive payment (1200 PLN/ha outside Natura 2000 areas or 1370 PLN/ha within Natura 2000 areas) is a big encouragement to continue agricultural land use in the areas threatened with abandonment or to prevent intensification in areas currently used extensively.

In addition to the bird package, there are also similar packages for threatened habitat types (called the “habitat package”, some of which are also suitable for Aquatic Warblers. Hence, suitable sites, which currently do not hold Aquatic Warbler can still benefit from these programmes, so that they might become suitable for the species in the near future.

Rolnik ubiegający się o płatność powinien użytkować łąkę lub pastwisko według następujących zasad:

- » gospodarować zgodnie z planem działalności rolnośrodowiskowej, sporządzonym przez doradcę rolnośrodowiskowego, wraz z uprawnionym ornitologiem
- » kosić łąkę corocznie w terminie od 1 sierpnia do 30 września, pozostawiając 5-10 % części łąki niekoszonej
- » wypaszać zwierzęta w okresie od maja do 20 lipca przy obsadzie do 0,5 DJP/ha, a od 20 lipca do października – 0,5-1 DJP/ha

Wysokość płatności rolnośrodowiskowej – 1370 PLN/ha na obszarach Natura 2000 (lub 1200 PLN/ha poza nimi)

* szczegółowe informacje na temat wymogów można uzyskać u doradcy rolnośrodowiskowego

Płatność ma na celu ochronę miejsc gnieźdzenia gimnacych ptaków łąki i pastwisk:

biegusa zielonego, błotniaka łąkowego, czajki, derkacza, alarka, krowobłob, kszyska, kulika wietrznego, ryjczyka i wodniczki

Program rolnośrodowiskowy

Ochrona siedlisk lęgowych ptaków

Poszukiwani mieszkańcy łąki i pastwisk

Wodniczka

Dopłata 1200–1370 zł za ha trwałego użytku zielonego zamieszkanego przez tego ptaka!

Oferta dla rolników

Leaflet promoting the “Aquatic Warbler package” Marek Jobda



photo: François Griffault



photo: François Griffault

Gathering data for an “Optimal Habitat Model” for the Aquatic Warbler in Eastern Poland

Susanne Bärtsch, François Griffault, LIFE Project Interns

Optimal habitat conditions for Aquatic Warblers have already been studied in Belarus and in Pomerania, but they are not necessarily applicable in eastern Poland, where typical habitats are slightly different. There, Prof. A. Dyrz studied habitat conditions in his famous breeding ecology study plot in the Biebrza National Park. However, a standardised description of the best habitats (i.e. “optimal habitat”) in the most important Eastern Polish breeding sites has not yet been prepared. Such a description or model would be useful to compare the habitat conditions created by habitat management measures within the LIFE project against it – and to prove whether the management actions succeed in bringing habitat conditions closer to the ideal conditions. Such a model for eastern Poland would complement the existing models for Belarus and Pomerania.

The most important breeding areas for Aquatic Warblers in eastern Poland are situated in the Biebrza National Park (a LIFE project site) and in the Lublin area (Poleski National Park and Chełm Landscape Park, both not included in the current LIFE Project). A field study on the “optimal habitat conditions” of Aquatic Warbler on these sites was conducted in June 2007 by two OTOP volunteers, François Griffault (France) and Susanne Bärtsch (Germany).

The description of the optimal Aquatic Warbler habitat was based on:

- counts of singing males of Aquatic Warbler;
- description of vegetation structure and composition;
- invertebrate sampling with sweep nets and Moericke traps.

In order to ensure comparability, the same methodology as in the LIFE monitoring guidelines was used. One exception was made: To allow for the survey of many transects, the number of vegetation sample plots within the sampled transect was reduced from ten to four. Aquatic Warbler counts were conducted by a team of volunteers supervised by Grzegorz Grzy-

waczewski (Lublin University) and Piotr Marczakiewicz (LIFE Project Site Manager for the Biebrza NP). Based on Aquatic Warbler counts from previous years, transects were chosen representing a gradient from suboptimal to very good habitat. In the Biebrza National Park field work was done between 1st and 12th (vegetation sampling and sweep netting) and at 22nd and 23rd June (collecting invertebrates traps). During this time, 11 transects were sampled, most of them in Bagno Ławki. Working on one transect took about one day, including access to the sampling area, sampling itself and storing sampled invertebrates in alcohol in the evenings after the field work.

In the Lublin region, there were two study sites – Poleski National Park and Chełm Landscape Park. Field work was done from 13th to 18th (vegetation sampling and sweep netting) and from 23rd to 28th (collecting traps) June. In this area, five transects were sampled: four in the Poleski National Park (three in Bagno Bubnow and one in Bagno Staw) and one in the Chełm Marshes (Rezerwat Roskosz).

After the field work, the invertebrate samples were analysed by counting, measuring and classifying them systematically. A first analysis of the data was done in cooperation with the LIFE Projects Technical Advisors Janusz Kloskowski and Franziska Tanneberger, but further research in the following year has to be done to complete the data and to enable the development of an adequate model for the optimal Aquatic Warbler habitat conditions in Eastern Poland.

We hope that our work will be useful for Aquatic Warbler protection and will help the site managers to evaluate their management actions. We also want to thank all people who helped us during this period, both in the field and in OTOP’s office in Marki, and of course the “wodniczka” who gave us the opportunity to discover a part of the wonderful Polish nature...

Aquatic Warblers in the Ujście Warty National Park

Magdalena Bartoszewicz
Ujście Warty National Park

photo: Magdalena Bartoszewicz

The first records of singing Aquatic Warbler males from the area of today's Ujście Warty National Park (former Słońsk Nature Reserve) come from 1969, then from 1970, 1972 and only starting from 1994 it started to appear more often in the Lower Warta Valley. It appeared, that the rather small areas of sedge mires in the park are attractive breeding habitat for this species. In the years following 1994, Aquatic Warblers appeared irregularly and in differentiated quantity, and its numbers fluctuated between 0 and 50 singing males.

Annual fluctuations of water levels are characteristic for this area and sometimes reach 4 m. This does not favour the establishment of a strong local breeding population and may be the primary reason for the strong fluctuations in numbers that we observe. Although the drainage system in the area is well developed, it has not been maintained for many years, so that nowadays there is no possibility to regulate the water level in the areas inhabited by or

potentially suitable for Aquatic Warblers. The National Park does not possess the data describing water levels in the years with the biggest numbers, which is why such information needs to be collected. It may give a clue, which level of water is the most appropriate for this species in this area.

The areas, on which Aquatic Warblers were present most often, have not been for agriculture for many years, what was probably adverse both for stabilization and growth of the population. Therefore, the National Park decided to implement active conservation measures in the potential Aquatic Warbler habitats to improve the condition of the existing and potential breeding sites. Since 2005, late summer mowing of c. 200 ha of sedges and the following removal of biomass are one of the priority activities and are included in the annual conservation targets of the Park. Because these areas are classified as agricultural land, it is possible for the Park to take part in the agri-environmental schemes, which provides

valuable financial support for these conservation measures. The introduction of the new generation of agri-environmental schemes in 2009 will allow the Park to upgrade to the so-called birds and habitat packages within the Natura 2000 sites, which allows better adjustment of the conservation activities to the demands of Aquatic Warbler. In this way, without acquiring additional non-governmental funds, it became possible to manage the sedge mires in a way, which results in the recreation of optimal habitat. Over the last two years, Aquatic Warblers were present also in areas leased by farmers from the Park and used by them as meadows with two cuts a year. Every time singing males of Aquatic Warbler are recorded on the meadows managed by these farmers, the park orders to postpone the date of the first mowing until the birds have finished their broods.

The amount of biomass collected as a result of mowing, especially at the beginning of the programme, after many years of lack of land use, was very

big, and its management after removal was a big problem. The quality of the hay was not appropriate to be used as fodder or even bedding for domestic cattle. Gradually, this problem was solved as well. In the next year of using, the quality of biomass was already better and the hay was delivered to the zoological garden. Now, the problem of biomass management has been solved. As a consequence of the growing interest of investors in the production of biofuels, in the neighbourhood of the Park there are new facilities being built, which transform biomass for the

energetic use. In 2007, an agreement for delivering of biomass was signed with one of such firms.

The biggest problem for the improvement of the Aquatic Warbler habitat is still the lack of possibility to adjust the water level according to the needs of this species. But also in this field the Park has started to act. In co-operation with the NGO "Polish Birds", we started implementing the project "Swamps are good!". The general aim of the project is to plan improved systems to manage water conditions in the "Northern Polder", a part of the Ujście Warty National

Park with an area of c. 3000 ha. Of this, 110 ha is potential Aquatic Warbler habitat, which is mown by the Park. As an extension of the project it is planned to deal with the improvement of water conditions in the protected zones Stońsk and Chyrzyno, i.e. exactly those areas, where Aquatic Warblers are present at the moment, which on many years are either too dry or completely flooded.

For the effects of these activities we will still have to wait, but we hope, that Aquatic Warblers will appreciate our efforts and will stay for longer.



photo: Magdalena Bartoszewicz

Helping birds and business

Lars Lachmann

LIFE Project Coordinator

Together with Cemex Polska, co-financers of our current LIFE Project, we are at the moment preparing an exciting new project for submission to the EU's LIFE+ budget line this autumn. The project aims to set up a sustainable system for the use of late-cut biomass from Aquatic Warbler habitats and other high-nature value farmland managed according to the requirements of agri-environmental schemes.

The project will focus on the Aquatic Warbler sites in the Chelm Marshes, the Poleski National Park and in the Biebrza and Narew Valleys of eastern Poland. Biomass from these sites will be used as carbon-neutral alternative fuel in Cemex' cement burning plant at Chelm or as raw material for biomass briquettes. Additionally, we will also test the production of high quality garden compost. At the end of the project, we anticipate a self-sustaining system that ensures good condition for Aquatic Warbler habitats, supports local farmers and helps Cemex to reduce its carbon emissions.



Biomass briquettes
photo: Lars Lachmann



Biomass briquetting machine
photo: Lars Lachmann

Why land purchase can help the Aquatic Warbler

Lars Lachmann
LIFE Project Coordinator

Over the last century, the Aquatic Warbler has been deprived of most of its natural habitat, tree and bush-free fen mires. The vast majority of the sites occupied by the species today depend on regular extensive human land use to maintain an appropriate vegetation structure and to prevent the habitat from overgrowth with trees and bushes. While in the past the large-scale drainage of peatlands was the main problem, it now is the abandonment of land use.

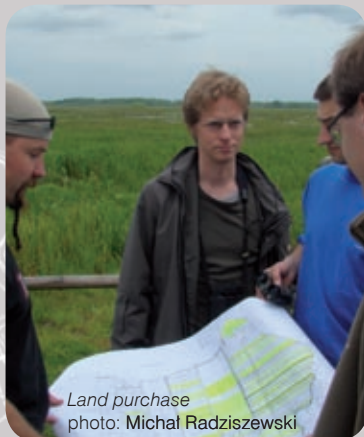
In several of our project sites, our main task is therefore to work with the local landowners and farmers to ensure regular extensive management. The new agri-environmental programmes in Poland, especially the targeted Aquatic Warbler scheme, can be of great help in this respect.

Still, there are many parcels that are already abandoned and will not be used any more, because the owners have given up agriculture or don't have the means to mow them, because access is difficult or simply because the owner has moved away.

In these cases, we try to purchase the land with money from the LIFE project in order to restore the habitat and to introduce extensive management. To ensure sympathetic land use in the long run, we also offer to purchase land from local owners and lease it immediately back to the previous owner under the condition that they will manage the land for Aquatic Warblers. This gives them the chance to benefit from agri-environmental programmes and ensures good habitat conditions.

This way we aim to create new informal nature reserves consisting of a mosaic of parcels owned by local farmers and the LIFE Project partner organisations, all of them in good Aquatic Warbler condition. We are currently developing management plans for these sites, which will be binding for our site managers and serve as recommendations to the other landowners.

Until March 2008, the Biebrza National Park has bought c. 330 ha of abandoned marsh land in the Bagno Lawki area, while OTOP has purchased 170 ha in three sites just outside the borders of the Biebrza National Park, the majority of which is located between the village of Mscichy and the western border of the National Park. Another 10 ha OTOP has bought at the Krajnik project site in western Poland. Land purchase will continue at three sites in western Poland and in the Biebrza valley, wherever this appears to be necessary for the conservation of Aquatic Warblers and their habitat.



Burning as an alternative habitat management tool?

Lars Lachmann
LIFE Project Coordinator

Local people tell us, that not too long ago, fires occurred regularly on Polish fen mires inhabited by the Aquatic Warbler, e.g. in the Chełm Marshes, but also in what is today the Biebrza National Park. Some of these fires were natural, but many may have been set on purpose to improve the quality of the hay. The impact of these fires may have been disastrous, if they occurred during the breeding season, but in any case, they prevented the open mires from overgrowth by trees and bushes.

To prevent the negative impacts of fires, Article 124 of the Polish Nature Protection Act now prohibits the burning of any open habitat following the example of other European countries. Consequently, fires are now very rare. Unfortunately, this also led to an acceleration of bush succession.

In most western European countries, but also in Belarus, it has therefore now been recognized that fire does not always have to be negative, but can – when used in a proper way – serve as an alternative and cheap habitat management tool. In these countries, e.g. in Germany, it is now possible to obtain special permissions for burning with the aim of nature conservation. From research in Belarus we know that burning of old fen mire vegetation every three to five years in mid-winter over a layer of ice or snow creates optimal breeding conditions for Aquatic Warblers and keeps the mire open, but burning in spring or summer when the mire is dry would be disastrous.

Burning as a management tool is a delicate issue: it can be an alternative, effective and cheap tool, but if used improperly it can do more harm than good. This difference has to be communicated to local people who might observe nature conservation staff setting fire.

Within the LIFE Project, we plan to test the effects of burning on our German project site in the Peene Valley, and we are talking to the Polish government with the aim to enable burning trials in Poland as well.



Marek Jobda

OTOP
Agriculture
Policy
Officer

Everyone is searching for Aquatic Warblers! Training workshops for agri-environmental advisors



photo: Marek Jobda

Effective use of the agri-environmental scheme for the protection of Aquatic Warbler and other endangered bird species will be possible only after a widely targeted information campaign among farmers and appropriate training of agri-environmental advisors and naturalist experts co-operating with them. Unfortunately, to date many interested farmer could not obtain appropriate help, mainly because of the limited resources of agricultural consultancy. There are still relatively few advisors and not all of them are experienced with nature topics.

Being aware of the need for active conservation of Aquatic Warbler and other birds of agricultural landscapes, OTOPI developed activities aiming at a more effective implementation of the new agri-environmental packages. These activities, as a part of the campaign "Nature Friendly Agriculture", are being implemented through several different projects run by OTOPI, among them the Aquatic Warbler LIFE project. The main task performed in 2007 was a training programme for agri-environmental advisors.

The programme was organized in within a project run by the Centre of Agricultural Consulting in Brwinów. It was attended by the vast majority of the advisors, that is over 1500 people. All participants had an opportunity to learn about the priority meadow and pasture plant communities, including habitats of Aquatic Warblers and other valuable bird species. The training programme was also a perfect occasion to create the fundamentals for effective co-operation between local experts in the field of ornithology and botany and agri-environmental advisors working in the same area.

This year, a continuation of the "Nature Friendly Agriculture" campaign is planned. For the needs of the agri-environmental schemes, OTOPI will create a list of ornithologist-experts, which will include amongst others the site managers of each LIFE project site. A new edition of OTOPI's "Nature manual for agri-environmental advisors" is currently being prepared, which is to help them in their work with farmers. Informational materials for farmers will be issued, describing the bird package, including a special brochure dedicated to the Aquatic Warbler.

Best Practice Workshops

Michał Radziszewski
LIFE Project
Management Assistant

During the course of the project, three annual Best Practice Workshops are foreseen. The first one took place in October 2006 in the Biebrza National Park. The second one was held in the Poleski National Park in October 2007, the third one in the Ujście Warty National Park in October 2008. The aim of these workshops is to discuss practical aspects of Aquatic Warbler conservation and to exchange experiences in habitat management methods used at each of the project sites and at other sites beyond the project. This is also the occasion where recommendations of the Technical Task Force are presented and discussed. The second aim of these workshops is to facilitate contact between the LIFE Project and other relevant experts and representatives of other organisations dealing with the conservation of Aquatic Warblers at other sites or in other countries. Reports from all workshops are being circulated among interested parties and published on the project website.

At the end of the project, a final conference for a broader audience will be organised in the Biebrza National Park, to summarize and present the results of the project, discuss experiences gained during its implementation and the methods of conserving Aquatic Warbler. Materials from the conference and other materials prepared during earlier Best Practice Workshops, will be published in the form of an „Aquatic Warbler Conservation Handbook”.



Best Practice Workshop in the Poleski National Park
photo: Lars Lachmann



Project progress at Karsiborska Kępa

Paweł Jabłoński
LIFE Site Manager
at Karsiborska Kępa
and Zajęcze Łęgi

Wood for fence poles
photo: Lars Lachmann



Ditch cleaning
photo: Lars Lachmann

The whole year 2007 was extremely wet. Even the oldest local people cannot remember such a high water level in this place. But despite of these inconveniences we tried to do our best to fulfil our planned LIFE-project duties.

In 2007, we started to renovate the melioration system of Karsiborska Kępa, which will eventually allow us not to drain the site, but to regulate the water level and to guarantee an optimal water level at all times. For this, in 2007, we cleared six water passages and 1900 meters of ditches with the help of external companies and 2400 meters with our own forces. At the same time, we repaired the existing pumping station, which in future years will allow us to reduce the water levels should we experience another year as wet as 2007. The work will be continued in 2008 and 2009, mainly by

installing pipes that will allow us to take in water from the river during dry periods.

The highest water level we experienced when we tried to clear the Aquatic Warbler habitat from the old biomass. Water level was so high that if we tried to mow the cutting mechanism of the mowing machine was below water level. It would definitely have damaged the equipment so we resigned of summer mowing. Instead, this year we did winter mowing in January 2008 with biomass gathering (it was done with the help of a local reed grower who used the special harvester).

In 2007, we also started preparatory works to build fences for cattle. We managed to prepare wooden poles (esp. taking off the bark) though it took lots of time because of heavy rains and to buy barbed wire. Building fence is our priority task in 2008.

Buying mechanical equipment is necessary to implement management actions according to project application. We bought two tractors with drum mowers, shredding mower, trailer, baling machine for hay as well as smaller equipment like a chainsaw.

One of our tractors with 85 HP will be used as a universal machine, for many actions from mowing to biomass transport etc. A second smaller one with 50 HP, is planned to be used with a drum mower on islands in the Świna Delta. It needs to be lightweight to facilitate transport by boat. The new shredding mower enables the clearing of the Aquatic Warbler habitat that has not been mowed for many years. It is necessary to prepare sites for extensive grazing. The drum mower will be used to mow leftovers not eaten by the grazing animals and for mowing to remove biomass (the baler for hay will



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