

# *The Aquatic Warbler*

The International Seminar  
„ACHIEVEMENTS, SUCCESS STORIES AND LESSONS LEARNED  
OF THE AQUATIC WARBLER CONSERVATION“,  
19–21 May 2015, Ventė, Lithuania



*Update on the global situation  
and conservation status*



*Martin Flade, chairman of the BirdLife  
International Aquatic Warbler Conservation Team*





# Globally threatened species



Foto: M. Hirt



Most threatened  
passerine bird of  
continental Europe,  
classified as  
'vulnerable' at a  
global scale

Photo: Zymantas Morkvenas







Zvanets, Belarus, early June 2005





Biebrza, NE-Poland, May 2010

# The BirdLife International Aquatic Warbler Conservation Team (AWCT) ...



an informal association of researchers and conservationists working on the Aquatic Warbler coming from all breeding range states and some stopover and wintering countries (France, Spain, UK, Belgium, Senegal)



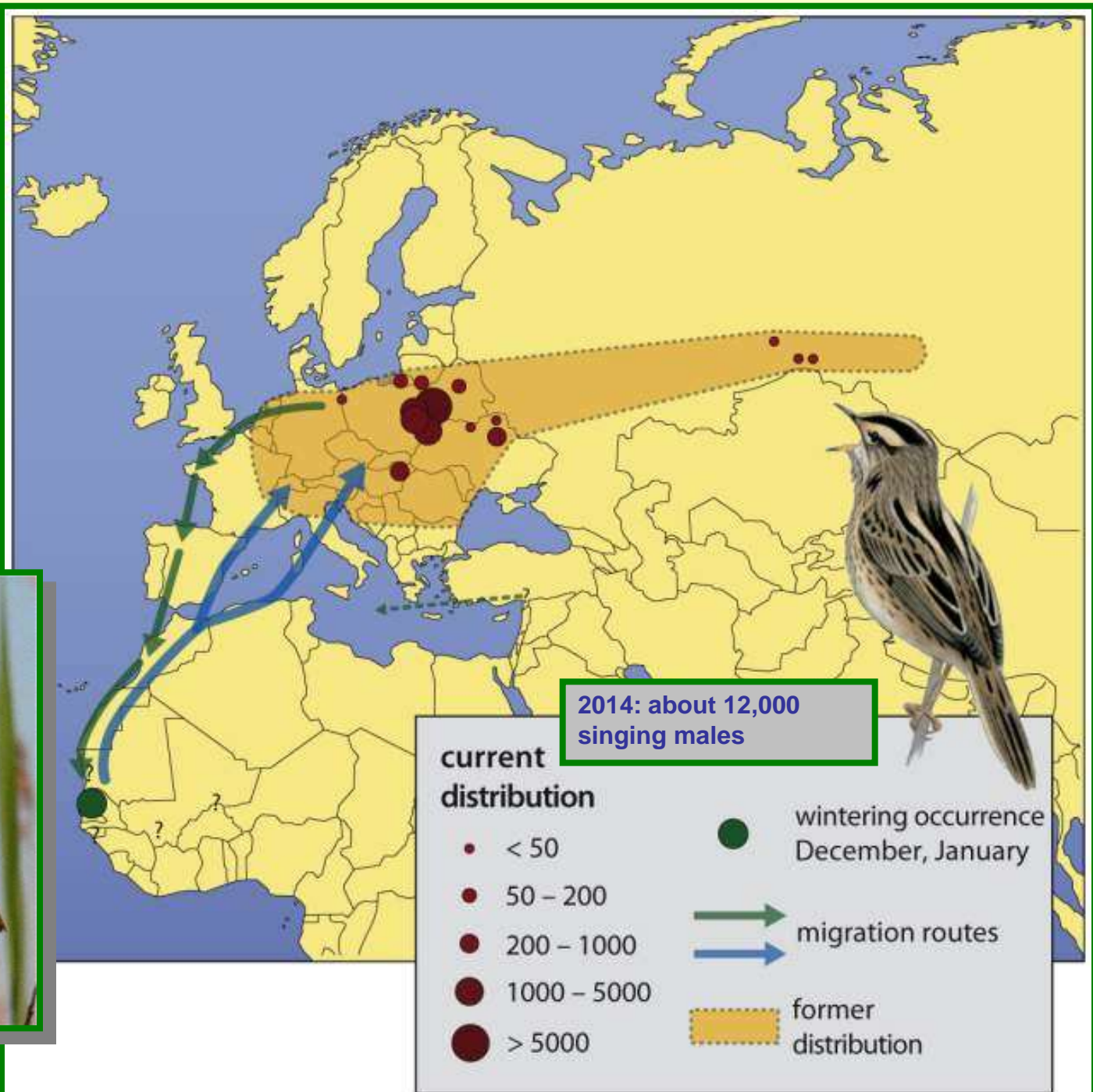
# Current situation in the breeding areas



Biebrza, NE-Poland, May 2010



# Aquatic Warbler range

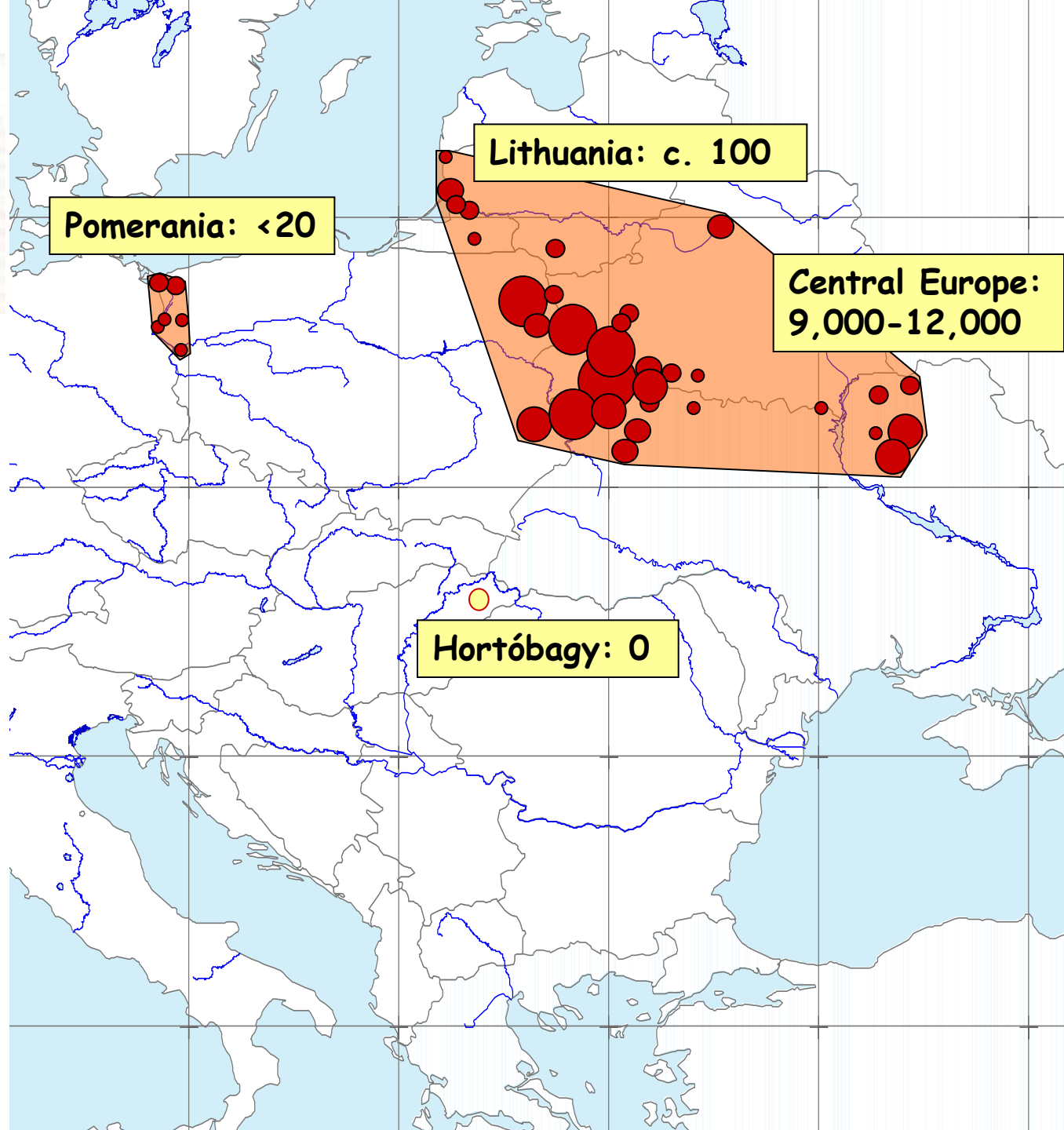




# Aquatic Warbler

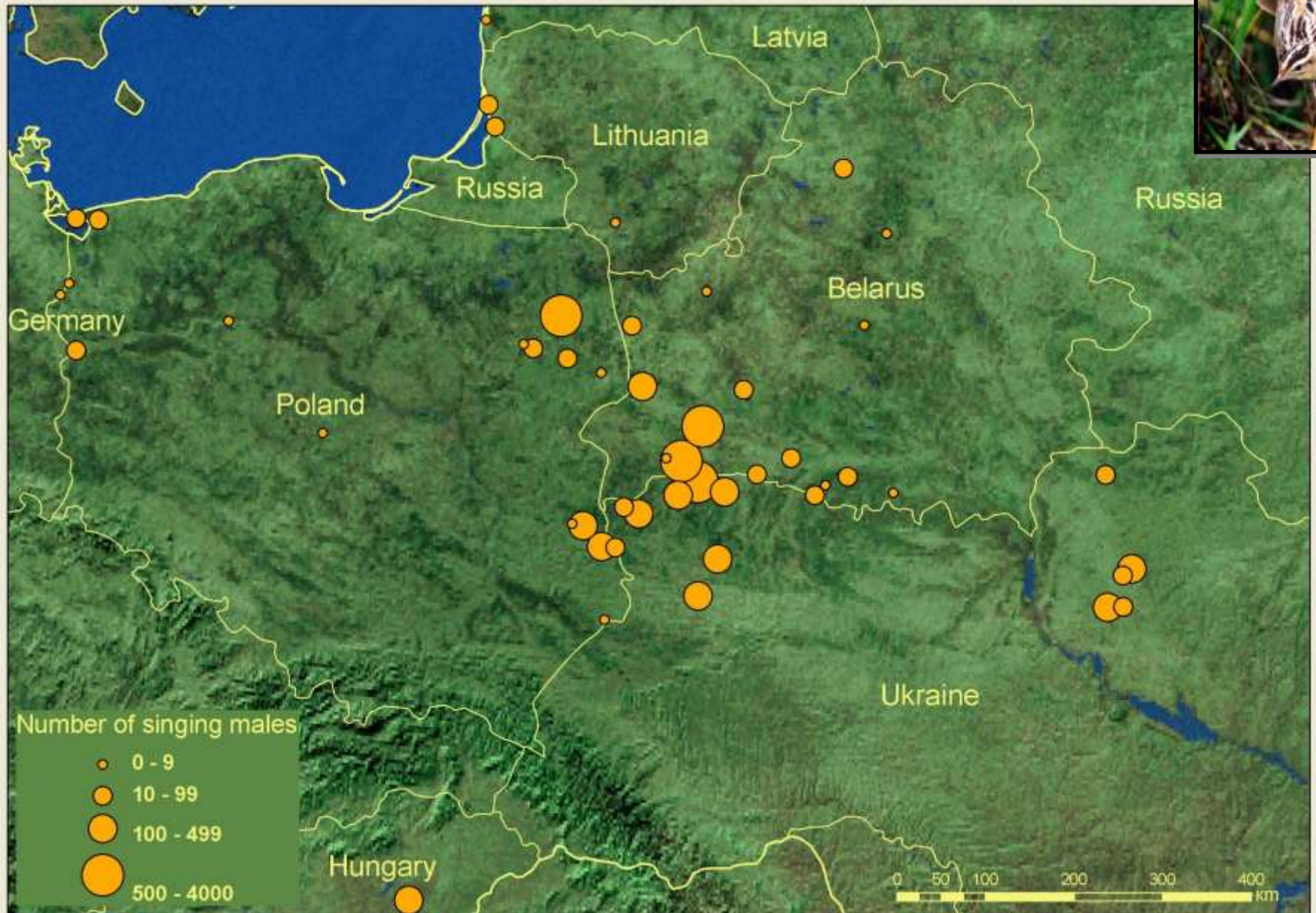


Current breeding  
distribution  
(maximum number of  
singing males)





# Breeding populations of Aquatic Warbler (Flade et al., in prep.)

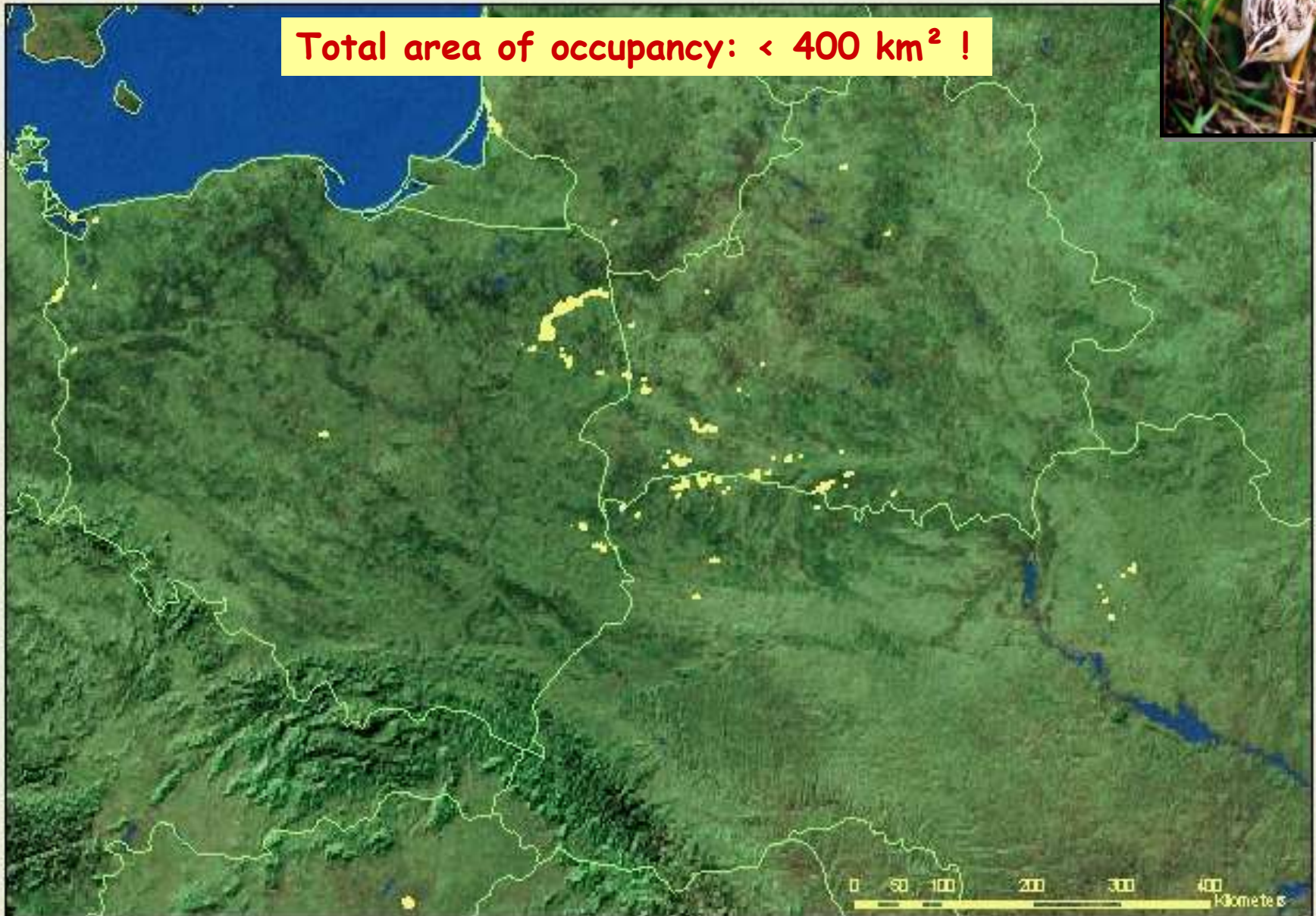




# Breeding sites of Aquatic Warbler (Flade et al., in prep.)

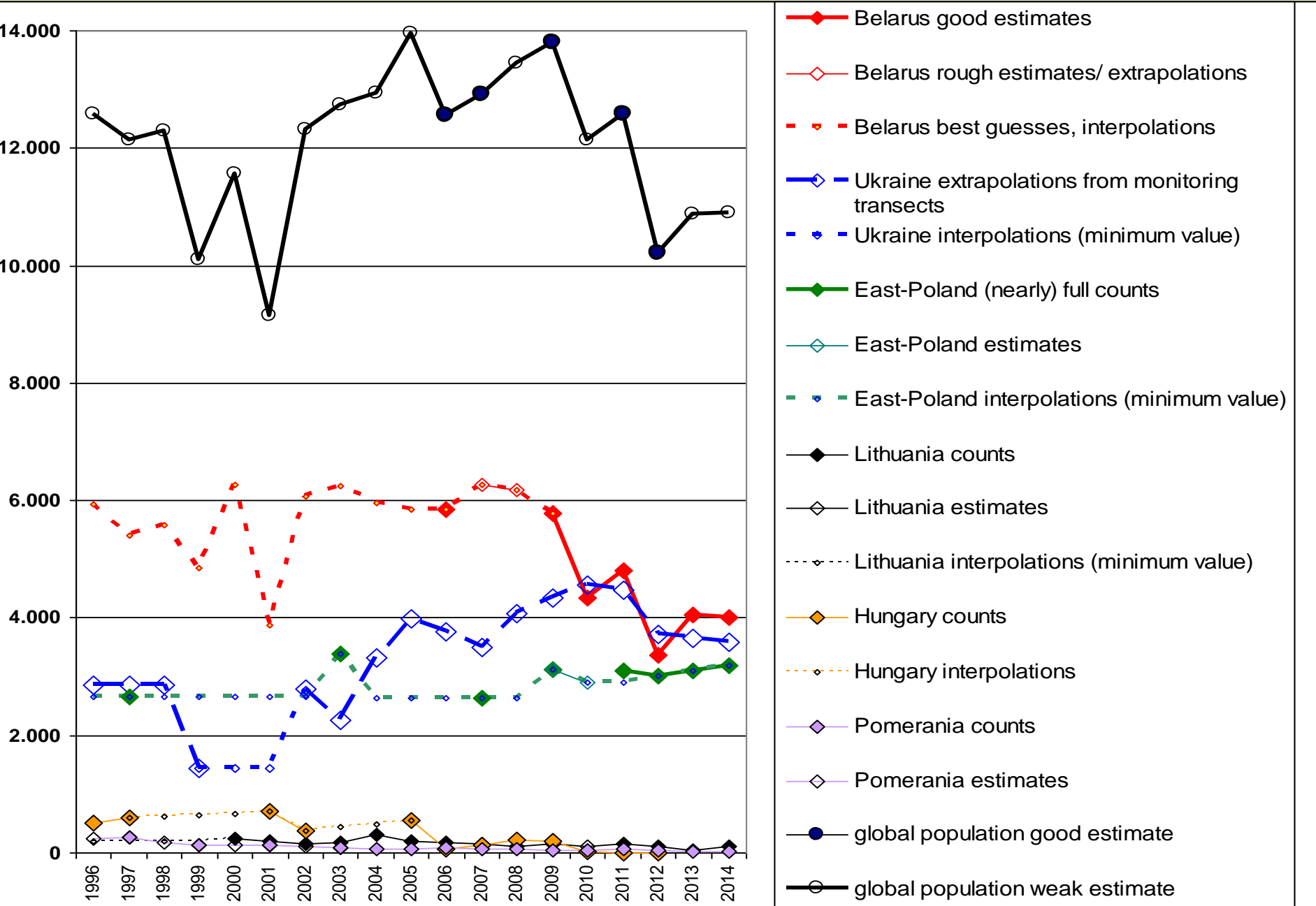


**Total area of occupancy: < 400 km<sup>2</sup> !**

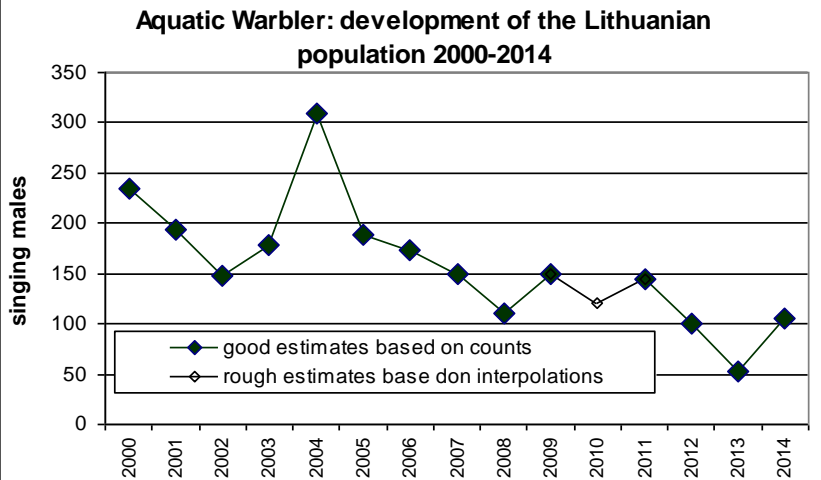
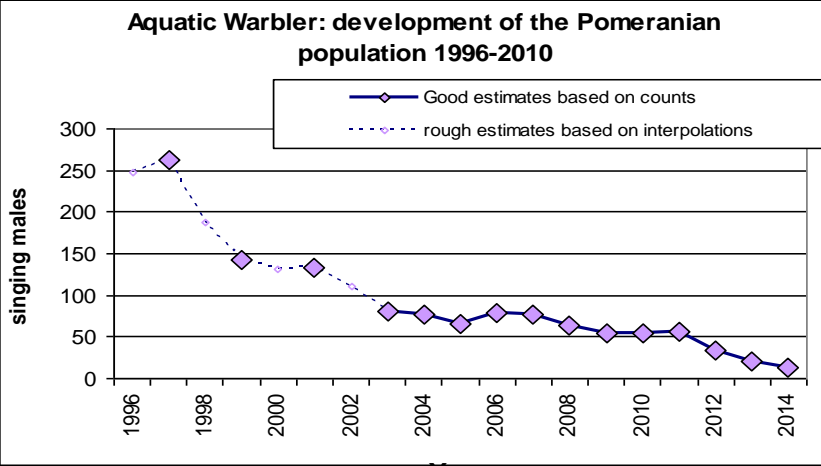
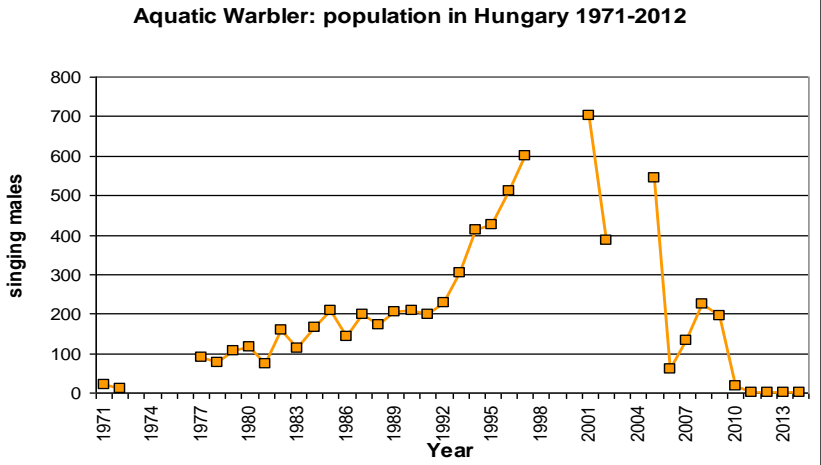
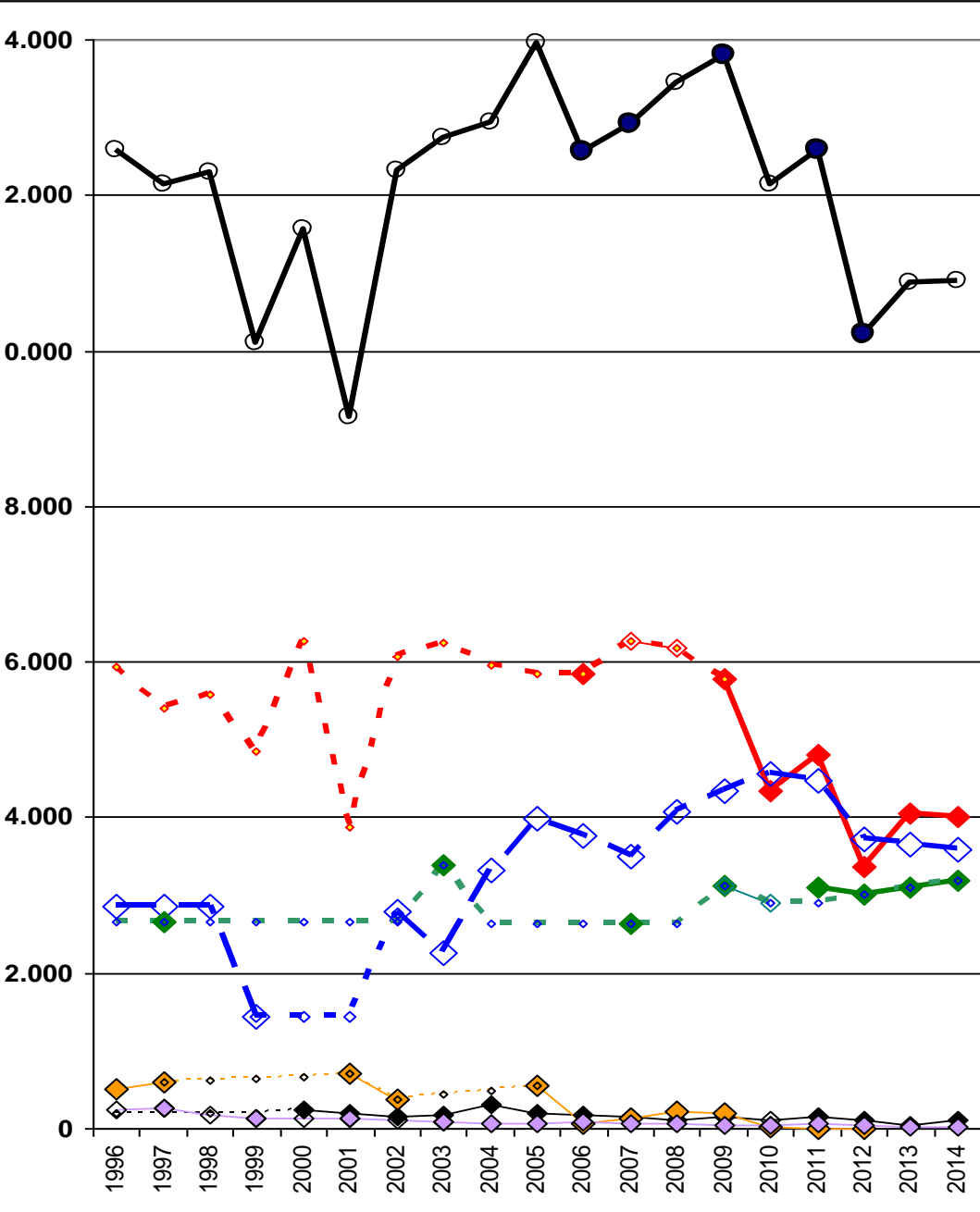




# Estimated Global population development of Aquatic Warbler since 1996 (AWCT data)



# Estimated Global population development of AW





A photograph of a field in a state of abandonment. The foreground and middle ground are filled with tall, dry, yellowish-brown grass. Several green bushes with small, round leaves are scattered throughout the field. In the background, a dense line of trees is visible under a grey, overcast sky. A semi-transparent yellow box with red text is overlaid on the lower-left portion of the image.

Abandonment leads to  
overgrowth with  
trees and bushes (Biebrza)





## EU LIFE Projects

on the Conservation of Aquatic Warbler in Pomerania and NE-Poland (2005-2010)

and on AW conservation through biomass use (2011-2015)



Production of biomass  
briquets and pellets in  
Trczianne, NE-Poland





# Achievements of the first LIFE project:

and of course:

## more and better AW habitat



- 3,200 ha actively managed by the project
- >4,000 ha under AES packages good for AW
- Area occupied by AW within managed areas strongly increased at Biebrza
- Strong indications for higher densities of AW after mowing at Biebrza



Situation in the moulting  
and wintering areas





# CONVENTION ON MIGRATORY SPECIES

## International treaty for a small brown bird

In 2003 a *"Memorandum of Understanding concerning conservation measures for the Aquatic Warbler"* has been signed and ratified by 12 range states of the species as a sub-agreement to the Bonn Convention on Migratory Species - the first and only international treaty for a *"little brown bird"*.



Convention on the Conservation of  
Migratory Species of Wild Animals  
(CMS)



### **Memorandum of Understanding concerning Conservation Measures for the Aquatic Warbler**











# A model for successful inter-continental co-operation to protect a globally threatened migratory species under CMS



The Senegal 2007 Team

for results see Flade et al 2011:  
J Ornithol 152 (supplem. 1): 129-140

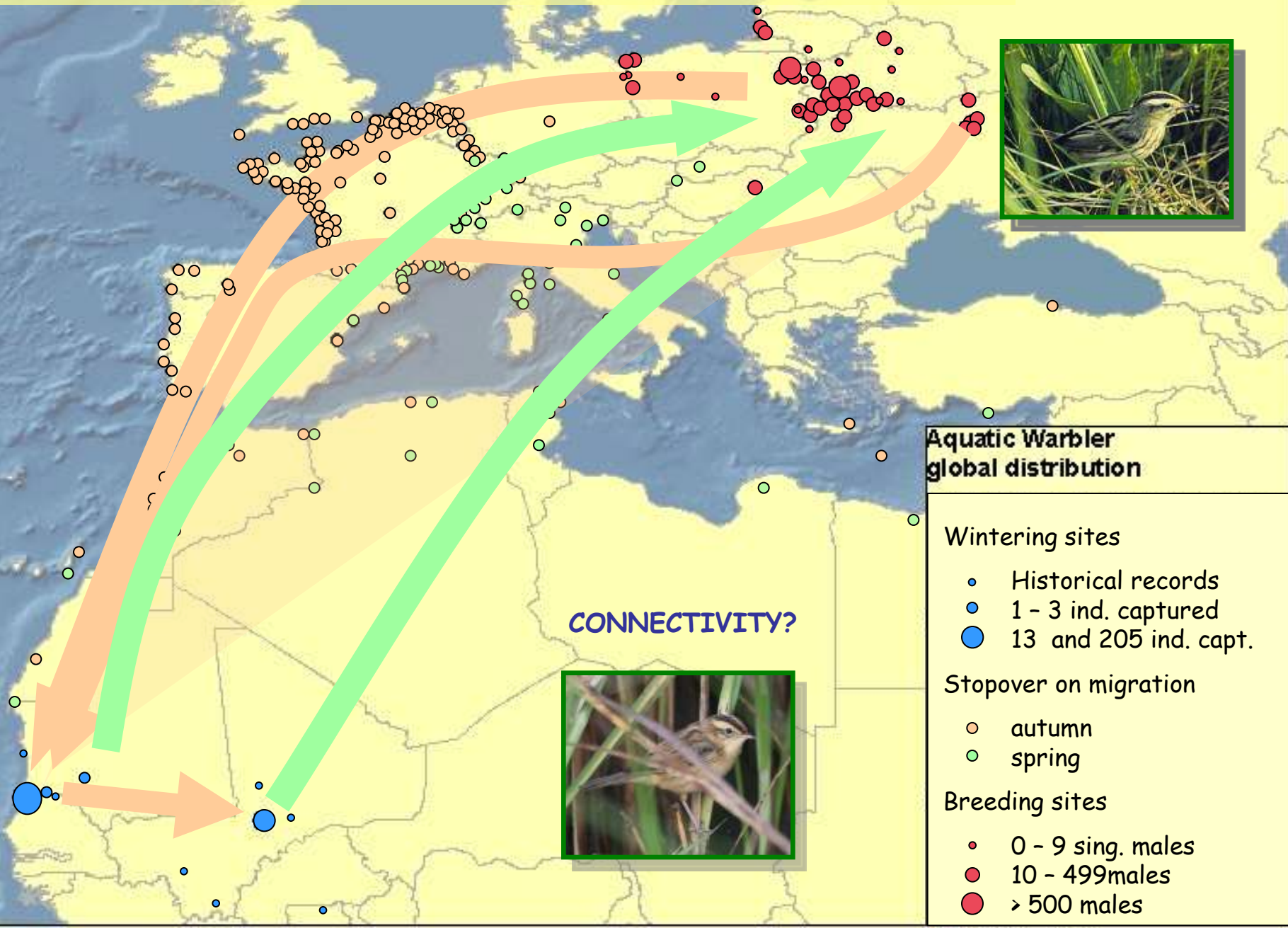




French Group ACROLA (Julien Foucher et al.) at the Niger in Mali, February 2011



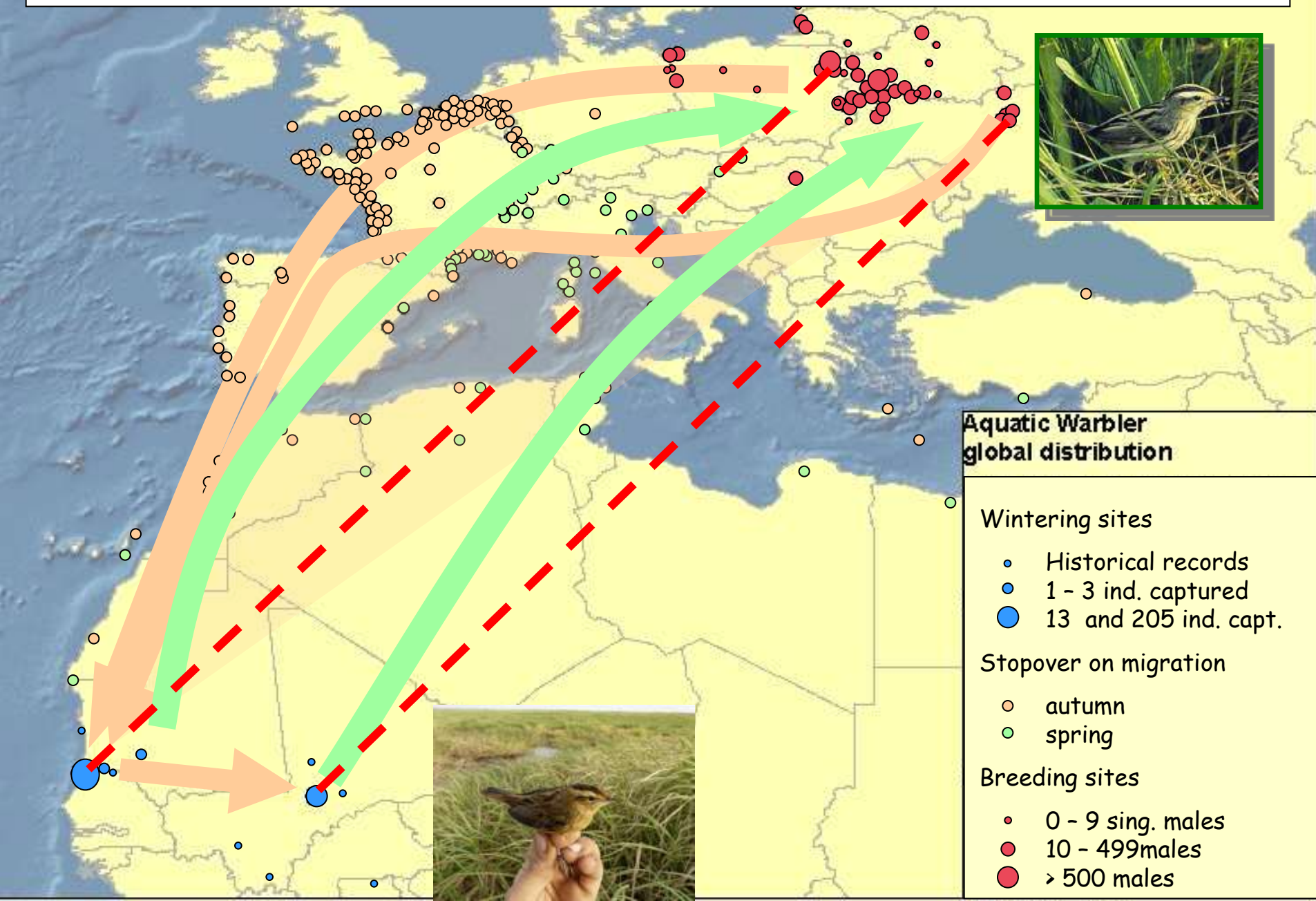
# Global distribution of Aquatic Warbler





# Aquatic Warblers ringed at the wintering sites and recovered in the breeding grounds

Poluda et al. 2012, Ringing & Migration, DOI:10.1080/03078698.2012.691250





from:

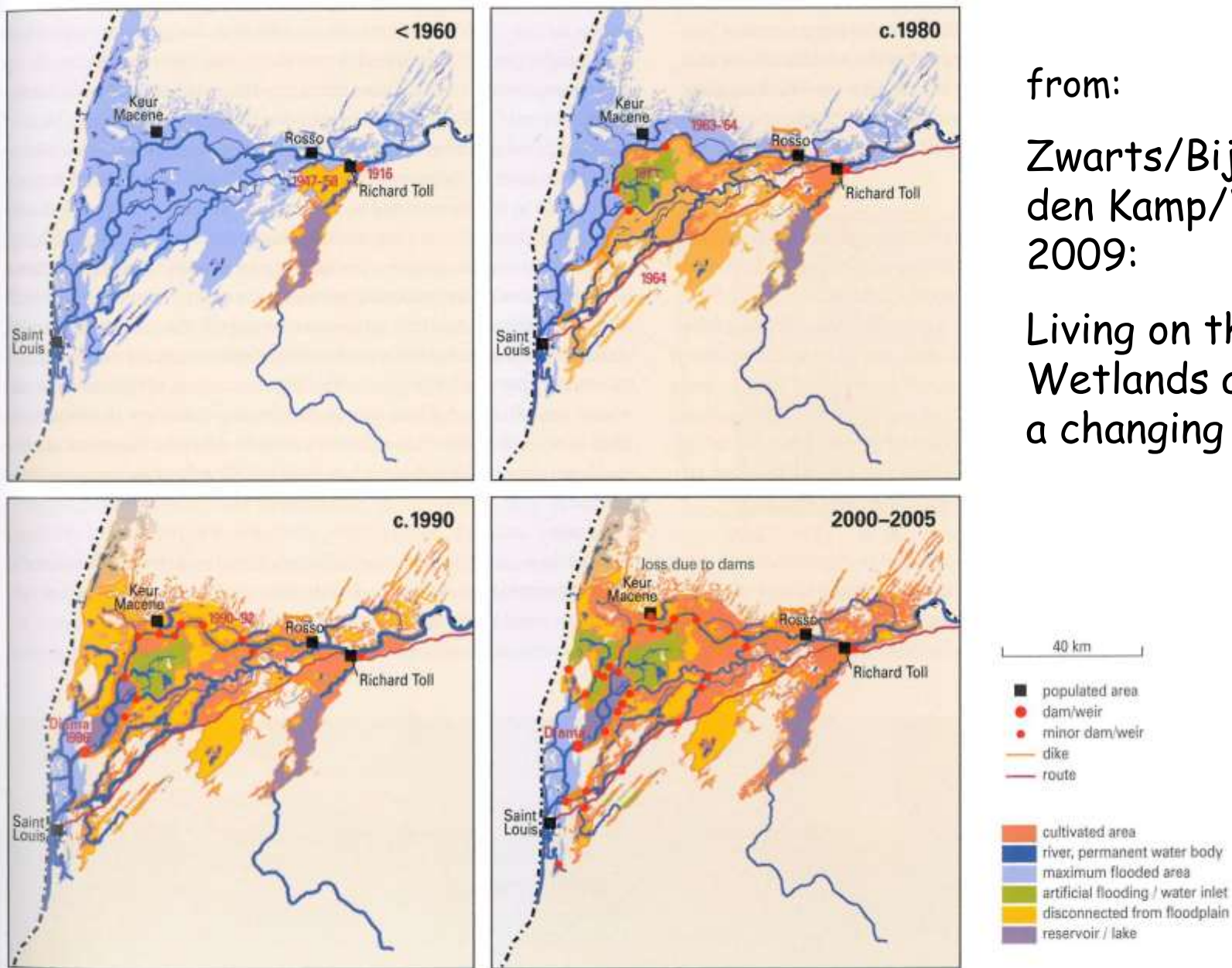
Zwarts/Bijlsma/van  
den Kamp/Wymenga  
2009:

Living on the edge.  
Wetlands and birds in  
a changing Sahel.



**Fig. 66** The Lower Senegal Delta, showing Lake R'kiz in the north, Lake Guiers in the south and the main watercourses. The map indicates the maximum inundation at high floods in the past. From: 1:200 000 IGN-maps (based on aerial photographs of 1954 and ground surveys in 1957).





from:

Zwarts/Bijlsma/van  
den Kamp/Wymenga  
2009:

Living on the edge.  
Wetlands and birds in  
a changing Sahel.

**Fig. 67** The Senegal Delta showing dikes and dams and, approximately, years of completion. From: IGN-maps and sources mentioned in the text. The map also shows the area under cultivation. From: IGN-map (survey 1957), Fournier & Smith (1981) and Wulfraat (1993); data and maps provided by OMVS and SAED.



## Drought in the Inner Niger Delta in winter 2011/2012

February 2011

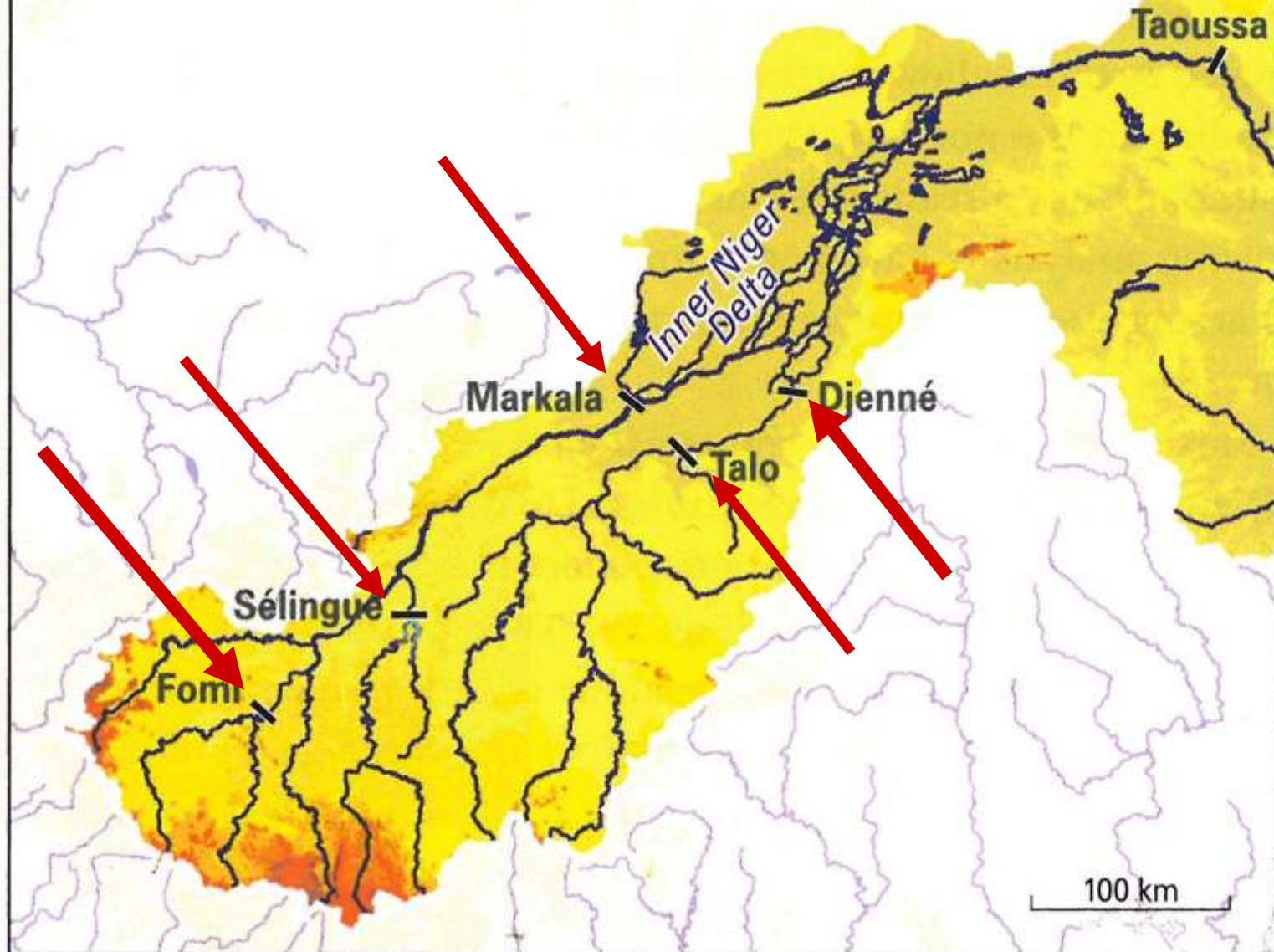


November 2011





Existing (1.-3.) and planned (4.-5.) river dams  
in the catchment of the Inner Niger Delta  
(after Zwarts et al. 2009)





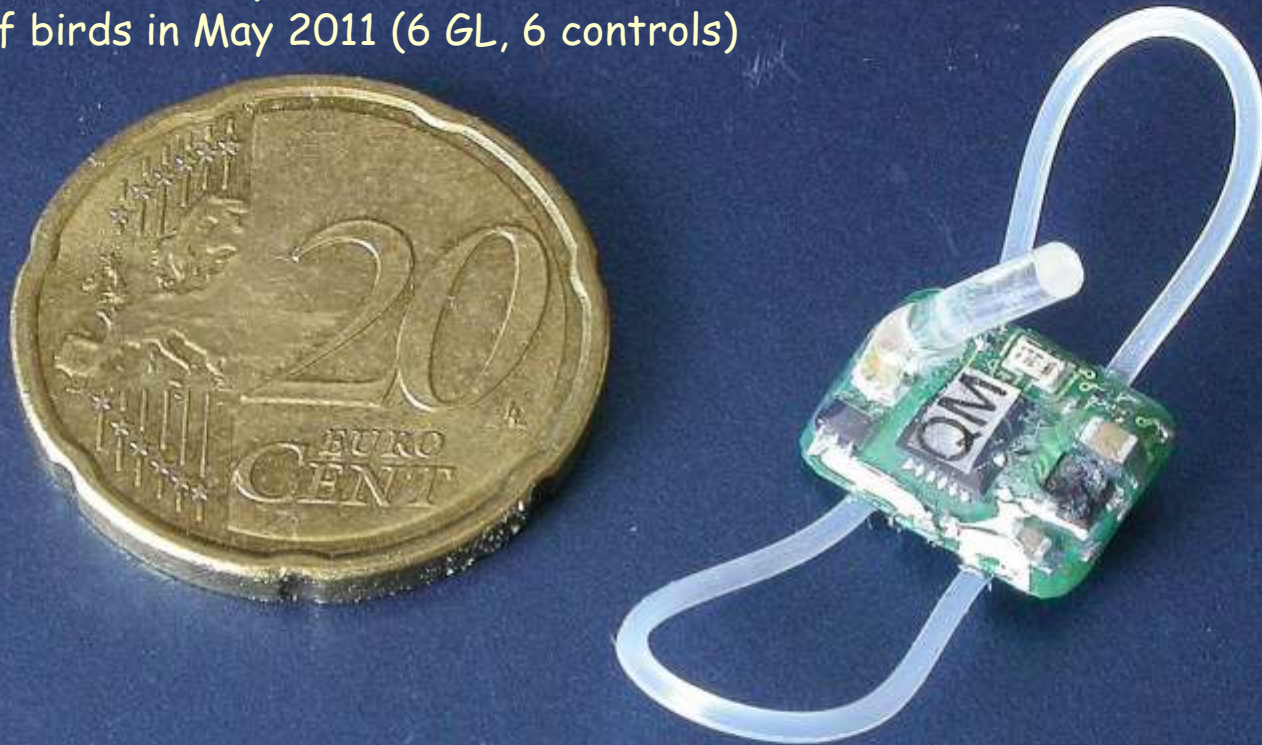
# Bottleneck Sahel?

very rapid change:

- Large-scale transformation of the hydrology of rivers, their floodplains and estuaries => **almost done**
- transformation of naturally flooded wetlands into fresh water reservoirs (Diama Reservoir; Richard Toll/Lac de Guiers; Keur Macène; ...) => **ongoing**
- rapid increase of hydro-agriculture (whole Senegal floodplain) => **ongoing**
- Overgrazing of flooded grassland (inner Niger delta) => **description see Zwarts et al. 2009**

# The Geocator Project – to study connectivity between wintering and breeding sites

- Geolocators measure light intensity (every 5 minutes)
- data are stored for one year
- birds have to be recaptured to retrieve the logger data;
- positions during migration and wintering can be calculated by sunrise and day length
- Isolated population in central Ukraine (Supoj) chosen for the first pilot study (30 males with GL, 16 controls)
- recapture of birds in May 2011 (6 GL, 6 controls)

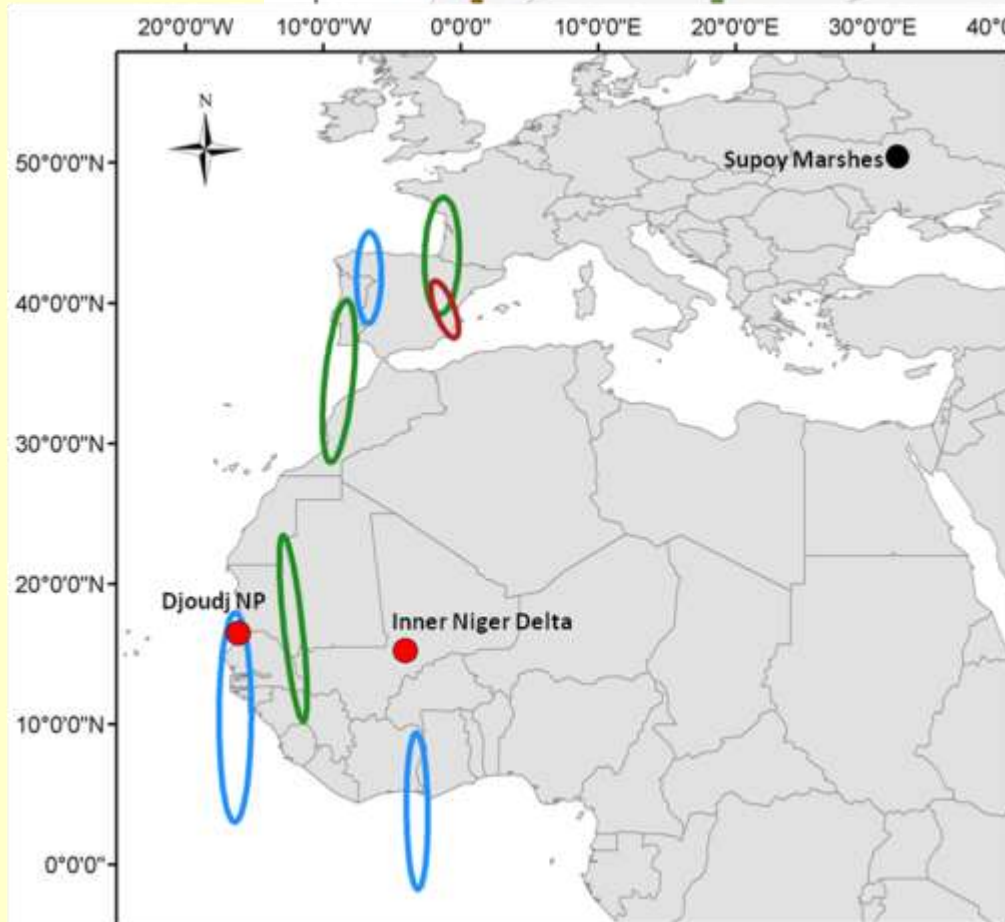
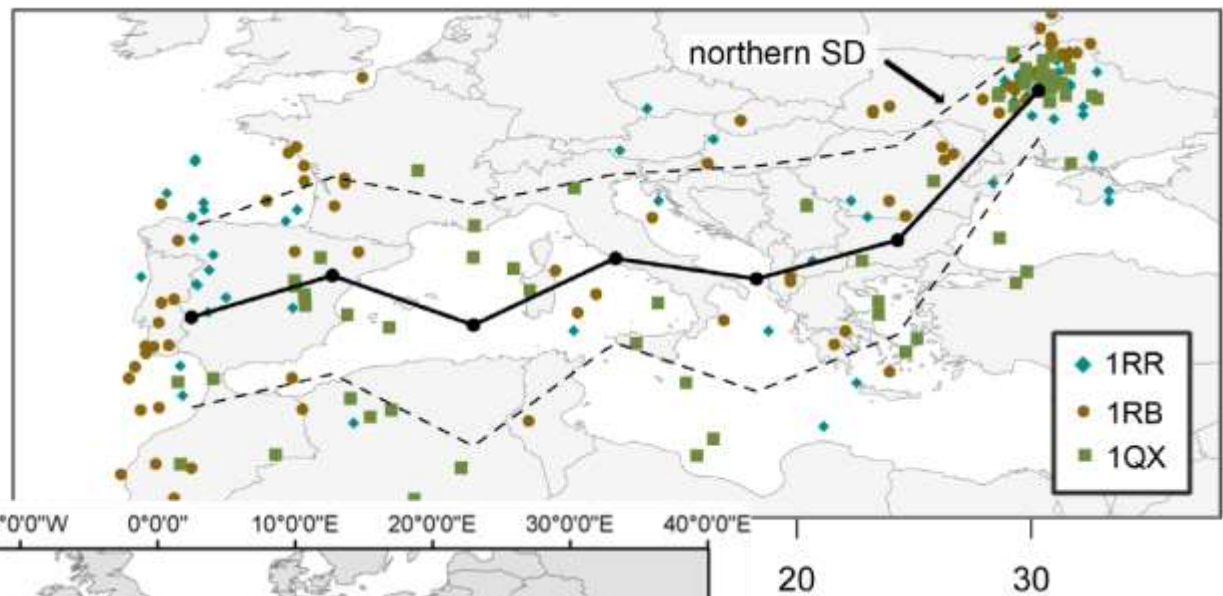






## Geocator Project:

First results from  
the first pilot study  
2010/11

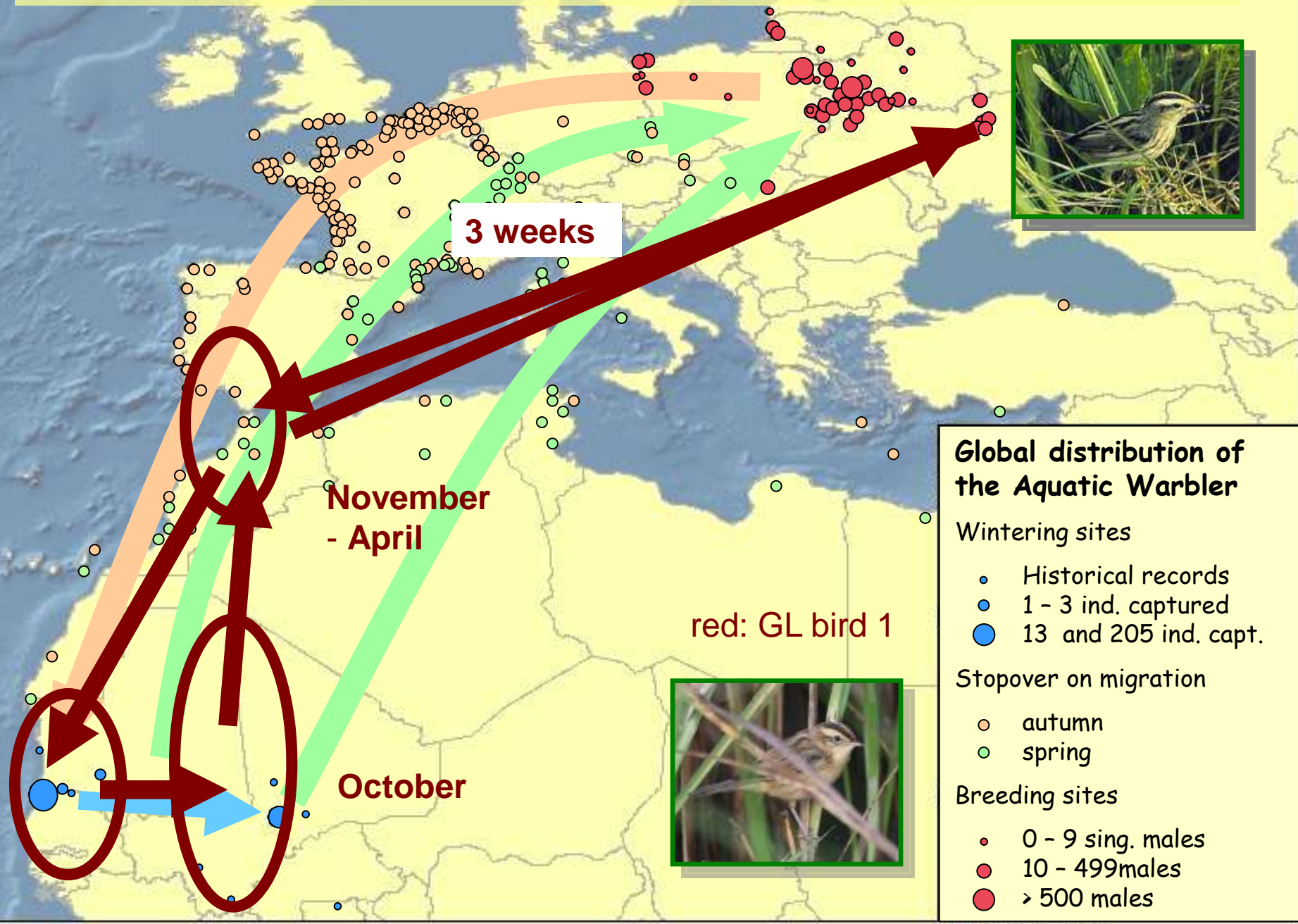


from:

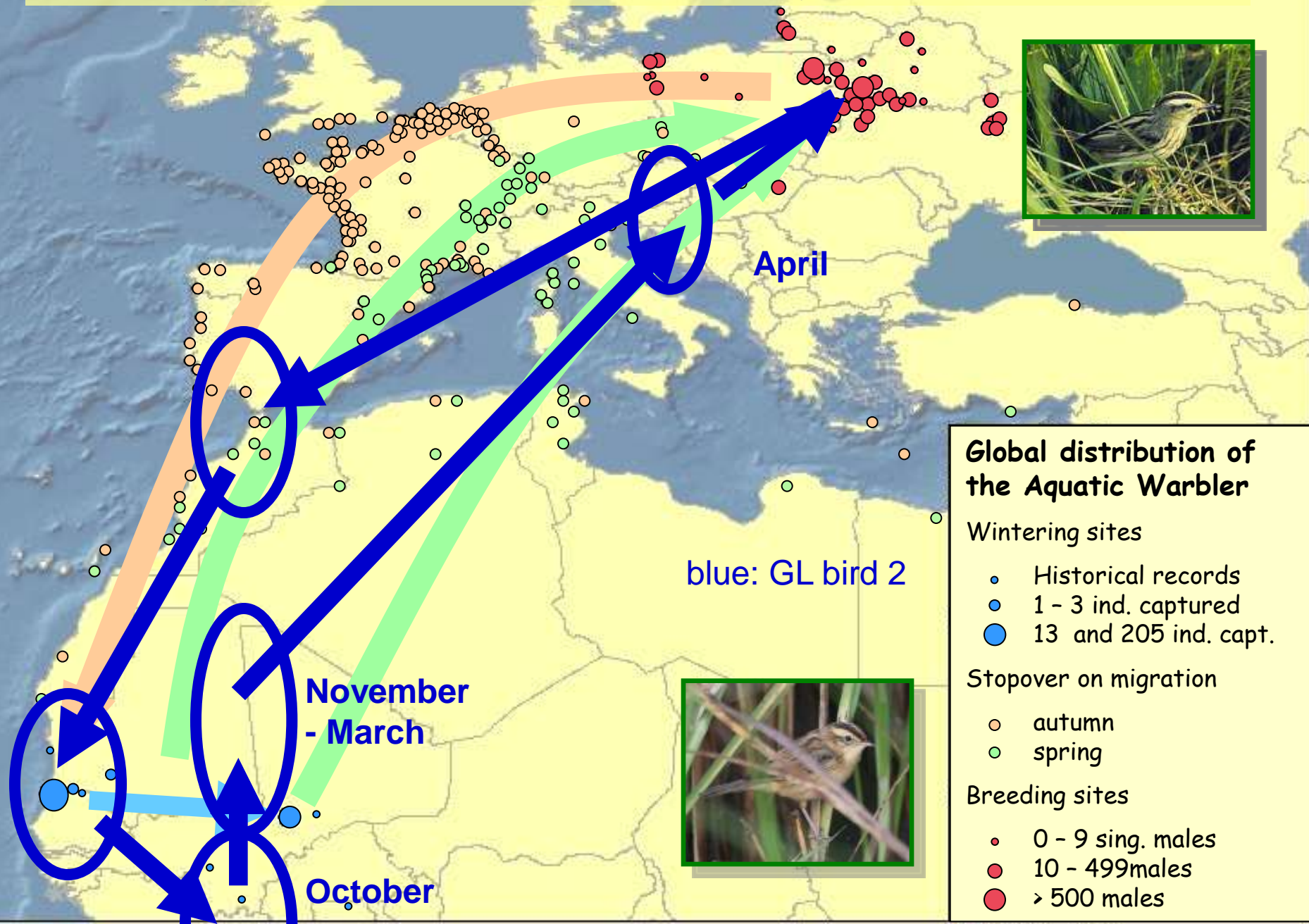
Salewski et al. 2013  
(J. Ornithol. 154)



## 2 Examples of the second GL study 2012-2013



## 2 Examples of the second GL study 2012-2013






## change in the major threats – the global view

|                 | until mid-1990s  | today   |
|-----------------|--|---|
| Breeding range  | habitat loss through... <ul style="list-style-type: none"><li>- drainage</li><li>- agricultural intensification</li><li>- peat extraction</li></ul>  | habitat loss through... <ul style="list-style-type: none"><li>- vegetation succession</li><li>- abandonment</li><li>- [intensification]</li></ul> |
| Wintering range | ongoing habitat loss through transformation into <ul style="list-style-type: none"><li>- hydro-agriculture (rice, sugar cane)</li><li>- fresh water reservoirs</li></ul> and <ul style="list-style-type: none"><li>- invasive plants like <i>Typha australis</i></li><li>- climate change, desertification (?)</li><li>- overgrazing (?)</li></ul> |   |

# change in global priorities in AW conservation

|   | Before c. 2000  | today  |
|---|---|--|
|  <p>Breeding range</p> | <ul style="list-style-type: none"> <li>- Site protection</li> <li>- restoration of hydrology</li> <li>- stabilisation of hydrology</li> <li>- agricultural extensification</li> </ul> | <ul style="list-style-type: none"> <li>- restoration of hydrology</li> <li>- vegetation management                             <ul style="list-style-type: none"> <li>mowing techniques,</li> <li>controlled burning</li> </ul> </li> <li>- biomass use</li> <li>- How to save the peripheral populations?!</li> <li>- ex situ measures, translocation?</li> </ul> |
| <p>Wintering range</p>  | <ul style="list-style-type: none"> <li>- identification of wintering and moulting sites</li> </ul>  | <ul style="list-style-type: none"> <li>- identification of wintering/ moulting sites</li> <li>- try to understand the full annual cycle</li> <li>- research on threat factors</li> <li>- site protection - but how to manage??</li> </ul>  |



## Current priorities in AWCT work

1. Full count of NW-Ukrainian AW core population (Pripyat-Stochid NP) with volunteers, 2015 and probably 2016
2. Continuation of research on migration/wintering by means of new geolocators (2016-2017)
3. Support of fieldwork in Africa (ACROLA u.a.)
4. Translocation Feasibility study

## Suggested priorities of international AW conservation

1. Development of economically sustainable methods of fen mire management and biomass use (esp. in Belarus + Ukraine)
2. Translocation pilot project, connected with habitat improvement in Pomerania and „stepping stones“ in central Poland
3. Monitoring of AW productivity through ringing in France/Spain
4. Approaches to initiate/support AW habitat conservation in Africa

Thanks for support to

Royal Society for the Protection of Birds (RSPB)

Michael Otto Stiftung für Umweltschutz

Deutsche Ornithologen-Gesellschaft (DO-G)

Deutsche Bundesstiftung Umwelt (DBU)

UK Department for Environment, Food and Agriculture (DEFRA)

MAVA Stiftung

Naturschutzbund Deutschland (NABU)

Sekretariat der Bonner Konvention (CMS)

O.M.H. Schmidt-Felsche Stiftung

BirdLife Belarus (APB)

The Wetlands Trust

and

The members of the Aquatic Warbler Conservation Team, especially:

Poland: Janusz Kloskowski, Jarek Krogulec, Grzegorz Kiljan, Lars Lachmann, Piotr Marczakiewicz, Andrzej Dyrzcz; Belarus: Alexander Kozulin, Viktor Fenchuk, Uladzimir Malashevich, Oleg Pareyko, Luba Vergeichik, Arkady Skuratovich; Belgium: Norbert Roothaert; France: Bruno Bargain, Julien Foucher, Arnaud LeNévé, Germany: Karl Schulze-Hagen, Benedikt Gießing, Sebastian Körner, Sven Baumung, Hans-Günther Bauer, Jürgen Jebram, Tanja Leinweber, Torsten Ryslavy, Volker Salewski, Franziska Tanneberger, Cosima Tegetmeyer, Susanne Arbeiter; Latvia: Oskars Keiss; Lithuania: Zymantas Morkvenas, Zydrunas Preiksa, Arunas Pranaitis, Renatas Jakaitis; Russia: Mikhail Kalyakin, Sergej Tsibulin, Sergej Soloviev, Vladimir Morozov; Ukraine: Anatoly Poluda, Igor Gorban; Hungary: Zsolt Végváry; Senegal: Ibrahima Diop, Indega Bindia