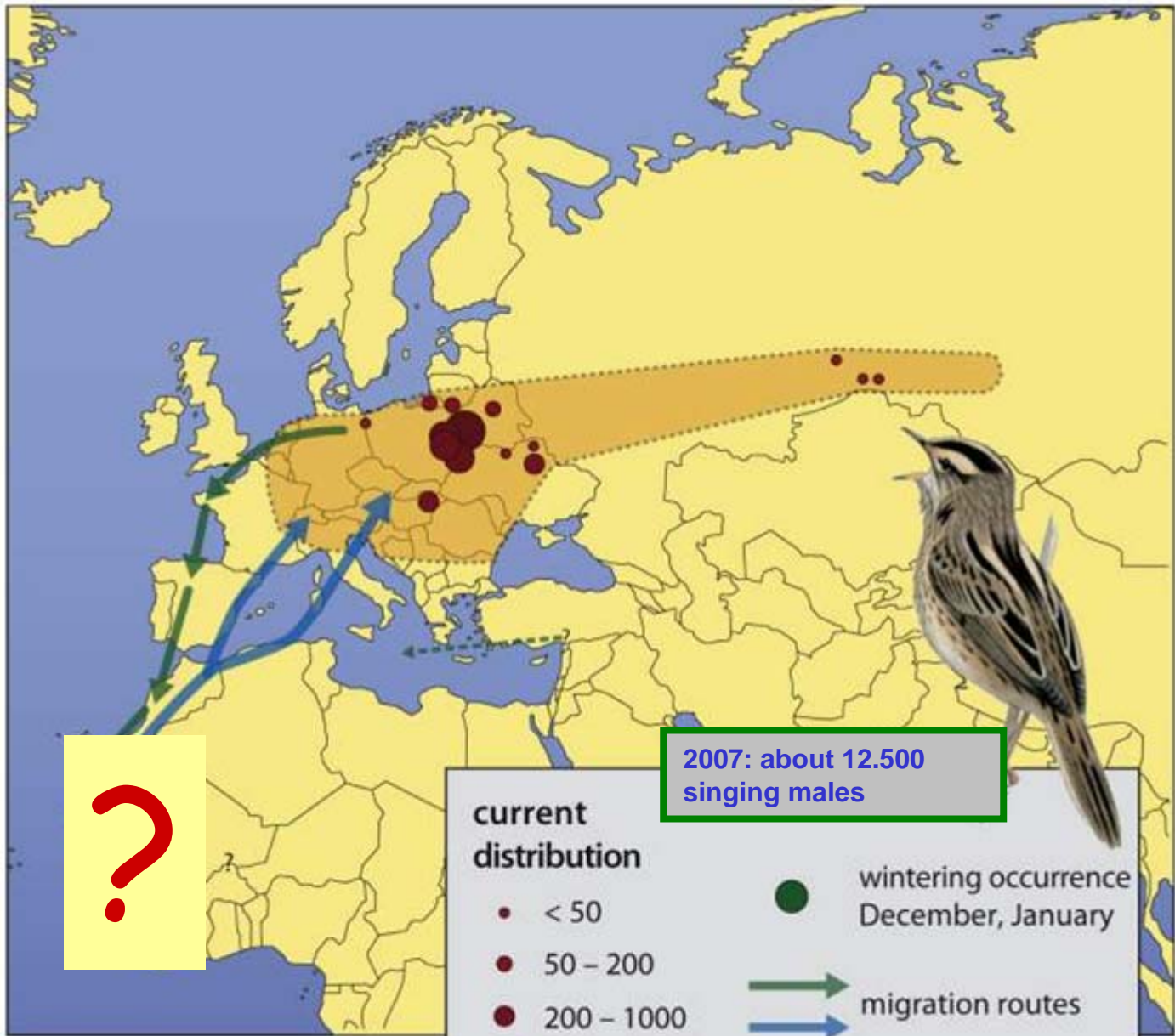


Wintering areas of the Aquatic Warbler *Acrocephalus paludicola*: assessment of recent discoveries and future prospects



Part 1: Overview - **Martin Flade**, Ibrahima Diop & Volker Salewski, AWCT
Part 2: Studies on habitat use - **Cosima Tegetmeyer**, Greifswald University





?

2007: about 12.500 singing males

current distribution

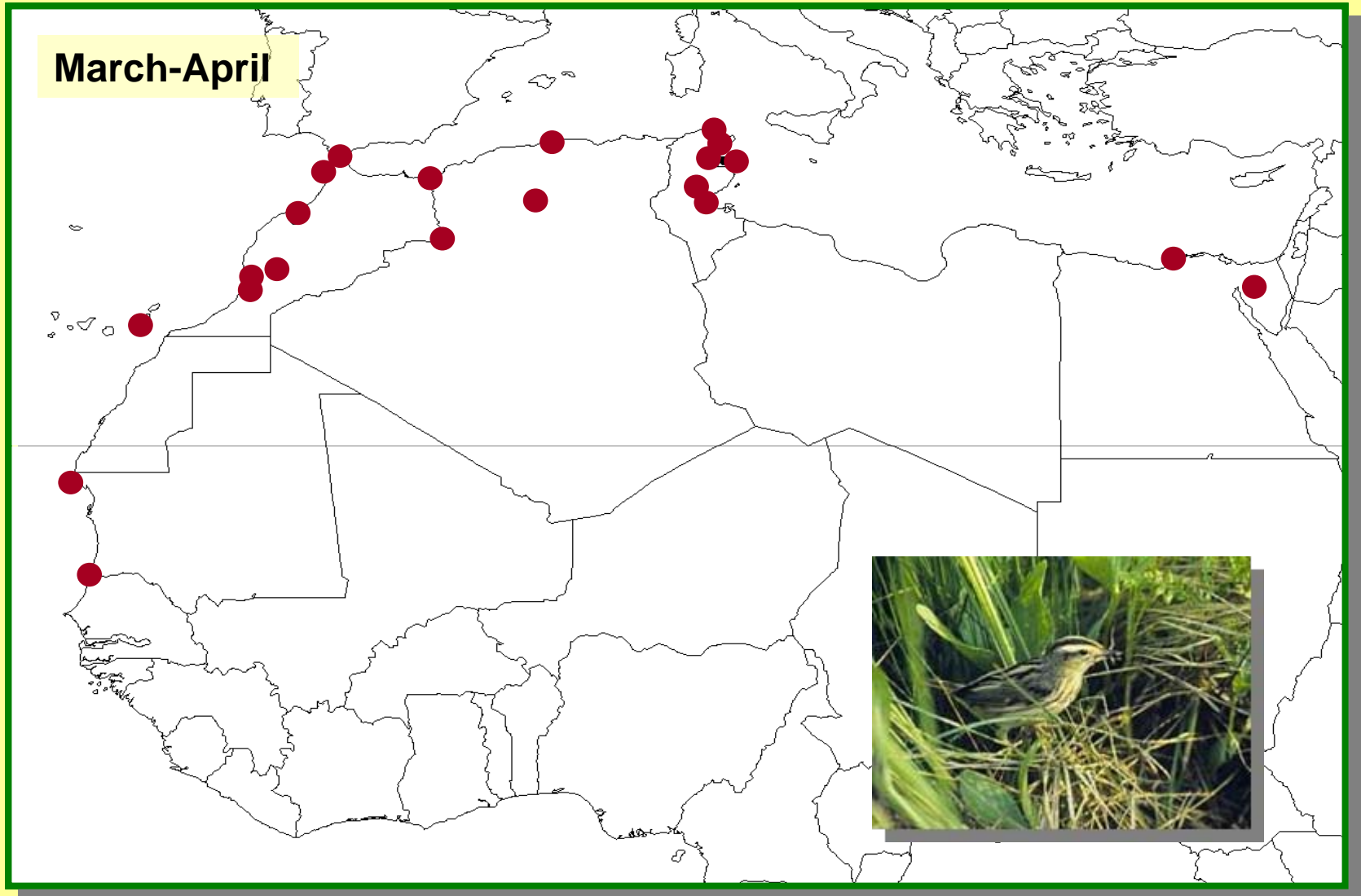
- < 50
- 50 – 200
- 200 – 1000
- 1000 – 5000
- > 5000

● wintering occurrence
December, January

→ migration routes

○ former distribution

Desk study 1: Collecting records during the non-breeding period (Schäffer et al. 2006)

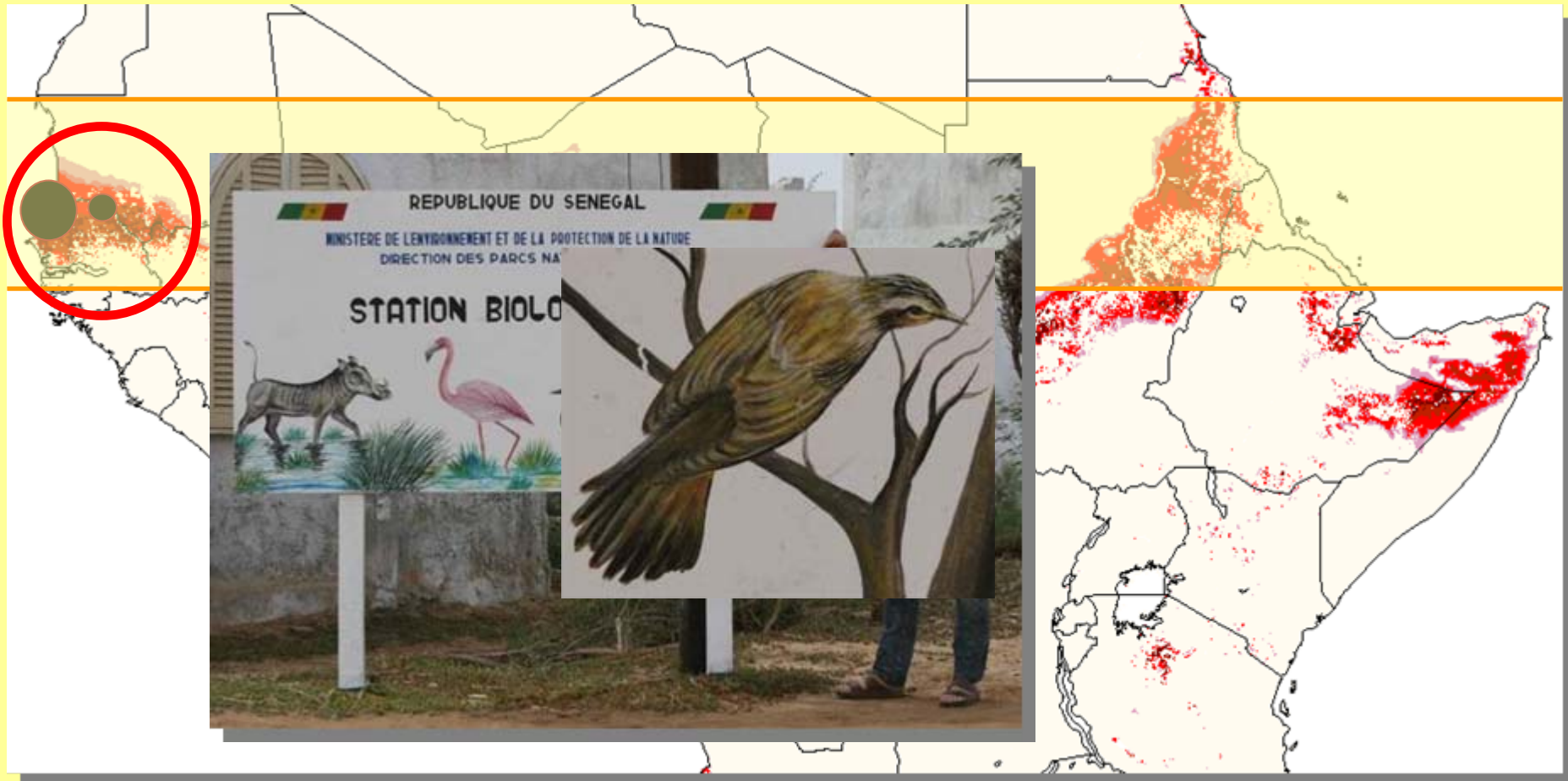


Desk study 2: $\delta^{13}\text{C}$ isotope analysis
(Pain et al. 2004 and unpublished)



Potential non-breeding range: 13°-20°N

Desk study 3: BIOCLIM modelling of non-breeding distribution (see also Walther et al. 2007)



Djoudj Expedition January-February 2007: 39 participants from 12 countries from 2 continents



The Djoudj area





Vegetation map of Djoudj National Park (Schwöppe 1994)



Where to start?



Mistnetting in *Typha*: - no success



Mistnetting in deep water: - no success



Mistnetting at a lake shore: - no success



Mistnetting between *Tamarix*: - no success



Mistnetting in *Scirpus/Oryza/Sporobulus* marshes:
- SUCCESS!





56 Aquatic Warblers mistnetted within two weeks



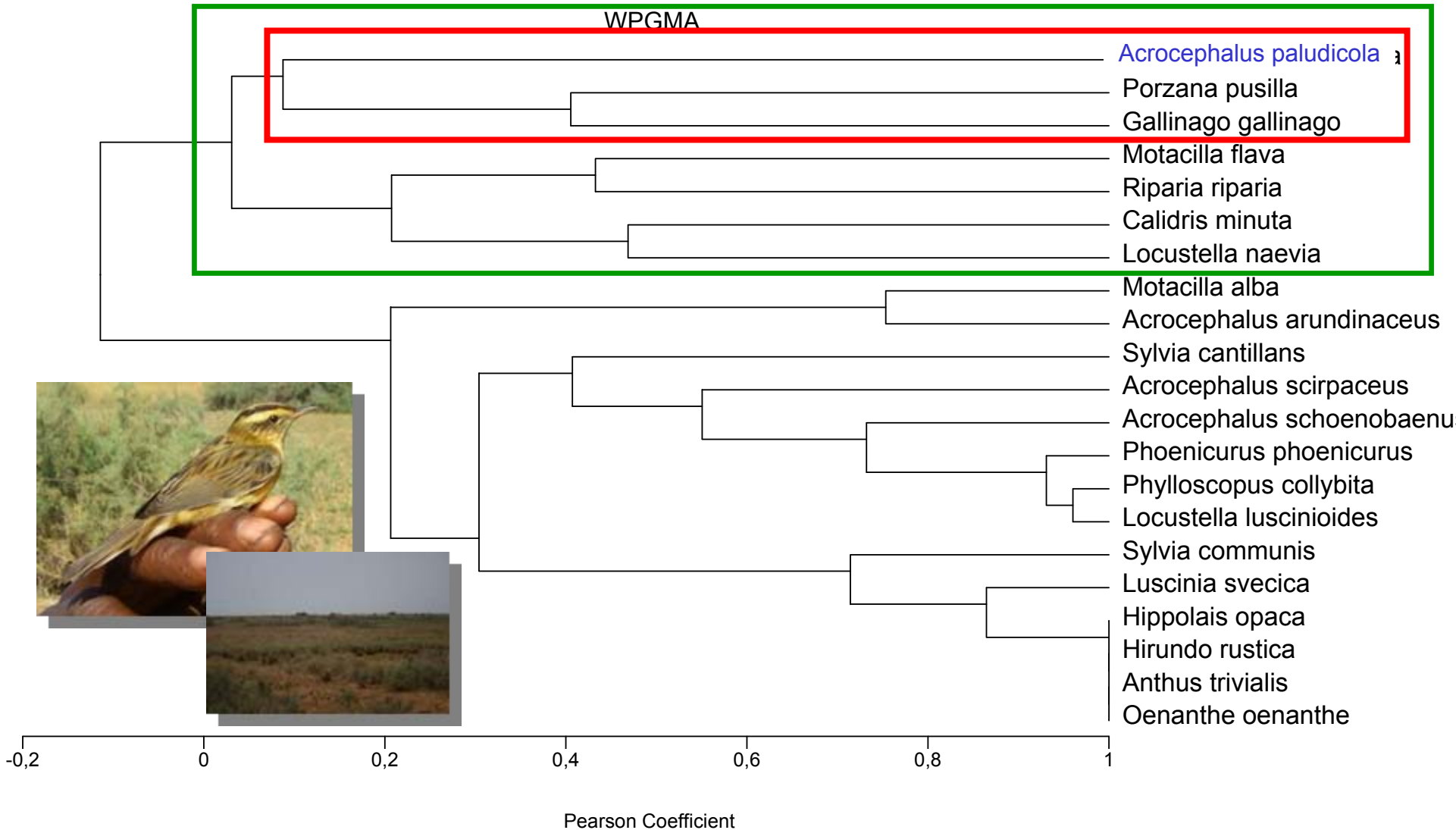
**Blood and feather
samples for genetic
and isotope studies**

Fifty-six Aquatic Warblers mistnetted within two weeks

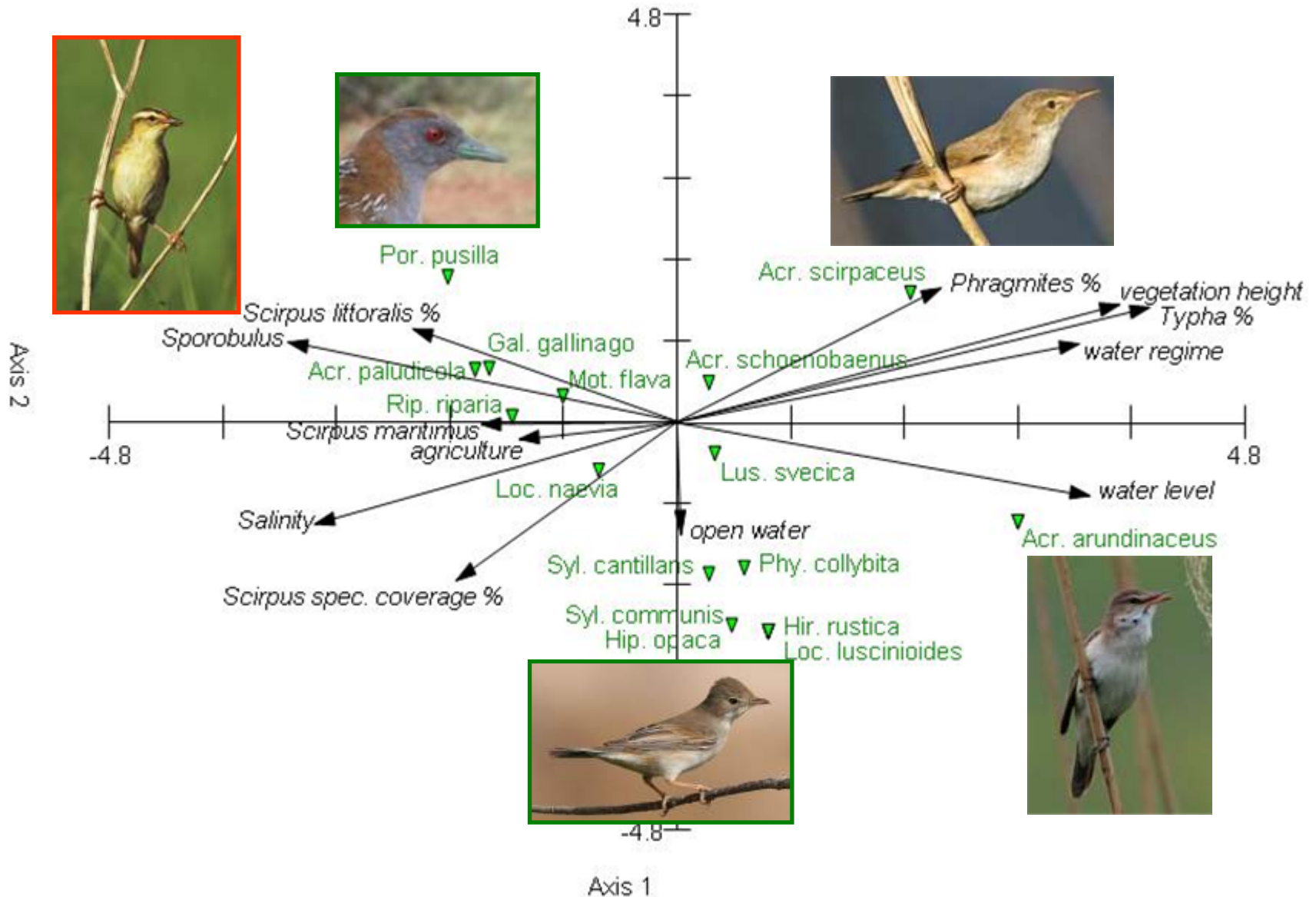
1 963 individual of 22 migrant species ringed in different habitats



Cluster analysis of European bird species according to the occurrence at the trapping sites



Canonical Correspondence Analysis of habitat parameters



Catching birds with claptraps

Baillon's Crake
Porzana pusilla

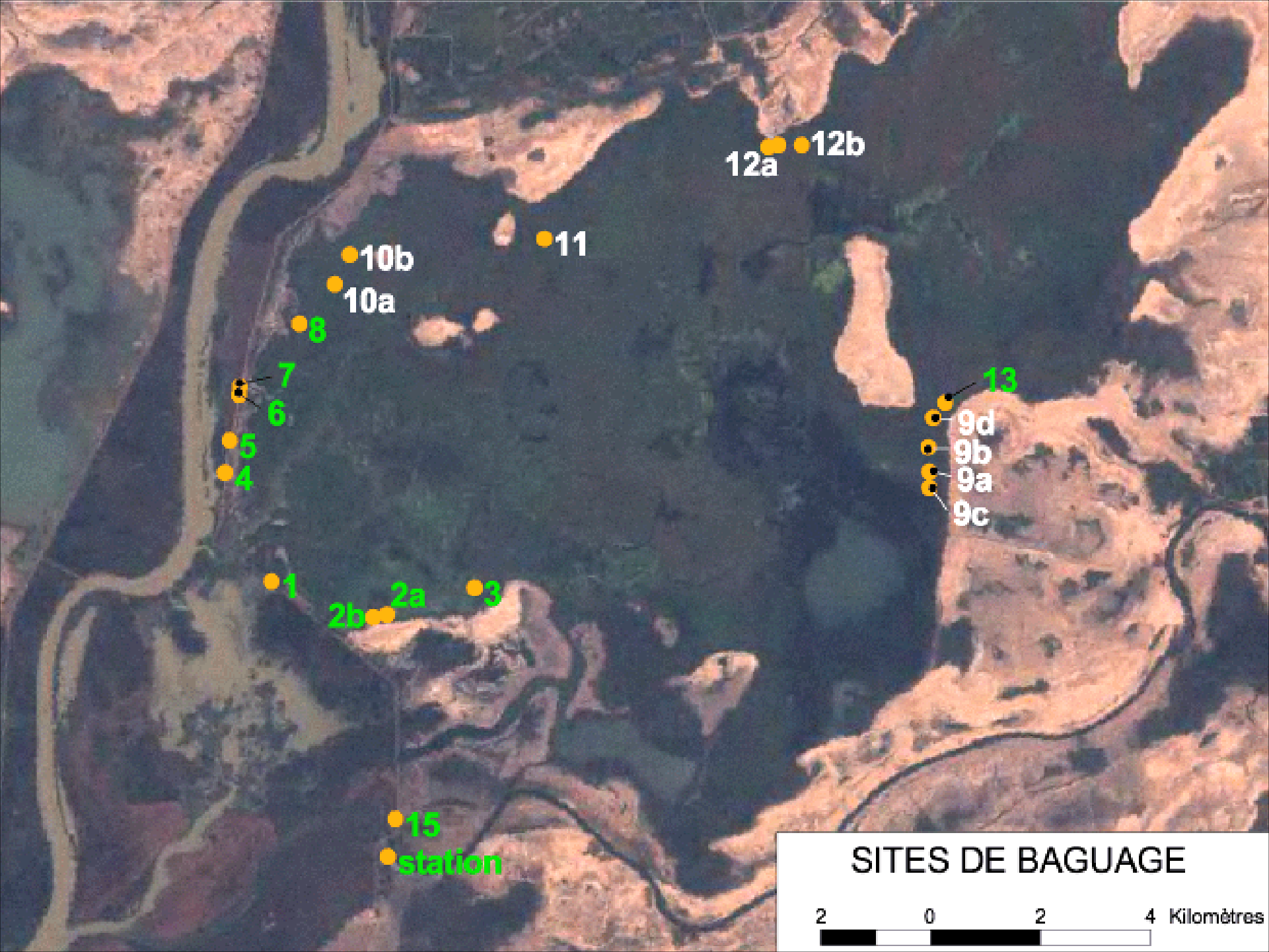


Sixteen captured
two former Senegalese
records

... but no Aquatic Warbler

Rope method to catch Aquatic Warblers:





12a 12b

10b
10a

11

7
6
5
4

8

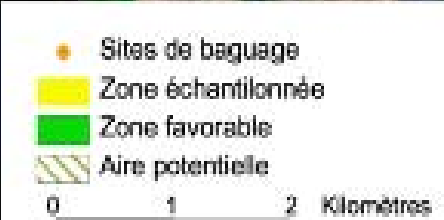
13
9d
9b
9a
9c

1
2b 2a 3

15
station

SITES DE BAGUAGE

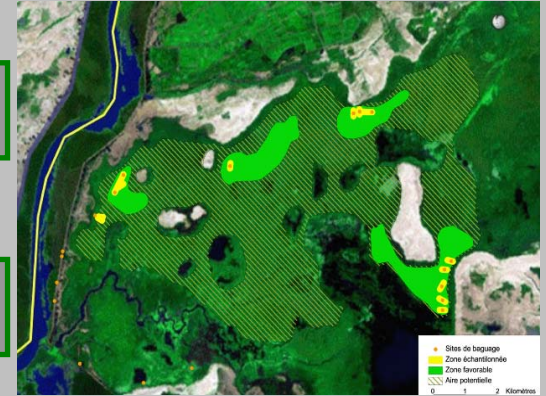
2 0 2 4 Kilomètres



Estimation of total number of wintering Aquatic Warblers in Djoudj:

Suitable habitat: 10,000 (-13,000) ha

Density: 0.5-1.5 Aquatic Warblers/ha.



5,000 - 15,000 Aquatic Warblers on Senegalese side of the Senegal delta

The Senegal delta holds at least 20%, eventually more than 50% of the global population (=25,000 in spring)!

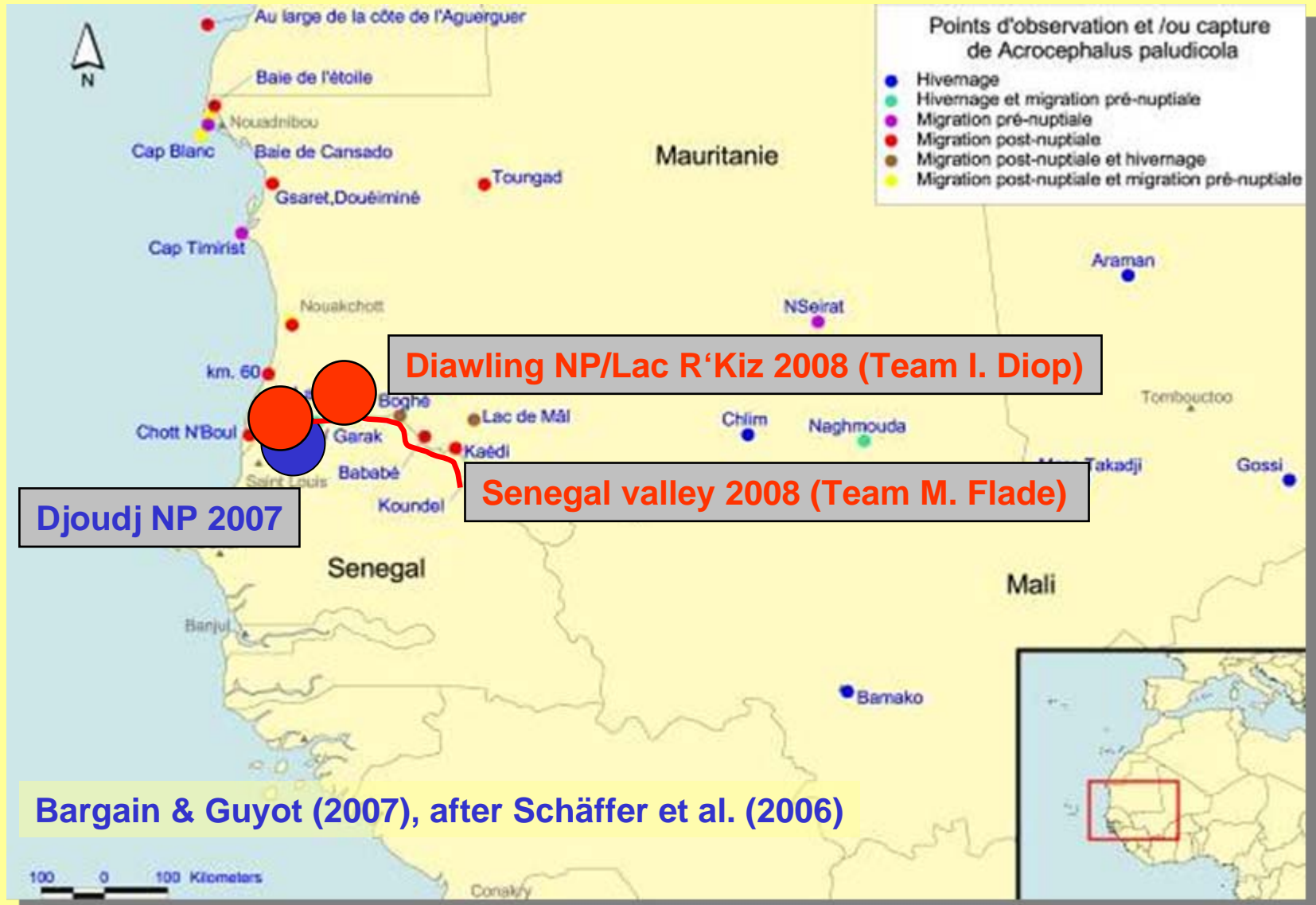
Where is the rest?

Potential threats for Aquatic Warbler habitats in the Djoudj area:



- **Changes in landscape water budget**
- **Changes in salinity (causing changes in vegetation structure and food supply)**
- **Changes in water management**
- **Changes in precipitation (climate change)**

Known records of Aquatic Warbler in 2007 Senegal/Mauritania Expedition January 2008



Mauritania:



Senegal Valley:



Lac Ndiael near Ross Betio



New modelling of non-breeding distribution

(data from January 2008, satellite image from 2007)



Main threat in West Africa: habitat destruction



Hydro-agriculture

- rice
- sugar cane

Fresh water reservoirs

Droughts, unsuitable water
management



Telemetry study to assess habitat use and requirements of Aquatic Warblers



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



The Senegal 2007 Team

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