New data on the wintering range of the Aquatic Warbler in Africa

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Palencia 19th August 2005

following

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K. Gutteridge and C. Rahbek
(in publication)

Data acquisition

- Questionnaire sent to BirdLife Partners and BirdLife Representatives, Wetlands International Country Co-ordinators, private individuals with expert African knowledge, natural history museums, ringing schemes
- Tour operators and members of African Bird Club
- Literature and Internet search
- Information about 132 Aquatic Warbler records acquired

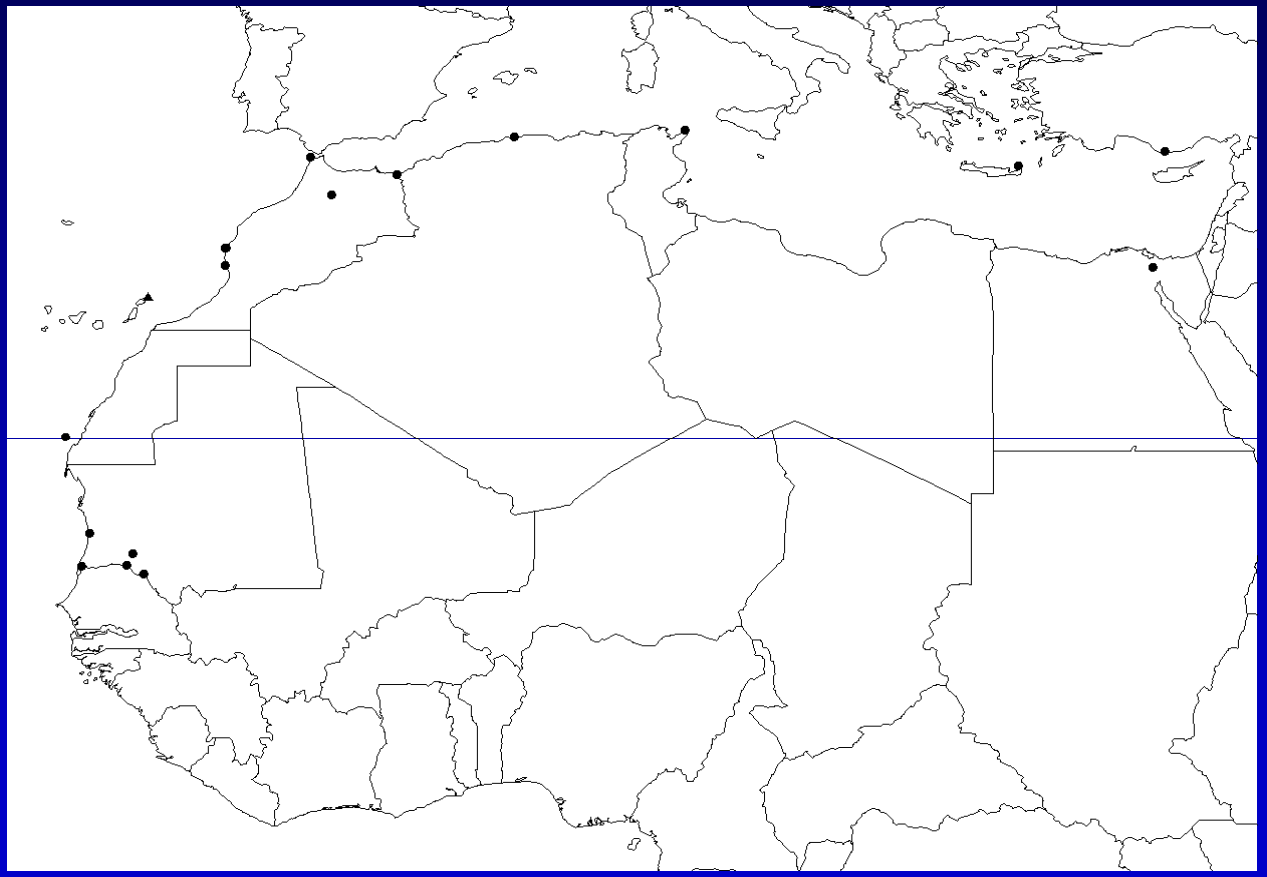
Records of the Aquatic Warbler on migration and wintering

Decade	Macaronesia	Africa	Middle East	Total
1860s	-	- (2?)	-	- (2?)
1870s	-	1	-	1
1880s	-	-	-	-
1890s	-	-	-	-
1900s	1	- (1?)	-	1 (1?)
1910s	-	2	-	2
1920s	-	1	-	1
1930s	1	1	-	2
1940s	-	2	-	2
1950s	-	7	-	7
1960s	-	11	1	12
1970s	1	31 (1?)	-	32 (1?)
1980s	4	24 (1?)	-	28 (1?)
1990s	3	35	1	39
2000s	-	4	-	4
Total	10	119 (5?)	2	131 (5?)

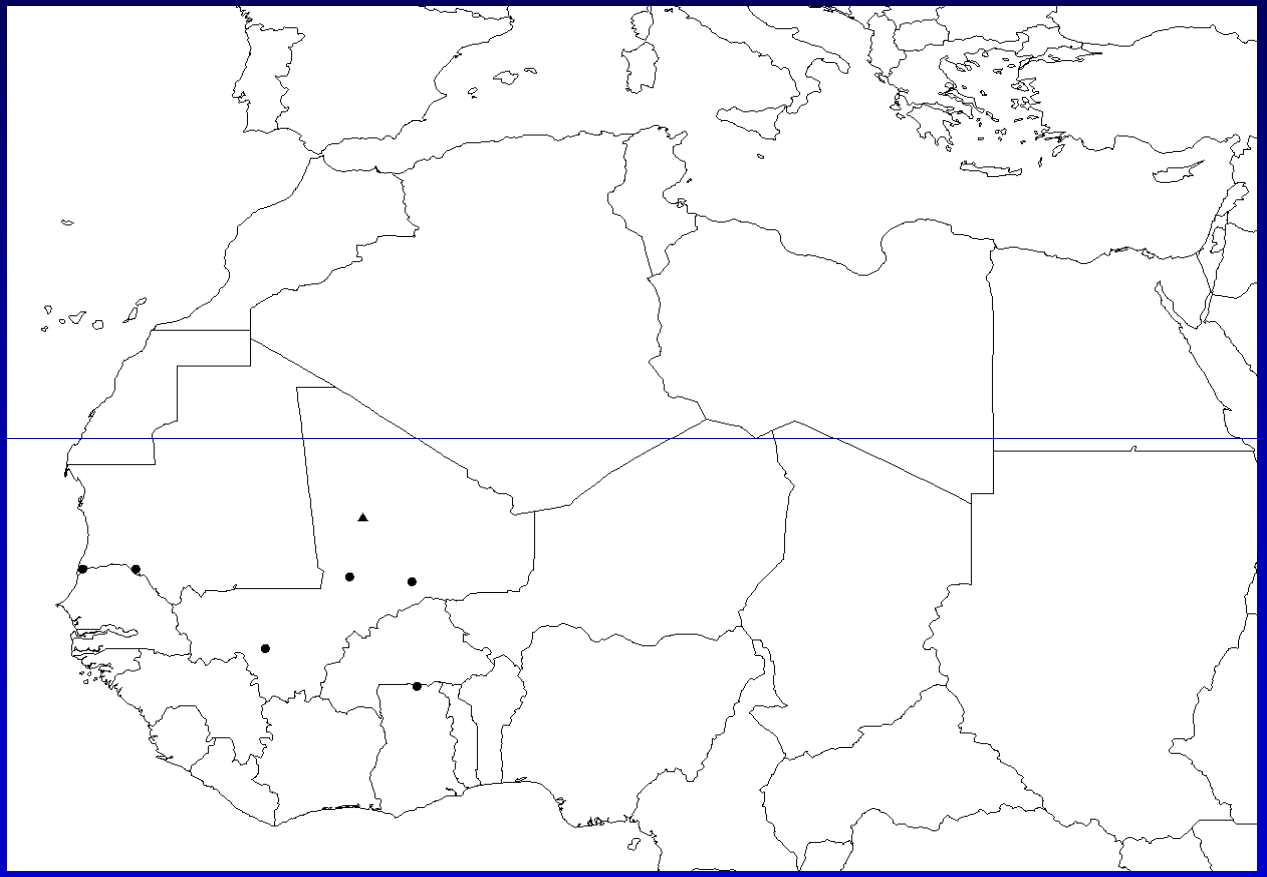
Migration of the Aquatic Warbler across African countries

Country	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Egypt	-	-	-	2	-	-	-	1	1	1	-	5 (2)
Tunisia	-	-	-	1	-	-	-	-	1	6	1	9 (2)
Algeria	-	-	-	1	-	-	-	1	2	4	1	9
Morocco	-	1	4	4	-	-	-	7	12	9	-	37 (2)
Canary Islands	-	1	2	-	-	-	-	2	4	1	-	10
Western Sahara	-	-	1	-	-	-	-	-	-	-	-	1
Mauritania	-	1	13	12	3	1	-	1	7	2	-	40
Mali	-	-	-	-	2	3	-	-	-	-	-	5
Senegal	-	-	-	-	-	4	2	4	5	-	-	15 (1)
Ghana	-	-	-	-	1	-	-	-	-	-	-	1
Total	-	3	19	20	6	8	2	16	31	23	2	132 (7)

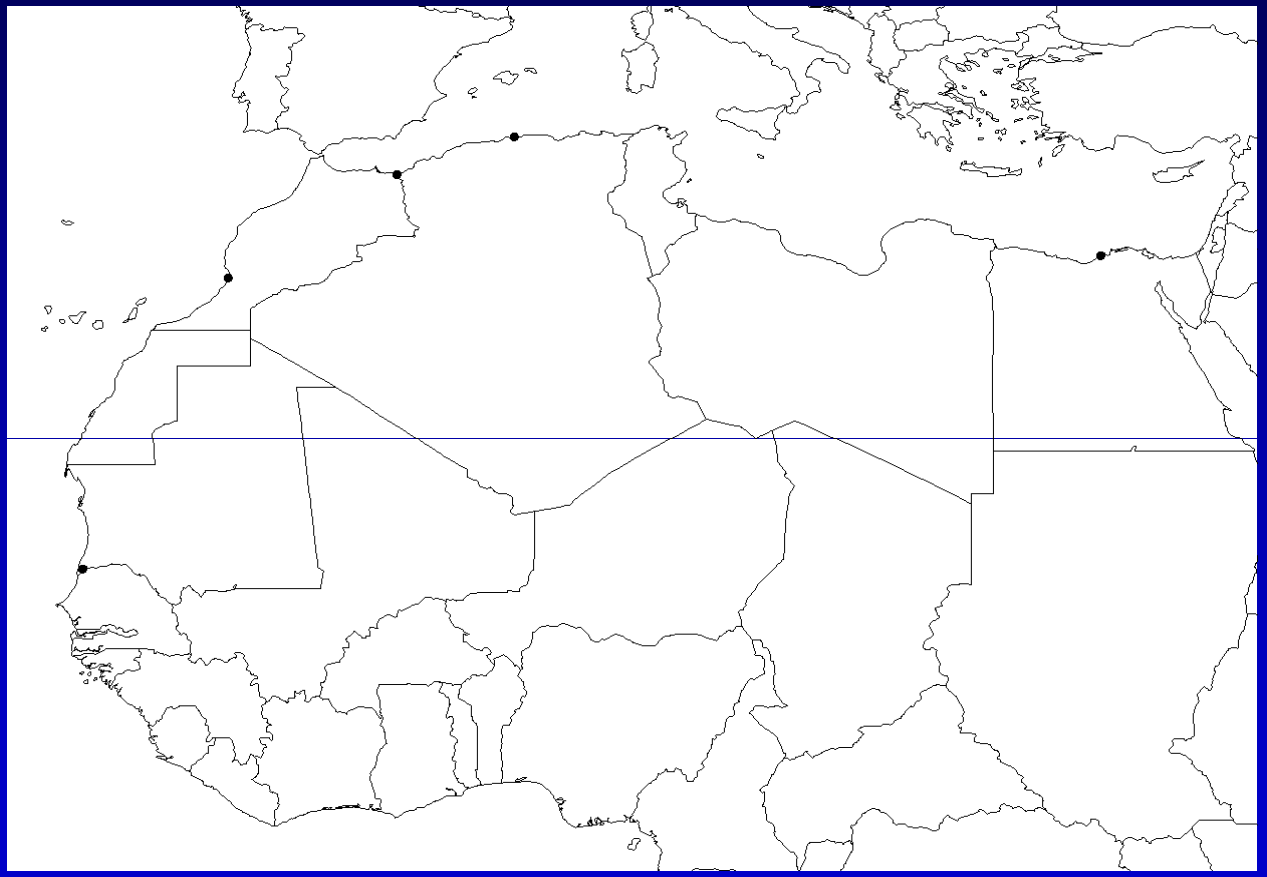
September - October



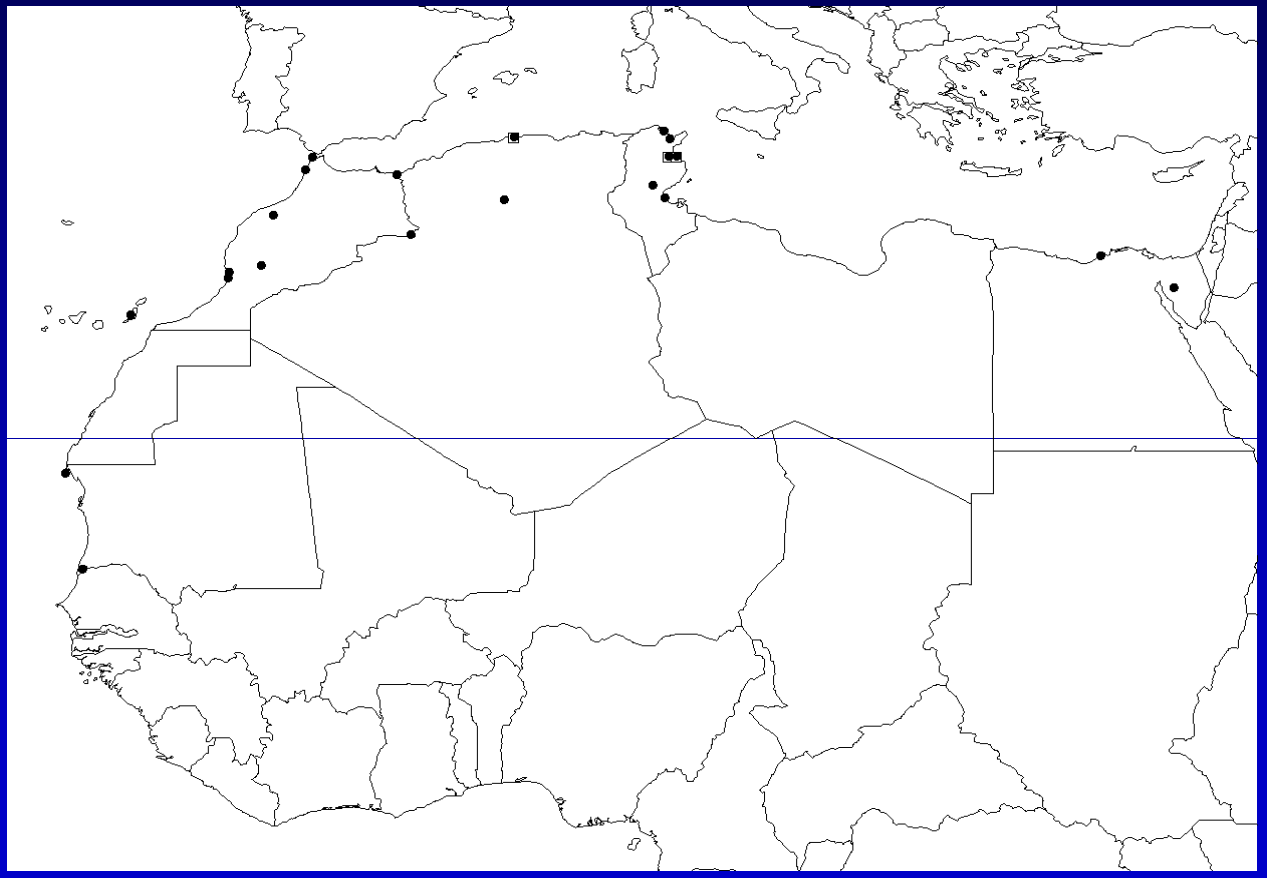
November - December



January - February



March - May



Habitat selection during migration and wintering in Africa

- Most commonly – sedges, rushes and reeds (*Carex, Juncus, Phragmites*)
- Also – dense grasses, shrubs and other vegetation in freshwater marshes, flooded or wet meadows,
- **Generally – habitat similar to that at breeding grounds**

So, where does it winter?

- Definitely, in sub-Saharan Sahel zone, although the sub-Saharan distribution remains relatively obscure
- Verified wintering countries – Mauritania, Mali, Senegal and Ghana
- BUT, there are hints that *at least some* Aquatic Warblers might move further south to winter in The Gambia, Guinea-Bissau, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo and Benin

Another approach:

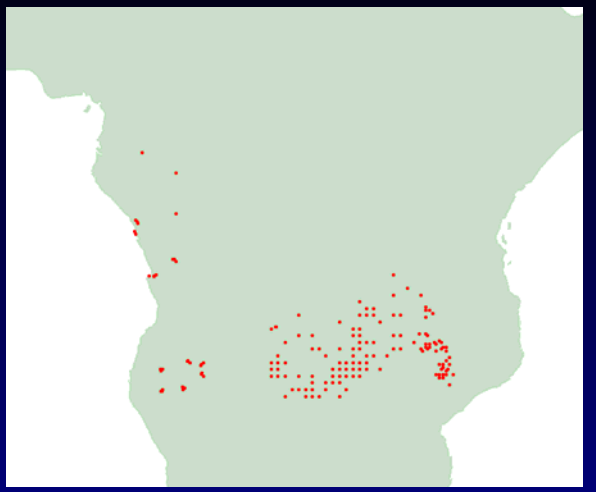
Following B. Walther, unpubl.:

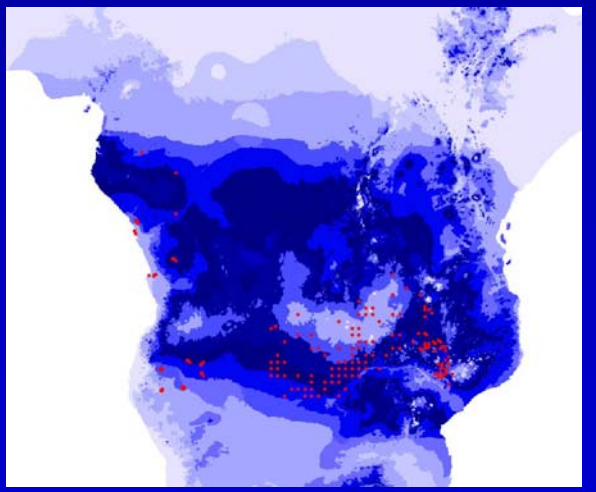
Bioclim modelling techniques

- **BIOCLIM identifies values for each environmental layer that coincide with the species' point-locality records to calculate environmental envelopes.**

For example, the 95% environmental envelope excludes the lower and upper 2.5% of the records from each tail of each environmental variable's distribution, while the 100% envelope is the most inclusive using all records.

- **These predictions (or envelopes) are then projected back onto the given geography to generate distribution maps.**



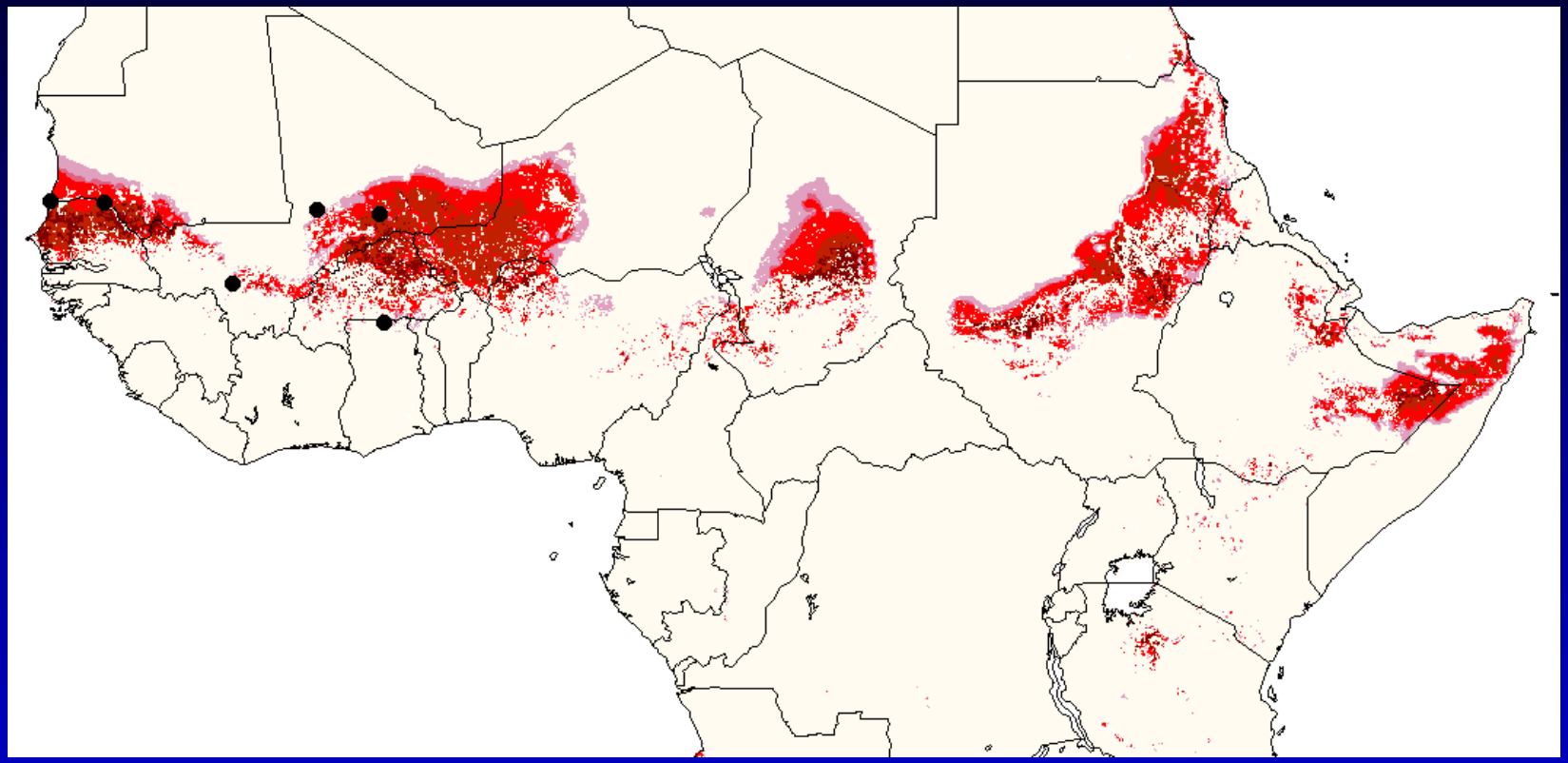


Modelling of species distributions

- **obtained 4 environmental coverages (= layers) of Africa at a 0.05 degree resolution including**

- **average temperature of the coldest month**
- **elevational range**
- **habitat heterogeneity**
- **percent forest cover**

- these coverages reflect open and unpredictable habitats prefered by migrants, e.g. open savannahs with seasonal rainfall



BIOCLIM predicted distribution of Aquatic Warbler using four environmental GIS data layers and six point-localities found in Ghana, Mali, Mauritania and Senegal

What next?

- Identifying and protecting the wintering sites of AW is of key importance (see: CMS MoU Action Plan).
- We need a systematic, well planned and well documented approach.
- Before intensive search in the field in Africa, we should narrow down the search by identifying potential sites in the general wintering area.
- One organisation needs to collect all information on the search for AW wintering sites. We suggest to collect information under the umbrella of the AW MoU (coordinator: Viktor Fenchuk) in close cooperation with the AW Conservation Team.