Migratory passage of the Aquatic Warbler through North Africa and the southern Iberian Peninsula

Dr. Alejandro Onrubia
Fundación Migres

Webinar. Congreso final LIFE Paludicola

CONSERVACIÓN DEL CARRICERÍN CEJUDO

HUMEDALES COMO ALIADOS

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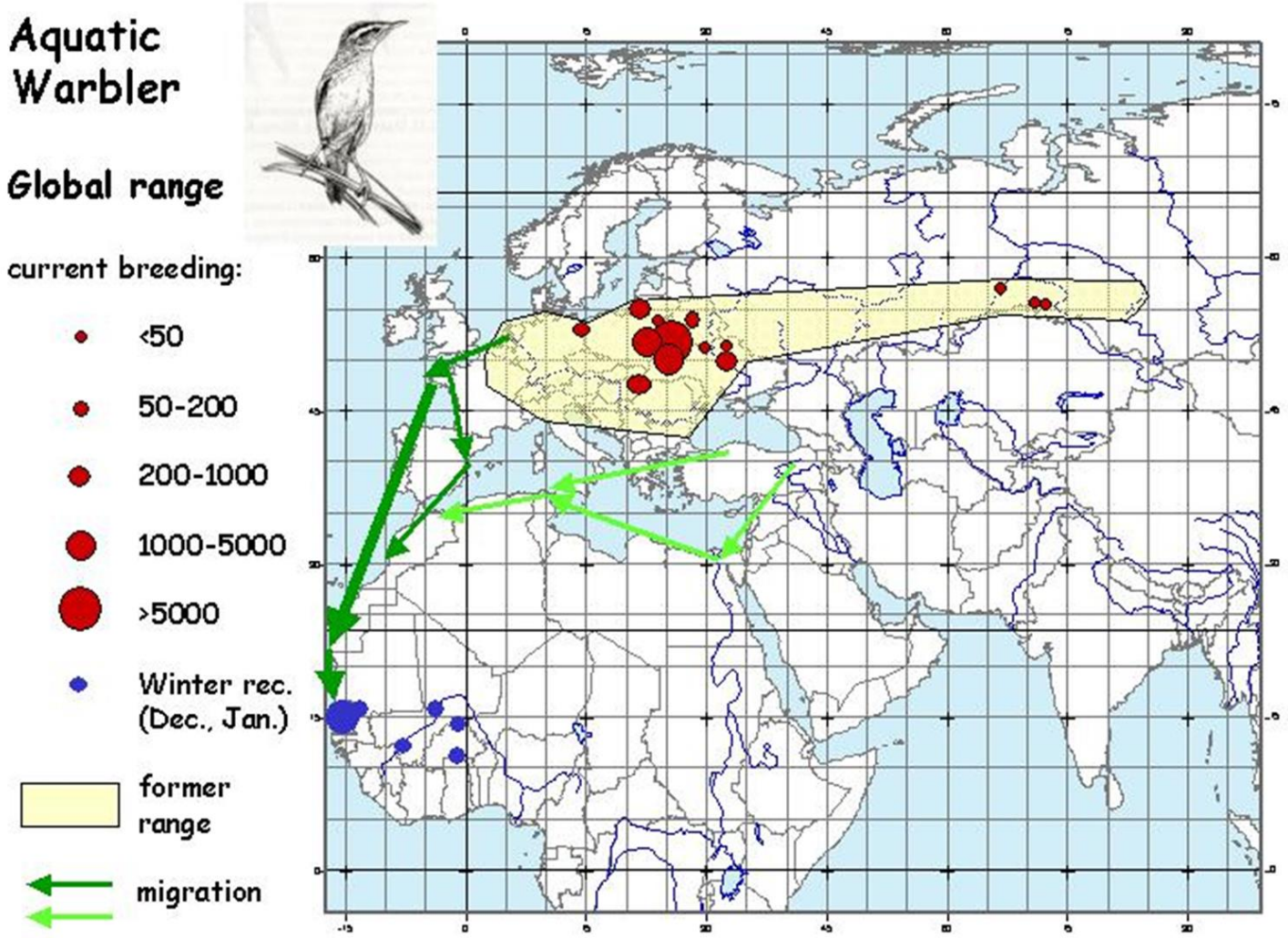
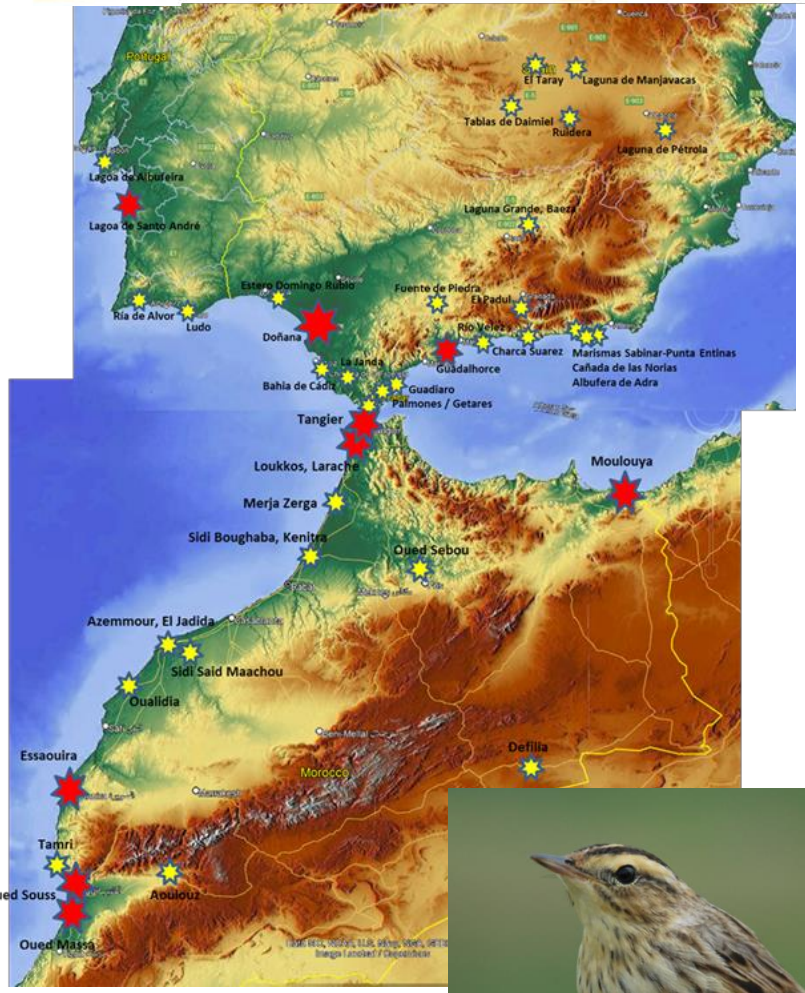
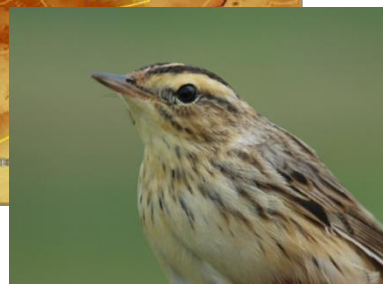
Introduction



Aims

- The role of the North of Africa and the South of Iberian peninsula for Aquatic Warbler migration:
  - Migration routes.
  - Stopover places.
  - Habitat.
  - Phenology.
  - Migration strategy.
  - Threats.

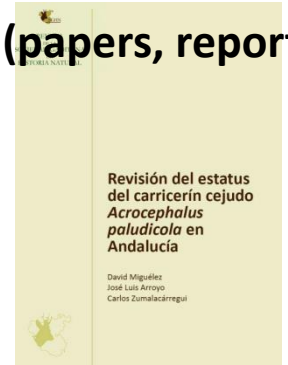




Methods

Review of bibliography (papers, reports….)

Atienza *et al.* 2001
Schaffer *et al*. 2006
Neto *et al*. 2010
Miguelez *et al.* 2019
Jakubas *e t al*. 2020
Miguelez *et al.* 2020



Ardeola, 57(1), 2010, 181-189

DISTRIBUTION, PHENOLOGY AND CONDITION OF AQUATIC WARBLERS *ACROCEPHALUS PALUDICOLA* MIGRATING THROUGH PORTUGAL

DISTRIBUCIÓN, FENOLOGÍA Y CONDICIÓN DEL CARRICERÍN CEJUDO *ACROCEPHALUS PALUDICOLA* MIGRANDO EN PORTUGAL

Júlio M. NETO* **[1], Vitor ENCARNAÇÃO*** and Peter FEARON****

SABUCO REVISTA DE ESTUDIOS ALBACETENSES Número 13 Páginas 87-110 Año 2019

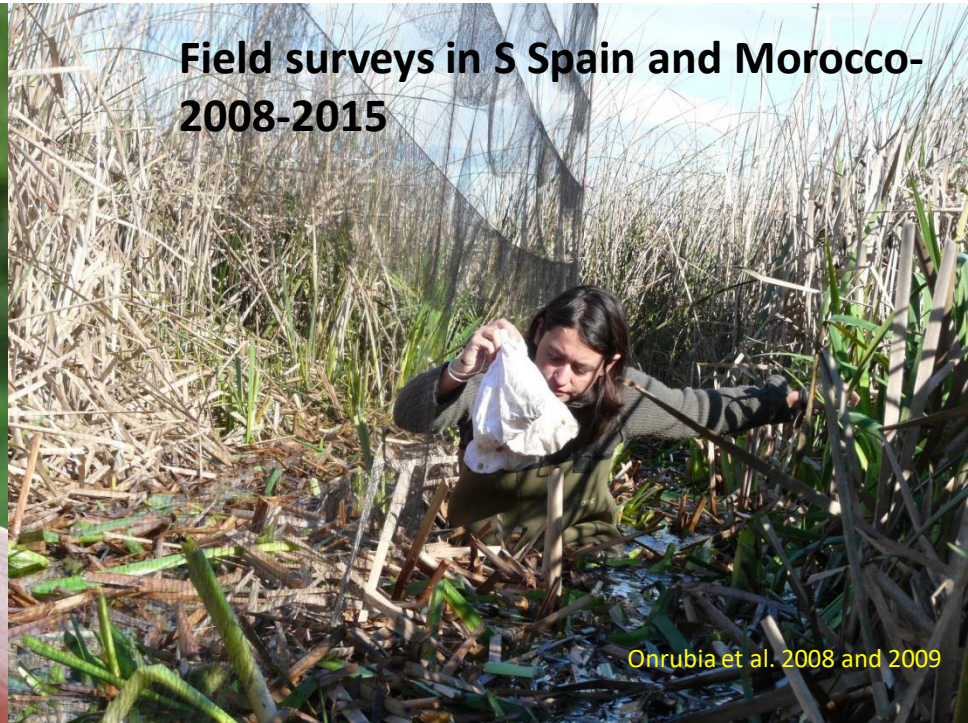
SITUACIÓN DEL CARRICERÍN CEJUDO *ACROCEPHALUS PALUDICOLA* EN CASTILLA-LA MANCHA

Por
David MIGUÉLEZ CARBAJO [1, *]
Tomás VELASCO TEJADA [2]
Carlos ZUMALACÁRREGUI MARTÍNEZ [1]
Luis SÁNCHEZ VÁZQUEZ-PRADA [3]
Esther BUENDÍA ROSADO [3]

Information from Geolocators

https://meldine.lt/en/latest-scientific-research-lithuanian-aquatic-warblers-winter-in-mali/
Salewski *et al*. 2012

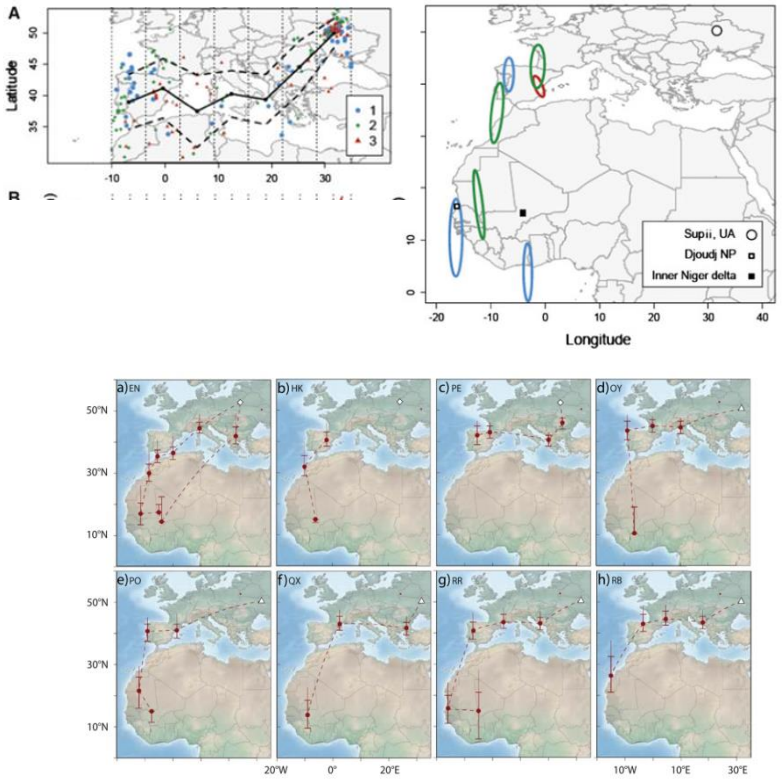
Field surveys in S Spain and Morocco- 2008-2015



Onrubia et al. 2008 and 2009

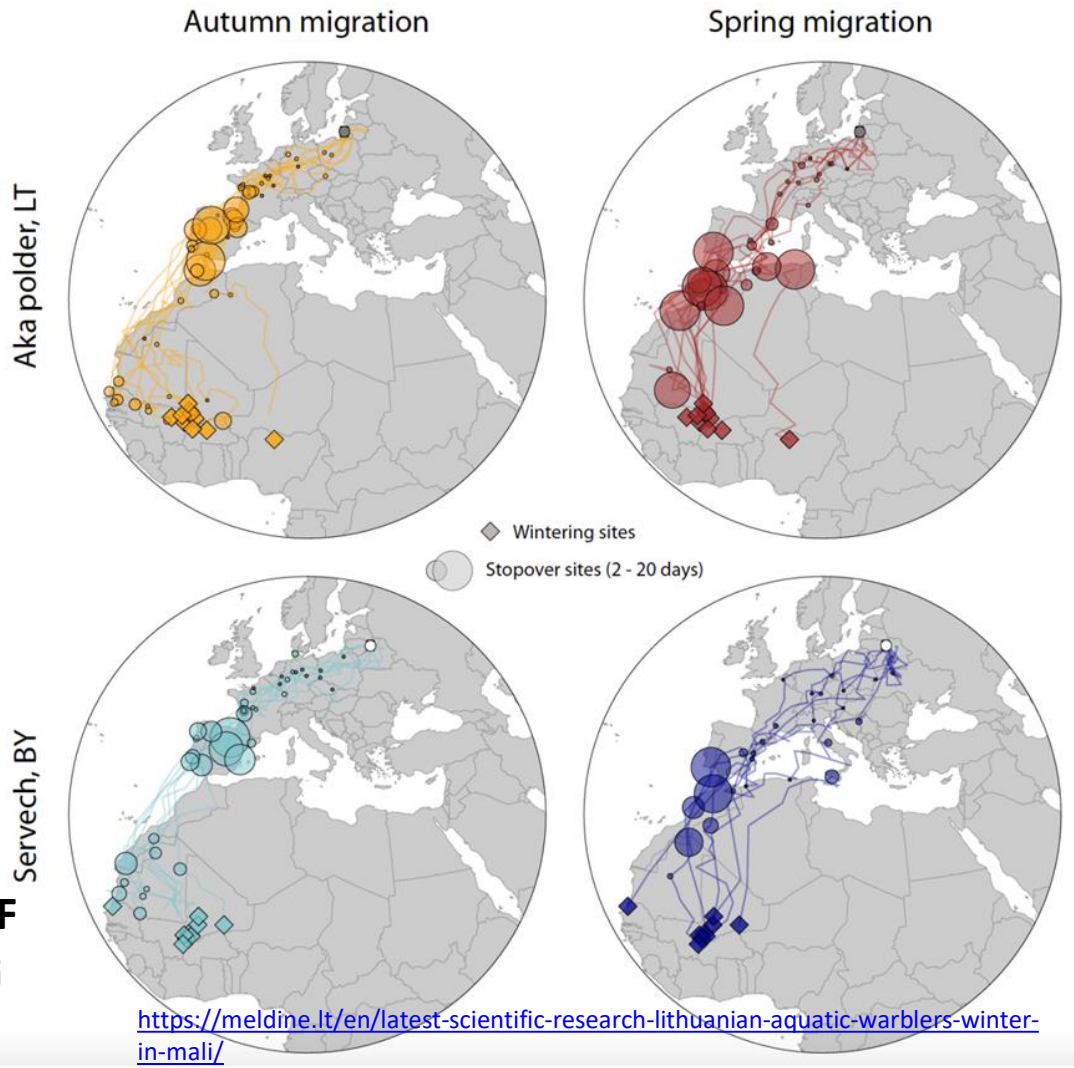
A short overview of the migration of Aquatic Warbler through North Africa and the southern Iberian Peninsula

Aquatic Warbler migration routes and stopover sites (geolocators)



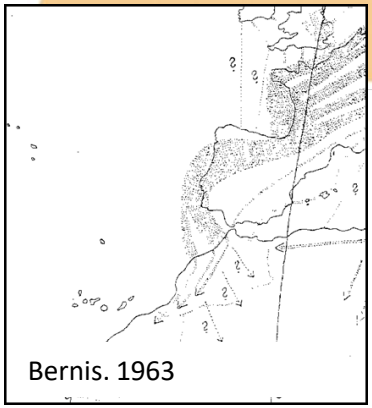
Salewski *et al*. 2012 and 2018

IMPORTANCE OF SW IBERIA AND NW AFRICA FOR PASSAGE AND STOPOVER OF AQUATIC WARBLERS, SPECIALLY DURING SPRING MIGRATION

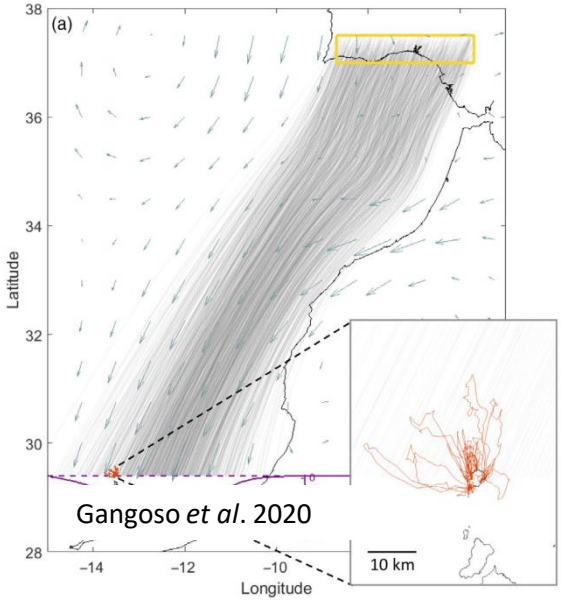


https://meldine.lt/en/latest-scientific-research-lithuanian-aquatic-warblers-winter-in-mali/

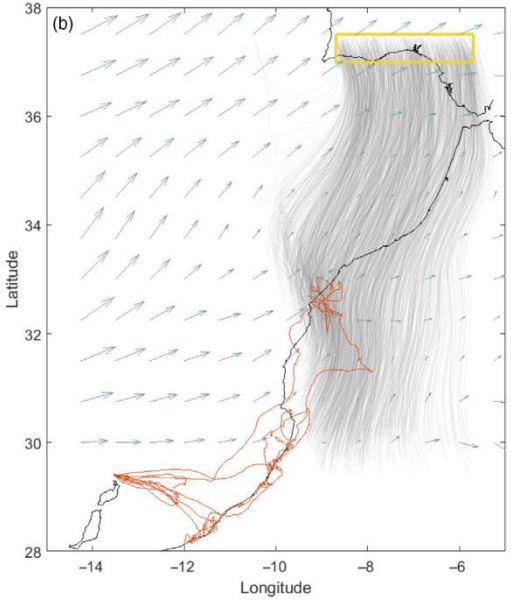
Songbird migration routes NW Africa (modelling)

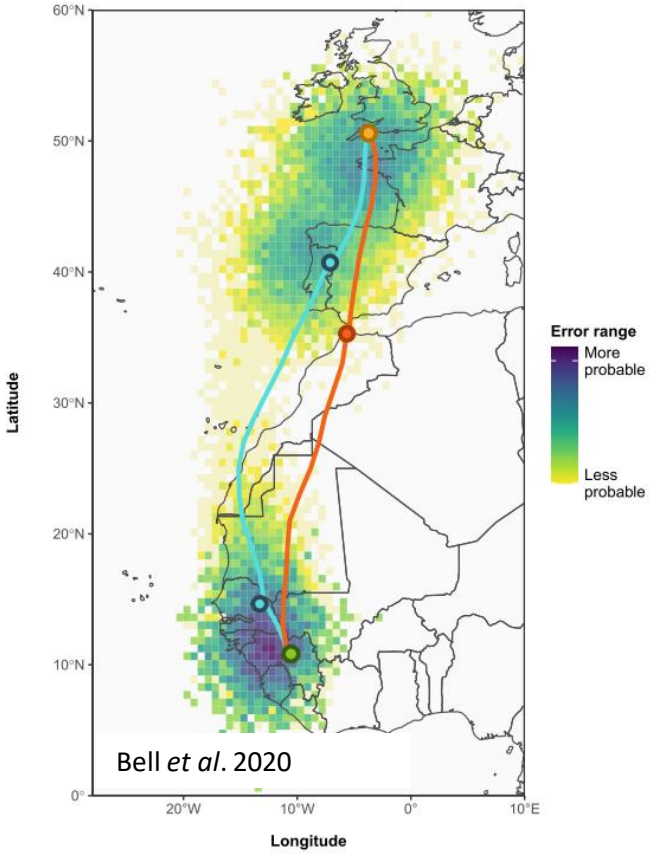


Bernis. 1963



Gangoso *et al*. 2020

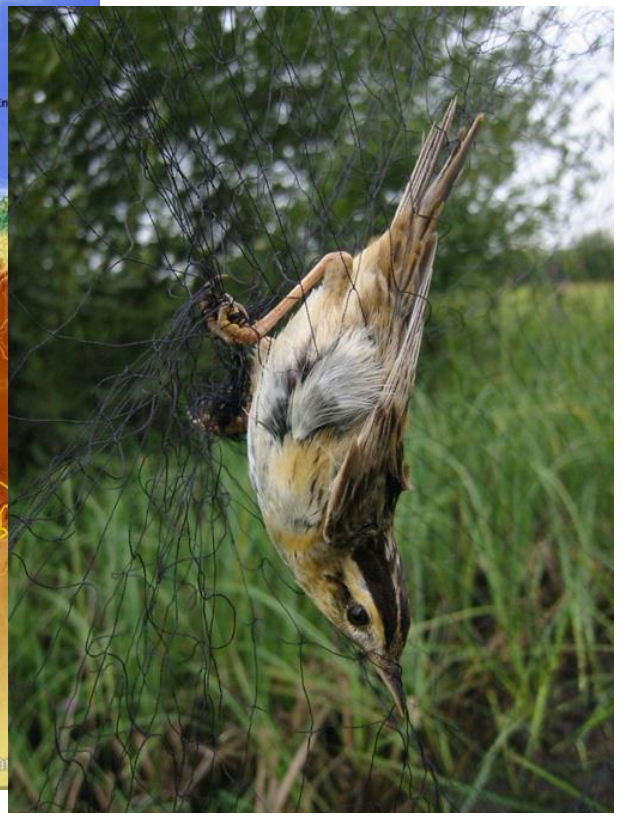




Bell *et al*. 2020

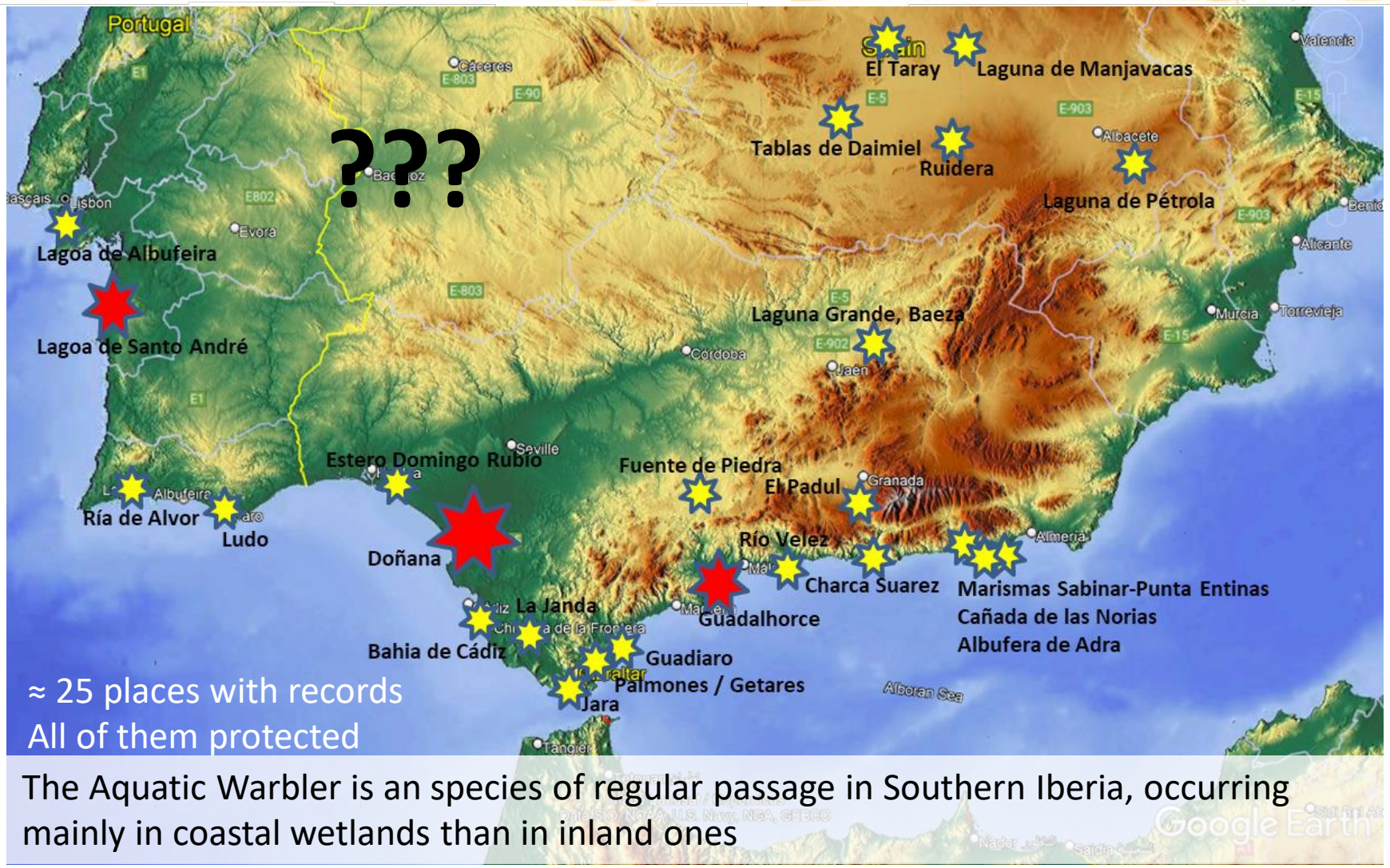
MODELLING PASSERINE MIGRATION ROUTES IN NW AFRICA ACCORDING TO WIND REGIMES

Distribution of stopover areas



≈ 40 places with AW records

Distribution- Southern Iberia

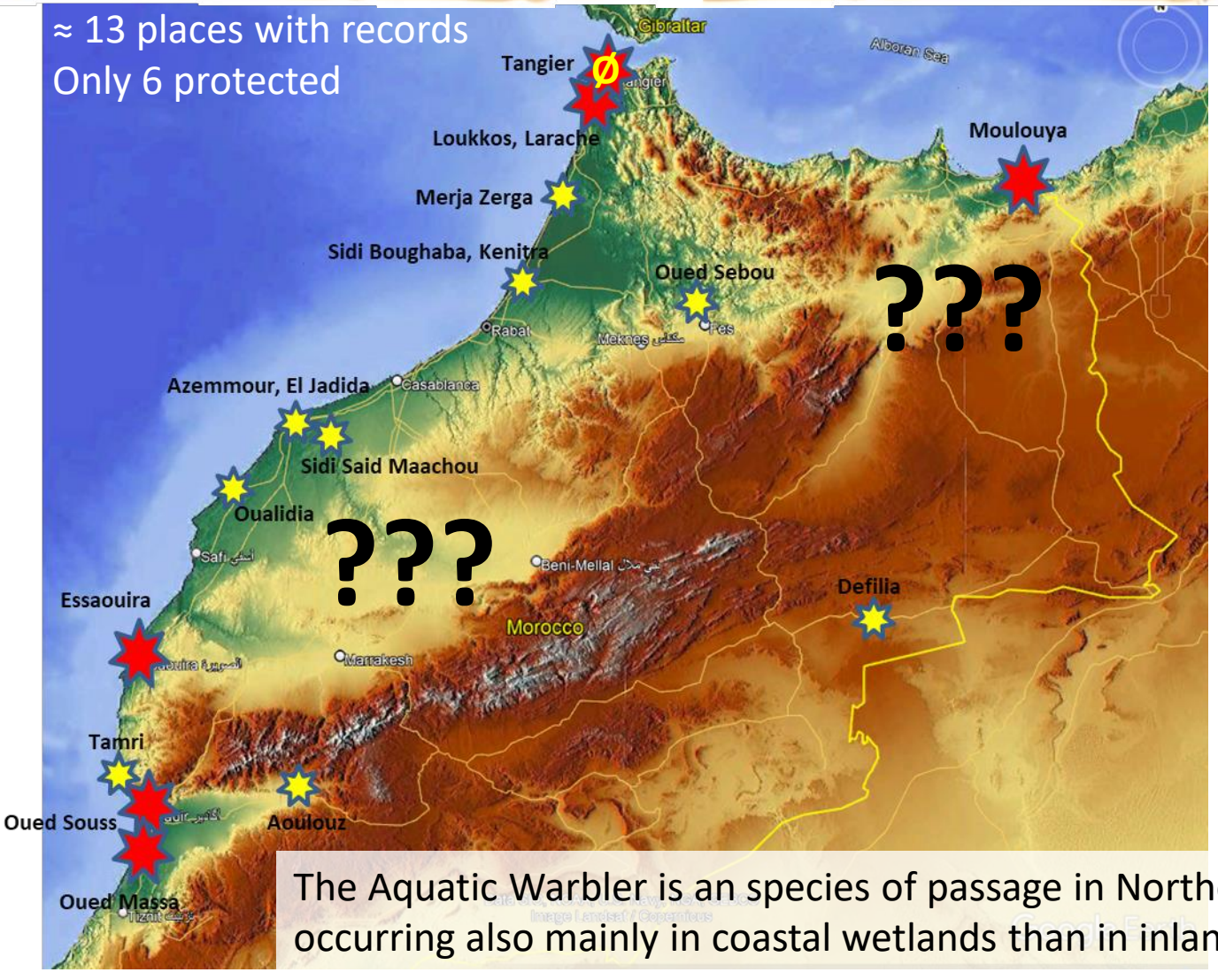


The Aquatic Warbler is an species of regular passage in Southern Iberia, occurring mainly in coastal wetlands than in inland ones

Habitat for stopover- S Iberia

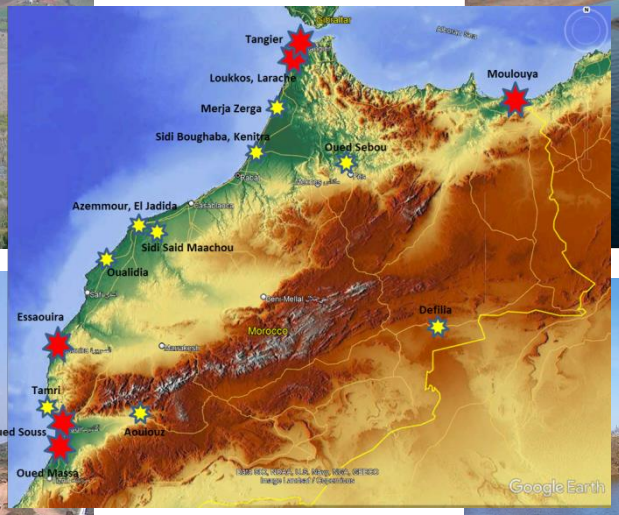
The Aquatic Warbler in Southern Iberia occurs mainly in coastal wetlands than in inland ones

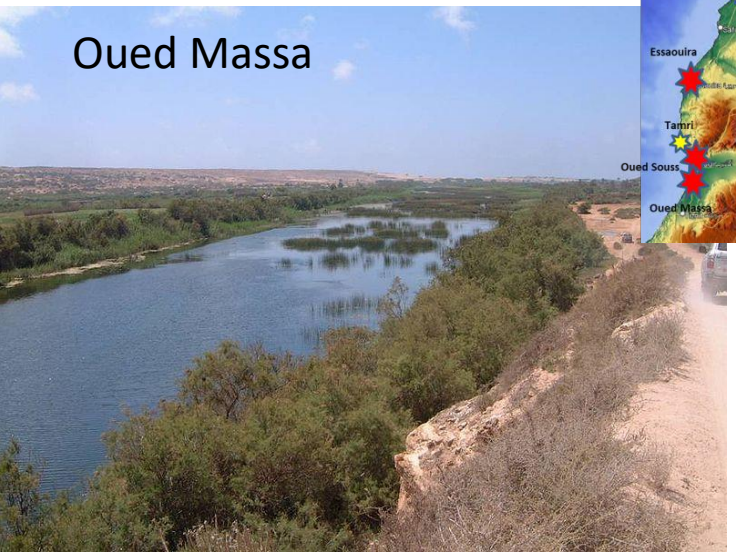
Distribution- NW Africa

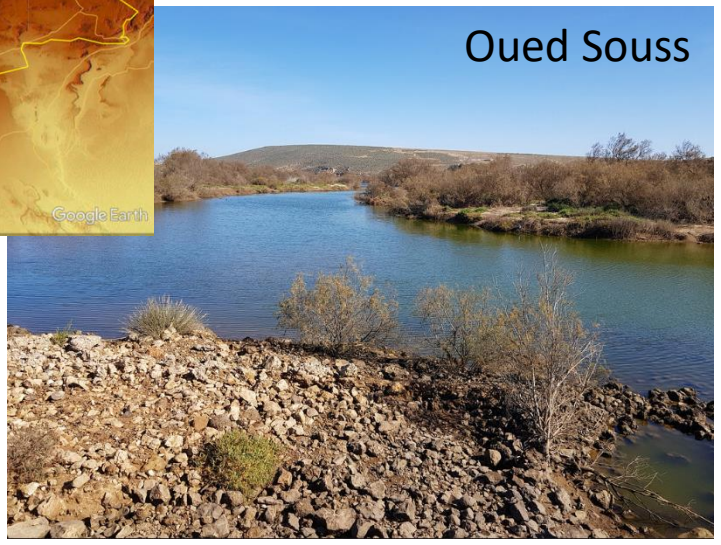


The Aquatic Warbler is an species of passage in Northern Africa, occurring also mainly in coastal wetlands than in inland ones

Habitat for stopover- NW Africa







Habitat for stopover

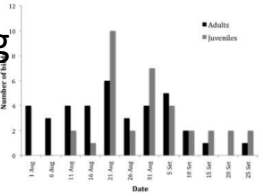
Habitat for stopover- the role of irrigated and flooded crops?

Sugarcane crops (Guadalhorce)

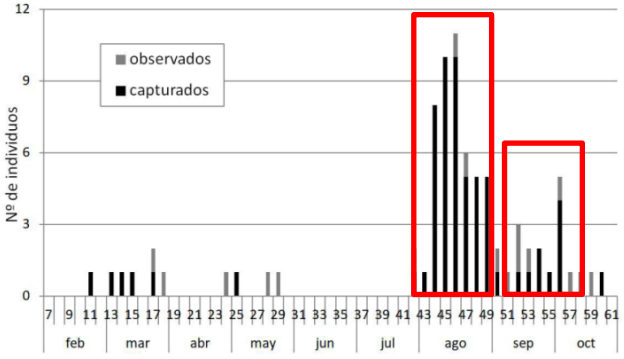
Ricefields (La Janda)

Phenology

SW Iberia-
detected only during autumn migration (Aug-Sep, peak- end of August)

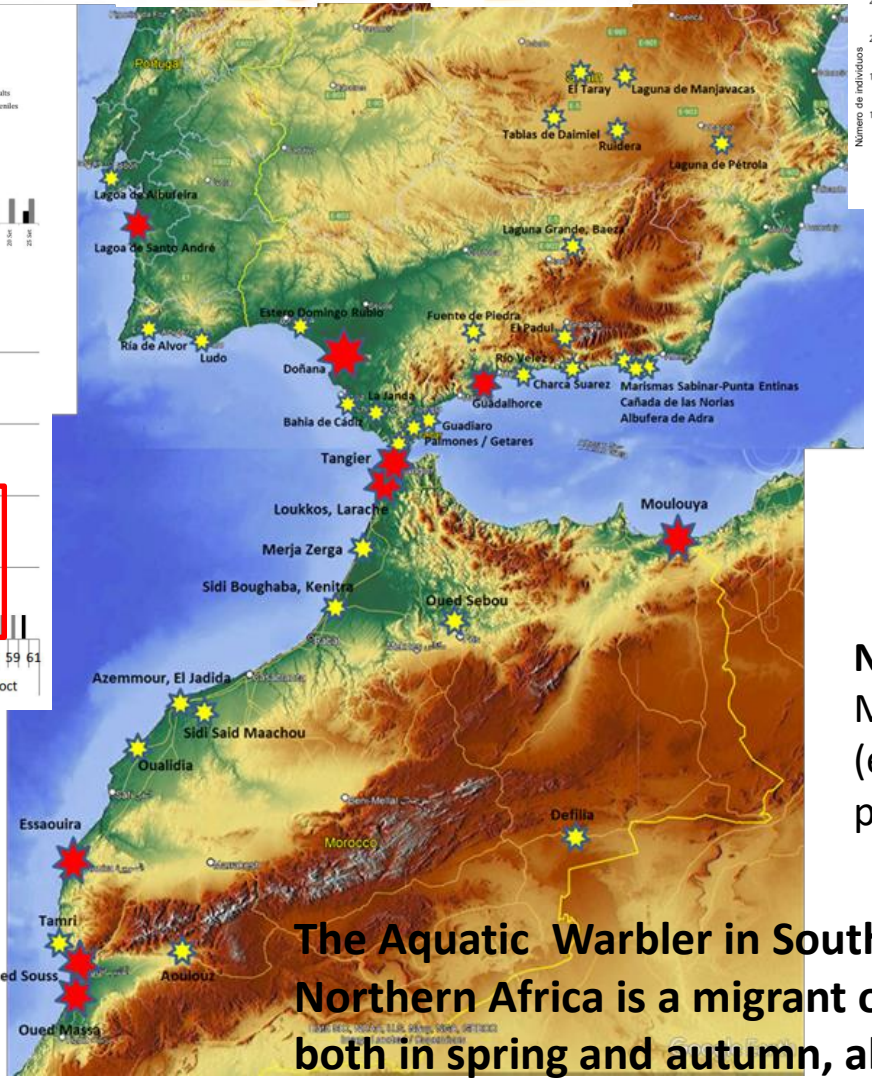


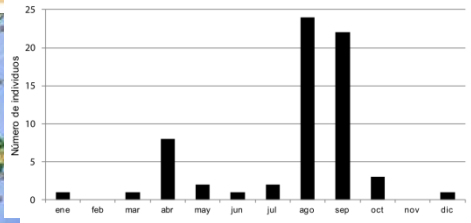
Neto *et al*. 2010



S Iberia-
detected in spring (Feb-May,) and autumn migration (end Jul-mid Oct, peak- end August)

Miguelez *et al.* 2020





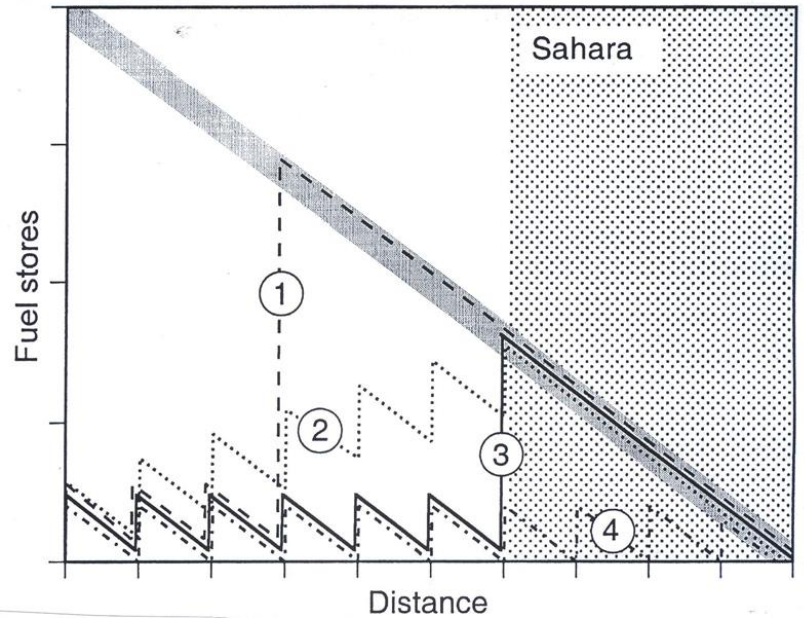
SE Iberia-
detected in spring (Jan-May,) and autumn migration (Jul-Dec, peak- Aug-Sep)

Miguelez *et al.* 2019

NW Morocco-
More commom in spring (end March- early May), peak in April.

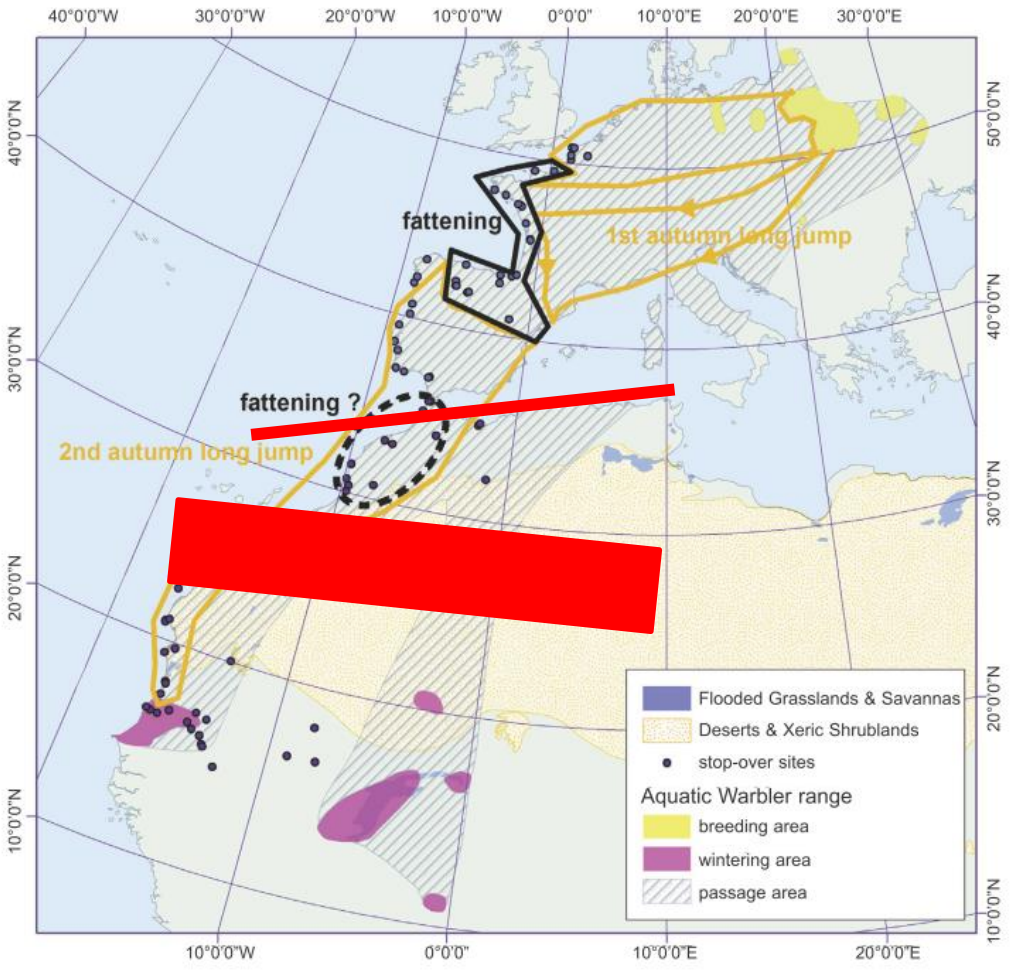
The Aquatic Warbler in Southern Iberia and Northern Africa is a migrant of regular passage, both in spring and autumn, although scarce

Fat load- migration strategies



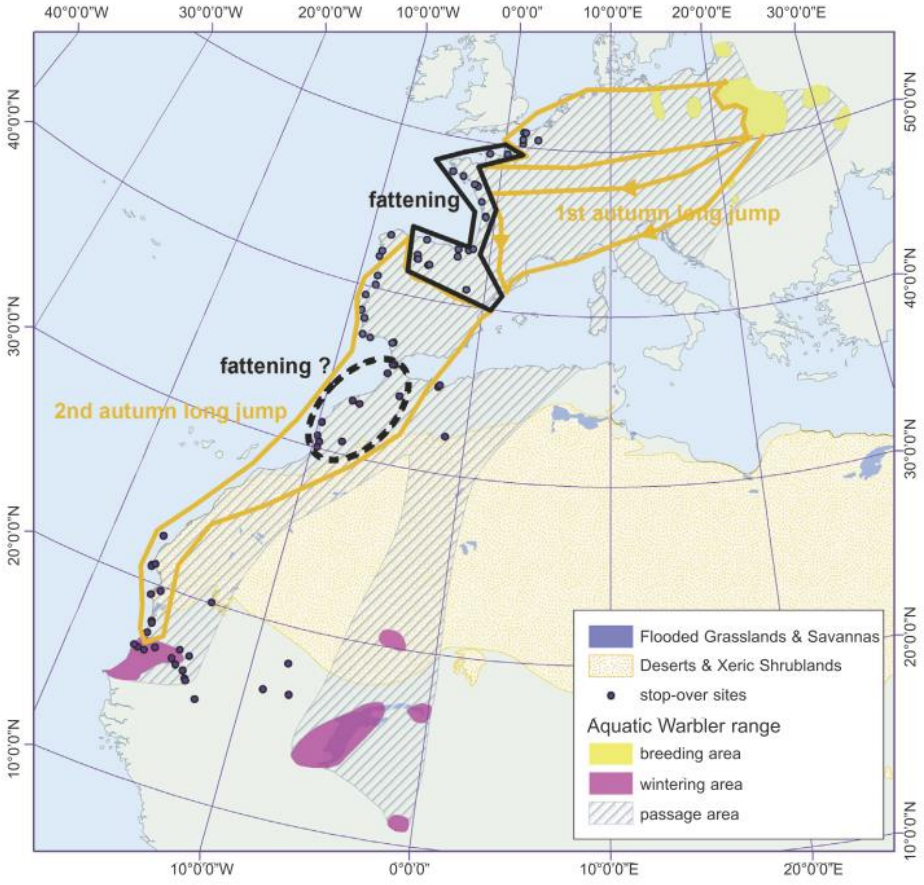
Schaub & Jenni, 2000

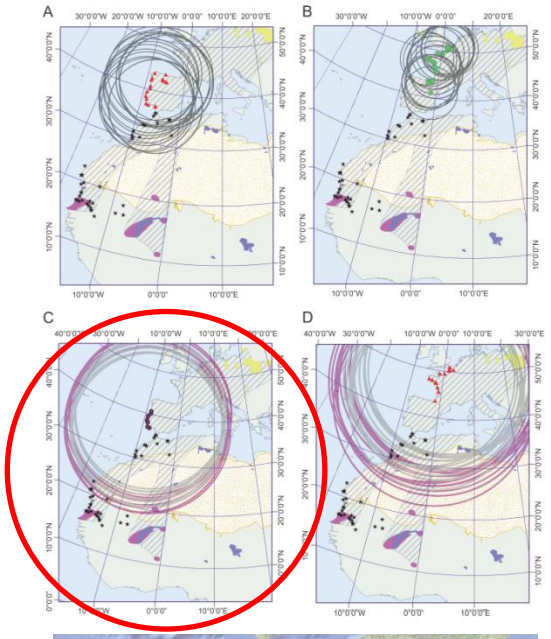
Strategies about where and how much to fuel up:
(1) start of non-refuelling migration well before the Sahara;
(2) steadily increasing fuel load along the migration route;
(3) large fuel deposition just before the Sahara;
(4) refuelling in the Sahara (strippled area)

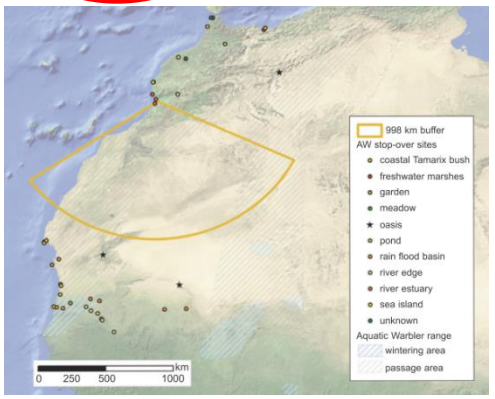


Jakubas *e t al*. 2020

Fat load and flight ranges - migration strategies

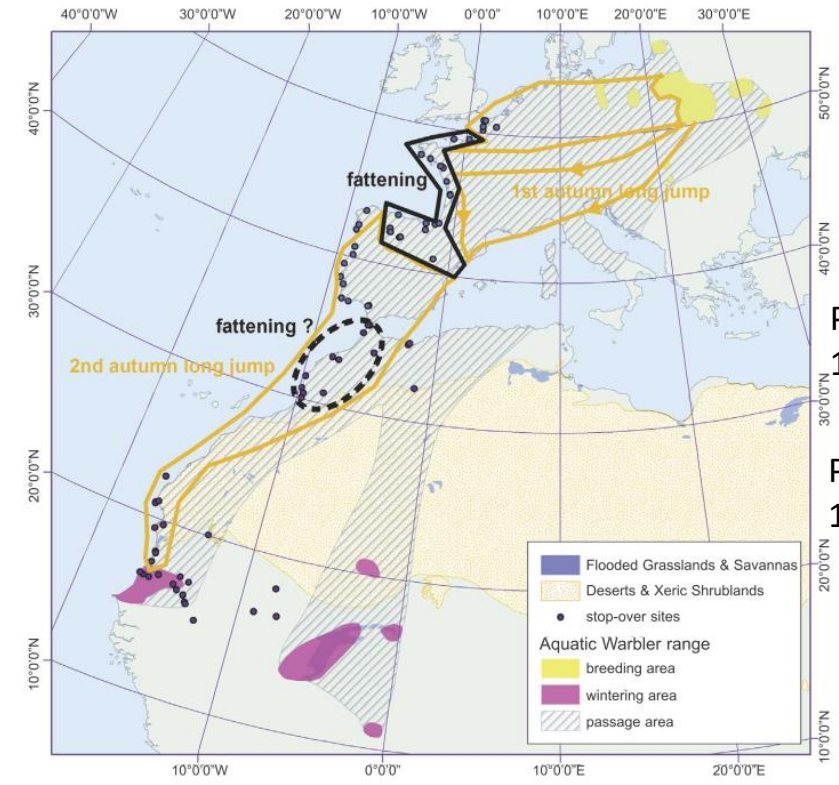






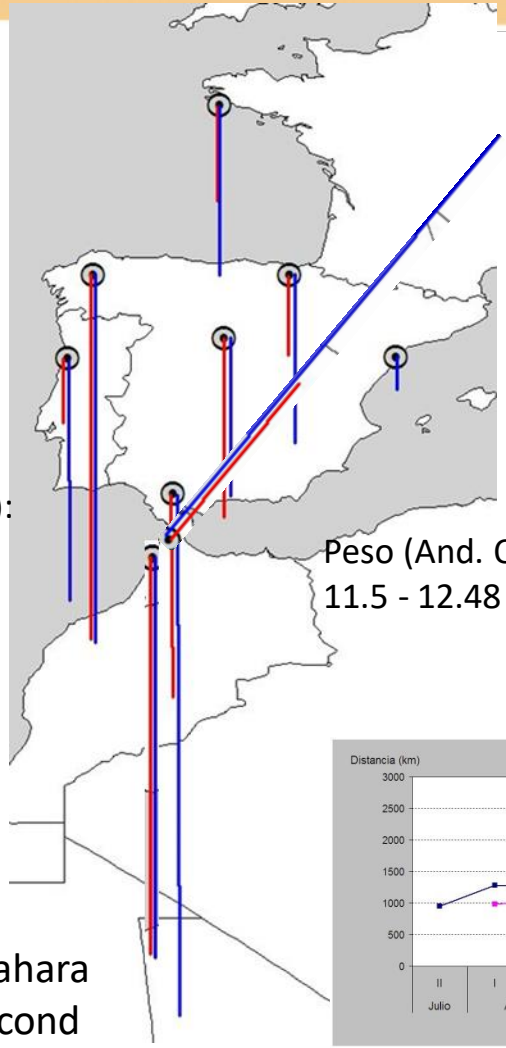
Jakubas *e t al*. 2020

Fat load and flight ranges - migration strategies

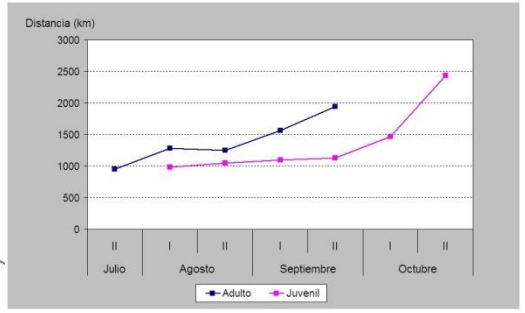


Peso Portugal:
11.8 - 12.6 gr

Peso (And Occ):
10.1 - 11.4 gr



Peso (And. Or):
11.5 - 12.48 (17) gr



Autumn migration: steadily increasing fuel load along the migration route and large fuel deposition just before the Sahara
Spring migration: Refuelling well before the Sahara and second refuelling after crossing (NW Africa-SW Iberia)??

Threats

Many natural wetlands, specially in NW Africa, transformed to irrigated croplands, grazing areas, urbanization and industrial uses.

Most of these southern wetlands are threatened by hidrological limitations, affected by droughts, precipitation reduction or overexploitation of aquifers

Concluding remarks

- The Aquatic Warbler is an species of regular passage in S Iberia and N Africa, both in spring and autumn, occurring mainly in coastal wetlands than in inland ones.

- The North of Africa and the South of the Iberian peninsula plays a key role for Aquatic Warbler migration, specially for stopover and fattening, before (SW Iberia) and after (NW Africa) the Sahara crossing.

- There are still important gaps in knowledge about stopover ecology (places, habitat, phenology, fattening…), specially in W Iberia and NW Africa, and specially for spring migration.

- Many important places in SW Iberia and specially in Morocco are not yet protected and have been transformed dramatically.

Acknowledgements

To my colleagues of **Fundación Migres**, **Fundación Global Nature**, **Txepetxa Ringing Group**, **GIA**, **University of El Jadida**, and specially to Juan Ramirez, Marina Guerrero, Antonio Román and Hamid Rguibi.


Thank for your attention!!