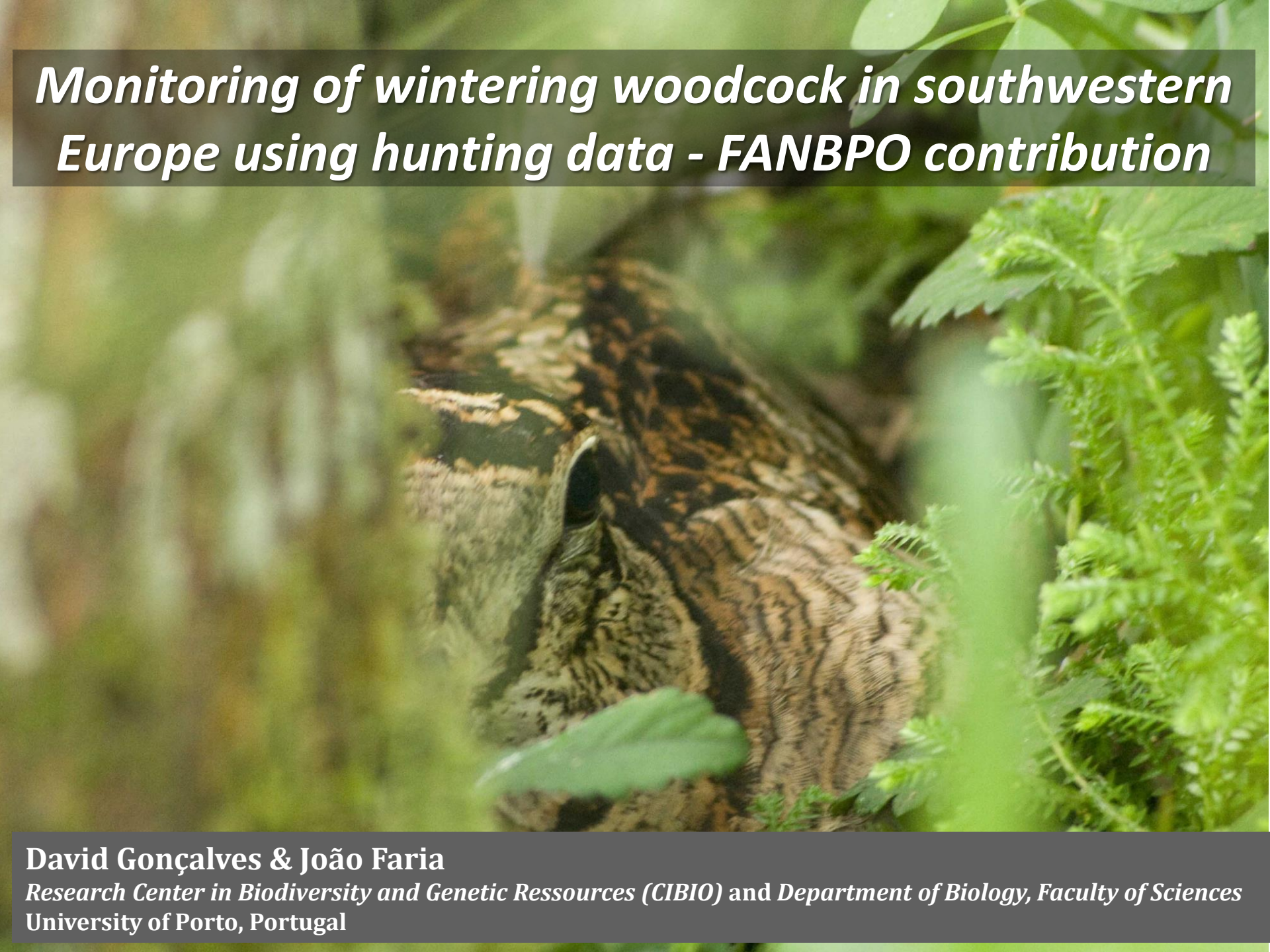
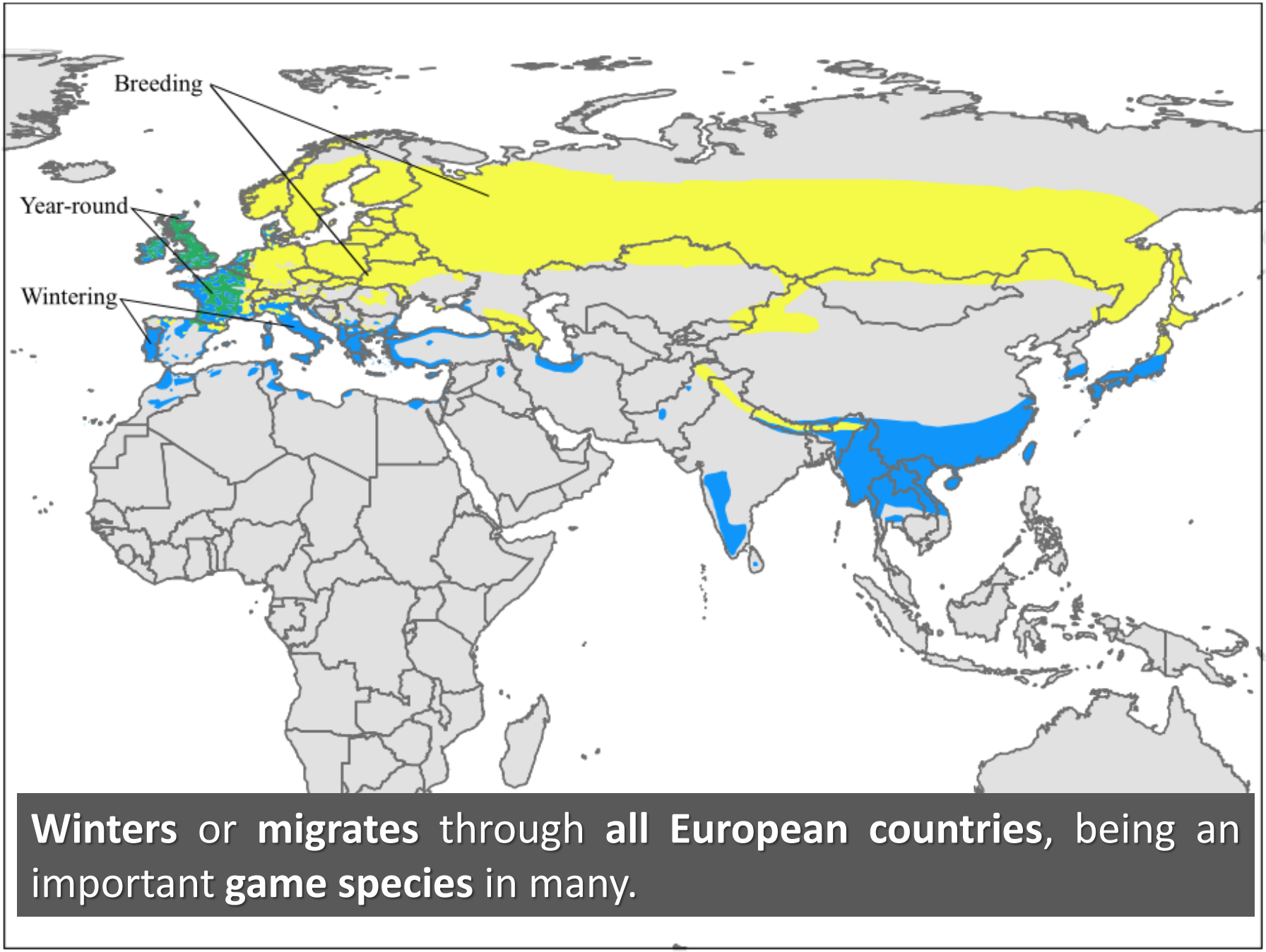
Monitoring of wintering woodcock in southwestern Europe using hunting data - FANBPO contribution



David Gonçalves & João Faria
Research Center in Biodiversity and Genetic Ressources (CIBIO) **and** ***Department of Biology, Faculty of Sciences***
University of Porto, Portugal

Global conservation status: Least Concern

- mostly **migratory**
- broadly distributed in the **Palearctic**

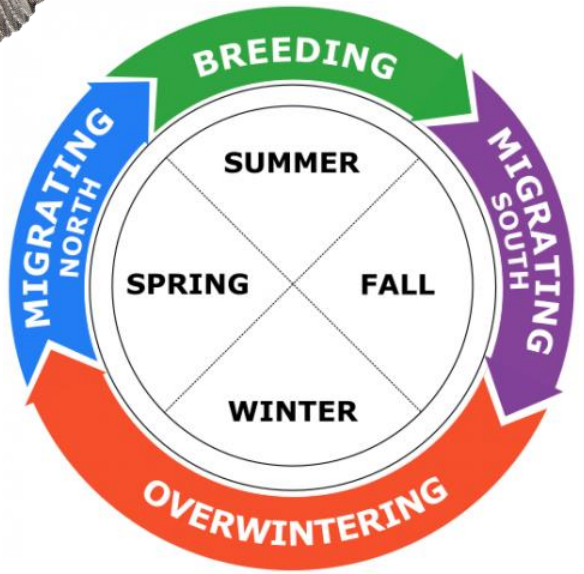


Winters or **migrates** through **all European countries**, being an important **game species** in many.

Eurasian woodcock is a **migrant species.**

Different phases of the **annual life cycle** happen in **different areas**.

Very complex management.



Solitary, elusive and **cryptic** species.

⇩

Not properly evaluated by **common bird census technics**

Hunting activity can be **very useful**!

- Provides data to evaluate **abundance** and **demography**.
- Can be used to **estimate abundance**, if hunting effort is controlled.

FANBPO - Federation of Western Palearctic National Woodcock Hunters Associations

For **20 YEARS**, bringing together **7 COUNTRIES** and **~7000 HUNTERS** contributing to **WOODCOCK RESEARCH.**

Country	Club or Association	Logo
France	"Club National des Bécassiers" (CNB)	
Italy	"Club della Beccaccia" (CDB)	
Switzerland	"Association Suisse des Bécassiers" (ASB)	
Wales	Welsh Woodcock Club (WWC)	

Country	Club or Association	Logo
Spain	"Club de Cazadores de Becada" (CCB)	
Italy	Federazione italiana beccacciai (FIBEC)	
Ireland	National Association of Regional Game Councils (NARGC)	
Portugal	"Associação Nacional de Caçadores de Galinholas" (ANCG)	
Ireland	The National Woodcock Association of Ireland (NWAOI)	

FANBPO members

ask hunters to collect data from:

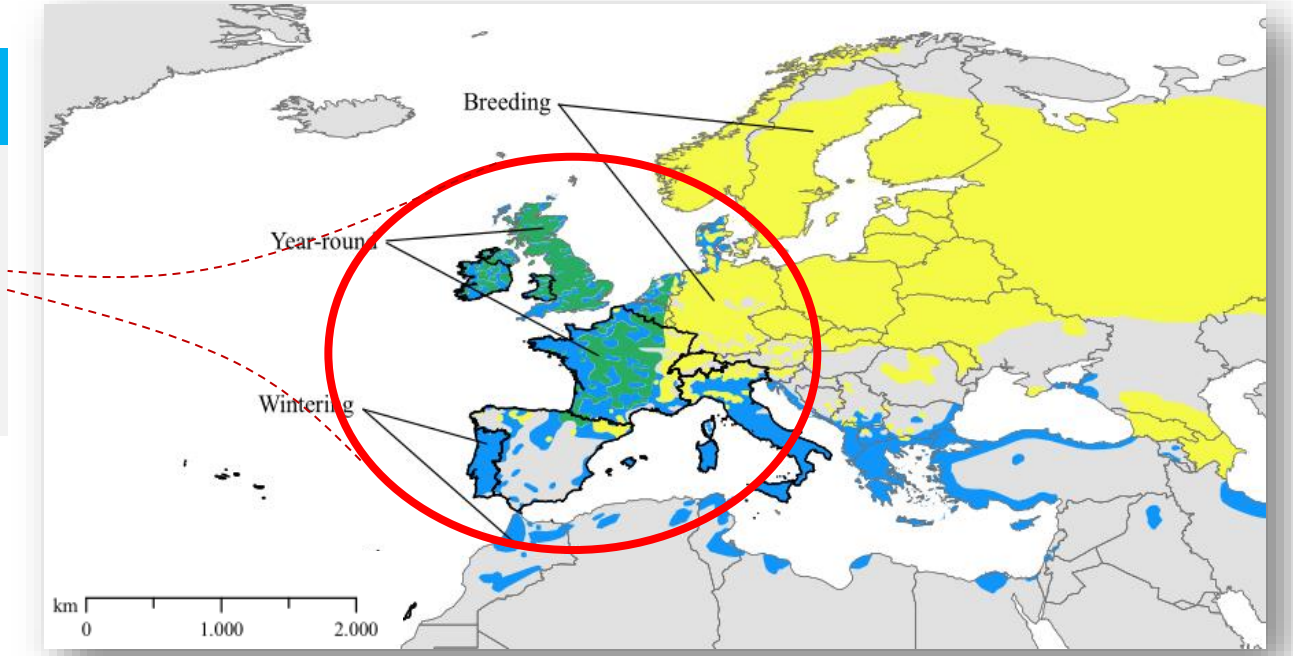
Woodcock hunting

Use the collected data to:

monitor the **trend** and **breeding success** of the species

WINTERING AREA

~ 90 % birds harvested here are **migratory**



Using the data collected by **FANBPO members** from **2006-2022**, this study will:

i) describe the autumn **migration/winter phenology** and **demographic parameters** of the Woodcock in the Franco-Iberian region.

ii) evaluate the **trends** of the **wintering population** between hunting seasons.

iii) Compare the trends from **Franco-Iberian region** with **Italy**.

Hunting season usually between **September and February**. (Can vary between countries).

Hunting method considered:

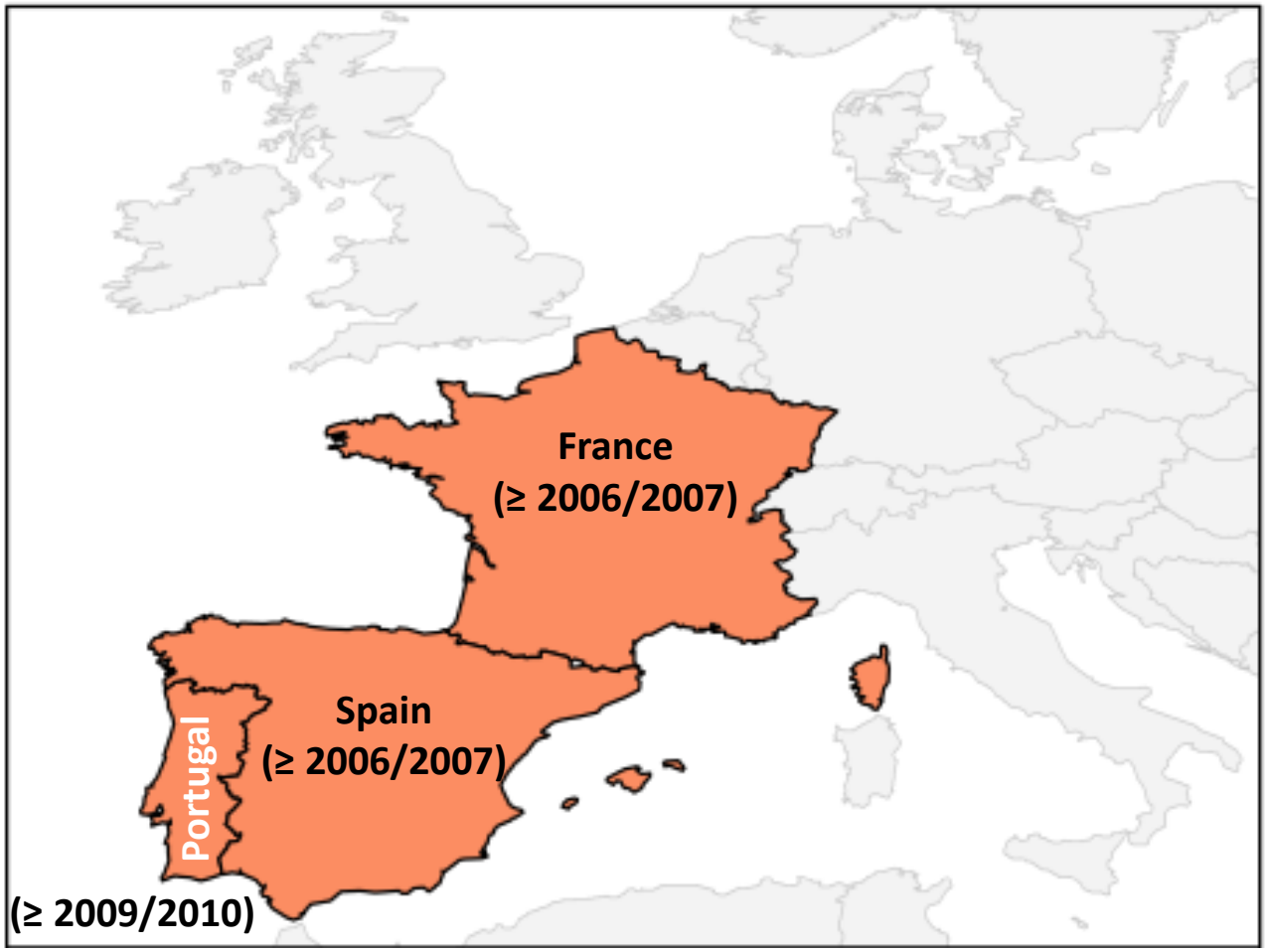
Hunting with **pointing dogs**.

Franco-Iberian region

3 countries:

Form a **geographic unit** in the Southwest of Europe

Important wintering area



Data from hunting trip includes:

- date, location, duration;

- no. of different woodcock seen & shot.

- A total of **612 372** reports of hunting trips were analyzed.
  - ✓ **558 013** from France (2006-2022)
  - ✓ **49 814** from Spain (2006-2022)
  - ✓ **4 545** from Portugal (2009-2022)

- More than **2 MLLION** total **hours** of hunting (most trips around 3-4.5h)

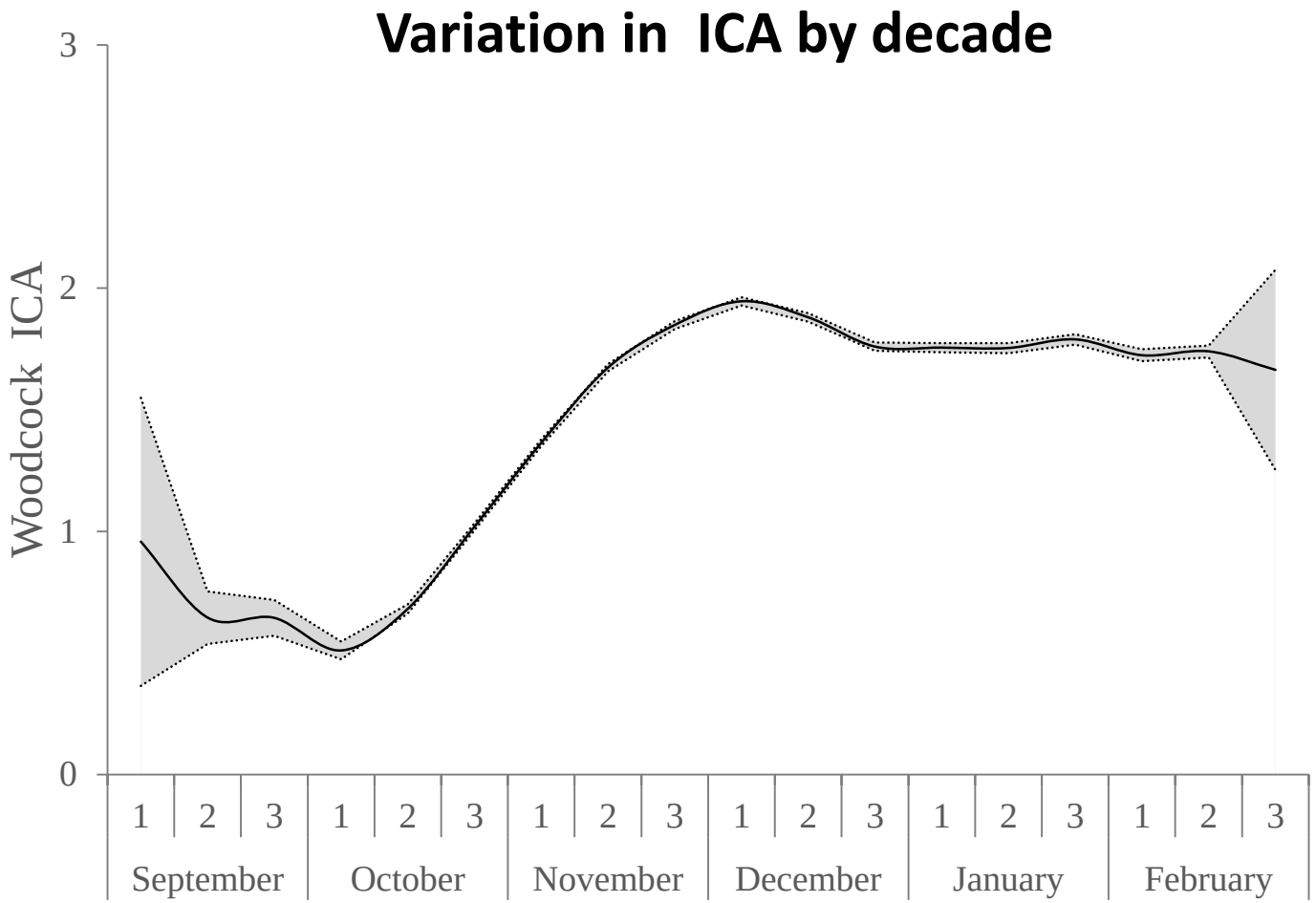
ICA (Indice Cynégétique d'Abondance):

$$\frac{No.\,of\ different\ Woodcock\ flushed}{hunting\ trip\ duration} * 3.5$$

Used to investigate changes in relative abundance during:

- **Total hunting season** (September – February)
- **migratory** period (October 1 – December 20);
- **wintering** period (December 20 – February 20).

Franco-Iberian region



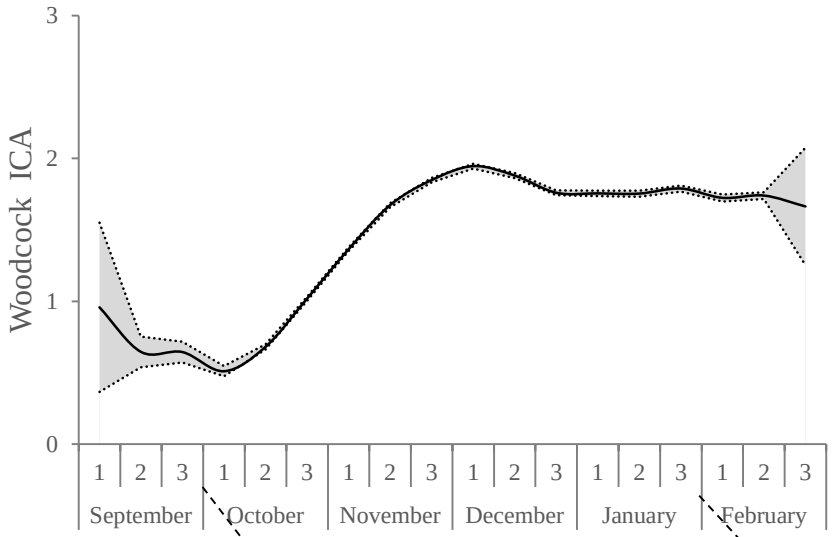
Solid line = ICA estimate

Shaded area = 95% Confidence Interval.

I – Phenology

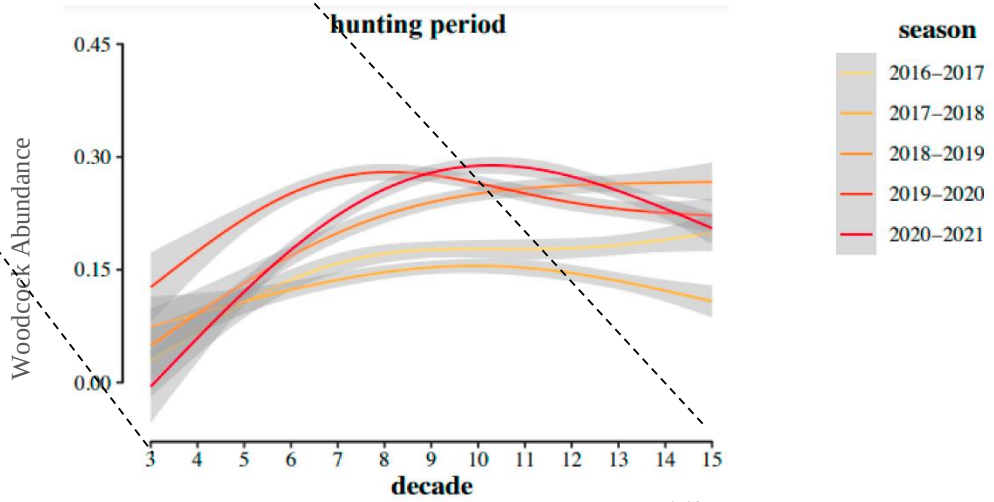
Franco-Iberian region vs. Italy

Results



Franco-Iberian region (2006-2022)

Italy (2016-2021)



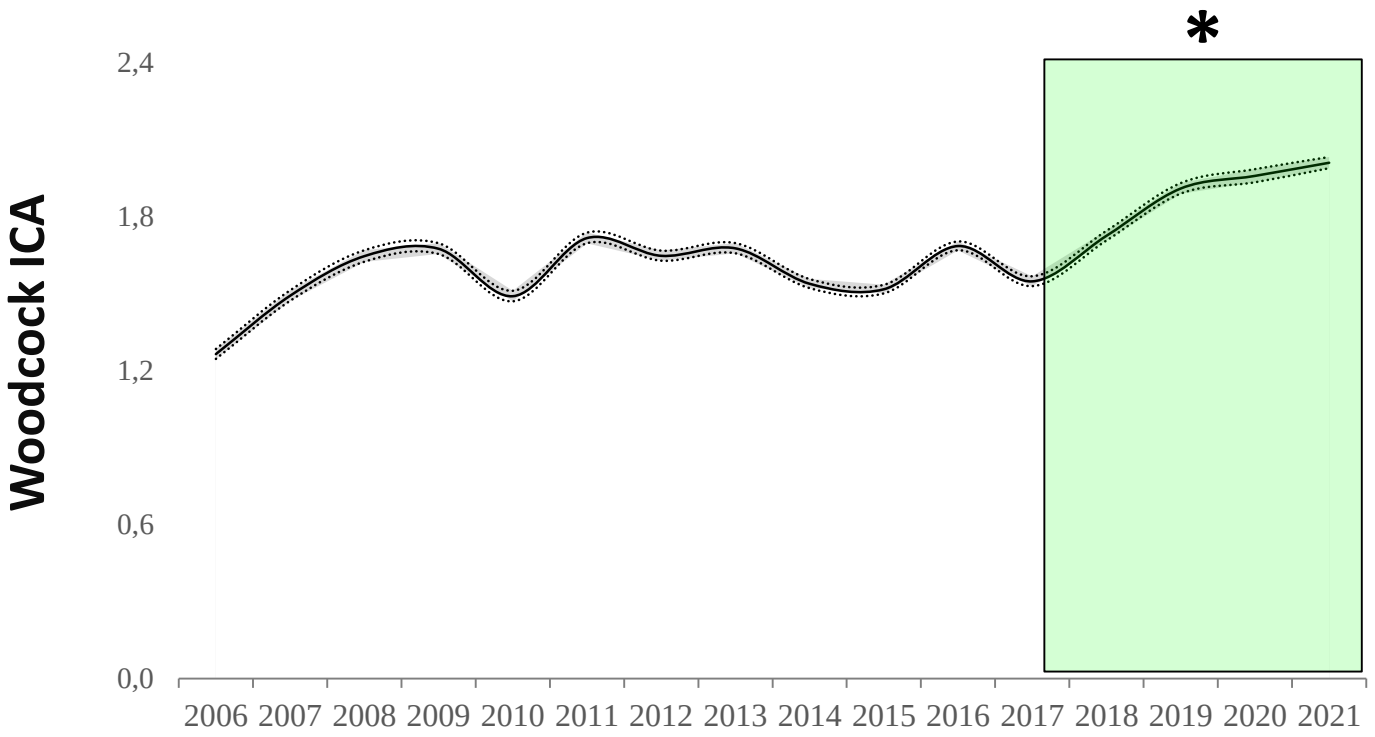
Article

Monitoring Eurasian Woodcock (*Scolopax rusticola*) with Pointing Dogs in Italy to Inform Evidence-Based Management of a Migratory Game Species

Marco Tuti [1], Tiago M. Rodrigues [2], Paolo Bongi [3,*], Kilian J. Murphy [4], Paolo Pennacchini [5], Vito Mazzarone [6] and Clara Sargentini [1]

Franco-Iberian region

Variation in abundance between hunting seasons (2006-2022).

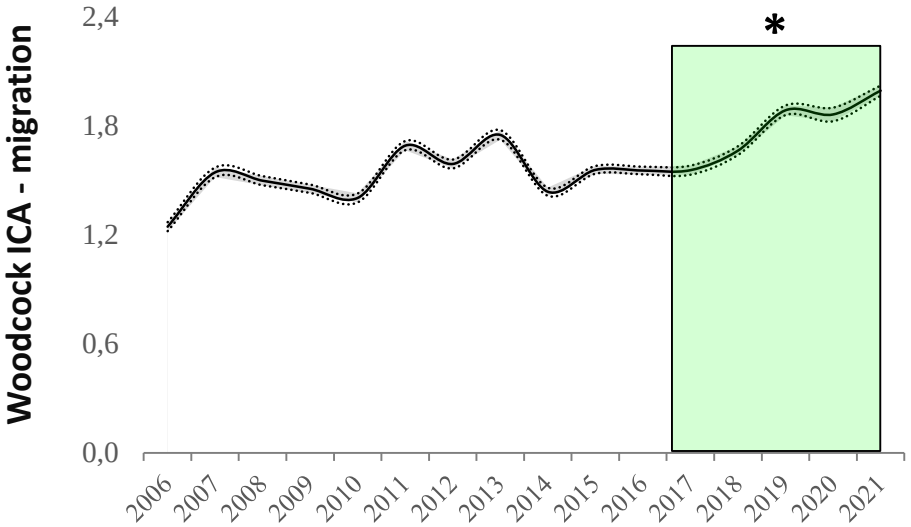


- Initial increase during first seasons.
- Stable for a decade.
- **Increasing since 2017??**

Franco-Iberian region

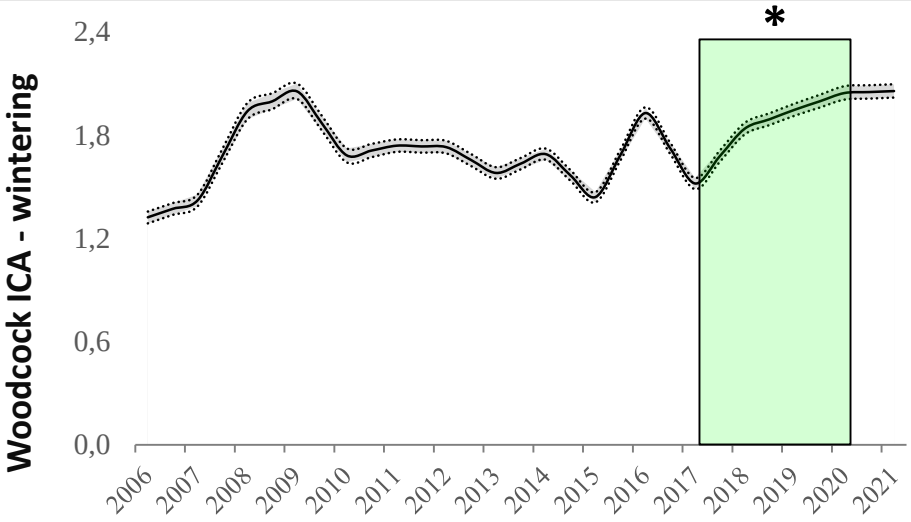
Variation in abundance - Migration period

- Initial increase.
- Noticeable increase during 2011-2013.
- **Also increasing since 2017.**



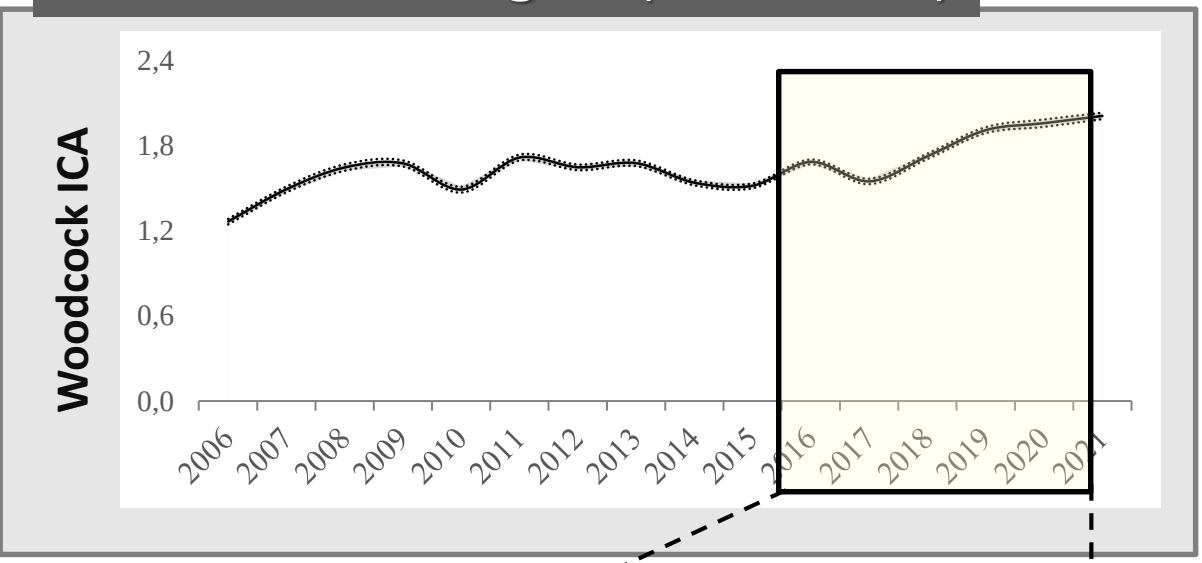
Variation in abundance - Wintering period

- Initial increase.
- More variable (fewer trips).
- Also increasing since 2017, but stabilized.



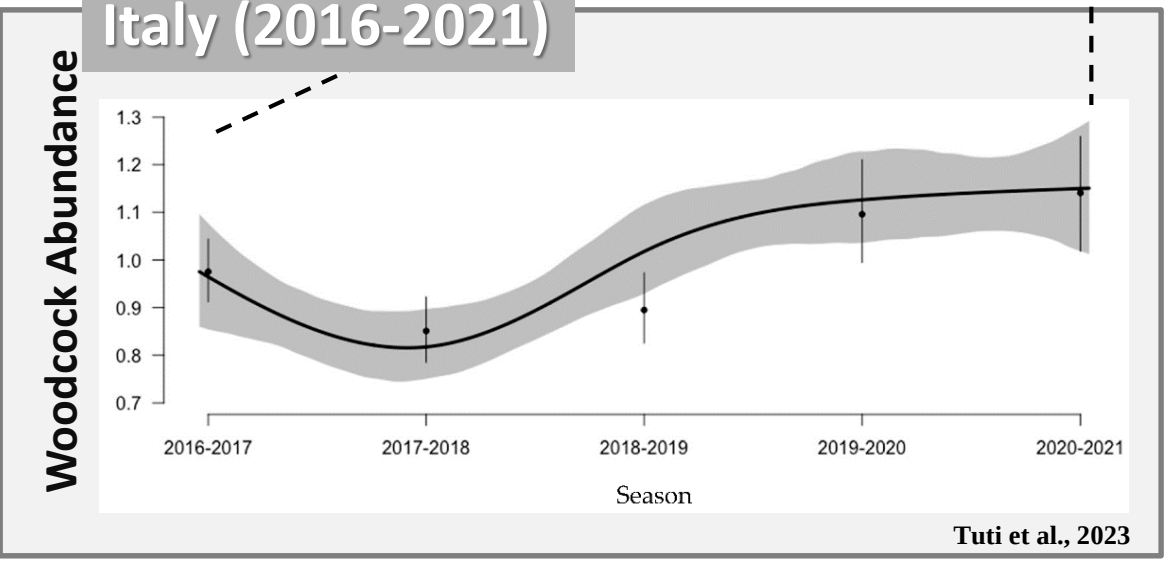
Comparisons with Italy

Franco-Iberian region (2006-2022)



From **seasons 2016-17 until now**, show **very similar trends**.

Italy (2016-2021)

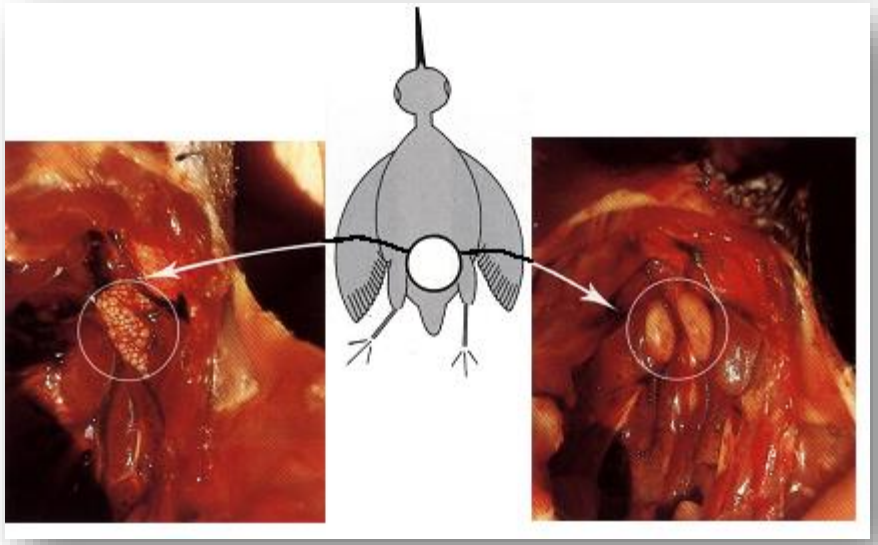


Tuti et al., 2023

decrease until 2017-18, followed by **increase** until 2020-21

Sex determination:

dissection + gonads observation



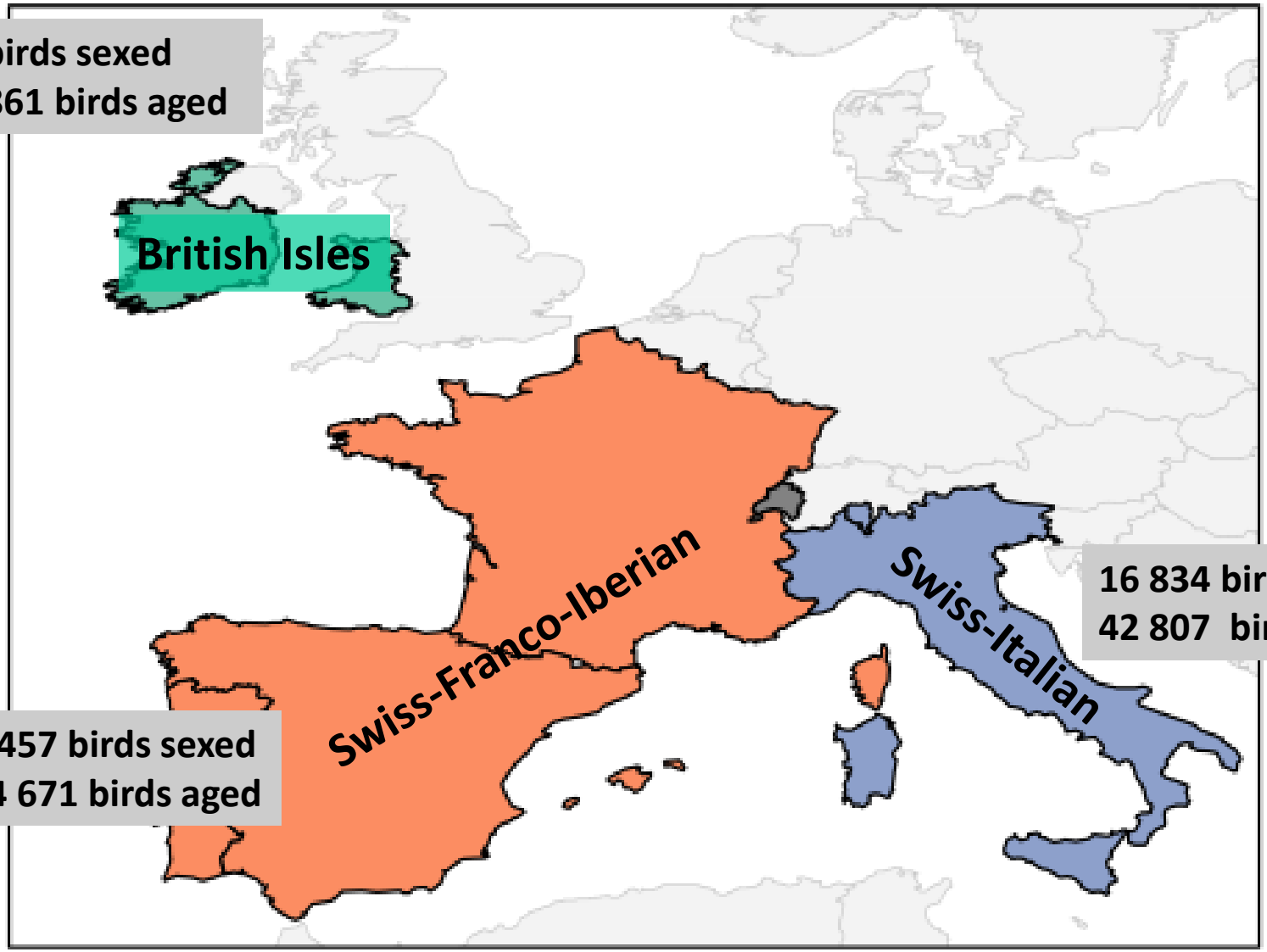
proportion of: $\frac{\text{females } ♀}{\text{male } ♂}$

Age determination:

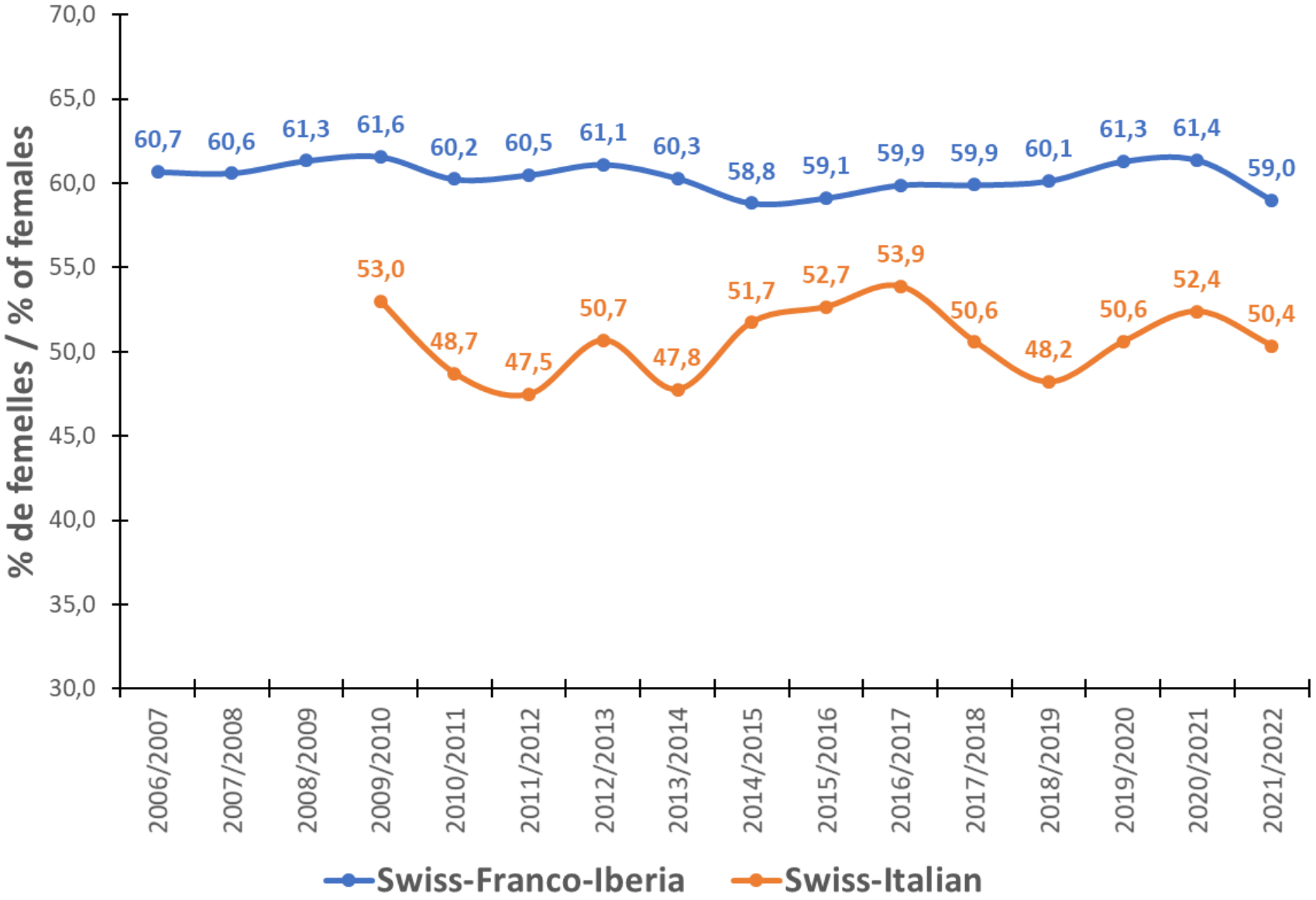
observation of wing moult stage

proportion of: $\frac{\text{young (< 1 year)}}{\text{adult (} \geq \text{ 1 year)}}$

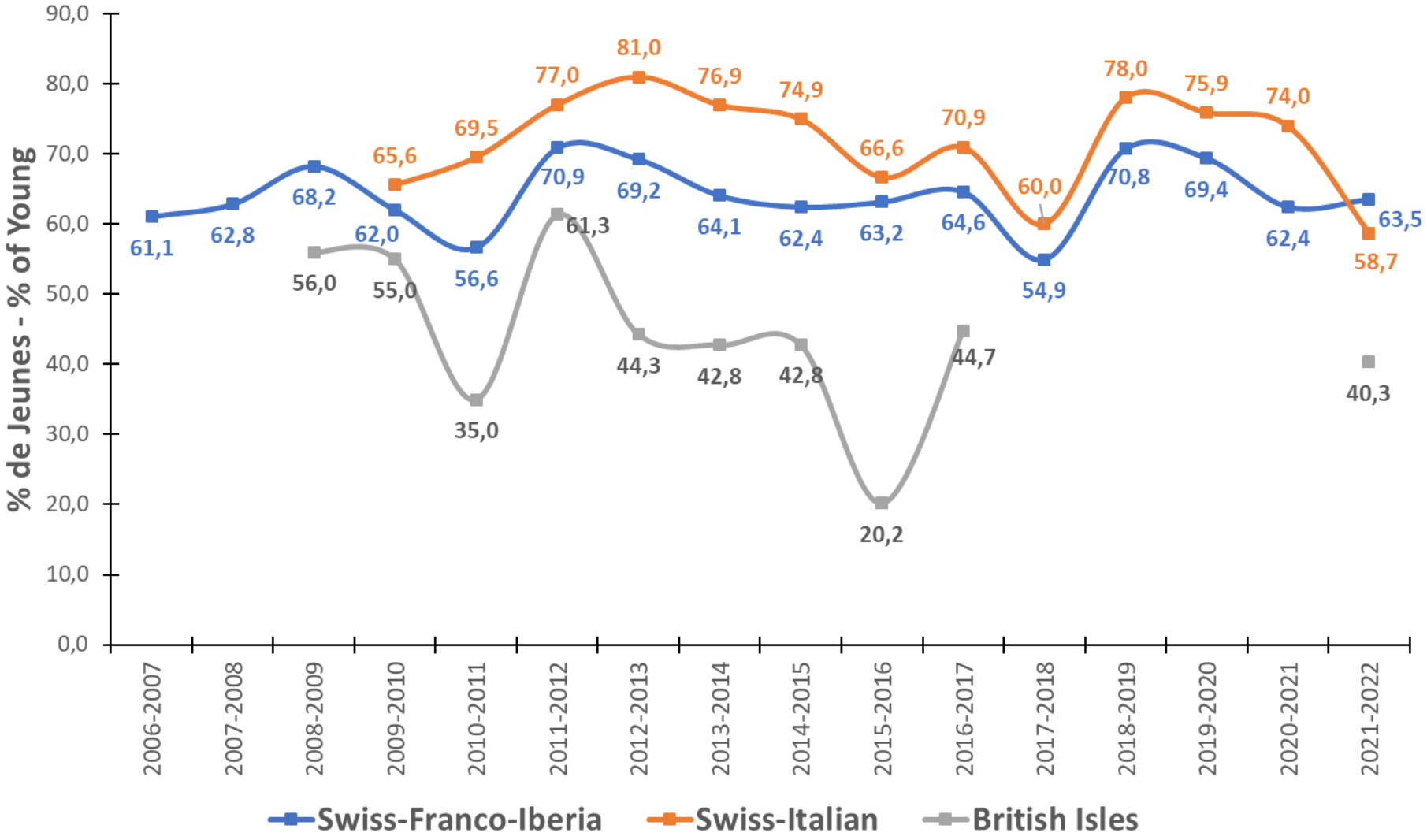
Data was organized by three regions:



Sex ratio => *% of Females*



Age ratio => *% of Young*



Conclusions

Woodcock on Franco-Iberian region:

PHENOLOGY

- **Increases** in **abundance** until **December** – remains **stable until February**

WINTERING POPULATION TRENDS

- **Stable** for nearly a **decade**;
- **Similar trend** than **Italy**;
- Seems to be **increasing in both regions**.

Woodcock on the Swiss-French-Iberian / Swiss-Italian regions:

DEMOGRAPHY

Sex ratio:

- **Stable** in both regions
- **More** ♀ / ♂ in **Swiss-Franco-Iberian** than Swiss-Italian.

Age ratio:

- **More variable** in all regions (especially British Isles)
- **Swiss-Italian** region consistently **higher**.

Conclusions

TAKE HOME MESSAGE

Woodcock hunters associations

Great example of citizen science

Importance of international cooperation

Sustainable management

Thank you for your attention!