

The Osprey in the Mediterranean basin: *challenges for future conservation*

Mediterranean basin

ATELIER
ALBATROS



3^{ème} ASSISES
MÉDITERRANÉENNES
DES
PETITES ÎLES
BIZERTE
AVRIL 2012



© A.T.

Flavio Monti – University of Ferrara and CEFE-CNRs Montpellier



وزارة البيئة

Osprey Mediterranean Background

Status and Conservation



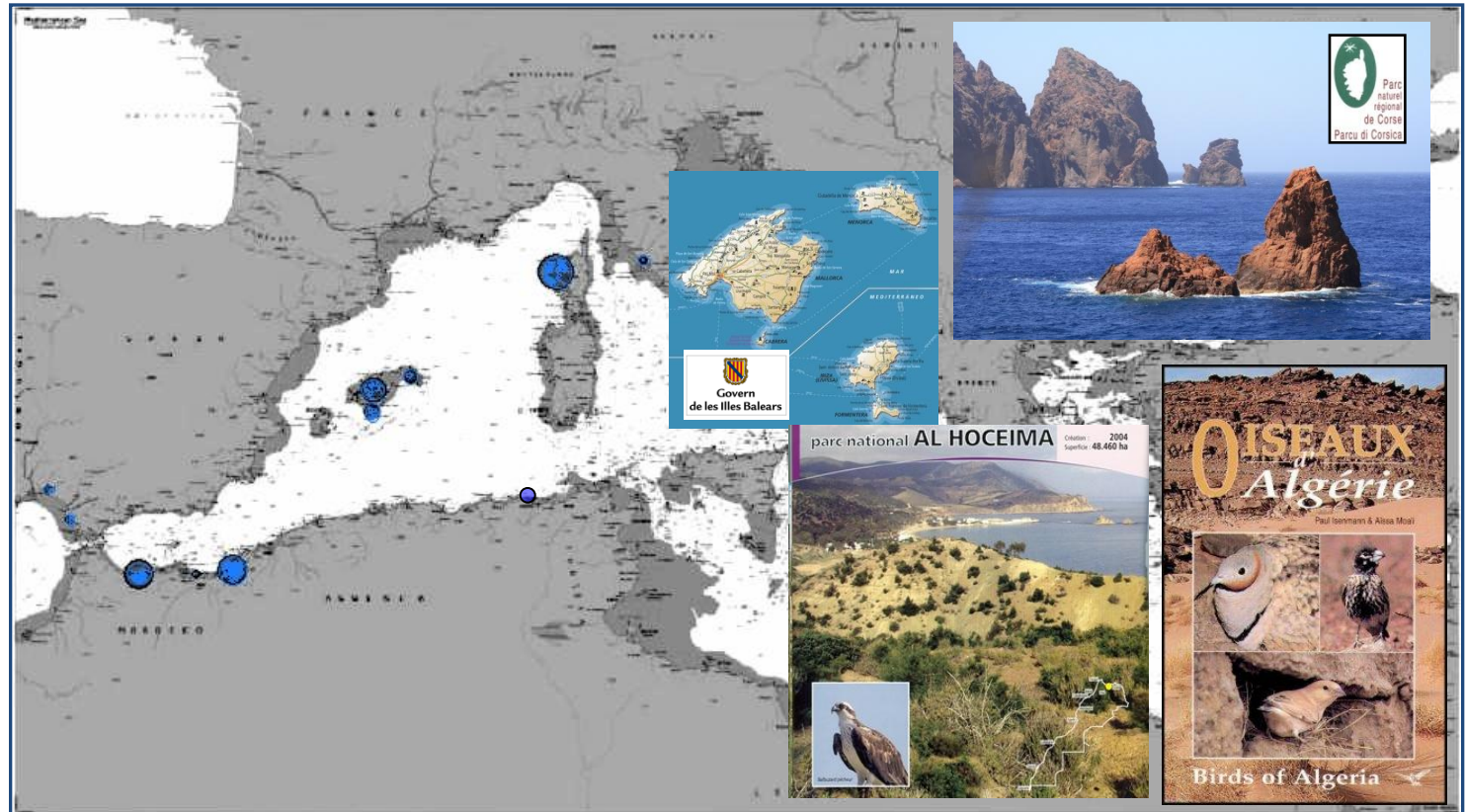
Four main breeding sites around the basin

Less than 100 breeding pairs



“Endangered”

Three reintroduction projects: Spain (2003) - Italy (2006) - Portugal (2011)



Osprey Mediterranean Background



Distribution and Conservation Status

Geographic Area	Location	Breeding pairs	Total	References
Balearic Islands (Spain)	Mallorca	8	15	Triay & Siverio, 2008
	Menorca	4		
	Cabrera	3		
Spain (<i>mainland</i>)	Marismas del Odiel (Huelva)	1	2	Muriel et al., 2010
	Embalse del Guadalquivir (Cadiz)	1		
Chafarinas Islands (Spain)	Congreso Island	1	1	Triay & Siverio, 2008
Italy	Maremma Regional Park (Tuscany)	1	1	Monti et al., 2011
Morocco	Parc National d'Al Hoceima	18	18	Orueta & Cherckaoui, 2010
Algeria	Oran + El Kala	15+2	17	Orueta & Cherckaoui, 2010+Aziz Telalia <i>com. pers.</i>
Corsica (France)	West coast (e.g. Scandola MPA)	32	32	Dominici, 2008 LPO Mission Rapaces, 2011
Total			86	



Gaps in Knowledge



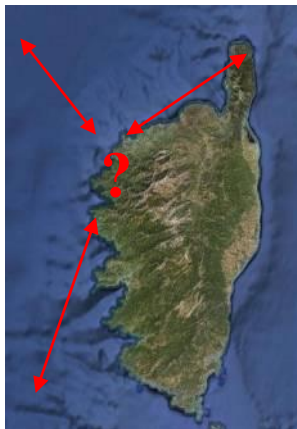
Basic information on spatial ecology



- Local movement patterns
- Dispersal strategies / Migration
- Wintering ecology (areas outside from the breeding season)



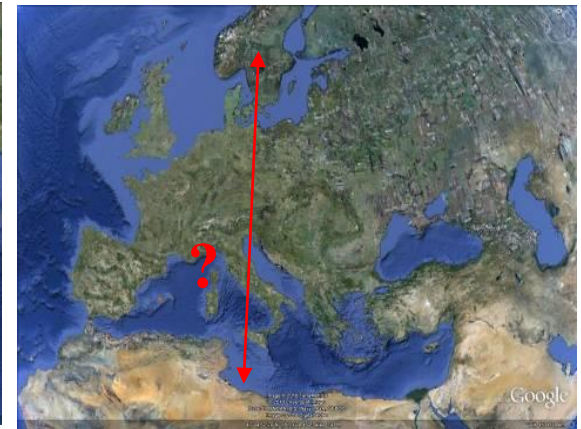
Investigate osprey's spatial ecology at different spatial and temporal scales



Local scale



Regional scale



Global scale

A multiscale integrated approach



1) LOCAL SCALE and PRESENT TIME



Corsica and Italy



- Movements during the breeding season
- Winter displacements
- Wild (Corsica) VS reintroduced (Italy) birds



Individual tracking



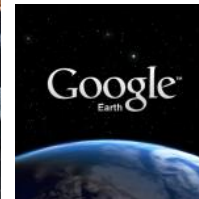
Genetics



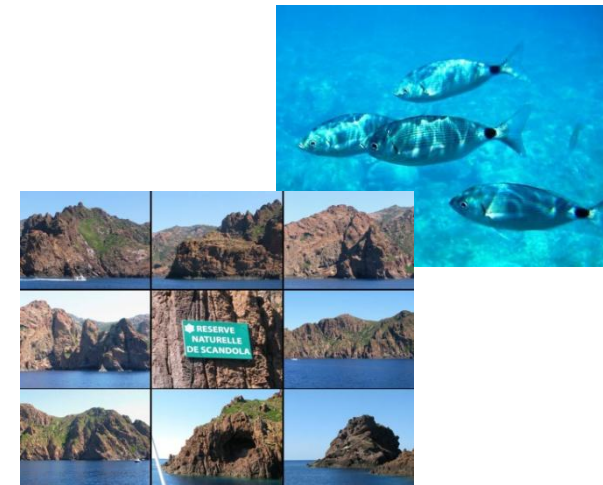
Stable Isotopes



Models



Feeding areas and test the “Marine Reserve Effect” on the population’s performance (Scandola Reserve in & out).



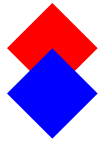
A multiscale integrated approach



2) REGIONAL SCALE and HISTORIC TIME



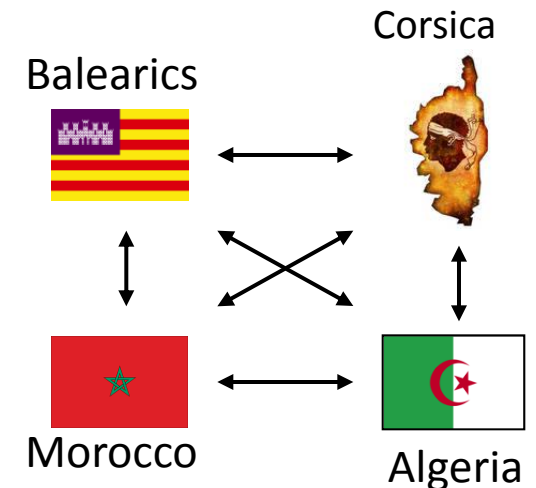
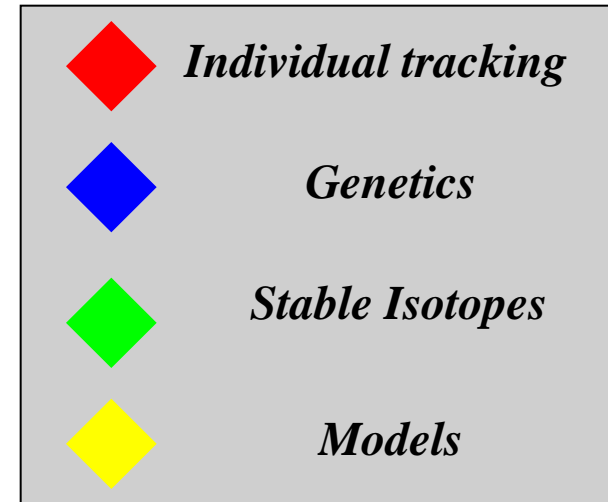
Mediterranean basin



**Movements among populations
(connectivity and genetic flow)**



+

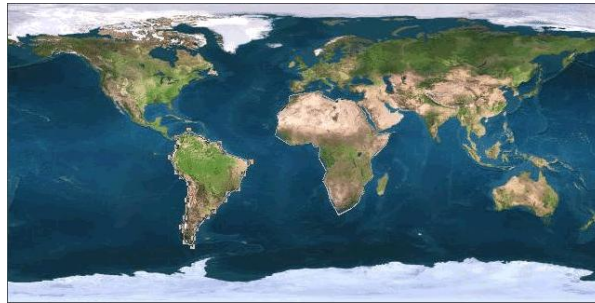


Do exchanges among populations occur in Mediterranean basin?

A multiscale integrated approach



3) GLOBAL SCALE and EVOLUTIONARY TIME



◆ *Individual tracking*

◆ *Genetics*

◆ *Stable Isotopes*

◆ *Models*

◆ **Explore and compare dispersal and migratory strategies between Mediterranean and Northern Europe populations.**

◆ **Winter habitat selection (freshwater VS sea)**

◆ **Phylogenetic structure: genetic divergence between Mediterranean and other populations (Mitochondrial)**



MEDITERRANEAN OSPREY NETWORK

Promotion of a common network between the different Mediterranean breeding sites.

- Sharing Ringing Programs



- Harmonization of monitoring protocols



- Marine Protected Areas



- Building of artificial nesting sites



- Reintroduction programs



ACKNOWLEDGMENTS

