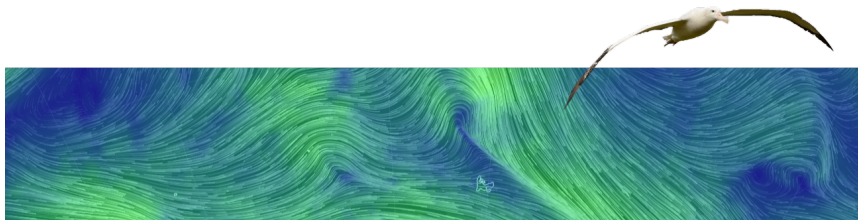# Navigation and movement ecology

Rocío Joo
Movement statistician

Seminar - Feb. 6th 2019

©Alastair Wilson
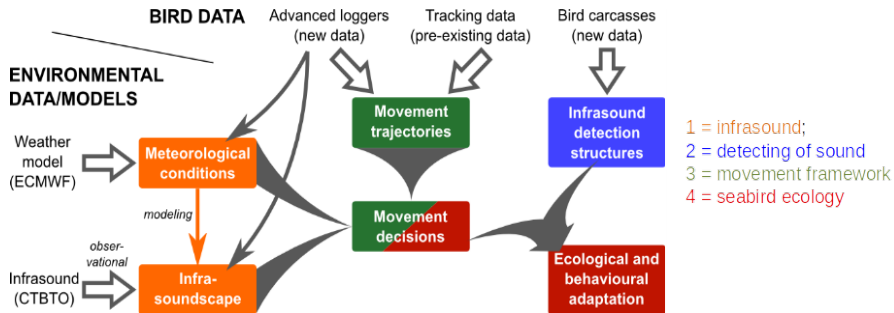
How do seabirds use infrasound and meteorological conditions to navigate ?

Seabird sound project

How do seabirds use infrasound and meteorological conditions to navigate ?
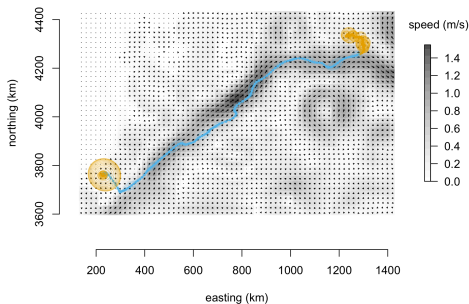

4 PIs + 4 postdocs + 1 master student (coming in May !)
3 years of project

Navigation

- Navigation process : Identifying mechanisms used to reach a goal whether using spatial information or not
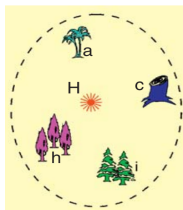- Scales matter for navigation decisions

Environmental factors could be used as :
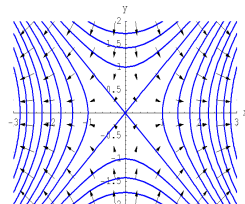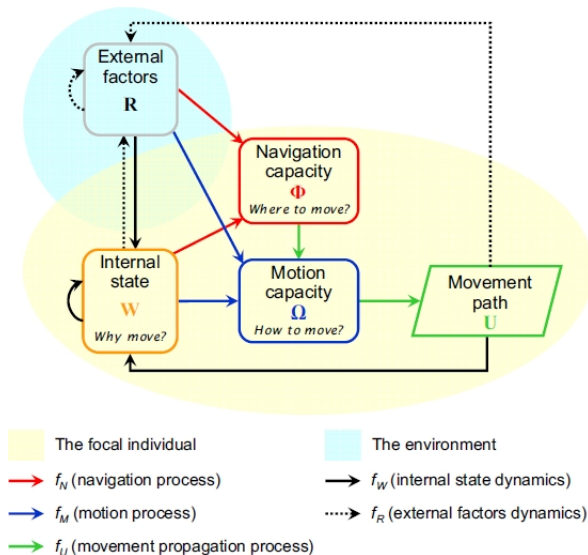
Beacon   Landmark   Gradient

- Perspective paper on the way : showing infrasound as a valuable source of information for seabird navigation ; highly collaborative.

Movement ecology

(Nathan et al. 2008)
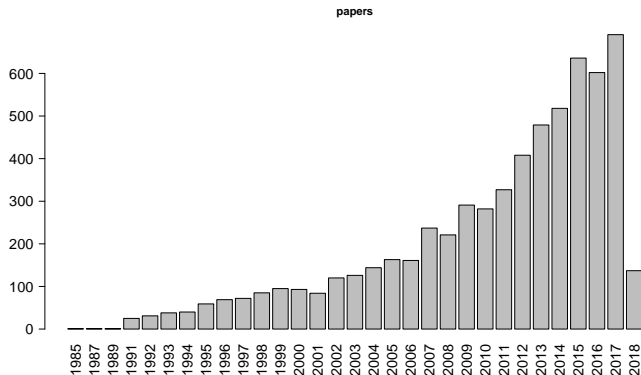
Movement ecology

Review after 10 years of movement ecology : 2009-2018

- More papers ? New trending topics ? More diversity in papers ?
- Are components of framework investigated ?
- Species/taxa ?
- Methods ? Topics ? Devices ? Software ?
- What's missing ?
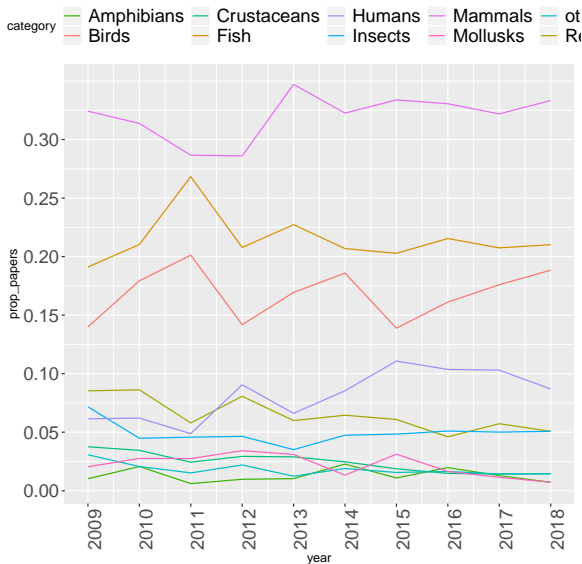
Approach : text mining of WoK papers

Movement ecology

Preliminary results :

papers

2009-2018 : 4372 papers
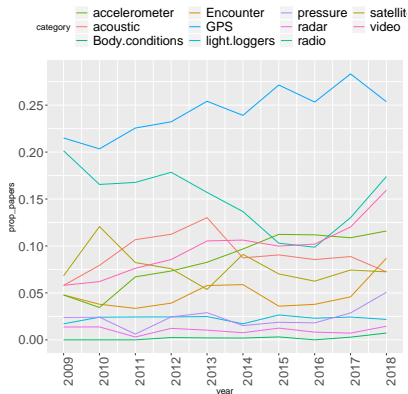
Movement ecology

Preliminary results : Species

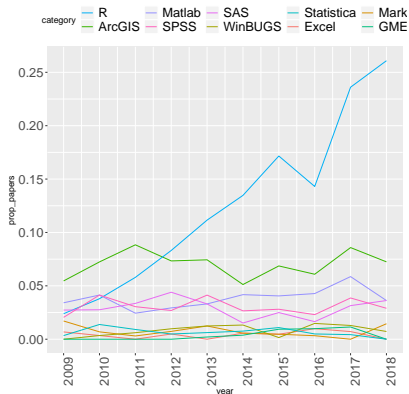# Movement ecology

Preliminary results :

Devices

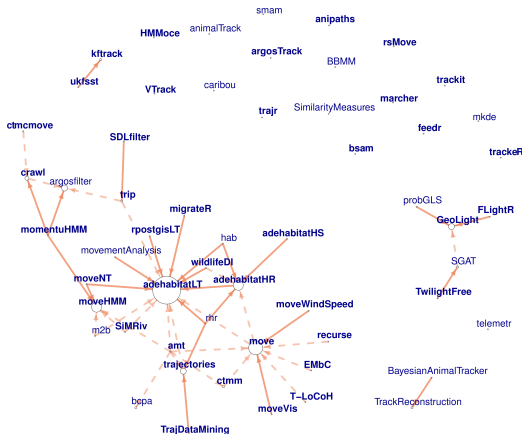## Software

Review of 54 packages for processing and analysis of tracking data

For users and developers. Check posts on mablab.org

Thanks for your attention!

@rocio_joo

And next... 'Using citizen science data for Biodiversity' by Matthew E. Boone