



Ik zie, ik zie, wat jij niet ziet

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Institute for Biodiversity and Ecosystem Dynamics

shamoun@uva.nl



UNIVERSITEIT VAN AMSTERDAM

Who we are



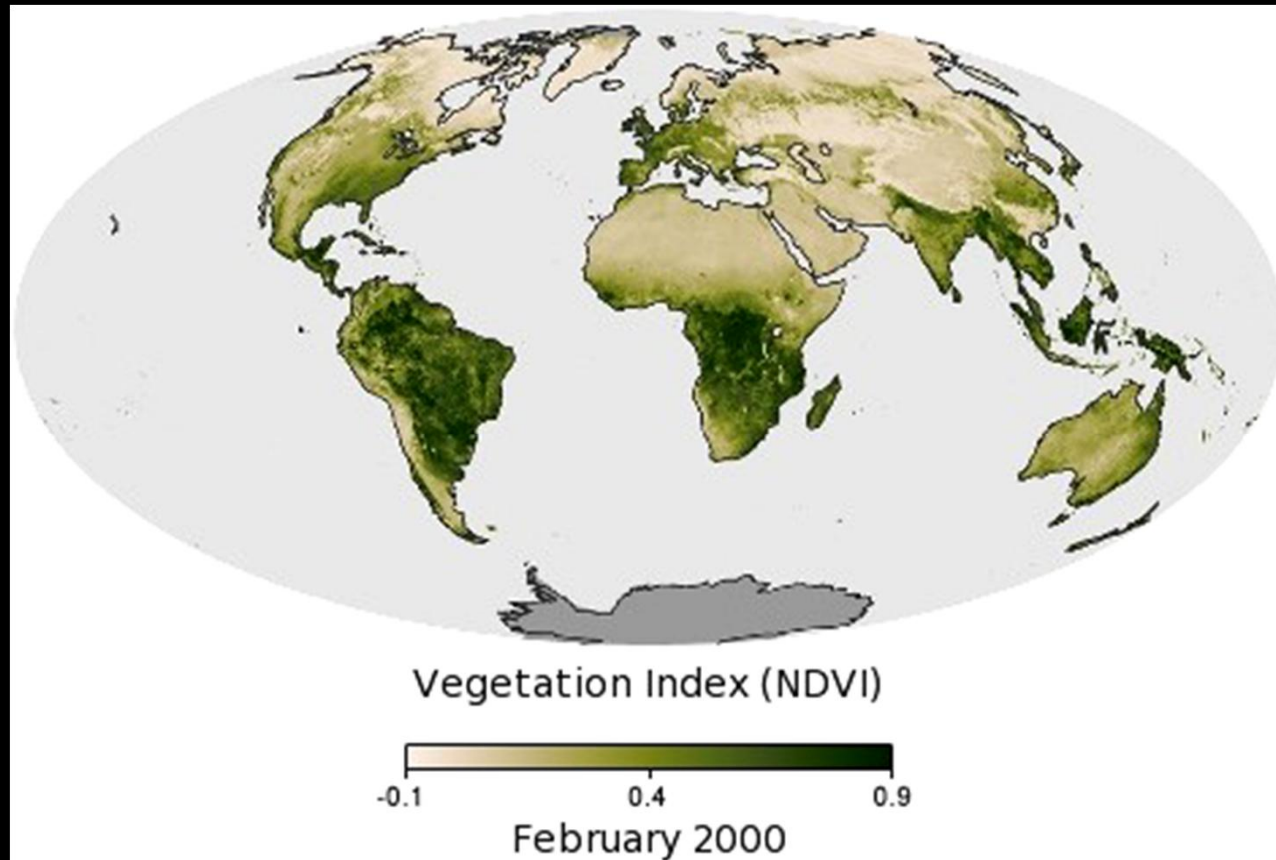
Permanent staff, special chair, research assistants, postdocs, PhDs (present & past) & guest researchers

Willem Bouten, Emiel van Loon, Bart Nolet (NIOO)



Liesbeth Verlinden, Adriaan Dokter, Thomas Lameris (NIOO), Wouter Vansteelant, Susanne van Donk (NIOZ), Hans van Gasteren (RNLAF), Jamie McLaren, Michael Kemp

The digital age

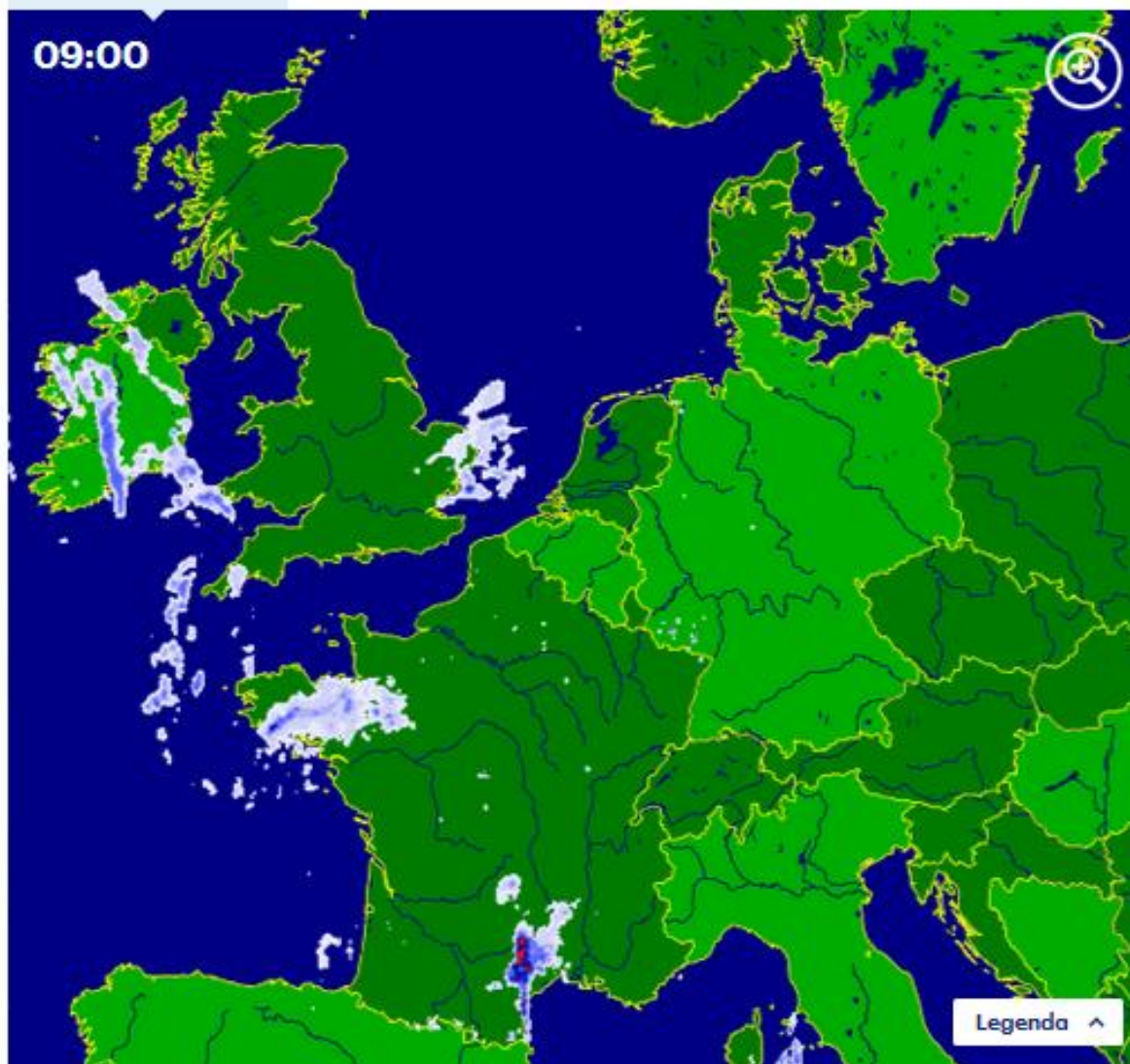


http://earthobservatory.nasa.gov/GlobalMaps/view.php?d1=MOD13A2_M_NDVI

Afgelopen 3 uur

3 uur vooruit

09:00



Legenda ^



06:30

07:00

07:30

08:00

08:30

09:00

Vogels volgen 24/7

13 Gulls June 2013



View online at: <http://cdb.io/1I1HNEy>

Powered by: OpenStreetMap & CartoDB
NLeSC, surfSARA & UvA-BiTS

Interdisciplinair vogel onderzoek



Photo: K Camphuysen

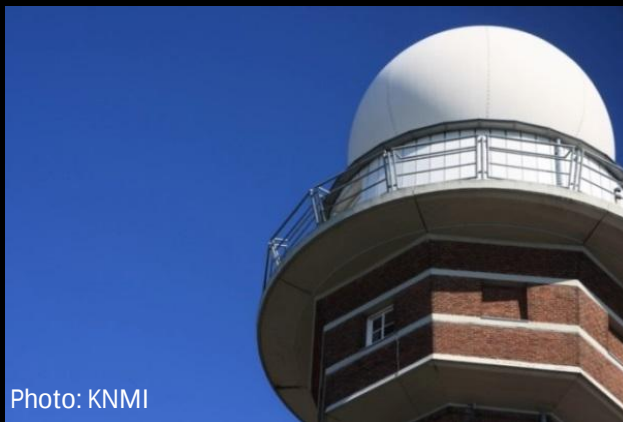
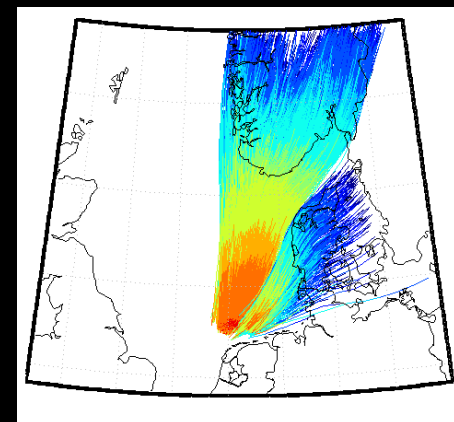


Photo: KNMI



www.UVA-BiTS.nl

Computational Geo-Ecology

NIOZ, Royal Netherlands Air Force, Dutch Meteorological Institute (KNMI)

Information Technology - SurfSARA, NLeSC

Many collaborators through the UvA-BiTS and ENRAM networks.

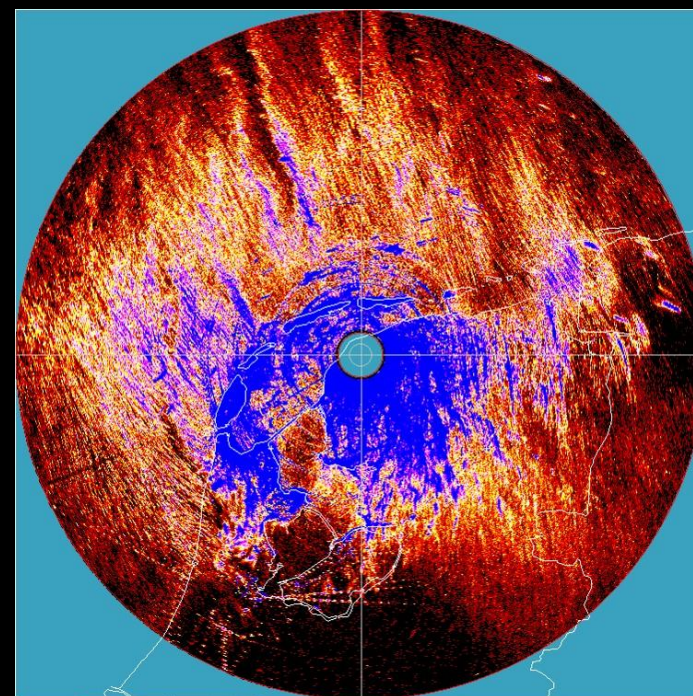




Radar onderzoek

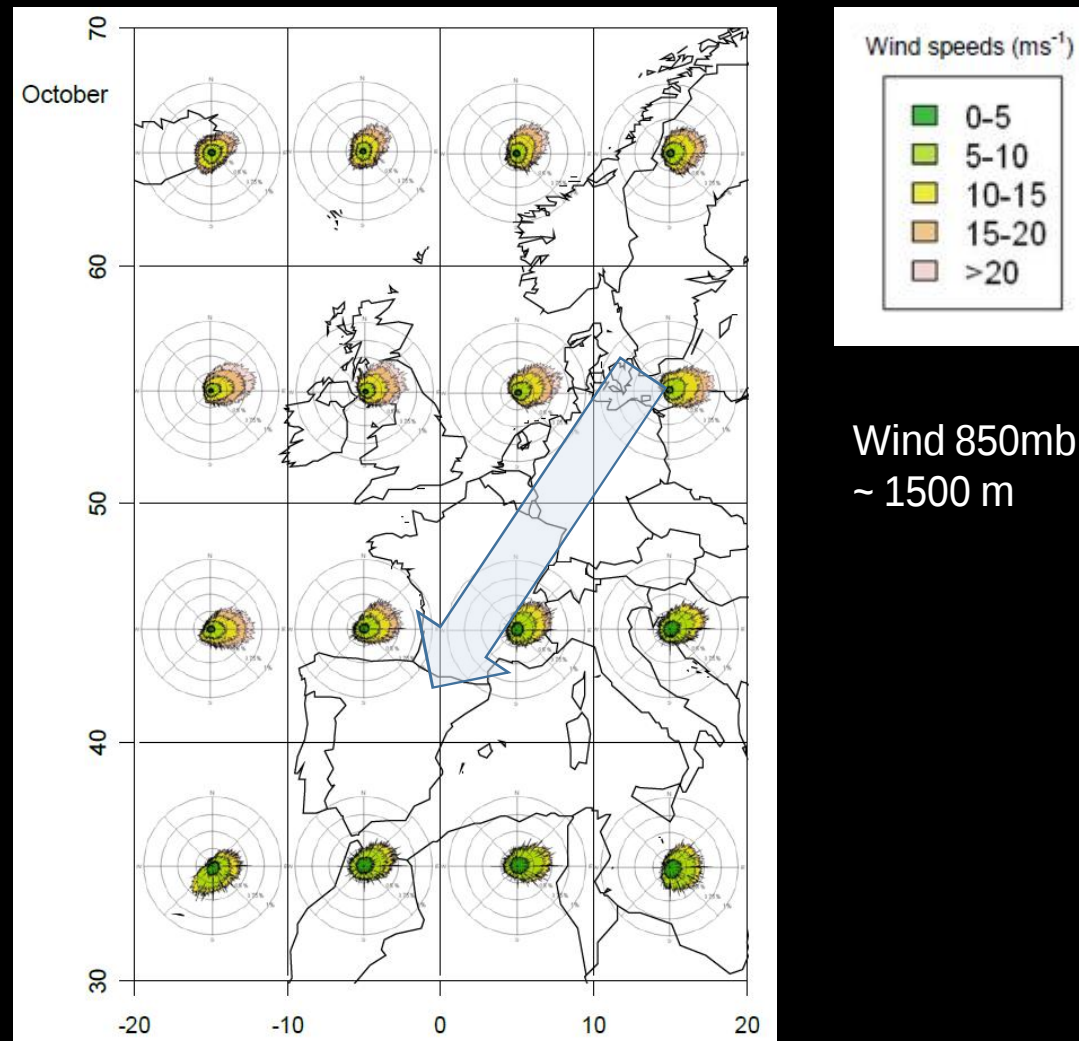


Meer weten? Kom naar het “meet the expert” sessie morgen met Hans van Gasteren

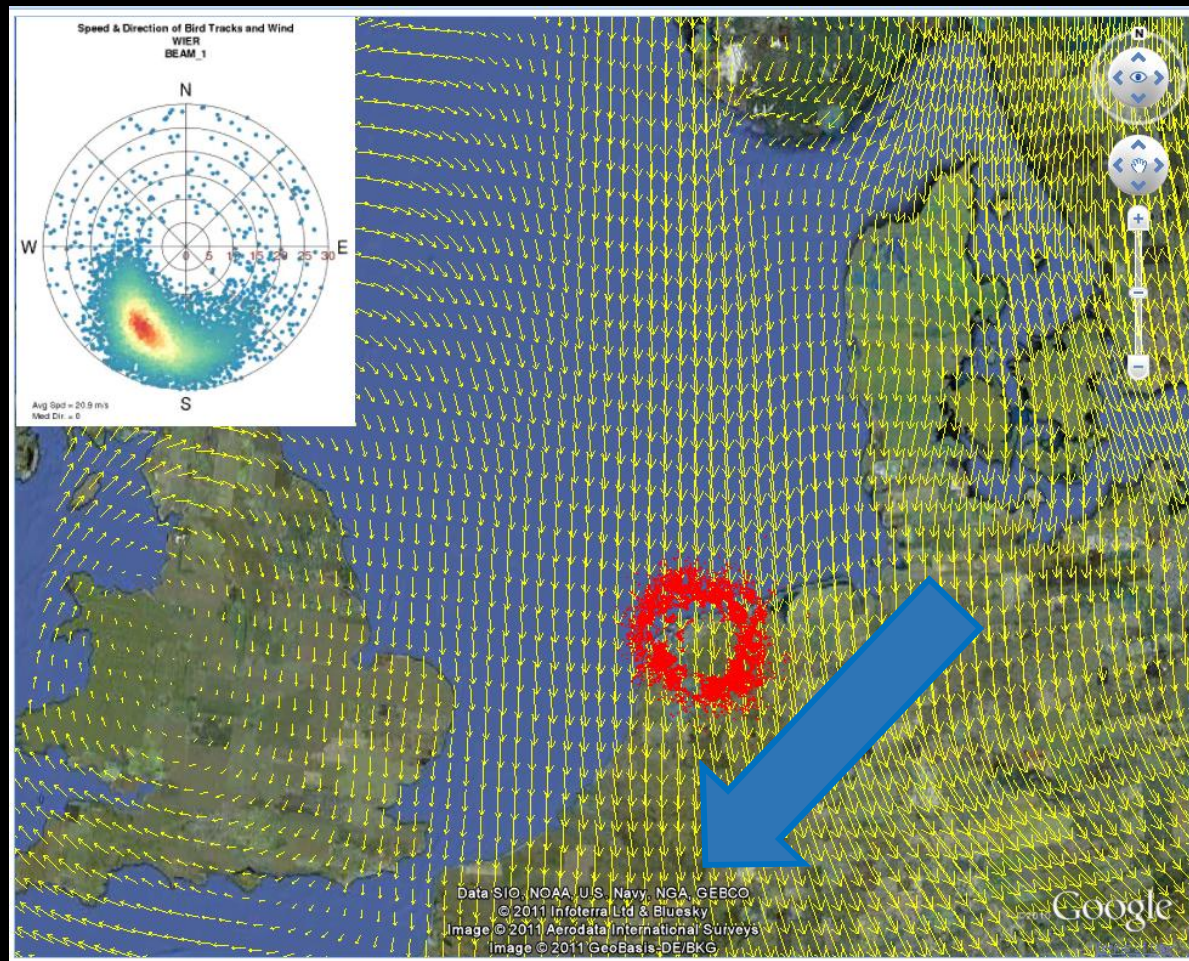


Het begin? Lack & Varley 1945, Nature

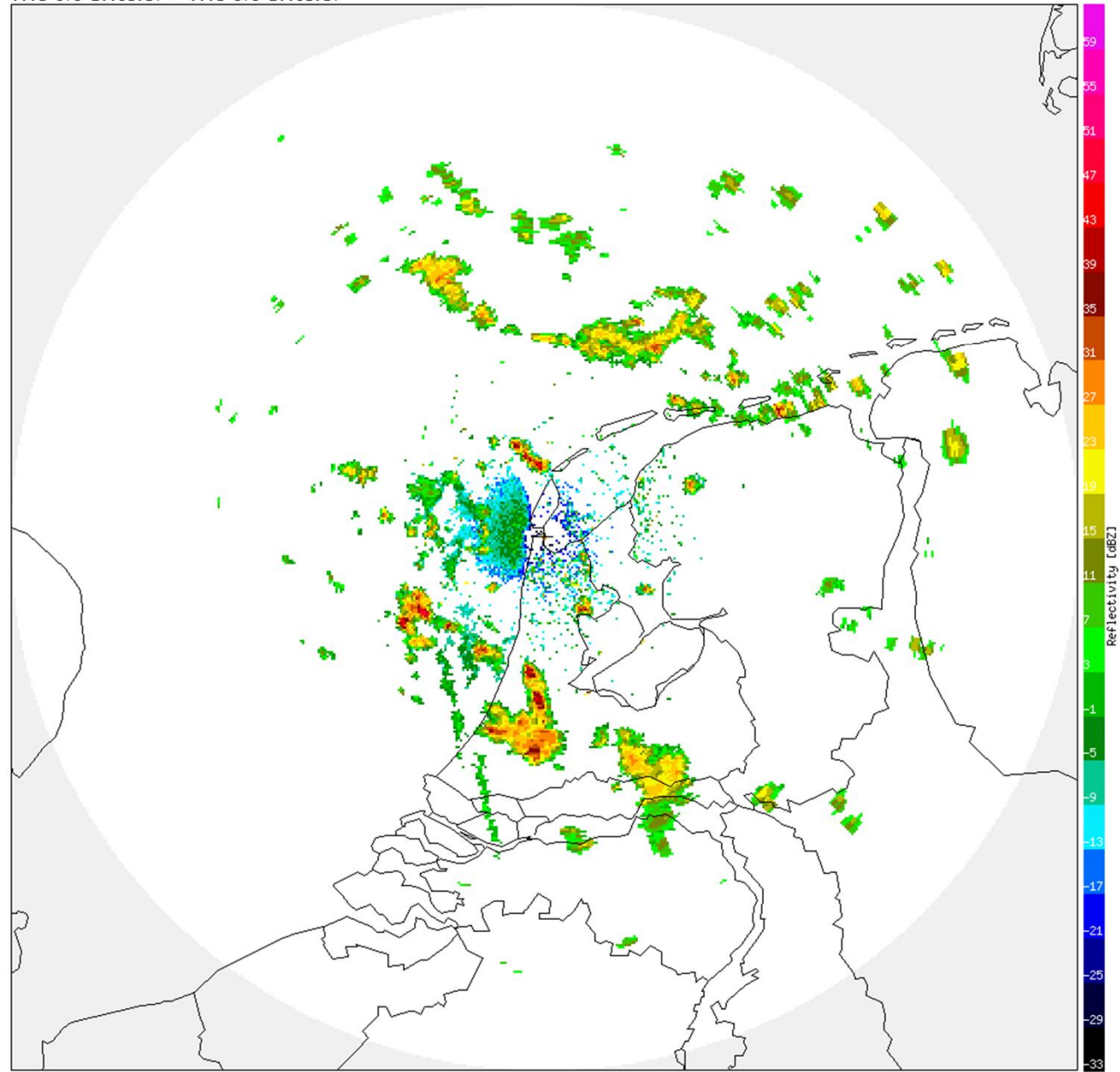
Vogeltrek boven de Noord Zee



Vogeltrek boven de Noord Zee



0001 UTC 20081017 - 0001 UTC 20081017



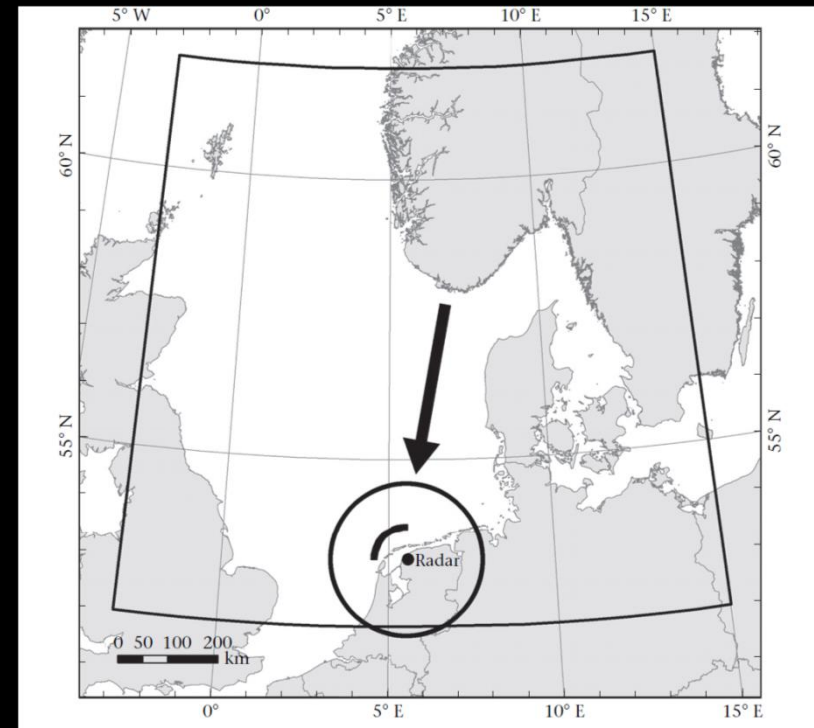
Vogeltrek boven de Noord Zee

Ons vragen

- Waar komen ze vandaan?
- Hoe vliegen ze?
- Wanneer vliegen ze boven zee?

Ons aanpak

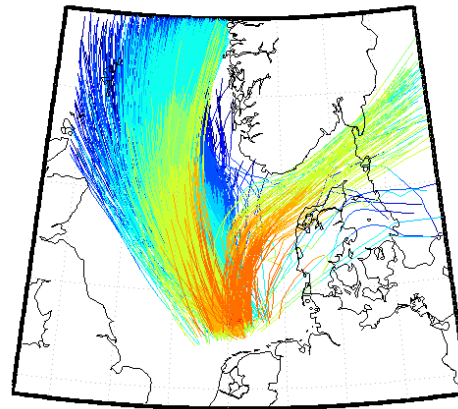
- Radar gegevens
- Mondiaal wind gegevens
- Vogeltrek simuleren
- 1 Aug – 30 Nov 2006-2008, SE - SW



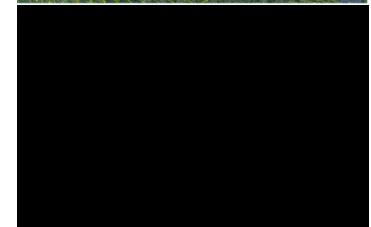
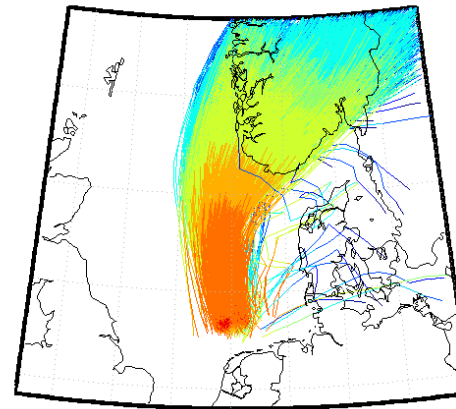
Vogeltrek boven de Noord Zee

Wind 26.7 m/s
Air speed 15.2 m/s
Ground speed 30.8 m/s

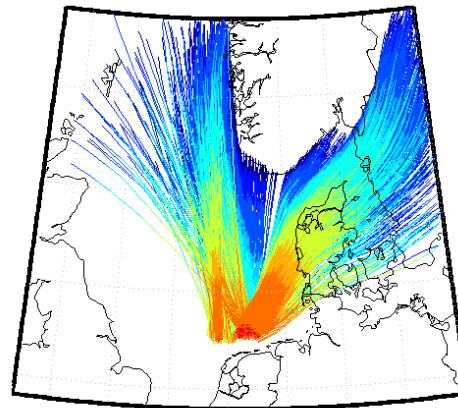
31 October 2006



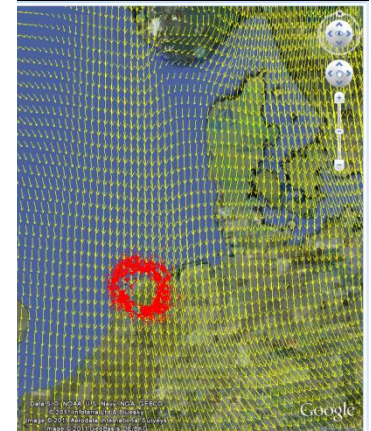
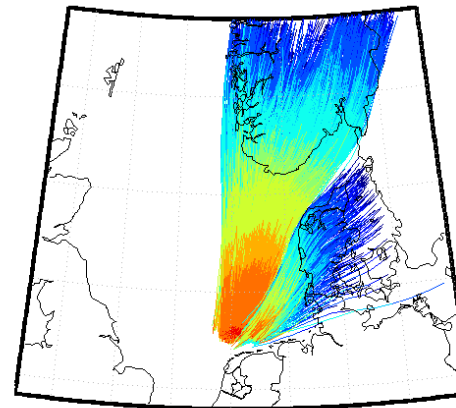
Beaufort wind force 10



18 October 2007



15 17 19 21 23 1 3 5 utc

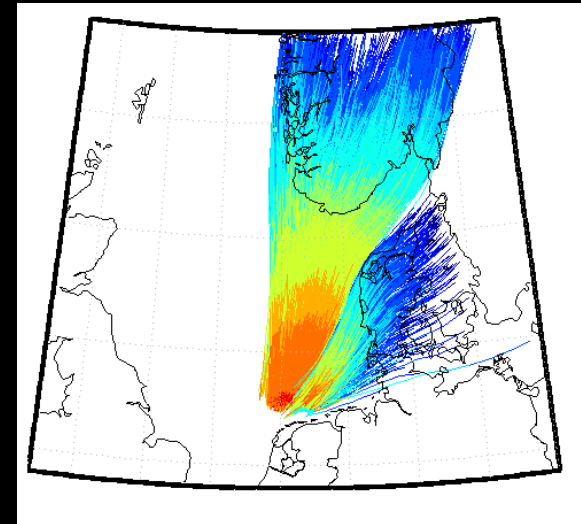


Wind 15.1 m/s
Air speed 14.4 m/s
Ground speed 22.7 m/s

4-5 events a year
October

Vogeltrek boven de Noord Zee

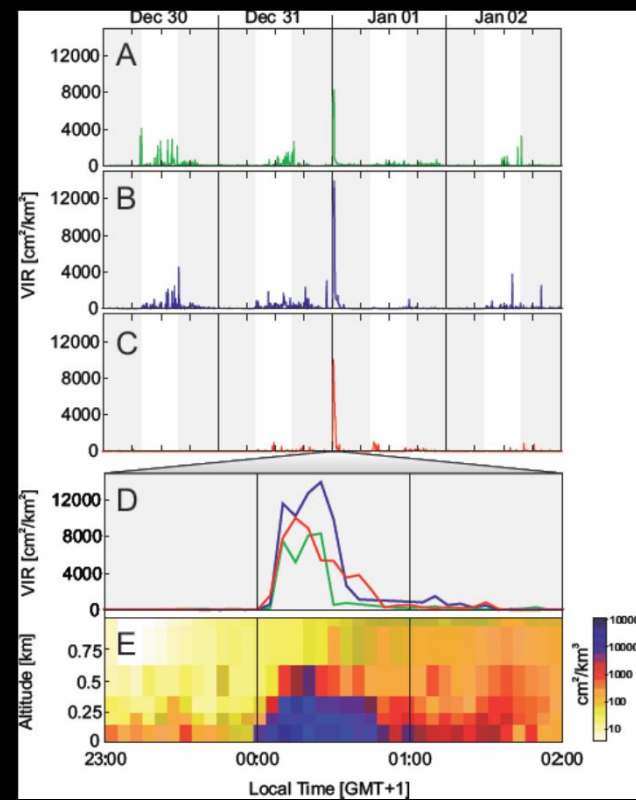
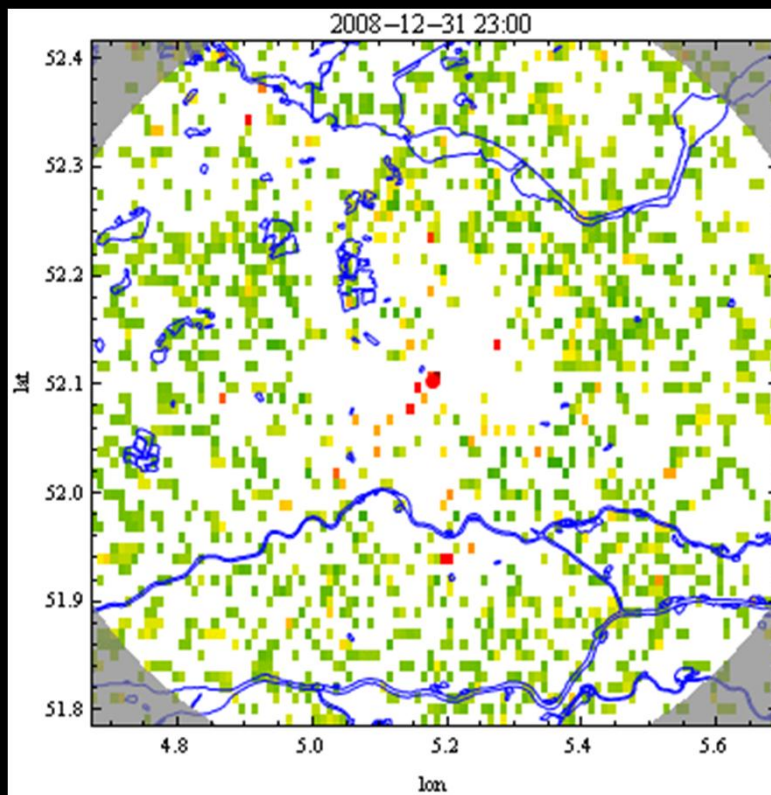
- Waar: Noorwegen, Denemarken, Zweden
- Hoe: Niet te hoog, eenvoudig gedrag – met aanpassing
- Wanneer: ook extreme weer, “wind snelweg”, een paar keer per jaar
- Wie trekt boven zee? > Waarnemingen!!



Vogels en vuurwerk



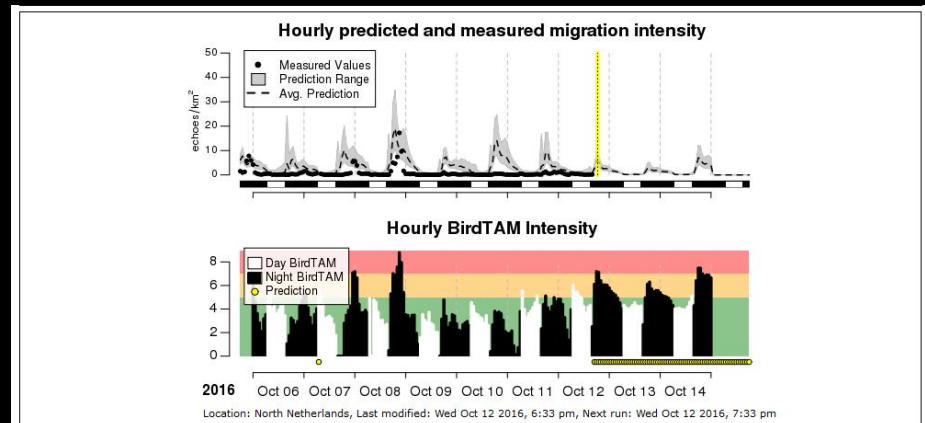
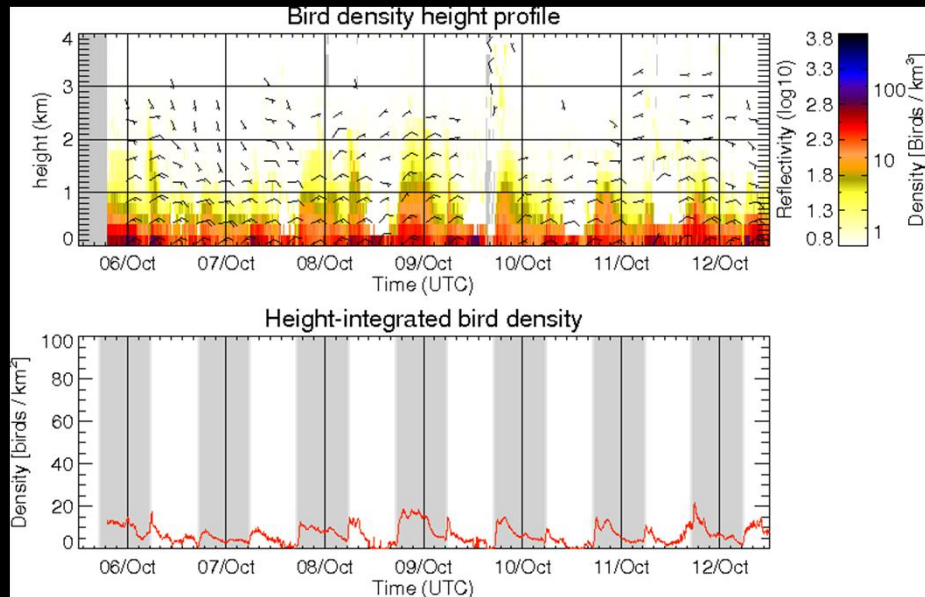
Vogels en vuurwerk



Vogeltrek waarschuwing

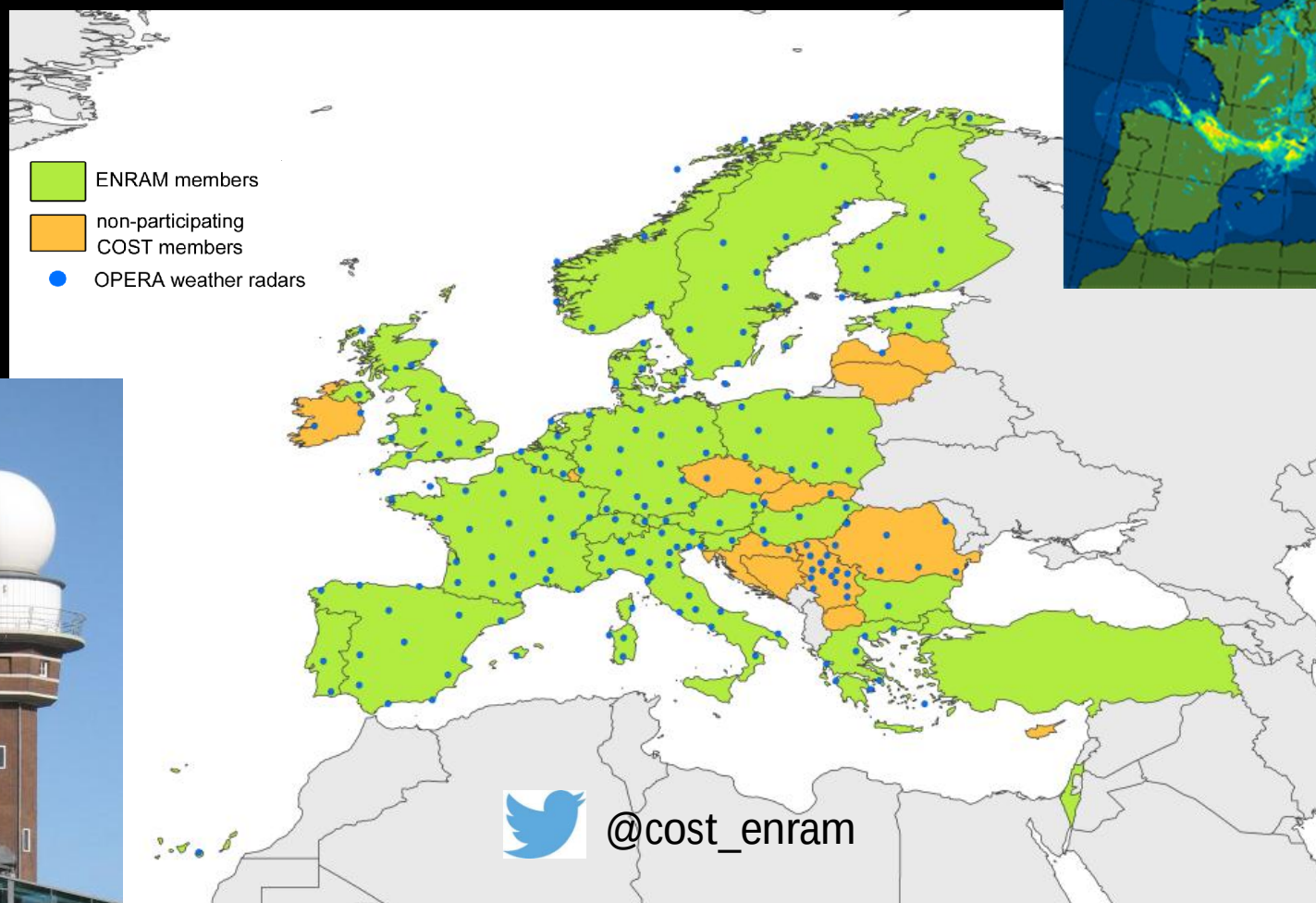
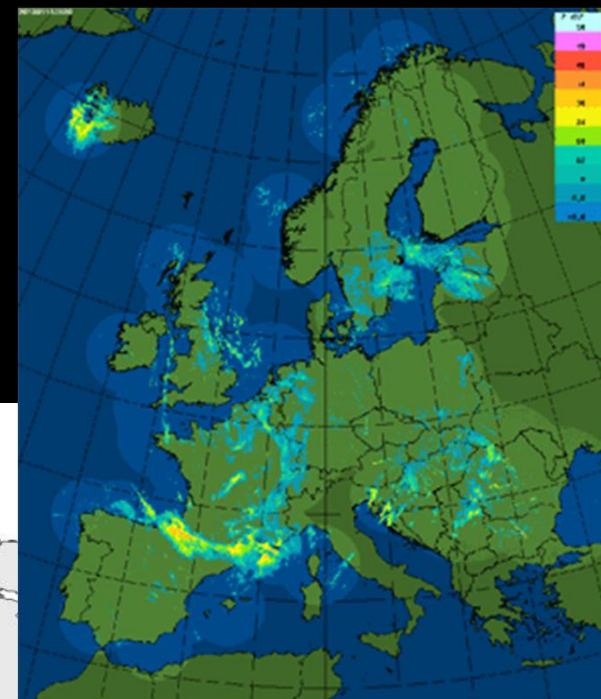


<http://www.flysafe-birdtam.eu>





www.enram.eu

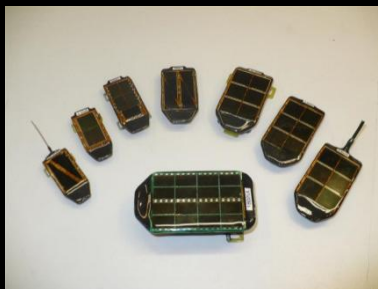
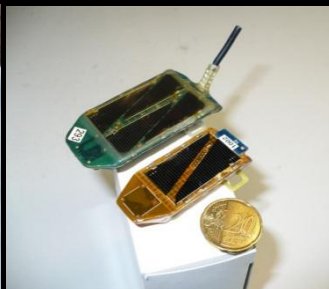


@cost_enram

GPS onderzoek



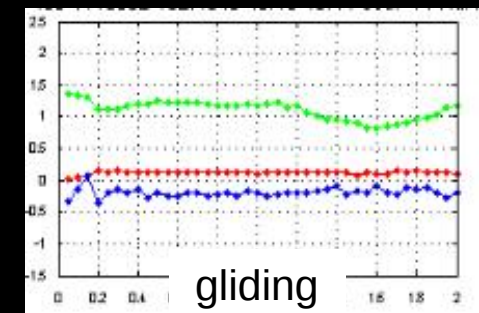
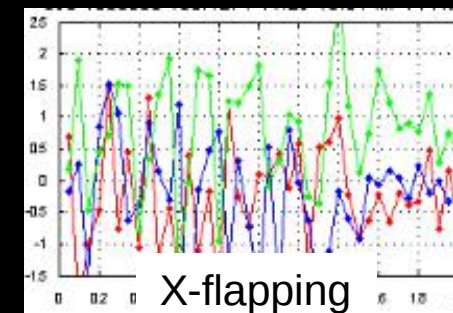
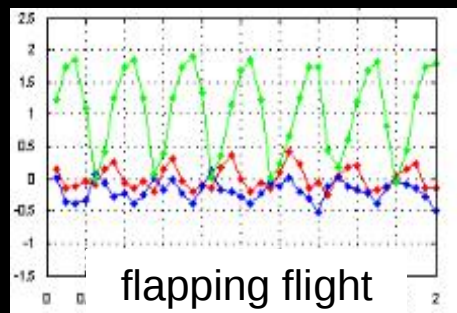
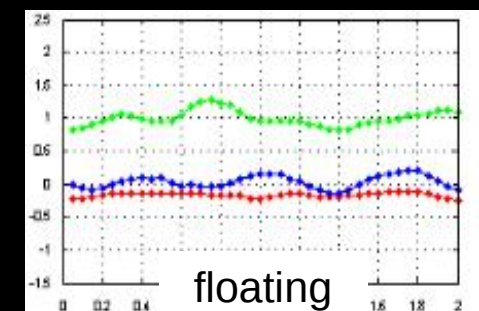
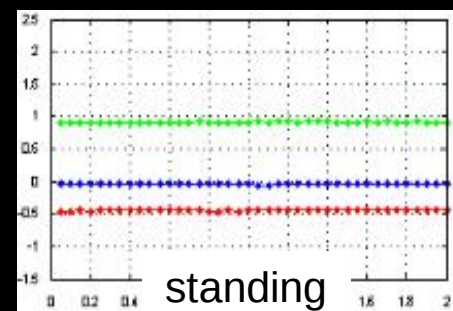
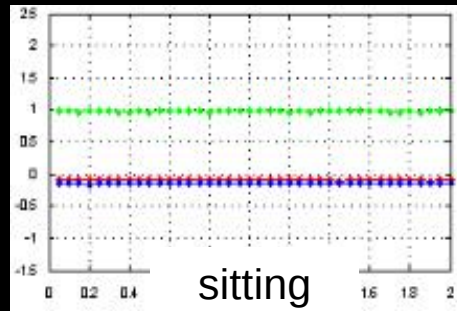
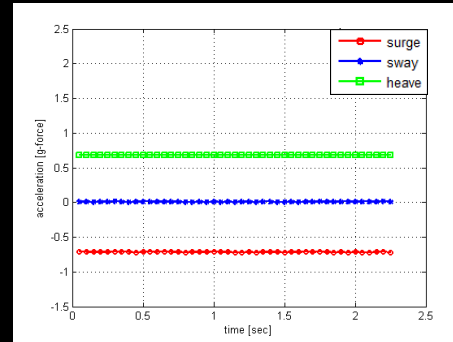
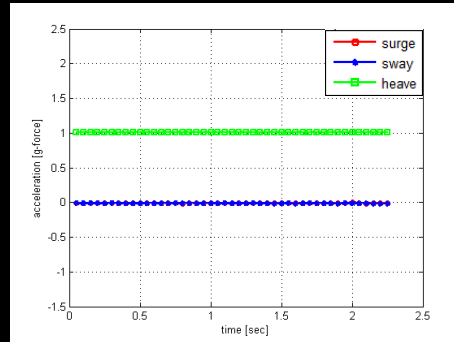
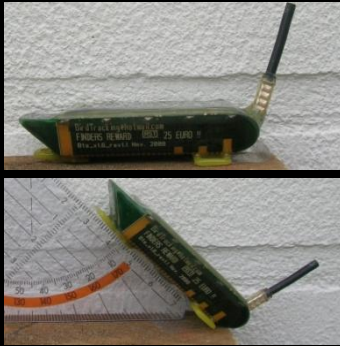
- GPS logger
- Solar powered
- High resolution: 3 sec
- Tri-axial accelerometer
- Wireless data download
- Upload new measurement scheme
- Base station & antenna network
- Virtual Laboratory



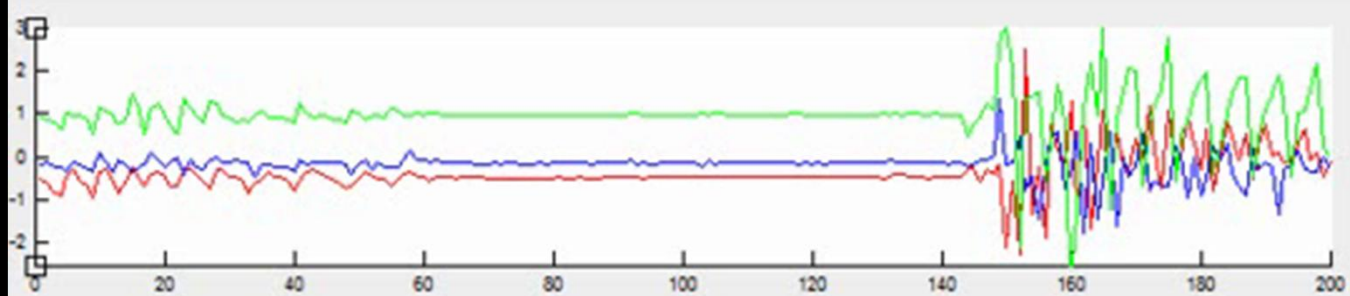
Bouten et al. 2012. J. Ornithol.

www.Uva-BiTS.nl

Gedrag meten



Shamoun-Baranes et al 2012 PLoSOne, Shamoun-Baranes et al 2016 Phil Trans Roy Soc B)



Het dagelijkse leven van meeuwen



Kleine mantelmeeuwen & zilvermeeuwen

Samenwerking Kees Camphuysen en Susanne van
Donk, NIOZ



Metingen in de kolonie



Waar gaan ze naartoe in de broedseizoen?

13 Gulls June 2013



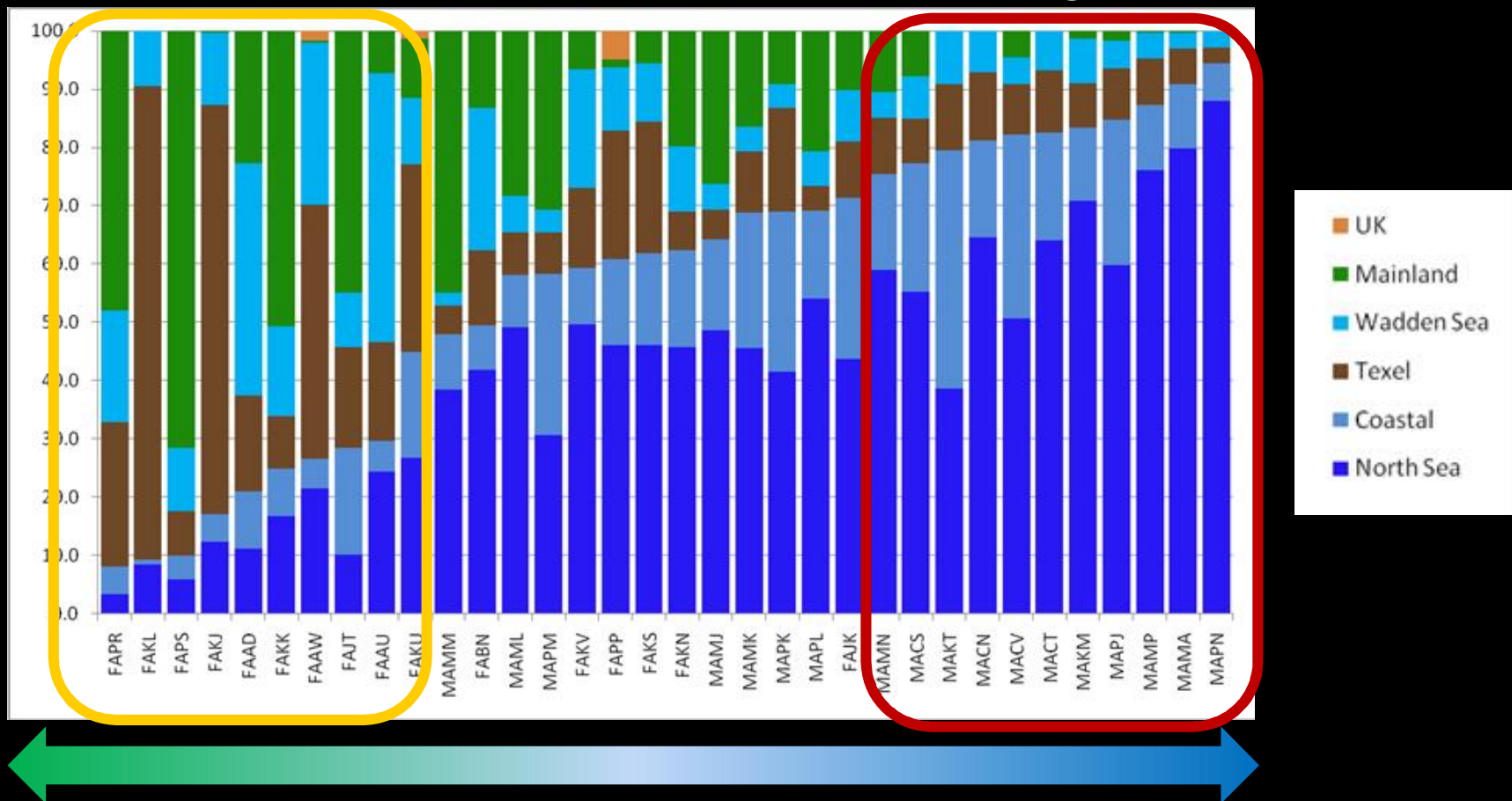
View online at: <http://cdb.io/1I1HNEy>

Powered by: OpenStreetMap & CartoDB
NLeSC, surfSARA & UvA-BiTS

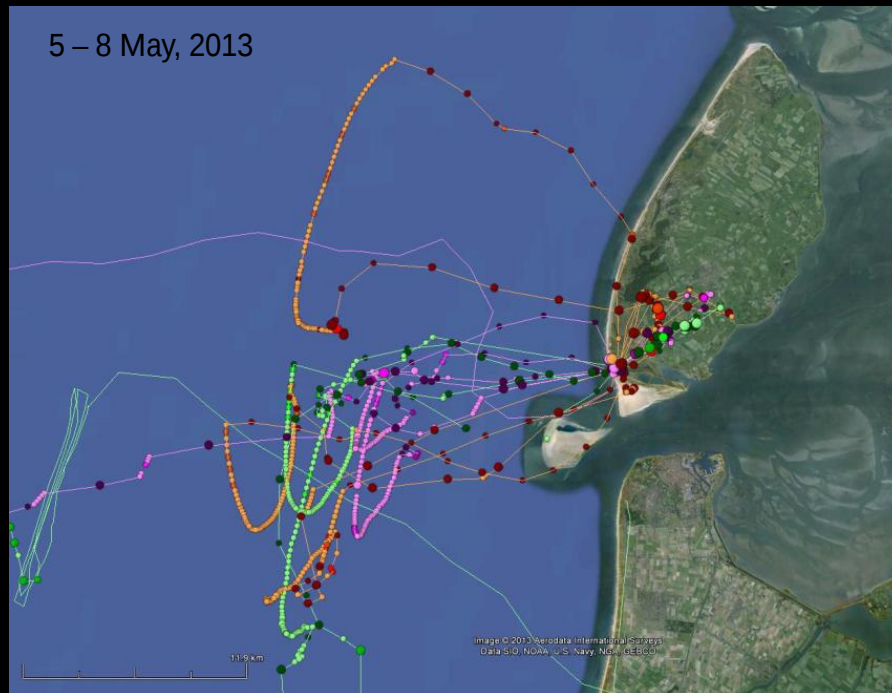
Habitat gebruik tijdens foerageer tochten



2008-2011; 34 individuals, > 2000 trips

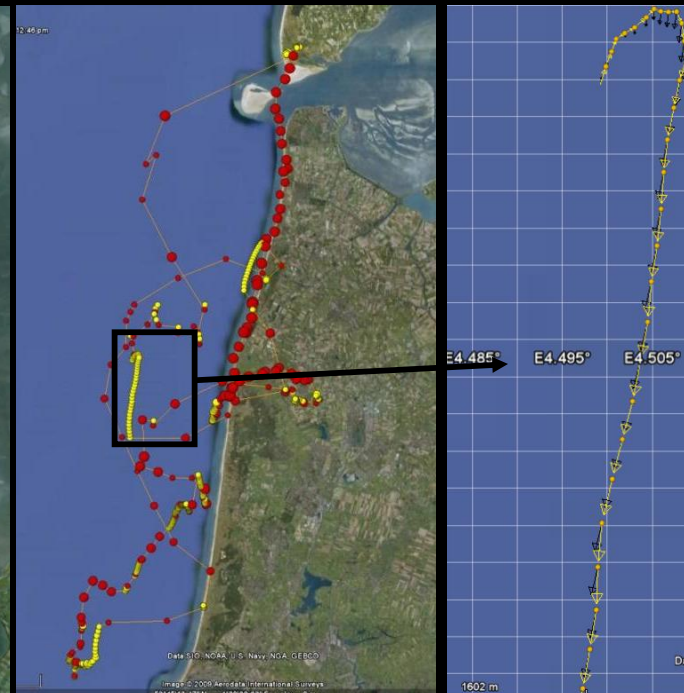


Wat doen ze op zee?

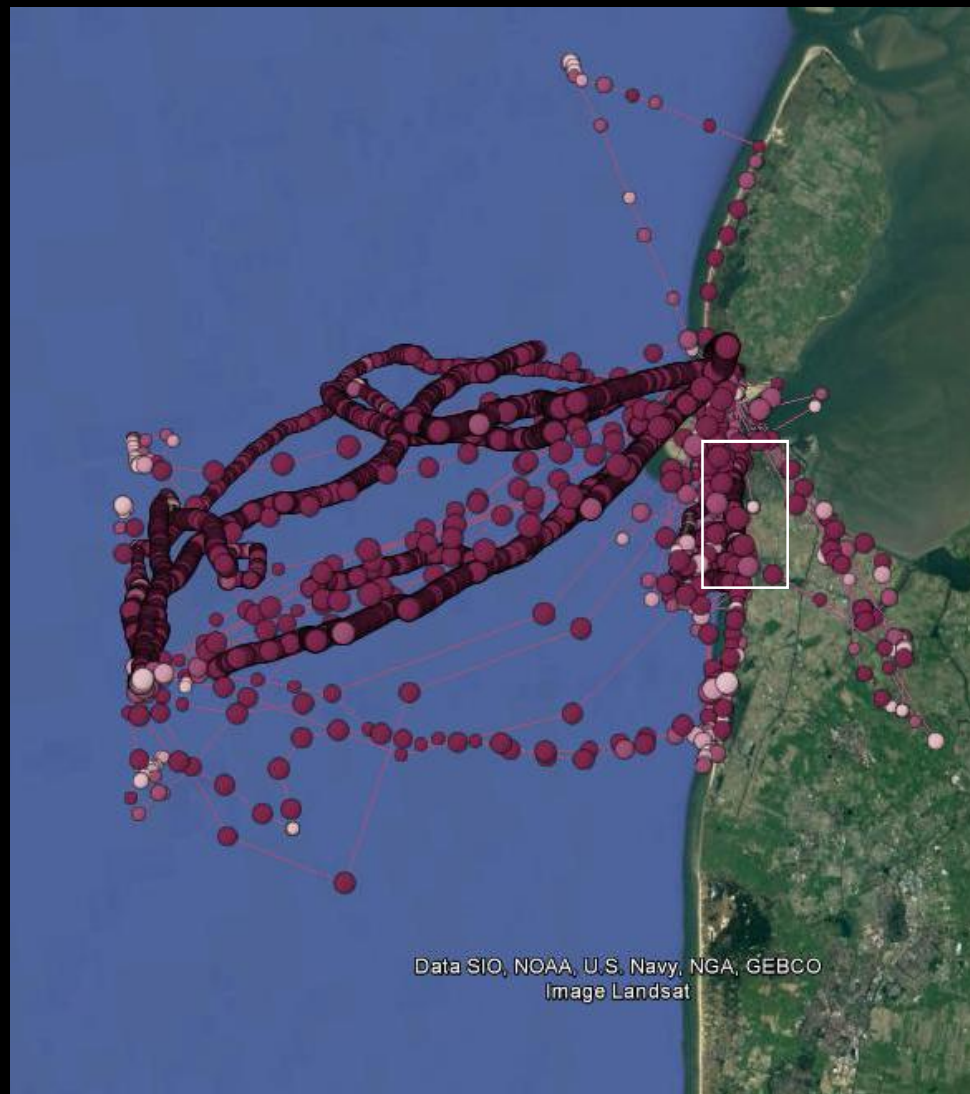


Shamoun-Baranes et al, 2011 Ibis

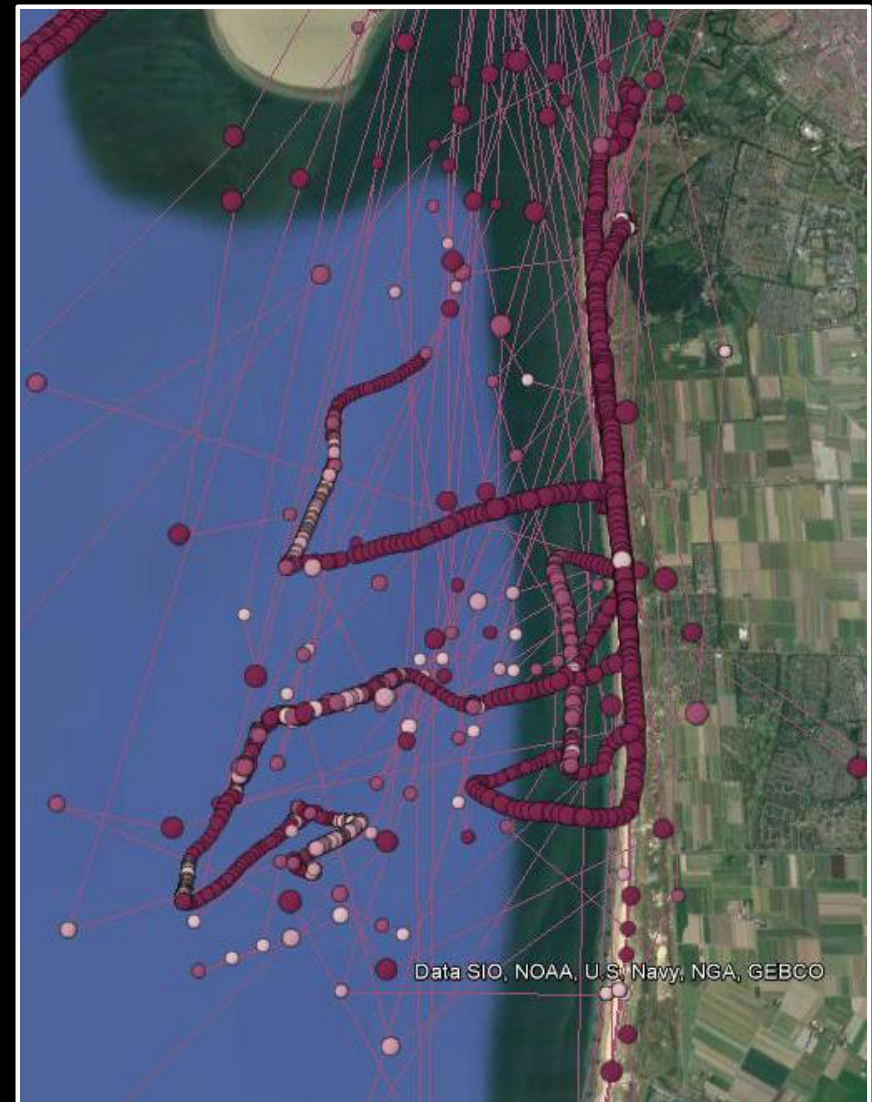
Gulls 757, 606, 608

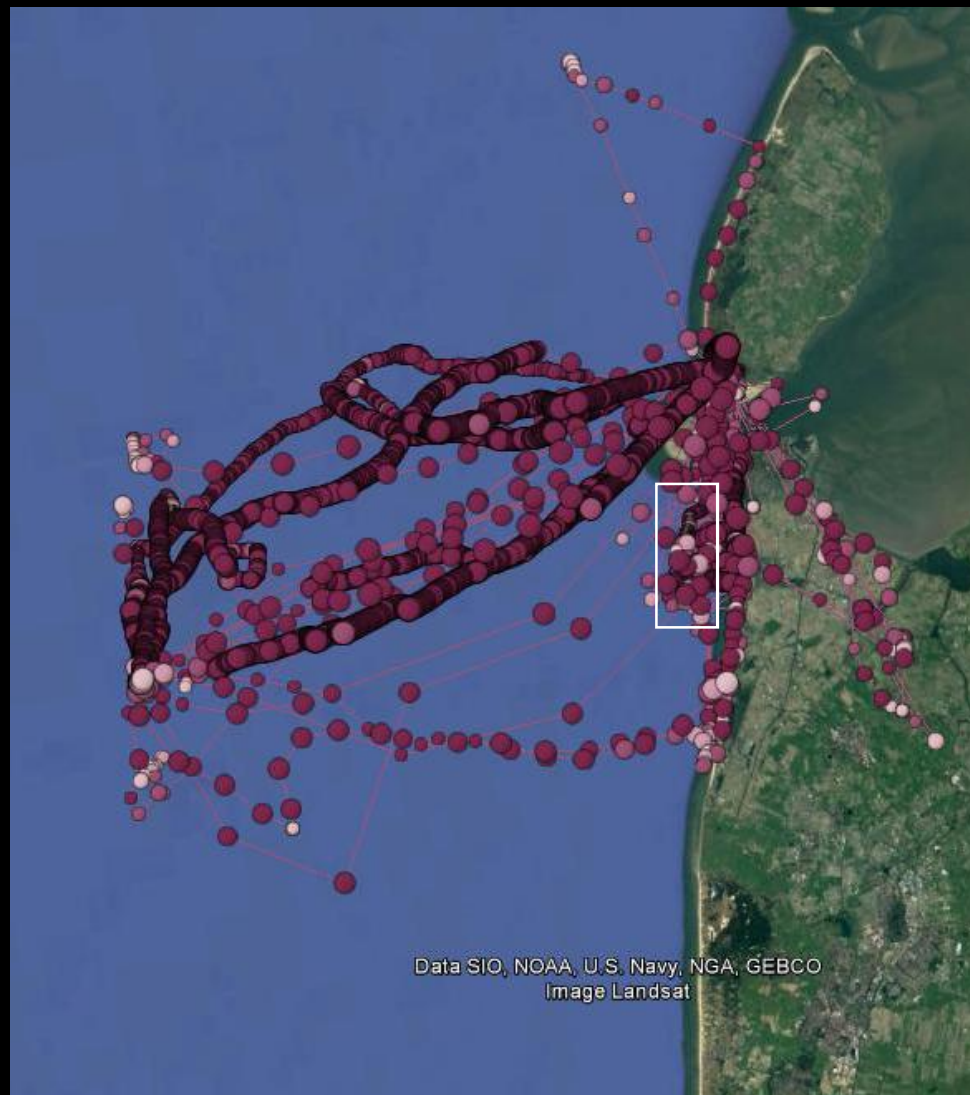


● Speed < 4 km/hr

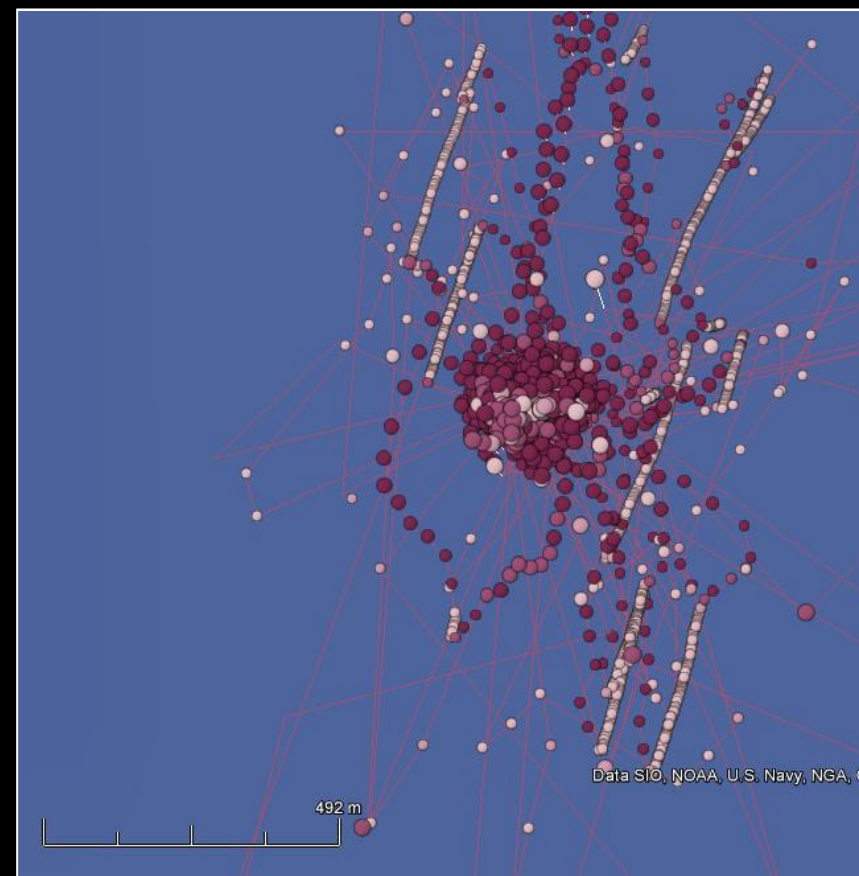


MAUX 5392 eind juni 2016



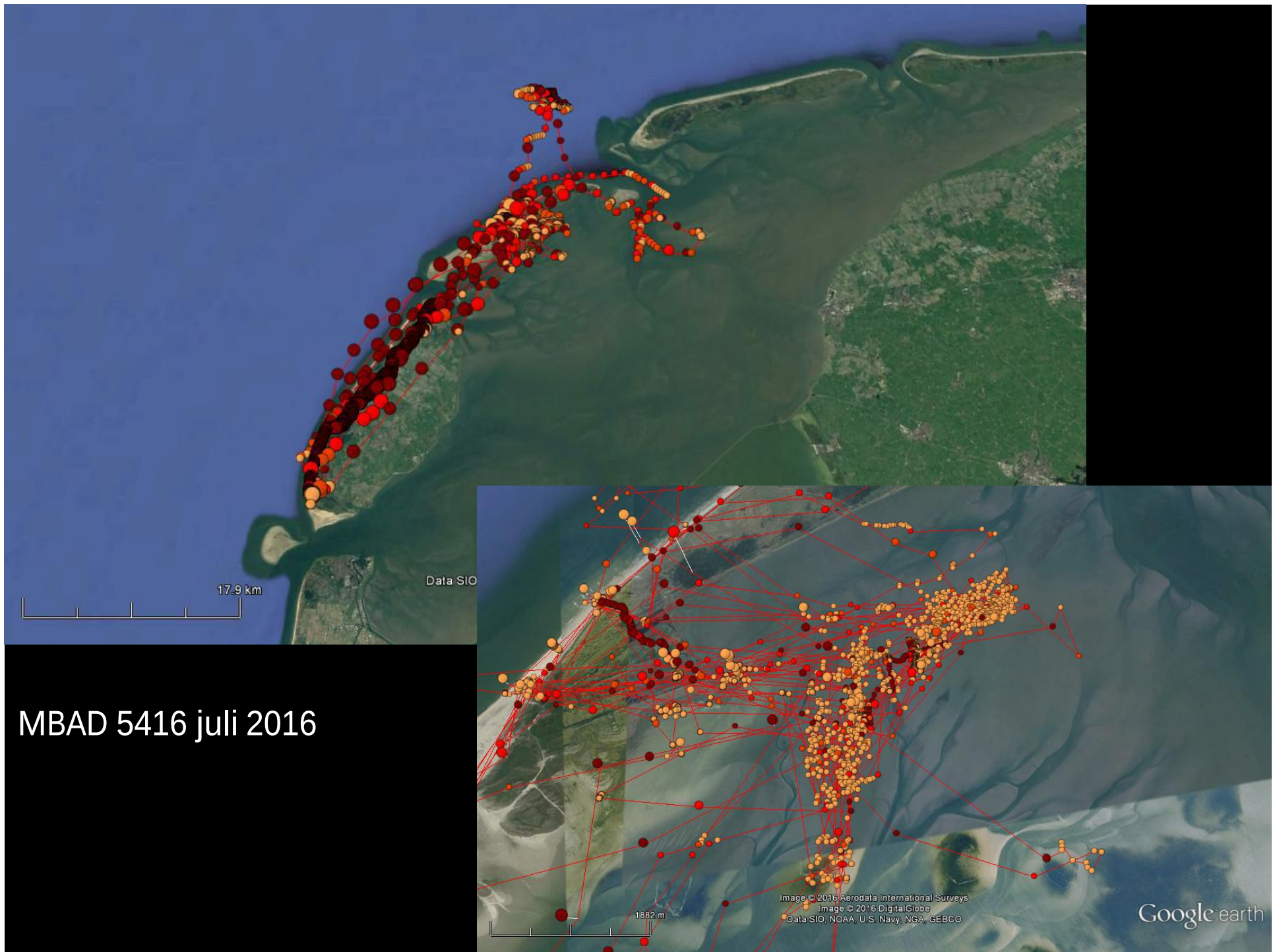


MAUX 5392 eind juni 2016



Wat doen ze op zee?



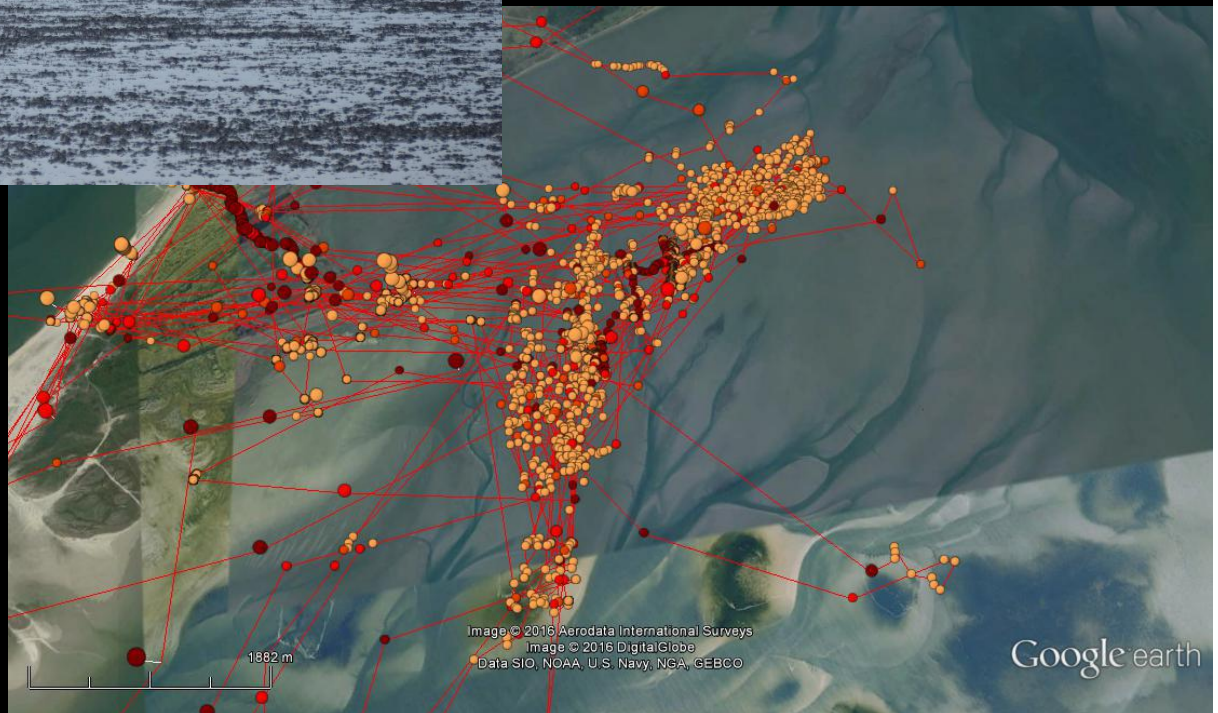


MBAD 5416 juli 2016

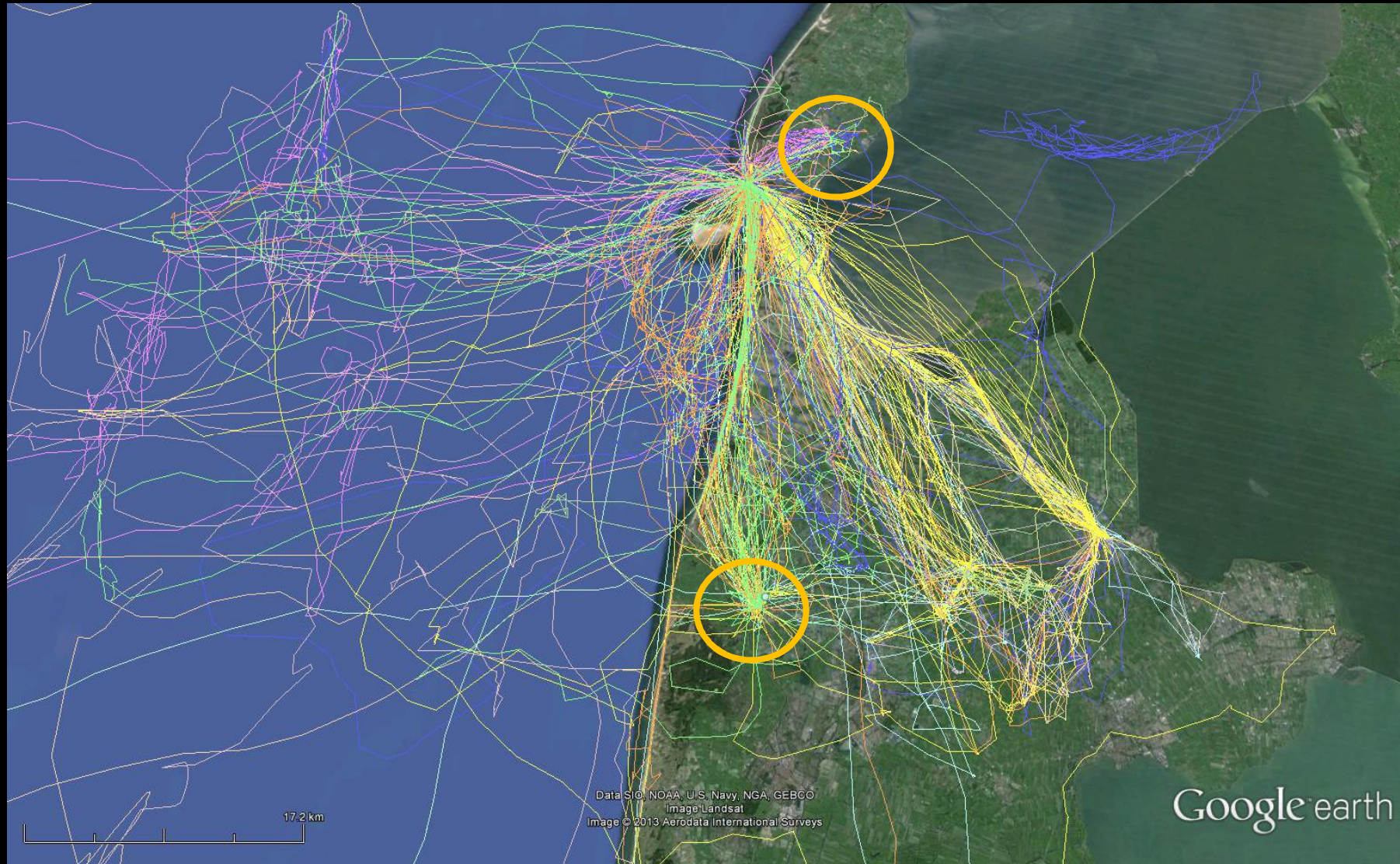
Vlielanders:
Handkokkelaars
NIOZ census:
nonnetjes
(*Macoma balthica*)



MBAD 5416 juli 2016



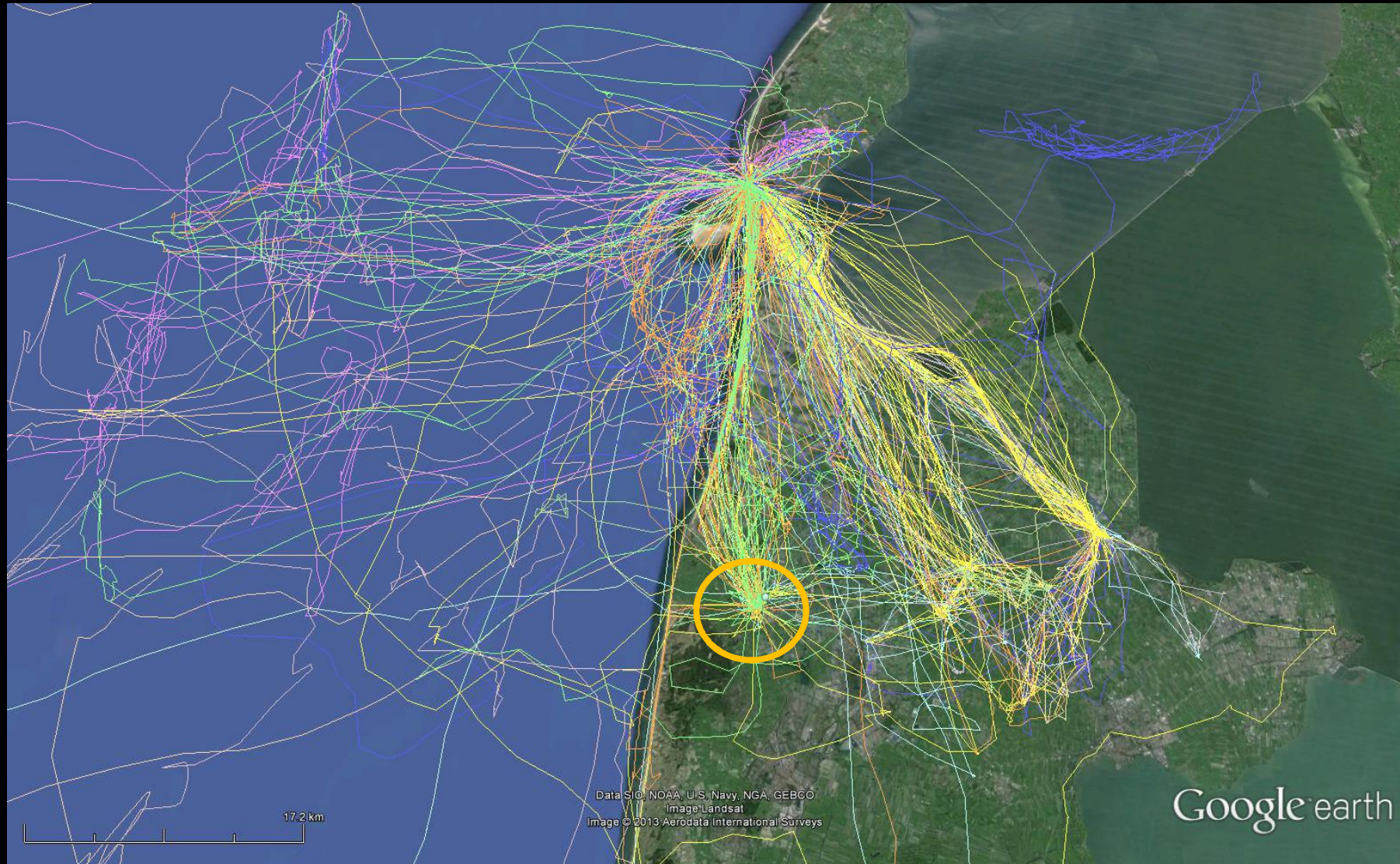
Wat doen ze op land?

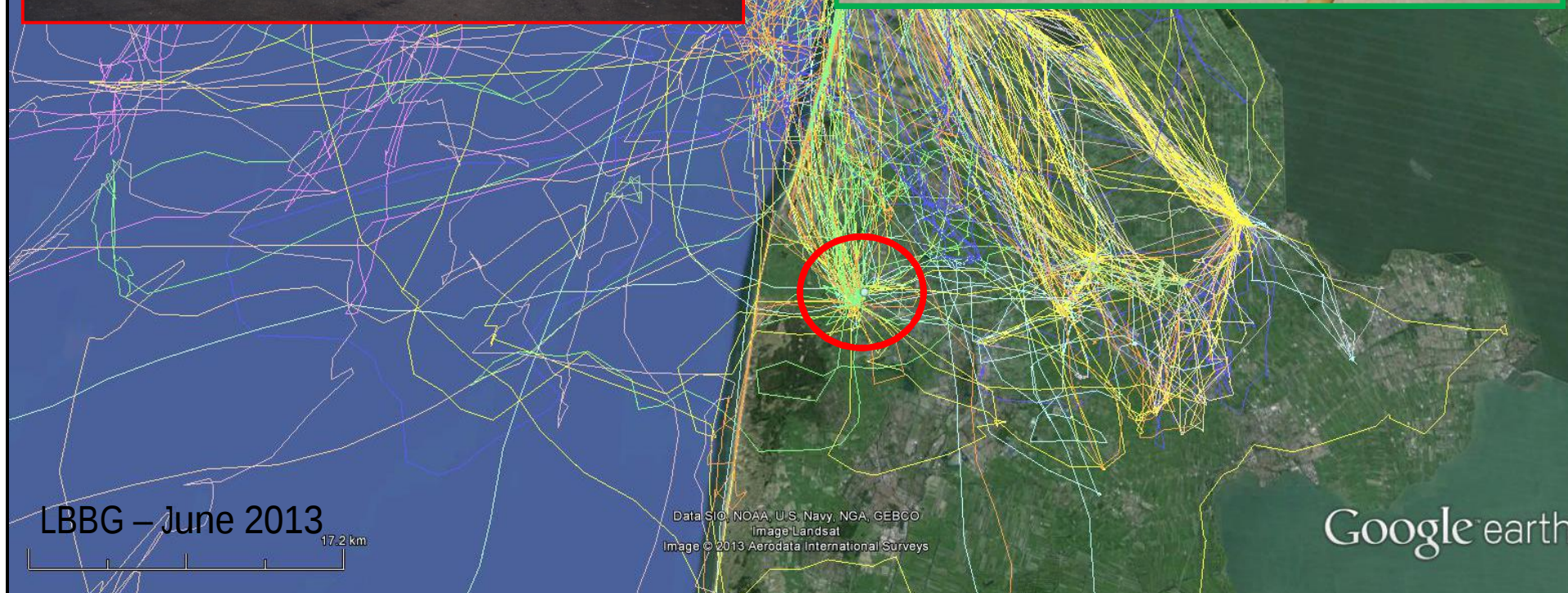


Wat doen ze op land?



Wat doen ze op land?

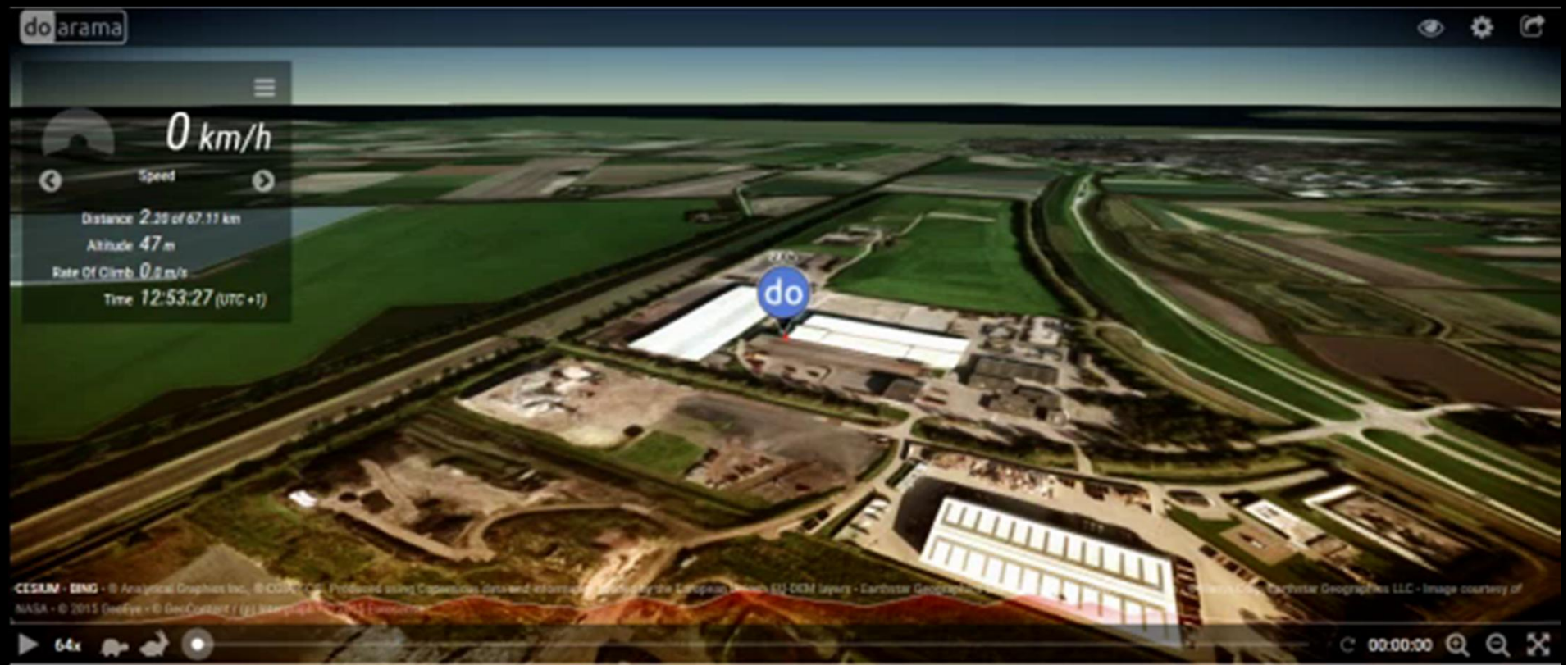




Wat vliegen ze?



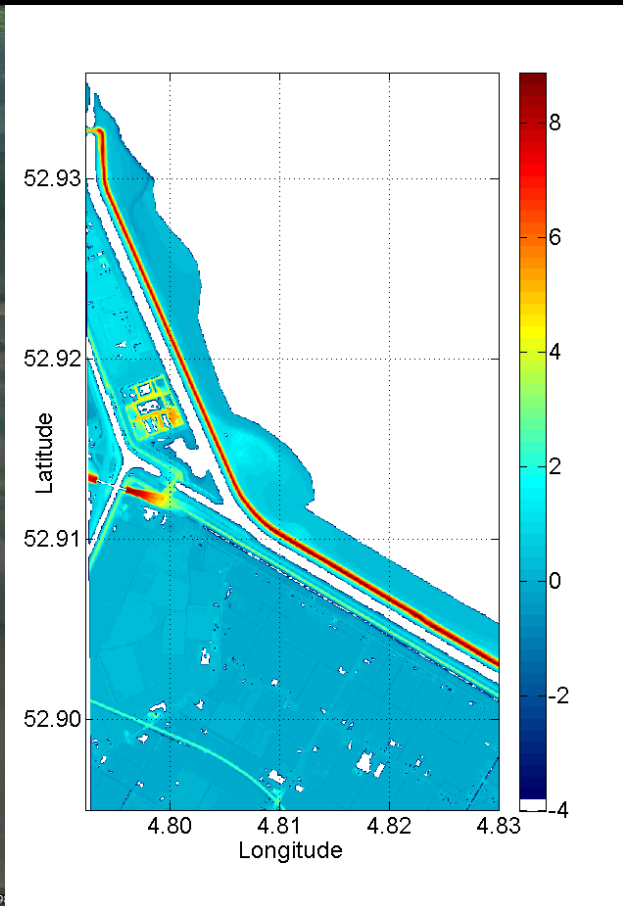
805 MASJ 19-07-2013 07:10-14:30



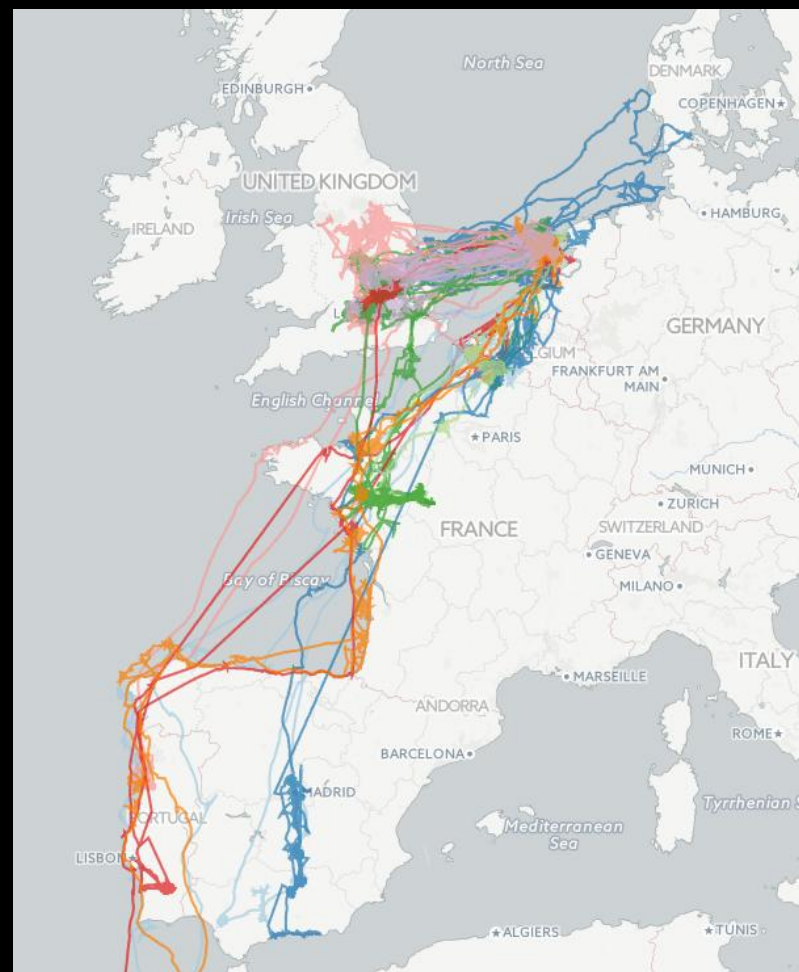
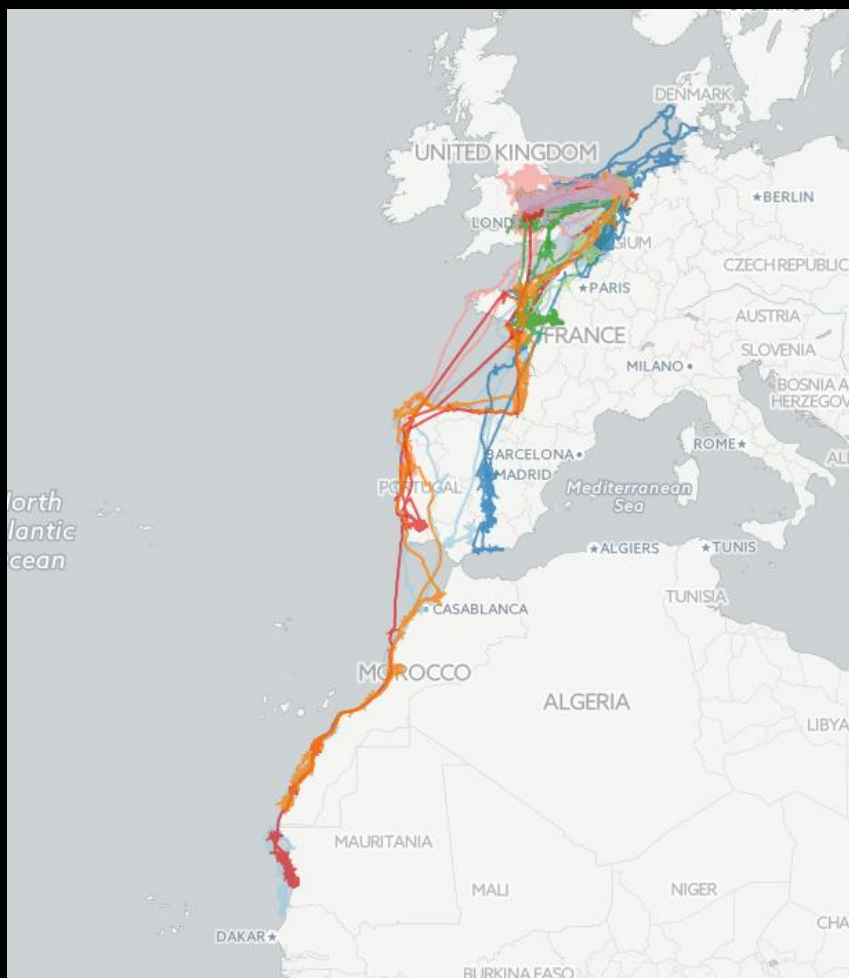
View online @ <http://www.doarama.com/view/457294>



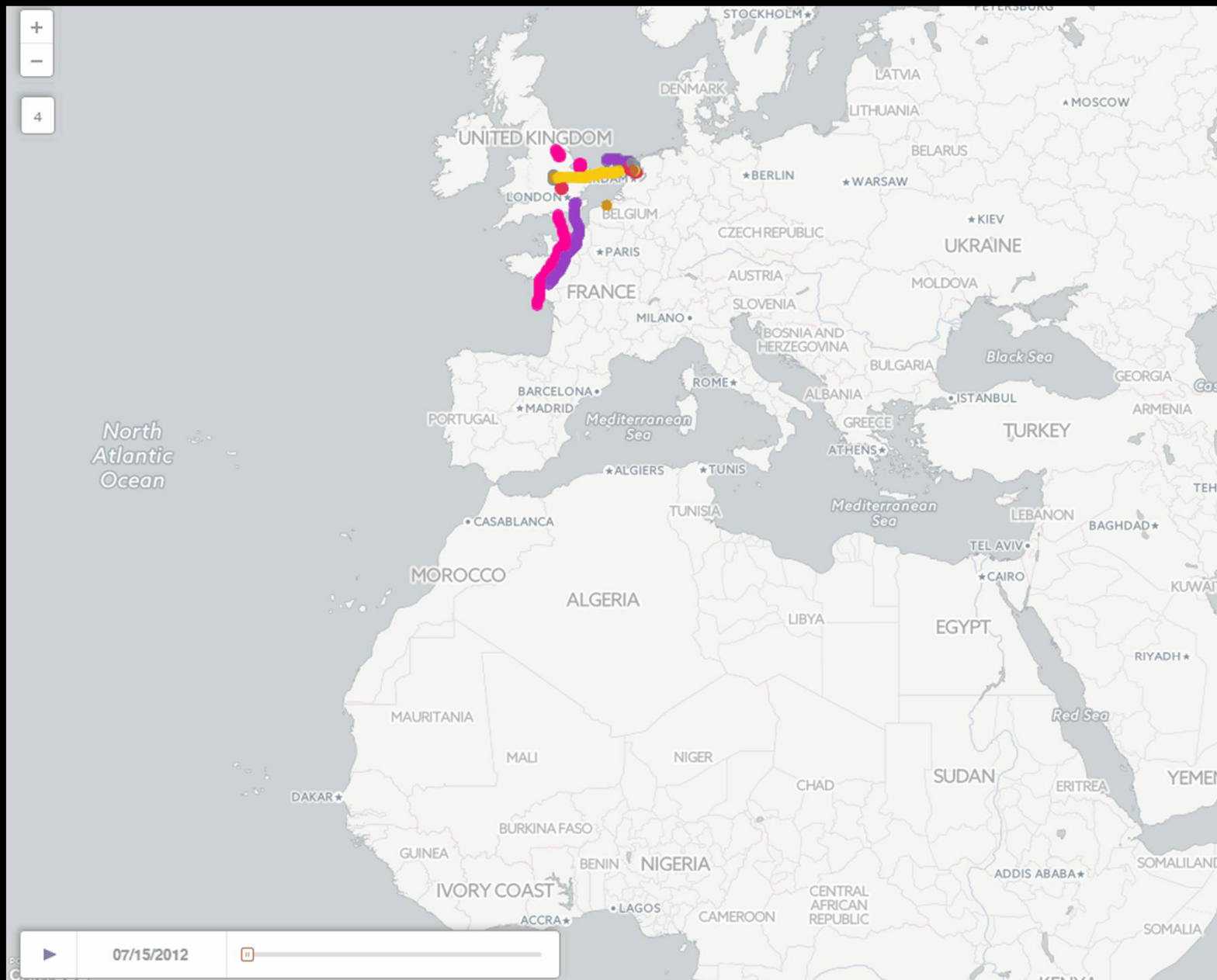
Gebruik van het landschap



Waar trekken ze naartoe?

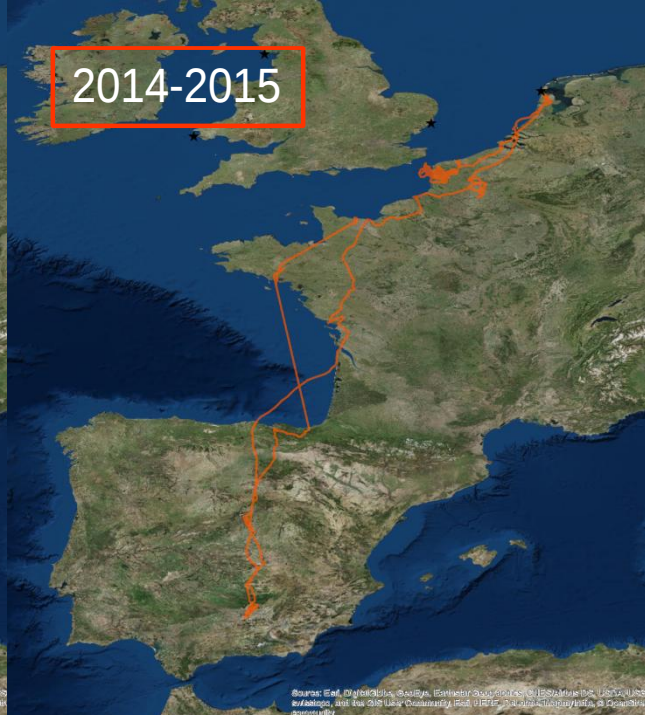


Migration routes: Autumn 2012 & spring 2013



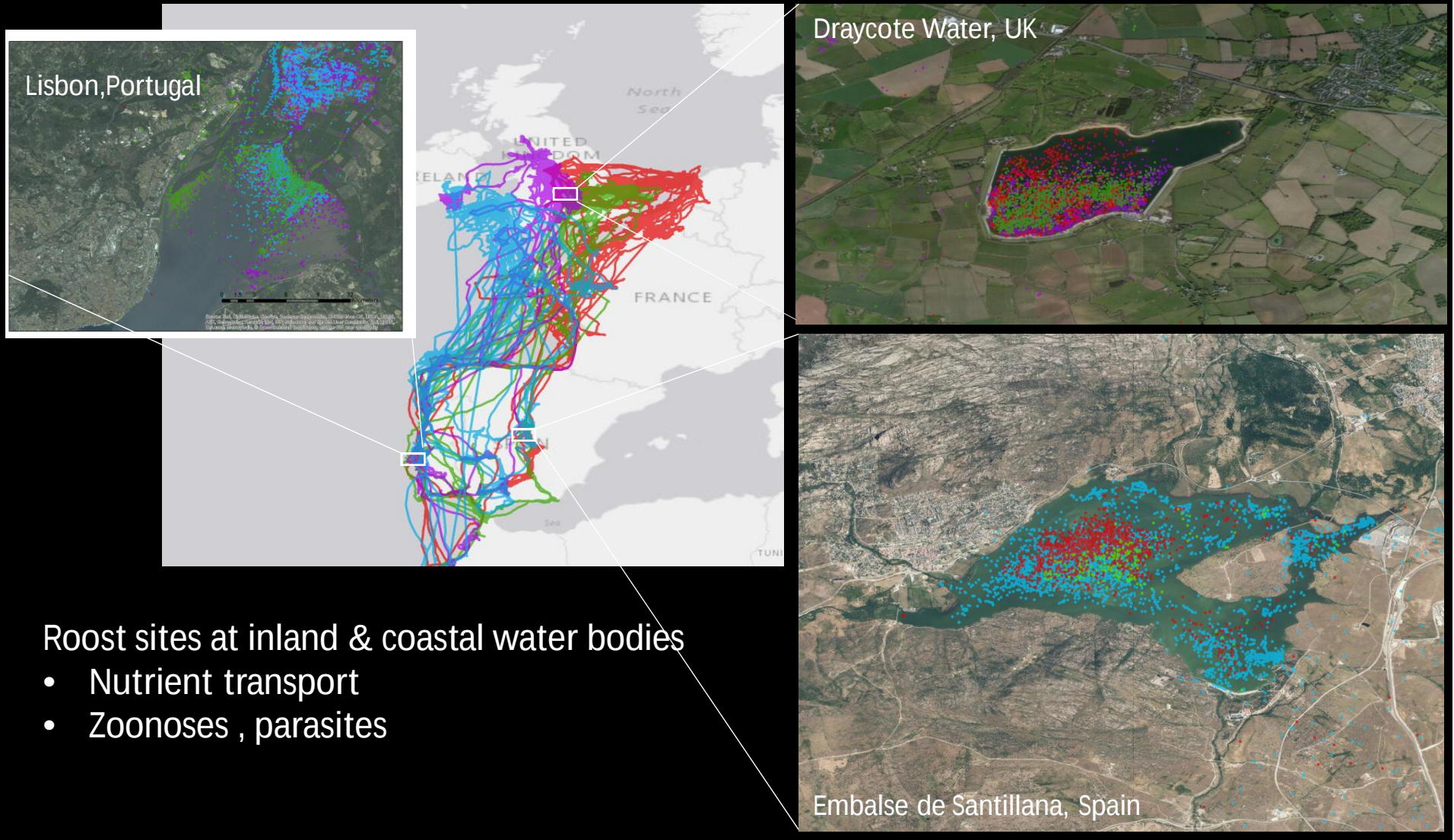
View online @ <http://cdb.io/1PGRqS6>

Powered by: OpenStreetMap & CartoDB
NLeSC, surfSARA & UvA-BiTS



317 (MAMM) 2010-2015

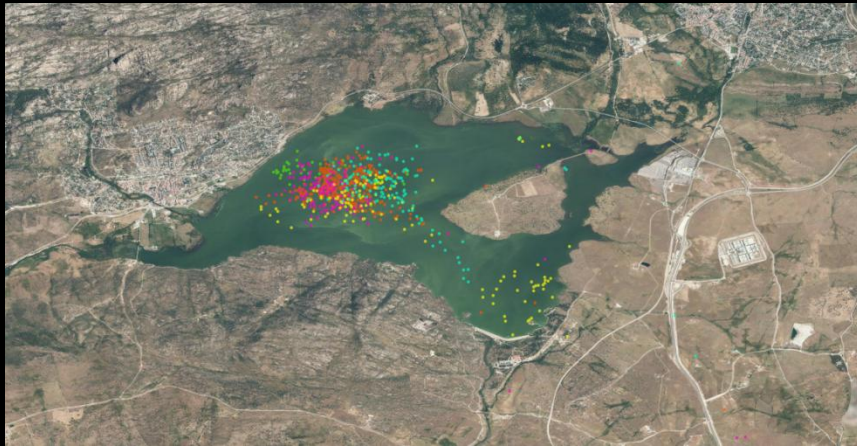
Connectiviteit tussen kolonies



Plaatstrouw tussen jaren

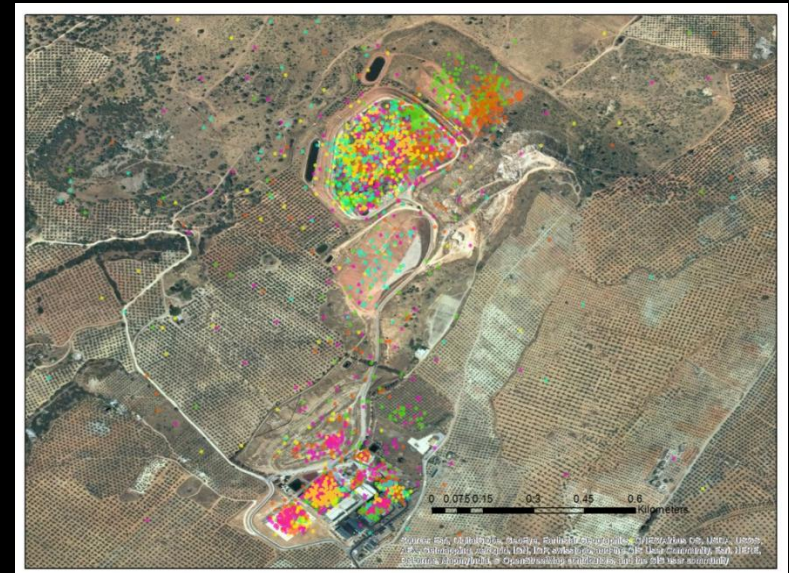
317 (MAMM): 2010 - 2015

Roost, Embalse de Santillana Spain



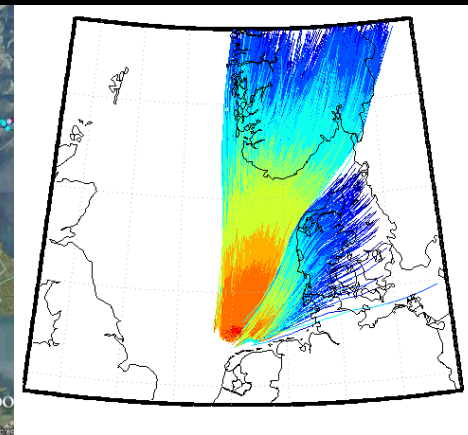
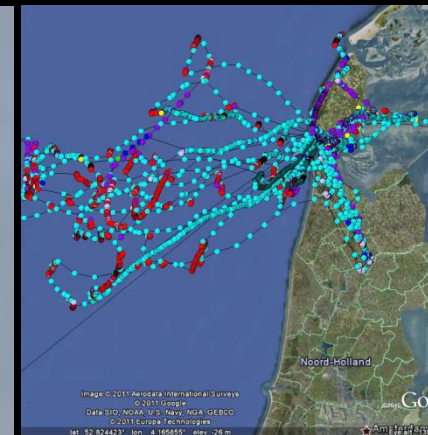
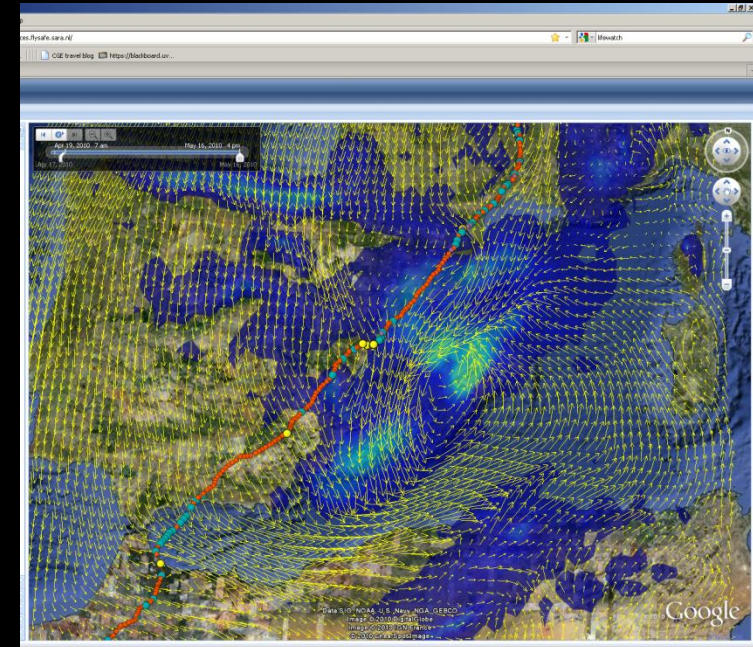
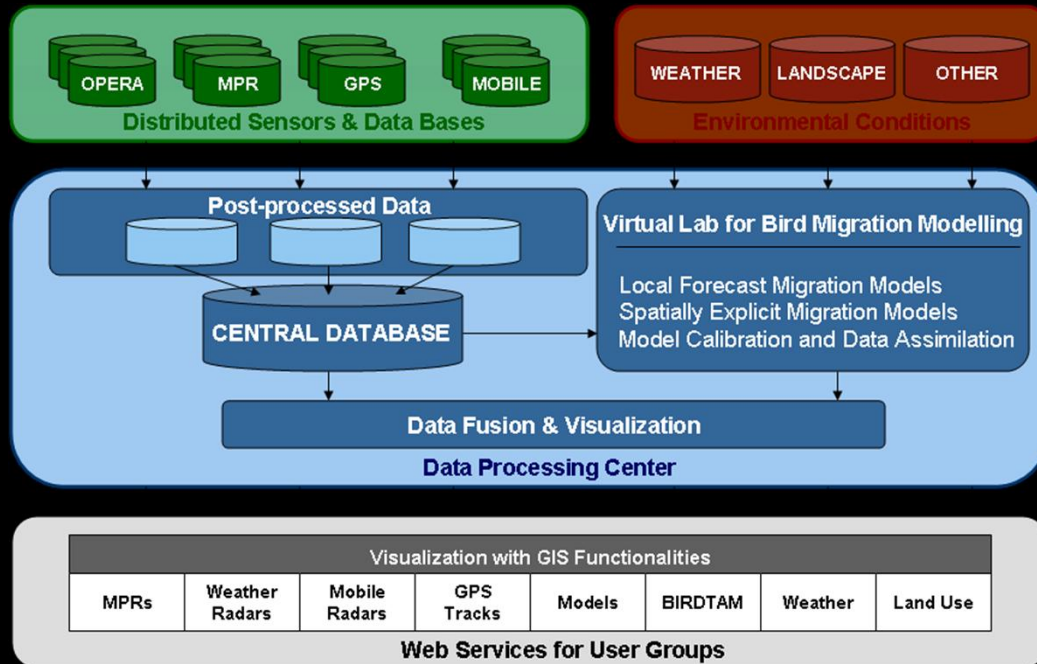
MAMM in waste treatment center, NL (photo: Fred Visscher)

Waste treatment area, Linares Spain

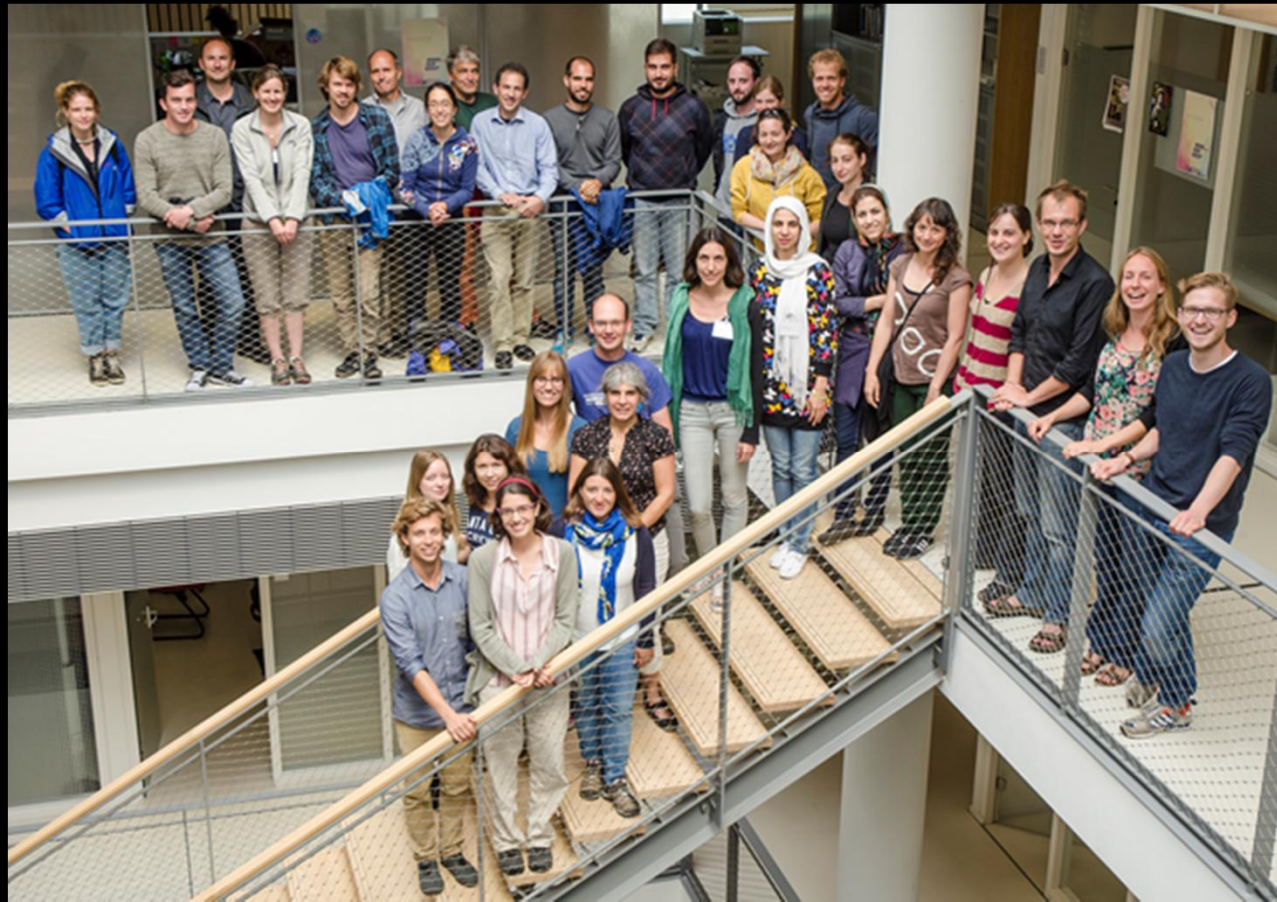




Integratie van kennis en expertise



Animal movement analysis summer course, 2 – 7 July 2017



<https://www.pe-rc.nl/postgraduate-courses/AMA>

Integratie van informatie & expertise

shamoun@uva.nl