

# Dispersal of juvenile Golden Eagles

David Jenny



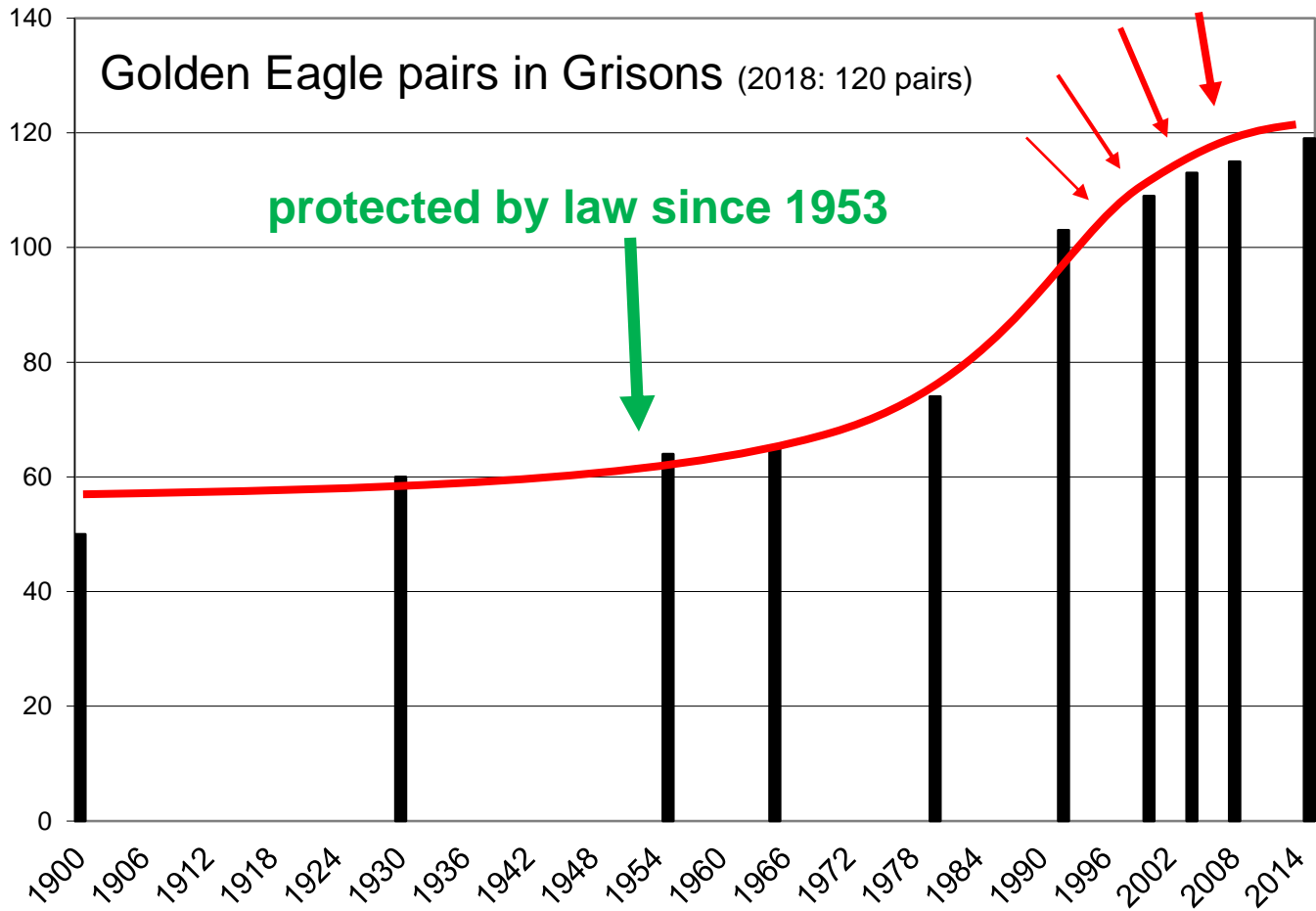
[vogelwarte.ch](http://vogelwarte.ch)



# Golden Eagle territories Switzerland (2013 – 2016)



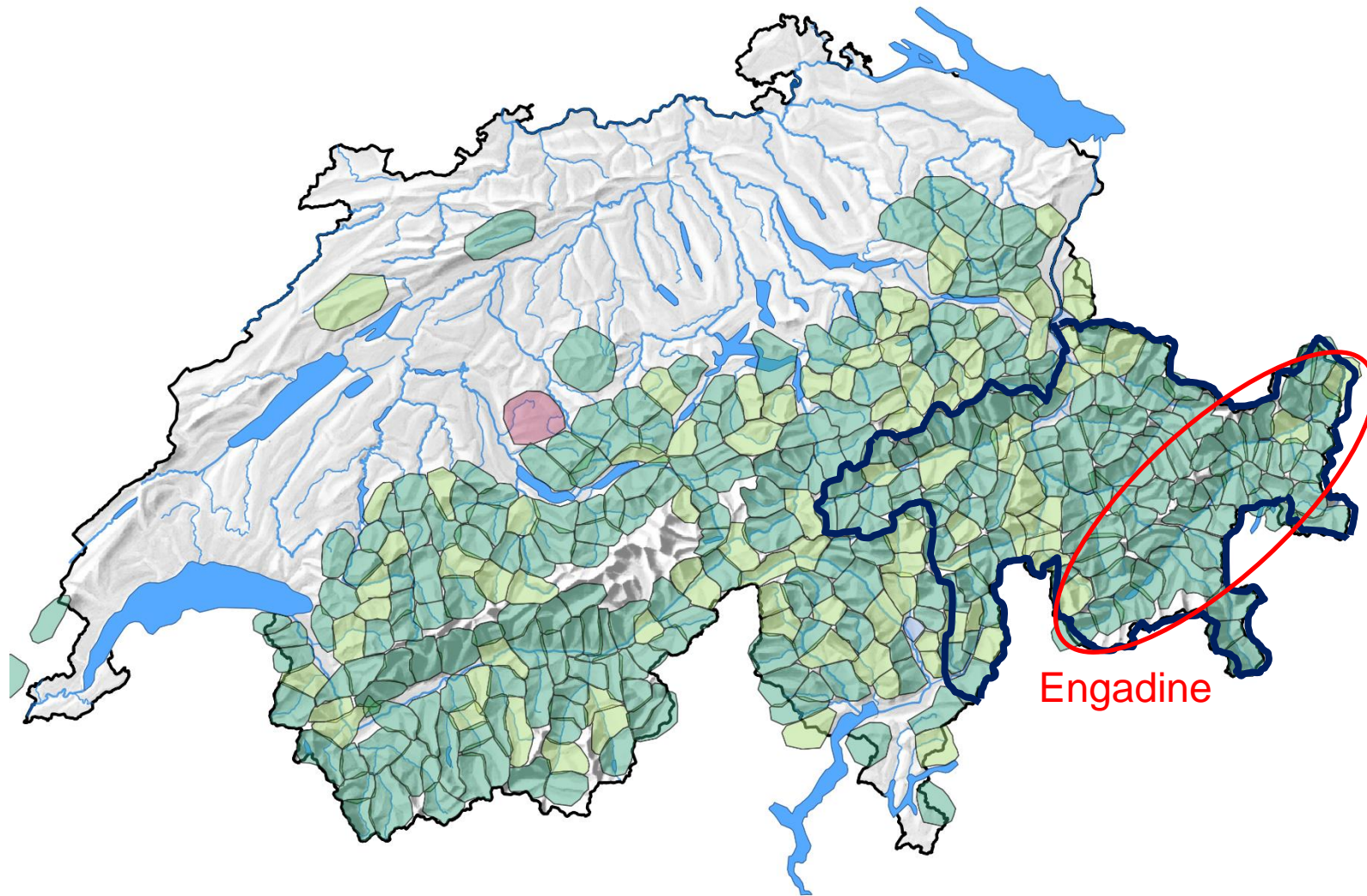
# Population growth since 19th century



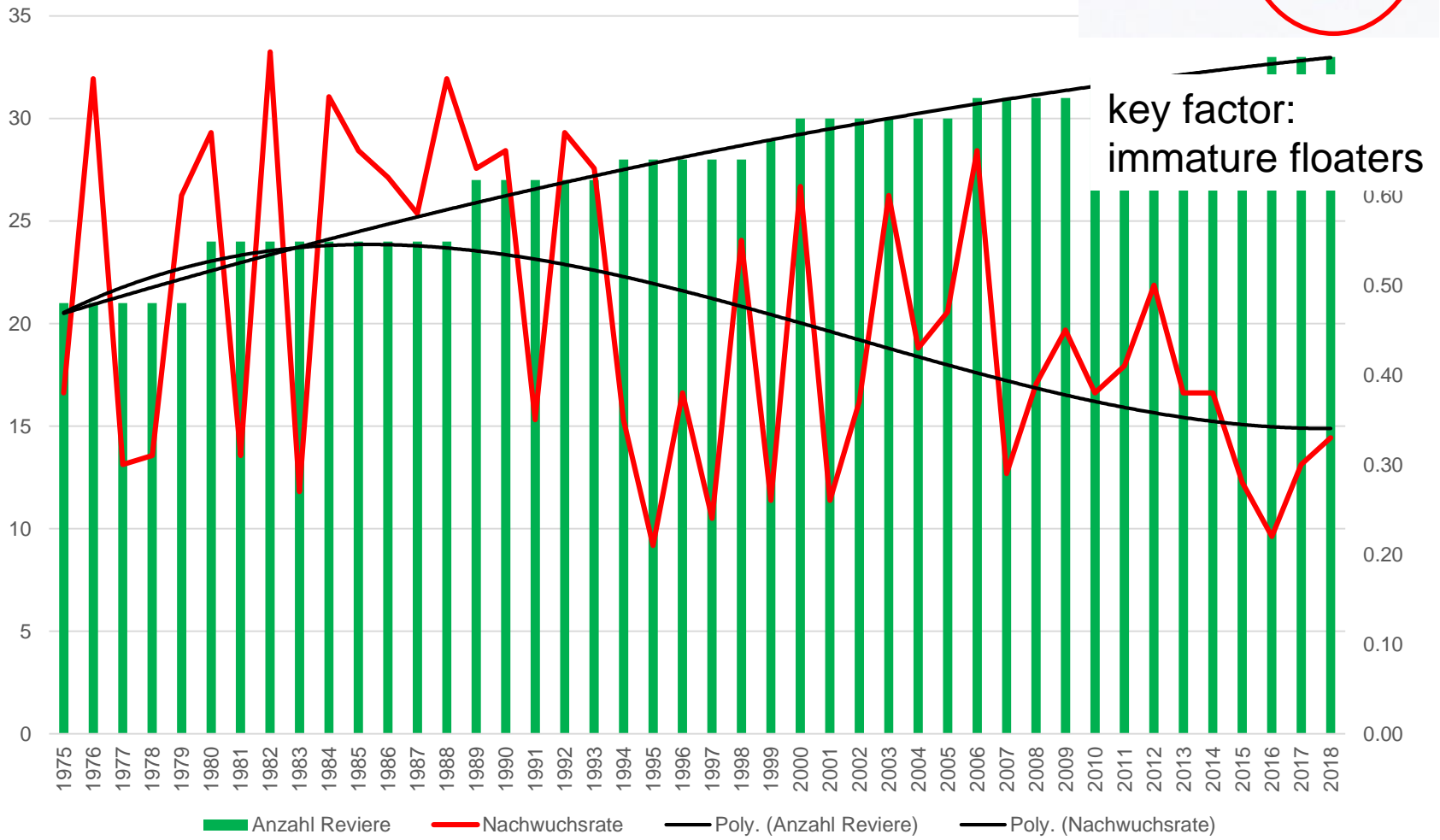
Haller 1996



# Golden Eagle territories Switzerland (2013 – 2016)

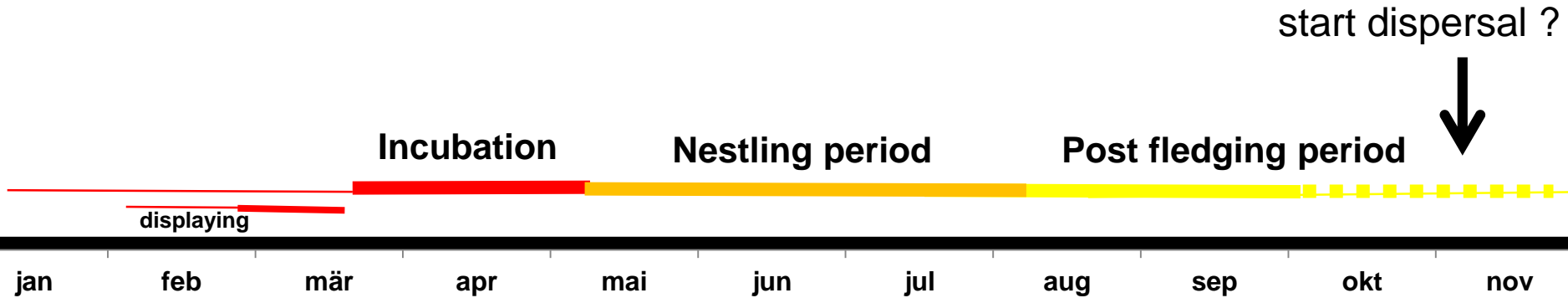


# Development of pairs in Engadine



# Phases of development of juvenile Golden Eagles

## First steps



# Phases of natal dispersal of golden eagles in the Alps



Learning and traveling years

interfaces ↓

Start of dispersal / Explorations; scavenger-period

philopatry; hunting period

settlement, territoriality, pairing

year 1

year 2

year 3

year 4

year 5

All these phases show individual variation in timing and duration

Survival in these phases might be different



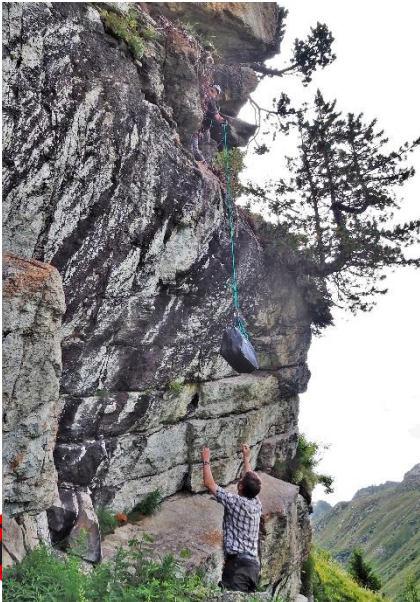
## Setting loggers to juvenile GE – in the nest



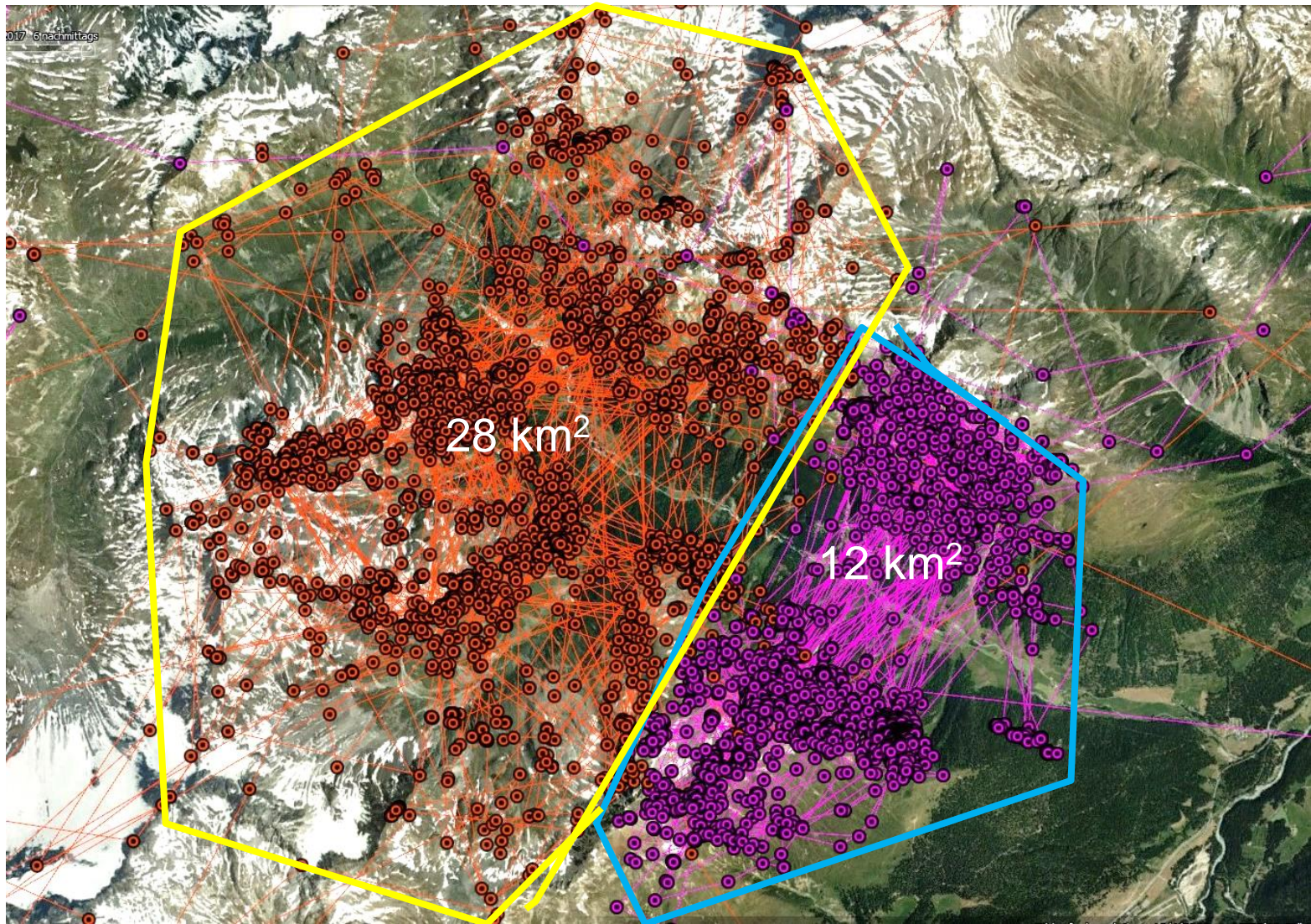
2017 and 2018 a total of 10 juveniles were set with loggers in Grisons, three more in Italy



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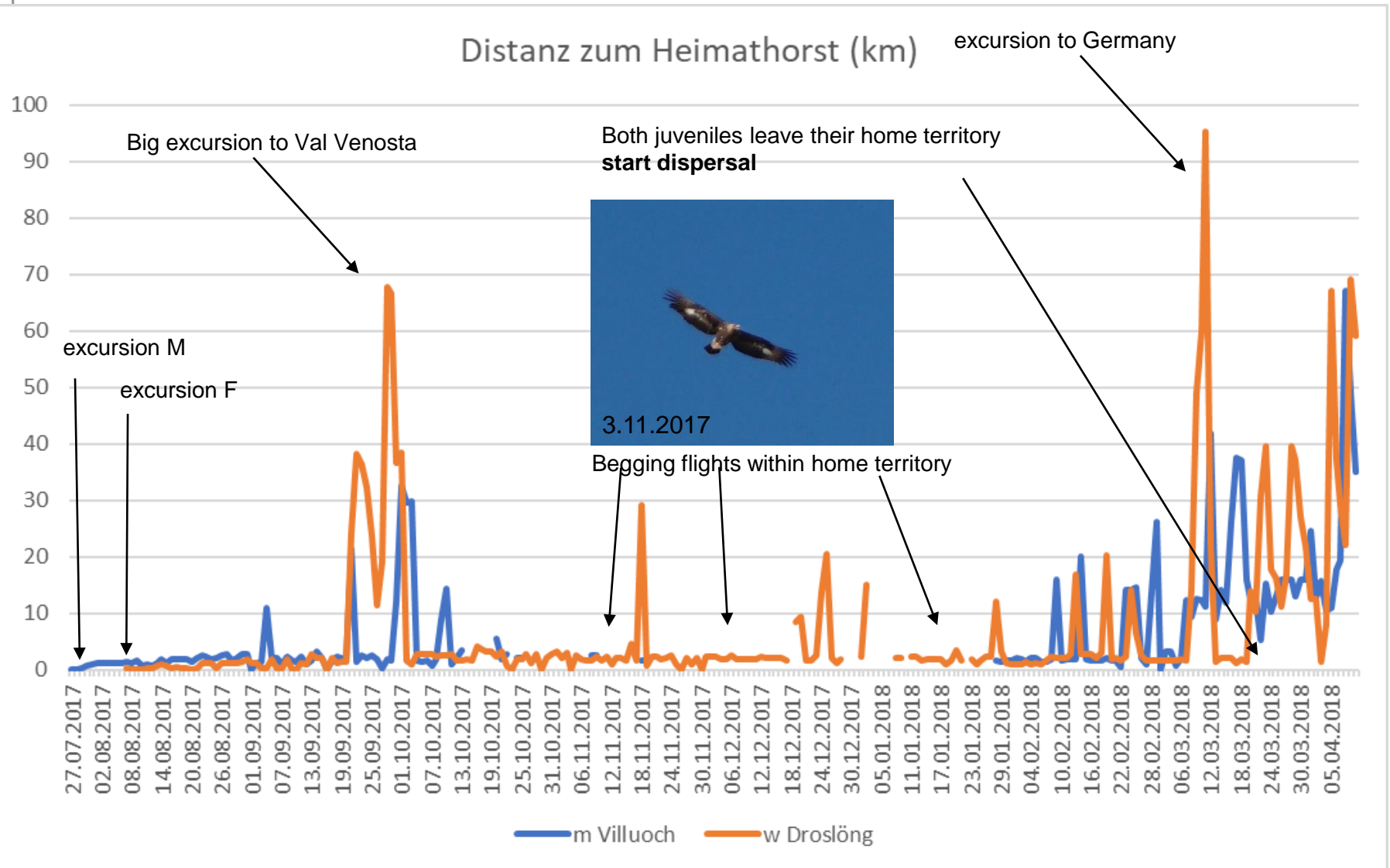


# Two neighbouring juveniles – clear territory borders

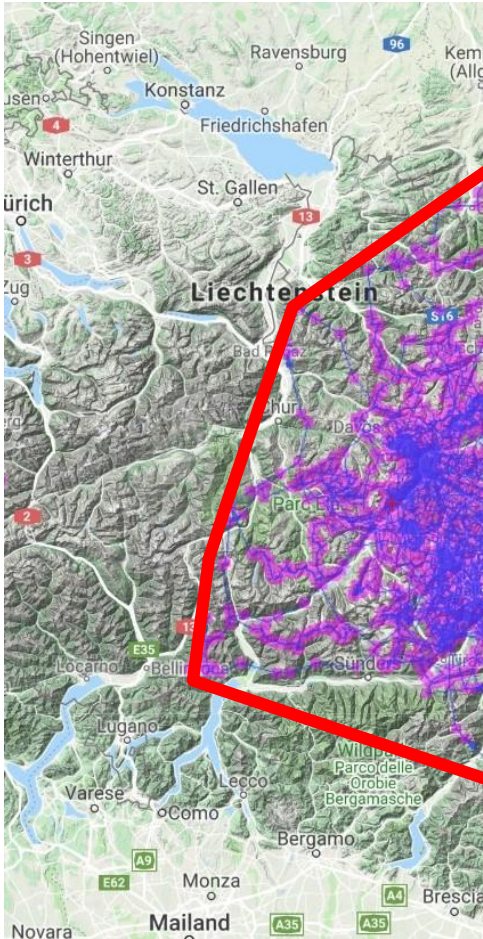


# When do the juveniles leave their home territory??

female 5704  
male 4507




# Home ranges after one year of dispersal




Swisscom 4G 15:14 84%

Liechtenstein

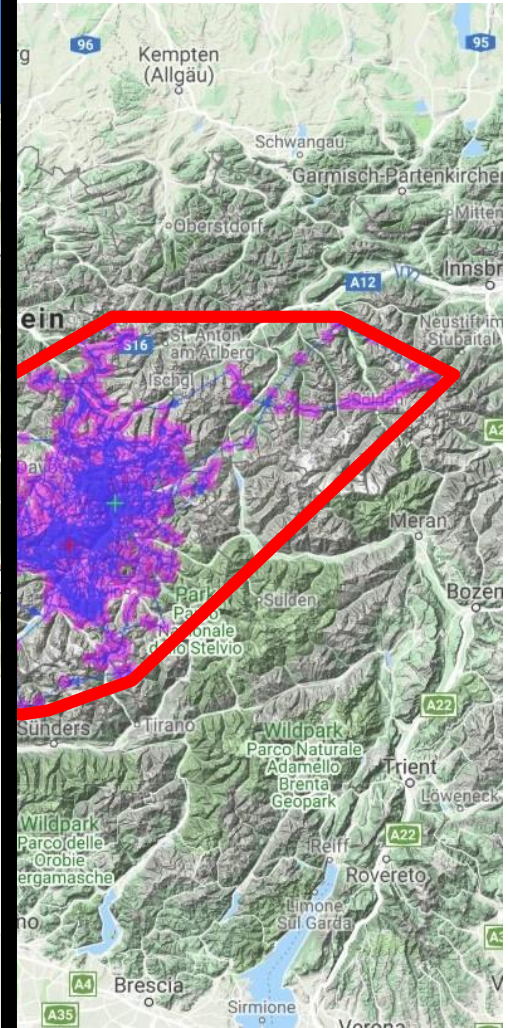
App: Animal Tracker

 M01-2017 (eobs 4570)  
HES 994219  
Steinadler (*Aquila chrysaetos*)

 Vor 2 Tagen 23.12.18, 20:00  
46,7498 / 10,09422

Details Aktivität Sichtung

Karte Blog Arten Favoriten Einstellungen



Weibchen  
21'150

4507



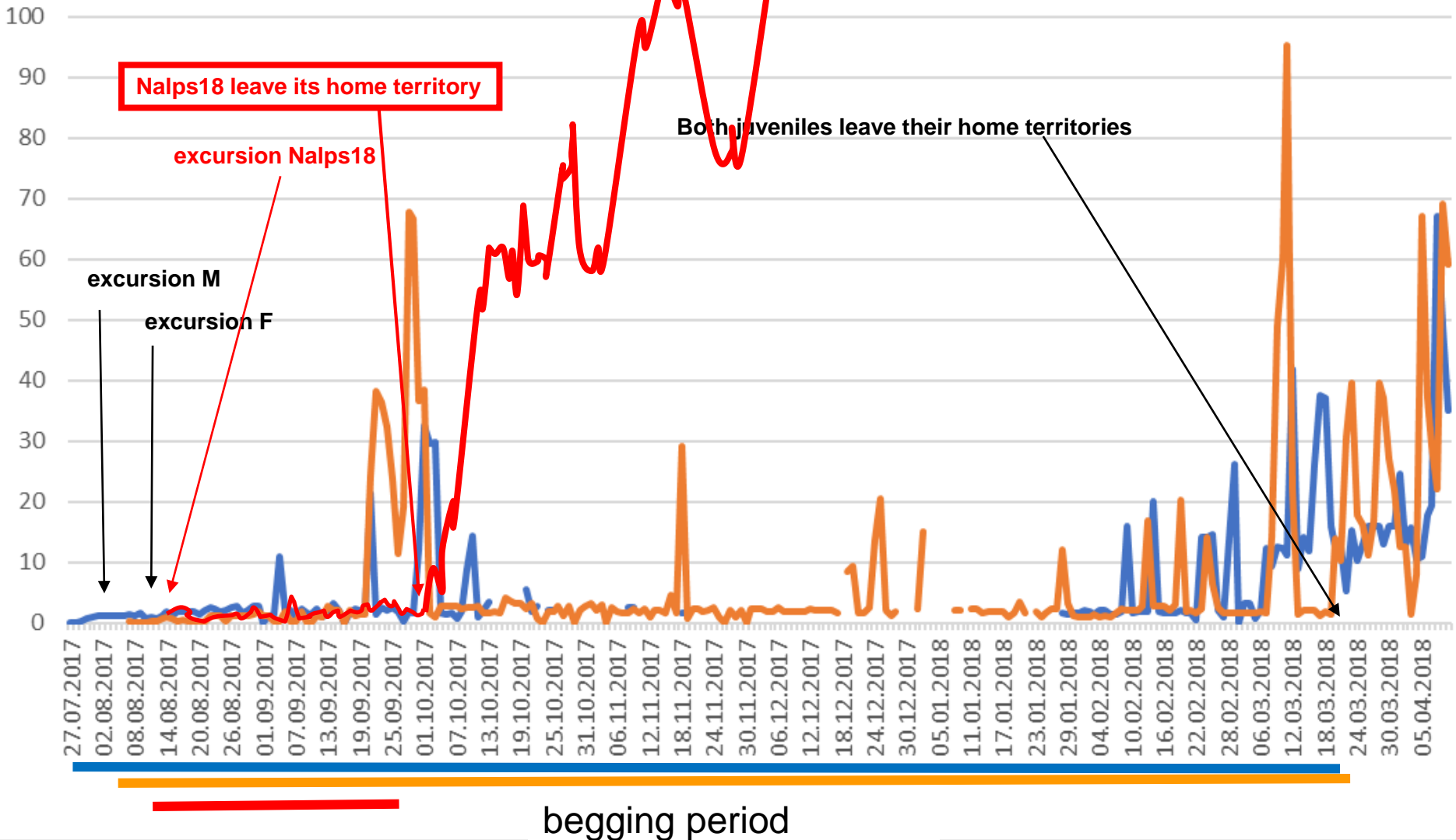
Bei schönem Wetter im Sommerhalbjahr – eine Peilung pro Sekunde

M1 Filisur 4.04.2018



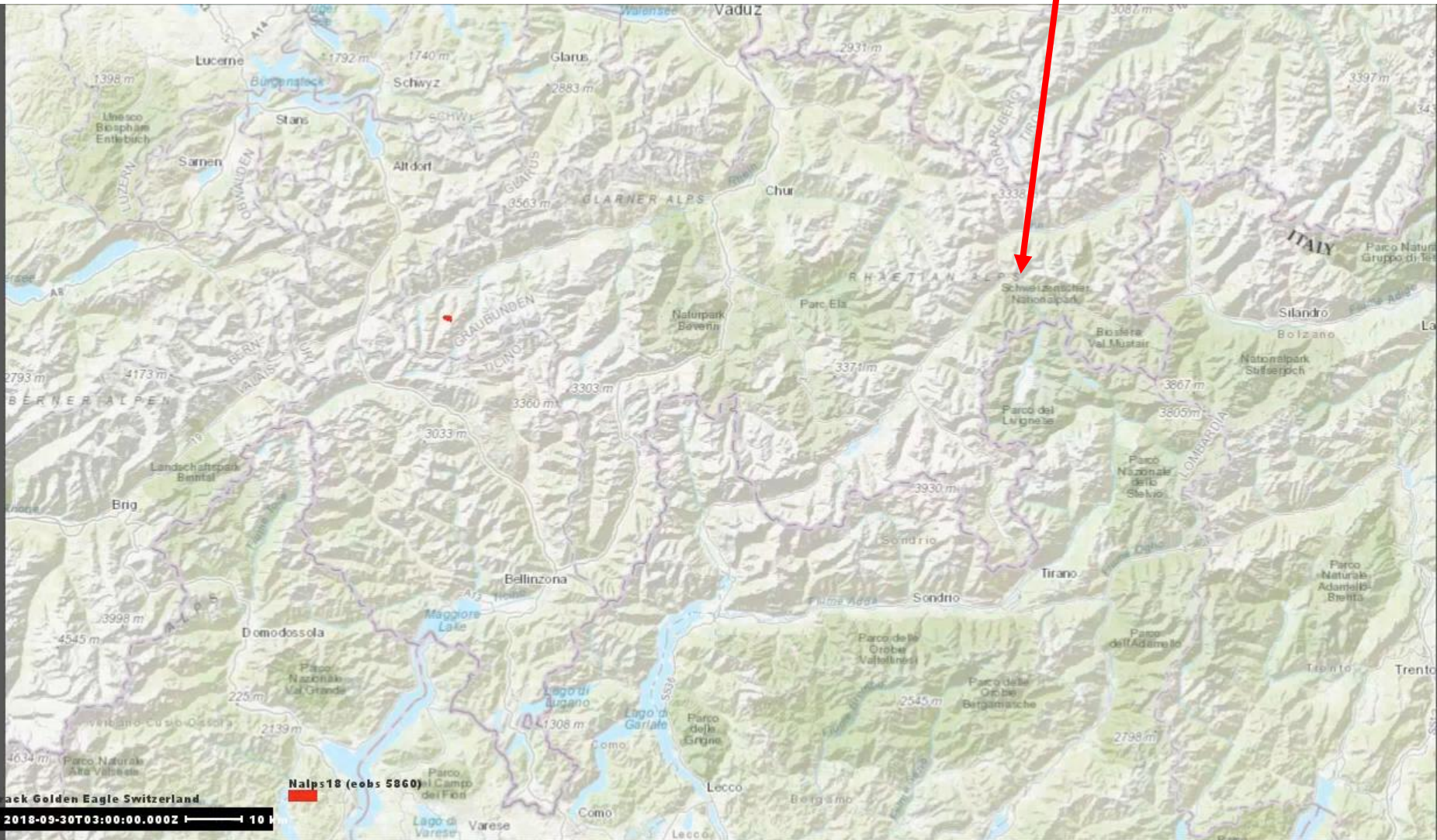
# Surprising results in the second year

Distanz zum Heimhorst (km)



# Nalps18 early start of dispersal

Feeding site



# Feeding site



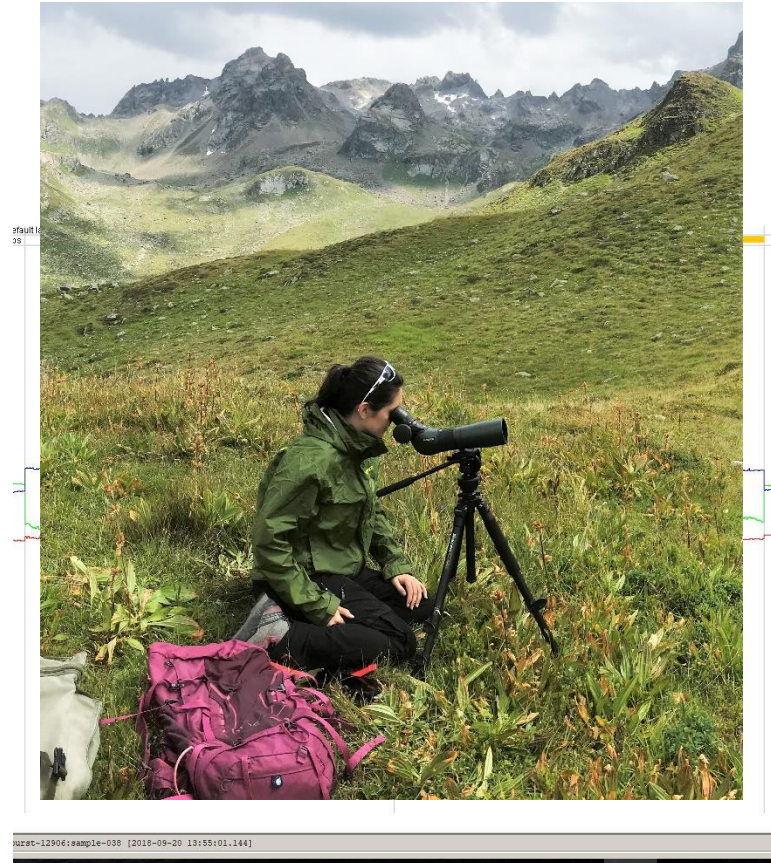
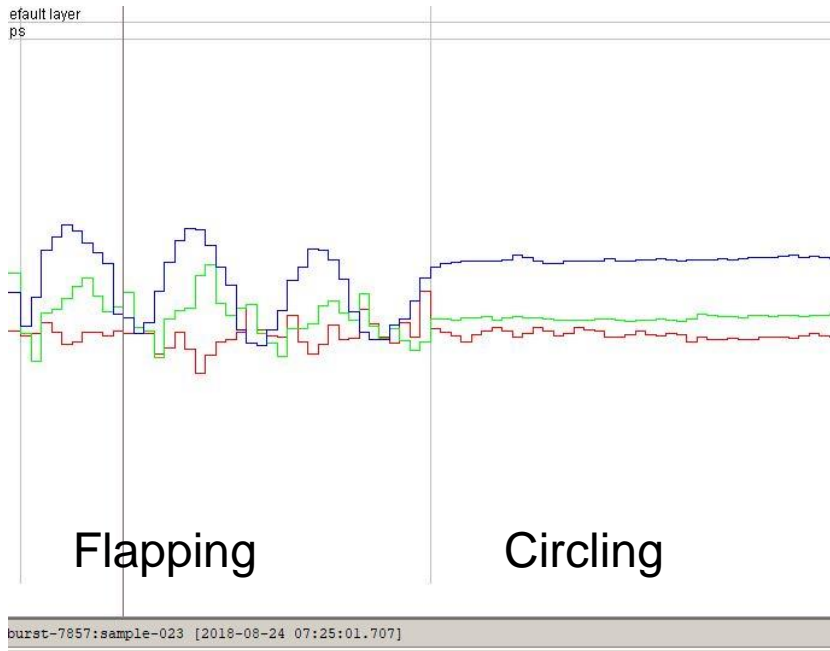
DOERR SNAPSHOT 07.12.2018 13:07:45 01 003°C 037°F 07



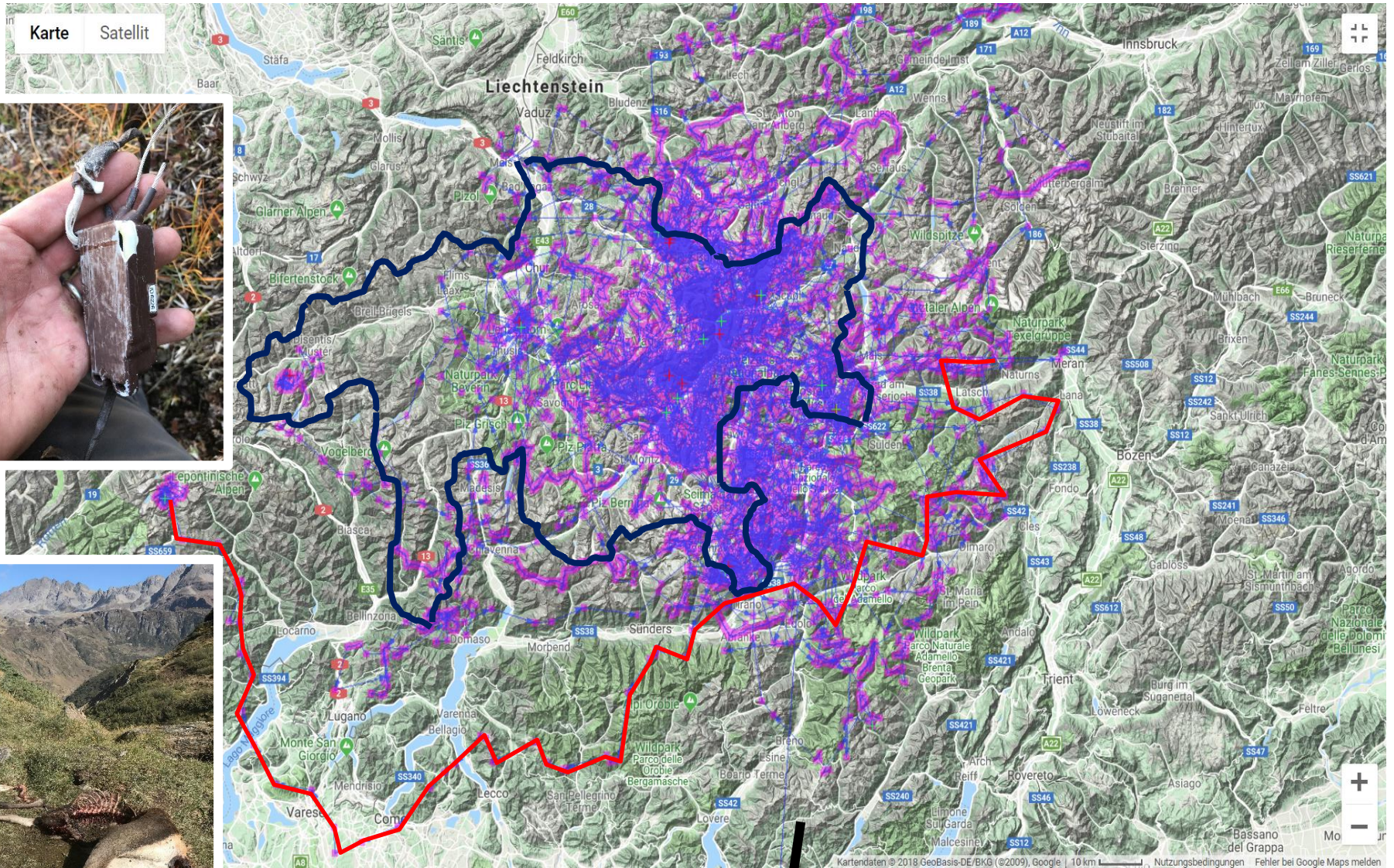
# Acceleration data enable to identify behaviour

## Achsen:

- X-Achse: rot
- Y-Achse: grün
- Z-Achse: blau



# Total of Golden eagles with loggers til 2018: 10 in Grisons and 3 in Italy (Val Venosta and Appennino).



The project will continue.

New partners?



PhD Student Julia Hatzl



Kamran Safi and the team from Radolfzell



Partners – Val Venosta:  
Klaus Bliem et al.



Parco Nazionale dello Stelvio ?

# Thank You



MAX-PLANCK-INSTITUT  
FÜR ORNITHOLOGIE

AUTONOME  
PROVINZ  
BOZEN  
SÜDTIROL



PROVINCIA  
AUTONOMA  
DI BOLZANO  
ALTO ADIGE



Provincia di Sondrio



vogelwarte.ch



Amt für Jagd und Fischerei Graubünden  
Ufficio per la caccia e la pesca dei Grigioni  
Uffizi da chatscha e pestga dal Grischun



Many Park rangers and Gamekeepers  
of the Grisons

Nationalparkverwaltung  
Berchtesgaden



PARCO  
NAZIONALE  
DELLO  
STELVIO

NATIONAL  
PARK  
STILFSEER  
JOCH