

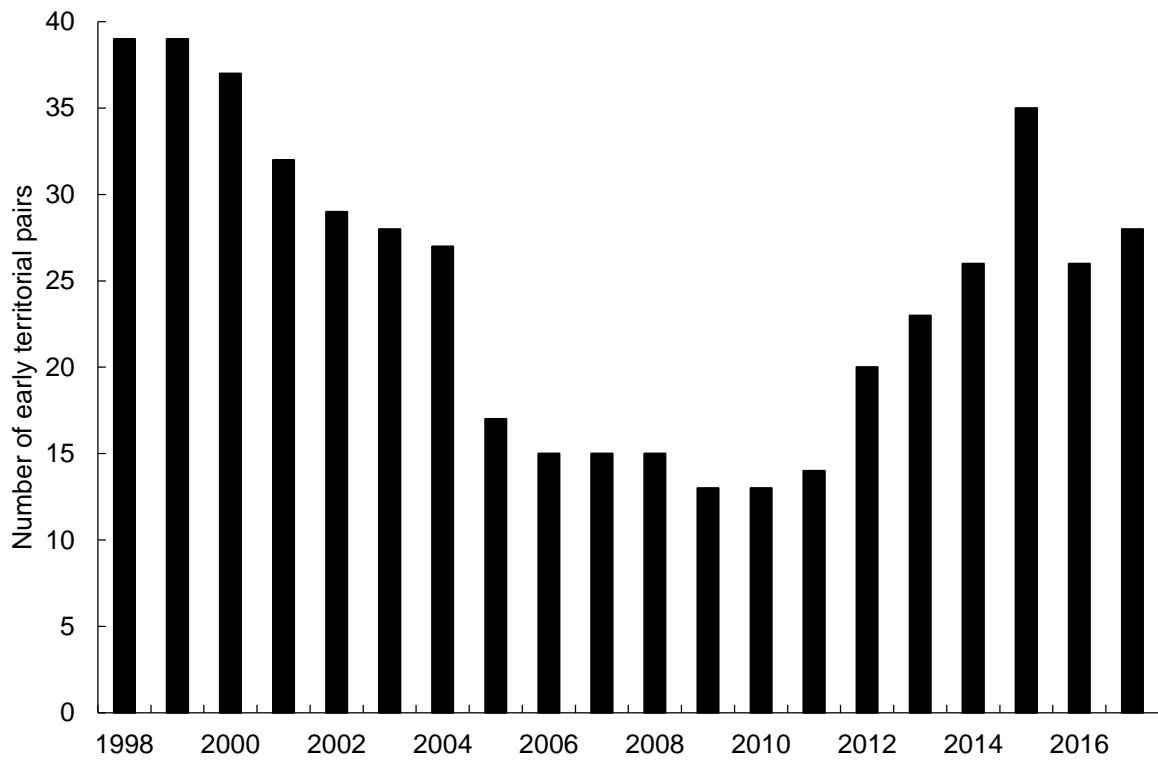
# Ring Ouzel Glen Clunie update 2018

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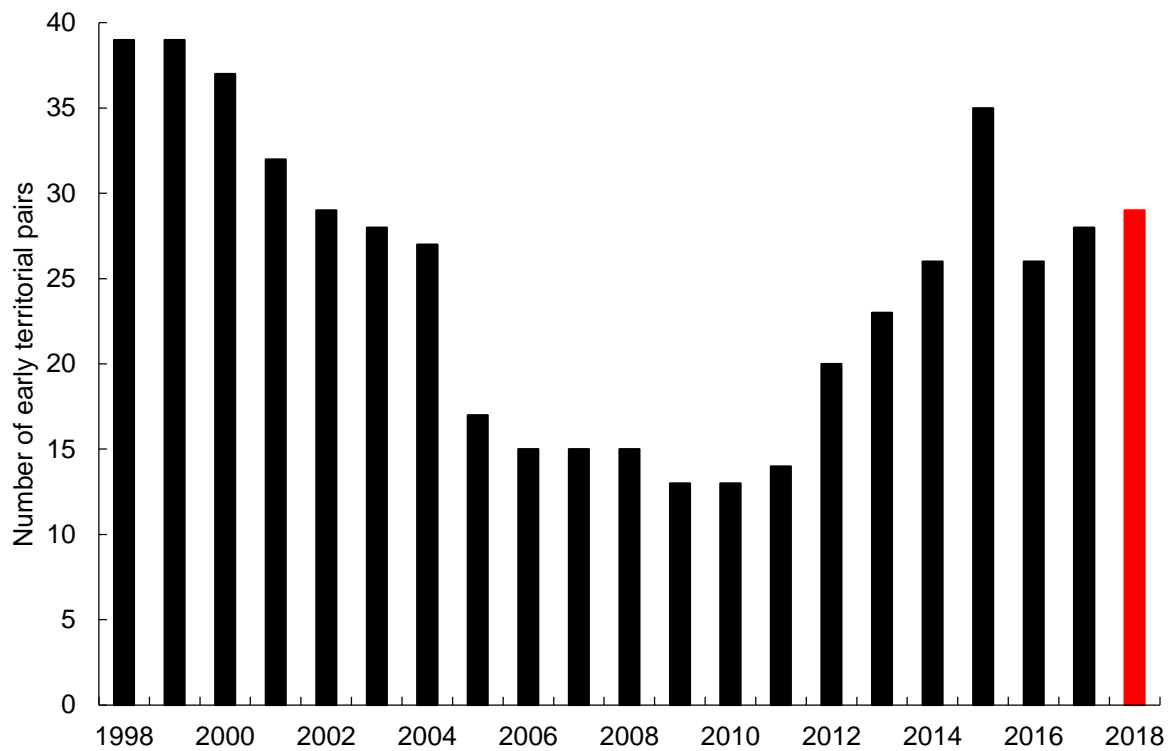
## Monitoring in 2018

- Graham and I resumed full monitoring in 2018, after reduced effort in 2017
- Greg was employed from April to July to help us fit GPS tags to breeding adults

## Population trend 1998-2017

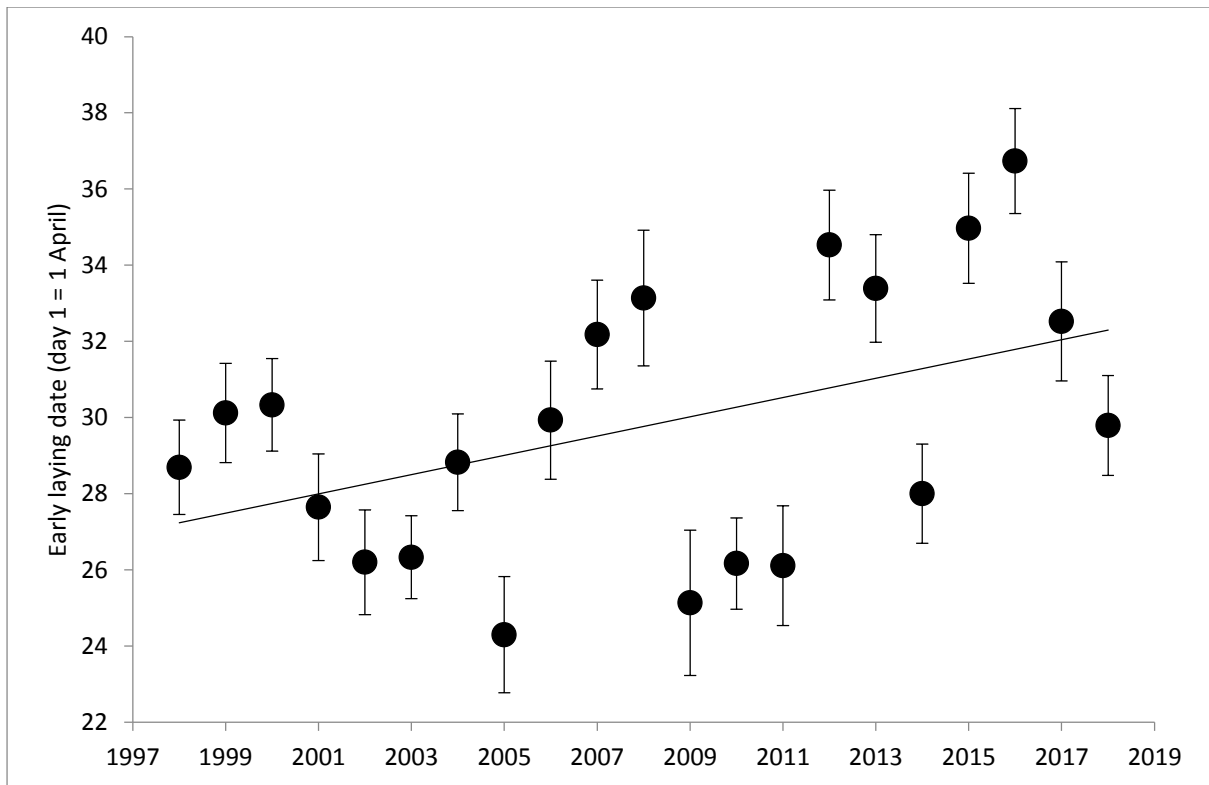


### Population has declined by 26% during 1998-2018

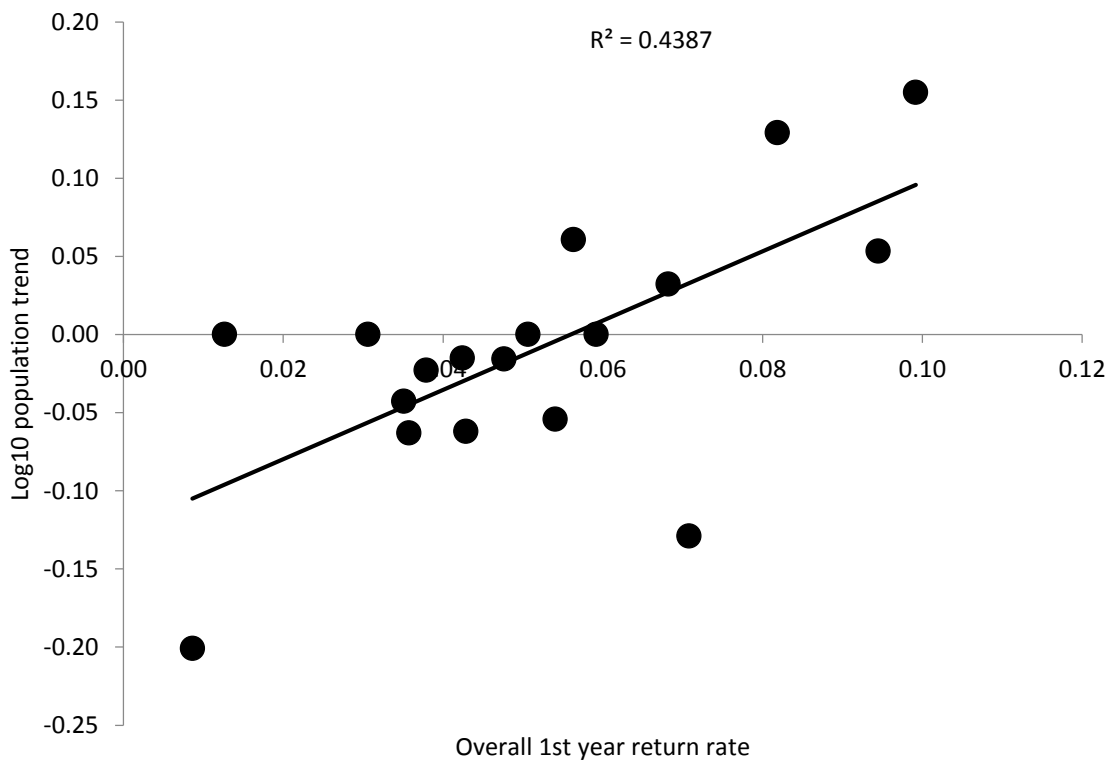


### Are there temporal trends in breeding & survival parameters?

- No significant trends for early (4.0) or late (3.9) clutch size
- No trends for early (3.6) or late (3.6) fledged brood size
- No trends in nest survival rates, but rates very low in 2018, especially for late nests
- No trend in adult return rates
- However, mean laying dates are later now than they were in the late 1990s ( $F = 4.70$ ,  $p = 0.04$ )



**Strongest predictor of population trend is overall 1<sup>st</sup> year return rate**



### **GPS tagging – what can it tell us?**

- We now know quite a lot about ouzel ecology on the breeding grounds
- Glen Clunie study indicates that 1<sup>st</sup> year survival is key in driving the population trend
- But how do they get to and from their wintering grounds?
- And how do they use their wintering grounds?
- To find out, we need to attach GPS tags

### **GPS tagging**

- Aim was to fit 30 GPS tags in 2018
- 15 tags were purchased from Biotrack, and 15 from Pathtrack
- Both tags similar in weight (2.7g), and both set to record 1 fix/day during Aug 2018 to April 2019
- Biotrack tags should record location accuracy to ca. 20m, and Pathtrack to ca. 10m

### **GPS tagging in 2018**

- We managed to fit 14 tags
- We monitored these birds for a week post-tagging
- We will compare return rates of tagged/colour-ringed birds in 2019

Did 'Super Ouzel' return in 2018? ... of course he did!



### **Super Ouzel life history**

- Has returned to breed for the last 10 years
- Has helped to rear at least 58 young, with no breeding failures recorded!
- Has bred with at least 6 different females
- No signs of senescence!
- Has travelled around 44,000 miles so far...

### **Plans for 2019 and beyond**

- We will attempt to retrap any returning tagged birds
- We will attempt to fit 20 more tags
- We will fit around 10 tags from each of the 2 manufacturers
- Anthony and I will be in Glen Clunie full-time, and Graham 2 days/week
- We will return in 2020 to attempt to retrap any returning tagged birds

- Satellite tags not available for use in 2019, but perhaps in the near future?