

# In early life?



# Questions

1. Is telomere loss greatest in the first year of life?
2. What factors affect telomere length in early life?
3. What are the consequences of early life telomere dynamics?



# Is telomere loss greatest in the first year of life?

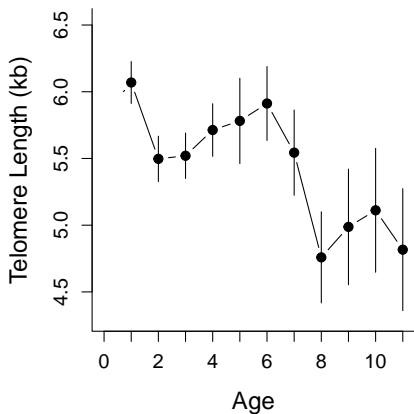


Figure: Telomere length and age

# Is telomere loss greatest in the first year of life?

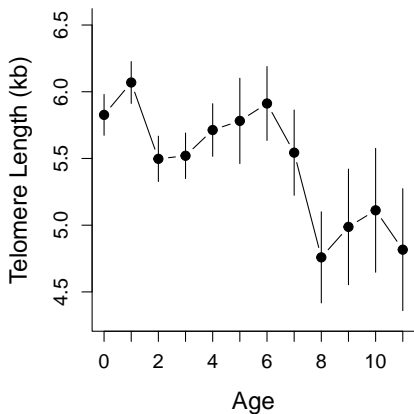


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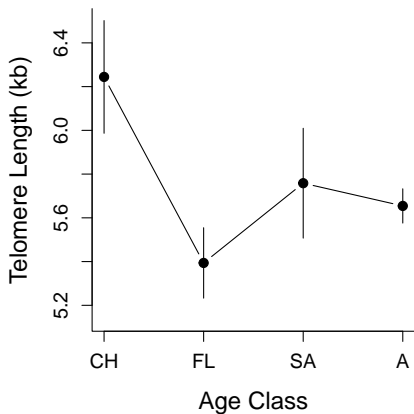


Figure: Telomere length and juvenile age

# Questions

1. Is telomere loss greatest in the first year of life?

*Yes, but it's lost at a very early stage*

2. What factors affect telomere length in early life?

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# What factors affect telomere length in early life?

Model including only juvenile birds ( $N = 198$ )

```
mymodel <- lm(Telomere_Length ~ Mass +  
               Tarsus_Length +  
               Age_Class +  
               Sex +  
               Territory_Quality +  
               EPP +  
               Helper,  
               data = juveniles)
```

# What factors affect telomere length in early life?

Key factors:

- ▶ Territory Quality
- ▶ Age class x Sex
- ▶ EPP





# What factors affect telomere length in early life?

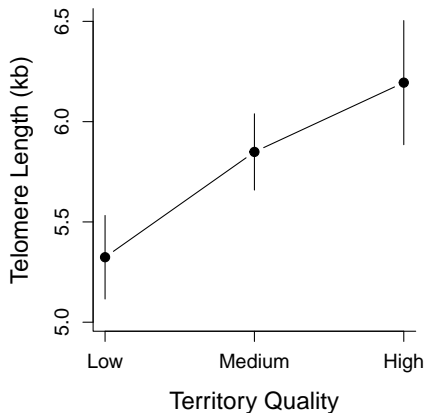


Figure: Telomere length and territory quality

# What factors affect telomere length in early life?

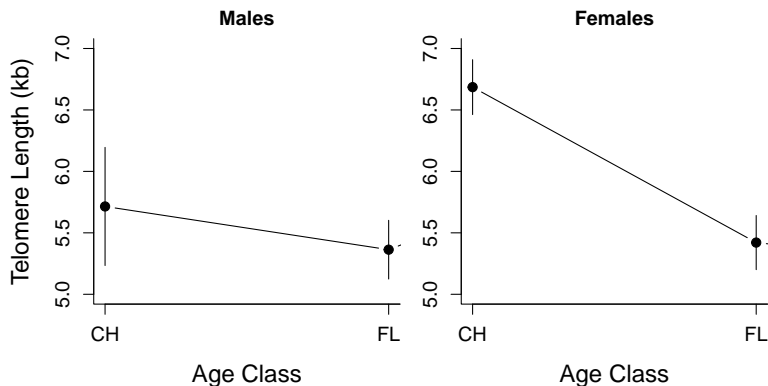


Figure: Telomere length and Sex \* Age

# What factors affect telomere length in early life?

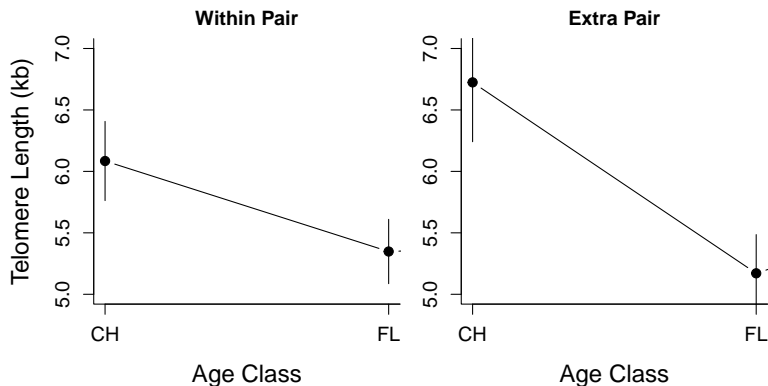


Figure: Telomere length and EPP \* Age

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1. Is telomere loss greatest in the first year of life?

*Yes, but it's lost at a very early stage*

2. What factors affect telomere length in early life?

*Age, Sex, Territory Quality and EPP*

3. What are the consequences of early life telomere dynamics?



# What are the consequences of early life telomere length?

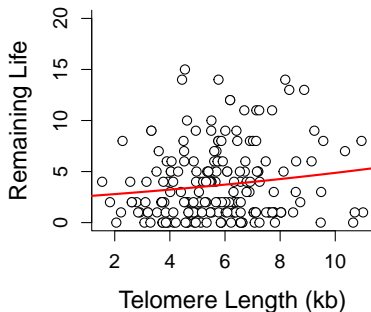
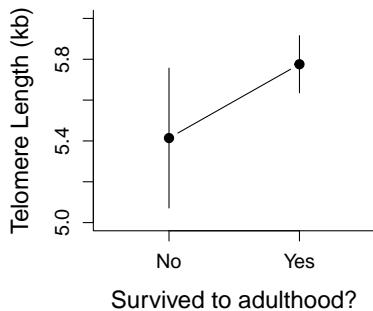


Figure: Telomere length and survival

# What are the consequences of early life telomere length?

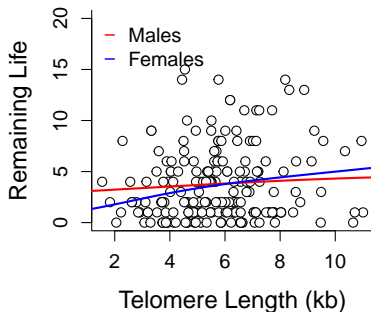
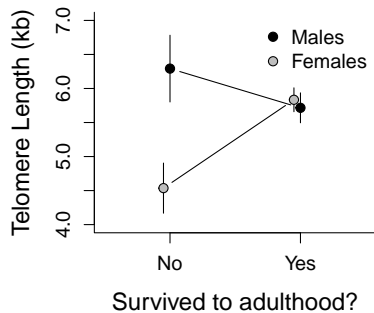


Figure: Telomere length and survival

# What are the consequences of early life telomere length?

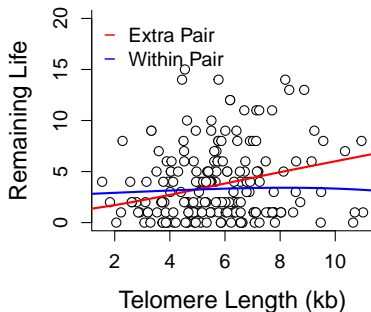
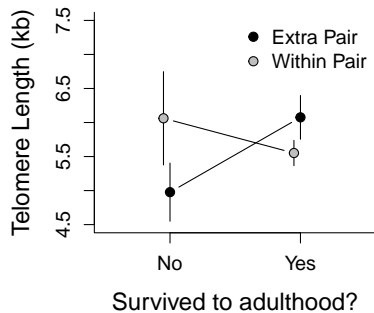


Figure: Telomere length and survival

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*Yes, but it's lost at a very early stage*

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*Age, Sex, Territory Quality and EPP*

3. What are the consequences of early life telomere dynamics?

*Important for survival but dependent on early life conditions*





# Thanks!

- ▶ Pat Monaghan
- ▶ Winnie Boner
- ▶ Simon Verhulst

**Seychelles warbler study group** (*Emma Barrett*, Jan Komdeur, Terry Burke and all the other warbler researchers)

