

MAX PLANCK INSTITUTE  
FOR DEMOGRAPHIC  
RESEARCH

# Prevalence and the variance of state occupancy time

Tim Riffe and Iván Williams

# Health inequality

# Health inequality

## Variance

# Question:

Question: In a Sullivan setting,  
can we know the variance of  
state occupancy time?

# Answer:

Answer: No, sorry.

Answer: No, sorry.  
But wait!

# Preliminary observations

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- ▶ life trajectories come first

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- ▶ life trajectories come first
- ▶ trajectories observed or generated

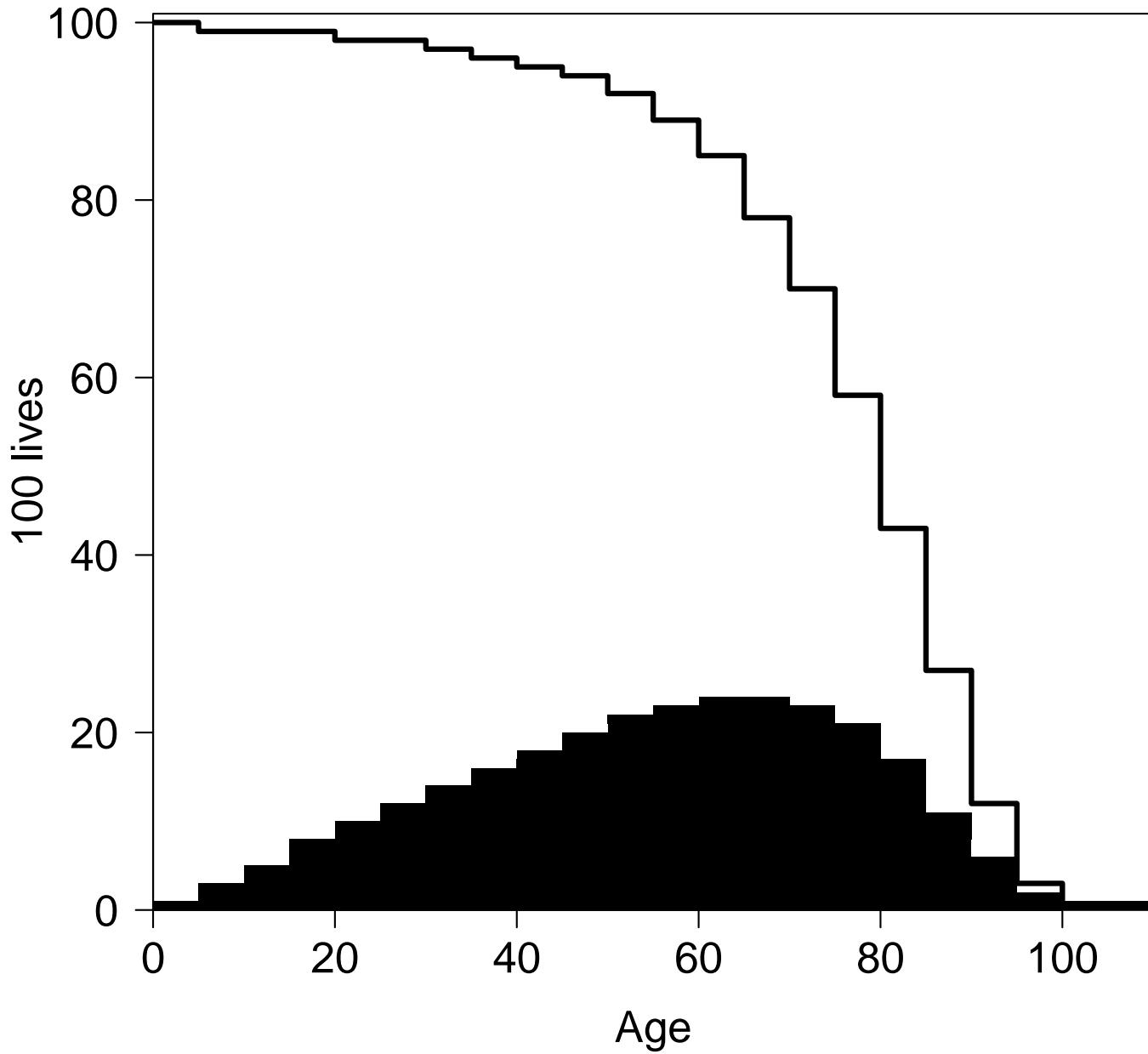
# Preliminary observations

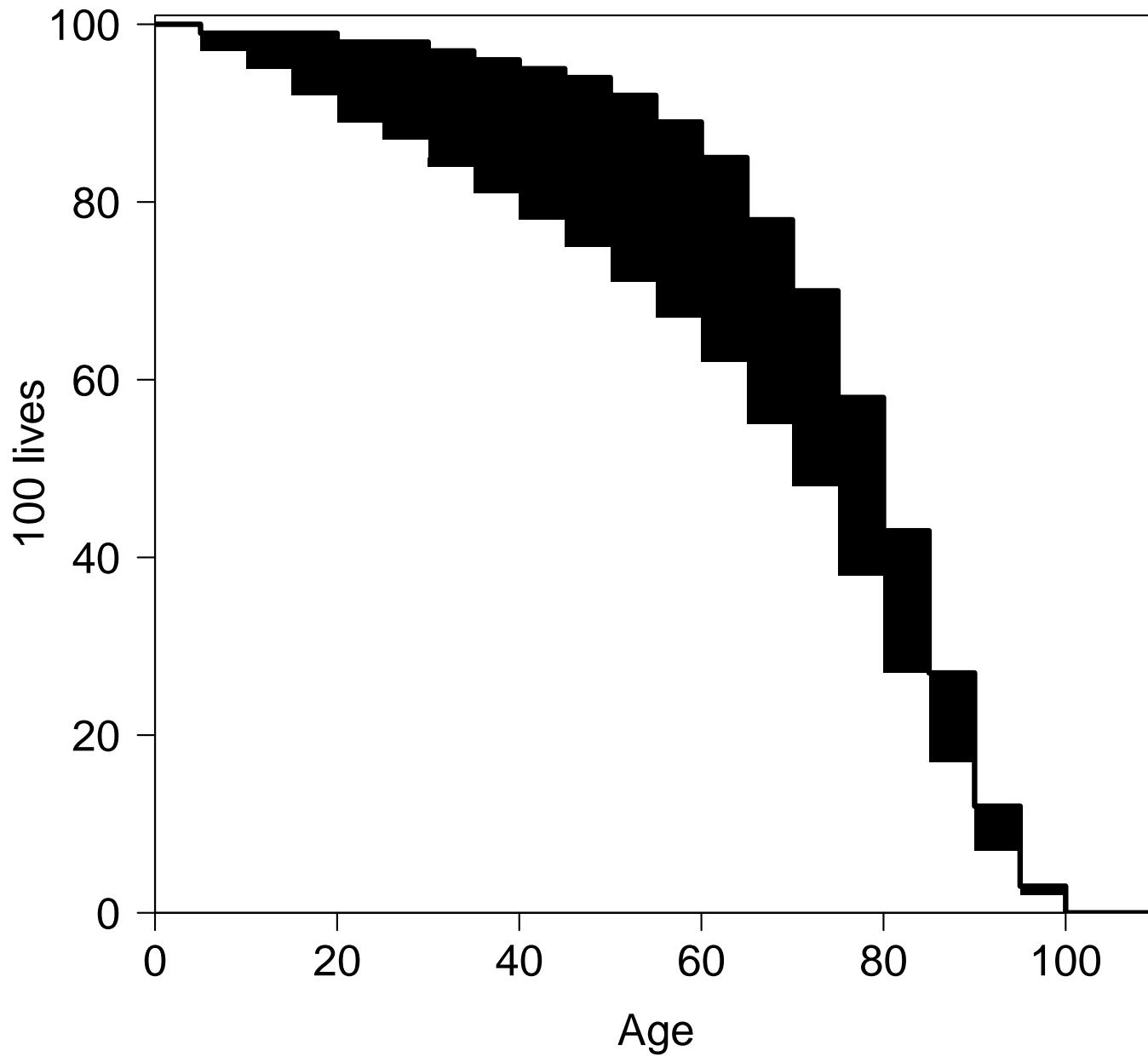
- ▶ life trajectories come first
- ▶ trajectories observed or generated
- ▶ assumptions required to generate

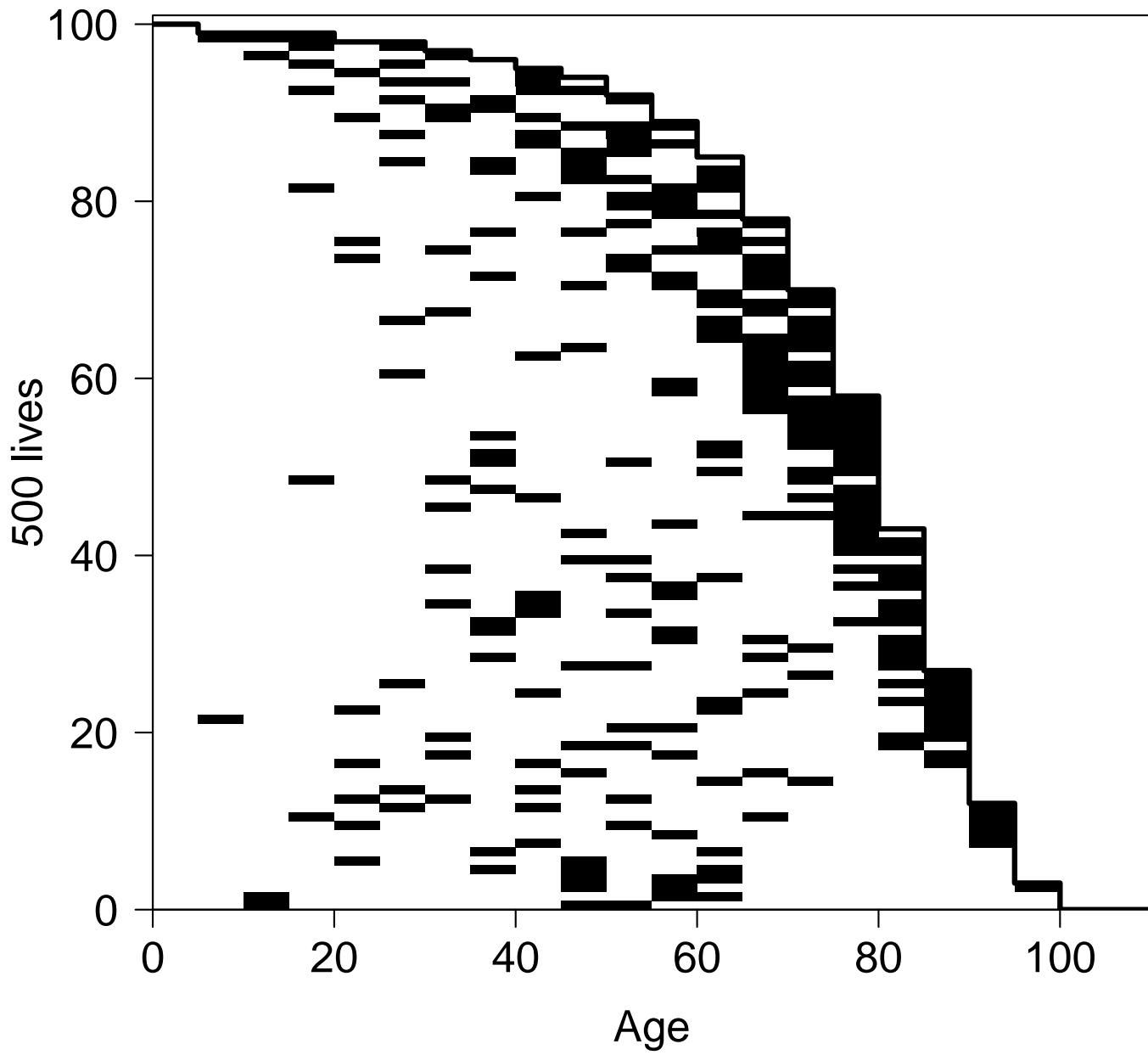
# Preliminary observations

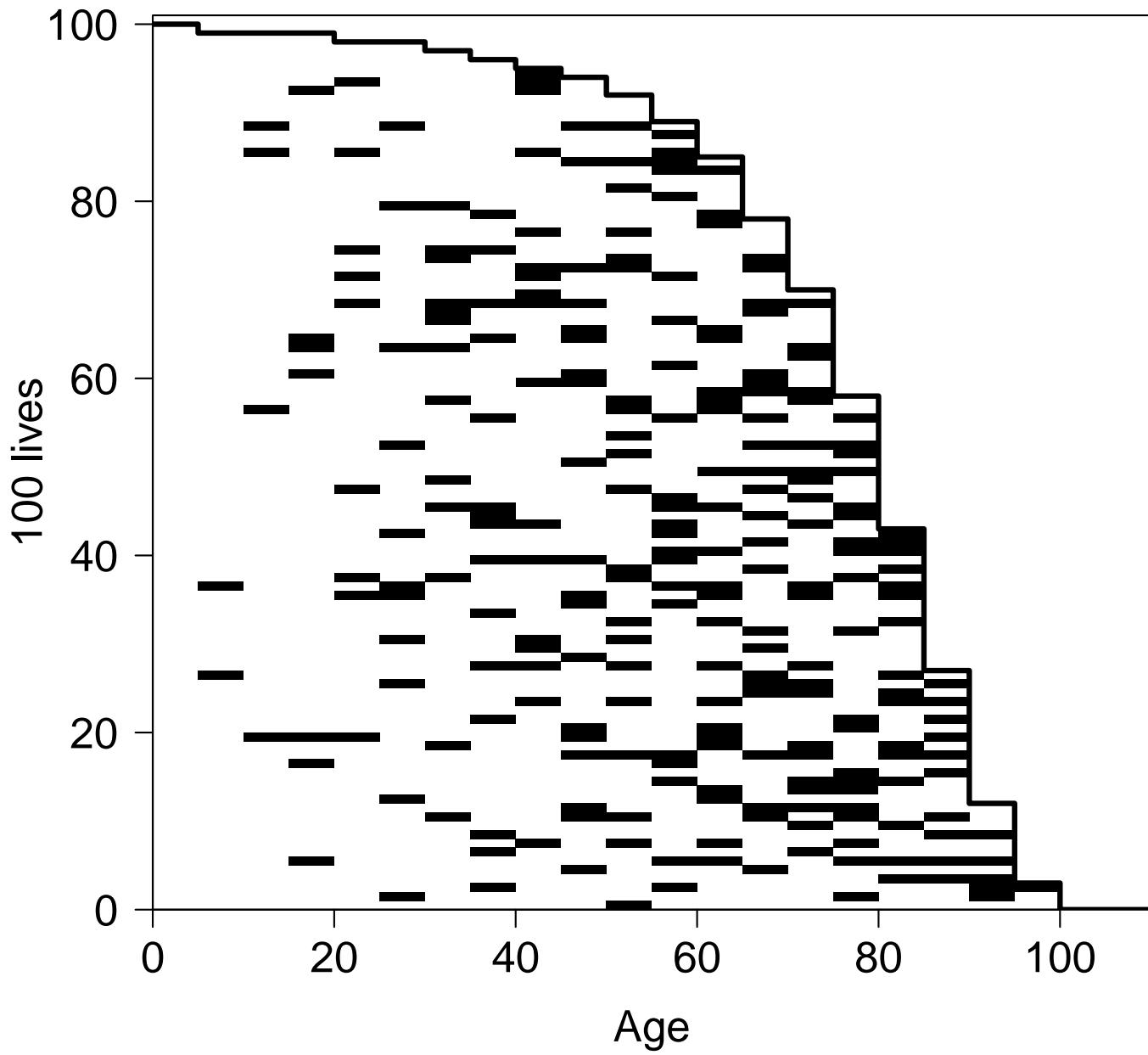
- ▶ life trajectories come first
- ▶ trajectories observed or generated
- ▶ assumptions required to generate
- ▶ we have some assumptions

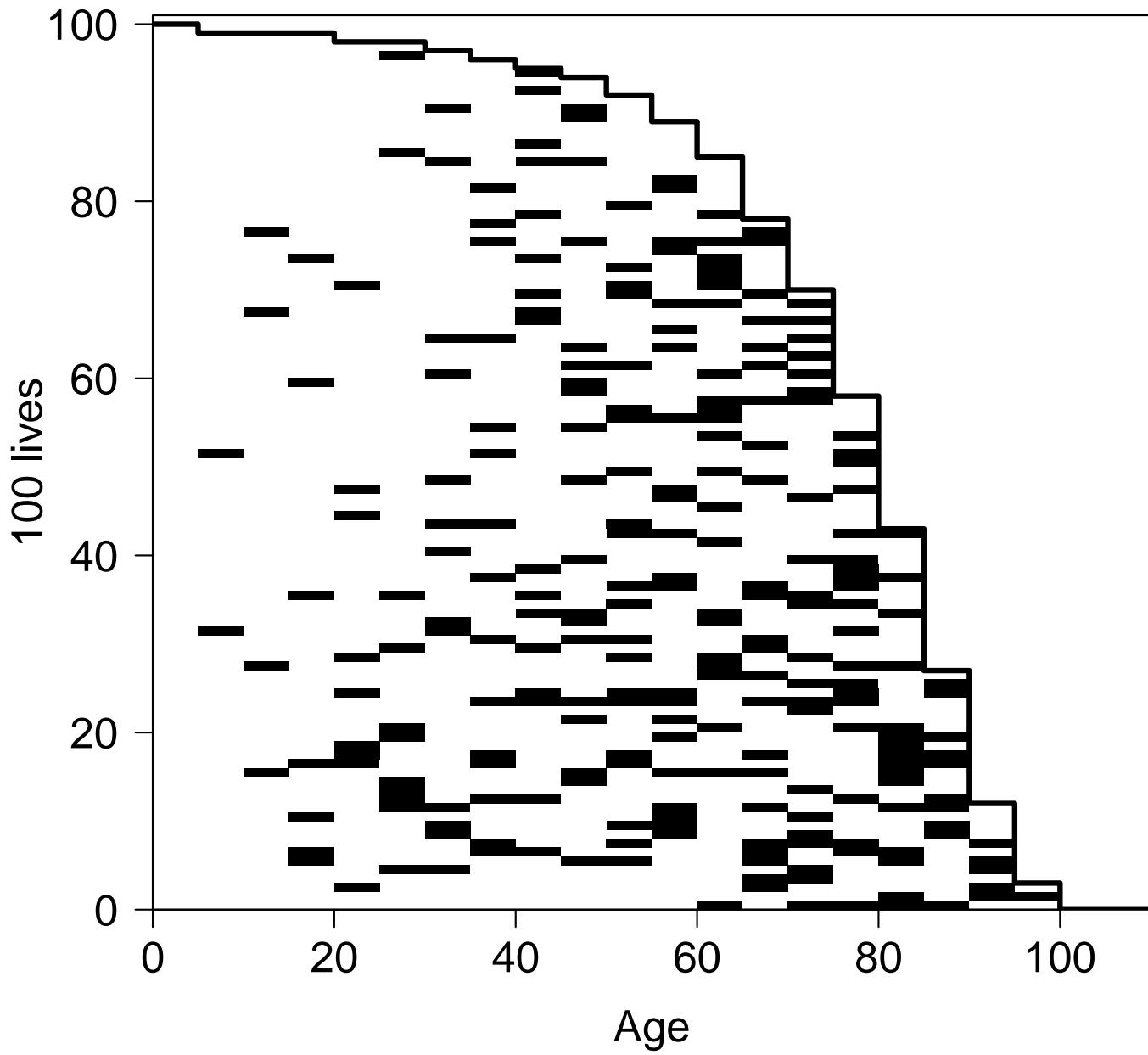
Many ways to combine  
survivorship and prevalence. . .

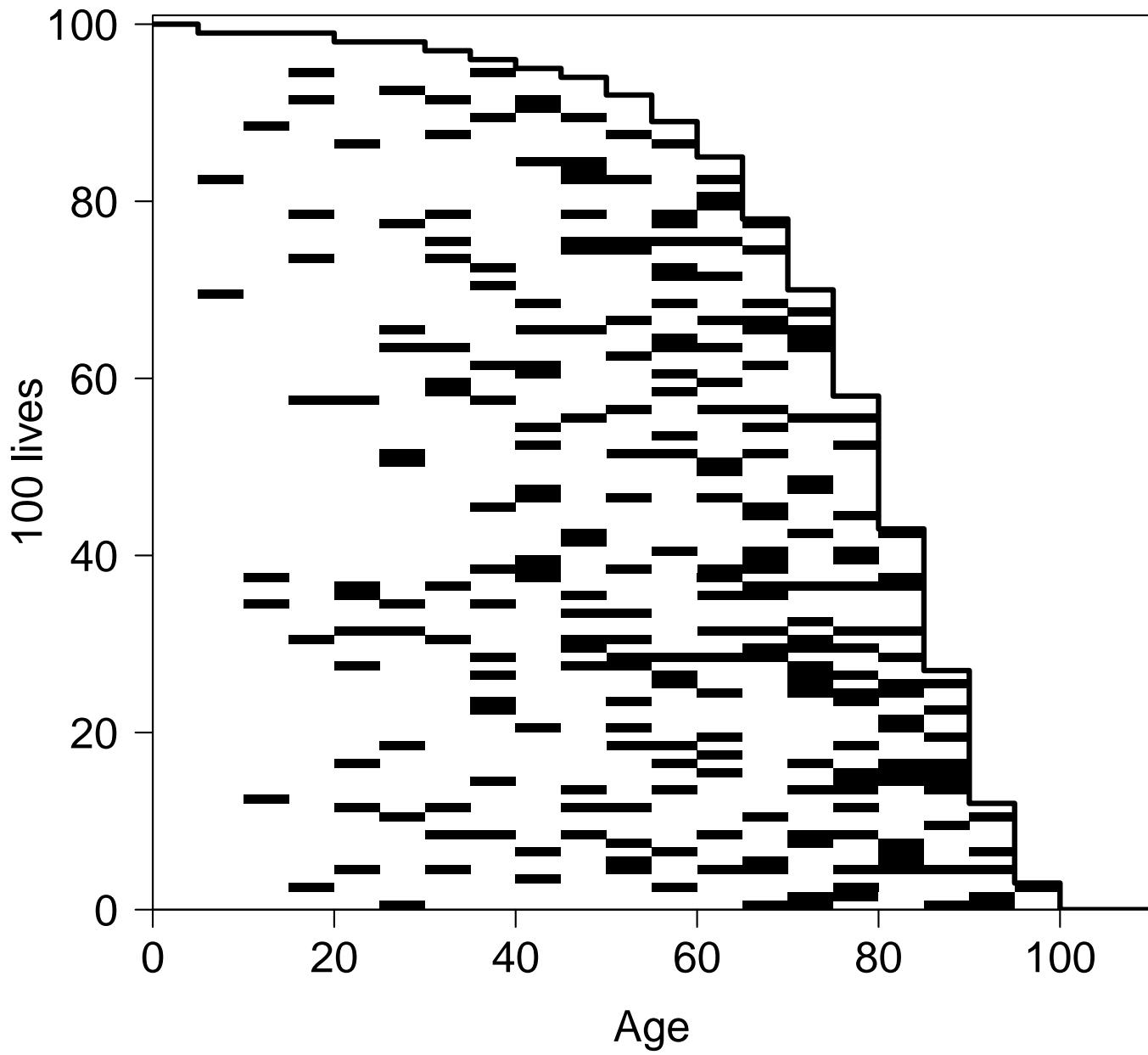






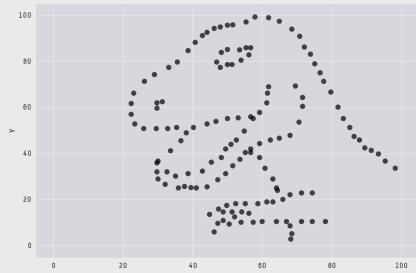






# *Anscombosaurus*

(HT Alberto Cairo)



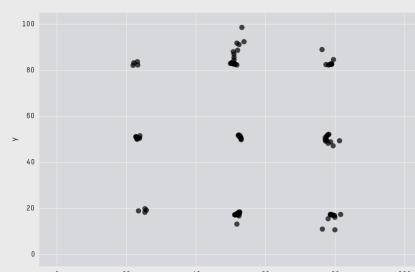
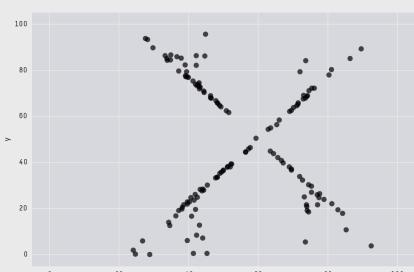
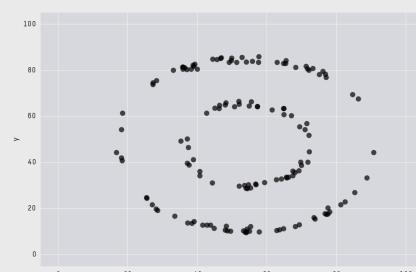
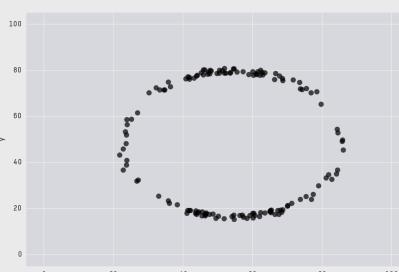
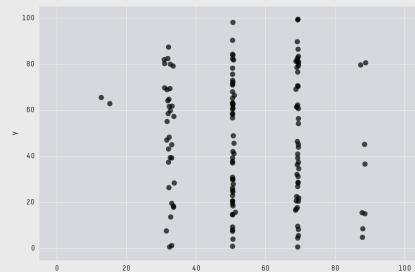
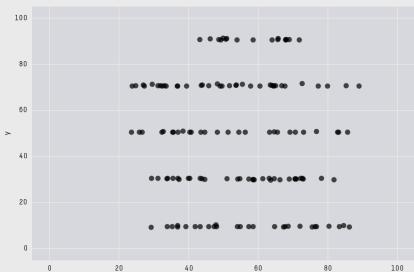
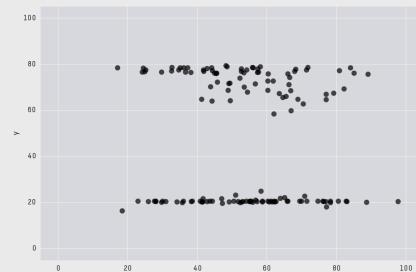
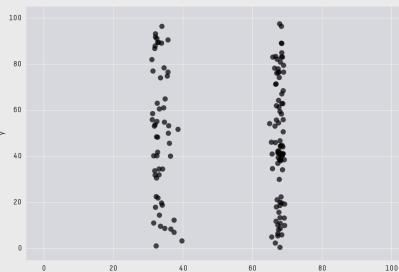
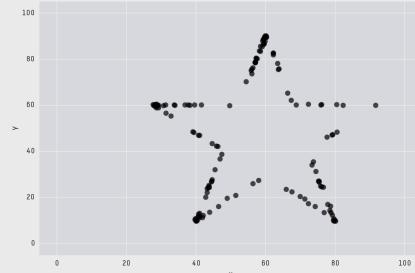
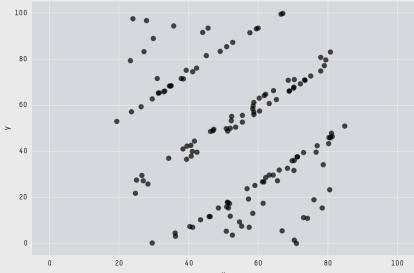
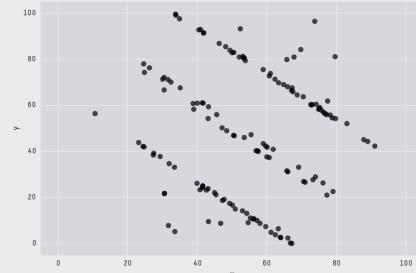
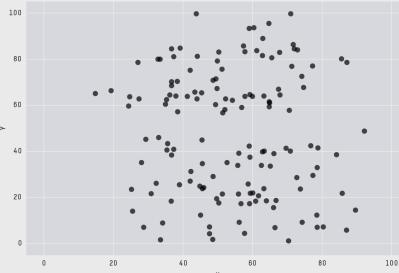
X Mean: 54.26

Y Mean: 47.83

X SD : 16.76

Y SD : 26.93

Corr. : -0.06



## Data & Methods

