

# Missing Data in Phylogenomics

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Be Afraid

Be Very

Afraid



**KEEP  
CALM  
AND  
CARRY  
ON**

# Outline

Fears about missing data

History of the problem

Why it's no longer a problem

Why it's still a problem

Wrap up





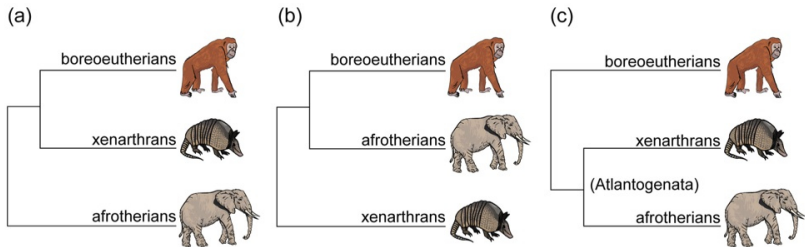
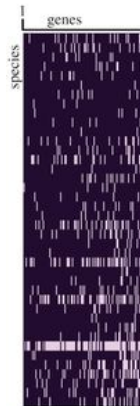


Figure 1. The root of the evolutionary tree of living placental mammals. (a) Afrotherian root. (b) Xenarthran root. (c) Atlantogenatan root.

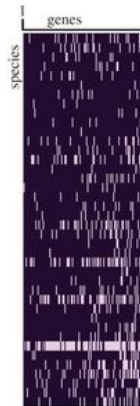


Gonzalez et al. 2015





Gonzalez et al. 2015



Gonzalez et al. 2015









Who says missing  
data is a problem?

# Morphology to Genomes







# Morphology



# Morphology



# Morphology



# Morphology



# Morphology



We have more data now

# Simulation studies