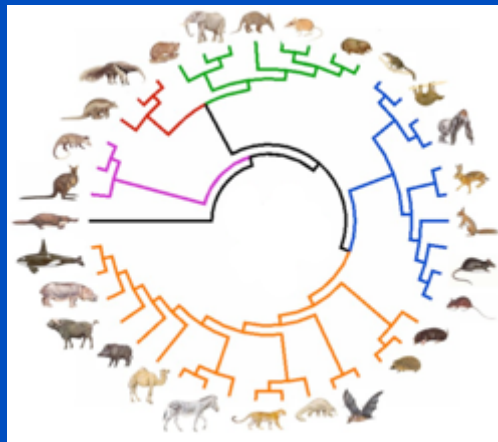




# Phylogeny



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BIO354 Zoo Biology 2019



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Zurich**<sup>UZH</sup>



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# *Phylogeny*



# Who is the odd one out?

Elephant



Tenrec



Hedgehog





# Who is the odd one out?

Elephant



Golden mole



European mole







# Who is the odd one out?

Sea cow



Elephant shrew



Water shrew



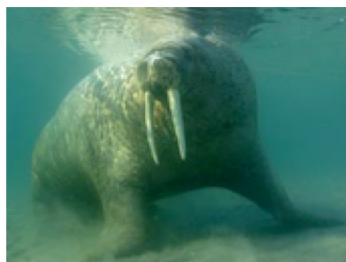


# Who is the odd one out?

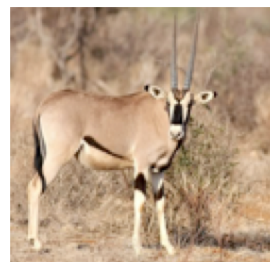
Sea cow



Walrus



Gemsbok



Orca





# Why is basic phylogenetic knowledge important?

Mainly because of the embarrassment factor:

- as biologist ...
- as someone who is interested in animals ...
- as someone who wants to work in a zoo ...

... people expect you to be familiar with phylogeny.

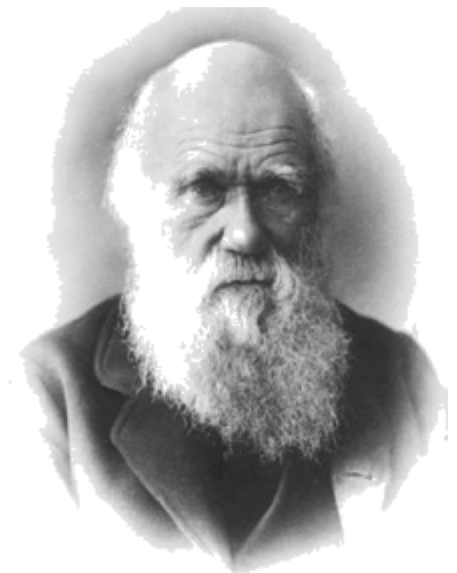
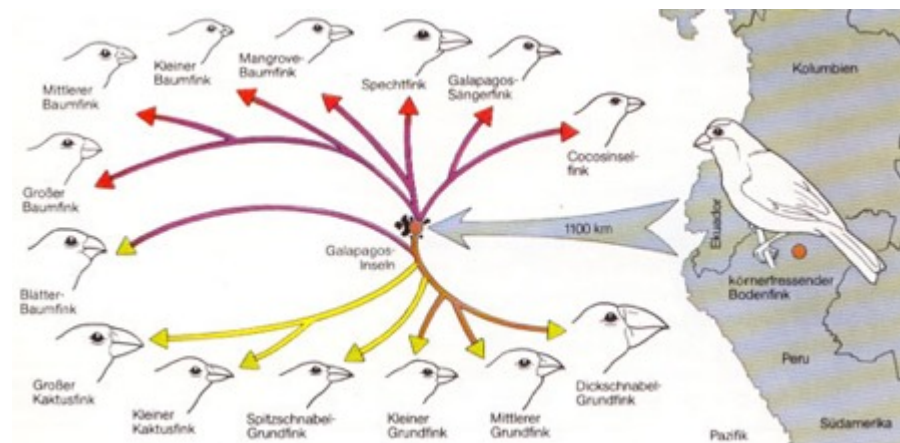


# Phylogeny: how species relate to each other

Sorting species into a meaningful order

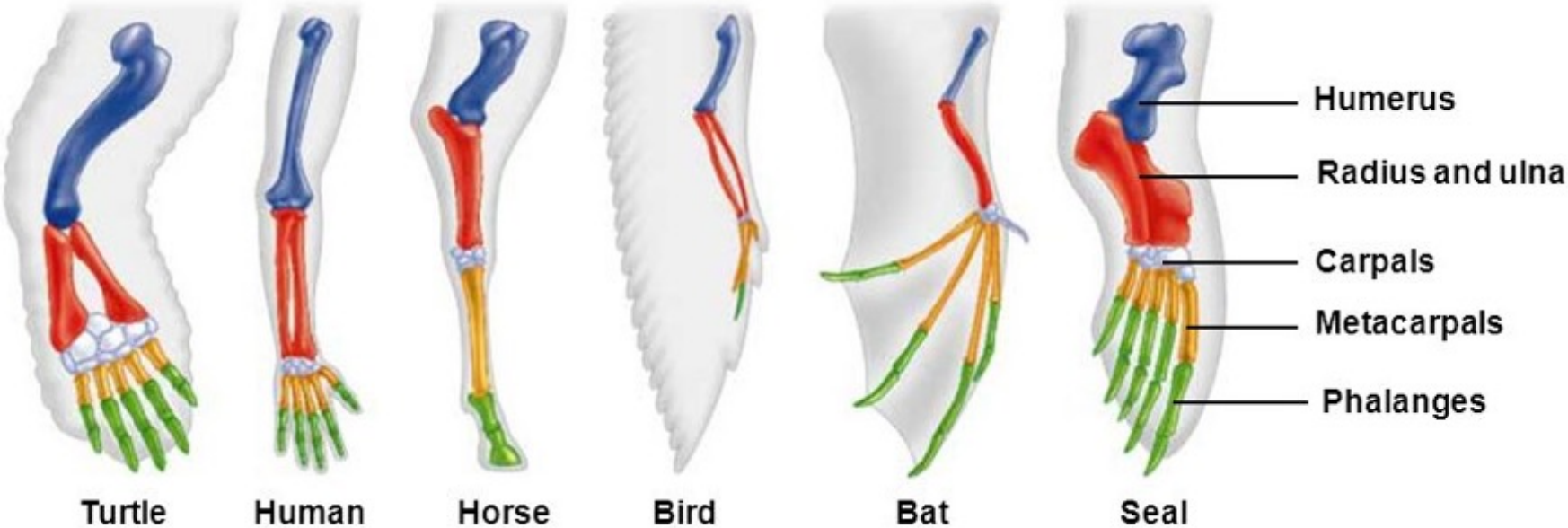
Carolus Linnéus (1707-1778) – a catalogue of God's creation

Charles Darwin (1809-1882) – speciation by descent



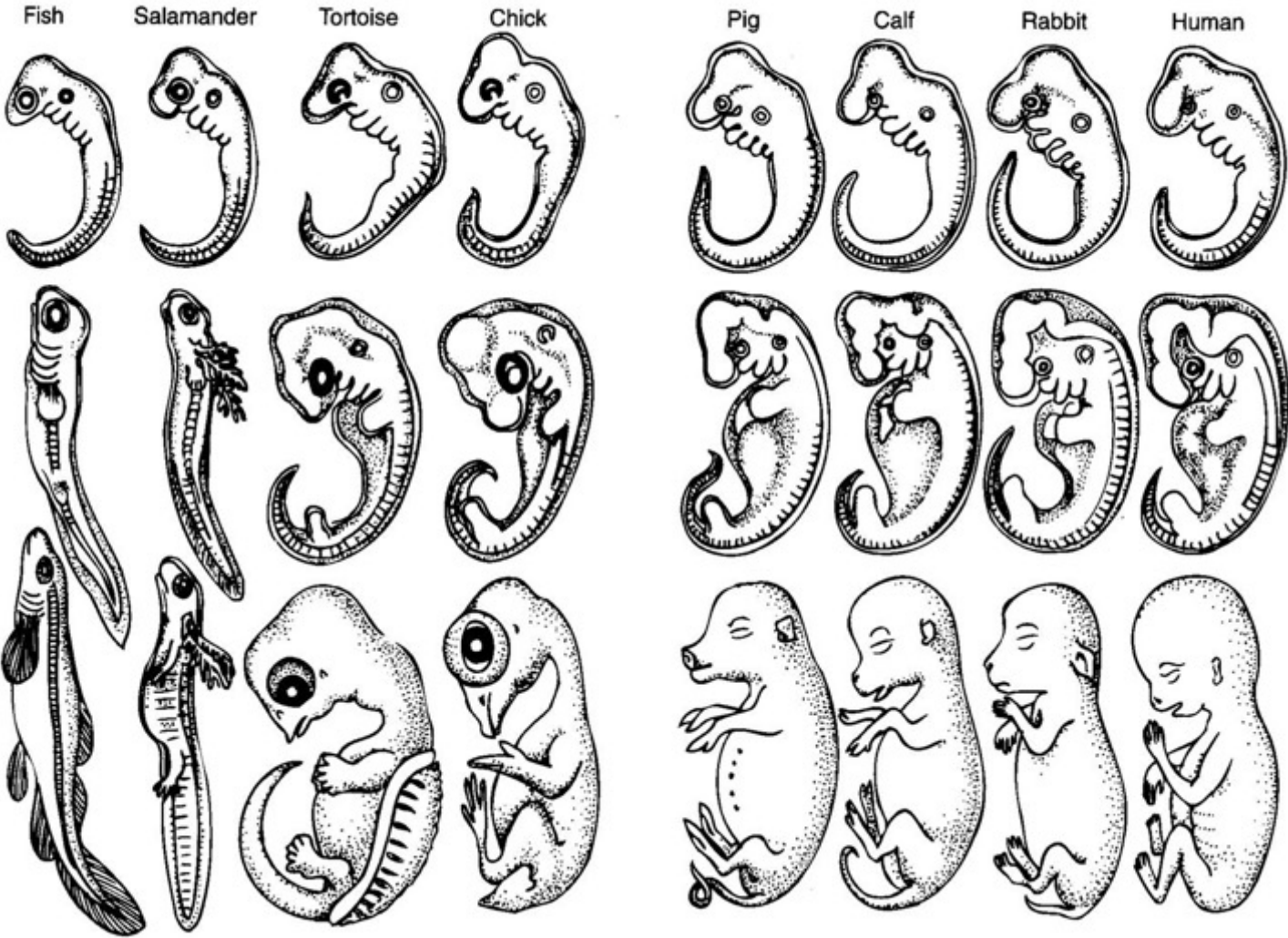


# Phylogeny: looking for similarities



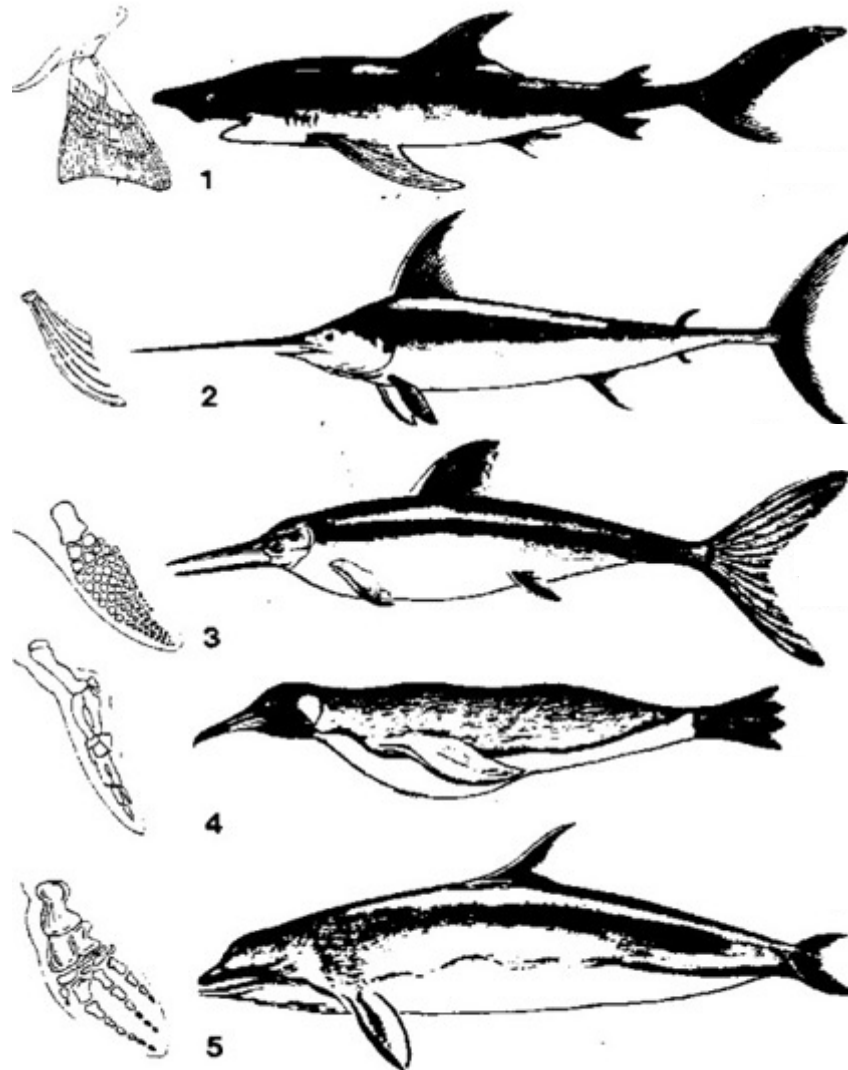


# Phylogeny: embryology



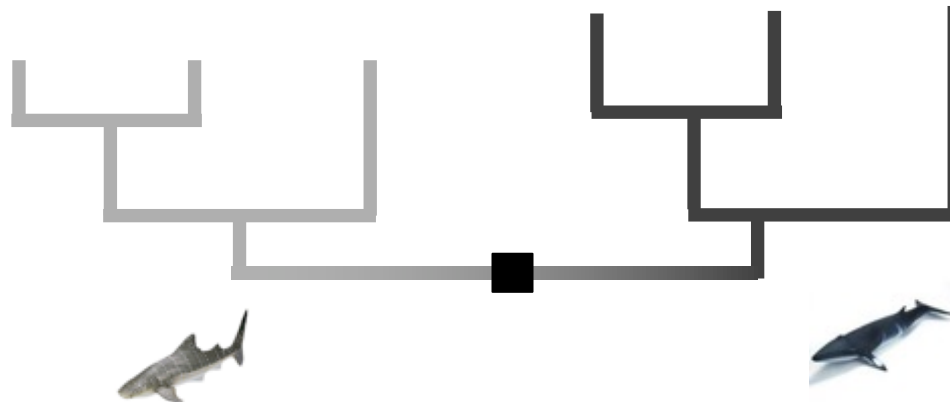
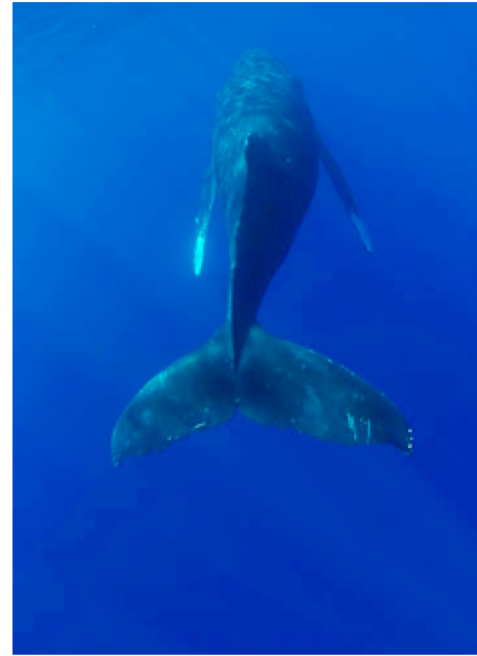


# Phylogeny: what about convergence ?

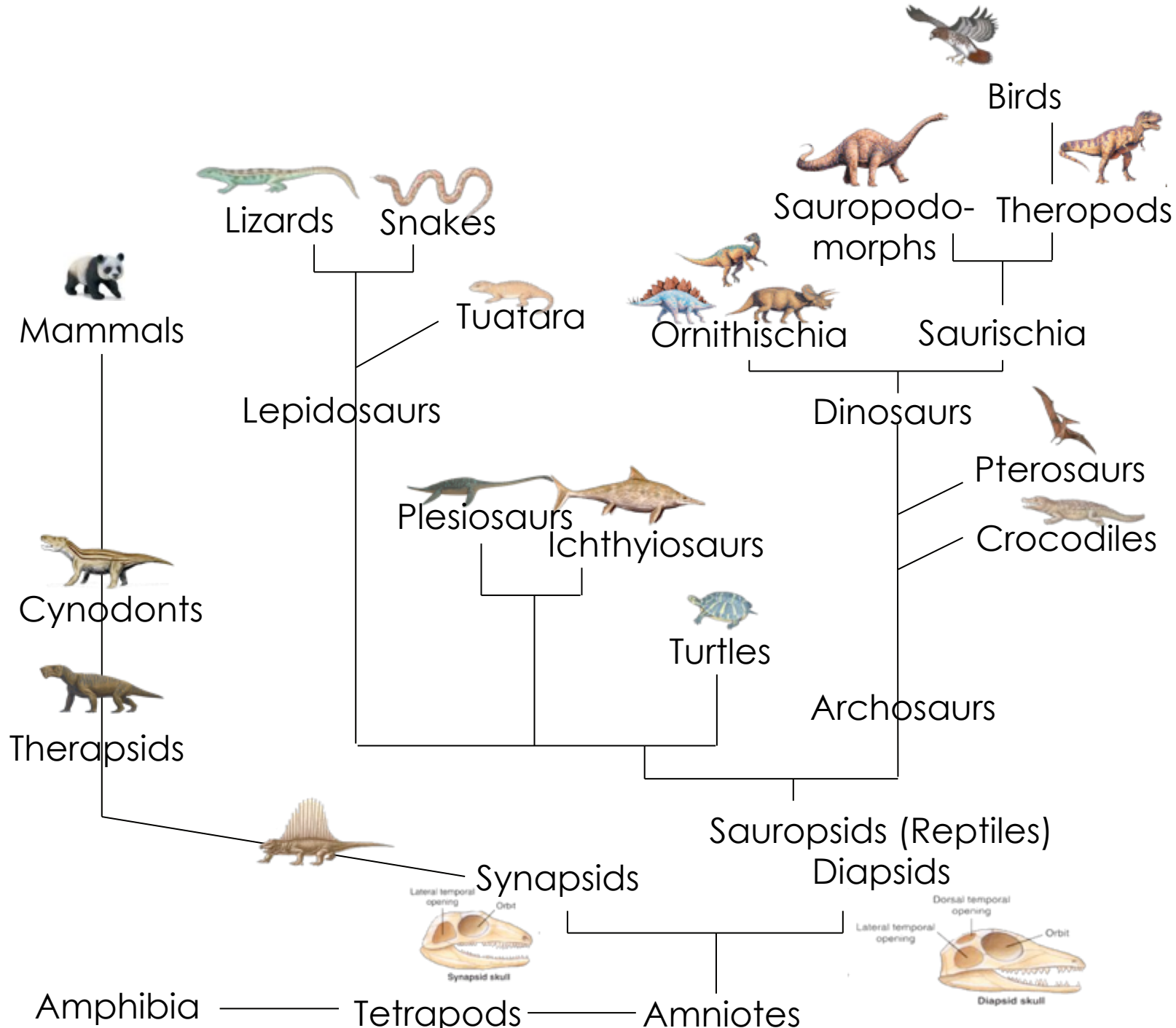




# Convergence and contingency

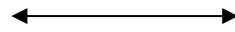








Marsupials

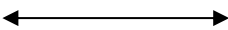


Eutheria





Marsupials

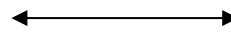


Eutheria



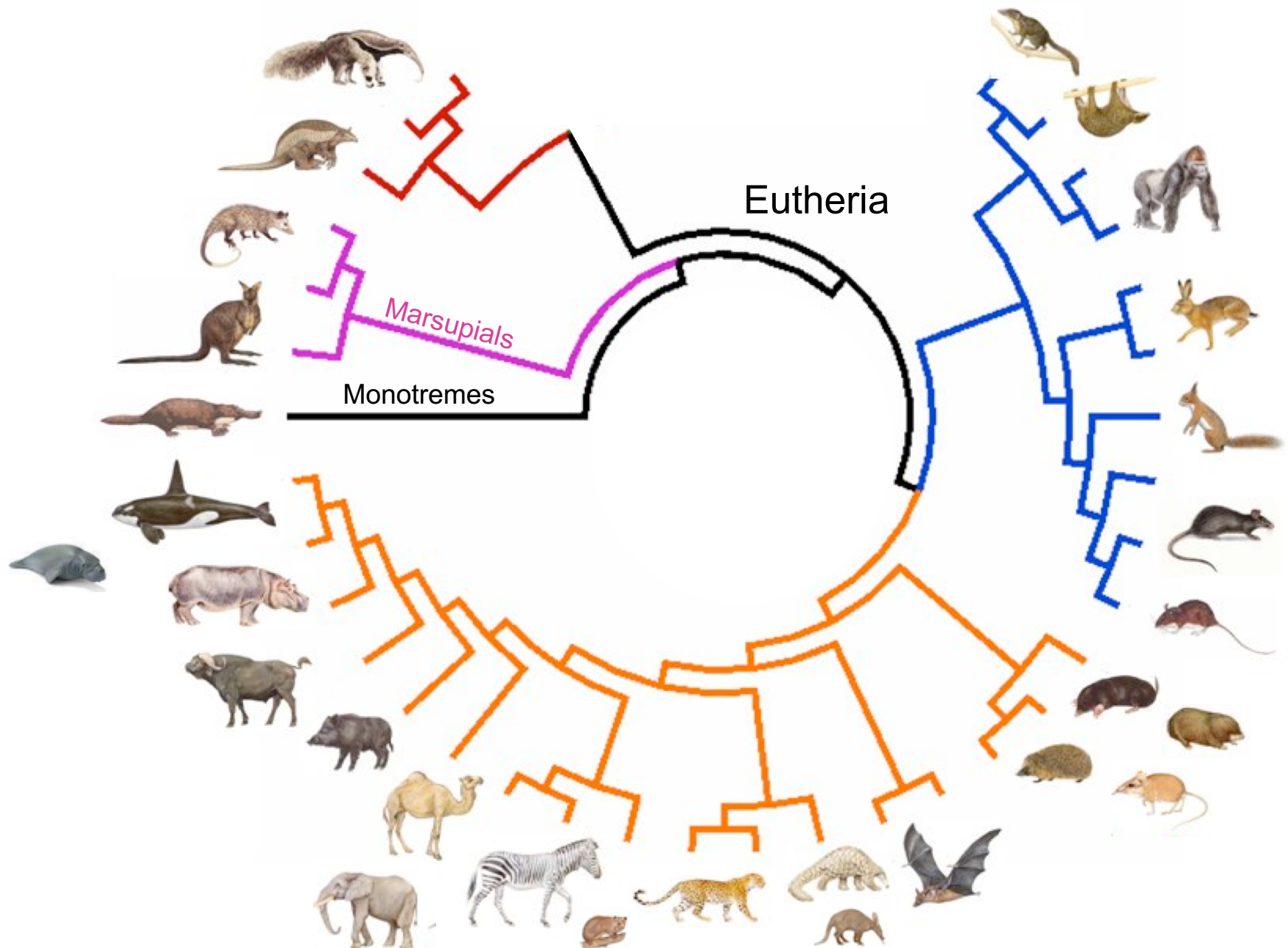


Marsupials



Eutheria







# Phylogeny: looking for similarities





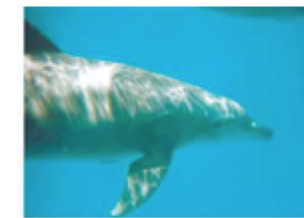
	Marsupials	Afrotheria	Boreoeutheria
			
			
			
			
			



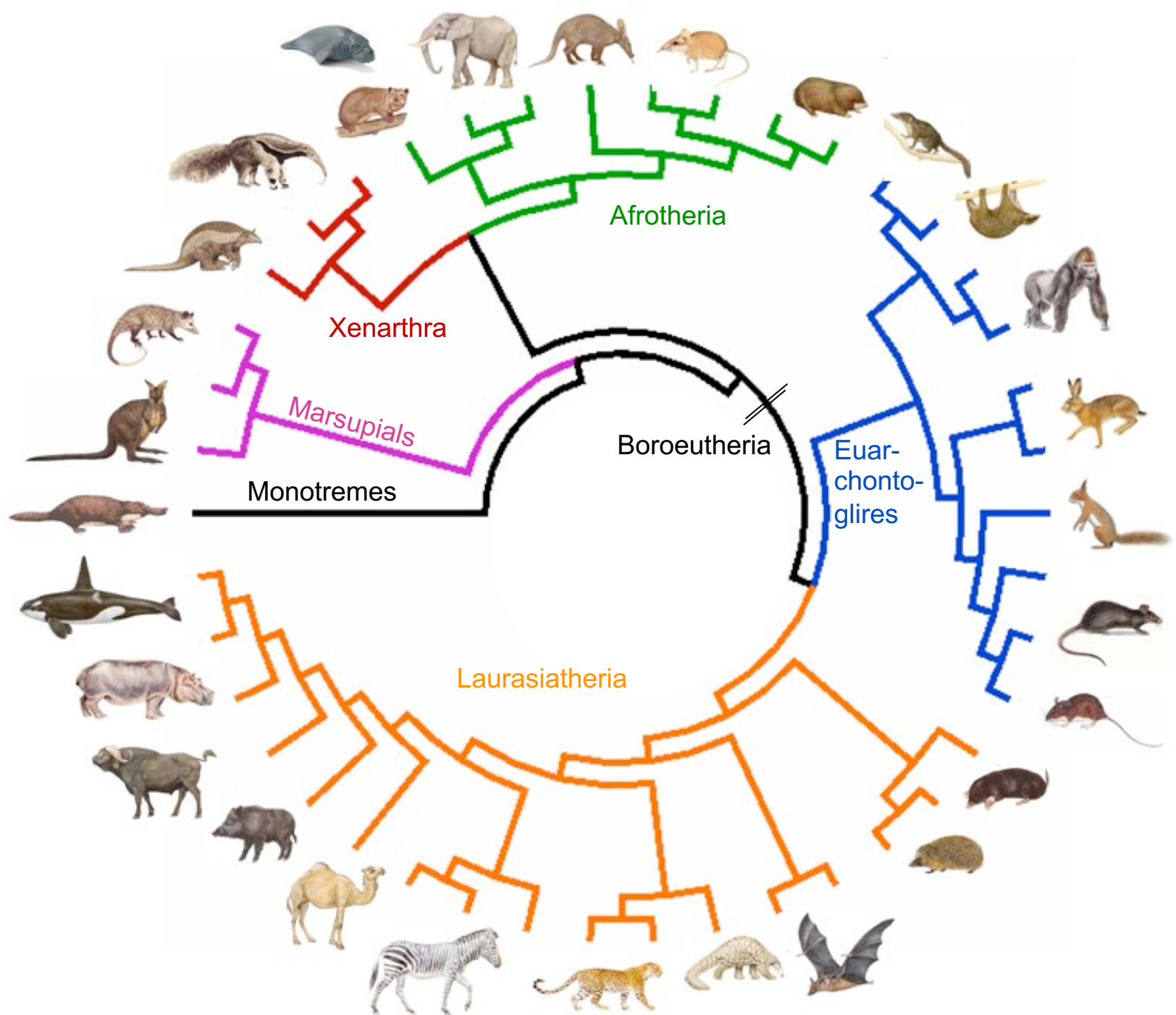
## Marsupials



## Afrotheria









***Thank you for your  
phylogeny attention***