

# Lines of evidence

## Morphological Evidence

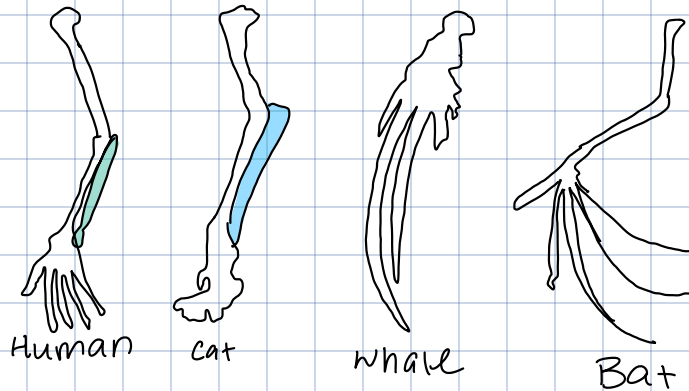
Shared deep body structures are evidence of shared ancestry

Appearance and function aren't necessarily

Morpho · logi · cal  
Body form

## Anatomical Record

- >> Homologous structures
  - ↳ Similarities in characteristics resulting from common ancestry
- >> Similar Structure
- >> Similar Development
- >> Different function
- >> Evidence of evolutionary relationship



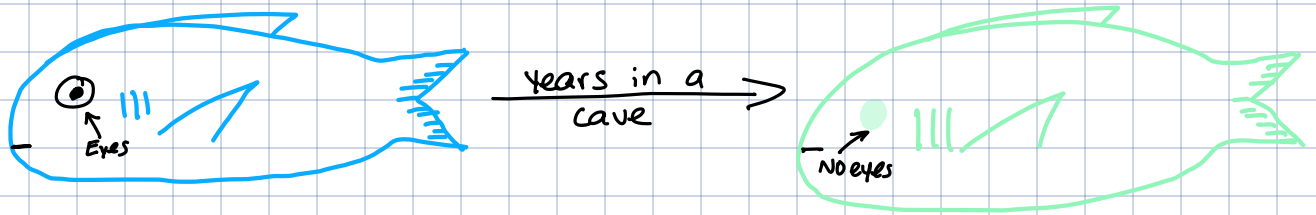
## Analogous Structures

- >> Separate evolution of structures
  - = Similar functions
  - = Similar external form
  - = Different internal structure/development
  - = Different origin
  - = No evolutionary relationship

Ex: Dolphin's and Shark's Dorsal Fins

## Vestigial Structures

- >> Modern structures that have reduced or no function = Deleterious mutation accumulate in genes for non-critical structures without reducing fitness



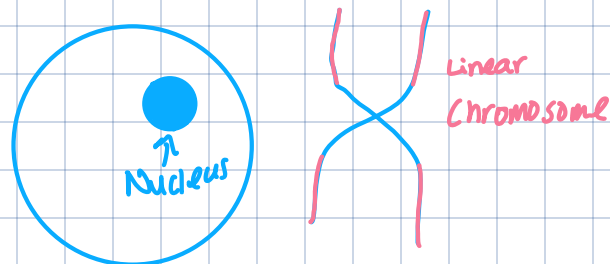
## Molecular Evidence

- >> Evidence from genes and proteins
- >> Most powerful and commonly used
- >> Data is so vast
- >> Easily Quantifiable

## Conservation

Highly saved organs/body parts

## Conserved Structures



## Molecule Record

- >> Molecular evidence demonstrates the relatedness of all life
- >> Universal Genetic code is the most conserved structure