Phanerozoic - Cenozoic

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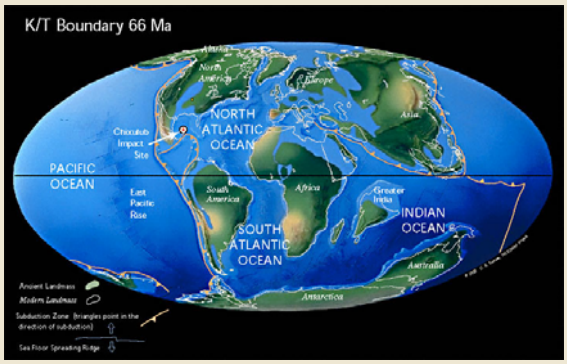

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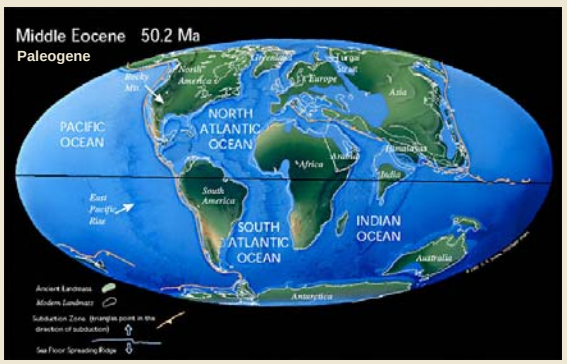

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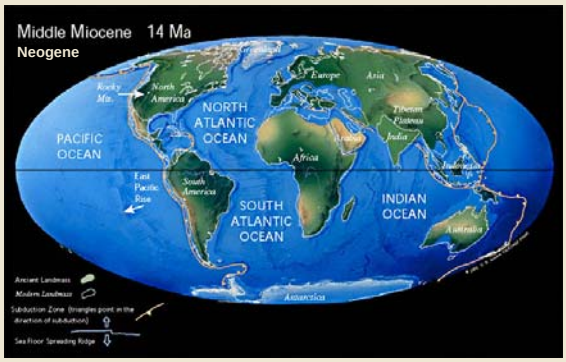

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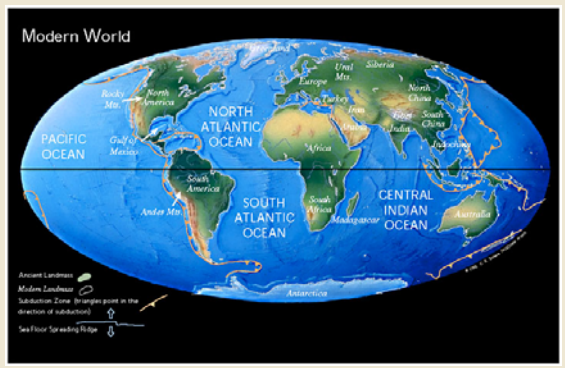

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Birds

Microraptor gui

Archaeopteryx,

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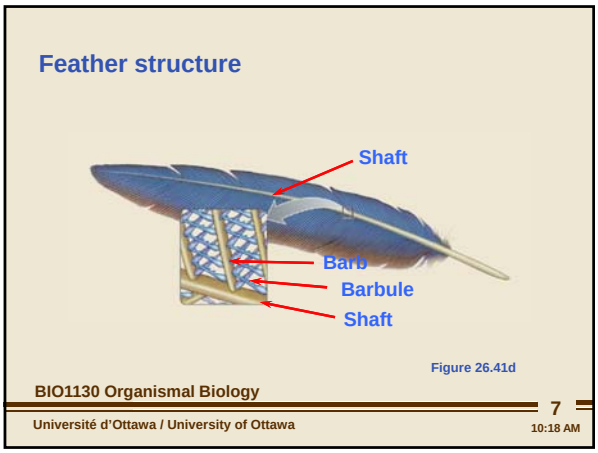
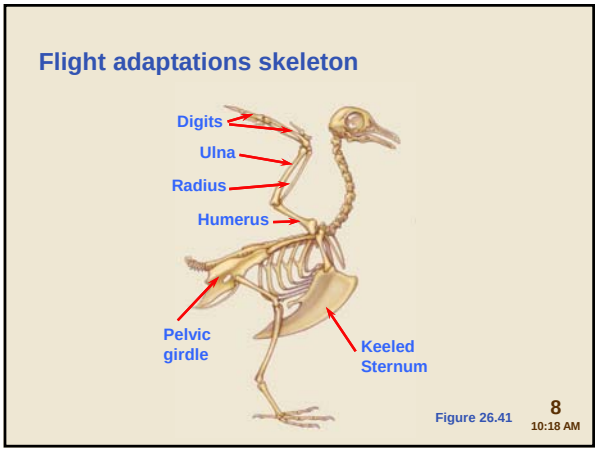
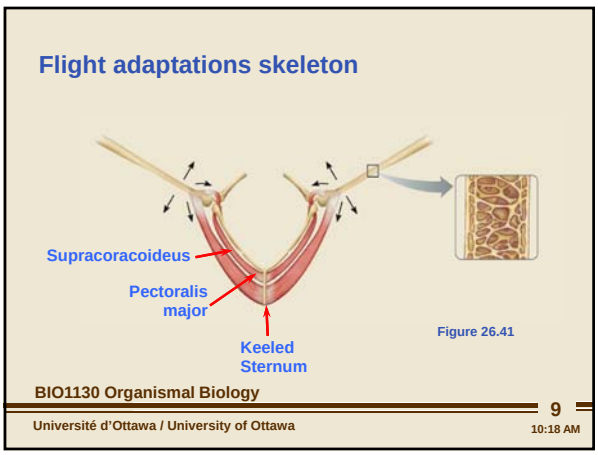


They create a ligth surface to push agains the air to cause lift (flying). The origonal advangtage was that they used their wings to sweep up insects. Eventually one went up in the air and eventually they flew. This is the the ground-up theory of flight and the tree-down theory of flight where it jumped out of the tree and glided dow.

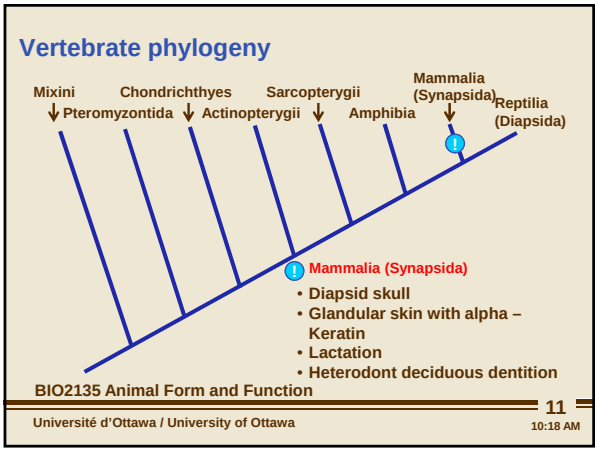


Birds have a massive reduction in bones for flight to make them lighter. Birds removed the teeth from their jaw in order to be lighter for flight.

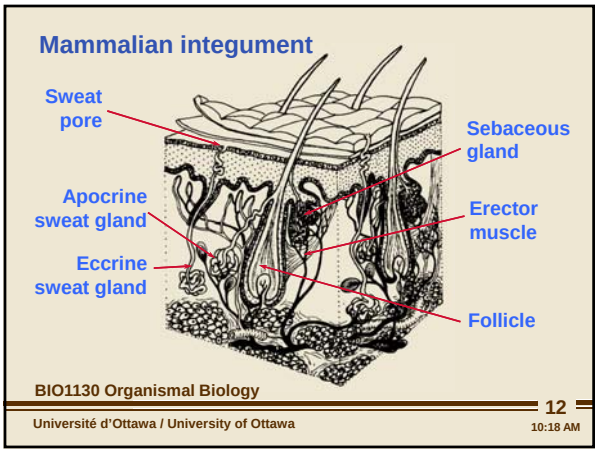


Birds have hollow bones and are warm blooded. Part of the early role of feathers was to create a constant body temperature.

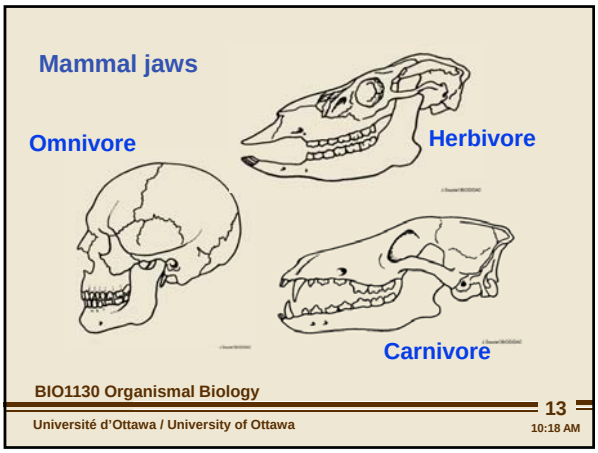
They invest large amounts of resources into only a few offspring.



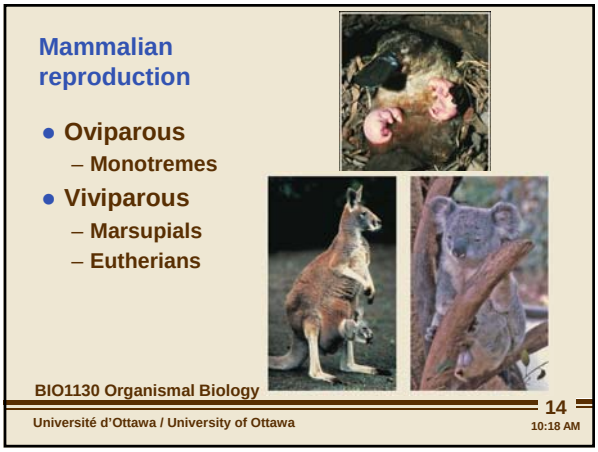
Took the glands that were used for sent and to keep hair yet and turned them into a feeding thing to feed young.



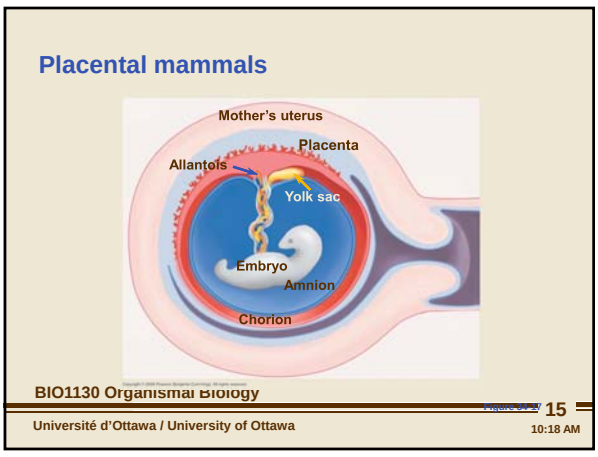
We have glands that release oils in order the keep the hair in our skins soft and supple. These glands also crate sweat in order to sweat and cool the surface of the skin.
The same hairs and glands will become the way to feed young through glandular secretions.



Mammals have specialized teeth that each have different functions
- heterodants: the skull keeps growing and as a consequence the jaw continues to grow and we need 2 rounds of teeth (deciduous).



The placental mammals have a barrier between the young and the body so that the body does not react and reject the baby. Marsupials live within the female and needs to come out to get the mammary glands outside but have a amine reaction.
We have a placenta to nourish our young.



Parental care

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Macroevolution

- Evolution above the level of species
- Includes
  - Adaptive radiations of taxa
  - Biodiversity changes over time (paleontology)
  - Extinctions
  - Speciation
  - Origins of novel structures

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