

The Evolution of the Wolf



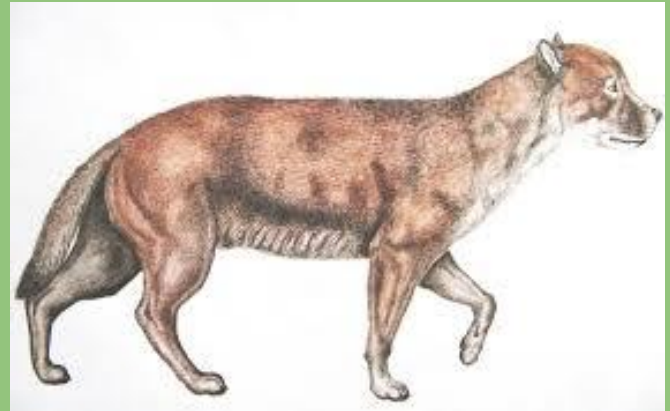
Miacids

The first wolves appeared in Eurasia, during Pleistocene about million years ago. Then they migrated to the North America about 750,000 years ago. Biologists believe that the wolves developed from primitive carnivores known as Miacids. Miacids appeared in the lower tertiary about 52 million years ago. The direct descendants of the Miacids today are called viverrids that also include the genet of Africa.

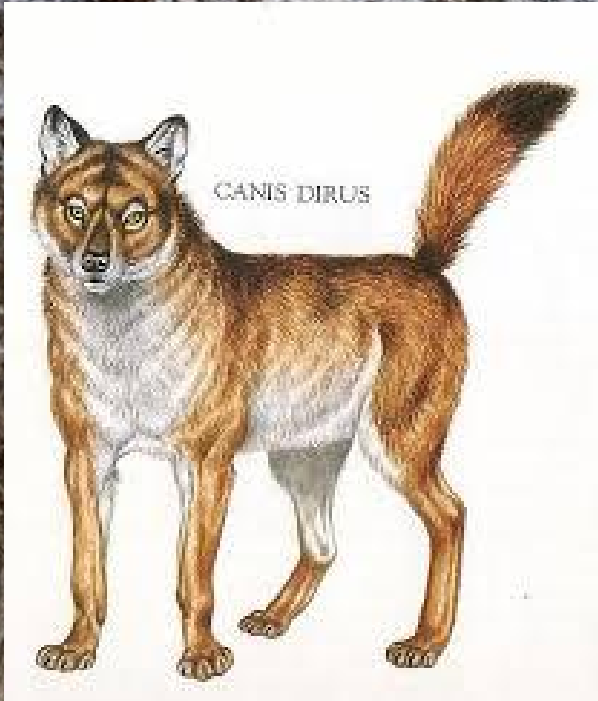


Borophagus

The wolf also evolved from a later species, the borophagus. The borophagus was around about 12 million years ago. This was a more dull looking and “hyena like” version of the wolf. It had a more highly evolved capacity to crush bone than earlier. During the Pliocene epoch, *Borophagus* began being displaced by *Canis* genera such as *Canis edwardii* and later by *Canis dirus*. Typical features of this were a bulging forehead and powerful jaws.



Canis Dirus



The wolves evolved from a species called Canis Dirus, this was a rather more robust form of a wolf. The dire wolf and grey wolf shared the same continent for nearly half a million years until the dire wolf and many Pleistocene species died off. This species had a skull shape similar to current wolves.

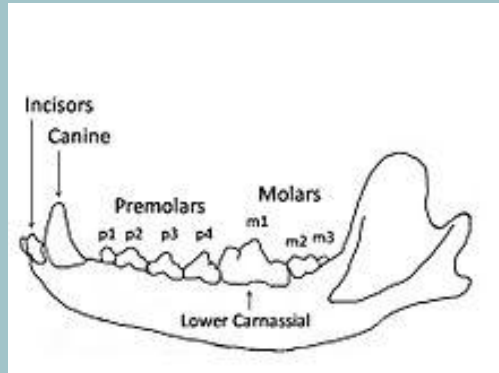
Why Wolves Have Changed Over Time

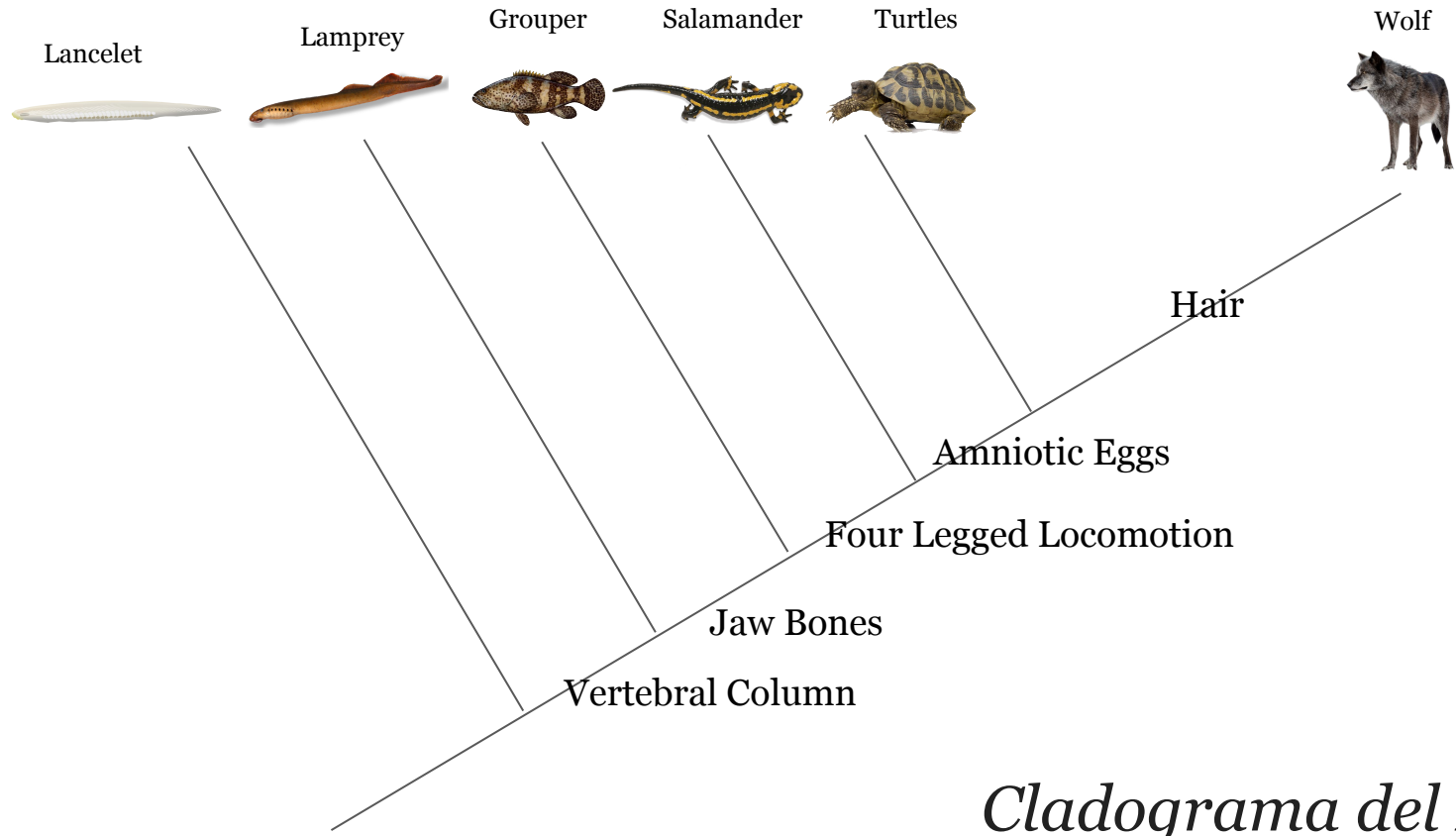
- 1.) The first wolves lived in grassland with summer temperatures of 60-73°F and winter temps of 21-22°F. They were omnivores because they had such an open environment, that hunting and finding plants were very easy. Later, wolves lived in open tundras where summer temperatures were anywhere from 40-51°F and winter temps were anywhere between -22-14°F. Because of the cold temperatures finding food was made easy for wolves because of the well preserved, frozen bodies of their prey. Now, wolves can be found in forests all around the world. Because of their environment being a forest where many other small animals live, hunting is also easy now for them.
- 2.) Natural selection is when a certain species or variation of a species is killed off/goes extinct solely because of the fact that it hadn't adapted to new environments or predators/prey. The early variation of the wolf died off because of the fact it had unreliable molars and not a lot of fur to keep it warm in the winter.

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3.)

1. The wolf needed to eat meat so it adapted to have stronger teeth meant for meat eating.
2. Temperatures got colder, so the wolf eventually grew a longer coat of fur.
3. The wolf eventually had a lower jaw so that it could eat larger prey.





Cladograma del Lobo

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Bibliography:

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