



EVOLUTION

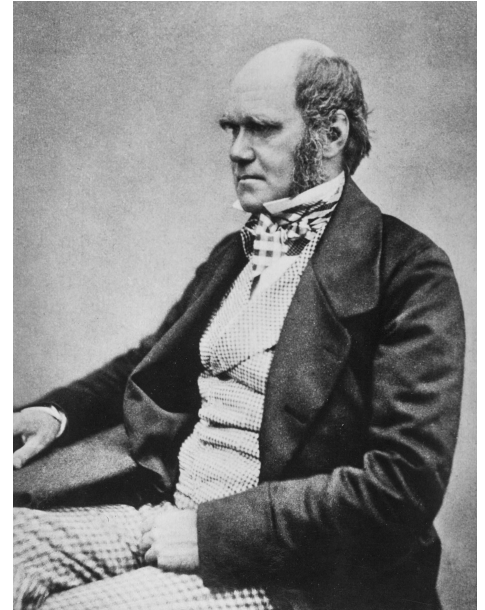
What factors influence evolution of a species?

CHAPTER 15.3 DARWIN PRESENTS HIS CASE

Darwin returned to England in 1836 (Beagle set sail 1831) with his new ideas about species' diversity.

“It was evident... that species gradually became modified...”

However, Darwin did not publish his work... instead he filed away his notebooks and told his wife to publish it in case he died before doing so.



In 1858, Darwin received a letter from a fellow naturalist, Alfred Russell Wallace, who also had been finding evidence of evolution.

This inspired Darwin to finally publish his research.

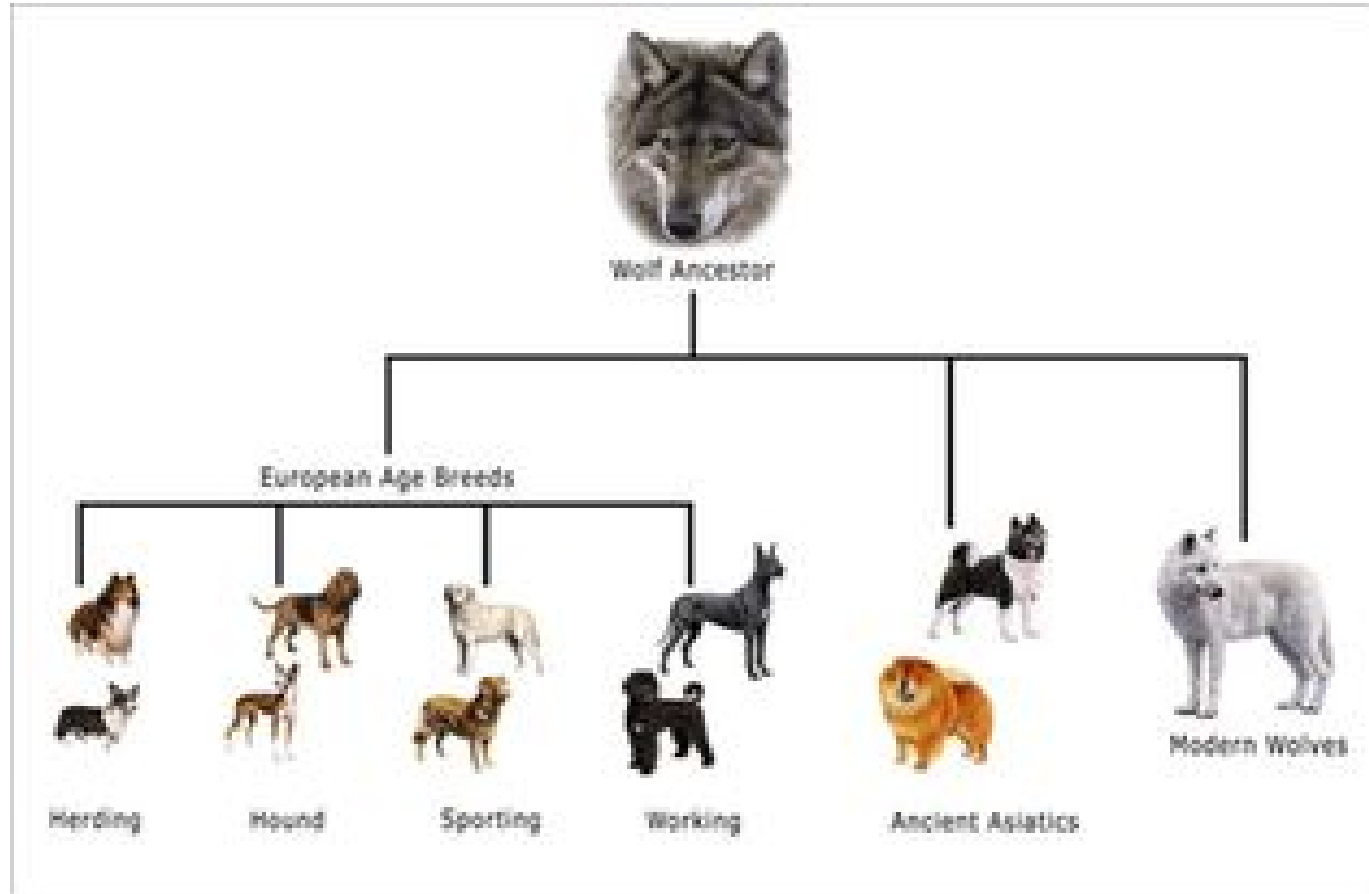


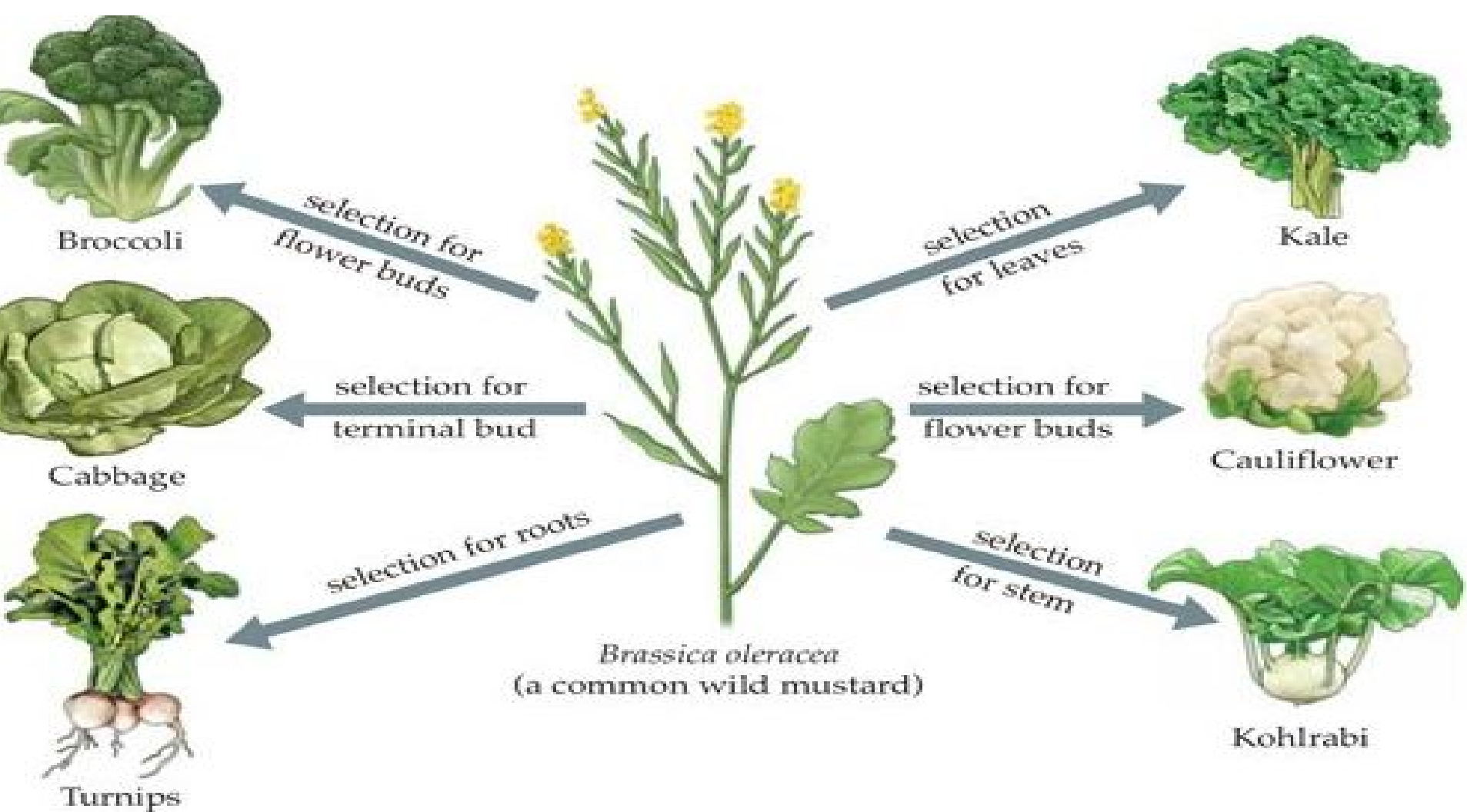
In 1859, *On the Origin of Species* was presented to the scientific community that proposed a mechanism for evolution he called **natural selection.**

Darwin noticed how plant and animal breeders used *heritable variation*.

Artificial Selection:

Nature provides variation (genetically) then humans select the variations we find most useful







Téosite



Maïs primitif

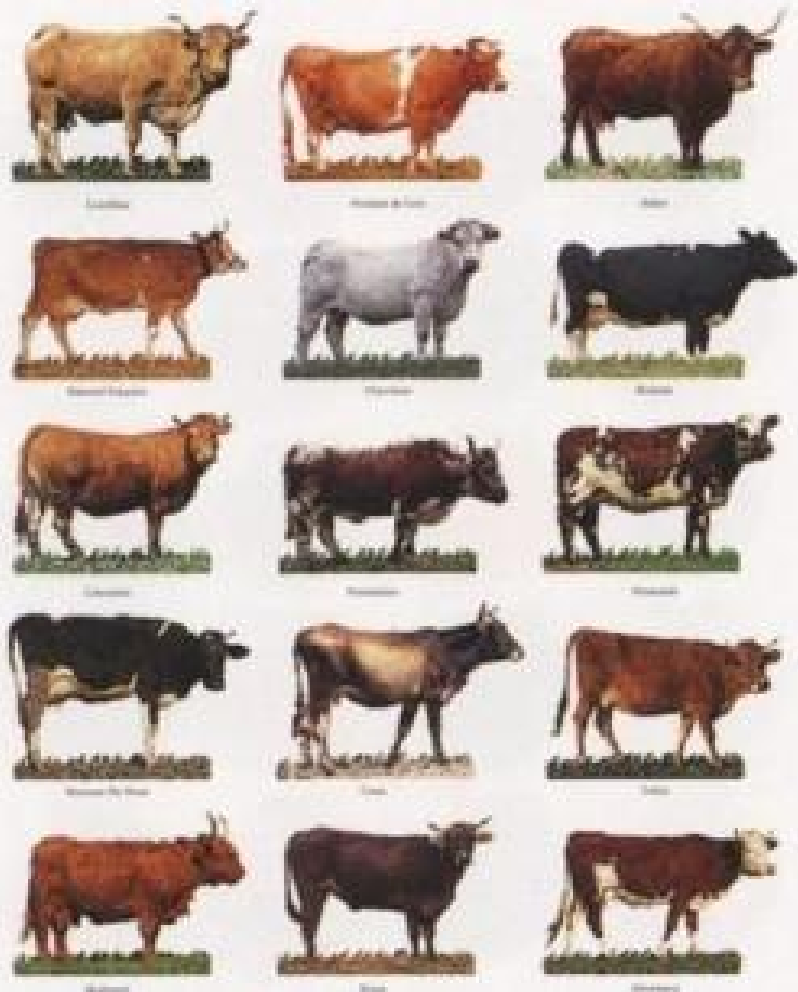


Maïs actuel

Sheep



LES VACHES / COWS



Darwin noticed there were several factors to consider when thinking about selection in nature...

1. **Reproduction**: high birth rates create many offspring
2. **Struggle for existence** means that members of each species compete regularly to get vital resources.



3. **Fitness**: the ability of an individual to survive & reproduce

4. **Adaptation**: an inherited characteristic that increases an organism's chance of survival

Survival of the Fittest



Natural selection: only certain individuals with favorable characteristics within a population would survive and reproduce.

This changes the whole population over a period of time.



For Example... the Rock
Pocket Mouse

<https://youtu.be/sjeSEngKGrq>