

## Coevolution

Repeated reciprocal selection leading to adaptation by interacting species

Coevolution of antagonistic relationships – “arms races”

- Predator-prey

- Host-pathogen – resistance

- Competition – character displacement

Mutualism – coevolution of symbioses

- Many examples

  - Plant-pollinator systems

  - Gut microbes assisting in digestion

  - Seed dispersal

  - Protection – e.g. Bullhorn acacia

Evolution by natural selection requires:

- Heritable variation

- Differential reproduction (fitness) depending on genotype

- Coevolution involves simultaneous natural selection with each species playing the agent of selection