

# Chapter 16 The Evolution of Populations and Speciation

## 16.1 Genetic Equilibrium

In a population, the occurrence of a traits variation is usually in the shape of a bell curve.

## Chapter 19 Introduction to Ecology

- The shared common group of genes in members of a population -
  - **Gene pool**
- Number of times allele occurs compared to other alleles for the same gene. –
  - **Relative frequency (Allele frequency)**
- Species –
  - Originally a group of organisms that looked alike. Did not recognize variation.
  - Genetic definition –
    - a group of similar looking *that is able to breed and produce fertile offspring.*
  - Could also look at chromosomes-DNA

## 19.2 Ecology of organisms

### Niche

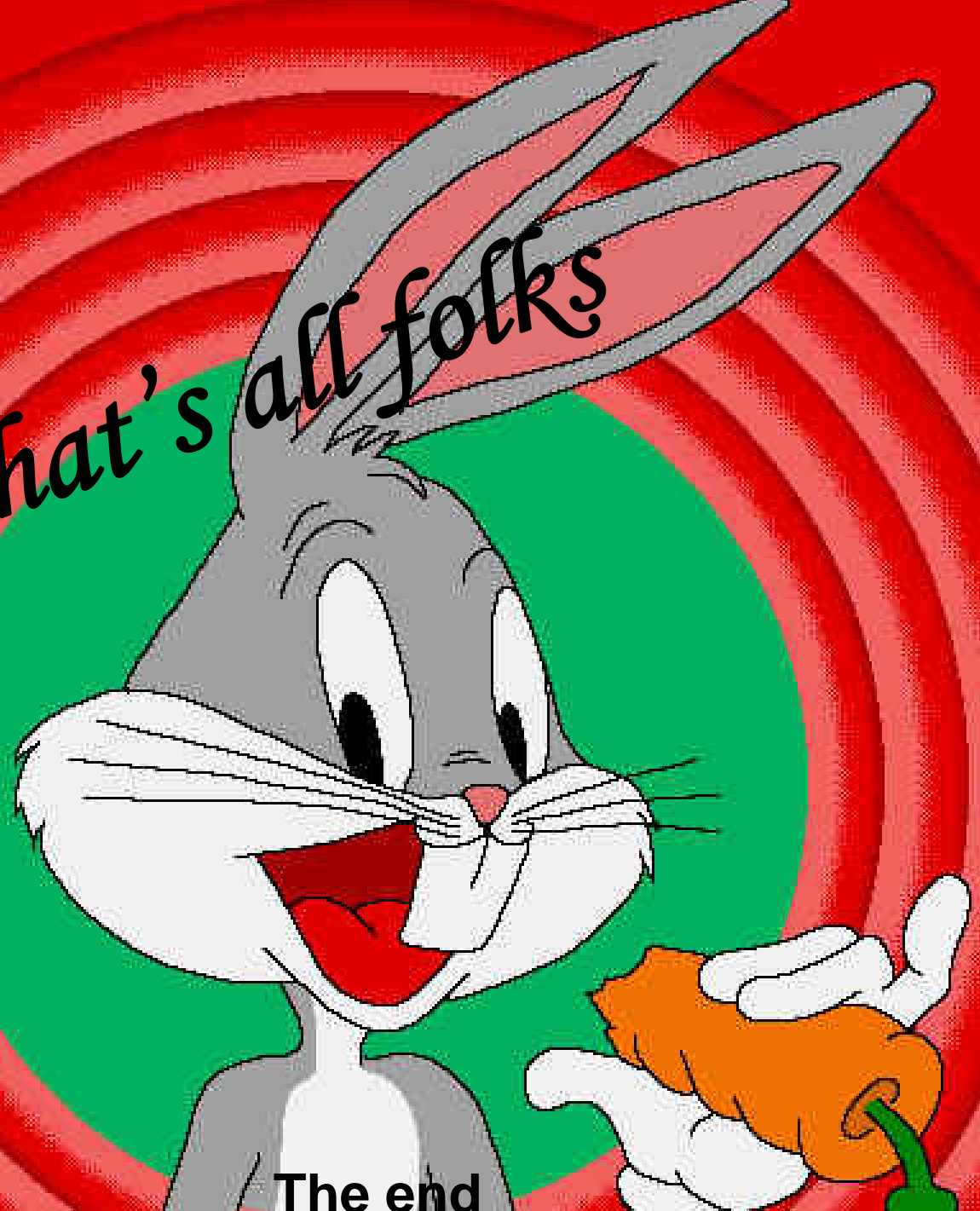
- an organisms “profession” –
  - job
  - what it does to live and where it lives.
- If two organisms have the same niche, they will compete for the same resources.
- This could lead to one organism being stronger, more prolific, and drive the other organism to extinction.
- (Variable- not mentioned is natural enemies- can equalize the competition)

# Speciation

- A new species evolves from an older one.
- Result of divergent evolution
- Ex. Darwin's finches.
- Process:
  1. Population has to be separated.
  2. Changes in gene pool by natural selection
  3. Reproductive isolation.
  4. Fitness to environment



*That's all folks*



The end