# Class 14a: Biogeography

### Biogeography

- What is the range of a species?
- Why does it have that range?

• So what?

### **Evolutionary development**

• Darwin's theory of natural selection

# Migration or dispersal

#### Extinction

• Environment may change faster than evolution

### Competition and cooperation

### Competition and cooperation

#### Plant basics

#### Plant adaptations

• Xerophytic adaptations: for dry conditions

#### Plant adaptations

• *Hygrophytic* adaptations: for wet conditions

• Succession and climax vegetation

• Forests:

- Woodlands:
- Shrublands:

• Grasslands:

- Deserts:
- Tundra:
- Wetlands:

• Vertical zonation:

Microclimates

• Riparian

#### Animal basics

• What's an animal?

# Animal adaptations: physiology

### Animal adaptations: behavior

# Animal biogeography

#### Wallace Line

- Based on plate tectonics, ice ages
- Alfred Russel Wallace (1860s)