



Climate Change & Plants and Arthropods

- **Climate change** refers to the **increasing changes in the measures of climate** (e.g., wind patterns, precipitation, temperature, extreme weather, lengths of seasons, etc.) **over long periods of time**. Global warming, the increase in Earth's average temperature, is only one aspect of climate change.
- Arthropods (e.g., insects, spiders, crustaceans, etc.) **make up more than 80% of all described living animal species on the planet**. As such, they are found in a wide range of habitats and occupy a large variety of ecological roles.
- Many insects are important pollinators, so changes in their abundance and distribution will **greatly affect plant populations, including agricultural crops**.
- As temperatures are increasing, researchers have found that **disease carrying insects** like ticks, fleas, and mosquitoes are **moving into new territories and increasing the spread of diseases**.
- Changing temperatures and seasonal cycles have a large impact on **plant growth (phenology) and distribution**. Growing zones for flowers, shrubs, and trees have been shifting northward.
- Shifts in climate patterns can **alter rainfall and soil type**, which will influence plant distributions and **shift growing seasons**.
- Changes in plant phenology and distribution have important implications for their local ecosystems, but also for the **agricultural industry**.