

# Tree and Shrub Green-Up Protocol

## Field Guide

### Task

Observe and record green-up in trees and shrubs.

### What you Need

#### First visit only

- |                                                     |                                                    |
|-----------------------------------------------------|----------------------------------------------------|
| <input type="checkbox"/> <i>Green-Up Data Sheet</i> | <input type="checkbox"/> Fine-tip permanent marker |
| <input type="checkbox"/> Pencil or pen              | <input type="checkbox"/> Camera                    |
| <input type="checkbox"/> Ruler with mm units        | <input type="checkbox"/> Compass                   |

#### Every visit

- |                                                     |                                              |
|-----------------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> <i>Green-Up Data Sheet</i> | <input type="checkbox"/> Ruler with mm units |
| <input type="checkbox"/> Pencil or pen              |                                              |

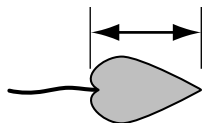
### In the Field

#### First time only/getting started

1. Complete the upper portion of your data sheet.
2. For the selected tree or shrub, locate the bud at the end of the branch. Label this bud by marking one dot on the branch next to the bud.
3. Locate the three other buds closest to this bud. Label these buds by marking two, three, or four dots next to them.
4. Take a photograph from the center of your site looking in the north, south, east, and west directions.

#### Every visit

1. Examine each bud.
  - Record “dormant” if the bud is unchanged.
  - Record “swelling” if the bud is getting bigger.
  - Record “budburst” the first day you see the green tips of leaves.
  - Record “lost” if something happens to the bud and you cannot continue observations.
2. After each budburst, use a ruler to measure the length of the leaf or leaves. Do not include leaf stem or petiole in your leaf measurements.



3. Measure the leaves until the leaf length stops increasing. Different leaves may stop growing at different dates.