

**Instructions for using GPS to record latitude, longitude, and elevation of study sites. The objective is to obtain the latitude, longitude, and elevation for each site (student backyard) where we will be measuring leaf and bird phenology. It should only take about 10 minutes. You will have to pass the GPSs around until everyone has taken one home for one day.**

Bring a GPS home with you. (Garmin GPSmap 76C).

Record below your name and address.

Record below the GPS ID Number.

Take the GPS outside and turn it on.(2nd button from bottom on left).

Give the GPS 5-10 min to lock on to the satellites.

You can toggle through about 5 different pages with the key labelled "Page" (one will show your position on a map; you can zoom in and out with the "zoom" keys; before you are locked on there will be a question mark on the screen)

Take the GPS unit to within 20 meters of your study tree.

Depress and hold (for a couple seconds) the "Enter/Mark" key. This will take you to the menu for creating a waypoint.

Press the "enter" key when the "curser" (yellow box on screen) is on "OK". This should be the default.

Now the number of your newly created waypoint should appear on the map.

Record below the number that the GPS assigned to the waypoint (e.g., 402; these numbers are auto-incremented so each waypoint gets a unique number).

Record below the date and approximate time when the waypoint was collected.

You can turn off the GPS (2nd button, bottom left).

Return the GPS to the classroom.

**Add entries for the fields listed below to the common data sheet in the classroom.**

You are done.

Later we can download the latitude, longitude, and elevation into a computer file that we can use to make maps.

| Descriptive site name<br>(Student last name and address) | GPS waypoint<br>number<br>(e.g., 902) | GPS ID<br>(e.g., GPS-2) | Date & Time of<br>waypoint<br>(e.g., 4-12-08<br>6:40 p.m.) |
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