

Invasive Plant Species Protocol

Site Definition Field Guide

Task

To set-up, locate (latitude, longitude and elevation), draw, describe and take photographs of your invasive plant species site.

What You Need

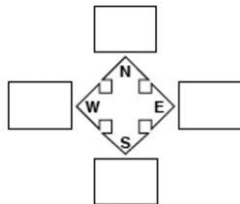
- GPS receiver
- Basic GPS Field Guide*
- GPS Data Sheet*
- Topographic map
- Compass
- Digital camera (with extra batteries)
- Invasive Plant Species Protocol Site Definition Sheet*
- Surveyor's stakes (5) and/or tape
- Ball of twine or string (~350 m)
- 50 m tape measure
- Clipboard
- Pencil or Pen

In the Field

1. Identify and set-up the Invasive Plant Species study site:
 - a. Mark out the corners of your study site. This can be done by using surveyor's flagging to "mark" trees or shrubs or by driving surveyor's stakes or GLOBE flags into the ground. If desired, use the string to define the perimeter of the site. Mark the center of the plot.
 - b. If you are going to monitor the site over time using photographs, identify the locations from which the photos will be taken. It is highly recommended that the vantage points be marked with a surveyor's stake or tape and the exact relationship between the stake and the photographer be noted (i.e., in front of, behind, left side, etc.).
2. After the observation site is set-up, complete the top of the Invasive Plant Species Protocol Site Definition Sheet.
3. Provide an adequate description of how to get to the site. This should include the best route to drive/walk from a well-known landmark (the school, major cross roads) to the site
4. Identify the latitude, longitude and elevation following the *Basic GPS Measurement Protocol* **OR** use a topographic map to determine this information.
5. Determine the slope of the area, in degrees, using a clinometer.
6. Determine the slope aspect using a compass. Do not forget to correct for the magnetic declination (corrections can be found on topographic maps).

7. If you have a GLOBE Atmosphere site within 100 m of your Invasive Plant Species observation site then record its name (ATM-99) and measure:
 - Distance to Atmosphere site from the Invasive Plant Species site
 - Direction to Atmosphere site from the Invasive Plant Species site
8. Determine the **biome** of the site:
 - a. Determine the NATURAL biome of the site. This is what the site would be classified as if there were no human activity in the area. Go to the GLOBE Seasons and Biomes website for descriptions and pictures of the major biomes.
 - b. Describe what kind of human modification has occurred at the site (urban, sub-urban, rural, industrial, agricultural or no alteration).
9. Describe the site in terms of its geography, general topography, dominant vegetation, etc. Draw a “plan view” of the site describing the major landmarks like roads, buildings, obvious trees, etc. AND/OR download a topographic map or airphoto from <http://teraserver-usa.com/> (USA sites) OR a satellite subscene from Google Earth. **Include the locations of your vegetation sampling sites.**
10. Take a standard set of photographs. The site photos will be taken from the center of the site looking North, South, East and West.

PHOTO NUMBER AND ORIENTATION



Photographs will be stored in the database at a size of not more than 1000 pixels wide, so they should be taken at the closest resolution of your camera to this size.

11. If you are going to monitor the site over time, you want to have a supplementary standard set of images. (See *Invasive Plant Species Protocol* for suggested photograph scenarios.)

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12. Extra (optional) observations may include such things as:

- Hydrologic regime for wetlands.
- Basic soil profile description.
- Soil texture.
- Soil drainage: Soil drainage will be estimated in the field using topographic position, soil texture, and apparent moisture regime.

Commented [e1]: I think this #12 needs to go in the Invasive plant species protocol not in the site definition field guide because these are already developed field guides for these optional observations/protocols.

In the Classroom

13. Download and rename the site images.

14. Complete the *Invasive Plant Species Investigation Site Definition Sheet* and submit all of your data to GLOBE.