

Field Reconnaissance: Mapping Invasive Weed Patches

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Field reconnaissance is a preliminary survey of your approach to conducting invasive plant mapping. This process is broken down into three basic areas:

1. Areas (e.g., units) of the refuge
2. Mapping an Area: access, approach
3. Mapping individual patches

*** Field reconnaissance should follow a thorough understanding of priority invasives for mapping and seasonality of mapping (e.g., when is the best time to map a particular invasive). You may decide to map all invasives within a small number of priority areas first or take the approach of mapping one or two priority invasives across all areas.

1. Areas

Prioritize areas that should be mapped on the refuge (as defined in WIMS). Prioritization may be based on a number of factors such as known invasive presence, limited time windows of access relating to sensitive species (e.g., nesting season), sensitive habitats, or activities (e.g., hunting season).

In some cases it may be determined that remote sensing or aerial photo interpretation is an appropriate method for capturing invasive plant cover in particular areas of the refuge. In these cases, field-based mapping can be used as a method of accuracy assessment of remote techniques or to supplement remote techniques in cases where density of invasive cover is low.

2. Mapping an Area

Examine maps and aerial photos of each area and develop the best approach to complete a full survey for invasives. This includes determining how to best access an area or identify multiple access points that may be required to complete a survey. This step saves time in the field, avoids confusion in the field, reduces error, and increases safety. This step may also identify when

additional equipment is needed (e.g., ATV, canoe, kayak, etc.). Be sure your mappers understand the approach developed before going into the field.

3. Mapping Individual Patches

A little field reconnaissance goes a long way when you first encounter an area containing invasive plants.

Defining the edge of a patch. It is important to get an idea of the patch edge before data collection. In some cases, the invasive is tall and easily identified from a distance. In this case, a pair of binoculars may suffice. It is much more difficult to define patch edges in cases when an invasive plant is of low height and intermixed with other plants of similar height. In these situations you may want to use flagging to identify patch edges.

Invasive plant density. As you define the edges of an invasive plant patch it may be evident that %cover or density varies greatly. You may decide to create a set of patches to capture the sections where cover is consistently 100% or consistently <10%. These types of splits will lead to better estimates of infested areas for control.