

Spotted knapweed



Japanese knotweed



Canada thistle



Orange hawkweed



Bull thistle



Tansy ragwort

## What are Invasive Plants?

**An invasive species is defined as a species not native to the region or area whose introduction (by humans) causes or is likely to cause harm to the economy or the environment, or harms animal or human health.** This definition encompasses all types of invasive species—plants, animals, and microorganisms. Invasive plants can displace native vegetation that provides food for wildlife and humans. Invasives can alter habitat by colonizing streams and riparian areas and can shift the natural succession patterns following forest disturbances.

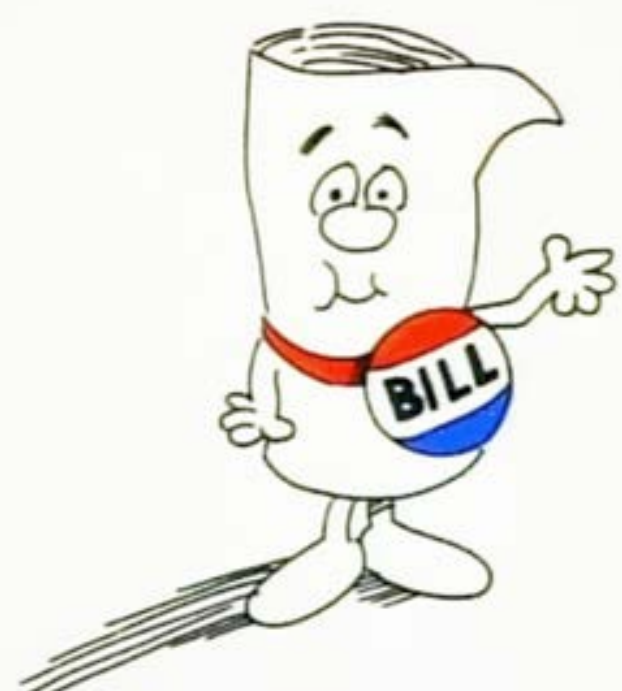
Currently treatment efforts are focused on ten high priority species including thistles in the Logjam watershed and Control Lake area, spotted knapweed near Exchange Cove and populations in the Big Thorne project area. Project management includes mitigation measures to reduce the spread of invasive plants and targeting treatment of known populations. Current treatment efforts are limited to manual removal of plants. Some species have expanded beyond reasonable control measures and are only targeted in isolated areas.

### Effects on Wildlife

- Loss of food and forage
- Loss of nesting habitat
- Increased predation
- Barrier to fish migration and less spawning area
- Lower diversity of wildlife
- Competition for pollinators
- Changes in water flow and availability
- Injury from barbed seeds
- Decreased nutrition

## Laws & Regulations Concerning Invasive Plants

**Executive Order 13112 (1999)** directs federal agencies to (i) prevent the introduction of invasive species; (ii) detect and respond rapidly and control populations of such species in an effective and environmentally sound manner.



### Forest Plan Standards & Guidelines include:

**Invasive Species Prevention:** For all proposed projects or activities, the responsible line officer will determine the risk of invasive species (flora and fauna) introduction or spread and the need to implement appropriate mitigation measures.

**Invasive Species Early Detection and Rapid Response:** Treat priority species infestations as practicable, using an integrated pest management approach.

**Invasive Species Control and Management:** Reduce population sizes and/or limit the spread of Priority Invasive Species on the Tongass National Forest through the use of an integrated pest management approach.

## Common Invasive Plant Treatment Options

**Manual pulling/Cultural controls** – Effective for small populations of annuals and biennials (bull thistle, spotted knapweed, tansy ragwort). Ability to target individual species. Limitations include labor and time intensive, can cause significant soil disturbance in denser patches and can increase the risk of spread for rhizomatous species.



**Tarping/solarization** – Effective on smaller patches and can be used on annuals and perennial species. Limitations include difficulty in maintaining the coverage. Non-specific so typically limited to use on monocultures like Japanese knotweed. Treated area may need to be seeded to promote native re-vegetation.

**Herbicides/Chemical** – Effective on rhizomatous species (Canada thistle, Japanese knotweed, orange hawkweed), cost effective when treating larger populations, different chemicals can selectively treat certain plant groups. Limitations include toxicity concerns, potential damage to non-target plants, weather conditions can limit use and restrictions near waterbodies.

