Garlic mustard: *Alliaria petiolata*

Biennial herb, 1 to 4 feet high, with small white flowers and narrow tubular fruits. The leaves are heart-shaped, coarsely toothed, and smell like garlic when crushed. This is a highly invasive understory herb that out competes spring wildflowers. Garlic mustard is not currently known to occur in Wilderness areas of the Hiawatha National Forest. Please watch for this species, and report any new sites to the Forest Service!

**European swamp-thistle: *Cirsium palustre***

Spiny, narrow plant, to five feet tall. A prolific seeder, this plant is becoming abundant in the Upper Peninsula. Other non-native thistles that may be in Wilderness include Canada thistle and bull thistle. European swamp thistle can be recognized by its spiny leaves and stems, clustered small heads with purple flowers, and no spines on the flower heads (unlike bull thistle). Cleaning your boots and equipment before you enter a Wilderness area can help keep this plant from spreading.

**Purple loosestrife: *Lythrum salicaria***

Square-stemmed perennial, 3 to 5 feet tall. The purple flowers have 5 to 7 petals (unlike the native fireweed, which has 4). Purple loosestrife has escaped cultivation and is found along stream banks, lakeshores, wet meadows, and ditches. A single plant can produce 2.5 million seeds, which can be transported great distances by humans, animals, water, and wind. Lake-shores and stream banks are vulnerable to invasion by this species, so watch for and report sightings.

**Japanese barberry: *Berberis thunbergii***

Small shrub, 2 to 4 feet high, with yellow flowers, small spoon-shaped leaves, and short sharp spines. Egg-shaped fruits are green when young and turn red in the fall. Japanese barberry can form spiny, impenetrable thickets in forests and openings. This shrub is planted for home landscaping, and birds spread the seeds to remote locations. Please report sightings of this shrub and help slow its spread.

**Eurasian water-milfoil: *Myriophyllum spicatum***

This submersed aquatic plant forms thick weed beds, and can harm lake quality and fish habitat. Eurasian water-milfoil typically has 12 to 21 pairs of leaflets on each leaf, while the similar native northern water-milfoil usually has 5 to 10 pairs of leaflets per leaf. A single segment of stem and leaves can take root and form a new plant, so fragments clinging to boats and trailers spread this weed. Check your boating and fishing equipment to prevent the spread of this aquatic invasive plant.

**Spotted knapweed: *Centaurea stoebe***

Much-branched wiry stems with pinkish-purple, thistle-like flowers and leaves that are covered with downy grayish hairs. Since its introduction from Europe, this species has become problematic and widespread. It is unfortunately common along roadsides in the Upper Peninsula, and we hope to keep it from becoming further established in Wilderness.

**Other invasive species**

In addition to the eight invasive plants shown here, please watch for sweetclovers, exotic bush honeysuckles, buckthorns, Japanese knotweed, or any other non-native invasive species. For more information, visit www.fs.fed.us/r9/forests/hiaowatha
Effects of Invasive Species:

- Reduced water quality
- Reduced spawning opportunities and population
- Streamside invasive plants can clog streams and recreation and hinder access
- Invasive plants can spread to wetlands and upland ecosystems
- Invasive plants pose a risk to swimmers
- Invasive species reduce waterfowl and fish habitat by loss of native species
- Species are replaced by non-native species
- Loss of biodiversity and decrease of threatened species

Help Protect Wilderness
- Keep pets on leashes
- Do not feed wildlife
- Keep your camping equipment clean
- Keep your clothes, boots, and equipment clean
- Keep the forest service informed

Leavy Spruce: Euphorbia esula
- Seeds can also easily transport
- This plant is invasive to wilderness areas
- Frequently to avoid spreading
- Check your bags and clothes
- This plant is spreading more

Hound's Tongue: Cynoglossum officinalis
- Short-lived
- And are covered with bitter taste
- In clusters of 4
- Per plant the seeds are 2,000 seeds
- Herbs are large and many flowering
- Leaves are large and

Forests Service
- Reporting new one to
- Invasions small
- You can help keep our
- Areas
- Please connect
- For more information or to report signs of invasive

Non-Native Invasive Plants in Wilderness
- Please report invasive plants in wilderness
- Certain of your plant ID skills before attending to
- Please bring in your plant with you to the District Office - please be aware that some invasive species may be hard to identify
- More information can be found online

Hawaii National Forest
- Hawaii, Waikiki, Honolulu
- 808-984-5150
- 1-800-666-8667

HiPFLA
HiPFLA is an online opportunity to
- Help WAIPU's Reilus Nova Forest Management
- Hawaii Forest

Image courtesy of US Fish and Wildlife Service National Park Service

Photo by: "Guns, Drugs, and Natural Resources: A Guide to Natural Resources in America's National Parks" by Michael K. Freeman, 2012.