



*A newsletter disclosing the analysis and proposed treatment of Non-Native Invasive Plant sites*

Volume 2 April 2016

## New Non-native, Invasive Plant sites

Welcome to the Chequamegon-Nicolet National Forest's newsletter of our non-native invasive plant (NNIP) treatments on the forest. This newsletter highlights updated information on invasive plant site locations and treatment methods.

*242 new invasive plant sites were discovered on the CNNF in 2015. Control work done on 733 sites (1400 acres)*

Over the past 15 years the CNNF has eliminated some invasive sites and reduced the size and density of many. Unfortunately, new sites are found every year.

One of the central pillars of our Strategy to manage invasive species is "rapid response" to new detections. We analyze all new sites. The effects of treating the new sites are estimated and they must fall within the scope of the analysis done in 2005 to be added to the list (with no additional NEPA decision). This allows rapid assessment and a decision on appropriate treatment for newly-discovered weed sites, before they start to expand uncontrollably.

### **How sites are analyzed**

Each year, surveys are done for new invasive weed sites by our Forest botanists, other specialists, and our partners such as Great Lakes Indian Fish and Wildlife Commission and the five Cooperative Invasive Species Management Area groups within the Forest.

For the new sites, an initial proposed treatment and restoration plan is selected. Work is prioritized based on the type of weed, and the size and location of the infestation. Only the methods included in the 2005 Invasive Species Control Project Decision and subsequent supplements are available for both treating the weeds and restoring the site.

[Learn more: here](#)



*Figure 1 A targeted application of blue-dyed herbicide on a buckthorn stem. Treated in fall this way, damage to other plants is avoided. (USFS Photo by M. Brzeskiewicz)*

All the new site treatment methods are then screened for environmental effects by resource specialists (in the areas of wildlife, fisheries, botany, water, soils and archaeology). We also



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consider effects on human health and organic farms.

### Strategy

The goals of the Forest Invasive Plant Strategy are to contain and control weed populations and reduce them over time. Invasive plants are considered in all projects and steps are taken to prevent introduction and spread. Our Strategy consists of several program elements:

- Prevention
- Early Detection – Inventory and Monitoring
- Rapid Response – Control and Management
- Information and Education
- Restoration
- Leadership, Coordination & Cooperation

This strategy is aligned with the [USDA Forest Service National Strategic Framework](#)

### New Weed Sites and Selected Treatment

The maps posted on this page show the newly documented weed infestations that have been added to the 2005 Decision for possible treatment.

In the 2015 growing season we discovered 242 sites. Not all of these sites will be controlled and those that require treatment may receive several treatments. The NNIP sites are generally small in size. Over 90 percent of the patches are less than 1 acre (half of the sites are less than one-tenth of an acre). While small infestations are better than large, traveling to them for control work is time-consuming so it takes much effort to treat our sites.

We evaluate any new scientific findings on effects of the chosen chemical herbicides. The treatment options in Table 1 all fall within the scope of the 2005 Decision Notice and Finding of No Significant Impact in that, when design criteria are applied, the effects are expected to be equal to or less than those described in that document. Adding the newly documented sites does not constitute a new decision and is not subject to appeal.

[Learn more here:](#)

### Results of Effects Analysis

After review, treatment of the sites mapped will have No Impact on federally threatened, endangered, or sensitive wildlife or plants. Likewise there will be no effect on:

- Regional Forester Sensitive animals or plants
- fish or aquatic resources (no chemical treatment in water is planned)
- soils
- archeological or heritage sites
- human health or organic farms

### Information

If you have questions on the NNIP Program, please contact: Linda Parker, Chequamegon-Nicolet National Forest 1170 4th Ave. South, Park Falls, WI 54552 (715) 762-5169

The Chequamegon-Nicolet National Forest always welcomes information from any source on infestations of invasive plants. You can help us by contacting the nearest Ranger District office with information on sites you have found or to volunteer.





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**Table 1a. Integrated Pest Management Treatment Options Table**

NNIP common name	Scientific Name	individuals and small patches	larger patches	herbicide of choice
Asiatic honeysuckles	<i>Lonicera tatarica</i> , <i>L. morrowii</i> and <i>L. x bella</i>	cut-stump/ herbicide	cut-stump/ herbicide	triclopyr/ metsulfuron methyl
Autumn olive	<i>Elaeagnus umbellata</i>	basal bark herbicide	cut-stump/ herbicide	triclopyr
Brittle-stem hemp-nettle	<i>Galeopsis tetrahit</i>	hand pull	foliar herbicide	possibly aminopyralid
Buckthorn, Common	<i>Rhamnus cathartica</i>	cut-stump/ herbicide	cut-stump/ herbicide	triclopyr
Buckthorn, Glossy	<i>Frangula Alnus (syn R. frangula)</i>	cut-stump/ herbicide	cut-stump/ herbicide	triclopyr
Bull Thistle	<i>Cirsium vulgare</i>	root stab or hand pull	foliar herbicide	aminopyralid
Canada Thistle	<i>Cirsium arvense</i>	hand pull	mow or foliar herbicide	aminopyralid
Common mullein	<i>Verbascum thapsus</i>	root stab rosettes	foliar herbicide	aminopyralid
Common Reed	<i>Phragmites australis</i>	dig	mow / herbicide	glyphosate for water
Curly Pondweed	<i>Potamogeton crispus</i>	have not controlled yet	have not controlled yet	N/A
Common tansy	<i>Tanacetum vulgare</i>	hand pull	mow / foliar herbicide	metsulfuron methyl
Cypress spurge	<i>Euphorbia cyparissias</i>	hand pull	foliar herbicide	imazapic / aminopyralid
Eurasian water milfoil	<i>Myriophyllum spicatum</i>	have not controlled yet	have not controlled yet	N/A
European Marsh thistle	<i>Cirsium palustre</i>	hand pull or root-stab	mow &/or herbicide	aminopyralid
Forget-me-not	<i>Myosotis arvensis M. scorpioides</i>	hand pull	hand pull &/or herbicide	aminopyralid or glyphosate for water
Garlic mustard	<i>Alliaria petiolata</i>	hand pull	herbicide or torch	triclopyr / metsulfuron methyl
Japanese barberry	<i>Berberis thunbergii</i>	hand pull	basal bark or cut stump	triclopyr / metsulfuron methyl
Japanese knotweed & giant knotweed	<i>Polygonum cuspidatum</i>	cut & foliar herbicide	cut & foliar herbicide	aminopyralid
Leafy Spurge	<i>Euphorbia esula</i>	mow	mow / herbicide	imazapic / aminopyralid
Oriental bittersweet	<i>Celastrus orbiculata</i>	cut or pull	foliar or basal herbicide	triclopyr
Purple Loosestrife	<i>Lythrum salicaria</i>	hand pull	biocontrol or foliar herbicide	glyphosate for water
Reed canary grass	<i>Phalaris arundinacea</i>	dig, black plastic	mow or herbicide	glyphosate for water
Siberian peashrub	<i>Caragana arborescens</i>	mechanical dig	cut-stump/ herbicide	triclopyr
Spotted knapweed	<i>Centaurea biebersteinii</i> & Brown knapweed <i>C. jacea</i> (other <i>Centaurea</i> species possible)	hand pull	herbicide	aminopyralid
Wild parsnip	<i>Pastinaca sativa</i>	root stab	herbicide	metsulfuron methyl





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Table 1b. IPM Treatment Table: Lower Priority NNIP (the “B-Listed” Plants; controlled/treated in limited situations)

NNIP common name	scientific name	individuals and small patches	larger patches	herbicide name
Bishop’s Gout-weed	<i>Aegopodium podagraria</i>	hand pull	herbicide	aminopyralid
Black locust	<i>Robinia pseudoacacia</i>	dig tiny plants	cut stump	aminopyralid
Bristly locust	<i>Robinia hispida</i>	dig / pull	undetermined	
Burnet saxifrage (scarlet pimpernel)	<i>Pimpinella saxifraga</i>	hand pull	undetermined	
Butter-and-eggs	<i>Linaria vulgaris</i>	hand pull	undetermined	
Dame’s Rocket	<i>Hesperis matronalis</i>	mow or hand pull	herbicide	metsulfuron methyl or triclopyr
Flowering Rush	<i>Butomus umbellatus</i>	dig	undetermined	glyphosate for water
Garden valerian	<i>Valeriana officinalis</i>	hand pull	mow (foliar herbicide)	triclopyr
Lesser Burdock	<i>Arctium minus</i>	root-stab & pull	undetermined	
Narrow-leaved cattail	<i>Typha angustifolia</i>	hand pull/dig	mow / foliar herbicide	glyphosate for water
Orange Hawkweed	<i>Hieracium aurantiacum</i>	pull/dig	over seed w/ native seed / herbicide	aminopyralid
Purple crown vetch	<i>Coronilla varia</i>	hand pull	herbicide	aminopyralid metsulfuron methyl
Russian Olive	<i>Elaeagnus angustifolia</i>	dig	basal bark herbicide	triclopyr
St. John’s-wort	<i>Hypericum perforatum</i>	hand pull	herbicide	metsulfuron methyl
Sweet William	<i>Dianthus barbatus</i>	hand pull	undetermined	
White Sweetclover	<i>Melilotus alba</i>	root stab or pull	mow (foliar herbicide)	aminopyralid
Yellow flag iris	<i>Iris pseudacorus</i>	hand pull/dig	hand pull/dig or herbicide	glyphosate for water
Yellow Hawkweed	<i>Hieracium caespitosum</i>	pull/dig	over seed w/ native seed or herbicide	aminopyralid
Yellow sweetclover	<i>Melilotus officinalis</i>	root stab or pull	mow (foliar herbicide)	aminopyralid

Treatments based on recommendations by MIPN <http://mipncontroldatabase.wisc.edu/> and other sources





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**Table 2. Manual/Mechanical Control Methods**

Method	Description of action
<b>Pull</b>	Hand-pull entire plant including roots – usually herbaceous plants or shrubs less than 5mm in diameter. Leave plant on site or bag and remove if it has mature flowers or fruit. Used for individuals or small patches of any plant.
<b>Cut</b>	Clip with lopping shears; cut with saw, brush cutter, weed whip or mower; girdle the bark. This action can be used alone or followed by sponge or spray-applying systemic herbicide.
<b>Root stab</b>	Cut root just below ground level with narrow spade. Plants are usually left on site. Used for individuals and small patches of perennials such as wild parsnip and thistles.
<b>Scorch (flame)</b>	Use the flame of a propane weed torch to scorch or wilt green leaves. This is done either very early or late in the growing season when exotics are green and native perennials are mostly below ground. It does not start a ground fire. Scorching will kill one year’s growth of annual and biennial weeds. Especially useful for garlic mustard and sprouts of buckthorn.

**Table 3. Proposed Herbicide Treatment Methods**

Common chemical name	Some examples of trade names	Targeted Use	Weeds targeted (examples)
aminopyralid	Milestone	Foliar treatment	knotweed, thistles, knapweeds, other forbs
metsulfuron methyl	Ally, Escort	Foliar treatment	autumn olive, crown vetch, barberry, garlic mustard, parsnip
triclopyr	Garlon3A <sup>®</sup> ; Brush-B-Gone <sup>®</sup> Habitat <sup>®</sup> Vine-X <sup>®</sup>	Stump and/or basal bark treatment, foliar spot spray; broadleaf-selective	buckthorns, barberry, oriental bittersweet, autumn olive, honeysuckle, wild parsnip
glyphosate	Roundup Pro <sup>®</sup> ; Roundup <sup>®</sup> ; Accord <sup>®</sup>	Stump treatment, foliar spray; non-selective	not used much in past few years; other herbicides are of low toxicity and require lower application rates
glyphosate for near water	Rodeo <sup>®</sup> Aquamaster <sup>®</sup>	Foliar treatment, weeds near open water, non-selective; no surfactants	purple loosestrife, swamp thistle, reed canary grass, common reed or any species near open water
imazapic	Plateau <sup>®</sup> ; Plateau Eco-Pak <sup>®</sup> ; Cadre <sup>®</sup>	Foliar treatment, non-selective	leafy spurge
clopyralid	Transline <sup>®</sup> ; Curtail <sup>®</sup> ; Reclaim <sup>®</sup>	Foliar spray; broadleaf selective- especially composites and legumes	Canada thistle, swamp thistle, spotted knapweed Siberian pea-shrub. Not used much as aminopyralid is more effective.





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**Biological Control Insects** (release of some of these insects took place in 2006-2008. The CNNF has not used them since then but they are still used elsewhere in the state and we may consider their use in the future)

Bio-control insect	Scientific name	Target plant	Effect
Brown-legged leafy spurge flea beetle	<i>Aphthona lacertosa</i>	Leafy spurge	foliage/flower feeder
Black dot leafy spurge beetle	<i>Aphthona nigricutis</i>	Leafy spurge	foliage/flower feeder
Black-margined loosestrife beetle	<i>Galerucella californiensis</i>	Purple loosestrife	leaf eater
Golden loosestrife beetle	<i>Galerucella pusilla</i>	Purple loosestrife	leaf eater
Loosestrife root weevil	<i>Hylobius transversovittatus</i>	Purple loosestrife	root borer
Knapweed root weevil	<i>Cyphocleonus achates</i>	Spotted knapweed	root borer
Knapweed seed-head weevil	<i>Larinus obtusus</i>	Spotted knapweed	prevent seed ripening
Lesser knapweed flower weevil	<i>Larinus minutus</i>	Spotted knapweed	prevent seed ripening

