

PRISM
(New York Partnerships for Regional Invasive Species Management)
NON-NATIVE PLANT INVASIVENESS RANKING FORM

PRISM: Adirondack Park Invasive Program

Scientific name: Rhamnus cathartica USDA Plants Code: RHCA3
 Common names: Common buckthorn
 Native Distribution: Eurasia
 Date Assessed: December, 8 2015
 PRISM Assessors: Zachary Simek
 PRISM Reviewers: Brendan Quirion, Steve Young, Chris Zimmerman
 Date Approved: 4/7/2016 Form version date: 13 April 2009
 New York Relative Maximum score: 81.00 Date NY assessment approved: November 19, 2008
 New York State Invasive Rank: Very High

SUMMARY OF PRISM RANKING RESULTS:

Distribution: Widespread
Estimated number of infested sites: >10
PRISM Invasiveness Rank^s: Very High



A. DISTRIBUTION AND ABUNDANCE (KNOWN/POTENTIAL):

1. What is the species distribution and abundance in the PRISM?
- | | |
|--|-------------|
| A. Not present | Not Present |
| B. Occurs in three or fewer natural areas (locations that are at least ¼ mile apart) with no infested area* >1 acre or containing >100 individuals | Restricted |
| C. Present in 4–10 natural areas, or with one occupied location >1 acre or containing >100 individuals | Common |
| D. Present in >10 minimally managed areas | Widespread |
| U. Unknown | Unknown |

Answer: Widespread

Describe distribution:
 Common buckthorn is currently widespread in the Adirondack PRISM occupying edges of rail/road right-of-ways, disturbed recreation areas such as trailheads, and locations with increased deer abundance. However, within the interior of the Adirondack forest preserve, infestations of this species are relatively small and isolated. There has not been a significant survey effort undertaken to document the current distribution of buckthorn given its abundance and the time commitments and labor costs associated with taking on a mapping effort at this scale. However, based on field observations by staff and partners, it is apparent that most of these infestations fall near areas of disturbance such as trails/trailheads, roadway and rail corridors, and campgrounds. Within the Adirondack PRISM, areas such as the Champlain Valley and Lake George region have the highest density of buckthorn infestations.

Sources of information:
 Field observations of APIPP staff and field reports from NYSDEC invasive species campground

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manager.

§Not Assessable: not persistent in the PRISM, or not found outside of cultivation.

*Definition of “infested area” is the “...actual or percentage of land occupied by [canopy cover of] weed plants” NAWMA (North American Weed Management Association) 2002. North American Invasive Plant Mapping Standards (see <http://www.nawma.org/>).

2. What is the likelihood the species will occur (if not yet present) or expand its distribution and abundance (if already present) in the PRISM?

Answer:

Documentation (e.g.: history of establishment in PRISM, suitability of habitats and climate, distribution models, literature, expert opinions):

This species is already widespread within the Adirondack PRISM. Given its wide shade tolerance, ability to colonize a variety of habitat types, and dispersal by birds and mammals, common buckthorn is very likely to continue its expansion in the PRISM. Common buckthorn’s fleshy berries serve as its primary spread mechanism, especially for long distance dispersal. Birds will consume the berries, which have a laxative effect, and deposit seeds in the forest understory. Germination rates of common buckthorn can reach or exceed 88% and growth rates are high, allowing the plant to gain a competitive advantage over native vegetation. However, some sources suggest that common buckthorn is limited by cold winter temperatures. This would significantly impede the ability of this species to invade higher elevations within the PRISM.

Sources of information:

Field observations of AIPPP staff and field reports from NYSDEC invasive species campground manager; Zouhar, 2011

B. INVASIVENESS RANK IN THE PRISM:

Is the species distribution Widespread or Common?

Yes: Go to column A in table below.

No: What is the likelihood of species occurrence or expansion? Answer:

- Very Likely: Use column A below
- Moderately likely: Use column B below
- Unlikely: Use column C below
- Zero likelihood Invasive potential Insignificant
- Unknown Invasive potential Unknown
- Not assessed Invasive potential not assessed

Assign a PRISM invasiveness rank to the species based on its New York Relative Maximum Score, using the designated column in the table below.

New York Relative Maximum Score	New York Invasiveness Rank	A	B	C
> 80.00	Very High	VH	H	M
70.00–80.00	High	H	M	L
50.00–69.99	Moderate	M	L	Ins
40.00–49.99	Low	L	Ins	Ins

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<40.00	Insignificant	Ins Ins Ins
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Column used: A (Insert PRISM Invasiveness Rank on page 1)

References for species assessment:

Field observations by APIPP staff

Field reports from NYSDEC invasive species campground manager

Zouhar, Kris. 2011. *Rhamnus cathartica*, *R. davurica*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <http://www.fs.fed.us/database/feis/> [2015, December 8].

Citation: This ranking form for regions within NYS may be cited as: Jordan, M.J., G. Moore and T.W. Weldy. 2008. Invasiveness ranking system for non-native plants of New York. Unpublished. The Nature Conservancy, Cold Spring Harbor, NY; Brooklyn Botanic Garden, Brooklyn, NY; The Nature Conservancy, Albany, NY. Note that the order of authorship is alphabetical; all three authors contributed substantially to the development of this protocol.

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