

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

PRISM: Long Island Invasive Species Management Area

Scientific name:	<u>Epilobium hirsutum L.</u>	USDA Plants Code: <u>EPHI</u>
Common names:	<u>Great Hairy willow-herb</u>	
Native Distribution	<u>Eurasia, Africa</u>	
Date Assessed:	<u>October 15, 2008</u>	
PRISM Assessors:	<u>Steve Glenn, Gerry Moore</u>	
PRISM Reviewers:	<u>LIISMA SRC</u>	
Date Approved:	<u>10-22-2008</u>	Form version date: <u>25 August 2008</u>
New York Relative Maximum score:	<u>62.50</u>	Date NY assessment approved: <u>10-22-2008</u>
New York State Invasive Rank:	<u>Low</u>	

SUMMARY OF PRISM RANKING RESULTS:

Distribution: Restricted

Estimated number of infested sites: 3

PRISM Invasiveness Rank: Low



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: Restricted

Describe distribution:
Two historic sites from Richmond Co.(only one since 1980); eight historical sites on Long Island (only 2 since 1980)
Sources of information:
Brooklyn Botanic Garden, 2008.

*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/>).

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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: Moderately likely

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

Growth and germination inhibited in low pH soil (<5.5) environments (Shamsi & Whitehead. 1974). Another study stated that no plants were found on soils with a pH of less than 6.4 (Etherington, 1984). The Soil Surveys for the LIISMA counties show only four out of 44 (9.1%) soil series with a pH greater than 6.0. Nonetheless, there is extensive marsh habitat for the species. Has been noted to become more common a weed in cultivated situations in last 15 years (Andy Senesac, personal observations).

Sources of information:

Shamsi & Whitehead, 1974; Warner, 1975; Etherington, 1984; Wulforst, 1987; Andy Senesac, personal observations.

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: Moderately likely

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
<40.00	Insignificant	Ins	Ins	Ins

Column used: B (Insert PRISM Invasiveness Rank on page 1)

References for species assessment:

Brooklyn Botanic Garden. 2008. AILANTHUS database. [Accessed on 15 October 2008.]

Etherington, J. R. 1984. Comparative studies of plant growth and distribution in relation to waterlogging: X. Differential formation of adventitious roots and their experimental excision in *Epilobium hirsutum* and *Chamerion angustifolium*. *The Journal of Ecology*, 72(2):389-404.

Shamsi, S. R. A. & F. H. Whitehead. 1974. Comparative eco-physiology of *Epilobium hirsutum* L. and *Lythrum salicaria* L.: I. General biology, distribution and germination. *The Journal of Ecology*, 62(1):279-290.

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Warner, J. W. 1975. Soil survey of Suffolk County, New York. USDA, Soil Conservation Service, in cooperation with Cornell Agricultural Experimental Station, Washington, D. C.

Weldy, T. and D. Werier. 2005. New York Flora Atlas. [S.M. Landry, K.N. Campbell, and L.D. Mabe (original application development), Florida Center for Community Design and Research. University of South Florida]. New York Flora Association, Albany, New York. [Accessed on 15 October 2008].

Wulforst, J. P. 1987. Soil survey of Nassau County, New York. USDA, Soil Conservation Service, in cooperation with Cornell Agricultural Experimental Station, Washington, D. C.

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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