

Species Dataform and Scoresheet for *Hedera helix* L (English ivy)

Dataform and Scoresheet		
<i>Hedera helix</i> L (English ivy)		
Native range: Europe Date evaluated: March 25, 2009		
	Answer Choices	Response
Introductory Questions		
1. Current federal and state regulations	Y/N	N
Comments: Appears on several invasive species lists (not laws) in the Southeastern U.S., including Georgia (Important), South Carolina (Watch), Tennessee (Rank 1, Severe threat), Kentucky (Significant threat), Virginia (Medium invasiveness), USFS Policy (Category 2, species suspected to be invasive) and the USFS Forest Inventory and Analysis and State Monitoring for Invasive Plants (Invasive.org 2009). Listed as a Class C noxious weed in Washington (Washington State Noxious Weed Control Board 2007) and Class B noxious weed in Oregon (Oregon Dept. of Agriculture, Plant Division).		
2. Occurrence in the horticultural trade	Y/N	Y
Comments: Popular ornamental vine with hundreds of cultivars (Remaley 2003).		
3. North Carolina nativity	Y/N	N
Comments: Native to Europe (Weakley 2008).		
4. Presence in natural areas	Y/N	Y
Comments: Persistent, established, and spreading around old home sites and in suburban woodlands in the Coastal Plain, Piedmont, and Mountains of North Carolina (Weakley 2008). Populations exists in many natural areas throughout the U.S. (Remaley 2003). Invades disturbed and undisturbed forests (Swearingen and Diedrich 2006).		
5. Non-invasive cultivars	Y/N	N
Comments: Hundreds of cultivars exist that vary greatly in habit, leaf size, lobing, and marbling (Weakley 2008).		
	Maximum Point Value	Number of Points Assigned
Section 1. Ecological Impact		
1a. Impact on abiotic ecosystem processes	10	0
Comments: Unknown impact on abiotic ecosystem processes.		
1b. Impact on plant community structure	20	15
Comments: Suppresses the growth of native herbs (Thomas 1980). Capable of shading and killing overstory and understory trees as well as small trees (Thomas 1980). Covers forest floor and may suppress the growth of native herbs and woody seedlings and compete with trees for light (Clarke et al. 2006). Additional weight of vines may increase storm damage to trees (Clarke et al. 2006).		
1c. Impact on species of special concern	5	0
Comments: Unknown impact on species of special concern.		
1d. Impact on higher trophic levels	5	0
Comments: Unknown impact on higher trophic levels.		
Section 1. Subrank	40	15

Section 2. Current Distribution and Potential for Expansion		
2a. Local range expansion	7	1
Comments: Persistent, established, and spreading around old home sites and in suburban woodlands in the Coastal Plain, Piedmont, and Mountains of North Carolina (Weakley 2008).		
2b. Long-distance dispersal potential	13	13
Comments: Dispersed long distances and to new areas by birds that consume the fruits (Swearingen and Diedrich 2006).		
2c. Reproductive characteristics	8	8
Comments: Propagates readily from cuttings of young shoots (Gilman 1999). Rootlets sprout from leaf nodes and allow spread and climbing (Remaley 2003). Spreads vegetatively and new plants can become established from cut or broken stems (Swearingen and Diedrich 2006). Dispersed long distances and to new areas by birds that consume the fruits (Swearingen and Diedrich 2006).		
2d. Range of communities	6	4
Comments: Grows well in moist, successional deciduous woods in the Southeast (Remaley 2003). Natural communities of North Carolina (Shafale and Weakley 1990) = Low elevation mesic forests, river floodplains.		
2e. Similar habitats invaded elsewhere	6	4
Comments: Invades woodlands, forest edges, coastal areas, salt marsh edges (Swearingen and Diedrich 2006). Occurs in coastland, estuarine habitats, natural forests, riparian zones, and wetlands (ISSG 2005). Natural communities of North Carolina (Shafale and Weakley 1990) = Communities of the coastal zone and estuarine systems.		
Section 2. Subrank	40	30
Section 3. Management Difficulty		
3a. Herbicidal control	5	0
Comments: Glyphosate and triclopyr are effective herbicides to treat English ivy (Remaley 2003).		
3b. Nonchemical control methods	2	1
Comments: Very small populations may be cut back and hand-pulled (Remaley 2003). No biological controls are available (Swearingen and Diedrich 2006). Mulching may be effective for small infestations but must be maintained for at least two growing seasons (Swearingen and Diedrich 2006).		
3c. Necessity of individual treatments	2	2
Comments: Herbicides should be applied to cut stems or through a foliar spray to control large populations (Remaley 2003). The most effective management approach involves a combination of cutting followed by herbicide application (Swearingen and Diedrich 2006).		
3d. Average distribution	2	1
Comments: Vines may be growing on trees or distributed as a dense ground cover (Swearingen and Diedrich 2006).		
3e. Likelihood for reestablishment	2	2
Comments: Vines must be cut back often, and severed vines will continue to resprout until the root stores are exhausted (Remaley 2003). If any part of the root system remains intact after treatment, the vine will resprout (Remaley 2003).		

3f. Accessibility of invaded areas	2	1
Comments: Dispersed long distances and to new areas by birds that consume the fruits (Swearingen and Diedrich 2006).		
3g. Impact on native species and environment	5	2
Comments: The nonselective herbicides glyphosate and triclopyr may kill non-target partially sprayed species (Remaley 2003).		
Section 3. Subrank	20	9
Section 4. Benefits and Value		
4a. Estimated wholesale value	-7	-3
Comments: The annual estimated wholesale value attributed to this species is \$7,957,800 (Trueblood 2009).		
4b. Percentage of total sales	-5	-2
Comments: Among the producers that sell this species, the highest percentage of total sales attributed to this species from any one grower is estimated to be 6-10% (Trueblood 2009).		
4d. Ecosystem services	-1	0
Comments:		
4e. Wildlife habitat	-1	0
Comments:		
4f. Cultural and social benefits	-1	0
Comments:		
Section 4. Subrank	-15	-5
Overall Score		
	100	49
Overall Recommendation: Moderately weedy and recommended for use with specific guidance – These species have less than high ecological impact, distribution and invasive potential, and management difficulty in relation to economic value. These plants should not be grown in close proximity to natural areas that have communities similar to those where this plant has been found to naturalize or near natural areas that have sensitive or threatened plants and/or natural communities. (Overall Score: 34 – 66)		
Summary: <i>Hedera helix</i> (English ivy) is moderately weedy in North Carolina and may be recommended for horticultural use with specific guidance by the North Carolina Nursery and Landscape Association. The ecological impacts of <i>H. helix</i> are largely unknown, but dense infestations of this species may suppress the growth of native herbs and woody seedlings. There is great potential for the additional invasion of English ivy to natural areas due to the high potential for natural dispersal. The difficulty of managing <i>H. helix</i> is moderate considering the availability of control methods, but management may be costly considering the time and labor required to effectively treat stands of this species. <i>Hedera helix</i> is economically valuable to the nursery industry.		

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