

## Ohio Invasive Plant Assessment Protocol

Botanical Name: *Ligustrum vulgare*  
 Common Name: Common privet, European privet    Step I Outcome: **Invasive**  
 Family Name: Oleaceae    Step II Score: **44**  
 Assessment conducted by: OIPC Team    Step II Outcome: **Pending Further Review**

**Score**

**Notes**

**References**

*Directions: Place an "X" in the Score column next to the selected answer to each of the four questions.*

**Step I**

**1. Is this plant known to occur in the state and listed as "noxious" on any federal or Ohio Department of Agriculture plant list?**  
 Yes. Place on invasive plant list, no further investigation needed. **STOP**  
 No. Continue on to question 2.

X

**2. Has this plant demonstrated widespread dispersion and establishment (i.e. high numbers of individuals forming dense stands) in natural areas across two or more regions in Ohio?<sup>a</sup>**  
 Yes. Place on invasive plant list, no further investigation needed. **STOP**  
 No. Continue on to question 3.

x

Species is naturalized in all 5 regions of OH, but detailed information regarding population sizes is lacking.

1,2

**3. Does this plant form self-replicating populations outside of cultivation in Ohio and is it documented to alter the composition, structure, or normal processes or functions of a natural ecosystem?**  
 Yes  
 No  
 Unknown

X

**4. Is the plant listed as invasive in an adjoining state or a nearby state east of the Mississippi within the USDA Plant Hardiness zones 5-6?<sup>b,c</sup>**  
 Yes  
 No  
 Unknown

x

TN,CT,IN,MI,PA [also includes KY but excluded here in assessment]

2,3,4,5,6

*If the answer was yes for both questions 3 and 4, the plant is placed on the invasive plant list and no further research is needed. Stop here. If the answer is no for both questions 3 and 4, the plant is not considered invasive and no further investigation is warranted. Otherwise, proceed to Step II.*

### Step II: Invasion Status

*Directions: Place the appropriate numerical score (or "U") in the Score column next to the selected answer to each of these 18 questions.*

**1. Current Invasion in Ohio**

- plant is not found in natural areas (**0 pts.**)
- plant is found in natural areas but only because it persists from previous planting in that location (e.g. old home sites) (**0 pts.**)
- plant is only expanding from sites of previous planting (**1 pt.**)
  
- plant occurs in natural areas away from site of planting (**3 pts.**)
  
- Information unknown (**U**)

3

1,2=>Species is naturalized in all 5 regions of OH, but detailed information regarding how individuals arrived in the area is lacking.  
 19=>species is found within natural areas but also near old home sites, forest edges, and waste areas.

1,2,19

**2. State Distribution<sup>a</sup>**

- plant is not naturalized in any region of Ohio (0 pts.)
- plant is naturalized in only one region in Ohio (1 pt.)
- plant is naturalized in two regions in Ohio (2 pts.)
- plant is naturalized in three regions in Ohio (3 pts.)
- plant is naturalized in four regions in Ohio (4 pts.)
- plant is naturalized in five regions in Ohio (5 pts.)
- Information unknown (U)

5

Regions 1,2,3,4,5

1,2

### 3. Regional/US Distribution

- plant is not considered to be a problem in any other state (0 pts.)
- plant has been reported as a widespread problem in another non-neighboring state within the USDA Plant Hardiness Zones 5-6 (1 pt.)
- plant has been reported to be a widespread problem in 1-2 adjoining states (3 pts.)
- plant has been reported to be a widespread problem in 3 or more adjoining states (5 pts.)
- plant has been reported to be a widespread problem in similar habitat outside the US (1 pt.)
- Information unknown (U)

5

TN,CT,IN,MI,PA [also includes KY but excluded here in assessment]

2,3,4,5,6

## Step II: Biological Characters

### 4. Vegetative Reproduction

- no vegetative reproduction (0 pts.)
- reproduces readily within the original site (1 pt.)
- has runners or spreading rhizomes that root easily (3 pts.)
- fragments easily and fragments can be easily dispersed (4 pts.)
- has runners or spreading rhizomes that root easily AND fragments easily and fragments can be easily dispersed (5 pts.)
- Information unknown (U)

0

11=>"also reproduce by suckers"

8,11

### 5. Sexual Reproduction

- no sexual reproduction (0 pts.)
- infrequent sexual reproduction (1 pt.)
- frequent sexual reproduction, but high variation among years in seed production (3 pts.)
- frequent sexual reproduction (one or more events per year) (5 pts.)
- Information unknown (U)

5

8=>Seed output may be reduced by shading, but output is still considered "substantial".  
18=>provides data on seed production.

8,18

### 6. Number of Viable Seeds or Propagules per Plant

- few (0-10) (1 pt.)
- moderate (11-1,000) (3 pts.)
- prolific (>1,000) (5 pts.)
- Information unknown (U)

5

9=>"A mature plant can produce hundreds of fruits containing millions of seeds (2.7 million) annually." [note that this is a reference to Haragan (11) which does NOT contain this information. 11=>species is a "prolific" seed producer. 18=>in its native range in England, species produces 11,104 seeds per plant.

9,11,18

### 7. Flowering Period

- one month or less per year (0 pts.)

## Step II

- two months (1 pt.)
- three to five months (2 pts.)
- longer than five months (3 pts.)
- Information unknown (U)

### 8. Dispersal Ability

- low potential for long-distance seed/propagule dispersal (>1km) (0 pts.)
- medium potential for long-distance seed/propagule dispersal (3 pts.)
- high potential for long-distance seed/propagule dispersal (5 pts.)
- Information unknown (U)

### 9. Generation Time

- long juvenile period (>5 or more years for trees, 3 or more years for other growth forms) (0 pts.)
- short juvenile period (<5 years for trees, <3 years for other forms) (3 pts.)
- Information unknown (U)

### 10. Establishment

- unable to invade natural areas (0 pts.)
- can only colonize certain habitat stages (e.g. early successional habitats) (1 pt.)
- aggressively colonizes and establishes in edge habitats (3 pts.)
- aggressively colonizes and establishes in intact and healthy natural areas (6 pts.)
- Information unknown (U)

2

10=>May-July; 11=>May to June

10,11

5

8,9=>Dispersed by wildlife - especially birds.  
10=>dispersed by birds and other animals.  
18=>bird dispersed in Europe. 19=>berry-eating birds and other animals in Ohio.

8,9,10,18,19

0

19=>"long juvenile (prereproductive) period"

19

3

8=>Species is able to establish in disturbed habitats and can persist "for a substantial period of time". In OH, canopy cover seems to limit species distribution. 12=> "does not develop a high resistance to drought-induced embolism, but "are able to acclimate when extended drought periods occur."  
13=>climate change over next 100 years will cause privet range to increase in Ohio. 19=>in Ohio: "Although privet thrives in full sun and along stream banks, it is tolerant of shade and drought, and can grow in almost any kind of soil."

8,12,13,19

## Step II: Ecological Importance

### 11. Impact on Ecosystem Processes

- no known effect on ecosystem-level processes (0 pts.)
- moderate effects on ecosystem-level processes (e.g., changes in nutrient cycling)(3 pts.)
- causes long-term, substantial alterations in the ecosystem (e.g., changing fire regime of an area, changing hydrology of wetlands) (6 pts.)

0

no evidence

### 12. Impact on Rare Organisms

- no known negative impact on Ohio State-listed or federal-listed plants or animals (0 pts.)
- negatively impacts listed species, such as through displacement or interbreeding (3 pts.)

0

no evidence

### 13. Impact on Native Animals

- no known negative impact on animals (0 pts.)
- documented direct or indirect negative effects on animal taxa (3 pts.)

0 no evidence

#### 14. Impact on Native Plants

- no known negative effects on native plants (0 pts.)
- negatively impacts some native plants (increasing their mortality and/or recruitment of certain taxa) (3 pts.)
- impacts native plants to such an extent that community structure is greatly altered (6 pts.)

3 Crowds out native vegetation. 8,19

#### 15. Hybridization

- no known instances of hybridization with other plant species (0 pts.)
- can hybridize with native Ohio plants or commercially-available species, but seeds are inviable (1 pt.)
- can hybridize with native Ohio plants or commercially-available species, producing viable seed (3 pts.)

0 no evidence

#### 16. Population Density

- occurs only as small, sporadic populations or individuals (1 pt.)
- typically forms small, monospecific patches (3 pts.)
- is a dominant plant in area where population occurs (absolute cover 15-50%) (4 pts.)

4 8=>Species is capable of creating dominant monospecific stands. 15=> species can reach densities of 259/ha on east-facing slopes and 1269/ha on west-facing slopes in Southwestern OH. 16=>in IN forest survey, privet found in 27% of quadrats in one forested stand. 8,15,16

- forms an extensive, monospecific stand (absolute cover >50%) (5 pts.)

#### 17. Role in Succession in Natural Areas

- successional information is unknown (0 pts.)
- is an early successional species that temporarily invades a disturbed site but does not persist as the site matures (0 pts.)
- readily invades disturbed sites and persists, but does not interfere with succession (1 pt.)
- readily invades disturbed sites, persists and interferes with succession of native plants (4 pts.)

1 8=>Species occurs and persists in SW OH forests, but it is not clear if it alters community composition at this time. 8

#### 18. Number of Habitats Invaded

**Forestlands:** Floodplain forest, hemlock-hardwood forest, mixed mesophytic forest, beech-maple forest, oak-maple forest, oak-hickory forest.

**Grasslands:** Alvar\*, beach-dune community\*, bur oak savanna\*, slough-grass-bluejoint prairie\*, sand barren\*, big bluestem prairie, little bluestem prairie

**Wetlands:** Bog\*, fen\*, twigrush-wiregrass wet prairie\*, marsh, buttonbush swamp, mixed shrub swamp, hemlock-hardwood swamp\*, maple-ash-oak

\* Considered a rare plant community in Ohio by ODW's Biodiversity Database Program.

+ = xeric limestone prairies or cedar glades and post oak openings are unique to the Interior Low Plateau Region of Adams, Highland and Pike counties,

- not found in any natural habitats in Ohio (0 pts.)
- only found in 1 broad category (1 pt.)
- found in 2 broad categories or 2 rare habitat types (3 pts.)
- found in 3 broad categories or 3 rare habitat types (4 pts.)
- found in 4 or more rare habitat types (5 pts.)

3 11=>forests, wetlands. 14=> cedar glades in TN. 15=>mixed mesophytic forests in SW Ohio. 16=> Old growth forests in IN. 17=> shale barrens in IL. 11,14,15,16,17

**Total Score:**

44

**Number of Unknowns:**

0

**Outcome:**

Pending Further Review

Total Points	Assessment Decision
4 or more U	Insufficient Data
0-34	Not Known to be Invasive
35-44	Pending Further Review
45-80	Invasive