

# Plant Risk Evaluator -- PRE Evaluation Report

# Celastrus orbiculatus -- Oregon

2023-2025 Western IPM Project

PRE Score: 18 -- High Potential Risk

Confidence: 84 / 100

Questions answered: 20 of 20 -- Valid (80% or more questions answered)

Privacy: Public Status: Completed

Evaluation Date: February 14, 2025

This PDF was created on August 21, 2025

This project was funded in part by the USDA National Institute of Food and Agriculture through the Western Integrated Pest Management Center, grant number 2018-70006-28881.

### **Plant Evaluated**

Celastrus orbiculatus



Image by Chris Evans

### **Evaluation Overview**

A PRE<sup>TM</sup> screener conducted a literature review for this plant (*Celastrus orbiculatus*) in an effort to understand the invasive history, reproductive strategies, and the impact, if any, on the region's native plants and animals. This research reflects the data available at the time this evaluation was conducted.

### **Summary**

Round leaf bittersweet (Celastrus orbiculatus), formerly known as Oriental bittersweet or Asian bittersweet, is a vigorous woody vine that has naturalized in various regions outside its native range in East Asia, particularly in temperate climates similar to its origin. In the United States, it has spread across the Northeast and the southern Appalachian Mountains. Its rapid growth, ability to girdle trees, and dense foliage contribute to the competition with native vegetation by smothering plants and altering forest dynamics. It reproduces both sexually, through prolific seed production, and vegetatively, via root sprouting. Birds and small mammals play a crucial role in long-distance seed dispersal, while some human activities may also contribute to its unintentional spread. Although not a direct health threat to humans or livestock, the vine can form impenetrable thickets that hinder movement and disrupt habitats. Due to its aggressive nature and ecological impact in similar climates, round leaf bittersweet has the potential to become an invasive concern in the Pacific Northwest.

### **General Information**

**Status:** Completed

**Screener:** Courtney Gattuso

**Evaluation Date:** February 14, 2025

### **Plant Information**

Plant: Celastrus orbiculatus

# **Regional Information**

Region Name: Oregon

# **Climate Matching Map**

To answer four of the PRE questions for a regional evaluation, a climate map with three climate data layers (Precipitation, UN EcoZones, and Plant Hardiness) is needed. These maps were built using a toolkit created in collaboration with GreenInfo Network, USDA, PlantRight, California Invasive Plant Council, and The Information Center for the Environment at UC Davis.

Click <u>here</u> to see the generated climate matching map for this region. This climate match database is hosted by GreenInfo Network and publicly accessible.

# **Evaluation Questions**

These questions are based on an article published by PLOS One, which can be found here: <a href="https://doi.org/10.1371/journal.pone.0121053">https://doi.org/10.1371/journal.pone.0121053</a>.

## **Invasive History and Climate Matching (Questions 1 - 6)**

- 1. Has the species (or cultivar or variety, if applicable; applies to subsequent "species" questions) become naturalized where it is not native?
  - Answer: Yes, which contributes 1 point(s) to the total PRE score.
  - The screener has a Very High confidence in this answer based on the available literature.

#### **Answer / Justification:**

Round leaf bittersweet has naturalized in many parts of the United States and other regions outside its native range of East Asia. It has established self-sustaining populations in forests, pastures, and disturbed areas.

### **Reference(s):**

- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet) CABI.
- Hutchison, M., & Dempsey J.F. (1989). Vegetation Management Guideline, Round-leaved bittersweet (Celastrus orbiculatus Thunb.). 4 pp..

# 2. Is the species (or cultivar or variety) noted as being naturalized in the US or world in a similar climate?

- Answer: Yes, which contributes 2 point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

### **Answer / Justification:**

It has successfully established in temperate climates across the U.S., including New England, the Midwest, and parts of the Pacific Northwest. It has also been reported as naturalized in parts of Europe.

• CABI (2025). Celastrus orbiculatus (Asiatic bittersweet)\_CABI.

### 3. Is the species (or cultivar or variety) noted as being invasive in the U.S. or world?

- Answer: **Yes**, which contributes **2** point(s) to the total PRE score.
- The screener has a Very High confidence in this answer based on the available literature.

### **Answer / Justification:**

Round leaf bittersweet is listed as an invasive species by multiple U.S. states and federal agencies. In 2025, the Washington State Noxious Weed Board listed it as a class-A noxious weed in the state. It aggressively displaces native vegetation and alters ecosystems.

### **Reference(s):**

- McNab, W.H., & Meeker M. (1987). Oriental bittersweet: a growing threat to hardwood silviculture in the Appalachians. Northern Journal of Applied Forestry. 4, 174–177.
- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet)\_CABI.
- Washington State Noxious Weed Control Board (2025). Round Leaf Bittersweet.

# 4. Is the species (or cultivar or variety) noted as being invasive in the US or world in a similar climate?

- Answer: Yes, which contributes 3 point(s) to the total PRE score.
- The screener has a Very High confidence in this answer based on the available literature.

### **Answer / Justification:**

The plant exhibits invasive tendencies in regions with temperate climates similar to Oregon, such as the northeastern U.S. and parts of Europe. In Connecticut (which has occurrences in the climate matching region), it over-tops and shades out plants beneath it (Dreyer et al., 1987 as cited in CABI). The Washington State NWCB notes that round leaf bittersweet grows very fast, both vertically choking trees, and horizontally infesting through a forest.

- McNab, H.W., & Loftis D.L. (2002). Probability of occurrence and habitat features for oriental bittersweet in an oak forest in the southern Appalachian Mountains, USA. Forest Ecology and Management. 155, 45–54.
- CABI (2017). Celastrus orbiculatus (Asiatic bittersweet).
- Washington State Noxious Weed Control Board (2025). Round Leaf Bittersweet.

# 5. Are other species of the same genus (or closely related genera) invasive in a similar climate?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

### **Answer / Justification:**

Celastrus scandens (American bittersweet) is native to North America but does not exhibit invasive tendencies like Celastrus orbiculatus.

#### **Reference(s):**

• National Park Service (2009). PCA Fact Sheet - Oriental Bittersweet (Celastrus orbiculatus).

# 6. Is the species (or cultivar or variety) found predominately in a climate matching the region of concern?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

### **Answer / Justification:**

Based on the Cal-IPC Climate Match tool results, the known occurrences of round leaf bittersweet are found in many different climates from Oregon's. This can indicate that round leaf bittersweet may be able to grow in a variety of climates.

• GBIF (2025). Celastrus orbiculatus C.P. Thunberg ex A. Murray\_GBIF.

### **Impact on Native Plants and Animals (Questions 7 - 10)**

- 7. Does this plant displace native plants and dominate (overtop or smother) the plant community in areas where it has established?
  - Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
  - The *screener* has a **Very High** confidence in this answer based on the available literature.

### **Answer / Justification:**

Round leaf bittersweet is highly aggressive, overtopping native vegetation and reducing biodiversity by outcompeting native species.

### **Reference(s):**

- National Park Service (2009). PCA Fact Sheet Oriental Bittersweet (Celastrus orbiculatus).
- Greenberg, C.H., Smith L.M., & Levey D.J. (2001). Fruit fate, seed germination and growth of an invasive vine an experimental test of 'sit and wait' strategy. Biological Invasions. 3, 363-372.

# 8. Is the plant noted as promoting fire and/or changing fire regimes?

- Answer: No, which contributes 0 point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

### **Answer / Justification:**

Round leaf bittersweet does not significantly alter fire regimes. While it can contribute to fuel loads by adding biomass in some environments, studies indicate that it does not substantially increase fire frequency or intensity.

• U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer) (1992). Fire Effects Information System (FEIS).

# 9. Is the plant a health risk to humans or animals/fish? Has the species been noted as impacting grazing systems?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The screener has a **Medium** confidence in this answer based on the available literature.

#### **Answer / Justification:**

No direct toxicity to humans or animals has been reported. However, it can impact grazing systems by reducing native forage availability. It has been noted that round leaf bittersweet can spread from woodlands into adjacent grasslands and displace native forage species for native and domesticated herbivores.

### **Reference(s):**

• Mundahl, N., & Borsari B. (2016). Browsing by White-Tailed Deer on Invasive Oriental Bittersweet Spreading into Restored Grasslands. North American Prairie Conference Proceedings.

# 10. Does the plant produce impenetrable thickets, blocking or slowing movement of animals, livestock, or humans?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

### **Answer / Justification:**

Its dense growth can obstruct movement, particularly in forest and woodland habitats. In open habitats, its branches may form impenetrable thickets. It produces root suckers prolifically, and thus a single individual can expand to a dense thicket in a relatively short time.

- U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer) (1992). Fire Effects Information System (FEIS).
- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet)\_CABI.

# **Reproductive Strategies (Questions 11 - 17)**

### 11. Does this species (or cultivar or variety) reproduce and spread vegetatively?

- Answer: Yes, which contributes 1 point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

### **Answer / Justification:**

Round leaf bittersweet can reproduce vegetatively through root suckering and sprouting, enabling it to establish new plants even without seed dispersal.

### **Reference(s):**

- Templeton, S., Gover A., Jackson D., & Wurzbacher S. (2020). Invasive Plant Fact Sheet: Oriental Bittersweet. 2024,
- Center for Invasive Species and Ecosystem Health, University of Georgia (2016). Southeast Exotic Pest Plant Council (SE-EPPC).
- Greenberg, C.H., Smith L.M., & Levey D.J. (2001). Fruit fate, seed germination and growth of an invasive vine an experimental test of 'sit and wait' strategy. Biological Invasions. 3, 363-372.

# 12. If naturally detached fragments from this plant are capable of producing new plants, is this a common method of reproduction for the plant?

- Answer: No, which contributes 0 point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

While round leaf bittersweet can reproduce vegetatively, detached fragments do not typically establish new plants on their own. However, some literature states that root fragments have the potential of sprouting in a greenhouse setting, and damage to roots and branches can encourage more sprouting.

### **Reference(s):**

- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet)\_CABI.
- U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer) (1992). Fire Effects Information System (FEIS).

### 13. Does the species (or cultivar or variety) commonly produce viable seed?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The screener has a Very High confidence in this answer based on the available literature.

### **Answer / Justification:**

Round leaf bittersweet produces abundant viable seeds, facilitating its rapid spread. It is readily dispersed to new areas by many species of birds including mockingbirds, blue jays and European starlings.

### **Reference(s):**

• National Park Service (2009). PCA Fact Sheet - Oriental Bittersweet (Celastrus orbiculatus).

### 14. Does this plant produce copious viable seeds each year (> 1000)?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

### **Answer / Justification:**

Round leaf bittersweet is dioecious and a mature plant can produce up to 370 fruits each fall. The fruits are 3-valved, with each valve containing 1 or 2 seeds. Although exact numbers of seed production are lacking, some sources indicate that a mature plant can produce over 2000 seeds.

- National Park Service (2009). PCA Fact Sheet Oriental Bittersweet (Celastrus orbiculatus).
- U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer) (1992). Fire Effects Information System (FEIS).

# 15. Is there significant germination (>25%) of seeds the next growing season, with no requirement of an infrequent environmental condition for seeds to germinate (i.e. fire) or long dormancy period?

- Answer: Yes, which contributes 1 point(s) to the total PRE score.
- The *screener* has a **High** confidence in this answer based on the available literature.

#### **Answer / Justification:**

Seed viability and germination rates are initially high, reaching approximately 90% in the spring of the first growing season, but decline sharply in the second year.

### **Reference(s):**

- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet) CABI.
- Greenberg, C.H., Smith L.M., & Levey D.J. (2001). Fruit fate, seed germination and growth of an invasive vine an experimental test of 'sit and wait' strategy. Biological Invasions. 3, 363-372.
- Center for Invasive Species and Ecosystem Health, University of Georgia (2016). Southeast Exotic Pest Plant Council (SE-EPPC).

# 16. Does this plant produce viable seed within the first three years (for an herbaceous species) to five years (for a woody species) after germination?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Studies show that both male and female plants can produce flowers in their second year.

### **Reference(s):**

• U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer) (1992). Fire Effects Information System (FEIS).

# 17. Does this plant continuously produce seed for >3 months each year or does seed production occur more than once a year?

- Answer: No, which contributes 0 point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

### **Answer / Justification:**

Plants typically produce flowers in early spring (May-June) and begin the fruiting period late summer into early winter.

### **Reference(s):**

- Templeton, S., Gover A., Jackson D., & Wurzbacher S. (2020). Invasive Plant Fact Sheet: Oriental Bittersweet. 2024,
- Dreyer, G. D., Baird L. M., & Fickler C. (1987). Celastrus scandens and Celastrus orbiculatus: Comparisons of Reproductive Potential between a Native and an Introduced Woody Vine. Bulletin of the Torrey Botanical Club. Vol. 114(No. 3), pp. 260-264.

# Dispersal (Questions 18 - 20)

# 18. Are the plant's propagules frequently dispersed long distance (>100 m) by mammals or birds or via domestic animals?

- Answer: Yes, which contributes 1 point(s) to the total PRE score.
- The *screener* has a **Very High** confidence in this answer based on the available literature.

Birds are primary dispersal agents, spreading seeds widely. Small mammals and humans can also contribute to the dispersal of round leaf bittersweet.

### **Reference(s):**

- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet)\_CABI.
- Patterson, D. Thomas (1974). The ecology of oriental bittersweet, Celastrus orbiculatus, a weedy introduced ornamental vine. 252.

# 19. Are the plant's propagules frequently dispersed long distance (>100 m) by wind or water?

- Answer: **No**, which contributes **0** point(s) to the total PRE score.
- The *screener* has a **Low** confidence in this answer based on the available literature.

#### **Answer / Justification:**

There is not enough data to show that propagules are frequently dispersed long distances by wind or water.

### **Reference(s):**

• [Anonymous].

# 20. Are the plant's propagules frequently dispersed via contaminated seed (agriculture or wildflower packets), equipment, vehicles, boats or clothing/shoes?

- Answer: **Yes**, which contributes **1** point(s) to the total PRE score.
- The *screener* has a **Medium** confidence in this answer based on the available literature.

Although these specific vectors are not mentioned in the literature provided, humans do play a role in the dispersal of round leaf bittersweet through nursery stock, decorative flower arrangements, and contaminated soil. It can be purchased online and shipped to Oregon mailing addresses (via Amazon, eBay, Etsy, etc.). Dried vines are used in ornamental wreaths and flower arrangements, and when discarded improperly, they can infest new areas.

### **Reference(s):**

- CABI (2025). Celastrus orbiculatus (Asiatic bittersweet)\_CABI.
- North Carolina Department of Agriculture & Consumer Services (2025). Plant Industry Oriental Bittersweet.

### **Total PRE Score**

PRE Score: 18 -- High Potential Risk

**Confidence:** 84 / 100

**Questions answered:** 20 of 20 -- Valid (80% or more questions answered)

### **PRE Score Legend**

The PRE Score is calculated by adding the point totals for each (answered) question.

< 13 : Low Potential Risk

13 - 15 : Moderate Potential Risk

> 15: High Potential Risk

### **Questions Answered Legend**

It is important to answer at least 16 questions to consider a PRE Score as "valid".

>= 16 : valid (80% or more questions answered)

<= 15 : invalid (not enough questions answered)

# **Organization Ownership and Content Privacy**

**Organization:** 2023-2025 Western IPM Project

Content Privacy: Public

### **Evaluation Reviewers**

The PRE approach is to base decisions on science and make decisions by consensus of diverse horticultural stakeholders. The literature review and process of answering PRE's questions are based on science; the decisions of which plants to prioritize are based on consensus. To ensure this process is in place and that PRE is collaborative, volunteer stakeholders are recruited from each region to review evaluations. The following experts in their profession (plant science, conservation, or horticultural trade) have participated as volunteer PRE reviewers for this evaluation:

Troy Abercrombie April 17, 2025
Theresa Culley March 18, 2025
Nicole Valentine March 13, 2025

• Jutta Burger February 24, 2025

This evaluation has a total of 4 reviewer(s).

### **Evaluation Issues**

The following section lists all public issues for this evaluation. Issues provide a way for stakeholder reviewers to communicate any concerns or suggestions they might have with the plant or evaluation. Please email info@plantright.org if additional action is required to resolve open issues.

### **Issue ID # 11125**

**Date Created:** March 18, 2025 - 3:13pm **Date Updated:** April 1, 2025 - 1:28pm

**Submitted by:** Theresa Culley

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

Scope: Q07. Does this plant displace native plants and dominate the plant community in areas where it

has been established?

### **Issue Description**

Greenberg, C.H., L.M. Smith and D.J. Levey (2001) Fruit fate, seed germination and growth of an invasive vine - an experimental test of 'sit and wait' strategy. Biological Invasions 3: 363-372.

### **Issue Resolution (Screener's Response to Issue)**

Added the suggested source for this question.

### **Issue ID # 11124**

**Date Created:** March 18, 2025 - 3:11pm **Date Updated:** April 1, 2025 - 1:24pm

**Submitted by:** Theresa Culley

Status: Fixed

**Type:** Suggestion **Severity:** Minor

Scope: Q18. Are the plant's propagules dispersed long distance (>100 m) by mammals or birds or via

domestic animals?

### **Issue Description**

Patterson, D.T., 1974. The ecology of oriental bittersweet, Celastrus orbiculatus, a weedy introduced ornamental vine. Durham, NC: Duke University. 252 p. Dissertation.

### **Issue Resolution (Screener's Response to Issue)**

Added the suggested source to support the answer.

### **Issue ID # 11123**

**Date Created:** March 18, 2025 - 3:10pm **Date Updated:** April 1, 2025 - 1:43pm

**Submitted by:** Theresa Culley

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q17. Does this plant continuously produce seed for >3 months each year or does seed production

occur more than once a year?

### **Issue Description**

Dreyer, G.D., L.M. Baird and C. Fickler (1987) Celastrus scandens and Celastrus orbiculatus: Comparisons of reproductive potential between a native and an introduced woody vine. Bulletin of the Torrey Botanical Club 114(3): 260-264.

### **Issue Resolution (Screener's Response to Issue)**

Added the suggested source to this question.

### **Issue ID # 11122**

**Date Created:** March 18, 2025 - 3:10pm **Date Updated:** April 1, 2025 - 1:34pm

**Submitted by:** Theresa Culley

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q15. Is there significant germination (>25%) of seeds the next growing season, with no

requirement of an infrequent environmental condition for seeds to germinate (i.e. fire) or long dormancy

period?

### **Issue Description**

Greenberg, C.H., L.M. Smith and D.J. Levey (2001) Fruit fate, seed germination and growth of an invasive vine - an experimental test of 'sit and wait' strategy. Biological Invasions 3: 363-372.

### **Issue Resolution (Screener's Response to Issue)**

Added the suggested source to this question.

### **Issue ID # 11121**

**Date Created:** March 18, 2025 - 3:09pm **Date Updated:** April 1, 2025 - 1:35pm

**Submitted by:** Theresa Culley

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q15. Is there significant germination (>25%) of seeds the next growing season, with no

requirement of an infrequent environmental condition for seeds to germinate (i.e. fire) or long dormancy

period?

### **Issue Description**

Southeast Exotic Pest Plant Council Invasive Plant Manual (SE-EPPC): http://www.se-eppc.org/manual/bittersweet.html.

### Issue Resolution (Screener's Response to Issue)

Added the suggested source to this question.

### **Issue ID # 11120**

**Date Created:** March 18, 2025 - 3:08pm **Date Updated:** April 1, 2025 - 1:32pm

**Submitted by:** Theresa Culley

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q11. Does this species (or cultivar or variety) reproduce and spread vegetatively?

### **Issue Description**

Southeast Exotic Pest Plant Council Invasive Plant Manual (SE-EPPC): http://www.se-eppc.org/manual/bittersweet.html.

Greenberg, C.H., L.M. Smith and D.J. Levey (2001) Fruit fate, seed germination and growth of an invasive vine - an experimental test of 'sit and wait' strategy. Biological Invasions 3: 363-372.

### **Issue Resolution (Screener's Response to Issue)**

Added the suggested sources for this question.

### **Issue ID # 11119**

**Date Created:** March 18, 2025 - 3:01pm **Date Updated:** April 1, 2025 - 1:15pm

**Submitted by:** Theresa Culley

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Plant Information

### **Issue Description**

Note that the common name of this species is now "round leaf bittersweet" as opposed to "Asian bittersweet" or the older still "Oriental bittersweet". But all need to be mentioned somewhere so readers know what they are dealing with. TC

### **Issue Resolution (Screener's Response to Issue)**

Updated all written responses with the appropriate common name and included a disclaimer in the general information summary about former names.

### **Issue ID # 11088**

**Date Created:** March 13, 2025 - 11:23am **Date Updated:** April 1, 2025 - 1:06pm

Submitted by: Nicole Valentine

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

Scope: Q04. Is the species (or cultivar or variety) noted as being invasive in the US or world in a similar

climate?

### **Issue Description**

I think you could be a little more specific here with either location or invasive tendencies. In Connecticut (which has occurrences in the climate matching region), it over-tops and shades out plants beneath it (Dreyer et al., 1987 as cited in CABI). Or even just copy paste the noxious weed in WA information here.

-NV

### **Issue Resolution (Screener's Response to Issue)**

Added more specifics to the written answer based on NV's feedback.

### **Issue ID # 10894**

**Date Created:** February 24, 2025 - 8:25am **Date Updated:** March 3, 2025 - 3:07pm

Submitted by: Elizabeth D. Brusati

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

Scope: Q20. Are the plant's propagules frequently dispersed via contaminated seed, equipment, vehicles,

boats or clothing/shoes?

### **Issue Description**

I'm on the fence as to whether Q20 qualifies as a yes since the documentation doesn't show that this is a species that gets stuck on equipment, etc. However, I would be willing to accept a Yes/Medium confidence with more documentation on how it's spread as an ornamental plant and decorations. Can you find out if it's being sold in Oregon?

I suggest adding more detail from the CABI reference to back up your score:

# Means of Movement and Dispersal

Birds, small mammals and other wildlife are attracted to the multicoloured fruit and are a primary means of dispersal. Commercial plant nurseries are still propagating and selling this plant and this is the principal means of long-distance dispersal. In the USA, plants are bought from nurseries and mail order companies, that often mistakenly represent it as the native North American species, C. scandens. People also collect and dry fruiting stems for decorative purposes, moving the seeds to new locations where the material is later discarded. In addition to seeds, pieces of root, moved in soil for landfill and other purposes, can also spread the plant to new locations.

**Issue Resolution (Screener's Response to Issue)** 

I included places that sell oriental bittersweet to Oregon addresses and a source that mentions how it can

spread from the improper disposal of decorative wreaths/flower arrangments. I also lowered the confidence level to medium.

### **Issue ID # 10893**

**Date Created:** February 24, 2025 - 7:31am **Date Updated:** March 3, 2025 - 2:52pm

Submitted by: Jutta Burger

**Status:** Fixed **Type:** Suggestion **Severity:** Major

**Scope:** Q20. Are the plant's propagules frequently dispersed via contaminated seed, equipment, vehicles,

boats or clothing/shoes?

### **Issue Description**

The information provided may not be sufficient to warrant a "yes" (see Help on this question, which states, "Generic information that propagules may be a weed seed contaminant or that they can be in mud that attaches to vehicles is not sufficient to answer yes. Simply being a weed of roadsides does not warrant an automatic yes. Inference based on biological evidence may be necessary to answer the question"). If propagules of the species do not have features (e.g., barbs, spines, minute form) that allow it to easily be moved on clothing, in mud etc. etc., and/or there is no evidence that it's been a seed contaminant, then the answer would be "no" here. Still really good to provide the information that you did here. You may want to look beyond CABI at the primary lit that it provides here. - JB

### **Issue Resolution (Screener's Response to Issue)**

I lowered the confidence level to a medium and provided an additional source that mentions the improper disposal of decorative flower arrangements made of oriental bittersweet. I also included a couple of places where oriental bittersweet is currently being sold to Oregon mailing addresses.

### **Issue ID # 10892**

**Date Created:** February 23, 2025 - 10:04pm **Date Updated:** March 3, 2025 - 3:04pm

Submitted by: Jutta Burger

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q17. Does this plant continuously produce seed for >3 months each year or does seed production

occur more than once a year?

### **Issue Description**

Double-check this. If plants only flower for two months (May-June), then the answer to this would be "no". - JB

### **Issue Resolution (Screener's Response to Issue)**

I changed this answer to "no" after reviewing the suggestion and source provided.

### **Issue ID # 10891**

**Date Created:** February 23, 2025 - 9:52pm **Date Updated:** March 3, 2025 - 3:03pm

Submitted by: Jutta Burger

Status: Fixed Type: Comment Severity: Minor

**Scope:** Q14. Does this plant produce copious viable seeds each year (>1000)?

### **Issue Description**

It might be good to mention here that plants are dioecious. - JB

### **Issue Resolution (Screener's Response to Issue)**

I included that oriental bittersweet is dioecious, having male and female flowers on separate plants.

### **Issue ID # 10890**

**Date Created:** February 23, 2025 - 9:45pm **Date Updated:** March 3, 2025 - 3:01pm

Submitted by: Jutta Burger

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q09. Is the plant a health risk to humans or animals/fish? Has the species been noted as impacting

grazing systems?

### **Issue Description**

If there is documentation that C. orbiculatus has impacted grazing systems, then the answer to this question is "yes" (see "help" on this question). Add at least one relevant reference and describe how it impacts grazing. However, there may not be enough evidence to support that it does impact grazing. Check primary lit referenced in CABI. - JB

### **Issue Resolution (Screener's Response to Issue)**

I included a source that mentions how oriental bittersweet can invade grasslands and displace native vegetation for herbivores and grazing animals.

### **Issue ID # 10888**

**Date Created:** February 23, 2025 - 8:05am **Date Updated:** March 3, 2025 - 2:58pm

Submitted by: Jutta Burger

**Status:** Fixed **Type:** Suggestion

**Severity:** Minor

**Scope:** Q06. Is the species found predominately in a climate matching the region of concern?

### **Issue Description**

Check again to see if your comfortable saying that >50% of the records listed are within OR climate. Even so, it looks like >50% of the distribution is outside of OR climate on the Climate Match map. Would also recommend (either way you go) reducing confidence to medium, since the evidence is "circumstantial". Also recommend adding GBIF as a direct source in references (since Climate Match takes from GBIF). This can be a difficult question to answer! - JB

### **Issue Resolution (Screener's Response to Issue)**

I changed the response to this question to a "no" after reviewing the climate maps and lowered the confidence to medium. I also included the suggested GBIF source.

### **Issue ID # 10887**

**Date Created:** February 23, 2025 - 7:47am **Date Updated:** March 3, 2025 - 2:54pm

Submitted by: Jutta Burger

**Status:** Fixed **Type:** Suggestion **Severity:** Minor

**Scope:** Q03. Is the species (or cultivar or variety) noted as being invasive in the U.S. or world?

### **Issue Description**

You may want to add a primary reference for a state that lists C. orbiculatus as noxious/invasive. E.g., <a href="https://www.nwcb.wa.gov/weeds/round-leaf-bittersweet">https://www.nwcb.wa.gov/weeds/round-leaf-bittersweet</a>. - JB

### Issue Resolution (Screener's Response to Issue)

I added the Washington State noxious weed profile for oriental bittersweet as a source for this question.

### **Issue ID # 10886**

**Date Created:** February 23, 2025 - 7:41am **Date Updated:** April 1, 2025 - 1:51pm

Submitted by: Jutta Burger

Status: Fixed Type: Comment Severity: Minor

**Scope:** Evaluation as a whole

### **Issue Description**

You can replace the default "0" that shows up in a website reference (e.g., for CAB) by adding the year accessed to the publication date (under "Publication" in the bibliographic reference - edit mode). - JB

### Issue Resolution (Screener's Response to Issue)

Added the access year (2025) to the sources that had "0" listed for the publication year.

# **About PRE and this Plant Evaluation Report**

The Plant Risk Evaluator (PRE) is an online database and platform designed to assess the risk of a plant becoming invasive in a given region. This tool offers many benefits, and we encourage you to visit the PRE website (https://pretool.org) for more information.

If you would like to learn more about PRE, please email us at info@plantright.org, requesting a PRE Account.

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