

Washington Invasive Ranking System

Washington Natural Heritage Program

Juglans regia (English Walnut)

Assessed by

Carlo Abbruzzese (Natural Areas Manager, Washington Dept. of Natural Resources)
18 November 2024 (WIRS Version 1.5)

Ecological Impact Rank: **Low** (31)

Confidence: **Moderate** (42)

Management Difficulty Rank: Insignificant (11)

Confidence: Moderate (60)

Biological Characteristics of Invasiveness: Low (44)

Confidence: Moderate (38)

Concern Related to Distribution and Abundance: High (73)

Confidence: Low (30)



Photo Credit: Luigi Rignanese 2005, used under Creative Commons license (CalPhotos, 2024).

Ranking Notes

Rapid assessments only, based primarily on professional expertise.

Legal Listings

[Washington State Weed Board](#): No

[Washington Invasive Species Council](#): No

Section 1: Distribution and Abundance

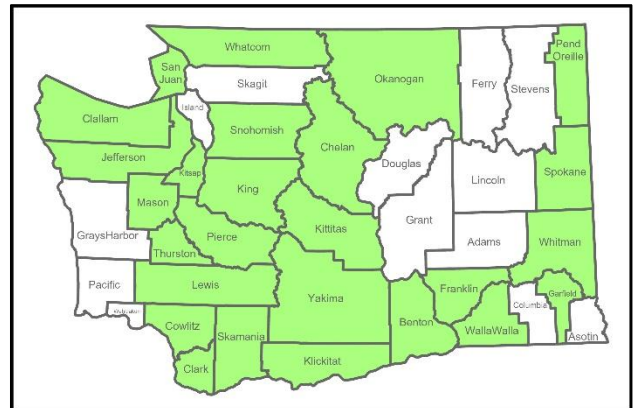


Figure 1. Distribution of counties where *Juglans regia* has been documented in Washington State (CPNWH, 2023; EDDMapS, 2023; iNaturalist Contributors, 2023).

Q1: Current Range Size in Washington

Rating: High

Confidence: Moderate

Juglans regia is found in 67% of counties in Washington State (CPNWH, 2023; EDDMapS, 2023; iNaturalist Contributors, 2023).

Source: Professional expertise, Herbarium records and other observations

Q2: Current Trend in Total Range

Rating: Unknown

Confidence: Not Rated

Source:

Q3: Proportion of Potential Range Currently Unoccupied

Rating: High

Confidence: Low

Most likely only a small percentage of potential range is currently occupied.

Source: Professional expertise

Q4: Local Range Expansion or Change in Abundance

Rating: Low

Confidence: Moderate

Local range expansion is limited, with a few new plants found every few years, but populations are generally not spreading.

Source: Professional expertise

Q5: Diversity of Ecosystems Invaded

Ecosystem types: Forest & Woodland, Grassland & Shrubland, Forested Wetland

Rating: Moderate

Confidence: Moderate

Source: Professional expertise

Section 2: Biological Characteristics

Q6: Aggressive Mode of Reproduction

Rating: No

Confidence: Moderate

This species has relatively low fruit production.

Source: Professional expertise

Q7: Innate Potential for Long-Distance Dispersal

Rating: No

Confidence: Moderate

This species is probably spread by squirrels and possibly jays.

Source: Professional expertise

Q8: Potential to be Spread by Human Activities

Rating: Yes

Confidence: Moderate

Trees are planted by landowners and grown for their nuts.

Source: Professional expertise

Q9: Allelopathy

Rating: Yes

Confidence: Moderate

Walnuts are likely allelopathic.

Source: Professional expertise

Q10: Competitive for Limiting Abiotic Factors

Rating: No

Confidence: Moderate

Source: Professional expertise

Q11: Growth Form

Rating: Not Rated

Confidence: Not Rated

Source:

Q12: Germination Requirements

Rating: Yes

Confidence: Moderate

Source: Professional Expertise

Q13: Invasiveness of Other Plants in Genus

Rating: No

Confidence: Low

Black walnut can also become established, but neither is very invasive.

Source: Professional expertise

Q14: Shade Tolerance

Rating: Moderate

Confidence: Moderate

This species is generally shade intolerant but can be found at forest edges.

Source: Professional expertise

Q15: Disturbance Tolerance

Rating: Yes

Confidence: Moderate

This species tends to be most competitive in openings and grassy fields.

Source: Professional Expertise

Q16: Propagule Persistence

Rating: Unknown

Confidence: Not Rated

Seeds likely only persist 2-3 years, but more information is needed.

Source: Professional Expertise

Q17: Palatability

Rating: Yes, plant is unpalatable

Confidence: Moderate

The seed is palatable, but animals don't appear to browse this species often.

Source: Professional expertise

Section 3: Ecological Impact

Q18: Impact on Ecosystem Abiotic Processes

Abiotic Processes: Light availability, Chemistry

Rating: Low

Confidence: Moderate

Juglans regia likely shades out native trees and shrubs and may be allelopathic.

Source: Professional expertise

Q19: Impact on Ecosystem Structure

Rating: Low

Confidence: Moderate

Source: Professional expertise

Q20: Impact on Ecosystem Composition

Rating: Low

Confidence: Moderate

Source: Professional expertise

Q21: Impact on Particular Native Species

Rating: Insignificant

Confidence: Moderate

Source: Professional expertise

Q22: Observed Ability to Invade Undisturbed Ecosystems

Rating: Low

Confidence: Moderate

Source: Professional expertise

Q23: Observed Ability to Invade Naturally Disturbed Ecosystems

Rating: Not Rated

Confidence: Not Rated

Source:

Section 4: Management Difficulty

Q24: General Management Difficulty

Rating: Low

Confidence: Moderate

Source: Professional expertise

Q25: Minimum Time Commitment

Rating: Insignificant

Confidence: Moderate

Source: Professional expertise

Q26: Impacts of Management on Native Species

Rating: Insignificant

Confidence: Moderate

Source: Professional expertise

Q27: Inaccessibility of Invaded Areas

Rating: Insignificant

Confidence: High

Source: Professional expertise

Q28: Sociopolitical Implications of Management

Rating: Insignificant

Confidence: Moderate

Source: Professional expertise

Additional Comments

None

References

CalPhotos. 2024. Berkeley Natural History Museums, University of California, Berkeley. <https://calphotos.berkeley.edu/>. Accessed: December 17, 2024.

Consortium of Pacific Northwest Herbaria (CPNWH). 2023. Consortium of Pacific Northwest Herbaria Specimen Database. <http://www.pnwherbaria.org/index.php>. Accessed: October 17, 2023.

EDDMapS. 2023. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. <http://www.eddmaps.org>. Accessed: October 15, 2023.

iNaturalist Contributors. 2023. iNaturalist Research-grade Observations, Accessed via GBIF.org. <https://doi.org/10.15468/ab3s5x>. Accessed: October 5, 2023.

