Washington Invasive Ranking System

Washington Natural Heritage Program

Cirsium vulgare (Bull Thistle)

Assessed by
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Ecological Impact Rank: **Low** (33) Confidence: **Moderate** (50)

Management Difficulty: Not Rated	Confidence: Not Rated
Biological Characteristics of Invasiveness: High (85)	Confidence: Moderate (54)
Concern Related to Distribution and Abundance: Moderate (64)	Confidence: Moderate (50)

Photo Credit: David Gilblin 2020, used under Creative Commons license (Burke Herbarium, University of Washington, 2024).

Ranking Notes

This summary includes information about *Cirsium vulgare* that was originally included as part of the assessment of *Cirsium arvense*.

Rapid assessment only, based primarily on professional expertise.

Legal Listings

Washington State Weed Board: Class C

Washington Invasive Species Council: No

Section 1: Distribution and Abundance

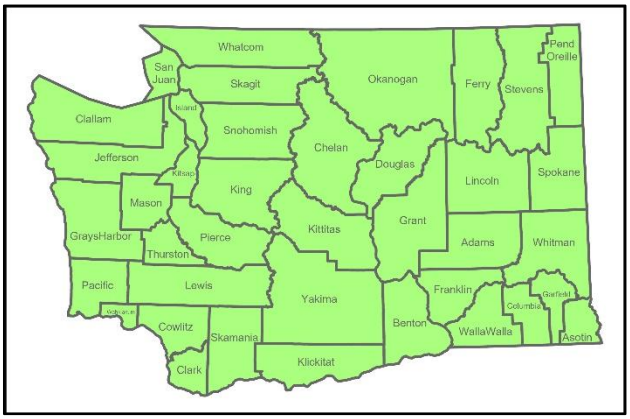

Figure 1. Distribution of counties where *Cirsium vulgare* has been documented in Washington State (CPNWH, 2024; EDDMapS, 2024; iNaturalist Community, 2024).

Q1: Current Range Size in Washington

Rating: High

Confidence: Moderate

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Cirsium vulgare has been documented in all 39 counties in Washington (CPNWH, 2024; EDDMapS, 2024; iNaturalist Community, 2024).

Source: Professional expertise, Herbarium records and other observations

Q2: Current Trend in Total Range

Rating: Low

Confidence: High

Source: Professional expertise

Q3: Proportion of Potential Range Currently Unoccupied

Rating: Insignificant

Confidence: Moderate

Cirsium vulgare has been documented in all 39 counties in Washington (CPNWH, 2024; EDDMapS, 2024; iNaturalist Community, 2024).

Source: Herbarium records and other observations

Q4: Local Range Expansion or Change in Abundance

Rating: Unknown

Confidence: Not Rated

Source:

Q5: Diversity of Ecosystems Invaded

Ecosystem types: Forest & Woodland, Grassland & Shrubland, Emergent Open Wetland

Rating: Moderate

Confidence: Moderate

Source: Professional expertise

Section 2: Biological Characteristics

Q6: Aggressive Mode of Reproduction

Rating: Yes

Confidence: High

This species usually produces 100–300 seeds per inflorescence and a single plant can produce up to 400 flowerheads. Seed production varies per plant and population, and is influenced by climate conditions (Zouhar, 2002).

Source: Professional expertise

Q7: Innate Potential for Long-Distance Dispersal

Rating: Yes

Confidence: High

Seeds are wind-dispersed.

Source: Informal publication, Professional expertise

Q8: Potential to be Spread by Human Activities

Rating: Yes

Confidence: Moderate

Cirsium vulgare may be spread in hay and via many other human activities.

Source: Professional expertise

Q9: Allelopathy

Rating: No

Confidence: Low

Source: Professional expertise

Q10: Competitive for Limiting Abiotic Factors

Rating: Yes

Confidence: Moderate

Cirsium vulgare often remains evergreen throughout the winter.

Source: Professional expertise (information from *Cirsium arvense* Assessment Summary)

Q11: Growth Form

Rating: No

Confidence: High

Source: Professional expertise

Q12: Germination Requirements

Rating: Yes

Confidence: Moderate

Cirsium vulgare germinates in mature prairie and saltmarsh.

Source: Professional Expertise

Q13: Invasiveness of Other Plants in Genus

Rating: Yes

Confidence: High

Other species in this genus (e.g., *Cirsium arvense*) are invasive in Washington (Noxious Weed Control Board (NWCB), 2024). *Cirsium palustre* (marsh thistle) is invasive throughout the Midwest and Canada, including in British Columbia (Gucker, 2009). In addition, other closely related genera in the Cardueae tribe (such as *Onopordum*, *Carduus*, *Centaurea*) contain well-known invasive species.

Source: Informal Publication, Professional Expertise

Q14: Shade Tolerance

Rating: Moderate

Confidence: Moderate

Cirsium vulgare is generally not found in areas of deep shade.

Source: Professional expertise

Q15: Disturbance Tolerance

Rating: Yes

Confidence: Low

Cirsium vulgare is an early successional species commonly found in open, disturbed ecosystems. However, low severity fires can kill seeds for this species (Clark & Wilson, 1994).

Source: Professional expertise

Q16: Propagule Persistence

Rating: Unknown

Confidence: Not Rated

Source:

Q17: Palatability

Rating: Yes, plant is unpalatable

Confidence: Moderate

This species is very spiny—assessors have observed cattle attempting to eat it, but then being deterred.

Source: Professional expertise (information from *Cirsium arvense* Assessment Summary)

Section 3: Ecological Impact

Q18: Impact on Ecosystem Abiotic Processes

Abiotic Processes: None listed

Rating: Insignificant

Confidence: Moderate

Source: Professional expertise

Q19: Impact on Ecosystem Structure

Rating: Insignificant

Confidence: Moderate

This species likely has minor impact on ecosystem structure.

Source: Professional expertise

Q20: Impact on Ecosystem Composition

Rating: Low

Confidence: Moderate

This plant rarely grows with sufficient density to have a large impact on species composition.

Source: Professional expertise

Q21: Impact on Particular Native Species

Rating: Unknown

Confidence: Not Rated

Source:

Q22: Observed Ability to Invade Undisturbed Ecosystems

Rating: Moderate

Confidence: Moderate

Source: Professional expertise

Q23: Observed Ability to Invade Naturally Disturbed Ecosystems

Rating: Yes

Confidence: High

Source: Professional expertise

Section 4: Management Difficulty

Q24: General Management Difficulty

Rating: Not Rated

Confidence: Not Rated

Source:

Q25: Minimum Time Commitment

Rating: Not Rated

Confidence: Not Rated

Source:

Q26: Impacts of Management on Native Species

Rating: Not Rated

Confidence: Not Rated

Source:

Q27: Inaccessibility of Invaded Areas

Rating: Not Rated

Confidence: Not Rated

Source:

Q28: Sociopolitical Implications of Management

Rating: Not Rated

Confidence: Not Rated

Source:

Additional Comments

None

References

Burke Herbarium, University of Washington. 2024. Burke Herbarium Image Collection. https://burkeherbarium.org/imagecollection. Accessed: December 17, 2024.

Clark D.L. and M.V. Wilson. 1994. Heat-treatment effects on seed bank species of an old-growth Douglas-fir forest. *Northwest Science* 68(1):1–5.

Consortium of Pacific Northwest Herbaria (CPNWH). 2024. Consortium of Pacific Northwest Herbaria Specimen Database. https://www.pnwherbaria.org/data/search.php. Accessed: December 20, 2024.

EDDMapS. 2024. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. http://www.eddmaps.org. Accessed: June 17, 2024.

Gucker C.L. 2009. Cirsium palustre. In: Fire Effects Information System, [Online]. US Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory. https://www.fs.usda.gov/database/feis/plants/forb/cirpal/all.html. Accessed: June 20, 2024.

iNaturalist Community. 2024. Research grade observations from Washington State. https://www.inaturalist.org/. Accessed: December 24, 2024.

Noxious Weed Control Board (NWCB). 2024. Cirsium arvense, Canada thistle. https://www.nwcb.wa.gov/weeds/canada-thistle. Accessed: December 23, 2024.

Zouhar K. 2002. Cirsium vulgare: In: Fire Effects Information System, [Online]. US Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory. https://www.fs.usda.gov/database/feis/plants/forb/cirvul/all.html. Accessed: January 22, 2025.