

# Washington Invasive Ranking System

Washington Natural Heritage Program

## *Iris pseudacorus* (Yellow Flag Iris)

Assessed by

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19 December 2023 (WIRS Version 1.5)

Ecological Impact Rank: **High** (82)

Confidence: **Moderate** (42)

Management Difficulty Rank: Moderate (58)

Confidence: High (70)

Biological Characteristics of Invasiveness: High (78)

Confidence: High (75)

Concern Related to Distribution and Abundance: High (81)

Confidence: Low (30)



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

### Ranking Notes

Rapid assessments 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 *Iris pseudacorus* has been documented in Washington State (CPNWH, 2023; EDDMapS, 2023; iNaturalist Contributors, 2023).

**Q1: Current Range Size in Washington**

Rating: High

Confidence: High

*Iris pseudacorus* is documented in 97% of counties in Washington (CPNWH, 2023; EDDMapS, 2023; iNaturalist Contributors, 2023).

Source: Herbarium records and other observations

**Q2: Current Trend in Total Range**

Rating: Not Rated

Confidence: Not Rated

Source:

**Q3: Proportion of Potential Range Currently Unoccupied**

Rating: Insignificant

Confidence: Low

*Iris pseudacorus* is documented in 97% of counties in Washington (CPNWH, 2023; EDDMapS, 2023; iNaturalist Contributors, 2023).

Source: Herbarium records and other observations

**Q4: Local Range Expansion or Change in Abundance**

Rating: Not Rated

Confidence: Not Rated

Source:

**Q5: Diversity of Ecosystems Invaded**

Ecosystem types: Emergent Open Wetland, Shallow Water Wetland, Coastal Brackish Tidal Wetland

Rating: Moderate

Confidence: Moderate

Source: Professional expertise

**Section 2: Biological Characteristics**

**Q6: Aggressive Mode of Reproduction**

Rating: Yes

Confidence: High

*Iris pseudacorus* reproduces both vegetatively and by seed—the proportion may vary by local site conditions (Preece, 1964; Sutherland, 1990).

Source: Published research

**Q7: Innate Potential for Long-Distance Dispersal**

Rating: Yes

Confidence: High

*Iris pseudacorus* seeds are dispersed by water and remain buoyant for extremely long periods (Whitehead, 1971; Weber, 2003; King County Noxious Weed Control Program, 2007).

Source: Published research, Informal publication

**Q8: Potential to be Spread by Human Activities**

Rating: Yes

Confidence: High

This plant is an attractive ornamental.

Source: Professional expertise

**Q9: Allelopathy**

Rating: No

Confidence: Low

This plant is not known to produce allelopathic chemicals, but the assessor was not aware of any published studies to this effect.

Source: Professional expertise

**Q10: Competitive for Limiting Abiotic Factors**

Rating: No

Confidence: Low

This plant is most competitive in high nutrient environments (Tu, 2004). However, seedling *Iris pseudacorus* invest heavily in extensive root systems that allow them to persist through large water level fluctuations (Whitehead, 1971).

Source: Published research, Informal publication

**Q11: Growth Form**

Rating: Yes

Confidence: High

Rhizome growth may compact wetland soils into hardpans that exclude the establishment of other species (Thomas, 1980; Stone, 2009).

Source: Informal publication

**Q12: Germination Requirements**

Rating: Yes

Confidence: High

*Iris pseudacorus* does not require bare soil for germination—seedlings have been observed growing from trash, on top of tree roots, etc. (Thomas, 1980).

Source: Informal publication

**Q13: Invasiveness of Other Plants in Genus**

Rating: Not Rated

Confidence: Not Rated

Source:

**Q14: Shade Tolerance**

Rating: Yes

Confidence: High

Low light may inhibit seedling establishment, but likely does not slow growth or vegetative reproduction by mature plants (Thomas, 1980).

Source: Informal publication

**Q15: Disturbance Tolerance**

Rating: Yes

Confidence: High

Disturbance benefits *Iris pseudacorus* by spreading rhizome fragments and seeds.

Source:

**Q16: Propagule Persistence**

Rating: >10 years

Confidence: High

Rhizome fragments have been shown to remain viable for at least 10 years (Sutherland & Walton, 1990).

Source: Published research

**Q17: Palatability**

Rating: Yes, not palatable

Confidence: High

This species is considered poisonous (Diggs et al., 1999).

Source: Informal publication

**Section 3: Ecological Impact**

**Q18: Impact on Ecosystem Abiotic Processes**

Abiotic Processes: Geomorphology, Hydrology

Rating: Moderate

Confidence: Moderate

This species can change the hydrology and sedimentation rates (King County Noxious Weed Control Program, 2007) of the ecosystems in which it occurs.

Source: Informal publication, Professional expertise

**Q19: Impact on Ecosystem Structure**

Rating: High

Confidence: Low

One study from the eastern US reports that *Iris pseudacorus* suppresses willow establishment and provides a raised surface upon which wetland trees may establish, thus speeding the successional trajectory from marsh to swamp (Thomas, 1980).

Source: Informal publication, Professional expertise

**Q20: Impact on Ecosystem Composition**

Rating: High

Confidence: Moderate

This species grows as large vegetative clones that crowd out co-occurring native species, even competitive native species such *Typha latifolia* (Preece, 1964; Morgan, 2008).

Source: Published research, Informal publication, Professional expertise

**Q21: Impact on Particular Native Species**

Rating: Moderate

Confidence: Moderate

Source: Professional expertise

**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: Moderate

Source: Professional expertise

**Section 4: Management Difficulty**

**Q24: General Management Difficulty**

Rating: High

Confidence: Moderate

Source: Professional expertise

**Q25: Minimum Time Commitment**

Rating: Moderate

Confidence: High

Source: Professional expertise

**Q26: Impacts of Management on Native Species**

Rating: Insignificant

Confidence: High

Source: Professional expertise

**Q27: Inaccessibility of Invaded Areas**

Rating: Moderate

Confidence: Moderate

This species may occur in areas of deep water that are difficult to access.

Source: Professional expertise

**Q28: Sociopolitical Implications of Management**

Rating: Moderate/Low

Confidence: Moderate

This species is an attractive ornamental.

Source: Professional expertise

**Additional Comments**

None

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