

Native Plants

*Yard Care in a Changing
Climate*

Elyssa Kerr
Habitat Project Coordinator



Why native



What is native?



Adaptation?

Drought and Heat Stress



Susceptibility to disease



Plants affected:

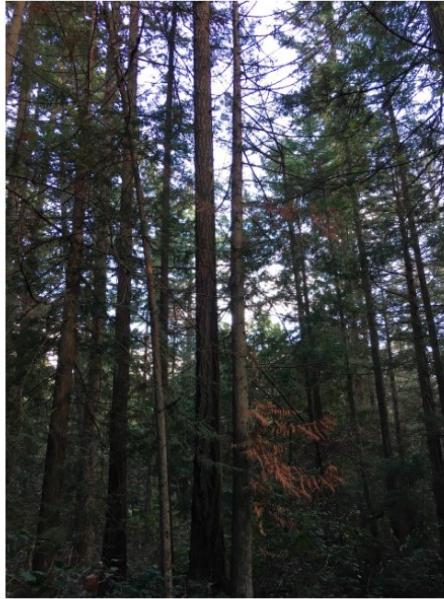
- Western Red Cedar
- Western Hemlock
- Big Leaf Maple

Western Red Cedar, *Thuja*

Dead Top



Brown Canopy



Thinning Foliage



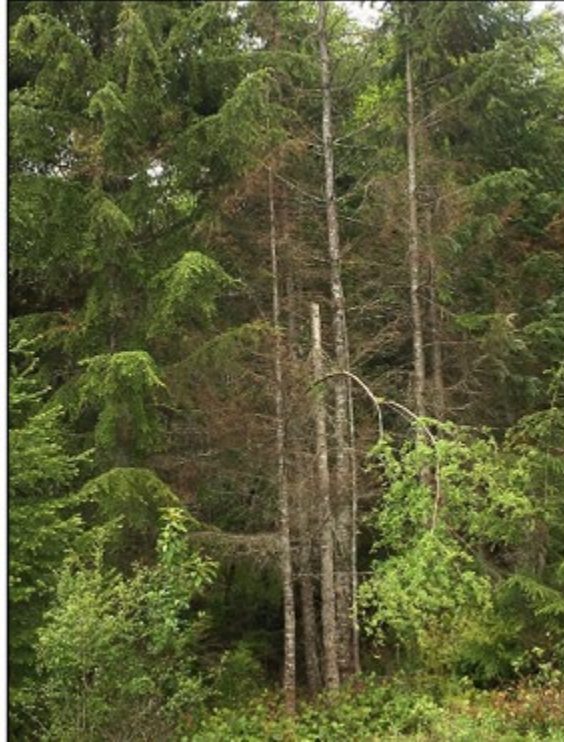
foresthealth.org



FOREST HEALTH WATCH

Empowering PNW Communities to Keep Forests Healthy

Western Hemlock, *Tsuga*



Drought Stress + Root pathogen + Foliar pathogen
WA Department of Natural Resources

Amy C. Ramsey, DNR
Forest Pathologist

Big Leaf Maple, *Acer*

Bigleaf maple, *Acer macrophyllum* Pursh, decline in western Washington, USA

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ABSTRACT

Acer macrophyllum is a prominent component of the western Washington landscape where it performs ecological, economic, and cultural functions. Reports of its decline and increased mortality in the Pacific Northwest were documented beginning in 2011. Symptoms of this decline include a systemic loss of vigor, loss of transpiration, and reduced photosynthesis due to leaf loss. We conducted a preliminary study of *A. macrophyllum* decline across western Washington in 2014–2015 and observed decline symptoms across the region, but we did not detect any specific biotic causative agents. We subsequently conducted a multi-approach study in 2017 to quantify the spatial and temporal patterns of *A. macrophyllum* decline in western Washington, and to examine biotic and abiotic associations with its decline. We sampled in urban and suburban areas, and in wildland forests, and collected site-specific data to test for associations with decline. We also measured elemental concentrations in foliar and soil samples to determine their association with decline. Lastly, we conducted a dendrochronological analysis to ascertain the spatial and temporal patterns of decline. We report that *A. macrophyllum* decline is a recent phenomenon, particularly since 2011, that was positively associated with sites closer to roads and with increased development, and with increases in summer temperatures. Site conditions, especially hotter urban sites, are predisposing *A. macrophyllum* to mortality. We did not detect a consistent biotic agent that could be implicated in *A. macrophyllum* decline. We contend that abiotic factors are either causing direct mortality to *A. macrophyllum*, or making them vulnerable to opportunistic biotic agents. The results of this study inform mitigating management strategies for *A. macrophyllum* in the forest of the Pacific Northwest.

-Decline is a recent phenomenon

-Associated with sites closer to roads... and with increases in summer temperatures

-Hotter urban sites are predisposing *A. macrophyllum* to mortality

Adaptation?

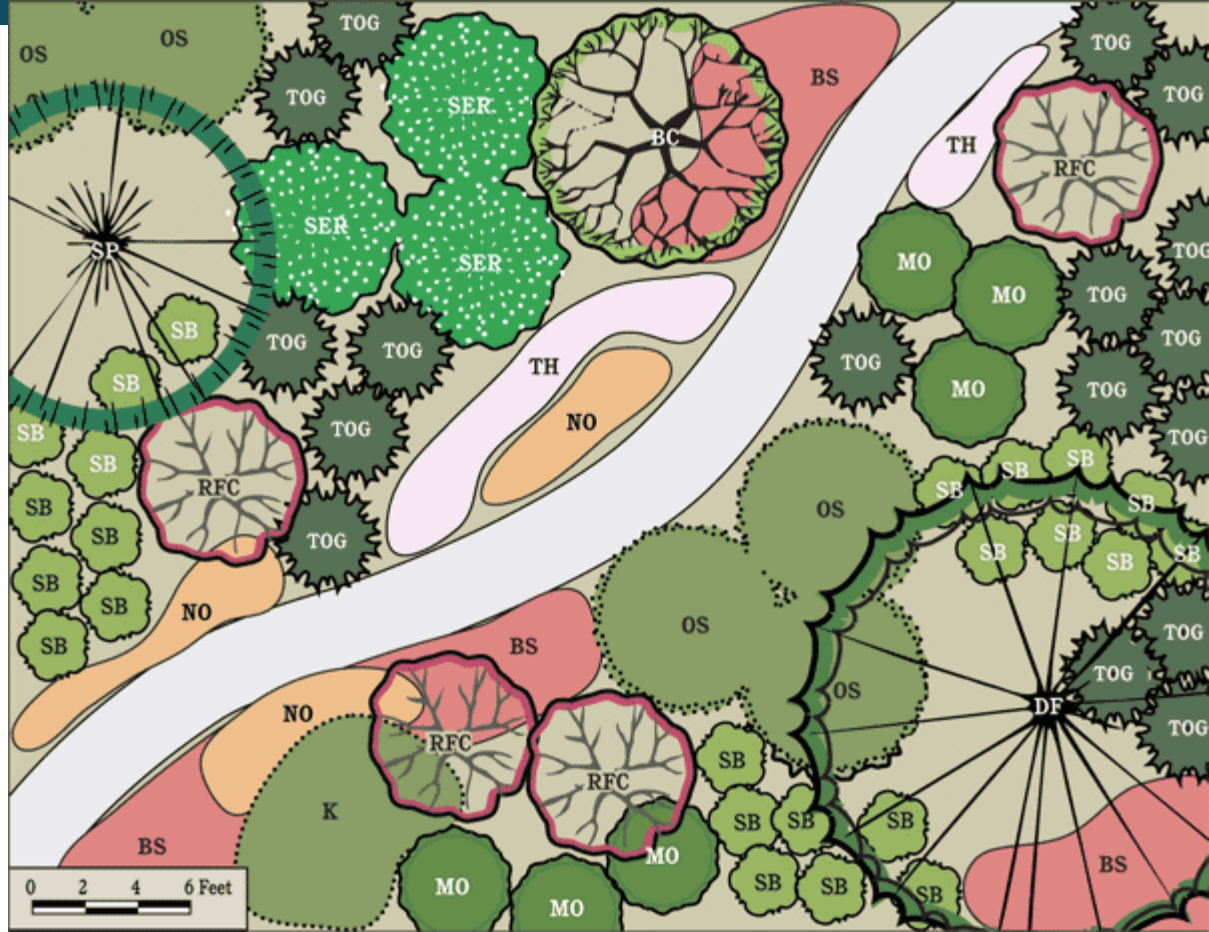
Drought and Heat Stress



Susceptibility to disease



Right plant, Right Place



Shore Pine, *Pinus contorta*



Height: 25-50 ft

Width: up to 30 ft

Optimal Moisture Requirements: Dry – Wet

Light Requirements: Part Shade – Sun



Grand Fir, *Abies grandis*



Height: 140-200 ft

Width: up to 25 ft

Optimal Moisture Requirements:

Dry – Moist

Light Requirements: Shade – Part Shade



Cascara, *Rhamnus purshiana*



Height: 15-30 ft

Width: up to 15 ft

Optimal Moisture Requirements: Dry – Wet

Light Requirements: Part Shade – Sun



Shrubs



Red Flowering Currant

Ribes Sanguineum

Height: 5-10 ft

Width: up to 5 ft

Optimal Moisture Requirements: Dry – Moist

Light Requirements: Part Shade – Sun

Oceanspray

Holodiscus discolor

Height: up to 10 ft

Width: up to 7 ft, can spread to form thickets

Optimal Moisture Requirements: Dry – Moist

Light Requirements: Part Shade – Sun



Shrubs



Salmonberry

Rubus spectabilis

Height: up to 12 ft

Width: up to 10 ft, can spread to form thickets

Optimal Moisture Requirements: Dry – Wet

Light Requirements: Shade – Sun

Snowberry

Symphoricarpus albus

Height: 4-7 ft

Width: up to 6 ft, can spread to form thickets

Optimal Moisture Requirements: Dry – Moist

Light Requirements: Shade – Sun



Groundcover



Planning Resources

-King County native plant guide:

<https://green2.kingcounty.gov/gonative/Index.aspx>

-WNPS

<https://www.wnps.org/native-plant-directory>

-USDA Plants Database

<https://plants.sc.egov.usda.gov/home>

The image shows a collage of three web pages. The top page is the King County Native Plant Guide, featuring a navigation menu with 'Home', 'How do I...', 'Services', 'About King County', and 'Departments'. The middle page is the Washington Native Plant Society website, with a mission statement and navigation tabs for 'WNPS HOME', 'GET INVOLVED', 'PLANTS', 'PLANT DIRECTORY', and 'PLANT'. The bottom page is the USDA Plants Database, showing a search bar, a 'Browse by genus' section with letters A through F, and a 'Plant Spotlight' for *Dixie iris* (*Iris hexagona*).

King County

Native Plant Guide

Information and Services for King County, Washington

You're in: Northwest Yard and Garden » Native Plant Guide

- Home
- Find a Plant
- Plant list
- Browse photos
- Search all plants
- Landscape plans
- How-to articles
- my Plant List
- Printable list
- Log in
- Help

Washington Native Plant Society

Mission Statement: To promote the appreciation and conservation of Washington's native plants and their habitats through study, education, and advocacy.

- WNPS HOME
- GET INVOLVED
- PLANTS
- PLANT DIRECTORY
- PLANT

Browse by genus:

- A
- B
- C
- D
- E
- F
- G
- H



Abies grandis
Pinaceae
Grand Fir

USDA United States Department of Agriculture

Natural Resources Conservation Service

- Home
- Topics
- Team
- Downloads
- Partners
- Related Tools
- Help

- Basic Search
- Scientific Name Go
- Characteristics Search
 - Duration Search
 - Fact Sheets/Plant Guides
 - Group Search
 - Growth Habit Search
 - Image Search
 - Invasive/Noxious Search
 - Rarity Search
 - State Search
 - Wetland Search

PLANTS Database

Plant List of Accepted Nomenclature, Taxonomy, and Symbols

The PLANTS Database provides standardized information about the vascular plants, mosses, ferns, cyanophytes and diatoms, hornworts, and lichens of the U.S. and its territories.

Plant Spotlight

Dixie iris
Iris hexagona

[View Profile](#)

Where to get native plants

theplantsale.org

Sale date:
March 5 & 6, 2022

Preorder date:
January 24 –
February 4, 2022



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Thanks for your interest in
our Plant Sale.

See you in March 2022!

[How to Plant / Planting Guides](#)

[Email Sign Up](#)

Thank you!

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