

THREAT LEVEL

IDAHO FISH & GAME

Species not yet assessed



CALL TO ACTION

- ▶ Protect critical habitat
- ▶ Expand research on changing soil composition and salinity



Stinging Nettle

Urtica dioica

Photo Credit: J. Brew

OVERVIEW

Stinging nettle is widespread, inhabiting a variety of ecosystems and habitats like pastures, orchards, roadsides, floodplains, and ditches. The species prefers cool, moist areas with partial shade and is at risk from increasingly frequent and prolonged drought. Stinging nettle cannot tolerate soil with high salinity, and the effects of climate change on soil composition remain poorly understood. Idaho law establishes nettle as a noxious weed, meaning active management measures to control its spread may conflict with conservation efforts for this species.

CONSERVATION CONSIDERATIONS

VULNERABILITY RANKING

CLIMATE

LOW - MODERATE

NON-CLIMATE

MODERATE

CONFIDENCE

LOW

Physiological, phenological, or ecological factors to consider when planning conservation projects:

- ▶ Stinging nettle inhabits a wide variety of ecosystems that span across many states.
- ▶ The species depends on damp conditions making it vulnerable to increasing drought

Vulnerability Rankings Methodology

These priority species have been assessed for climate and non-climate vulnerability using a process adapted from the Washington Department of Fish & Wildlife's Methodology for ranking the Climate Change Vulnerability of Species. WDFW's approach includes rating each species' climate sensitivity and exposure. These two rankings are then averaged for a climate vulnerability ranking. The Tribe developed a non-climate vulnerability ranking to capture species' relative risk and adaptability to factors such as human-caused development, predator/prey relationships, or low population numbers. Confidence rankings were assessed based on the availability of scientific research.

KEY THREATS

Climate Change

- ▶ Due to its preference for moist soil, more frequent and longer droughts pose risks to this species.
- ▶ Stinging nettle is unable to tolerate high saline concentrations in soil. Changes in precipitation patterns, flooding cycles, and increased evaporation can alter soil salinity levels, but researchers are unsure how this will directly impact stinging nettle.
- ▶ Increased evaporation caused by rising temperatures will reduce soil moisture and change soil composition, potentially altering native habitats and making them unsuitable for stinging nettle.

Non-native Plant Species

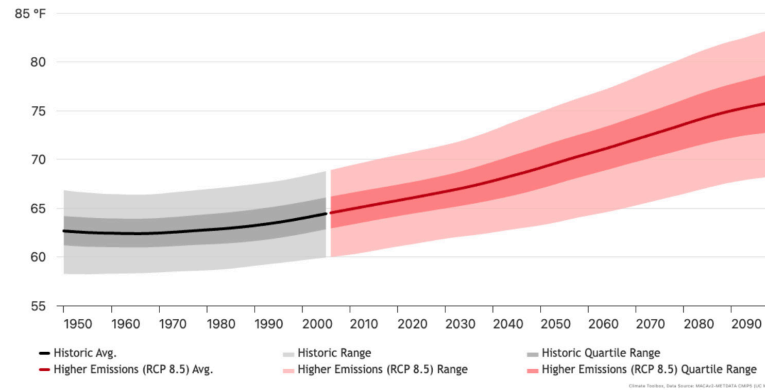
Like many native species, encroachment of non-native grasses threatens stinging nettle. These grasses outcompete stinging nettle for resources and limit its ability to spread.



Photo Credit: idfg.idaho.gov

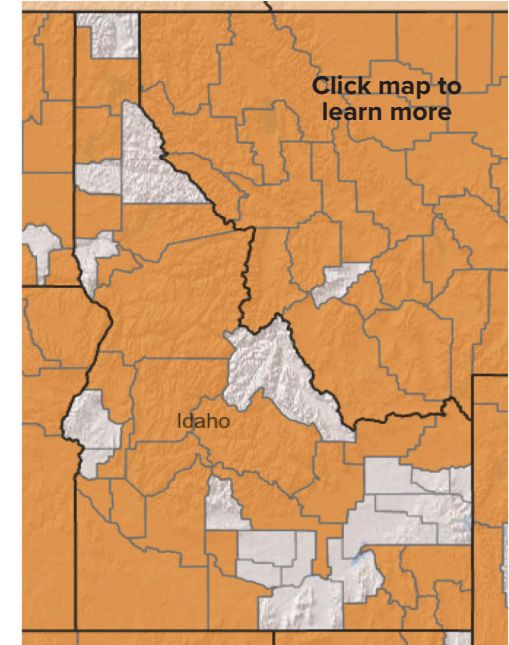
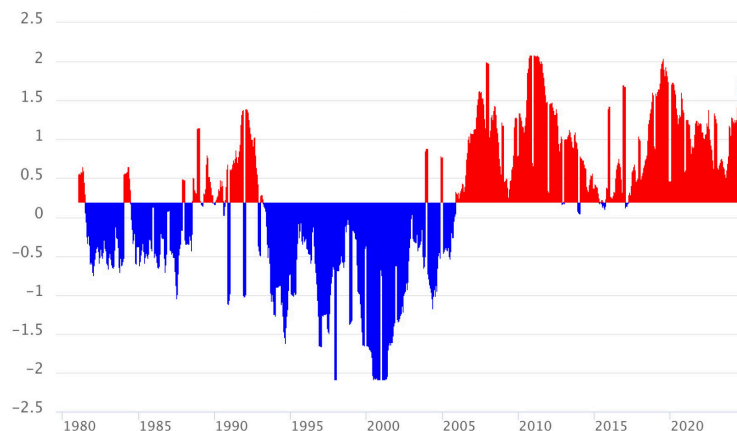
JUN-JUL-AUG MAX TEMPERATURE

BOUNDARY COUNTY, ID



2-YEAR EVAPORATIVE DROUGHT DEMAND INDEX (EDDI)

BOUNDARY COUNTY, ID, AVG (1980-2024)



Source: plants.usda.gov

REFERENCES

- “USDA Plants Database.” USDA.gov, 2025, plants.usda.gov/plant-profile/URDI. Accessed 3 Oct. 2025.
- Dujmović, Mia, et al. “Accumulation of Stinging Nettle Bioactive Compounds as a Response to Controlled Drought Stress.” *Agriculture*, vol. 13, no. 7, 6 July 2023, p. 1358, www.mdpi.com/2077-0472/13/7/1358. Accessed 4 Aug. 2025.
- Temperature chart: Hegewisch, K.C., Abatzoglou, J.T., ‘Future Time Series’ web tool. Climate Toolbox (<https://climatology.org/>) accessed Mar. 18 2025.
- J. Brew. Red-Tail Land Conservancy, <https://fortheland.org/stinging-nettle/>

PRIORITY AT-RISK SPECIES
KOOTENAI TRIBE OF IDAHO