

FUELING THE FLAMES: EXOTIC ANNUAL GRASSES TURNING UP THE HEAT

LANDOWNERS, MANAGERS, FIREFIGHTERS, AND AGENCIES: WATCH FOR THESE INVASIVES

Ventenata and Medusahead are winter annuals that emerge in late fall, winter, and spring. These grasses mature early in the summer providing fine fuels for wildfires ([IMAGINE, 2024](#)). Ventenata and Medusahead are frequently found together where conditions allow.

WILDFIRE THREATS

These invasive annual grasses increase wildfire danger in shrublands and woodlands of the American West (Kirkland and Kerns, 2023).

- Fine, highly flammable fuel loads facilitate larger and more frequent fires.
- Relatively high silica content make these grasses less palatable for grazing (unlike cheatgrass which is palatable in its green phase), and creates a build-up of litter on the soil surface.
- These species can spread throughout areas that once acted as natural fire breaks.

VENTENATA

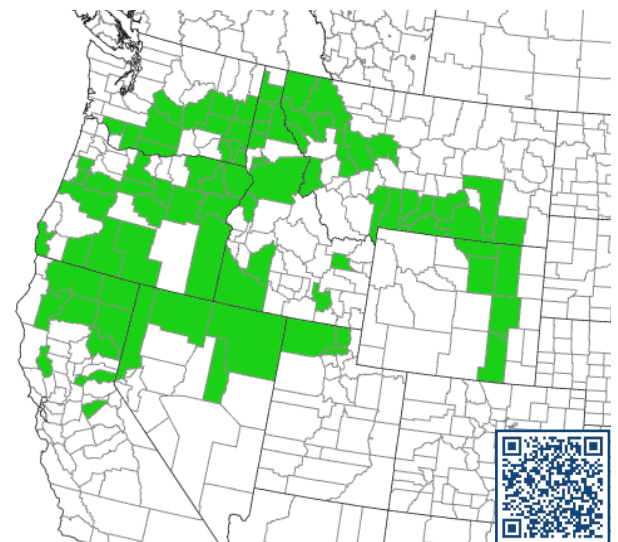
(Ventenata dubia)

ABOUT

- Native to Eurasia and North Africa, ventenata is found within bunchgrass, sagebrush, and meadow ecosystems.
- Seeds reach maturity about two weeks after downy brome (May through June), fall to the ground for dispersal, and persist in the seed bank less than two years.
- Control methods include hand-pulling for smaller infestations, one or two applications of Rejuvra herbicide, or prescribed burn when seeds are still attached, but it can impede mechanical harvesting equipment.

INVASION HISTORY

Ventenata was first reported in the United States in 1952 around Spokane, Washington and has rapidly spread across the inland Pacific Northwest, including ten states nationwide and for Canadian provinces (Kirkland and Kerns, 2023). Ventenata has rapidly spread through Montana and east of the Continental Divide south through Wyoming.



Reach out to your local CSU Extension agent or weed management specialist for accurate identification.

MEDUSAHEAD

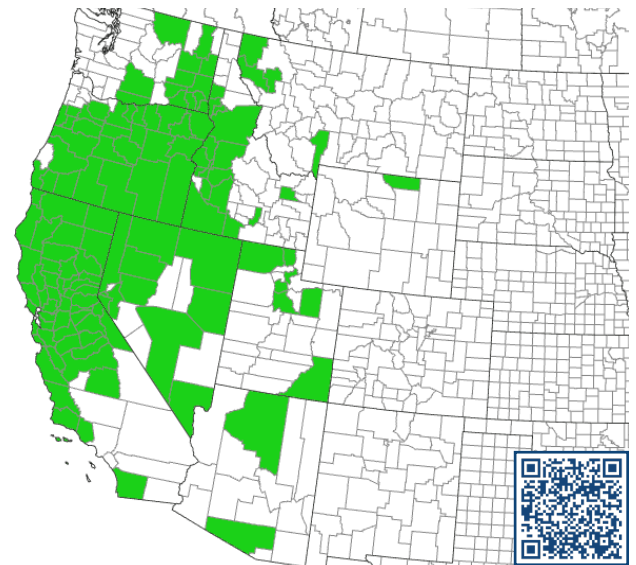
(Taeniatherum caput-medusae)

ABOUT

- Native to the Mediterranean, medusahead is found within grasslands, rangeland, chaparral, oak woodlands, and disrupted sites with clay soil and deep moisture.
- Seeds mature two to four weeks after other annuals (late June to early July), disperse by clinging to animals or people, and persist in the seed bank two years.
- Known control methods include late-season mowing before seeds set, one or two applications of Rejuvra herbicide, removal of built-up thatch, and tilling (in some cases).

INVASION HISTORY

Medusahead was first reported in the United States near Roseburg, Oregon in 1887, but did not spread rapidly until the 1950's (Young, 1992). It is now most common in the western U.S. from British Columbia south to California and east to Idaho. Medusahead has become established in areas of eastern Utah and northern Wyoming, but may potentially exist elsewhere east of the Continental Divide.



Reach out to your local CSU Extension agent or weed management specialist for accurate identification.



These invasives can dominate forest meadows and create continuous fuels in previously rocky areas. Photo of medusahead and ventenata grasses in the Blue Mountains of Oregon.

REFERENCES

- DiTomaso, J.M., Kyser, G.B., Oneto, S.R., Wilson, R.G., Orloff, S.B., Anderson, L.W., Wright, S.D., Roncoroni, J.A., Miller, T.L., Prather, T.S. and Ransom, C., 2013. Weed control in natural areas in the western United States. Weed Research and Information Center, University of California, 544.
- EDDMapS. 2025. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/>
- IMAGINE. 2024. Invasive Grass Identification. The University of Wyoming - Institute for Managing Annual Grasses Invading Natural Ecosystems. <https://www.invasivegrasses.com/resources>
- Kirkland, John; Kerns, Becky. 2023. Not just another cheatgrass: The ventenata invasion in the interior Northwest. Science Findings 260. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 6 p. <https://www.fs.usda.gov/pnw/sciencef/scifi260.pdf>
- Young, J.A., 1992. Ecology and management of medusahead (*Taeniatherum caput-medusae* ssp. *asperum* [Simk.] Melderis). The Great Basin Naturalist, pp. 245-252. <https://www.jstor.org/stable/41712724>

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