

WHICH PLANT AND ANIMAL SPECIES ARE POISED TO BECOME INVASIVE IN WYOMING?

Weed and pest professionals are always on the lookout for invasive weeds and other pests that may soon make their way into our state.

The sheer numbers of plants in the world complicates this job. There are about 400,000 plant species worldwide. Have a guess about how many species there are in Wyoming? Almost 2,650. Not surprisingly, determining which will become a new invasive pest in Wyoming isn't easy or straightforward. This article will focus on just six plants and one insect species that are of increasing concern in Wyoming.



John M. Randall, The Nature Conservancy, Bugwood.org

Ventenata, *Ventenata dubia*

General info: North Africa grass or wiregrass are other names for ventenata. Areas with early spring moisture favor this winter annual grass as it germinates in the fall and typically produces seed between May and June.

Identification: Ventenata has a silvery sheen due to microscopic hairs along the plant. This grass has reddish-black nodes, and the awns are twisted and bent on upper florets, making it distinguishable from similar species such as cheatgrass, *Bromus tectorum*. It is found in a variety of locations including roadsides, hay, pasture, rangeland, and Conservation Reserve Program (CRP) lands.

Reasons for concern: Ventenata is very difficult to control once established. High silica content makes it unpalatable to livestock. The shallow root system may cause soil to be more prone to erosion. The open and dry climate of Wyoming makes the state ideal for establishment.

Noxious status: Designated in the state of Wyoming



Steve Dewey, Utah State University, Bugwood.org

Medusahead, *Taeniatherum caput-medusae*

General info: This species is also called medusahead wildrye or medusahead rye. This winter annual grass has reduced grazing capacity by as much as 80 percent in certain situations.

Grazing season is much shorter than cheatgrass due to high silica content; colonizes where native perennial vegetation is destroyed or weakened.

Identification: Medusahead has a bristly, spike-type seed head that looks similar to foxtail barley and bottlebrush squirreltail. At 6-24 inches tall, it can blend into a grassy landscape very well, although it can have a yellowish-green tint.

Reasons for concern: Like ventenata, this grass is highly problematic once established. Grazing is unlikely due to high silica content. Medusahead is a strong colonizer in areas where native, perennial plants are destroyed or weakened.

Noxious status: Designated in the state of Wyoming

The Northeast Wyoming Invasive Grass Working Group was created to battle these two concerning grass species. More information can be found at <https://www.scweeds.com/newigwg>. Further identification tips can be found in the Wyoming Invasive Grasses guide, bit.ly/wyoinvasives.

Moth mullein, *Verbascum blattaria*

General info: Moth mullein is a biennial weed, meaning it typically germinates in the fall, appears as a rosette of leaves its first summer, overwinters, and then bolts and flowers the second summer. Seeds of this species have a notably long



John Cardina, The Ohio State University, Bugwood.org

seed viability of 90-120 years. Moth mullein can be found in pastures, hay fields, rights-of-way, rangeland, and disturbed areas.

Identification: Moth mullein can be 5 feet tall and has large white or yellow flowers with purple centers. It looks similar to common mullein but doesn't have hairy stems or leaves, and leaf margins are toothed.

Reasons for concern: This weed is problematic because it can decrease forage value, is difficult to control after the rosette stage, and has the ability to invade several different areas in a short period of time.

Noxious status: Declared noxious in Johnson and Teton counties



Utah State University, Bugwood.org

Rush skeletonweed, *Chondrilla juncea*

General info: Highly adaptable, rush skeletonweed can thrive in areas receiving anywhere from 5 to 60 inches

of annual precipitation and can tolerate a wide variety of climatic and soil conditions. In its native range of Eurasia, rush skeletonweed is described as a biennial. However, in invaded habitats such as North America, it exhibits perennial characteristics and may live up to 20 years.

Identification: Ranging from 1-4 feet tall, the entire plant contains a milky substance. The stems are usually leafless but if leaves are present, they are found mainly lower on the plant. Rush skeletonweed rosettes look similar to a dandelion.

Reasons for concern: While palatable to sheep and goats in the rosette stage and early bolting stages, this weed is generally unpalatable to livestock. Control is difficult due to the spread by seed and, at times, buds on roots.

Noxious status: Declared noxious in Big Horn, Converse, Teton, and Washakie counties



Howard F. Schwartz, Colorado State University, Bugwood.org

Palmer amaranth, *Amaranthus palmeri*

General info: Despite being native to the southwestern U.S., Palmer amaranth has become a major problem in the southeast and midwest U.S., particularly in agronomic crops. It can grow up to 3 inches per day in hot temperatures.

Identification: Palmer may look very similar to other pigweed species, notably redroot pigweed. Distinguishing characteristics include the petiole length (the stalk of the leaf) is longer than the leaf itself, and the seed head can be up to 2 feet long.

Reasons for concern: This highly invasive weed has reduced crop yields by 90 percent in certain areas. Palmer can develop herbicide resistance quickly and is already resistant to several different modes of action. A single plant is capable of producing a half-million seeds, which can move on equipment, reclamation and CRP plantings, and agronomic grains.

Noxious status: Declared noxious in Goshen County

More info here: bit.ly/wyoamaranthus or goshenweedandpest.com

Yellow starthistle, *Centaurea solstitialis*



Cindy Roche, Bugwood.org

General info: Like many species in this article, yellow starthistle is a winter annual that typically germinates in the fall, yet some seeds of this species can germinate in the spring. The first allocation of resources go toward the roots, and these can grow up to 3 feet despite aboveground growth appearing as a relatively small basal rosette.

Identification: Yellow starthistle averages 2 feet tall, but may grow up to 5 feet tall. The most distinctive characteristic are the bracts, which appear as sturdy spines up to 2 inches long. These spines are directly under bright yellow flowers.

Reasons for concern: This invasive weed has the ability to form dense stands where native, perennial vegetation is disturbed. Cattle and sheep may eat rosettes, but they become unpalatable once more mature due to thorns underneath the flowers. Horses that graze a mature plant can develop “chewing disease,” which is a fatal nervous disorder.

Noxious status: Designated noxious in Wyoming

Emerald ash borer (EAB), *Agrilus planipennis*

General info: EAB originated in Asia. In addition to many eastern states, EAB has been found in neighboring South Dakota, Nebraska, and Colorado. Adults feed on ash tree foliage and cause minor aesthetic damage. Larvae cause the most damage by feeding on the inner bark, making water and nutrient transport difficult or impossible. Damage is initially noticeable in the top third of the canopy and continues downward until the tree is bare.



Howard Russell, Michigan State University, Bugwood.org

Identification: EAB adults are bright, metallic green beetles ½-inch long with purple abdominal segments under the wing covers. Larvae have no legs, are creamy white in color, and have bell-shaped body segments. Underneath splitting bark will be serpentine feeding galleries from larvae. Other signs of EAB include increased woodpecker activity and damage, as well as shoots growing from roots or a tree’s trunk with leaves larger than normal.

Reasons for concern: EAB infestations can spread through material (such as firewood and building materials). Millions of ash trees have died, costing municipalities, property owners, and nurseries hundreds of millions of dollars.

Noxious status: Declared noxious in Park County
For more detailed information:
www.emeraldashborer.info/

What you can do

These species are either not identified to be in Wyoming, or are not yet widespread, making them ideal for early detection and rapid response tactics. Identification is crucial to protecting our state from establishment of these invasives. If you suspect you have seen any of these species, contact your local University of Wyoming Extension office or weed and pest control district office.

Practices such as using weed-free products, using local firewood, and remembering to Play, Clean, Go (www.playcleango.org) on all lands can help keep these species out of our state (or slow their spread).

For more information, contact your local weed and pest control district, bit.ly/weedandpestoffices.

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