

Weed: Viper's bugloss or Blueweed (*Echium vulgare* L.)

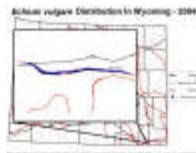
Family: Boraginaceae (same family as houndstongue)

Images: Courtesy of Stephen F. Enloe - University of Wyoming



Brief Plant Description: (Taken from Klemow et al. 2002, Can. J. of Plant Science 82:235-248) The plant is a biennial and may sometimes occur as a short lived monocarpic perennial. First year rosette leaves may be from 2-25 cm long inches long, 0.5-3 cm wide, entire, oblanceolate, single-nerved with a short petiole, and covered with stiff hairs. Second year plants typically bolt and produce 1-20 flowering stems and are 30-100 cm tall. The stems are grey green and covered with two types of hair: stout spreading hairs with a pustulate base and an under layer of smaller fine hairs. The stout spreading hairs arise from small black speckles on the stem (tubercles). Stem leaves are alternate, sessile, and linear to lanceolate becoming smaller up the stems. The inflorescence is a panicle of several short helicoid cymes of bright blue to purple flowers. Flowering occurs during the summer months of July and August.

Current Wyoming Distribution: Recently found in Laramie County, just west of Cheyenne along a 5 mile stretch of rail-road tracks. The Wyoming Pest Detection Program has initiated a detailed mapping effort of the area and will be finished soon.



The good news appears to be that the Laramie County infestation has only spread a few miles in 18 years. However, the infestation appears to be expanding out away from the railroad corridor into both grazed and un-grazed rangeland and along the roadside.

How did it get to Laramie county? We don't yet know, but the railroad is a good candidate based upon the location of the infestation.

Historical Wyoming Distribution: This plant has been previously collected in Wyoming at the following locations. Voucher specimens are housed at the Rocky Mountain Herbarium at the University of Wyoming, Laramie, WY.

County	Location info	Location info	Year collected	Elevation (ft)
Laramie	T13 N R68W	Sec 18 S1/2	1986	6800
Albany	T14N R70W	Sec 7 SE1/4 SW1/4	1992	7700
Uinta	T17N R121W	Sec 36 NE1/4	1992	6600
Platte	T26N R70W	Sec 35 N1/2	1993	5000
Laramie	T13N R70W	Sec 15	2000	7600



Origin: Native throughout Europe.

Global Distribution: The list is too long to mention here, but it has spread to certain parts of Asia, Africa, South America, Australia, and North America. It is currently found throughout Canada, in almost every Eastern U.S. State, several Great Plains states and Washington. It was also collected in Morgan County, Utah in 1991, Custer, South Dakota in 1926, and Rocky Ford Colorado in 1894.

Reasons for Concern: Contact dermatitis for humans, potential toxicity to livestock due to pyrrolizidine alkaloids, a host for several crop pathogens, and a potential increaser on grazed rangelands due to its unpalatable nature (this concern probably precludes worries of toxicity for cattle ranchers; however, sheep and horses may be a different story)

Legislative Status: *Echium vulgare* is currently listed as a Class B noxious weed in the state of Washington and internationally listed as noxious or prohibited in Australia, New Zealand, and several provinces of Canada. This weed is not on the state designated noxious weed list, nor has it been declared in any county in Wyoming.

Control Methods: Research from Australia indicates this plant can be controlled with 2,4-D and/ or Escort. They recommend quite low rates of each (~1.4 pints/A 2,4-D) or (~0.25 oz Escort/A) for treating rosettes and seedlings. I am a little uncomfortable with those rates for Wyoming and will be doing some greenhouse testing this winter to determine what works best here.

Additional Notes: Seed (nutlet) dispersal occurs mostly around parent plants. The nutlet itself has NO Velcro-like appendages as houndstongue does. However, one or more seed may remain within the flower, which detaches and may cling to fur, hair, or clothes. This plant has also been reported to break off and tumble like Russian thistle or diffuse knapweed. Seed longevity in the soil appears to vary with depth. Seventy percent of seed buried at a 15 cm depth remained viable for 33 months (almost 3 years) while seed on the surface may not persist more than one year (don't bury it!). There are no root buds on this plant and plants that have formed seeds will die and do not form new rosettes.

ADDITIONAL LINKS:

USDA NRCS Plants Data-Base - [Echium vulgare](#) Page