

8.12 Threatened and Endangered Species at Hanford



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This section discusses the federal and state threatened and endangered species, candidate or sensitive animal species, and plant species of concern potentially found on the Hanford Site. Endangered species are those that are in danger of extinction within all or a significant portion of their range. Threatened species are those that are likely to become endangered in the foreseeable future. Threatened and endangered species are listed in *Endangered and Threatened Wildlife and Plants* (50 CFR 17), Washington Natural Heritage Program (2005), and Washington Department of Fish and Wildlife (2005).

The purposes of the *Endangered Species Act*, as amended, are to (1) provide a means to conserve critical ecosystems, (2) provide a program for the conservation of threatened and endangered species, and (3) ensure that appropriate steps are taken to achieve the purposes of the treaties and conventions established in the act. The state of Washington also lists species as threatened or endangered, but such listing does not carry the protection of the federal *Endangered Species Act*. Species of plants and animals listed as threatened or endangered by either the federal or state governments that occur or potentially occur on the Hanford Site are listed in Table 8.12.1.

Identification of candidate species can assist environmental planning efforts by providing advance notice of the potential for listing as a threatened or endangered species. This advance notice allows resource managers to alleviate threats and, thereby, possibly eliminate the need to list species as endangered or threatened. Even if a candidate species is subsequently listed, the early notice could result in fewer restrictions on human activities in the environment by prompting candidate conservation measures that alleviate threats to the species. Washington State candidate and sensitive animal species occurring or potentially

occurring on the Hanford Site are listed in Table 8.12.2. Plant species potentially found on the Hanford Site that are listed at lower levels than threatened or endangered by Washington State are listed in Table 8.12.3.

One bird species (bald eagle) and two fish species (spring-run Chinook salmon and steelhead) on the federal list of threatened and endangered species are known to regularly occur on the Hanford Site (Table 8.12.1). One additional fish species (Bull trout [*Salvelinus confluentus*]) has been recorded on the Hanford Site but is believed to be transient. No plants or mammals known to occur on the Hanford Site are currently on the federal list of endangered and threatened species (50 CFR 17), but two species of plants, one species of mammal, and one species of bird are currently candidates for listing under the *Endangered Species Act* (Tables 8.12.1 and 8.12.2). In addition, 11 plant species and 5 bird species have been listed as either threatened or endangered by Washington State.

The National Oceanic and Atmospheric Administration Fisheries (NOAA 2005) has the responsibility for the federal listing of anadromous fish (i.e., fish which require both saltwater and freshwater to complete a life cycle such as the steelhead [*Oncorhynchus mykiss*] and spring-run Chinook salmon [*Oncorhynchus tshawytscha*]). The U.S. Fish and Wildlife Service has responsibility for all other federally listed species on the Hanford Site.

Several species of animals and plants are listed at the candidate species, sensitive species, or other levels by Washington State. There are 29 state-level candidate and sensitive species of animals (Table 8.12.2) and 40 plant species of concern occurring or potentially occurring on the Hanford Site (Table 8.12.3).



Table 8.12.1. Federal or Washington State Threatened and Endangered Species that Occur or Potentially Occur on the Hanford Site

<u>Common Name</u>	<u>Scientific Name</u>	<u>Federal</u>	<u>State</u>
Plants			
awned halfchaff sedge	<i>Lipocarpa (= Hemicarpha) aristulata</i>		Threatened ^(a)
desert dodder	<i>Cuscuta denticulata</i>		Threatened ^(a)
Geyer's milkvetch	<i>Astragalus geyeri</i>		Threatened ^(a)
grand redstem	<i>Ammannia robusta</i>		Threatened ^(a)
loeflingia	<i>Loeflingia squarrosa var. squarrosa</i>		Threatened ^(a)
lowland toothcup	<i>Rotala ramosior</i>		Threatened ^(a)
persistent sepal yellowcress	<i>Rorippa columbiae</i>	Species of concern ^(b)	Endangered ^(c)
rosy pussypaws	<i>Calyptridium roseum</i>		Threatened ^(a)
Umtanum desert buckwheat	<i>Eriogonum codium</i>	Candidate ^(d)	Endangered ^(c)
White Bluffs bladderpod	<i>Lesquerella tuplashensis</i>	Candidate ^(d)	Threatened ^(a)
white eatonella	<i>Eatonella nivea</i>		Threatened ^(a)
Fish			
bull trout ^(e)	<i>Salvelinus confluentus</i>	Threatened ^(a)	Candidate ^(d)
spring-run Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Endangered ^(c)	Candidate ^(d)
steelhead	<i>Oncorhynchus mykiss</i>	Endangered ^(c)	Candidate ^(d)
Birds			
American white pelican	<i>Pelecanus erythrorhychos</i>		Endangered ^(c)
bald eagle ^(f)	<i>Haliaeetus leucocephalus</i>	Threatened	Threatened
ferruginous hawk	<i>Buteo regalis</i>	Species of concern ^(b)	Threatened ^(a)
sandhill crane	<i>Grus canadensis</i>		Endangered ^(c)
western sage grouse	<i>Centrocercus urophasianus phaios</i>	Candidate ^(d)	Threatened ^(a)

(a) Species likely to become endangered in the foreseeable future.

(b) Species that are not currently listed or candidates under the *Endangered Species Act*, but are of conservation concern within specific U.S. Fish and Wildlife Service regions.

(c) Species in danger of extinction within all or a significant portion or its range.

(d) Species for which enough information is available to support listing as Threatened or Endangered, but preparation of a listing proposal is precluded because of higher priority species or actions.

(e) Reported, but seldom observed on the Hanford Site.

(f) Currently under review for change in status (delisting).

Table 8.12.2. Washington State Candidate and Sensitive Animal Species Occurring or Potentially Occurring on the Hanford Site

<u>Common Name</u>	<u>Scientific Name</u>
Mollusks	
giant Columbia River limpet	<i>Fisherola (= Lanx) nuttalli</i>
giant Columbia River spire snail ^(a)	<i>Fluminicola (= Lithoglyphus) columbiana</i>
California floater	<i>Anodonta californiensis</i>
Fish	
bull trout ^(b,c)	<i>Salvelinus confluentus</i>
mountain sucker ^(c)	<i>Catostomus platyrhynchus</i>
leopard dace ^(c)	<i>Rhinichthys flacatus</i>
river lamprey ^(c)	<i>Lampetra ayresi</i>
spring-run Chinook salmon ^(d)	<i>Oncorhynchus tshawytscha</i>
steelhead ^(d)	<i>Oncorhynchus mykiss</i>
Insects	
Columbia River tiger beetle ^(e)	<i>Cicindela columbica</i>
Birds	
burrowing owl ^(a)	<i>Athene cunicularia</i>
common loon ^(f)	<i>Gavia immer</i>
flamulated owl ^(c)	<i>Otus flammeolus</i>
golden eagle	<i>Aquila chrysaetos</i>
Lewis woodpecker ^(c)	<i>Melanerpes lewisi</i>
loggerhead shrike ^(a)	<i>Lanius ludovicianus</i>
peregrine falcon ^(a,f)	<i>Falco peregrinus</i>
merlin	<i>Falco columbarius</i>
northern goshawk ^(a,c)	<i>Accipter gentilis</i>
sage sparrow	<i>Amphispiza belli</i>
sage thrasher	<i>Oreoscoptes montanus</i>
western grebe	<i>Aechmorus occidentalis</i>
Reptiles	
sagebrush lizard ^(a)	<i>Sceloporus graciosus</i>
striped whipsnake	<i>Masticophis taeniatus</i>
Mammals	
black-tailed jackrabbit	<i>Lepus californicus</i>
Merriam's shrew	<i>Sorex merriami</i>
Townsend's ground squirrel	<i>Spermophilus townsendii</i>
Washington ground squirrel ^(c,g)	<i>Spermophilus washingtoni</i>
white-tailed jackrabbit	<i>Lepus townsendii</i>

(a) Federal species of concern.

(b) Federal threatened.

(c) Reported, but seldom observed, on the Hanford Site.

(d) Federal endangered.

(e) Probable, but not observed, on the Hanford Site.

(f) State sensitive (i.e., taxa vulnerable or declining) and could become endangered or threatened.

(g) Federal candidate.



Table 8.12.3. Washington State Plant Species of Concern on the Hanford Site

<u>Common Name</u>	<u>Scientific Name</u>	<u>State Listing</u>
annual paintbrush	<i>Castilleja exilis</i>	W
annual sandwort	<i>Minuartia pusilla</i> var. <i>pusilla</i>	R1
basalt milk-vetch	<i>Astragalus conjunctus</i> var. <i>rickardii</i>	W
beaked spike-rush	<i>Eleocharis rostellata</i>	S
bristly combseed	<i>Pectocarya setosa</i>	W
brittle prickly pear	<i>Opuntia fragilis</i>	R1
Canadian St. John's wort	<i>Hypericum majus</i>	S
chaffweed	<i>Centunculus minimus</i>	R1
Columbia milkvetch	<i>Astragalus columbianus</i>	S ^(a)
Columbia River mugwort	<i>Artemisia lindleyana</i>	W
coyote tobacco	<i>Nicotiana attenuata</i>	S
crouching milkvetch	<i>Astragalus succumbens</i>	W
desert evening-primrose	<i>Oenothera caespitosa</i>	S
dwarf evening primrose	<i>Camissonia</i> (= <i>Oenothera</i>) <i>pygmaea</i>	S
false pimpernel	<i>Lindernia dubia anagallidea</i>	W
fuzzytongue penstemon	<i>Penstemon eriantherus whitedii</i>	S
giant helleborine	<i>Epipactis gigantea</i>	W
gray cryptantha	<i>Cryptantha leucophaea</i>	S ^(a)
Great Basin gilia	<i>Gilia leptomeria</i>	S
hedge hog cactus	<i>Pediocactus simpsonii</i> var. <i>robustior</i>	R1
Hoover's desert parsley	<i>Lomatium tuberosum</i>	S ^(a)
Kittitas larkspur	<i>Delphinium multiplex</i>	W
medic milkvetch	<i>Astragalus speirocarpus</i>	W
miner's candle	<i>Cryptantha scoparia</i>	S
mousetail	<i>Myosurus clavicaulis</i>	S
Piper's daisy	<i>Erigeron piperianus</i>	S
porcupine sedge	<i>Carex hystericina</i>	W
Robinson's onion	<i>Allium robinsonii</i>	W
rosy balsamroot	<i>Balsamorhiza rosea</i>	W
scilla onion	<i>Allium scilloides</i>	W
shining flatsedge	<i>Cyperus bipartitus (rivularis)</i>	S
small-flowered evening-primrose	<i>Camissonia</i> (= <i>Oenothera</i>) <i>minor</i>	S
small-flowered nama	<i>Nama densum</i> var. <i>parviflorum</i>	W
smooth cliffbrake	<i>Pellaea glabella simplex</i>	W
Snake River cryptantha	<i>Cryptantha spiculifera</i> (= <i>C. interrupta</i>)	S
southern mudwort	<i>Limosella acaulis</i>	W
stalked pod milkvetch	<i>Astragalus sclerocarpus</i>	W
Suksdorf's monkey flower	<i>Mimulus suksdorfii</i>	S
Thompson's sandwort	<i>Arenaria franklinii thompsonii</i>	R2
winged combseed	<i>Pectocarya penicillata</i>	W

(a) U.S. Fish and Wildlife Service federal species of concern.

S = Sensitive (i.e., taxa vulnerable or declining) and could become endangered or threatened without active management or removal of threats.

R1 = Review List 1 – Taxa for which there are insufficient data available to support listing as threatened, endangered, or sensitive.

R2 = Review List 2 – Taxa with unresolved taxonomic questions.

W = Watch List – Taxa that are more abundant and/or less threatened than previously assumed.