Species & Habitats of Local Importance

2021 Nominations

Wildlife Advisory Committee
July 2021

Whatcom County Wildlife Advisory Committee

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Special thanks to the following for compiling the information on:

- Amphibians and Reptiles – Stephen Nyman
- Bats – Greg Green
- Carnivores and Ungulates – Robert Waddell
- Fish – Joel Ingram

Table of Contents

Table of Figures

1.0 Introduction

Pursuant to WCC 16.16.710(D) the Wildlife Advisory Committee (WAC) respectfully requests that the County Council designates the four below-named wildlife species as "Species of Local Importance."

The Whatcom County Wildlife Advisory Committee (WAC) was created by Ordinance 2015-031 on July 7, 2015. The function of this committee is to "provide recommendations on integrating wildlife management and protection issues relative to fulfilling goal nine (9) of the Washington State Growth Management Act (GMA)[1], [2]; namely: to retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities."

WCC 16.16.710(C)(12)(b) currently names two specific habitats as "Habitats of Local Importance": i) the marine nearshore habitat, including coastal lagoons, and the associated vegetated marine riparian zone and ii) the Chuckanut wildlife corridor); however, no specific species are named. One of the tasks on our work plan is to review whether any species should be designated a "Species of Local Importance," and to nominate them if so. Supported by Planning and Development Services (PDS) staff, the WAC has worked to develop an initial list of nominations. After a nearly yearlong review, the WAC initially nominates the following four wildlife species to be named "Species of Local Importance."

- Western Toad (also known as boreal toad) (*Anaxyrus* [formerly *Bufo*] *boreas)*
- Coastal Tailed Frog (*Ascaphus truei*)
- Townsend's Big-Eared Bat (*Coryrhinus townsendii)*
- Elk (*Cervus elaphus)*

While only four species are initially being nominated, the WAC considered others as well but feels they do not meet the listing criteria at this time. Nonetheless, these species do require closer attention and we have placed them on our watchlist with the goal of gathering information on presence/absence, population data, distribution; and to conduct suitable habitat surveys and other associated work in order to gather the required information needed to add these species to the list, if warranted.

[1] Fish and wildlife habitat conservation areas that must be considered for classification and designation include: Habitats and species of local importance, as determined locally (WAC 365-190-130(2)(b))

[2] Habitats and species areas of local importance. Counties and cities should identify, classify and designate locally important habitats and species. Counties and cities should consult current information on priority habitats and species identified by the Washington state department of fish and wildlife. Priority habitat and species information includes endangered, threatened and sensitive species, but also includes candidate species and other vulnerable and unique species and habitats. While these priorities are those of the Washington state department of fish and wildlife, they should be considered by counties and cities as they include the best available science. The Washington state department of fish and wildlife can also provide assistance with identifying and mapping important habitat areas at various landscape scales. Similarly, the Washington State Department of Natural Resources' Natural Heritage Program can provide a list of high quality ecological communities and systems and rare plants. (WAC 365-190-130(4)(b))

2.0 Nomination Process

The process for adding recommendations to the Species of Local Importance list[3] is outlined in WCC 16.16.710(D) (see Appendix A: Regulatory Summary). In order to nominate an area, species, or corridor to the category of "locally important," an individual or organization must:

- Demonstrate a need for special consideration based on:
  - Identified species of declining population;
  - Documented species sensitive to habitat manipulation and cumulative loss;
  - Commercial, recreational, cultural, biological, or other special value; or
  - Maintenance of connectivity between habitat areas.

Additionally, the WAC considered the following factors (additional factors italicized):

- Is the species/habitat considered in decline *or at risk State-wide or regionally*?
- Is the species/habitat particularly sensitive to habitat changes *that could be ameliorated with management*?
- Is the species/habitat recreationally, culturally, or economically important to citizens of Whatcom County?
- *Is the species/habitat known to occur or likely to occur in areas of western Whatcom County under County jurisdiction and subject to private property development or other projects that would be reviewed by the County?*

The nominating individual or organization must also:

- Propose relevant management strategies considered effective and within the scope of this chapter;
- Identify effects on property ownership and use; and
- Provide a map showing the species or habitat location(s).

Once this information is developed, submitted proposals are to be reviewed by the County staff and may be forwarded to the State Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies. The proposal is reviewed by County staff for accuracy and consistency with the purposes and intent of WCC Chapter 16.16 and the various goals and objectives of the Whatcom County Comprehensive Plan and the Growth Management Act. If the proposal is found to be complete, the County Council must hold a public hearing to solicit public comment. Approved nominations can be passed by motion by Council and will become designated locally important habitats, species, or corridors. These designations will be subject to the provisions of WCC Chapter 16.16.

[3] Pursuant to WCC 16.16.710(C)(12), this list is to be maintained by Planning and Development Services; thus there is no need for an amendment to WCC Ch. 16.16.

3.0 Nominated Species of Local Importance

The following analyses and recommendations are the result of extensive time and effort by Whatcom County Wildlife Advisory Committee using the best available information to identify Species of Local Importance candidates for Whatcom County under WCC 16.16.710(C)(12). Documentation of proposed species status, life history, threats, management recommendations, and justification for listing has been included.

Review of proposed species would occur as part of the existing system of project permitting for Habitat Conservation Areas (HCA). The existing system of review for permitting proposed projects includes desktop analysis of potential species and field inspection for habitat presence of Federal and State Threatened and Endangered Species. If potential habitat or species are likely to occur on a parcel, Natural Resource Professionals are hired by the applicant to document regulated species and habitat within the proposed project area. They provide site specific documentation and analysis of impacts for projects. Washington Department of Fish and Wildlife is typically consulted and has habitat information publically available for proposed species. This type of information is included in the standard HCA documentation reporting procedures. Listing of habitat and/or species is not anticipated to substantially increase cost to applicant or time for County Staff since it can be included with the standard review, analysis, and site investigation procedures. Additional time and cost could be incurred by both the applicant and/or County Staff if atypical circumstances are present in the proposed project area, such as a land use violations or change in natural conditions (flooding events) for example. Listing species is expected to have little to no affect for existing commercial, single family or agricultural developments since these co-exist with the proposed species. Future development may have minimal conditions of approval for proposed projects that could include measures such as phased timing or fencing.

Western Toad (a.k.a Boreal Toad) (*Anaxyrus* [formerly *Bufo*] *boreas*

Criteria for Listing

- Identified species of declining population; and
- Documented species sensitive to habitat manipulation and cumulative loss.

Habitat Requirements

Western toads breed in shallow water (usually no more than 6-12 inches deep) in marshes, small lakes, ponds, and off-channel riverine habitat, usually where permanent water occurs (although some breeding sites may dry seasonally). Egg laying is often concentrated in one location used each year. Tadpoles also frequent areas of warm, shallow water and may move in schools that stir-up sediments. Although unusual, tadpoles of this species have been observed in fast flowing water in some areas. Adults are largely terrestrial and may travel long distances from breeding sites and use a variety of habitats, including upland forests and shrub thickets. They often reside in small mammal burrows or in shallow burrows the toads construct in loose soil; under logs; in rotted stumps; or within rock crevices. Winter hibernacula occur in stream banks, deep burrows, and under downed wood. Older sources consider them as adaptable to human-modified habitats, including agricultural and suburban areas, provided that breeding habitats and migration corridors are

maintained. More information can be found at https://whatfrogs.wordpress.com/western-toad-anaxyrus-boreas/ and https://wdfw.wa.gov/species-habitats/species/anaxyrus-boreas#desc-range .

Status

The western toad is currently designated as a Candidate for possible listing by WDFW, a "Species of Greatest Conservation Need" (SGCN) in the State Wildlife Action Plan (WDFW 2015), and was considered a "focal species" in the development of Priority Amphibian and Reptile Conservation Areas (PARCA) in the State of Washington (August 8, 2017 workshop sponsored by Partners in Amphibian and Reptile Conservation). NatureServe assigns western toads in Washington to the Northwestern Population (or Northwest Major Clade, population 5), which is ranked as globally 'apparently secure' and 'not assessed/under review' at the state level. WDFW (2015) notes: "Western toad was once common in the lowland Puget Sound but now is relatively rare and has declined in the lower Columbia Gorge" and "Of about 107 historical sites in those areas, only about 19 are thought to still remain. Elsewhere in the state, toads are locally common in many areas." Figure 1 shows known distribution as of 2016 as described in the Washington Herp Atlas. The final PARCA report (April 10, 2018) notes: "Western Toad is a focal species throughout its range in the state due to concerns about its range wide rapid decline."

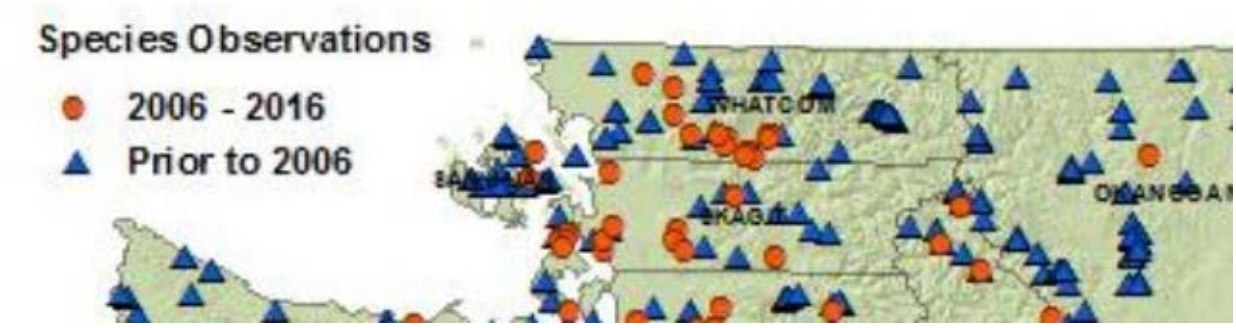


Figure 1. Known Distribution of the Western Toad in Whatcom County, Washington Herp Atlas https://wdfw.wa.gov/sites/default/files/publications/02135/wdfw02135.pdf

Threats

Reasons for the decline of this species are uncertain, particularly at lowland sites, but may relate to a combination of factors associated with increased development. Threats may include loss or alteration of breeding habitats, fragmentation of terrestrial habitats, chemical contamination from pesticides or herbicides, trampling of post-metamorphic young-of-the-year, and mortality from road traffic. Disease (specifically chytridiomycosis caused by the pathogenic chytrid fungus, *Batrachochytrium dendrobatidis*) is a major contributor to decline of western toad populations in the Southern Rocky Mountains but is not verified as a threat elsewhere. High levels of embryonic mortality from water mold (*Saprolegnia*) infections have also been reported in high elevation sites in Oregon and elsewhere, likely correlated to other stressors, including high levels of UV-B. Western toads coexist with fish, likely because they are toxic or distasteful to at least some predators, but in some areas populations appear to be reduced by introduced, non-native fish. In general, vulnerabilities of western toad populations may be associated with inflexible use of traditional breeding locations and life stage concentrations (e.g., communal egg-laying, tadpole schooling, and aggregative behavior and mass emigration by young-of-year after metamorphosis).

Protection and Management Recommendations

Management recommendations for western toad include:

- identifying and mapping breeding locations;
- educational signage, buffers, or seasonal use restrictions on County-owned public lands with vulnerable life stage concentrations;
- establish wetland buffers at breeding sites using a Category I Wetland Rating;
- retention of potential hiding cover (e.g., down wood and rocks) in terrestrial habitats;
- minimize soil disturbance and prevent pollution of runoff to breeding sites; and
- consideration of road crossing improvements in the design of culvert replacements on roads adjacent to western toad breeding sites.

Because western toads often breed later than other amphibians at the same sites and eggs may be concentrated in a small area, special effort may be required to document breeding sites.

The effects of listing on property ownership and use are likely minimal. Western Toad is a mobile species and could co-exist with many human impacts on the landscape. Management of this species would occur as part of the existing system of HCA project permitting reporting requirements.

Comments

Although western toad is a Candidate species, designation as a Species of Local Importance is warranted because WDFW has not developed specific management recommendations for this species and existing PHS data are inadequate to identify extant breeding occurrences in Whatcom County.

Coastal Tailed Frog (*Ascaphus truei*)

Criteria for Listing

- Documented species sensitive to habitat manipulation and cumulative loss.

Habitat Requirements

All life stages of the Cascade tailed frog are closely associated with moderate to high-gradient, clear, rocky, permanent streams, ranging from fish-free headwater streams to higher order streams with native fish. Streams that are seasonally dry at the surface, but maintain sub-surface (hyporheic) flow, may also be used. All life stages exhibit intolerance for higher temperatures. Coastal tailed frog is regarded as a "small stream associate;" occurrences are "almost always associated with hilly or mountainous terrain in either cool, wet zones or in zones adjacent to higher cool, wet zones" (Dvornich, *et al* 1997). In westernmost Whatcom County, potential and occupied habitat is patchily distributed. Although suitable habitats may occur more frequently in streams within mature forests, populations also occur in managed forests. Tadpoles feed on diatoms on rocky substrates and are sensitive to excess siltation that covers rock surfaces and proliferation of unsuitable forms of algae (e.g., blooms of filamentous green algae). At most sites, tadpoles do not metamorphose in the first year and may require as much as four years at high elevations. Adults have been found up to about 40 meters (131.2 feet) from streams and may venture longer distances where suitable moist conditions occur. Recently metamorphosed juveniles may

disperse 100 meters (328 feet) or more. More information can be found at https://whatfrogs.wordpress.com/coastal-tailed-frog-ascaphus-truei/ .

Status

Coastal tailed frog is not listed by WDFW and was not considered a focal species by the PARCA Workshop. NatureServe ranks coastal tailed frog as globally and in Washington as "apparently secure." In Canada, where coastal tailed frog occurs in southwestern British Columbia, the species is designated as a species of special concern because of a patchy distribution and high vulnerability to human-induced loss, degradation of required specialized habitats, and sensitivity to climate change. Figure 2 shows known distribution as of 2016 as described in the Washington Herp Atlas. Coastal tailed frog is one of only two species in its family, both of which are endemic to the Pacific Northwest, and part of an ancient lineage dating to at least the late Cretaceous. The two tailed frog species and similar frogs native to New Zealand share certain primitive traits as well as unique specializations for life in fast-flowing water.

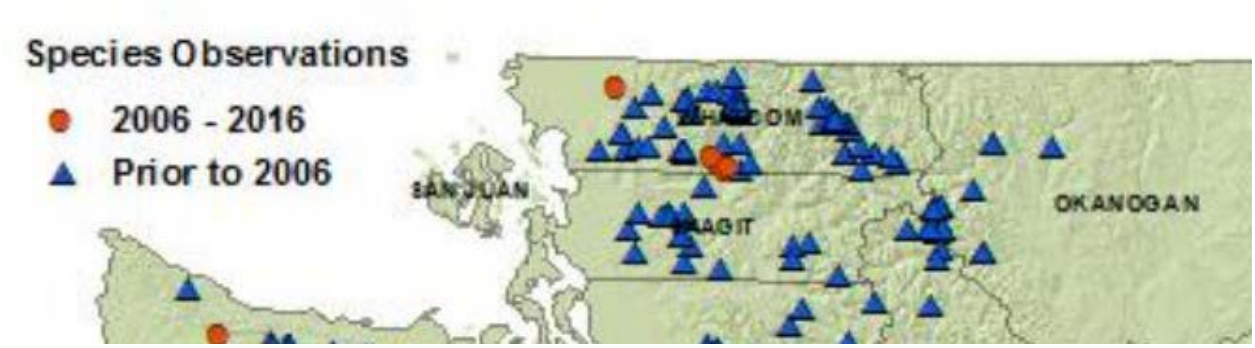


Figure 2. Known Distribution of the Coastal Tailed Frog in Whatcom County, Washington Herp Atlas https://wdfw.wa.gov/sites/default/files/publications/02135/wdfw02135.pdf

Threats

Coastal tailed frog is sensitive to loss of riparian forest cover (which can increase green algae, unsuitable for tailed frog tadpoles, and elevate water temperatures to lethal levels) and increased siltation from runoff, bank erosion, or other sources. Other threats include alteration of stream flows, frequent channel disruption, improperly designed road culverts (e.g., perched or altering stream flow), and climate change. Chemical contamination from pesticides, herbicides, and fertilizer from run-off may cause mortality or sub-lethal effects. In addition to narrow, specialized habitat requirements, vulnerabilities include a low reproductive potential associated with slow growth and development (e.g., adults may not breed until 6-8 years after metamorphosis) and small clutch size (44-75 eggs). In some areas, post-metamorphic populations are apparently small.

Protection and Management Recommendations

Management recommendations for coastal tailed frog include:

- identifying and mapping occurrences in westernmost Whatcom County, where the species may be most vulnerable because of patchy distribution of suitable habitat and resulting isolated populations;
- maintain ample buffers of occupied streams, particularly fish-free streams that may not otherwise be adequately protected;
- maintain slash-free conditions in occupied headwater streams;

- ensure adequate erosion-control measures and management of silt-generating activities;
- prevent pollution of runoff; and
- design adequate culverts associated with occupied streams (suggested minimum of 6-foot diameter, preferably open-bottomed with natural substrates).

The effects of listing on property ownership and use are likely minimal. Cascade Tailed Frog is a mobile species and could co-exist with many human impacts on the landscape. Management of this species would occur as part of the existing system of HCA project permitting reporting requirements.

Townsend's Big-Eared Bat *(Corynorhinus townsendii)*

Criteria for Listing:

- Identified species of declining population; and
- Documented species sensitive to habitat manipulation and cumulative loss.

Habitat Requirements

Townsend's big-eared bats forage in a variety of habitats but are most known as "cave" bats for their propensity to roost in caves, abandoned mines, and abandoned or little used buildings like barns. Other than buildings, there is very little mine or cave habitat on lands under County jurisdiction. One exception is a small number of these bats that have been recorded hibernating in a series of caves within Chuckanut Mountain County Park in the past (Hughes 1968, Adler 1977, Perkins 1985). Senger (in Ellison 2008) banded small numbers of these bats at Chuckanut Mountain during a western Washington bat banding project conducted between 1968 and 1975. (Senger also banded bats at Oyster Dome and Bat Caves on Blanchard Mountain just south of the Whatcom County line.) There have been no recent surveys of these locations and current use is unknown. More information can be found at https://wdfw.wa.gov/species-habitats/species/corynorhinus-townsendii .

Status

Townsend's Big-eared Bat is currently designated as a Candidate for possible listing by WDFW and a SGCN in the State Wildlife Action Plan (WDFW 2015). There are few known locations in Whatcom County. British Columbia has historical maps for known locations, some of which are adjacent to Whatcom County (Figure 3).

Threats

The State Wildlife Action Plan identified disturbance of roosts (e.g., cavers and vandals) and closure or reuse of abandoned mines as the primary threats to this species in Washington. Townsend's big-eared bats have been found roosting under bridges in the Olympic National Forest, and thus bridge maintenance or retrofit activities are also considered a potential disturbance threat. (Fursman and Aluzas, 2005)

Protection and Management Recommendations:

Management recommendations for Townsend's big-eared bat include:

- conducting a winter survey to determine whether these bats continue to hibernate within the cave complex found on Chuckanut Mountain;
- provide educational signage, buffers, or seasonal use restrictions on the caves if the recommended survey has established winter presence; and
- conduct surveys for bats prior to maintenance or retrofit activities at bridges (and consider rescheduling maintenance to seasons when these bats have moved to hibernacula).

The effects of listing on property ownership and use are likely minimal. Townsend's Big-Eared Bat is a mobile species and could co-exist with many human impacts on the landscape. Management of this species would occur as part of the existing system of HCA project permitting reporting requirements.

Comments

The Townsend's big-eared bat is certainly a species of conservation concern in Washington, and activities or lands under County jurisdiction may affect this species. A potential hibernaculum occurs at Chuckanut Mountain, and this species commonly day roosts under bridges and in abandoned buildings. Because species presence could overlap with County management, maintenance, or permitting activities, it is recommended as a Species of Local Importance.

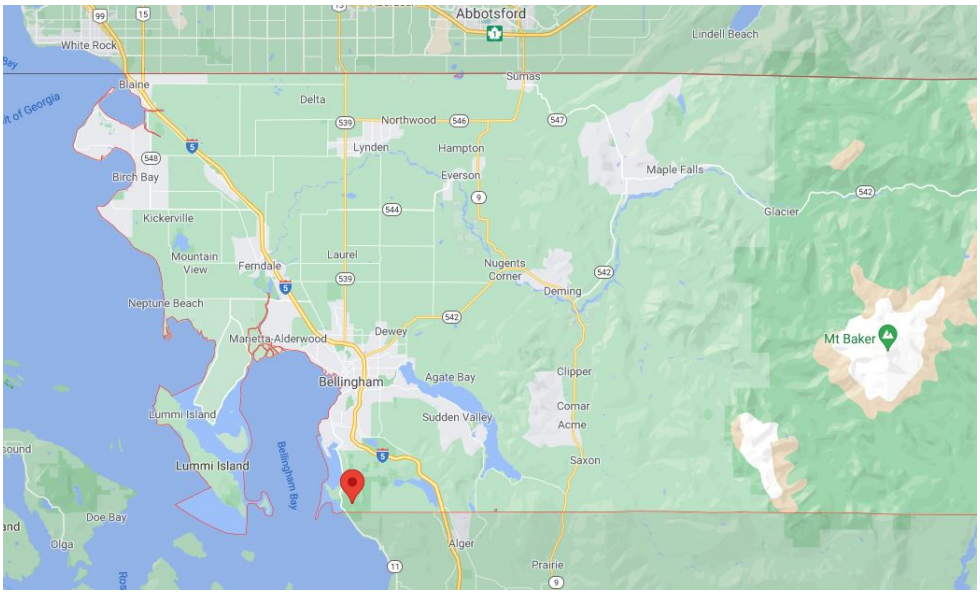


Figure 3. General known distribution of Townsend's Big-eared Bat (Corynorhinus townsendii) in Whatcom County.

Elk (*Cervus canadensis roosevelti*)

Criteria for Listing

- Recreationally important and a culturally significant species.

Habitat Requirements

The North Cascades elk herd (NCEH) is found in portions of Whatcom, Skagit, Snohomish, and King Counties. Most of the elk in this herd are found in the South Fork Nooksack River on

either side of the Skagit-Whatcom County line and the middle Skagit River Valley between Sedro Woolley and Concrete (Figure 4). Historically, Washington Department of Fish and Wildlife (WDFW) has referred to this as the "core area" because it has the highest elk density. Elk fitted with tracking collars have contributed to the current understanding of elk movements in the North Cascades herd area. While not comprehensive, these data revealed that most of the marked elk did not undertake long-distance migrations. Rather, with few exceptions, they tended to maintain relatively small home ranges, which were generally closely associated with river/ riparian habitats throughout the year. However, some did show seasonal migratory patterns, exploiting higher elevation habitats during the snow-free summer months. During the winter, their movements contracted to lower elevations. Their upper limit elevation distribution, about 600 m (2,000 feet), corresponds with the lowest elevation of the snowpack during years with normal winter conditions. In most years, snowpack constricts elk to lower elevation habitats from November through April.

The NCEH predominantly occupies forested landscapes. The lower elevation forest-agriculture interface tends to be fragmented elk habitat. It is here that elk groups regularly use agricultural and rural residential areas, particularly during the winter months. Most elk observed during annual, early spring population surveys (essentially winter conditions) are below 300 meters (1,000 feet). Alternatively, during the summer months, elk venture to higher elevation habitats including creek drainages and headwaters within the Baker River watershed and on the south and west facing slopes of Mount Baker.

Status

Elk are an important game species in Washington and considered of high cultural value to the Point Elliott Treaty Tribes (Tribes), with management shared by WDFW and the Tribes. In 2020, the herd was estimated to be around 1,500 animals with approximately 22 bulls/100 cows and 37 calves/100 cows. All indications are that this herd is increasing, with good calf recruitment.

Threats

Elk are preyed upon by black bears, cougars, bobcats, coyotes, wolves, and occasionally domestic dogs. Treponema-associated hoof disease (TAHD) was confirmed in the North Cascades elk herd in 2015, though at a much lower prevalence than elk herds in southwestern Washington where documented cases are highest. It is unknown to what degree TAHD contributes to mortality in this herd.

Human-caused mortality is associated with hunting by State and Tribal hunters, poaching, damage permit removals, and elk-vehicle collisions. Elk harvest and damage-related removals are likely conservative, based on routine estimates of population size and herd demographics. The impact of poaching on the NCEH is unknown. Most elk-vehicle collisions occur along State Route 20 in Skagit County. Though elk-vehicle collisions in Whatcom County are uncommon, this issue may increase as the herd expands further into the county.

Habitat loss, degradation, and fragmentation are ever-present threats. The core elk area is largely comprised of private industrial forests, which are intensively managed for commercial wood products, and state and federally owned forests. Federally owned forests have been less intensively managed for timber production for many years, with retention of old growth forest and late successional reserves a management objective. Late successional and old growth forests generally provide low quality elk habitat. On private industrial tree farms, heavy restocking of stands and use of herbicides to control understory vegetation soon after timber harvest may drastically reduce the quality and quantity of

valuable understory elk forage, as well as the length of time these early seral stage plants are available to elk.

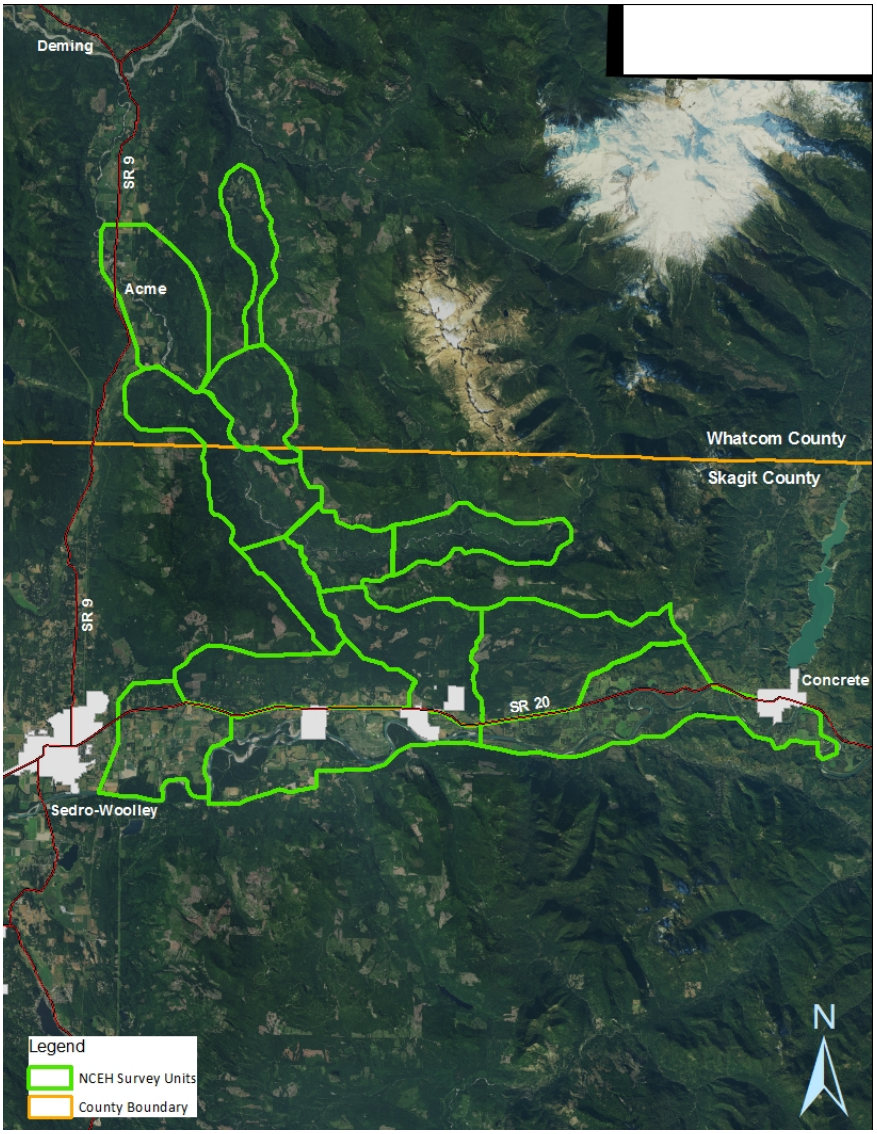


Figure 4. The survey unit areas used by the Washington Department of Fish and Wildlife (WDFW) and Tribal co-managers and the core area for the North Cascades elk herd. The WDFW and co-managers agree that likely an additional 200-300 elk may reside outside this core area.

Protection and Management Recommendations:

Protection of forested habitats in Whatcom County is important to the continued success and expansion of this herd. Where elk currently are established or in areas where unoccupied but high-quality elk habitat exists:

- Keep large, connected patches of undeveloped native vegetation intact to maintain high-quality elk habitat and facilitate elk movements.
- Encourage and maintain low zoning densities (ideally no more than 1 dwelling unit/2.5 acres) within and immediately surrounding high-value habitat areas and encourage maintenance of

native vegetation. Whatcom County may reach out to WDFW for information on elk herd numbers, location of the core elk area, and current information on the likelihood of elk on a given property.

- Manage road systems to minimize the number of new roads and the potential for elk-vehicle collisions in areas likely used by elk.
- Where possible, plan open space to maintain and/or incorporate high-value habitat and corridors for elk movement.
- Zone for higher densities within urban and developed landscapes in Whatcom County to avoid sprawl that could impact high quality elk habitat.

The effects of listing on property ownership and use are likely minimal. Elk are a mobile species and could co-exist with many human impacts on the landscape. Management of this species would occur as part of the existing system of HCA project permitting reporting requirements.

4.0 Watch List Recommendations

Northern Rubber Boa (a.k.a. "Rubber Boa") (*Charina bottae*)

Habitat Requirements

The northern rubber boa is found in diverse habitats, including forests, forest clearings, meadows, grassy savannas, areas of rock outcrops, and talus, typically where there is ample hiding cover such as rotted stumps, large down wood, bark slabs, rocks, and crevices; and usually not far from water. Principal prey include shrews, young mice, and in some populations, lizards. Small birds, snakes, and salamanders are also reportedly eaten. Over-wintering areas (i.e., hibernacula) may be associated with rock outcrops and talus slopes. In the Puget Sound area rubber boas are known to occur in cut-over areas with ample large woody material, beach-side habitats, and areas with populations of fence lizards. Dvornich et al. (1997) regarded riparian areas, hardwood, hardwood/conifer, and conifer forests as good habitat, but excluded early seral[4] stage forests of all types. Most sources note that information on habitat use and distribution of this species is deficient because surface activity is mostly nocturnal or crepuscular.

Status

The northern rubber boa is not listed by WDFW but was considered a focal species by the PARCA Workshop. NatureServe ranks northern rubber boa as "globally secure" and "apparently secure" in Washington. The species is widespread, occurring in eight western states and British Columbia, and can be locally common, although patchily distributed and poorly documented in many areas. Populations may be localized around areas with suitable over-wintering sites. In Canada, the northern rubber boa is designated as a species of special concern. This species is relatively unique, being one of only three boa species to occur in the United States.

[4] An intermediate stage found in ecological succession in an ecosystem advancing towards its climax community. In many cases more than one seral stage evolves until climax conditions are attained.

Threats

The northern rubber boa is potentially sensitive to loss of critical habitats (e.g., hibernacula) or clearly of hiding cover. Busy roads likely represent barriers to dispersal. Domestic cats are predators of northern rubber boas. Vulnerabilities include low reproductive rate and delayed age at maturity.

Protection and Management Recommendations

Recommendations for northern rubber boa include:

- identifying and mapping occurrences in westernmost Whatcom County, where the species may be most vulnerable because of patchy distribution of suitable habitat and resulting isolated populations;
- identify and protect known and potential hibernacula; and
- encourage voluntary stewardship including retention of hiding cover, especially rock features and large woody material, and keeping cats indoors in occupied habitats.

Western Spotted Skunk (*Spilogale gracilis*)

Biology

The Western Spotted Skunk is a small to mid-sized member of the skunk family (Mephitidae) and the smallest of the four North American skunks (1 to 4 pounds). This species is active nocturnally. The bulk of the diet is made up of small mammals and insects, but this omnivore will also eat carrion, berries, fruit, birds, bird eggs, reptiles, and amphibians.

Habitat requirements

Western Spotted Skunks are associated with habitats that have dense ground cover, dense understory vegetation, burrows of other species, rocky outcrops, and woody structures (e.g., logs, snags, stumps, and log and brush piles). These features are important as resting, denning, and foraging sites and are found in a variety of land cover types including conifer forests, riparian areas, thickets and brushy habitats, and farmlands. Western Spotted Skunks generally occur from sea level to 1,970 feet in elevation in the Olympics and occasionally up to 2,950 feet of elevation in the Cascades. In southeastern Washington, this species uses rocky outcrops, brushy habitats, and riparian areas up to 1,970 feet in elevation.

Status

There is inadequate information on the current status and distribution of this species in much of its range in western and southeastern Washington, including Whatcom County. The population size of this species is unknown and likely declining in the Puget Trough.

Threats

The increased occurrence of opossums and loss and fragmentation of forest habitats due to urban and agricultural development may explain the apparent substantial decline of verified occurrences in the Puget Trough since the 1970s. Great horned owls, bobcats, and domestic dogs and cats are documented predators of Western Spotted Skunks. Anthropogenic causes (i.e., vehicle collisions, trapping, and pest control) may be the prevalent sources of mortality in many populations.

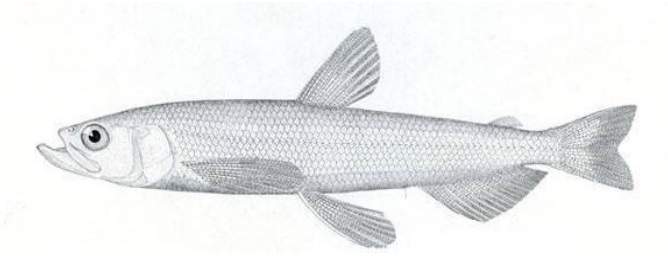
Protection and Management Recommendations

Basic information on the distribution and abundance of this species and important threats to its continued survival in Whatcom County and elsewhere in the Puget Trough are lacking and needed.

- Maintain forest cover where possible, since spotted skunks are less tolerant of human activity than striped skunks.
- Maintain areas of dense ground cover, including thick vegetation, brush, rock piles, and downed logs, to provide resting, denning, and foraging sites.

Longfin Smelt (*Spirinchus thaleichthys*)

(Locally known as "Hooligan")



Biology / Life History

The Longfin Smelt is a marine/anadromous spawning forage fish species. It is considered a bony fish that grows up to 14cm in length. They live in the marine waters of Bellingham Bay and nearby Puget Sound waters for the bulk of their 2-year life cycle. This species has been sampled at depths of up to 150m deep in open water areas, but in low densities, suggesting a relatively solo adult phase until spawning trigger occur. They return to the freshwater of the Nooksack River, the only river that has an identified and well-documented run in the Puget Sound basin. Spawning runs occur beginning in mid to late October and extend through November. Fish are usually observed in the middle or bottom portions of the water column as they move upstream to spawning areas. Females deposit adhesive eggs, clutch size ranging between 5,000-2,4000, on sandy-gravelly substrate, rocks, and aquatic vegetation around the upper limits of tidal influence (in the vicinity of City of Ferndale/I-5 bridge crossing). Eggs hatch in about 40 days. After hatching, larvae enter surface waters and are swept downstream into brackish-water nursery areas in the river estuary and tidal delta. Samples of Longfin Smelt collected along the shorelines in the Strait of Juan de Fuca revealed they consume a variety of surface and deeper occurring prey items including calanoid copepods, mysids and amphipods. Near the Nooksack River mouth, samples of prey included juvenile mud-shrimp.

Status

The only well-documented marine/anadromous spawning population of longfin smelt in the Puget Sound Basin occurs in the Nooksack River and the adjacent marine waters of Bellingham Bay and neighboring Skagit and San Juan counties. Longfin smelt may have the most geographically restricted and vulnerable spawning habitat of any marine/ anadromous forage fish species in the Puget Sound Basin. Apart from the south Whatcom/west Skagit/ San Juan County region, they have been only rarely encountered elsewhere in Puget Sound. No biological data, stock assessment, or spawning habitat survey data exist for locally known marine population of longfin smelt. The Northwest Indian College has conducted creel surveys and was granted a National Science Foundation Grant to assess population size and structure of the longfin smelt in the Nooksack River and has an ongoing investigation that spans several years, but to date has been unwilling to share data.

Threats

Longfin Smelt have been observed to be in decline in other portions of their broader range outside of the Puget Sound Basin due to a variety of threats. Low streamflows and water diversions have been a leading concern that affects access to preferential spawning habitat. Low flows result in upstream movement of the productive freshwater-saltwater mixing zone, reducing the available size of favorable

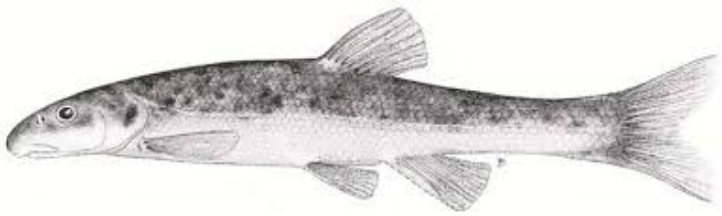
spawning habitat. Water diversions and pumping structures reduce the overall available instream flow and can entrain adults if not appropriately screened. The degree to which current diversion screening regulations effectively protect larvae from entrainment is unknown. Low flows can fail to disperse larvae downstream into productive nursery areas. Other potential threats include pesticide runoff from agricultural areas and invasions by exotic species, both plant and animal, that may displace or predate on adult or larval Longfin Smelt. Sedimentation due to human activities that wash through the watershed may also influence spawning substrate quality. Due to a two-year life cycle, relatively brief periods of reproductive failure could lead to extirpations.

Cultural Significance

Longfin Smelt is a tradition food source for local tribes. The species is high in oil and fat. The Longfin smelt were caught annually using dip nets and the fish were smoked, fried, dried, or were rendered down for oil to be used later. The oil and preserved fish were highly sought after by other tribes that did not have access to similar fish oils and this allowed for trade and bartering with inland tribes. Longfin Smelt fishing remains a culturally significant subsistence activity practiced by members of Lummi and Nooksack Tribes.

Nooksack Dace (*Rhinichthys* sp.)

(Recently diverged from longnose dace (*Rhinichthys cataractae*))



Evolutionary History

Nooksack Dace recently diverged from a common and widespread species, the longnose dace (*Rhinichthys cataractae*). As the range of its parental species contracted with the onset of glaciation, the fish of the Chehalis Valley were left as peripherally isolated populations (McPhail and Taylor 1996). The valley remained ice-free through all four major glaciations of the Pleistocene. Recent genetic work indicates that the Nooksack Dace have been reproductively isolated since well before the most recent glacial episode and perhaps since before the Pleistocene. There are other species that fall within this general classification of developing independently of a parent species in this geographically distinct area and are commonly referred to as Chehalis Fauna. Nooksack Dace were likely among the very first species to recolonize the post-glacial streams.

Biology and Life History

The Nooksack Dace is a small (<15 cm) stream dwelling cyprinid (minnow). The body is streamlined, with large pectoral fins and a snout that overhangs the mouth. Body coloration is grey-green above a dull, brassy lateral stripe and dirty white below. There is often a distinct black stripe on the head in front of the eyes. In juveniles, the stripe continues down the flanks to the tail. They are small-bodied fish that mature at an age class of 2 years with a maximum lifespan of 5 years. The Nooksack Dace have an extended spawning period that is based off stream water temperature but typically begins mid-April and extends through mid-July. Documentation suggests that some larger mature females may spawn more than once each year. Clutch size ranges from 200 to 2,000 eggs depending on female body size. Nooksack Dace spawn at night during the spring and usually at the upstream end of riffles. The nest site is a 10 cm diameter depression in the gravel cleaned and formed by probing with the snout by males

prior to courtship and by both sexes during courtship. Males continue to guard and protect redd until young are hatched. Nooksack Dace are stream riffle specialists that primarily reside in coarse gravel and cobble substrate areas of fast flowing streams and rivers. Gut contents examined indicate that adult dace feed primarily on riffle-dwelling insects, including caddisfly and mayfly nymphs, dytiscid beetle larvae, and adult riffle beetles, while juveniles feed mainly in drifting zooplankton.

Status

Distribution of Nooksack Dace has been identified in approximately 20 different Western Washington stream systems and a handful of stream systems in the Southern British Columbia. In Washington, the species has been identified mainly in west slope drainages of the Cascades in stream and river systems that drain into Puget Sound. They are also found in the Chehalis River system and some west slope drainages of the Olympic Peninsula. Their presence in east slope drainages of the Olympic Peninsula—drainages that enter Hood Canal—have not been detected. They are also absent from drainages that feed into the Straits of Juan De Fuca to the north of the Olympic Peninsula. Population data is not currently available for the broader species distribution or at the local stream level, however, it is generally accepted that the species is in decline due to manipulations of habitat and low instream flows. Nooksack Dace is listed on the Canadian Species at Risk Act (Schedule 1) as Endangered.

Threats

Nooksack Dace rely on riffles sections of stream channels. These areas are among the shallowest of stream all aquatic habitats and consequently are among the first to shrink as flows decline. When riffle habitats lack sufficient water, Nooksack Dace find refuge in pool habitats where both abundance and growth rate decline have been documented as being reduced. Being a small fish that is forced into pool and scour holes puts them at risk of predation by other piscivorous fish that typically occupy these habitat units. Riparian habitat is important to the Nooksack Dace. Benthic insectivores and riverine specialists like Nooksack Dace are among the most sensitive fish species to the loss of wooded riparian areas. Observed Nooksack Dace are linked with healthy riparian areas and believed to be linked with the reduced sediment inputs, reduced stream temperature and healthier macroinvertebrate community structure typical of these areas.

Salish Sucker (*Catostomus* sp.)

(Recently diverged from long-nosed sucker (*Catostomus catostomus*)

Evolutionary History

Similar to the Nooksack Dace, the Salish Sucker is considered part of the Chehalis Fauna. An evolutionarily distinct population the developed in a geographically protected and ice free area in central Washington during the Pleistocene Period. The Salish Sucker diverged from the Longnose Sucker in western Washington and western British Columbia during the last four major glaciations and became reproductively isolated. Populations of *Catostomus catostomus* east and west of the Cascade Mountains are referred to as Longnose Sucker and Salish Sucker, respectively, and they differ morphologically, i.e., snout size and lateral line scale counts. Salish Sucker is common referred to as a dwarf form of the Longnose Sucker.

Biology and Life History

Salish Sucker is a relatively small fish with most measuring 15-20cm in overall length but have been observed up to 30cm. Females are generally larger than males. Adult Salish suckers use a variety of habitat types. They are found in small headwater streams and associated slow water habitats including

ponds and beaver impounded areas. In Washington several lake populations also exist. They are caught in a variety of water velocities and depths, but are most often found in slow currents over sand or silt substrate in areas with in-stream vegetation and over-stream cover. Winter habitat remains unknown, but it seems likely that stream populations would migrate to protected edge areas and off channel refuge locations to escape from the frequent high flows associated with winter rains. Salish Suckers spawn in riffles over fine gravel in the spring when water temperatures reach warms to 7–8°C, typically beginning in March or April. The period is very protracted and individuals in spawning condition have been captured throughout the summer, even in late July at water temperatures in excess of 20°C. Salish suckers prefer broadcast spawning where adhesive eggs are spread on gravel and rock substrate and any other vegetation or detritus within the spawning area.

Status

Salish suckers are known from six river systems of the Puget Sound Lowlands and the lower Fraser Valley. These are: the lower Fraser (Salmon and Salwein rivers, and Semiault Creek); the Little Campbell River; the Nooksack system (Bertrand, Cave, Pepin, and Fishtrap creeks) and Whatcom Lake; the Stillaguamish drainage (Twin Lakes); the Green River; and Lake Cushman of the Skokomish system (McPhail and Taylor 1996). Salish Sucker has been identified and classified as Endangered in Canada. At the state level, the Washington Department of Fish and Wildlife (WDFW) list the Salish Sucker as a "monitored species," a designation for species that are not considered endangered, threatened or sensitive. These listings may reflect the fact that Salish Sucker populations are more stable in Washington and declining rapidly in British Columbia (Spinelli and Garrett, 2017)

Threats

Loss of habitat through the channelization of waterways for agricultural drainage, draining of wetlands and ponded areas, and the removal of beaver and impoundments is the main threat associated with the species. Hypoxia or low dissolved oxygen is also identified as a leading cause of potential decline. Invasive non-native vegetation that chokes out shallow and slow
moving aquatic habitats is linked to a decrease in available
dissolved oxygen. Locally this is mainly attributed to the annual grow up and die off in Reed Canary Grass-choked channels.

Maternal Bat Colonies (all species)

Issue

Most species of bats for maternal colonies composed of several females and nursing pups. For myotis species, colony numbers can reach into the hundreds, representing a significant portion of the local bat population and annual recruitment. These colonies can also be mixed (multiple species). One of the largest colonies in Washington is found in attic of the Hovander House at the Hovander Homestead Park, a Whatcom County park near Ferndale.

Status

Most of the species of bats that form large maternal colonies in Whatcom County (e.g., little brown bat, Yuma myotis, California myotis, big brown bat) have no official Federal or State species status. For these species, the maternal colony, not the individual bat, is the feature of concern.

Threats

Large colonies in western Washington mostly occur in abandoned buildings or under bridges. Removal or natural decay of old building structures, as well as maintenance and retrofit of bridges, can threaten existing maternal colonies.

Protection and Management Recommendations

Recommendations for protecting bat roosts can be found in Hayes and Wiles (2013) and include specific conservation measures and survey priorities. One the conservation strategies is to conduct inventory and monitoring of bat roosts to determine baseline data and monitor trends and use. However, the major limiting factor in conducting this strategy in Whatcom County is a lack of understanding of where colonies are located. Only one colony (Hovander House) is regularly monitored in the county. Hence, conducting a survey for the presence of a maternal colony is warranted prior to any county management or permitting activity involving abandoned buildings or bridges.

Comment

Because large maternal colonies are known to occur (e.g., Hovander House) or potentially occur (e.g., county bridges) at locations under county jurisdiction, when identified, the specific habitats these colonies occupy are recommended as being watched as a potential Habitat of Local Importance.

Findings

Data on the distribution and status of maternal bat colonies are inconclusive at this time. Continued monitoring of this habitat is warranted, but insufficient data are available at this time to recommend listing as a specific Habitat of Local Importance under WCC 16.16.710(C)(12).

Dead and Dying Trees

Wildlife Value

At least eight species of bats inhabiting Whatcom County use large dead and dying trees as day roosts, with Douglas fir snags of mean heights greater than 15 m and average diameters greater than 40 cm are preferred in western Washington, although trees greater than 60 cm are considered more suitable for maternal use (Hayes and Wiles 2013). Bats roost under loose bark and within cavities produced by limb breaks, broken tops, or woodpeckers (Hayes and Wiles 2013). Silver-haired bats in particular form maternal colonies of 5-25 females under loose bark or within cavities of snags. Isolated snags receiving direct solar radiation are selected as solar heat promotes reproduction in bats (especially growth of pups). Males and non-reproductive females will also roost within snags during summer residency (they generally roost within foliage during migration). Western long-eared bat and silver-haired bats display similar roosting behavior, forming maternal colonies under loose bark or within tree cavities. Loose bark appears to be a universally used habitat feature by all sexes of this species.

Status

While many species of bats use dead and dying trees as roosting habitat, four species (long-legged myotis, fringed myotis, western long-eared myotis, and silver-haired bat) have been designated as SGCN specifically because of their propensity of using snags and decadent trees for roosting and reproduction.

Threats

Large dead and dying trees are often viewed as safety hazards (falling or lightning strike fire hazard) or a source of firewood. Dead and dying trees near roadways are often removed to prevent the tree from

falling into traffic, and wherever accessible, snags are harvested for firewood, often leaving a wide void area along backcountry roads.

Protection and Management Recommendations

Snags posing safety hazards have precedent over wildlife values. However, not all snags pose a safety hazard and threats are often more perceived than actual. When assessing tree safety hazards along county roadways or within county parks, only dead and dying trees within their tree-height of a roadway or human concentration area (picnic areas, trails, etc.) should be removed. In some cases, the tree could be topped, rather than moved completely, retaining some value for wildlife while removing only the portion of the tree that would reach the area of concern in a fall. Maintenance crews could also "create" a replacement snag by girdling or topping a suitable tree outside a hazard area. County maintenance crews should be educated on the value of dead and dying trees to wildlife to prevent over-management and a loss of significant wildlife value. The County should also consider providing education material on snag value to landowners during the permitting process. Bats are a secondary cavity-nester, meaning they use cavities excavated by other species, especially woodpeckers. The pileated woodpecker is the most important of the woodpeckers not only because of the size and number of cavities it produces, but its selection of large size-class trees. Management and/or retention of stands of older, larger size trees (which provide future snag recruitment) not only provide suitable habitat for large woodpeckers, but the many species that are dependent on their excavations, including roosting bats.

Bridges

Wildlife Value

Bridges are often used by bats as day roosts or maternal colonies, including in Whatcom County (Perkins 1988). All species of bats, except hoary bats, have been recorded using bridges as roosts. Within Washington, particularly large maternal colonies have been documented for big brown bats, little brown bats, and Yuma myotis, while large colonies of long-legged myotis have been recorded at Oregon bridges (Perlmeter 1996). Large concrete bridges with expansion joints are the most often used. Concrete bridges are more thermally stable than wooden bridges and wooden bridges are often coated in creosote. Concrete expansion joints serve as surrogates to tree crevices providing bats with protection from wind and predators. Fursman and Aluzas (2005), for example, found bat roosting at 19 of 83 bridges in the Olympic National Forest, many of which were used by Townsend's big-eared bats. Keely and Tuttle (1999) documented the characteristics of bridges that are most often used with emphasis on full sun exposure, vertical crevices, concrete construction, and prevention of rainwater seepage into the roost.

Threats

Maintenance and seismic retrofitting of county bridges could disturb active bat roosts.

Protection and Management Recommendations

Bat roosting, especially maternal roosting, is seasonal. Bridge maintenance or retrofit activities could minimize disturbance of colonies by conducting roosting surveys prior to management and schedule maintenance to periods when bats are not present in numbers. County managers could also consider bridge construction or retrofit design that actively promotes bat roosting, especially maternal roosting. The California Department of Transportation, for example, adds bat roost features to new and retrofit

bridges at little expense (Hayes and Wiles 2013). A survey of all county bridges for bat use is likely warranted.

5.0 Other Species Considered (but not recommended at this time)

Cascades frog (*Rana cascadae*)

Initially considered, the Cascades frog is not nominated because: 1) there is no evidence of Statewide or regional decline (except in California, at the southern limit of the species' range); and 2) the species occurs almost entirely in high elevation areas, which are predominately on Federal lands.

Oregon spotted frog (*Rana pretiosa*)

Because Oregon spotted frog is both State and Federally protected, additional listing as a Species of Local Importance is only warranted if existing protective rules and regulations, including management recommendations, can be shown to be inadequate. Listing should not be a symbolic gesture or statement. On this basis, Oregon spotted frog is not included.

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Appendix A: Regulatory Summary for Fish and Wildlife Habitat Conservation Areas

Adapted from a February 17, 2021, handout from the Department of Commerce's Critical Areas Adaptive Management Webinar Series

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Requirements and Definitions

GMA (RCW 36.70A) Requirements

- 060(2) Each county and city shall adopt development regulations that protect critical areas…
- 172(1) In designating and protecting critical areas under this chapter, counties and cities shall include the best available science in developing policies and development regulations to protect the functions and values of critical areas. In addition, counties and cities shall give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

FWHCA Protection Standard: No Net Loss WAC 365-196-830

- (4) "Although counties and cities may protect critical areas in different ways or may allow some localized impacts to critical areas, or even the potential loss of some critical areas, development regulations must preserve the existing functions and values of critical areas. If development regulations allow harm to critical areas, they must require compensatory mitigation of the harm. Development regulations may not allow a net loss of the functions and values of the ecosystem that includes the impacted or lost critical areas."
- (8) "Local governments may develop and implement alternative means of protecting critical areas from some activities using best management practices or a combination of regulatory and non-regulatory programs. (a) When developing alternative means of protection, counties and cities must assure no net loss of functions and values and must include the best available science."

FWHCA Protection Standard: Viable Populations WAC 365-190-130

- (1) "'Fish and wildlife habitat conservation' means land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times, but it does mean not degrading or reducing populations or habitats so that they are no longer viable over the long term."

FWHCA Minimum Protection Guidelines WAC 360-190-130

How to protect: (1) … "Designating [fish and wildlife habitat conservation] areas is an important part of land use planning for appropriate development densities, urban growth area boundaries, open space corridors, and incentive-based land conservation and stewardship programs."

What to protect:

1. Primary Association Areas: (2) "[FWHCAs] that must be considered for classification and designation include (a) Areas where endangered, threatened, and sensitive species have a primary association…(4)(a)… Counties and cities should identify and classify seasonal range and habitat elements where federal and state listed endangered, threatened and sensitive species

have a primary association and which, if altered, may reduce the likelihood that the species will persist over the long term. Counties and cities should consult [WDFW's] current [PHS] information… Additional information is also available from [DNR NHP and Aquatics]…"

2. Habitats of Local Importance: (2) "[FWHCAs] that must be considered for classification and designation include…(b) Habitats and species of local importance, as determined locally…(4)(b)…Counties and cities should identify, classify and designate locally important habitats and species. Counties and cities should consult [WDFW's] current [PHS] information...While these priorities are those of [WDFW], they should be considered by counties and cities as they include the best available science. …Similarly, the [DNR's NHP] can provide a list of high quality ecological communities and systems and rare plants."

Whatcom County Code Chapter 16.16 (Critical Areas), Article 7 (Habitat Conservation Areas)

16.16.700 Purpose.

The purposes of this article are to:

A. Protect, restore, and maintain native fish and wildlife populations by protecting and conserving fish and wildlife habitat and protecting the ecological processes, functions and values, and biodiversity that sustain these resources.
B. Protect marine shorelines, valuable terrestrial habitats, lakes, ponds, rivers, and streams and their associated riparian areas, and the ecosystem processes on which these areas depend.
C. Regulate development so that isolated populations of species are not created and habitat degradation and fragmentation are minimized.
D. Maintain the natural geographic distribution, connectivity, and quality of fish and wildlife habitat and ensure no net loss of such important habitats, including cumulative impacts.

16.16.710 Habitat conservation areas – Designation, mapping, and classification.

A. Habitat conservation areas, as defined in Article 9 of this chapter, are those areas identified as being of critical importance to the maintenance of certain fish, wildlife, and/or plant species. These areas are typically identified either by known point locations of specific species (such as a nest or den) or by habitat areas or both. All areas within the county meeting these criteria are hereby designated critical areas and are subject to the provisions of this article.
B. The approximate location and extent of identified fish, wildlife, and sensitive plant habitat areas are shown on the county's critical area maps as well as state and federal maps. However, these maps are to be used as a guide and do not provide a definitive critical area determination; each applicant is responsible for having a property-specific determination made pursuant to Article 2 of this chapter. The county shall update the maps as new habitat conservation areas are identified and/or more comprehensive information on function, condition, cover type, and resolution is developed.
C. Habitat conservation areas shall include all of the following:

(…)

12. Species and Habitats of Local Importance. Locally important species and habitats that have recreational, cultural, and/or economic value to citizens of Whatcom County, including the following:
    a. Species. The department of planning and development services shall maintain a current list of species of local importance as designated by the county council.
    b. Habitats.
        i. The marine nearshore habitat, including coastal lagoons, and the associated vegetated marine riparian zone. These areas support productive eelgrass beds, marine algal turf, and kelp beds that provide habitat for numerous priority fish and wildlife species

including, but not limited to, forage fish, seabird and shorebird foraging and nesting sites, and harbor seal pupping and haulout sites. This designation applies to the area from the extreme low tide limit to the upper limits of the shoreline jurisdiction; provided, that reaches of the marine shoreline that were lawfully developed for commercial and industrial uses prior to the original adoption of this chapter may be excluded from this designation, but not otherwise exempt from this chapter.

ii. The Chuckanut wildlife corridor, which extends east from Chuckanut Bay and adjacent marine waters, including Chuckanut Mountain, Lookout Mountain, the northern portions of Anderson Mountain, and Stewart Mountain continuing along the southern Whatcom County border to Mount Baker/Snoqualmie National Forest boundary. This area represents the last remaining place in the Puget Trough where the natural land cover of the Cascades continues to the shore of Puget Sound.

iii. The department of planning and development services shall maintain a current list and map of habitats of local importance, as designated by the county council.

D. In addition to the species, habitats, and wildlife corridors identified in subsection (C)(12) of this section, the council may designate additional species, habitats of local importance, and/or wildlife corridors as follows:

1. In order to nominate an area, species, or corridor to the category of “locally important,” an individual or organization must:
   a. Demonstrate a need for special consideration based on:
      i. Identified species of declining population;
      ii. Documented species sensitive to habitat manipulation and cumulative loss;
      iii. Commercial, recreational, cultural, biological, or other special value; or
      iv. Maintenance of connectivity between habitat areas;
   b. Propose relevant management strategies considered effective and within the scope of this chapter;
   c. Identify effects on property ownership and use; and
   d. Provide a map showing the species or habitat location(s).
2. Submitted proposals shall be reviewed by the county and may be forwarded to the State Departments of Fish and Wildlife, Natural Resources, and/or other local, state, federal, and/or tribal agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.
3. If the proposal is found to be complete, accurate, and consistent with the purposes and intent of this chapter and the various goals and objectives of the Whatcom County comprehensive plan and the Growth Management Act, the county council will hold a public hearing to solicit comment. Approved nominations will become designated locally important habitats, species, or corridors and will be subject to the provisions of this chapter.
4. The council may remove species, habitats, or corridors from this list if it can be shown that there is no longer a need to provide protection beyond that afforded by WDFW management strategies. Species and habitats of local importance that are not regulated elsewhere in this chapter may be removed if sufficient evidence has been provided by qualified professionals that demonstrates that the species no longer meets any provisions of subsection (D)(1)(a) of this section.

Table 1. Summary of Data for 2021 Nominated Species of Local Importance

Common Name	Scientific Name	Coastal & Marine	Aquatic & Riparian	Grass & Shrub Land	Forest & Wood Land	Developed & Agriculture	Detailed Habitat	Declining Population	Sensitive to Habitat manipulation	Commercial Value	Cultural Value	Biological Value	Special Value	Endemic/ Location Specific	Conclusion: Is this a Species of Local Importance?
Coastal Tailed Frog	*Ascaphus truei*		X		X		Moderate to high gradient, clear, rocky, permanent streams; Sensitive to excess siltation; tadpoles take more than 3 years to mature; adults and juveniles may venture up to 25 meters into adjacent forests.	Unknown-poorly studied	Maybe (limited data, but habitat is at risk).	No	Unknown	Forested headwater stream species; may have limited protection under DNR forest practice rules.	Indicator of headwater stream quality. Unique since only 2 tailed frog species in the world.	Limited to streams with good water quality and cool temperatures. Most successful in streams without fish and intact riparian zones.	Yes. In western part of the county may be at risk from impacts to riparian zones from development. Species occurs in headwater streams that have limited buffer requirements.
Elk	*Cervus elaphus*		X	X	X	X	Elk in Whatcom County are part of the North Cascades Elk Herd, the smallest managed herd in the state. Elk are native to Whatcom County, but reintroductions have occurred in the area to bolster the population.	No	No	Yes. Recreational importance, PHS Game.	Yes. Elk have high social and cultural value for Tribal and non-Tribal residents.	Unknown	Unknown	Unknown	Yes. Elk are an important cultural species for Tribal and non-Tribal residences.
Townsend's Big-Eared Bat	*Corynorhinus townsendii*	X	X	X	X	X	These bats forage in a variety of habitats but are most known as “cave” bats for roost in caves, abandoned mines, buildings, or barns. Although considered a “cave” bat, it has been reported to use hollow trees and bridges for day roosts. Only known hibernacula in Whatcom County is on County lands at Chuckanut Mountain.	Yes	Yes. Hibernation and maternity sites sensitive to disturbance	Unknown	Unknown	Insect control.	Unknown	Unknown	Yes. It is identified by WDFW as both a Priority Species and a Species of Greatest Conservation Need
Western Toad	*Anaxyrus boreas*		X	X	X		Breeds in marshes, small lakes, ponds, and off-channel riverine habitat, usually where permanent water occurs; adults are largely terrestrial and may travel long distances from breeding sites and use a variety of habitats, including upland forests and shrub thickets.	Yes	Appears to be declining (especially in lowlands). Population status in Whatcom Co. is not well documented. In other parts of its range, some declines due to chytrid fungus.	Unknown	Unknown	Unknown	Unknown	A once common species that has declined substantially in lowland populations. Mass migration of juveniles makes them vulnerable to large losses.	Yes. Especially in the populated lowlands.