



## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[FF09E21000 FXES11110900000 212]

### Endangered and Threatened Wildlife and Plants; Eleven Species Not Warranted for Listing as Endangered or Threatened Species

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notification of findings.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce findings that eleven species are not warranted for listing as endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). After a thorough review of the best available scientific and commercial information, we find that it is not warranted at this time to list the Doll's daisy, Puget Oregonian, Rocky Mountain monkeyflower, southern white-tailed ptarmigan, tidewater amphipod, tufted puffin, Hamlin Valley pyrg, longitudinal gland pyrg, sub-globose snake pyrg, the Johnson Springs Wetland Complex population of relict dace, or Clear Lake hitch. However, we ask the public to submit to us at any time any new information relevant to the status of any of the species mentioned above or their habitats.

**DATES:** The findings in this document were made on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Detailed descriptions of the bases for these findings are available on the Internet at <http://www.regulations.gov> under the following docket numbers:

Species	Docket Number
Doll's daisy	FWS-R5-ES-2020-0066
Puget Oregonian	FWS-R1-ES-2020-0067
Rocky Mountain monkeyflower	FWS-R6-ES-2012-0052
Southern white-tailed ptarmigan	FWS-R6-ES-2012-0023

Tidewater amphipod	FWS-R5-ES-2020-0068
Tufted puffin	FWS-R7-ES-2020-0072
Hamlin Valley pyrg	FWS-R6-ES-2020-0069
Longitudinal gland pyrg	FWS-R6-ES-2020-0070
Sub-globose snake pyrg	FWS-R6-ES-2020-0071
Relict dace	FWS-R8-ES-2020-0113
Clear Lake hitch	FWS-R8-ES-2020-0112

Supporting information used to prepare this finding is available by contacting the appropriate person as specified under **FOR FURTHER INFORMATION CONTACT**.

Please submit any new information, materials, comments, or questions concerning this finding to the appropriate person, as specified under **FOR FURTHER**

**INFORMATION CONTACT**.

**FOR FURTHER INFORMATION CONTACT:**

<b>Species</b>	<b>Contact Information</b>
Doll's daisy	Eric Schradung, Field Supervisor, New Jersey Field Office, (609) 382-5272
Puget Oregonian	Brad Thompson, State Supervisor, Washington Fish and Wildlife Office, (360) 753-9440
Rocky Mountain monkeyflower	Ann Timberman, Acting Field Supervisor, Colorado Ecological Services Field Office, (970) 628-7181
Southern white-tailed ptarmigan	Ann Timberman, Acting Field Supervisor, Colorado Ecological Services Field Office, (970) 628-7181
Tidewater amphipod	Julie A. Slacum, Division Chief, Strategic Resource Conservation, Chesapeake Bay Field Office, (410) 573-4595
Tufted puffin	Stewart Cogswell, Field Supervisor, Anchorage Fish and Wildlife Conservation Office, (907) 271-2787
Hamlin Valley pyrg, longitudinal gland pyrg, and sub-globose snake pyrg	Laura Romin, Deputy Field Supervisor, Utah Ecological Services Field Office, (801) 975-3330, ext. 142
Relict dace	Mark Jackson, Field Supervisor, Reno Fish and Wildlife Office, (775) 861-6300
Clear Lake hitch	Kim Turner, Acting Field Supervisor, Sacramento Fish and Wildlife Office, (916) 414-6700

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## **SUPPLEMENTARY INFORMATION:**

### **Background**

Under section 4(b)(3)(B) of the Act (16 U.S.C. 1531 *et seq.*), we are required to make a finding whether or not a petitioned action is warranted within 12 months after receiving any petition for which we have determined contains substantial scientific or commercial information indicating that the petitioned action may be warranted (“12-month finding”). We must make a finding that the petitioned action is: (1) Not warranted; (2) warranted; or (3) warranted but precluded. We must publish a notice of these 12-month findings in the *Federal Register*.

### **Summary of Information Pertaining to the Five Factors**

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations at part 424 of title 50 of the Code of Federal Regulations (50 CFR part 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Lists of Endangered and Threatened Wildlife and Plants (Lists). The Act defines “species” as any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. The Act defines “endangered species” as any species that is in danger of extinction throughout all or a significant portion of its range (16 U.S.C. 1532(6)), and “threatened species” as any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). Under section 4(a)(1) of the Act, a species may be determined to be an endangered species or a threatened species because of any of the following five factors:

- (A) The present or threatened destruction, modification, or curtailment of its

habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself. However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing

regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term “foreseeable future” extends only so far into the future as the Service can reasonably determine that both the future threats and the species’ responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species’ likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species’ biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

In conducting our evaluation of the five factors provided in section 4(a)(1) of the Act to determine whether the Doll’s daisy (*Boltonia montana*), Puget Oregonian (*Cryptomastix devia*), Rocky Mountain monkeyflower (*Mimulus gemmiparus*), southern white-tailed ptarmigan (*Lagopus leucura altipetens*), tidewater amphipod (*Stygobromus indentatus*), tufted puffin (*Fratercula cirrhata*), Hamlin Valley pyrg (*Pyrgulopsis hamlinensis*), longitudinal gland pyrg (*Pyrgulopsis anguina*), sub-globose snake pyrg

(*Pyrgulopsis saxatilis*), and Clear Lake hitch (*Lavinia exilicauda chi*) meet the definition of “endangered species” or “threatened species,” we considered and thoroughly evaluated the best scientific and commercial information available regarding the past, present, and future stressors and threats. We reviewed the petitions, information available in our files, and other available published and unpublished information. Our evaluation may include information from recognized experts; Federal, State, and tribal governments; academic institutions; foreign governments; private entities; and other members of the public.

The species assessment forms for the Doll’s daisy, Puget Oregonian, Rocky Mountain monkeyflower, southern white-tailed ptarmigan, tidewater amphipod, tufted puffin, Hamlin Valley pyrg, longitudinal gland pyrg, sub-globose snake pyrg, the Johnson Springs Wetland Complex population of relict dace, and Clear Lake hitch contain more detailed biological information, a thorough analysis of the listing factors, and an explanation of why we determined that these species do not meet the definition of an endangered species or a threatened species. This supporting information can be found on the Internet at <http://www.regulations.gov> under the appropriate docket number (see **ADDRESSES**, above). The following are informational summaries for the findings in this document.

#### *Doll’s daisy*

##### Previous Federal Actions

On April 20, 2010, we received a petition from the Center for Biological Diversity (CBD), Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands to list 404 aquatic, riparian, and wetland species, including *Boltonia montana* (referred to by the common names “Doll’s-daisy” and “doll’s daisy” in the petition; referred to hereafter as Doll’s daisy), as endangered or threatened species under the Act. On September 27, 2011, we published in the *Federal Register* (76 FR 59836) a 90-day finding in which we

announced that the petition contained substantial information indicating listing may be warranted for the species. This document constitutes our 12-month finding on the April 20, 2010, petition to list Doll's daisy under the Act.

### Summary of Finding

Doll's daisy is a perennial plant in the Asteraceae family that is known from Augusta County, Virginia; Sussex and Warren Counties, New Jersey; and Dauphin County, Pennsylvania, the latter regarded as a historical occurrence. The species occurs in certain isolated sinkhole ponds that have widely fluctuating water levels, and its life history is adapted to these variable habitat conditions. The species currently occurs in 21 population sites in New Jersey (5 are on land owned or managed by the State, 6 are on private property owned or managed by a conservation organization, and the remaining 10 populations are privately owned) and 22 population sites in Virginia (7 are on U.S. Forest Service land, and the remaining 15 are on private property).

Soil, water, sunlight, pollinator services, and a suitable annual temperature regime are interrelated resource needs required by Dolly's daisy individuals and populations. At the metapopulation scale, the species likely requires some degree of habitat connectivity to maintain viability; however, there is significant uncertainty regarding the degree of connectivity that may be necessary between population sites. We assume there is no natural connectivity between the two extant metapopulations in New Jersey and Virginia.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Doll's daisy, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the Doll's daisy's biological status include habitat modification (as a result of development, agriculture, off-road vehicle use, altered surface hydrology, and groundwater withdrawals) and climate change. There are conservation measures in place

that benefit the species. Our species status assessment report for the Doll's daisy evaluates three plausible future scenarios for the species. In our future condition analysis, scenarios 1 and 3 predict between 3 and 11 populations would have lower resiliencies than the current condition, with the potential under one scenario that changes may result in the extirpation of several low resiliency populations, perhaps causing a loss of redundancy. Under scenario 2, we predict feasible conservation efforts would improve the condition of 22 populations. Under all scenarios, the species would maintain multiple moderate or high resiliency populations in the New Jersey and Virginia metapopulations; therefore, the species' representation is not predicted to change from the current condition (although we note that the historical extirpation of the Pennsylvania metapopulation may have reduced the species' representation).

Despite impacts from the primary stressors, Doll's daisy has maintained resilient populations throughout its range. Although we predict some continued impacts from these stressors in the future, we anticipate the species will continue to maintain resilient populations throughout the foreseeable future. Therefore, we find that listing the Doll's daisy as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Doll's daisy species assessment and other supporting documents (see **ADDRESSES**, above).

### *Puget Oregonian*

#### Previous Federal Actions

On March 17, 2008, we received a petition (dated March 13, 2008) from CBD, Conservation Northwest, the Environmental Protection Information Center, the Klamath-Siskiyou Wildlands Center, and Oregon Wild to list 32 species and subspecies of snails and slugs (mollusks), including Puget Oregonian (*Cryptomastix devia*), in the Pacific Northwest as endangered or threatened species under the Act. On October 5, 2011, we published in the *Federal Register* (76 FR 61826) a 90-day finding that the petition

presented substantial information indicating that listing the Puget Oregonian under the Act may be warranted. This document constitutes our 12-month finding on the March 13, 2008, petition to list the Puget Oregonian under the Act.

### Summary of Finding

The Puget Oregonian is a snail that inhabits moist, conifer-forest habitats that include some level of deciduous tree community composition. The species is most commonly located in stands with bigleaf maple (*Acer macrophyllum*) that occur along stream and river terraces or other habitats with a flat or gentle slope. Within that landscape, the species' habitat niche is near or under bigleaf maple crowns and in, or under, hardwood logs and other woody material, leaf litter, moist talus, and the lowest fronds of western swordfern (*Polystichum munitum*). The Puget Oregonian is found in the Cascade Range and Puget Trough in Washington, and south into the foothills of the Coast Range and Willamette Valley, in Oregon; the species is recognized as extirpated from British Columbia, Canada.

Most occurrence records for this species come from the Cispus River in Washington on the Gifford Pinchot National Forest, resulting from surveys conducted under the Northwest Forest Plan in areas where U.S. Forest Service projects were being considered. As a result, much of the potential suitable habitat for the Puget Oregonian remains unsurveyed.

The primary stressors affecting the Puget Oregonian include the effects of past, current, and future habitat loss, modification, and fragmentation from forest management, land conversion to agriculture and development, big leaf maple dieback disease, and wildfire. However, the species has been found in areas that had been previously impacted by some of these stressors (forest practices, bigleaf maple dieback disease and wildfire). The best available data provide no information on whether there is a declining or increasing population trend and limited information on whether the range of the

species has contracted or expanded in the last century. Ten of the 15 habitat units assessed appear to have high resilience, containing multiple contemporary validated records of this species as well as a high percentage of suitable habitat within the unit and in the immediate and surrounding area. Although the species does not appear to be particularly abundant across its range, and much uncertainty regarding presence of the species in suitable but unsurveyed portions of the range, the snail's distribution across a large area (redundancy), with ten highly resilient populations in four different sub-basins (representation), indicates the species is likely to withstand catastrophic events in one or more sub-basin.

The resources that the Puget Oregonian needs are likely to diminish in quantity and quality over time with future increases in environmental stressors including the effects of climate change, human population growth in the Pacific Northwest, forest management, and bigleaf maple dieback disease. If suitable habitat diminishes as expected, we would anticipate a corresponding decline in the resiliency, redundancy, and representation of the species. However, the Puget Oregonian's current distribution in at least 15 sites across at least four different sub-basins will support its ability to maintain resiliency into the mid-21st century. Furthermore, the species' ability to take refuge in small areas (microhabitat) could add to the future resiliency of populations.

We know that features of the species' habitat may change in the future, and we can project the scope and magnitude of some of those environmental changes. However, our incomplete understanding of how the species may respond to changes in its environment over time creates a wide range of possibilities for the future condition of the 15 analytic units we assessed. The best available information does not indicate that the future magnitude and scope of potential environmental stressors would be at a level that would cause the species to be in danger of extinction in the foreseeable future.

Therefore, we find that listing the Puget Oregonian as an endangered species or

threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Puget Oregonian species status assessment and other supporting documents (see **ADDRESSES**, above).

### *Rocky Mountain monkeyflower*

#### Previous Federal Actions

On October 4, 2011, we received a petition from WildEarth Guardians requesting, in part, that we list the Rocky Mountain monkeyflower as an endangered or threatened species under the Act. On August 29, 2012, we published in the *Federal Register* (77 FR 52293) a 90-day finding that the petition presented substantial information indicating that listing the Rocky Mountain monkeyflower under the Act may be warranted. This document constitutes our 12-month finding on the September 30, 2011, petition to list the Rocky Mountain monkeyflower under the Act.

#### Summary of Finding

The Rocky Mountain monkeyflower, also known as the budding monkeyflower, is a small, narrow endemic plant found in north-central Colorado. Uniquely, this plant exhibits an asexual reproduction strategy not seen within the *Mimulus* genus or in any other Holarctic species; the plant produces propagules which contain “bulbils,” which have all of the components needed to develop into a new plant, including a shoot axis and rudimentary leaves and roots. The Rocky Mountain monkeyflower occupies approximately 60 acres (24.28 hectares) on State or Federal lands managed by the U.S. Forest Service, the National Park Service, and Colorado Parks and Wildlife in Boulder, Clear Creek, Grand, Jefferson, and Larimer Counties in Colorado. Currently, we know of 24 occurrences of the Rocky Mountain monkeyflower that constitute 19 populations; surveyors have observed over 14 million ramets (ramets are individuals that result from asexual reproduction and thus may be genetically identical).

The Rocky Mountain monkeyflower inhabits montane to subalpine habitats at

elevations of 2,400 to 3,400 meters (7,874 to 11,154 feet) and is found under overhangs of south-facing cliffs or boulders. Little information exists about the ecological factors that affect growth and establishment of the Rocky Mountain monkeyflower in the wild. The survival of propagules is strongly influenced by moisture, temperature, and substrate type. A number of patterns are apparent in the few available studies on habitat parameters; all of the previous studies and species descriptions suggest that periods of very moist or saturated soil are important, but it appears that too much water can be problematic for this species. The optimal hydrological conditions are sites that are periodically saturated or, at most, consistently moist with no long periods of standing water. Similarly, successful sites have very shallow soil, typically fewer than two centimeters deep.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Rocky Mountain monkeyflower, and we evaluated all relevant stressors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. We identified climate change as the primary stressor affecting the Rocky Mountain monkeyflower's biological status. Currently, the Rocky Mountain monkeyflower has multiple, resilient populations distributed across its range, encompassing various ecological conditions and some genetic variation. While the Rocky Mountain monkeyflower is a narrow endemic plant with low population sizes and a limited range, this limitation does not seem to be currently compromising the species' resiliency, redundancy, and representation, given the relatively large numbers of ramets in multiple populations, the low risk of inbreeding depression due to the plant's asexual reproduction, good or moderate hydrological conditions in most populations, and relatively high levels of genetic diversity for an asexual species. The species is only known to occur on Federal and State public lands, which minimizes many threats such

that there are no stressors currently providing species-level impacts. In the future, while we may lose some small Rocky Mountain monkeyflower populations, we project that each analysis unit will likely remain occupied. Moreover, in all projected future scenarios, the three populations containing over 90 percent of monkeyflower ramets will be in good or moderate condition. Furthermore, the plant's asexual reproduction strategy confers, and likely would continue to confer, additional resiliency because this less energy-intensive method of reproduction allows the species to reproduce in relatively harsh conditions. Thus, based on our analysis, we anticipate that the Rocky Mountain monkeyflower will continue to have multiple, resilient populations distributed across its narrow range, providing for limited but sufficient redundancy and representation necessary to withstand catastrophic events and adapt to environmental change into the future.

Therefore, we find that listing the Rocky Mountain monkeyflower as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Rocky Mountain monkeyflower species assessment and other supporting documents (see **ADDRESSES**, above).

#### *Southern White-Tailed Ptarmigan*

##### Previous Federal Actions

On August 24, 2010, we received a petition from CBD requesting that we list either the U.S. population or the Rocky Mountain population of the white-tailed ptarmigan as threatened or endangered distinct population segments (DPSs) and that we designate critical habitat. Following our correspondence with the petitioner regarding the accepted taxonomy of the white-tailed ptarmigan and our DPS policy, the petitioner revised the petition on September 1, 2011. The revised petition requested that we list the southern white-tailed ptarmigan (*L. l. altipetens*) and the Mt. Rainier white-tailed

ptarmigan (*L. l. rainierensis*) as threatened subspecies. On June 5, 2012, we published in the *Federal Register* (77 FR 33143) a 90-day finding that the petition presented substantial information that listing may be warranted for the southern white-tailed ptarmigan and the Mt. Rainier white-tailed ptarmigan. This document constitutes the 12-month finding on the September 1, 2011, petition to list the southern white-tailed ptarmigan under the Act. We will address our finding for the Mt. Rainier white-tailed ptarmigan in a future determination.

#### Summary of Finding

The southern white-tailed ptarmigan is a small bird that lives in high-elevation, alpine ecosystems in Colorado, northern New Mexico, and historically in the Snowy Range of southern Wyoming. Alpine ecosystems are characterized by high winds, cold temperatures, short growing seasons, low atmospheric oxygen concentrations, and intense solar radiation. The southern white-tailed ptarmigan is one of five subspecies of white-tailed ptarmigan in the Phasianidae family, subfamily Tetraoninae, which includes the grouse, or ground-feeding game birds. So named for its perpetually white tail feathers, the southern white-tailed ptarmigan changes its plumage seasonally to match the coloration and patterns of its alpine habitats, from white in winter to brown in the summer, effectively camouflaging the birds against snow and alpine rocks and vegetation. In addition to cryptic coloration, the southern white-tailed ptarmigan displays other adaptations to the temperature, precipitation, wind, and snow cover extremes of its alpine habitats. For example, heavily feathered feet support the southern white-tailed ptarmigan like snowshoes as they walk across the snow, and the subspecies feeds almost exclusively on willow buds during the winter when other food sources are scarce.

Nearly all suitable habitat for the southern-white tailed ptarmigan occurs on lands managed by Federal land management agencies, with over 85 percent managed by the U.S. Forest Service, over 5 percent managed by the National Park Service, and 4.5

percent managed by the Bureau of Land Management. Approximately 6 percent of suitable habitat is located on privately owned land. The distribution of southern white-tailed ptarmigan is largely unchanged from historical levels in Colorado and New Mexico, but a lack of recent observations indicates that the subspecies is presumed extirpated from the Snowy Range in southern Wyoming.

We determined that individual southern white-tailed ptarmigan have specific habitat needs to breed, feed, and shelter, including suitable winter snow conditions, available late-lying snowfields, summer precipitation and monsoonal moisture, brood-rearing habitat, and willows. We also determined that populations of southern white-tailed ptarmigan need external recruitment of immigrants, breeding dispersal, adult female survival, and population growth in order to be resilient. Demographic connectivity between populations is critical for resiliency, as it allows for genetic exchange, dispersal, and external recruitment. The subspecies needs a sufficient number and distribution of resilient populations to withstand the annual variation in its environment, catastrophes, and novel biological and physical changes in its environment.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the southern white-tailed ptarmigan, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. Potential stressors to the southern white-tailed ptarmigan include predation, mining and related poisoning due to toxic concentrations of trace metals, hunting, recreation, livestock and native ungulate grazing, and the effects of global climate change. Through our analysis, we found that only climate change may affect southern white-tailed ptarmigan populations due to increases in minimum and maximum temperatures; changes in snow quantity, quality, extent, and duration; shifts in plant phenology; advancement of treeline, and expansion of willow into alpine areas; and changes in the amount and timing

of seasonal precipitation. Although the other stressors may affect individuals or local areas, they do not affect resiliency, redundancy, or representation, alone or cumulatively, currently or into the future for the southern white-tailed ptarmigan.

Currently, 14 out of 19 analytical units (a scale of analysis similar to populations) have high resiliency, 3 have medium resiliency, 1 in New Mexico has very low resiliency, and the Snowy Range analytical unit in Wyoming is presumed extirpated. Other than local declines in New Mexico and the presumed extirpation in the Snowy Range, the southern white-tailed ptarmigan currently occupies nearly all of its historical range, and the subspecies has sufficient resiliency, redundancy, and representation to withstand stochastic and catastrophic events and to adapt to environmental changes. Therefore, given the current levels of resiliency distributed across Colorado, the lack of significant stressors, and the life-history characteristics of the subspecies that make it uniquely adapted to the environmental extremes of its alpine habitats, we conclude that the current risk of extinction is low. In the future, we project reductions in resiliency, due to changes in climate, with a minor reduction in redundancy and representation if the analytical unit in New Mexico declines from very low resiliency to an extirpated condition. However, at least 17 resilient analytical units are projected to remain distributed across Colorado in the future, so the subspecies maintains enough resiliency, redundancy, and representation to withstand stochastic and catastrophic events and to adapt to changing conditions. Therefore, we consider the future risk of extinction to also be low.

We find that listing the southern white-tailed ptarmigan as an endangered subspecies or a threatened subspecies under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the southern white-tailed ptarmigan species assessment and other supporting documents (see **ADDRESSES**, above).

## *Tidewater Amphipod*

### Previous Federal Actions

We identified the tidewater amphipod as a Category 2 candidate species for listing in a May 22, 1984, notice of review (49 FR 21664). Category 2 candidate species were taxa for which the Service had information indicating that proposing to list the species as endangered or threatened was possibly appropriate, but for which conclusive data on biological vulnerability and threats were not at that time available to support proposed rules. The tidewater amphipod remained designated as a Category 2 candidate species in subsequent candidate notices of review (54 FR 554, January 6, 1989; 56 FR 58804, November 21, 1991; 59 FR 58982, November 15, 1994). In the February 28, 1996, notice (61 FR 7596), we discontinued the designation of Category 2 species as candidates, which removed the tidewater amphipod from our candidate list.

On April 20, 2010, we received a petition from CBD, Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands to list 404 aquatic, riparian, and wetland species, including the tidewater amphipod, as endangered or threatened species under the Act. On September 27, 2011, we published in the *Federal Register* (76 FR 59836) a 90-day finding in which we announced that the petition contained substantial information indicating listing may be warranted for the species. This document constitutes our 12-month finding on the April 20, 2010, petition to list the tidewater amphipod under the Act.

### Summary of Finding

The tidewater amphipod is a small, subterranean, shallow groundwater crustacean. Compared to similar amphipods, the tidewater amphipod is relatively large, with males reaching lengths of 9.7 millimeters (mm) (0.38 inches (in)) and females 8.2 mm (0.32 in). The species' entire known current distribution occurs within five counties

in Maryland and seven counties in Virginia spanning a distance of 180 miles (289 kilometers) of the Coastal Plain physiographic region. Contemporary collections of tidewater amphipods have typically been made during the winter and spring months when individuals can be found in seepage springs, tile drains, and shallow wells.

Specific diet, water quality and quantity tolerances, and behavioral and reproductive traits of tidewater amphipod are unknown. However, based on the general principles of conservation biology, information about other groundwater amphipod species, and local information from the areas where tidewater amphipods have been observed, we infer that individuals need shallow water habitats with sufficient space to breed and shelter; sufficient water quality for breeding and sheltering; forest cover, which provides a buffer for water quality and quantity, and provides food; and a clay or confining layer or pore space to help support feeding and sheltering when water quantities are low.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the tidewater amphipod, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the tidewater amphipod's biological status include reduced groundwater quality and quantity, and we identified development (i.e., impervious surfaces) as a primary source of changes to both. In response to degraded water quality, we conclude there could be decreased fitness and declines in the tidewater amphipod's resiliency caused by changes in biodiversity within its habitats. In response to the greater threat of reduced water quantity, there is evidence that the tidewater amphipod can burrow deeper underground for periods of time and reemerge when sufficient water levels return. While representation is assumed to have decreased when compared to historical conditions, it appears the species has sustained multiple populations across much of its historical range

and through multiple stochastic events such as drought. Considering the future scenarios, the majority of populations do not appear to be at high risk of development, and the impact to the species caused by impervious surfaces is not projected to increase substantially. Thus, the primary threats appear to have low imminence and magnitude such that they are not providing species-level impacts to the tidewater amphipod. We evaluated numerous other factors (e.g., climate change, effects of small population size, collection, predation, disease, recreation, forest management, and other conservation efforts) and determined that they had little to no measurable impact on the species. The species status assessment report describes many uncertainties in the species' occurrence, populations, and response to threats, but, considering the available data, the risk of extinction is low.

Therefore, we find that listing the tidewater amphipod as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the tidewater amphipod species assessment and other supporting documents (see **ADDRESSES**, above).

### *Tufted Puffin*

#### Previous Federal Actions

On February 14, 2014, we received a petition from the Natural Resources Defense Council (NRDC) to list the contiguous U.S. DPS of tufted puffin as an endangered or threatened species under the Act. Alternatively, the NRDC stated that we should list the tufted puffin species (i.e., the entire population(s) across its known range) and apply this alternative if we found the contiguous U.S. population of the species did not meet our DPS policy. On September 18, 2015, we published in the *Federal Register* (80 FR 56423) a 90-day finding in which we announced that the petition contained substantial information indicating listing may be warranted for the contiguous U.S. DPS of tufted puffin in the States of Washington, Oregon, and California. The 90-day finding

neglected to make a determination specific to the NRDC's alternative listing request.

This document constitutes our 12-month finding on the February 14, 2014, petition to list the tufted puffin (addressing both petitioned entities) under the Act.

### Summary of Finding

The tufted puffin is a widely distributed pelagic seabird found in the North Pacific Ocean. The tufted puffin is a burrow-nester that commonly nests colonially on offshore islands. Tufted puffins nest along the coasts of California, Oregon, Washington, and Alaska in the United States, and in Canada (British Columbia), Russia, and Japan. The majority of tufted puffins (82 percent) nest in North America, primarily Alaska; Russia has the second largest concentration of nesting tufted puffins (18 percent). Colony size is variable, ranging from just a few birds to large colonies of greater than 100,000 tufted puffins.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the tufted puffin, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. We determined that the most significant threats impacting the tufted puffin and its habitat are changing climate conditions, oil spills, fisheries bycatch, mammalian and avian predators, nonnative plants and animals, and human disturbance. The most significant of these threats to potentially impact the resource needs of tufted puffins are climate change and oil spills. Currently, the best available information for tufted puffins indicates adequate redundancy and representation across the species' range, including robust populations across the majority of its range. The species continues to occur throughout its historical range. While the tufted puffin's range will likely continue to contract in the south due to climate change, models predict the species will continue to remain widely distributed throughout most of its historical range. The tufted puffin is expected to maintain resilient

colonies throughout a large proportion of its range, including likely continued representation across most of its range.

Therefore, we find that listing the contiguous U.S. DPS of tufted puffin or the tufted puffin species as endangered or threatened is not warranted. A detailed discussion of the basis for this finding can be found in the tufted puffin species assessment and other supporting documents (see **ADDRESSES**, above).

*Hamlin Valley Pyrg, Longitudinal Gland Pyrg, Sub-globose Snake Pyrg*

#### Previous Federal Actions

On July 30, 2007, we received a petition (dated July 24, 2007) from Forest Guardians (now WildEarth Guardians) requesting that the Service: (1) Consider all full species in our Mountain Prairie Region ranked as G1 or G1G2 by the organization NatureServe, except those that are currently listed, proposed for listing, or candidates for listing; and (2) list each species as either endangered or threatened. This petition included the Hamlin Valley pyrg, longitudinal gland pyrg, and sub-globose snake pyrg. On February 27, 2009, we received a another petition dated February 17, 2009, from the CBD, Tierra Curry, Noah Greenwald, Dr. James Deacon, Don Duff, and the Freshwater Mollusk Conservation Society, requesting that we list 42 species of Great Basin springsnails in Nevada, Utah, and California, including the Hamlin Valley pyrg, longitudinal gland pyrg, and sub-globose snake pyrg, as endangered or threatened, and designating critical habitat under the Act. On August 18, 2009, we published in the *Federal Register* (74 FR 41649) a 90-day finding in which we announced that the petitions contained substantial information indicating listing these three species may be warranted. This document constitutes the 12-month finding on the July 30, 2007, and February 17, 2009, petitions to list the Hamlin Valley pyrg, longitudinal gland pyrg, and sub-globose snake pyrg under the Act.

#### Summary of Finding

The three springsnail species are in the genus *Pyrgulopsis* of the Hydrobiidae family. In general, the three species are morphologically similar with hardened shells and soft anatomy, and they are differentiated based on subtle morphological characteristics. The Hamlin Valley pyrg occurs only in the White Rock Cabin Springs province in Hamlin Valley, straddling the Utah and Nevada State line. The Utah portion of the spring province is all on private land, while the Nevada portion is entirely within the White Rock Range Wilderness Area managed by the Bureau of Land Management (BLM). The longitudinal gland pyrg occurs on private land at three springs or spring provinces (Big Springs province, Stateline Springs province, and Clay Spring) in the Snake Valley area of White Pine County, Nevada, and Millard County, Utah. The sub-globose snake pyrg occurs only in Utah at Gandy Warm Springs in Snake Valley, contained entirely within the Gandy Mountain Caves Area of Critical Environmental Concern managed by the BLM.

All three springsnails are very small in size, only a few millimeters in length and width, and have limited ability or tendency to move. These species are herbivores or detritivores that primarily graze on the periphyton (freshwater organisms attached or clinging to plants) of exposed surfaces of aquatic plants and substrates in the small springs they inhabit. We determined the following spring conditions are most critical in influencing the physical and biological needs of springsnails: sufficient water quality, adequate substrate and vegetation, free-flowing water, and adequate spring discharge. When each of these physical and biological needs is present and functioning within a spring, stable populations of springsnails are expected.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the springsnails, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. Historically and

through the present, the three springsnail species and their habitats were impacted to varying degrees by predation and competition, vegetation and soil disturbance, water pollution, spring modification, and groundwater pumping. However, we determined the most important stressors likely to impact future conditions of the three species include groundwater pumping and withdrawals, altered precipitation and temperature, and, in the case of the sub-globose snake pyrg, nonnative fish competition.

The Hamlin Valley pyrg occurs in one population with 10 of 11 occupied springbrooks in high overall resiliency condition and one springbrook in moderate condition; resiliency is high in all but one springbrook due to high abundance despite some environmental stressors. Redundancy and representation are limited due to the species' narrow range and its single population; however, this is likely similar to historical conditions. Therefore, we conclude that the current risk of extinction is low. In the future, we project the Hamlin Valley pyrg population to have high resiliency due to predicted high abundance and protection of the water source from pumping due to wilderness designation of groundwater areas upslope of the spring province. Redundancy and representation are projected to continue to be limited due to the species' narrow range and only one population, but this is likely similar to historical conditions for this narrow endemic species. In the future, we expect the species' habitat to continue to provide for the needs of sufficient water quality, adequate substrate and vegetation, free-flowing water, and adequate spring discharge. Additionally, we consider the future risk of catastrophic or stochastic events affecting this species or its habitat to be low.

The longitudinal gland pyrg currently occurs in three locations with 13 occupied springbrooks in high overall resiliency condition, 5 springbrooks in moderate condition, and only 1 springbrook in low condition. Resiliency is high in most springbrooks due to high abundance despite some environmental stressors. Competition and predation, spring modification, and vegetation and soil disturbance from grazing and roads are the only

historical and current stressors. Because most populations exhibit high resilience despite the co-occurrence of stressors, we concluded that the stressors have a low to moderate effect on the longitudinal gland pyrg. Current abundance, range, and effects of stressors make it unlikely there would be a loss in redundancy or representation, and we expect the redundancy and representation to be adequate. Therefore, we conclude that the current risk of extinction is low. In the future, we project that the longitudinal gland pyrg will continue to have populations with high resiliency due to predicted high abundance despite the future effects of environmental stressors and because groundwater pumping is unlikely to occur in the foreseeable future. Redundancy and representation are projected to continue to be adequate in the future with three occupied spring systems with multiple occupied springbrooks. In the future, we expect the species' habitat to continue to provide for the needs of sufficient water quality, adequate substrate and vegetation, free-flowing water, and adequate spring discharge. Additionally, we consider the future risk of catastrophic or stochastic events affecting this species or its habitat to be low.

The sub-globose snake pyrg currently occurs in one spring system with multiple springbrooks in the upper reaches of the spring system in moderate resiliency condition. The spring system is a warm water system with temperatures greater than 25 degrees Celsius (77 degrees Fahrenheit). The population appears to be resilient to environmental stressors; however, numbers of snails are down overall due to the recent invasion of armored catfish into the lower reaches of the system, which is the only current threat to the species. The upper reaches of the system still have high numbers of snails and a low probability of armored catfish invasion. The BLM, Utah Division of Wildlife Resources, and the Service entered into the Conservation Agreement and Strategy for the Sub-globose Snake Pyrg (Agreement) in 2020. We evaluated the certainty that the conservation measures in the Agreement will be implemented and effective in our Policy for the Evaluation of Conservation Efforts (PECE) analysis. Using the criteria specified

in PECE (68 FR 15100, March 28, 2003), we have determined that all of the PECE criteria have been satisfied. We find that the 2020 CAS has a high level of certainty for future implementation and certainty of the effectiveness. Nonnative fish removal efforts under the strategy have already begun to reduce armored catfish numbers in Gandy Warm Springs. Current redundancy and representation are limited due to the narrow range of the species and its single population, but this is likely similar to historical conditions. Therefore, we conclude that the current risk of extinction is low. Our assessment of the future status of this species takes into consideration the Agreement, which includes the continuation of conservation actions to eliminate nonnative fish from Gandy Warm Springs and prevent future invasion, thereby addressing this threat to the species. Future resiliency is expected to increase due to the removal of nonnative fish in accordance with the Agreement, the fact that groundwater pumping is unlikely, and the species' past ability to sustain itself despite other environmental stressors. Redundancy and representation are projected to continue to be limited in the future due to the species' narrow range and its single population, but this is likely similar to historical conditions. In the future, we expect the species' habitat to continue to provide for the needs of sufficient water quality, adequate substrate and vegetation, free-flowing water, and adequate spring discharge. Additionally, we consider the future risk of catastrophic or stochastic events affecting the sub-globose snake pyrg or its habitat to be low.

Therefore, we find that listing the Hamlin Valley pyrg, longitudinal gland pyrg, and sub-globose snake pyrg as endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Hamlin Valley pyrg, longitudinal gland pyrg, and sub-globose snake pyrg species assessment and other supporting documents (see **ADDRESSES**, above).

*Johnson Springs Wetland Complex Population of Relict Dace*

Previous Federal Actions

On June 27, 2014, we received a petition from Forest Service Employees for Environmental Ethics, requesting that the Johnson Springs Wetland Complex Population (JSWC) population of relict dace be listed as an endangered DPS under the Act. On April 10, 2015, we published a 90-day finding (80 FR 19259) that the petition presented substantial information indicating that listing the JSWC population of relict dace may be warranted and that we were initiating a status review. This document constitutes our 12-month finding on the June 27, 2014 petition to list the JSWC population of relict dace under the Act.

### Summary of Finding

The relict dace is a small fish in the Cyprinidae family that was first described in 1972 (Hubbs and Miller 1972, pp. 101–102). It is found in spring systems in five isolated valleys in the northeastern corner of Nevada; these valleys are estimated to have been separated for hundreds of thousands of years. Four of these valleys contain native populations, including the JSWC, and one includes only introduced populations.

Waterbodies occupied by the species include springs, spring pools, and spring outflows; wetlands; natural and human-modified channels; ditches; ephemeral reservoirs; and creeks. The relict dace feeds on aquatic invertebrates, including mayfly and damselfly nymphs; they consume relatively little plant material (Carmichael 1983, p. 88). Little is known about relict dace breeding or behavior; however, the species is considered secretive (NDOW 2007, p. 4).

We have carefully assessed the best scientific and commercial information available regarding whether the JSWC population of relict dace qualifies as a DPS. Based on our thorough review, we find that the JSWC population of relict dace meets our criteria for discreteness under our February 7, 1996 DPS policy (61 FR 4722); however, it does not meet the criteria for significance based on the four criteria outlined in the DPS policy. The JSWC population of relict dace does not occur in a unique or unusual setting

for relict dace, does not show evidence that loss of the discrete population segment would result in a significant gap in the range of relict dace, and does not represent the only surviving native occurrence of relict dace. While genetic discontinuity demonstrates the JSWC population segment is markedly separate from other relict dace populations, we find no evidence that these measures of genetic divergence result in marked differences in the JSWC population segment's genetic characteristics. Therefore, the JSWC relict dace population is not a listable entity under the Act. Because the JSWC population of relict dace is not a listable entity, we did not perform a status assessment under the five factors as required under section 4(a) of the Act. This finding constitutes our completion of our review of the petitioned action.

A detailed discussion of the basis for this finding can be found in the JSWC population of relict dace species assessment and other supporting documents (see **ADDRESSES**, above).

#### *Clear Lake hitch*

#### Previous Federal Actions

We received a petition from the Center for Biological Diversity on September 25, 2012 (CBD 2012, entire), to list the Clear Lake hitch as threatened or endangered under the Act. The Service issued a 90-day finding on April 10, 2015 (80 FR 19259), stating the petition presented substantial information that listing the Clear Lake hitch may be warranted and that we were initiating a status review. This document constitutes the 12-month finding on the September 25, 2012, petition to list the Clear Lake hitch.

#### Summary of Finding

The Clear Lake hitch (hitch) (*Lavinia exilicauda chi*) is a large cyprinid (freshwater minnow) that is endemic to the Clear Lake watershed in Lake County, California. Historically, the Clear Lake hitch occurred in several lakes and ponds found throughout the Clear Lake watershed, including: Clear Lake, Thurston Lake, Upper Blue

Lake, Lower Blue Lake, and Lampson Pond. During the spring, Clear Lake hitch were also found in the numerous tributaries to these larger water bodies, including: Kelsey, Scott, Middle, Adobe, Seigler Canyon, Manning, Cole, Morrison, and Schindler Creeks. All of the waterbodies, listed above, with the exception of Thurston Lake, were hydrologically connected to each other in the past, and it appears that Thurston Lake and its tributary, Thurston Creek, have always been isolated from the other waterways. Local opinion is that hitch were introduced into Thurston Lake by a local resident less than 50 years ago. The Clear Lake hitch is restricted to the Clear Lake watershed in Lake County, California, in the central Coast Range Mountains. Currently, the hitch is thought to be extirpated from the Blue Lakes, but still occurs in Clear and Thurston Lakes throughout the year. In the spring, reproductive adults migrate into tributary streams to spawn and then migrate back to the lakes after spawning. It is unclear whether Lampson Pond still exists; therefore, the status of the Clear Lake hitch in Lampson Pond is unknown.

For most of the year, Clear Lake hitch are only found within their lacustrine (lake) environment. However, between February and May, a portion of the overall reproductive population begins to migrate into the surrounding tributaries to spawn. Spawning activities include one to five males pursuing a gravid female to fertilize her freshly extruded eggs, which are deposited on fine to medium sized gravel within the tributary stream. Fertilized eggs develop and hatch within 7 to 10 days, fry are free-swimming after another 7 to 10 days, and young migrate to the lake at about a month old before the streams dry up. Juvenile hitch are found within the nearshore habitat of the lake where they depend on submerged aquatic vegetation for cover and prey. Juvenile hitch move from the nearshore portion of the lake into open water in early-to late-fall. There is evidence that Clear Lake hitch do not require tributary streams with gravel to spawn, but can also spawn successfully in different portions of the lake (i.e., along the shore, the mouths of tributaries, and Rodman Slough) that lack a gravel substrate.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Clear Lake hitch, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these stressors. The primary stressors affecting the Clear Lake hitch's biological status include habitat degradation, predation and competition, drought and climate change. Based on our examination of the best available scientific information, we have determined that habitat degradation, predation and competition, drought and climate change are not likely to adversely affect the overall viability of the Clear Lake hitch in a biologically meaningful way to such an extent that the species is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range for the following reasons: (1) the Clear Lake hitch has a long life span, (2) the Clear Lake hitch are highly fecund, and (3) the Clear Lake hitch has shown the ability to use different spawning strategies, which demonstrates its behavioral flexibility to variable environmental conditions. Additionally, regulatory mechanisms such as the California Endangered Species Act (CESA) and local ordinances are currently acting to ameliorate the severity of some existing threats, such as the take of individuals, degradation of tributary streams, and loss of wetland habitat surrounding Clear Lake. Furthermore, the SSA presented three plausible future scenarios, which included various states of potential future conditions for the species. Our analysis of these scenarios indicates that the Clear Lake hitch will maintain its current resiliency, representation, or redundancy, or undergo only a slight decrease in condition into the foreseeable future. Even under a projection of a slight decrease in future condition, the Clear Lake hitch was not projected to be in danger of extinction in the next 50 years.

Therefore, we find that listing the Clear Lake hitch as an endangered or threatened species under the Act is not warranted at this time. A detailed discussion of the basis for

this finding can be found in the Clear Lake hitch species assessment form and other supporting documents (see **ADDRESSES**, above).

### *New Information*

We request that you submit any new information concerning the taxonomy of, biology of, ecology of, status of, or stressors to the Doll's daisy, Puget Oregonian, Rocky Mountain monkeyflower, southern white-tailed ptarmigan, tidewater amphipod, tufted puffin, Hamlin Valley pyrg, longitudinal gland pyrg, sub-globose snake pyrg, the Johnson Springs Wetland Complex population of relict dace, or Clear Lake hitch to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**, whenever it becomes available. New information will help us monitor these species and make appropriate decisions about their conservation and status. We encourage local agencies and stakeholders to continue cooperative monitoring and conservation efforts.

### **References Cited**

A list of the references cited in this petition finding is available on the Internet at <http://www.regulations.gov> in the appropriate docket provided above in **ADDRESSES** and upon request from the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**.

### **Authors**

The primary authors of this document are the staff members of the Species Assessment Team, Ecological Services Program.

### **Authority**

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

**Aurelia Skipwith,**  
*Director,*  
*U.S. Fish and Wildlife Service.*

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