DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–HQ–ES–2015–0143]

[4500030113]

Endangered and Threatened Wildlife and Plants; 12-Month Findings on Petitions To List 19 Species as Endangered or Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month petition findings.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service, FWS, or USFWS), announce 12-month findings on petitions to list 19 species as endangered species or

threatened species under the Endangered Species Act of 1973, as amended (Act). After review of the best available scientific and commercial information, we find that listing the American eel, Cumberland arrow darter, the Great Basin distinct population segment (DPS) of the Columbia spotted frog, Goose Creek milkvetch, Nevares spring bug, Page springsnail, Ramshaw meadows sand-verbena, Sequatchie caddisfly, Shawnee darter, Siskiyou mariposa lily, Sleeping ute milkvetch, Southern Idaho ground squirrel, Tahoe yellow cress, and six Tennessee cave beetles (Baker Station, Coleman, Fowler's, Indian Grave Point, inquirer, and Noblett's cave beetles) is not warranted at this time. However, we ask the public to submit to us any new information that becomes available concerning the threats to any of the 19 species listed above or their habitat at any time.

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

ADDRESSES: These findings are available on the Internet at *http://www.regulations.gov* at Docket Number FWS–HQ–ES–2015–0143. Supporting information used in preparing these findings is available for public inspection, by appointment, during normal business hours by contacting the appropriate person as specified under **FOR FURTHER INFORMATION CONTACT**. Please submit any new information, materials, comments, or questions concerning these findings to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**.

FOR FURTHER INFORMATION CONTACT:

Species	Contact Information
American eel	Northeast Regional Office, Endangered Species Program, 413-253-8615
Cumberland arrow darter	Kentucky Ecological Services Field Office, 502–695–0468
Great Basin DPS of the Columbia spotted frog	Nevada Fish and Wildlife Office, 775–861–6300
Goose Creek milkvetch	Utah Ecological Services Field Office, 801–975–3330
Nevares spring naucorid bug	Carlsbad Fish and Wildlife Office, 760–431–9440
Page springsnail	Arizona Ecological Services Field Office, 602–242–0210
Ramshaw meadows sand-verbena	Sacramento Fish and Wildlife Office, 916–414–6700
Sequatchie caddisfly	Tennessee Ecological Services Field Office, 931–528–6481
Shawnee darter	Kentucky Ecological Services Field Office, 502–695–0468
Siskiyou mariposa lily	Yreka Fish and Wildlife Office, 530–842–5763
Sleeping ute milkvetch	Western Colorado Ecological Services Field Office, 970–628–7184
Southern Idaho ground squirrel	Idaho Fish and Wildlife Office, 208–378–5265
Tahoe yellow cress	Nevada Fish and Wildlife Office, 775–861–6300
Tennessee cave beetles (Baker Station, Coleman, Fowler's, Indian Grave Point, inquirer, and Noblett's cave beetles)	Tennessee Ecological Services Field Office, 931–528–6481

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SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the Act (16 U.S.C. 1533) requires that, for any petition to revise the Federal Lists of Endangered and Threatened Wildlife and Plants that contains substantial scientific or commercial information indicating that listing an animal or plant species may be warranted, we make a finding within 12 months of the date of receipt of the petition. In this finding, we determine whether the petitioned actions regarding the American eel, Cumberland arrow darter, the Great Basin distinct population segment

(DPS) of the Columbia spotted frog, Goose Creek milkvetch, Nevares spring bug, Page springsnail, Ramshaw meadows sand-verbena, Sequatchie caddisfly, Shawnee darter, Siskiyou mariposa lily, Sleeping ute milkvetch, Southern Idaho ground squirrel, Tahoe yellow cress, and six Tennessee cave beetles (Baker Station, Coleman, Fowler's, Indian Grave Point, inquirer, and Noblett's cave beetles) are: (1) Not warranted, (2) warranted, or (3) warranted, but the immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened species, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants (warranted but precluded). Section 4(b)(3)(C) of the Act requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring a subsequent finding to be made within 12 months. We must publish 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 in 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 Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, a species may be determined to be an endangered species or a threatened species based on 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.

We summarize below the information on which we based our evaluation of the five factors provided in section 4(a)(1) of the Act in determining whether the American eel, Cumberland arrow darter, the Great Basin DPS of the Columbia spotted frog, Goose Creek milkvetch, Nevares spring bug, Page springsnail, Ramshaw meadows sand-verbena, Sequatchie caddisfly, Shawnee darter, Siskiyou mariposa lily, Sleeping ute milkvetch, Southern Idaho ground squirrel, Tahoe yellow cress, and six Tennessee cave beetles (Baker Station, Coleman, Fowler's, Indian Grave Point, inquirer, and Noblett's cave beetles) are threatened species or endangered species. More detailed information about these species is presented in the species-specific assessment forms found on *www.regulations.gov*. In considering what factors might constitute threats, we must look beyond the mere exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure and the species responds negatively, the factor may be a threat. In that case, we determine if that factor rises to the level of a threat, meaning that it may drive or contribute to the risk of extinction of the species such that the species

warrants listing as an endangered or threatened species as those terms are defined by the Act. This does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely affected could suffice. The mere identification of factors that could affect a species negatively is not sufficient to compel a finding that listing is appropriate; we require evidence that these factors are operative threats that act on the species to the point that the species meets the definition of an endangered species or a threatened species under the Act.

In making our 12-month findings, we considered and evaluated the best available scientific and commercial information.

American Eel *(Anguilla rostrata)*

Previous Federal Actions

For a complete petition history for the American eel prior to September 2011, see the Previous Federal Action section of our September 29, 2011, 90-day substantial petition finding. Publication of the 90-day finding in the **Federal Register** (September 29, 2011; 76 FR 60431) opened a period to solicit new information that was not previously available or was not considered at the time of our previous 2007 status review and not-warranted 12-month finding (February 2, 2007; 72 FR 4967), and initiated a new status review.

On December 23, 2011, the petitioner (Center for Environmental Science Accuracy and Reliability (CESAR), formerly known as the Council for Endangered

Species Act Reliability) filed a Notice of Intent to sue the Service for failure to publish a finding within 12 months of receiving the April 30, 2010, petition. On August 7, 2012, CESAR filed a complaint with the U.S. District Court for the District of Columbia for the Service's failure to meet the petition's statutory timeline. On April 24, 2013, the Service entered into a court-approved settlement agreement with CESAR stipulating that the Service would complete a status review of American eel and deliver a 12-month finding to the **Federal Register** on or before September 30, 2015 (Stipulated Settlement Agreement, *Center for Envt'l Science Accuracy and Reliability* v. *Salazar, et al.* (D.D.C., Case No. 1:12–cv–01311–EGS), Doc. 18, filed April 24, 2013.).

To ensure the status review was based on the best scientific and commercial information available, the Service, in November 2013 through January 2014, requested any new or updated American eel information since the 2007 status review. The requests were sent to State and Federal agencies, Native American tribes, nongovernmental agencies, and other interested parties. In addition to any new or updated information, the requests specifically sought information related to panmixia, glass eel recruitment, climate change, oceanographic conditions, and eel abundance at fishways. See the lists of references reviewed and cited for a list of agencies, organizations, and parties from which we received information; these reference lists are available at *http://www.regulations.gov* and at *http://www.fws.gov/northeast/newsroom/eels.html*.

Summary of Status Review

In making our 12-month finding on the petition, we consider and evaluate the best

available scientific and commercial information. This evaluation includes information from all sources, including State, Federal, tribal, academic, and private entities and the public. However, because we have a robust history with the American eel and completed a thorough status review for the species in 2007, we are incorporating by reference the February 7, 2007, 12-month finding (72 FR 4967) and using its information as a baseline for our 2015 status review and 12-month petition finding.

A supporting document entitled, *American Eel Biological Species Report* (Report) provides a summary of the current (post 2007) literature and information regarding the American eel's distribution, habitat requirements, life-history, and stressors. The Report is available as a Supplemental Document at *http://www.fws.gov/northeast/newsroom/eels.html*. We describe in the Report or in our 12-month finding document any substantive changes that we identified in the data used in the February 7, 2007, 12-month finding or in conclusions drawn from that data, based upon our review of the best available scientific and commercial information since 2007.

American eel are a facultative catadromous fish species, meaning they commonly use brackish estuaries or near-shore marine habitats, in addition to the freshwater habitats. After mature eels spawn in the Sargasso Sea, the eggs hatch into "leptocephali," a larval stage that lasts for about 1 year. Leptocephali are transported by ocean currents from the Sargasso Sea to the Atlantic coast of North America, the Caribbean, Gulf of Mexico, Central America and northern portions of South America. Leptocephali metamorphose into "glass eels" while at sea and then actively swim across the

continental shelf to coastal waters. Glass eels transform into small pigmented juvenile eels, commonly called "elvers," after taking up residence in marine, estuarine, or freshwater rearing habitats in coastal waters. As they grow, the larger juvenile eels are known as "yellow eels." American eels begin sexual differentiation at a length of about 20 to 25 centimeters (7.9 to 9.8 inches), well in advance of maturation as a "silver eel." Upon nearing sexual maturity, silver eels begin migration toward the Sargasso Sea, completing sexual maturation en route. In the United States, the American eel is found in fresh, estuarine, and marine waters in 36 States. The upstream extent of eel distribution in freshwater is limited by impassable dams and natural barriers. American eel are ubiquitous in many continental aquatic habitats including marine habitats, estuaries, lakes, ponds, small streams, and large rivers to the headwaters. They may be locally abundant to the extent that they sometimes constitute a large proportion of the total fish biomass in many watersheds.

The 2007 Status Review and the 2015 Report reviewed a number of stressors (natural or human induced negative pressures affecting individuals or subpopulations of a species) on the American eel, including the effects of climate change; parasites; habitat loss in estuaries, lakes, and rivers; migratory effects from hydroelectric projects; recreational and commercial harvests; and contaminants.

In terms of climate change, North Atlantic Ocean temperatures may continue to rise as a result of climate change, but a great deal of uncertainty remains regarding changes in physical oceanographic processes and how, or to what extent, those processes

will affect eel migration, aggregation for reproduction, and ultimately abundance. The species report discusses in detail the complex subject of climate change and its foreseeable effects on the species. Based on our review of the best available scientific and commercial information, we conclude that climate change, based on its reasonably foreseeable effects, is not a threat to the American eel that puts it in danger of extinction or likely to become so in the foreseeable future, nor is it reasonably foreseeable that it would become such a threat in the future.

As for parasites, despite the spread of *Anguillicoloides crassus* and increasing mean infection rates over time, there is no direct evidence to support a conclusion that the parasite causes significant American eel mortality. Nor is there direct evidence to support or refute the hypotheses that *A. crassus* impairs the silvering process, prevents American eels from completing their spawning migration to the Sargasso Sea, or impairs spawning.

With regard to habitat loss, American eel have been extirpated from some portions of their historical range, mostly as a result of large hydroelectric and water storage dams built since the early twentieth century. Although dams have extirpated eels from some large rivers and certain headwaters, the species remains widely distributed over the majority of its historical range. We consider habitat loss from barriers to be a historical effect, and any population-level effects likely have already been realized. The extensive range of American eel provides multiple freshwater and estuarine areas that support the species' life stages and thus buffer the species as a whole from stressors

affecting individuals or smaller populations in any one area. Currently, ocean habitats and the full range of continental habitats (estuaries, lakes, and rivers) remain available and occupied by the American eel. Some American eels complete their life cycle without ever entering freshwater. Highly fecund females continue to be present in extensive areas of freshwater (lacustrine and riverine), estuarine, and marine habitats; males also continue to be present in these habitats. Recruitment of glass eels continues to occur in these habitats with no evidence of continuing reduction in glass eel recruitment. For these reasons, we conclude that the available freshwater, estuarine, and marine habitats are sufficient to sustain the American eel population.

With regard to migratory effects from hydroelectric projects, hydroelectric dams are obstacles that may delay the downstream migration of silver eels that mature in riverine habitats, and hydroelectric turbines can cause mortality or injury (eels that mature and migrate from estuary or marine habitats downstream are not affected by hydroelectric dams). The effects of turbine injury, including delayed mortality and possible impaired reproduction and increased predation risk, are poorly understood in the American eel. The best scientific and commercial information available indicates that mortality from hydroelectric turbines can cause significant mortality to downstream-migrating silver eels. The installation of effective downstream passage measures (i.e., bypasses or night spillage) through the Federal Energy Regulatory Commission relicensing process has reduced, and continues to reduce this mortality.

In terms of recreational and commercial harvest, we continue to acknowledge that

sometimes large numbers of individual American eel are recreationally or commercially harvested for food, bait, or aquaculture, but we conclude that harvest and trade are not threats to the American eel. The species is highly resilient, and remains a widely distributed fish species with a relatively stable population despite the levels of historical habitat loss and historical and current commercial and recreational harvest. That harvest is being managed and monitored via existing harvest quotas, licenses, and reporting requirements to ensure the species' conservation.

In addition, contaminants may affect early life stages of the American eel, but without specific information, we remain cautious in extrapolation of laboratory studies to rangewide population-level effects (e.g., there are no studies showing reduced recruitment of glass eels in the wild, which would be an indicator of decreased outmigration, or decreased egg or leptocephali survival). A correlation between the contamination of the upper Saint Lawrence River/Lake Ontario watershed and the timing of the 1980s decline of American eel in the upper Saint Lawrence River/Lake Ontario watershed is not evident.

Lastly, there are no individual stressors that rise to the level of a threat to the American eel. Some stressors can have cumulative effects and result in increased mortality. For example, the Report discusses known cumulative and synergistic interactions of various contaminants and known cumulative effects of increased predation and mortality at or below dams that block eel migration. While some individual American eels may be exposed to increased levels of mortality as a result of these

contaminant or predation cumulative effects, we have no indication that the species is, or will be, significantly affected at a population level. Therefore, we conclude that there are no cumulative stressors that are a threat to the American eel now, or that will become a threat in the foreseeable future.

The best available information indicates that, American eel are a single panmictic population that lacks distinct population structure, breeds in the Sargasso Sea, and shares a single common gene pool. Panmixia is central to evaluating stressors to the American eel since, in order for any stressor to rise to the level of a threat (natural or human-induced pressure affecting a species as a whole), it must act upon a large portion of the population at some life-history focal point, or the stressor must be present throughout a large part of the species' range. And the stressor must elicit a response that results in significant mortality, impaired reproduction, or juvenile recruitment failure.

Several lines of evidence indicate that the American eel population is not subject to threats that would imperil its continued existence. Despite historical habitat losses and a population reduction over the past century, American eels remain widely distributed throughout a large part of their historical range. Glass eels are recruited to North American rivers in large numbers. Elvers are also present in large numbers well inland on some east coast river systems—for example, more than 820,000 eels passed through a new fishway at the Roanoke Rapids Dam, located 137 miles inland on the Roanoke River in 2013, the fourth year of operation. American eels are plastic in their behavior and adaptability, inhabiting a wide range of freshwater, estuarine, and marine habitats over an

exceptionally broad geographic range. Because of the species' panmixia, areas that have experienced depletion or extirpation may experience a "rescue effect" allowing for continued or renewed occupation of available areas. Trends in abundance over recent decades vary among locations and life stages, showing decreases in some areas, and increases or no trends in other areas. Limited records of glass eel recruitment do not show trends that would signal recent declines in annual reproductive success or the effect of new or increased stressors. Taken as a whole, a clear trend cannot be detected in species-wide abundance during recent decades, and, while acknowledging that there have been large declines in abundance from historical times, the species currently appears to be depleted but stable. While some eel habitat has been permanently lost and access to freshwater habitats is impaired by dams that lack upstream fish passage, access to freshwater habitat has improved, and continues to improve, in other areas through new or improved eel ladders and removal of barriers. Despite the loss of some freshwater habitat, the American eel population appears to be stable based on young-of-the-year indices and estimates of spawner abundance. In addition, since 2007, newer information indicates that some American eel complete their life cycle in estuarine and marine waters.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors are not of sufficient imminence, intensity, or magnitude to indicate that the American eel is in danger of extinction (an endangered species), or likely to become an endangered species within the foreseeable future (a threatened species), throughout all of its range.

There are no threats currently affecting the American eel throughout the species' range. There are several stressors that cause individual mortality, including recreational and commercial harvest (Factor B), predation (Factor C), and hydroelectric turbines (Factor E), but none that affect a portion of the species' range more than another. In addition, there are no portions of the species' range that are considered significant given the species' panmictic life-history. Therefore, we find that no portion of the American eel's range warrants further consideration of possible endangered or threatened status under the Act, and we find that listing the American eel as a threatened or endangered species throughout all or a significant portion of its range is not warranted at this time.

Cumberland arrow darter *(Etheostoma sagitta)*

Previous Federal Actions

The Cumberland arrow darter was first identified as a candidate for protection under the Act through our internal process in the Candidate Notice of Review published in the November 21, 2012, **Federal Register** (77 FR 69994); the subspecies was identified at the time as *E. sagitta sagitta*. Threats to the subspecies identified at that time were water pollution from surface coal mining and gas exploration activities; removal of riparian vegetation; stream channelization; increased siltation associated with poor mining, logging, and agricultural practices; and deforestation of watersheds. It was assigned a listing priority number (LPN) of 9. On November 22, 2013 (78 FR 70104),

the LPN was changed to 8 due to morphological and genetic analysis resulting in the recognition of Cumberland arrow darter as a species (*E. sagitta*) as opposed to a subspecies, which it remained until evaluation for listing this year.

Summary of Status Review

The following summary is based on information in our files. From 2010 to 2012, the Service and its partners (Kentucky Department of Fish and Wildlife Resources (KDFWR), Kentucky State Nature Preserve Commission (KSNPC), and Tennessee Wildlife Resources Agency (TWRA)) completed a range-wide status assessment for the Cumberland arrow darter (USFWS 2012, pp. 1–2). We first generated a list of historical (pre-2000) records through review of agency databases (KDFWR, KSNPC, and TWRA), museum records (University of Tennessee), and published literature. From 2010 through 2012, surveys were completed at 187 of 202 historical sites and in 124 of 128 historical streams (sites corresponded to individual sampling reaches and more than one could be present on a given stream). Surveys were also conducted at other sites/streams where habitat conditions appeared to be suitable for the species. When first considered for candidate status in early 2012, status surveys were still ongoing, and the species had been observed in 72 of 123 historical sites visited (58 percent) and 60 of 101 historical streams visited (59 percent). More comprehensive surveys in Tennessee in late 2012 and additional surveys in Kentucky in 2013–2014 expanded the species' known range to 98 streams, including 119 of 187 historical sites visited (64 percent), 85 of 128 historical streams visited (66 percent), and 13 new (non-historical) streams (USFWS 2012, pp. 1–2; USFWS unpublished data). New distributional records were obtained during each year

of sampling, primarily from the middle and western portions of the species' geographical range. Within Kentucky, the species was observed at 87 of 143 sites (61 percent) and in 61 of 100 streams (61 percent). Within Tennessee, the species was observed at 32 of 44 sites (73 percent) and in 24 of 30 streams (80 percent). [Note that 2 of the historical streams surveyed occur in both Kentucky and Tennessee and are, therefore, included in each of the State totals provided in the previous sentences (i.e., 100 and 30, respectively.] The species' most significant declines were documented within the Poor Fork, Clover Fork, Straight Creek, Clear Creek, and Clear Fork drainages, all of which are located within the eastern half of the species' geographical range. This portion of the upper Cumberland River drainage has less public ownership than the western half of the drainage and has been impacted more extensively by surface coal mining.

Over the last 3 years, new field surveys and monitoring efforts across the Cumberland arrow darter's range have improved our understanding of the species' distribution and stressors. Based on these findings, we have reexamined the species' status and reevaluated the magnitude and imminence of its stressors. We acknowledge that the species has suffered declines in portions of its range (e.g., it has been extirpated from 43 of 128 historical streams) and portions of the range continue to suffer some level of water quality degradation and habitat disturbance. However, we have determined that the species' overall status is more secure than previously believed, and stressors acting on the species are not of sufficient imminence, intensity, or magnitude to indicate the species is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species). The Cumberland arrow darter's status is

bolstered by its large number of occupied streams (98) and its frequent occurrence in streams on public lands and in streams with listed species (e.g., blackside dace). In support of this not-warranted finding, we offer the following specifics with regard to its status:

- The species' range (number of extant streams) is larger than first believed. When first identified as a candidate for listing in 2012, the Cumberland arrow darter was known from 72 of 123 historical sites visited (58 percent) and 60 of 101 historical streams visited (59 percent). More comprehensive surveys in Tennessee and additional surveys in Kentucky from 2012 through 2014 expanded the species' known range to 98 streams, including 85 of 128 historical streams (66 percent) and 13 new streams. The species' relatively broad distribution and high number of occupied streams increases its resiliency and redundancy.

- The species has demonstrated greater persistence in streams with at least 1 listed species (62 streams) or in streams located on public lands (45 streams). When combined, these two groups total 75 streams, or 77 percent of the species' known habitats. Historically, less habitat disturbance has occurred on public lands, and many of the species' best remaining habitats are located in these areas. The Cumberland arrow darter also benefits indirectly from listed species' protections provided by Federal and State statutes and regulations, especially in Kentucky where State water quality regulations (401 Kentucky Administrative Regulations 10:031, Section 8) provide added protections for streams supporting listed species

("Outstanding State Resource Waters").

The species utilizes larger streams more frequently than previously believed, bolstering the species' redundancy, resiliency, and representation (capacity of a species to adapt to changing environmental conditions). We have recent records (multiple individuals each) from Capuchin Creek, Elk Fork Creek, Jellico Creek (at Criscillis Branch), Marsh Creek (near mouth), and Roaring Paunch Creek, all of which are fourth-order streams or larger and have watersheds exceeding 65 square kilometers (25 square miles). This information suggests the species utilizes more stream kilometers (miles) than previously believed because most survey efforts have focused on smaller streams (third-order and smaller). The species' presence in these habitats protects against stochastic and catastrophic events (e.g., drying, floods, or pollution events) that can occur across the species' range.

Finding

We evaluated the stressors to the Cumberland arrow darter and considered factors that, individually and in combination, presently or potentially could pose a risk to the species and its habitat. Based on our analysis of these stressors and our review of the species' current status, we conclude that listing this species under the Act is not warranted, because this species is not in danger of extinction, and is not likely to become in danger of extinction throughout all of its within the foreseeable future. We evaluated the current range of the Cumberland arrow darter to determine if there is any apparent geographic concentration of potential threats for this species. We examined potential

threats, and found that potential impacts (e.g., water quality degradation) associated with surface coal mining and other land uses (e.g., residential development) are greater in the eastern half of the species' geographical range (e.g., water quality degradation is more common within this part of the range, and more extirpations have occurred there).

To determine if this portion of the range was significant, we evaluated its contribution and importance to the species' overall viability. Even though the species has been extirpated from multiple streams within the eastern half of the geographical range, we do not consider this portion of the range to be so important that, without the members in that portion, the species in the remainder of the range would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range (i.e., the loss of this portion clearly would not be expected to increase the vulnerability to extinction of the entire species). The species continues to occupy 98 streams across its entire range. A total of 75 of these streams (77 percent) either support a listed species (62 streams) or occur on publicly owned lands (45 streams) where disturbance is minimal (e.g., Daniel Boone National Forest).. The eastern half of the species' geographical range continues to support multiple viable populations; 17 occupied streams, 15 of which are in public ownership or are occupied by a listed species. Given the hypothetical loss of the geographical eastern portion of the species range, the Cumberland arrow darter would still occupy 81 streams, 60 of which are in public ownership are occupied by a listed species. Therefore, we do not consider the eastern half of the species geographical range to constitute a significant portion of the species' range. Because this portion of the range is not significant, we conclude that the species is not in danger of extinction (an

endangered species) nor likely to become endangered within the foreseeable future (a threatened species), throughout all or a significant portion of its range. Therefore, we find that listing the Cumberland arrow darter as an endangered or threatened species under the Act is not warranted at this time. Therefore, we no longer consider it to be a candidate species for listing.

Great Basin DPS of the Columbia spotted frog *(Rana luteiventris)*

Previous Federal Actions

On May 4, 1989, we received a petition dated May 1, 1989, from Peter Hoving, Chairman, Issues Committee, requesting that the spotted frog be listed as a threatened species under the Act. In 1993, we announced a finding on the petition where we found five populations of the spotted frog warranted listing (58 FR 27260; May 7, 1993). On September 19, 1997, we announced our acceptance of species-specific genetic and geographic differences in spotted frogs and we added the Great Basin distinct population segment of the Columbia spotted frog to the candidate list with a listing priority number (LPN) of 3 (62 FR 49402). In the December 6, 2007,Candidate Notice of Review (CNOR) (72 FR 69039), we announced a change in LPN from 3 to 9 for this entity. In subsequent annual CNOR publications, we maintained our determination of LPN of 9 for this species.

Summary of Status Review

The Columbia spotted frog (Great Basin DPS) occurs in Nevada, southwestern

Idaho, and southeastern Oregon. The Columbia spotted frog is a slim-waisted, long-legged, smooth-skinned frog measuring between 2 to 4 inches. Dorsal colors and pattern include light brown, dark brown, or gray, with small spots. Ventral coloration can differ among geographic population units and may range from yellow to salmon with mottled throat regions.

Columbia spotted frogs in the Great Basin have been affected primarily by the remaining effects of past habitat destruction and modification, which caused increased habitat fragmentation and isolation. Livestock grazing, mining activities, beaver management, water development, predation, disease, and the effects of climate change have also been identified as potential threats to the species. Heavy use by livestock has been shown to be detrimental to Columbia spotted frog habitat in localized areas. Livestock grazing and development of springs for livestock and agricultural purposes occur or have occurred throughout the Great Basin and resulted in an unquantifiable loss of riparian and wetland habitats used by the species. However, springs developed into ponds for the purposes of watering livestock have resulted in the creation and maintenance of persistent, high quality breeding and rearing habitat for the species in portions of the species range.. Mining has been shown to have localized impacts to populations but has a relatively low influence on a rangewide basis. Historical trapping nearly extirpated beaver from the Great Basin; however, beaver populations have rebounded and occupy the majority of its historical range but at lower densities. Harvest of beaver continues throughout the Great Basin but does not seem to be negatively impacting the beaver population as a whole within the Great Basin. However, there is

little information on the impacts of harvest at the local watershed level to analyze impacts at this finer scale. The ability of beavers to restore degraded stream systems and the resulting habitat modification from their dams which keeps water on the landscape longer is becoming recognized as an important restoration technique (Gibson and Olden 2014, pp. 399–401; Pollack *et al.* 2014, pp. 284–286).

Nonnative fish and amphibian predators occur within the range of Columbia spotted frogs. The level of impact from predation is variable across the species' range, and depends on the quality of habitat (availability of cover and shelter). These nonnative predators can also introduce and help spread diseases and pathogens. However, current population-level effects of both predation and disease (pathogens and parasites) have not been documented within the Great Basin; therefore, we conclude that predation and disease are not negatively affecting Columbia spotted frogs in the Great Basin at this time nor do we expect them to in the near future.

Climate change has affected, and is expected to continue to affect, Great Basin ecosystems; however, the impacts to permanent water sources and to Columbia spotted frog populations are not well documented. The available data does not indicate whether any effects from climate change will have population-level effects within a reasonably foreseeable period of time. Based on this variability and uncertainty of the exact effects of climate change on the Columbia spotted frog Great Basin DPS within its range, we cannot reasonably determine that the effects of climate change are likely to have a population-level impact on the species now or in the foreseeable future.

Many of the stressors discussed above do not act alone. Multiple stressors can alter the effects of other stressors or act synergistically to affect individuals and populations. For example, Kiesecker and Blaustein (1995, pp. 11050–11051) describe how UV-B acts with a pathogen to increase embryonic mortality above levels shown with either factor alone. Interactions between current land uses and changing climate or other environmental conditions may cause shifts in populations, communities, and ecosystems or may increase an individual's susceptibility to infection, disease, or predation (Hansen *et al*. 2001, p. 767; IPCC 2002, p. 22). However, the best available scientific information does not indicate that multiple stressors acting in combination or synergistically currently rising to the level of being identified as a stressor to the Great Basin DPS of Columbia spotted frogs and we therefore conclude that they do not cumulatively pose a threat to the species at this time nor do we expect them to do so in the future.

Conservation efforts are occurring in many areas across the range of the Columbia spotted frog. A 10-year Conservation Agreement and Strategy has been implemented in Nevada since 2003. Due to the success of the Conservation Agreement and Strategy in managing and conserving Columbia spotted frogs in Nevada, a revised 10-year agreement (2015–2024) was signed in February 2015. In 2006, a Candidate Conservation Agreement with Assurances was developed for a population in Idaho. An increase in monitoring has improved our knowledge of the distribution of the species, as well as improved knowledge of demography in several populations. Improved grazing management in some locations has contributed to improved stream and riparian habitat in some areas. Creating ponded habitat has also improved numerous occupied sites

throughout the Great Basin, as well as in other parts of the species' range. All three States include Columbia spotted frog on their list of protected species.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat , either singly or in combination, are not of sufficient imminence, intensity, or magnitude to indicate that the Great Basin DPS of the Columbia spotted frog is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. This finding is based on additional populations that have been found since the species was first identified as a candidate, the relatively stable population and distribution of the species, and conservation management that is occurring throughout the species' range for impacts to both the habitat and the species. Because the distribution of the species is relatively stable across its range and stressors are similar throughout the species' range, we found no concentration of stressors that suggests that the Great Basin DPS of the Columbia spotted frog may be in danger of extinction in any portion of its range. Therefore, we find that listing the Great Basin DPS of the Columbia spotted frog as a threatened or an endangered species or maintaining the species as a candidate is not warranted throughout all or a significant portion of its range at this time, and consequently we are removing it from candidate status.

Goose Creek milkvetch *(Astragalus anserinus)*

Previous Federal Actions

On February 3, 2004, we received a petition dated January 30, 2004, from Red Willow Research, Inc., and 25 other concerned parties, including the Prairie Falcon Audubon Society Chapter Board, Western Watersheds Project, Utah Environmental Congress, Sawtooth Group of the Sierra Club, and 21 private citizens. The petitioners requested that we list Goose Creek milkvetch as a threatened or an endangered species, emergency list the species, and designate critical habitat concurrently with the listing (Red Willow Research Inc, in litt. 2004). The petition contained information on the natural history of Goose Creek milkvetch, its population status, and potential threats to the species. Potential threats discussed in the petition include the destruction and modification of habitat, disease and predation, inadequacy of existing regulatory mechanisms, and other natural and manmade factors such as exotic and noxious weed invasions and road construction and maintenance. The petition clearly identified itself as a petition, and included the requisite identification information as required in 50 CFR 424.14(a).

In a February 19, 2004, letter to the petitioners, we responded that our initial review of the petition for Goose Creek milkvetch determined that an emergency listing was not warranted, and that due to court orders and judicially approved settlement agreements for other listing actions, we would not be able to further address the petition to list the species at that time. On August 16, 2007, we published a notice of 90-day finding that the petition presented substantial scientific or commercial information

indicating that listing Goose Creek milkvetch may be warranted, and we were initiating a status review of the species (72 FR 46023). A 60-day public comment period followed.

Our subsequent 12-month finding identified Goose Creek milkvetch as a species for which listing as an endangered species or threatened species was warranted but was precluded due to higher priority listing decisions, and we assigned Goose Creek milkvetch a listing priority number of 5 (74 FR 46521; September 10, 2009). Following the finding, we completed annual Candidate Notices of Review in 2010 (75 FR 69222; November 10, 2010), 2011 (76 FR 66370; October 6, 2011), 2012 (77 FR 69994; November 21, 2012), 2013 (78 FR 70104; November 22, 2013), and 2014 (79 FR 72449; December 5, 2014), all of which maintained the species as a candidate. We assigned the listing priority number of 2 to the species in 2012, and maintained that listing priority through 2014. The change in the listing priority number was based upon information indicating that livestock use and invasive species (cheatgrass) had increased following the 2007 wildfires and that impacts to the species from these stressors were imminent.

As a result of the Service's 2011 multidistrict litigation settlement with petitioners, a proposed listing rule or a not-warranted 12-month finding is required by September 30, 2016 (In re: Endangered Species Act Section 4 Deadline Litigation, No. 10–377 (EGS), MDL Docket No. 2165 (D.D.C. May 10, 2011)). This 12-month finding satisfies the requirements of that settlement agreement for the Goose Creek milkvetch.

Summary of Status Review

Goose Creek milkvetch is a narrow endemic plant in the Goose Creek drainage in Idaho, Nevada, and Utah. The current range of Goose Creek milkvetch is essentially the same as the historical range; however, we continue to identify a greater distribution of the species across its range. Overall, Goose Creek milkvetch occurs in a scattered distribution within five populations. Plants are typically found on sparsely vegetated outcrops of highly weathered volcanic-ash (tuffaceous) soils. The total population size in 2014 is estimated to be approximately 31,648 plants occupying approximately 2,117 acres (857 hectares).

In our 2009 12-month finding (74 FR 46521; September 10, 2009), we identified the threats to Goose Creek milkvetch to be wildfire, wildfire management (firefighting and post-wildfire emergency stabilization and restoration activities), invasive nonnative plant species (cheatgrass, leafy spurge, crested wheatgrass), livestock use, development, recreation, mining, the inadequacy of regulatory mechanisms, and small population size. In our current candidate assessment, we evaluated available information, and concluded that the species is resilient to these stressors and that current impacts to the species are not as strong as previously believed.

In 2015 we identified leafy spurge as a future threat to Goose Creek milkvetch, based upon its anticipated future spread and expansion within the species' range containing 64 percent of the total population. Leafy spurge has the ability to increase in density rapidly and displace Goose Creek milkvetch, which may lead to local extirpation of the species in infested areas that are not detected and controlled at early stages of leafy

spurge invasion. As a result, our initial finding was that Goose Creek milkvetch warranted listing as a result of the future threat of leafy spurge. However, the Bureau of Land Management (BLM) and the U.S. Fish and Wildlife Service finalized a conservation agreement for the long-term conservation of Goose Creek milkvetch in early 2015 that identifies conservation measures to address the spread and control of leafy spurge in Goose Creek milkvetch habitat. Through our Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE) (68 FR 15100; March 28, 2003) analysis, we evaluated the actions in the conservation agreement and concluded that there is sufficient certainty that the actions will be implemented and effective such that leafy spurge will not become a future threat to Goose Creek milkvetch.

As a result of new information and analysis, the originally identified threats in our previous 12-month finding are no longer considered current or foreseeable threats for the following reasons: (1) The population is stable, the species is persisting at all monitored sites despite disturbance events, and it is occupying its historical range; (2) the species occurs over 216 square miles (559 square kilometers), and currently has adequate representation, resiliency, and redundancy throughout its range; (3) the species appears resilient to the identified stressors based on our evaluation in the 2015 candidate assessment; (4) new monitoring information after recent wildfires indicates that Goose Creek milkvetch was not significantly affected by wildfire and wildfire management (post-wildfire emergency stabilization and restoration activities) as previous information indicated; and (5) expanded commitments in the 2015 BLM/FWS conservation agreement to survey for and annually treat leafy spurge within Goose Creek milkvetch

habitat on BLM lands will be effective in controlling the future spread of this noxious weed, and will protect approximately 86 percent of the total known population and 93 percent of the total known habitat of Goose Creek milkvetch.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the current stressors acting on the species and its habitat are not of sufficient imminence, intensity, or magnitude to indicate that the Goose Creek milkvetch is warranted for listing at this time. However, we did find the potential future threat from leafy spurge is of such a magnitude that listing Goose Creek milkvetch may be warranted. We evaluated the actions outlined in the 2015 conservation agreement with the BLM under PECE, and we found sufficient certainty of implementation and effectiveness of the actions such that the potential future threat of the habitat impacts due to the spread of leafy spurge will largely be ameliorated. Therefore, based on the best available information, we find that listing Goose Creek milkvetch is not warranted throughout its range. Because the distribution of the species is relatively stable across its range and stressors are similar throughout the species' range, we found no concentration of stressors that suggests that the Goose Creek milkvetch may be in danger of extinction in any portion of its range. Therefore, we find that listing the Goose Creek milkvetch as a threatened or an endangered species is not warranted throughout all or a significant portion of its range at this time, and consequently we are removing it from candidate status.

Nevares Spring naucorid bug *(Ambrysus funebris)*

Previous Federal Actions

On November 15, 1994, we added the Nevares Spring naucorid bug (Amargosa naucorid bug) to the candidate list as a category 2 species on the Candidate Notice of Review (CNOR) (59 FR 59012). Category 2 species were those species for which listing as endangered or threatened species was possibly appropriate, but for which biological information sufficient to support a proposed rule was lacking. However, the February 28, 1996, CNOR (61 FR 7596) discontinued recognition of category 1 and 2 species, so the Nevares Spring naucorid bug was no longer considered a candidate species after that date. On May 4, 2004 (69 FR 24880), we added the species to the candidate list with a listing priority number (LPN) of 5. In our November 21, 2012, CNOR (77 FR 69998), we changed the LPN from 5 to 2. In subsequent annual CNOR publications, we maintained our determination of LPN of 2 for this species.

Summary of Status Review

The Nevares Spring naucorid bug is an aquatic invertebrate found only within the Furnace Creek Springs (Nevares, Texas, and Travertine Springs) of Death Valley National Park, California, managed by the National Park Service (NPS). Based on both historical and recent surveys, this narrow endemic species is considered locally abundant where found, but otherwise uncommon in aquatic habitats within the Travertine and Nevares Spring complexes and in areas of the Furnace Creek Wash. The Furnace Creek Springs have been used as a water source (potable and non-potable water) since the

1800s, and the primary threat to the Nevares Spring naucorid bug at the time it was placed on the candidate list (2004) was loss of habitat due to diversion of water.

Since then, the NPS has rebuilt the Furnace Creek water collection system and has implemented restoration actions within the range of the species. The combined post-pumping flow for affected springs is approximately 80 percent of the estimated pre-pumping flow. While this activity represents a negative factor within one of four of the Travertine Springs springbrooks, we have determined that this stressor is not of significant magnitude to affect the conservation status of the species. Flows from Nevares Springs (occupied by the bug) and Texas Spring (unknown occupation) have not been affected by the groundwater pumping and are not part of the Furnace Creek water collection system. The NPS has also eliminated water diversions and implemented aquatic habitat restoration at Travertine Spring 2, including restoration of its previously dry downstream springbrook. The results have augmented local groundwater, which has reemerged in aquatic habitat in portions of the spring area and downstream areas, including Furnace Creek Wash (occupied by the bug). Similar beneficial restoration actions are planned for other areas. While we believe that these future habitat restoration efforts could enhance the conservation status of the species by providing suitable habitat, these future actions are not factored into our determination.

We also evaluated potential threats related to nonnative or invasive plants, predation, fire, and the effects of climate change. The impact to the species' habitat from nonnative or invasive plants is minor in scope and is currently being managed by the

NPS. Predation is not currently a threat to the species and is not expected to be a threat in the near future. Fire has been a rare event within the Furnace Creek Springs area, and it is not expected to be a threat in the near future due to specific management actions being implemented by the NPS as required by the Death Valley National Park *General Management Plan*. Based on computer model projections (Fisk 2011, pp. 141–144), potential impacts to the species from the effects of climate change (i.e., changes to groundwater head and spring discharge for the Furnace Creek Springs) also are unlikely to be significant well into the 21st Century.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of sufficient imminence, intensity, or magnitude to indicate that the Nevares Spring naucorid bug is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. This finding is based on the relatively stable population and distribution of the species, and the habitat restoration efforts and conservation management that have occurred throughout the species' range to minimize impacts to both the habitat and the species since the species was first identified as a candidate. Because the distribution of the species is narrow and stressors are similar throughout the entire species' range, we found no concentration of stressors that suggests that the Nevares Spring naucorid bug may be in danger of extinction in any portion of its range, or likely to become so in the foreseeable future. Therefore, we find that listing the Nevares Spring naucorid bug as a

threatened species or an endangered species or maintaining the species as a candidate throughout all or a significant portion of its range is not warranted at this time, and consequently we are removing it from candidate status.

Page springsnail *(Pyrgulopsis morrisoni)*

Previous Federal Actions

The Service first identified the Page springsnail as a category 2 candidate species on January 6, 1989 (54 FR 554). Category 2 candidates were defined as species for which we had information that proposed listing was possibly appropriate, but conclusive data on biological vulnerability and threats were not available to support a proposed rule at the time. In the February 28, 1996, Candidate Notice of Review (CNOR) (61 FR 7596), we discontinued the designation of Category 2 species as candidates. Page springsnail became a candidate species (formerly known as Category 1 candidate) on February 28, 1996, with a listing priority number of 2 (61 FR 7596). The Page springsnail remained on the candidate list thereafter with no change in listing priority number. On April 12, 2002, we received a petition dated April 11, 2002, from the Center for Biological Diversity, requesting emergency listing and designation of critical habitat for the Page springsnail. We acknowledged receipt of the petition in a letter dated August 8, 2002. In that letter we stated the Service's policy to treat petitions on candidate species as second petitions, and that we consider all candidates as having been subject to both a positive 90-day finding and a warranted-but-precluded 12-month finding under section 4(b)(3)(B)(iii) of the Act. As such we did not make a separate 90-day or

12-month finding in response to the petition.

In 2011, the Service entered into two settlement agreements regarding species on the candidate list at that time (Endangered Species Act Section 4 Deadline Litigation, No. 10–377 (EGS), MDL Docket No. 2165 (D.D.C. May 10, 2011)). This finding fulfills our obligations regarding the Page springsnail under those settlement agreements.

Summary of Status Review

The Page springsnail is a small aquatic snail endemic to 10 populations in a complex of springs along Oak Creek and Spring Creek in Yavapai County, central Arizona. Like other members of the family Hydrobiidae, Page springsnails are strictly aquatic and often occur in abundance within suitable spring habitats. The Page springsnail occurs in springs, seeps, marshes, cienegas, spring brooks, spring pools, outflows, and diverse lotic (flowing) waters, supported by water discharged from a regional aquifer. Eight of the 10 known populations occur on land managed by Arizona Game and Fish Department (AGFD) as a fish hatchery.

The Page springsnail became a candidate species primarily due to habitat modifications at the springhead and spring run that resulted in changes to the habitat factors listed above, resulting in the extirpation of two populations. Subsequently, AGFD implemented a Candidate Conservation Agreement with Assurances that includes conservation measures that have resulted in the majority of Page springsnail populations being secure from spring modification, aquatic vegetation removal, and water

contamination in the future. These management actions include coordinating with the Service and considering the needs of the Page springsnail when conducting aquatic vegetation control, management of nonnative fishes, chemical use, and addition of material into springs. AGFD has also restored much of the spring habitat on their lands; restoration activities include modifying springs, adding substrate preferred by springsnails, and eradicating nonnative species.

The Page springsnail needs multiple resilient populations distributed across its range to maintain viability into the future and to avoid extinction. In general, the more Page springsnail populations that occur across its range, the higher the viability of the species and the lower the risk of extinction. A number of factors influence whether Page springsnail populations will maximize habitat occupancy, which increases the resiliency of a population to stochastic events. These factors include (1) adequate spring discharge (water quantity), (2) sufficient water quality, (3) free-flowing spring ecosystems, and (4) appropriate substrate and aquatic vegetation within the springs.

In the future, the primary source of potential habitat loss is groundwater depletion, which may result in reduced or eliminated spring flow. We are relatively certain that climate change and increased water consumption from increased human population levels in the Verde Valley will result in lowered groundwater levels. Though we are not certain of the specific relationship between base flow and spring discharge, it is likely that declines in groundwater levels in the Verde Valley subbasin and base flow in the Verde River will translate to some decline in spring flow. We therefore anticipate that the effect

of groundwater declines on future levels of spring discharge is the primary factor influencing the future condition of the Page springsnail.

Finding

Our review found that there are currently 10 existing Page springsnail populations, occurring in approximately the same geographic range that the species was known to occupy historically. To assess the current status of these populations, we grouped each of them into three categories of resiliency, which were based on spring flow rate, water quality, free-flowing spring runs, and vegetation and substrate quality. We categorized six populations as currently having high resiliency, three as currently having moderate resiliency, and one as currently having low resiliency. The best available data suggests that populations in high or moderate condition will be resilient populations at low risk of extirpation. In total, nine of the populations rank as high or moderate for the combined evaluation of the elements needed to maintain the species (water flow rate, water quality, free flowing, and aquatic vegetation and substrate). This current number of populations in high or moderate condition existing across the species' range provides resiliency (90 percent of populations considered sufficiently large to withstand stochastic events), redundancy (the populations exist across the historical range, although that range is inherently small, to withstand catastrophic events), and representation (multiple populations continuing to occur across the range of the species to maintain ecological and genetic diversity). Because this estimate of the condition and distribution of populations provides sufficient resiliency, representation, and redundancy for the species, we conclude that the current risk of extinction of the Page springsnail is

sufficiently low that it does not meet the definition of an endangered species under the Act.

Looking into the foreseeable future, and considering that spring flows could decline somewhat by 2065, we forecasted that two populations would continue to have high resiliency, four would have moderate resiliency, and four would have low resiliency (Service 2015, p. 33). The best available data suggests that populations in high or moderate condition will be resilient populations at low risk of extirpation. This forecasted number of populations in good condition existing across the species' range would provide resiliency (60 percent of populations considered sufficiently large to withstand stochastic events), redundancy (the populations would exist across the historical range, although that range is inherently small, to withstand catastrophic events), and representation (multiple populations would continue to occur across the range of the species to maintain ecological and genetic diversity). Therefore, because this forecast of the number and distribution of populations under the spring flow scenario that we expect to occur provides sufficient resiliency, redundancy, and representation for the species, we conclude the species is likely to remain at a sufficiently low risk of extinction that it will not become in danger of extinction in the foreseeable future. Therefore, we find that the Page springsnail does not meet the definition of a threatened species under the Act.

Having found that the Page springsnail is not an endangered species or a threatened species throughout all of its range, we next consider whether there are any significant portions of its range in which the Page springsnail is in danger of extinction or

likely to become so. We found no portions of its range where potential threats are significantly concentrated or substantially greater than in other portions of its range. Therefore, we find that factors affecting the species are essentially uniform throughout its range, indicating that no portion of the range of the Page springsnail warrants further consideration of possible endangered species or threatened species status under the Act.

In conclusion, because the number and distribution of Page springsnail populations provides sufficient resiliency, redundancy, and representation for the species now and in the foreseeable future, we find that the Page springsnail no longer warrants listing throughout all or a significant portion of its range, and consequently we are removing it from candidate status.

Ramshaw Meadows sand-verbena *(Abronia alpina)*

Previous Federal Actions

The Act directed the Secretary of the Smithsonian Institution to prepare a report on endangered and threatened plant species, which was published as House Document No. 94–51. We published a notice in the **Federal Register** on July 1, 1975 (40 FR 27823), in which we announced that we would review more than 3,000 native plant species named in the Smithsonian's report and other species added by the 1975 notice for possible addition to the List of Endangered and Threatened Plants. Ramshaw Meadows sand-verbena was one of those species. In the February 21, 1990, Candidate Notice of Review (CNOR) (55 FR 6186), we identified the species as a category 1 candidate

species. In the February 28, 1996, CNOR, we retained the species as a candidate and assigned it a listing priority number (LPN) of 8 (61 FR 7602). In the September 19, 1997, CNOR (62 FR 49404), we changed the LPN to 11. On May 11, 2004, we received a petition dated May 4, 2004, from the Center for Biological Diversity et al. requesting the listing of the Ramshaw Meadows sand-verbena as a threatened species with critical habitat. In subsequent annual CNOR publications, we maintained our determination of LPN of 11 for this species.

Summary of Status Review

Abronia alpina is a small perennial herb 1 to 6 inches across forming compact mats with lavender pink, trumpet-shaped, and generally fragrant flowers. The species is known from one main population center at Ramshaw Meadow and a smaller population at the adjacent Templeton Meadow on the Kern River Plateau (8,700-feet elevation) in the Sierra Nevada Mountains, California. The entire range of the species is approximately 15 acres (6.1 hectares) and is administered by the U.S. Forest Service (USFS) (Inyo National Forest, Tulare County, California). The species' population fluctuates from year to year without any clear trends with estimates ranging from approximately 150,000 to 50,000 plants (based on USFS survey results 1985–2012). *Abronia alpina* is currently categorized by the USFS as a "Sensitive Species" under the 1988 Land and Resource Management Plan (LRMP), but is proposed to be categorized as an "At-Risk Species" under the revised LRMP currently being developed.

Threats to *Abronia alpina* and its habitat identified at the time it was determined to be a candidate species included cattle trailing, trampling by campers and packstock, deteriorated watershed conditions, and potential bank cutting of habitat. In response, the USFS has implemented a number of conservation measures that have been effective in reducing these adverse effects, including developing a livestock trailing strategy; exclosure fencing; establishing a monitoring program; discontinuing livestock grazing for a 10-year period (2001–2011); rerouting hiking and packstock trails; and conducting land exchanges of private land so that all *A. alpina* habitat is on Federal land.

The stressors currently acting upon *Abronia alpina* and its habitat include lodgepole pine encroachment; potential bank cutting of habitat; the effects of climate change; recreation (camping, packstock); and cattle trailing within meadow habitats. Past conservation actions by the U.S. Forest Service have reduced or eliminated the effects of most of these stressors on *A. alpina* and its habitat. In addition, the Inyo National Forest and U.S. Fish and Wildlife Service have developed and signed a conservation agreement to evaluate current stressors for *A. alpina* and update conservation actions that will be implemented by the Inyo National Forest to continue to protect and manage *A. alpina* and its habitat (Conservation Agreement and Species Management Guide for *Abronia alpina* (Ramshaw abronia) Tulare County, California, Dated: April 2015). The conservation agreement addresses ongoing management needs of *A. alpina* and its habitat, including management or monitoring of past and present stressors that have been identified. The past and current conservation actions and protection provided by the Inyo National Forest have been demonstrated to reduce and ameliorate the effect of stressors acting upon the

species, and we anticipate those completed actions to have lasting, positive effects into the near future. While we are not basing our finding on the February 2015 conservation agreement, we anticipate that conservation measures and protections outlined in the Conservation Agreement will continue to build on the success that past actions have had and will continue to benefit *Abronia alpina* into the future.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of sufficient imminence, intensity, or magnitude to indicate that *Abronia alpina* is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. This finding is based on the past conservation actions and protections provided by the Inyo National Forest that have shown success in reduction and amelioration of the effect of stressors acting upon the species and its habitat. We found no concentration of stressors that suggests that the *Abronia alpina* may be in danger of extinction in any portion of its range. Therefore, we find that listing *A. alpina* as a threatened or an endangered species throughout all or a significant portion of its range or maintaining the species as a candidate is not warranted at this time, and we are removing it from candidate status.

Sequatchie caddisfly *(Glyphopsyche sequatchie)*

Previous Federal Actions

The Sequatchie caddisfly was first identified as a candidate for protection under the Act through our internal process in the October 25, 1999, Candidate Notice of Review published in the **Federal Register** (64 FR 57534), and the Service was subsequently petitioned on May 11, 2004, to list the species although no new information was provided with the petition. Threats to the species identified at that time were siltation; agricultural, chemical, and municipal runoff; vandalism; pollution from trash; and small population size. The Sequatchie caddisfly was assigned a listing priority number (LPN) of 5 (64 FR 57534), and that LPN was maintained until evaluation for listing this year.

Summary of Status Review

The Sequatchie caddisfly (*Glyphopsyche sequatchie*) was discovered in 1994 and first described by Etnier and Hix (1999, entire). This species is a member of the insect order Trichoptera, family Limnephilidae, subfamily Limnephilinae, and tribe Chilostigmini (Wiggins 1996, pp. 270, 310).

Despite extensive efforts to find additional sites (Moulton and Floyd, 2013, entire), the Sequatchie caddisfly has been observed at only three spring runs in the Sequatchie Valley, all in Marion County, Tennessee: Owen Spring Branch (the type locality); Martin Spring run in the Battle Creek system, and Clear Spring Branch (Etnier and Hix 1999, pp. 629–630; Walton 2011, pers. comm.). In July 2014, biologists with the Service, the Tennessee Department of Environment and Conservation (TDEC), the University of Tennessee, and the Tennessee Wildlife Resources Agency completed quantitative surveys within a 20-meter (66-foot) reach at both the Owen Spring Branch

and Martin Spring sites. During the Owen Spring Branch survey, a total of 269 Sequatchie caddisflies were observed within 29 0.25-square-meter (2.7-square-foot) quadrats (USFWS, unpublished data).

Using these data, we estimated the population size at 5,192–6,273 individuals (95% confidence interval) within the 20-meter (66-foot) sampling reach. Considering the amount of occupied habitat within Owen Spring Branch (approximately 280 meters (919 feet)), we extrapolated that the population size at Owen Spring exceeds 50,000 caddisflies. During the Martin Spring surveys, a total of 260 Sequatchie caddisflies were observed within 30 0.25-square-meter (2.7-square-foot) quadrats (USFWS, unpublished data). Using these data, we estimated the population size at 6,546–10,593 individuals (95% confidence interval) within the 20-meter (66-foot) sampling reach. Considering the amount of occupied habitat within Martin Spring (approximately 660 meters (2,165 feet)), we extrapolated that the population size at Martin Spring exceeds 100,000 caddisflies. Both the Owen Spring Branch and Martin Spring estimates are much larger than previous estimates, which were 1,500 to 3,000 individuals at Owen Spring Branch and characterized as "very rare," with only 6 individuals found at Martin Spring (Moulton and Floyd (2013, pp. 8–9)). In 2010, a single larva was collected at Clear Spring Branch during routine water quality monitoring by TDEC (Walton 2011, pers. comm.). In subsequent surveys, no individuals were observed at the Clear Spring Branch site (Moulton and Floyd 2013, p. 8; USFWS, unpublished data). It is unclear whether the larva collected in 2010 was the result of a dispersal event or of a population that occurred at very low levels, and the site is now considered unoccupied by the species.

Sedimentation, beaver activity, mowing/clearing, trampling/public access, and possibly watershed disturbance are all stressors to habitat (Factor A). All of these stressors occur at both the Owen Spring Branch and Martin Spring sites, except for beaver activity, which is only found at Owen Spring Branch. However, these stressors are largely abated by management practices that have been in place for over 3 years, such as beaver and erosion control measures currently being undertaken by TDEC and other partners. Nevertheless, our not-warranted finding is not based on the implementation of these voluntary efforts.

Finding

The Sequatchie caddisfly is found at only two sites in Marion County, Tennessee. However, population sizes are now estimated to be substantially larger than previously thought, and the best available information does not indicate any evidence of declines or inbreeding depression in either of the known populations at this time. Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that there are no stressors of sufficient imminence, intensity, or magnitude to indicate that the Sequatchie caddisfly is in danger of extinction (an endangered species), or likely to become so within the foreseeable future (a threatened species), throughout all of its range.

We consider the range of the Sequatchie caddisfly to include Martin Spring and Owen Spring in the Sequatchie Valley of Tennessee. We evaluated the current range of Sequatchie caddisfly to determine if there is any apparent geographic concentration of

potential threats for this species. We examined potential threats from range curtailment, sedimentation, beaver activity, mowing/clearing, trampling/public access, watershed disturbance, collection, disease, predation by introduced rainbow trout, the inadequacy of existing regulatory mechanisms, and small population size effects and found no concentration that suggests that the Sequatchie caddisfly may be in danger of extinction in a portion of its range. While there is a higher level of trampling and public access at Owen Spring Branch, the best available data do not indicate that this stressor rises to the level of a threat to the species at this site, such that this portion meets the definition of an endangered or a threatened species. Furthermore, we found no other portions of the range where potential threats are significantly concentrated or substantially greater than in other portions of its range. Therefore, we find that the factors affecting Sequatchie caddisfly are essentially uniform throughout its range, indicating no portion of the range warrants further consideration of possible endangered species or threatened species status under the Act.

Our review of the best available scientific and commercial information indicates that the Sequatchie caddisfly is not in danger of extinction (an endangered species) and is not likely to become an endangered species within the foreseeable future (a threatened species), throughout all or a significant portion of its range. Therefore, we find that listing Sequatchie caddisfly as an endangered or a threatened species under the Act is not warranted at this time, and we are removing it from candidate status.

Siskiyou mariposa lily *(Calochortus persistens)*

Previous Federal Actions

The Act directed the Secretary of the Smithsonian Institution to prepare a report on endangered and threatened plant species, which was published as House Document No. 94–51. We published a notice in the **Federal Register** on July 1, 1975 (40 FR 27823), in which we announced that we would review more than 3,000 native plant species named in the Smithsonian's report and other species added by the 1975 notice for possible addition to the List of Endangered and Threatened Plants. Siskiyou mariposa lily was one of those species. In the February 21, 1990, Candidate Notice of Review (CNOR) (55 FR 6192), we first identified the species as a category 2 candidate. However, the February 28, 1996, CNOR (61 FR 7596) discontinued recognition of category 1 and 2 species, so Siskiyou mariposa lily was no longer considered candidate species after that date. On September 10, 2001, we received a petition dated August 24, 2001, from Klamath-Siskiyou Wildlands Center, Oregon Natural Resources Council, and Barbara Knapp requesting that the Siskiyou mariposa lily be listed as an endangered species under the Act and that critical habitat be designated. In the June 13, 2002, CNOR (67 FR 40662), we once again added the species as a candidate with a listing priority number (LPN) of 2. In the May 11, 2005, CNOR, we changed the LPN to 5 (70 FR 24932). In subsequent annual CNOR publications, we maintained our determination of LPN of 5 for this species.

Summary of Status Review

Calochortus persistens is a perennial flowering bulb with one to two large showy, pink to lavender, erect, bell-shaped flowers with yellow fringes. *Calochortus persistens*

is restricted to three disjunct areas in the Klamath-Siskiyou Mountain Range at elevations of 4,300 feet (ft) to 6,000 ft, on the California-Oregon border (Gunsight-Humbug Ridge and Cottonwood Peak Area, west of Yreka, Siskiyou County, California (two locations), and Bald Mountain site, west of Ashland, Jackson County, Oregon). Land ownership for the three sites is a combination of U.S. Forest Service (USFS), Bureau of Land Management (BLM), and private lands. Population numbers for the species varies by location and numbers from 5 to 100,000 plants. Past numbers of *Calochortus persistens* plants in each area may have been underestimated depending on survey timing.

Between 1982 and 2013, numerous conservation initiatives and management plans have been developed to conserve *Calochortus persistens*. The most recent is the "Conservation Agreement between the U.S. Fish and Wildlife Service and the U.S. Forest Service and U.S. Bureau of Land Management for *Calochortus persistens* (Siskiyou mariposa lily)" (*Calochortus persistens* Conservation Agreement) that was finalized and approved on November 19, 2013. The conservation agreement identifies completed, ongoing, and future actions to remove or reduce the stressors to *C. persistens* across all occupied Federal lands. The USFS and BLM have also identified *Calochortus persistens* as a "Sensitive Species." Based on the successful track record of managing the species as provided for with the conservation initiatives, including the 2013 conservation agreement, we conclude that management of the species will provide for diverse plant communities by maintaining viable populations of plants and for conservation of the species by ensuring continued existence of viable populations that will prevent a trend towards listing under the Act. The USFS has issued management guidelines for *C.*

persistens and has designated 1,005 acres (407 hectares) as a Special Habitat Management Area for the species.

The major stressor to *Calochortus persistens* habitat has been competition from the nonnative plant *Isatis tinctoria* (dyer's woad). *Isatis tinctoria* was reported to have spread throughout the Gunsight-Humbug Ridge and Cottonwood Peak occurrences to varying degrees. However, surveys have demonstrated that juvenile recruitment is evident and plants of all ages occur in each population. In 2003, the USFS initiated removal of *I. tinctoria*. In 2006, a second population of *C. persistens* was found at Cottonwood Peak consisting of more than 15,900 plants. This area does not contain any *I. tinctoria*. Because the existing occurrences for *I. tinctoria* are being managed, and some populations or occurrences within populations are not subject to the impacts from *I. tinctoria*, we have determined that the severity of the impacts from nonnative plants has been greatly decreased and is not resulting in significant impacts to *C. persistens* at the range wide or local population level at this time nor do we expect it to in the foreseeable future.

Other stressors identified include fire and fire suppression activities, habitat disturbance activities, roads, off-highway vehicle use, grazing activities, collection, predation, low recruitment, and the species' relatively small, disjunct distribution. In our candidate assessment, we evaluated these stressors and determined that they are not resulting in significant population-level impacts to *Calochortus persistens* now nor are they likely to do so into the foreseeable future. Our finding is based partly on

management activities and because evidence review of the best available data does not suggest that there is a decline in the *C. persistens* populations at any of the three locations.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of such imminence, intensity, or magnitude to indicate that *Calochortus persistens* is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. We also found no portion of its range where the threats are significantly concentrated or substantially greater than in any other portion of its range. Therefore, we find that listing *Calochortus persistens* as a threatened or an endangered species or maintaining the species as a candidate is not warranted throughout all or a significant portion of its range at this time, and consequently we are removing it from candidate status.

Shawnee darter *(Etheostoma tecumsehi)*

Previous Federal Action

On April 20, 2010, we received, via email, a petition from the Center for Biological Diversity, Alabama Rivers Coalition, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, West Virginia Highlands

Conservancy, Tierra Curry, and Noah Curry, requesting to list 404 aquatic, riparian, and wetland species, including the Shawnee darter, as an endangered or a threatened species and to designate critical habitat concurrent with listing. We subsequently published a notice of a 90-day petition finding in the **Federal Register** (76 FR 59836; September 27, 2011), concluding that the petition to list the Shawnee darter, among other species, presented substantial scientific or commercial evidence that listing may be warranted.

Summary of Status Review

The Shawnee darter occurs within the Pond River system of the Green River in parts of four western Kentucky counties (Christian, Todd, Muhlenberg, and Hopkins). The species is broadly distributed across its range, inhabiting high-gradient headwater streams with abundant sand, gravel, and cobble riffles. Color characteristics of the females and non-breeding males of this species are similar to other members of the orangethroat darter group, and the largest specimens reach over 2 inches for males and up to 1.8 inches for females

Destruction and modification of habitat have been identified as potential threats to the Shawnee darter. Streams within the Pond River system have been degraded by a variety of past and current activities such as dredging, channelization, impoundment, riparian zone removal and others. Much of the stream modification in the Pond River system occurred decades ago for agricultural and flood control purposes. While these manipulations occurred in the past, the habitat and water quality impacts persist, and siltation/sedimentation is considered a primary source of degradation within the Shawnee

darter's range. While there are numerous dams across the range of the Shawnee darter, constructed mostly for flood control in the 1960s and 1970s, only eight occur between known species occurrences.

Historical and ongoing land uses (e.g., agriculture, natural resource extraction, etc.) have also affected and continue to affect stream habitats as well as water quality. Residential and agricultural land uses may result in increases in nutrients (e.g., fecal coliforms) that can be detrimental to aquatic fauna, and the Shawnee darter is often absent from streams with high nutrient levels. However, these impacts do not appear to be widespread within the species' range. Coal mining historically occurred, to a limited extent, in the northernmost edge of the species' range but has not reduced the species' distribution or occurrences. While oil and gas extraction is widespread within the range, it does not appear to be causing any broad changes to stream habitat or water quality. Reviews of permitted activities (e.g., coal mining) and digital land use coverages over the years do not indicate any significant changes in land use; despite these historical and ongoing impacts, survey efforts in 2007 and 2013 indicate that the Shawnee darter is maintaining its populations and remains one of the most abundant darter species in the streams where it occurs.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of such imminence, intensity, or magnitude to indicate that the Shawnee

darter is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. We also found no portion of its range where the stressors are significantly concentrated or substantially greater than in any other portion of its range. Therefore, we find that listing the Shawnee darter as a threatened species or an endangered species throughout all or a significant portion of its range is not warranted at this time.

Sleeping Ute milkvetch *(Astragalus tortipes)*

Previous Federal Actions

Sleeping Ute milkvetch became a candidate species in the Candidate Notice of Review (CNOR) of 1996, with a listing priority number (LPN) of 11, after approximately 3 percent of the species' range was disturbed during construction of an irrigation canal (61 FR 7596; February 28, 1996). Between 1997 and 2006, the LPN was changed various times, and ultimately returned to LPN 11, because the threats were considered non-imminent (62 FR 49398, September 19, 1997; 66 FR 54808, October 30, 2001; 71 FR 53756, September 12, 2006). We received a petition in 2004 from the Center for Biological Diversity and others to list 225 species, including Sleeping Ute milkvetch. We reported in the 2005 CNOR that the petition contained no new information regarding Sleeping Ute milkvetch, and maintained it as a candidate (60 FR 24870, May 11, 2005). The species was maintained as a candidate with LPN 11 through the 2014 CNOR (79 FR 72450, December 5, 2014).

Summary of Status Review

Sleeping Ute milkvetch is a perennial plant that grows only on the Smokey Hills layer of the Mancos Shale Formation on Ute Mountain Ute Tribal land in Montezuma County, Colorado. Very few formal surveys have been done for Sleeping Ute milkvetch, so we have no information on long-term population trends. However, surveys in 2000 indicated the presence of 3,744 plants at 24 locations covering 500 acres (202 hectares) within an overall range of 6,400 acres (2,590). The Tribe received a grant in 2015 that enabled them to document the current status of the species. The 2015 plant surveys and impact assessment report show that the population has increased to 14,929 individual plants that were counted, plus an additional 5,000 that were estimated to occur within the same range.

We evaluated all known potential impacts to the plant, including impacts from the Towaoc Highline Canal construction, rifle range use, off-highway vehicles (OHVs), cattle grazing, and a prairie dog colony. While these impacts were previously believed to pose a threat to the species, and some may have caused losses of individual plants or habitat in the past, we received updated information from the Tribe that has improved our understanding of how these factors currently affect the species. For example, there are currently no plans for oil and gas development within the plant's habitat. The design and operation of the canal has not opened the area to increased vehicle use and associated ground disturbance as previously anticipated; the entire length of the canal and its maintenance roads are fenced; and access points from roads are gated and locked. The presence of a rifle range has introduced OHV use and outdoor recreation that has

negatively affected individual plants and habitat, but these effects have been limited to one location, while the majority of populations remain unaffected. The Tribe has taken significant steps to reduce the impact of feral livestock, removing more than 400 head of feral livestock in 2013 and 2014, leaving only around 50 head remaining. Herbivory was reported, but the effects on reproduction were not determined.

Overall, current information indicates an increase in abundance from past surveys; that most stressors are speculative and any actual impacts have been at the individual, not population or species level; and that no impacts individually or cumulatively rise to the level of a threat so significant that it contributes to putting the species in danger of extinction or likely to become so in the foreseeable future. In addition, the Tribe believes that the health and existence of the species is in part due to its location on Tribal land, where all activities are controlled by the Tribe and no public access is allowed without permission.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of such imminence, intensity, or magnitude to indicate that Sleeping Ute milkvetch is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. We also found no portion of its range where the stressors are significantly concentrated or substantially greater than in any other portion of its range. Therefore, we

find that listing Sleeping Ute milkvetch as a threatened species or an endangered species is not warranted throughout all or a significant portion of its range at this time, and we have removed it from candidate status.

Southern Idaho ground squirrel *(Urocitellus endemicus)*

Previous Federal Actions

The southern Idaho ground squirrel was recognized as a Category 2 candidate species in the 1985 Candidate Notice of Review (CNOR) (50 FR 37958; September 18, 1985). Category 2 species were those species for which listing as an endangered species or as a threatened species was possibly appropriate, but for which biological information sufficient to support a proposed rule was lacking. However, the February 28, 1996, CNOR (61 FR 7596) discontinued recognition of category 1 and 2 species, so the southern Idaho ground squirrel was no longer considered a candidate species after that date.

On January 29, 2001, we received a petition dated January 26, 2001, from Biodiversity Legal Foundation**,** requesting that the southern Idaho ground squirrel, at the time classified taxonomically as a subspecies, be listed as an endangered or a threatened species under the Act and that critical habitat be designated. Included in the petition was supporting information regarding the species' taxonomy, historical and current distribution, habitat, life history, present status, and threats to the species. We acknowledged the receipt of the petition in a letter to the Biodiversity Legal Foundation,

dated February 26, 2001. In that letter we also stated that due to court orders and judicially approved settlement agreements for other listing and critical habitat determinations under the Act that required nearly all of our listing and critical habitat funding for fiscal year (FY) 2001, we would not be able to address the petition further at that time but would complete the action in FY 2002. We also stated that an initial review of the petition did not indicate that an emergency listing was warranted.

In the October 30, 2001, CNOR (66 FR 54808), we again identified the southern Idaho ground squirrel as a candidate for listing and assigned it a listing priority number (LPN) of 3, which reflects a subspecies facing threats of a high magnitude that are considered imminent.

On May 4, 2004, we continued to identify the southern Idaho ground squirrel as a candidate for listing in the CNOR (69 FR 24876), but we changed the LPN to 6, which reflects a subspecies facing threats of a high magnitude that are not considered imminent. This change was the result of conservation actions that had been implemented and that had reduced the imminence of threats, along with commitments from various agencies and parties to initiate and implement conservation actions for the squirrel. We acknowledged in this CNOR that although the magnitude of threats was still high, it was trending toward a moderate-to-low range.

On June 21, 2004, the U.S. District court for the District of Oregon *(Center for Biological Diversity* v. *Norton,* Civ. No. 03–1111–AA) found that our resubmitted

petition findings for three species, including the southern Idaho ground squirrel, that we published as part of the CNOR on May 4, 2004 (69 FR 24876), were not sufficient because we did not provide adequate information to support our warranted but precluded determinations. The court ordered that we publish updated findings. On December 27, 2004, in response to the court's order, we published a 12-month finding (69 FR 77167) on resubmitted petitions to list the three species. In response to ongoing conservation actions, we also changed the LPN to 9, which reflects a subspecies facing threats of a moderate to low magnitude that are considered imminent.

On November 22, 2013, we continued to identify the southern Idaho ground squirrel as a candidate for listing in the CNOR (78 FR 70104), but changed the LPN to 8 to reflect a change in taxonomy from subspecies to species. The most recent CNOR dated December 5, 2014 (79 FR 72450), continued to reflect the species' status as a candidate species with an LPN of 8.

Summary of Status Review

The southern Idaho ground squirrel is endemic to four counties in southwest Idaho; its total known range is approximately 718,318 acres (290,693 hectares). Threats to southern Idaho ground squirrels identified in the January 26, 2001, listing petition include: habitat degradation from invasive exotic annual vegetation and future loss of habitat from urban development; direct killing from shooting, trapping, or poisoning; competition with Columbian ground squirrels; inadequacy of existing regulatory mechanisms; and low population numbers.

Habitat across the range of the southern Idaho ground squirrel is degraded from nonnative vegetation, primarily by nonnative annuals such as *Bromus tectorum* (cheatgrass) and *Taeniatherum caput-medusae* (medusahead). Nonnative annuals provide inconsistent forage quality for southern Idaho ground squirrels compared to native vegetation. Although their habitat is degraded, squirrels have been at a peak in their population cycle for the past several years and are well distributed throughout most of their historical range, which has led to an increase in gene flow among populations. Additionally, based on a Geographic Information Systems analysis, we found that the fire-return interval of 80 years has not changed and falls within the range of historical levels.

The 2001 listing petition cited rapid urban development as a threat to southern Idaho ground squirrels; however, very little urban development has occurred in the range of the squirrel in the past 14 years. Although urban development will likely occur in the future, we are not aware of any large-scale development plans at this time.

Recreational shooting and other direct killing of southern Idaho ground squirrels is being regulated and monitored. Authorized control actions and trapping/translocation efforts in areas where local abundance is high results in a temporary decrease of the local population, but not the extermination of the population. Competition with Columbian ground squirrels does not result in a substantial impact to the species due to limited overlap in their distributions. Climate change models predict increased temperatures that

could have both positive and possibly negative effects on squirrels, and we do not have enough information at this time to determine what the actual impact, if any, will be on this species, although we note there is evidence that southern Idaho ground squirrels may be phenotypically plastic, similar to other species, which should enable them to adapt more readily to a changing climate through changes such as earlier emergence from their burrows.

A programmatic Candidate Conservation Agreement with Assurances (CCAA) was completed for this species in 2005 and contains conservation measures that minimize ground-disturbing activities, allow for the investigation of methods to restore currently degraded habitat, provide for additional protection to southern Idaho ground squirrels from recreational shooting and other direct killing on enrolled lands, and allow for the translocation of squirrels to or from enrolled lands, if necessary. The acreage enrolled through the programmatic CCAA encompasses approximately 9 percent of the known range of the species. A more recent CCAA is expected to be completed by the fall of 2015.

Therefore, despite changes in habitat conditions and localized stressors (agricultural control, competition), squirrels continue to persist throughout the majority of their historical range and populations appear stable. Although we recognize that current conditions do not provide ideal habitat for the species, we anticipate that southern Idaho ground squirrels will continue to demonstrate resilience and persist in these degraded habitat conditions in the future.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of such imminence, intensity, or magnitude to indicate that the southern Idaho ground squirrel is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. We also found no portion of its range where the stressors are significantly concentrated or substantially greater than in any other portion of its range. Therefore, we find that listing the southern Idaho ground squirrel as a threatened species or an endangered species is not warranted throughout all or a significant portion of its range at this time, and we have removed it from candidate status.

Tahoe yellow cress *(Rorippa subumbellata)*

Previous Federal Actions

The Act directed the Secretary of the Smithsonian Institution to prepare a report on endangered and threatened plant species, which was published as House Document No. 94–51. We published a notice in the **Federal Register** on July 1, 1975 (40 FR 27823), in which we announced that we would review more than 3,000 native plant species named in the Smithsonian's report and other species added by the 1975 notice for possible addition to the List of Endangered and Threatened Plants. Tahoe yellow cress was one of those species. In the September 27, 1985, Candidate Notice of Review

(CNOR) (50 FR 39526; supplementary information page 18), Tahoe yellow cress was added to the candidate list as a category 3C species. Category 3C species were those species that were proven to be more abundant or widespread than previously believed or those that are not subject to identifiable threats. In the September 30, 1993, CNOR (58 FR 51184), we changed the candidate status to category 1: Category 2 species were those species for which listing as endangered or threatened species was possibly appropriate, but for which biological information sufficient to support a proposed rule was lacking In the February 28, 1996, CNOR (61 FR 7612), we no longer recognized category 1 and 2 species as candidates and, therefore, most of those species, including Tahoe yellow cress, were removed from candidate status.

On December 27, 2000, we received a petition from the Southwest Center for Biological Diversity requesting the Tahoe yellow cress be listed as an endangered species with critical habitat. On December 27, 2004 (69 FR 77167), we published a notice of resubmitted petition findings including the Tahoe yellow cress. In that document, we announced the change of LPN from 2 to 8. In subsequent annual CNOR publications, we maintained our determination of LPN of 8 for this species.

Summary of Status Review

Tahoe yellow cress is a member of the mustard family (Brassicaceae) known only from the shores of Lake Tahoe in California and Nevada. The species is a low-growing, herbaceous perennial with yellow flowers. Flowering and fruiting occurs between late May and late October.

Tahoe yellow cress is well adapted to its dynamic shorezone environment and is capable of recolonizing sites after periods of inundation. This ability is evident by the demonstrated natural fluctuations in the number of Tahoe yellow cress that coincide with lake elevation and available habitat. Since 2001, the population numbers (number of stems) have ranged from a low of approximately 4,500 stems in 2006 (high lake level year (1,898-meter (m) elevation)) to more than 30,000 stems in 2014 (low lake level (1,897 m)). At this time, the most significant stressor to Tahoe yellow cress and its habitat is recreational activities on public beaches and adjacent habitat around the shore of Lake Tahoe; however, impacts from this stressor are being addressed by ongoing management actions that include fencing, signage, and adherence to beach-raking guidelines on public lands. Beach raking on private lands remains a concern, because guidelines are voluntary and cannot be enforced. However, this stressor is not of such magnitude as to present a population-level risk to the species. Impacts from shorezone development are being effectively managed by ongoing and effective implementation of applicable shorezone ordinances.

Since 1999, the Adaptive Management Working Group has developed and implemented conservation actions for Tahoe yellow cress. A conservation strategy coupled with a memorandum of understanding/conservation agreement (MOU/CA) between numerous Federal, State, and local agencies and environmental organizations has been implemented to address the stressor to Tahoe yellow cress. The MOU/CA was again signed in 2013 for a period of 10 years, and an updated conservation strategy is

expected in 2015. An annual monitoring plan is in place, and propagation, transplanting, and translocation strategies have been examined and successfully initiated. Based on the successful track record of numerous parties implementing these conservation actions together, we conclude that ongoing implementation of those actions is managing and avoiding or mitigating identified impacts.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of sufficient imminence, intensity, or magnitude to indicate that Tahoe yellow cress is in danger of extinction (an endangered species), or likely to become endangered within the foreseeable future (a threatened species), throughout all of its range. Because the distribution of the species is limited to the shoreline areas of Lake Tahoe and stressors are similar throughout the species' range, we found no concentration of stressors that suggests that Tahoe yellow cress may be in danger of extinction in any portion of its range. Therefore, we find that listing Tahoe yellow cress as a threatened species or as an endangered species throughout all of or a significant portion of its range is not warranted at this time, and consequently we are removing it from candidate status.

6 Tennessee cave beetles: Baker Station (=Insular) cave beetle *(Pseudanophthalmus insularis);* Coleman cave beetle *(Pseudanophthalmus colemanensis);* Fowler's cave beetle *(Pseudanophthalmus fowlerae);* Indian Grave Point (=Soothsayer) cave beetle *(Pseudanophthalmus tiresias);* inquirer cave beetle *(Pseudanophthalmus inquisitor);* and Noblett's cave beetle *(Pseudanophthalmus paulus)*

Previous Federal Actions

The Service provided notification letters of status review for the Noblett's Cave beetle on June 22, 1990, and for the Fowler's Cave beetle, inquirer cave beetle, Baker Station Cave beetle, Noblett's Cave beetle, and Indian Grave Point Cave beetle on November 8, 1993. These letters were provided to species experts, representatives of resource agencies, and other interested parties to request information and comments regarding potential listing of the species as endangered species or threatened species.

Fowler's Cave beetle, inquirer cave beetle, Baker Station Cave beetle, Noblett's Cave beetle, and Indian Grave Point Cave beetle were added to the Federal list of candidate species in the 1991 Candidate Notice of Review (CNOR) (56 FR 58804) as category 2 species. Category 2 species were those species for which listing as an endangered species or a threatened species was possibly appropriate, but for which biological information sufficient to support a proposed rule was lacking. The category 2 status of these five species was confirmed in 1994 (59 FR 58982). However, the February 28, 1996, CNOR (61 FR 7596) discontinued recognition of category 1 and 2 species, so the Fowler's Cave beetle, inquirer cave beetle, Baker Station Cave beetle, Noblett's Cave beetle, and Indian Grave Point Cave beetle were no longer considered candidate species after that date.

The Service received a petition from the Center for Biological Diversity and others, dated May 4, 2004, to list as endangered species, 225 species, including the

inquirer cave beetle, and to designate critical habitat for the species. The Service received another petition on May 11, 2004, to list eight cave beetles, including the inquirer cave beetle. The Service had already determined, in the October 30, 2001, CNOR that the inquirer cave beetle was a candidate for listing (66 FR 54808), and therefore, we did not need to issue a new 90-day or 12-month finding in response to the petition. The Coleman Cave beetle, Fowler's Cave beetle, Baker Station Cave beetle, Indian Grave Point Cave beetle, and Noblett's Cave beetle became candidates for listing in the May 4, 2004, CNOR (69 FR 24876).

On April 20, 2010, the Center for Biological Diversity and others petitioned the Service to list as threatened or endangered 404 species, including the Coleman Cave beetle, and to designate critical habitat for those species. Because this species was already a candidate for listing, we were not required to issue a new 90-day or 12-month finding in response to the petition.

Each of the six species addressed in this finding has been included by the Service in every CNOR since the petitions were received in 2004, as species for which listing is warranted but precluded by higher priority listing actions.

The 2011 Multi-District Litigation (MDL) settlement agreement specified that the Service will systematically, over a period of 6 years, review and address the needs of 251 candidate species to determine if they should be added to the Federal Lists of Endangered and Threatened Wildlife and Plants. The six beetle species included in this finding were

on that list of candidate species. This finding completes the Service's requirements under the MDL agreement with respect to these six beetle species.

Summary of Status Review

The six species are small (3 to 8 millimeters in length) predatory cave beetles that occupy moist habitats containing organic matter transported from sources outside the inhabited caves. Members of the *Pseudanophthalmus* genus vary in rarity from fairly widespread species that are found in many caves, to species that are extremely rare and commonly restricted to only one cave or, at most, two or three caves. The six beetles addressed by this finding are found entirely within Tennessee, and two of the species (i.e., inquirer cave beetle and Noblett's Cave beetle) are currently known from only one cave. Fowler's Cave beetle and Indian Grave Point Cave beetle are known to occur in two caves; Baker Station Cave beetle has been documented from three caves; and the Coleman Cave beetle is known from four caves and a possible fifth. Surveys conducted during a status update for the six cave beetles during the period 2013–2015 resulted in findings of three of the beetles that had not been seen in decades (i.e., Fowler's Cave beetle, Baker Station Cave beetle, and Noblett's Cave beetle). Although usually zero to three individuals of any of the six species are found during most surveys, 97 Coleman Cave beetles were also found during a 2013 site visit.

Various populations of the six cave beetles were historically believed to have been subjected to stressors such as water quality impacts associated with a landfill, erosion due to construction, livestock operations, various aspects of human visitation of

caves, and possible impacts to cave food webs resulting from interruption of organic energy inputs. The greatest potential stressors to the beetles appear recently to have been human trampling of beetles and their habitats, curtailing the input of organic materials to caves, excavation of cave habitats, and predation. However, actual impacts from these potential sources appear to be minimal. We have no information indicating that these stressors are adversely affecting the species at this time, either individually or cumulatively, at a level that warrants their listing under the Act.

Abatement of stressors has been initiated for the Coleman Cave beetle, Fowler's Cave beetle, and inquirer cave beetle through development of cooperative management agreements (CMAs) with private landowners and coordination between State property managers, nongovernmental organizations, and the Service. Implementation of CMAs is likely resulting in reduction of the impacts of potential stressors to these three beetles. However, our not-warranted finding is not based on the implementation of these voluntary efforts. For the Baker Station Cave beetle, Indian Grave Point Cave beetle, and Noblett's Cave beetle, the stressors appear minimal.

There has been a perception since the 1960s that population trends of the six beetles could possibly be decreasing, but that perception is likely due in part to the low level of survey effort expended for these species and difficulty in collecting them. The recent evidence of continued persistence of these species, in conjunction with the lack of evidence that stressors are negatively affecting these cave beetles, lead us to conclude that these species are more stable than previously thought.

Finding

Based on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the species and its habitat are not of sufficient imminence, intensity, or magnitude to conclude that the Coleman Cave beetle, Fowler's Cave beetle, inquirer cave beetle, Baker Station Cave beetle, Indian Grave Point Cave beetle, or Noblett's Cave beetle are in danger of extinction (endangered species), or likely to become endangered within the foreseeable future (threatened species), throughout all of their respective ranges. We evaluated the current range of the six beetles to determine if there is any apparent geographic concentration of stressors for any of the species. The six beetles have relatively small ranges that are limited to the local cave systems where they are currently found. We examined potential stressors including human visitation, livestock grazing, commercial and residential development, disease, predation, and sources of water quality impairment. We found no concentration of stressors that suggests that any of these six species of cave beetles may be in danger of extinction in a portion of their respective ranges. Therefore, we find that listing the Coleman Cave beetle, Fowler's Cave beetle, inquirer cave beetle, Baker Station Cave beetle, Indian Grave Point Cave beetle, or Noblett's Cave beetle as threatened species or endangered species throughout all or a significant portion of their respective ranges is not warranted at this time, and consequently we are removing Coleman Cave beetle, Fowler's Cave beetle, inquirer cave beetle, Baker Station Cave beetle, Indian Grave Point Cave beetle, and Noblett's Cave beetle from candidate status.

New Information

We request that you submit any new information concerning the status of, or stressors to, the American eel, Cumberland arrow darter, the Great Basin distinct population segment of the Columbia spotted frog, Goose Creek milkvetch, Nevares spring bug, Page springsnail, Ramshaw meadows sand-verbena, Sequatchie caddisfly, Shawnee darter, Siskiyou mariposa lily, Sleeping ute milkvetch, Southern Idaho ground squirrel, Tahoe yellow cress, and six Tennessee cave beetles (Baker Station, Coleman, Fowler's, Indian Grave Point, inquirer, and Noblett's cave beetles) to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**, whenever it becomes available. New information will help us monitor these species and encourage their conservation. If an emergency situation develops for any of these species, we will act to provide immediate protection.

References Cited

Lists of the references cited in the petition findings are available on the Internet at *http://www.regulations.gov* and upon request from the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT.**

Author(s)

The primary author(s) of this notice are the staff members of the Branch of Listing, Ecological Services Program.

Authority

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

Dated: September 23, 2015

Signed: Gary Frazer

Acting Director, U.S. Fish and Wildlife Service.

[~~**Endangered and Threatened Wildlife and Plants; 12-Month Findings on Petitions To List 19 Species as Endangered or Threatened Species**~~]

Billing Code 4333–15

[FR Doc. 2015-25058 Filed: 10/7/2015 08:45 am; Publication Date: 10/8/2015]