

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Review of Species That Are Candidates or Proposed for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of review.

SUMMARY: In this 2003 Candidate Notice of Review (CNOR), we, the U.S. Fish and Wildlife Service (Service), present an updated list of plant and animal species native to the United States that we regard as candidates or have proposed for addition to the Lists of Endangered and Threatened Wildlife and Plants under the Endangered Species Act of 1973, as amended. Identification of candidate species can assist environmental planning efforts by providing advance notice of potential listings, allowing resource managers to alleviate threats and thereby possibly remove the need to list species as endangered or threatened. Even if we subsequently list a candidate species, the early notice provided here could result in more options for species management and recovery by prompting candidate conservation measures to alleviate threats to the species.

We request additional status information that may be available for the identified candidate species and information on additional species that we should include as candidates in future updates of this list. We will consider this information in preparing listing documents and future revisions to the notice of review. This information will help us in monitoring changes in the status of candidate species and also in conserving candidate species.

As part of the CNOR, we announce the availability of Candidate and Listing Priority Assignment Forms (candidate forms) for each candidate species. The CNOR and the candidate forms constitute our findings as to the status and threats that we evaluated in order to assign a listing priority number to each species. This includes our findings on resubmitted petitions and describes our progress in revising the Lists of Endangered and Threatened Wildlife and Plants during the period June 13, 2002 through April 19, 2004.

DATES: We will accept comments on the Candidate Notice of Review at any time.

ADDRESSES: Submit your comments regarding a particular species to the Regional Director of the Region identified in **SUPPLEMENTARY INFORMATION** as having the lead responsibility for that species. You may submit comments of a more general nature to the Chief, Division of Conservation and Classification, U. S. Fish and Wildlife Service, 4401 N. Fairfax Drive, Room 420, Arlington, VA 22203 (703/358-2171). Written comments and materials received in response to this notice will be available for public inspection by appointment at the Division of Conservation and Classification (for comments of a general nature only) or at the appropriate Regional Office listed in **SUPPLEMENTARY INFORMATION**.

Copies of the candidate forms that contain information and references regarding the range, status, and habitat needs of and listing priority assignment for a particular species are available for review at the appropriate Regional Office listed below in **SUPPLEMENTARY INFORMATION** or at the Division of Conservation and Classification, Arlington, Virginia (see **ADDRESSES** above), or on our Internet Web site (<http://endangered.fws.gov/>).

FOR FURTHER INFORMATION CONTACT: The Endangered Species Coordinator(s) in the appropriate Regional Office(s) or Chris Nolin, Chief, Division of Conservation and Classification (703-358-2171).

SUPPLEMENTARY INFORMATION:**Candidate Notice of Review***Background*

The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), requires that we identify species of wildlife and plants that are endangered or threatened, based on the best available scientific and commercial information. Through the Federal rulemaking process, we add these species to the List of Endangered and Threatened Wildlife at 50 CFR 17.11 or the List of Endangered and Threatened Plants at 50 CFR 17.12. As part of this program, we maintain a list of species that we regard as candidates for listing. A candidate species is one for which we have on file sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher-priority listing actions. We maintain this list for a variety of reasons, including: To notify the public that these species are facing threats to their survival; to provide advance knowledge of potential listings

that could affect decisions of environmental planners and developers; to provide information that may stimulate conservation efforts that will remove or reduce threats to these species; to solicit input from interested parties to identify those candidate species that may not require protection under the Act or additional species that may require the Act's protections; and to solicit information needed to prioritize the order in which we will propose species for listing.

Table 1 of this CNOR includes 279 species that we regard as candidates for addition to the Lists of Endangered and Threatened Wildlife and Plants (Lists), as well as 24 species for which we have published proposed rules to list as threatened or endangered species. Most of the proposed species were previously identified in the 2002 CNOR (67 FR 40657, June 13, 2002). We encourage consideration of these species in conservation planning, as well as other environmental planning, such as in environmental impact analysis done under the National Environmental Policy Act of 1969 (implemented at 40 CFR parts 1500-1508) and in local and statewide land use planning. Table 2 of this notice contains 19 species we identified as candidates or as proposed species in the June 13, 2002, CNOR that we now no longer consider candidates. This includes fourteen species we have listed as threatened or endangered since June 13, 2002, one species that we are removing from candidacy through this notice, and four species for which we withdrew the proposed listing rule. The Regions identified as having lead responsibility for the particular species will maintain updated records of information on candidate species.

Publication of this notice has been delayed due to efforts to resolve outstanding issues. As a result, many of the candidate forms reflect that our formal analysis was conducted in late winter/early spring of 2003, as shown by the approval date of the Regional Director on each form. However, we were able to update a small subset of the candidate forms recently to reflect additional information we have obtained on those species. We intend to publish an updated combined CNOR for animals and plants that will update all of the candidate forms, including our findings on resubmitted petitions and a description of our progress on listing actions, within the next few months in the **Federal Register**.

Previous Notices of Review

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. A new comprehensive notice of review for native plants, which took into account the earlier Smithsonian report and other accumulated information, superseded the 1975 notice on December 15, 1980 (45 FR 82479). On November 28, 1983 (48 FR 53640), a supplemental plant notice of review announced changes in the status of various species. We published complete updates of the plant notice on September 27, 1985 (50 FR 39526), February 21, 1990 (55 FR 6184), September 30, 1993 (58 FR 51144), and, as part of combined animal and plant notices, on February 28, 1996 (61 FR 7596), September 19, 1997 (62 FR 49398), October 25, 1999 (64 FR 57534), October 30, 2001 (66 FR 54808), and June 13, 2002 (67 FR 40657). Additionally, on January 8, 2001 (66 FR 1295), we published our resubmitted petition finding for one plant species that had an outstanding "warranted-but-precluded finding" on a petition to list.

We published earlier comprehensive reviews for vertebrate animals in the **Federal Register** on December 30, 1982 (47 FR 58454), and on September 18, 1985 (50 FR 37958). We published an initial comprehensive review for invertebrate animals on May 22, 1984 (49 FR 21664). We published a combined animal notice of review on January 6, 1989 (54 FR 554), and with minor corrections on August 10, 1989 (54 FR 32833). We again published comprehensive animal notices on November 21, 1991 (56 FR 58804), November 15, 1994 (59 FR 58982), and, as part of combined animal and plant notices, on February 28, 1996 (61 FR 7596), September 19, 1997 (62 FR 49398), October 25, 1999 (64 FR 57534), October 30, 2001 (66 FR 54808), and June 13, 2002 (67 FR 40657). On January 8, 2001 (66 FR 1295), we published our resubmitted petition findings for 25 animal species that had outstanding "warranted-but-precluded" petition findings as well as notice of one candidate removal.

This revised notice supersedes all previous animal, plant, and combined notices of review.

Summary

Since publication of the 2002 CNOR, we reviewed the available information

on candidate species to ensure that a proposed listing is justified for each species and to reevaluate the relative listing priority assignment of each species. We also evaluated whether we should emergency-list any of these species, particularly species with high priorities (*i.e.*, species with listing priority numbers of 1, 2, or 3). We undertook this effort to ensure that we focus conservation efforts on those species at greatest risk. As of April 19, 2004, 20 animals are proposed for endangered status; 3 animals are proposed for threatened status (not including proposed reclassifications of endangered species); 1 animal is proposed for threatened due to similarity of appearance; and 142 plant and 137 animal candidates are awaiting preparation of proposed rules (see Table 1). Table 2 includes 19 species that we previously classified as either proposed for listing or candidates that we no longer classify in those categories.

Summary of New Candidates

Below we present brief summaries of 24 new candidates. Complete information, including references, can be found in the candidate forms. You may obtain a copy of these forms from the Regional office that has the lead for the species, or from our Internet Web site (<http://endangered.fws.gov>).

Mammals

Fisher, West Coast DPS (*Martes pennanti*)—See our initial "warranted-but-precluded" finding signed on April 2, 2004, and published in the **Federal Register** on April 8, 2004 (68 FR 18770).

Birds

Kittlitz's murrelet (*Brachyramphus brevirostris*)—Kittlitz's murrelet is a small diving seabird whose entire North American population, and most of the world's population, inhabits Alaskan coastal waters discontinuously from Point Lay south to northern portions of Southeast Alaska. Kittlitz's murrelet is a relatively rare seabird. Most recent population estimates indicate that it has the smallest population of any seabird considered a regular breeder in Alaska (9,000 to 25,000 birds). This species appears to have undergone significant population declines in three of its core population centers—Prince William Sound, Malaspina Forelands, and Glacier Bay. As populations become smaller, they become increasingly vulnerable to events that may result in extirpation. Causes for the declines are not well known, but likely include: habitat loss or degradation, increased adult and juvenile mortality, and low recruitment and we believe that glacial

retreat and oceanic regime shifts are the factors that are most likely causing population-level declines in this species. Existing regulatory mechanisms appear inadequate to stop or reverse population declines or to reduce the threats to this species. Due to the non-imminent threats of high magnitude, we assign this species a listing priority number of 5.

Xantus's murrelet (*Synthliboramphus hypoleucus*)—Xantus's murrelet is a small seabird of the Alcidae family that occurs along the western coast of North America in the United States and Mexico. Xantus's murrelet populations in the United States and Mexico appear to have declined due to a wide variety of threats, with substantial declines evident at the largest known breeding population and extirpations on three of the Mexican islands. Data from the largest breeding population in the United States indicated a dramatic decline (up to 70 percent); data from other islands are scarce.

Although the decline in Xantus's murrelet populations appears to have been substantial, the largest threats are being addressed, and, to some degree, ameliorated in the United States. Although predation is a large contributor to the current low population numbers of the Xantus's murrelet, it does not pose as imminent a threat as it once did. Cats and rats have been removed from many of the islands where they once occurred. Anacapa Island implemented a rat eradication program in 2001 that seems to have been successful in removing that non-native predator of the Xantus's murrelet. Rats were eradicated in 1994 from San Roque Island. The Service has been working with the State of California, National Park Service, and National Marine Fisheries Service to address the threats of light pollution and human disturbance. To address this threat, the California Department of Fish and Game implemented regulations to require shielding and limit wattage of lights used by boats conducting nighttime fishing activities. Although these regulations do not remove the negative effects of this activity, they likely have resulted in a reduction of the impacts. Oil pollution may pose a potential threat to the survival of the Xantus's murrelet population, but is not likely responsible for the species' current low numbers. Due to the nonimminent threats of high magnitude, we assign this species a listing priority number of 5.

Clams

Rayed bean (*Villosa fabalis*)—Once a common mussel species, the rayed bean

has disappeared from a large portion of its range, including the entire Tennessee River system and south of the Ohio River. The threats to the rayed bean appear significant and present throughout the species' range. Threats associated with habitat loss and degradation appear to include ongoing impoundments, channelization, chemical contaminants, mining, and sedimentation. Population losses due to impoundments appear to have contributed more to the decline and imperilment of the rayed bean than any other single factor. In addition, the invasive exotic zebra mussel has become established throughout the majority of the rayed bean's range and has the long-term potential of spreading throughout additional portions of the range. Remaining rayed bean populations are small and geographically isolated, making them susceptible to a single catastrophic event and making natural repopulation and genetic interchange impossible. The zebra mussel has already eliminated the rayed bean from Lakes Erie and Tippecanoe and the Detroit River and is posing an immediate threat to the rayed bean populations in the Lake St. Clair drainages, Allegheny and Tippecanoe Rivers, French Creek, and Lake Maxinkuckee. The resulting range restrictions and disjunct nature of the remaining populations may make the rayed bean subject to reductions in genetic diversity and limited natural reproduction. Because the threats appear to be imminent and of high magnitude, we assign this species a listing priority number of 2.

Sheepnose mussel (*Plethobasus cyphus*)—Historically, the sheepnose was fairly widespread in many Mississippi River system streams, although rarely very common. The sheepnose has apparently been eliminated from two-thirds of the total number of streams from which it was historically known (26 streams currently compared to 77 streams historically). Recruitment reduction or failure is a potential problem for many small sheepnose populations rangewide; this potential problem is exacerbated by the species' reduced range and increasingly isolated populations. The threats to the sheepnose appear include exotic species (especially zebra mussels), impoundments, fluctuating flow releases from dams, sedimentation, small population size, isolation of populations, gravel mining, channel dredging, municipal pollutants, agricultural runoff, nutrient enrichment, and coal processing pollution. These threats may be catastrophic, such as

spills, or chronic, such as zebra mussel infestation and habitat quality degradation. Most extant populations have few individuals. Such populations may have extreme difficulty in successfully reproducing. Threats that affect the ability to reproduce over time could result in essentially sterile, aging, disjunct populations. Although there are ongoing attempts to alleviate some of these threats, there appear to be no populations without significant threats, and many threats are without obvious or readily available solutions. Due to high-magnitude threats that appear to be imminent, we assign this species a listing priority number of 2.

Spectaclecase (*Cumberlandia monodonta*)—The currently accepted taxonomy places the spectaclecase in the monotypic genus, *Cumberlandia*. The spectaclecase occurred historically in at least 45 streams in the Mississippi, Ohio, and Missouri Rivers. Extant populations of the spectaclecase are known from 20 streams. Of the 20 extant populations, 7 of those populations are represented by a single specimen each. Only three or four populations could be characterized as large. Threats to the continued existence of the spectaclecase appear to include exotic species, especially zebra mussels; delivery and deposition of fine sediments; small population sizes; isolation of populations; livestock grazing; wastewater effluents; mine runoff; unstable and coldwater flows downstream of dams; gravel mining; and channel dredging. Although there are ongoing attempts to alleviate some of these threats at some locations, there appear to be no populations without significant threats and many threats are without obvious or readily available solutions. In addition, the fish host of the spectaclecase is unknown; thus, propagation to reestablish the species in restored habitats and to maintain nonreproducing populations and focused conservation of its fish host are not yet possible. Therefore, we consider the threats to spectaclecase to be of high magnitude. However, 10 populations are reproducing or supported via immigration from large populations, and three or four of these populations may be described as large. We assign this species a listing priority number of 4.

Round ebonyshell (*Fusconaia rotulata*)—The round ebonyshell is endemic to the Escambia River drainage and is only known from the main channel of the Conecuh/Escambia River (the river name changes across the Alabama/Florida State boundary). Only 3 of 9 historic locations appear to contain living individuals; thus, the number of sites known to support this

species has declined by 67%. On average, only 2 live individuals were found at each of the remaining 3 sites. Threats associated with habitat loss and degradation appear to occur throughout the range of the seven Gulf-Coast mussel species discussed here and below. The river habitats of mussel species are vulnerable to habitat modification, sedimentation, and water quality degradation. Highway and reservoir construction, poorly managed logging practices, agricultural runoff, housing developments, pipeline crossings, and livestock grazing may result in physical disturbance of stream substrates or the riparian zone, and/or changes in water quality, temperature, or flow. Sedimentation can cause direct mortality of mussels by deposition and suffocation. Although the negative effects of point source discharges on aquatic communities in Alabama and Florida have been reduced over time due to compliance with State and Federal water quality regulations, there has been less success in dealing with non-point source pollution impacts, particularly sediments, on small stream drainages. The round ebonyshell is restricted to a few populations with few individuals. Due to the high magnitude and immediacy of the threats, we assign the round ebonyshell a listing priority number of 2.

Southern kidneyshell (*Ptychobranchius jonesi*)—The southern kidneyshell is endemic to the Escambia and Yellow river drainages in Alabama, and the Choctawhatchee river drainage in Alabama and Florida. Currently, of 20 sites for which we have recent data, southern kidneyshells were only found at 1 or 2 sites, representing at least a 78% decline in the number of sites supporting this species. The threats associated with habitat loss and degradation are described in the above paragraph for the round ebonyshell; all seven new Gulf Coast candidate mussel species appear to share the same threats. The southern kidneyshell is restricted to a few populations with very few individuals. Due to the high magnitude and immediacy of the threats, we assign the southern kidneyshell a listing priority number of 2.

Narrow pigtoe (*Fusconaia escambia*)—The narrow pigtoe is endemic to the Escambia River drainage in Alabama and Florida and the Yellow River drainage in Florida. Twenty-one locations currently support narrow pigtoes, although in very low numbers, with an average of 3 live individuals found per site. The threats associated with habitat loss and degradation are described in the above paragraph for the round ebonyshell; all seven new Gulf

Coast candidate mussel species appear to share the same threats. However, the narrow pigtoe is spread among a number of populations, with each population containing few individuals. Since we consider threats to be of a high magnitude and but nonimminent, we assigned the narrow pigtoe a listing priority number of 5.

Southern sandshell (*Lampsilis australis*)—The southern sandshell is endemic to the Escambia River drainage in Alabama, and the Yellow and Choctawhatchee River drainages in Alabama and Florida. Recent mussel surveys found that live populations of the southern sandshell have declined from a total of 51 historic sites to its current distribution of 30 active sites and 5 sites with unknown population status. It appears to have been extirpated from approximately 31–41% of its historic range. Recent mussel surveys found an average of 2–3 live animals per site. Gravid females have been detected within the 2 larger populations found in the Choctawhatchee River basin. Low levels of recruitment are likely occurring within these two populations, although juvenile southern sandshells were not detected. The threats associated with habitat loss and degradation are described in the above paragraph for the round ebonyshell; all seven new Gulf Coast candidate mussel species appear to share the same threats. The southern sandshell is spread among a number of populations, with each population containing few individuals. Because we consider threats to be of high magnitude and nonimminent, we assign the southern sandshell a listing priority number of 5.

Fuzzy pigtoe (*Pleurobema strodeanum*)—The fuzzy pigtoe is endemic to the Escambia and Choctawhatchee Rivers in Alabama and Florida, and the Yellow River in Alabama. Recent mussel status surveys found that the populations of the fuzzy pigtoe (represented by live animals and shell material) have declined from a total of 86 historic sites to its remaining distribution of 58 sites, representing an approximate 22% decline in its historic range. Four populations were as large as 10–20 individuals; most supported only 1 or 2 individuals. The threats associated with habitat loss and degradation are described in the above paragraph for the round ebonyshell; all seven new Gulf Coast candidate mussel species appear to share the same threats. The fuzzy pigtoe is spread among a number of populations with each population containing few individuals. We consider threats to be of high magnitude and nonimminent. We assign

the fuzzy pigtoe a listing priority number of 5.

Choctaw bean (*Villosa choctawensis*)—The Choctaw bean is endemic to the Escambia, Yellow, and Choctawhatchee River drainages in Alabama and Florida. Recent mussel status surveys found that populations (live and shell material only) of the Choctaw bean have declined from a total of 45 historic sites to its remaining distribution of 34 sites. It appears to have been extirpated from approximately 11% of its historic range. An average of two individuals were found live per site. The threats associated with habitat loss and degradation are described in the above paragraph for the round ebonyshell; all seven new Gulf Coast candidate mussel species appear to share the same threats. The Choctaw bean is spread among a number of populations, with each population containing few individuals. Threats appear to be of high magnitude and nonimminent, and we assign the Choctaw bean a listing priority number of 5.

Tapered Pigtoe (*Quincuncina burkei*)—The tapered pigtoe is endemic to the Choctawhatchee River drainage in Alabama and Florida. During recent status surveys, the tapered pigtoe was found live and as shell material at 33 of 54 historical sites with an average of 7 individuals per site. Only four populations contained as many as 10–20 individuals. The tapered pigtoe has been extirpated from approximately 28% of its historic range. The threats associated with habitat loss and degradation are described in the above paragraph for the round ebonyshell; all seven new Gulf Coast candidate mussel species appear to share the same threats. The threats to the tapered pigtoe appear to be moderate-to-low magnitude and nonimminent, and we assign the tapered pigtoe a listing priority number of 11.

Insects

Coleman cave beetle (*Pseudanophthalmus colemanensis*)—The Coleman Cave beetle is only known from Coleman Cave, Montgomery County, Tennessee. Most members of the insect genus *Pseudanophthalmus* are cave dependent (trogllobites) and are not found outside the cave environment. Due to the Coleman's cave beetle's limited distribution, it is vulnerable to isolated events. Events such as toxic chemical spills, discharges of large amounts of polluted water, closure of entrances, alteration of entrances, or the creation of new entrances could have serious adverse impacts on the Coleman Cave beetles and could result its

extinction. The Coleman Cave beetle currently receives some protection under a formal Cooperative Management Agreement; consequently the threats it faces are more moderate. Due the moderate magnitude of the nonimminent threats, we assign the Coleman Cave beetle a listing priority number of 11.

Fowler's cave beetle (*Pseudanophthalmus fowlerae*)—Fowler's cave beetle was described from 11 specimens collected from 1959 through 1965 from Sheals Cave, Clay County, Tennessee. The species is not known from any other caves. Fowler's cave beetle has not been observed or collected since 1965, but species experts presume that it still exists in low numbers. The limited distribution of Fowler's cave beetle makes it vulnerable to isolated events that would only have a minimal effect on the more wide-ranging members of the genus. Events such as toxic chemical spills, discharges of large amounts of polluted water, closure of entrances, alteration of entrances, or the creation of new entrances could have serious adverse impacts on cave beetles and could result in their extinction. Due to the high magnitude of the nonimminent threats, we assign the Fowler's cave beetle a listing priority number of 5.

Insular cave beetle (*Pseudanophthalmus insularis*)—The insular cave beetle is known from only one cave. In 1988, this cave was searched in 1998 for additional specimens of this species but none were found. Although the species has not been observed since 1957, species experts presume that it still exists in low numbers. The limited distribution of the insular cave beetle makes it vulnerable to isolated events that would only have a minimal effect on the more wide-ranging members of the genus. Events such as toxic chemical spills, discharges of large amounts of polluted water, closure of entrances, alteration of entrances, or the creation of new entrances could have serious adverse impacts on the insular cave beetle and could result in their extinction. Due the high magnitude of the nonimminent threats, we assign the insular cave beetle a listing priority number of 5.

Soothsayer cave beetle (*Pseudanophthalmus tirsias*)—The soothsayer cave beetle is known to occur in two caves. The original description of this taxon was based upon six specimens collected from Indian Grave Point Cave, DeKalb County, Tennessee, in 1956. These specimens were collected near the cave's entrance sink in an area that had high humidity, stable temperatures, and

a few fragments of rotten wood that had fallen into the sink. Four specimens were later collected from nearby Fox Cave. Three searches were conducted between 1997 and 1999, but no additional specimens of this species have been found. Despite the recent failures to find the species, species experts believe that the soothsayer cave beetle is still present in Indian Grave Point and Fox caves, in at least very low numbers. The limited distribution of soothsayer cave beetle makes it vulnerable to isolated events that would only have a minimal effect on the more wide-ranging members of the genus. Events such as toxic chemical spills, discharges of large amounts of polluted water, closure of entrances, alteration of entrances, or the creation of new entrances could have serious adverse impacts on cave beetles and could result in their extinction. Due the high magnitude of the nonimminent threats, we assign the soothsayer cave beetle a listing priority number of 5.

Noblett's cave beetle (*Pseudanophthalmus paulus*)—Noblett's Cave beetle was described from two specimens collected in 1967 from Noblett's Cave, Monroe County, Tennessee. Despite several searches conducted in this cave and in other caves in the vicinity, no additional specimens have been found. However, species experts believe that it probably still exists in low numbers. Noblett's Cave is a small (about 500 feet long) muddy cave with a stream flowing through it. The limited distribution of Noblett's Cave beetle makes it vulnerable to isolated events that would only have a minimal effect on the more wide-ranging members of the genus. Events such as toxic chemical spills, discharges of large amounts of polluted water, closure of entrances, alteration of entrances, or the creation of new entrances could have serious adverse impacts on cave beetles and could result in their extinction. Due to the high magnitude of the nonimminent threats, we assign the Noblett's Cave beetle a listing priority number of 5.

Nevares Spring naucorid bug (*Ambrysus funebris*)—The Nevares Spring naucorid bug is an aquatic insect that has a distribution that is limited to the Travertine-Nevares Springs Complex within Death Valley National Park, in Inyo County, California, where surveys indicate that it is extremely rare component of the aquatic invertebrate community. The Travertine and Nevares Springs areas have eight water collection facilities that provide water for commercial and domestic uses. Information pertaining to the historical distribution of the Nevares Spring

naucorid bug prior to the development of the local water collection systems is not available. It is likely that the species occupied a large area of habitat where suitable micro-habitat features were present. The widespread loss of aquatic habitat within the Travertine-Nevares Springs Complex since the water collection systems were installed suggests the species has experienced major reductions in abundance and distribution as stream environments were eliminated or reduced in extent. The effects of water diversion activities are also most pronounced during the summer months when aquatic habitats and the species that occupy those habitats are most restricted, and therefore vulnerable to perturbation. Nevares Spring naucorid bugs are also likely to experience direct predation by mosquitofish and compete with these fish for limited food resources. Due the high magnitude and nonimminent threats, we assign the Nevares Spring naucorid bug a listing priority number of 5.

Flowering Plants

Hala pepe (*Pleomele fernaldii*)—We accidentally removed this species from the June 13, 2002, list of candidates and are now restoring it to the list of candidates.

Brand's phacelia (*Phacelia stellaris*)—Brand's phacelia was historically found in Los Angeles, Riverside, and San Diego Counties, and in coastal northern Baja California, Mexico. Only 3 of the 15 sites in the United States ever known to support populations of this species still remain. Two of the three known extant populations in the United States are from coastal San Diego County. The other is in western Riverside County. Two populations may remain in Mexico, although one has not been verified since 1975. The apparent threats to this species include trampling or habitat degradation by foot or vehicular traffic and the invasive spread of non-native iceplant (*Carpobrotus edulis*). Therefore, with imminent threats of high magnitude, we assign this species a listing priority number of 2.

Churchill Narrows buckwheat (*Eriogonum diatomaceum*)—Churchill Narrows buckwheat is restricted to chalky, diatomaceous outcrops between 1,311 and 1,390 meters (m) (4,300 and 4,560 feet (ft)) elevation in the Churchill Narrows located in the Pine Nut Mountains, Lyon County, Nevada. The habitat of all but 3 of the 15 occurrences of Churchill Narrows buckwheat is subject to imminent exploration and potential development of existing mining claims. Observations in 2003

confirmed that mining activities have had direct and indirect impacts on Churchill Narrows buckwheat in the recent past and these impacts are likely to increase. A Notice of Operation for the exploration and development of a mining claim within the largest occurrence of the species has been filed with the BLM. Threats on the species from mining, trampling and soil disturbance by livestock habitat occur rangewide, populations are small and somewhat fragmented, and inadequate regulatory mechanisms are in place to protect this species throughout its range. Due to the imminent threats of high magnitude, we assign this species a listing priority number of 2.

Orcutt's hazardia (*Hazardia orcuttii*)—Orcutt's hazardia is a shrubby species in the Asteraceae (sunflower family). Although once described as fairly common in open habitats along coastal plains from Colonet to Tijuana in Baja California, Mexico, only one occurrence in Mexico has been confirmed since 1975. The only known extant occurrence in the United States of this species is in Encinitas, California, primarily within the Manchester Conservation Area (MCA) managed by Center for Natural Lands Management. Apparent threats on the species include ongoing, direct impacts from unauthorized access to MCA. Impacts include pedestrian trespass, creation of bicycle trails, and unauthorized fire suppression training (without the permission of the land owners). Introduced invasive exotic plants may also pose a significant threat. With imminent threats of high magnitude, we assign this species a priority number of 2.

Everglades bully (*Sideroxylon reclinatum* ssp. *austrofloridense*)—The Everglades bully is a shrub restricted to the tropical pinelands of Miami-Dade County, Florida. Outside of Everglades National Park, only about 1 percent of the Miami Pine Rock Ridge pinelands remain, and much of what is left is in small remaining blocks isolated from other natural areas. Everglades bully is known to occur on conservation lands only at Long Pine Key (8,029 ha or 19,839 acres) in Everglades National Park, Larry and Penny Thompson Park (93 hectares or 229 acres), and the privately owned Pine Ridge Sanctuary (5.7 ha or 14 acres). Fire suppression and exotic plant invasions are the greatest threats to Everglades bully and other pineland understory plants. Historically, pine rocklands had an open low understory where natural fires remained patchy, with relatively low temperatures, thus sparing many native grasses and shrubs. Dense exotic plant

growth can create much higher temperature fires and longer burning periods. Pine rockland plants cannot tolerate these extreme conditions. Among the exotic pest plants present in the Everglades National Park is Old World climbing fern, *Lygodium microphyllum*, which is capable of smothering vegetation and is spreading rapidly in Florida. It is spreading into southernmost Florida, and is already a very serious problem in Loxahatchee National Wildlife Refuge. Based on the moderate magnitude of the imminent threats, we assign a listing priority number of 9.

Summary of Listing Priority Changes in Candidates

Mammals

Southern Idaho ground squirrel (*Spermophilus brunneus endemicus*)—A dramatic population decline of the southern Idaho ground squirrel has occurred during the past 30 years. Scientists attribute the decline to invasive non-native plants associated with a change in the fire frequency, and the lack of reclamation or restoration of habitat by various land management agencies and private landowners. Even though habitat degradation is pervasive in many areas of this species' range, suitable habitat areas that can support southern Idaho ground squirrels still persist. Conservation and habitat rehabilitation actions have begun in some areas, and in 2001 and 2002, over 100 squirrels were captured from the Weiser Golf Course (the largest known colony site) and translocated to suitable habitat on lands covered by a Candidate Conservation Agreement with Assurances. These actions, in combination with other conservation and research actions described in the candidate form, lead us to conclude that the magnitude of threats, while still high, is trending toward a moderate-to-low range. While there is still concern for genetic constriction and isolation due to generally low numbers of individuals at existing sites, natural dispersal is occurring at some sites, and translocation efforts are being implemented each year. Based on the recent conservation efforts described above, it seems apparent there is now some commitment by various agencies and parties to initiate and implement conservation actions on behalf of the southern Idaho ground squirrel. These actions, in combination with other conservation and research actions described above, lead us to change the imminence of threats to non-imminent. Thus, the listing priority number is changed from a 3 to a 6.

Birds

Gunnison sage-grouse (*Centrocercus minimus*)—The range of the Gunnison sage-grouse has been reduced to less than 25 percent of its historical range. Size of the range and quality of its habitat have been reduced by direct habitat loss, fragmentation, and degradation from building development, road and utility corridors, fences, energy development, conversion of native habitat to hay or other crop fields, alteration or destruction of wetland and riparian areas, inappropriate livestock management, competition for winter range by big game, and creation of large reservoirs. Other factors affecting the Gunnison sage-grouse include fire suppression, overgrazing by elk (*Cervus elaphus*) and deer (*Odocoileus hemionus*), drought, disturbance or death by off-highway vehicles, harassment from people and pets, noise that impairs acoustical quality of leks (courtship areas), genetic depression, pesticides, pollution, and competition for habitat from other species. For greater detail, see 65 FR 82310 (December 28, 2000).

Numerous conservation actions have occurred and funding and plans for additional conservation actions are in place. However, threats to the sage-grouse currently have not been eliminated or reduced enough through conservation actions to remove the potential need for listing. With population numbers already low, the threat of drought-related declines, coupled with other threats, are of concern. Not only have sage-grouse numbers declined in 2003 and may decline in 2004 due to the 2002 drought, it is unknown how long drought conditions may last. Based on information available to date, including continued and significant population declines in 2003, threats to the sage-grouse have increased in the last year due to drought-related effects to the habitat and effects to chick survival and recruitment, and relaxation of restrictions on land use in Gunnison County, which harbors the only large population of the bird. Given these ongoing high magnitude threats, we are elevating the listing priority from a 5 to a 2. However, we do not believe that emergency listing is warranted at this time based on the size of the population remaining in the Gunnison Basin and continued pre-listing conservation actions.

Fish

Fluvial arctic grayling, upper Missouri River DPS (*Thymallus arcticus*)—The fluvial arctic grayling

distinct vertebrate population segment (DPS) once ranged throughout the upper Missouri River drainage, but now the only remnant population is restricted to the upper Big Hole River, an area estimated to be less than 5 percent of the species' historical range. In fall of 2002, the remnant grayling population in the Big Hole River apparently had declined to such a low level that not enough fish were captured to estimate population density. The spring 2002 spawning surveys captured the lowest number of grayling in the past 14 years of sampling, and the spawning population was skewed to older fish, indicating limited recruitment for the past 2 years. In 2003, abundant numbers of grayling were found in the lower reaches of tributaries with the coolest water temperatures.

Efforts to reestablish grayling populations within the historic range in the upper Missouri River basin began in 1997. At this time, there is no evidence that these efforts have been successful in reestablishing self-sustaining populations at any of four reintroduction sites. Drought conditions since 1999 have increased water temperatures, reduced flows, and exacerbated the effects of ongoing threats such as flow reductions from irrigation and stock water withdrawals, locally degraded habitat conditions, and potential competition or predation from non-native fish. Cooperative, community-based efforts have focused primarily on working with water users to leave water in the Big Hole River to increase flows and reduce water temperatures during periods of drought. The Big Hole Watershed Committee, the Montana Fish, Wildlife and Parks Department, and the Service's Partners for Fish and Wildlife program are committed to ongoing, on-the-ground conservation efforts for grayling. Despite these efforts, there continue to be periods when flows are well below those considered "survival" flows for grayling and water temperatures exceed the thermal tolerance of grayling. Based on the 2002 grayling population surveys, we are elevating the listing priority number for this population from a 9 to 3 because the threats continue to be imminent and the magnitude is now high. However, these threats do not rise to the level that emergency listing is necessary, since, among other things, biologists found increased population numbers in the lower, cooler reaches of tributaries to the mainstem Big Hole River, in 2002 and 2003, hopefully mitigating for the low numbers of grayling found in the mainstem Big Hole River.

Snails

Page springsnail (*Pyrgulopsis morrisoni*)—The Page springsnail is known to exist only within a complex of springs located within an approximately 1.5-kilometer (0.93-mile) stretch along the west side of Oak Creek around the community of Page Springs, Yavapai County, Arizona. Many of the springs where the Page springsnail occurs have been subjected to some level of modification to meet domestic, agricultural, ranching, fish hatchery, and recreational needs. Arizona Game and Fish Department (AGFD) management plans for the Bubbling Ponds and Page Springs fish hatcheries included commitments to replace lost habitat and to monitor remaining populations of invertebrates such as the Page springsnail. Based on recent survey data, it appears that the Page springsnail is abundant within its habitats and is more widely distributed than previously known. Monitoring by AGFD and Service biologists no longer entails snail removal, which appears to have had a temporary impact on population numbers. In addition, the threat of ground water withdrawal is not considered imminent because recent studies indicate that the groundwater system of the Verde Valley has not yet been affected by development and base flow in the Verde River Valley has remained virtually unchanged since 1915. Because these threats are nonimminent, we changed the listing priority number from 2 to 5 for this species.

Insects

The Surprising Cave beetle (*Pseudanophthalmus inexpectatus*)—This species was described from specimens collected in the historic section of Mammoth Cave and White Cave, Mammoth Cave National Park (MCNP), Edmonston County, Kentucky. Subsequent to these original discoveries, the species was also found in MCNP's Great Onyx Cave. In 2002, MCNP discovered a previously unknown population of this species in a fourth MCNP cave. The insect genus *Pseudanophthalmus* is in the predatory-ground-beetle family Carabidae. Most members of this genus are cave dependent (trogllobites) and are not found outside the cave environment. Their limited distributions make these species vulnerable to isolated events that would only have a minimal effect on the more wide-ranging members of the genus. Events such as toxic chemical spills, discharges of large amounts of polluted water, closure of entrances, alteration of entrances, or the creation of

new entrances could have serious adverse impacts on these cave beetles and could result in their extinction. In September 2001, MCNP and the Service entered into a Candidate Conservation Agreement for the surprising cave beetle. The Agreement will ensure that all habitat components required to protect and improve the conservation status of this species, especially an adequate food source, are provided through the MCNP's management of the caves that support the species. Under this agreement MCNP has developed and implemented a monitoring program for the species and its habitat. Thus, the magnitude of the threat to the surprising cave beetle is reduced because of its location on Federal land and the formal commitment through a Candidate Conservation Agreement between MCNP and the Service to protect the species. Therefore, we changed the listing priority number for the surprising cave beetle from a 5 to an 11.

Flowering Plants

San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)—San Fernando Valley spineflower is currently known from only two populations. The plants are under threat by habitat loss due to residential development, competition from non-native plants (e.g., several non-native grasses), stochastic events, such as erosion and fire, and the potential loss of the native pollinator community due to competition with and predation by the non-native Argentine ants (*Linepithema humilis*). The site in Los Angeles County, the Newhall Ranch, is proposed for residential development that has the potential to cause the loss of most, if not all, of the remaining plants at that site. Development at this site is expected to begin in 2004. While the landowner has approached us with the idea to enter into a Candidate Conservation Agreement, no documents have been submitted nor any agreement processed, so we cannot assume that the immediate threats from the Newhall Ranch development are gone. However, the site in Ventura County, the former Ahmanson Ranch, is now under the auspices of the Santa Monica Mountains Conservancy; a joint powers authority operated by the State to conserve lands within the Conservancy's sphere of influence. We believe the direct threats to the species from the former Ahmanson Ranch development plan have been eliminated, and we are working with the new landowners to manage the site for the benefit of *Chorizanthe parryi* var. *fernandina*. Since the threats to *Chorizanthe parryi* var. *fernandina* from habitat destruction

or modification are less than they were 2 years ago, we are lowering the listing priority number from a 3 to a 6 reflecting threats that are high but nonimminent.

Whorled sunflower (*Helianthus verticillatus*)—This species is found in moist, prairie-like openings in woodlands and along adjacent creeks in northwest Georgia, Alabama, and Tennessee. This species appears to be a narrow habitat specialist occurring in natural wet meadows or prairies and calcareous barrens. The greatest threat to this species appears to be from industrial forestry practices. The largest population is permanently protected through a conservation easement with The Nature Conservancy. The magnitude of threat is now considered moderate due to this recent development. The threats are viewed as not imminent, in that the species is able to withstand some disturbance and we know of no projects/activities at this time that imminently threaten the other populations. Thus, we changed the listing priority number from a 5 to an 11.

Graham beardtongue (*Penstemon grahamii*)—*Penstemon grahamii* is restricted to calcareous soils derived from oil shale barrens of the Green River Formation in the Uinta Basin of northeastern Utah and adjacent Colorado. The species population is estimated at about 7,000 individuals with 36 known occurrences. Most of the occupied habitat of *P. grahamii* is within developed and expanding oil and gas fields with several wells and access roads within the species' occupied habitat. The location of *P. grahamii* habitat exposes it to possibility of habitat destruction from off-road vehicle (ORV) use and road, pipeline, and well-site construction in connection with oil and gas development. With such a small population and limited occupied habitat, any destruction, modification, or curtailment of the habitat could negatively impact the species. Collection of plants and seeds is a significant threat due to the desire of rock-garden enthusiasts to obtain this very attractive plant. The species is heavily grazed by wildlife (rodents, rabbits, and possibly deer) and by livestock (primarily sheep). Livestock trampling is affecting some populations. Historical overgrazing is thought to have caused the extirpation of some *P. grahamii* populations. The potential threats associated with oil and gas development within the habitat of *P. grahamii* are considered to be imminent in light of the increased seismic survey and petroleum leasing. Therefore, we have elevated the LPN for this species

from 5 to 2 because the threats continue to be of high magnitude, and are now considered imminent.

Ferns and Allies

Palapali (*Microlepia strigosa* var. *mauiensis*)—This fern was formally known as the full species *Microlepia mauiensis*. In a recent review of the taxonomy of Hawaiian ferns, it was changed to a variety of *M. strigosa*. This fern, now classified as a variety, continues to be a candidate; however, this taxonomic change changes the priority number from a 2 to a 3.

Christella boydiae—This Hawaiian fern species (no common name) was originally described in 1897 in the genus *Christella*. It was then placed in the genus *Thelypteris*. More recently, in 1999, it was placed in the genus *Cyclosorus* and split into two varieties (var. *kipahuluensis* and var. *boydiae*). Both of these varieties were recognized in the June 13, 2002, CNOR as candidates, each with the priority number of 6. In a 2002 review of Hawaiian ferns, the species was returned to the genus *Christella*. The most recent taxonomic description removes recognition of the two former varieties within the species of *Christella boydiae*; however, the entire species remains a candidate. Therefore, the priority number moves from 6 to 5.

Other Taxonomic Changes in Candidates

Sheath-tailed bat (*Emballonura semicaudata semicaudata* and *E. semicaudata rotensis*)—This species was included in the 2002 CNOR as a Distinct Vertebrate Population Segment within the U.S. Territories, which encompasses a subspecies and a Distinct Population Segment of a second subspecies: *E. semicaudata rotensis*, endemic to the Mariana Islands; and the American Samoa DPS of *E. semicaudata semicaudata*, endemic to Western and American Samoa, Tonga, Fiji, and Vanuatu. In 1997, Koopman described four subspecies to *E. semicaudata*, which are now widely accepted. The sheath-tailed bats that continue to warrant candidacy are within *E. semicaudata rotensis* and the American Samoa DPS of *Emballonura semicaudata semicaudata*. Thus, with this 2003 CNOR and accompanying candidate form, we are renaming the continuing candidate entity as the following two entities: the subspecies historically found in the Marianas Islands (*E. s. rotensis*) and the American Samoan DPS of *E. s. semicaudata* that was historically found in Samoa, Fiji, Tonga, and Vanuatu. In addition, due to a clerical error, we previously identified

this species being subject to an active petition and therefore requiring a “resubmitted warranted-but-precluded” 12-month petition finding. In this notice we do not treat the sheath-tailed bat among the petitioned candidates.

Populations of *E. s. rotensis* on the Mariana Islands of Guam and Rota have been extirpated and the Mariana population on Aguijan has been reduced to approximately 10 individuals. A similar drastic decline has occurred in American Samoa where populations of *E. s. semicaudata* were estimated at over 10,000 in 1976. In 1993, only four bats were recorded. *E. s. semicaudata* occurs only on Tutuila Island and is probably extirpated from Western Samoa. The nearest population is in Tonga.

Tutuila is within the U.S. territory of American Samoa, thus this DPS is delimited by international government boundaries. The sheath-tailed bat resides in caves and is very susceptible to disturbance. Roost sites have been rendered unsuitable for bats by human intrusion into caves and the use of some caves as garbage dumps. Typhoons have also damaged some caves by blocking entrances or by flooding coastal caves. No single threat appears to be the cause of the reduced range of the sheath-tailed bat in the Marianas and in American Samoa. The loss of roosting caves, the loss of foraging habitat due to deforestation, disturbance by feral ungulates, introduced predators, and possibly pesticide use are appear to be the primary factors. In addition, small populations and limited numbers of populations place these two candidate sheath-tailed bats at great risk of extinction from inbreeding, random events, and storms. Based on immediate threats of a high magnitude, we retained the listing priority number of the sheath-tailed bat for the two candidate entities: *E. s. rotensis* and the American Samoa DPS of *E. s. semicaudata*, each a listing priority number of 3.

Candidate Removals

Ferns and Allies

Hohiu kilau (*Dryopteris glabra* var. *pusilla* (formerly *Dryopteris tenebrosa*))—This recently discovered small terrestrial fern was previously treated as one of six separate species that are now all recognized as varieties of one species, *Dryopteris glabra*, which occurs widely through Hawaii. It is believed that the variety *pusilla* is more widespread than currently recorded, and additional surveys are needed. Therefore, we are removing it from candidate status.

Petition for a Candidate Species

The Act provides two mechanisms for considering species for listing. First, the Act requires us to identify and propose for listing those species that require listing under the standards of section 4(a)(1). We implement this through the candidate program, discussed above. Second, the Act provides a mechanism for the public to petition us to add a species to the Lists. Under section 4(b)(3)(A), when we receive such a petition, we must determine within 90 days, to the maximum extent practicable, whether the petition presents substantial information that listing may be warranted (a “90-day finding”). If we make a positive 90-day finding, under section 4(b)(3)(B) we must make one of three possible findings within 12 months of the receipt of the petition (a “12-month finding”).

The first possible 12-month finding is that listing is not warranted, in which case we need take no further action on the petition. Second, we may find that listing is warranted, in which case we must promptly publish a proposed rule to list the species. Once we publish a proposed rule for a species, section 4(b)(5) and 4(b)(6) govern further procedures, regardless of whether or not we issued the proposal in response to a petition. Third, we may find that listing is warranted but precluded. Such a finding means that immediate publication of a proposed rule to list the species is precluded by higher priority listing proposals, and that we are making expeditious progress to add and remove species from the Lists, as appropriate.

On December 5, 1996, we made a final decision to redefine “candidate species” to mean those species for which the Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but for which issuance of the proposed rule is precluded (61 FR 64481, December 6, 1996). Therefore, the standard for making a species a candidate is identical to the standard for making a “warranted-but-precluded” 12-month petition finding on a petition to list, and we add all petitioned species subject to a “warranted-but-precluded” 12-month finding to the candidate list.

This publication also provides notice of both the positive 90-day finding and the warranted but precluded 12-month findings pursuant to section 4(b)(3) for candidate species listed on Table 1 that have been the subject of a petition to list. Even though all candidate species have warranted but precluded status (and thus the equivalent of positive 90-

day and warranted but precluded 12-month findings), we will continue to publish specific section 4(b)(3) findings on subsequent petitions to list candidate species in the first CNOR following receipt of the petition.

In addition, pursuant to section 4(b)(3)(C)(i) of the Act, once a petition is filed regarding a candidate species, the Service must make a 12-month petition finding in compliance with section 4(b)(3)(B) of the Act at least once a year, until the Service proposes the species for listing or makes a final "not-warranted" finding. Section 4(b)(3)(C)(iii) of the Act requires the Service to "implement a system to monitor effectively the status of all species" subject to a "warranted-but-precluded" 12-month finding, and to "make prompt use of the [emergency listing] authority [under section 4(b)(7)] to prevent a significant risk to the well being of any such species." The CNOR plays a crucial role in the Service's monitoring of all candidate species by seeking information regarding the status of those species. The Service reviews all new information on candidate species as it becomes available, and identifies any species for which emergency listing may be appropriate. If the Service determines that emergency listing is appropriate for any candidate, the Service will make prompt use of its authority under section 4(b)(7). We have been reviewing and will continue to review at least annually the status of all candidates whether or not we receive a petition. Thus, the CNOR and accompanying candidate forms also constitute the Service's annual finding on the status of petitioned species pursuant to section 4(b)(3)(C)(i).

On June 20, 2001, the United States Court of Appeals for the Ninth Circuit held that the 1999 CNOR (64 FR 57534, October 25, 1999) did not fulfill the second component of "warranted but precluded" 12-month petition findings for the Gila chub and Chiracahua leopard frog (*Center for Biological Diversity v. Norton*, 254 F.3d 833 (9th Cir. 2001)). In particular, while the Court found designation as a candidate arguably constitutes a 90-day finding that there is substantial information that listing may be warranted and the first prong of a 12-month finding that protection is warranted, the Court also found that the one line designation in the table of candidates in the 1999 CNOR, with no further explanation, did not satisfy section 4(b)(3)(B)(iii)'s requirement that the Service publish a finding pursuant to section 4 of the Act. The Court suggested that this one-line statement of candidate status also precluded meaningful judicial review

and may have diminished the obligation to monitor the species on an annual basis.

We have drafted subsequent CNORs (including this one) to address the Court's concerns. We have included below a description of why the listing of every petitioned candidate species is both warranted and precluded at this time. Pursuant to section 4(b)(3)(C)(ii) and the Administrative Procedure Act (5 U.S.C. section 206), any party with standing may challenge the merits of any "not warranted" or "warranted but precluded" petition findings incorporated in this CNOR. The analysis included herein, together with the administrative record for the decision at issue (particularly the supporting candidate form), will provide an adequate basis for a court to review the petition finding. Finally, nothing in this document or any of our policies should be construed as in any way modifying the Act's requirement that we make a new 12-month petition finding for each petitioned candidate within 1 year of the date of publication of this CNOR. If we fail to make any such finding on a timely basis, whether through publication of a new CNOR or some other form of notice, any party with standing may seek judicial review.

We reviewed the current status of and threats to the 42 candidates and 5 listed species for which we have received a petition and for which we have found listing or reclassification from threatened to endangered to be warranted but precluded. This includes 43 candidate or listed species for which we previously have published findings. For 42 of these 43 species, we have incorporated any new information we have gathered since the prior finding (for black-tailed prairie dog, see below) and, as a result of this review, we made continued "warranted-but-precluded" 12-month findings on the petitions for these species. There also are 3 new candidate species for which we have received petitions, and for which we are announcing initial "warranted-but-precluded" findings in this CNOR. Additionally, for one new candidate species for which we have received a petition, we recently published a separate initial "warranted-but-precluded" finding.

We have identified the 41 species that are candidates and for which we received petitions by the code "C*" in the category column on the left side of Table 1. As discussed above, this finding means that the immediate publication of proposed rules to list these species was precluded by our work on the higher priority listing actions, listed below, during the period

from June 13, 2002 through April 19, 2004. We will continue to monitor the status of all candidate species, including petitioned species, as new information becomes available. This review will determine if a change in status is warranted, including the need to emergency-list a species under section 4(b)(7) of the Act.

In addition to identifying petitioned candidate species in Table 1, we also present brief summaries of why these particular candidates warrant listing. More complete information, including references, is found in the candidate forms. You may obtain a copy of these forms from the Regional office that has the lead for the species, or from the Fish and Wildlife Service's Internet Web site: <http://endangered.fws.gov/>.

We find that the immediate issuance of a proposed rule and timely promulgation of a final rule for each of these actions has been, for the preceding months, and continues to be, precluded by higher priority listing actions. As described in section 4(b)(3)(B)(iii) of the Act, in order for us to make a "warranted but precluded" finding on a petitioned action, we must be making expeditious progress to add qualified species to the Lists and to remove from the Lists species for which the protections of the Act are no longer necessary. This notice describes our progress in revising the lists since our June 13, 2002, publication of the last CNOR. We intend to publish these descriptions annually.

On February 20, 2003, the President signed into law the Fiscal Year (FY) 2003 Omnibus Appropriations Bill (Omnibus Bill), which appropriates funding to many Federal agencies and programs, including the Service's program for completing listing and critical habitat rules pursuant to Section 4 of the ESA (Listing Program), for the period from October 1, 2002, through September 30, 2003. Through the Omnibus Bill, Congress specified that the Service could not spend more than \$9,077,000 on Listing Program actions in FY 2003. Of that total, Congress also specified that the Service could not spend more than \$6 million on designating critical habitat for already-listed species, leaving \$3,077,000 for other listing activities. The Service has worked to ensure that Congress understands the level of funding necessary to comply with all of the Service's statutory requirements. In a January 7, 2003, Effects Statement to Conference Managers, the Department of the Interior informed Congress about these listing program requirements and requested an increase in the FY 2003 listing budget to \$11.8 million.

Congress, nevertheless, retained the \$9 million limit for spending.

For Fiscal Year (FY) 2004, the President requested an increase of \$3,209,000 above the FY 2003 request to bring the Listing Program budget to \$12,286,000. The request included \$8,900,000 for designation of critical habitat for already-listed species, and \$3,386,000 to conduct other Listing Program work. Subsequent to the President's FY 2004 budget request, a number of factors increased the amount of funding needed to complete judicially-mandated critical habitat work in FY 2004. Most significantly, the work that the Service was compelled to defer from FY 2003 had to be funded under the FY 2004 budget, at an estimated cost of \$2,000,000. The Service also received several additional court orders requiring the Service to perform critical habitat work in FY 2004. In an October 2003 Effect Statement to the Conference managers, the Department of the Interior informed Congress that, because of these additional obligations, the Service needed an additional \$2.5 million for the Listing Program in FY 2004.

Congress did not approve a Listing Program appropriation for FY 2004 until November 7, 2003, more than a month after the start of the fiscal year. On November 10, 2003, the President signed the 2004 Interior and Related Agencies Appropriations Bill, which funded nearly fully the amount of the President's request (Pub. L. 108-108 (Nov. 10, 2003)). However, the bill did not address the Service's request for an additional \$2.5 million to fully fund the Listing Program in FY 2004.

Thus, we anticipate that most or all of listing actions for the candidate species included in this CNOR will continue to be precluded by higher priority listing actions. The Service allocates the listing appropriation by task, rather than by region as we have done in the past. Thus, listing prioritization is accomplished at the national scale. However, the \$3,386,000 is fully allocated to fund any emergency listings, and essential litigation-related, administrative, and program management functions and to comply with court orders and court-approved settlement agreements requiring petition findings or listing determinations. We are funding actions on the following species this fiscal year: California tiger salamander—central DPS, Boreal toad, Miami blue butterfly, Sacramento Mountains checkerspot butterfly, four subspecies of the skipper *Pseudocypaeodes eunus*, Rota bridled white-eye, eastern sage grouse, greater sage grouse, Salt Creek tiger beetle,

Bromus arizonicus, *Nassella cernua*, *Nesogenes rotensis*, *Osmoxylon mariannense*, *Tabernaemontana rotensis*, *Lepidium papilliferum*, *Cymopterus deserticola*, Midvalley fairy shrimp, pacific fisher, Florida black bear, New England cottontail, Mariana fruit bat, white-tailed prairie dog, wolverine, Santa Catalina Island fox, Santa Rosa Island, San Miguel Island fox, Santa Cruz Island fox, northern sea otter—southwest Alaska DPS, and Colorado river cutthroat trout. We do still allocate a small amount of funding (\$100,000) that is not earmarked for particular listing actions to each of the Regions. This funding is referred to "capability funding." With respect to Regions with relatively few court-mandated deadlines, this funding ensures that those Regions will maintain the expertise to take listing actions in the future. When any of this capability funding is available, we may use it for other high-priority listing actions. We generally prioritize these other listings by each Region in order of the highest listing priority number; we fund petition findings for outstanding petitions regarding species that are not already on the candidate list, and generally, we fund older petitions before newer ones.

Our progress in listing and delisting qualified species since June 13, 2002, is represented by the publication in the **Federal Register** of final listing actions for 14 species; proposed listing actions for the Gila chub, Southwest Alaska DPS of the northern sea otter, slickspot peppergrass, and the California tiger salamander; withdrawal of a proposed listing for the westslope cutthroat trout, flat-tailed horned lizard, slickspot peppergrass and *Tabernaemontana rotensis*; final reclassification of the gray wolf; proposed reclassification of endangered to threatened for the Missouri bladderpod; proposed delisting actions for the Truckee barberry; and final delisting actions for Robbins' cinquefoil. In addition, we proposed critical habitat for 13 listed species, and finalized critical habitat for 323 listed species. "Expeditious progress" is a function of the resources that are available and the way in which those resources are used. As discussed above, the bulk of the funds that would be otherwise available for adding qualified species to the list in FY 2003 and FY 2004 have been spent or will be spent on complying with court orders and court-approved settlement agreements to designate critical habitat and make petition findings. Nonetheless, the Service has endeavored to make its designations and

other listing actions as efficient and timely as possible, given the requirements of the relevant law, regulations, and policy and constraints relating to workload and personnel. The Service is continually considering ways to streamline processes or achieving economies of scale, such as by batching related actions together. Given our limited budget for implementing section 4 of the Act, these achievements constitute expeditious progress.

Given the recent decision in *Center for Biological Diversity v. Badgley*, 284 F. 3d 1046 (9th Cir. 2002), which held that the Act requires that 90-day petition findings be made no later than 12 months after receipt of the petition, regardless of whether it is practicable to do so, we may need to make petition findings on most or all of the outstanding petitions for those species that we have not previously determined to warrant candidate status. If over the next year we can devote any resources to issuing proposed rules for the highest-priority candidates without jeopardizing our ability to comply with court orders, court-approved settlement agreements, or unqualified statutory deadlines, we will do so.

Work on proposed rules for candidates with lower priority (*i.e.*, those that have listing priority numbers of 4–12) is also precluded by the need to issue proposed rules for higher-priority species facing high-magnitude, imminent threats (*i.e.*, listing priority numbers of 1, 2, or 3). Table 1 shows the listing priority number for each candidate species. Finally, 12-month "warranted but precluded" petition findings for reclassification of threatened species to endangered are lower priority, since the listing of the species already affords the protection of the Act and implementing regulations.

Summary of Petitioned Candidates

Mammals

Black-tailed prairie dog (*Cynomys ludovicianus*)—We have not updated our finding with regard to the black-tailed prairie dog in this notice. In the 2002 CNOR, we found that a listing proposal for this species was still warranted but precluded by higher priorities, and we assigned the species a listing priority number of 8. We have since received significant new information about this species from the National Wildlife Federation, Forest Guardians, and the States of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. We are considering this information and, upon completion, we intend to publish

a finding for this species in the **Federal Register**.

Fisher, west coast DPS (*Martes pennanti*)—See our initial “warranted-but-precluded” finding signed on April 2, 2004, and published in the **Federal Register** on April 8, 2004 (68 FR 18770).

Southern Idaho ground squirrel (*Spermophilus brunneus endemicus*)—See above in “Summary of Listing Priority Changes in Candidates.” The above summary is based on information contained in our files and the petition received on January 29, 2001.

Washington ground squirrel (*Spermophilus washingtoni*)—The following summary is based on information contained in our files and the petition received on March 2, 2000. The Washington ground squirrel is endemic to the Columbia Plateau, south of the Columbia River and east of the John Day River. The historical range of the species, distributed over much of the shrub-steppe habitat of southeastern Washington and northeastern Oregon, has been modified and reduced to three disjunct areas. The greatest threat to the species is loss of habitat. Habitat is destroyed through commercial, residential, and agricultural development, and the conversion of suitable habitat to agricultural uses is an ongoing practice. Disturbance through activities such as tilling and irrigation of the appropriate soil types renders the habitat unsuitable and can result in loss of occupied colonies. The soil types used by the squirrels are distributed sporadically within the species’ range and have been seriously fragmented by human development in the Columbia Basin, particularly conversion to agricultural use. Where agriculture occurs, little evidence of ground squirrel use has been documented, and reports indicate that ongoing agricultural conversion permanently eliminates Washington ground squirrel habitat.

Given the lack of substantial dispersal movements, isolation and fragmentation of colonies and habitat can severely affect Washington ground squirrels by limiting genetic exchange and reproduction, exposing small colonies to destruction from unpredictable catastrophic events such as fire or drought, and limiting habitat available for escape if occupied habitat becomes unsuitable. Badgers (*Taxidea taxus*) appear to be an important predator of Washington ground squirrels. Some colonies appeared to have been eliminated by badgers on the Boeing Tract, and badger-digging activity is common within Washington ground squirrel colonies. In Washington, recent declines have been precipitous and for unknown reasons. The causes of

starvation, lack of reproduction, and colony losses are unknown. Subjective observations of habitat conditions did not appear to be substantially different from previous years, but biologists observed that colonies with higher survival, reproduction, and average body mass may have benefited from presence of non-native bulbous bluegrass (*Poa bulbosa*), whereas non-native cheatgrass (*Bromus tectorum*) predominates at colony sites with poor reproduction, body mass, or survival.

The Service is working with the State of Oregon to pursue cooperative agreements primarily with the Navy to conserve the species on the Boardman Bombing Range. Three Mile Canyon Farms has recently purchased the Boeing tract from the State of Oregon and, in coordination with the Service, is in the process of developing a Candidate Conservation Agreement with Assurances for this property. Based on our current evaluation of threats, we assigned a listing priority number of 2 to this species.

Birds

Band-rumped storm-petrel, Hawaii DPS (*Oceanodroma castro*)—The following summary is based on information contained in our files and the petition received on May 8, 1989. The band-rumped storm-petrel is a small, widespread seabird found in the subtropics of the Pacific and Atlantic Oceans. In the Pacific, there are three widely separated breeding populations—one in Japan, one in Hawaii, and one in the Galapagos. Populations in Japan and the Galapagos are comparatively large and number in the thousands, while the Hawaiian birds represent a small, remnant population of possibly only a few hundred pairs. Estimates of the total Statewide population could exceed 100 pairs if viable breeding populations exist on Maui and Hawaii. Although small populations do occur on Maui and Hawaii, we have been unable to determine if they are viable; certainly they are not large and they represent a fraction of prehistoric distribution. Predation by introduced species is believed to have played a significant role in reducing storm-petrel numbers and in exterminating colonies in the Pacific and other locations worldwide. Additionally, artificial lights have had a significant negative effect on fledgling young and, to a lesser degree, adults. Artificial lighting of roadways, resorts, ballparks, residences, and other development in lower elevation areas attracts and confuses night-flying storm-petrel fledglings, resulting in “fallout” and collisions with buildings and other

objects. Currently, the species is not known to be taken or used for commercial, recreational, scientific, or educational purposes. During 1992 surveys on Mauna Loa, Hawaii, several caches of Hawaiian dark-rumped petrel carcasses associated with feral cat predation were recorded in areas where band-rumped storm-petrel vocalizations were recorded. Based on imminent threats of a high magnitude, we assigned this Hawaii DPS of the band-rumped storm-petrel a listing priority number of 3.

Gunnison sage-grouse (*Centrocercus minimus*)—See above in “Summary of Listing Priority Changes in Candidates.” The above summary is based on information contained in our files and the petition received on January 25, 2000.

Lesser prairie-chicken (*Tympanuchus pallidicinctus*)—The following summary is based on information contained in our files and the petition received on October 5, 1995. Biologists estimate that the occupied range has declined by at least 78 percent since 1963 and by 92 percent since the 1800s. The most serious threats to the lesser prairie-chicken are loss of habitat from conversion of native rangelands to introduced forages and cultivation, and cumulative habitat degradation caused by severe grazing, fire suppression, herbicides, and structural developments. Many of these threats may exacerbate the normal effects of periodic drought on lesser prairie-chicken populations. We view current and continued habitat fragmentation to be a serious ongoing threat that facilitates the extinction process through several mechanisms: Remaining habitat patches may become smaller than necessary to meet the yearlong requirements of individuals and populations; necessary habitat heterogeneity may be lost to large areas of monoculture vegetation and/or homogenous habitat structure; areas between habitat patches may harbor high levels of predators or brood parasites; and the probability of recolonization decreases as the distance between suitable habitat patches expands. At present, all States within occupied range are committing significant resources via personnel, outreach, and habitat improvement incentives to landowners to optimize habitat in currently occupied range and adjacent lands to recover the species. We recognize that measurable increases in populations often come years after certain habitat improvements occur. However, we will continue to monitor potential effects of emerging habitat fragmentation threats, in the form of

commercial wind-power facilities and extensive oil and gas exploration and development.

We have determined that the overall magnitude of threats to the lesser prairie-chicken throughout its range is moderate. The magnitude of threats to lesser prairie-chickens is primarily based on the quality and scale of existing habitat. The majority of threats to remaining lesser prairie-chicken populations are ongoing, and thus they are considered imminent. We will continue to monitor the effectiveness of the current conservation efforts to stabilize and increase existing populations throughout significant portions of the species range. Based on all currently available information, we assigned the lesser prairie-chicken a listing priority number of 8.

Yellow-billed cuckoo, western continental U.S. DPS (*Coccyzus americanus*)—The following summary is based on information contained in our files and the petition received on February 9, 1998. Also see our 12-month petition finding published on July 25, 2001 (66 FR 38611). While the cuckoo is still relatively common east of the crest of the Rocky Mountains, biologists estimate that more than 90 percent of the bird's riparian (streamside) habitat in the West has been lost or degraded. These modifications, and the resulting decline in the distribution and abundance of yellow-billed cuckoos throughout the western states, are believed to be due to conversion to agriculture; grazing; competition from non-native plants, such as tamarisk; river management, including altered flow and sediment regime; and flood control practices, such as channelization and bank protection. Based on ongoing but nonimminent threats of a high magnitude, we assigned a listing priority number of 6 to this DPS of yellow-billed cuckoo.

Kittlitz's murrelet (*Brachyramphus brevirostris*)—See above in "Summary of New Candidates." The above summary is based on information in our files and the petition received on May 9, 2001.

Greater sage-grouse, Columbia Basin DPS (*Centrocercus urophasianus*)—The following summary is based on information in our files and the petition received on June 21, 1999. Currently, the AOU recognizes two subspecies of greater sage-grouse. Compared to the eastern subspecies (*C. u. urophasianus*), the western subspecies (*C. u. phaios*) has reduced white markings and darker grayish-brown feathering, resulting in a more dusky overall appearance. Based on recent communications with

recognized experts, some disagreement as to the validity of these current subspecies designations exists. With regard to current taxonomic standards and information generated over the last few decades, these subspecies designations may be inappropriate. When informed taxonomic opinion is not unanimous, the Service evaluates the available information. The Service has conducted a detailed analysis of available information and has determined that the subspecies designations for greater sage-grouse are inappropriate given current taxonomic standards (68 FR 6500, February 7, 2003). However, the Service still considers the Columbia Basin population to be a Distinct Population Segment. The abundance of greater sage-grouse within the Columbia Basin DPS declined by approximately 30 percent between 2000 and 2001. Of even greater concern is the estimated reduction in size of the larger subpopulation in Douglas and Grant Counties, Washington, which accounted for the majority of the decline (dropping from 684 in 2000 to 395 in 2001, or approximately 42 percent). The current, overall population estimate of roughly 700 individuals is the lowest ever recorded for the Columbia Basin DPS, although it is just slightly lower than the previous lowest estimate recorded in 1994. Since 1970, the estimated population lows for the Columbia Basin DPS have occurred "regularly" over a 3- to 4-year period at mid-decade (e.g., 1975–78, 1985–87, and 1993–96). Should this cyclical pattern in population abundance hold, we may expect further significant declines in the Columbia Basin DPS over the next several years.

Military training constitutes the primary threat to the southern subpopulation, while habitat conversion is the primary threat impacting the northern subpopulation. However, we conclude that threats related to military training are not imminent, based on the implementation of the Army's conservation measures and considerably less-than-planned training activities occurring in Yakima and Kittitas Counties. Large areas of privately owned lands in Douglas County are currently withdrawn from crop production and planted to native and non-native cover under the Federal Conservation Reserve Program (CRP), established in 1985. Lands under the CRP are very important to the northern subpopulation of the Columbia Basin DPS. Much of the CRP acreage that could have expired was re-enrolled and total CRP acreage increased in 1998 in Douglas County. As

such, we conclude that the high-magnitude, nonimminent threats to the Columbia Basin DPS of the greater sage grouse, leading to the assignment of a listing priority number of 6.

Xantus's murrelet (*Synthliboramphus hypoleucus*)—See above in "Summary of New Candidates." The above summary is based on information in our files and the petition received on April 16, 2002.

Reptiles

Louisiana pine snake (*Pituophis ruthveni*)—The following summary is based on information contained in our files and the petition received on July 19, 2000. The Louisiana pine snake historically occurred in portions of west-central Louisiana and extreme east-central Texas. Louisiana pine snakes have not been documented in over a decade in some of the best remaining habitat within their historical range. Surveys and results of Louisiana pine snake trapping and radio-telemetry suggest that extensive population declines and local extirpations have occurred during the last 50 to 80 years. Most of the longleaf pine habitat of the Louisiana pine snake has been destroyed and the quality of remaining Louisiana pine snake habitat has been degraded due to logging, fire suppression, short-rotation silviculture, and conversion of habitat to other uses such as grazing. Louisiana pine snake habitat loss is continuing, albeit at a slower rate than in the past. Also, a comprehensive partnership that is attempting to address the species, its status, and threats to the species and habitat has had some recent successes. Other factors affecting Louisiana pine snakes include low fecundity (reproductive output), which magnifies other threats and increases the likelihood of local extinctions, and vehicular mortality, which may cause significant impacts to the Louisiana pine snake's population numbers and community structure. Due to nonimminent threats of a high magnitude, we assigned a listing priority number of 5 to this species.

Cagle's map turtle (*Graptemys caglei*)—The following summary is based on information contained in our files and the petition received on April 26, 1991. Cagle's map turtle occurs in scattered sites in seven counties in Texas on the Guadalupe, San Marcos, and Blanco Rivers. Loss and degradation of riverine habitat from large and/or small impoundments (dams or reservoirs) is the primary threat to Cagle's map turtle. One detrimental effect of impoundment is the loss of riffle and riffle/pool transition areas

used by males for foraging. Depending on its size, a dam itself may be a partial or complete barrier to Cagle's map turtle movements and could fragment a population. Construction of smaller impoundments and human activities on the river has likely eliminated or reduced foraging and basking habitats. Cagle's map turtle is also vulnerable to overcollecting and target shooting. Due to nonimminent threats of a high magnitude, we assigned a listing priority number of 5 to this species.

Sand dune lizard (*Sceloporus arenicolus*)—The following summary is based on information in our files and the petition received on June 6, 2002. The sand dune lizard is endemic to a small area in southeastern New Mexico (Chaves, Eddy, Lea, and Roosevelt Counties) and adjacent west Texas (Andrews, Crane, Ward, and Winkler Counties). Within this area, the known occupied and potentially occupied habitat is only 1,697 kilometers² (655 miles²) in New Mexico, and an unknown amount in west Texas. The sand dune lizard has the second-most restricted range of any native lizard in the United States. The lizard's distribution is localized and fragmented (i.e., known populations are separated by vast areas of unoccupied habitat), and the species is restricted to sand dune blowouts associated with active sand dunes with shinnery oak (*Quercus harvardii*) and scattered sandsage (*Artemisia filifolia*). Sand dune lizards are not found at sites lacking shinnery oak dune habitat. Extensive surveys within New Mexico, conducted in conjunction with a 5-year study, documented sand dune lizards at only half of the sites surveyed. It is clear that shinnery oak removal (e.g., by treating with herbicides), for livestock range improvements, results in dramatic reductions and extirpation of sand dune lizards. Scientists repeatedly confirmed the extirpation of sand dunes lizards from areas with herbicide treatment to remove shinnery oak. Biologists estimate that about 25 percent of the total sand dune lizard habitat in New Mexico has been eliminated in the last 10 years. The population of sand dune lizards has been affected by the spraying of the herbicide Tebuthiuron to control shinnery oak, and also by oil and gas field development. An estimated 50-percent decline in sand dune lizard populations can be expected in areas with at least 30 oil and/or gas wells per section. The distribution of sand dune lizards is localized and fragmented and this species is a habitat specialist; therefore, impacts to its habitat will most likely greatly decrease

populations. If current herbicide application continues and oil and gas development progresses as expected, the magnitude of threat to sand dune lizards remains high. Continued pressure to develop oil and gas resources in areas with sand dune lizards poses an imminent threat to the species. Therefore, this species is assigned a priority number of 2.

Amphibians

Columbia spotted frog, Great Basin DPS (*Rana luteiventris*)—The following summary is based on information contained in our files and the petition received on May 1, 1989. Currently, Columbia spotted frogs appear to be widely distributed throughout southwestern Idaho and eastern Oregon, but local populations within this general area appear to be isolated from each other. Recent work by researchers in Idaho and Nevada has documented the loss of historically known sites, reduced numbers of individuals within local populations, and declines in the reproduction of those individuals. Habitat degradation and fragmentation is probably a combined result of past and current influences of heavy livestock grazing, spring alterations, agricultural development, urbanization, and mining activities. Fragmentation of habitat may be one of the most significant barriers to Columbia spotted frog recovery and population persistence. Loss of vegetation and/or lowering of the water table as a result of the above-mentioned activities can significantly threaten frogs moving from one area to another. Likewise, fragmentation and loss of habitat can prevent frogs from colonizing suitable sites elsewhere. Based on imminent threats of high magnitude, we assigned a listing priority number of 3 to this DPS of the Columbia spotted frog.

Oregon spotted frog (*Rana pretiosa*)—The following summary is based on information contained in our files and the petition received on May 4, 1989. Historically, the Oregon spotted frog ranged from British Columbia to the Pit River drainage in northeastern California. Based on surveys of historical sites, the Oregon spotted frog is now absent from at least 76 percent of its former range. The threats to the species' habitat include development, livestock grazing, introduction of non-native plant species, changes in hydrology due to construction of dams and alterations to seasonal flooding, and poor water quality. Additional threats to the species are predation by non-native fish and introduced bullfrogs. The high magnitude of threat is due to small populations with patchy and isolated

distributions; and the wide range of threats to both individuals and their habitats. Habitat restoration and management actions have not prevented a decline in the reproductive rates in some populations. Each population is faced with multiple actual and potential threats that could seriously reduce or eliminate any of these isolated populations and further reduce the range of the species. Based on these threats, we assigned the Oregon spotted frog a listing priority number of 2.

Boreal toad, Southern Rocky Mountains DPS (*Bufo boreas boreas*)—The following summary is based on information contained in our files and the petition received on September 30, 1993. See also our 12-month petition finding published on March 23, 1995 (60 FR 15281). Boreal toads of the Southern Rocky Mountain DPS were once common throughout much of the high elevations in Colorado, in the Snowy and Sierra Madre Ranges of southeast Wyoming, and at three breeding localities at the southern periphery of their range in the San Juan Mountains of New Mexico. In the late 1980s, boreal toads were found to be absent from 83 percent of breeding localities in Colorado and 94 percent of breeding localities in Wyoming previously known to contain toads. In 1999, the number of known breeding localities increased from 33 to 50, with 1 in Wyoming, none in New Mexico, and the remaining sites in Colorado. This increase in known breeding localities, however, was likely due to increased survey efforts rather than expansion of the population.

Land use in boreal toad habitat includes recreation, timber harvesting, livestock grazing, and watershed alteration activities. Though declines in toad numbers have not been directly linked to habitat alteration, activities that destroy, modify, or curtail habitat likely contribute to the continued decline in toad numbers. The current and future use of water rights in the Southern Rocky Mountains may affect boreal toads. Increased demands on limited water resources can result in water level drops in reservoirs that toads are using. Transferring rights from one user group to another (e.g., agricultural to municipal) also could reduce toad habitat, particularly if dewatering of reservoir sites resulted from these transfers. Additional threats to the boreal toad include a chytrid fungus, which likely caused the boreal toad to decline in the 1970s and continues to cause declines. Despite numerous conservation actions funded and implemented to date, additional populations or breeding localities of the

toad being found in the last several years, and protection of the toad afforded by State and Federal laws, we continue to give the toad a listing priority of 3. The chytrid fungus infection is an ongoing threat of high magnitude and is likely to extirpate additional infected boreal toad populations.

Yosemite toad (*Bufo canorus*)—The following summary is based on information contained in our files and the petition received on April 3, 2000. See also our 12-month petition finding published on December 10, 2002 (67 FR 75834). The historical range of Yosemite toads in the Sierra Nevada occurs from the Blue Lakes region north of Ebbetts Pass to 5 kilometers (km) (3.1 miles (mi)) south of Kaiser Pass in the Evolution Lake/Darwin Canyon area. Alteration and loss of habitat due to grazing, timber management, water diversion, recreation, and vegetative/fire management are threats. The decline of some populations of Yosemite toad has been attributed to the effects of poorly managed livestock grazing. The levels of timber harvest and road construction have declined substantially since implementation of the California Spotted Owl Sierran Province Interim Guidelines in 1993, and some existing roads have been, or are scheduled for, decommissioning. Therefore, the risks posed by new roads and timber harvests have declined, but those already existing still pose risks to the species and its habitat through erosion, roadkill, and contaminant introduction. Reservoirs represent both a loss of habitat and a barrier to dispersal and gene flow. In addition, the evidence of an adverse physiologic effect of pesticides on Sierra Nevada amphibians in the field indicates that contaminants may be a risk to the Yosemite toad and may have contributed to the species' decline. These factors have probably contributed to the decline of Yosemite toads and continue to pose a risk to the species. We determined the magnitude of threats to be moderate, rather than high, because almost all of the species' range occurs on Federal land, which facilitates management of the species by Federal agencies. We determined the threats to the Yosemite toad to be nonimminent. Therefore, we assign the Yosemite toad a listing priority number of 11.

Mountain yellow-legged frog, Sierra Nevada DPS (*Rana muscosa*)—The following summary is based on information contained in our files and the petition received on February 8, 2000. Also see our 12-month petition finding published on January 16, 2003 (68 FR 2283). The mountain yellow-

legged frog is restricted to two disjunct areas in California and a portion of Nevada. One area is in the Sierra Nevada and the other area is in southern California (Los Angeles, San Bernardino, Riverside, and San Diego counties). The southern California population is isolated from the Sierra Nevada population by the Tehachapi mountain range, with a distance of about 225 kilometers (km) (140 miles (mi)) between the two populations. The distribution of the Sierra Nevada mountain yellow-legged frog is restricted primarily to publicly managed lands at high elevations, including streams, lakes, ponds, and meadow wetlands located in national forests and national parks. Rangewide, it is estimated that the number of mountain yellow-legged frog populations have undergone a 50- to 80- percent reduction. Direct predation by non-native fishes has resulted in rangewide population declines and local extirpations.

Furthermore, the result of these extirpations is that the remaining populations are fragmented and isolated, making them vulnerable to further declines and local extirpations caused by other factors such as disease. For example, in reviewing documented mountain yellow-legged frog declines over the last 5 years in Sequoia and Kings National Parks, we found the frog suffered a 39-percent extinction rate of the frog where fish have not been stocked since the late 1970s. In comparison, over the last 7 years, in the Sierra National Forest's John Muir Wilderness Area there has been a 61-percent extinction rate where fish stocking has continued. The rate of extinction observed by Knapp over a 5- to 7-year time frame suggests the species' extinction within a few decades (assuming that the rate of extinction and recolonization observed over this time period accurately reflects the long-term rates). It is likely that disease, specifically chytrid fungus, has caused these recently observed declines. Although the life history and modes of transmission of chytrid fungus are not well understood, it appears that this pathogen is widespread throughout the range of the mountain yellow-legged frog within the Sierra Nevada, it is persistent in ecosystems, and it is resilient to environmental conditions such as drought and freezing. Therefore, we conclude that all remaining mountain yellow-legged frog populations within the Sierra Nevada are at risk to declines and extirpation as a result of infection by this pathogen. The overall magnitude and immediacy

of threats to the Sierra Nevada distinct population segment of the mountain yellow-legged frog is high. Therefore, we assigned this species a listing priority of 3.

Relict leopard frog (*Rana onca*)—The following summary is based on information contained in our files and the petition received on May 9, 2002. Relict leopard frogs are currently known to occur only in two general areas in Nevada: near the Overton Arm area of Lake Mead, and Black Canyon below Lake Mead. The Service estimates that the current distribution is less than 20 percent of the historical distribution. As habitat generalists, relict leopard frogs historically likely occupied a variety of habitats including springs, streams, and wetlands characterized by clean, clear water, in both deep and shallow water, and cover/forage such as submerged, emergent, and perimeter vegetation. The causes for the population declines of this species are not entirely clear, but suggested factors include alteration of aquatic habitat due to agriculture and water development, and the introduction of exotic predators and competitors. The magnitude of threats to the relict leopard frog are high based on its limited numbers and distribution, the presence of non-native predators, potential alteration of remaining habitat including groundwater pumping, and diversion of surface water. We do not consider threats to be imminent at this time. Although the numbers are low and distribution is limited, efforts are underway to improve habitat and increase numbers through captive rearing and translocation. There are no proposed projects that may result in further habitat degradation. Therefore, we assigned the relict leopard frog a listing priority number of 5.

Fishes

Fluvial arctic grayling, upper Missouri River DPS (*Thymallus arcticus*)—See above in "Summary of Listing Priority Changes in Candidates." The above summary is based on information contained in our files and the petition received on October 2, 1992. See also our 12-month petition finding published on July 25, 1994 (59 FR 37738).

Snails

Chupadera springsnail (*Pyrgulopsis chupaderae*)—The following summary is based on information contained in our files and the petition received on November 20, 1985. See also our 12-month petition finding published on October 4, 1988 (53 FR 38969). This aquatic species is endemic to Willow Spring on the Willow Spring Ranch

(formerly Cienega Ranch) at the south end of the Chupadera Mountains in Socorro County, New Mexico. The Chupadera springsnail has been documented from two hillside groundwater discharges that flow through grazed areas among rhyolitic gravels containing sand, mud, and hydrophytic plants. Regional and local groundwater depletion, springrun dewatering, and riparian habitat degradation represent the principal threats. The survival and recovery of the Chupadera springsnail is contingent upon protection of the riparian corridor immediately adjacent to Willow Spring and the availability of perennial, oxygenated flowing water within the species' thermal range. Several factors—the extremely localized distribution of the snail, its occurrence only on private property, the lack of regulatory protection of its habitat, and the inability of land managers to participate in its management—indicate that the magnitude of threat to this species is high. Either human-caused disturbance (grazing of cattle, water withdrawal) or natural disturbance (drought or fire) could eliminate this species. Therefore, there is an immediate threat to this species and we assigned this species a listing priority number of 2.

Gila springsnail (*Pyrgulopsis gilae*)—The following summary is based on information contained in our files and the petition received on November 20, 1985. Also see our 12-month petition finding published on October 4, 1988 (53 FR 38969). The Gila springsnail is an aquatic species known from 13 populations in New Mexico. The long-term persistence of the Gila springsnail is contingent upon protection of the riparian corridor immediately adjacent to springhead and springrun habitats, thereby ensuring the maintenance of perennial, oxygenated flowing water within the species' required thermal range. Sites on both private and Federal lands are subject to uncontrolled recreational use and livestock grazing, thus placing the long-term survival of the Gila springsnail at risk. Natural events such as drought, forest fire, sedimentation, and flooding; wetland habitat degradation by recreational bathing in thermal springs; and poor watershed management practices represent the primary threats to the Gila springsnail. Fire suppression and retardant chemicals have potentially deleterious effects on this species. Because several of the springs occur on Forest Service land, management options for the protection of the snail should be possible. However, stochastic events, especially fire and drought,

could have a major impact on the species. Moderate use by recreationalists and livestock is ongoing. If use by these groups remains at current or lower levels, it will not pose an imminent threat to the species. Of greater concern is the current drought that could impact spring discharge and increases the potential for fire. Catastrophic fires have occurred in the Gila National Forest, and subsequent floods and ash flows have decimated aquatic life in streams. If the drought continues or worsens, the imminence of threat (decreased discharge, fire) will increase. Based on these nonimminent threats of a low magnitude, we assigned a listing priority number of 11 to this species.

New Mexico springsnail (*Pyrgulopsis thermalis*)—The following summary is based on information contained in our files and the petition received on November 20, 1985. Also see our 12-month petition finding published on October 4, 1988 (53 FR 38969). The New Mexico springsnail is an aquatic species known from only two separate populations associated with a series of spring-brook systems along the Gila River in the Gila National Forest in Grant County, New Mexico. The long-term persistence of the New Mexico springsnail is contingent upon protection of the riparian corridor immediately adjacent to springhead and springrun habitats, thereby ensuring the maintenance of perennial, oxygenated flowing water within the species-required thermal range. While the New Mexico springsnail populations may be stable, the sites inhabited by the species are subject to uncontrolled recreational use and livestock grazing. Wetland habitat degradation via recreational use and overgrazing in or near the thermal springs and/or poor watershed management practices represent the primary threats to the New Mexico springsnail. Moderate use by recreationalists and livestock is ongoing. If use by these groups remains at the current or lower levels, it will not pose an imminent threat to the species. Of greater concern is the current drought, which could impact spring discharge and increases the potential for fire. Catastrophic fires have occurred in the Gila National Forest and subsequent floods and ash flows have decimated aquatic life in streams. If the drought continues or worsens, the imminence of threat (decreased discharge, fire) will increase. Based on these nonimminent threats of a low magnitude, we assigned this species a listing priority number of 11.

Page springsnail (*Pyrgulopsis morrisoni*)—See above in "Summary of

Listing Priority Changes in Candidates." The above summary is based on information contained in our files and the petition received on April 12, 2002.

Insects

Coral Pink Sand Dunes tiger beetle (*Cicindela limbata albissima*)—The following summary is based on information contained in our files, including information from the petition received on April 21, 1994. The Coral Pink Sand Dunes tiger beetle is known to occur only at Coral Pink Sand Dunes, about 7 miles west of Kanab, Kane County, in south-central Utah. It is restricted mostly to a small part of the approximately 13-kilometer (8-mile) long dune field, situated at an elevation of about 1,820 m (6,000 ft). The beetle's habitat is being adversely affected by ongoing recreational off-road vehicle (ORV) use. The ORV activity is destroying and degrading the beetle's habitat, especially the interdunal swales used by the larval population. Having the greatest abundance of suitable prey species, the interdunal swales are the most biologically productive areas in this ecosystem. The continued survival of the beetle depends on the preservation of its habitat at its only breeding site and probably requires the establishment or reestablishment of additional reproductive subpopulations in other suitable habitat sites. The beetle's population is also vulnerable to overcollecting by professional and hobby tiger beetle collectors, although quantification of this threat is difficult without continuous monitoring of the beetle's population. The recreational ORV use threat is currently managed by active measures taken by both the Utah Department of Parks and Recreation and the BLM, which reduces the threat from high to moderate. The subspecies population is still at low levels and has only recently improved. Based on imminent threats of a low to moderate magnitude, we assigned this subspecies a listing priority number of 9.

Wekiu bug (*Nysius wekiuicola*)—The following summary is based on information contained in our files, including information from the petition received on May 22, 2003. The wekiu bug, first discovered in 1979 on the summit cinder cone of Mauna Kea on the island of Hawaii, is a flightless insect in the seed bug family. This species is only found on Mauna Kea and is believed to inhabit sites no lower than approximately 3,658 meters in elevation. Threats to this species include past and potential habitat destruction from building and updating of facilities for astronomical study. Resultant impacts have included road

construction, parking areas, tourist facilities, temporary storage areas, substrate removal, and oil spills, and constant traffic to the summit with the concomitant human dispersal of trash and debris; more than two thirds of the wekiu's potential range is unprotected from astronomical development. In addition, introductions of alien arthropods and parasites may also negatively affect this species. For example, the wekiu bug now competes with at least one introduced species of Linyphiidae (small sheetweb) spiders which have become established on the summit.

The summit area where wekiu bug habitat occurs lies within a State conservation district and any construction in the area requires a permit from the State Department of Land and Natural Resources (DLNR). Prior to development of the Mauna Kea Science Reserve, a development plan for the summit area was written that addressed the sensitivity of the wekiu bug and its habitat. Despite the fact that important wekiu bug habitat was identified as sensitive in the 1983 plan and was to be avoided in the development of the facilities, a lack of communication and insufficient monitoring of construction activities at the summit during construction of the Subaru telescope facility resulted in the loss of most wekiu bug habitat in Puu Hau Oki. Currently, the Institute for Astronomy is developing a new Mauna Kea Science Reserve master plan and is funding a series of surveys to determine how the impact of future development might impact the flora and fauna (particularly the wekiu bug) of the summit area. Under the current management plan, the number of telescopes is limited to 13. However, old facilities could be torn down and replaced with submillimeter arrays which can have up to 20 times the surface impact of construction of a standard telescope and still count as one telescope. Furthermore, development of interferometers on Mauna Kea may continue under the current management plan since they do not count as "telescopes." Interferometers are specialized antennae for observing astronomical occurrences, and the resulting structure impacts at least as much surface area as a large telescope. Based on imminent threats of a high magnitude, we assigned this species a listing priority number of 2.

Whulge checkerspot butterfly (*Euphydryas editha taylori*)—The following summary is based on information contained in our files and the petition received on December 24, 2002. Whulge checkerspots are small,

colorfully checkered butterflies that, historically, were known from more than 70 locations: 23 in British Columbia, 34 in Washington, and 13 in Oregon. In Fall 2002, only five populations were known; four are located in the south Puget Sound region and one is in the Willamette Valley. Surveys in 2001 and 2002 of the three known British Columbia sites failed to locate any Whulge checkerspots. Whulge checkerspots are threatened by changes in the vegetation structure and composition of native grassland-dominated plant communities. Native grassland communities have been lost to conversion for agriculture and development for residential and commercial purposes. Threats to grassland vegetation also threaten habitat for the Whulge checkerspot. Habitat has been degraded and encroached on by nonnative woody shrubs, including Scot's broom (*Cytisus scoparius*) and several species identified by Washington State as noxious weeds, such as leafy spurge (*Euphorbia esula*) and knapweed (*Centaureum*). As grasslands have been converted, the availability of host plants for feeding and nectaring by larvae and adults has declined. The application of *Bacillus thuringiensis* var *kurstaki* (Btk) for control of the Asian gypsy moth (*Lymantria dispar*) likely contributed to the extirpation of three historic locales for this subspecies in Pierce County. Spraying of Btk is known to have adverse affects to nontarget lepidopteran species (butterflies and moths). The Whulge checkerspot was designated a candidate species by Washington State in 1991. However, candidate status within Washington State has no protective measures associated with it. No protection or restrictions on direct take is provided to these butterflies on any lands administered by any city, county, State or Federal agencies. Because of the extremely small size of remaining populations and the reduction in distribution of the species from its former range, there is the potential for one episode of any of several potential threats to occur at any time (e.g., a single period of severe weather at a critical life stage of the Whulge checkerspot) that could eliminate the entire subspecies. Therefore, due to imminent threats of a high magnitude, we assigned this subspecies a listing priority number of 3.

Dakota skipper (*Hesperia dacotae*)—The following summary is based on information contained in our files, including information from the petition received on May 12, 2003. The Dakota

skipper is a small-to mid-sized butterfly that inhabits high-quality tallgrass and mixed grass prairie in Minnesota, North Dakota, South Dakota, and the provinces of Manitoba and Saskatchewan in Canada. The species appears to have been extirpated from Iowa and Illinois, as well as many sites within States with extant locations. The species is threatened by the large-scale conversion of native prairie to agricultural purposes, as well as fire management, grazing, plant invasion, and fragmentation of habitat leading to local extirpations. Although the species is listed as threatened by the State of Minnesota, this designation lacks the habitat protections needed for long-term conservation. The species is listed as endangered by the province of Manitoba. However, the protections in Manitoba are not sufficient to remove the threats to the species. Due to efforts that have been made to preserve habitat through conservation easements at some of the known locations, the threats to the species are low to moderate and nonimminent. Therefore, we assigned a listing priority number of 11 to the species.

Mardon skipper (*Polites mardon*)—The following summary is based on information contained in our files and the petition received on December 24, 2002. The Mardon skipper (*Polites mardon*) is a small, nonmigratory butterfly species and is currently known from four widely separated locations: the southern Puget Trough region, the southern Washington Cascades, the Siskiyou Mountains in southern Oregon, and coastal northern California. In Washington, the historic range and abundance of Mardon skippers is not known, and there are no known estimates of abundance prior to 1980, but Mardon skippers are apparently extirpated from five historic sites (four in the Puget Prairie and one in the South Cascades). Oregon populations occupy small (less than 0.25–4 ha (0.5–10 ac)) high-elevation (1,372–1,555 m (4,500–5,100 ft)) grassy meadows within mixed conifer forests. The California population is located on a serpentine bald dominated by *Festuca* spp. Mardon skippers were present at the California site in 1997, but there were no surveys in 1998. In good years, dozens of individuals are found in the 0.4 to 0.8 ha (1 to 2 ac) core area and along a ridge for 3–5 km (2–3 mi). Because the Mardon skipper is nonmigratory, and thus relatively sedentary, maintaining occupied habitat quality is essential. Threats to the Mardon skipper include any factor that degrades its obligate grassland habitats, including

development, overgrazing, herbicides, the encroachment of invasive nonnative and native vegetation, and succession from grassland to forest. Prairies, which once covered hundreds of thousands of acres of the southern Puget Sound region prior to settlement, have been lost to development, fire suppression, and invasion by native and nonnative plant species. Today, less than 3 percent of the original prairie landscape remains, and much of this has competing human uses. Additionally, insect collecting is a potential threat since rare butterflies, such as the Mardon skipper, are desirable to collectors, and most skipper populations are small and easily accessible. Because of the small size of all populations and their disjunct distribution, loss of any population could lead to extirpation of the species at any of these locations. Based on nonimminent threats of a high magnitude, we assigned this species a listing priority number of 5.

Flowering Plants

Christ's paintbrush (*Castilleja christi*)—The following summary is based on information contained in our files and the petition received on January 2, 2001. Christ's paintbrush is endemic to subalpine meadow and sagebrush habitats in the upper elevations of the Albion Mountains, Cassia County, Idaho. The single population of this species, which covers only 81 ha (200 ac), is restricted to the summit of Mount Harrison. The population appears to be stable, although the species is threatened by a variety of activities, including unauthorized ORV use that results in erosion of the plant's habitat and mortality of individual plants. Livestock grazing can adversely affect Christ's paintbrush by allowing trampling and consuming of plants, which results in reduced reproductive success. In addition, road maintenance activities and trampling by hikers potentially affect this species. Most threats involve seasonal impacts from off-road travel and occasional livestock trespass. The Forest Service is proposing to construct additional fencing that, when completed, would eliminate the threat of seasonal livestock trespass impacts for most of the Mt. Harrison summit area. The Forest Service is also adding more rock barriers along the unpaved road through Christ's paintbrush habitat to further discourage off-road vehicle use. Because the nonimminent threats are of a low to moderate magnitude, we assigned this species a listing priority number of 11.

San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)—See above in "Summary of Listing Priority Changes in Candidates." The above summary is based on information contained in our files and the petition received on December 14, 1999.

Graham beardtongue (*Penstemon grahamii*)—See above in "Summary of Listing Priority Changes in Candidates." The above summary is based on information contained in our files and the petition received on October 8, 2002.

White River beardtongue (*Penstemon scariosus albifluvis*)—The following summary is based on information contained in our files and the petition received on October 27, 1983. The White River beardtongue is restricted to calcareous soils derived from oil shale barrens of the Green River Formation in the Uinta Basin of northeastern Utah and adjacent Colorado. There are three known populations. Most of the occupied habitat of the White River beardtongue is within developed and expanding oil and gas fields. The location of the species' habitat exposes it to destruction from ORV use, and road, pipeline, and well-site construction in connection with oil and gas development. With such a small population and limited occupied habitat, any destruction, modification, or curtailment of the habitat could have a highly negative impact on the species. Additionally, the species is heavily grazed by wildlife and livestock and is vulnerable to livestock trampling. Based on current information, we are retaining the listing priority number of 6.

Lemmon fleabane (*Erigeron lemmonii*)—The following summary is based on information contained in our files and the petition received in July 1975. The species is now known only from one site on the Fort Huachuca Military Reservation of southeastern Arizona. Approximately 70 individuals are at this site. The single largest threat to the species is from catastrophic wildfire in the canyon where the plant occurs. An intense wildfire in the narrow canyon would almost certainly desiccate plants on the cliff face, possibly directly killing individuals or stressing plants thereby leading to lower reproductive output. Ft. Huachuca is willing to develop a conservation agreement for this species. Measures have been taken to reduce the threat of wildfire and also the threats from recreational rappelling, which is not allowed on the cliff faces occupied by the plant. Therefore, due to the nonimminent threats of high magnitude, we assigned this species a listing priority number of 5.

Guadalupe fescue (*Festuca ligulata*)—The following summary is based on information contained in our files and the petition received in July 1975. The only known U. S. population (which has fluctuated from 51 to several hundred individuals), is in Big Bend National Park (BBNP). Historically, this fescue was reported in the Guadalupe Mountains as well. There are also two historical records and two known extant populations in Coahuila, Mexico. In both Mexico and the U.S., plants are found scattered in patches in the dense understory of pine-oak-juniper woodlands around 5,000 ft. The status of the two populations in Mexico, which occur on private land, is unknown. There is a 1998 conservation agreement between BBNP and the Service, but this does not remove the need to consider listing. Over a 10-year period, 1993–2002, monitoring data have revealed that numbers have steadily declined at BBNP. In both the U. S. and Mexico, individuals are uncommon. Even though there is only one U. S. population, it does occur on protected National Park land, hence the magnitude has been considered moderate to low. We will be assessing the threat posed by fire, as there is uncertainty whether it is a fire-dependent plant species. Due to the nonimminent threats of moderate magnitude, we assigned this species a listing priority number of 11.

Parish's checkerbloom (*Sidalcea hickmanii* ssp. *parishii*)—The following summary is based on information contained in our files and the petition received in 1975. Parish's checkerbloom is known from three counties in southern California. The only San Bernardino County location is within a 2-hour drive of 14 million people and is popular with recreationalists. No more than a dozen plants have been found at this location in the last decade. Recreational use and development in San Bernardino National Forest and adjacent private inholdings continues in a manner that is likely to preclude the opportunity to preserve existing plants and conduct prescribed burns to promote the persistence of this species. The populations in Santa Barbara and San Luis Obispo Counties are more remote from developed recreational areas. In these locations, opportunities still exist to conduct prescribed burns in a manner that would promote the persistence of this species. Because this portion of the species' range is exposed to less severe threats, we conclude that the magnitude of threat is moderate to low. However, we conclude these pose an imminent threat to this species in the

southernmost portion of its range. Therefore, we assigned this species a listing priority number of 9.

Acuna cactus (Echinomastus erectocentrus var. acunensis)—The following summary is based on information contained in our files and the petition received on October 30, 2002. This cactus is known only from six sites on well-drained gravel ridges and knolls on granite soils in Sonoran Desert scrub association at 1300–2000 feet elevation. Habitat destruction has been and will continue to be a threat to this cactus. New roads and other illegal activities have not yet directly affected the populations at Organ Pipe Cactus National Monument (OPCNM), but areas very close to known populations have been altered. Populations that exist in the Florence area have not been monitored, but the area is experiencing urban growth and populations may be in danger of habitat loss. Urban development, in the Ajo, Arizona, area as well as in Sonoyta, Mexico, will continue to be a significant threat to this species. Populations of the Acuna cactus on OPCNM have shown a 50 percent mortality rate in recent years. The reason(s) for the mortality are not known, but continuing drought conditions are thought to play a role. Arizona Plant Law and the Convention on International Trade in Endangered Species of Wild Fauna and Flora protect this cactus. However, illegal collection is a primary threat to this cactus variety, as has been documented on OPCNM. Due to the nonimminent threats of high magnitude, we assigned this species a listing priority number of 6.

Orcutt's hazardia (Hazardia orcuttii)—See above in "Summary of New Candidates." The above summary is based on information contained in our files and the petition received on March 8, 2001.

Tahoe yellow cress (Rorippa subumbellata)—The following summary is based on information contained in our files and the petition received on December 27, 2000. Tahoe yellow cress is a small perennial herb known only from the shores of Lake Tahoe in California and Nevada. Based on presence/absence information, it has been determined that the Tahoe yellow cress has been extirpated from 10 of 52 historical locations. Data collected over the last 24 years suggest a relationship between lake level and site occupancy by Tahoe yellow cress. The data generally indicate that species occurrence fluctuates yearly as a function of both lake level and the amount of exposed habitat. Records kept since 1900 indicate preponderance of years with high lake levels that would

isolate and reduce Tahoe yellow cress occurrences at higher beach elevations. From the standpoint of the species, less favorable peak years have occurred almost twice as often as more favorable low-level years. In addition, there has been widespread and intensive use of the shore zone since European settlement. Today, use of the shoreline is from heavy recreational use, boating, construction of piers and boat launches, and dam operations that change the lake elevation. In 1993, a low-water year when lake elevation averaged 1,897 m (6,223 ft), plants numbering in the thousands were documented at 35 general locations, the largest number of occurrences ever documented in one year, until 2002. Subsequent years saw higher lake levels and the number of occupied sites declined, apparently due in part to habitat inundation. Factors other than inundation played a part in the decline, because populations were also absent from some higher elevation sites that were not inundated.

Most of the remaining sites are intensively used for commercial and public purposes and are subject to various activities such as erosion control, marina developments, pier construction, and recreation. Both the U.S. Forest Service and California Department of Parks and Recreation have management programs for Tahoe yellow cress that include monitoring, fenced enclosures, and transplanting efforts when funds and staff are available. Public agencies (including the Service), private landowners, and environmental groups collaborated to develop a conservation strategy coupled with a Memorandum of Understanding/Conservation Agreement. The completed conservation strategy contains goals and objectives for the strategy, a research and monitoring agenda, and will serve as the foundation for an adaptive management program. Efforts to minimize or eliminate impacts to this species and its habitat are ongoing; however, at this time, there is no evidence to suggest that the threats to the species have been adequately addressed. Despite the relatively high number of populations observed during the 2001 and 2002 surveys, the increasing and intense recreational use and further development of the shore zone at Lake Tahoe are current, high-magnitude threats; therefore, the Service is maintaining the current LPN of 2 for the Tahoe yellow cress.

Siskiyou mariposa lily (Calochortus persistens)—The following summary is based on information contained in our files and the petition received on September 10, 2001. Siskiyou mariposa lily is a narrow endemic that is

restricted to two disjunct ridge tops in the Klamath-Siskiyou Range on the California-Oregon border. In California, this species is currently found at nine separate sites on approximately 10 hectares (ha) (24.7 acres (ac)) of Klamath National Forest and privately owned lands that stretch for 6 kilometers (km) (3.7 miles (mi)) along the Gunsight-Humbog Ridge. In 2002, four Siskiyou mariposa lily plants at the Oregon site were located. These are the first plants reported from that area since the population was discovered in 1998. Major threats include fire suppression resulting in shading; competition by native and non-native species; increased fuel loading; fragmentation by roads, fire breaks, tree plantations, and radio-tower facilities; maintenance and construction around radio towers and telephone relay stations located on Gunsight Peak and Mahogany Point; and soil disturbance and exotic weed and grass species introduction as a result of heavy recreational use. Dyer's woad (*Isatis tinctoria*), a plant thought to prevent Siskiyou mariposa lily seedling establishment, is now found throughout the California population, affecting 90 percent of the known lily habitat. Forest Service staff and the Klamath-Siskiyou Wildlands Center cite competition with dyer's woad as a significant and chronic threat to the survival of Siskiyou mariposa lily.

Unpublished data show that there has been no successful reproduction of Siskiyou mariposa lily in the last 5 years. The combination of restricted range, apparent loss of one of two disjunct populations, poor competitive ability, short seed dispersal distance, slow growth rates, extremely low or absent seed production, and competition from exotic plants threaten the continued existence of this species. Due to imminent threats of a high magnitude, we assigned a listing priority number of 2 to this species.

Ferns and Allies

Slender moonwort (Botrychium lineare)—The following summary is based on information contained in our files and the petition received on July 28, 1999. See also the 12-month petition finding published on June 6, 2002 (67 FR 39035). The slender moonwort is currently known from a total of 12 widely disjunct populations in six states: three in Colorado (El Paso and Lake Counties), one in Idaho (Custer County), two in Oregon (Wallowa County), three in Montana (Glacier County), two in Nevada (Clark County) and one in Washington (Ferry County). Historic populations, previously known from Idaho (Boundary County),

Montana (Lake County), California (Fresno County), Colorado (Boulder County), and Canada (Quebec and New Brunswick), have not been seen for several years and may be extirpated. The total number of individuals observed at the 12 extant population sites varies, with observations ranging from 2 to 162 individuals. Identifiable threats to various populations of this species include road maintenance, herbicide application, recreation, timber harvest, trampling, and development. The slender moonwort may also be affected by grazing from livestock or wildlife, but specific effects of grazing on the species are unknown. However, if grazing by livestock or wildlife species occurs prior to the maturation and release of spores, the capacity for sexual reproduction of affected plants may be compromised.

The slender moonwort is considered a sensitive species in Regions 2, 5, and 6 of the U. S. Forest Service, which include extant and historical slender moonwort sites found in Colorado, Oregon, Washington, and California. Regional sensitive species lists fall under Forest Service regulations that address protection of sensitive species. Forest Service Regions 1 and 4, which include extant and historical sites found in Montana and Idaho, do not have slender moonwort on their regional sensitive species lists and it is, therefore, not given any special consideration. Although the slender moonwort is considered to be rare and imperiled by the State Natural Heritage Programs in Colorado, Montana, Oregon, and Washington, the State Natural Heritage Program rankings are not legal designations and do not confer State regulatory protection to this species. Because we concluded that the overall magnitude of threats to the slender moonwort throughout its range is moderate and the overall immediacy of these threats is non-imminent, we assigned this species a listing priority number of 11.

Petitions To Reclassify Species Already Listed

We have also previously made "warranted but precluded" findings on five petitions that sought to reclassify threatened species to endangered status. Because these species are already listed, they are not technically candidates for listing and are not included in Table 1. However, this notice and associated assessment forms also constitutes the resubmitted petition findings for these species. We find that reclassification to endangered status for the species listed below is currently warranted but precluded by work identified above (see

"Petition for a Candidate Species" above). In addition, these species are currently listed as threatened under the Act and therefore receive protection under the Act. The Service promulgated regulations extending take prohibitions for endangered species under section 9 to threatened species (50 CFR 17.31). Prohibited actions under section 9 include, but are not limited to, take (*i.e.*, harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such activity). Other protections include those under section 7 of the Act whereby Federal agencies must insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered or threatened species.

(1) North Cascades ecosystem DPS of the grizzly bear (*Ursus arctos horribilis*) (Region 6) (see 63 FR 30453, June 4, 1998, and the candidate form (see ADDRESSES) for a discussion on why reclassification is warranted);

(2) Cabinet-Yaak DPS of the grizzly bear (Region 6) (see 64 FR 26725, May 17, 1999, and the candidate form (see ADDRESSES) for a discussion on why reclassification is warranted);

(3) Selkirk grizzly DPS of the grizzly bear (Region 6) (see 64 FR 26725, May 17, 1999, and the candidate form (see ADDRESSES) for a discussion on why reclassification is warranted);

(4) Spikedace (*Meda fulgida*) (Region 2) (see 59 FR 35303, July 11, 1994, and the candidate form (see ADDRESSES) for a discussion on why reclassification is warranted); and

(5) Loach minnow (*Tiaroga cobitis*) (Region 2) (see 59 FR 35303, July 11, 1994, and the candidate form (see ADDRESSES) for a discussion on why reclassification is warranted).

Current Notice of Review

We gather data on plants and animals native to the United States that appear to merit consideration for addition to the Lists of Endangered and Threatened Wildlife and Plants. This notice identifies those species that we currently regard as candidates for addition to the Lists. These species include species and subspecies of fish, wildlife, or plants and distinct population segments (DPSs) of vertebrate animals. In issuing this compilation, we rely on information from status surveys conducted for candidate assessment and on information from State Natural Heritage Programs, other State and Federal agencies, knowledgeable scientists, public and private natural resource interests, and comments received in response to previous notices of review.

Tables 1 and 2 are arranged list animals alphabetically by common names under the major group headings, then plants alphabetically by names of genera, species, and relevant subspecies and varieties. Animals are grouped by class or order. Plants are subdivided into two groups: flowering plants and ferns and their allies. Useful synonyms and subgeneric scientific names appear in parentheses with the synonyms preceded by an "equals" sign. Several species that have not yet been formally described in the scientific literature are included; such species are identified by a generic or specific name (in italics) followed by "sp." or "ssp." We incorporate standardized common names in these notices as they become available. We sorted plants by scientific name due to the inconsistencies in common names, the inclusion of vernacular and composite subspecific names, and the fact that many plants still lack a standardized common name.

Table 1 lists all species that we regard as candidates for listing and all species proposed for listing under the Act. We emphasize that we are not proposing these candidate species for listing by this notice, but we anticipate developing and publishing proposed listing rules for these species in the future. We encourage State agencies, other Federal agencies, and other parties to give consideration to these species in environmental planning.

Species in Table 1 of this notice are assigned to several status categories, noted in the "category" column at the left side of the table. We explain the codes for the Table 1 category status column of species below:

PE—Species proposed for listing as endangered. Proposed species are those species for which we have published a proposed rule to list as endangered or threatened in the **Federal Register**, exclusive of species for which we have withdrawn or finalized the proposed rule.

PT—Species proposed for listing as threatened.

PSAT—Species proposed for listing as threatened due to similarity of appearance.

C—Candidates: Species for which we have on file sufficient information on biological vulnerability and threats to support proposals to list them as endangered or threatened. Issuance of proposed rules for these species is precluded at present by other higher-priority listing actions. This category includes species for which we made a 12-month "warranted-but-precluded" finding on a petition to list. We made new findings on all petitions for which we previously made "warranted-but-

precluded" findings. We identify the species for which we made a continued "warranted-but-precluded" finding on a resubmitted petition by the code "C*" in the category column (see "Findings on Resubmitted Petitions" section for additional information). We identify the species for which we are not making a "warranted-but-precluded" finding on a resubmitted petition by the code "C+" in the category column. We have not updated our finding with regard to these species since we have received important new information that we are currently analyzing.

The column labeled "Priority" indicates the listing priority number (LPN) for each candidate species. We use LPNs to determine the most appropriate use of our available resources, with the lowest numbers having the highest priority. We assign LPNs based on the immediacy and magnitude of threats as well as on taxonomic status. We published a complete description of our listing priority system in the **Federal Register** (48 FR 43098, September 21, 1983).

The third column, "Lead Region," identifies the Regional Office to which you should direct comments or questions (see addresses at the end of the **SUPPLEMENTARY INFORMATION** section). We provided the comments received in response to the 2002 CNOR to the Region having lead responsibility for each candidate species mentioned in the comment. We will likewise consider all information provided in response to this CNOR in deciding whether to propose species for listing and when to undertake necessary listing actions (including whether emergency listing pursuant to section 4(b)(7) of the Act is appropriate). Comments received will become part of the administrative record for the species, which is maintained at the appropriate Regional Office.

Following the scientific name (fourth column) and the family designation (fifth column) is the common name (sixth column). The seventh column provides the known historical range for the species or vertebrate population (for vertebrate populations, this is the historical range for the entire species or subspecies and not just the historical range for the distinct population segment), indicated by postal code abbreviations for States and U.S. territories. Many species no longer occur in all of the areas listed.

Species in Table 2 of this notice are species we included either as proposed species or as candidates in the 2002 CNOR. Since the 2002 CNOR, we added 14 of these species to the Lists of Endangered and Threatened Wildlife and Plants, we removed the 1 species

from candidate status, and we withdrew 4 proposed rules to list for the reasons as indicated by the codes. The first column indicates the present status of the species, using the following codes (not all of these codes may have been used in this CNOR):

E—Species we listed as endangered.

T—Species we listed as threatened.

Rc—Species we removed from the candidate list because currently available information does not support a proposed listing.

Rp—Species we removed from the candidate list because we have withdrawn the proposed listing.

The second column indicates why we no longer regard the species as a candidate or proposed species using the following codes (not all of these codes may have been used in this CNOR):

A—Species that are more abundant or widespread than previously believed and species that are not subject to the degree of threats sufficient to warrant continuing candidate status, or issuing a proposed or final listing. The reduction in threats could be due, in part or entirely, to actions taken under a conservation agreement.

F—Species whose range no longer includes a U.S. territory.

I—Species for which we have insufficient information on biological vulnerability and threats to support issuance of a proposed rule to list.

L—Species we added to the Lists of Endangered and Threatened Wildlife and Plants.

M—Species we mistakenly included as candidates or proposed species in the last notice of review.

N—Species that are not listable entities based on the Act's definition of "species" and current taxonomic understanding.

X—Species we believe to be extinct.

The columns describing lead region, scientific name, family, common name, and historical range include information as previously described for Table 1.

Request for Information

We request you submit any further information on the species named in this notice as soon as possible or whenever it becomes available. We are particularly interested in any information:

(1) Indicating that we should add a species to the list of candidate species;

(2) Indicating that we should remove a species from candidate status;

(3) Recommending areas that we should designate as critical habitat for a species, or indicating that designation of critical habitat would not be prudent for a species;

(4) Documenting threats to any of the included species;

(5) Describing the immediacy or magnitude of threats facing candidate species;

(6) Pointing out taxonomic or nomenclature changes for any of the species;

(7) Suggesting appropriate common names;

(8) Noting any mistakes, such as errors in the indicated historical ranges.

Submit your comments regarding a particular species to the Regional Director of the Region identified as having the lead responsibility for that species. The regional addresses follow:

Region 1. California, Hawaii, Idaho, Nevada, Oregon, Washington, American Samoa, Guam, and Commonwealth of the Northern Mariana Islands. Regional Director (TE), U.S. Fish and Wildlife Service, Eastside Federal Complex, 911 N.E. 11th Avenue, Portland, Oregon 97232-4181 (503/231-6158).

Region 2. Arizona, New Mexico, Oklahoma, and Texas. Regional Director (TE), U.S. Fish and Wildlife Service, 500 Gold Avenue SW., Room 4012, Albuquerque, New Mexico 87102 (505/248-6920).

Region 3. Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. Regional Director (TE), U.S. Fish and Wildlife Service, Bishop Henry Whipple Federal Building, One Federal Drive, Fort Snelling, Minnesota 55111-4056 (612/13-5334).

Region 4. Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Puerto Rico, and the U.S. Virgin Islands. Regional Director (TE), U.S. Fish and Wildlife Service, 1875 Century Boulevard, Suite 200, Atlanta, Georgia 30345 (404/679-4156).

Region 5. Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia. Regional Director (TE), U.S. Fish and Wildlife Service, 300 Westgate Center Drive, Hadley, Massachusetts 01035-9589 (413/253-615).

Region 6. Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. Regional Director (TE), U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225-0486 (303/236-7400).

Region 7. Alaska. Regional Director (TE), U.S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, Alaska 99503-6199 (907/786-3505).

Our practice is to make comments, including names and home addresses of respondents, available for public inspection. Individual respondents may

request that we withhold their home address from the public record, which we will honor to the extent allowable by law. In some circumstances, we can also withhold from the public record a respondent's identity, as allowable by law. If you wish for us to withhold your name and/or address, you must state this request prominently at the

beginning of your comments. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

Authority

This document is published under the authority of the Endangered Species Act (16 U.S.C. 1531 *et seq.*).

Dated: April 19, 2004.

Steve Williams,

Director, Fish and Wildlife Service.

TABLE 1.—CANDIDATE NOTICE OF REVIEW
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|----------|----------|-------------|--|----------------------|---|---|
| Category | Priority | | | | | |
| MAMMALS | | | | | | |
| PT | 3 | R1 | <i>Pteropus mariannus mariannus</i> . | Pteropodidae | Bat, Mariana fruit (=Mariana flying fox) (Aguijan, etc.). | Western Pacific Ocean, U.S.A. (GU, MP). |
| C | 3 | R1 | <i>Emballonura semicaudata rotensis</i> . | Emballonuridae | Bat, sheath-tailed | U.S.A. (MP, GU). |
| C | 3 | R1 | <i>Emballonura semicaudata semicaudata</i> . | Emballonuridae | Bat, sheath-tailed (American Samoa DPS). | U.S.A. (AS). |
| C* | 6 | R1 | <i>Martes pennanti</i> | Mustelidae | Fisher, (west coast DPS). | U.S.A. (CA, OR, WA). |
| PT | 3 | R7 | <i>Enhydra lutris kenyonii</i> | Mustelidae | Otter, Northern Sea (southwest Alaska DPS). | U.S.A. (AK). |
| C | 6 | R1 | <i>Thomomys mazama</i> | Geomyidae | Pocket gopher, Mazama. | U.S.A. (WA). |
| C+ | 11 | R6 | <i>Cynomys ludovicianus</i> | Sciuridae | Prairie dog, black-tailed | U.S.A. (AZ, CO, KS, MT, NE, NM, ND, OK, SD, TX, WY), Canada, Mexico. |
| C | 6 | R1 | <i>Spermophilus tereticaudus chlorus</i> . | Sciuridae | Squirrel, Coachella Valley round-tailed ground. | U.S.A. (CA). |
| C* | 6 | R1 | <i>Spermophilus brunneus endemicus</i> . | Sciuridae | Squirrel, Southern Idaho ground. | U.S.A. (ID). |
| C* | 2 | R1 | <i>Spermophilus washingtoni</i> . | Sciuridae | Squirrel, Washington ground. | U.S.A. (WA, OR). |
| BIRDS | | | | | | |
| C | 6 | R1 | <i>Porzana tabuensis</i> | Rallidae | Crake, spotless (American Samoa pop.). | U.S.A. (AS), Fiji, Marquesas, Polynesia, Philippines, Australia, Society Islands, Tonga, Western Samoa. |
| C | 5 | R1 | <i>Oreomystis bairdi</i> | Fringillidae | Creeper, Kauai | U.S.A. (HI). |
| C* | 6 | R1 | <i>Coccyzus americanus</i> .. | Cuculidae | Cuckoo, yellow-billed (Western U.S. DPS). | U.S.A. (AZ, CA, CO, ID, MT, NM, NV, OR, TX, UT, WA, WY), Canada, Mexico, Central and South America. |
| C | 6 | R1 | <i>Gallicolumba stairi</i> | Columbidae | Dove, friendly ground (American Samoa DPS). | U.S.A. (AS), Fiji, Tonga, Western Samoa. |
| C | 6 | R1 | <i>Ptilinopus perousii perousii</i> . | Columbidae | Dove, many-colored fruit. | U.S.A. (AS). |
| C* | 2 | R6 | <i>Centrocercus minimus</i> | Phasianidae | Grouse, Gunnison sage | U.S.A (AZ, CO, KS, OK, NM, UT). |
| C* | 6 | R1 | <i>Centrocercus urophasianus</i> . | Phasianidae | Grouse, greater sage (Columbia basin DPS). | U.S.A. (OR, WA), Canada (BC). |
| C | 6 | R1 | <i>Eremophila alpestris strigata</i> . | Alaudidae | Horned lark, streaked .. | U.S.A. (OR, WA), Canada (BC). |
| C* | 5 | R7 | <i>Brachyramphus brevirostris</i> . | Alcidae | Murrelet, Kittlitz's | U.S.A. (AK), Russia. |
| C* | 5 | R1 | <i>Synthliboramphus hypoleucus</i> . | Alcidae | Murrelet, Xantus's | U.S.A. (CA), Mexico. |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|------------|----------|-------------|---|------------------|--|--|
| Category | Priority | | | | | |
| C* | 8 | R2 | <i>Tympanuchus pallidicinctus</i> . | Phasianidae | Prairie-chicken, lesser | U.S.A. (CO, KA, NM, OK, TX). |
| C* | 3 | R1 | <i>Oceanodroma castro</i> ... | Hydrobatidae | Storm-petrel, band-rumped (Hawaii DPS). | U.S.A. (HI). |
| C | 5 | R4 | <i>Dendroica angelae</i> | Emberizidae | Warbler, elfin woods | U.S.A. (PR). |
| PE | 6 | R1 | <i>Zosterops rotensis</i> | Zosteropidae | White-eye, Rota bridled | U.S.A. (MP). |
| REPTILES | | | | | | |
| C* | 2 | R2 | <i>Sceloporus arenicolus</i> | Iguanidae | Lizard, sand dune | U.S.A. (TX, NM). |
| C | 9 | R3 | <i>Sistrurus catenatus catenatus</i> . | Viperidae | Massasauga (=rattlesnake), eastern. | U.S.A. (IA, IL, IN, MI, MO, MN, NY, OH, PA, WI), Canada. |
| C | 6 | R4 | <i>Pituophis melanoleucus lodingi</i> . | Colubridae | Snake, black pine | U.S.A. (AL, LA, MS). |
| C* | 5 | R4 | <i>Pituophis ruthveni</i> | Colubridae | Snake, Louisiana pine | U.S.A. (LA, TX). |
| C* | 5 | R2 | <i>Graptemys caglei</i> | Emydidae | Turtle, Cagle's map | U.S.A. (TX). |
| C | 3 | R2 | <i>Kinosternon sonoriense longifemorale</i> . | Kinosternidae | Turtle, Sonoyta mud | U.S.A. (AZ), Mexico. |
| AMPHIBIANS | | | | | | |
| C* | 3 | R1 | <i>Rana luteiventris</i> | Ranidae | Frog, Columbia spotted (Great Basin DPS). | U.S.A. (ID, NV, OR). |
| C* | 3 | R1 | <i>Rana muscosa</i> | Ranidae | Frog, mountain yellow-legged (Sierra Nevada DPS). | U.S.A. (CA, NV). |
| C* | 2 | R1 | <i>Rana pretiosa</i> | Ranidae | Frog, Oregon spotted (Entire). | U.S.A. (CA, OR, WA), Canada (BC). |
| C* | 5 | R1 | <i>Rana onca</i> | Ranidae | Frog, relict leopard | U.S.A. (AZ, NV, UT). |
| C | 6 | R4 | <i>Cryptobranchus alleganiensis bishopi</i> . | Cryptobranchidae | Hellbender, Ozark | U.S.A. (AR, MO). |
| C | 2 | R2 | <i>Eurycea waterlooensis</i> | Plethodontidae | Salamander, Austin blind. | U.S.A. (TX). |
| PT | 3 | R1 | <i>Ambystoma californiense</i> . | Ambystomatidae | Salamander, California tiger (Entire). | U.S.A. (CA). |
| C | 2 | R2 | <i>Eurycea naufragia</i> | Plethodontidae | Salamander, Georgetown. | U.S.A. (TX). |
| C | 2 | R2 | <i>Eurycea chisholmensis</i> | Plethodontidae | Salamander, Salado (Entire). | U.S.A. (TX). |
| C* | 3 | R6 | <i>Bufo boreas boreas</i> | Bufonidae | Toad, boreal (Southern Rocky Mountains DPS). | U.S.A. (CO, NM, WY). |
| C* | 11 | R1 | <i>Bufo canorus</i> | Bufonidae | Toad, Yosemite | U.S.A. (CA). |
| C | 5 | R4 | <i>Necturus alabamensis</i> | Proteidae | Waterdog, black warrior (Sipsey Fork). | U.S.A. (AL). |
| FISHES | | | | | | |
| PE | 3 | R1 | <i>Gila bicolor vaccaceps</i> | Cyprinidae | Chub, Cowhead Lake tui. | U.S.A. (CA). |
| PE | 2 | R2 | <i>Gila intermedia</i> | Cyprinidae | Chub, Gila | U.S.A. (AZ, NM), Mexico. |
| C | 11 | R6 | <i>Etheostoma cragini</i> | Percidae | Darter, Arkansas | U.S.A. (AR, CO, KS, MO, OK). |
| C | 6 | R4 | <i>Etheostoma nigrum susanae</i> . | Percidae | Darter, Cumberland johnny. | U.S.A. (KY, TN). |
| C | 5 | R4 | <i>Percina aurora</i> | Percidae | Darter, Pearl | U.S.A. (LA, MS). |
| C | 5 | R4 | <i>Etheostoma phytophilum</i> . | Percidae | Darter, rush | U.S.A. (AL). |
| C | 2 | R4 | <i>Etheostoma moorei</i> | Percidae | Darter, yellowcheek | U.S.A. (AR). |
| C* | 3 | R6 | <i>Thymallus arcticus</i> | Salmonidae | Grayling, Fluvial arctic (upper Missouri River DPS). | U.S.A. (MT, WY). |
| C | 2 | R4 | <i>Noturus sp.</i> | Ictaluridae | Madtom, chunky (Entire). | U.S.A. (TN). |
| C | 2 | R3 | <i>Cottus sp.</i> | Cottidae | Sculpin, grotto | U.S.A. (MO). |
| C | 5 | R2 | <i>Notropis oxyrhynchus</i> .. | Cyprinidae | Shiner, sharpnose | U.S.A. (TX). |
| C | 5 | R2 | <i>Notropis buccula</i> | Cyprinidae | Shiner, smalleye | U.S.A. (TX). |
| C | 3 | R2 | <i>Catostomus discobolus yarrowi</i> . | Catostomidae | Sucker, Zuni bluehead | U.S.A. (AZ, NM). |
| PSAT | N/A | R1 | <i>Salvelinus malma</i> | Salmonidae | Trout, Dolly Varden | U.S.A. (AK, OR, WA), Canada, East Asia. |
| CLAMS | | | | | | |
| C | 5 | R4 | <i>Villosa choctawensis</i> | Unionidae | Bean, Choctaw | U.S.A. (AL, FL). |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|----------|----------|-------------|--|---------------------------------|----------------------------------|--|
| Category | Priority | | | | | |
| C | 2 | R3 | <i>Villosa fabalis</i> | Unionidae | Bean, rayed | U.S.A. (AL, IL, IN, KY, MI, NY, OH, TN, PA, VA, WV), Canada. |
| C | 5 | R4 | <i>Pleurobema troschelianum</i> . | Unionidae | Clubshell, Alabama | U.S.A. (AL, GA, TN). |
| C | 5 | R4 | <i>Pleurobema chattanoogaense</i> . | Unionidae | Clubshell, painted | U.S.A. (AL, GA, TN). |
| C | 2 | R4 | <i>Fusconaia (=Obovaria) rotulata</i> . | Unionidae | Ebonysnail, round | U.S.A. (AL, FL). |
| C | 2 | R2 | <i>Popenaias popei</i> | Unionidae | Hornshell, Texas | U.S.A. (NM, TX), Mexico. |
| C | 5 | R4 | <i>Ptychobranthus subtentum</i> . | Unionidae | Kidneysnail, fluted | U.S.A. (AL, KY, TN, VA). |
| C | 2 | R4 | <i>Ptychobranthus jonesi</i> | Unionidae | Kidneysnail, southern .. | U.S.A. (AL, FL). |
| C | 5 | R4 | <i>Lampsilis rafinesqueana</i> . | Unionidae | Mucket, Neosho | U.S.A. (AR, KS, MO, OK). |
| C | 2 | R3 | <i>Plethobasus cyphus</i> ... | Unionidae | Mussel, sheepsnail | Entire. |
| C | 2 | R4 | <i>Margaritifera marrianae</i> | Margaritiferidae | Pearlshell, Alabama | U.S.A. (AL). |
| C | 5 | R4 | <i>Lexingtonia dolabelloides</i> . | Unionidae | Pearlmussel, slabside .. | U.S.A. (AL, KY, TN, VA). |
| C | 5 | R4 | <i>Pleurobema strodeanum</i> . | Unionidae | Pigtoe, fuzzy | U.S.A. (AL, FL). |
| C | 5 | R4 | <i>Pleurobema hanleyanum</i> . | Unionidae | Pigtoe, Georgia | U.S.A. (AL, GA, TN) |
| C | 5 | R4 | <i>Fusconaia escambia</i> ... | Unionidae | Pigtoe, narrow | U.S.A. (AL, FL). |
| C | 11 | R4 | <i>Quincuncina burkei</i> | Unionidae | Pigtoe, tapered | U.S.A. (AL, FL). |
| C | 5 | R4 | <i>Lampsilis australis</i> | Unionidae Sandshell, southern. | U.S.A. (AL, FL).. | |
| C | 4 | R3 | <i>Cumberlandia monodonta</i> . | Margaritiferidae | Spectaclecase | U.S.A. (AL, AR, IA, IN, IL, KY, MO, NE, OH, TN, VA, WI). |
| C | 5 | R4 | <i>Elliptio spinosa</i> | Unionidae | Spiny mussel, Altamaha | U.S.A. (GA) |
| SNAILS | | | | | | |
| C | 9 | R6 | <i>Oreohelix peripherica wasatchensis</i> . | Oreohelcidae | Mountainsnail, Ogden Desert. | U.S.A. (UT) |
| C | 2 | R6 | <i>Stagnicola bonnevillensis</i> . | Lymnaeidae | Pondsnail, Bonneville .. | U.S.A. (UT). |
| C | 2 | R1 | <i>Pyrgulopsis notidicola</i> .. | Hydrobiidae | Pyrg, elongate mud meadows. | U.S.A. (NV). |
| C | 5 | R4 | <i>Leptoxis downei</i> | Pleuroceridae | Rocksail, Georgia | U.S.A. (GA, AL). |
| C | 2 | R1 | <i>Ostodes strigatus</i> | Potariidae | Sisi | U.S.A. (AS). |
| C | 2 | R2 | <i>Tryonia adamantina</i> | Hydrobiidae | Snail, Diamond Y Spring. | U.S.A. (TX) |
| C | 2 | R1 | <i>Samoana fragilis</i> | Partulidae | Snail, fragile tree | U.S.A. (GU, MP). |
| C | 2 | R1 | <i>Partula radiolata</i> | Partulidae | Snail, Guam tree | U.S.A. (GU). |
| C | 2 | R1 | <i>Partula gibba</i> | Partulidae | Snail, Humped tree | U.S.A. (GU, MP). |
| PE | 2 | R2 | <i>Tryonia kosteri</i> | Hydrobiidae | Snail, Koster's tryonia .. | U.S.A. (NM). |
| C | 2 | R1 | <i>Partulina semicarinata</i> | Achatinellidae | Snail, Lanai tree | U.S.A. (HI). |
| C | 2 | R1 | <i>Partulina variabilis</i> | Achatinellidae | Snail, Lanai tree | U.S.A. (HI). |
| C | 2 | R1 | <i>Partula langfordi</i> | Partulidae | Snail, Langford's tree ... | U.S.A. (MP). |
| PE | 2 | R2 | <i>Assiminea pecos</i> | Assimineidae | Snail, Pecos assiminea | U.S.A. (NM, TX), Mexico. |
| C | 2 | R2 | <i>Cochliopa texana</i> | Hydrobiidae | Snail, Phantom Lake cave. | U.S.A. (TX). |
| C | 2 | R1 | <i>Eua zebrina</i> | Partulidae Snail, Tutuila tree. | U.S.A. (AS).. | |
| C* | 2 | R2 | <i>Pyrgulopsis chupadera</i> . | Hydrobiidae | Springsnail, Chupadera | U.S.A. (NM). |
| C* | 11 | R2 | <i>Pyrgulopsis gilae</i> | Hydrobiidae | Springsnail, Gila | U.S.A. (NM). |
| C | 2 | R2 | <i>Tryonia circumstriata</i> (=stocktonensis). | Hydrobiidae | Springsnail, Gonzales .. | U.S.A. (TX). |
| C | 5 | R2 | <i>Pyrgulopsis thompsoni</i> | Hydrobiidae | Springsnail, Huachuca | U.S.A. (AZ), Mexico. |
| C* | 11 | R2 | <i>Pyrgulopsis thermalis</i> ... | Hydrobiidae | Springsnail, New Mexico. | U.S.A. (NM). |
| C* | 5 | R2 | <i>Pyrgulopsis morrisoni</i> .. | Hydrobiidae | Springsnail, Page | U.S.A. (AZ). |
| C | 2 | R2 | <i>Tryonia cheatumi</i> | Hydrobiidae | Springsnail (=Tryonia), Phantom. | U.S.A. (TX). |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|----------|----------|-------------|---|----------------------|--|------------------------------|
| Category | Priority | | | | | |
| PE | 2 | R2 | <i>Pyrgulopsis roswellensis</i> . | Hydrobiidae | Springsnail, Roswell | U.S.A. (NM). |
| C | 2 | R2 | <i>Pyrgulopsis trivialis</i> | Hydrobiidae | Springsnail, Three Forks. | U.S.A. (AZ). |
| C | 5 | R1 | <i>Newcombia cumingi</i> | Achatinellidae | Tree snail, Newcomb's | U.S.A. (HI). |
| INSECTS | | | | | | |
| C | 11 | R6 | <i>Zaitzevia thermae</i> | Elmidae | Beetle, Warm Springs Zaitzevian Riffle. | U.S.A. (MT). |
| C* | 2 | R1 | <i>Nysius wekiuicola</i> | Lygaeidae | Bug, Wekiu | U.S.A. (HI). |
| C | 3 | R1 | <i>Hypolimnas octucula mariannensis</i> . | Nymphalidae | Butterfly, Mariana eight-spot. | U.S.A. (GU, MP). |
| C | 2 | R1 | <i>Vagrans egestina</i> | Nymphalidae | Butterfly, Mariana wandering. | U.S.A. (GU, MP). |
| PE | N/A | R2 | <i>Euphydryas anicia cloudcrofti</i> . | Nymphalidae | Butterfly, Sacramento Mountains checkerspot. | U.S.A. (NM). |
| C* | 6 | R1 | <i>Euphydryas editha taylori</i> . | Nymphalidae | Butterfly, whulge checkerspot (=Taylor's). | U.S.A. (OR, WA), Canada (BC) |
| C | 5 | R4 | <i>Glyphopsycha sequatchie</i> . | Limnephilidae | Caddisfly, Sequatchie .. | U.S.A. (TN). |
| C | 5 | R4 | <i>Pseudanophthalmus major</i> . | Carabidae | Cave beetle, beaver | U.S.A. (KY). |
| C | 5 | R4 | <i>Pseudanophthalmus caecus</i> . | Carabidae | Cave beetle, Clifton | U.S.A. (KY). |
| C | 11 | R4 | <i>Pseudanophthalmus colemanensis</i> . | Carabidae | Cave beetle, Coleman | U.S.A. (TN). |
| C | 5 | R4 | <i>Pseudanophthalmus fowlerae</i> . | Carabidae | Cave beetle, Fowler's .. | U.S.A. (TN). |
| C | 5 | R4 | <i>Pseudanophthalmus pholeter</i> . | Carabidae | Cave beetle, greater Adams. | U.S.A. (KY). |
| C | 5 | R5 | <i>Pseudanophthalmus holsingeri</i> . | Carabidae | Cave Beetle, Holsinger's. | U.S.A. (VA). |
| C | 5 | R4 | <i>Pseudanophthalmus frigidus</i> . | Carabidae | Cave beetle, icebox | U.S.A. (KY). |
| C | 5 | R4 | <i>Pseudanophthalmus inquisitor</i> . | Carabidae | Cave beetle, inquirer ... | U.S.A. (TN). |
| C | 5 | R4 | <i>Pseudanophthalmus insularis</i> . | Carabidae | Cave beetle, Insular | U.S.A. (TN). |
| C | 5 | R4 | <i>Pseudanophthalmus cataryctos</i> . | Carabidae | Cave beetle, lesser Adams. | U.S.A. (KY). |
| C | 5 | R4 | <i>Pseudanophthalmus troglodytes</i> . | Carabidae | Cave beetle, Louisville | U.S.A. (KY). |
| C | 5 | R4 | <i>Pseudanophthalmus paulus</i> . | Carabidae | Cave beetle, Noblett's | U.S.A. (TN). |
| C | 11 | R4 | <i>Pseudanophthalmus inexpectatus</i> . | Carabidae | Cave beetle, surprising | U.S.A. (KY). |
| C | 5 | R4 | <i>Pseudanophthalmus tiresias</i> . | Carabidae | Cave beetle, Soothsayer (=Indian Grave Point). | U.S.A. (TN). |
| C | 5 | R4 | <i>Pseudanophthalmus parvus</i> . | Carabidae | Cave beetle, Tatum | U.S.A. (KY). |
| C | 9 | R1 | <i>Megalagrion nigrohamatum nigrolineatum</i> . | Coenagrionidae | Damselfly, blackline Hawaiian. | U.S.A. (HI). |
| C | 2 | R1 | <i>Megalagrion leptodemus</i> . | Coenagrionidae | Damselfly, crimson Hawaiian. | U.S.A. (HI). |
| C | 2 | R1 | <i>Megalagrion nesiotes</i> ... | Coenagrionidae | Damselfly, flying earwig Hawaiian. | U.S.A. (HI). |
| C | 2 | R1 | <i>Megalagrion oceanicum</i> | Coenagrionidae | Damselfly, oceanic Hawaiian. | U.S.A. (HI). |
| C | 8 | R1 | <i>Megalagrion xanthomelas</i> . | Coenagrionidae | Damselfly, orangeblack Hawaiian. | U.S.A. (HI). |
| C | 2 | R1 | <i>Megalagrion pacificum</i> | Coenagrionidae | Damselfly, Pacific Hawaiian. | U.S.A. (HI). |
| C | 5 | R1 | <i>Phaeogramma sp.</i> | Tephritidae | Gall fly, Po'olanui | U.S.A. (HI). |
| C | 5 | R1 | <i>Ambrysus funebris</i> | Naucoridae | Naucorid bug (=Furnace Creek), Nevares Spring. | U.S.A. (CA.). |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|------------------|----------|-------------|---|---------------------|--------------------------------------|---|
| Category | Priority | | | | | |
| PE | 2 | R1 | <i>Drosophila aglaia</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| C | 2 | R1 | <i>Drosophila attigua</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila differens</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| C | 2 | R1 | <i>Drosophila digressa</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila hemipeza</i> ... | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila heteroneura</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila montgomeryi</i> . | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila mulli</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila musaphila</i> .. | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila neoclavisetae</i> . | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila obatai</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila ochrobasis</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila substenoptera</i> . | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| PE | 2 | R1 | <i>Drosophila tarphyrichia</i> | Drosophilidae | Pomace fly, [unnamed] | U.S.A. (HI). |
| C | 5 | R2 | <i>Heterelmis stephani</i> | Elmidae | Riffle beetle, Stephan's | U.S.A. (AZ). |
| C* | 11 | R3 | <i>Hesperia dacotae</i> | Hesperiidae | Skipper, Dakota | U.S.A. (MN, IA, SD, ND, IL), Canada. |
| C* | 5 | R1 | <i>Polites mardon</i> | Hesperiidae | Skipper, Mardon | U.S.A. (CA, OR, WA). |
| C* | 9 | R6 | <i>Cicindela limbata albissima</i> . | Cicindelidae | Tiger beetle, Coral Pink Sand Dunes. | U.S.A. (UT). |
| C | 5 | R4 | <i>Cicindela highlandensis</i> | Cicindelidae | Tiger beetle, highlands | U.S.A. (FL). |
| C | 3 | R6 | <i>Cicindela nevadica lincolni</i> ana. | Cicindelidae | Tiger beetle, Salt Creek | U.S.A. (NE). |
| ARACHNIDS | | | | | | |
| C | 2 | R2 | <i>Cicurina wartoni</i> | Dictynidae | Meshweaver, Warton's cave. | U.S.A. (TX). |
| CRUSTACEANS | | | | | | |
| PE | N/A | R2 | <i>Gammarus desperatus</i> | Gammaridae | Amphipod, Noel's | U.S.A. (NM). |
| C | 11 | R4 | <i>Fallicambarus gordonii</i> | Cambaridae | Crayfish, Camp Shelby burrowing. | U.S.A. (MS). |
| C | 2 | R1 | <i>Metabetaeus lohena</i> | Alpheidae | Shrimp, anchialine pool | U.S.A. (HI). |
| C | 2 | R1 | <i>Antecaridina lauensis</i> ... | Atyidae | Shrimp, anchialine pool | U.S.A. (HI), Mozambique, Saudi Arabia, Japan. |
| C | 2 | R1 | <i>Calliasmata pholidota</i> .. | Alpheidae | Shrimp, anchialine pool | U.S.A. (HI), Funafuti Atoll, Saudi Arabia, Sinai Peninsula, Tuvalu. |
| C | 2 | R1 | <i>Palaemonella burnsi</i> | Palaemonidae | Shrimp, anchialine pool | U.S.A. (HI). |
| C | 2 | R1 | <i>Procaris hawaiana</i> | Procarididae | Shrimp, anchialine pool | U.S.A. (HI). |
| C | 2 | R1 | <i>Vetericaris chaceorum</i> | Procaridae | Shrimp, anchialine pool | U.S.A. (HI). |
| C | 5 | R4 | <i>Typhlatya monae</i> | Atyidae | Shrimp, troglitic groundwater. | U.S.A. (PR), Barbuda, Dominican Republic. |
| FLOWERING PLANTS | | | | | | |
| C | 11 | R1 | <i>Abronia alpina</i> | Nyctaginaceae | Sand-verbena, Ramshaw Meadows. | U.S.A. (CA). |
| C | 11 | R6 | <i>Alicellia caespitosa</i> | Polemoniaceae | Alice-flower, wonderland. | U.S.A. (UT). |
| C | 11 | R4 | <i>Arabis georgiana</i> | Brassicaceae | Rockcress, Georgia | U.S.A. (AL, GA). |
| C | 11 | R4 | <i>Argythamnia blodgettii</i> | Euphorbiaceae | Silverbrush, Blodgett's | U.S.A. (FL). |
| C | 3 | R1 | <i>Artemisia campestris</i> var. <i>wormskiodii</i> . | Asteraceae | Wormwood, northern ... | U.S.A. (OR, WA). |
| C | 2 | R1 | <i>Astelia waialealae</i> | Liliaceae | Pa'iniu | U.S.A. (HI). |
| C | 5 | R4 | <i>Aster georgianus</i> | Asteraceae | Aster, Georgia | U.S.A. (AL, FL, GA, NC, SC). |
| C | 8 | R6 | <i>Astragalus equisolensis</i> | Fabaceae | Milk-vetch, horseshoe .. | U.S.A. (UT). |
| C | 8 | R6 | <i>Astragalus tortipes</i> | Fabaceae | Milk-vetch, Sleeping Ute. | U.S.A. (CO). |
| C | 5 | R1 | <i>Bidens amplexens</i> | Asteraceae | Ko'oko'olau | U.S.A. (HI). |
| C | 6 | R1 | <i>Bidens campylothea pentamera</i> . | Asteraceae | Ko'oko'olau | U.S.A. (HI). |
| C | 3 | R1 | <i>Bidens campylothea waihoiensis</i> . | Asteraceae | Ko'oko'olau | U.S.A. (HI). |
| C | 8 | R1 | <i>Bidens conjuncta</i> | Asteraceae | Ko'oko'olau | U.S.A. (HI). |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|----------|----------|-------------|--|------------------------|--|-----------------------|
| Category | Priority | | | | | |
| C | 6 | R1 | <i>Bidens micrantha</i> <i>ctenophylla</i> . | Asteraceae | Ko'oko'olau | U.S.A. (HI). |
| C | 5 | R4 | <i>Brickellia mosieri</i> | Asteraceae | Brickell-bush, Florida ... | U.S.A. (FL). |
| C | 5 | R1 | <i>Calamagrostis expansa</i> | Poaceae | Reedgrass, [unnamed] | U.S.A. (HI). |
| C | 5 | R1 | <i>Calamagrostis</i> <i>hillebrandii</i> . | Poaceae | Reedgrass, [unnamed] | U.S.A. (HI). |
| C | 5 | R4 | <i>Calliandra locoensis</i> | Mimosaceae | No common name | U.S.A. (PR). |
| C* | 2 | R1 | <i>Calochortus persistens</i> | Liliaceae | Mariposa lily, Siskiyou | U.S.A. (CA, OR). |
| C | 5 | R4 | <i>Calyptranthes</i> <i>estremerae</i> . | Myrtaceae | No common name | U.S.A. (PR). |
| C | 5 | R1 | <i>Canavalia napaliensis</i> .. | Fabaceae | 'Awikiwiki | U.S.A. (HI). |
| C | 2 | R1 | <i>Canavalia pubescens</i> .. | Fabaceae | 'Awikiwiki | U.S.A. (HI). |
| C | 8 | R6 | <i>Castilleja aquariensis</i> ... | Scrophulariaceae | Paintbrush, Aquarius ... | U.S.A. (UT). |
| C* | 11 | R1 | <i>Castilleja christii</i> | Scrophulariaceae | Paintbrush, Christ's | U.S.A. (ID). |
| C | 6 | R4 | <i>Chamaecrista lineata</i> <i>keyensis</i> . | Fabaceae | Pea, Big Pine partridge | U.S.A. (FL). |
| C | 6 | R4 | <i>Chamaesyce deltoidea</i> <i>pinetorum</i> . | Euphorbiaceae | Sandmat, pineland | U.S.A. (FL). |
| C | 6 | R4 | <i>Chamaesyce deltoidea</i> <i>serpyllum</i> . | Euphorbiaceae | Spurge, wedge | U.S.A. (FL). |
| C | 5 | R1 | <i>Chamaesyce</i> <i>eleanoriae</i> . | Euphorbiaceae | 'Akoko | U.S.A. (HI). |
| C | 6 | R1 | <i>Chamaesyce remyi</i> var. <i>kauaiensis</i> . | Euphorbiaceae | 'Akoko | U.S.A. (HI). |
| C | 6 | R1 | <i>Chamaesyce remyi</i> var. <i>remyi</i> . | Euphorbiaceae | 'Akoko | U.S.A. (HI). |
| C | 5 | R1 | <i>Charpentiera densiflora</i> | Amaranthaceae | Papala | U.S.A. (HI). |
| C* | 6 | R1 | <i>Chorizanthe parryi</i> var. <i>fernandina</i> . | Polygonaceae | Spineflower, San Fer- nando Valley. | U.S.A. (CA). |
| C | 5 | R4 | <i>Chromolaena frustrata</i> | Asteraceae | Thoroughwort, Cape Sable. | U.S.A. (FL). |
| C | 2 | R4 | <i>Consolea corallicola</i> | Cactaceae | Cactus, Florida sema- phore. | U.S.A. (FL). |
| C | 2 | R4 | <i>Cordia rupicola</i> | Boraginaceae | No common name | U.S.A. (PR), Anegada. |
| C | 2 | R1 | <i>Cyanea asplenifolia</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 5 | R1 | <i>Cyanea calycina</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 2 | R1 | <i>Cyanea eleeleensis</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 2 | R1 | <i>Cyanea kuhihewa</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 5 | R1 | <i>Cyanea kunthiana</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 5 | R1 | <i>Cyanea lanceolata</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 2 | R1 | <i>Cyanea obtusa</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 5 | R1 | <i>Cyanea tritomantha</i> | Campanulaceae | Haha | U.S.A. (HI). |
| C | 2 | R1 | <i>Cyrtandra filipes</i> | Gesneriaceae | Ha'iwale | U.S.A. (HI). |
| C | 5 | R1 | <i>Cyrtandra kaulantha</i> ... | Gesneriaceae | Ha'iwale | U.S.A. (HI). |
| C | 5 | R1 | <i>Cyrtandra oenobarba</i> ... | Gesneriaceae | Ha'iwale | U.S.A. (HI). |
| C | 2 | R1 | <i>Cyrtandra oxybapha</i> ... | Gesneriaceae | Ha'iwale | U.S.A. (HI). |
| C | 2 | R1 | <i>Cyrtandra sessilis</i> | Gesneriaceae | Ha'iwale | U.S.A. (HI). |
| C | 6 | R4 | <i>Dalea carthagenensis</i> <i>floridana</i> . | Fabaceae | Prairie-clover, Florida ... | U.S.A. (FL). |
| C | 5 | R4 | <i>Digitaria pauciflora</i> | Poaceae | Crabgrass, Florida pineland. | U.S.A. (FL). |
| C | 6 | R1 | <i>Dubautia imbricata</i> <i>imbricata</i> . | Asteraceae | Na'ena'e | U.S.A. (HI). |
| C | 3 | R1 | <i>Dubautia plantaginea</i> <i>magnifolia</i> . | Asteraceae | Na'ena'e | U.S.A. (HI). |
| C | 5 | R1 | <i>Dubautia waialealae</i> | Asteraceae | Na'ena'e | U.S.A. (HI). |
| C* | 6 | R2 | <i>Echinomastus</i> <i>erectocentrus</i> var. <i>acunensis</i> . | Cactaceae | Cactus, Acuna | U.S.A. (AZ), Mexico. |
| C | 11 | R1 | <i>Erigeron basalticus</i> | Asteraceae | Daisy, basalt | U.S.A. (WA). |
| C* | 5 | R2 | <i>Erigeron lemmonii</i> | Asteraceae | Fleabane, Lemmon | U.S.A. (AZ). |
| C | 2 | R1 | <i>Eriogonum codium</i> | Polygonaceae | Buckwheat, Umtanum Desert. | U.S.A. (WA). |
| C | 2 | R1 | <i>Eriogonum</i> <i>diatomaceum</i> . | Polygonaceae | Buckwheat, Churchill Narrows. | U.S.A. (NV). |
| C | 5 | R1 | <i>Eriogonum kelloggii</i> | Polygonaceae | Buckwheat, Red Moun- tain. | U.S.A. (CA). |
| C | 5 | R1 | <i>Festuca hawaiiensis</i> | Poaceae | No common name | U.S.A. (HI). |
| C* | 11 | R2 | <i>Festuca ligulata</i> | Poaceae | Guadalupe fescue | U.S.A. (TX), Mexico. |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|----------|----------|-------------|--|------------------------|--------------------------------|--|
| Category | Priority | | | | | |
| C | 5 | R1 | <i>Gardenia remyi</i> | Rubiaceae | Nanu | U.S.A. (HI). |
| C | 5 | R1 | <i>Geranium hanaense</i> | Geraniaceae | Nohoanu | U.S.A. (HI). |
| C | 8 | R1 | <i>Geranium hillebrandii</i> ... | Geraniaceae | Nohoanu | U.S.A. (HI). |
| C | 2 | R1 | <i>Geranium kauaiense</i> | Geraniaceae | Nohoanu | U.S.A. (HI). |
| C | 5 | R4 | <i>Gonocalyx concolor</i> | Ericaceae | No common name | U.S.A. (PR). |
| C* | 2 | R1 | <i>Hazardia orcutti</i> | Asteraceae | Orcutt's hazardia | U.S.A. (CA), Mexico. |
| C | 5 | R1 | <i>Hedyotis fluviatilis</i> | Rubiaceae | Kampua'a | U.S.A. (HI). |
| C | 11 | R4 | <i>Helianthus verticillatus</i> | Asteraceae | Sunflower, whorled | U.S.A. (AL, GA, TN). |
| C | 5 | R2 | <i>Hibiscus dasycalyx</i> | Malvaceae | Rose-mallow, Neches River. | U.S.A. (TX). |
| C | 6 | R4 | <i>Indigofera mucronata keyensis</i> . | Fabaceae | Indigo, Florida | U.S.A. (FL). |
| C | 5 | R1 | <i>Ivesia webberi</i> | Rosaceae | Ivesia, Webber | U.S.A. (CA, NV). |
| C | 3 | R1 | <i>Joinvillea ascendens ascendens</i> . | Joinvilleaceae | Ohe | U.S.A. (HI). |
| C | 5 | R1 | <i>Korthalsella degeneri</i> ... | Viscaceae | Hulumoa | U.S.A. (HI). |
| C | 5 | R1 | <i>Labordia helleri</i> | Loganiaceae | Kamakahala | U.S.A. (HI). |
| C | 5 | R1 | <i>Labordia pumila</i> | Loganiaceae | Kamakahala | U.S.A. (HI). |
| C | 5 | R1 | <i>Lagenifera erici</i> | Asteraceae | No common name | U.S.A. (HI). |
| C | 5 | R1 | <i>Lagenifera helenae</i> | Asteraceae | No common name | U.S.A. (HI). |
| C | 2 | R2 | <i>Leavenworthia texana</i> .. | Brassicaceae | Gladecress, Texas golden. | U.S.A. (TX). |
| C | 5 | R4 | <i>Lesquerella globosa</i> | Brassicaceae | Bladderpod, Short's | U.S.A. (IN, KY, TN). |
| C | 5 | R1 | <i>Lesquerella tuplashensis</i> . | Brassicaceae | Bladderpod, White Bluffs. | U.S.A. (WA). |
| C | 2 | R4 | <i>Linum arenicola</i> | Linaceae | Flax, sand | U.S.A. (FL). |
| C | 3 | R4 | <i>Linum carteri carteri</i> | Linaceae | Flax, Carter's small-flowered. | U.S.A. (FL). |
| C | 5 | R1 | <i>Lysimachia daphnoides</i> | Primulaceae | Makanoe lehua | U.S.A. (HI). |
| C | 5 | R1 | <i>Melicope christophersenii</i> . | Rutaceae | Alani | U.S.A. (HI). |
| C | 2 | R1 | <i>Melicope degeneri</i> | Rutaceae | Alani | U.S.A. (HI). |
| C | 2 | R1 | <i>Melicope hiiakae</i> | Rutaceae | Alani | U.S.A. (HI). |
| C | 2 | R1 | <i>Melicope makahae</i> | Rutaceae | Alani | U.S.A. (HI). |
| C | 2 | R1 | <i>Melicope paniculata</i> | Rutaceae | Alani | U.S.A. (HI). |
| C | 5 | R1 | <i>Melicope puberula</i> | Rutaceae | Alani | U.S.A. (HI). |
| C | 5 | R1 | <i>Myrsine fosbergii</i> | Myrsinaceae | Kolea | U.S.A. (HI). |
| C | 2 | R1 | <i>Myrsine mezii</i> | Myrsinaceae | Kolea | U.S.A. (HI). |
| C | 5 | R1 | <i>Myrsine vaccinioides</i> | Myrsinaceae | Kolea | U.S.A. (HI). |
| C | 8 | R5 | <i>Narthecium americanum</i> . | Liliaceae | Asphodel, bog | U.S.A. (DE, NC, NJ, NY, SC). |
| C | 5 | R1 | <i>Nothocestrum latifolium</i> | Solanaceae | 'Aiea | U.S.A. (HI). |
| C | 2 | R1 | <i>Ochrosia haleakalae</i> | Apocynaceae | Holei | U.S.A. (HI). |
| C | 5 | R5 | <i>Panicum hirstii</i> | Poaceae | Panic grass, Hirsts' | U.S.A. (DE, GA, NC, NJ). |
| C | 11 | R2 | <i>Paronychia congesta</i> ... | Caryophyllaceae | Whitlow-wort, bushy | U.S.A. (TX). |
| C | 6 | R2 | <i>Pediocactus peeblesianus fickeiseniae</i> . | Cactaceae | Cactus, Fickeisen plains. | U.S.A. (AZ). |
| C | 5 | R6 | <i>Penstemon debilis</i> | Scrophulariaceae | Beardtongue, Parachute. | U.S.A. (CO). |
| C* | 2 | R6 | <i>Penstemon grahamii</i> | Scrophulariaceae | Beardtongue, Graham | U.S.A. (CO, UT). |
| C* | 6 | R6 | <i>Penstemon scariosus albifluvis</i> . | Scrophulariaceae | Beardtongue, White River. | U.S.A. (CO, UT). |
| C | 2 | R1 | <i>Peperomia subpetiolata</i> | Piperaceae | 'Ala 'ala wai nui | U.S.A. (HI). |
| C | 2 | R1 | <i>Phacelia stellaris</i> | Hydrophyllaceae | Brand's phacelia | U.S.A. (CA), Mexico |
| C | 11 | R6 | <i>Phacelia submutica</i> | Hydrophyllaceae | Phacelia, DeBeque | U.S.A. (CO). |
| C | 2 | R1 | <i>Phyllostegia bracteata</i> | Lamiaceae | No common name | U.S.A. (HI). |
| C | 5 | R1 | <i>Phyllostegia floribunda</i> | Lamiaceae | No common name | U.S.A. (HI). |
| C | 2 | R1 | <i>Phyllostegia hispida</i> | Lamiaceae | No common name | U.S.A. (HI). |
| C | 5 | R1 | <i>Pittosporum napaliense</i> | Pittosporaceae | Ho'awa | U.S.A. (HI). |
| C | 5 | R4 | <i>Platanthera integrilabia</i> | Orchidaceae | Orchid, white fringeless | U.S.A. (AL, GA, KY, MS, NC, SC, TN, VA). |
| C | 6 | R1 | <i>Platydesma cornuta cornuta</i> . | Rutaceae | No common name | U.S.A. (HI). |
| C | 6 | R1 | <i>Platydesma cornuta decurrens</i> . | Rutaceae | No common name | U.S.A. (HI). |
| C | 2 | R1 | <i>Platydesma remyi</i> | Rutaceae | No common name | U.S.A. (HI). |

TABLE 1.—CANDIDATE NOTICE OF REVIEW—Continued
[Animals and plants]

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|------------------|----------|-------------|--|------------------------|------------------------------|---|
| Category | Priority | | | | | |
| C | 5 | R1 | <i>Platydesma rostrata</i> | Rutaceae | Pilo kea lau lili | U.S.A. (HI). |
| C | 5 | R1 | <i>Pleomele forbesii</i> | Agavaceae | Hala pepe | U.S.A. (HI). |
| C | 2 | R1 | <i>Pleomele fernaldii</i> | Agavaceae | Hala pepe | U.S.A. (HI). |
| C | 5 | R1 | <i>Potentilla basaltica</i> | Rosaceae | Cinquefoil, Soldier Meadows. | U.S.A. (NV). |
| C | 5 | R1 | <i>Pritchardia hardyi</i> | Asteraceae | Lo'ulu, (=Na'ena'e) | U.S.A. (HI). |
| C | 6 | R1 | <i>Pseudognaphalium</i> (=Gnaphalium) <i>sandwicensium</i> var. <i>molokaiense</i> . | Asteraceae | 'Ena'ena | U.S.A. (HI). |
| C | 2 | R1 | <i>Psychotria grandiflora</i> .. | Rubiaceae | Kopiko | U.S.A. (HI). |
| C | 3 | R1 | <i>Psychotria hexandra</i> <i>oahuensis</i> . | Rubiaceae | Kopiko | U.S.A. (HI). |
| C | 2 | R1 | <i>Psychotria hobbii</i> | Rubiaceae | Kopiko | U.S.A. (HI). |
| C | 5 | R1 | <i>Pteralyxia macrocarpa</i> .. | Apocynaceae | Kaulu | U.S.A. (HI). |
| C | 5 | R1 | <i>Ranunculus hawaiiensis</i> .. | Ranunculaceae | Makou | U.S.A. (HI). |
| C | 2 | R1 | <i>Ranunculus mauensis</i> .. | Ranunculaceae | Makou | U.S.A. (HI). |
| C* | 2 | R1 | <i>Rorippa subumbellata</i> .. | Brassicaceae | Cress, Tahoe yellow ... | U.S.A. (CA, NV) |
| C | 2 | R1 | <i>Schiedea attenuata</i> | Caryophyllaceae | No common name | U.S.A. (HI). |
| C | 2 | R1 | <i>Schiedea pubescens</i> ... | Caryophyllaceae | Ma'oli'oli | U.S.A. (HI). |
| C | 2 | R1 | <i>Schiedea salicaria</i> | Caryophyllaceae | No common name | U.S.A. (HI). |
| C | 5 | R1 | <i>Sedum eastwoodiae</i> | Crassulaceae | Stonecrop, Red Mountain. | U.S.A. (CA). |
| C | 5 | R1 | <i>Sicyos macrophyllus</i> | Cucurbitaceae | 'Anunu | U.S.A. (HI). |
| C* | 9 | R1 | <i>Sidalcea hickmanii</i> <i>parishii</i> . | Malvaceae | Checkerbloom, Parish's | U.S.A. (CA). |
| C | 9 | R4 | <i>Sideroxylon reclinatum</i> <i>ssp. austrofloridense</i> . | Sapotaceae | Bully, Everglades | U.S.A. (FL). |
| C | 5 | R1 | <i>Solanum nelsonii</i> | Solanaceae | Popolo | U.S.A. (HI). |
| C | 2 | R1 | <i>Stenogyne cranwelliae</i> .. | Lamiaceae | No common name | U.S.A. (HI). |
| C | 2 | R1 | <i>Stenogyne kealiae</i> | Lamiaceae | No common name | U.S.A. (HI). |
| C | 2 | R1 | <i>Zanthoxylum oahuense</i> .. | Rutaceae | 'Ae | U.S.A. (HI). |
| FERNS AND ALLIES | | | | | | |
| C* | 11 | R1 | <i>Botrychium lineare</i> | Ophioglossaceae | Moonwort, slender | U.S.A. (CA, CO, ID, MT, OR, WA), Canada (BC, NB, QC). |
| C | 5 | R1 | <i>Christella boydiae</i> (= <i>Cyclosorus boydiae</i> var. <i>boydiae</i> + <i>Cyclosorus boydiae</i> <i>kipahuluensis</i>). | Thelypteridaceae | No common name | U.S.A. (HI). |
| C | 2 | R1 | <i>Doryopteris takeuchii</i> ... | Pteridaceae | No common name | U.S.A. (HI). |
| C | 3 | R1 | <i>Microlepia strigosa</i> var. <i>mauiensis</i> (= <i>Microlepia mauiensis</i>). | Dennstaedtiaceae | Palipali | U.S.A. (HI). |
| C | 2 | R1 | <i>Phlegmariurus stemmermanniae</i> . | Lycopodiaceae | Wawaeiole | U.S.A. (HI). |

NOTE: See end of SUPPLEMENTARY INFORMATION for an explanation of symbols used in this table.

TABLE 2.—ANIMALS AND PLANTS FORMERLY CANDIDATES OR FORMERLY PROPOSED FOR LISTING

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|---------|-------|-------------|---|-----------------|-------------------------------------|--|
| Code | Expl. | | | | | |
| MAMMALS | | | | | | |
| E | L | R1 | <i>Brachylagus idahoensis</i> | Leporidae | Rabbit, pygmy (Columbia Basin DPS). | U.S.A. (CA, ID, MT, NV, OR, UT, WA, WY). |
| E | L | R1 | <i>Urocyon littoralis littoralis</i> . | Canidae | Fox, San Miguel Island | U.S.A. (CA). |
| E | L | R1 | <i>Urocyon littoralis catalinae</i> . | Canidae | Fox, Santa Catalina Island. | U.S.A. (CA). |
| E | L | R1 | <i>Urocyon littoralis santacruzae</i> . | Canidae | Fox, Santa Cruz Island | U.S.A. (CA). |

TABLE 2.—ANIMALS AND PLANTS FORMERLY CANDIDATES OR FORMERLY PROPOSED FOR LISTING—Continued

| Status | | Lead region | Scientific name | Family | Common name | Historic range |
|----------|------------------|-------------|--|---------------------------------------|--|---|
| Code | Expl. | | | | | |
| E | | L R1 | <i>Urocyon littoralis santarosae</i> . | Canidae | Fox, Santa Rosa Island | U.S.A. (CA). |
| Rp | BIRDS | A R6 | <i>Charadrius montanus</i> .. | Charadriidae | Plover, mountain | U.S.A. (western), Canada, Mexico. |
| E | AMPHIBIANS | L R1 | <i>Ambystoma californiense</i> . | Ambystomatidae | Salamander, California tiger (Sonoma County DPS). | U.S.A. (CA). |
| E | | L R1 | <i>Rana muscosa</i> | Ranidae. | Frog, mountain yellow-legged (southern California DPS). | U.S.A. (CA, NV) including San Diego, Orange, Riverside, San Bernardino, and Los Angeles Counties. |
| Rp | FISHES | A R1 | <i>Oncorhynchus clarki clarki</i> . | Salmonidae | Trout, coastal cutthroat (southwestern WA/Columbia River DPS). | U.S.A. (AK, CA, OR, WA). |
| E | SNAILS | L R3 | <i>Antrobia culveri</i> | Hydrobiidae | Cavesnail, Tumbling Creek. | U.S.A. (MO). |
| E | INSECTS | L R1 | <i>Pseudocopa eodes eunus obscurus</i> . | Hesperiidae | Skipper, Carson wandering. | U.S.A. (CA, NV). |
| E | FLOWERING PLANTS | L R1 | <i>Ambrosia pumila</i> | Asteraceae | Ambrosia, San Diego ... | U.S.A. (CA), Mexico. |
| Rp | | A R1 | <i>Lepidium</i> | Brassicaceae <i>papilliferum</i> . | Peppergrass, Slick spot | U.S.A. (ID) |
| E | | L R1 | <i>Limnanthes floccosa grandiflora</i> . | Limnanthaceae | Meadowfoam, large-flowered wooly. | U.S.A. (OR). |
| E | | L R1 | <i>Lomatium cookii</i> | Apiaceae | Lomatium, Cook's | U.S.A. (OR). |
| E | | L R1 | <i>Nesogenes rotensis</i> | Verbenaceae | No common name | U.S.A. (MP). |
| E | | L R1 | <i>Osmoxylon mariannense</i> . | Araliaceae | No common name | U.S.A. (MP). |
| Rp | | N R1 | <i>Tabernaemontana rotensis</i> . | Apocynaceae | No common name | U.S.A. (GU, MP). |
| Rc | FERNS AND ALLIES | A R1 | <i>Dryopteris glabra</i> var. <i>pusilla</i> (= <i>Dryopteris tenebrosa</i>). | Dryopteridaceae | No common name | U.S.A. (HI). |

Note: See end of **SUPPLEMENTARY INFORMATION** for an explanation of symbols used in this table.