DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AE84

Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Northern Idaho Ground Squirrel

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), determine the northern Idaho ground squirrel (*Spermophilus brunneus brunneus*) to be a threatened species under the authority of the Endangered Species Act (Act) of 1973, as amended. This subspecies is known from 36 sites in Adams and Valley counties, Idaho. It is primarily threatened by habitat loss due to forest encroachment into former suitable meadow habitats. Forest encroachment results in habitat fragmentation, eliminates dispersal corridors, and restricts the northern Idaho ground squirrel population into small isolated habitat areas. The subspecies is also threatened by competition from the larger Columbian ground squirrel (*Spermophilus columbianus*), land use changes, recreational shooting, poisoning, and naturally occurring events. This rule extends Federal protection provisions provided by the Act for the northern Idaho ground squirrel.

EFFECTIVE DATE: This final rule is effective May 5, 2000.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Snake River Basin Office, 1387 South Vinnell Way, Room 368, Boise, Idaho 83709.

FOR FURTHER INFORMATION CONTACT: Robert Ruesink, Supervisor, at the above address (telephone 208/378–5243; facsimile 208/378–5262).

SUPPLEMENTARY INFORMATION:

Background

The northern Idaho ground squirrel has the most restricted geographical range of any *Spermophilus* taxa, and one of the smallest ranges among North American mainland mammals (Gill and Yensen 1992). The first specimens, collected by L.E. Wyman in 1913, were described by A.H. Howell as *Citellus townsendii brunneus,* a subspecies of the Washington ground squirrel (*Spermophilus washingtoni*) (Howell 1938). In 1938, Howell subsequently classified the Idaho ground squirrel as a full species, *Citellus brunneus.* Hershkovitz (1949) demonstrated that *Spermophilus* is the correct name for this genus. Nadler (1966) first presented chromosome descriptions and confirmed the systematics of *Spermophilus.* Yensen (1991) described the southern Idaho ground squirrel (*Spermophilus brunneus endemicus*) as taxonomically distinct, based on morphology, pelage (fur), and apparent life-history differences including biogeographical evidence of separation.

Both the northern and southern Idaho ground squirrels are found only in western Idaho. Of the two subspecies, the northern Idaho ground squirrel is the rarest (Yensen 1991). A relatively small member of the genus *Spermophilus,* the mean length of northern Idaho ground squirrel males and females is 235 millimeters (mm) (9.25 inches (in.)) and 226 mm (8.9 in.), respectively. In comparison, the mean length of southern Idaho ground squirrel males is 241 mm (9.5 in.) and 235 mm (9.25 in.) for females (Yensen 1991). Pelage in northern Idaho ground squirrel differs from the southern Idaho ground squirrel in its mid-dorsal area, which consists of long, dark guard hairs and shorter, dark guard hairs with one paler-colored band on the shield (Yensen 1991). Most northern Idaho ground squirrels are found in areas with shallow reddish parent soils of basaltic origin, while the southern Idaho ground squirrel lives on lower elevation, paler colored soils formed by granitic sands and clays from the Boise Mountains (Yensen 1985, 1991). Marked differences in pelage coloration between the disjunct subspecies are related to soil color.

The baculum (penis bone) of northern Idaho ground squirrel is also generally smaller than the southern Idaho ground squirrel. A principal component analysis, which is a statistical analysis that proves similarities or differences, indicated a striking difference among bacula of the two subspecies (Yensen 1991). Genetic differentiation between the two subspecies was also confirmed using enzyme restriction analysis, blood allozyme analyses, and DNA protein sequencing, all of which analyze blood constituents to determine genetic differences (Gill and Yensen 1992; Sherman and Yensen 1994).

The northern Idaho ground squirrel emerges in late March or early April, remains active above ground until late July or early August (Yensen 1991), and spends the rest of the year in hibernation underground (Eric Yensen, Albertson College, pers. comm. 1999). Populations occur at elevations ranging from 1,155 to 1,580 meters (m) (3,800 to 5,200 feet (ft)) in Adams and Valley counties of western Idaho. In contrast, the southern Idaho ground squirrel occurs at elevations ranging from 669 to 973 m (2,200 to 3,200 ft) in the low rolling hills and valleys along the Payette River in Gem, Payette, and Washington counties of western Idaho (Yensen 1991). The southern subspecies emerges in late January or early February where snow melt begins 1 to 2 months earlier in spring, and ceases above-ground activity in late June or early July. The emergence of the northern Idaho ground squirrel in late March or early April begins with adult males, followed by adult females, then young of the year.

The northern Idaho ground squirrel normally becomes reproductively active within the first 2 weeks of emergence (Yensen 1991). Females that survive the first winter live, on average, nearly twice as long as males (3.2 years for females and 1.7 years for males). Individual females have lived for 8 years (Yensen 1991). Males normally die at a younger age due to behavior associated with reproductive activity. During the mating period, males move considerable distances in search of receptive females for mating and often fight with other males for copulations, thereby exposing themselves to predation by raptors including prairie falcon (*Falco mexicanus*), goshawk (*Accipiter gentilis*), and red-tailed hawk (*Buteo jamaicensis*). Significantly more males die or disappear during the 2-week mating period than during the rest of the 12- to 14-week period of above-ground activity (Sherman and Yensen 1994). Seasonal torpor (a state of sluggishness or inactivity) generally occurs in early to mid-July for males and females, and late July to early August for juveniles.

Unlike many ground squirrel species, the northern Idaho ground squirrel is not truly colonial. In this final rule, local areas where this subspecies occurs are referred to as ''sites.'' In 1985, the estimated population of northern Idaho ground squirrels at 18 known sites was approximately 5,000 squirrels (John Woflin, Service, *in litt.* 1985). Subsequent surveys were conducted on a sporadic basis from 1986 through 1993; more intensive efforts to estimate populations at 10 sites began in 1994 (Sherman and Yensen 1994). While new population sites were found during these surveys, several previously active sites became extirpated (Paul Sherman, Cornell University, pers. comm., 1997). In 1996, the total population had

declined to fewer than 1,000 individuals found at 19 sites (Sherman and Gavin 1997). Only 1 of these sites contained more than 60 animals. In 1997 and 1998, additional locations with northern Idaho ground squirrels were found for a total of 36 historic and currently active sites. However the total population estimate still remains less than 1,000 individuals. Of the 36 sites, 14 occur on public lands (Federal and State). At 3 of these 14 sites, the subspecies has been extirpated, and at 1 site, the subspecies was extirpated but has been reintroduced. There are 22 sites on private lands, but at 7 of the sites, the subspecies has been extirpated. The number of squirrels in many of the active sites has been decreasing for over 10 years (Yensen 1980, 1985; J. Woflin, *in litt.* 1985; Sherman and Yensen 1994; Gavin *et al.* 1998).

Soil texture and depth can be a primary factor in determining species distribution for most *Spermophilus* (Brown and Harney 1993). The northern Idaho ground squirrel often digs burrows under logs, rocks, or other objects (Sherman and Yensen 1994). Dry vegetation sites with shallow soil horizons of less than 50 centimeters (19.6 in.) depth above basalt bedrock to develop burrow systems are preferred (Yensen *et al.* 1991). Burrows associated with shallow soils are called auxiliary burrows. Nesting burrows are found in well-drained soils greater than 1 m (3 ft) deep, in areas not covered with trees or used by Columbian ground squirrels (*Spermophilus columbianus*). Although Columbian ground squirrels overlap in distribution with the northern Idaho ground squirrel (Dyni and Yensen 1996), Columbian ground squirrels prefer moister areas with deeper soils. Sherman and Yensen (1994) report that the lack of extensive use of the same areas by the two subspecies is likely due to competition, rather than to each subspecies having different habitat requirements.

Nearly all of the meadow habitats utilized by northern Idaho ground squirrels are bordered by coniferous forests of *Pinus ponderosa* (ponderosa pine) and/or *Pseudotsuga menziesii* (Douglas-fir). However, this ground squirrel is not abundant in meadows that are surrounded by high densities of small young trees (Sherman and Yensen 1994).

The northern Idaho ground squirrel is granivorous (eats small seeds and grain) seasonally, similar to the Columbian ground squirrel (Dyni and Yensen 1996), and ingests large amounts of *Poa* species (bluegrass) and other grass seeds to store energy for the winter. The northern Idaho ground squirrel will consume the roots, bulbs, leaf stems, and flower heads of another 45 to 50 plant species that are major components of the diet during key periods of the spring and summer. The Columbian ground squirrel often inhabits areas with denser vegetation than the northern Idaho ground squirrel (Dyni and Yensen 1996). Such areas contain more abundant food resources than habitats occupied by northern Idaho ground squirrel (Belovsky and Schmitz 1994). The northern Idaho ground squirrel is found on lands administered by the U.S. Forest Service (Forest Service), Idaho State Department of Lands, and private property.

Previous Federal Action

In a status review published January 6, 1989, we determined that the northern Idaho ground squirrel was a category 1 candidate (56 FR 562). Category 1 candidates were those taxa for which we had on file substantial information on biological vulnerability and threats to support preparation of listing proposals. Upon publication of the February 28, 1996, Notice of Review (61 FR 7596), we ceased using category designations and included the northern Idaho ground squirrel as a candidate species. Candidate species are those for which we have on file sufficient information on biological vulnerability and threats to support proposals to list the species as threatened or endangered. Candidate status for this animal was continued in the September 19, 1997, Notice of Review (62 FR 49398).

As a result of long-standing litigation with the Fund for Animals, a lawsuit settlement of January 21, 1997, directed us to make a decision (*i.e.,* prepare a proposed rule to list or remove from Federal candidacy) concerning the northern Idaho ground squirrel on or before April 1, 1998. A proposed rule to list the subspecies as threatened was published on March 23, 1998 (63 FR 13825).

The processing of this final rule conforms with our Listing Priority Guidance published in the **Federal Register** on October 22, 1999 (64 FR 57114). The guidance clarifies the order in which we will process rulemakings. Highest priority is processing emergency listing rules for any species determined to face a significant and imminent risk to its well-being (Priority 1). Second priority (Priority 2) is processing final determinations on proposed additions to the lists of endangered and threatened wildlife and plants. Third priority is processing new proposals to add species to the lists. The processing of administrative petition findings (petitions filed under section 4 of the Act) is the fourth priority. This final rule is a Priority 2 action and is being completed in accordance with the current Listing Priority Guidance. We have updated this rule to reflect any changes in information concerning distribution, status, and threats since the publication of the proposed rule.

Summary of Comments and Recommendations

In the proposed rule (63 FR 13825), we requested all interested parties to submit factual reports or information that might contribute to the development of a final rule for the northern Idaho ground squirrel. We contacted appropriate State agencies, county governments, Federal agencies, scientists, landowners, and other interested parties and requested them to comment. We opened a public comment period of 60 days on March 23, 1998, and closed it on May 22, 1998 (63 FR 13825). On March 13, 1998, we sent legal notices that invited public comment and announced a public hearing. The notice was published in The Idaho Statesman, Council Record, Adams County Leader, and the Central Idaho Star News on March 28, 1998. In anticipation of public interest, we conducted a public hearing on May 5, 1998, in Council, Idaho at the Council Elementary School. To consider new scientific information, we reopened the public comment period for 30 days on October 21, 1998 (63 FR 56134). A legal notice concerning the public comment period was published on October 27, 1998, in The Idaho Statesman. This comment period closed on November 20, 1998.

During the 3-month comment period, we received a total of seven comments. Of these comments, one supported listing, and two opposed the listing. Four comments were noncommittal. We reviewed all of the comments (*i.e.,* written and oral testimony) referenced above. The comments were grouped and are discussed under the following issue headings. In addition, we considered and incorporated, as appropriate, into the final rule, all biological and commercial information obtained through the public comment period.

Peer Review

In compliance with our July 1, 1994, Peer Review Policy (59 FR 34270), we solicited the expert opinion of an independent scientist regarding pertinent scientific or commercial data and issues relating to the supportive biological and ecological information for the northern Idaho ground squirrel. Information and suggestions provided by the reviewer were considered in

developing this final rule, and incorporated where applicable.

Issue 1: One commenter believed there was a general lack of adequate information about the squirrels or sufficient searches for additional sites to publish a final rule. This responder was also concerned that key Forest Service staff and the primary research personnel involved in studying the northern Idaho ground squirrel intend to leave the project.

Our Response: We, the Forest Service, and the Idaho Department of Fish and Game have provided equipment, funding, and staff to support surveys for new populations and monitoring of existing populations since 1994. In 1998, additional surveys for the northern Idaho ground squirrel were conducted on lands owned by Boise Cascade Corporation (John Haufler, Boise Cascade Corporation, pers. comm., 1998). The surveys used vegetation habitat analysis, historical references, and anecdotal information from foresters, ranchers, engineers, and biologists. Staff at the Payette National Forest collated and field-validated the information and placed it on a geographical information systems (GIS) map. Analysis of GIS maps allows biologists to predict potential habitat for the species throughout its present range. A team of biologists spent several weeks in 1997 and 1998 surveying the potential sites for ground squirrel activity. The known historic and extant sites increased from 19 in 1996 to 36 in 1998. Of these 36 sites, 27 are currently occupied by northern Idaho ground squirrels. However, most of these sites have less than 20 individuals, and the total population numbers less than 1,000. Only by conducting annual monitoring of sites where animals were translocated from other sites and existing sites will we be able to document future population trends.

Two scientists from Cornell University, Ithaca, New York, who have overseen recent translocations, surveys, and annual monitoring notified us that they will not be able to continue this work in the future. However, one of these scientists agreed to assist with field surveys in 1999, and instructed a team of biologists from the Idaho Department of Fish and Game, Payette National Forest, and the Service for 2 weeks in survey and monitoring methods. This team will continue to coordinate annual surveys for new populations, collect data on population trends, and monitor habitat changes in coordination with the Payette National Forest staff.

Issue 2: One commenter requested that the northern Idaho ground squirrel not be listed because listing does not consider the impact of human welfare, local economy, public value, and private property rights.

Our Response: In accordance with 16 U.S.C. 1533(b)(1)(A) and 50 CFR 424.11 (b), listing decisions are made solely on the basis of the best scientific and commercial data available. In adding the word ''solely'' to the statutory criteria for listing a species, Congress specifically addressed this issue in the 1982 amendments to the Act (16 U.S.C. 1531 *et seq.*). The legislative history of the 1982 amendments states: ''The addition of the word solely is intended to remove from the process of the listing or delisting of species any factor not related to the biological status of the species' H.R. Rep. No. 567, Part I, 97th Cong., 2d Sess. 20 (1982).

Issue 3: One commenter asserted that constitutional powers were being violated to list the northern Idaho ground squirrel under the Act since there is no substantial and documented interstate commerce involving this subspecies. This assertion is based on the belief that the intention of the U.S. Constitution is to regulate only those activities that substantially affect interstate commerce.

Our Response: The Federal Government has the authority under the Commerce Clause of the U.S. Constitution to protect this subspecies, for the reasons given in Judge Wald's opinion and Judge Henderson's concurring opinion in *National Association of Home Builders* v. *Babbitt,* 130 F.3d 1041 (D.C. Cir. 1997), *cert. denied,* 1185 S. Ct. 2340 (1998). That case involved a challenge to application of the Act's prohibitions to protect the listed Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*). As with the northern Idaho ground squirrel, the Delhi Sands flower-loving fly is endemic to only one State. Judge Wald held that application of the Act's prohibition against taking of endangered species to this fly was a proper exercise of Commerce Clause power to regulate: (1) Use of channels of interstate commerce; and (2) activities substantially affecting interstate commerce, because it prevented loss of biodiversity and destructive interstate competition. Judge Henderson upheld protection of the fly because doing so prevents harm to the ecosystem upon which interstate commerce depends, and because doing so regulates commercial development that is part of interstate commerce.

The Federal Government also has the authority under the Property Clause of the Constitution to protect this subspecies. The northern Idaho ground squirrel occurs on the Payette National Forest, Idaho State lands, and private lands. If this subspecies were to become extinct, the diversity of vertebrate life in the Payette National Forest would be diminished. The courts have long recognized Federal authority under the Property Clause to protect Federal resources in such circumstances (See *Kleppe* v. *New Mexico,* 429 U.S. 873 (1976); *United States* v. *Alford,* 274 U.S. 264 (1927); *Camfield* v. *United States,* 167 U. S. 518 (1897); *United States* v. *Lindsey,* 595 F. 2d 5 (9th Cir. 1979).

Summary of Factors Affecting the Species

Section 4 of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the northern Idaho ground squirrel are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

The historic range of the northern Idaho ground squirrel is not well known. However, it is thought that this subspecies was relatively uncommon throughout its historic range (Forest Service 1997a). All remaining habitat sites for the northern Idaho ground squirrel are small in relation to those of other ground squirrels, ranging in size from 1.2 to 16 hectares (3 to 40 acres), and all are threatened by one or more of the following: forest encroachment into grassland meadows; conversion to agriculture; residential construction; development of recreational facilities such as golf courses; and road construction and maintenance.

The primary threat to the northern Idaho ground squirrel is meadow invasion by conifers (Sherman and Yensen 1994; E. Yensen, pers. comm. 1998, 1999). Fire suppression and the dense regrowth of conifers resulting from past logging activities have significantly reduced meadow habitats suitable for northern Idaho ground squirrels over the past 40 years. As the amount of suitable meadow habitat on public and private lands has been reduced, northern Idaho ground squirrel dispersal corridors have been reduced or eliminated, further constricting the subspecies into smaller isolated habitat areas (Truksa and Yensen 1990). The loss of dispersal corridors has caused some isolated populations to become extirpated in recent years (Sherman and

Yensen 1994; Service 1996). Small populations at several remaining sites are likely to become extirpated as well (Sherman and Yensen 1994; Mangel and Tier 1994).

The fragmented distribution of the northern Idaho ground squirrel is a remnant of what may once have been a more continuous distribution from Round Valley, Idaho, in Valley County north to New Meadows, Idaho, and southwest to Council, Idaho, in Adams County. The forest structure in the area has changed markedly over the past century due to logging and fire suppression, resulting in denser, more even-aged younger stands of trees with thinner and less heterogeneous (not uniform) under-story plant communities (Burns and Zborowski 1996). Fire suppression allowed conifers to invade once suitable meadow habitats, thereby shrinking the size of forb/grass meadows or closing open grassy dispersal/migration corridors entirely to nearby meadow sites. These changes isolated the dry meadows with suitable shallow soils where the northern Idaho ground squirrel finds refuge from the Columbian ground squirrel, in addition to eliminating migration between northern Idaho ground squirrel sites. Remaining dry meadow habitats supporting northern Idaho ground squirrels are now being invaded by young conifer trees, reducing availability of the preferred forage and burrow habitat of this subspecies. Habitat dissection and reduced opportunities for dispersal among habitats prevents gene flow and results in considerable population differentiation (Sherman and Yensen 1994).

Agricultural conversion and rural housing developments near the communities of Round Valley, north to New Meadows, and south to Council, during the past 40 years have fragmented suitable habitats formerly occupied by the northern Idaho ground squirrel. Various types of developments continue to threaten remaining occupied sites in Adams and Valley counties. Occupied ground squirrel habitat near New Meadows was converted to a golf course and associated housing development (Yensen 1985), which resulted in the eradication of northern Idaho ground squirrels by poisoning because they were impacting the fairways and golf greens (E. Yensen, pers. comm. 1999).

A 51.5 kilometer (km) (32 mile (mi)) gravel road from Council to Cuprum, Idaho, is scheduled to be paved by the year 2001 (U.S. Department of Transportation 1998). Approximately 6.4 km (4 mi) of this project runs through historic and currently occupied habitat of the northern Idaho ground squirrel. The road improvement project will seasonally extend vehicle access to four occupied northern Idaho ground squirrel sites. These four sites will be subject to increased mortality risk from vehicular traffic, and possibly recreational shooting (Forest Service 1997a). The Federal Highways Administration consulted with us and the Forest Service in developing conservation measures as part of their biological assessment for the Council to Cuprum Road paving project (Forest Service 1997a). Conservation measures include actions to attract northern Idaho ground squirrels away from the paved highway to adjacent but suitable habitat to avoid passing vehicles. Funding for these conservation measures was approved by the U.S. Department of Transportation to monitor the measures before and after the road improvements have been made. Monitoring was initiated in 1998 and will continue through 2003. At this time, it is uncertain whether the proposed conservation measures will be successful in protecting remaining populations in the vicinity of the road improvement project.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Recreational shooting has contributed to the decline of northern Idaho ground squirrels at various sites (Yensen 1985, 1991; E. Yensen, pers. comm. 1999). Sites adjacent to housing developments, farms, and roads, in particular, are subject to a high rate of recreational shooting.

Four population sites have been documented as being subjected to recreational shooting (E. Yensen, pers. comm. 1998). One site is located next to a road on National Forest land. It was common to find .22 rifle casings on the road from people presumably shooting the ground squirrels. The subspecies has now been extirpated from this site as a result of shooting. Another site on private land that had both northern Idaho ground squirrels and Columbian ground squirrels was routinely used by recreational shooters, and, as a result, the population is now extinct there. Another site on private land at New Meadows was periodically used by recreational shooters until a golf course was put in at the site. The operators of the golf course then poisoned the remaining population of northern Idaho ground squirrels to eliminate them. The fourth site is partially located on private land and partially located on Forest Service land and also is subjected to shooting (E. Yensen, pers. comm. 1999).

Vandalism, either by shooting or poisoning, is a threat to most of the populations. Many private landowners consider ground squirrels to be a pest that requires elimination. In June 1998, Dr. Eric Yensen of Albertson College, who has done research on the subspecies, approached a private landowner for permission to check on a northern Idaho ground squirrel population occurring on his land. The landowner told Dr. Yensen he wanted to know where the population was so he could go out and poison them. Since the landowner was threatening to eliminate the population, Dr. Yensen declined to tell him exactly where the site was. Dr. Yensen was then refused permission to check on the site by the landowner. Other landowners have made similar threats against northern Idaho ground squirrel populations to Dr. Yensen (E. Yensen, pers. comm. 1999). Since most of the population sites contain less than 20 animals, and less than 1,000 animals overall, shooting and poisoning could have significant adverse impacts (E. Yensen, pers. comm. 1999).

C. Disease or Predation

Disease is not thought to be a major factor affecting the northern Idaho ground squirrel. The parasitic nematode, *Pelodera strongyloides,* infects the eyes of the northern Idaho ground squirrel (Sherman and Yensen 1994; Yensen *et al.* 1996). This eye worm is not currently known to be a cause of mortality in existing populations (Yensen *et al.* 1996). Plague (*Yersina pestis*) a contagious bacterial disease in rodents, has not yet been found in any northern Idaho ground squirrel populations (Yensen *et al.* 1996.). The disease, once established, could decimate these squirrels. Blood analysis to determine whether pandemic diseases are present have not been done on the northern Idaho ground squirrel.

The primary predators of the northern Idaho ground squirrel include badger (*Taxidea taxus*), goshawk (*Accipiter gentilis*), prairie falcon (*Falco mexicanus*), and occasionally red-tailed hawk (*Buteo jamaicensis*). Predators may threaten many of the smaller, more isolated populations of northern Idaho ground squirrel. Badger activity has been noted at several of these sites (Sherman and Gavin 1997). Badgers are efficient predators and could eliminate an entire population of 20 or so animals in just a few days. Male ground squirrels, due to their above-ground active behavior patterns, are particularly subject to increased predation risk

during the mating period. Juveniles are also subject to a high degree of predation during their first year (Sherman and Yensen 1994). Also, domestic cat (*Felis catus*) predation has been documented at two sites because the sites are located near residential housing (E. Yensen, pers. comm. 1999).

D. The Inadequacy of Existing Regulatory Mechanisms

The State of Idaho recognizes the northern Idaho ground squirrel as a ''Species of Special Concern'' (Idaho Department of Fish and Game 1994). Because of this status, the northern Idaho ground squirrel is, by State law, protected from taking (shooting, trapping, poisoning) or possession. To date, however, protection from recreational shooting has not been adequately enforced by the State, and the northern Idaho ground squirrel remains vulnerable to this type of activity (Yensen 1985).

Local land use ordinances and other regulations are inadequate to protect this subspecies. For example, in Adams County where 99 percent of northern Idaho ground squirrel population sites are found, land use regulations allow for single and multiple housing developments under a permit system. There is no consideration under the existing permit system for impacts that may result to northern Idaho ground squirrels from housing or recreation developments in or adjacent to their habitat. With no limitations on development of northern Idaho ground squirrel habitat, it is anticipated that human population growth and development in the foreseeable future will impact ground squirrel sites.

E. Other Natural or Manmade Factors Affecting its Continued Existence

Other factors affecting conservation actions for this subspecies include land ownership patterns, prelisting activities, and conservation efforts on private and public lands. All active northern Idaho ground squirrel sites occur on private, State, and Payette National Forest lands. A conservation agreement (Agreement) was finalized in July 1996, between us and the Payette National Forest (Service 1996). The duration of the Agreement is 5 years. The Agreement identifies conservation and land management actions that will provide habitat favorable to the northern Idaho ground squirrel. These actions, some already in the implementation phase, include controlled burning of selected meadows to reduce over-story and to improve forage preferred by the northern Idaho ground squirrel, timber harvest in select areas to open meadows where active sites are found, and timber harvest to provide dispersal corridors for improved connectivity between active populations (Forest Service 1998). For example, 3.3 million board feet of timber is proposed for harvest in the Lick Creek drainage from 1998 to 2000 (Forest Service 1997b). The sale is designed to reconnect an active population with other nearby populations. It will also expand the size of 12 meadow habitats on Federal lands that are favorable to recolonization by the northern Idaho ground squirrel. Two units were completed in 1999, and the rest will be harvested in 2000. Although the Agreement does not currently remove or reduce threats to the degree where listing may be precluded, the conservation actions implemented will facilitate recovery.

A relocation plan, developed by scientists from Cornell University and Albertson College, was initiated in the spring of 1997, and continued in 1998 and 1999. A total of 76 squirrels were transplanted to 2 sites on lands managed by the Forest Service that had been treated through burning and timber harvest (Sherman and Gavin 1997; Gavin *et al.* 1998). One site had a small existing population of northern Idaho ground squirrels, and at the other site, the subspecies had been extirpated. Initial results indicate that some translocated females were lactating, and juveniles were observed at both sites, indicating successful reproduction (Sherman and Gavin 1997; Gavin *et al.* 1998). A report compiling the results of monitoring the transplant is expected in the spring of 2000. Whether long-term benefits to ground squirrel recovery result from these actions will be unknown for several years.

Habitat and resource competition with the Columbian ground squirrel is a factor affecting the survival of the northern Idaho ground squirrel. Competition from the Columbian ground squirrel could be an important factor in the decline of the northern Idaho ground squirrel (Dyni and Yensen 1996). The northern Idaho ground squirrel may have been forced into areas containing shallower soils due to competition from Columbian ground squirrels (Sherman and Yensen 1994). The Columbian ground squirrel is larger and prefers deeper areas with soils that provide better over-winter protection and higher nutrients. Where both subspecies occur, the northern Idaho ground squirrel tends to occupy the shallower soils but requires deeper soils less than 1 m (3.2 ft) for nests (Yensen *et al.* 1991). The Columbian ground squirrel is not restricted by soil depth; typically, their burrow systems are associated with degree of slope, well-drained soils, and number of native forbs (Weddell 1989).

Winter mortality may be a contributing factor for northern Idaho ground squirrel decline, especially when juvenile squirrels enter torpor without sufficient fat reserves and snow levels are below average (Paul Sherman, pers. comm., 1997). Soils tend to freeze to greater depths where snow levels are shallow. When this occurs, ground squirrels are unable to thermoregulate or maintain sufficient fat reserves. Although the relationship between ground squirrels and weather is complex, (Yensen *et al.* 1992) sites may have been adversely affected by drought and over winter mortality in the early 1990's. Winter mortality is of special concern since many remaining sites contain few individuals. High winter mortality combined with the loss of suitable vegetation conditions can result in the permanent loss of isolated populations.

As a result of the factors discussed above, and due to the small population sizes at remaining sites and the low total number of individuals, the northern Idaho ground squirrel may have little resilience to naturally occurring events (Gavin *et al.* 1993). Small populations are often highly vulnerable to natural climatic fluctuations as well as catastrophic natural events (Mangel and Tier 1994). Gavin *et al.* (1993) used a computer population viability simulation program (VORTEX), using natality (birth) and mortality (death) values recorded over 8 years from an intensively studied northern Idaho ground squirrel population (Sherman and Yensen 1994) to examine population viability. Variables in the model included no natural immigration. The population viability analysis used 50 individuals, a figure that was 30 individuals lower than the actual population size of 80 individuals (Sherman and Yensen 1994). The model calculated that all but 1 of 100 populations would become extinct in less than 20 years.

In developing this rule, we have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the northern Idaho ground squirrel. Based on this evaluation, the preferred action is to list the northern Idaho ground squirrel as a threatened species. The subspecies has declined from approximately 5,000 animals in 1985 to fewer than 1,000 animals in 1998. Although additional occupied sites have been recently discovered, numerous extirpations have occurred. Most remaining populations

consist of small numbers of individuals isolated from other populations. Remaining occupied sites on private land are not protected from threats to the species or its' habitat. Existing land use regulations are inadequate to protect the northern Idaho ground squirrel from habitat destruction resulting from development. Some ground squirrel habitat improvement projects have been initiated at two sites on Payette National Forest lands. While these efforts may be important to the long-term conservation of the northern Idaho ground squirrel, they are currently very limited in their applicability and the threat of meadow loss still continues. Benefits to the northern Idaho ground squirrel from current conservation actions may not be realized or quantifiable for years. While the northern Idaho ground squirrel is not in immediate danger of extinction because of ongoing conservation efforts, the subspecies could become endangered in the foreseeable future if remaining sites decline further. Not listing this taxon would be inconsistent with the intent of the Act.

Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection and; (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. ''Conservation'' means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

In the proposed rule, we indicated that designation of critical habitat was not prudent for the northern Idaho ground squirrel because of a concern that publication of precise maps and descriptions of critical habitat in the **Federal Register** could increase the vulnerability of this species to incidents of shooting and other forms of human activity. We also indicated that designation of critical habitat was not prudent because we believed it would not provide any additional benefit beyond that provided through listing as endangered.

In the last few years, a series of court decisions have overturned Service determinations regarding a variety of species that designation of critical habitat would not be prudent (*e.g., Natural Resources Defense Council* v. *U.S. Department of the Interior* 113 F. 3d 1121 (9th Cir. 1997); *Conservation Council for Hawaii* v. *Babbitt,* 2 F. Supp. 2d 1280 (D. Hawaii 1998)). Based on the standards applied in those judicial opinions, we have reexamined the question of whether critical habitat for the northern Idaho ground squirrel would be prudent.

Due to the small number of populations, the northern Idaho ground squirrel is vulnerable to shooting, colony destruction, or other disturbance. We remain concerned that these threats might be exacerbated by the publication of critical habitat maps and further dissemination of locational information. We have examined the evidence available for the northern Idaho ground squirrel, and have knowledge of two separate incidents where northern Idaho ground squirrel colonies were eliminated on private lands from poisoning and shooting. As stated in threat factor D, northern Idaho ground squirrels are, by Idaho State law, protected from taking (shooting, trapping, poisoning) or possession, but protection from recreational shooting has not been adequately enforced by the State, especially in those areas where recreational shooting of nearby Columbian ground squirrels is popular. However, we do not have any evidence that the publication of critical habitat maps would provide additional location information that was not already available and thus increase the threat to northern Idaho ground squirrels from shooting and poisoning. Consequently, consistent with applicable regulations (50 CFR 424.12(a)(1)(i)) and recent case law, at this time we cannot make a finding that the identification of critical habitat will increase the degree of threat to these species from taking or other human activity.

In the case of this species, some benefits may result from designation of critical habitat. The primary regulatory effect of critical habitat is the section 7 requirement that Federal agencies refrain from taking any action that destroys or adversely modifies critical habitat. While a critical habitat designation for habitat currently occupied by this species would not be likely to change the section 7 consultation outcome because an action that destroys or adversely modifies such critical habitat would also be likely to result in jeopardy to the species, in some instances section 7 consultation might be triggered only if critical habitat is designated. Examples could include unoccupied habitat or occupied habitat that may become unoccupied in the future. Designating critical habitat may also provide some educational or informational benefits. Therefore, we find that designation of critical habitat is prudent for the northern Idaho ground squirrel.

As explained in detail in our Listing Priority Guidance for FY 2000 (64 FR 57114), our listing budget is currently insufficient to allow us to immediately complete all of the listing actions required by the Act. Deferral of the critical habitat designation for the northern Idaho ground squirrel will allow us to concentrate our limited resources on higher priority critical habitat and other listing actions, while allowing us to put in place protections needed for the conservation of the northern Idaho ground squirrel without further delay. However, because we have successfully reduced, although not eliminated, the backlog of other listing actions, we anticipate in FY 2000 and beyond giving higher priority to critical habitat designation, including designations deferred pursuant to the Listing Priority Guidance, such as the designation for this species, than we have in recent fiscal years.

We plan to employ a priority system for deciding which outstanding critical habitat designations should be addressed first. We will focus our efforts on those designations that will provide the most conservation benefit, taking into consideration the efficacy of critical habitat designation in addressing the threats to the species, and the magnitude and immediacy of those threats. We will develop a proposal to designate critical habitat for the northern Idaho ground squirrel as soon as feasible, considering our workload priorities. Unfortunately, for the immediate future, most of Region 1's listing budget must be directed to complying with numerous court orders and settlement agreements, as well as due and overdue final listing determinations (like the one at issue in this case).

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. Without the elevated profile that Federal listing affords, little likelihood exists that any conservation activities would be undertaken. The Act provides for possible land acquisition and cooperation with the States and requires

that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to insure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us.

The Act requires the appropriate land management agencies to evaluate potential impacts to the species that may result from activities they authorize or permit. Consultation under section 7 of the Act is required for activities on Federal, State, county, or private lands that may impact the survival and recovery of the northern Idaho ground squirrel, if such activities are funded, authorized, carried out, or permitted by Federal agencies. Federal agencies that may be involved with this subspecies include the Forest Service, Federal Highway Administration, BLM, Office of Surface Mining, and Natural Resource Conservation Service. Section 7 requires these agencies to consider potential impacts to the northern Idaho ground squirrel prior to approval of any activity authorized or permitted by them.

Federal agency actions that may require consultation include removing, thinning, or altering vegetation; constructing of roads or camping sites in the vicinity of active and historical sites; recreational home developments; off-road vehicle use areas; gravel or sand mining activities; campground construction; mining permits and expansion; highway construction; and timber harvest.

Listing this subspecies as threatened provides for development of a recovery plan. Such a plan would identify both State and Federal efforts for conservation of the subspecies and establish a framework for agencies to coordinate activities and cooperate with each other in conservation efforts. The plan would set recovery priorities and describe site-specific management actions necessary to achieve conservation and survival of the subspecies. Additionally, pursuant to section 6 of the Act, we would be able to grant funds to affected States for management actions promoting the protection and recovery of this subspecies.

The Act and implementing regulations found at 50 CFR 17.31 describe general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (including harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt any such conduct), import or export, transport in interstate or foreign commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to our agents and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits for threatened species are at 50 CFR 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. For threatened species, permits are also available for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act.

As published in the **Federal Register** on July 1, 1994 (59 FR 34272), our policy is to identify, to the maximum extent practicable at the time when a species is proposed for listing, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. We believe that, based upon the best available information, the following action will not likely result in a violation of section 9:

(1) Activities authorized, funded, or carried out by Federal agencies (*e.g.,* logging, flood and erosion control, mineral and housing development, off-road vehicle permitting or park development, recreational trail and campground development, road construction, prescribed burns, pest control activities, utility lines or pipeline construction) when such activity is conducted in accordance with any incidental take statement prepared by us in accordance with section 7 of the Act; and

(2) Clearing of a firebreak around one's personal residence.

Activities that we believe could potentially result in a violation of section 9 include but are not limited to:

(1) Activities that directly or indirectly result in the actual death or injury of the northern Idaho ground squirrel, or that modify the known habitat of the subspecies by significantly modifying essential behavior patterns (*e.g.,* intensive plowing and conversion to cropland, shooting, intentional poisoning, road and trail construction, water development and impoundment, mineral extraction or processing, off-road vehicle use, and unauthorized application of herbicides or pesticides);

(2) Activities within the northern Idaho ground squirrel hibernating period (mid July through early April) and near burrow areas that include road, pipeline, or utility construction, herbicide application, or other activities that would alter the burrow systems and food sources of the northern Idaho ground squirrel; and

(3) Activities authorized, funded, or carried out by Federal agencies (*e.g.,* logging, flood and erosion control, mineral and housing development, off-road vehicle permitting or park development, recreational trail and campground development, road construction, prescribed burns, pest control activities, utility lines or pipeline construction) when such activity is not conducted in accordance with any incidental take statement prepared by us in accordance with section 7 of the Act.

Questions regarding whether specific activities will constitute a violation of section 9 or requests to obtain approved guidelines for actions within northern Idaho ground squirrel habitat should be directed to the U.S. Fish and Wildlife Service, Snake River Basin Office, Boise, Idaho (see **ADDRESSES** section). Requests for copies of the regulations concerning listed animals and inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon 97232–4181 (telephone 503/231–2063; Facsimile 503/231–6243).

National Environmental Policy Act

We determined that we do not need to prepare an Environmental

Assessment or Environmental Impact Statement, as defined under the authority of the National Environmental Policy Act of 1969 in connection with regulations adopted under section 4(a) of the Endangered Species Act, as amended. A notice outlining our reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

Required Determinations

This rule does not contain any new collections of information other than those already approved under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and assigned Office of Management and Budget clearance number 1018–0094. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. For additional information concerning permit and associated requirements for threatened species, see 50 CFR 17.32.

References Cited

A complete list of all references cited herein, as well as others, is available upon request from the Snake River Basin Office (see **ADDRESSES** above).

Author

The primary author of this proposed rule is Richard Howard, U.S. Fish and Wildlife Service, Snake River Basin Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and record keeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Amend §17.11(h) by adding the following, in alphabetical order under MAMMALS, to the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
*	*	*	*	*	*	*	
Ground squirrel, northern Idaho.	*Spermophilus brunneus brunneus.*	U.S.A. (ID)	NA	T	693	NA	NA
*	*	*	*	*	*	*	

Dated: March 29, 2000.

Jamie Rappaport Clark,

Director, Fish and Wildlife Service.

[FR Doc. 00–8346 Filed 4–4–00; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 991116305–0083–02; I.D. No. 110599D][A]

RIN 0648–AL82

Designated Critical Habitat: Critical Habitat for Johnson's Seagrass

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS is designating critical habitat for Johnson's seagrass (*Halophila johnsonii*) pursuant to section 4 of the Endangered Species Act (ESA). Johnson's seagrass is found on the east coast of Florida from Sebastian Inlet to central Biscayne Bay. Within this range, 10 areas are being designated as critical habitat: a portion of the Indian River Lagoon, north of the Sebastian Inlet Channel; a portion of the Indian River Lagoon, south of the Sebastian Inlet Channel; a portion of the Indian River Lagoon near the Fort Pierce Inlet; a portion of the Indian River Lagoon, north of the St. Lucie Inlet; a portion of Hobe Sound; a site on the south side of Jupiter Inlet; a site in central Lake Worth Lagoon; a site in Lake Worth Lagoon, Boynton Beach; a site in Lake Wyman, Boca Raton; and a portion of Biscayne Bay. NMFS is modifying various aspects of the proposed rule, including the removal as critical habitat of the Intracoastal Waterway (ICW) channel in the designated areas, and enlarging the Lake Wyman site.

The designation of critical habitat provides explicit notice to Federal agencies and the public that these areas and features are vital to the conservation of the species.

DATES: This rule is effective May 5, 2000.

FOR FURTHER INFORMATION CONTACT: Layne Bolen, NMFS, Southeast Region, 850–234–6541 ext 237, or Marta Nammack, NMFS, Office of Protected Resources, 301-713-1401.

SUPPLEMENTARY INFORMATION:

Background

NMFS published a proposed rule to list Johnson's seagrass as a threatened species on September 15, 1993 (58 FR 48326), and a proposed rule to designate critical habitat on August 4, 1994 (59 FR 39716). A public hearing on both the proposed listing and critical habitat designation was held in Vero Beach, Florida, on September 20, 1994. As a result of public input during the comment period, NMFS postponed further action on listing. In order to update the original status report (Kenworthy, 1993) and to include information from new field and laboratory research on species distribution, ecology, genetics and phylogeny, NMFS convened a workshop on the biology, distribution, and abundance of *H. johnsonii*. The results of this workshop were summarized in the proceedings (Kenworthy, 1997) submitted to NMFS on October 15, 1997. NMFS reopened the comment period for the proposed listing on April 20, 1998 (63 FR 19468). The final rule to list Johnson's seagrass as a threatened