

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

[Docket No. FWS-R6-ES-2010-0017]  
[MO 92210-0-0008]

**Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List a Distinct Population Segment of the Fisher in Its United States Northern Rocky Mountain Range as Endangered or Threatened with Critical Habitat**

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

**ACTION:** Notice of petition finding and initiation of status review.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list a distinct population segment (DPS) of the fisher (*Martes pennanti*) in its Northern Rocky Mountain (NRM) range, including portions of Montana, Idaho, and Wyoming, as endangered or threatened and designate critical habitat under the Endangered Species Act of 1973, as amended (Act). Based on our review, we find that the petition presents substantial scientific or commercial information indicating that listing a DPS of fisher in the NRMs of the United States may be warranted. Therefore, with the publication of this notice, we are initiating a review of the status of the species to determine if listing the fisher in the NRMs of the United States is warranted. To ensure that this status review is complete, we are requesting scientific and commercial data and other information regarding this species or DPS. Based on the status review, we will issue a 12-month finding on the petition, which will address whether the petitioned action is warranted, as provided in section 4(b)(3)(B) of the Act. We will make a determination on critical habitat for this species if and when we initiate a listing action.

**DATES:** To allow us adequate time to conduct this review, we request that we receive information on or before June 15, 2010. After this date, you must submit information directly to the Montana Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT** section below). Please note that we may not be able to address or incorporate information that we receive after the above requested date.

**ADDRESSES:** You may submit information by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Search for docket number FWS-R6-ES-2010-0017 and then follow the instructions for submitting comments.

- U.S. mail or hand-delivery: Public Comments Processing, Attn: FWS-R6-ES-2010-0017; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will post all information received on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Information Requested section below for more details).

**FOR FURTHER INFORMATION CONTACT:**

Mark Wilson, Field Supervisor, Montana Ecological Services Field Office, 585 Shepard Way, Helena, MT; telephone (406) 449-5225. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at (800) 877-8339.

**SUPPLEMENTARY INFORMATION:****Information Requested**

When we make a finding that a petition presents substantial information indicating that listing a species may be warranted, we are required to promptly review the status of the species (status review). For the status review to be complete and based on the best available scientific and commercial information, we request information on the fisher from governmental agencies, Native American Tribes, the scientific community, industry, and any other interested parties. We seek information on:

- (1) The species' biology, range, and population trends, including:
  - (a) Habitat requirements for feeding, breeding, and sheltering;
  - (b) Genetics and taxonomy;
  - (c) Historical and current range, including distribution patterns;
  - (d) Historical and current population levels, and current and projected trends;
  - (e) Past and ongoing conservation measures and programs for the species, its habitat, or both;
  - (f) Information on the fisher species rangewide for the purpose of determining if the fisher in its NRM range constitutes a DPS or a significant portion of the range of the species; and
  - (g) Differences between Canada and the United States in control of exploitation, management, conservation status, or regulatory mechanisms pertaining to the fisher and its habitat that would support the use of the international boundary to delimit a DPS in the NRMs.

(2) The factors that are the basis for making a listing determination for a species under section 4(a) of the Act (16 U.S.C. 1531 *et seq.*), which are:

(a) The present or threatened destruction, modification, or curtailment of the species' habitat or range;

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

(c) Disease or predation;

(d) The inadequacy of existing regulatory mechanisms; or

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

Please include sufficient information with your submission (such as full references and page numbers) to allow us to verify any scientific or commercial information you include.

If, after the status review, we determine that listing the fisher in the NRMs as a DPS is warranted, we will propose critical habitat (see definition in section 3(5)(A) of the Act), in accordance with section 4 of the Act, to the maximum extent prudent and determinable at the time we propose to list the species. Therefore, within the geographical range currently occupied by the fisher, we request data and information on:

(1) What may constitute "physical or biological features essential to the conservation of the species";

(2) Where these features are currently found; and

(3) Whether any of these features may require special management considerations or protection, including managing for the potential effects of climate change.

In addition, we request data and information on "specific areas outside the geographical area occupied by the species" that are "essential to the conservation of the species." We also are seeking information documenting the historic range and distribution within that range of the fisher in Montana, Wyoming, Idaho, and other areas adjacent to these States, and the contiguous land areas in Canada including the provinces of British Columbia and Alberta. The Service does not designate critical habitat in areas where a species is not listed; however, identifying the historic distribution of fisher in areas contiguous with the NRMs may inform the extent and type of habitat that may be required for recovery. Please provide specific comments and information as to what, if any, critical habitat you think we should propose for designation if the species is proposed for listing, and why such habitat meets the definition of critical habitat in section 3 of the Act

and the requirements of section 4 of the Act.

Submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or threatened species must be made “solely on the basis of the best scientific and commercial data available.”

You may submit your information concerning this status review by one of the methods listed in the **ADDRESSES** section. If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If you submit a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this personal identifying information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

Information and supporting documentation that we received and used in preparing this finding, will be available for public inspection at <http://www.regulations.gov>, or by appointment during normal business hours, at the U.S. Fish and Wildlife Service, Montana Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

### Background

Section 4(b)(3)(A) of the Act requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition and publish our notice of the finding promptly in the **Federal Register**.

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)). If we find that substantial scientific or commercial information was presented, we are required to promptly commence a review of the status of the species,

which is subsequently summarized in our 12-month finding.

### Petition History

On March 6, 2009, we received a petition dated February 24, 2009, from the Defenders of Wildlife, Center for Biological Diversity, Friends of the Bitterroot, and Friends of the Clearwater (petitioners) requesting that the fisher in the United States NRM be considered a DPS and listed as endangered or threatened, and critical habitat be designated under the Act. The petition clearly identified itself as such and included the requisite identification information for the petitioners, as required by 50 CFR 424.14(a). In an April 9, 2009, letter to the petitioners, we responded that we had reviewed the information presented in the petition and determined that issuing an emergency regulation temporarily listing the species under section 4(b)(7) of the Act was not warranted. We also stated that we could not address the petition further at that time because of staff and budget limitations. This finding addresses the petition.

### Previous Federal Actions

On June 5, 1990, we received a petition dated May 29, 1990, from Mr. Eric Beckwith, Forest Issues Task Force, Sierra Biodiversity Project, and others requesting that the Pacific fisher (*Martes pennanti pacifica*) be listed as an endangered species in California, Oregon, and Washington under the Act. On January 11, 1991, we published a 90-day finding (56 FR 1159) indicating that the fisher in the Pacific States is a distinct population that is geographically isolated from populations in the Rocky Mountains and British Columbia and represents a listable entity under the Act. The finding also indicated that the petition had not presented substantial information indicating that a listing may be warranted because of a lack of information on fisher habitat needs, population size and trends, and demographic parameters (56 FR 1159).

On December 29, 1994, we received a petition dated December 22, 1994, from the Biodiversity Legal Foundation requesting that two fisher populations in the western United States, including the States of Washington, Oregon, California, Idaho, Montana, and Wyoming, be listed as threatened under the Act. Based on our review, we found that the petition did not present substantial information indicating that listing the two western United States fisher populations as a DPS was warranted (61 FR 8016, March 1, 1996). The best scientific evidence at that time

indicated that the range of the fisher was contiguous across Canada with some areas having abundant populations, and through southward peninsular extensions, was contiguous with the United States Rocky Mountain and Pacific populations (61 FR 8016). No evidence was presented in the petition to support physical, physiological, ecological, or behavioral separations (61 FR 8016).

On December 5, 2000, we received a petition dated November 28, 2000, from 12 organizations, with the lead organizations identified as the Center for Biological Diversity and the Sierra Nevada Forest Protection Campaign, requesting that the West Coast DPS of the fisher, including portions of California, Oregon and Washington, be listed as endangered and critical habitat be designated under the Act. A court order was issued on April 4, 2003, by the U.S. District Court, Northern District of California, that required the Service to submit for publication in the **Federal Register** a 90-day finding on the 2000 petition (*Center for Biological Diversity, et al. v. Norton et al., No. C 01—2950 SC*). On July 10, 2003, we published a 90-day petition finding that the petition provided substantial information that listing may be warranted and initiated a 12-month status review (68 FR 41169). On April 8, 2004, we published a warranted 12-month finding for listing of the fisher’s West Coast DPS (69 FR 18770). A listing action was precluded by higher priorities and the West Coast DPS was added to our candidate species list.

The West Coast fisher was included in the Service’s candidate notices of review in 2005, 2006, 2007, 2008, and 2009 (70 FR 24870, May 11, 2005; 71 FR 53756, September 12, 2006; 72 FR 69034, December 6, 2007; 73 FR 75176, December 10, 2008; 74 FR 57804, November 9, 2009).

### Species Information

#### Description

The fisher, as described by Powell (1981, p. 1), is light brown to dark blackish-brown, with the face, neck, and shoulders sometimes being slightly gray. The chest and underside often have irregular white patches. The fisher has a long body with short legs and a long bushy tail. At 3 to 6 kilograms (kg) (6.6 to 13.2 pounds (lbs)), male fishers weigh about twice as much as females (1.5 to 2.5 kg (3.3 to 5.5 lbs)). Males range in length from 90 to 120 centimeters (cm) (35 to 47 inches (in)), and females range from 75 to 95 cm (29 to 37 in) in length. Fishers may show regional variation in typical body weight. For example,

fishers in the Pacific States may weigh less than fishers in the eastern United States (Seglund 1995, p. 21; Dark 1997, p. 61; Aubry and Lewis 2003, p. 87).

#### Taxonomy

We accept the characterization of the fisher as a species, *Martes pennanti*, based on the review of the systematics of the genus *Martes* by Anderson (1994, pp. 21–25). The fisher is classified in the order Carnivora, family Mustelidae, a family that also includes weasels, mink, martens, and otters (Anderson 1994, p. 14). It is a member of the genus *Martes*, subgenus *Pekania*, and occurs only in North America (Anderson 1994, pp. 22–23). Goldman (1935, p. 177) recognized three subspecies of fisher, although he stated they were difficult to distinguish: (1) *Martes pennanti pennanti* in the east and central regions; (2) *M. p. columbiana* in the central and northwestern regions that include the NRM; and (3) *M. p. pacifica* in the western region. A subsequent analysis questioned whether there is a sufficient basis to support recognition of different subspecies (Hagmeier 1959, entire). Although subspecies taxonomy as described by Goldman (1935, p. 177) is often used in literature to describe or reference fisher populations in different regions of its range, and recent consideration of genetic variation indicates patterns of population subdivision similar to the earlier described subspecies, it is not clear whether Goldman's designations of subspecies are taxonomically valid (Kyle *et al.* 2001, p. 2345; Drew *et al.* 2003, p. 59). For the purposes of this finding, we are evaluating whether the petition presents substantial information that the fisher in the NRM qualifies as a DPS of the full species (i.e., *M. pennanti*), because that is the action requested by the petition.

#### Biology and Habitat

Fishers are opportunistic predators primarily of snowshoe hares, squirrels, mice, and birds (Powell 1993, p. 18). Carrion and plant material (e.g., berries) also are consumed (Powell 1993, p. 18). The fisher is one of the few predators that kills porcupines, and porcupine remains have been found more often in the gastrointestinal tract and scat of fisher than any other predator (Powell 1993, p. 135). As dietary generalists, fishers tend to forage in areas where prey is both abundant and vulnerable to capture (Powell 1993, p. 100).

Fishers are estimated to live up to 10 years (Arthur *et al.* 1992, p. 404; Powell *et al.* 2003, p. 644). Both sexes reach maturity their first year but may not be effective breeders until 2 years of age

(Powell *et al.* 2003, p. 638). Fishers are solitary except during the breeding season, which is generally from late February to the middle of May (Wright and Coulter 1967, p. 77; Frost *et al.* 1997, p. 607). Uterine implantation of embryos occurs 10 months after copulation; active gestation is estimated to be between 30 and 60 days; and birth occurs nearly 1 year after copulation (Wright and Coulter 1967, pp. 74, 76; Frost *et al.* 1997, p. 609; Powell *et al.* 2003, p. 639). Litter sizes for fishers range from one to six with a mean of two to three kits (Powell *et al.* 2003, pp. 639–640). Newborn kits are entirely dependent and may nurse for 10 weeks or more after birth (Powell 1993, p. 67). Kits develop their own home ranges by one year of age (Powell *et al.* 2003, p. 640). Populations of fisher fluctuate in size, and reproductive rates may vary widely from year to year in response to the availability of prey (Powell and Zielinski 1994, p. 43).

Fisher home ranges vary in size across North America from 16 to 122 square kilometers (km<sup>2</sup>) (4.7 to 36 square miles (mi<sup>2</sup>)) for males and from 4 to 53 km<sup>2</sup> (1.2 to 15.5 mi<sup>2</sup>) for females (Powell and Zielinski 1994, p. 58; Lewis and Stinson 1998, pp. 7–8; Zielinski *et al.* 2004, p. 652). In the NRM, home ranges for males range from approximately 30 to 120 km<sup>2</sup> (8.7 to 35 mi<sup>2</sup>) during winter and summer (Jones 1991, p. 83). Females range from 6 to 75 km<sup>2</sup> (1.7 to 22 mi<sup>2</sup>) during winter, with a reduction in summer from 6 to 60 km<sup>2</sup> (1.7 to 17.5 mi<sup>2</sup>) (Jones 1991, p. 83). The abundance of vulnerable prey may play a role in home range selection (Powell and Zielinski 1994, p. 57). Fishers exhibit territoriality with little overlap between members of the same sex; however, overlap between opposite sexes is extensive and possibly related to the density of prey (Powell and Zielinski 1994, p. 59).

Fishers live in coniferous and mixed conifer and hardwood forests and avoid areas with little or no cover (Powell and Zielinski 1994, p. 39). They are found commonly in mature forest cover and prefer late-seral forests over other habitats (Powell and Zielinski 1994, p. 52). Riparian forests and habitat close to open water such as streams are important to fishers in northern California and the Rocky Mountains of Idaho (Buskirk and Powell 1994, p. 285). In Idaho, old-growth forests of grand and subalpine fir are used extensively (Jones 1991, p. 113). The physical structure of the forest and prey associated with forest structures are thought to be the critical features that explain fisher habitat use, rather than specific forest types (Buskirk and

Powell 1994, p. 286), and habitat use can vary by season and by activity (Jones 1991, p. 88). In the Rocky Mountains, fishers avoid areas of deep, fluffy snow and select riparian areas with relatively gentle slopes and dense canopy cover that may provide protection from snow during winter (Powell and Zielinski 1994, p. 54). Cavities and branches in trees, snags, stumps, rock piles, and down timber are used as resting sites, and large diameter live or dead trees are selected for natal and maternal dens (Powell and Zielinski 1994, pp. 47, 56). Powell and Zielinski (1994, p. 54) suggest that habitat suitable for resting and denning sites may be more limiting for fishers than foraging habitat.

A more extensive review of fisher biology can be found in the Service's 12-month finding on a petition to list the West Coast DPS of the fisher (69 FR 18770, April 8, 2004).

#### Distribution

At the time of European settlement, fishers were found in the forests across North America in Canada from approximately 60° north latitude, extending south into the United States along the Appalachian, Pacific Coast, and NRM (Gibilisco 1994, p. 60). In the late 1800s and early 1900s, fishers experienced reductions in range, decreases in population numbers, and local extirpations attributed to over-trapping, predator control, and habitat destruction in the United States, and to a lesser extent in Canada (Brander and Books 1973, p. 53; Douglas and Strickland 1987, p. 512; Powell and Zielinski 1994, p. 39). Since the 1950s, fishers have recovered in some of the central (Minnesota, Wisconsin) and eastern (New England) portions of their historic range in the United States as a result of trapping closures, habitat regrowth, and reintroductions (Brander and Books 1973, pp. 53–54; Powell 1993, p. 80; Gibilisco 1994, p. 61; Lewis and Stinson 1998, p. 3; Proulx *et al.* 2004, pp. 55–57). Fishers have not returned to the areas south of the Great Lakes to Appalachia. In the western range, fisher distribution occurs in a few disjunct and relatively small areas of their former range in Oregon and California, and recently reintroduced individuals represent the species on the Olympic Peninsula of Washington State (Proulx *et al.* 2004, p. 58; National Park Service 2009).

It was believed that fishers were extirpated from the NRM of the United States by the 1930s (Powell and Zielinski 1994, p. 41). In five separate reintroduction efforts, fishers were translocated from the Midwest and

British Columbia to the NRMs between 1959 and 1991 (Vinkey *et al.* 2006, p. 268; Jones 1991, p. 1). The recent discovery of a native lineage of fisher coexisting with descendents of translocated individuals indicates that fishers in Idaho and Montana were not extirpated as previously thought (Drew *et al.* 2003, p. 57; Vinkey 2003, pp. 9, 30; Schwartz 2007, p. 924). Fishers are distributed in northwest and west-central Montana and northern and north-central Idaho with rare detection in southwestern Idaho (Idaho Department of Fish and Game (IDFG) 2006, pp. 7–24; Vinkey 2003, p. 54). Snowtrack surveys have documented fisher in Glacier National Park in the 1980s and the Greater Yellowstone area in the late 1990s, but more verified records are needed to confirm the presence of fisher in these areas (Vinkey 2003, pp. 52, 60).

#### Population Status

Accurate information on fisher densities and abundance outside the northeastern United States is limited. Estimates of fisher abundance and vital rates are difficult to obtain and often based on harvest records, trapper questionnaires, and tracking information (Douglas and Strickland 1987, p. 522). Populations may vary widely based on habitat composition and prey availability (York 1996, p. 4). In Maine, the density of female fishers ranged from 0.09 to 0.36 per km<sup>2</sup> (0.39 mi<sup>2</sup>) in summer to 0.05 to 0.12 per km<sup>2</sup> (0.39 mi<sup>2</sup>) in winter (Arthur *et al.* 1989, pp. 674, 678). In high-quality habitats in British Columbia, fisher densities were between 0.01 and 0.0154 per km<sup>2</sup> (0.39 mi<sup>2</sup>), and the total late-winter population in the province was between 1,113 and 2,759 individuals (Weir 2003, p. iv). The Service's (2008, p. 9) review of population data from California shows recent densities of 0.16 fisher per km<sup>2</sup> (0.39 mi<sup>2</sup>) in the 65-km<sup>2</sup> (25.1 mi<sup>2</sup>) Hoopa Valley Indian Reservation study site, and between 113 to 147 adult female individuals in the southern Sierra Nevada Mountains. Little is known of the status of fishers in the Rocky Mountains. Vinkey (2003, p. 33) evaluated a translocation effort in the Cabinet Mountains of Montana in the 1990s and concluded that the population is small and limited in distribution, based on a small number of captures or detections coupled with a high proportion of recaptures. Vinkey (2003, p. 61) also reviewed historical records and carnivore research in Montana and concluded that the fisher is one of the lowest-density carnivores in the State. One population estimate for the Clearwater region of northern Idaho

is possibly 0.04 fishers per km<sup>2</sup> (0.39 mi<sup>2</sup>) in an 80 km by 16 km (50 mi by 10 mi) corridor in the Lochsa study area (Lucas 2006, p. 85).

#### Evaluation of Listable Entities

Under section 3(16) of the Act, we may consider for listing any species, including subspecies, of fish, wildlife, or plants, or any DPS of vertebrate fish or wildlife that interbreeds when mature (16 U.S.C. 1532(16)). Such entities are considered eligible for listing under the Act (and, therefore, are referred to as listable entities) should we determine that they meet the definition of an endangered or threatened species. In this case, the petitioners have requested that the fisher in the United States NRMs be considered a DPS and listed as endangered or threatened under the Act.

#### Distinct Vertebrate Population Segment

The Service and the National Marine Fisheries Service (National Oceanic and Atmospheric Administration—Fisheries) developed a joint policy that addresses the recognition of DPSes of vertebrate species for potential listing actions (61 FR 4722, February 7, 1996). Under the DPS policy, two basic elements are considered in the decision regarding the establishment of a population of a vertebrate species as a possible DPS. We must first determine whether the population qualifies as a DPS; this requires a finding that the population is both: (1) Discrete in relation to the remainder of the species to which it belongs; and (2) biologically and ecologically significant to the species to which it belongs. If the population meets the first two criteria under the DPS policy, we then proceed to the third element in the process, which is to evaluate the population segment's conservation status in relation to the Act's standards for listing as an endangered or threatened species. These three elements are applied similarly for additions to or removals from the Federal Lists of Endangered and Threatened Wildlife and Plants.

Our evaluation of significance is made in light of congressional guidance (see Senate Report 151, 96th Congress, 1st Session) that the authority to list DPSes be used "sparingly" while encouraging the conservation of genetic diversity. If we determine that a population segment meets the discreteness and significance standards, then the level of threat to that population segment is evaluated based on the five listing factors established by the Act to determine whether listing the DPS as either endangered or threatened is warranted.

#### Discreteness

Under our DPS policy, a population segment of a vertebrate species may be considered discrete if it satisfies either one of the following two conditions: (1) It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors (quantitative measures of genetic or morphological discontinuity may provide evidence of this separation); or (2) It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the Act (61 FR 4722).

Substantial information is presented in the petition and other documents in our files indicating that the fishers in the NRMs may be geographically separate from other fisher populations. The range of the fisher in the West Coast Range of Washington, Oregon, and California is considered separated from the NRMs by natural physical barriers, including the nonforested high desert areas of the Great Basin in Nevada and eastern Oregon and the Okanogan Valley in eastern Washington, major highways, urban and rural open-canopied areas, and agricultural development (69 FR 18770). Historic and recent range maps show no connection in the contiguous United States between occurrences in the NRMs and the fisher populations in the Midwest and Great Lakes area (Hagmeier 1956, p. 151; Douglas and Strickland 1987, p. 313; Gibilisco 1994, p. 64; Proulx *et al.* 2004, p. 57).

Prior to 2003, fisher range maps depicted the NRM region interconnected with British Columbia (Gibilisco 1994, p. 64; Lewis and Stinson 1998, p. 3). An analysis of fisher habitat suitability and harvest and survey information indicates that the southernmost extension of fishers in British Columbia likely occurs in the central part of the province over 200 km (124 mi) north of the international border, and that fisher populations in Canada are no longer contiguous with fisher populations in the western United States (Weir 2003, pp. 17–19). Although the fisher distribution has been adjusted to reflect the more recent understanding of fisher habitat ecology, highly fragmented and low suitability fisher habitat does exist in the Kootenay region of southeastern British Columbia between the NRMs of the United States and central British Columbia (Weir 2003, p. 18). Fishers were considered rare or extirpated from the Kootenay

region in the mid-1990s, prompting a reintroduction effort to expand the presence of the species in British Columbia and “to connect isolated US populations with healthy and increasing populations in central B.C.” (Fontana *et al.* 1999, p. 1). Fishers released in Canada as part of the relocation program were using habitats in Montana (Fontana *et al.* 1999, p. 18). Weir *et al.* (2003, pp. 19–20) considered the possibility, though unlikely, that the Cabinet Mountains in Montana were the source of two fishers detected in the Kootenay area in southeast British Columbia. A reintroduced fisher population was thought to persist in southeast British Columbia, but the observed survival rate of translocated adults and the few cases of confirmed reproduction in the assessment area were not likely sufficient for the population to expand and become self-sustaining (Weir *et al.* 2003, pp. 24–25).

We have no information indicating that an active connection was established between central British Columbia and the United States as a result of the translocation efforts, or that fishers in the NRMs of Montana and Idaho are functionally connected to larger population areas in Canada. We seek additional information for our status review to clarify the geographic separation of the fisher in the NRMs of the United States from other areas of fisher occupation including Canada, and to clarify a geographical delineation of a NRM DPS.

Substantial information presented in the petition and documents in our files may support discreteness of fishers in the NRMs based on the presence of a unique genetic signature consistent with isolation and a relic native population (Drew *et al.* 2003, p. 59; Vinkey *et al.* 2006, p. 267; Schwartz 2007, p. 924). Descendants of native fisher found in Idaho and west-central Montana have unique haplotypes of the mitochondrial genome that are found nowhere else in fisher populations (Drew *et al.* 2003, p. 59; Vinkey *et al.* 2006, p. 269; Schwartz 2007, p. 922). Populations in the NRMs also demonstrate a genetic legacy consistent with previous translocations from the mid-western United States and British Columbia (Drew *et al.* 2003, p. 59; Vinkey *et al.* 2006, pp. 268–269).

The petition states that the international boundary between the United States and Canada contributes to the discreteness of the NRM fisher population based on significant differences in management of fishers and habitat. However, the petition offers no example of a specific law, regulation, policy, population status, or management prescription that would

support the assertion of significant differences. For us to determine that the international boundary serves as a basis for discreteness, we need some evidence that differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist between the two countries that are significant in light of section 4(a)(1)(D) of the Act. The petition did not provide any information that such differences exist.

Information in our files indicates that Canada does not have a national law governing management of national lands like the United States has in the National Forest Management Act (NFMA) of 1976, as amended (16 U.S.C. 1600–1614). A substantial portion of the occupied fisher range in Montana and Idaho is managed under the NFMA. However, we do not have any information indicating that the differences in management between the United States and Canada are significant in light of section 4(a)(1)(D) of the Act. If anything, fishers would have more protection in the United States due to the NFMA. We have no information that fishers are impacted by either the lack of an overarching forest management regulatory mechanism in Canada, or the application of the NFMA in the United States NRMs.

Information in the petition and our files indicates that legal trapping for fishers occurs in both British Columbia and the NRM. In the United States, legal trapping occurs only in Montana; however, we are analyzing the NRMs as a DPS, not as individual States. The petition did not present any information, nor do we have any in our files, that distinguishes differences in trapping regulations or harvest between the United States and Canada, and the application to discreteness. The applicability of the international boundary to the discreteness of a NRM DPS will be investigated further during the species status review.

In summary, the petition and other documents in our files present substantial information indicating that the NRM population of fisher in the United States may meet at least one of the criteria for discreteness under the DPS policy based on marked physical separateness and genetic distinctness.

#### Significance

If a population segment is considered discrete under one or more of the conditions described in the Service’s DPS policy, its biological and ecological significance will be considered in light of congressional guidance that the authority to list DPSes be used “sparingly” while encouraging the

conservation of genetic diversity (see Senate Report 151, 96th Congress, 1st Session). In making this determination, we consider available scientific evidence of the discrete population segment’s importance to the taxon to which it belongs. Since precise circumstances are likely to vary considerably from case to case, the DPS policy does not describe all the classes of information that might be used in determining the biological and ecological importance of a discrete population. However, the DPS policy describes four possible classes of information that provide evidence of a discrete population segment’s biological and ecological importance to the taxon to which it belongs. As specified in the DPS policy (61 FR 4722), this consideration of the population segment’s significance may include, but is not limited to, the following:

- (1) Persistence of the discrete population segment in an ecological setting unusual or unique to the taxon;
- (2) Evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon;
- (3) Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range; or
- (4) Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.

A population segment needs to satisfy only one of these conditions to be considered significant. Furthermore, other information may be used as appropriate to provide evidence for significance.

The petition presents three points supporting the significance of a DPS in the NRMs of the United States: (1) The NRM region of the United States is ecologically unique because it is situated in a unique ecoregion as described by Bailey (1996, entire) and exhibits significant ecological differences from the closest fisher habitat in central British Columbia; (2) the NRM region represents a significant part of the range based on representation and geographic size; and (3) the fisher population in north-central Idaho and west-central Montana share a genetic haplotype unique to the taxon.

The petitioners claim that fishers in the NRMs of the United States exist in an unusual or unique ecological setting based on Bailey’s (1996, entire) ecoregion delineations and descriptions of fisher study sites in British Columbia and Idaho (Jones 1991, pp. 3–4; Weir 1995, pp. 20–26). Bailey’s ecoregion

classification is a descriptive four-level hierarchy differentiating geographic areas based on climate, vegetation (species dominants) or natural land covers, and soils. It is one of several classification systems used in the past and present by government and private land managers to inform management decisions.

While it appears that the known fisher distribution in the NRMs of the United States is in a different ecoregion classification than the closest population concentration in Canada (Bailey 1996, map), the significance of this difference to the taxon is not explained in the petition. Descriptions of fisher habitat in Idaho (Jones 1991, pp. 3–4) and British Columbia (Weir 1995, pp. 20–26) show considerable similarities in vegetation. Differences are seen in precipitation and temperature between the Idaho and British Columbia sites, but climate conditions also vary within the individual study sites (Weir 1995, pp. 20–26). It is not clear if the descriptions of these small geographic areas are representative of the range of fisher in either British Columbia or the NRMs in the United States.

The petitioners express support for uniqueness based on general descriptions of climate and vegetation. Information in the petition and in our files indicates that fishers inhabit various types of late-successional coniferous forests throughout most of their range, and the dominant tree species, which can be influenced by climate and soils, may vary from region to region (Powell and Zielinski 1994, p. 52). Forest structure and prey availability are more important habitat selection criteria for fishers than the type of forest, tree species, or general climate characteristics (Buskirk and Powell 1994, pp. 286, 295; Weir 1995, p. 19). While the NRM ecoregion may be different from other ecoregions, we did not find any evidence in the petition or in our files indicating that the difference in classification is significant to the fisher.

Information in the petition and in our files supports the petitioner's assertion that a loss of the fisher in the NRMs would result in a significant gap in the range of the fisher. The fisher is only found in Canada and the United States. The distribution of fisher in the United States occurred historically in four peninsular extensions from Canada and constituted the southern-most distribution of fisher in North America. The connection with Canada is now lost, or is highly fragmented, in the western United States. Fishers in the NRMs of the western United States are

separate from the eastern United States populations by over 1,280 km (800 mi) of nonforested habitat, lands converted for agriculture, and urban development. In the western United States, the fisher's distribution occurs in the forested areas of the NRMs in northern Idaho and western Montana, and a few disjunct and relatively small areas of the species' former West Coast range in Oregon, Washington, and California. The West Coast fishers are considered separated from the NRMs by natural physical barriers as well as other physical impediments such as major highways, urban and rural open-canopied areas, and agricultural development. The extirpation of fishers in the NRMs would be the loss of one of the four existing southern-most extensions of the taxon's range, and would result in a significant gap in the range of the fisher.

The fisher population in the NRMs of the United States exhibits the genetic legacy of translocations from British Columbia and the Midwest as well as a relic native population once thought extirpated. The loss of the fisher in the NRMs could result in the loss of unique haplotypes of the mitochondrial genome associated with the native population described as genetically distinct from fisher in the remainder of North America (Drew *et al.* 2003, p. 57; Vinkey *et al.* 2006, p. 269; Schwartz 2007, p. 924).

In summary, information in the petition and our files may support the significance of a DPS in the NRMs of the United States based on evidence of genetic distinctness and evidence that loss of the DPS may result in a significant gap in the range of the taxon.

#### Summary

On the basis of the preceding discussion, we believe that the petition and other documents present substantial information that the NRM population of the fisher in the United States may be both discrete and significant within the meaning of our DPS policy, and therefore may constitute a DPS. A discussion of the potential DPS's conservation status in relation to the Act's standards for listing as an endangered or threatened species follows.

#### Evaluation of Information for this Finding

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations at 50 CFR 424 set forth the procedures for adding a species to, or removing a species from, the Federal Lists of Endangered and Threatened Wildlife and Plants. 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) of the Act: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

In making this 90-day finding, we evaluated whether information regarding threats to the fisher in the NRMs, as presented in the petition and other information available in our files, is substantial, thereby indicating that the petitioned action may be warranted. Our evaluation of this information is presented below.

#### A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat

##### Information Provided in the Petition

The petitioners state that fishers are threatened by habitat loss and destruction from logging and roads (69 FR 18770; Douglas and Strickland 1987, p. 518; Freel 1991, p. 2; Jones 1991, pp. 116–117; Aubry and Houston 1992, p. 75; Buskirk 1992, p. 318; Buck *et al.* 1994, p. 375; Powell and Zielinski 1994, p. 64; IDFG 1995, p. 10; Carroll *et al.* 1999, p. 1357), and habitat loss and destruction is the primary threat to fishers in the NRMs. The petitioners assert that fishers are at risk from naturally occurring and climate change-accelerated fire, insects, and disease outbreaks (Ridler 2008); and they assert, without documentation, that fishers are especially vulnerable to habitat alteration because past logging reduced their range and habitat to a point that any additional loss of habitat from human action threatens the fishers' persistence. The petition states that the majority of fisher habitat in the NRMs is within seven national forests where an average of 8,000 hectares (ha) (20,000 acres (ac)) of forest was logged annually between 2002 and 2006 (U.S. Department of Agriculture (USDA) 2008, entire). An additional average 28,000 ha (70,000 ac) was lost annually to fire, insects, and disease during that period (USDA 2008, entire). Approximately 1.3 million ha (3.2 million ac) of national forest land was logged or experienced fire or disease between 1945 and 2006 (USDA 2008, entire). Other forested lands are managed for timber revenue by private corporations, the States of Montana and Idaho, and Tribal governments; harvest of at least some of these lands is

expected in the future (Idaho Department of Lands 2007, entire; Montana Department of Natural Resources 2008, entire; Plum Creek 2009, entire; Potlatch 2008, entire; Ridler 2008, entire).

The petition lists a wide range of impacts that could deteriorate or cause direct loss of fisher habitats. Silviculture treatments may alter structural and vegetation diversity by a number of mechanisms and reduce cover and den and resting sites (Douglas and Strickland 1987, p. 518; Aubry and Houston 1992, p. 75; Buskirk 1992, p. 318; Buck *et al.* 1994, p. 375; Carroll *et al.* 1999, p. 1375). Roads directly remove habitat, cause displacement, inhibit dispersal, and contribute to increased fisher mortality, fragmentation, and isolation (Freel 1991, p. 2; Jones 1991, pp. 116–117; Powell and Zielinski 1994, p. 62; IDFG 1995, p. 10; Ruediger *et al.* 1999, pp. 1–2). The petition states that forests across the region have high incidence and intensity of fire, insects, and disease outbreaks due to drought and higher temperatures related to climate change; fisher habitat is further reduced by the removal of timber and wildland-urban interface treatments to reduce fire risk.

#### Evaluation of Information Provided in the Petition and Available in Service Files

Information in the petition and in our files indicates that past habitat loss due to logging, fire, and clearing of land for agriculture and settlement together with trapping contributed to the near extermination of fisher populations over much of their former range in the United States and much of eastern Canada by the early 1900s (Powell and Zielinski 1994, p. 41; Douglas and Strickland 1987, p. 512). There are few reports quantifying habitat loss in specific locations, but in 1984, it was estimated that fishers occupied over 4.3 million km<sup>2</sup> (1.6 million mi<sup>2</sup>) in Canada and the United States, reduced from 6.4 million km<sup>2</sup> (2.5 million mi<sup>2</sup>) of occupied range before the settlement of North American by Europeans (Douglas and Strickland 1987, p. 513). Land clearing and frequent fires had reduced the forested area in the northeastern United States by nearly 50 percent by the mid-1800s, and rangewide habitat loss increased as human settlement moved west (Powell and Zielinski 1994, p. 41).

The fisher in the NRMs was considered extirpated by the 1930s (Powell and Zielinski 1994, p. 41). Presently, the fisher representation in Montana and Idaho includes a recently discovered remnant native population

and descendants of fishers relocated from the Midwest and British Columbia in the 1960s and 1990s (Drew *et al.* 2003, p. 57; Vinkey 2003, pp. 9, 30; Schwartz 2007, p. 924). It is not clear from the limited information available to us during this 90-day review what role past land uses played in the near extirpation of the fisher in the NRMs by 1930. We do know that extensive forestry drastically reduced the amount of old-growth or late-successional forests in the NRMs, especially on private lands in the lower-elevation commercial timber zones (Habeck 1988, p. 202). National forest lands that comprise approximately 6 million ha (15 million ac) in the NRMs have retained more area of mature forest than private commercial lands but have experienced close to 1 million ha (2.5 million ac) of silviculture removal—nearly a third by clear-cutting methods—just in the past 65 years (Habeck 1988, p. 202; USDA 2008, entire).

The legacy of timber harvest, combined with continued commercial forestry and other factors, may limit the capacity of the NRM area to support fishers today. Fishers rely on large areas of primarily late-successional coniferous forest with fairly dense canopies and large trees, snags, and down logs for denning and resting; vegetated understory and large woody debris appear important for prey species (Powell and Zielinski 1994, p. 52). These mature forest characteristics may take at least 120 years or more to develop (Green *et al.* 1992, p. 6). Fishers evolved in forests where fire and windthrow were common, and small silviculture treatments or harvest may resemble the natural disturbances and the succession that follows (Powell and Zielinski 1994, p. 64). Therefore, the effects of present-day timber harvest and management of forests for harvest on the capacity of the NRMs to support fishers may be influenced by multiple factors, including the location, scale, and juxtaposition of treatments to previous disturbances, and the suitability of the location to provide fisher habitat under natural conditions.

In the NRMs, fishers forage in young to medium-age stands adjacent to larger patches of mature forest (Jones 1991, p. 92). However, large clear-cuts or numerous adjacent smaller cuts, and open areas such as roads, combined with the loss of large patches of late-successional conifer habitat, may alter suitability and fragment habitat and limit fisher population size (Powell and Zielinski 1994, pp. 42, 64). Where the key habitat elements are patchy or limited in distribution, fishers are

forced to range over larger areas. Fishers in Montana and Idaho have the largest recorded home ranges of the United States' fishers, possibly influenced by the fragmentation or low quality of forest resources (Powell and Zielinski 1994, pp. 58, 60).

The effects of habitat loss and fragmentation may be emphasized by territorial exclusion between members of the same sex, which increases the space needed to support viable populations (Powell and Zielinski 1994, p. 59). In the NRMs, fishers may be more vulnerable to habitat changes caused by fire, drought, and insect infestation even within historical variability due to diminished mature late-seral forest structures at a landscape level.

The loss of older forest and increased fragmentation from human activities has likely reduced the capacity of the NRMs to support fishers. To our knowledge, there is no comprehensive mapping of fisher habitat for the NRMs.

Consequently, it is not clear how current management of public and private forest lands is limiting further loss of habitat suitability on a landscape scale. However, we will seek additional information regarding forest management during the status review process.

From information in the petition and readily available in our files, private or State trust lands in Northern Montana and Idaho are managed for commercial wood production and timber harvest, which may prevent succession to the mature forest stages preferred by fishers (Idaho Department of Lands 2007, p. 22; Montana Department of Natural Resources 2008, entire; Plum Creek 2009, entire; Ridler 2008, entire). Timber harvest is expected to continue on commercial lands; future increases in harvest and reduction of the harvest rotation period are expected on Idaho State trust lands (Ridler 2008, p. 2). We expect timber harvest to continue on Federal lands in the future based on mandates of the Multiple-Use and Sustainable Yield Act (16 U.S.C. 528 *et seq.*) and the NFMA (16 U.S.C. 1600 *et seq.*). The U.S. Forest Service (USFS) has managed for old-growth forest under forest plan direction since the 1990s (Green *et al.* 1992, p. 1) and considers the fisher a sensitive status species (Macfarlane 1994, p. 177); however, no information is provided in the petition and we have no information available in our files indicating the effectiveness of this management in protecting or augmenting old-growth forest types for fisher habitat.

The real estate value of commercial timber lands is spurring a transition to

residential and commercial development in areas of western Montana (Stromnes 2002, entire; McQuillan 2007, entire). For example, Plum Creek Timber Company, whose holdings are concentrated in northwest and north-central Montana and coincide with areas of verified fisher distribution (Vinkey 2003, p. 54), expects to develop 8,000 to 16,000 ha (20,000 to 40,000 ac) over the next 10 to 15 years in addition to over 14,000 ha (35,000 ac) already sold (McQuillan 2007, entire). The company's own land development subsidiary describes the development of company lands, once held for timber production, as residential lots ranging in size from 2 to 4 ha (5 to 10 ac) (McQuillan 2007, entire). Development in forested environments may increase roads and remove additional forest vegetation structure or prey habitat in order to maintain defensible space around structures (wildlife-urban interface); however, although foraging and resting habitat may be removed by road construction, fishers do not appear to avoid the road itself (Lewis and Stinson 1998, p. 7; Schwartz *et al.* 2006, p. 6).

The economic recession starting in late 2008 may have an impact on commercial timber harvest and the conversion of timber lands to residential development; however, no information was included in the petition and we have no information in our files to evaluate the effects of the economic downturn on these activities at this time.

Silviculture timber removals on national forest lands in the NRM have trended downward over the past decade; however, the forested areas affected by fire have increased to over 85,600 ha (214,000 ac) in the past decade compared to less than 4,000 ha (10,000 ac) affected between 1945 and 1997 (USDA 2008, entire). This increase could reflect an increase in environmental conditions that promote fire, such as drought and disease, or management of fire as a natural force in shaping forest composition and distribution.

The petitioners do not present specific information about how global climate change has affected or is likely to affect the fisher in the NRMs in a way that differs from past climate variability. Warming of the climate globally is considered unequivocal (Intergovernmental Panel on Climate Change 2007, p. 2); however, predicting local climate trends and determining how those trends will affect certain species is uncertain. Furthermore, we do not have information indicating how the fisher might behaviorally respond to

any climate changes. Without additional information, the effect of long-term climate change on the fisher is unclear and could result in either a net positive or negative effect on the species. However, we will seek additional information regarding the potential effects of climate change during the status review process.

#### Summary of Factor A

In summary, based on our evaluation of the information presented in the petition and in our files, we determine that the petition presents substantial information indicating that listing the fisher in the NRMs may be warranted. This is due to the present and potential future modification and destruction of habitat from commercial timber harvest and commercial wood production by methods that may prevent succession to the mature forest stages preferred by fishers. This is also due to the transition of some commercial timber lands to residential and commercial development in areas of western Montana. Based on our evaluation of information in our files and the petition, we determine that the petition does not present substantial information indicating that listing the fisher in the NRMs may be warranted due to climate change. However, we will evaluate the effects of climate change on the fisher when we conduct our status review.

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

##### Information Provided in the Petition

The petitioners cite numerous sources indicating the susceptibility of fisher populations to excessive trapping and implicating trapping as a major factor in historic declines in fisher populations (Powell 1979, p. 153; Douglas and Strickland 1987, p. 524; Powell and Zielinski 1994, pp. 44–45; IDFG 1995, pp. 6, 13; Garant and Crete 1997, p. 363; Powell 1994, p. 101). The petitioners state that trapping is the second greatest threat to fishers in the NRMs. The petitioners indicate that fishers are impacted tremendously by both intentional and incidental trapping (i.e., capture in traps set for other species) (Powell and Zielinski 1994, pp. 44–45; IDFG 1995, p. 12; Lewis and Zielinski 1996, p. 294) in Montana and incidental trapping in other parts of the range. The petitioners state that fisher trapping in Montana is regulated and quotas are set by the State wildlife agency (Montana Department of Fish, Wildlife and Parks 2007, p. 7). The petitioners assert, without documentation, that because of the fisher's low population density, any

trapping death is incompatible with their persistence. Trapping for fishers is not legal in the State of Idaho, but incidental capture of fishers does occur in traps set for other legally harvested species (IDFG 2007, p. 19). The petitioners speculate that the unreported incidental take of fishers is high in the NRM range.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The fisher has been trapped for commercial purposes since the early 1800s. Over-trapping has contributed to the reduction in size and extirpation of fisher populations across the species' range (Douglas and Strickland 1987, p. 512). By the mid-1900s, heavy trapping pressure and the use of strychnine as a trapping and general predator control agent, in addition to habitat loss (discussed above under Factor A), eliminated or greatly reduced fisher numbers in low to mid-elevation coniferous forests and areas with year-round accessibility (Douglas and Strickland 1987, p. 512). The number of fishers trapped, an indicator of fisher population size, declined in Canada by 40 percent between 1920 and 1940, and the fisher in the NRMs was considered extirpated by the 1930s (Powell and Zielinski 1994, p. 41). Trapping was discontinued after 1929 in Minnesota because of population declines across the Great Lake States (Berg and Kuehn 1994, p. 262), and trapping was prohibited in Maine between 1937 and 1954 due to a severe constriction of the fisher range in the State (Krohn *et al.* 1994, p. 137). Over-trapping is implicated in the loss of fisher populations in the Pacific Northwest (Lewis and Zielinski 1996, p. 191; Aubry and Lewis 2003, pp. 81–82).

Prior to the 1920s, there were no regulations applicable to trapping fishers (Powell 1993, p. 77). The closure of trapping seasons in the 1920s and 1930s, reintroductions and augmentations, and land-use changes helped restore the fisher's presence in many parts of its range including the NRMs (Douglas and Strickland 1987, p. 512; Powell 1993, p. 80; Drew *et al.* 2003, p. 59; Vinkey 2003, p. 61). Trapping seasons were reopened in many northeastern and midwestern States between 1949 and 1985, with accompanying regulations intended to prevent overtrapping and population decline (Powell 1993, p. 80).

Trapping is considered one of the most important factors influencing fisher populations (Powell and Zielinski 1994, p. 44). Fishers are easily trapped (Douglas and Strickland 1987, p. 523),

and where trapping occurs, their populations could be negatively affected (Powell and Zielinski 1994, p. 64). Fisher populations are sensitive to the effects of trapping because of a slow reproductive rate and the sensitivity of population numbers to prey fluctuations (Powell and Zielinski 1994, p. 45). Small or isolated populations may be more intensely affected than more robust and widespread populations (Powell and Zielinski 1994, p. 45). Where fishers are scarce, populations may be seriously affected by trapping or incidental trapping for other species including other furbearers (Powell and Zielinski 1994, p. 45).

The abundance and trend of fisher populations in the NRMs are not clear. Although fisher presence has been confirmed in over a dozen areas, the fisher is one of the lowest density carnivores in the NRM region (Vinkey 2003, p. 61; IDFG 2006, entire). Montana is the only State in the NRM region where legal trapping for fishers occurs. Fishers have been trapped successfully every year since the mid-1980s in Montana, indicating that fisher populations in some areas are persisting at some level. Although the fisher is not a targeted species for harvesting in Idaho, 17 fishers were reported to authorities as taken incidentally to trapping of other legally harvested species between 1990 and 2006 (IDFG 2007, p. 19), and Jones (1991, p. 115) indicates that an estimated 163 fishers were trapped inadvertently in Idaho between 1978–1982. We expect that incidental killing of fishers occurs in Montana with similar frequency.

The impact of trapping mortality to fishers in the NRM region is not clear based on the limited information available on population status and trend; however, incidental trapping is difficult to control, and small increases in mortality due to trapping could lead to population instability and extirpation, especially in small or isolated populations (Powell 1979, p. 152; Powell and Zielinski 1994, p. 45). State wildlife agencies set trapping quotas based on some consideration of population status, although we have no information on what criteria are used to determine harvest quotas for fishers or how fishers are protected from incidental capture. We will seek additional information regarding the effects of trapping and incidental mortality of fishers during the status review process.

#### Summary of Factor B

Based on our evaluation of the information presented in the petition and in our files, we determine that the

petition presents substantial information indicating that listing the fisher in the NRMs may be warranted due to overutilization for commercial or recreational purposes, specifically legal furbearer trapping and the loss of fishers in traps set for other species. Incidental trapping is difficult to control and small increases in mortality due to trapping could lead to population instability and extirpation.

#### C. Disease or Predation

##### Information Provided in the Petition

The petitioners present general information on possible disease risks to the family Mustelidae (69 FR 18770), but nothing specific to fishers or effects on fishers at a population level. The petitioners state the importance of research to investigate the possible effects of climate change on disease processes. The petitioners note that predation of fishers is reported (Roy 1991, pp. 29, 35) and could be significant in light of the small number and isolation of fisher populations.

##### Evaluation of Information Provided in the Petition and Available in Service Files

Fox, bear, great-horned owls, and bobcat prey on fishers, although there is little evidence to indicate adult fishers have many natural enemies except humans (Douglas and Strickland 1987, p. 516). Predation of translocated fishers in Montana has been reported (Roy 1991, pp. 29, 35), but this was attributed to the relocation techniques used and fitness of the individual animals (Powell and Zielinski 1994, p. 62; Vinkey 2003, p. 34).

#### Summary of Factor C

Based on our evaluation of the information presented in the petition and in our files, we determine that the petition does not present substantial information indicating that listing the fisher in the NRMs of the United States may be warranted due to disease or predation. No specific information is presented to indicate that disease or predation affects fishers at a population level or that climate change will exacerbate present conditions or create novel disease or predation processes. However, we will evaluate all factors, including threats from disease and predation, when we conduct our status review.

#### D. The Inadequacy of Existing Regulatory Mechanisms

##### Information Provided in the Petition

The petitioners state that existing regulatory mechanisms for public land

management agencies have been inadequate in addressing the decline of fisher habitats from past and ongoing forest practices, roads and motorized access, and climate change, and addressing the threats to fisher populations from unsustainable legal trapping in Montana and incidental trapping throughout the range. The petition refers in general terms to the inadequacy of regulations relative to Federal, State, Tribal, and private lands in the NRM region and asserts that the lack of coordination across administrative boundaries has contributed to habitat fragmentation and population decline (Rosenberg and Raphael 1986, pp. 263, 267, 271; Freil 1991, p. 2; Heinemeyer 1993, pp. 108–109; Heinemeyer and Jones 1994, p. iv; Powell and Zielinski 1994, pp. 42, 45; IDFG 1995, pp. 8, 9, 12, 17; Carroll *et al.* 1999, p. 1357; Ruediger *et al.* 1999, pp. 5–6).

Specifically, the petition points to three inadequacies in the regulatory process for the management of USFS lands in the region: (1) The standards in national forest plans have not protected old-growth habitat; (2) the classification of fisher as a “sensitive” species has not prevented the decline of fisher habitat to its current extent; and (3) the 2008 modification of the NFMA regulations removed standards to maintain viable populations of native species. The petition asserts that the existing trapping regulations have resulted in the decline of fisher populations to the present low level by not preventing poaching, over-trapping, or incidental trapping.

##### Evaluation of Information Provided in the Petition and Available in Service Files

As stated in the discussion of Factor A, we determine that the petition and information in our files present substantial information that listing may be warranted due to the present and potential future destruction, modification, or curtailment of habitat from commercial timber harvest and commercial wood production that prevents succession to the mature forest stages utilized by fishers, and the transition of some commercial timber lands to residential and commercial development. Past forestry practices combined with continued commercial silviculture may limit the capacity of the NRMs to support fisher and call into question the effectiveness of current regulatory mechanisms to protect fishers on public and private lands. The impacts of roads and motorized access on fishers are not clear. As stated under Factor A, fishers do not appear to avoid

roads (Lewis and Stinson 1998, p. 7; Schwartz *et al.* 2006, p. 6). There is limited information available to us at this 90-day finding stage to make conclusions on the adequacy of specific regulatory mechanisms. We will evaluate the adequacy of existing specific regulatory mechanisms further during the status review.

Presently, the fisher is considered a sensitive species (Forest Service Manual 2670.22) in the USFS Regions 1 and 4, including the States of Wyoming, Idaho, and Montana, and a sensitive species by the Bureau of Land Management (Manual 6840) in Idaho and Montana (University of Wyoming 2003, entire; IDFG 2005, entire; Montana Natural Heritage Program 2009, entire). The USFS' Sensitive Species Policy (USFS Manual (2670.32)) calls upon national forests to assist and coordinate with States and other Federal agencies in conserving species with viability concerns. However, the petition presents no specific information, and we have no information readily available in our files, that would allow for even a cursory analysis of the adequacy of the USFS sensitive species designation in preventing the decline of fisher habitat.

The USFS has managed for old-growth forests under forest plan direction since the 1990s, but the petition presents no specific information, and we have no information available in our files, indicating the effectiveness of this management in protecting or augmenting old-growth forest types for fisher habitat. We have no information readily available in our files and the petitioners present no specific information or references of policy, projects, or activities that have resulted in a decline of fisher populations or habitat or intent to cause such effects based on the 2008 changes to the NFMA regulations (73 FR 21468, April 21, 2008). As the result of a Federal court decision (*Citizens for Better Forestry, et al. v. U.S. Department of Agriculture, et al.*, No. C08—1927 CW), the Forest Service reinstated the NFMA amended planning rule of 2000 and is reevaluating the 2008 amendment (74 FR 67059, December 18, 2009).

The States of Idaho, Montana, and Wyoming classify the fisher as a species of concern, and fisher habitat or viability may be addressed at some level when State programs or activities are reviewed. However, the petition presents no specific information, and we have no information readily available to us, that would allow for even a cursory analysis of the adequacy of the State species designations in

preventing the decline of fisher or their habitat.

As stated in the discussion of Factor A, the petitioners do not present specific information about how global climate change has affected or is likely to affect the fisher in the NRMs in a way that differs from past climate variability. The petitioners present no information, nor do we have any information in our files, on the existence of any regulatory mechanism intended to address climate change in order to assess its adequacy.

The petitioners assert that the existing trapping regulations have failed to prevent the decline of fisher populations to their low level today. In the discussion under Factor B, we determine that the petition and information in our files presents substantial information that listing may be warranted due to overutilization for commercial or recreational purposes. Our determination is based upon the potential effects of incidental mortality associated with other legal trapping and the sensitivity of fisher populations to additional mortality. It is not clear whether the existing regulatory mechanisms for trapping fisher or other furbearers have failed to prevent the decline of fisher populations. On the one hand, unregulated over-trapping is implicated in the reduction in size and extirpation of fisher populations across the species' range in the past (Douglas and Strickland 1987, p. 512). However, habitat protection, and reintroductions and population augmentations, together with the establishment of trapping regulations that limit harvest, have helped restore and maintain fisher presence in many parts of the species' range (Douglas and Strickland 1987, p. 512), including the NRMs.

#### Summary of Factor D

Based on our evaluation of the information presented in the petition and in our files, we determine that the petition does not present substantial information indicating that listing the fisher in the NRMs may be warranted due to the inadequacy of regulations addressing climate change. The level of information that we have at this 90-day finding stage is unclear as to whether the regulatory mechanisms pertaining to forestry practices, roads and forest access, and trapping are inadequate. We will evaluate all factors, including the adequacy of existing regulatory mechanisms, more thoroughly during our status review of the species.

#### *E. Other Natural or Manmade Factors Affecting Its Continued Existence*

##### Information Provided in the Petition

The petitioners state that fishers in the NRMs are vulnerable to random environmental, demographic, and genetic events based on their low reproductive rates; tendency toward isolation; dependence on old-growth forests; and small, isolated populations (69 FR 18770; Jones 1991, p. 88; Roy 1991, pp. 42, 47, 60–61; Powell and Zielinski 1994, pp. 46–48; Weir 2003, p. 25; Wisely *et al.* 2004, p. 646). They assert that past and ongoing trapping, forest practices, and road construction (as cited in the discussions of Factors A and B), and the undocumented assertion of human-induced climate change and its resulting outbreaks of fire, insects, and disease, have contributed to the small size and isolation of fisher populations. The petitioners also state that isolation erodes genetic diversity, reduces the ability of populations to respond to changes in the environment, and could lead to a loss of the affected populations (Wisely *et al.* 2004, p. 646).

##### Evaluation of Information Provided in the Petition and Available in Service Files

The impacts of forest practices and trapping are discussed under Factors A and B. We determined under Factor A that the petition does not present substantial information, and information in our files is insufficient to indicate that listing the fisher in the NRMs may be warranted due to climate change. Predicting local climate trends and determining how those trends will affect species is uncertain. Without additional information, the effect of long-term climate change on the fisher in the NRMs is unclear, and the effect could be neutral, a net positive, or a net negative.

We find that the effects of small populations are not substantially supported by information in the petition or readily available in our files. We recognize that small populations may be vulnerable to genetic problems, demographic variability, and extreme or catastrophic environmental events. Fishers are considered one of the lowest-density carnivores in at least part of the NRMs (Vinkey 2003, p. 61); however, the petitioners do not present information and no information is available in our files to determine numbers, trends, or demographic characteristics of fisher populations in the NRM area.

### Summary of Factor E

Based on our evaluation of the information presented in the petition and in our files, we conclude that the petition does not present substantial information indicating that listing the fisher may be warranted due to other natural or manmade factors. However, we will assess all factors, including this one, more thoroughly during our status review of the species.

### Finding

On the basis of our determination under section 4(b)(3)(A) of the Act, we have determined that the petition presents substantial scientific or commercial information indicating that listing the fisher population in the NRMs as a DPS may be warranted. This finding is based on substantial information provided by the petitioners and in our files for Factors A and B. The information provided under Factors C, D, and E is not substantial. In considering what factors might constitute threats, we must look beyond the mere exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure and the species responds negatively, the factor may be a threat and we then attempt to determine how significant a threat it is. If the threat is significant, it may drive or contribute to the risk of extinction of the species such that the species may warrant listing as threatened or endangered as those terms are defined by the Act. This does not

necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could suffice. The mere identification of factors that could impact a species negatively may not be sufficient to compel a finding that listing may be warranted. The information shall contain evidence sufficient to suggest that these factors may be operative threats that act on the species to the point that the species may meet the definition of threatened or endangered under the Act.

Because we have found that the petition presents substantial information indicating that listing the fisher in the NRMs under the Act may be warranted, we are initiating a status review to determine whether listing under the Act is warranted. As part of our status review we will examine available information on the threats to the species and make a final determination in a 12-month finding on whether the species is warranted for listing as endangered or threatened under the Act. To ensure that the status review is complete, we are requesting scientific and commercial information regarding the fisher in the NRMs (as described above under the **Information Requested section**). The petition also asks us to designate critical habitat for this species. If we determine in our 12-month finding that listing the fisher in its NRM range is warranted, we will address the designation of critical habitat in the subsequent proposed listing rule, if we conclude critical habitat is prudent and determinable.

The “substantial information” standard for a 90-day finding differs

from the Act’s “best scientific and commercial data” standard that applies to a status review to determine whether a petitioned action is warranted. A 90-day finding does not constitute a status review under the Act. In a 12-month finding, we will determine whether a petitioned action is warranted after we have completed a thorough status review of the species, which is conducted following a substantial 90-day finding. Because the Act’s standards for 90-day and 12-month findings are different, as described above, a substantial 90-day finding does not mean that the 12-month finding will result in a warranted finding.

### References Cited

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Montana Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT** section above).

### Author

The primary authors of this document are the staff members of the Montana Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT** section above).

### Authority

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

Dated: April 6, 2010

### Daniel M. Ashe

*Deputy Director, U.S. Fish and Wildlife Service*

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