



National Headquarters

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Public Comments Processing

Attn: Docket No. FWS-R8-ES-2014-0041

U.S. Fish & Wildlife Headquarters, MS: BPHC, 5275 Leesburg Pike

Falls Church, VA 22041-3803

Re: Request for comments on the proposed rule to list a distinct population segment of the West Coast fisher as a threatened species (Docket No. FWS-R8-ES-2014-0041)

To Whom It May Concern,

Thank you for the opportunity to comment on the U.S. Fish and Wildlife Service (FWS or Service) proposed rule to list a West Coast Distinct Population Segment (DPS) of fisher (*Pekania pennanti*), a mustelid species in California, Oregon, and Washington, as a threatened species under the Endangered Species Act (ESA) 16 U.S.C. § 1531 *et seq.*; 79 Fed. Reg. 60419 (October 7, 2014).

Defenders of Wildlife (Defenders) respectfully submits the following comments. Defenders is a national non-profit with more than 1,200,000 members and supporters. Defenders is dedicated to the protection of native wild animals and plants in their natural communities. Our organization is committed to ensuring the long-term recovery of fisher throughout its historical range in the contiguous United States.

Introduction

Section 1533(b)(1)(A) of the ESA directs that determinations as to whether a species is endangered or threatened must be made “solely on the basis of the best scientific and commercial data available.” 16 U.S.C. § 1533(b)(1)(A); 50 C.F.R. § 424.11(b). The best available science supports the conclusion that the West Coast fisher meets the definition of a threatened species under the ESA.

We support FWS’ determination that the West Coast fisher population meets both the discreteness and significance criteria of the DPS policy, and that the West Coast fisher is a listable entity under the ESA. We also support the proposed listing of the West Coast fisher as a threatened species, and the conclusion that the primary threats to the DPS are habitat loss from wildfire and vegetation management; toxicants (including anticoagulant rodenticides); and the cumulative and synergistic effects of these and other stressors acting on small populations.

The West Coast Fisher DPS

Based on the best available science and DPS policy, Defenders supports the Service's proposed DPS boundary from the international border with Canada south through the Southern Sierra Nevada (SSN) fisher population. Defenders also urges the Service to finalize a special 4(d) rule, concurrent with a final listing rule, that incentivizes reintroduction efforts and other voluntary conservation measures for the species.

We conclude that the entire, well-documented historical range of the West Coast fisher should be included in the DPS based on our review of the literature and the Species Report. The low population density at which fishers naturally occur and the expected changes in fire regimes, climate, and other stressors, highlight the need for geographically broad protections. The proposed DPS is more likely than the alternatives to ensure spatial representation and population redundancy necessary for long-term fisher conservation and recovery. Alternative 1, which is based on the current extant range of fisher excluding reintroduced populations, is too geographically restricted to permit the species' recovery. In effect, millions of acres of high-quality habitat in Washington and Oregon would be excluded from the DPS. While Alternative 2 addresses the distinctiveness of the SSN population and the long-standing isolation from the Northern California-Southern Oregon (NCSO) population (Knaus et al. 2011, Tucker et al. 2012), this alternative is also too restricted to conserve the species. Because of environmental changes that are anticipated to negatively affect fishers over the next 40-100 years, we think that broader geographic representation and population redundancy afforded by the proposed DPS will be critical to fisher conservation.

We are also concerned about using the Rogue River as the northern boundary of the alternative DPSs. This approach relies on the fact that no "native" U.S. populations of fisher occur north of the river. For example, the reintroduced populations in Washington are not considered native because they were established using individuals from British Columbia. We question this rationale to demarcate the boundaries of a DPS because of the implications for current and future listing decisions. The Florida panther, which exists today only because of genetic rescue from Texas cougars, is no more "native" to Florida than are the Olympic National Park fishers to Washington. While we recognize that the panther is not a DPS, we remain concerned about the implications for national listing policy if the Service finalizes either of the DPS alternatives. Should the agency do so, it must clearly explain why the Rogue River satisfies the discreteness criterion based on "physical, physiological, ecological, or behavioral factors."

To reward the robust reintroduction efforts of Washington State and other conservation partners, we urge the Service to finalize a special 4(d) rule concurrent with listing. Such a rule should incentivize reintroductions and other voluntary conservation efforts. For the Service to finalize a special rule concurrent with listing, it must propose the rule for public comment within the next few months..

Threats Analysis

After careful review, Defenders agrees with the Service's determination that the West Coast fisher is threatened. The Service lists the main threats as habitat loss by wildfire and vegetation management; toxicants (anticoagulant rodenticides); and the cumulative and synergistic effects of these and other stressors acting on small populations. Defenders offers the following additional information, concerns, and comments that support the listing of the West Coast fisher as threatened.

***Factor A. Present or Threatened Destruction, Modification, or
Curtailement of its Habitat or Range***

Wildfire and Fire Suppression

Defenders agrees with the Service's finding that uncharacteristic wildfires and fire suppression threaten West Coast fisher habitat throughout its range. While fire is a natural disturbance process that provides a number of ecological benefits, habitat loss from uncharacteristically severe and extensive wildfires is a threat to fishers and is increasing in extent. The massive 2013 Rim Fire burned nearly a quarter million acres north of the fisher's extant range in the southern Sierra, and at high severity in much of the predicted dispersal habitat (Spencer et al. 2015). Recent, adjacent wildfires (Aspen Fire 2013 and French Fire 2014) have affected a potentially key connectivity corridor between core fisher populations near the northern end of the species' range in the southern Sierra, where high severity burn areas may result in disruption of dispersal habitat. Uncharacteristic, high severity fires threaten fishers and listing will help address management needs to reduce this threat.

Additionally, it is generally accepted that uncharacteristic fires can pose a risk to species such as fisher that are dependent on late-successional ecological conditions particularly given the scarcity of late-successional habitats on the landscape. The effects of habitat loss and degradation associated with uncharacteristic fire events are exacerbated by salvage logging and furthered by continued application of fire suppression policies. Although a full discussion of fire management and actions such as salvage logging during recovery is beyond the scope of this letter, we ask that the Service maintain the distinction of characteristic versus uncharacteristic fires in the final rule.

Climate Change

Defenders requests that the Service appropriately address climate change in the final rule to reflect the conclusion of the Species Report: climate change is a threat to the West Coast fisher. The Species Report conveys more certainty surrounding the negative effects to fisher from climate change, as well as its synergistic effects to the species, than the proposed rule suggests. Climate change has and will continue to alter fire regimes, affect habitat quality and distribution, and impact the prey base of fisher. Impacts from climate change will likely further isolate regional fisher populations. The Species Report states that the "ecotypes that support fisher habitat may decrease in area" and "where habitat area decreases the number of fishers that can be supported by the habitat will also decrease," (USFWS 2014:80) and that "loss of habitat could threaten the viability of native and reintroduced populations, and would reduce the likelihood of reestablishing connectivity between populations." (USFWS 2014:109)

Vegetation Management

Retention and Creation of Snags and Other Habitat Features

Defenders requests the Service pay particular attention to the inadequate presence of structural habitat elements in fisher habitat and to ensure this issue is thoroughly addressed in the final rule. Loss of structural habitat elements including snags, rootwads, and downed wood is a threat to fishers. Listing should help address management needs to reduce this threat, which is currently increasing. Structural habitat element loss is of particular concern on private, industrial forestry lands that are increasingly being managed for shorter rotations, which do not allow for the creation of snags needed for fishers. If short rotation management continues and is also increasingly applied to federal lands, it could substantially change the amount of high quality habitat available to fishers. This issue is illustrated in the Species Report:

"Retention of some level of snags and green trees in harvest units is a ubiquitous requirement in managed forests throughout the analysis area, regardless of ownership. In

many areas managed for commercial timber production however, these structures *do not meet the minimum sizes typically used by fishers* [emphasis added]. Where they are large enough, they may provide future denning and resting sites provided they have the appropriate structural attributes (e.g. cavities, large limbs) and the surrounding forest is allowed to develop the necessary canopy cover and prey base to support fishers' long term. However, the short rotations of industrial forest management rarely allow this to happen." (USFWS 2014:143)

Second, Defenders requests that the term "habitat recruitment" be defined by the Service in order to provide clarity on what constitutes habitat recruitment for fishers. If not defined clearly, we are concerned that this approach may lead to loss or reduced development of snags and other key habitat features that fishers need.

Last, although snag retention is a universal component of stand management and harvest protocol, verifying this practice is exceedingly rare. Budget shortfalls driving this lack of field verification result in low structural habitat component retention in forest stands. Structural habitat components are likely missing or at a lower density than required within habitats that are part of greater planning efforts. This should be addressed in the final listing determination.

Northern Spotted Owl Data as Surrogate for Fisher Habitat Loss

Defenders recommends that the Service explicitly highlight the need for fisher-specific assessment of habitat loss, independent of northern spotted owl (owl) data. Although both owl and fisher use late successional forest with closed canopies, fishers are able to use habitat that is unsuitable for owls. The various needs for fishers that are different than owls are described in the Species Report:

"Fishers will use a variety of successional stages when active, reflecting those of their primary prey (Powell 1993, p. 92; Buskirk and Powell 1994, p. 287, Raley et al. 2012, p. 241), but fishers appear to be more often associated with stands containing complex forest structure for resting and denning (Buskirk and Powell 1994, pp. 286–287; Powell and Zielinski 1994, p. 53)" and "the physical structure of the forest and prey associated with forest structures are thought to be critical features that explain fisher habitat use, (Buskirk and Powell 1994, p. 286), and the composition of individual fisher home ranges is usually a mosaic of different forested environments and successional stages (reviewed by Lofroth *et al.* 2010, p. 94)." (USFWS 2014:18)

Additionally, W. Zielinski noted in his peer review (ID: FWS-R8-ES-2014-0041-0178), the inadequate consideration of rest structure re-use rates in the Species Report, which he stated, has not only important implications for vegetation management, but is an important distinction between the habitat needs of owls and fishers. The distinction between fewer nest trees and many rest sites for fisher, as well as the need for connectivity by fisher, is also a caution against using owl data to estimate habitat loss for fisher.

We recognize the limited nature of fisher-specific data at this time, but relying on owl data too heavily could underestimate the amount of suitable habitat for fisher that has been lost in forest lands due to timber harvest, vegetation management, wildfire, or other changes. Looking closely at the non-old growth habitat that has been managed in a manner detrimental to fisher is critical. The practical view is that private timber lands, perhaps most particularly in the coastal subregions where the majority of land ownership is private, are not going to become old growth forests in the near or even longer term, but can provide future habitat for fisher if managed accordingly. Defenders recommends using spatial data, other land cover data, and herbicide application rates to understand change within the same timeframe as the owl data to obtain a more complete picture of fisher habitat loss.

Herbicide Application

Defenders requests that the Service explicitly address herbicide application, which is a key component of vegetation management, in the final rule. Specifically, Defenders recommends a more conservative estimate for the scope and severity ratings related to this habitat stressor since obtaining herbicide use information on private forests is oftentimes challenging.

The impacts to fisher habitat from herbicide application have not been addressed in the greater scheme of vegetation management: the topic is not considered anywhere within the vegetation management section, or in the timing, scope, and severity tables in the Species Report (USFWS 2014:173-188). Broad herbicide application, often aerially, has the ability to impact fisher habitat at the landscape scale rendering entire patches of forest unsuitable for fisher and their prey. As an example, fishers frequently use hardwoods for den sites and their prey use food resources gained from seeds, berries, and roots from understory shrubs. Removal of deciduous trees and shrubs via broad herbicide application to favor conifers on private forest land is likely a larger stressor on fisher habitat than recorded in the Species Report and the proposed rule.

Factor B. Overutilization

Trapping

Defenders is concerned that incidental trapping could be a substantial threat to fisher that is underestimated if incidences are not reported. This issue could be on the rise in the region as it is elsewhere, e.g., the number of reported incidentally caught fishers has increased over time in Idaho. Reports from that state indicate that 242 fishers were trapped incidentally between 1970 and 2012, and 193 of those were trapped after 2002, with 114 of those occurring between 2009 and 2012 (IDFG 2011, IDFG 2013). Trappers have reported targeting bobcat and have incidentally caught fisher. Fishers can be caught in both leg-hold traps as well as body-gripping traps. Body-gripping traps, which are designed to kill small to medium sized animals quickly, are especially problematic since non-target animals, when captured, have little to no chance of being released alive. Within West Coast fisher habitat, Oregon is the only state that still allows body-gripping trap use. Leg-hold traps can severely wound animals, often leading to reduced fitness and death, even if reported as released alive by trappers. Since trapping is not an activity aimed at furthering the conservation of the fisher, the Service should not use its section 4(d) authority to exempt incidental take resulting from trapping.

Factor D. Inadequacy of Existing Regulatory Mechanisms

Federal agencies are directed, under section 7(a)(1) of the ESA, to use their authorities to carry out programs for the conservation of threatened and endangered species. As stated in the Species Report, “Except for Federal units encompassing the Southern Sierra Nevada Population of fishers, Federal land management units have not developed fisher-specific guidelines in their management plans” (USFWS 2014:143). Fisher-specific guidelines across all federal land management units within fisher habitat will be a beneficial conservation mechanism and provide consistent management guidance necessary to conserve the species. The lack of these guidelines will likely result in inconsistent management and treatment of this species. Defenders requests that the Service urge the U.S. Forest Service and Bureau of Land Management to create and implement forest plan standards for fishers.

Rodenticide Regulatory Mechanisms

We support the Service’s determination that anticoagulant rodenticides pose a threat to fishers at both the individual and population levels across the West Coast. Current law enforcement efforts are

insufficient, particularly regarding large, illegal marijuana cultivation operations. The individuals conducting these operations are likely not concerned with abiding by the law, as highlighted by both the crops being grown and the use of rodenticides not commercially available within the United States. The most important step for ameliorating this threat is to increase financial resources for additional law enforcement and to implement active reclamation of grow sites.

We recognize that California's Department of Pesticide Regulation implemented a new rule in 2014 restricting access to second generation anticoagulants. The rule could definitely benefit fishers if adequately implemented and enforced, but does not outweigh the fact that the Service has determined that the fisher is threatened by many other additional threats and thus warrants listing.

While California has implemented this rule, Washington and Oregon do not have such a rule and the impacts from rodenticides are less understood in those areas. Second generation anticoagulants threaten fishers, as well as future reintroduction efforts, and listing should help address the lack of adequate pesticide regulatory mechanisms in these states.

Factor E. Other Natural or Manmade Factors Affecting its Continued Existence

Vehicle Collisions

Defenders remains concerned about vehicle collisions as a well-documented source of mortality and threat to fisher conservation, contrary to the Service's conclusion. We agree with the listing proposal that this stressor acts synergistically with other threats such as vegetation management, rodenticides, and predation, and thus should not be underestimated.

We conclude that both direct mortality and indirect effects on subpopulation connectivity are substantial threats to fisher conservation. In the southern Sierra Nevada, at least 21 known fisher mortalities from vehicle collisions have occurred within the past two decades, including 9 in the Sierra Nevada Adaptive Management Project study area on the Sierra National Forest, 10 in Yosemite National Park, and 1 in Sequoia-Kings Canyon National Parks (Spencer et al. 2015), plus 1 additional mortality in Sequoia-Kings Canyon that was recently confirmed via necropsy (A. Otto, personal communications, USFS, Jan. 2015).

Since 2011, Defenders has worked with the Sierra National Forest and Yosemite National Park through the Southern Sierra Fisher Working Group Wildlife-Vehicle Collisions subgroup with the goal of reducing roadkill mortality through mitigation measures along Wawona Road/Highway 41, which serves as the southern entrance to Yosemite. We are mapping roadkill hotspots and used remote cameras to monitor existing culverts to determine if and which structures are being used for under-road passage to identify movement corridors of fishers and other mammals. This data will be used to inform planning and placement for any mitigation measures to reduce wildlife-vehicle collisions, which may include improving or enlarging existing culverts or building new crossing structures designed for use by wildlife. To date, this subgroup has successfully obtained funding and installed an in-culvert shelf for use by wildlife in Alder Creek, as well as a dry culvert for wildlife passage at the southern entrance station, both within Yosemite.

The direct negative effects of vehicle collisions create a substantial threat to the connectivity of fisher subpopulations. Figure 17 of the Species Report (USFWS 2014:102) highlights the degree to which current roads dissect the areas occupied by West Coast fisher. Even with the mitigation work discussed above, Defenders expects the direct threat from vehicle collisions to become more severe over time as the number and size of roads increases and traffic volumes increase, thereby further limiting fisher dispersal among historically connected populations.

Exposure to Toxicants

Defenders supports the conclusion that anticoagulant rodenticides are a threat to West Coast fishers at the individual and the population level. We do not think that the threat from anticoagulant rodenticides is overestimated, but most likely *underestimated*, and will likely be an even greater concern after future populations become re-established in areas where fisher is currently extirpated but rodenticide use is prevalent.

It is important to note that the use of anticoagulant rodenticides is broad and not limited to illegal marijuana operations, nor is it only limited to California. Among other agricultural and private uses, rodenticide is used in the region to decrease vole and mountain beaver damage to conifer seedlings in forested habitats in Oregon and Washington that the fisher uses. Both of these species are fisher prey and therefore a source of rodenticide exposure within forest habitat and not only near illegal marijuana grow sites. The Species Report states that information regarding use by private industrial landowners is not known (USFWS 2014:154). Defenders thinks absence of this information warrants a more conservative estimate of anticoagulant impact to fisher particularly in subregions where private landownership comprises a large percentage of fisher habitat.

As noted in the Species Report, every animal or animal group that consumes rodents as a prey base is experiencing mortalities from anticoagulant rodenticides (USFWS 2014:152). The Oregon Department of Fish and Wildlife has noticed an increase of deaths resulting from anticoagulant rodenticides over the past few years, particularly in great horned owls and bobcats (personal communication, Julia Burco, ODFW, Jan. 2015). This observation, as well as comments provided to the Service by a wildlife rehabilitation specialist in California suggests that the scope and severity of impact to fishers could be larger than currently understood. It is important not to overlook this while considering the scope and severity of anticoagulant rodenticide as a threat to fisher. This view was recently echoed by several researchers during the symposium entitled “Marijuana Cultivation and its Impacts on Wildlife, Habitats and the Wildlife Profession” presented on January 27, 2015, at The Wildlife Society Western Section annual meeting.

Central to anticoagulant rodenticide effects on fisher populations are the effects on prey species abundance within fisher habitat. Research on the carrying capacity of habitat from reduction in prey abundance due to rodenticides is lacking. This warrants a more conservative approach to estimating rodenticide impacts to fishers until further information is available.

Small Population Size

Defenders strongly supports the conclusion that the West Coast fisher suffers from small population size, isolation, and has a low likelihood of expansion other than through reintroduction efforts. The SSN is small with an estimated 300 individuals and no statistically detectable trend in occupancy. There is no known trend in the NCSO population and population estimates are highly variable (range = 258-4,018). The SOC population has persisted for 30 years yet does not appear to have expanded beyond the reintroduction area. The Olympic National Park and Northern Sierra Nevada reintroductions have created breeding populations but these are recent efforts without long-term persistence determinations. West Coast fishers are threatened by their small population size as illustrated from the vast reduction from their historical range, lack of detections or sightings across most of their historical distribution, and fragmentation of their populations. As the Species Report states, “These factors together imply that fishers are highly prone to localized extirpation, their colonizing ability is somewhat limited, and their populations are slow to recover from deleterious impacts. The long-term persistence of these isolated populations is unknown (USFWS 2014:146).”

Thank you for considering these comments. Defenders supports the Service's proposed DPS boundary from the international border with Canada south through the Southern Sierra Nevada (SSN) fisher population and we urge the Service to finalize a special 4(d) rule concurrent with listing. Such a rule should incentivize reintroductions and other voluntary conservation efforts. If you have any questions or need additional information from our organization, please contact Shawn Cantrell at 206-508-5475 or scantrell@defenders.org. We look forward to continued involvement in West Coast fisher conservation efforts.

Sincerely,

A handwritten signature in dark ink that reads "Shawn Cantrell". The script is fluid and cursive, with the first name "Shawn" and last name "Cantrell" clearly legible.

Shawn Cantrell
Northwest Program Director
1402 Third Ave, Suite 930
Seattle, WA 98101

A handwritten signature in dark ink that reads "Kim Delfino". The script is fluid and cursive, with the first name "Kim" and last name "Delfino" clearly legible.

Kim Delfino
California Program Director
1303 J Street, Suite 270
Sacramento, CA 95814

REFERENCES

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