

Public Comments Processing
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U.S. Fish and Wildlife Service
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January 23, 2018

These comments on the U.S. Fish & Wildlife Service Draft Habitat Based Recovery Criteria (HBRC, 82 FR 58444) are submitted on behalf of the Flathead-Lolo-Bitterroot Citizen Task Force and the organizations and individuals listed at the end. The oral and written testimony of Mike Bader at the June 1997 Workshop and the July 2016 Workshop are hereby incorporated by reference, as are the oral testimony of Mike Bader at the January 3, 2018 Workshop. Also incorporated by reference are the comments submitted by the Swan View Coalition, et al. (January 3, 2018).

Introduction

As written, HBRC violates several provisions and requirements of the Endangered Species Act (ESA) and is arbitrary, capricious and an abuse of agency discretion. It is contrary to the U.S. Fish & Wildlife Service (Service) policy direction on habitat designations under the ESA (81 FR 7414)(2016).

The grizzly bear was listed pursuant to the ESA (16 U.S.C. § 1531 et seq.) in the lower 48 states as a threatened species in 1975. 40 FR 31,734 (1975). A "threatened" species is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. § 1532(20). The ESA provides for the "conservation of the ecosystems upon which threatened and endangered species depend." *Id.* §1531(b) "Conservation" means "the use of all methods and procedures which are necessary to bring any ... species to the point at which the measures provided pursuant to this chapter are no longer necessary." *Id.* § 1532(3).

Thus, in addition to prohibition on illegal harassment and taking of individuals, the habitat essential to the survival and recovery of a listed species may not be adversely modified or destroyed.

The Service is required to develop plans to maintain and restore listed species in order to ensure their survival, recovery and eventual delisting under the ESA. Therefore, the designation of an adequate area of habitat critical to survival and recovery is inextricably linked with the recovery planning process. This process must identify the where (geographic location) and the what (habitat standards for the protection of the 'physical or biological features' of critical habitat).

Nothing in the Court's ruling in *Fund for Animals, v. Babbitt*, (903 F.Supp. 96 1995) precludes application of HBRC to the entire Northern Rockies Ecosystem. The Settlement Agreement reached in that litigation stated the Service must hold a workshop and develop HBRC prior to a proposal to delist any grizzly bear population. Since 1995, new science and cases have invalidated the Distinct Population Segment approach to delisting individual grizzly bear subpopulations in the Northern Rockies Ecosystem without evaluating the conservation status of the subspecies as a whole. *See Humane Society of the United States v. Zinke*, 865 F. 3d 585, 603 (D.C. Cir. 2017)("The Service's power is to designate genuinely discrete population segments; it is not to delist an already-protected species by balkanization.")

Since there is no legal basis for treating the Northern Continental Divide sub-population as distinct from the others, HBRC must apply to the entire Northern Rockies Ecosystem, as that is the population to be recovered and only then proposed for delisting.

HBRC Is Not Habitat Based and Not Based on Objective and Measurable Criteria

Ultimately, the HBRC is not habitat-based but rather population numbers-based, an approach to grizzly bear recovery that has been struck down See *Fund for Animals v. Babbitt*, 903 F.Supp., at 112 (holding that minimum population criterion “do[es] not measure present danger or destruction to grizzly bear habitat” and is not “capable of assessing the habitat of a larger, recovered grizzly bear population.”) HBRC does not present objective measurable criteria of the physical and biological features, described on a site-by-site basis.

In the 1978 Amendments to the ESA, Congress stated “Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established.” 16 U.S.C. § 1532(5)(B). The Service has slightly altered this language in the first sentence of their implementing regulations, providing that the Secretary “may designate critical habitat for those species listed as threatened or endangered species but for which no critical habitat has been previously designated.” 50 C.F.R. § 424.14(e).

While the Service is not *required* to designate critical habitat for species listed prior to 1978, it retains the legal authority to do so. In defense of its decision not to designate critical habitat the Service asserted its approach was comparable to that of critical habitat, and would protect a larger area than a critical habitat designation. *Fund for Animals v. Babbitt* 903 F.Supp. at 117. Comparable, as defined by Oxford Dictionary means: 1. “similar;” 1.1 “of equivalent quality.”

The Court found the Service had not acted arbitrarily in denying a petition to designate critical habitat but the Service was required to develop “objective and measurable” HBRC for grizzly bears as an amendment to the Grizzly Bear Recovery Plan and complete it prior to any proposal to delist any grizzly bear population. *Id.* at 111-113.

To be comparable or qualitatively equal with critical habitat designation, HBRC must be consistent with the critical habitat provisions, case law and Service policy and definitions. The Service must fulfill its legal obligation to conserve the ecosystems upon which the grizzly bear depends, using “...all methods and procedures which are necessary...” 16 U.S.C. §1532(3).

The Service (81 FR 7414-7440) finalized a definition for the term “physical or biological features” as “the features that support the life- history needs of the species, including but not limited to water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.”

“These physical or biological features are to be described at an appropriate level of specificity, based on the best scientific data available at the time of designation.”

The Service's definitions also provide the ability to consider unoccupied habitat and areas of importance to migration and connectivity. "Using principles of conservation biology such as the need for appropriate patch size, connectivity of habitat, dispersal ability of the species, or representation of populations across the range of the species, the Services may evaluate areas needed for the conservation of the species. The Services must identify the physical and biological features essential to the conservation of the species and unoccupied areas that are essential for the conservation of the species." (emphasis provided).

"Indeed, there may be instances in which particular unoccupied habitat is more important to the conservation of the species than some occupied habitat." This is vitally relevant to the currently unoccupied Selway-Bitterroot region and the identified linkages in the Northern Rockies Ecosystem.

HBRC, offered as qualitatively equal to critical habitat, does not provide an appropriate level of specificity and is not based upon the best scientific data available.

HBRC Limited to Old Boundaries, Information & Occupied Habitat

Ultimately, the extent of protected habitat is the only means to insure the survival and recovery of listed species. Congress believed that listing was only the first step in insuring a species' survival and *"of equal or more importance is the determination of the habitat necessary for the species' continued existence."* H.R. Rep. No. 94-887 at 3 (1976).

In light of this central role, it is important to recognize the importance of designating sufficient habitat area to provide for both the survival and recovery of listed species. Several professional reviews and agency discussion papers have illuminated the systematic failure to protect adequate habitat area and populations as the central cause of failures and inadequacies in the ESA listing and recovery process.

The National Marine Fisheries Service (NMFS 2000) reported:

"The population size and distribution of species when they are listed have serious implications for our critical habitat designations: in most cases, critical habitat designations that are based on a species' distribution and abundance at the time the species is listed will not protect enough resource space for threatened or endangered species to recover. The results of this study strongly suggest that our critical habitat designations are based on Carrying Capacity 2d, which would never allow most listed species to recover. Because of limitations in time and resources critical habitat designations are almost never revised, so we must emphasize doing them right the first time."

The Service (81 FR 7414-7440) defines the previously undefined term "geographical area occupied by the species" as: "the geographical area which may generally be delineated around the species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g., migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals)."

The HBRC only applies to the NCD Recovery Zone, less than 45% of "...the geographical area which may generally be delineated around the species' occurrences, as determined by the Secretary (i.e., range)" (Costello, et al. 2016), and omits areas important to linkage with

the other sub-populations. The Recovery Zones were delimited a long time ago, when, consistent with the NMFS findings, the grizzly sub-populations were at their lowest levels and smallest distribution area. Spatial evaluations have found these Recovery Zones are too small to effect biological recovery of the grizzly bear because none of the areas are large enough to support a viable population from 2,000-5,000 individuals (Metzgar and Bader 1992; Bader 2000b.; Allendorf & Ryman 2002) and do not include habitats that are sporadically occupied, but occasionally critical. This information was also presented by Dr. Fred Allendorf, Mike Bader and Tim Bechtold at the Service's June 17th, 1997 Workshop in Bozeman, Montana and in a letter to the Service Director dated June 26, 1997. HBRC perpetuates these deficiencies and is consistent with the NMFS *Carrying Capacity 2d*, which will not allow for grizzly bear recovery.

Moreover, HBRC is limited to occupied habitat, without an evaluation of currently unoccupied habitats. The NMFS report found a key deficiency in critical habitat designations are "they do not protect enough unoccupied habitat." In *Humane Society of the United States v. Zinke*, the D.C. Circuit vacated the Service's delisting rule because they had not evaluated the status of the remainder of the listed entity of wolves in light of the Western Great Lakes (WGL) wolf DPS delisting action and what the effect of lost historical range may have on the status of the WGL wolves. 865 F.3d at 603-07.

The designation of unoccupied critical habitat, the 5th Circuit court held in *Sierra Club v. U.S. Fish & Wildlife Service*, may be beneficial for a threatened species, even if not immediately required for survival, if it assists in the species' recovery. 245 F.3d 434, 444-46 (5th Cir. 2001).

Unlike occupied habitat, on which the Service must find all of the physical or biological features in order to designate as a critical habitat essential for the conservation of an endangered species, the Service can designate critical *unoccupied* habitat so long as it determines it is essential for the conservation of the species and only when a designation limited to its present range would be inadequate to ensure the conservation of the species.

The Service (81 FR 7414-7440) states "The designation of critical habitat ensures that the Federal Government considers the effects of its actions on habitat important to species' conservation and avoids or modifies those actions that are likely to destroy or adversely modify critical habitat. This benefit is especially valuable when, for example, species presence or habitats are ephemeral in nature, species presence is difficult to establish through surveys... or protection of unoccupied habitat is essential for the conservation of the species. "

"The known distribution of a species can change after listing for many reasons, such as discovery of additional localities, extirpation of populations, or emigration of individuals to new areas. " (emphasis provided).

"The second sentence of the definition for "geographical area occupied by the species" clarifies that the meaning of the term "occupied" includes specific areas that are used only periodically or temporarily by a listed species during some portion of its life history, and is not limited to those areas where the listed species may be found more or less continuously. Areas of periodic use may include, for example, breeding areas, foraging areas, and migratory corridors. " (emphasis provided).

In *Otay Mesa Property L.P. v. DOI*, 714 F. Supp. 2d 73 (D.D.C. 2010), the judge noted that the clause “occupied at the time of listing” allows the Service to make a post-listing determination of occupancy based on the currently known distribution of the species.

While critical habitat designation, with exceptions, “...shall not include the entire geographic area which can be occupied...” the Service may not limit the area of habitat designation to a level that will not promote recovery. A viable population in excess of 2,500 grizzly bears would not require occupation of all areas that can be occupied, but would be limited to those areas necessary for recovery.

There is a significant difference between “survival” and “recovery” of species, and that while survival might not require designation outside of presently occupied areas, recovery may require designation of areas outside of presently occupied areas. *Sierra Club v. United States Fish & Wildlife Serv.*, 245 F.3d 434 (5th Cir. 2001). Simply meeting the “no jeopardy” standard in Section 7 does not suffice for the overall requirement that species be recovered. Critical habitat is the key link to transition from jeopardy situations to recovery. Under the ESA, critical habitat is defined and designated in relation to areas necessary for the conservation of the species, not merely to ensure its survival. Moreover, the habitat designation must work in tandem with the Recovery Plan, for both are required to promote the conservation of the species. Only through a comprehensive habitat designation including areas of historically occupied habitat can full recovery be achieved.

Areas also cannot be excluded from critical habitat designation simply because they are already under what the Service might consider “adequate management.” *Center for Biological Diversity v. Norton*, 240 F.Supp.2d 1090, 1098-1100 (D. Ariz. 2003). This case concerned a challenge to a Service regulation defining “critical habitat” so that “if existing management of an area is adequate, it is not critical habitat.” *Id.* at 1097. The Court there held that such an exclusion of land was arbitrary because the determinative factor is whether the habitat is “essential to the conservation of the species,” not what kind of management practices are in place. *Id.* at 1098-99. The Court further reiterated that some alternative protection, such as, in that case, a state program, “cannot be viewed as a functional substitute for critical habitat designation.” *Id.* at 1100 (citing *Natural Resources Defense Council v. Department of Interior*, 113 F.3d 1121 (9th Cir. 1997)).

It is important for the Service to recognize that all aspects of the ESA are mandatory requirements, and the Service does not have the discretion to substitute one provision for another. For example, the Service cannot rely upon protections that may occur as a result of the Sec. 7 consultation process to diminish its responsibilities in terms of designating habitat necessary for recovery. The Service’s record of issuing a “Plethora of No Jeopardy Opinions” on projects harmful to grizzly bears is long-running (Bader 1992) and continues unabated as the Service signed off on the Eastside Reservoir Project that includes thousands of acres of clearcuts and dozens of miles of roads after the Service had proposed the area as a Demographic Linkage (Draft Conservation Strategy 2013).

Nor can the Service rely on the proposed actions contained in the Draft Conservation Strategy as a substitute for habitat designation. Congress required that all components of the ESA be fulfilled in order to achieve the recovery of protected species.

No Assessment of Linkages & Demographic Monitoring Areas

In light of the discussion above, the failure to assess and protect linkages is a major weakness of HBRC. Isolation was one of the factors identified in the 1975 listing rule for grizzly bears. Linkages in the Northern Rockies have been identified, analyzed and ranked by several sources using different methodology (Picton 1986; Walker & Craighead 1997; Bader 2000c.; Peck, et al. 2017). Bader, Figure 1 (unpublished, 2017) shows these linkages have been at the very least sporadically occupied from 2000-2017. Of more than 100 discrete locations of primarily different bears $\approx$ 10 miles or more from a recovery zone boundary, $\approx$ 65% were within or adjacent to an identified linkage. The verified observations include female/cub groups and thus are not limited to “vagrant” individuals.

Linkage is a key recovery goal in the Grizzly Bear Recovery Plan. The Recovery Plan also recommends that, until the Service analyzes linkages, “land management agencies take precautions not to degrade the potential linkage areas.” Recovery Plan at 24-26.

Servheen, et al. (2001) wrote: “Boyce, et al. (2001) have demonstrated the value of multiple populations with some dispersal between them to the survival of the grizzly bear in the Northern Rockies. For multiple populations to act to minimize the probability of extinction of the entire population of grizzly bears in the Northern Rockies, dispersal between different populations must have some acceptable probability of success. Thus, management of linkage zones to maintain and enhance movement opportunities is a critical part of the successful application of metapopulation theory to grizzly bear conservation.” (emphasis provided).

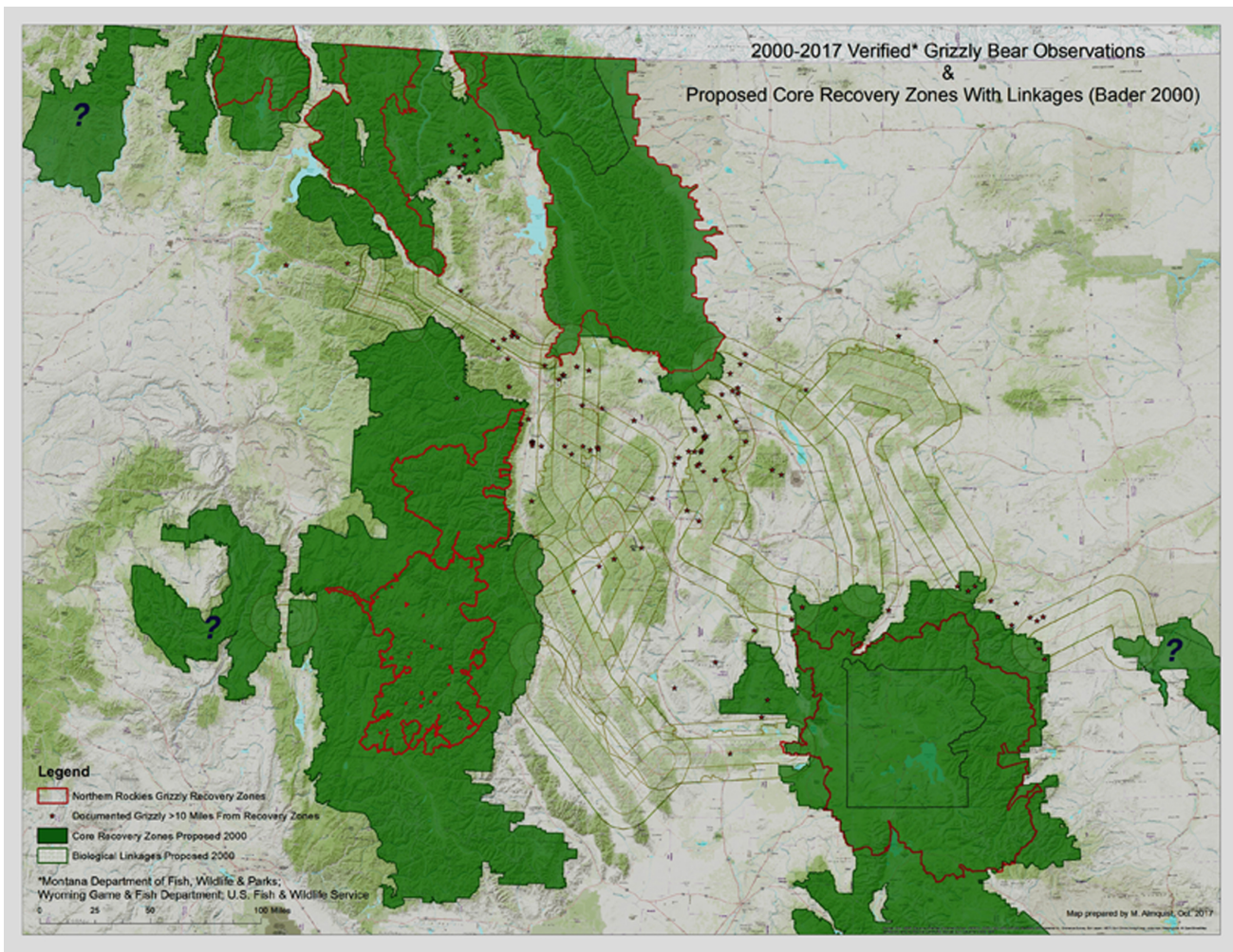


Figure 1. Verified Grizzly Bear Observations 2000-2017 and Linkages. Bader (unpublished, 2017).

The Interagency Grizzly Bear Committee endorsed these linkages in a letter signed by all members (IGBC letter, Re: Support for the concept of linkage zones). They wrote: “To address the issue of habitat fragmentation, the IGBC supports the identification of those areas within and between the major grizzly bear ecosystems where wildlife can live or move between large blocks of relatively secure habitat. Cooperation and coordination between public land managers, fish and game agencies, private landowners, and state and federal transportation agencies is required to maintain linkage zones that work for wildlife. Wildlife habitat conservation and the eventual recovery of listed species such as grizzly bears will require connections between populations.” (emphasis provided). Thus, grizzly bear survival and eventual recovery is dependent on demographic linkages where male and female bears can successfully live and move.

Yet the HBRC does not address or apply to linkages between the NCD and the other four Northern Rockies sub-populations that are part of the Northern Rockies Ecosystem (Craighead, et al. 1995; Bader 2000b.).

The paper by Peck, et al. 2017 is one paper, not the five-year analysis of linkages described in the Recovery Plan. The five-year analysis “...will be the basis for future actions regarding the linkage zone question.” Recovery Plan at 25. Servheen, et al. (2001) wrote: “An evaluation of habitat fracture and potential linkage between the Yellowstone recovery area

and NCDE and Bitterroot recovery areas will be addressed in a future document.” They also wrote: “Dramatic changes are occurring in the remaining possible linkage areas due to ongoing human development. Time to maintain connection opportunities is growing short due to the pace of development on these lands.” However, actions and precautions have never been taken by the Service, even though it acknowledged linkages are important to the survival and eventual recovery of the grizzly bear, nor have standards been developed or applied.

Peck, et al. (2017) modeled 20,000 simulations of male grizzly bears traveling identified linkages between the NCD and Yellowstone sub-populations. Not a single one made the trip successfully. Still the Service has taken no action. This deterioration of conditions is unlawful and HBRC is the proper mechanism to arrest this decline.

Nor can the Service rely on connectivity with Canadian grizzly populations. The ESA does not apply in Canada and research has shown the southern-most sub-populations in British Columbia and Alberta are increasingly isolated from the larger population to the north (Proctor, et al. 2002). Since that time, nine southern Grizzly Bear Population Units have been re-classified as threatened (BC Auditor General Report 2017).

Rather than comply with the Recovery Plan and Service policy, in the past the Service has relied on the idea that grizzly bears can be moved by truck, helicopter or other mechanical means between subpopulations in order to maintain viability. However, the Service and the Interagency Grizzly Bear Committee have made clear that natural movement through linkages is preferable. “Hilary Cooley, the Grizzly Bear Recovery coordinator for the U.S. Fish and Wildlife Service, noted that the Bitterroot ecosystem is one of five recovery zones for grizzlies. While there’s no plans for them to be reintroduced, Cooley also expects them to return on their own.” (*Missoulian* December 2017). In fact, the IGBC website states: “In June 2001, the Service reevaluated the decision to reintroduce grizzly bears and published a Notice of Intent and proposed rule to select the “Natural Recovery” alternative which allows for protection of grizzly bears that may move into the Bitterroot from other areas, but does not reintroduce bears. Natural movement of grizzly bears into the Bitterroot Ecosystem may occur and would be supported by the Service. Any such grizzly bears would have full protection as a threatened species under the Endangered Species Act.”

Through its failure to include linkage habitats within the scope of HBRC, the Service is making a *de facto* choice to rely on less preferable and unreliable methods, contrary to the best available science. Rather than protect linkages, the HBRC simply states the Draft Conservation Strategy covers the issue. One draft document citing another draft document is not authoritative and the DCS is also population numbers-based and fails to propose protection standards for linkages.

The failure to propose management standards that will prevent the loss of these linkages violates the ESA requirement to “conserve the ecosystems upon which the species depends.”

The 2011 Baseline is Arbitrary and Will Not Promote Recovery

The HBRC uses a 2011 baseline that is a rearview mirror approach to grizzly bear recovery. It will not sustain or build upon 25 years of progress. Rather, it takes several steps back. HBRC has so many exemptions, exceptions and interpretations that it cannot be an effective, enforceable plan that can be subjected to rigorous scientific review.

Baseline changes that exceed 2011 conditions may be made by “conservation partners” (U.S. Forest Service, Tribes, Montana Dept. of State Lands) without consulting with the Service. Thus, violations of secure core that depart from 2011 conditions are built into the process.

As Reviewer McClellan (2017) noted, the allowance for one new campground or expansion every ten years in each Bear Management Unit without consultation is alarming and does not maintain the 2011 baseline. With 23 BMUs, there could be 23 new or expanded campgrounds within 10 years, and after 50 there could be more than 100 new or expanded campgrounds constructed, along with the ancillary infrastructure. This would greatly increase the risks of habituation, management conflict and mortality to grizzly bears. This level of agency discretion is a poor substitute for the ESA Section 7 consultation requirements and identification of critical habitat.

The Service wants to have it both ways. It signed off on the Revised Flathead National Forest Plan in an arbitrary fashion (Biological Opinion), knowing that without the Amendment 19 status quo as of 2011, the HBRC 2011 baseline would be immediately exceeded. The HBRC clearly states the new standards “are less restrictive than Amendment 19.”

HBRC fails to acknowledge the tremendous increase in motorized/mechanized use projected on the Flathead National Forest and other national and state forests, well above 2011 levels. Human population growth, infrastructure and visitation have all increased significantly since 2011 and habitat exploitation is on the rise. There was not in 2011, nor as of this date is there, a comprehensive analysis of vegetation and meat food resources for grizzly bears, essential elements of habitat.

Finally, the year 2011 has no special significance to long-term recovery other than that a highly atypical and unsustainable annual growth rate of 3% was estimated based upon a short time period, which was later revised downward to 2.3%. Yet HBRC still cites 3%. As Reviewer Morehouse (2017) noted, the data upon which the increase was based was gathered from 2004-2009 (Mace, et al. 2012). What is the population trend from 2010-2017, an even longer time period that is more relevant to what is happening today? We only have projections and extrapolations from data current as of nine years ago.

Core Area Definitions Are Weak

The definitions for secure core are inadequate. The 3.8 mi² identified as minimum is far too small, especially when temporary roads and logging are allowed. Mattson (1993) identified micro-scale secure areas for female/cub groups in the roaded matrix as 28.3km² (10.93 mi²). Even when adjusting for smaller average home range size for females in the NCD sub-population compared to Yellowstone, the 3.8mi² is far too small, encompassing a fraction of an NCD single female home range (120-160km² and greater (46.3-61.8 mi²). Moreover, secure core should not shift over time but remain a stable refuge females can learn to use and pass on to their offspring.

The HBRC calculations for Total Motorized Route Density are not only weaker than Amendment 19, by omitting major paved highways they leave out the most demonstrably lethal roads. For example, Costello, et al. (2016) report that 26% of all mortalities on the South End Unit of the NCD between 2004-2014 were from bears struck on highways. The

U.S. Highway 2/Railroad corridor between Glacier National Park and the areas south has long been a high mortality area, as can be seen in Figure 2.

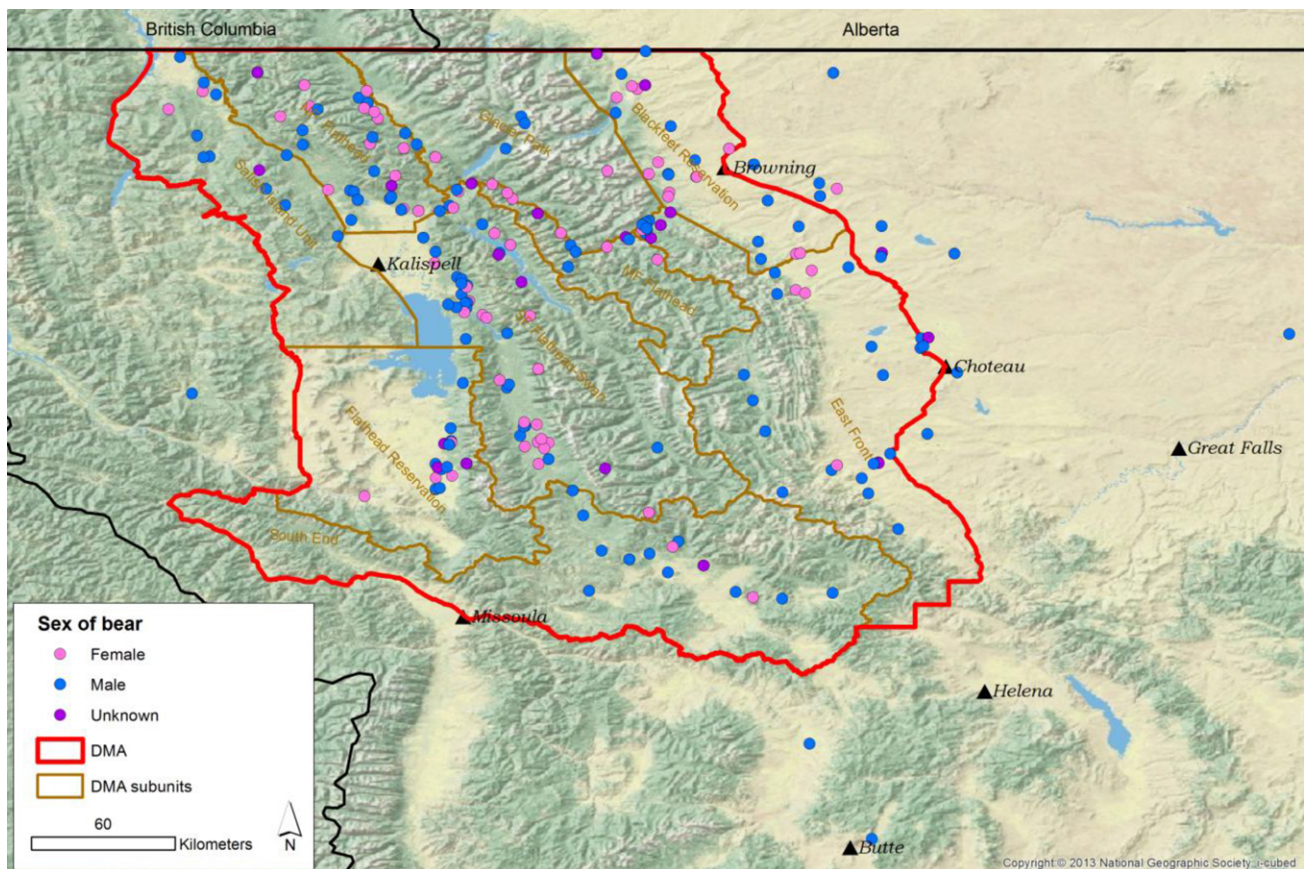


Figure 2- NCD Mortalities 2004-2014. Costello, et al. 2016.

The Service has received extensive comments on these issues from Dr. Lee Metzgar, a population ecologist and former director of the University of Montana Wildlife Biology Program (Metzgar 1998). His findings on total road densities within the non-roadless matrix align closely with those of Mattson (1993) and Craighead, et al. (1995) and should not exceed $\approx 0.25\text{mi}/\text{mi}^2$ ($.4\text{km}/\text{km}^2$). The BC Auditor General Report (2017) stated scientists found that bear density was lower in areas with road density exceeding $0.6\text{km}/\text{km}^2$ in the Kettle-Granby region.

The HBRC also makes no mention of the burgeoning mountain bike use within core grizzly bear areas and the increasing threat to both bears and people. The Board of Review report (Servheen, et al. 2016) on the death of Brad Treat points out these threats.

Protected roadless areas are known to be far and away the most secure grizzly bear habitat, reported as supporting densities $\approx$ twice (Kendall, et al. 2008) and four times (Lamb 2018) those of roaded areas. The HBRC should have an express standard of zero loss or reduction of roadless habitats on public lands.

There is also no discussion of the impact on core security from non-motorized, large parties > 10 . These parties are often armed and have large numbers of stock and dogs. Their travel and campsites are a disturbance and a mortality risk to grizzly bears. Gunther (1990) found

non-motorized stock and foot parties displaced grizzly bears 500m and far greater in a national park setting.

Hunting seasons for grizzly bears are a reasonably foreseeable outcome if grizzly bears are delisted. The HBRC has no assessment of the effect hunting could have on habitat security (source vs. sink) and survival rates. Conversion of source habitats to sink could have devastating effects. Individuals that may be removed by hunting are likely to be those most valuable to recovery (those emigrating to and occupying recently unoccupied, but historically occupied habitat).

HBRC Does Not Have a Meaningful Response to Climate Change

Using stable isotope analysis as a surrogate for measuring changes in climate is a poor substitute for using extensive existing scientific climate research. The lag time in meaningful detection will result in management response that is too late.

“The Services (81 FR 7414-7440) anticipate that critical habitat designations in the future will likely increasingly use the authority to designate specific areas outside the geographical area occupied by the species at the time of listing following any generalized conservation strategy that might be developed for the species. As the effects of global climate change continue to influence distribution and migration patterns of species, the ability to designate areas that a species has not historically occupied is expected to become increasingly important. For example, such areas may provide important connectivity between habitats, serve as movement corridors, or constitute emerging habitat for a species experiencing range shifts in latitude or altitude (such as to follow available prey or host plants). Where the best available scientific data suggest that specific unoccupied areas are, or it is reasonable to determine from the record that they will eventually become, necessary to support the species’ recovery, it may be appropriate to find that such areas are essential for the conservation of the species and thus meet the definition of “critical habitat.”

While the need for grizzly bears in the Northern Rockies Ecosystem to occupy historically unoccupied habitat may not become necessary, the Service policy is clearly to consider this possibility within the realm of assessing potential future effects associated with climate change on habitat use and distribution of key food resources including *Vaccinium spp.* HBRC contains no assessment. More importantly, there is no assessment of potential climate change effects on currently occupied and historically occupied habitat necessary to effect recovery.

Peer Review Narrow

It seems odd that all three reviewers are from Canada. Why no reviewers with direct knowledge of the U.S. Northern Rockies, U.S. and state wildlife protection laws including the Endangered Species Act and the 2012 National Forest Planning Rule? The HBRC should have been subject to review by a non-agency affiliated independent scientist with peer-reviewed publications on the subject of grizzly bear habitat use and security.

While the reviewers offer valid observations, since the HBRC is so limited, the reviews are also narrow in scope and do not address many of the issues raised in the July 2016 Workshop Record.

HBRC Must Be Withdrawn

As written, the HBRC is arbitrary, capricious and an abuse of agency discretion. We believe it must be withdrawn to correct its many deficiencies before it can again be offered for public comment.

At a minimum, HBRC must apply to the entire Northern Rockies Ecosystem including linkages, reinstate the Amendment 19 strategy and apply it to other national forests in addition to the Flathead. It must be based upon a comprehensive assessment of vegetation and ungulates, including analysis of long-term trends. It must be based upon a comprehensive assessment of human population growth, visitation and infrastructure, and motorized and mechanized uses, also analyzing long-term trends.

Note: Some of the text in these comments was included in Bader and Tuholske (2003), *Keeping the "Critical" in Critical Habitat*, presented at the University of Oregon Law School ELAW Conference.

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