

International Association for Bear Research and Management (IBA)

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Public Comments Processing
Attn: Docket No. FWS–R6–ES–2016–0042
U.S. Fish and Wildlife
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Falls Church, VA 22041-3803

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To the U.S. Fish and Wildlife Service:

The International Association for Bear Research and Management (IBA) is a professional organization of bear biologists, managers, and conservationists around the world. We have >600 members from 67 countries; 368 of these are from North America. The IBA mission is to promote the conservation and restoration of the world's bears through science-based research, management, and education. To this end we hold regular conferences, publish a thrice-yearly newsletter and the peer-reviewed journal, ***Ursus***, and provide >$80,000 in grants annually for bear research, conservation, and collaboration each year. We maintain a close working relationship with the IUCN Bear Specialist Group. (For more information about IBA go to www.bearbiology.com.)

On occasion, on issues of particular national or international bear conservation significance, we also offer scientific review and comments. Our goal is to help ensure that science and data interpretations underpinning policy decisions and conservation strategies regarding bears are sound and clearly articulated. The Yellowstone grizzly bear population is one of the best studied in the world. The iconic setting in a unique ecosystem and in America's first national park make this population of worldwide conservation significance. In March, 2016, IBA's governing Council voted unanimously to review and submit public comment on the US Fish and Wildlife Service's proposal to remove the grizzly bear population of the Greater Yellowstone Ecosystem (GYE) from the US Endangered Species List, thereby returning management responsibilities to the three states that encompass the GYE. For this purpose, we chose, by vote of Council, a review team of 4 highly qualified scientists from among our members. These scientists were selected for their demonstrated competence, integrity, and expertise in related work. We took great care to choose reviewers who were independent of ties to the Interagency

Grizzly Bear Study Team (IGBST), the Interagency Grizzly Bear Committee (IGBC), and the wildlife management agencies of Montana, Idaho, and Wyoming.

As officers of IBA, and on behalf of IBA's Council, we submit here the attached review authored by this team. In it, they review key scientific methods and findings presented in the USFWS Proposed Rule (Docket Number FWS–R6–ES–2016–0042) and the supporting papers cited therein. This review was approved by IBA Council for submission on our behalf to the US Fish and Wildlife Service.

Key findings in the review are as follows. Evidence is clear that the specifically defined habitat and demographic criteria for population recovery have been met. However, 9 key issues are identified and discussed that have implications for the success of the conservation strategy, should delisting proceed. These issues are relevant whether management of the GYE grizzly bear population remains with the federal government (listed) or is transferred to state agencies (delisted). The specific issues can be summarized under 3 general concerns: a) the magnitude of uncertainty surrounding multiple key factors has not been adequately recognized in the rule or incorporated into the conservation strategy; b) managing the population to a specific target size is difficult at best and entails risk, especially for a population of a size that still qualifies as "Vulnerable" under IUCN Red List criteria; c) plans for managing to a target population size seem counter to the goal of continued population expansion and connectivity.

In addition to the content of the attached review, we offer several additional comments:

1) We commend the USFWS and all associated parties for their steadfast focus, leadership, and enormous effort in working to return the GYE grizzly bear population from critically low to healthy numbers over the past decades. This recovery is a stunning example of what can be achieved in conservation even in the face of fiercely divided public opinions.

2) The growth and expansion of the GYE grizzly bear population was only possible through conservative management. A conservative management approach is still warranted, given the rapid pace of ecological change in the GYE. It is particularly important to guard against Type II errors in data interpretation, when one falsely concludes there is no effect because statistical analyses fail to detect one. As an example, we suggest that it is too soon to conclude that declines in key grizzly bear foods in the GYE have not affected vital rates of grizzly bears, despite the failure to statistically detect such effect in the analyses presented to date. Schwartz et al. (2014) suggested that body fat content of female grizzly bears might be declining coincident with loss of whitebark pine (WBP) from the environment, but the trend was not statistically significant. A second analysis that included additional data (albeit a small amount) again failed to demonstrate such an effect (IGBST 2013). Moreover, no differences were detected in a comparison of seasonal body fat trends in females pre- and post- WBP decline.

These analyses, however, were subject to acknowledged limitations in sample size and distribution, leaving them at risk for Type II errors. Seasonal body mass and composition are highly variable among individuals and are strongly affected by reproductive status (i.e., if a female is accompanied by dependent offspring or not). Yet in the analyses presented, all females were pooled, due to insufficient sample sizes for partitioning data by reproductive status (or age, etc). Pooled data for adult females has characteristically high variance and

samples are subject to bias due to uneven sampling relative to reproductive status; both conditions can make it difficult to discern statistical trends. The fact remains that nearly 20% of females handled during 2008–2013 had season-specific body fat levels low enough to definitively put them at risk for reproductive failure, whereas prior to 2004, no females assessed were so clearly deficient in body fat. Because reproductive parameters often are connected to threshold levels, the reproductive implications for populations showing this great a difference may be considerable.

We encourage efforts to improve the tracking of body mass and body composition relative to environmental conditions and reproductive success in this bear population. We also suggest that future analyses take into account reproductive status, as body mass, composition and their seasonal trends differ markedly between females with cubs of the year and other females, and pooling these data can obscure significant relationships.

3) Aspects of outlined conservation strategies are not consistent regarding continued expansion of the GYE grizzly bear population either to the west, to enable repopulation of the Bitterroot ecosystem, or to the north to re-establish connectivity with the NCDE population.

The attached review notes that GYE grizzly bear population is relatively small and isolated, and by virtue of its size, still carries a "Vulnerable" designation under the IUCN Red List criteria. As such, future strategies that include habitat and population management that encourage connectivity between the GYE and both the NCDE and Bitterroot ecosystems are certainly prudent. According to the 2016 Conservation Strategy (CS), the State of Montana will manage grizzly bears between the GYE and NCDE ecosystems. We have concerns that the Montana State policies (as summarized in the CS) to allow for "discretionary mortality" (i.e., grizzly bear hunting) and to *not expand* "habitat based restrictions and programs" outside the proposed Primary Conservation Area (PCA), may further challenge the ability of grizzly bears to successfully connect between these ecosystems. Attaining connectivity will be particularly difficult when these state policies are combined with the intention to manage the GYE grizzly populations to the targeted 674 individuals. Currently the intervening habitats between these ecosystems are essentially absent of grizzly bears. We therefore encourage more attention be placed on habitat and population management on the lands connecting the GYE, NCDE, and Bitterroot ecosystems to encourage inter-area connectivity.

We realize that legitimate social concerns influence management programs, as was mentioned in the CS relative to Montana's policy. Human safety, of course, has to remain a top priority. We therefore encourage an iterative approach that monitors the expansion of bears between these ecosystems (or the lack thereof), and improves habitat and population management as required to eventually attain inter-area connectivity. IBA members who work extensively with connectivity issues in other jurisdictions suggest that management strategies that minimize human-caused mortality in linkage areas, be it through legal hunting, non-hunt mortalities on backcountry roads, or frontcountry mortalities related to bear attractants, be considered in linkage habitats. It might be beneficial or even necessary to identify areas of especially high quality habitats with important food resources or with linkage movement potential and apply habitat restrictions to those areas, rather than applying blanket restrictions across all habitats.

In conclusion, IBA neither specifically endorses nor opposes delisting of the GYE grizzly bear population. Our role is to provide a review of the science, its interpretation, and the monitoring and proposed management practices that are the foundation of the USFWS delisting proposal. Our concern is the security and sustainability of the Yellowstone ecosystem grizzly bear population. With appropriate measures in place, this goal is theoretically attainable under either federal or state management. Whether or not to delist the Yellowstone grizzly is a decision that must be heavily informed by science. But, it is a policy issue that rests also on other issues of public opinion and core values. Those may include the desirability of sport hunting of grizzly bears, the openness and equitability of the delisting process, desired future condition of the landscape, desired future range of grizzlies, level of comfort with future uncertainty (e.g. climate change, political change, etc), public trust in the political will and ability of multiple state agencies to manage for a shared objective, and issues of Native American tribal sovereignty and inclusion in policy-making. Though informed by science, these issues are not determined by science.

On behalf of the IBA Council and the review team, we emphasize that our comments in this letter and the attached review represent our best professional judgment regarding scientific and management measures that deserve specific attention and effort to ensure the persistence of the GYE grizzly bear population. They also represent our very best intentions in supporting the ongoing work of the capable and dedicated scientists, managers, and policy makers who have worked so hard to secure the future of these bears.

Respectfully yours,



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