

1) Where is the public process allowing laypeople to weigh in on the important public policy issue of delisting Yellowstone area grizzlies? The decision to remove grizzlies from the Endangered Species list is not just a scientific one. It also is a PUBLIC POLICY DECISION. Grizzlies are an icon of the American West. The public has a RIGHT to weigh in on their future. Should we allow animals such as these to be subject to trophy hunting? Millions travel from all over the world to view these bears. What are the economic ramifications of delisting and hunting? How will delisting impact the rest of the ecosystem?

2) USFWS uses OUTDATED science to categorize Yellowstone Grizzlies Bears as part of a species that spans the continent, while the best available science clearly shows that the Yellowstone population is part of a “clade 4”, which consists of a common ancestor and all its lineal descendants, and represents a single “branch” on the “tree of life”. USFWS makes reference in the Rule to an antiquated research paper (Rausch 1963) as a basis for lumping Yellowstone Grizzlies in with a presumed subspecies that spans the entire western North America. The “best available science” comprised of a large body of post-1995 research, clearly shows that Yellowstone’s grizzlies are, instead, part of the first representative of *Ursus arctos* to migrate across Beringia into North America, perhaps as early as 70,000 years ago, and have an ancient history and current distribution that is restricted to central-western North America. USFWS does not make reference to this unique evolutionary and biogeographic circumstance of Yellowstone’s Grizzly Bears anywhere in the current delisting package. This is a MAJOR OMISSION. Nor does the USFWS make mention of the unique and much diminished status of this “clade 4” grizzly bears. USFWS has failed to update the Recovery Plan for this grizzly bear population so as to reflect the massive amount of “best available science” that has been produced since the early 1990's. USFWS has also failed to follow through with its own 2011 recommendation to update and revise the Yellowstone Grizzly Bear Recovery Plan.

Literature Cited: Rausch, R.L. (1963). Geographic variation in size in North American brown bears, *Ursus arctos* L., as indicated by condylobasal length. *Canadian Journal of Zoology*, 41(1), 33-45).

3) Because the Conservation Strategy and Idaho state plan are not complete—and will not be completed prior to the public comment period closing, the public will not be able to evaluate whether post-delisting management is adequate to sustain Yellowstone grizzly bears. The Conservation Strategy is still being revised by the Forest Service, the National Park Service, and states. Further, Idaho's management plan is from 2002 and therefore woefully out of date. It should have been updated to reflect current science and public opinion. Had Idaho reopened the plan, it would have had to be approved by the state legislature, which would have delayed the delisting process. Due to political pressure, the state of Idaho did not take the time to prepare a new document, and, instead kept an obsolete plan in order to meet the USFWS deadline.

4) Yellowstone grizzly deaths are at a record high yet the Interagency Grizzly Bear Study Team no longer reports violations of mortality thresholds. (IGBST 2015 Annual Report, pgs 29-30). Due to this

failure to report, managers and the public have no ready way of knowing whether too many bears are being killed or whether correction actions are needed. Further, this is an upward trend for the past decade and 2016 will most likely surpass this as thirty-five (35) grizzly bears have been killed to date. The allowable Female deaths in 2015 exceed the allowable threshold, 10% inside the DMA.

5) Political influence has polluted the delisting process. (a) USFWS contracted with a multinational oil, gas and mining corporation as the independent third party to oversee the peer review process. If grizzlies are delisted, 3 million acres of habitat will be open for increased fossil fuel development, mining, and more. Twenty-eight mining claims already exist in the Primary Conservation Area. Thus, employing such a firm to oversee peer review is a clear conflict of interest. (b) Further, a document obtained under FOIA revealed that USFWS handpicked the scientists for peer review of the delisting rule. This cannot be considered "independent" and undermines the validity of the peer review. (c) Finally, the Interagency Grizzly Bear Study Team annual report is typically released in spring or early summer of the following year. This year, the report for 2015 was delayed - allegedly due to staffing issues - and only released after intense public pressure. Once the report was finally published on August 26, 2016, experts immediately noted glaring omissions regarding mortality limits, growth rate and data and analyses on bears outside the DMA. Such delays and omissions have the unfortunate appearance of serving a political agenda because information in this report indicates that delisting is not appropriate at this time.

6) The state management plans do not provide any specifics on how Yellowstone grizzlies can be connected to other bear populations. Lack of connectivity to other grizzly populations is a long-term genetic risk for Yellowstone grizzlies. (Haroldson, M. A., C. C. Schwartz, K. C. Kendall, K. A. Gunther, D. S. Moody, K. Frey, and D. Paetkau. 2010. Genetic analysis of individual origins supports isolation of grizzly bears in the Greater Yellowstone Ecosystem. *Ursus* 21:1–13. BioOne). Idaho and Wyoming's plans both appear to strongly disfavor reintroduction or facilitating recolonization. (Peer Reviewer #4, pgs 3, 4). Idaho's plan "clearly states that moving grizzlies into new areas (e.g., Bitterroot) is prohibited and intentions to connect GYE bear populations to these unoccupied areas is vague." (Peer Reviewer #4, pg 2). Montana's plan to facilitate reconnection is extremely unclear with no details other than "to manage for discretionary mortality" and having "attractant storage rules". (Peer Reviewer #4, pg 2).

7) USFWS fails to adequately address the effect of army cutworm moths on birth and death rates of Yellowstone's Grizzly Bears and fails to account for past effects of increases in consumption of moths by bears and future effects of losses of this food on the population. Army cutworm moths are among the highest quality of grizzly bear foods in the Yellowstone Ecosystem, (Eriénbach et al, 2014). Over summering moths can consist of 50-80% fat (Kevan & Kendall 1997), which female grizzly bears need to achieve substantial body fat in excess of 20% to produce and sustain cubs. (Farley & Robbins 1995). Consumption of moths by grizzly bears has increased dramatically from

essentially nothing during the mid-1980's to high levels that have been sustained since the late 1990's. (Mattson et al 1991b, IGBST 2015:42-43). Individual sightings of grizzly bears on moth sites have numbered between 240-350 during the last three years (IGBST 2015:42-43), which strongly suggests that a substantial number of bears use this food resources and perhaps even the majority of those bears living in the eastern portions of the Yellowstone Ecosystem. All of the 31 known army cutworm moths sites are located on US Forest Service lands. (Gunther 2014). Six of these sites are located outside of the Primary Conservation Area. No where in the Proposed Rule does USFWS address the demographic analyses relied upon and referenced by USFWS or have they in any way incorporated the effect of army cutworm moths consumption in their analyses of grizzly bear birth or death rates.

Literature Cited: Eriénbach, J.A., Rode, K.D., Raubenheimer, D., & Robbins, C.T. (2014). Macronutrient optimization and energy maximization determine diets of brown bears. *Journal of Mammalogy*, 95(1), 160-168.)

Kevan, P.G., & Kendall, D.M. (1997). Liquid assets for fat bankers; summer nectarivory by migratory moths in the Rocky Mountain, Colorado, USA. *Arctic and Alpine Research*, 478-482.

Farley, S.D., & Robbins, C.T. (1995). Lactation, hibernation, and a mass dynamics of American black bears and grizzly bears. *Canadian Journal of Zoology*, 73(12), 1372-1378.

Mattson, D.J., Gillin, C.M., Benson, S.A., & Knight, R.R. (1991b). Bear feeding activity at alpine insect aggregation sites in the Yellowstone Ecosystem. *Canadian Journal of Zoology*, 69(9), 2430-2435.

Gunter, K.A., Shoemaker, R.R., Frey, K.L., Haroldson, M.A., Cain, S.L., van Manen, F.T., & Fortin, J.K. (2014). Dietary breadth of grizzly bears in the Greater Yellowstone Ecosystem, 25(1), 60-72.

8) The National Park Service ("NPS") should be heard on the issue of delisting and post-delisting hunting regulations. NPS seeks assurances that any hunting will take place well away from the parks - in essence, a buffer zone. Park bears are tolerant of humans and extremely valuable to local economies. Further, NPS has expressed concern that 100% of the hunting would take place where only 80% of the bears live. This could cause problems with connecting the Yellowstone population to the Northern Continental Divide Ecosystem, as evidenced by a 47% mortality rate outside of the DMA in 2015. (IGBST 2015 Annual Report, pg 29-30). NPS is familiar with the importance of these bears to tourism and its concerns should be addressed.

9) Instead of a hunting season, relocate bears to biologically suitable, tribal lands within historic range. Every tribe in Montana opposes the delisting and hunting of Yellowstone ecosystem grizzly bears. The tribes object to trophy hunting of the bears on cultural and religious grounds, science, and economics. Therefore, if the Yellowstone population actually does need to be managed - and there remains significant debate that it does - these bears should not be killed. Rather, they should be transplanted to sovereign tribal lands. Reintroducing grizzlies to tribal land would revitalize many tribal cultures, which hold the grizzly bear as sacred.

10) The delisting plans do not contain any binding agreements to act. There are no enforceable limits on mortality once delisting has occurred. The Conservation Strategy, itself, does not compel any agency to do anything. In fact, even if deaths exceed prescribed levels, no agency is required to do anything. USFWS indicates that it will step in if the population dips below 500 but that is not compulsory.

11) Wyoming, Idaho and Montana are notorious for their hostile treatment of predators. How can we trust them to manage our grizzlies? In the states' joint comment, they (a) reject the need for federal oversight after the initial 5-year monitoring period, (b) reject the requirement of connectivity and (c) push for a range of 600-747 bears instead of accepting the population objective of 674 bears. They indicate that they want to "manage downward" meaning the states will aim for the lower number of 600 bears. Will USFWS give in to the states' demands? If so, why are those requirements no longer important to the continued survival of Yellowstone grizzlies?

12) Please offer additional public hearings across the country. Only people in Montana and Wyoming were able to give verbal testimony during the initial commenting period but all Americans have an interest in grizzly bears. American taxpayers have funded efforts to recover Yellowstone grizzlies – not just residents of a couple states. All Americans, therefore, should have the chance to weigh in on the delisting plan.