On the Path

Grizzly Bear Studies 101

By Keith Hammer

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Many millions of dollars have been spent on grizzly bear research. Much of what has been learned, however, is a refined view of why grizzly bears in the lower 48 states were in 1975 listed under the Endangered Species Act as "threatened" with extinction.

While research is yielding some encouraging news about modest increases in two of the remaining grizzly bear populations, such news pales in light of the estimated reduction of some 100,000 bears to less than 1,000 between 1800 and 1975. Where grizzlies once ranged largely from the Great Plains to the Pacific Coast and from Canada into Mexico, most lower-48 bears are now found in and adjacent to Yellowstone and Glacier National Parks.

Indeed, Fish and Wildlife Service's 1982 Grizzly Bear Recovery plan found "grizzly bears have survived in certain refugia – primarily national parks and wilderness areas," identified them as "our best benchmarks," and marked out larger recovery zones around those parks in hopes of conserving whole and healthy ecosystems. Today, grizzly bears are being encountered outside a couple of those recovery zones and there is plenty of debate over whether this means those populations are expanding and are perhaps "recovered" to the point they no longer need ESA protection.

Fish and Wildlife Service thinks this is so with the Yellowstone population, which it "de-listed" from ESA protection in 2007. Under court order, however, the Yellowstone population was re-listed in 2009. While the question of ESA protection continues to be debated, researchers like the Interagency Grizzly Bear Study Team's Chuck Schwartz report the Yellowstone grizzlies are a ''conservation-reliant species . . . at risk from threats so persistent that it requires continuous management to maintain population levels."

Indeed, Schwartz and his co-authors' latest research concludes "Humans are the primary agent of death in grizzly bears . . . survival was highest in wilderness, followed by national parks, multiple-use land, and nonfederal land." More particularly, they found "the amount of secure habitat and the density of roads in nonsecure habitat on public lands had the greatest effect on grizzly bear survival . . . the number of homes per section and the roads associated with those developments were the best predictors of grizzly bear survival on private lands."

Prior to researchers' ability to monitor bear movements via satellites and crunch their location data via super-computers, the 1982 Grizzly Bear Recovery Plan put it this way: "Exploration and development of resources and increasing numbers of people within the range of grizzly bears are rapidly dwindling the space and habitat necessary for the bear's survival."

The 1982 Recovery Plan performed a "back-of-the-envelope" calculation for the Northern Continental Divide Ecosystem, the area including and surrounding Glacier National Park, estimating there may have then been as many as 680 grizzly bears. After spending several years and $4.8 million snagging grizzly bear hair for DNA analysis,

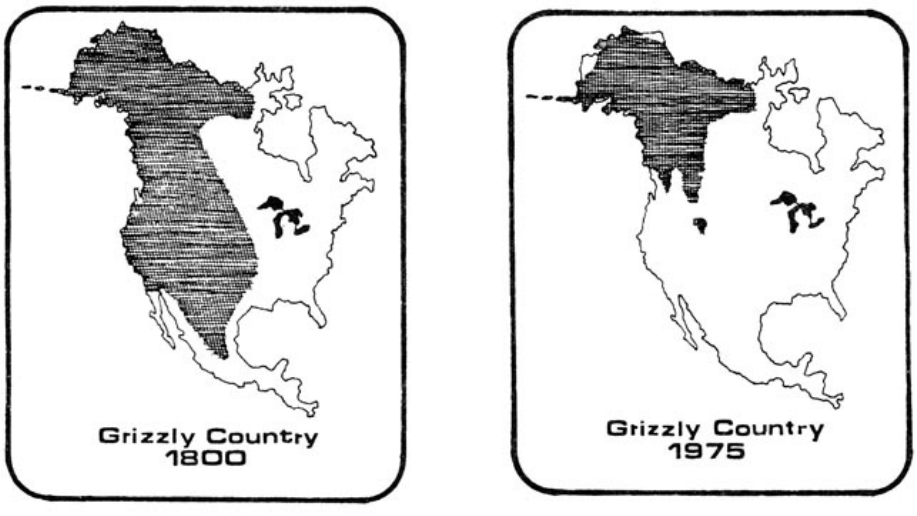
the U. S. Geological Survey found with better statistical accuracy that there were likely 765 grizzlies in the NCDE in 2004. Perhaps more importantly, the USGS study found grizzly bears unevenly distributed across the ecosystem, with the highest densities residing in Glacier National Park and lower densities in other areas, including the Bob Marshall Wilderness, where grizzly bears were hunted for sport until 1990 in spite of their protected status.

Rick Mace, a bear researcher with Montana Fish, Wildlife and Parks, recently provided a preliminary estimate showing the NCDE grizzly population increasing an average of 3% in the six years since the 2004 USGS population size estimate. His expression of optimism to the Interagency Grizzly Bear Committee was tempered, however, by the distribution of bears skewed toward the safer confines of Glacier National Park and away from less secure habitats. Indeed, results from Mace's 10-year Swan Range study in 1997 concluded the population of grizzly bears there declining at over 2% per year.

Mace credited a number of factors for the apparent NCDE population increase, including road closure programs on public lands, termination of the grizzly bear hunt (responsible for 48% of all know human-caused mortality at that time), and private land conservation helping stem the spread of subdivisions in grizzly bear habitat. But he cautioned about over-reliance on Glacier's higher bear densities to offset poorer densities elsewhere in the ecosystem.

If the numbers are correct, we can welcome news that the NCDE grizzly bear population is perhaps increasing and we can be proud of our efforts to accommodate the great bear. Human pressure on grizzly bear habitat, however, has not ceased and we need to continue protecting the some 1,300 lower-48 bears trying to hang on where some 100,000 once roamed widely.

Keith Hammer grew up hiking, skiing, camping, hunting, and fishing in the Swan Mountains. He has worked a number of jobs, from Forest Service trail worker to logger to backcountry guide, and currently works as an environmental consultant and head of the nonprofit Swan View Coalition. His column appears regularly in this paper and is archived at www.swanrange.org. Keith can be reached at 406-755-1379 or keith@swanview.org.



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