

ENDANGERED SPECIES

Technical Bulletin Reprint

Wildland Management Center
School of Natural Resources
The University of Michigan

Grizzly Bear Recovery: A Search For Balance

by Whitney Tilt, National Audubon Society

Ursus arctos horribilis is North America's largest carnivore. Once found throughout the western United States, the grizzly currently occupies a few isolated areas where historical land use has allowed the species to survive in the fastness of wilderness areas, national parks, and surrounding forest lands.

In the world of endangered species conservation, there are a handful of species that have been capable of exciting a tidal wave of emotion and reactions — the grizzly bear, however, is the reigning champion. The bear's status is chiefly a result of its capacity to kill humans. The grizzly has come to symbolize wilderness preservation to its advocates and the epitome of federal intervention and meddling to those who oppose the bear's exalted status. Perhaps only the gray wolf in Minnesota can be considered an equal catalyst for eliciting a preservation versus development debate.

A newcomer to threatened and endangered species management would expect that recovery of a species be determined by sound biological data dictating courses of action open to the on-the-ground manager. The reality of grizzly bear management dictates otherwise. While good biological data is extremely important, politics and public perception are strong currents against which no bear biologists/managers can hope to prevail if the current runs against them.

RECOVERY EFFORTS

The grizzly bear population in the conterminous United States was listed as a threatened species in 1975. In accordance with the provisions of the Endangered Species Act, preparation of

a recovery plan was undertaken and efforts begun to identify critical habitat. It soon became painfully obvious that the term "critical habitat" was a Medusa's head that elicited severe reactions from a broad spectrum of public land users. Try as they might to explain that the designation of critical habitat did not retroactively curtail other uses of the public domain, managers could not stem the running tide of public perception. As Thomas McNamee notes in *The Grizzly Bear*, "the furor that followed the proposed delineation of critical habitat for the Yellowstone grizzly in 1976 provides an excellently depressing illustration of the gulf between legislative idealism and social reality. The law calls for public hearings on critical habitat, and these were humdingers."

From the start, establishing a recovery effort for the grizzly bear has required the intestinal fortitude of the individuals involved, institutional cooperation on a level heretofore not seen, and a leap of faith on the part of the public. Avoiding the thorny issue of critical habitat, the USF&WS proceeded with the recovery plan. A quote from Robert Porter Allen on the inside cover of the recovery document sets the tone:

This is an animal that cannot compromise or adjust its ways of life to ours. Would not by its very nature, could not even if we allowed it the opportunity, which we did not. For the grizzly bear there is no freedom but that of unbounded space, no life

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America's largest carnivore, the grizzly bear.

National Park Service

Grizzly Recovery continued

except its own. Without meekness, without a sign of humility, it has refused to accept our idea of what the world should be like. If we succeed in preserving the wild remnant that still survives, the glory will rest primarily on this bear whose stubborn vigor has kept it alive in the face of increasing and seemingly hopeless odds.

The recovery plan objective is to 1) identify bear population goals representing species recovery in measurable and quantifiable terms for regions determined to have suitable habitat, 2) identify population and habitat limiting factors, 3) identify specific management measures to allow species recovery, and 4) establish recovery of at least three populations in three distinct grizzly bear ecosystems in order to delist the species in the conterminous United States.

Of the six grizzly bear ecosystems identified in the lower 48, three form

the major focus of recovery efforts: Yellowstone, Northern Continental Divide, and Cabinet/Yaak. The remaining three – Selkirk Mountains, North Cascades, and Selway/Bitterroot – are considered occupied grizzly bear range, but no recovery levels have been set at this time (See figure 1). The present verified range occupies some 20,000 square miles accounting for between 600 to 900 bears (Servheen, 1985). Approximately 95% of the currently occupied habitat is federal or state lands with the majority of these lands under the management of the U.S. Forest Service. Glacier, Grand Teton, and Yellowstone National Parks represent the next largest land holdings. Indian tribal lands, Bureau of Land Management (BLM), and the States of Idaho, Montana, Washington, and Wyoming fill out the land roster for bear habitat. In areas like the Rocky Mountain Front, a sizeable portion of the bear's summer range may include private lands.

Recovery goals, which are now in the process of being revised as part of the five year recovery plan update, have been identified for the three main ecosystems. Taking into account historical population sizes, estimates for minimum viable population size, and current habitat evaluation, present goals are set at 560 bears for the Northern Continental Divide, 301 for the Yellowstone Ecosystem, and 70 for the Cabinet/Yaak. These goals are also defined by reproductive parameters which must be maintained for at least six years. Though recovery goals were not established for the three remaining ecosystems, a population of 70-90 bears is felt to be the minimum number necessary for the long-term survival of a grizzly population.

Establishment of a finite recovery goal has both its benefits and risks. On the positive side, such a numerical goal gives landowners, sportsmen, politicians, and others a sign post for recovery. Not unlike those local billboards that appear on town greens announcing progress made toward a fund raising goal, setting a grizzly population goal acts as a barometer for the process of recovery. On the negative side, once published, recovery goals evoke a public perception of being cast in stone.

Unfortunately, the science and biology of grizzly bear recovery is still rapidly expanding our understanding of bear ecology and habitat, and therefore needs the flexibility to adjust its recovery goals to incorporate new information and changing habitat conditions. In addition, estimating total bear numbers is extremely difficult as a result of habitat, bear behavior, and sheer size of terrain. Questions also arise as to how much handling of the bear population is acceptable. Finally, constantly updating the recovery plan to reflect state-of-the-art understanding of grizzly biology and management represents an expensive and time consuming task.

INTERAGENCY COOPERATION

It was obvious from the outset of the bear management effort that the morass of existing jurisdictions involved would swamp recovery efforts unless some vehicle was found to integrate and coordinate federal, state, and regional efforts. In 1983, The Interagency Grizzly Bear Committee (IGBC) was established to implement the objectives of the recovery plan. Membership includes the 3 regional foresters with occupied bear habitat; regional directors of National Park Service and USF&WS; state director of BLM in Montana; and representatives from Idaho, Montana, Washington and Wyoming fish and game departments — all assisted by a USF&WS Grizzly Bear Coordinator. Representatives from a number of other federal, state, and Canadian agencies are *ex officio* members of the IGBC, while additional interested parties may attend meetings as observers. To aid the IGBC's efforts, subcommittees were established for the Yellowstone Ecosystem, Northern Ecosystem, and Research.

Presently, management priorities for the IGBC are focused on reducing bear mortality, especially of adult females, and minimizing habitat disturbance and destruction. Examples of IGBC management activities include:

1. A major public education effort to inform users of grizzly bear habitat about the needs of the species and how confrontations with bears can be avoided.

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2. A coordinated law enforcement campaign that involves cooperation among all state and federal agencies to prevent illegal killing of grizzlies.

3. Development of a computer-based cumulative effects procedure that helps land managers recognize the potential cumulative effects of land-use decisions on grizzly habitat and bear survival.

4. Intensive mapping of bear habitat so that important seasonal-use areas can be identified and carefully managed.

5. Placement of food storage facilities in backcountry areas to allow recreationists to keep human foods away from bears, and thus prevent bears from linking people-use areas with feeding areas.

6. Classification of all occupied habitat in one of three management situations: MS - 1 = areas necessary for grizzly survival, where bear management is the major but not exclusive management concern; MS-2 = areas perhaps necessary for survival, where other land uses can be maintained in conjunction with bear management; and MS-3 = areas where bear use will be discouraged because of existing high human use, e.g. town sites and large campgrounds.^{1/}

MONTANA GRIZZLY BEAR HUNT

The State of Montana is the only state that permits the hunting of grizzly bears in the conterminous United States. Not surprisingly, the hunt has been the focus of a great deal of conflict in recent years. In 1985, pressure was applied by a number of conservation organizations on the State of Montana and the U.S. Fish and Wildlife

^{1/}The management situation classification system delineates what amounts to grizzly bear "critical habitat" in that it designates important grizzly habitat and outlines management approaches for timber, fire, oil and gas development, recreation, etc.

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Fig. 1

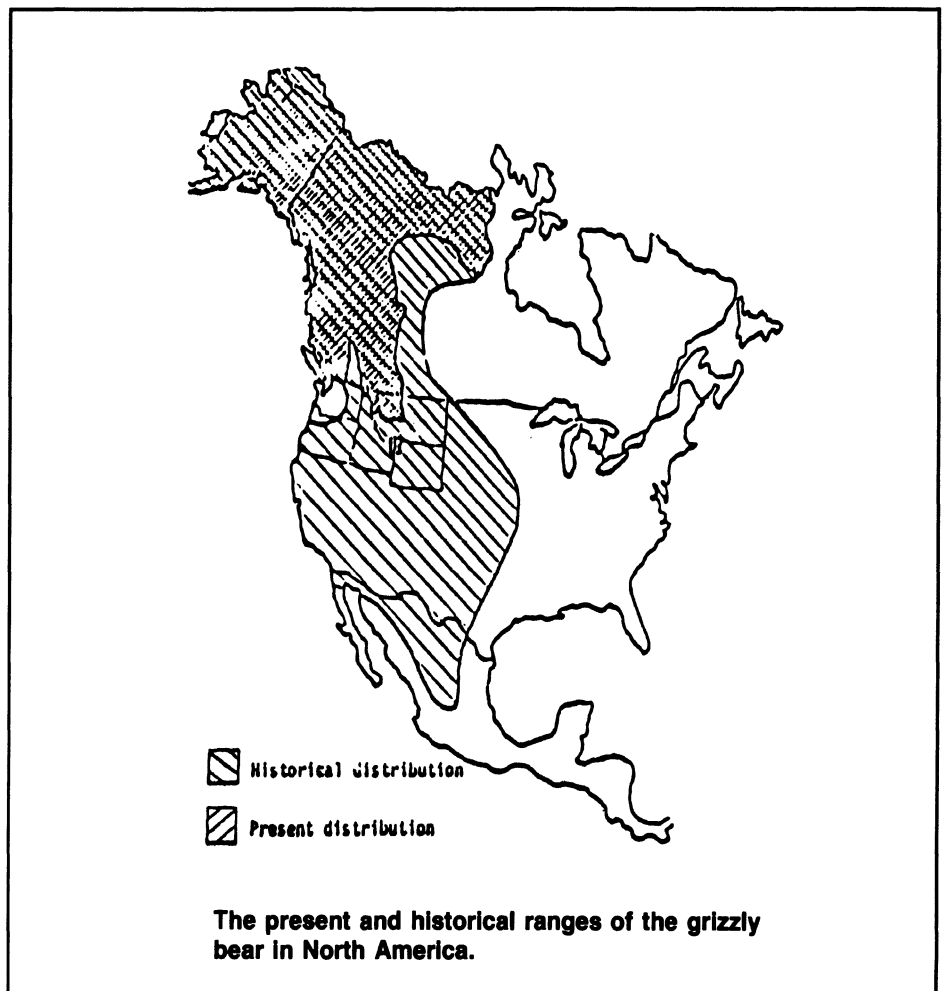


Fig. 2

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Service to demonstrate that the hunt was in the best interest of grizzly management and represented an "extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved" (as mandated under the Endangered Species Act's definition of "conserve"). Agreement was reached to lower the 1985 quota to a total bear kill of 15 from all causes and a quota of 7 females. The previous quota had been set at 25/9.

The 1985 Montana hunt was closed before it ever opened on the Rocky Mountain Front. At the beginning of the 1985 season, which opened September 15 in the Bob Marshall and Scapecoat Wilderness areas of Montana, hunters were only allowed six bears since all known mortalities and/or removals from the Northern Continental Divide Ecosystem count toward the quota. By October 27, when the season was scheduled to start along the Rocky Mountain Front where residents have been experiencing bear problems during the summer, the quota had been reached and the season subsequently closed. While conservationists could seek solace in the fact that 15 rather than 25 bears had been killed, managers in Montana were faced with the harsh reality that resentment by Eastern Front landowners toward the grizzly was growing, and the upcoming season had been viewed as a chance for removing some of the bolder bears from the population.

In reaction to the announcement that the Montana hunt had been closed, a petition was circulated to landowners along the Front. The petition, signed by 224 persons, seeks to develop some means of "self-protection" against the perceived economical and sociological threats posed by the bear. Among the contentions of the petition are: 1) the bear cannot be considered a threatened species because of its numbers in Alaska and Canada; 2) reintroduction of the grizzly into populated areas along the Rocky Mountain Front violates people's safety and rights to use their land as guaranteed in the U.S. and Montana Constitutions; and 3) persons espousing the grizzly's cause are "largely people who live in urban areas remote from the dangers

created by these bears and are unaware of the reality of the situation" (*Great Falls Tribune*, 10/22/85). The sentiments voiced in this petition are not limited to the Front region of Montana, but are found wherever grizzlies and humans coexist in the lower 48.

THE BEAR IN YELLOWSTONE

Last October, hearings were held before the House Committee on Interior and Insular Affairs concerning the "Greater Yellowstone Ecosystem." While the hearings were largely fact-finding in nature, they were indirectly about the grizzly bear, since it is primarily as a result of bear management that the concept of a Greater Yellowstone Ecosystem has developed.

Over the past ten years, thousands of man-hours, and hundreds of thousands of dollars, have been expended on promoting the recovery of the Yellowstone grizzly population.

The grizzly bear has forged a new spirit of cooperation among management agencies in the Yellowstone ecosystem.

This effort has altered the way we view the Yellowstone ecosystem and has had a dramatic effect on the state and federal agencies charged with managing some aspects of the GYE. A few examples:

1. Efforts to manage the grizzly have required an "ecosystem" approach since the grizzly ranges widely and cares little for political boundaries. The bear is not the only beneficiary of such efforts, since elk and numerous other wildlife species and "wilderness" attributes are the direct benefactors of grizzly bear management;
2. Years of fire suppression and other practices have allowed vegetation in some parts of the GYE

to mature past that successional stage optimal for grizzly bear habitat; prime habitat management for bears requires practices such as controlled burning, while continued multiple use of grizzly habitat dictates new approaches to backcountry use such as metal caches and closed areas; and

3. Currently there is communication and cooperation between the NPS, FS, BLM and state agencies on both administrative and on-the-ground management levels that in pre-grizzly bear recovery and IGBC days would have been unthinkable.

The grizzly bear has forged a new spirit of cooperation among management agencies in the Yellowstone ecosystem. The process has not been easy, nor is it complete. Many of the challenges that currently face bear recovery efforts, however, are more communication and public relations problems than biological or scientific issues. There has been a quantum leap in bear knowledge in recent years. Unfortunately, there is a lag time between the formulation of new research data, its implementation into management actions, and integration into the general public's perception of what grizzly management is, and just as importantly, is not. Where actual management goals differ from public and political perceptions, conflict arises. Such conflicts are exemplified by grazing disputes, augmentation of relic grizzly populations (such as the Cabinet/Yaak), defining what constitutes a "recovered" population, and the continued Montana bear hunt. One potential obstacle to grizzly bear recovery has nothing to do with the bear itself; it is the possibility that the atmosphere of cooperation and patience now seen within state and federal agencies may erode before having sufficient time to prove its worth.

RECREATION vs BEARS

A final observation on grizzly bear recovery concerns competition between humans and bears for use of America's most beautiful wildlands.

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While managers and biologists struggle to develop a holistic or ecosystematic management approach to the grizzly, what of man's many uses of these same lands? Efforts have been undertaken to map grizzly habitat components, follow elk migrations, and study the geothermal system of Yellowstone. However, there is little empirical data available on the movements, and "minimum home range requirements" of humans in these wildlands. While this statement may sound facetious, it must be understood that the human presence in occupied grizzly habitat is both 1) the single greatest potential threat to the long-term protection of the grizzly, and 2) the foundation for the future economic viability of the surrounding regions. This impact comes not only from projections of man's traditional extractive activities (i.e., timber harvesting, oil and gas development), but also from ever increasing recreational development.

Bear habitat is a mecca for a myriad of recreational uses (tourist income to the Yellowstone region in 1984 is estimated at approximately \$525-540 million), including those traditionally considered consumptive (i.e., hunting, fishing, trapping) and those considered "non-consumptive" (backpacking, skiing, climbing, birdwatching, etc.). Unfortunately, there is no such thing as a truly non-consumptive use, and managers are forced to recognize that every visitor, regardless of the sport or activity, consumes recreational resources along spatial, physical, and visual dimensions. The IGBC and its individual contributing agencies are caught in the middle of a management dilemma juxtaposing managing these wildlands as human recreation centers (which just happen to be grizzly habitat), or managing these same lands as a virtual wildlife refuge where the interests of the bear and other wildlife species are paramount. To make the issue more difficult, recreation is an important part of the Forest Service's and Park Service's respective mandates, and the notion of controlling recreational access on public lands is very unpopular with user groups who are extremely competitive in asserting their rights of access.

A current example of this conflict is



Grizzly mother with her two cubs.

National Park Service

reflected in the Fishing Bridge campsite in Yellowstone National Park. On one side it is clear that the continued use of the site for campgrounds adversely impacts grizzlies and potentially endangers humans coming in contact with bears. In opposition to this biological opinion, recreational and concessionaire interests generally view the bear as the element in the equation that should be moved.

The Park Service recognized the impact of Fishing Bridge campsite on the bear in its 1974 Master Plan, and made a commitment to close Fishing Bridge on completion of the new facility at Grant Village. The environmental community feels that NPS should adhere to its original agreement through Section 7 of the Endangered Species Act. However, the Park Service is currently being closely questioned by the Wyoming congressional delegation on behalf of Park County, Wyoming, whose residents feel they should have been consulted prior to

the Park's decision to close Fishing Bridge. Their concerns focus on the loss of sales tax revenues from Fishing Bridge concessions and fear of the decreased tourist use of Yellowstone's eastern gateway, thereby diminishing Cody's stature and economy.

As a result, the final decision awaits preparation of a time-consuming EIS. Using 20/20 hindsight, it becomes clear that the Fishing Bridge issue should have been better coordinated between the Park Service, Forest Service, and the local communities. Viewed from a strictly biological standpoint, it appears that both Fishing Bridge and Grant Village should be removed because of their importance as grizzly habitat. Yet political realities foreclose such a narrow view, and managers are forced to manage the grizzly on balance with other uses.

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Grizzly Recovery continued

CURRENT STATUS

The current status of the grizzly bear is difficult to determine. The Northern Continental Divide population appears to be stable overall at approximately 580 animals, but there is concern that local populations in the Mission Mountains and the Badger-Two Medicine area may be decreasing. Yellowstone's bear status is much debated. Continued loss of adult females plagues the reproductive capability of the population while a great deal of argument centers on the carrying capacity of the ecosystem. Current estimates place the population at 183 to 207 bears. Efforts to augment grizzlies into the Cabinet-Yaak continue to be beset by political obstacles. It appears that such an effort is biologically mandatory, however, if the small remnant population of approximately one dozen bears is to increase to a recoverable level. While no direct recovery efforts are being undertaken in the Selway/Bitterroot and North Cascades ecosystem, studies to determine current bear populations are underway or proposed.

While habitat loss and other impacts continue to affect the bear, it is the human-caused mortality that is the most tragic.

Human-caused mortality of grizzly bears, especially females, is one of the biggest threats to the bear's recovery. In the period 1970 to 1984, a minimum of 179 bear deaths can be attributed to some form of human use in the Yellowstone ecosystem. While habitat loss and other impacts continue to affect the bear, it is the human-caused mortality that is the most tragic. The tragedy is three-fold: 1) the actual number of bears lost; 2) of the reasons for the bear's decline, these deaths are the most preventable; and 3) human caused grizzly mortality is a good indication of regional attitudes toward the bear.

Strong local, regional, and national support for grizzly bear recovery is necessary for the long-term survival of the grizzly in the lower 48 states. Without this support, necessary pro-

grams such as population augmentation will be blocked, adequate law enforcement will not be funded, education outreach programs will not be developed, and grizzly bears will continue to die. However with continued interagency cooperation, research, and educational efforts, combined with support from local communities and the bear's own tenacity to survive,

recovery of the grizzly bear into limited portions of the lower 48 states is achievable, and on its way to becoming a reality.

Whitney Tilt is a wildlife specialist for the National Audubon Society's Policy and Legislation Office in Washington, D.C.

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Strong local, regional, and national support is needed for the long-term survival of the grizzly in the lower 48 states.

Resources . . .

REVISED NOTICE OF REVIEW FOR PLANTS

The Fish and Wildlife Service (FWS) has published an updated and revised notice identifying the vascular plant taxa native to the United States that are being reviewed for possible addition to the Federal List of Endangered and Threatened Plants (F.R. 9/30/85). A major purpose of the notice is to solicit additional comments on the status of these plants and the threats they face in order to assist in determining whether or not to propose listing them under the Endangered Species Act.

The identified plants are placed into one of three categories:

Category 1 comprises those plants for which the FWS has substantial data on biological vulnerability and threats to support a proposal to list them as Endangered or Threatened. Currently, there are 894 taxa in this category.

Category 2 contains taxa for which the available information indicates that

proposing to list them as Endangered or Threatened is possibly appropriate, but for which conclusive data for biological vulnerability and threats sufficient to prepare listing proposals are not currently known to the FWS. Further study will be necessary to ascertain the status of the 1,623 taxa in this category.

Category 3 is made up of 1,414 taxa that once were being considered for listing as Endangered or Threatened, but that are no longer under consideration.

Until they are listed as Endangered or Threatened, none of the plant candidates receive any kind of legal protection; however, it is the policy of the FWS to advise other agencies of these candidates when inquiries are made on species that are already listed or proposed for listing. The FWS requests any additional data on the plants contained in the revised notice, as soon as possible and on a continuing basis. Comments should be addressed to the appropriate Regional

Directors or the Director (OES), 500 Broyhill Building, U.S. Fish & Wildlife Service, Washington, D.C. 20240. Copies of the plant notice are available from the Washington office.

ENDANGERED PLANT CONFERENCE ANNOUNCEMENT AND CALL FOR PAPERS

The California Native Plant Society (CNPS) will serve as the lead sponsor for a conference on the conservation and management of rare and endangered plants scheduled for November 5th through the 8th, 1986. The conference will be held in Sacramento, California. Persons wishing to present papers are invited to submit an abstract.

The purpose of the conference is to provide a forum of exchange of information on rare and endangered plants. The conference will include formal presentations in concurrent sessions,

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open forum discussions, a poster session, and workshops. Proceedings will be published by CNPS.

Papers describing research on endangered plants are requested. Taxonomic and ecological studies are of interest although emphasis will be placed on management-related topics, including specialized field techniques for evaluating, monitoring, and mitigating adverse effects on endangered plants. Experience from regions other than western United States are welcome. This conference will be of interest to persons involved in endangered species management for public agencies, private industry, educational institutions, or through conservation organizations.

Early submittal by authors is requested. Abstracts are due no later than June 1st 1986. Abstracts and requests for information should be directed to Jim Nelson, Conference Coordinator, California Native Plant Society, 909 Twelfth Street, Suite 116, Sacramento, CA 95814.

To The Readers . . .

Thank you for your strong support of the *Reprint* over the past year. The promptness of your response to renewal notices is appreciated. I would also like to welcome all of you that have just recently started subscribing. Our subscription ranks have swelled to an all-time high of around 540. This good news, however, does not mean we are out of the tempest yet; self-sufficiency (and financial security) are still distant goals. If you know of others who might like to subscribe to the *Reprint*, please forward their names and addresses to me so that I may send them an invitation. Once again, thank you for your support of this publication and best wishes in the year to come.

Paul Larmer
Reprint Editor

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