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Recovery of the grizzly bear at the intersection of law and science

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Over the last 30 years, there have been numerous legal battles over recovery of the grizzly bear. These battles have brought to fore a question central to implementation of the Act, namely is the goal of recovery to merely remediate extinction risk or to affect broader ecosystem recovery. I systematically reviewed court decisions related to the grizzly bear's recovery plan, efforts to remove protections for grizzly bears, and challenges to logging, mining and other projects with impacts to grizzly bears. A legal challenge to the grizzly bear's 1993 recovery plan forced the Service to develop habitat-based recovery criteria for the Greater Yellowstone Ecosystem. Legal efforts to reopen the recovery plan and expand recovery into additional areas of historic range, however, were unsuccessful, leaving the scope of recovery largely at the discretion of the U.S. Fish and Wildlife Service. Lawsuits brought by multiple conservation groups, tribes and individuals have constrained this discretion, twice stopping the agency from stripping Greater Yellowstone grizzly bears of federal protections. This has allowed the population to grow and forced consideration of the impact of removing protections for Greater Yellowstone bears on overall recovery as a requirement of any future effort to remove protections. Court decisions were issued on 65 challenges to projects impacting grizzly bear habitat, including 44 involving logging and related road construction, seven mining, four livestock grazing, two recreation, five oil and gas leasing and three road projects, leading to 11 of these projects being stopped and nine modified. Lawsuits were also filed to stop hunting in four instances, trapping in one, predator control in one and railroad mortality in two, as well as activities that disturb bears, including helicopters in two instances and snow mobile use in another, resulting in four being stopped and another 3 modified. Protection of the grizzly bear under the Endangered Species Act, along with subsequent litigation, has led to substantial changes in management of public lands in the four recovery zones with grizzly bear populations, but not elsewhere in the species' range. Overall, the legal system is an important, but often overlooked, part of recovery of endangered species.

KEYWORDS

recovery, ESA, grizzly bear, litigation, endangered species

Introduction

Recovery of endangered species under the U.S. Endangered Species Act (“ESA”) occurs in both a scientific and legal context. Science provides the understanding and tools to identify species at risk of extinction and to implement effective strategies to recover them. Informed by that science, the law provides a framework for species protection and the imperative to recover species. Despite the clear importance of the legal context, it has received little attention in the conservation literature.

The ESA is widely regarded as one of the strongest laws in the world for conservation of biodiversity, but laws are only as strong as their implementation and enforcement. The U.S. Fish and Wildlife Service (“Service”), which implements the ESA for terrestrial and freshwater species, has often been criticized for protecting species too slowly and in some cases, too late (Schwartz, 2008; Puckett et al., 2016; Eberhard et al., 2022), setting recovery targets too low (Tear et al., 1993; Neel et al., 2012), and not enforcing the law’s prohibitions (Malcom and Li, 2015; Evansen et al., 2020).

Recognizing that enforcing protections for endangered species in direct conflict with “economic growth and development” was likely to be difficult for federal agencies, Congress included a “citizen suits” provision in the ESA that allows conservation groups and others to sue any “person,” which includes municipalities, states and government agencies, for violating provisions of the ESA. This provision also allows lawsuits against the Service for failure to perform non-discretionary duties under section four of the ESA, which includes requirements to list species as endangered or threatened, designate critical habitat and develop and implement recovery plans (*Endangered Species Act 1973*, s 2, 11).

Lawsuits filed under the citizen suit provision have proven an important check on the Service’s reticence to implement the ESA, including speeding listing of species as endangered or threatened, forcing designation of critical habitat and development of recovery plans, and in some cases, serving as a catalyst for major changes in land management, such as the Northwest Forest Plan (FEMAT, 1993; Brosi and Biber, 2012; Puckett et al., 2016). But there are important limitations in what citizen suits can accomplish. Lawsuits, for example, can force the Service to develop a recovery plan, but for the most part cannot dictate what specific actions are recommended by a recovery plan or the timeline by which they are implemented.

By the time the grizzly bear (*Ursus horribilis*) was listed in 1975, it had declined to fewer than 1,000 individuals in less than two percent of its historic range due to rapid habitat loss and human caused mortality (USFWS, 1993). Grizzly bear populations are particularly sensitive to human incursion, which leads to both loss of habitat and direct mortality, and thus not surprisingly, roads have been identified as posing the “most imminent threat to grizzly bear habitat” (USFWS, 1993). Four populations of the grizzly bear survive today in ecosystems anchored by federal lands, including two large national parks and multiple national forests in the northern Rocky Mountains, lower 48 United States. Reflecting these realities, conservation groups focused legal challenges on

expanding recovery efforts to additional areas with sufficient roadless area to support populations and to slow or halt further loss of habitat on public lands (CBD, 2014a; CBD, 2014b).

To determine the impact of litigation on the grizzly bear’s recovery trajectory, I have reviewed all court decisions concerning the species’ recovery plan and all court decisions involving challenges to logging, road, mining and other projects that threatened grizzly bears and their habitat. In conjunction with review of the jurisprudence history, I also reviewed the regulatory history of the grizzly bear, including listing rules and its recovery plan, including one revision and several supplements. This history reveals a recovery program that has seen tremendous success, but that has been limited to a small fraction of the grizzly bear’s historic range.

In reviewing the litigation history centered on grizzly bears, I address questions related to the meaning of recovery for a once wide-ranging predator, the role of recovery plans in guiding and effectuating recovery of endangered species and the performance of the U.S. Fish and Wildlife Service in recovering a species that needs large, undeveloped areas and sometimes comes into direct conflict with people.

Methods

Using the legal search engine Lexis, I identified and reviewed all court decisions concerning recovery of grizzly bears and all decisions concerning management of their habitat, including a total of 92 decisions (LexisNexis®). Each court decision was categorized by the focus of the litigation, including whether it included a challenge to a project threatening grizzly bear habitat, challenged the grizzly bear’s recovery plan or its implementation, including challenges to delisting of the bear, or involved hunting or other mortality of bears. Projects threatening bear habitat were classified by the type of project (e.g. logging, mining, livestock grazing, other) and in which recovery zone they occurred. In situations where there were multiple court decisions covering the same issue or project, they were collapsed into a single tally (e.g. appeals, injunction motions, etc.) By following the cases through various rounds, I determined whether they had been won or lost and by reaching out to frequent litigants over grizzly bear, I identified whether the challenged action had been stopped or modified to the benefit of the species.

Background: grizzly bear recovery planning

The ESA requires development and implementation of a recovery plan for all species listed as endangered and threatened, which must include “a description of site-specific management actions” necessary for the conservation of the species and “objective, measurable criteria” that when met would result in delisting of the species (e.g. removal of the grizzly from the list of threatened species (*Endangered Species Act 1973*, s 4). Recovery

plans under the ESA are supposed to be a “road map to recovery,” which is the process by which “listed species and their ecosystems are restored and their future is safeguarded to the point that protections under the ESA are no longer needed” (NMFS and USFWS, 2010).

The ESA does not require a species to be endangered or threatened throughout its range for it to receive protection, but rather just in a “significant portion of its range” (“SPOIR” (Endangered Species Act 1973, s 2). This applies to recovery of species as well, whereby species cannot be considered recovered if they remain at risk in significant portions of range. Through regulation, the Service has interpreted endangered in a SPOIR to only apply to a species current range and not its historic range (USFWS and NMFS, 2014).

The Service completed the first recovery plan for the grizzly bear in 1982 (USFWS, 1982). The plan identified six “grizzly bear ecosystems,” where the bears were believed to survive, including the Greater Yellowstone (“GYE”), North Continental Divide (“NCDE”), Cabinet-Yaak (“CYE”), Selkirk Mountains (“SME”), Bitterroot (“BE”) and North Cascades (“NCE”). Bears were also thought to potentially survive in the San Juan Mountains in Colorado based on the killing of one bear in 1979 (USFWS, 1982).

Of these areas, the recovery plan only set recovery goals for three—the GYE, NCDE and CYE. This decision was based on a series of meetings and workshops involving various officials with the Service, Forest Service and states in which “a majority of those in attendance shared the opinion that it was impractical to assume that all six identified populations could be recovered” and because only these three bear populations had been the subject of monitoring and research (USFWS, 1982). For the other three ecosystems, the plan solely recommended surveys if funding became available. Recovery goals were not identified for any other areas in the grizzly bear’s substantial historic range.

For two of the three populations that did get recovery goals, the Service set population targets for delisting roughly equivalent to existing populations with the added requirement that demographic rates (reproductive rate, average litter size, reproductive intervals, and annual total mortality) demonstrate stable or increasing populations (USFWS, 1982). For the GYE, the goal was set at 301 bears, which was based on population estimates from 1959-1967. For the NCDE, the target was set at 440-680 bears, which was identified as the “current estimated levels” (USFWS, 1982). There were no population estimates for the CYE, so the Service instead used an estimated minimum viable population of 70 bears.

For site-specific management actions, the recovery plan identified limiting factors for the grizzly bear, including hunting, human-bear conflict, livestock conflict, road and other accidental mortality, and habitat destruction from logging, mining and development, and required that these issues be remediated through various means as a requirement of recovery (USFWS, 1982). Specific recommended actions included increased law enforcement and education to reduce poaching and accidental shooting, cleaning up carrion and other attractants near roads and railways and development of systematic guidelines for Federal lands to reduce impacts from logging, mining, livestock grazing, recreation and other development.

In 1986, the “Interagency Grizzly Bear Committee” (IGBC), which included “upper-level managers” from the relevant federal agencies and states, developed the systematic guidelines called for in the recovery plan (IGBC, 1986). Under the Guidelines, the four ecosystems (GYE, NCDE, CYE, SE) with grizzly bear populations were divided into five “management situations” based on perceived importance to their survival. Of these, management situations 1 and 4 mandated the strongest protections, albeit limited to federal lands, requiring consultation with the U.S. Fish and Wildlife Service on all logging, livestock grazing, mining and recreation projects and if found to adversely affect grizzly bears, the projects were to be disallowed. Management situation 1 included “grizzly population centers” where “the probability is very great that major federal activities or programs may affect the grizzly,” and the latter included areas where grizzlies are not present but habitat and human presence makes the area suitable and “the area is needed for the survival and recovery of the species” (IGBC, 1986). Management in the remaining three situations was primarily focused on avoiding human-bear conflicts with varying but generally less emphasis on maintenance of habitat. Several national forests within the four recovery zones eventually updated their management plans to include protections for grizzly bears, most notably placing limits on open road density, which was considered the most effective way to protect grizzly bear habitat (USFWS, 1993). National forests within the two ecosystems (NCE and BE), where grizzly bear populations have yet to be reestablished, have yet to enact protections to ensure sufficient habitat is maintained for reestablishment of grizzly bear populations.

The recovery plan identified a goal to “recommend critical habitat,” which had been proposed in 1976, but never finalized (USFWS, 1976). No critical habitat for the grizzly bear has been designated to the present.

In 1993, the Service updated the recovery plan, establishing six “recovery zones” that included, and in some cases expanded, the grizzly bear ecosystems (GYE, NCDE, CYE, SE, BE and NCE) from the original plan (USFWS, 1993). The stated reason for the change was that the previously designated ecosystems were based on grizzly bear occupancy in the last 10 years, which was considered difficult to determine and potentially not the case for the BE. The San Juans in Colorado was identified as a possible seventh recovery zone with the updated plan repeatedly noting that a decision was pending based on the presence of suitable habitat and recent occupancy.

To set recovery targets, the updated plan used number of females with cubs, distribution of family groups and amount of human-induced mortality, and included targets for the four occupied recovery zones (GYE, NCDE, CYE and SE). In the GYE, for example, the plan determined that the population could be delisted when there were 15 females with cubs over a running six-year average, when 16 of 18 “bear management units” were occupied by females with young over a six-year running average and known human-caused mortality does not exceed four percent of the estimated population (USFWS, 1993). The updated plan specified that recovery targets would be developed for the two other recovery zones in the future, which were developed for the BE in 1996 and the NCE in 1997. It also specified that each recovery zone could be delisted separately and that the grizzly bear would be delisted in the lower 48 states when all recovery zones were delisted.

To address threats to the grizzly, the recovery plan stuck with the IGBC guidelines, but only included management situations 1-3, narrowing habitat protections to existing grizzly bear population centers (USFWS, 1993). The recovery plan also called for development of conservation strategies for each recovery zone prior to delisting, which has only occurred for the GYE and NCDE.

Litigation over recovery planning

In the first challenge to any recovery plan, in 1994 the Fund for Animals, National Audubon Society, Sierra Club Legal Defense Fund and others sued the Service, arguing the updated recovery plan failed to include site-specific management actions necessary for the conservation and survival of the species and objective, measurable criteria for the delisting of the species, required by the ESA's recovery plan provision (*Fund for Animals v. Babbitt* (1995), 903 F. Supp. 96). The Court agreed in part with plaintiffs and remanded the plan to the agency.

Plaintiffs argued that the updated plan failed to include specific management actions or standards, such as where and to what degree logging could occur and roads could be constructed. The Service, however, argued that by identifying recovery zones and listing general management actions, such as increased law enforcement and development of conservation strategies, site-specific management actions were clearly specified by the updated plan. The Court agreed with the Service, finding that because of the hyphen in "site-specific," the word "specific" modified "site" rather than "management actions," meaning there is no clear statutory requirement for specific actions (*Fund for Animals v. Babbitt* (1995), 903 F. Supp. at 105). The Court thus found that the Service has discretion to determine how specific it need be in determining needed action and that in this case, the plan does "recommend steps that could ultimately lead to actions to stave off the threats to the grizzly bears that have been identified" (*Fund for Animals v. Babbitt* (1995), 903 F. Supp. at 107).

However, on the question of whether the updated plan included objective measurable criteria that would lead to the grizzly bear being removed from the list of threatened species, the Court took issue with the Service's position. When listing or delisting a species, the ESA requires consideration of five factors: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence (*Endangered Species Act 1973*, s 4). Plaintiffs argued that the updated plan failed to provide criteria to address these factors. In response, the Service argued both that it need not specify how these factors will be addressed because before delisting, it will need to publish a proposed rule and can address them there, or alternately, that the delisting criteria related to females with cubs, bear distribution and mortality would act as surrogates for the five factors. The Court rejected these arguments and concluded the Service had failed to establish criteria for each of the factors (*Fund for Animals v. Babbitt* (1995), 903 F. Supp. 96).

The Service appealed the decision, leading to negotiations between the parties and in 1997, a settlement agreement under which the Service agreed to develop habitat-based recovery criteria prior to delisting (*Fund for Animals v. Babbitt* (1997), 967 F. Supp. 6). In accordance with this agreement, the Service issued habitat-based criteria for the GYE in 2007 that specified that "secure habitat" cannot decline below 1998 levels (USFWS, 2007). With this criteria in hand, as well as a conservation strategy, the Service began the process of delisting the GYE population, which set off a new round of litigation concerning grizzly bear recovery.

The effort to remove protections for the GYE population of grizzly bears

In 2007, the Service designated the GYE grizzly bear as a "distinct population segment" and removed the population from the list of threatened species.¹ The Greater Yellowstone Coalition ("Coalition") quickly filed suit in the U.S. District Court of Montana ("District Court," *Greater Yellowstone Coalition, Inc. v. Servheen* (2009), 672 F. Supp. 2d) and another group of conservation organizations filed in the District of Idaho. The Coalition's suit was decided first, effectively mooting the other case, and is the focus of the remainder of discussion on this round of litigation. At the time the coalition filed suit, the population had risen to roughly 500 bears, occupying an estimated 68 percent of suitable habitat in the ecosystem, reflecting that the population had continued to grow in numbers and range, which was undisputed in the litigation (*Greater Yellowstone Coalition, Inc. v. Servheen* (2009), 672 F. Supp. 2d at 1105). Instead, the Coalition was concerned and argued to the District Court that protections for grizzly bears, which included commitments to maintain habitat and monitoring by the National Park Service, Forest Service and the three states where the population occurs, were unenforceable and speculative and thereby inadequate. The Coalition also argued the Service failed to consider the impacts of the loss of whitebark pine, a primary food source, which had declined due to disease and climate change, and the small size and isolation of the Greater Yellowstone population. Finally, the Coalition argued the Service "did not properly consider" whether grizzlies remain threatened in a SPOIR. The District Court addressed each in turn.

Noting that the adequacy of existing regulations is one of five factors that must be considered when delisting a species, the District Court agreed the conservation strategy did not qualify as either an "existing" regulation because it had yet to be implemented, or a "regulatory mechanism" because it was non-binding for either the federal agencies or states (*Greater Yellowstone Coalition, Inc. v. Servheen* (2009), 672 F. Supp. 2d at 1118). The court also agreed the Service had failed to consider the impact of loss of whitebark pine on grizzly bears, but did not agree that the isolation of the GYE population precluded delisting, accepting the Service's solution of

¹ The ESA allows for the listing of species, subspecies and distinct populations of vertebrate species.

periodically translocating bears from other populations to ensure genetic diversity.

Finally, the District Court found that the Service had properly considered whether the GYE population was recovered across a SPOIR. The Coalition argued the population continued to be threatened because they had not been recovered in large areas of historic range both inside and outside of the recovery zone. The District Court disagreed, finding that it was in the Service's discretion to designate a distinct population segment, and once it had done so, "it would be nonsensical to require the Service to consider the grizzlies' historic range throughout the United States" (*Greater Yellowstone Coalition, Inc. v. Servheen* (2009), 672 F. Supp. 2d at 1124). Within the GYE recovery zone, the District Court found the Service had properly considered whether the grizzly bear was recovered in a SPOIR by identifying suitable habitat considered to be significant and comprising 24 percent of the recovery zone, and unsuitable habitat, considered to be insignificant and comprising 76 percent of the recovery zone.

The Service appealed the decision to the Ninth Circuit, which overturned the district court in part, finding that management plan changes by the Forest Service and National Park Service did qualify as existing regulatory mechanisms, but upholding the finding that the Service had failed to consider loss of whitebark pine (*Greater Yellowstone Coalition, Inc. v. Servheen* (2011), 665 F. Supp. 3d).

Not to be deterred, the Service in 2017 again moved to delist the GYE population, reasoning the bear's "extremely omnivorous" diet and ability to "shift and switch food habits" according to availability made them resilient to loss of whitebark pine (USFWS, 2017a).

In a significant deviation from the previous delisting effort, the three GYE states all proposed to classify the grizzly bear as a game animal and allow regulated hunting (USFWS, 2017a). In revised demographic recovery criteria, the Service expressly allowed for hunting provided mortality rates were below specified thresholds (USFWS, 2017b). The revised criteria set mortality limits to maintain the population near the average estimate from 2002-2014, which was 674 bears. If the population declined below 600 bears, the criteria specified that there would be no "discretionary mortality" (e.g. hunting). The mortality limits were set considerably higher than in the 1993 recovery plan, suggesting the state's intent with hunts was to arrest further population increases.

The revised criteria dropped the requirement for translocating bears, arguing the GYE population was large enough to be self-sustaining (USFWS, 2017b).

A coalition of tribes and tribal elders and three separate coalitions of conservation groups ("Plaintiffs") immediately challenged the delisting rule (*Crow Indian Tribe v. United States* (2018), 343 F. Supp. 3d). As before, the case was brought before the District Court of Montana, which combined the cases and determined the Tribes were first to file, leading to Crow Indian Tribe naming the case. All three states, the National Rifle Association and Safari Club International intervened on the side of the Service.

Plaintiffs' arguments squarely focused on the impact of delisting the GYE population on broader recovery of grizzly bears. Plaintiffs also again argued the isolation of the population and the lack of enforceable protections continued to threaten the population. In a

new argument, Plaintiffs contested that the Service failed to follow best available science, a requirement of the ESA, by allowing states discretion to determine the method for estimating population size.

On the eve of the first grizzly bear hunts in more than 50 years, the District Court issued a temporary restraining order on August 30, 2018, preventing the hunt from occurring, and 30 days later, issued a ruling vacating delisting and restoring ESA protections to the GYE population. The District Court followed a recent decision on delisting of the western Great Lakes population of gray wolves by U.S. Court of Appeals for the District of Columbia, finding that the Service's delisting of the GYE population without considering the effect on "other members of the listed entity, the lower 48 grizzly bear," amounted to balkanization and presented "an irresolvable conflict with the ESA's policy of institutionalized caution" (*Crow Indian Tribe v. United States* (2018), 343 F. Supp. 3d at 1012).

The Service maintained that it need not consider the effect of delisting the population because the remaining grizzly bears in the lower 48 would remain protected, but the District Court noted that the Service had also initiated delisting of the NCDE population of grizzly bears, and that such delisting would result in a remnant with "only two areas with fewer than 100 grizzlies, one area where grizzlies have not been affirmatively located in over twenty years, and a fourth area where grizzlies have not been seen since at least 1975" (*Crow Indian Tribe v. United States* (2018), 343 F. Supp. 3d at 1012). The Service admitted to the District Court that it would be "difficult to justify" designation of distinct population segments in areas where grizzly bears "have not been located for generations," meaning that delisting of the Greater Yellowstone population had initiated a process where some or all the recovery zones, not to mention the rest of the grizzly bear's historic range in the lower 48, could lose protection. Ultimately, the District Court concluded that failure to consider this potential outcome amounted to a failure to "consider an important aspect of the problem" and was thus, arbitrary and capricious (*Crow Indian Tribe v. United States* (2018), 343 F. Supp. 3d at 1013).

The District Court also agreed with Plaintiffs that the Service had failed to support its conclusion that isolation of the Greater Yellowstone population, which had been "long-recognized as a threat" to the population's survival, was a "non-issue," noting that the two studies relied on by the Service supported the opposite conclusion (*Crow Indian Tribe v. United States* (2018), 343 F. Supp. 3d at 1020). This directly undercut the Service's decision to ignore the lack of natural connectivity with other grizzly bear populations and to drop the requirement for translocation of bears.

In accordance with the Ninth Circuit's decision in the previous round of litigation on delisting of the population, the District Court ruled against Plaintiff's argument that the conservation strategy was unenforceable. The District Court, however, did find that delisting failed to ensure adequate existing regulatory mechanisms in one regard. The Service left open the possibility that following delisting, the states could change the model for estimating the number of bears in the Greater Yellowstone population, which as argued by the Plaintiffs, could undermine the population numbers relied upon by the delisting rule to ensure hunting would not jeopardize the GYE population. The District Court acknowledged that it must "defer to the agency's designation and interpretation of the best available

science,” but in this case, the Service “made its decision not on the basis of science or the law but solely in reaction to the states’ hardline position on recalibration” (*Crow Indian Tribe v. United States* (2018), 343 F. Supp. 3d at 1018).

The Service again appealed the decision to the U.S. Court of Appeals for the Ninth Circuit, where it was narrowed on one issue but otherwise affirmed. The Ninth Circuit clarified that the Service was not required to conduct a “comprehensive review” of the status of the grizzly bear in remnant areas, but rather it must determine “whether there was a sufficiently distinct and protectable remnant population, so that the delisting of the distinct population segment will not further threaten the existence of the remnant” (*Crow Indian Tribe v. United States* (2018), 965 F. Supp. 3d at 662). To date, the Service has not taken further action to delist either the GYE or NCDE populations, but the state of Wyoming has petitioned to delist the GYE population and the state of Idaho has petitioned to delist grizzly bears in the lower 48 United States (*State of Idaho, 2022*; *State of Wyoming and WGFD, 2022*).

The Service’s efforts to remove protections for grizzly bears in the Greater Yellowstone Ecosystem have thus been overturned by district courts twice, and in both cases were upheld by subsequent appeals to the Ninth Circuit. Future efforts to remove protections for grizzly bears are almost certain to see similar challenges.

Litigation to expand recovery to additional areas

In supplements to the 1993 recovery plan, the Service identified augmentation in the NCE and reintroduction in the BE as priority actions to create two additional recovered populations (*USFWS, 1996*; *USFWS, 1997*). These actions were identified as priorities for the first five years of recovery implementation, meaning they should have been initiated by at least 2002, yet the agency has to date not completed either action. Conservation groups sought to jumpstart augmentation and reintroduction through legal and administrative means, but ultimately the courts concluded that recovery implementation is at the discretion of the agency.

Nine years after the NCE supplement to the recovery plan was finalized, conservation groups challenged the Service’s failure to augment the population in the District Court of Washington (*Conservation Northwest v. Kempthorne* (2007), Case No. C04-1331-JCC). The supplement described the NCE as “one of the largest contiguous blocks of Federal land remaining in the lower 48 United States,” and concluded that it “still harbors a small number of resident grizzly bears” (*USFWS, 1997*). As a first step, the supplement called for initiating analysis of augmentation under the National Environmental Policy Act (“NEPA”) to allow consideration of a range of alternatives and public comment consistent with the purpose of this environmental disclosure statute (*National Environmental Policy Act 1969*).

Conservation groups argued that the Service’s failure to initiate the specified analysis by 2006 constituted a violation of the ESA, which requires the Service to “develop and implement” recovery plans (*Endangered Species Act 1973, s 4*), or alternately that it

constituted “unreasonable delay” under a third statute, the Administrative Procedures Act (“APA”, *Administrative Procedures Act 1946, s 555*). The District Court, however, found that because the ESA does not include a “date-certain” deadline for implementing recovery plans, such implementation is discretionary and unenforceable by the court under the citizen suit provision of the ESA, which allows court intervention when there is an “alleged failure” to perform actions related to listing, critical habitat and recovery plans that are “not discretionary” (*Conservation Northwest v. Kempthorne* (2007), Case No. C04-1331-JCC at 5). The District Court likewise found the Service’s failure not reviewable under the APA, which precludes suits over agency inaction “to the extent agency action is committed to agency discretion by law” (*Conservation Northwest v. Kempthorne* (2007), Case No. C04-1331-JCC at 9).

The District Court’s decision had the effect of leaving implementation of a priority action called for in the North Cascades supplement to the discretion of the Service (*USFWS, 1997*). In 2015, the Service finally initiated analysis of augmentation under NEPA, issuing a scoping notice and taking public comment, and in 2017 issuing a draft environmental impact statement with three action alternatives, all of which had an end goal of restoring a self-sustaining population of at least 200 bears, through the capture and release of grizzly bears into the NCE (*USFWS and NPS, 2017*). No further action was taken, however, and with a new presidential administration in place, the Service in 2020 abruptly announced the NEPA process had been terminated and that augmentation would not go forward (*DOI, 2020*). The Center for Biological Diversity filed another lawsuit arguing that termination of the NEPA process was unlawful. With yet another change in administration, the Service has restarted the NEPA process and augmentation is again moving forward, which will resolve litigation (*NPS and USFWS, 2022*).

Changes in presidential administrations has similarly impacted the reintroduction called for in the Bitterroot Ecosystem supplement to the recovery plan (*USFWS, 1996*). In 2000, the Service conducted the necessary NEPA analysis and issued a final rule to create an experimental, nonessential population of grizzly bears in the BE under section 10(j) of the ESA, which allows for lesser protections for populations so designated (*USFWS, 2000*). In this case, the Service specified that existing and planned land-uses within the experimental population area would not be subject to consultation with the Service to ensure the projects did not harm the grizzly bear.

The reintroduction, however, never occurred. In 2001, Gail Norton was confirmed as Secretary of Interior in the newly elected George W. Bush administration and directed the Service to quickly issue a proposed rule to undue the designation of the nonessential population (*USFWS, 2001*). This rule was never finalized, but the reintroduction program was put into an indefinite hiatus. In 2014, the Center for Biological Diversity filed a petition under the APA, seeking reinstatement of the rule and reintroduction (*CBD, 2014a*). The Service responded, stating that staffing resources were limited and that a review of the petition would occur in 2016 or 2017, but this review still has not occurred. Grizzly bears have been

increasingly observed in the Bitterroot Valley, providing hope for natural recovery in the absence of active reintroduction (KPAX, 2022).

In 2011, the Service conducted a “five-year status review” of the grizzly bear, recommending both that the plan be updated to reflect current science and that “other areas throughout the historic range of the grizzly bear” are evaluated to determine their “habitat suitability for grizzly bear recovery” (USFWS, 2011). In line with these recommendations, the Center for Biological Diversity submitted another petition under the APA in 2014, this one requesting the Service update the recovery plan and evaluate other areas as possible recovery zones under the APA’s rulemaking provision (CBD, 2014b). To facilitate such an evaluation, the petition reviewed all studies identifying areas of suitable habitat in the grizzly bear’s historic range in the lower 48 states and combined the results into a single map (Figure 1). The petition identified the Mogollon Rim and Gila Complex (Arizona, New Mexico), Sierra Nevada (California), Grand Canyon (Arizona) and Uinta Mountains (Utah) as “high likelihood recovery areas” based on large blocks of protected roadless areas (CBD, 2014b). Other potential recovery areas included the Klamath-Siskiyou

(Oregon and California), Southern Rocky Mountains (Colorado and New Mexico), Eastern Colorado Plateau (Colorado) and southern Utah with smaller blocks of suitable habitat.

The Service rejected the petition, arguing that recovery plans do not qualify as “rules” under the APA and thus citizens cannot petition for them to be updated. The Service also argued that it was fulfilling its “statutory responsibilities for recovery planning” by focusing recovery efforts on “locations where grizzly bear populations were present or thought to be present in 1975” (USFWS, 2014). The Center for Biological Diversity challenged this rejection in the District Court of Montana in 2019. The District Court agreed with the Service that recovery plans are not rules as defined by the APA and are thus not an action that can be petitioned, finding that “although vital, the nonbinding and discretionary nature of recovery plans means they do not ‘prescribe’ law or policy and therefore do not fit within the APA’s definition of a rule” (Center for Biological Diversity v. Bernhardt (2020) 509 F. Supp. 3d).

The Center appealed the decision to the Ninth Circuit, which determined that recovery plans do qualify as a rule under the APA and thus can be petitioned, but that the denial of the petition does

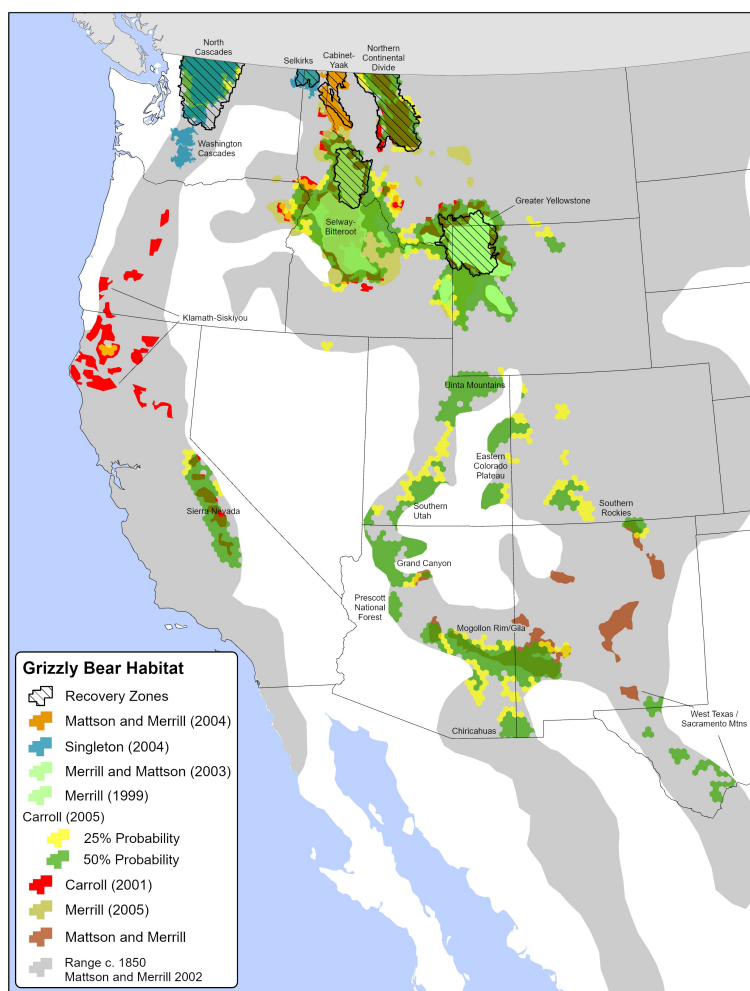


FIGURE 1 Existing grizzly bear habitat with potential to support reintroduction and existing recovery zones taken from (CBD, 2014b).

not qualify as final agency action subject to judicial review because of the non-binding nature of recovery plans. This restored the right to petition for a recovery plan, but exempted the Service from providing a rational basis for denying a petition, effectively leaving discretion to the agency to determine the manner in which it carries out its duty to develop recovery plans.

In summary, two administrative petitions and two lawsuits were unsuccessful in forcing the Service to expand recovery to additional areas, leaving the scope of recovery largely at the discretion of the agency and having the effect of limiting recovery to the small portion of the grizzly bear's range where it survived in 1975.

Litigation to address threats to grizzly bear habitat

Conservation groups have filed numerous lawsuits to protect grizzly bears and their habitat from known threats. In total, courts have issued decisions on 65 project challenges, including logging projects (44), mining proposals (7), livestock grazing (4), recreation projects (2), oil and gas leasing (5), and roads (3), including a challenge to a rule determining management of roadless areas on national forests in Idaho (see [Supplementary Information](#)). Lawsuits were also filed to address grizzly bear mortality from hunting (4), railroads (2), predator control with strychnine (1) and trapping (1) either directly targeting grizzly bears or resulting in incidental killing, as well as activities that disturb grizzly bears, including use of helicopters for logging (1) and hazing bison (1), and rules for snowmobile use (1).

The projects were challenged under several laws, including the ESA, NEPA and the National Forest Management Act. The lawsuits included both procedural claims, such as failure to consider cumulative effects or a reasonable range of alternatives, and substantive claims, such as inconsistency with a forest management plan, most notably regarding grizzly bear standards. Of challenges filed under the ESA, most alleged the action agency, generally the Forest Service or BLM, failed to ensure the project avoided jeopardizing the grizzly bear by consulting with the Service, which is a requirement of the statute and results in a biological opinion specifying measures to reduce impacts. In some cases, challenges also focused on the adequacy of a biological opinion.

The majority of challenged projects were on public lands in the four recovery zones with existing grizzly bear populations. Only four occurred in either the BE or NCE, including two challenges to logging projects, one to livestock grazing and one of trapping that applied across Idaho, which is ongoing. The challenges to logging projects and livestock grazing focused on failure to consult with the Service under the ESA and were in all three cases lost for lack of grizzly bear presence.

Of the 76 challenges to projects, mortality and disturbance factors, a total of 33 were won, including challenges to logging projects (20), livestock grazing (1), mining (4), oil and gas leasing (2), hunting (2), trapping (1), helicopter use for logging (1), recreation (1), snowmobile use (1), and predator control (1). Many of the challenges to logging and road projects focused on

increases in road densities that violated national forest management plans amended to protect grizzly bear core habitat.

Winning challenges does not always translate into a win for the grizzly bear, particularly if won solely on procedural grounds, because the Forest Service or other agencies can redo their analysis to correct flaws and move forward with the project. Conversely, challenges that are lost in court can be won based on public pressure concurrent with the court challenge. In the end, the challenges resulted in stopping three logging and road projects, five mining proposals, three oil and gas leases, one use of helicopters, one livestock grazing proposal, one recreation project (hiking trail), one predator control action and two attempts at allowing hunting, as well as modification to reduce impacts of another nine logging and road projects, one recreation project involving snowmobile use, and one mortality factor involving clean-up of grain spills by the Burlington Northern Railway Company. Of the remaining challenges, 40 were unsuccessful in protecting grizzly bears or their habitat, six are ongoing and for two, we were unable to determine if a victory in court resulted in the action being stopped or modified.

Discussion

The first purpose of the ESA is to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” (Endangered Species Act 1973, s 2). The ESA also specifically mandates protection of species that are endangered or threatened in significant portions of range. The law thus clearly provides the Service authority to affect broad recovery of the grizzly bear.

Despite this broad authority and the Service's stated intent to consider additional areas in the grizzly bear's historic range for recovery, the agency has consistently limited recovery to the four ecosystems where grizzly bear populations survived when the species was listed in 1975, which even with population growth, remains a small fraction of the species' historic range in the lower 48 United States. The Service did identify the BE and NCE as recovery zones, but then continuously failed to take action called for in supplements to the recovery plan to restore populations. The Service also failed to designate critical habitat for the grizzly bear, which could have helped protect additional recovery areas, including the BE, NCE or other potential recovery areas in their historic range. Consistent with the Service's approach, the Forest Service has likewise only enacted habitat protections, such as caps on road density, on national forests within the same four ecosystems.

The Service does not provide a rationale for limiting recovery to a small fraction of the grizzly bear's historic range in its recovery plan or elsewhere, but concern over political backlash to recovery of an animal that can come into direct conflict with people and needs strong protections for its habitat is a likely factor. Political pressure from executive branch political appointees, members of Congress, states and industry have been identified as factors leading to delay or denial of species protection by the Service in several studies, and thus it is not surprising that it also influences grizzly bear recovery (Sidle,

1998; Ando, 1999; Puckett et al., 2016; Greenwald, 2021). Changes in presidential administration coincided with decisions to scrap recovery efforts in the BE and NCE. The NCE augmentation was and continues to be opposed by local congressional representatives. Likewise, the three states with grizzly bear populations, along with industry groups, intervened in the cases over the recovery plan and over delisting of the GYE grizzly bear population and two of the states have recently filed new petitions to the Service seeking to delist grizzly bears, making clear their opposition to protections. This opposition appears to have a clear, long-term impact on the Service's exercise of its discretionary authority.

The political pressure put on the Service by states, members of Congress and industry and the Service's acquiescence to this pressure by limiting recovery and attempting to strip protections for the grizzly bear, appears to fit the rubric of regulatory capture, which is the "process through which special interests affect state intervention in any of its forms" (Dal Bó, 2006). Regulatory capture has been identified as a limiting factor in implementing laws and regulations in multiple contexts, including implementation of the Endangered Species Act (Tobin, 1990; Greenwald, 2021).

Efforts by conservation groups through the courts to expand recovery to additional areas have been largely unsuccessful, effectively delegating the scope and implementation of grizzly bear recovery to the discretion of the agency. The Service expressly argued for this discretion, as it has in many other court battles. By undercutting the ability of conservation groups to counter political opposition to recovery of the grizzly bear by special interests, as well as shifting priorities that come with changes in presidential administration, this discretion arguably undermines species conservation.

In the absence of court intervention, the options for countering regulatory capture may be few. The ESA's best available information standard, which applies to all listing decisions, but unfortunately not recovery plans, was specifically added to the statute in 1982 to exclude consideration of economic impacts in these important decisions, but has not effectively shielded the Service from political influence although it has been the basis for many if not most successful challenges of Service listing decisions (Merchant Marine and Fisheries Committee, 1982; Sidle, 1998; Greenwald, 2021).

Ultimately addressing the extinction crisis will require political leaders—most importantly, the executive branch—that recognize the importance of the Endangered Species Act and support the Service in carrying out their regulatory mission in implementing this important law for protecting biodiversity. We similarly need bold, courageous leaders in the Service who are not swayed by the political influence of special interests and willing to take an ambitious approach to recovery of endangered species like the grizzly bear.

With bold leadership, there is much the U.S. Fish and Wildlife Service could do through policy and regulation to strengthen implementation of the ESA and effectuate broad recovery for the

grizzly bear and other species. The Service's decision, for example, to limit consideration of whether species are endangered or threatened in a SPOIR to current range could be changed to require recovery in portions of historic range that retain sufficient suitable habitat to be considered significant (See Vucetich et al., 2022). The Service could also clarify that recovery plans must follow best available science and be implemented. The Service, however, argued the opposite of these policy positions in the court cases reviewed here in order to justify delisting of the grizzly bear, as it has for other species it sought to delist (e.g. gray wolf, Virginia northern flying squirrel). Current Service policies thus prioritize avoiding conflict with states and industry over broad and resilient species recovery and ultimately conservation of ecosystems.

Where agency discretion has been limited by the statute and courts, conservation groups have successfully forced action to the benefit of species conservation, including in forestalling removal of protections for GYE grizzly bears, which allowed for continued growth and expansion of the population. Moreover, if the Service again attempts to remove protections for the grizzly bear in portions of its range, it will have to consider the impacts of piecemeal delisting on recovery of the grizzly bear in the remainder of the lower 48 United States, ensuring recovery continues in the remaining portions of the grizzly bear's historic range. Conservation groups were also successful at reducing impacts from logging, roading, mining and other threats, which is an important, but difficult part of species' recovery.

Litigation may be particularly important to grizzly bear recovery because their need for large undeveloped areas, wide distribution and danger to people make them one of the most difficult and contentious species to recover under the ESA. In reviewing court cases concerning grizzly bear recovery, it's clear the courts played an important role in maintaining ESA protections in the face of considerable political pressure to remove them. This highlights the importance of court oversight not just for grizzly bears, but for any species, or even more broadly any natural resource in conflict with economic or political interests.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fcosc.2023.1142991/full#supplementary-material>

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