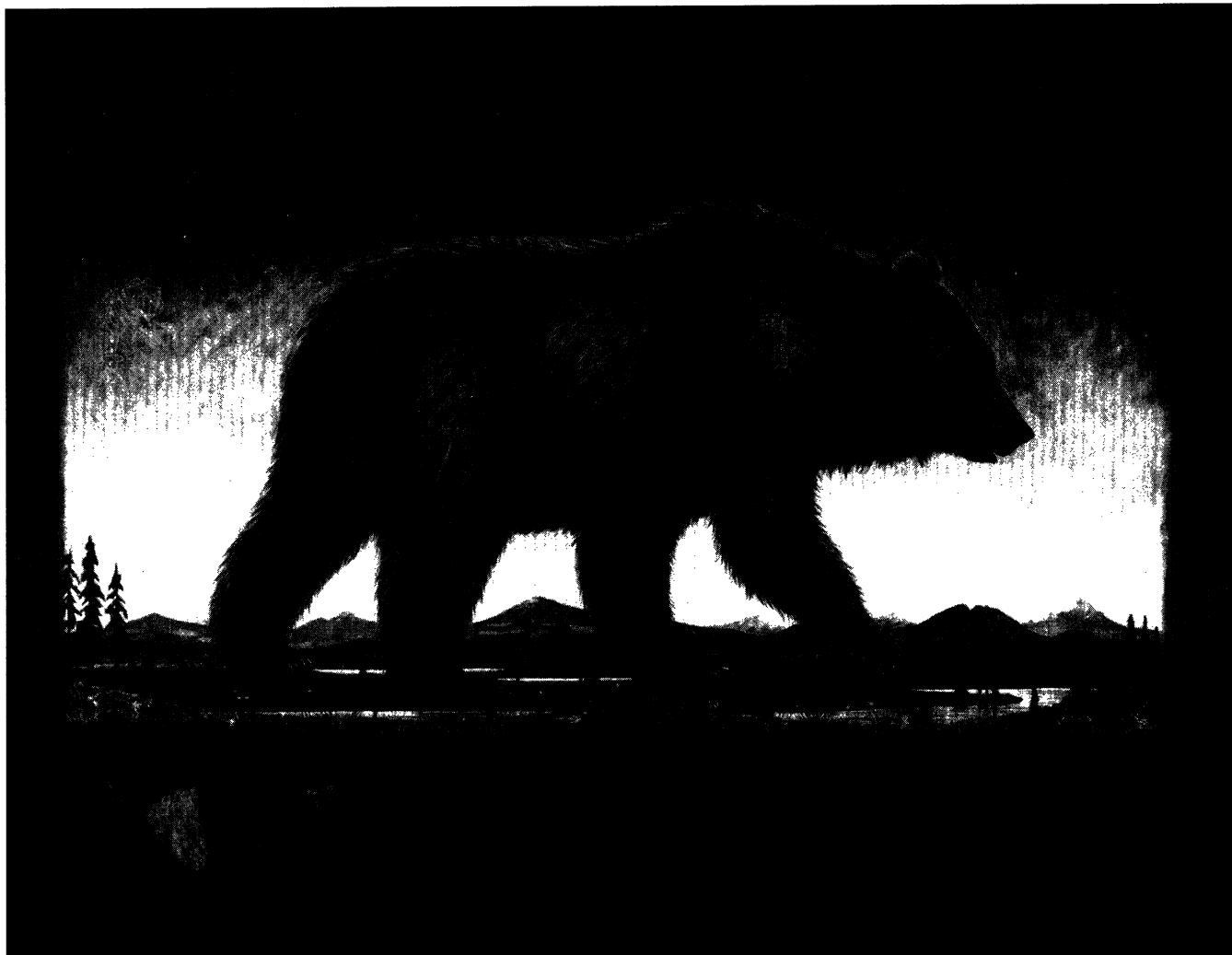


Endangered Species UPDATE

*Including a Reprint of the latest USFWS
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Bitterroot Grizzly Recovery: A Community-Based Alternative

Mike Roy and Hank Fischer

Scientists and advocates agree that recovery of the threatened grizzly bear (*Ursus arctos*) can only be achieved if its range and numbers are expanded. For over twenty years, conservation efforts have focused on stabilizing existing bear populations in the Yellowstone and Northern Continental Divide (Glacier National Park/Bob Marshall Wilderness) Ecosystems. Yet even these programs in parks and other protected areas have alienated many resource users and local citizens.

How can local residents of potential reintroduction areas be convinced that the presence of grizzlies on the public and private lands surrounding their communities will not jeopardize their livelihoods—or even their personal safety? The answer may lie in a new collaborative approach being proposed by commodity and conservation groups to restore the grizzly to its former range in the Bitterroot Ecosystem of western Montana and central Idaho. This approach—which will require an unprecedented level of trust between conservationists, agency officials, and members of rural communities—seeks to recover bears, minimize impacts on lo-

cal economies, and give citizens a larger voice in grizzly management.

Background

Since the grizzly bear was first listed as "threatened" in 1975, conservation efforts—as outlined in the recent Grizzly Bear Recovery Plan (USFWS 1993)—have focused on stabilization of declining populations in four ecosystems in the northern Rockies, reduction of human-caused mortality, improvement of sanitation practices, and enhancement of public education. Strategies to address these critical problems are now in place. New grizzly conservation concerns include fragmentation of grizzly range, effectiveness of corridors, and genetic integrity of bear populations (Servheen and Sandstrom 1993).

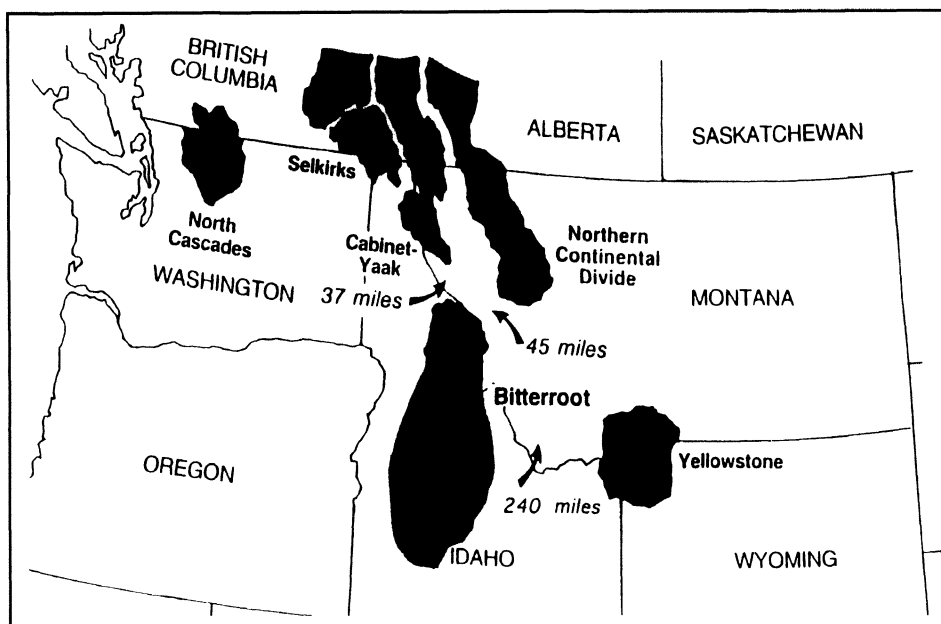
While debate regarding the prospect for long-term persistence and recovery of grizzly populations in the western states continues (Shaffer 1992), quantitative improvements in grizzly conservation have occurred in the Yellowstone and Northern Continental Divide grizzly bear ecosystems. Decreased grizzly mortality, a wider dis-

tribution of bear sightings and increased reproductive success suggest improvement in the bear's condition. In fact, efforts are underway to evaluate grizzly de-listing in the Yellowstone Ecosystem in the foreseeable future.

Despite this perception of progress in grizzly conservation, scientists and advocates agree that significant expansion of grizzly range and numbers must occur before grizzlies can be considered recovered south of Canada. Current populations are too small and too fragmented to be considered secure.

In recent years, both managing agencies and the non-governmental community have turned their attention toward expanding grizzly range and numbers. With a minimum of six million acres of unoccupied habitat—much of which is designated wilderness—the Bitterroot Ecosystem in central Idaho and western Montana presents the most important grizzly conservation opportunity in the continental United States.¹ This area contains the largest complex of roadless country in the U.S. south of Canada. While the actual boundaries of a recovery or experimental area have not yet been defined, conservative estimates of habitat availability place a recovered Bitterroot population at 200-400 individuals; such a population would increase the total number of grizzlies in the western United States by one-third (Servheen *et al.* 1991).

However, restoration of the grizzly to the Bitterroot is not dependent upon available habitat alone. In fact, it can be argued that the most important single ingredient for a successful recovery program is public acceptance of grizzlies. Whether grizzly bear reintroductions can take place in Idaho during this time of low public confidence in government and high public fear concerning the Endangered Species Act largely depends on how effectively local constitu-



Grizzly bear recovery areas are shown in black. Bitterroot grizzly restoration could increase bear numbers and range south of Canada by one third and begin to link bear populations.

encies are engaged in the grizzly recovery process and on how successfully current human uses of wildlands can be accommodated.

Historical Setting

Historical records indicate that grizzlies were widespread in the Bitterroot Ecosystem throughout the 19th century and well into the 20th century (Wright 1909 and Merriam 1922 in Davis *et al.* 1985). While occasional reports persist, and some scientists suggest that a few grizzlies may remain in the Bitterroot (Jonkel, pers. comm.), no grizzly sightings in the Bitterroot Ecosystem have been confirmed since the 1940s (Davis *et al.* 1985; Weaver, pers. comm.). Aerial and ground searches conducted during the 1980s were negative, and a review of all sighting records from this century classified only 16 of 88 sightings as "probable" (Melquist 1985). Similarly, a remote camera survey produced no evidence of grizzly presence (Kunkel *et al.* 1991).

Reasons for the grizzly's extirpation in the region are conjectural, but evidence points toward a combination of impacts, most notably uncontrolled mortality by humans in response to sheep depredations early in this century, and to a lesser extent, loss of anadromous salmon runs and habitat conversion through a century of fire suppression (Davis *et al.* 1985). Population recovery through natural recolonization is highly unlikely, due to the ecosystem's distance from existing grizzly populations (45 miles to the Northern Continental Divide Ecosystem and 240 miles to the Yellowstone Ecosystem) and its increasing insularization from the other recovery areas by interstate highways and rural development.

The Bitterroot Recovery Process

The current Bitterroot recovery effort began with the release of the original Grizzly Bear Recovery Plan (USFWS 1982), which called for evaluation of the Bitterroot as a recovery area. Evaluations conducted in 1985 (Butterfield and Almack 1985) concluded that the Bitterroot provided "su-

perior" habitat that met seven essential characteristics of suitable grizzly habitat (space, isolation, sanitation, denning, safety, vegetation types and food) as identified by Craighead *et al.* (1982).

Following a several-year series of public hearings and meetings of a Citizen's Advisory Committee, the Interagency Grizzly Bear Committee approved the Bitterroot Chapter of the Recovery Plan in 1994. In the same year Congress appropriated funds for completion of an environmental impact statement (EIS) on Bitterroot Recovery, and in early 1995 an EIS team leader began to assemble an interdisciplinary team of federal, state, and tribal representatives. Public scoping was conducted in the summer of 1995, a draft EIS is anticipated in March of 1996 and a final EIS will be released in the late summer of 1996; if an alternative involving reintroductions is selected, initial reintroductions would likely begin in the summer of 1997.

The Political Backdrop

Initiation of the Bitterroot grizzly environmental review process comes on the heels of wolf (*Canis lupus*) reintroductions in Yellowstone National Park and in the Bitterroot area in early 1995, and at a time when endangered species programs are under increased scrutiny by some segments of the public. While the recent wolf reintroductions appear successful, the fact that the Yellowstone releases were the culmination of more than a decade of polarized, acrimonious and expensive debate clearly speaks to a need for more efficient and less confrontational approaches to species recovery.

Federal and state agencies tried to address public concern about meaningful citizen participation by creating a citizen's advisory committee in 1991. Many of the participants in this process, however, found it confrontational, non-productive and an inadequate forum for reaching consensus. Prospects for compromise seemed bleak; in mid-1993 one Idaho newspaper titled its report on public sentiments towards the process "Tell them we don't want no damn grizzlies" (Lewiston Tribune 8/24/93).

With these areas of conflict in mind,

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Cover: "Great Bear" c1991 by Monte Dolack. Detail from an original acrylic painting.

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three organizations representing significantly divergent views on grizzly recovery—Defenders of Wildlife, the National Wildlife Federation and the Resource Organization on Timber Supply (an Idaho-based umbrella organization representing forest industry workers, labor unions and small and large industries)—began meeting informally in 1993 to exchange viewpoints on grizzly recovery issues. The group was soon joined by a fourth organization, the Intermountain Forest Industry Association.

These organizations discovered considerable overlap in their visions of grizzly recovery. Each espoused the basic concept of recovery and eventual delisting of the bear, each recognized the benefits of a streamlined process that minimized polarization and reduced costs, and each sought to minimize social and economic costs to local communities that might be attendant to grizzly recovery. All recognized the importance of engaging local publics in recovery planning. Perhaps most importantly, all organizations believed the wildlands of the Bitterroot Ecosystem could sustain both a substantial grizzly bear population and a healthy local economy.

Setting aside their philosophical differences on other issues, such as wilderness designations, salvage logging programs, and specific aspects of Endangered Species Act reauthorization, these four organizations have cooperatively advanced Bitterroot grizzly restoration in several ways. First, in 1994, they wrote to members of the Idaho and Montana congressional delegations seeking funding to initiate an environmental impact statement on Bitterroot grizzly bear reintroduction. Coming at a time when many wildlife projects were under attack—especially those involving controversial predators—these joint letters played an important role in convincing doubting legislators of the merit of initiating an EIS on Bitterroot grizzly reintroduction.

Second, the coalition took the lead in developing an information booklet on Bitterroot grizzly recovery, which was eventually used by the U.S. Fish and Wildlife Service as its primary public information tool during the preliminary stages of the EIS process. The intent was to make sure all citizens were operating



Photograph by C. Bartlebaugh

from a common set of facts.

Third, in early 1995 the coalition hosted a series of public meetings in rural communities, where opinion-makers and other local citizens were invited to present their concerns. These meetings alerted local citizens that a new, collaborative approach was being tried.

Finally, the coalition developed a Bitterroot grizzly bear recovery alternative which it submitted to the U.S. Fish and Wildlife Service for consideration as an alternative in the draft environmental impact statement. This alternative has two key parts. The first is that grizzly reintroduction would occur as an "experimental, non-essential" population under Section 10(j) of the ESA. This parallels the experimental reintroduction of wolves to Yellowstone and central Idaho. The second is new and innovative: joint management of the grizzly recovery program by a locally-based team of citizens and agency officials.

Designation of Bitterroot grizzly bears as an "experimental population" would relax some standard ESA provisions. But the guiding principle of experimental populations is that regulations can be relaxed only to the point where recovery of the species is not compromised. The intent of the experimental population designation is to provide agencies with maximum flexibility to meet concerns of

local citizens, while providing for species recovery. Regulations promulgated under the experimental provision can be highly adaptive and site-specific. All actions, however, must maintain the purpose and conviction of the Act and must demonstrably lead toward recovery (Kohm 1991).

Experimental designation is appropriate to the Bitterroot situation, since the area does not have an existing grizzly population, lies within historic grizzly range, and is geographically separate from existing grizzly populations. The experimental designation has been tested with other large carnivores, including red wolves (*C. rufus*) in the Southeast United States and gray wolves in the Yellowstone and central Idaho wolf reintroductions. While this approach clearly did not eliminate all conflict over Yellowstone wolf recovery, attention to reducing economic costs and to minimizing land-use restrictions did result in eventual tolerance, if not acceptance, of wolf recovery by all but the most strident opponents.

But use of the experimental designation alone does not guarantee backing from local residents. The key to gaining support lies in giving local citizens a larger and more meaningful participatory role in bear management. The conservation and scientific communities have faced increasing criticism in recent years for their per-

ceived inattention to the needs of rural communities. One scientist (Brussard 1995) recently asserted the need to "encourage the integration of local communities and conservation efforts everywhere" and bemoaned the seeming reluctance of professionals to do so, "particularly in the American west." He continued: "Clearly, if people see that conservation goals are consistent with their own they will become part of the solution rather than remain a major part of the problem."

With this critical failing of past conservation efforts in mind, the coalition has proposed establishment of a Citizen's Management Committee as the centerpiece of the Bitterroot grizzly experimental population designation. This committee would be comprised of representatives from government and the private sector. The committee would consist of single representatives from the U.S. Fish and Wildlife Service; the U.S. Forest Service; Idaho Fish and Game; and Montana Fish, Wildlife and Parks. It would also include seven citizens from the State of Idaho and five citizens from the State of Montana. The citizen representatives would be appointed by the Secretary of the Interior based on recommendations from the governors of Idaho and Montana.

While state and federal agencies would conduct day-to-day bear management activities, the Committee would set policy, develop yearly work plans, and oversee the controversial aspects of grizzly conservation. The Committee would provide informed citizens the opportunity for direct involvement in grizzly management decisions. They would be responsible for developing plans that restore grizzlies yet minimize impacts on local economies.

Our vision of a citizen-based management committee takes a large step into uncharted legal and political waters. Endangered species management in the United States has been based largely on a "top-down" model of federal regulation and enforcement. Our "bottom-up" model is community-based, and relies upon federal control only as a safeguard in the event that local committee actions are determined to be contrary to the stated goals of the ESA.

Critics of this approach—including other conservationists—have raised the specter of malfeasance by a management committee weighted towards local citizens and natural resource industry representatives. While we appreciate this concern—certainly this approach must be considered experimental in nature—we believe that local citizens recommended by their Governor and appointed by the Secretary of Interior to a highly visible committee will not attempt to sabotage its efforts. In fact, if citizens are given this responsibility, we believe grizzly bear conservation will become less polarized, less time-consuming, and more oriented toward problem-solving. If this happens, joint citizen/agency management of endangered species could become an important conservation advance.

Summary

Collaborative approaches have moved the discussion about Bitterroot grizzly reintroductions from *whether* they should occur to *how* they should occur. The ongoing Bitterroot grizzly recovery process offers several lessons relevant to future endangered species recovery efforts. First, partnerships between conservationists and traditional opponents can be powerful political tools for initiation of recovery efforts. Second, local publics will tolerate recovery program implementation more readily if local citizens participate in management. And finally, by reducing polarization, collaborative recovery processes save monies better spent on recovery actions than on confrontation and litigation. If the initial steps in the process are indicative of future success, Bitterroot grizzly recovery may illustrate a needed model for cooperative endangered species recovery programs.

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¹While likely retaining a remnant grizzly population, recovery, through augmentation or other means, in the North Cascades Recovery Zone in Washington will also be a key component of recovery in the lower 48 states.

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Report from the Field

Avoiding the Trainwreck: Observations from the Frontlines of Natural Community Conservation Planning in Southern California

Lynn E. Dwyer
Dennis D. Murphy
Stephen P. Johnson
Michael A. O'Connell

A reading of the popular press would suggest that it is impossible to find common ground between economics and the environment, and between business and conservation communities. Conventional wisdom holds that environmental legislation like the Endangered Species Act is down for the count because industry and landowners are united in their hostility toward the law. But that same press offers poll after poll showing consistent voter sentiment for environmental regulations in general, and strong support for the Endangered Species Act in particular. These contrasting messages may indicate that a solution reconciling human endeavors and the conservation of species will be found not at the margins of the debate, but at some point well within the extremes.

In southern California, one of the strongholds of Congress' anti-environmental wing, calls for the dismantling of the Endangered Species Act may not have been quelled, but they seem to have been tempered. Landowner pleas for more timely, cost effective, and consistent implementation of the Act have resulted in a novel application of its existing provisions. Natural Community Conservation Planning (NCCP), a state-federal cooperative response exercised under section 4(d) of the Act, promises to provide relief to landowners and to improve long-term protection of species. This program may just be the common ground from which the next generation of Endangered Species Act-inspired conservation planning programs will emerge.

California Governor Pete Wilson sponsored the Natural Community Conservation Planning Act of 1991 as part of his Resourceful California program, which was designed in significant part to resolve tension surrounding the conflict between increased de-

mand for new housing and infrastructure on the one hand, and state and federal mandates to protect habitat for endangered and threatened species on the other. Natural Community Conservation Planning functions as a regional, habitat-based conservation program. In its application in southern California, federal and state wildlife agencies, local governments, conservation interests, and developers work collaboratively to produce individual subregional plans that consider extensive landscape areas, the ecosystems that they support, and their resident species. By establishing managed habitat reserve systems under NCCP, lands are freed for development or resource extraction elsewhere. Perhaps the most important economic benefit of NCCP is its potential to eliminate the uncertainties associated with land-use planning that often accompany federal or state listing of species. Comprehensive planning for natural ecological communities both expands the breadth of conservation activities and provides a mechanism for the "one stop" regulatory permitting that development interests have long sought.

The NCCP pilot program encompasses more than 6,000 square miles in five southern California counties. Orange and San Diego Counties are the furthest along in their planning processes. The Orange County program focuses conservation efforts on the coastal sage scrub community, which provides habitat for the threatened and federally protected California gnatcatcher, and a host of other plants and animals that currently are candidates for state or federal protection. Because coastal sage scrub exists in a mosaic of habitats that include native and non-native grasslands, chaparral, oak woodlands, and

riparian communities, the proposed NCCP reserve system in Orange County includes a broad scope of plant communities and the animals that inhabit them. Unique in its private land planning approach, NCCP has been hailed by the Secretary of the Interior as a national model for avoiding the "environmental and economic trainwrecks" typified by the spotted owl conflict in the Pacific Northwest, and experienced across the nation in the last decade.

Findings

The findings presented here emerged from a discussion of lessons learned from the NCCP program in central and coastal Orange County, where the first subregional plan is nearly finalized. Key observations from this planning experience seem highly applicable to Endangered Species Act implementation elsewhere. The discussion group was comprised of federal and state regulators, development interests, environmentalists, local government, consultants, and scientists. The goal of the discussion was to identify specific experiences from NCCP that can be readily exported to other conservation programs on private lands in an effort to introduce more regulatory certainty and a greater range of protection into implementation of the Act. It should be noted that one feature of the program—application of a simple model to assess empirically the relative value of habitats for purposes of interim land-use decision-making—was viewed by some participants as flawed; although all believed that such a model is a necessary component of this and like programs. The following eight findings that participants considered central to the program's success thus far

and in the future emerged from the discussion:

(1) State and local government benefited from the comprehensive habitat-based planning offered by NCCP.

Impacts from the listing of endangered and threatened species have been felt across the country and by a broad array of industries. Increasingly, critics of the Act suggest that state and local government be given the option to solve their own endangered species problems in a comprehensive fashion. Southern California's NCCP focused on an imperiled natural biological community within a mosaic of habitats across an extensive geographic area. By addressing the natural community in its landscape matrix, multiple habitats and species are afforded protection before they become further threatened by development in the region. This "pre-listing" strategy seems likely to reduce the need for future species listings. Comprehensive conservation planning that spotlights both listed and unlisted species is now a feature of federal endangered species policy.

(2) Provision for regulatory coverage of multiple species in the planning area was essential to keep development interests at the table.

The extent of regulatory coverage resulting from conservation planning has been a significant issue for landowners in Orange County. Long-term land-use planning becomes extraordinarily difficult when the number of species covered by a conservation plan is fewer than the total number of species at risk in the region and property owners face the prospect of further species listings. Where comprehensive planning has been conducted in a specific habitat type, regulatory coverage should encompass the species that historically occurred in the planning area. NCCP provides for generalized conservation coverage of the coastal sage scrub ecosystem by using a limited number of "target" species as surrogates for other species inhabiting the same geographic area. Permit coverage should also be pro-

vided for species that have not historically been found in a particular habitat type, but may infrequently take residence in the planning area. Regulatory "take" of such species can be permitted as long as the impact of that take is specifically addressed in the planning.

(3) Funding provided by the state of California and the U.S. Department of the Interior to assist in financing comprehensive habitat-based planning was essential.

Although conservation planning has been financed by a mix of public and private sources in Orange County, many landowners feel they have been asked to shoulder a disproportionate share of the financial burden. Local government is reluctant or unwilling to invest in what they perceive to be an unfunded federal mandate. This frustration is compounded by federal funding priorities that appropriate more than half of available monies to fewer than two dozen species, many of which are largely resident on the public lands. By consolidating endangered species efforts into a single regional planning exercise, NCCP offers an attractive buy. With more than 50 percent of federally listed species occurring exclusively on private lands, NCCP-type programs should become high priorities for federal funding.

(4) A "target" species approach made multiple species conservation planning goals achievable.

Species listings often focus on the rarity of organisms. While rarity is generally well-correlated with vulnerability, it can be a poor indicator of the ecological role of a species or its importance to comprehensive conservation planning. Programs should target species whose successful conservation would confer an umbrella of protection to numerous other organisms within the same habitats, reducing the need to list additional species at later planning stages. NCCP concentrated on three target species—the California gnatcatcher, coastal cactus wren, and orange-throated whiptail

lizard—which served as surrogates for a host of other plants and animals, including more than two dozen candidate vertebrate species and scores of rare plants in the coastal sage scrub ecosystem.

(5) Establishing an interim take mechanism to provide an incentive for landowner participation was absolutely essential to launching the NCCP program.

The practical effect of the section 9 prohibition against habitat modification is to place limits on land-use, creating indirect moratoria on economic activities during the period when permits for take are being sought. To mitigate some of the effects of this limitation on economic activities, the NCCP provided Orange County landowners with a mechanism that allowed for limited interim take. The interim take mechanism used in NCCP placed a five percent cap on conversion of habitats on public and private lands both occupied and unoccupied by listed species. This interim mechanism provides a release valve for critical economic activities in advance of long-term conservation plans. It also provides a viable short-term alternative to individual Endangered Species Act section 10(a) permits and section 7 consultations.

(6) Delegating interim take permitting to local and regional planning agencies based on state and federal guidelines is strongly desired by program participants.

While local government in Orange County traditionally has been the primary agent responsible for land-use planning, the United States Fish and Wildlife Service is the only agency with authority to issue permits for incidental take under section 10(a) of the Act. Such permits can have a profound effect on local land-use activities. In cases where there is an approved NCCP or equivalent conservation process underway, and where participating local government has the resources and desire to make decisions relating to interim take, it should be given the authority to do so

when directed by clear guidelines and appropriately monitored by the wildlife agencies. The lesson learned from NCCP is that if the Service retains veto authority for individual projects, applicants will go directly to the agency for approval of interim take. Giving local government the responsibility for approving interim take would shift the day-to-day burden of permit approval from the Service. This would allow the agency to focus on the big picture of conservation planning and management. The Service and/or state should retain veto authority over the whole interim program. This veto authority would be triggered by violations of explicit standards.

(7) *Providing clear guidance in the form of NCCP Conservation Guidelines was useful.*

A common complaint of Orange County landowners and planners is that historically there has been no certainty and little specific direction concerning the activities prohibited under section 9 of the Act. To guide their planning, local and regional agencies should be offered bright-line standards consistent with long-term conservation objectives. A multidisciplinary scientific panel was convened under NCCP to develop generalized conservation guidelines adaptable to local circumstances. Founded on some basic spatial principles—that reserves optimally should be large and interconnected, and should avoid internal fragmentation—these guidelines included a habitat evaluation model to help planners assess the value of land for future conservation planning. While the model generally helped planners shift development from areas of high conservation value, some participants have criticized the standards as difficult to apply because of a lack of empirical data and the model's sensitivity to changes in assumptions.

(8) *Participating landowners need assurances that unanticipated costs associated with future listings will not be borne by them.*

Orange County landowners who are engaged in expensive, time-consuming planning exercises associated with NCCP want assurances that, upon completion and approval of plans, they will not be subjected to further mitigation costs generated by future listings, unforeseen circumstances, or new biological information in the area covered by the plan. Any significant modification to those plans or new planning activities in the same region initiated by public agencies should be fully funded by those agencies.

Conclusion

Whether Natural Community Conservation Planning fulfills the expectations of the Secretary of the Interior as a national model for private lands conservation planning will only be realized over time. Orange County's central and coastal plan must be enacted, management initiated, and the impact of future land development on

the remaining coastal sage scrub community observed over the long term before the program can be fully evaluated. But today, with the Endangered Species Act facing fierce challenges from property rights activists, the need for responsive programs that offer greater landowner certainty cannot be overstated. Because NCCP offers that and the multiple species, multiple habitat protection that environmental interests seek, it may have the potential to provide a real solution to one of our most intractable environmental and economic conflicts. As always, the devil is in the details; with that in mind Natural Community Conservation Planning deserves the most critical of evaluations in the months and years to come.

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Wildlife Habitat and Private Ownership

Eric T. Freyfogle

In his recent opinion piece (*Species Protection and the Free Market: Mutually Compatible*, Endangered Species UPDATE, April/May 1995), Brian Seasholes of the Competitive Enterprise Institute presents a sharp, libertarian critique of the Endangered Species Act (ESA). His chief target is the Act's ban on the taking of listed species, particularly takings that stem from habitat alteration. The reasoning Seasholes uses has become quite popular these days, particularly among Congressional Republicans, which means his argument deserves an attentive reading.

Seasholes' central claim is stark and pointed: As applied to private lands, the Endangered Species Act creates a "perverse incentive" for owners to drive away imperiled species and destroy their habitat. Far from fostering the well-being of listed species on private lands, he tells us, the Act promotes destructive behavior. Unless the Act is changed, freeing private landowners from any and all responsibilities, "America's proud tradition of private wildlife conservation will be stifled."

Seasholes accompanies his assertions with no data. This is a serious deficiency, given that his claims are by no means intuitive and given, too, that he makes no reference to the increasingly successful habitat conservation planning process—a process made possible only because of the ESA's limits on private lands. Rather than offer data, Seasholes employs an all-too-familiar form of argument: argument by anecdote. Seasholes' chosen anecdote is the story of Ben Cone, a North Carolina forest owner who sought to manage his lands "primarily for wildlife" but was discouraged from doing so by the Endangered Species Act. While the

few facts we are told leave us confused about Cone's true motives and unsure how much his operations were cramped by the ESA, the main problem lies with the whole idea of argument by anecdote. Seasholes is far from alone in concluding that the Endangered Species Act is not quickly accomplishing its goals. But one cannot jump from Ben Cone's tale to the libertarian, pro-private-rights conclusion that Seasholes wants us to embrace. Is it not equally logical that, far from weakening the Act, we ought to be strengthening it? Far from relaxing restrictions on private owners, should we not be tightening them?

Setting to one side Seasholes' lack of data, his reasoning suffers from severe deficiencies and ultimately fails to recognize the larger cultural trends of which the ESA is a part. Seasholes' solution to species loss is uninhibited landed property rights; when private owners have such freedom, he claims, they will undertake to conserve wildlife. But can Seasholes really suppose that our knowledge of history is so lacking? The approach he promotes is the very approach that this country followed more or less from its beginning until the late 1960's. For generations, private owners could do what they wanted to the wildlife habitat on their lands. In some cases what they wanted was a mix of land uses that left room for wildlife. In too many cases they wanted land alterations that brought doom for resident species. To claim that private owners left alone will adequately protect imperiled species is to defy all historical reality.

If Seasholes has a useful point here, it is far more limited than the broad condemnation he sets forth. The peculiar incentive of the ESA

lies not in the benefits that come from violating it, but from the fact that a landowner who allows a listed animal to propagate on his land faces restraints that did not exist before. But is this, we might ask, a frequent problem? If the ESA performs as poorly as Seasholes suggests, a situation like this should rarely arise given that declining species rarely take on new habitat. Also, although serious habitat degradation is banned under Section 9 regardless of whether the habitat is formally designated as critical, the practical reality is that undesignated habitat usually goes unprotected. And for the vast majority of species, no critical habitat has been designated. Moreover, if a landowner uses land in a way that attracts a listed species, his land use in all likelihood is not one that would kill or injure the animal. Therefore the Section 9 ban on takings should not apply. Finally, we have the case of the species that does thrive so well that it expands its range greatly. But the outcome in this too-rare case is that the species would be delisted, thereby ending the ESA's prohibitions and landowner problems.

Seasholes seeks to bolster his call for secure, unrestrained private property rights, not by turning to the history that is so much against him, but by offering examples gleaned from other countries of ways that private rights can promote species survival. Yet none of his examples supports his statutory critique:

- In Zimbabwe, Seasholes tells us, some 13,000 square kilometers have been set aside for wildlife and are operated so that private entrepreneurs can benefit from the many tourists who come to view them. But in what way does the ESA prevent Ben Cone from doing the same? If money can be made

viewing the red-cockaded woodpecker, Cone already possesses the exclusive right to reap it on his land.

- In Papua New Guinea, Seasholes' second case, butterfly farming gives landowners a way to make money while preserving native habitat. But again, would the ESA interfere with such conduct? If the listed species is the butterfly itself, then permits indeed would be needed to propagate and transport any specimens. But permits to promote species are routinely given. If the analogy in the Papua New Guinea case is a different one—if the listed species is not the butterfly but some other animal that uses butterfly habitat—then the ESA would not seem even to require a permit.

- Seasholes' final example, the case of Scottish salmon fishing rights, is equally unhelpful. The private rights involved in Scotland are primarily rights to harvest fish—hardly a useful analogy for dealing with an imperiled species. When properly regulated, private fishing rights can indeed restrain overharvesting, but they are chiefly useful for keeping species away from threatened status, not for getting them off the list.

Aside from these deficiencies, Seasholes' three foreign examples are inapt because they all involve the rare case—the case of the species that has distinct market value, whether for viewing, domesticating, or eating. To sustain his point, Seasholes must go further and tell us about the far more common species that lack market value—the red cockaded woodpeckers and spotted owls. How do they fit into his scheme of private-rights-as-salvation? What financial incentive will owners have to protect them? And lacking such incentive, what can we expect?

In the end, one strongly suspects, Seasholes' private-rights argument has little to do with his untenable claim that secure private rights will promote flourishing spe-

cies. His main gripe is that the federal government has limited what private landowners can do. All such regulation, he suggests, is unconstitutional without the payment of just compensation.

As a statement of current constitutional law Seasholes is plainly wrong; substantial regulation is permissible, which is why few (if any) landowners have successfully claimed that the ESA has taken their property. But Seasholes' statement no doubt is meant prescriptively rather than descriptively. Landowners, he believes, should have no obligation to promote wildlife, just as, presumably, they should have no obligation to maintain topsoil or preserve water tables or otherwise act to sustain the integrity and health of surrounding ecosystems. Like Seasholes' ESA critique, his libertarian property rhetoric is popular these days. The flaws in it are in equal need of scrutiny.

If wildlife is to flourish in North America, it will not come about solely through government regulation. Aldo Leopold recognized this reality long ago, and it helped form the basis of his well-known land ethic. As Leopold could see, regulation is a poor substitute for the ethical owner who can perceive, and who is willing to act upon, the subtle signs of ecosystem decline. But how does a culture go about fostering such a land ethic? How does it help promote ecological literacy?

A land ethic can arise only within a culture that comes to see the loss of biodiversity as a communal harm and that comes to criticize the landowner who helps bring on such a loss. Contrary to libertarian folklore, property law in the United States has never given landowners the right to use their land at will, without concern for consequences to other landowners and the community at large. Landowners have always been barred from engaging in conduct that harms others, and the definition of harm has always been an evolving, communally responsive one. The common law of

nuisance continues this tradition today, banning land uses that are unreasonable, not under norms established generations ago, but under the norms and values embraced by present-day judges and jury members.

During the nineteenth century, American culture favored economic development. Property law bent with this prevailing wind, allowing landowners to engage in more intensive, destructive land uses. At the same time, the law necessarily diminished the protections that it offered to sensitive land uses, the uses that lost out when neighbors started emitting smoke, polluting waterways, and frightening sensitive cows. In the twentieth century, particularly in the zoning movement of the Progressive Era and the environmental crusade of late century, property law has continued to change, bringing with it new ownership norms and definitions of harm. Conduct once freely allowed is now often restrained. With this evolution, the idea of harm has continued to keep up to date; it has continued to be, as it rightfully should be, an expression of communal values, augmented now by a budding if still ill-formed environmental understanding.

As environmental law moves beyond issues of industrial pollution, it is coming to focus on the environmental ills caused by bad land uses, and it is necessarily bringing about—or at least raising as a possibility—a new vision of private land ownership. The ESA is part of this trend, as are limits on wetlands filling, limits on nonpoint-source pollution, forest practices statutes, and the like. The idea of “harm” is coming to include new types of behavior, thereby, to be sure, limiting what landowners can do. But land-use restrictions do not principally decrease private property rights. The bundle of rights that any landowner holds includes more than rights to use. Ownership entails a mixture of rights to use *and* rights to halt inconsistent land uses by

neighbors. When one landowner is restrained from an intensive land use with discernible externalities, the beneficiaries are typically other landowners. As environmental controls have become more frequent, they have constrained how owners can use their lands, but they have at the same time benefited owners by increasing their rights to complain about the conduct of their neighbors. In short, property rights overall are not being reduced. They are being reconfigured, and in ways that keep the communal institution of private ownership up with the times.

By starting with the bald assertion that landowners can do what they want, Seasholes jumps past the issue that very much needs to be the focus of discussion: What should it mean for a person to own land that includes valuable species habitat? What obligation should owners have to limit their activities to uses that augment, or at least do not seriously diminish, the health of surrounding biological communities? This was the issue that Leopold addressed in his writings on the land ethic, and it is the issue that must continue to draw attention today.

In the imagined property scheme that Seasholes sets forth, private ownership carries few if any communal responsibilities, and property rights do not vary from parcel to parcel based on the physical and biological characteristics of the parcel. What one owner can do on parcel A, another owner can do on parcel B, however dissimilar the parcels are in natural terms. This ownership vision never held sway in any historical era, but the tendency to abstract ownership norms has been a powerful one, particularly over the last century, and it is one of the chief elements of property jurisprudence that simply must give way.

In his concluding comments, Seasholes notes that wildlife is likely to continue its decline unless private owners become better stewards. But he ignores the reality that, in stimulating behavior and educating the public, the law plays a pow-

erful, unavoidable role. Wisely or foolishly, people turn to the law for guidance on right and wrong behavior, just as they turn to the law to learn what private ownership entails. For too long our ownership norms have presented unhealthy images—images that ignored the natural peculiarities of each acre, images that treated ownership (and political) boundaries as if they had some meaning in nature's order, images that ignored all harms except those that meant direct monetary losses for humans living today.

In the years ahead, the definition of "harm" must continue to evolve, and in a way that gives rise to new images of private property and the role of the private land owner. One day, looking back, we may conclude that the Endangered Species Act as we now know it was

no more than an early, crude step toward a sustainable vision of the ecologically sensitive landowner. No doubt much work and much discussion will be necessary to get to that urgently needed point. But we shall never get there by following Seasholes' proposed path toward radical individualism and irresponsibility. The trail we blaze must be far different.

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Bulletin Board

Saving Endangered Species, Saving Ourselves?

The James Ford Bell Museum of Natural History and the U.S. Fish and Wildlife Service Region 3 Division of Endangered Species presents "Saving Endangered Species, Saving Ourselves," a traveling exhibition designed to explore how endangered species are often warning signals of environmental problems that harm many other species, including humans.

Large photomurals invite visitors to experience some of the beauty and diversity of native ecosystems. Large before-and-after maps graphically show the original distribution of forests, prairies and wetlands, and how little of these environments still remain. Through photos, text, specimens, models and a variety of interactives, the principal causes of endangerment and the often-confusing legal and biological terminology that attend endangered species are presented. Additionally, the exhibit features a life-sized figure of USFWS Director Mollie Beattie, who answers typical visitor questions about the Endangered Species Act. The exhibition concludes with descriptions of a number of ecosystem

protection efforts that are being developed by partnerships among government agencies, private conservation groups and local citizens. Visitors also can discover how they can help save species through proper land management, healthy lifestyles and conservation activism.

The exhibition requires approximately 750 square feet, however a smaller 250 square foot version may also be available. The fee for the exhibit is \$1,500. For more information, please contact: James Ford Bell Museum of Natural History, Touring Exhibition Service, 10 Church Street, S.E., University of Minnesota, Minneapolis, MN 55455, (612) 624-3849.

New World Wide Web Sites

Two lists of URLs for World Wide Web sites, one for botanists and one for ecologists, has been compiled by Anthony Brach from the Flora of North America Newsletter. Both web sites can be accessed through <http://biomserv.univlyon1.fr/Ecology-WWW.html>. Any additions or corrections can be sent to: Anthony Brach, Missouri Botanical Garden and/or Harvard University Herbaria, (617) 495-9484; e-mail: brach@oeb.harvard.edu.

Course Co-ordinators Needed in Costa Rica

Eric Olson, coordinator for the Organization for Tropical Studies in Costa Rica, is looking for tropical ecologists to assist as co-coordinators for the 1996 Costa Rican field courses, "Tropical Biology: An Ecological Approach," offered to Ph.D. and Masters candidates at OTS member universities. One coordinator is needed for the dry season course, January 10-March 21, and a second is needed for the rainy season course, May 29-August 7.

In addition to fluency in English and research experience in neotropical biology, candidates must have a Ph.D. in ecology or a closely related field. At least a fair speaking ability in Spanish is highly desirable. For further information contact Eric Olson via e-mail eolson@ns.ots.ac.cr. Resumes can be sent to Dr. Shaun Bennett, OTS Academic Director, P.O. Box 90630, Durham, NC, 27708.

Announcements for the Bulletin Board are welcomed. Some items from the Bulletin Board have been provided by Jane Villa-Lobos, Smithsonian Institution.

Endangered Species UPDATE

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