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In this Issue

Letter from the Editor

As will be evidenced by the two lead articles in this issue of the *Endangered Species UPDATE*, 1997 has been a year of transition for the Endangered Species Act (ESA). After years of struggle, two bills have been introduced that could likely result in reauthorization of the ESA, and thus impact endangered species legislation for years to come. Two authors with quite different perspectives present analysis of the bills and the political climate surrounding their creation. We realize not all views are represented in these two articles and welcome further dialogue on the issue.

As the ESA is in transition, so is the *UPDATE*. Beginning with the 1998 January/February issue, you will begin to see several changes from the *UPDATE* office. First, we are making stylistic changes with the publication. We are implementing a continuous page numbering system, such that the first page number of each issue will immediately follow the last number in the prior issue. Also, instead of issues receiving a dual number (eg. 1&2), they will receive a single number. Therefore, the number of issues you receive will not change, but they will be designated 1 through 6 instead of 1 through 12.

Second, we are implementing business changes. As with all businesses, our operating costs have continued to increase over the years–however, our subscription rates have not changed since 1989. Beginning January 1, 1998, rates for new regular subscribers will be $28 and students and senior citizens $23 (foreign subscribers will still need to add $5 for shipping). For all current subscribers, there will be a six month grace period (through June 30, 1998) in which you can renew for up to two years and can purchase unlimited gift subscriptions at the current price.

Thank you for your support of the *Endangered Species UPDATE*. We are proud to be the forum for dialogue on endangered species issues and, as the demand for quality articles based in sound science and policy continues to increase, we will continue to meet the needs of policy makers, scientists, educators and laypersons alike.

Sincerely,

M. Elsbeth McPhee
Editor

P.S. Unfortunately, subscription revenue only covers 30% of the *UPDATE*'s operating costs. Therefore, when you receive your next renewal notice, please note the new opportunity to make a tax-deductible donation to the *UPDATE*. Please give.

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Ships Passing in the Night: Current Prospects for Reauthorization of the Endangered Species Act

Roger Platt

When it comes to reauthorization of the Endangered Species Act (ESA), the agendas of many key decision makers in Washington appear to be "ships passing in the night." Two highly distinct interest groups are most deeply invested in resolution of this issue. While both favor ESA reauthorization, they possess radically different purposes for doing so. The first, referred to here as "property rights" advocates, aim to return land use authority to state and local government and guard individual private property rights. For the second group, the "recovery" advocates, the objective of ESA reform is to better recover species by ensuring that individual and cumulative land use decisions are closely guided by recovery efforts.

The ongoing battle between these two groups over what are essentially competing land use philosophies has been closely watched inside and outside of Washington. It should be noted at the outset, however, that for many members of Congress, ESA reauthorization remains a relatively low priority. This may be surprising given that 90% of the 2450 counties in the continental United States provide habitat for one or more listed species (Senate Committee on Environment and Public Works 1997). The reality, however, is that the Act generates less public works projects and has less far-ranging economic impact than other environmental legislation, such as the Clean Water Act or Superfund. In addition, the issue suffers from the political stigma attached to all "hot button" environmental issues–no member of Congress can be assured that a bipartisan resolution of any environmental problem will satisfy all relevant constituents.

What, then, are the prospects for enactment of bipartisan legislation reaffirming our nation's commitment to species protection? And why has this issue proved so challenging to Washington policymakers? This article will respond to these questions by reviewing the current state of play in Washington.

Overview of recent developments

When government is divided along partisan lines, as it is today, legislative progress comes only through compromise, including explicit trade-offs. Until the approval this fall of bipartisan legislation by the Senate Committee on Environment and Public Works, no compromise legislation with broad political support had advanced. In 1996, consensus was found among a number of key ESA stakeholders. Their agreement highlighted the "middle ground" afforded by the Clinton Administration's ESA reforms, as well as experiments in Southern California with "natural community" conservation planning (Williams 1996; Houk 1997). In the end, however, it did not garner the kind of bipartisan support accorded the new Senate bill. This prior effort flared and dissolved in the summer of 1996, just months before the Presidential and Congressional elections. At that time, Democrats and Republicans did not want to become too closely identified with a bipartisan effort. They feared it would undermine their efforts to draw clear distinctions between the parties during the election season. In the current session of Congress, however, the Administration is clearly ready and willing to engage–and this willingness to participate has made it far easier for lawmakers on both sides to weigh in on the issue.

What follows is an overview of recent developments in the House and Senate that bear on the prospects for ESA reauthorization by this Congress.

House of Representatives

The disparity between differing philosophies of the groups seeking ESA reform has been particularly evident in the House of Representatives over the last four years. Property rights advocates view the issue principally as a means to resolve the "takings" issue. In Washington this issue has revolved around when, if ever, the government should compensate landowners for reductions in private property values where those reductions are caused by governmental regulations that restrict otherwise lawful use of that property. Property rights advocates are concerned that *individual* property owners are having their land "taken" by the government in order to effectuate national policies intended to have a *collective* benefit. They argue that if the collective good is to be promoted through such restrictions, the cost of those restrictions ought to be underwritten by general tax revenues.

Two years ago, during the last

Congress, lawmakers with a property rights agenda, led by Representatives Don Young (R-AK) and Richard Pombo (R-CA), successfully pushed dramatic ESA reforms through the House Resources Committee. The proposal, H.R. 2275, would have required compensation for legislatively (versus constitutionally) defined "takings." In essence, the bill would have required the Federal government to pay landowners for reductions in property values of 20% or more caused by endangered species restrictions. While the legislation failed to pass, legislation ultimately signed by the President during that same session of Congress temporarily suspended new ESA listings. Property rights advocates expected the moratorium on listings to give them greater leverage in advancing the property rights legislation. In the end, that did not prove to be the case.

As part of the "Contract With America," legislation was passed by the House in 1995 that would have required private property rights compensation in contexts beyond the implementation of the ESA (H.R. 925). In the current Congress, bills have been considered in the House that would continue to advance this agenda, including procedural property rights legislation. This new breed of property rights legislation addresses what are viewed as procedural obstacles to obtaining federal court review of fifth amendment "takings" cases. One bill, H.R. 1534 as passed by the House in October 1997, would limit the ability of federal judges to abstain from jurisdiction when property owners only assert deprivations of federal rights. It also renders more cases ripe for federal judicial review by clarifying that federal jurisdiction is appropriate where one meaningful development application has been submitted but denied, and one waiver request or appeal to an administrative agency is rejected.

In addition, property rights advocates continue to air their philosophical concerns during consideration of Interior appropriations legislation. In large measure because the Administration's ESA policy reforms were not viewed as responsive to the property rights agenda, no meaningful funding was approved to underwrite their implementation. According to Robert Irvin of the Center for Marine Conservation, more money was spent producing the motion picture *The Lost World: Jurrasic Park* than on federal endangered species programs last year. Of course, as he himself wryly noted, that project involved recovering extinct as opposed to merely endangered species (Irvin 1997). The point, however, remains well taken– the House of Representatives, in the absence of ESA reform legislation, has not proven particularly hospitable to funding the ESA. While Congressional property rights advocates continue to hold the purse strings, the leverage has not translated into concrete legislative achievements in this area.

The progress of those within the recovery camp has also been limited. In part, this is because the leaders of this group are within a political party that is currently out of power. From this position they have not gained enough political support to move their agenda through the traditional committee system. Instead, they have appealed to the public at large and done so chiefly through attacks on various actions of property rights advocates. They have been led in this effort by Representative George Miller (D-CA), an established and respected player on ESA issues and ranking Democrat on the House Resources Committee. Early drafts of legislation developed by Representative Miller were reviewed in this journal (Weiner 1996) and formal legislation, H.R. 2351, the Endangered Species Recovery Act of 1997, was proposed this fall (see Barth, this issue). The bill has proven useful to those opposing the Senate legislation. By contrasting the Senate proposal's provisions to those of the Miller bill, the message has been communicated that Senators are "selling out" the Miller vision of ESA reform.

The split on ESA policy in the environmental community is complicating efforts of those campaigning for H.R. 2351. Some organizations are suggesting a willingness to accept legislation that codifies the Clinton Administration's policy reforms. For these groups, the landowner incentives in the Babbitt reform package address a very real and serious problem with current implementation of ESA. They point to recent reports by the U.S. Fish and Wildlife Service (FWS) indicating that only 10% of all species ostensibly protected by the Act are improving in their status. The status quo, they appear to believe, is not worth salvaging and the only way to make improvements is to engage in dialogue directly with regulated interests. Certainly, dialogue of all kinds occurs. Nonetheless, the basis for a comprehensive bill meeting all of their various objectives has remained elusive in the House.

The Senate

In light of the current state of play in the House, it is surprising that Senators John H. Chafee (R-RI), Dirk Kempthorne (R-ID), Harry Reid (D-NV), Max Baucus (D-MO) and Interior Secretary Bruce Babbitt have succeeded in developing bipartisan legislation. Even more remarkable is the fact that their bill, S. 1180 The Endangered Species Recovery Act of 1997 (see Barth, this issue), was approved by the full Senate Environment and Public Works Committee by a 15-3 margin. In the end, Senators

Barbara Boxer (D-CA), Frank R. Lautenberg (NJ) and Joseph I. Lieberman (D-CT) were the only senators on the committee that decided not to support S.1180 in its current form.

Who lined up behind S.1180? First and most importantly, the Clinton Administration did. A democratic administration has the same kind of unique credibility in reforming environmental laws that President Richard Nixon had in making peace with the Communists in the People's Republic of China. The Clinton Administration supports the measure largely because it would codify much of the 10-point reform plan initiated by Interior Secretary Babbitt early in 1995. That plan recommended the use of sound science, prompt listing and delisting decisions, greater incorporation of the concerns and resources of state wildlife agencies, and incentives to encourage conservation planning (FWS 1995).

A number of the Administration's initial ESA reforms encompassed incentives for private landowners to participate earlier in the habitat conservation planning process. Such participation could ultimately protect species *before* population declines necessitate listing. I will not include any further analysis of these landowner incentives. Instead, I note that a number of these reforms were consistent with the results of the Keystone Dialogue (a 1995 convention with participants from groups as diverse as U.S. Department of Interior, American Farm Bureau Federation, National Wildlife Federation, and Union Camp) as well as recommendations made by the Environmental Defense Fund (Wilcove 1996) and the Nature Conservancy (O'Connell 1997). The on-the-ground implementation of these reforms, however, has met with mixed reviews in this journal and elsewhere (See e.g., Aengst et al. 1997; O'Connell 1997; Mueller 1997; Kostyack 1997). Nonetheless, Secretary Babbitt is now convinced that, in an imperfect world, the reforms have made reasonable progress by rehabilitating the Act's effectiveness on private land. At the same time, he can argue that these policy initiatives have helped blunt attacks on the Act by the private sector. As a result, the prevailing view at the Interior remains that codification of these reforms would be a just and fitting tribute to the reform efforts.

Senate bill S. 1180 met the policy objectives of Senator Kempthorne, chairman of the principal subcommittee with jurisdiction over ESA matters. First, the legislation placed new emphasis on reducing future conflicts between recovery planning objectives and economic development objectives in the planning area. In fact, the committee report on the bill states "the central tenet of the bill is that recovery of species is both an objective of the Act and an underutilized planning device" (Senate Committee on Environment and Public Works 1997). The legislation contemplates greater participation in the recovery planning process by the diverse set of stakeholders who would be impacted by the terms of the plan. If enacted, the legislation would also require the Interior Secretary to initiate a delisting process that meets the plan's recovery goals. In this way, Chairman Kempthorne clearly intends that the initial and final steps for implementing the Act's objectives should become more transparent to the public and, in the end, more equitable in their impacts. Also a priority for Chairman Kempthorne are provisions to ensure that the science relied on by those implementing the Act be subject to greater public scrutiny as well as more peer review by the broader scientific community. Equally important–especially in Kempthorne's home state of Idaho, where a large percentage of the land is owned by the federal government–are provisions that would streamline the Section 7 consultation process. This process requires federal agencies to consult with the FWS or National Marine Fisheries Service (NMFS) to ensure that their actions are not "likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat of such species which is determined... to be critical." These provisions would allow "Federal action agencies to make an initial determination that a project is not likely to adversely affect a species" (Senate Committee on Environment and Public Works 1997).

Also, the International Association of Fish and Wildlife Agencies and the National Governor's Association have endorsed the bill for a number of reasons. First and foremost, the legislation responded to their charge that Federal authorities often show little respect for the parallel efforts and objectives of state fish and wildlife agencies. To address this concern, the bill would require that state agency views be meaningfully considered in the listing and consulting processes. It would also allow states to assume responsibility for development of draft recovery plans. One indirect benefit of state government endorsements is evident in the politics of the Texas Farm Bureau's decision to endorse the bill. The Texas agricultural community might have been expected to oppose ESA reforms that included no private property rights provisions. Due in no small measure to the enhanced state role proposed by the bill, however, the local Farm bureaus signed on.

A number of national landowner

groups including the National Association of Home Builders and National Realty Committee, as well as various timber associations, ultimately chose to endorse the legislation for many of the same reasons that Senator Kempthorne sponsored it. National Realty Committee was particularly positive about provisions in the bill that would encourage and facilitate landowner participation in habitat conservation planning. These endorsements, however, may mask lingering concern among a number of small landowners regarding the bill's omission of private property rights protections. Whatever the political prospects for such provisions, there can be no doubt that many landowners viewed their absence from the bill as a sell-out of that issue. These suspicions continue to undermine efforts to move the bill forward in the Senate.

Critics and opponents of the new Senate legislation

The most striking element of S.1180 politics is the absence of strong support from the two groups whose agendas are "ships passing in the night." The private property rights advocates have apparently agreed to hold their fire, at least until the bill moves to the floor. For many of these elected officials it will be difficult to vote for this legislation because it does not contain a single provision directly aimed at protecting property rights. The fear that the property rights agenda will be "sold out" in the context of ESA reauthorization is almost palpable in some offices of Congress. Property rights advocates are, therefore, carefully weighing fallout from endorsing ESA reauthorization without takings provisions. In part, they are faced with a clear issue of politics and timing. Can they credibly portray compromise legislation as a "win" for them in this particular legislative settlement?

Against the prospect of accepting incremental change in national conservation policy, these Senators must also consider whether a new generation of more conservative Western lawmakers will one day control this issue. This already appears to be the case in the House. If this is likely to happen in the Senate, such lawmakers may be considering the benefits of starting fresh in the next Congress. At that time, Senator Jim Inhofe (R-OK) or Craig Thomas (R-WY) will be in line to replace Senator Kempthorne on the Environment Committee when he seeks the governorship of Idaho next year. These Senators are strong supporters of property rights legislation and, unlike Kempthorne, they have not been associated with high-profile environmental compromises acceptable to President Clinton (e.g., legislation reauthorizing the Safe Drinking Water Act). Finally, an important issue to consider is whether a Republican or Democrat will hold the presidency at the beginning of the next century.

In a remarkably parallel fashion, the recovery advocates have also communicated little enthusiasm for the Senate bill. Despite the legislation's focus on recovery planning, and its exclusion of property rights compensation provisions, they have stressed that the bill still leaves species at risk. In fact, the provisions that would codify the Babbitt reforms have been singled out as posing severe problems for the recovery of species. Serious concerns about the very principle of "No Surprises" remain (Sher and Weiner 1997; Weiner 1996). In addition, in the absence of an explicit recovery standard for the approval of Habitat Conservation Plans, the concern has been raised that these plans may undermine species recovery. It should also be noted that even the environmental groups that have praised Babbitt's reforms have not signed on to S.1180. Their principle concern, however, does not seem to be codification of the Administration's reforms. Instead, they object to a lack of dedicated funding to underwrite the new recovery planning process and administrative reform implementation. They have also questioned the efficiency of the new recovery planning procedures (Bean 1997). Like the property rights advocates, all of those approaching ESA reauthorization from an environmental advocate's perspective must now consider how future Congresses or Presidents may influence conservation policy. Is settlement now with President Clinton at the helm of the Executive Branch wise, or can a more recovery-oriented bill be enacted into law in the next century?

When organizations as diverse–and as influential–as the California Farm Bureau and the Sierra Club are not supporting S.1180, continued gridlock on ESA reauthorization is certainly one possible outcome. For many watching this process, the ultimate question is whether gridlock is the preferred result. Those whose agendas are ships passing in the night, seem to feel it is. What future Congresses may look like, however, may cause one or the other of the opposing camps to regret not taking more aggressive action in the 105th Congress.

Next steps

What are the possible paths for Congress to follow now that the Senate Committee on Environment and Public Works has acted? Those favoring the committee-approved legislation will certainly try to broaden its political support. In doing so, they will look chiefly to the Administration to mediate the outreach effort. Apparently, the Administration does not think leaving reautho-

rization to another Congress is prudent. They genuinely believe that the landowner incentives are making a difference on the ground and would be more attractive to landowners if explicitly authorized by law. Babbitt and others also seem to believe that the failure of Congress to reaffirm the country's basic commitment to species protection and to revive a fuller and less conditional flow of funds to conservation programs is resulting in the slow death of conservation efforts. In my view, they also believe that there are costs associated with the continuous political battles to fend off efforts by the Congressional majority to end listings altogether, or to require the federal government to compensate landowners for the resulting property value reductions. By waging these battles in Congress year in and year out, the Administration and the environmental community are dissipating important political and financial resources. For the Administration, the price of a truce is chiefly codification of the Administration's own reforms–and that is arguably no price at all. The Administration has argued that these reforms are achieving more good than harm and such results are well worth promoting through permanent changes in the law.

For S. 1180 to make progress, the Administration will need to broaden support from a variety of quarters. First, Secretary Babbitt and top Clinton environmental advisors in the White House will need to listen closely to the goals and concerns of the recovery advocates. If there are ways to advance elements of their agenda within the framework of S.1180–and I believe there are–these need to be identified. Second, the Administration will need to work closely with small landowner, timber and farm organizations to devise additional and well funded incentives for species conservation practices. These programs will need to speak meaningfully to these landowners' concerns about uncompensated "takings" of property. Finally, the Administration needs to send a clear signal that it will include in future budgets, and aggressively lobby for, the funding necessary to carry out the rehabilitated ESA recovery process and the "No Surprises" assurances envisioned by the bill. In fact, a fully dedicated and, therefore, assured source of funding may need to be instituted by the legislation.

Pursuing these objectives is the thankless burden that may fall to the Executive Branch of our government. In some circles these efforts will be referred to as Presidential leadership. In others, it will be deemed the deadly art of "compromise" and "selling out."

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Roadblocks to Reauthorization: The Latest Controversies in the ESA Debate

Sara Barth

Political overview

Even by Congressional standards the Endangered Species Act (ESA) is considered an exceptionally divisive issue. Since the Act came up for renewal in late 1992, Congress has unsuccessfully tried each year to reauthorize this crucial species protection law. During that time, the existing law has remained in effect, but the failure to reauthorize has not been without costs. Necessary changes to the ESA, which would address implementation problems and potentially improve the dismal rate of species recovery, have been blocked by the reauthorization impasse. Failure to reauthorize has also left the Act vulnerable during the annual appropriations process, where frustrated opponents have tried to slash the Act's funding and place restrictions on its implementation. For example, in 1995, Congress passed an emergency supplemental appropriations bill that included language prohibiting the listing of new species under the ESA–this listing moratorium was lifted a year and a half later after a grueling legislative battle. For these reasons, members of the conservation community and others would like to see the ESA reauthorized.

The recent introduction of a bipartisan bill in the Senate–S. 1180 The Endangered Species Recovery Act of 1997–may loosen the existing legislative logjam. The bill is a political compromise that has garnered the support of some important constituents, including key Republicans and Democrats in the Senate, Secretary of Interior Bruce Babbitt, and many members of the regulated community. This support makes it more viable than any ESA proposal to emerge in the recent past. The precarious position of most listed species, the finality of extinction, and the strong likelihood that the next ESA bill will not be revised again for another 10 years, however, demand the most carefully crafted compromise possible. The unanimous assessment of the conservation community, despite their strong desire for reauthorization, is that S. 1180 in its current form is not careful enough. The question remains, however, whether these substantive concerns will reach the ears of Senators who are weary of dealing with the seemingly endless endangered species debate. Even without the support of the conservation community, S. 1180 has a reasonable chance of being passed by the Senate.

The House of Representatives is expected to wait for the Senate to move on S. 1180 before it begins serious consideration of its own bill. In preparation, Representative George Miller (D-CA) introduced an ESA bill, H.R. 2351, which is rapidly gaining bipartisan support (at press time, the bill had 88 cosponsors). Although the House bill is also known as The Endangered Species Recovery Act of 1997, it differs significantly from the Senate bill. Like S. 1180, H.R. 2351 incorporates a number of provisions intended to make the Act more friendly to landowners. House bill 2351 approaches these changes more cautiously, however, by incorporating safeguards to ensure species' needs are met and by maintaining the fundamental protections of the current ESA. Not surprisingly, H.R. 2351 has been broadly endorsed by an array of conservation organizations, but other important players (e.g. the Administration) have yet to take a position. At this point, H.R. 2351's fate is still unknown as it faces an uphill and extremely polarized battle in the House.

Because the Senate bill will almost certainly be dealt with before H.R. 2351, it will likely have a significant impact on legislative developments in the House. Thus, this article focuses heavily on S. 1180 and identifies the serious concerns that have kept the National Wildlife Federation and other mainstream conservation groups from supporting the bill.

No surprises for HCPs and candidate conservation agreements

Much has been written about the current Act's failure to adequately protect species on private lands and it is clear that improvements are needed to address this issue. The Clinton Administration has actively promoted Habitat Conservation Plans (HCPs) and Candidate Conservation Agreements (CCAs) as a means of engaging private and non-federal landowners in species conservation. As an added incentive to landowners, the Administration developed the "No Surprises" policy. "No Surprises" allows private and other non-federal landowners to lock in long-term land management plans (e.g. HCPs or CCA's) for up to 100 years or more and leaves them exempt from any further conservation obligations for the length of the plan. The rapid proliferation of HCPs under "No Surprises", from less than a dozen before the arrival of the Clinton

Administration to nearly 400 HCPs currently completed or on their way, demonstrates how attractive the policy is to landowners. With hundreds of new HCPs now available for review, scientists and others are raising troubling questions about whether the expanded use of HCPs has been beneficial for species. During a recent comment period on the proposed "No Surprises" rule, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (referred to collectively as the Services) received nearly 1000 comments from scientists, tribes, religious organizations, conservation organizations and concerned citizens. In all, only 49 respondents (primarily those from the regulated community) endorsed the policy.

Two underlying problems with "No Surprises" have consistently been raised, but unfortunately, S. 1180 codifies the policy without addressing either of them. First, neither S. 1180, nor the Administration's "No Surprises" policy provide a reliable bail out mechanism for HCPs that fail to adequately protect species. Under S.1180's "No Surprises" provision, management adjustments over the term of the HCP are nearly impossible and are contingent upon funding from the federal taxpayer. The bill merely gives the developers of the HCP the option to include a list of management modifications that may be required in the event of extraordinary circumstances. There is no provision for addressing circumstances not anticipated in the original plan. In fact, S. 1180 is worse than the Administration's version of "No Surprises" in that it precludes revisions to the HCP without consent of the permittee–even if the government is willing and able to pay for those revisions. Instead of addressing this issue, the Senate bill goes beyond the Administration's policy by mandating the inclusion of a "No Surprises" provision in every HCP.

The Senate bill should be amended to include a mechanism for responding to unanticipated management changes that may become necessary 20, 50, or 75 years into a plan. Specifically, HCPs should include monitoring provisions designed to alert landowners and the Services when an HCP is not adequately protecting a species covered under the plan. Furthermore, legal mechanisms that require adjustment of failing plans and a reliable funding source to cover the costs of these management adjustments should be included in the bill. Without sufficient funding, necessary changes will never be implemented.

These modifications can be designed in a way that still provide certainty to landowners. House bill 2351, for instance, requires that HCPs outline "reasonably foreseeable" changes for which the landowner is responsible over the life of the plan. Thus, the landowner agrees to incorporate certain adaptive management features into the plan from the outset. The House bill holds the Services responsible for responding to any other unforeseen circumstances that might justify plan changes. To ensure that landowners can pay for responses to "reasonably foreseeable" changes, the bill requires them to post a bond or other security that guarantees available funds. Likewise, the bill establishes a federal trust fund that will cover the cost of needed management changes for which the Services are responsible. Currently, Senate bill 1180 includes an HCP Insurance Fund, to cover the Services' future management expenses, but the $10 million cap is likely to be inadequate and even that amount must be allocated through the unreliable appropriations process.

The second major criticism of HCPs with "No Surprises" is that they are approved, and often allow significant amounts of habitat destruction, without adequate consideration for the impact that they will have on the recovery of species. In some regions like the Pacific Northwest, HCPs are an increasingly predominant land-management tool. For some species, particularly endemics that occur only in localized areas, HCPs may cover the majority of habitat available to a species. In these instances, a set of HCPs, or even a single HCP, become de facto recovery plans and management of those lands will determine whether the species ever recovers. Yet, S. 1180 allows HCPs to be developed without consideration of their cumulative effects on species or an analysis of their impacts on the Services' ability to recover listed species. Instead, the approval standard for HCPs merely requires that plans do not jeopardize a listed species' ability to survive in the short-term. Ironically, S. 1180 provides a more significant level of protection under HCPs for unlisted species than listed species (even though unlisted species should be in more stable condition and require less protection than listed species). House bill 2351 requires the Services to evaluate all HCPs in the context of their long-term impacts on the recovery of listed species and it prohibits the approval of any HCP that would undermine recovery efforts. This higher standard ensures that long-term land management plans of 100 years or more are equally focused over those 100 years on the recovery of species.

Weakening section 7 protections

The existing law's Section 7 consultation process, which requires the Services to review the actions of other federal agencies to ensure that they do not jeopardize species, has proven to be one of the bedrocks of

species protection. In most cases, the consultation process works smoothly and quickly, with fewer than 2% of projects actually halted; most are modified only slightly as a result of the review process. Not surprisingly, however, the effective protections of Section 7 also make it the subject of bitter complaints. Opponents of the ESA argue that Section 7 has been used by the Services to delay federal projects for unreasonable periods of time.

The Senate bill includes substantial changes to Section 7 that have been viewed unfavorably by the conservation community. One of the most controversial changes in S. 1180 is a waiver of Section 7 for activities that are part of a "recovery implementation agreement." The existing law has been relatively ineffective at actively engaging agencies other than the Services in recovery efforts. Senate bill 1180 adds a welcome new provision to the ESA that requires federal agencies to develop "recovery implementation agreements" that outline their plans for contributing to species recovery efforts. The waiver of Section 7 is intended as a streamlining measure to keep agencies from continually having to review their recovery implementation agreements. In lifting the normal review process, however, S. 1180 removes an essential precautionary tool for reconsidering and updating these management activities to ensure benefit to the species. Second, the bill's language leaves the terms of these recovery implementation agreements to the discretion of the Secretary, thereby precluding judicial review of the basic question of whether activities are promoting or undermining recovery.

Senate bill 1180 makes two other changes to Section 7 that undermine the current law's cautious approach to project evaluation. As it stands, a project cannot move forward until the Services have affirmatively concluded that it will not jeopardize the survival of a listed species. Under S. 1180, agencies like the U.S. Forest Service and Department of Defense will make the initial determination as to whether their activities are "likely to adversely affect" a listed species. If the Services fail to challenge an agency's finding within 60 days of determination, the project moves forward without modification. Thus, the risk of the Services not responding within 60 days is shifted to the species.

Unlike the existing ESA, S. 1180 allows certain site-specific activities on federal lands, such as individual timber sales, to move forward before the cumulative impact of these projects on newly listed species has been considered. Currently, site-specific activities that have been approved under Section 7 must await the completion of a plan-level (e.g. a forest plan) consultation when a new species has been listed. Such consultations ensure that the cumulative impact of individual site-specific projects is thoroughly reviewed and considered. The changes proposed under S.1180 would allow site-specific projects to move forward during a 15 month period, after which the plan-level consultation is supposed to be completed. In the 15 month interim, a great deal of habitat may be destroyed and the findings of the plan-level consultation rendered irrelevant. Furthermore, if the agencies do not meet the 15 month deadline, the Section 7 waiver could remain in place indefinitely until the plan-level consultation is completed. This language was inserted into S.1180 in an attempt to prevent timber sales and other projects from getting caught in a cycle of endless review that must restart every time a new species is listed. But the impact of these provisions limits the Services' ability to adequately review and evaluate the cumulative impacts of individual federal activities.

House bill 2351 recognizes the Section 7 consultation process as one of the primary tools for species protection and it leaves the existing provisions largely intact. In an effort to respond to complaints about delays, the House bill allows initiation of the consultation process for candidate and proposed species awaiting listing. Hence, the process can be completed before the species has even been listed avoiding the need to re-initiate consultation after listing.

Added bureaucracy for listing and recovery plans

Under the current listing process, hundreds of imperiled species have been denied listing because the Services lack either the resources to process petitions or the political will to make listing decisions that are unpopular with regulated interests. Rather than addressing this problem, S.1180 builds in a number of new, burdensome requirements that create more obstacles to listing. Although there is no evidence to suggest that the Services have been promulgating frivolous listings, the bill requires that all listing petitions be subject to scientific peer review even when there is no scientific dispute over the data. The bill also outlines the minimum set of data required for listing petitions. Failure to provide these data, for any reason, can be used as an excuse to reject an otherwise warranted listing petition. Currently, species listed as threatened are granted the same level of protection as endangered species except where 4(d) rules, allowing for less protection, are developed. This bill adds to the Services' burdens by requiring development of 4(d) rules for every species listed as threatened, thus opening the door for reduced protection of these species.

The recovery planning process

suffers from the same sort of backlog as the listing program. Currently, almost half of all listed species lack a recovery plan. Senate bill 1180 makes major changes to the recovery planning process, including some promising new features. For instance, S. 1180 insulates the development of biological recovery goals from the rest of the recovery planning process in an effort to ensure that they are based solely on science. It also requires recovery teams to include representatives from a broad range of interests. The bill, however, inserts so many additional layers of review and planning that the recovery planning process is likely to become a bureaucratic morass. For example, the bill forces recovery teams to include costly, speculative, and potentially useless economic analyses of all potential recovery measures considered by the team.

The existing backlog of species awaiting listing and recovery plans is indicative of the severe funding shortages now facing the agencies that implement the ESA. Unless the new procedures devised under this bill are streamlined, funding demands will increase and the listing and recovery plan backlogs are certain to grow.

Unfunded incentives

In addition to the "No Surprises" regulatory-relief type of incentive, S. 1180 incorporates a separate set of incentive programs that involve cost-sharing and grants to landowners, states, and others in exchange for proactive conservation activities. For instance, the bill includes a grant program to assist private landowners and others in developing recovery implementation agreements and a revolving loan fund to assist in the development of Habitat Conservation Plans. Senate bill 1180 also creates a Habitat Reserve Program to pay landowners for managing habitat in ways that benefit endangered species. In addition, S. 1180 codifies the Administration's "Safe Harbor" policy, which ensures that landowners who actively improve their land beyond the existing requirements of the ESA will not face additional obligations if species are attracted to their lands.

These programs could potentially lead to significant improvements in species conservation, particularly on private lands. With the exception of the "Safe Harbor" policy, however, these incentive programs will only be successful if substantial funding is made available. Annual federal appropriations have proven to be an unreliable funding source for the Services' endangered species programs. Instead, a funding source outside the appropriations process is needed to make funding for these programs real. Without this type of steady, reliable funding, these incentive programs will be empty promises that exist in name only.

Alternatively, incentives could be added to S. 1180 that were not dependent upon the annual appropriations process. The House bill, for instance, includes estate tax deferrals for lands that are managed proactively to protect species and tax credits for the costs of implementing these measures.

The future of ESA reauthorization

In all, S. 1180 provides some potentially beneficial new features, however, it fails to include necessary safeguards that ensure adequate species protection. Furthermore, the Senate bill includes some problematic roll-backs in existing protections and fails to address some of the much-needed improvements to the existing ESA. A package of amendments to improve the Senate bill may be successful, but it is widely expected that the best hope for significant environmental improvements lies in the House. It is also possible that anti-environmental amendments (e.g. compensation for private landowners or subversion of federal water rights) will pass in the Senate and severely reduce the likelihood of the bill becoming law.

Unless a set of improving amendments is passed, the conservation community is likely to continue opposing the bill. While this opposition may not keep the Senate from passing S. 1180, it makes it harder for the House to pass an ESA bill and this may ultimately be where the reauthorization process–for better or worse–once again grinds to a halt.

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Opinion

Should Humans Destroy Smallpox?

Frances Tain

In sending something irrevocably into extinction, whether it be an ideology, a civic right, or a species of organism, humans run the risk of losing as many freedoms or benefits as they gain. Of current debate on the world stage is whether or not to send smallpox (*Variola major*) into extinction. This would be the first deliberate extinction of a species by humans, and two distinct schools of thought have emerged regarding the pros and cons of such an act. Although the very nature of the debate is highly value-laden and politically charged, destruction of the species has already been approved by health organization representatives from 190 countries. Destruction is scheduled for June 30, 1999, subject to final approval as required by the World Health Organization (W.H.O.).

Smallpox is a highly contagious disease caused by a poxvirus. Common symptoms of this disease are blindness, deformities and death. In 1958, W.H.O. proposed the worldwide eradication of smallpox via a combination of vaccination, early detection and vigorous containment of outbreaks. The campaign was so effective that the last occurring case was reported in October of 1977, and in 1980 W.H.O. declared smallpox as "completely eradicated". At present, only two live cultures remain, one in the U.S. and one in Russia. If all goes as currently planned, these cultures have less than two years to remain in existence.

Those who wish to destroy smallpox cite the end of smallpox-induced virulence as the main benefit of this course. Smallpox having led to many deaths worldwide, this reason is obviously the most compelling. Another reason for destroying it is that there is no foreseeable human "need" for smallpox since scientists have mapped its genome, and can therefore study it safely in its non-virulent form. One reason for saving smallpox is that the information scientists have may not be complete, and so we may be irrevocably destroying new research possibilities. There is also the broader question of whether or not humans should decide the fate of a species, whether it be smallpox or killer whale.

Obviously the issue at hand is the greater good, and what people identify "the greater good" to be. The issue in my mind is really one of precedence and whether or not humans want to take species existence into their own hands. Despite the fact that I do not welcome the thought of a smallpox epidemic, I feel that we as a species do not have the right to decide the fate of another species simply because we can. The message that comes from such actions is that we are somehow God-like and can eliminate species from the earth once they cease to be "useful".

There are many examples in today's society where potentially "harmful" or "useless" entities are allowed to continue for the sole reason that their elimination would be more deleterious than their existence. Such societal examples would be the lawfulness of pornography, Neo-Nazi movements, or Satan worshiping. Although most might agree that these things are "undesirable", outlawing these or other "fringe" activities would curtail civic freedoms for all. Our society cannot withstand setting a precedence restricting religious worship or free expression. Similarly, in electing to destroy the last of smallpox, a dangerous organism might be eliminated, but at the cost of the sanctity of one species' right to live over another's.

An instance where legislation limits beneficial alternative uses of a "harmful" substance is the prohibition of marijuana use. Marijuana is deemed unacceptable for recreational use, but the stringency of marijuana-related law makes impossible its advantageous uses (e.g. medicinal uses, hemp as fiber for paper/clothing). In the case of the smallpox, potentially beneficial uses for it may still exist, and extinction is obviously irreversibly prohibitive.

I believe that we as a species do not have the right or obligation to choose to eliminate another species from the earth. In doing so, humans make an immense statement, that we can decide the fate of the other inhabitants of earth. That is too powerful a concept for human beings, who may never be ready for the ensuing implications or responsibilities.

Frances Tain is currently pursuing a Master's of Science in Resource Ecology Management at the University of Michigan's School of Natural Resources and Environment.

AZA Species Survival Plan Profile: The Snow Leopard

Dan Wharton

First snow leopard at the Bronx Zoo, 1903. Photograph © Wildlife Conservation Society headquartered at the Bronx Zoo.

The snow leopard (*Panthera uncia*) is considered one of the most beautiful of large cats. Unfortunately, the World Conservation Union (IUCN), U.S. Department of Interior, and Convention on International Trade in Endangered Species (CITES) all list the animal as endangered. It is estimated that the wild population probably does not exceed 5,000 individuals today (Green 1986).

Most of the snow leopard's high mountain habitat remains largely untouched, stretching across twelve countries of Asia, from Mongolia in the north, to Burma in the south. What has changed over the last 100 years is the mobility and ability of humans to exploit wildlife for a better living. Human encounters with snow leopards are greater and higher percentages of these encounters have been fatal to the animals. In the early part of the century, thousands of skins were taken for the fur trade. As late as 1966, *The New York Times Magazine* published a full-page ad for snow leopard fur coats (Conway 1968). Today, the legal fur trade has been greatly curtailed and legal protection is provided to some degree in all twelve countries (Green 1986). Poaching for fur, however, still occurs and snow leopards are also perceived as livestock pests in some areas.

Zoological garden programs

The first serious attempt to keep snow leopards in captivity was probably in 1891 when the London Zoo acquired an unsexed specimen from Bhutan (Godman 1891, Sclater 1896). London then acquired a male in 1894 (Flower 1894) and by 1903, New York, Berlin, Moscow and London all had specimens on exhibit (Peel 1903; Anonymous 1903). But the captive success with snow leopards was by no means guaranteed at that time. Another half-century passed before all of the management variables related to behavior, diet and veterinary care began to fall into place. Although breeding of the species in captivity was recorded as early as 1906 and again in 1912 and 1938, it was not until Copenhagen bred their wildcaught pair in the 1950's that cubs survived long enough to become breeders themselves (Crandall 1964). In fact, the Copenhagen animals are now represented to some degree in a good many of the captive-bred snow leopards living today.

The American Zoo and Aquarium Association (AZA) Snow Leopard Species Survival Plan© (SSP) was officially launched in 1984 and is now a mature program that encounters few difficulties in achieving breeding goals. The majority of animals set up for breeding are successful within several years and virtually all cubs born are mother-reared. Husbandry techniques, including nutrition, preventative medicine, housing and behavioral management, are well-developed. The AZA SSP population now stands at about 275 individuals (Varsik 1995) and could double every seven years if breeding is not closely managed (Wharton and Freeman 1988). This population is descended from 38 wildcaught ancestors, most of whom came into captivity in the 1960's.

The North American snow leopard population is scientifically managed for genetic and demographic stability. Allowing for 90% retention of genetic diversity for 100 years, given an Ne/N of .40, the Snow Leopard SSP calculates the need for a population of 298

animals. However, in recognizing current capacity for this species and perhaps some management refinements via mean kinship, the SSP suggests a target population in the 250-300 range. Thus it has been suggested that the number of breeding recommendations remain at 25 per year, yielding approximately 12.5 litters at two cubs each, therefore 25 cubs per year. We expect this strategy will allow slight growth of the population over a long period of time. SSP capacity for snow leopards continues to grow slowly with one or two new participants each year (Wharton 1996).

Wildlife ambassadors

As an inhabitant of high mountain habitats relatively inaccessible to humans, the snow leopard was traditionally an elusive creature of an almost mythical quality. Thanks to international cooperation among zoo professionals, this rare cat has become almost a standard in zoological gardens. Seen in over 70 zoos in North America and approximately 150 zoos worldwide, the snow leopard reaches more than 100 million zoo visitors annually. The plight of the snow leopard has become well-known to many and a number of outstanding initiatives to conserve the species in nature have come directly from zoological gardens. For example, the Wildlife Conservation Society headquartered at the Bronx Zoo funded classic studies by George Schaller and Rodney Jackson (Jackson 1979; Schaller 1980).

In addition, the International Snow Leopard Trust (ISLT) was established by Helen Freeman, a curator and behavioral scientist at the Woodland Park Zoo in Seattle. As well as funding field studies and conservation programs, the ISLT has funded and organized several international symposia in countries of the snow leopard's range, bringing together field and zoo biologists on conservation issues. The AZA Snow Leopard SSP and the ISLT have recently initiated a "Natural Partnerships" program wherein AZA zoos with snow leopards can link their education programs with ISLT's work in the species' range countries. By coming in as partners with the ISLT at different funding levels, both small and large zoos can contribute to habitat protection and other snow leopard conservation issues.

Conclusion

The Snow Leopard SSP has made great strides in establishing a genetically and demographically stable population of the species in over 70 North American Zoos. It complements similar programs in Europe and elsewhere. The world captive population stands at approximately 650 well-managed individuals (Wharton 1996), approximately 10% of all snow leopards on earth. The goal of wildlife conservation is the protection and stabilization of animal populations in nature (see Soulé 1991; Caughley 1994) and the Snow Leopard SSP is just one example of a species program that represents zoological garden partnerships with several facets of the wildlife conservation process.

Acknowledgments

The success of the AZA Snow Leopard SSP is due to the tremendous cooperation of more than 70 participating zoos. Support for the coordination of the program has come from the Wildlife Conservation Society in New York. North American Regional Studbook keeper Alan Varsik, Lincoln Park Zoo, and International Studbook keeper, Leif Blomqvist, Helsinki Zoo, have contributed enormously to this program. Most recently, the AZA Snow Leopard SSP has been the recipient of a portion of the proceeds from the sales of "Gray Ghost," a print donated by wildlife artist Charles Frace.

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The species coordinator or chairman of the AZA Snow Leopard SSP, Dr. Dan Wharton, Wildlife Conservation Society, also serves as chairman of the ISLT's International Advisory Board.

NEWS FROM ZOOS

New England Aquarium scientist awarded Pew Fellowship in Conservation and the Environment

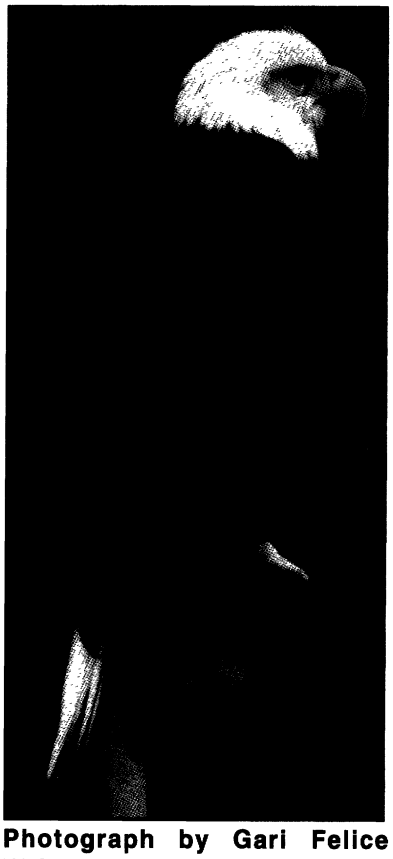
In October, the Pew Charitable Trusts awarded Greg Stone of the New England Aquarium one of ten Pew Fellowships in Conservation and the Environment for 1997. The award is intended to recognize and support marine conservation and is considered one of the most prestigious awards of its kind. Stone, the Aquarium's Director of Conservation, will put the $150,000 award primarily toward marine mammal conservation. In response to the entanglement of rare Hector's dolphins and other South Pacific marine mammals in fishing nets, Stone will work to develop nets armed with acoustic alarms. He will also develop a course at the University of the South Pacific focused on reducing the incidental catch of marine mammals as well as seek funding for such measures.

U.S. Secretary of Education praises Columbus Zoo

In mid-September, U.S. Secretary of Education Richard W. Riley paid a visit to the Columbus Zoo as part of an initiative to promote community support for education. Calling the Columbus Zoo an example of "education at its very best," Riley said it showed "what you can do with the zoo and make it an important educational place." In particular, he commended the institution's "Zoo Kids Program", which promotes reading. The Columbus Zoo has made education one of its top priorities, spending $1.2 million in 1997 for education programs that in turn generated $415,000 in revenues. The net cost for the program is covered by memberships, donations, and a county tax.

Woodland Park Zoo receives donation from Boeing to support raptor conservation

The Woodland Park Zoological Society was recently awarded $150,000 from The Boeing Company to launch "Save Our Amazing Raptors" (SOAR), a project which begins its two-year pilot phase in January, 1988. The program is an opportunity for students, teachers, and the public to learn raptor conservation through a hands-on approach. SOAR will provide workshops and materials for Washington teachers and allow zoo staff to travel to local schools to deliver presentations that include live raptors. Although schools are the initial target for the program, future plans include outreach programs for area community centers and groups. The grant will also enable the zoo to increase its on-site raptor programs for the public through additional indoor and outdoor raptor demonstrations. By the end of SOAR's pilot phase it is predicted that the expanded programming at the zoo, together with outreach and teacher training, will reach an estimated 1.4 million people. It is hoped that with staff increases made possible by the grant, SOAR will stimulate more cooperation with other conservation organizations.



Photograph by Gari Felice Weinraub © Woodland Park Zoo.

Bulletin Board

Canada's Endangered Plants

Canada contains over 3200 native vascular plant species of which more than 1000 are rare and only 10% of these have been studied in detail. A list of vascular plants, mosses and lichens considered to be at risk in Canada has been compiled by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Information on flowering herbs, shrubs and trees and ferns and their allies can be accessed through COSEWIC's web site at http://www.science.mcmaster.ca. Also available is information on vascular plants not at risk, candidate species at risk, references to status reports, and threats by exotic plants.

The Subcommittee has also established a specialist group on mosses and lichens that is presently developing a candidate list of nationally rare and potentially at risk mosses and lichens. The Canadian Botanical Conservation Network can be reached at P.O. Box 399, Hamilton, Ontario, Canada L8N 3H8; Tel.: (905) 527-1158, ext. 309; Fax: (905) 577-0375; E-mail: cbcn@earthling.net.

Mexican Mangrove Forests

A team of Smithsonian scientists and colleagues from the United States and Mexico will study the mangrove forests that lay in the path of Hurricane Gilbert in 1988. The study will determine the level of damage the mangrove stands suffered during that storm and estimate the potential of these forests to recover ecological functions associated with intact mangrove ecosystems. The study will provide important observations on recovery processes and the difference between natural oscillations and unidirectional trends in these coastal ecosystems. For more information, contact Marsha Sitnik, Science Program Administrator, Biodiversity Programs, National Museum of Natural History, MRC 180, Washington, DC 20560; Tel: (202) 786-2821; E-mail: sitnik.marsha@nmnh.si.edu.

Call for Proposals

The Center for Field Research invites proposals for the 1998-1999 field grants funded by its affiliate Earthwatch. Earthwatch is an international, non-profit organization dedicated to sponsoring field research and promoting public education in the sciences and humanities. Past projects have been successfully fielded in, but are not limited to, the following disciplines: animal behavior, biodiversity, ecology, ornithology, endangered species, entomology, marine mammalogy, ichthyology, herpetology, marine ecology, and resource and wildlife management. For more information contact: The Center for Field Research, 680 Mt. Auburn St., Watertown, MA 02272; Tel: (617) 926-8200; Fax: (617) 926-8532; E-mail: cfr@earthwatch.org; http://www.earthwatch.org/cfr.

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

School of Natural Resources and Environment
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