

Endangered Species UPDATE

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In this Issue:

**Endangered Species
and the Savings &
Loan Debacle**

**Desert Tortoise and
Seven Other Species
Listed**

**Stellar Sea Lion and
Golden-cheeked
Warbler Given
Emergency Protection**

**1989 Amendments
Strengthen CITES**

Saving Endangered Species and the Savings and Loan Debacle

by
William G. Bunch

What does the savings & loan boom, bust, and ongoing bailout have to do with maintaining biodiversity? This is a question very few policymakers, including environmentalists, have asked, much less begun to answer. However, as more lands with endangered species habitats or other natural, recreational, or cultural values fall into the hands of the federal agencies charged with managing the bailout, the question is now receiving national attention.

This article provides a brief history of the banking and savings & loan crisis, and discusses the implications it has for endangered species and the environment. It presents a short case history of the conflicts between savings & loan/banking policy and endangered species protection policy, and outlines the difficult issues now facing Congress, the federal resource and banking agencies, and environmentalists.

Perhaps most importantly, however, this article should show that not only does money make the world go around, it also makes habitat destruction go around. Banking and investment policies have caused habitat destruction at home as well as in the tropics. Biodiversity conservation-

ists in the United States must come to understand and grapple with domestic banking issues, just as international conservationists have entered into the world of international development bank policymaking. The savings & loan crisis should make clear the links

between domestic banking policy and habitat destruction — links which are as strong, though perhaps less obvious, as World Bank funding of habitat-destroying reservoir, habitat, or deforestation projects.

A Brief History¹

Savings and loan associations (S&Ls), or "thrifts," were originally established to further the American dream of single-family home ownership². Until the late 1970s, the S&Ls, by law, offered low-risk, low-interest rates to long-term depositors so that, in turn, the S&Ls could make low-risk, low-interest, long-term loans to home buyers. This system kept the S&L industry healthy until interest rates skyrocketed and new forms of investment, such as money market funds, began to compete effectively for savings and investment dollars.

In the early 1980s, the S&L industry

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turned to Congress for relief from its financial difficulties. Aggressive lobbying resulted in S&L "reform" legislation that allowed S&Ls to enter higher-earning but riskier areas of investment, including land development for residential, commercial, and resort proj-

ects. Industry lobbyists also convinced Congress to raise the federal S&L deposit insurance from \$40,000 to \$100,000, thereby making the S&Ls even more attractive for investment.

S&Ls, particularly those in the Southwest which were aided by high oil prices and business migration to the sunbelt, attracted deposits from across the nation by offering high interest rates. In many instances, S&L deposits increased exponentially. Amidst lax regulation, wholesale fraud, and questionable lending practices, the newly-rich S&Ls funded urban fringe developments along southern coasts, in wetlands, over sensitive drinking water aquifers, and in endangered species habitats. Public funds that could have flowed in part to environmental preservation or education instead flowed into highways and other infrastructure to "support" the rampant development. From an environmentalist's perspective, the S&L-financed boom looked bleak.

Finally, in the late 1980s the boom went to bust. Several years of low oil prices had slowed the Southwest economy. Shopping centers, office buildings, and "master planned" residential developments stood empty. S&Ls could no longer hide their fraudulent or foolish investment practices with paper camouflage. As developments failed and were foreclosed on by S&Ls, the S&Ls in turn, with no cash and little more than overvalued real estate, also failed. The S&L bailout began, and soon the Federal Savings & Loan Insurance Company (FSLIC) fund was depleted. Congress was forced to step in with additional taxpayer funds.

In May 1989, Congress passed the Financial Institutions Reform, Recov-

¹Much of the following background information on the S&L crisis and the environmental issues it raises is presented in greater detail in the Texas Center for Policy Studies report "Environmental Opportunities of the Crisis in the U.S. Financial Institutions," December 1989 (see endnote for address).

²The focus of this article is on S&Ls or "thrifts." However, numerous banks have also failed, resulting in federal responsibility for managing and disposing of real estate owned or financed by failed banks.

ery, and Enforcement Act (FIRREA) to manage the rescue of the S&L industry. FIRREA dissolved the FSLIC and transferred jurisdiction over S&Ls which had failed and were sold or reorganized by the FSLIC prior to January 1, 1989, to FSLIC's banking counterpart — the Federal Deposit Insurance Corporation (FDIC). FIRREA created a new entity, the Resolution Trust Corporation (RTC), to sell, reorganize, or close S&Ls failing after January 1, 1989.

More important for our purposes, the RTC is charged with disposing of the real estate assets held by failed S&Ls. While the vast majority of these assets are homes, apartments, office buildings, shopping centers and other developed properties, a small yet significant number are undeveloped or only partially developed properties. For example, the RTC and FDIC now own outright or have some financial interest in over 150 properties in the Austin, Texas area that contain habitat for one or more of seven federally listed endangered species. Another dramatic example is the Playa Del Rio project, a proposed development located at the mouth of the Rio Grande River. This 14,000 acre tract provides habitat for two endangered cats, the ocelot and jaguarundi, and numerous endangered and rare birds. The FDIC, through a pre-1989 S&L failure, controls the property, and is now seeking a Clean Water Act Section 404 permit to dredge

or fill up to 8,000 acres of wetlands so that the property can be sold to a new developer. In North Carolina, the RTC owns an important piece of a very unique coastal ecosystem adjacent to a Nature Conservancy preserve at Nags Head Woods.

The hundreds of pages of S&L bailout legislation contain only one provision relating to the environment. Senator Timothy Wirth (D-Colo-
 rado), a member of the Senate Banking Commit-

"The hundreds of pages of S&L bailout legislation contain only one provision relating to the environment."

tee, succeeded in requiring the RTC to publish a semiannual inventory of real property assets of institutions subject to the RTC's jurisdiction that have "natural, cultural, recreational, or scientific values of special significance." Senator Wirth initially sought to provide for discount sales of RTC properties sold for conservation purposes and for a right-of-first-refusal to conservation organizations and state and local parks entities. However, these proposals were rejected by the Senate Banking Committee. The inventory requirement does, however, force the RTC to screen its properties for natural, cultural, recreational, and scientific values, and to make those properties known so that private or governmental conservation entities will at least be aware that they are available for purchase.

To date, the RTC had published two very inadequate semiannual invento-



Photo by Bob Parvin

South Bay at the mouth of the Rio Grande, threatened by the proposed Playa Del Rio project

Endangered Species UPDATE

A forum for information exchange on endangered species issues
 June/July 1990
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 Dr. Terry Root.....Faculty Advisor

Instructions for Authors:

The Endangered Species UPDATE welcomes articles related to species protection in a wide range of areas including but not limited to: research and management activities for endangered species, theoretical approaches to species conservation, and habitat protection and preserve design. Book reviews, editorial comments, and announcements of current events and publications are also welcome.

Readers include a broad range of professionals in both scientific and policy fields. Articles should be written in an easily understandable style for a knowledgeable audience. Manuscripts should be 10-12 double spaced typed pages. For further information please contact Suzanne Jones at the number listed below.

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Golden-cheeked warbler
 (*Dendroica chrysoparia*)
 Photo by Don Bleitz

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ries of its "special significance" lands. The RTC, overwhelmed with its own formation and its primary task of seizing failing thrifts and disposing of assets, has devoted few resources to the inventory. Conservation buyers have generally used other means of locating conservation lands that are now or will be for sale by the RTC.

Under pressure from environmental organizations, the US Fish & Wildlife Service (USF&WS), and some conservation-minded members of Congress, the RTC is moving towards a cooperative arrangement that will provide for USF&WS screening of undeveloped and partially developed lands. The USF&WS will also have the opportunity to recommend appropriate conservation easements for RTC lands in order to protect endangered species habitats, wetlands, or other important environmental features. The proposed Memorandum of Understanding (MOU) between the RTC and USF&WS is modelled after a similar arrangement between the Service and the Farmers Home Administration (FmHA) intended to promote conservation on FmHA repossessed farmland. However, the proposed RTC/USF&WS MOU would give the RTC complete discretion to reject USF&WS conservation recommendations.

Legal and Technical Issues

While the RTC, USF&WS, and others work on a process for implementing that portion of the Wirth Amendment requiring inventory of RTC's natural significance lands, the proposed MOU and other agency efforts have avoided the much more difficult issues raised by existing federal environmental laws. For example, are the FDIC and RTC "federal agencies," and thus required by the National Environmental Policy Act (NEPA) to prepare Environmental Impact Statements for their actions that have a significant impact on the human environment? If so, what RTC and FDIC actions have "significant impacts" on the environment? If the RTC and FDIC are federal agencies, then what are their obligations under Section 7 of the Endangered Species Act (ESA) when managing and selling real estate

that includes or may affect endangered species habitat? [Section 7 mandates federal agencies to consult with the USF&WS if their actions may affect endangered or threatened species.]

The obvious answer to the first question is, of course, that the RTC and FDIC are federal agencies. What else could they be? And, of course, the management and disposition of vast acreages of previously private, land development projects by the RTC and FDIC will have significant impacts on the human environment. Nevertheless, both agencies have refused to acknowledge their duties under NEPA and the ESA. The FDIC has stated flatly that it is not a "federal agency" under NEPA, although most public and private sector environmental attorneys familiar with the issue disagree. For its part, the RTC has insisted over the last nine months that its attorneys are still looking at the NEPA question.

Similarly, neither the RTC nor USF&WS have established any clear policies or procedures regarding the ESA. USF&WS Region 2 officials have pressured the RTC and FDIC — both directly, and indirectly through communications with private firms managing RTC and FDIC assets — to initiate formal consultations under Section 7 of the Act on various properties. Interestingly enough, the private firms contracted to manage and sell RTC and FDIC properties would prefer to engage the Section 7 process (required for federal agencies), if they and their property buyers can avoid the more rigorous and time consuming provisions of Sections 9 and 10 (required for non-federal agencies). [Section 9 of the ESA prohibits the taking of listed species, while Section 10 provides a permitting process for the incidental taking of endangered species by non-federal entities.] The concern is that if RTC actions are deemed federal actions for ESA purposes, then they must also be considered federal actions for NEPA purposes; while it is advantageous to be considered a federal agency under the ESA, NEPA requires federal agencies to complete time-consuming Environmental Impact Statements for any of their activities which would significantly affect the human environment —

a task which the RTC and FDIC are loathe to undertake.

Thus, USF&WS headquarters, Department of Interior Secretary Manuel Lujan, and top RTC officials have apparently remained undecided on the issue. Although the RTC is receiving pressure from environmentalists and some members of Congress to honor the legal obligations borne by all federal agencies to protect our nation's natural and cultural heritage, the RTC's response has been that under FIRREA its first and foremost obligation is to maximize returns to the federal treasury. The RTC apparently fears that compliance with federal environmental laws governing federal agency actions would cause excessive costs and delays in resolving the S&L crisis.

A Case Study in Texas

Protecting endangered species habitats and other significant environmental properties may add some costs to the bailout, but generally these costs will be low or nonexistent. Under some circumstances, as in Austin, Texas, RTC protection of endangered species habitats may actually increase RTC revenues. Austin is blessed with the highest concentration of endangered species of any urbanizing area in the United States. Five federally endangered karst-dwelling invertebrates inhabit the cavernous limestone karst of western Austin. The black-capped vireo, a small migratory songbird that nests in the area, was listed as federally endangered in 1987. The golden-cheeked warbler, another migratory songbird whose entire nesting range falls within the central Texas Hill Country, was emergency listed as federally endangered on May 4, 1990. [See *Endangered Species Technical Bulletin* 15 (6):1,6 in this issue of the *UPDATE*.] In addition, two candidate "Category 2" plant species, and numerous other cave and spring-adapted animals, including the recently discovered *Eurycea sp.* salamanders, also inhabit the Balcones Canyonlands of western Austin.

This same area also has one of the highest concentrations of RTC and FDIC bailout properties. Land ownership research, performed in support of a

(Continued on *UPDATE* page 4)

regional ESA Section 10 (a) habitat conservation planning effort, has already revealed over 160 parcels in western Austin that the RTC or FDIC own or have significant financial interests in and which contain endangered species habitats. Of these properties, approximately 20-30 parcels include an estimated total of 20-25,000 acres of habitat that meet preserve design criteria. The remaining parcels generally have fragmented or degraded habitat that would be extremely difficult to restore.

If, as part of a comprehensive Section 7 consultation, the RTC and FDIC gave these prime habitat lands to the USF&WS for preserves, with the remaining properties being "released" for development, those remaining properties would increase in value for several reasons: 1) the released lands would now be near or adjacent to dedicated wildlife refuge lands; 2) the supply of development lands would be dramatically reduced, thereby increasing property values in the area; and 3) the uncertainty of the marketplace would be resolved quickly by addressing ESA requirements for all RTC and FDIC properties in the area. Also, the RTC and FDIC would avoid the carrying costs of the potential preserve tracts, including property taxes (based on inflated pre-bust and pre-listing land values), management costs, and appraisal fees.

Currently, a coalition of environmentalists, business interests, and elected officials are working together to pressure the RTC and FDIC with the above arguments in order to gain donations of the best RTC and FDIC preserve lands to the Balcones Canyonlands Regional Habitat Conservation Plan³. One principal obstacle blocking RTC and FDIC acceptance of the plan is the federal agencies' practice of insisting on obtaining maximum income on each tract, rather than looking at the total federal holdings in the market and coordinating the management and disposition of those properties. Another stumbling block to RTC and FDIC cooperation is the reluctance of RTC and FDIC private contractors to work with each other as agents of one principal interest — the federal taxpayer. Instead these contractors, many

of whom played roles in the S&L debacle, continue to view each other strictly as competitors, with each one earning their management fees by figuring out ways to minimize or avoid ESA compliance for the particular federal properties in their contracts.

If political pressure fails to convince the RTC and FDIC of the economic

1.	Texas	77
2.	Louisiana	25
3.	Illinois	23
4.	California	19
5.	Arkansas	12
5.	Florida	12
7.	Colorado	10
7.	Mississippi	10
10.	New Jersey	10
10.	Oklahoma	8
10.	Kansas	8

Source: *Crime & Punishment in the S&L Industry: the Bush Administration's Anemic War on S&L Fraud*. Public Citizen Congress Watch, Washington, DC.

desirability, as well as legal duty, imposed by Section 7 of the ESA for comprehensive rather than piecemeal consultation, environmentalists may be forced to initiate a citizen suit enforcement action.

At present, the Austin-San Antonio development corridor is the only area known to the author where endangered species habitat coincides with such a high concentration of undeveloped RTC and FDIC holdings. In other areas, RTC and FDIC holdings containing endangered species habitats may be isolated, thus making compliance with the ESA potentially more burdensome for the RTC and FDIC. However, such holdings may have little real economic value because of their remoteness or lack of development potential. Alert conservationists across the country should be able to ensure that the RTC and FDIC fulfill their obligations under the ESA, NEPA (perhaps), and FIRREA's special significance lands inventory, as well as acquire USF&WS conservation easement recommendations, and/or obtain sales for conservation purposes at reasonable prices. [See the above chart for the states with the greatest number of S&L failures.]

Conclusion

As environmentalists, government officials, and Congress struggle to determine the RTC's and FDIC's obligations and procedures under the ESA and other federal environmental laws, certain larger lessons should not be lost. In the early 1980s it was foreseeable that S&L "reform" measures — increasing deposit insurance and allowing S&Ls into speculative real estate development markets — would further stimulate suburban sprawl development and thereby cause significant environmental impacts. Yet no one seemed to make this connection between domestic financial policy and the environment. No demands were made that a legislative Environmental Impact Statement be prepared for the S&L reform legislation.

Similarly, in 1989, environmentalists generally failed to understand the environmental impacts and potential opportunities of the S&L bailout legislation working its way through Congress. While conservationists working at the international level recognized opportunities for preserving rainforests through "debt-for-nature" swaps in the massive restructuring of debt owed by developing nations, no one seemed to notice similar possibilities in the much larger domestic debt restructuring.

Conservationists and natural resource professionals should realize (and vociferously advocate) that the bailout is not just a black-hole of welfare for foolish and often criminal finance professionals, but rather a major opportunity for preserving important natural and cultural heritage lands. If the debate is not engaged, and environmentalists and resource professionals again fail to get involved in domestic financial policymaking, then the current financial crisis, like the current military crisis, may become a quick excuse for setting aside long-established environmental laws holding the federal government accountable for its actions.

William Bunch, an environmental law attorney, works at the Texas Center for Policy Studies (PO Box 2618, Austin TX 78767) in its role as coordinator of a national environmental coalition working to protect S&L bailout lands.

³The Balcones Canyonlands Regional Habitat Conservation Plan, previously named the "Austin Regional Habitat Conservation Plan," was discussed in the April issue of the *Endangered Species UPDATE* within the *Endangered Species Technical Bulletin* 15(1):1,6.

Book Review

Ancient Forests of the Pacific Northwest

by Elliot A. Norse

"By treating 500- to 1,000-year-old forests as if they were a renewable resource, we are acting out a fiction, and thereby making a grave mistake."

— Peter Raven in the foreword to *Ancient Forests of the Pacific Northwest*

Ancient forests are among the oldest living systems on the earth, and among the youngest subjects of biology. Recently published *Ancient Forests of the Pacific Northwest* provides a case in point. This significant resource provides for the first time a thorough examination of this complex ecosystem and its fragile existence. Author Elliot Norse deftly succeeds in the difficult task of presenting scientific information on ancient forests in a style that is understandable to the inquisitive layperson, yet rigorous enough for decision-makers and researchers. Though the book focuses on ancient forests of the Pacific Northwest, the biological concepts and issues discussed are globally applicable.

The book begins with an overview of the problem of ancient forest destruction, and a discussion of why their loss is not just a national tragedy, but a global concern. Chapter 2 describes the biological aspects unique to the Pacific Northwest forests and the history of human influence, while Chapter 3 outlines the main concepts important to understanding how a forest ecosystem functions. Here Norse gives attention to the concept of succession, portrays dead trees as the "life of the forest," and addresses the much disputed issue of defining "old-growth" forest.

Chapters 4 and 5 highlight the biological values of ancient forests, including their diversity at the genetic, species, and ecosystem level. Along with reports on spotted owl, elk, salamanders, and salmon, the lesser-known roles of fungi, soils, carbon, and water in these systems are detailed. Norse also contrasts the ancient forest ecosystem with tree plantations, and discusses the notion of recreating ancient forests.

In Chapter 6, Norse takes a scrutinizing look at the effects of timber operations, examining fragmentation, simplification, and destruction. He walks the reader through the different phases of timber operations and describes their effects on species diversity, pests, fire, and nitrogen levels. However, though Norse questions the wisdom of predominant past and current forest management practices, this book is not anti-timber propaganda.

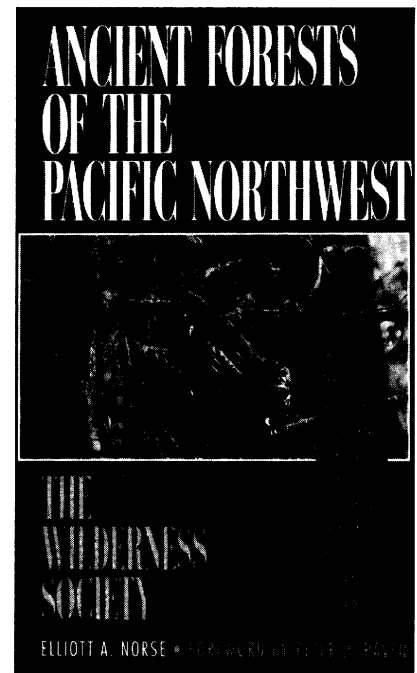
In addition to timber practices, there are many external threats to ancient forests, including acid deposition, stratospheric ozone depletion, the greenhouse effect, global climatic change, and carbon dioxide effects. Chapter 7 addresses these phenomena, and provides a sobering look at the combined impacts of timber operations and these external hazards on ancient forest ecosystems.

Despite the somber tone of many of the chapters, Norse does offer hope at the book's end. In Chapter 8, he discusses the value and likelihood of maintaining biological diversity and ecosystem integrity, explaining why such diversity is the key to sustainability. He then proceeds with a strategy for sustainable forestry, offering ideas for maintaining biological diversity within managed forests. The book concludes with a chapter of recommendations which includes suggestions for an inventory of the region's forested and cutover land, a preservation plan, management which minimizes fragmentation and simplification, increased training for foresters in ecology and conservation biology, and the creation of a federal Ancient Forest Commission.

Throughout the book, Dr. Norse employs an impressive collection of references to draw his conclusions. After reading this well-cited work, several points become quite clear: 1) the numerous studies recently conducted reveal the ecological importance of ancient forests; 2) ancient forests are

not just "nice to have around," but are essential to the health of the environment; and 3) the loss of ancient forests is no longer a concern, but a crisis.

In *Ancient Forests*, Norse is able to express a respect and love for nature while giving a fair account of the issues. In a time of political heat, this book quenches our thirst for understanding



what old-growth forests are and why we should care about them. The result is a reference by which managers, educators, Congress, the media, and the public can easily access information on ancient forest ecosystems. Such information is essential to assess the quality of forest management in the Northwest, and to elevate the factual level of debate over the controversial issues affecting this region. Read it and read it soon — at the time of this writing, several bills are circulating in Congress that will yet determine the fate of the remaining Pacific Northwest ancient forests.

Ancient Forests is available from Island Press (PO Box 7, Covelo, CA 95428; 1-800-828-1302) for \$19.95 plus \$2 postage.

Review by Monica Tomosy, US Forest Service, Portland, Oregon.

Beware of Snapshots at the Bottleneck — Temporal Considerations in Conservation Planning

by John F. Baughman
and Dennis D. Murphy

Conservation biologists know well the challenge of land management decision-making based on inadequate or preliminary data. When sources of information are census data derived from but a few generations, the distributions and abundances of populations may be only suggested, or worse, may be misrepresented. In a recent companion article we discussed problems with studies of endangered populations carried out on inappropriate spatial scales (Murphy and Rehm 1990, *Endangered Species UPDATE* 7(5):10). Here we briefly examine some of the pitfalls that can beset conservation planning when it is based on data gathered over insufficient periods of time.

The charismatic megaverbrates that receive the most conservation attention and funding in many ways constitute a biological anomaly. Despite dramatic overall declines in numbers due to habitat losses, species such as grizzly bear and tule elk still exhibit relatively stable local population structure. In such species, major fluctuations in numbers or distributions are relatively uncommon.

In contrast, populations of species that comprise the majority of biological diversity — many small mammals, virtually all invertebrates, and certain annual plants — commonly fluctuate dramatically in size and distribution. Usually regulated by forces that function independent of population density, such populations may fluctuate two, three, or even four orders of magnitude in size in just a handful of generations. Periods of fluctuation, or cycles of extinction and recolonization, may be interspersed with periods of relative stability in which populations do not change greatly in size from generation to generation.

Censuses taken over a handful of generations represent but a “snapshot” of the range of sizes and distributions

that study populations may exhibit. Ideally, such snapshots will suggest the extremes or limits of oscillations that a population potentially may experience. Unfortunately, such circumstances tend to be exceptions, not rules. Short-term studies of species given to recurring population cycles may falsely indicate stability. Management decisions made assuming stable structure may be inappropriate for populations that change in size or distribution.

If census snapshots are taken when populations are at “bottlenecks” — when they are small and narrowly distributed — crucial habitat features or resources may go unnoticed, and thus may be omitted from conservation plans. In the absence of lengthy studies, planning must be conservative relative to the extent of habitats protected. Managers must consider the importance of suitable but unoccupied habitats, the roles of special habitat features and cryptic resources, and other environmental factors that may be crucial to sustain populations at greater sizes.

Snapshots taken when populations are abundant and/or widespread also demand careful interpretation. If land managers are unaware that populations are prone to natural, but sudden, decreases in size and contractions in range, management plans may be designed to overreact. Often, an appropriate conservation response may be as simple as continued protection and management of recently vacated habitats to ensure availability of those habitats for populations when they rebound in size. Although atypical to usual circumstances in conservation, surveys carried out during times of plenty, when threatened or endangered populations are most abundant and widespread, provide the most appropriate view of “natural” population dynamics and distributions for purposes of reserve design.

While understanding temporal and spatial patterns of population abundances and distributions is essential, the identification of factors controlling those patterns is also a key for conservation. It is therefore crucial in conservation planning both to census target populations and to pursue comprehensive monitoring programs that measure pertinent environmental parameters. Again, studies over short periods may not identify critical factors that regulate population sizes and distributions. For many species, the environmental conditions that result in particularly large or small populations may occur infrequently, perhaps just once in tens or hundreds of generations. Indeed, the recurring conclusion drawn from long-term studies of imperiled species is that infrequent environmental extremes are overriding forces in determining population persistence and patterns of habitat occupancy. Unless a survey fortuitously includes a critical year of drought, fire followed by rain, or other infrequent phenomena, the key arbiters of the dynamics of a population may remain unknown.

A common delaying tactic used by opponents of development is to call for more studies. That most definitely is not what we advocate here. We urge managers to act boldly to design conservation plans from available data, but suggest that management decisions based on limited census data should be adequately conservative to allow rare but vital processes to continue operating, even if the natures of those processes remain uncertain. By recognizing the limited predictive power of their data, conservation planners can turn a seeming handicap into an advantage.

John Baughman and Dennis Murphy are biologists with the Center for Conservation Biology at Stanford University.

Bulletin Board

National Beach Cleanup

The Center for Marine Conservation (CMC) is sponsoring a national beach cleanup along North America's coasts in late September. Data will be compiled by the Center and made available to state and national policymakers throughout the U.S. This information will provide an assessment of the state of NA beaches to be used in developing solutions for the growing problem of marine pollution. For further information and dates of scheduled cleanups in 27 states, Canada, and Mexico, contact: CMC's Press Department or Debris Information Office at (202) 429-5609.

Data Needed On Masked Ducks

Information is requested regarding sightings of masked ducks (*Oxyura dominica*) in the wild, to aid a current program to enhance the species' status in Mexico (Tamaulipas and Veracruz) and the United States (Texas). Field observations should include the location, date of observation, and the name(s) of the observers. Correspondence regarding this species should be sent to: Proyecto Pato Enmascarado, Center for the Study of Tropical Birds, Inc., 218 Conway, San Antonio, TX 78209-1716; Fax: (512) 828-5911.

Macaw Conservation and Management Workshop

A workshop on the conservation and management of macaws in Mexico and Central America will be held January 4-7, 1991, in Tegucigalpa, Honduras. The workshop is being organized by The Center for the Study of Tropical Birds, Inc. (CSTB), and the Honduran National Section of the International Council for Bird Preservation (ICBP). Topics to be discussed include: status and distribution within the region, ecology, censusing techniques, management alternatives (nestboxes, habitat enrichment, captive breeding), public education, and ethology. The workshop is being sponsored by the Department of the Interior, the Office of International Affairs, and the Panamerican Section of the ICBP. Additional sponsors are being solicited. For additional information, contact: Macaw Management Workshop, CSTB, 218 Conway, San Antonio, TX 78209-1716; Tel: (512) 828-5306; Fax: (512) 828-5911.

OTS Workshops

The Organization for Tropical Studies is offering intensive field trip/workshops in Costa Rica for professionals working with development policy and

economics in the tropics. Courses are designed to provide first-hand exposure to tropical environments and associated development projects, in order to familiarize policy-makers with tropical environmental problems and thus increase their ability to promote environmentally sound development policies. Workshops in both English and Spanish are offered regularly.

"Interdependence: Economic Development and Environmental Concerns in Tropical Countries," a one week course for U.S. decision-makers, is offered every year in February. Faculty include university professors from U.S. and Latin American institutions, as well as Costa Rican authorities on biological, technological, and social issues. A parallel three-week intensive field course for Latin America decision-makers is offered in September. For more information, contact: Sylvia Marin von Koller, Environmental Policy Coordinator, OTS, Apartado 676-2050 San Pedro de Montes de Oca, Costa Rica, CENTRAL AMERICA; Tel: 40-66-96, Fax: 40-67-83.

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Announcements for the Bulletin Board are welcomed.

Endangered Species UPDATE

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