

ENDANGERED SPECIES

Technical Bulletin Insert Wildland Management Center The University of Michigan

From the National Wildlife Federation

Lead Poisoning Still Threatens Eagles

There is an "extreme risk" of lead poisoning to bald eagles in limited areas of Arizona, California, Illinois, Missouri and Washington, according to the National Wildlife Federation. There is a high risk in parts of 25 other states.

At least 36 eagles have died from lead poisoning during the past three years, along with an estimated 6-9 million waterfowl. Lead poisoning from ingestion of spent lead shotgun pellets is well documented in bald eagles, waterfowl, and shore and upland game birds.

In his testimony on August 1, before the U.S. Fish and Wildlife Service, NWF Executive Vice President Jay D. Hair strongly recommended that the federal government immediately impose "emergency" nontoxic steel shot zones in the "extreme risk" areas. If those requirements are not imposed, Hair said, the federal government should close all waterfowl hunting in those areas for the 1984-1985 season and allow hunting only after nontoxic shot zones are established on the areas.

"The National Wildlife Federation supports the wise use of our nation's natural resources, including sport hunting of migratory game birds," Hair said. "But responsible action must be taken by the government as soon as possible. We feel a great responsibility to protect and conserve the migratory birds and endangered species of this nation."

"We hope the release of this in-

formation will lead to more cooperative efforts among all concerned to help protect bald eagles and waterfowl."

Five of the six "extreme risk" counties contain a national wildlife refuge: the Lower Klamath and Tule Lake Wildlife Refuges in California, Nisqually Wildlife Refuge in Washington, Squaw Creek Wildlife Refuge in Missouri, and Mark Twain Wildlife Refuge in Illinois.

The Federation also recommends establishing nontoxic steel shot zones for the 1985-1986 season in areas of 89 counties where the risk of lead poisoning to bald eagles is high. Those counties are in Alaska, Arizona, Arkansas, California, Colorado, Florida, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Missouri, Montana, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Virginia, Washington, Wisconsin, and Wyoming.

The Federation last year sought to obtain federal documents on lead poisoning deaths, but the Interior Department initially refused to turn over its records. NWF finally obtained the documents under the federal Freedom of Information Act and through the cooperative actions of Interior Secretary William Clark.

The NWF report, entitled, "A National Summary of Lead Poisoning in Bald Eagles and Waterfowl," includes additional information gleaned from state biologists, scientific reports, and interviews with raptor biologists and researchers.

In writing the report, the NWF identified areas where there was a documented case of lead poisoning in waterfowl or high lead shot ingestion rates; where large numbers of wintering bald eagles congregate; where lead poisoned bald eagles have been found; and where nontoxic shot zones were established for the 1983-1984 waterfowl season.

Using these factors, the NWF identified counties where there is an extremely high or a high potential for lead poisoning in bald eagles.

The NWF first petitioned the Fish and Wildlife Service in 1974 to require the use of nontoxic shot for waterfowl hunting. Since then, Hair said, "many positive steps" have been made to reduce the problem of lead poisoning in migratory birds.

"Despite earlier legislative setbacks and recent administrative attempts to reduce the Fish and Wildlife Service's nontoxic shot conversion efforts, the states, sportsmen, industry, and conservation organizations have successfully fought to keep the nontoxic shot program alive," Hair said. "There is a long way to go, however, before the lead poisoning issue is resolved."

Endangered Plants of India

by Jane Lamlein
Smithsonian Institution

India is estimated to contain 15,000 species of vascular plants of which 5,000 are endemic. Since the publication of the Flora of British India by Hooker (1872-1897) and other subsequent regional floras, systematic work in unexplored and underexplored areas had virtually received no attention for about five decades. In 1978 after the 11th meeting of the National MAB Committee, India realized the need for preparing a report on its endangered flora and in 1980 a small illustrated booklet entitled "*Threatened Plants of India — A State-Of-The-Art Report*" (Jain & Sastry) was published by the Botanical Survey of India. The booklet provides an overview of the threats to species, the vulnerable habitats, and extinction

of species in India, and a brief account of about 135 rare and endangered species occurring in the Himalayas and eastern India, Rajasthan and Gujarat, Gangetic Plain, Peninsular India and the Andaman and Nicobar Islands.

The Botanical Survey of India (BSI) is primarily engaged in the taxonomy and allied aspects of flora and vegetation of the country and gathers data on certain rare and endangered species of flowering plants to supply information to various departments. A five-year project titled, "Project Study, Survey and Conservation of Endangered Species of Flora" (POSSCEF), was initiated in 1980 at the BSI headquarters at Howrah and in regional offices at Dehradun, Shillong, and Coimbatore. The Project publishes illustrated accounts of rare, threatened and endangered wild species of flowering plants in India through its *Plant Conservation*

Bulletin and various booklets. Some issues have dealt with the conservation of threatened plants in India; threatened plants and habitats - a review of work done in India; endemic and threatened plants of western India; rare, threatened and endemic plants of the Western Himalayas - monocotyledons; rare, threatened and endemic flowering plants of South India; materials for a catalogue of threatened plants of India; and materials for a green-book of botanic gardens in India (endangered species under cultivation in BSI gardens). Further publications will deal with threatened and endemic orchids of northeastern India; threatened palms of India; and rare and endangered monocotyledons of northwestern Himalaya. For more information write: Director (POSSCEF), Botanical Survey of India, Indian Botanic Garden, Howrah-711 103, India.



Technical Bulletin

Reprint

A forum for information
exchange on
endangered species from

The Wildland Management Center
School of Natural Resources
The University of Michigan
Ann Arbor, Michigan 48109
(313) 763-1312

David F. Hales Director
Richard Block Associate
Kathleen Rude Editors

Annual subscriptions for the *Endangered Species Technical Bulletin Reprint* are \$12.00. Send check or money order (made payable to: The University of Michigan) to:

Endangered Species Technical Bulletin
School of Natural Resources
The University of Michigan
Ann Arbor, MI 48109-1115

AAZK Seeks Readers Help in Identifying Zoo- Related Courses

The American Association of Zoo Keepers, an organization dedicated to professional animal care, is trying to identify college and university courses dealing with zoos and captive animal care. We are providing the association with descriptive course materials sent to the Reprint by our readers, but you can forward any additional information to:

Patricia E. Sammarco
Zoo/University Project Head
Lincoln Park Zoo
2200 N. Cannon Drive
Chicago, IL 60614

You may also request membership information and a copy of "Zoo Keeping As A Career."

To Our Readers —

As you can tell from the date on this issue, we're almost on schedule! We would like to be mailing each issue to you by the second week of each month which means the absolute deadline for submitting articles, announcements and news items is the first of each month.

PLEASE NOTE: The US-USSR Conference on Biological Conservation scheduled for October has been postponed. We will carry an update on the conference as soon as it is available.

Butterfly Feared Extinct

Official Bumbling May Have Erased Rare Species

by Michael Wines, *Times Staff Writer*

Copyright, 1984, Los Angeles Times
Reprinted by permission

WASHINGTON—Earlier this spring, when a swath of dry scrub on a steep hillside that abuts Heroic Drive was plowed under, Rancho Palos Verdes got rid of more than a fire hazard.

Federal officials fear that for the first time, one of the 296 creatures protected by the federal Endangered Species Act has become extinct—a rare butterfly that lived only amid patches of locoweed on the staggered terraces of the Palos Verdes Peninsula south of Los Angeles.

The apparent demise of the Palos Verdes blue butterfly, a tiny powder-blue creature whose liking for foggy canyons and terraces kept it undiscovered by scientists until 1977, came after a series of missed opportunities to preserve its dwindling breeding grounds. And the apparent first loss of an endangered species already has triggered a round of finger-pointing among environmentalists, Rancho Palos Verdes officials and the Federal Fish and Wildlife Service, which has the legal duty to protect the insect.

The city said it tried to save the butterfly, which has distinctive dark camouflage markings on the undersides of its wings, but was never properly instructed on how to go about it. Environmentalists say the Wildlife Service stood by while a three-year building boom decimated the indispensable locoweed patches, then lagged in investigating who was responsible for the destruction.

Fish and Wildlife officials deny sitting on anything and say they still may file criminal charges if wrongdoing is found.

And a California entomologist who spent five years and a chunk of federal money charting the butterfly's decline said it sometimes seemed as if nobody cared much

whether the creature lived or died.

"The Fish and Wildlife people did not always keep the city advised of the status of the (butterfly) colonies," said Richard A. Arnold, a scientist at the University of California, Berkeley, who had a federal contract to work on the diurnal insect's preservation. "And the city had some bad advice and maybe no sympathy for the butterfly as well."

The Palos Verdes butterfly is distantly related to the El Segundo blue butterfly, another federally protected species that has figured in a California environmental dispute. That butterfly exists near Los Angeles International Airport on land that developers want to turn into a golf course.

Federal officials hold out the hope that more of the Palos Verdes blues, which have been confined to the peninsula because they depend for food and egg-laying sites on a strain of locoweed found there, will turn up again—perhaps after next year's spring mating season.

"We're not considering it extinct," said Sanford Wilber, chief of Fish and Wildlife's Western endangered species office. "Butterfly flights can vary considerably in any one area," he said, suggesting that the failure to spot the butterfly this spring might only mean they have gone elsewhere.

Missed Opportunities

But Arnold is less sanguine. An intense search has turned up no eggs, caterpillars or butterflies in any of the remaining areas where the insect should be found, he said.

"The likelihood is very high that it's extinct," he said. "There's always a chance that it will pop up

again. But in this case, the habitat destruction was so complete and so quick that I think that's very unlikely."

The Palos Verdes blue's last stands—near Heroic Drive and in a Los Angeles County park that was mowed about the same time—capped a long string of missed connections by the federal and city officials involved in the insect's fate.

The butterfly, which was placed on the endangered species list four months before President Reagan took office, was common in a few isolated areas of the peninsula as recently as 1981. But it declined so swiftly that researchers could find no more than seven by the end of 1983 and none this year.

The Fish and Wildlife Service paid Arnold to draw up plans to preserve the insect's breeding grounds at least three years ago. But his proposal lodged somewhere in the agency's bureaucracy and was never implemented, Arnold said.

In the meantime, most of the insect's 20 or so breeding sites were destroyed by housing construction, fire-control measures and city park expansion.

Fish and Wildlife officers made a last-ditch effort to rescue the butterfly last December, when they belatedly discovered that Rancho Palos Verdes had converted part of its most populous breeding ground into a baseball diamond.

In April, the service sent a letter to city officials noting that the locoweed patches near Heroic Drive and in Friendship Park "provide the best chance for finding the butterflies" and should be left undisturbed. The letter apparently arrived shortly after the sites had been cleared by mowers and disk-ing equipment.

Fish and Wildlife officials won't

say who was responsible for the destruction, but Sharon W. Hightower, Rancho Palos Verdes environmental services director, says it was not the city's fault. The Friendship Park site, she said, is in Los Angeles County, and the other cleared site is on private property that is supposed to be cleared annually under the city fire-control laws. In the past, implementation of that rule reduced but never obliterated the creature.

Hightower said the city had delayed development of some butterfly sites in an effort to comply with federal requests but that Fish and Wildlife officials had not explained what was required to save the insect.

"I've never been sure what our responsibility is," she said. "They keep telling us to protect the habitat, but we've never been told how."

And Bruce Manheim, a Washington staff scientist for the Environmental Defense Fund, accused Fish and Wildlife officials of ig-

noring the insect's plight. "This has gone on for three years without any Fish and Wildlife involvement at all," he said. "Essentially, they haven't done anything."

The Endangered Species Act allows fines of up to \$20,000 and prison sentences of up to a year for anyone who destroys a protected species, and lesser fines can be levied for the destruction of a species' habitat. Manheim said the Wildlife Service has been slow to take up a recommendation by California enforcement officials that those responsible for the insect's apparent extinction be prosecuted.

Federal officials say that neither charge is true. The Service met twice with Rancho Palos Verdes officials late in 1983 to outline the butterfly breeding sites that were to be preserved, Wilber said. He said an active investigation of the destruction of the butterfly's habitat may produce criminal prosecutions.

Arnold attributes much of the

bungling surrounding the butterfly's demise to a "breakdown of communications" between federal and city officials. But in recent years, he added, it has been difficult to persuade anyone to pay much attention to the problems of the 10 federally protected insects in California, in part because they lack the political constituencies that have been formed to safeguard mammals, which are larger and more visible.

In addition to the study prepared for preservation of the Palos Verdes blue, Arnold said, he has written federally ordered studies for the protection of six other insects on the endangered species list. None of the six has been implemented, he said.

"Whether it's an insect or a grizzly," Arnold said, "if it's listed as an endangered species it has the same rights of protection. . . If you destroy the butterfly's habitat, it's the same as squashing the butterfly between your fingers."

August 1984

Vol. 1 No. 10

ENDANGERED SPECIES

Technical Bulletin Reprint

Wildland Management Center
The University of Michigan
Ann Arbor, MI 48109-1115

NON-PROFIT
ORGANIZATION
U.S. POSTAGE
PAID
ANN ARBOR, MICH.
PERMIT NO. 144