

# HABITAT IN JEOPARDY — WHAT CAN WE DO?

Arliss L. Ungar  
League of Woman Voters of California  
San Francisco, California

Editor's Note. This was the "keynote speech" presented at the general meeting of both Societies the first day of the conference.

---

From Kaneohe Bay, Hawaii to the Pahrump Valley in Nevada, Western habitats are in jeopardy. The demands for more water for agriculture to feed a starving world; for more energy to meet the requirements of the world's highest consumer of energy; and for more houses and highways to serve the West's ever-increasing population threaten our fish and wildlife habitats. As we struggle to solve our food and energy and economic crises, professional biologists and wildlife managers have a special responsibility to see that we do not destroy the habitat of not only salmon, steelhead, ducks and deer, but of falcons, condors, cranes and other non-sport species as well.

The pressure for more water for agriculture and for power plant cooling brings the threat of further dams on the California North Coast Rivers. But we have not yet learned to cope with the serious decline in the anadromous fishery in the Trinity and Eel Rivers caused by the dams we have there now. This need for water brings threats of diverting vast quantities of water around the Sacramento-San Joaquin Delta before the various governmental agencies concerned have learned to work together to protect the fragile environment of the Delta and the Suisun Marsh. What special expertise can you offer the general public and especially the decision makers to assure that in their quest for water they will give sufficient weight to environmental concerns?

How do you decide where to site a power plant? Do you put it on the coast so it does not take precious fresh water for cooling, or inland so that the warm wastewater does not damage the ocean environment? How do you get oil to the West without fouling our beaches and our birds? Is there a way to accomplish strip mining or oil shale recovery without devastating the environment? Our leaders must deal with these questions. Can you effectively communicate to the various agencies and businesses and legislators

the effects of alternative proposals on wildlife habitat?

Throughout the West roads are graded and left to erode and lots are subdivided but stand vacant in areas where the land should remain undisturbed. The County Boards of Supervisors do not really understand the effects of some of these second-home promotional schemes on the wildlife habitat. Have you tried talking with a Supervisor or a developer about ways to at least minimize environmental damage?

Wherever people congregate there is a problem of disposal of solid waste and sewage. The temptation is strong to dispose of solid waste by dumping it into a canyon or at the edge of a marsh without adequate thought for its effect on the environment. But you must make sure that Environmental Impact Reports explain, and the decision makers understand, the effect of these dumps on the local habitat.

Discharging inadequately treated sewage into inland waterways and bays with little tidal action causes pollution problems which affect the environment. There is widespread disagreement about how much wastewater treatment is needed under specific circumstances, particularly when it is discharged into the ocean. Must you leave it to the environmental groups to urge further study to determine the effect of sewage outflow on the marine environment and to exert pressure to protect our critical habitat areas from further pollution damage?

In his letter confirming this speaking engagement Dick Hubbard mentioned that you would be interested in my views on what and where the critical habitat problems lie in California and the West. My immediate reaction was that you should be telling me about critical habitats. But since you asked, let me give you a few examples of habitats that are in jeopardy.

Since the Island of Oahu has 80% of Hawaii's people and most of the industry, it also has the greatest threat to wildlife habitats. Kaneohe Bay is located on the windward side of Oahu. Its large, protected, reefed in area once provided a favorite place for sailing and fishing. But the fish habitat there has been damaged by construction of the controversial H-3 interstate highway and siltation from grading for housing developments. I understand that the City Planning Department and other related departments have not developed sufficient guidelines for developer grading procedures nor adequate enforcement procedures to prevent ecological damage to the area. The sewage outfall may be placed where ocean currents will carry the sewage to nearby Kailua Beach, the most heavily used park on the Island. What information can you give to the City and its people to encourage greater emphasis on protection of the environment?

The Kawainui Swamp, almost 1,000 acres of marshland on the windward side of the Island, is the habitat of several endangered species--the Hawaiian Gallinule, Hawaiian Coot, Hawaiian Stilt and Hawaiian Duck. The area is now being studied by the State to determine the effects on the ecosystem of site improvements for a City and County Park. There is talk of grading the high land, filling low marshes and dredging. Are you watching to make sure that this study adequately considers the effects of this grading on the drainage in this area of frequent rains and heavy flooding? Are you helping to see that the public is informed about the consequences of these proposed actions?

I am sure that Nevada biologists get tired of hearing about the Devil's Hole Pupfish and the other endangered Desert Fish. But if the people of Nevada and the Death Valley Area in California ignore the problem just a little longer, it will go away--the fish will be extinct. The summer count of Desert Hole Pupfish was down to less than 400 fish this past summer. These little fish which have adapted to high temperatures and increasing

salinity cannot live without water. As Nevada's underground water is mined to provide for cattle and housing developments, the lowering water table means insufficient water in the springs which are the habitat of these endangered fish.

Because of upstream diversions, Pyramid Lake and Walker Lake are receding with consequent effect on the fishery. The habitats in the Sheldon Antelope Range and the Desert National Wildlife Range are in jeopardy from mining, overgrazing and other multiple use pressures. At some point the people of Nevada are going to have to determine how many people and how much agriculture and mining the environment can support. Some reasonable method of allocating water rights must be devised. To continue removing more groundwater each year than is replenished in the hopes that the situation will get so desperate that somehow water will arrive from the Columbia or Canada is to destroy the habitat not only of the fish, but of the people as well.

The December issue of the Nevada West and Pahrump Valley Times, a little 12 page free newspaper from the Las Vegas-Death Valley Area, reports the decline of the pupfish, exploration in Nevada for geothermal energy, a tremendous increase in the Las Vegas Convention business and a growth in gambling at South Lake Tahoe, possible above ground storage of nuclear wastes, a decrease in the number of golden eagles seen in near-by Utah, and two different court cases allowing greater pumping of underground water, I think the habitat of Nevada is indeed in jeopardy!

I asked representatives from several well-known environmental groups in California what habitats they thought were in jeopardy. Although they phrased it differently, they all gave me the same answer--the interface of land and water. These environmentalists are concerned about estuaries, marshes, wetlands, raparian habitat. As Paul Howard of the Audubon Society wrote, "All estuarine habitat seems to be in jeopardy. It is among the most critical life-providing areas on earth and has been seriously devastated, wasted, dredged and filled in the past."

About one half of one per cent of California's land is now wetlands. Ten per cent of this remaining natural wetlands is in the Suisun Marsh in Solano County, about 40 miles up the San Francisco Bay system from the Golden Gate Bridge. The Suisun Marsh provides a nursery for striped bass and a migration route for King Salmon and Steelhead Trout. Over 200 species of birds winter there; several of them are endangered. The Marsh has been threatened by housing developments and industry, garbage dumps and ferry landings.

Legislation passed by the State last session directs the acquisition of lands important to the integrity and continued wildlife use of the Marsh. But according to the author of the legislation, funds for the bill were appropriated to the wrong agency--the Department of Parks and Recreation instead of the Wildlife Conservation Board. Can you help to see that the funds are redirected? Even if the marshland is saved from development, there is the problem of adequate fresh water to sustain the habitat of the Marsh. As more and more Northern California water is diverted from the Delta, the Suisun Marsh has an increasing salinity problem which threatens the plant life on which the wildfowl feed. Something more must be done to protect not only the Salt Marsh Harvest Mouse, the California Yellow-Billed Cuckoo and the Tule White-Fronted Goose, but also the thousands of other birds, fish and mammals that depend on the Habitat of the Suisun Marsh.

If we continue to cut our California Redwood forests at the rate of 10,000 acres a year we will soon have none left. If we dredge our bays and dump the spoils on the marshlands, they too will soon be gone. If we dam our wild rivers and damage the raparian habitat we place our fish and wildlife in jeopardy. If we continue to subdivide our wilderness land, the

California Condor and other wildlife will soon have nowhere to go. If we continue providing increasing amounts of water for agriculture without adequate methods to dispose of the salty wastewater we endanger fish as well as agriculture. Environmental groups are trying to bring these problems to the attention of the public. Won't you help even more?

I was asked to give my judgment on how professional biologists have served--or failed to serve--society. I know professionals such as your presidents-elect who have worked very hard to serve society by bringing environmental concerns to the attention of governmental agencies and the public. But I also know an orthodontist, a university professor, a maker of airplane parts and any number of housewives who serve in a similar capacity. The employees and volunteers of places such as the Alexander Lindsay Junior Museum in Walnut Creek, California serve society by holding classes and outings to teach children about wild animals and their habitats; and by taking wounded and orphaned wild animals, nursing them to health and returning them to their native environments. But I don't know how many of these people are professional wildlife managers. The scientists on the research ship in the Suisun Bay who let classes of school children actually participate in their monitoring activities serve society. So do those professional wildlife ecologists who helped the California Sea Otter return from near extinction, and who are now looking for ways to protect the abalone the sea otters are eating. But on the whole, I don't know how you have served society. I asked the environmental leaders I talked with, but none of them answered!

Let me suggest some ways you should serve society, and leave to you the task of seeing how well you measure up. You should provide the public and the decision makers with the scientific information necessary to make informed decisions. You should point out areas where such information is lacking, and urge further study. This information should be written in a clear, concise, readable fashion. There should be enough detail to provide supportive evidence, but not so much that it will overwhelm the reader. You must find ways to make this information available to those who need it. You should serve not only as gatherers of data, but also as synthesizers to pull together vast amounts of information into the kind of bulletin that interested publics can understand in a limited period of time. Cry California, the publication of California Tomorrow, does an excellent job of presenting this kind of information. Do you?

Could The Wilderness Society write a pamphlet for homeowners in newly developed areas which gives suggestions on how to cope with the wildlife that now find themselves in someone's back yard. You might deal with such questions as: What can I do about the deer which browse on my fruit trees and flowers? Is it all right to feed the raccoons which walk across my patio? What do they eat? How can I discourage skunks and gophers and encourage humming birds and quail? What do I do when I find a rattlesnake in my front yard, or a baby bird that has fallen from a nest?

Could the American Fisheries Society write a pamphlet for the informed public on how to judge some of the possible effects of a proposed dam on the fishery? What is turbidity, and how does it affect the fish? What about the problem from dams of gravel loss in spawning grounds; changes in water temperature or velocity of the water? And while you are at it, how about some information on the possible effects of nuclear power plant cooling water on marine life? How does the warmer wastewater affect the plant life and distribution of fish in the immediate area? How much difference might this make to the ecology of the larger surrounding area?

It is important that the general public benefit from what special knowledge you can offer. I am aware of The Wildlife Society liaison program with environmental organizations. It is definitely a service to society. But

could you take even more initiative to inform us of the problems you see developing, and alternatives for action?

It is to your advantage, and to that of society as well, to see that agencies such as the Departments of Fish and Game, the Fish and Wildlife Service, the National Forest Service and the Bureau of Land Management have adequate funding, capable leadership and an emphasis that reaches beyond the needs of the farmer and sportsmen. As professional organizations you probably cannot lobby for a particular director or board member, but have you considered establishing a set of criteria which describe the type of persons who would be most effective? Can you help make the public aware of the need for money for the California Department of Fish and Game to effectively carry out its duties; for the Bureau of Land Management which manages over half the land in Nevada to have an adequate public information office; and for the State of Hawaii to hold hearings to find out the views of its citizens?

I hope you actively seek ways to promote respect, understanding and communication between the various governmental agencies whose actions affect wildlife and fish habitats. A phone call or a friendly conversation may be more effective than just a formal memorandum or a final report in helping other agencies to understand the objectives of your management programs.

If you wish to serve society, you have a special responsibility to help educate the youth about wildlife and fish problems. Most of the schools now have some type of ecology program. What can you do to make the programs more meaningful? Could you take the time to talk with a sixth grade class about the work you are doing? If you are interested in your work, the young people will be too. I know a Junior High School which is still talking about the expert who held the class spellbound talking about geomechanics! Could you suggest field trips that would be worthwhile, and perhaps accompany the class to explain what they are seeing? Could you find some way to give young people an opportunity to help preserve an endangered habitat?

In my home town of Lafayette, a suburban community in the San Francisco Bay Area, the County Department of Public Works and the East Bay Regional Parks District recently put up some strange street signs. They show a picture of what looks like a prehistoric monster and say, "Caution, Newt Crossing." It seems that rare California Rough Skinned Newts must cross a busy residential street to get to their breeding ponds. Hundreds are being squashed by automobiles. At the unveiling of the signs, the County Deputy Director of Public Works, somewhat dubious about this whole scheme, declared, "The best use such signs will probably have is for target practice of sharpshooters." But the District Naturalist from the Regional Parks District replied, "What we are really dealing with here is not entirely how many newt lives will be saved, but with a small effort to build consciousness and concern into the minds of the public." If in your work as professional biologists and wildlife ecologists you can make additional effort to build consciousness and concern into the minds of the public and the decision makers, you will be working to serve society and preserve habitats in jeopardy.