CONFLICTS BETWEEN THE FRINGE-TOED LIZARD AND DEVELOPMENT IN THE COACHELLA VALLEY

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ABSTRACT

The loss of aeolian sand habitat in the Coachella Valley of southern California has accelerated to an unprecedented level. In an attempt to protect this habitat, and its endemic species of plants and animals, an effort was made to get the Coachella Valley fringe-toed lizard (Uma inornata) listed as "Threatened" or "Endangered" by either the U.S. or California wildlife agencies. That appeared to be the most practical way of getting money to acquire some of this habitat. The proposal encountered a great deal of political and developer resistance, but the opposition finally was overcome. In 1980, the lizard was listed as "Threatened" by the U.S. Fish and Wildlife Service, and as "Endangered" by the California Fish and Game Commission. To date, the California Wildlife Conservation Board has spent several hundred thousand dollars to form the Coachella Valley Ecological Reserve. Efforts are underway to increase the size of this reserve.

Using the sand-dwelling Coachella Valley fringe-toed lizard (Uma inornata) as an example, I propose to point out some of the difficulties in getting animals listed as "Threatened" or "Endangered," even though they are. I also want to show how difficult it can be to protect species even after they are listed. Although one must have as complete a biological investigation as possible, and thoroughly document the conditions that require listing an organism, usually the political aspects are as important as the biological in accomplishing one's goal.

The human population in California has jumped markedly since World War II. Now approximately 10% of the U.S. population lives in California. Of this number, roughly 60% live south of Bakersfield and the Tehachapi Mountains (U.S. Bureau of Census 1980). The Coachella Valley, in the desert of Riverside County, has not escaped this increase in the human population of the state. The movie stars of the 1920's and 1930's discovered Palm Springs. They were followed by other wealthy people. Now the wealthy arrive each winter from the northern and eastern United States and Canada. Originally the human development was near the base of the hills. However, the ever-increasing population has pushed out into the sandy areas of the Coachella Valley itself.

This population increase produces a need for more houses, more shopping centers, etc. The wealthy have leisure time, so such things as more golf courses, tennis courts and riding stables also are needed. Land that was long thought worthless now is worth millions. Some land is selling for more than $1,000,000 per acre.

This land also was considered lifeless by many people. However, it really is far from lifeless. To date, (1983) we have recorded over 135 species of plants (Sanders and Zabriskie 1980) and over 100 species of vertebrate animals (Mayhew 1981) in the proposed reserve area discussed below.

I began doing research on vertebrate species living in these aeolian sand deposits approximately 25 years ago. I also began taking field biology classes to this area at about the same time. Within a few years, it became readily apparent that the sandy habitat in the Coachella Valley was disappearing through human activities. I became even more aware of this after I became the Director of the University of California's Philip L. Boyd Deep Canyon Desert Research Center, since I then was responsible for helping teachers and

researchers find locations in the vicinity of the Coachella Valley for teaching and research sites.

The Boyd Deep Canyon Desert Research Center is unique in that it is located in a region where nearly every terrestrial habitat that occurs in inland southern California is represented within a horizontal distance of 11 miles. These habitats range from coniferous forest at 8,700 feet elevation on Toro Peak to aeolian sand deposits at approximately sea level on the floor of the Coachella Valley. We refer to this band of habitats as the Deep Canyon Transect. To date, four books have been written about the organisms that occur on this Deep Canyon Transect. These include books about mammals, (Ryan 1968) ants, (Wheeler and Wheeler 1973) plants, (Zabriskie 1979) and birds (Weathers 1983). Roughly the same study sites were used in each of these habitats for each book, since relatively protected locations were available in each habitat. Each, that is, except the sandy habitat on the floor of the valley. Each author had to locate a new sand site because the one used by the preceding author had been developed in the meantime. No aeolian sand deposit had been protected in the Coachella Valley by any governmental agency or conservation organization, even though a number of plant and animal species live only in such sandy situations.

Historically, there was approximately 200 square miles of sandy habitat in the Coachella Valley (England and Nelson 1976). By 1982, it was estimated that approximately 95 square miles remained (England 1983). However, good habitat suitable to maintain populations of sand-dwelling species probably is much less than this, due to such things as wind shadow effects of windbreaks, fragmentation of habitat into small parcels, etc. The estimated rate of loss of this habitat in the valley in 1979 was 1.5 square miles per year, and the rate has been increasing since 1979. In 1982, 3.3 square miles were lost. The recent recession hasn't slowed development in the Coachella Valley appreciably, due primarily to the in-flow of "outside" money from other states and Canada.

As I mentioned earlier, I saw the probability of this loss of habitat a number of years ago. Consequently, about 10 years ago I attempted to interest people in establishing an ecological reserve in the sand deposits of the Coachella Valley to insure the continued availability of sand-dwelling organisms for teaching and research purposes. I was unsuccessful in getting support for creating an ecological reserve, so some of my colleagues and I decided to try to get one of the endemic organisms listed as "Threatened" or "Endangered" by the state or federal government. We felt that such listing might make available state and/or federal money for the acquisition of habitat. Thus, these procedures would be used as a tool to save some of the aeolian sand habitat in the Coachella Valley. After some debate, we selected the fringe-toed lizard, Uma inornata, as the potential tool, since this species is found only in the Coachella Valley.

We were somewhat naive regarding getting organisms listed and protecting habitat. We thought a good biological argument would be all that was necessary. No one argued with our biological evaluation of the situation. However, we quickly learned the residents of Coachella Valley have a great deal of political clout. For example, this valley contains the residence of one former President of the United States, it was the winter home of another former President, and is the winter visiting site of the current President. Many influential national politicians also visit the area, or own winter homes in the area. To my knowledge, none of these individuals became directly involved with the lizard project, but we were opposed by the local congressman, the Riverside County Board of Supervisors, and nearly every city councilman in the valley. Also, the vast quantities of money, alluded to earlier, that are present in this valley added additional political clout. Most of this money is in the hands of business-oriented people (i.e. developers, investors) that are not concerned about saving habitat for any organism, particularly not that of a lizard. The opponents eventually offered to support an ecological reserve in the Coachella Valley if we abandoned our efforts to list the lizard. However, our only weapon was pushing for the lizard listing. Therefore, we refused to back off, since we were thinking ecological reserve all the time.

Several tactical errors committed by the opposition finally made our efforts successful. For example, the lawyer for a group of developers tried to blackmail the lizard advisory committee, which, incidentally, was strictly an ad hoc committee with no official status formed to advocate the listing. The lawyer threatened that the developers would convert

the proposed reserve area to agriculture, if we continued to push for listing and we didn't agree to the developer's plan of habitat protection. Word of this attempt reached both the California Fish and Game Commission and the Washington office of the U.S. Fish and Wildlife Service. Eventually, the lizard was listed as "Endangered" by the California Fish and Game Commission on 27 June 1980 (California Fish and Game Commission 1980) and "Threatened" by the U.S. Fish and Wildlife Service on 25 September 1980 (U.S. Fish and Wildlife Service 1980).

But listing the animal was just the first step. It was now essential to protect the habitat. There is a misconception in the minds of some of the public--once an orgamism is listed, it is protected. However, this is not necessarily so. For example, federal listing affects developments of federal projects, or those using federal money, in the habitat of a listed species. However, in general, private money spent on private land, even though it occurs in the declared "critical habitat" of the species, is not affected to any degree by the Endangered Species Act. Congress, during its last (1982) session, reauthorized the federal Endangered Species Act. At that time, it also amended several sections, including some that presumably modified the Act regarding the "take" of threatened and endangered species. However, these amendments have not been fully interpreted, so it is too early to tell what is going to occur in response to these changes.

Some beneficial things have happened since the Coachella Valley fringe-toed lizard was included on the California and federal threatened and endangered lists. To date, the California Wildlife Conservation Board has committed approximately $905,000 toward the acquisition of 426 acres in the Coachella Valley to be administered by the California Department of Fish and Game. The California Fish and Game Commission, at its January 1983 meeting, indicated its intent to declare this property the Coachella Valley Ecological Reserve. Final action on this item is expected at the April 1983 meeting of the Commission. The U.S. Fish and Wildlife Service's Endangered Species office in Sacramento is attempting to require off-site mitigation from a developer before the U. S. Department of Housing and Urban Development extends this developer a loan for low-cost housing. That is, the developer would acquire and donate land in the proposed reserve area to the California Department of Fish and Game in exchange for destroying habitat elsewhere in the valley. In addition, the Coachella Valley Ecological Reserve Foundation, a non-profit organization, formed under the auspices of the Desert Protective Council, is attempting to get Riverside County to require off-site mitigation in the potential reserve from all developers that construct in the aeolian sand deposits in the Coachella Valley. We hope to establish a formula whereby each developer will be able to calculate his required contribution during his planning process. The Nature Conservancy is negotiating with a single landowner that owns several thousand acres in the proposed reserve. Hopefully, this transaction, in conjunction with a potential land exchange with the U.S. Bureau of Land Management, will save a large, critical portion of the proposed reserve.

Despite all of these endeavors, there still is no guarantee that a large enough reserve can be established to sustain viable populations of the sand-dwelling organisms of the Coachella Valley. However, we are not giving up yet. We are optimistic that our continued efforts eventually may be successful.

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