

# THE ANGEL ISLAND DEER HERD: A CASE HISTORY OF WILDLIFE MANAGEMENT CONTROVERSY

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## ABSTRACT.

The black-tailed deer of Angel Island State Park, Marin County, California have been the subject of a controversy over how deer herd numbers should be reduced and maintained below subsistence density. The estimated population has been as high as 300 in 1966 on the one mile square island. California Department of Fish and Game (DFG) wanted to shoot the excess deer or introduce predators. Humane groups, specifically San Francisco Society for the Prevention of Cruelty to Animals (SPCA), successfully opposed this. They maintain that this is cruel and inhumane. Protectionists advocate relocation or birth control for the deer. The conflict over the means of managing these deer is the result of difference in values and attitudes towards wildlife. Fish and Game is concerned with entire populations or species of animals. SPCA is concerned with the protection of individual animals. These attitudinal differences are reflected in the preferred number of deer to be maintained on the island and the management techniques to be used. Future planning will also be affected. The Department of Fish and Game needs to understand attitudes that affect wildlife management. They also need to increase personal communication with public interest groups and improve their efforts in public relations.

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## INTRODUCTION

The black-tailed deer (*Odocoileus hemionus columbianus*) of Angel Island State Park have been the subject of considerable controversy during the past 15 years. Public agencies, conservation and protection groups have been concerned about the large fluctuations of the deer population and subsequent degradation of the vegetation and soil of the island, as well as the health of the deer. The consensus is that the management goal should be to keep the number of deer on Angel Island below subsistence density and to prevent die-offs from starvation. However, there has been a major controversy over the means of effecting this goal.

The purpose of this presentation is to first review briefly the history of the controversy. Particularly to discuss how the San Francisco SPCA and the DFG became the major participants in the conflict. Then, to examine how these two groups may be representative of certain individual and collective attitudes toward wildlife; and finally to discuss how these values and attitudes affect the action and advocacy in wildlife management issues.

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## HISTORY OF THE ANGEL ISLAND DEER

Angel Island State Park is located in San Francisco Bay, California, and provides an accessible open space containing a diversity of flora and fauna (Ripley 1969). Although it is located in the middle of the urban area, it is an island where visitors can enjoy a unique opportunity and perception of getting away. But because it is a small island (1 mile square), the

potential for overuse is great. The thousands of people who visit Angel Island each year are only one potential cause of degradation of the environment.

Deer may have been on the island in pristine times, but because it was a favorite hunting ground of the coast Miwok tribe, and later intensively used for cattle grazing by the Spanish, the number of deer on the island would have been very small. After the introduction of 15-20 deer in 1915 (McDonald, Marshall and Associates 1966), deer numbers were probably controlled by shooting by army personnel. In 1955 Angel Island became a State Park and hunting was banned. The deer were left without predators (human or other) and their numbers began to grow.

In 1966 an estimated 300 deer lived on Angel Island (McDonald, Marshall and Associates 1966). Deer were visibly debilitated and becoming a nuisance by begging food in picnic areas. Visitors complained that the deer were starving. Others were concerned that the island's vegetation was being abused. The Park, under a permit issued by DFG, gave public notice and shot 50 deer on November 17, 1966. A great public outcry against this killing occurred and blocked further management of the deer by this means. While news media, agencies and preservation groups argued, presumably a majority of deer died of starvation and the visible signs of extreme overpopulation disappeared.

A second peak in deer numbers and public concern came in 1976. The Executive Director of SPCA, Richard Avanzino (personal communication) wrote to Fish and Game offering to feed the deer to prevent their starvation. The DFG opposed feeding because it would maintain an artificially high population and favored culling the herd. There was evidently some opposition to shooting within the Department of Parks and Recreation (DPR).

A direct confrontation over the means of reducing the deer was avoided; shortly after the DFG announced their intent to shoot the deer, it was suggested that an Environmental Impact Report (EIR) was required. SPCA claims that many of the deer died over the summer while DPR and DFG refused to allow SPCA to feed the deer. In mid-October, after it was determined that an EIR was required and it was obvious that no action would be taken, DFG allowed SPCA to feed the remaining deer.

Results of the feeding program are equivocal. DFG statements implied that many deer died after feeding began. SPCA claims that it was a success that the park log book shows park personnel finding only 14 deer dead. Nevertheless, there was a great reduction in numbers of deer on the island. Of an estimated 225 deer in 1975 (California Department of Parks and Recreation 1977), over 100 deaths were accounted for in 1976.

The EIR was finalized by the DPR in 1977. The favored alternative was to remove all the deer, euthanize the sick and starving and relocate the rest. But this was supported only by DPR. According to Brian Hunter (personal communication), DFG disagreed with relocation; they did not feel bound to comply with the recommendations, although a DFG biologist had written the EIR under a contract with DPR. The SPCA did not push for action at that time (R. Avanzino, personal communication). They felt their role was to intervene to prevent inhumane treatment, not to force the issue. However, as had happened in the 1960's, the deer died of "natural" causes and the problem receded from the public view again.

One matter had crystallized by 1976. That was that SPCA and DFG had taken on the roles of principal antagonists in the deer management controversy. I think this occurred for two reasons: first, was the dispute over feeding the deer in summer, 1976 at the height of the deer crises, and second was the ill feeling brought about when DFG implied the feeding program was unsuccessful. SPCA felt many more deer could have been saved if DFG and DPR had allowed feeding before late October. Also, DFG implied that many deer continued to die after feeding, while SPCA saw evidence that their intervention saved many deer.

#### THE LATE SEVENTIES AND THE COYOTE PLAN

Little attention focused on the Angel Island deer from 1977 until summer 1980, when the deer were reaching a third population peak, the idea to introduce predators to control the deer was suggested to Dr. Dale McCullough of the University of California, Berkeley, by an agency employee, and he suggested the idea to me as a possible dissertation topic. We thought that it might be acceptable to the public as a fairly natural means of controlling the deer and that

it would also be an interesting biological experiment. Although from the beginning we realized it was controversial, we had some assurance from DFG that the major animal protection groups would not oppose the introduction of predator such as coyotes. DFG supported the idea as did some local Parks personnel. A public hearing was planned to present several management alternatives. However, by March, local news media had sensationalized the issue and it was apparent that logical consideration of alternatives was not possible. At the hearing on March 14, 1981 the majority of testimony opposed predator introduction but the attitudes varied. The majority of speakers were quite emotional and objected to both shooting and coyotes. Some seemed to ignore the fact that predation occurs naturally.

On the other hand, SPCA seemed to understand that hunting and predation occur but felt that they were inhumane on Angel Island because the deer did not have a chance to escape as they would in the mainland. Humane organizations favored birth control or relocation.

A surprising attitude was the great fear of coyotes that many people expressed. The news media had focused on these fears. Some speakers expected to see coyotes killing deer on the lawn of Ayala Cove in the midst of Sunday picnics. They were also afraid that coyotes would attack humans.

Evidently, DPR had not entirely supported the idea. DFG quickly dropped the predator proposal after the public hearing (White 1981).

During spring 1981, SPCA was under the impression that DFG was considering sterilization of the deer and they began to organize a medical team to do this (R. Avanzino, personal communication). Actually, DFG wanted to reduce the population on Angel Island by shooting, then sterilizing the rest. Avanzino suggested that another EIR would be needed to shoot the deer. Meanwhile six months or more passed with lethal consequences for the deer. SPCA thought DFG were stalling, as they had in 1976 and that the deer would starve and die off again before any action was taken.

In May, 1981, SPCA filed a Writ of Mandate against DPR and DFG based on their inaction. The Writ stated that the agencies were derelict in management and would have compelled the State to comply with the 1977 EIR which recommended relocating the deer. The next three months were spent in working out a compromise among SPCA, DPR and DFG. The State preferred to compromise and relocate the deer rather than spend the time and money for a lawsuit that they may have lost anyway.

Avanzino said that SPCA would have organized and financed the entire relocation at no cost to the State. But in August, DFG decided that they would do the relocation themselves, with SPCA contributing \$15,000 to the capture and move and \$5,000 to a follow-up study of the fate of the relocated deer.

In September, 201 deer were captured and relocated to Cow Mountain on USDI Bureau of Land Management land east of Ukiah. A subsequent count showed there were approximately 260 deer on the island in August. Fifteen of the relocated deer were radio-collared and all had eartags for identification. A graduate student from University of California, Berkeley is following the fate of the deer on Cow Mountain.

DPR and DFG intend to write a management plan for Angel Island in the next few months. It seems likely that they will recommend maintaining the deer herd at about 50 by shooting a few deer each year.

Avanzino says that the public will not accept shooting over the long term when they have forgotten the crisis and starving deer. He sees SPCA's role as a commentator on the process of the State's management plan. Their position on the deer will remain the same - to provide means for saving the deer, not killing them and to advocate some method of birth control or relocation.

### CONFLICTING VALUES RESULT IN CONTROVERSY

The controversy over how to control deer numbers on Angel Island results from a conflict in values and attitudes towards deer and wildlife in general. Biologists want to discuss the alternatives in terms of population dynamics or ecosystem effects. However, some organizations may view the alternatives from a more personal and emotional viewpoint.

Richard Avanzino (1981) has stated that SPCA is trying to find ways to save the deer on Angel Island while DFG is looking for ways to kill them. This statement may reflect the differences between these two organizations which have become the major participants in the deer management conflict.

In general the DFG represents an ecological, scientific and utilitarian attitude towards wild animals. The primary characteristics of these attitudes are concern for the environment as a system and the relationship between wildlife species and natural environments (Kellert 1977). Wildlife is viewed in one aspect as a resource that can be harvested and manipulated to provide human benefits as diverse as hunting or bird-watching. The basic concern of individuals or groups who hold these attitudes is with the health and survival of populations, or species of animals. Management options favored, such as shooting or introduction of predators to Angel Island, reflect this attitude.

In contrast, certain groups such as SPCA are primarily concerned with the suffering or death of individual animals. This moralistic and humanist attitude (Kellert 1977) emphasizes feelings of affection and interest in animals, particularly as pets, but including wildlife, especially large or attractive animals such as deer. Predation or shooting are regarded as inhumane and nonlethal, though less practical methods such as relocation or birth control are favored.

Differences in attitude are also reflected in the number of deer to be maintained on Angel Island. DFG recommended maintaining a population around 50. At this level, deer may be less visible to the casual picnicker and only serious hikers would be likely to see many deer. But Brian Hunter (1981) of DFG believes that deer could be enjoyed by some island visitors as well as for their existence value. That is, just knowing deer live there has value. Deer from an ecological viewpoint are a desirable part of the system.

Richard Avanzino of SPCA disagrees with the value of deer on Angel Island. In his opinion all deer should be removed; he thinks that the benefits of deer to visitors are really negligible. From a moralistic or humanist point of view this may be true. The benefit of seeing or knowing deer are on the island may not be worth the continued possibility of deer suffering or dying. Continued attempts to save the deer are a financial burden for SPCA although their membership contributions may have increased as a result of the publicity from their efforts to save the deer.

One important psychological aspect in a conflict between groups is the perception that each side has of the other. DFG regard for the deer as part of a system with individuals being expendable may be viewed as cold and heartless by humane interest groups. Past conflicts such as in 1976 regarding feeding and in 1981 over sterilization have also fostered mistrust between the two groups.

From an ecological or scientific viewpoint the importance of a group of black-tailed deer compared to other critical species or habitat needs is trivial. The protectionist attitude with an overly emotional concern for a narrow segment of wildlife may result in distorted priorities (Kellert 1977). They seem to advocate life at any cost. Yet the trauma of relocation would be considered inhumane by many. In this case it may be difficult for wildlife biologists to take seriously the concern for the Angel Island deer herd.

These differences in attitudes may affect future planning. DFG biologists hope that the results of the follow-up study of the relocated deer can be used to support their preferred option, shooting. But this presupposes that increased knowledge of the ecological aspects will affect the attitudes of groups such as SPCA. It is likely that the study results will be viewed from each faction's perception and interpreted accordingly. DFG will point out the percent of deer dead; SPCA will point out the ones that lived would not have had a chance on Angel Island in a shooting program or against predators.

In a conflict over controlling wildlife numbers, moralistic-humanistic views inevitably clash with ecologicistic-utilitarian views. The two sides may not even be contesting the same point. The SPCA is protecting the welfare and lives of individual animals. DFG is protecting the population and the ecosystem of which individual animals are just parts.

Neither side is right or wrong, but one or the other point of view may be more appropriate in certain situations. Perhaps in metropolitan areas, shooting deer or introducing predators is not acceptable from a social point of view. Social factors need to be considered in management planning. The question then becomes: when should social factors outweigh biological factors in management decisions? In the past this has often been resolved, at least temporarily, through legal action, as it was in the Angel Island case.

It is important that wildlife management agencies understand alternative attitudes, especially ones which are likely to evoke opposition to specific management plans. An attitude survey of the San Francisco Bay Area could provide a representative sample of opinions of Angel Island deer options. In addition, increased personal contact between agencies and protection groups might dispel stereotypes and promote compromises. DFG needs to improve their efforts in public relations.

Forty-four deer remained on Angel Island as of October 31, 1981. DPR and DFG are in the process of formulating a management plan and SPCA will continue to follow the fate of the deer and comment on management proposals. The conflict of attitudes towards animals remains. In spring 1982, fawns will be born and the population will begin another cycle. Will wildlife management controversies, like history, continue to repeat themselves?

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