

TULE ELK MANAGEMENT: PROBLEMS ENCOUNTERED WITH A SUCCESSFUL WILDLIFE MANAGEMENT PROGRAM.

DONALD B. KOCH, California Department of Fish and Game, 1416 Ninth Street, Sacramento, CA 95814

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Abstract: The tule elk (*Cervus elaphus nannodes*), once numbering 500,000 individuals in California, began to decline following the discovery of gold at Sutter's Mill in 1848 and the accompanying influx of people. Causes for the decline included conversion of habitat to agricultural land, conversion of perennial grasslands to annual grasslands, market hunting, and competition with domestic livestock. By 1940, total population size had been reduced to fewer than 500 elk in three herds. However, a successful management program initiated in 1971 has resulted in the relocation of over 750 elk and a population size in excess of 1,900 animals in eighteen herds. Current concerns include the need to balance the desires of private landowners, hunters, and animal preservationists.

The tule elk (*Cervus elaphus nannodes*) is one of the largest land mammals endemic to California. Tule elk likely evolved from Rocky Mountain elk (*C. e. nelsoni*) in California during the Pleistocene (McCullough 1969).

Tule elk made a lasting impression on the first Europeans to arrive in California. Accounts from journals and diaries of these early explorers indicate that approximately 500,000 tule elk inhabited essentially all oak woodland and oak grassland habitat types in the State (McCullough 1969).

The elk's large body size coupled with an abundance of smaller prey, resulted in Native Americans having little, if any, impact on tule elk populations. The early Spanish explorers also had little direct impact on tule elk populations. Apparently they preferred the taste of domestic livestock to that of elk (Longhurst et al. 1952). However, these early explorers were responsible for the introduction of exotic annual grasses and domestic livestock, both of which were to have long term, deleterious impacts on California's tule elk populations. Livestock competed directly with elk for forage and also contributed to the conversion of perennial grasslands to annual grasslands. This grassland conversion resulted in the loss of important forage during the summer and fall months.

The discovery of gold at Sutter's Mill in 1848, however, was to have the greatest impact on the tule elk population, both in terms of immediate reduction of total elk numbers and permanent loss of habitat. The large influx of people into California during the gold rush resulted in tremendous pressures placed on the state's wildlife resources. People needed to be clothed and fed. Market hunters soon eliminated tule elk from vast areas of their range. The elk's large size, coupled with their tendency to roam in herds, increased their vulnerability to market hunters. More important than market hunting, competition with cattle, or the conversion of perennial grasslands to annual grasslands, however, was the conversion of large amounts of tule elk habitat to agricultural land uses. By the late 1860's, tule elk had been extirpated from all but one small locale.

In 1874, while draining a marsh on the Miller-Lux

cattle ranch in what is now Kern County, workers observed a small group of tule elk. Henry Miller, an extremely wealthy and powerful landowner, ordered complete protection of the tule elk. This was to be the first in a series of cases where, under complete protection, tule elk numbers and distribution would expand, resulting in considerable damage to private property (Fowler 1985).

By the turn of the century, the elk on the Miller-Lux cattle ranch were causing extensive damage to fences, crops and irrigated pastures. Miller requested the elk be relocated in an effort to reduce his damages. Over the next few years, the U.S. Biological Survey attempted to relocate tule elk after capturing them by roping them from horseback. This technique did not provide positive results. In fact, the majority of the elk were killed during capture attempts or during transport to the release sites. Only one relocation could be considered partially successful, where twenty one elk were relocated to Sequoia National Park. However, they died out by 1926 (McCullough 1969).

McCullough (1969) states that by 1914 tule elk were causing between \$5,000 and \$10,000 damage per year on the Miller-Lux Cattle ranches. At this time the California Academy of Sciences took over the relocation effort. The Academy was much more successful in capturing elk. They used baiting techniques (labor costs and overhead were much lower in 1914 than in 1987). During the period from 1914 to 1934, the Academy relocated 235 tule elk to 22 different locations. Again, as with the earlier relocation attempts by the U.S. Biological Survey, the majority of the relocations were unsuccessful.

However, by 1940 there were three thriving tule elk herds in California: the Cache Creek herd in Colusa and Lake counties, the Owens Valley herd in Inyo county and the penned herd at the Tupman Tule Elk Reserve in Kern County, near the site of the original Miller-Lux tule elk herd.

STATUS SINCE 1940

The tule elk herd at Cache Creek was allowed to expand its range and has, until recently (summer of 1986), managed to remain in the shadows of the tule elk

provided \$70,000 annually from the general fund to carry out the legislatively mandated tule elk program. This level of funding was adequate in 1971 when both elk numbers and operating costs were low. However, 16 years and 1,500 elk later, this amount of funding falls far short of meeting the financial needs of the tule elk program. As an example, in fiscal year 1985-86 the Department expended \$353,000 to manage tule elk. The \$283,000 deficit was recovered from other Department programs as the Legislature declined to augment the budget for tule elk. Subsequent requests for increased funding for the tule elk program have been declined.

Additionally, as the Department of Fish and Game attempts to identify suitable release sites for surplus elk located in penned or confined herds (Tupman Tule Elk Reserve, Grizzly Island, San Luis Refuge and Concord Naval Weapons Station) and the Owens Valley, it finds itself in a predictable dilemma. Suitable public lands have been saturated with tule elk or there is a significant potential that the elk will wander off public lands and cause depredation problems on surrounding private lands. Numerous private landowners have indicated they would accept tule elk on their lands if population levels and depredation could be controlled. These landowners are not willing to allow relocation of elk to their lands under the current situation where there are no mechanisms in place to control depredation or population numbers.

Barring any unforeseen natural disasters, the tule elk population will be in excess of 2,000 individuals by the spring of 1987. The Department of Fish and Game will then be faced with new challenges in managing the State's tule elk herds. Numerous management options that were unavailable the past 16 years now have the potential to allow more effective management of tule elk. Obviously the potential to control herd numbers and, to some degree, depredation, will be accomplished more cost effectively if sport hunting is authorized by the Fish and Game Commission.

Additionally, considerable amounts of additional suitable private lands will be made available for tule elk relocations as tule elk cease to be viewed as a liability to private landowners. This will provide relocation sites for elk that currently are confined to penned herds and for elk herds where it would not be appropriate to control herd numbers through other mechanisms.

CONCLUSIONS

Although the legislatively mandated tule elk management program was based on emotions rather than

sound biological principles, California has far more tule elk distributed over a greater portion of the state than if the Behr Bill had not been enacted. The tule elk program also has provided wildlife biologists with the opportunity to develop and enhance their animal capture skills. These skills often have been utilized to benefit other management programs such as antelope, bighorn sheep and deer.

Hopefully, the next 16 years of the tule elk management program will see further expansion of tule elk numbers and range and, through a more realistic program of both consumptive and nonconsumptive use, a reduction of tule elk/land use conflicts.

ACKNOWLEDGMENTS

The tule elk program can be considered a success primarily due to the commitment of hundreds of individuals including wildlife biologists, veterinarians, university students and volunteers. The contributions of one individual, however, tend to stand out when viewing the program as a whole. I am sure this individual would indicate the reason for his visibility was that people are enamored with helicopters and, hence, that any person in his position would stand out. This is not the case, however. Don Landells' contribution to the tule elk program, and countless other wildlife programs, stands out because of his dedication to the wildlife resource. He agonized with us in our failures and celebrated with us in our successes. Don was killed in a tragic helicopter accident on 6 October 1986 while working with the Department of Fish and Game on a bighorn sheep population survey in the Clark Mountain Range.

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ARE WE READY FOR THE NEXT TEN YEARS?

JACK C. PARNELL, Director, California Department of Fish and Game, 1416 Ninth Street, Sacramento, CA 95814

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Thank you for the compliment of this invitation to speak to you today. I always feel a little nervous when I am asked to speak to a sophisticated group of technical people like you. I'm not an expert on any deep and intellectual subject, but I do enjoy sharing my thoughts and ideas - seriously and in fun - with those who are willing to listen. As I speak this morning my thoughts will come tumbling out, there will be wheat and chaff together. Sift and sort it. Use what you wish and with a breath of kindness, blow the rest away. I trust it will be worthy of your time.

As you all know I'm not a biologist, but I want you to know up front that I have vast respect for the abilities of those in your profession. My reflections here today are those of a conscientious manager who has been blessed with the heavy burden of representing fish and wildlife interests in an agency of state government in the fastest growing state in the country.

The perceptions I share with you today are deeply felt convictions about the course of action we must take if we are to be successful in the very complex, complicated years that lie ahead.

Take a minute if you will and look around the room. Look carefully. For every two people you see today there will be a third by the year 2010. More people with more needs - 39.6 million in California alone - more of everything in an already strained environment. These people will be attracted to California because it provides most everything in abundance and a western lifestyle unequaled anywhere else in the world.

We have gone well beyond the point where mere survival, a few grains of rice or a loaf of bread, is the overriding concern. The main concern is and will continue to be the quality of our lives. It is in this arena that all of us in this room will be tested in the years to come.

We find ourselves in the vortex of this great country's development and growth and it's this concept of quality of life which has put us there. Our test is going to be how well we maintain the balance, how well we live within our resource base, how well we provide the resources needed to fuel an advanced, sophisticated, technical society without destroying our basic wealth - land, water, soil. That may seem philosophical and esoteric. However, in California I believe it to be a cold, hard, reality.

The decisions that will be made in the next ten years to balance this very fragile equation will depend in large part on how well you and I equip ourselves to sell fish and wildlife needs in a very complicated political process.

The quality and intelligence of these decisions will dictate whether or not fish and wildlife continue as an important part of this state and this nation's fabric.

Jack Ward Thomas, in a recent paper, states and I quote: "Objectives of wildlife have usually been entered into the decision making equation as constraints. A constraint is a miserable thing to be." So long as wildlife considerations operate in the management arena as constraints, there will be intensifying conflict. Wildlife must be considered as a desired, coveted product, not as a constraint, if we are to receive adequate attention. When wildlife biologists become identified as constraints, or obstructionists, or both, effectiveness will be compromised.

What does all of this mean? How do we proceed from here?

I submit to you that if we are to be successful in selling fish and wildlife, one of the first things we must revisit is the idea that we manage fish and wildlife for people. In a large part, the way of life that people have come in search of is being impacted by their very presence.

Those who plant thirsty lawns in arid southern California and build giant swimming pools will find that their next float trip down the great Colorado River is less exciting because dams and diversions are necessary to enable them to water their lawns and fill their swimming pools. Stockmen who poison rodents shouldn't be surprised when hungry predators find their sheep and cattle more attractive. Commuters whose exhaust taints the air have little standing to complain that their weekend bird watching has been curtailed as forests become blighted by acid rain. Wilderness anglers should realize that if the wilderness is getting too crowded for them, they are part of the crowd.

The fact is that we are using, enjoying, consuming, literally loving, our California resources to death and everyone looks for someone else to blame. All the burden of all these opinions, values and attitudes eventually comes to rest on the broad shoulders of those of us in this room.

Constraints, confrontation, finger pointing and blame fixing are the enemies of sound resource management. A decade of legal confrontations over development and preservation has given us no clear winners. Confrontational tactics simply haven't worked and won't work in the long run. Thirty-nine point six million people will have their basic needs met. Our challenge will be how well we prepare to do the balancing without creating negative perceptions. Difficult? Yes.

and a part of resources management. Don't commit the only true failure in life, the failure to get up and try just one more time.

QUESTION 5 - DO YOU RADIATE ENTHUSIASM FOR THE JOB WE DO?

Enthusiasm is contagious and I think it's high time we had an epidemic. If we are going to be successful in motivating others to see our point of view, we must take the knowledge of our subject matter, wrap or surround it with the psychology of the right words and with enthusiasm, tell our story.

QUESTION 6 - ARE YOU A WHOLESOME, CREATIVE, POSITIVE THINKER?

What are you doing differently this year than you did last year, so you can do it better next year.

QUESTION 7 - ARE WE UP TO THE CHALLENGE OF CHANGE?

You and I are living in the midst of an immense experiment - an unparalleled endeavor to balance human and wildlife needs on a scale never imagined in the mind of humans. Change is more than a constant factor we must consider. Change is the very fiber from which we must learn to weave dynamic solutions to a delicate equation.

This then is the ultimate challenge. We must learn to view change as opportunity, not opposition.

QUESTION 8 - ARE WE GOOD COMMUNICATORS?

Do we get our ideas across to other people? How you ask a question, how you answer a question can make all the difference in the world. The art of communications may be the difference between success and failure as we enter into the most important 10 years of our lives.

While attending the Western Association Conference of Wildlife Managers in Snowmass, Colorado, Jim Rusch made a speech that still rings in my ears. He said and I quote: "I heard a speech 14 years ago. It was entitled *The Environment - Here Today - Gone Tomorrow*. Today I see the error of that statement. It won't be that simple, we won't see it go. It won't end with a bang or explosion, but with a soul piercing whimper. It won't be something as glorious as being carried away by a huge golden eagle, eaten by a grizzly bear, or swallowed whole by a great white shark. It will be more like being pecked to death by starlings or nibbled to death by bluegills. We'll lose a pond here, a grove of trees there, a stream here, a river there and little by little we will give up going to the great rugged out-of-doors full of memories and stories that our grandchildren can listen to and wonder about, but never experience. Unless, of course, we truly become partners to ensure that we become a society

whose resource decisions match its people's dreams."

Is quality resource management really all that important? Is it important that we have recognizable, obtainable goals? Is it important that we understand that we provide "service"? Is it important that we understand the meaning of successful failure? Is it important that you are a motivator? That you have a winning attitude and that you radiate enthusiasm? Is it important that you are a wholesome, creative positive thinker? Is it important that we are up to the challenge of change? Is it important that we train to become good communicators?

I think of what Vince Lombardi, the great coach of the Green Bay Packers, who when asked about winning, said, "Winning isn't everything - it's the only thing." So when you ask, is resource decision making really all that important? Is training to meet the challenges of the next 10 years all that important? I say, it isn't everything - it's the only thing.

T'was battered and scarred and the auctioneer thought it barely worth his while,
To spend much time with the old violin, but he held it up with a smile.
What am I bid good folks, he cried, who'll start the bidding for me?
One dollar, who'll make it two two dollars, who'll make it three.
Three dollars once, three dollars twice, going for three, but no.
when from the back of the room came a grey-haired man and picked up the bow.
He wiped the dust from the old violin and tightened its old loose string
And played a melody pure and sweet as a carolling angel sings.
The music ceased and the auctioneer in a voice that was quiet and low
said what am I bid for the old violin and he held it up with the bow
One thousand dollars and who'll make it two two thousand dollars and who'll make it three,
Three thousand once, three thousand twice, going and gone said he.
The people cheered, but some of them cried, we do not quite understand
What changed its value.
Swift came the reply, the touch of the masters hand.
Many a man with life out of tune, battered and scarred with sin,
Is auctioned cheap by the thoughtless crowd, much like the old violin.
A mess of pottage, a glass of wine, a game and he travels on.
He's going once, going twice, going and almost gone.

Then the master comes and the foolish crowd can never
quite understand
The worth of a soul and the change that's wrought by the
touch of a masters hand.

In the challenging years that lie ahead, fish and
wildlife values and needs may be auctioned very cheaply,
unless you and I are dedicated to provide the touch of the
masters hand.