

# CALIFORNIA'S TULE

## IT WAS DARK

by the time the ten of us sloshed through the marsh to the bull, which had been taken moments before sundown the first day of California's 1995 Grizzly Island tule elk season.

Its massive 9X8 rack, although only about 35 inches wide, had impressive crown points and would score well.

The bulk of our work lay ahead of us though, because the bull had spent its last moments on a small patch of dry ground surrounded by 200 yards of brackish marsh that we had to cross before he could be loaded onto a trailer for transport back to camp. It was tempting to clean and quarter him where he lay, but then we would be unable to get weight and body measurements, important information from tule elk on quality habitat. The evening's mosquito bloom quickly encouraged us to slide the elk onto a makeshift canvas litter and begin carrying it toward the trailer approximately 1/4 mile away. Carrying the bull provided time for reflection, not just on the hunt, but on the recovery of tule elk from the teetering edge of extinction. This was a conservation


success story made possible by the intervention of private individuals, management actions of wildlife agencies, and financial contributions of sportsmen groups.

Historical records indicate that there were about 500,000 tule elk in California during pristine times. They inhabited the Central Valley and were probably named for the marsh tule patches they preferred. They also were found in grassland and woodland areas of the Coast Range.

Even in the 1840s explorers still observed huge concentrations of elk in California. But by 1863 they had been nearly wiped out. Exotic grasses, livestock, agriculture, and market shooting all contributed to their demise. European settlers brought livestock and European



# ELK



THE LONG  
JOURNEY TULE  
ELK HAVE MADE  
FROM THE BRINK  
OF EXTINCTION  
TO TODAY'S  
THRIVING  
HERDS.

STORY BY  
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PHOTOGRAPHS BY  
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grasses. The non-native grasses replaced many native plants eaten by the elk, and livestock competed for the food that was left. Swamp lands that had sustained elk were drained and used to grow crops. And when gold was discovered in 1848, elk, bighorn sheep, pronghorn, and other species were shot for food to the point of decimation.

At the time these same trends were occurring elsewhere in the United States. While the discovery of gold was unique to California, the presence of exotic grasses, livestock, and the explosion of agriculture affected elk subspecies

from other states. The eastern elk subspecies was wiped out from its range east of the Mississippi River, and by the early 1900s, the Merriams subspecies probably was extirpated from its range in the southwestern United States.

In California, the decline was dramatic and severe. The state's abundant tule elk populations were relegated to just a few animals in the San Joaquin Valley. Local lore contends that in 1874, the last pair of tule elk were found in a remote marsh near Buena Vista Lake. Henry Miller, a cattle baron who owned the property, ordered that the elk were to be

protected, perhaps the first elk conservation effort in the state.

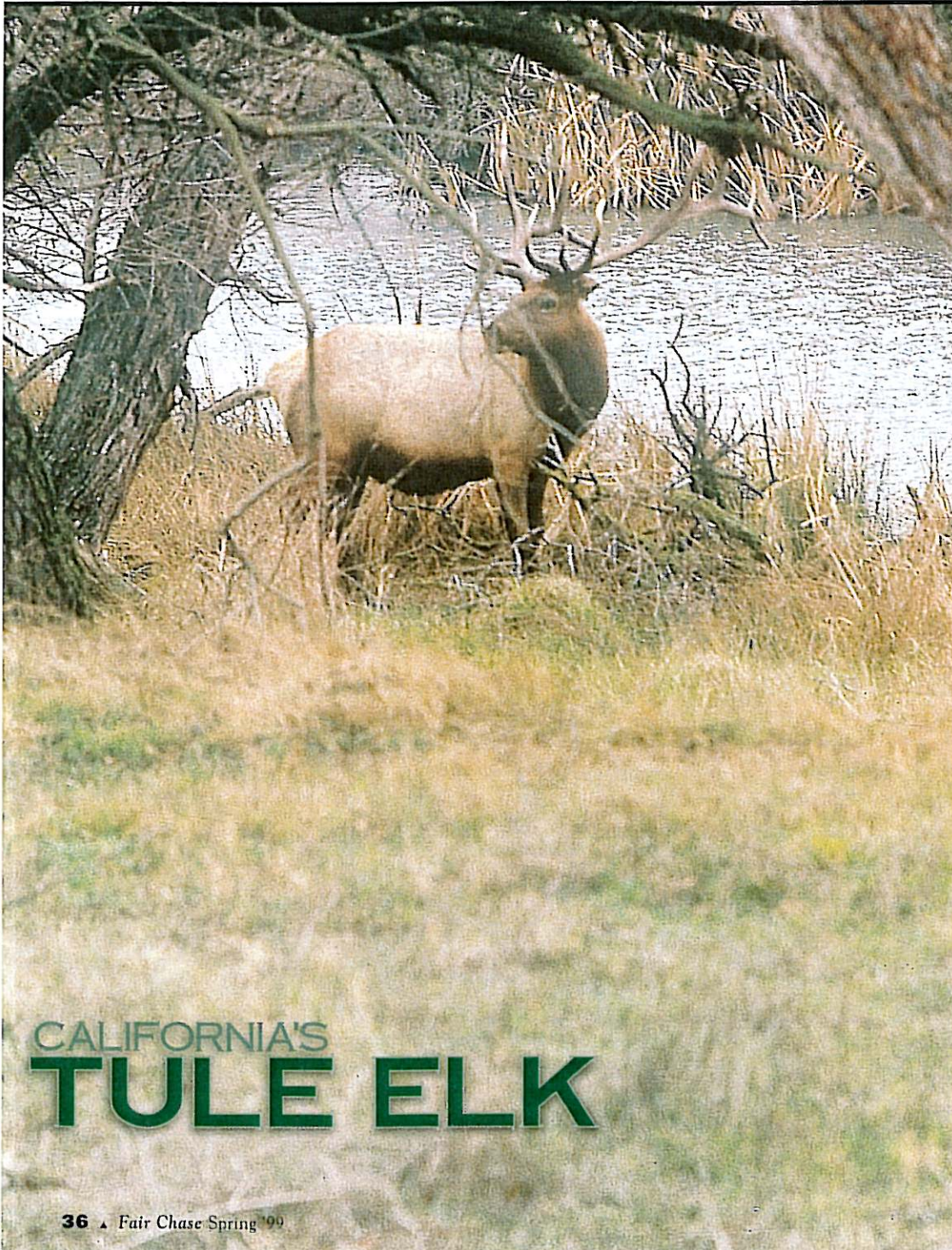
Had it not been for Miller, we probably would not have been at Grizzly Island, some 65 miles southwest of Sacramento, laboring under the effort of carrying this bull. Part of the San Francisco Bay Delta, most of the 11,500 acre island is owned by the State of California. Approximately 3,000 acres is privately owned waterfowl and pheasant clubs. The Department of Fish and Game manages state property at Grizzly Island. Tule elk freely roam the state and private land at Grizzly Island, and a few adjacent islands.

The peat soil characteristic of Grizzly Island made carrying the bull like walking on a three foot thick sponge. We fell like dominos each time one of us stumbled. It was slow going. The size of this bull was truly impressive, and the irony was not lost on us that some people refer to tule elk as "dwarf" elk. We rested as we saw headlights approaching the spot where our vehicles were parked approximately 300 yards away.

Most of our group of elk packers had heard of Henry Miller and knew he was credited with saving tule elk from extinction. Thanks to his protection, by 1905 there were 145 elk on his land. But they were trampling habitat and fences, causing \$5,000 to \$10,000 each year in depredation damages. Miller decided to relocate some of the elk by using cowboys to rope and hogtie them causing plenty of injuries to man and beast alike.

In 1914, the California Academy of Sciences agreed to capture and relocate the troublesome elk. They baited elk into traps, loaded them into cattle trucks, and actually managed to relocate 146 animals to 19 different sites throughout the state. Despite this early success, the capture and relocation process was stressful and eventually most of the relocated animals died. But by 1940, tule elk were established at three locations in California.

There were no relocation efforts involving tule elk from 1940 to 1970. But there were plenty of conflicts involving elk and fences, livestock, agricultural crops, and even golf courses. As a result of these conflicts and a growing en-



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vironmental concern, in 1971 the California Legislature passed a bill requiring the Department of Fish and Game to relocate tule elk to suitable locations within the state. The bill also prohibited tule elk hunting, although tule elk were never state or federally listed as threatened or endangered. Similar legislation was passed at the federal level.

So in the early 1970s, the Department had to develop capture, handling and transport techniques that would safeguard this fragile

population. There was little information or practical experience regarding the capture, handling, or transport of elk, except for the stories of cowboys roping elk and the 1914 California Academy of Sciences captures. The Department also had to find suitable sites to sustain the relocated animals. Concerted efforts were made to find public lands with suitable forage and cover, away from agricultural operations, and where new herds would have room to grow.

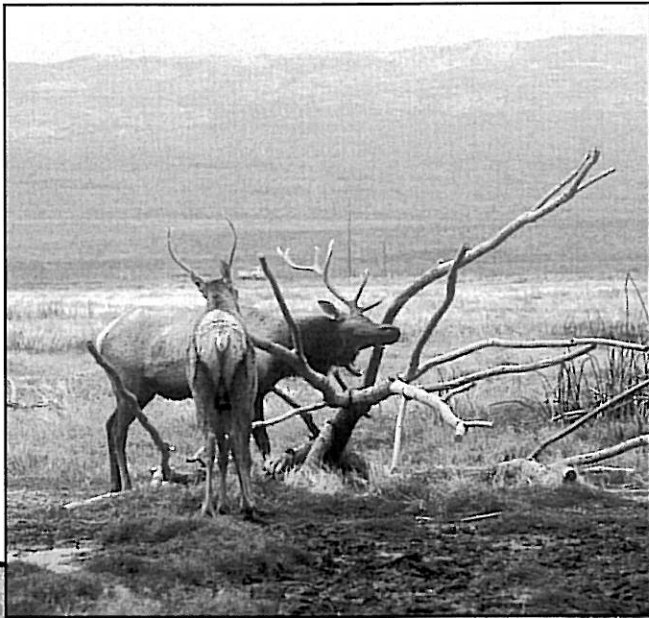
When it came to capture the elk, earlier "rodeo" method was considered too stressful and risky, so Fish and Gamers began by using a helicopter to select individual animals and chemically immobilize them with a drug-filled dart. Many drug "cocktails" were tried before an efficient and safe combination of drugs was identified.

**ONCE CAPTURED, THE ELK COULD BE WORKED INTO SMALLER, PARTITIONED AREAS AND PROCESSED FOR TRANSPORT. HUNDREDS OF ELK WERE CAPTURED USING CORRAL TRAPS, WITH MUCH LESS STRESS.**

The Department also developed physical techniques for handling the immobilized animals, such as removing the bulls' antlers, lifting and moving them, and developing safe trailering techniques for these 300 to 900 pound animals. Trailers were specially constructed of heavy gauge steel, with several partitioned areas and special ventilation and cooling systems. Males, females, and calves were separated to prevent fighting and trampling injuries.

The Department relied on chemical immobilization for several years. But the process was expensive, very slow (only one animal could be caught at a time) and the chemicals that caught the animals also caused them stress. During this period of time, Fish and Gamers noticed that the elk could be herded somewhat. Keying off the California Academy of Science's success, in 1979 the Department began to catch elk in large numbers by using a helicopter to herd them into large enclosures. Once captured, the elk could be worked into smaller, partitioned areas and processed for transport. Hundreds of elk were captured using corral traps, with much less stress.

While this was a great improvement over darting, it was very labor intensive. Specially-built



panels were constantly shipped across the state and it took lots of people to construct the traps and catch pens. During the mid 1980s Department personnel began to use a net gun (.308 rifle that deploys a 15 x 15 foot large mesh net) shot from a helicopter to catch bighorn sheep, antelope, and deer. They hadn't used the net gun on elk, fearing injury to both the animals and people attempting to restrain them. But this method had been used extensively in New Zealand on elk and red deer.

In 1993, the Department asked capture experts from New Zealand to demonstrate their method for netgunning elk. It only took a few animals to see the merits of this approach. Overnight, this method was seized as perhaps the most selective, safe, and efficient method for capturing these large cervids. The Department now relies heavily on netgunning to capture elk, but also still uses bait traps and darting in selective cases.

At Grizzly Island, the headlights brought into view a truck with a 12 foot aluminum skiff in back. Our makeshift canvas litter was not effective. With five people on each side, we were constantly stumbling over each other as we tried to walk on the spongy peat. However, the load was too heavy to carry with four on a side. Finally someone suggested putting the elk inside the skiff and skidding it across the saltgrass and pickleweed and through the marsh. Although a bit hard on the skiff, this method worked well. In moments we skidded the elk to a shallow canal, and with the use of a winch, pulled it across the canal and into the trailer for transport back to camp.

Back at camp, the bull was processed by volunteers from conservation organizations such as Safari Club International, Rocky Mountain Elk Foundation, and the Boone and Crockett Club. Although numerous Grizzly Island tule elk bulls have tipped the scale at more than 800 pounds, we were amazed to see this one balance out at 910 pounds. So much for its reputation of being a dwarf elk.

Some have called tule elk dwarf elk because they were smaller than Rocky Mountain and

Roosevelt's elk. But historical reports of tule elk weight involved locations where their habitat was less than optimal. Scientists observing tule elk under these conditions probably saw animals that were much smaller than they might have been with good forage. Since the relocation program has been in effect, tule elk relocated to places with good forage such as Grizzly Island and San Luis National Wildlife Refuge have sometimes been larger than Roosevelt's elk in California.

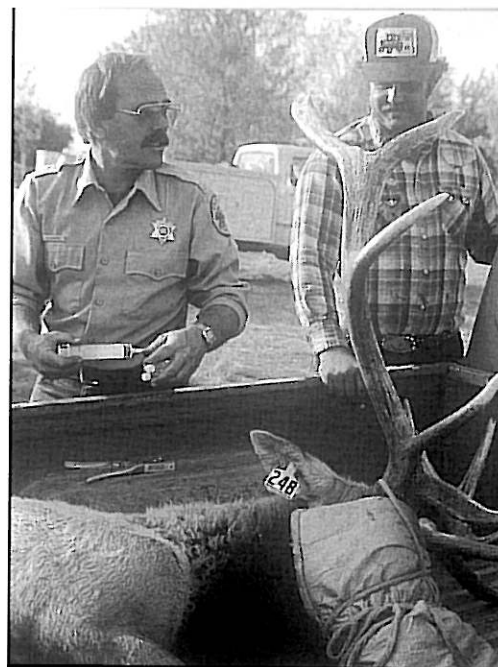
Other physical traits distinguishing tule elk from Rocky Mountain and Roosevelt elk are much more subtle. Like Roosevelt's elk, antlers of mature tule elk bulls tend to be stocky and have crown points. Palmation in the crown region, and extra projections from the first and second tines also may be observed in tule elk. While pelage in tule elk may be lighter than that of either Roosevelt's or Rocky Mountain elk, there is enough variation to make this characteristic unreliable. Because of such subtle differences, geographic location continues to be one of the best factors to distinguish between elk subspecies in California.

Since 1970, the Department of Fish and Game has worked with other wildlife agencies and conservation organizations to capture and relocate more than 1,000 individuals of this subspecies to reestablish tule elk in suitable parts of California. Statewide, the tule elk population has grown from approximately 600 animals in 1970 to more than 3,400 animals in 23 different herds today. But the conflicts and private property damage initially experienced by Henry Miller still exist today in some areas, exacerbated by California's growing human population of more than 32 million. Recognizing the role that regulated hunting can have in reducing such conflicts, in 1987 the California Legislature passed a bill that allowed tule elk hunting to resume. The Fish and Game Commission authorized public tule elk hunting at two locations in 1989. Annually since then, the Commission has authorized tule elk hunting and acted to expand hunting opportunities.

In 1998, tule elk hunting occurred at eight public hunt locations and an additional 13 ranches qualified under the state's Private Lands Program. That same year, the Boone and Crockett Club marked another milestone in the recovery of tule elk by establishing a separate category in their *Records of North American Big Game*. Minimum qualifying score for this category is 270 for the Awards book and 285 for the All-time book. After examining unofficial records of tule elk taken during the last 10 years, it is possible that a large bull taken from any of the established hunt zones has the potential to meet the minimum score. Besides Grizzly Island in Solano County, it is likely that tule elk bulls from Inyo, Mendocino, Monterey and San Luis Obispo counties may score in excess of 300 points.

The green score of the 1995 Grizzly Island bull was approximately 360 points. A life-size mount of the bull was prepared and is now on display at the World Wildlife Museum in Stockton, California. Although this one is still the largest tule elk (by weight), two or three other bulls have been taken since 1995 that should exceed this score. As we helped to measure and record this 360 point bull, we couldn't help but reflect with satisfaction upon the long journey tule elk have made from the brink of extinction to thriving herds that are capable of producing world class bulls. ▲▲▲

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## About the Authors

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