HISTORY OF THE CALIFORNIA TULE ELK

Cervus nannodes Merriam 1905

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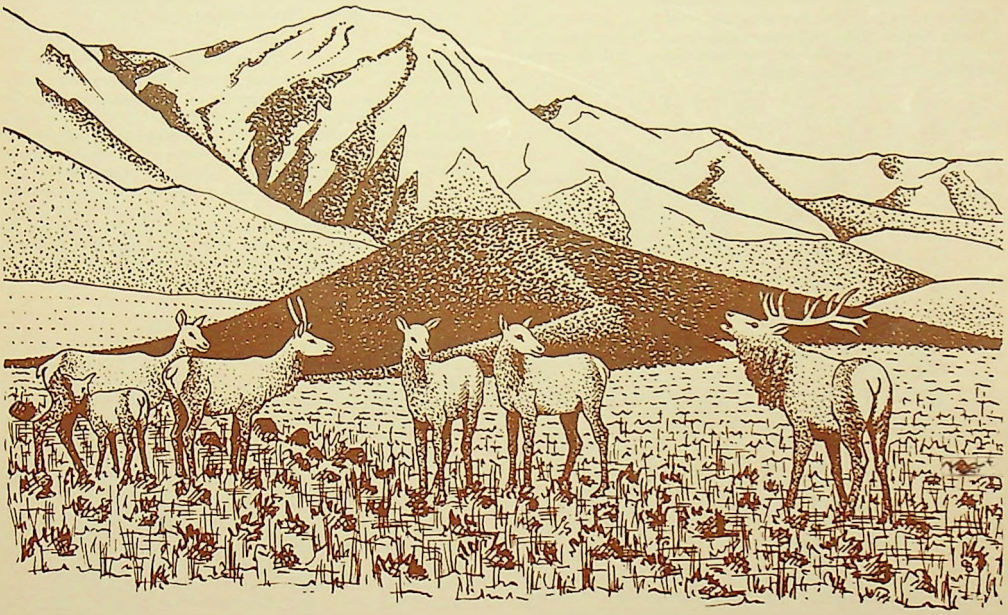


Owens Valley Tule Elk near Red Mountain (a volcanic cone) with the Sierra Nevada in the background. An old bull is bugling while a yearling spike bull, three cows, and a calf stand nearby.

Hardly an animal species in our western hemisphere has had such a varied, colorful, and near tragic history as our California Tule Elk, yet most people are not even aware of its existence! Once occurring in untold thousands, its great herds were relentlessly persecuted and decimated until it was on the very brink of extinction. Through good fortune this last remnant of a race was able to increase despite much poaching, a long series of transplants which failed to perpetuate themselves, confinement, disease, herd culling, and legal hunts until now it numbers about 400 individuals. The two wild herds are even today surrounded by controversy and conflicts of interests.

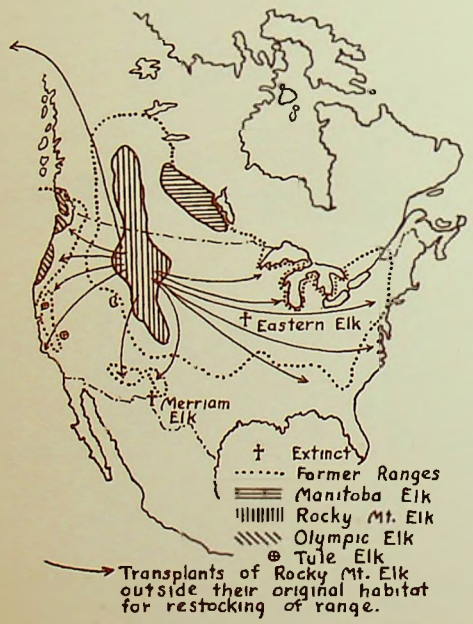
A Distinct Form of Elk

The California Tule Elk, also known as the Valley Elk, Dwarf Elk, and Dwarf Wapiti, was first recognized as being distinct from other forms of elk in November, 1904, by Dr. C. Hart Merriam, then the chief of the U.S. Bureau of Biological Survey. The Tule Elk was described by Dr. Merriam as a separate species in February, 1905, in the *Proceedings of the Biological Society of Washington*, Vol. 18, pp. 24-25. The specific name of *nannodes* comes from the Greek word *nannos* which means dwarf. The generic name of *Cervus* means stag (a horned animal) in Latin and this is related to the Greek *keras* which means horn. The common name of wapiti (wop'i-ti) is a Shawnee Indian word meaning light rump, a good descriptive term for these animals.

Already two races of North American elk have become extinct: the Eastern Elk, *Cervus c. canadensis* Erxleben, formerly found from the St. Lawrence River to North Carolina and westward to Iowa; and the Merriam Elk, *Cervus merriami* Nelson, of Arizona and New Mexico. The Tule Elk of California almost met the same fate around 1870.

Three Related Forms

The Olympic or Roosevelt Elk, *Cervus canadensis roosevelti* Merriam, which was named after Theodore Roosevelt and is the largest form, occurs in fair numbers in the deep rain forests of northwestern California, western Oregon and Washington to the Olympic Peninsula and on Vancouver Island. Bulls have been estimated to weigh over 1,200 lbs.



Former and present ranges of elk in North America

Two other subspecies of elk are still found in comparative abundance. One is the Rocky Mountain Elk, *Cervus canadensis nelsoni* Bailey, protected in the Yellowstone and Teton Parks but ranging over much National Forest land which is open to hunting in certain seasons. The other is the Manitoba Elk, *Cervus canadensis manitobensis* J. C. Millais, which is mostly on government reserves in Manitoba and Saskatchewan.

Old World Relatives

In Europe, Asia, and N.W. Africa there are at least 12 species of the genus *Cervus* and they are known by such names as Sika, Rusa, Sambar, Maral, Spotted Deer, Red Deer, and Axis Deer. To a European, the name elk refers to what we would call a moose. Our elk are their deer, and what we know as deer do not occur in the Old World at all. Also in contrast to our distinction of the sexes into bull and cow, the Europeans call them stag and hind. Most species of the genus *Cervus* will freely interbreed in captivity.

Fossil Record

No New World fossil remains of elk were ever found in deposits older than the Pleistocene; the Cervidae originated in the Old World and were very late immigrants from Asia.

Early History

1600–1850 Untold thousands of Tule Elk, as well as deer and antelope, roamed the San Joaquin and Sacramento Valleys. Their range extended from Butte County, 80 miles north of Sacramento, south to Buena Vista Lake region near Bakersfield in Kern County, and from the foothills of the western slope of the Sierra across the Great Valley to the Coast Ranges. In some localities they even reached the coastal plains. A seasonal migration occurred which was the reverse of what would be expected. The elk bands moved up into the foothills among the evergreen trees for their winter range and came down to the open valley floor during the summer. Some individual herds that numbered over 2,000 head were reported in the San Joaquin Valley in 1846.

Virtual Extinction

1850–1872 Mr. Edward Bosqui stated that in December, 1850, while walking from Stockton to Mariposa, as he approached the foothills, he saw "bands of elk, deer, and antelope in such numbers that they actually darkened the plains for miles, and looked in the distance like great herds of cattle." The early explorers, living off the land as they came, shot only enough game for their immediate needs, but now the settlers began the decimation of the elk herds in earnest. The slaughter was brought to a climax during the Gold Rush days and quickly finished by the market hunter who sold the elk meat and hides to the newly founded cities. Instead of shooting the elk, some more adventuresome vaqueros would ride alongside an elk and hamstring it with a long handled machete or a "luna." The latter was a curved knife attached to a branch in order to lengthen the handle. A good horse could readily outrun an elk fattened after a good summer season of green feed, but a few months later an elk could keep ahead of the fleetest of horses. The great herds dwindled and were finally all exterminated except for a small herd which managed to hide itself in the tule marshes north of Buena Vista Lake. Even here they were mercilessly hunted down by boat, a lookout climbing a ladder lashed to the mast in order to look over the tops of the tules. According to legend, only a single pair remained to elude the gunner. These last few remnants of a race by good fortune happened to be on the Kern County ranch owned by the Miller and Lux Company. Henry Miller, a true conservationist, ordered his cow hands not only to refrain from molesting them, but to protect them from hunters. Although their natural habitat was the open grassy valley, the fact that their last hiding place was in the marshes among the tules gave them their name.

Legal Protection

1873 A law was passed making the killing of an elk a felony punishable by imprisonment for a term not exceeding two years.

The Elk Drive

1904 Miller and Lux offered, through the Biological Survey of the Department of Agriculture, to present the herd of elk to the government and the offer was accepted. It was agreed that the ranch owners should corral the animals.

C. Hart Merriam, through the courtesy of the Department of the Interior, was allowed to construct a fenced elk paddock in Sequoia National Park on the Middle Fork of the Kaweah River. Here he hoped to transplant some of the 145 elk around the environs of Buttonwillow. The plan was to drive the main herd from their nightly feeding ground to a corral 6½ miles away. In early morning, long before daylight on November 12th, about 35 expert cattle ropers and vaqueros, all volunteers, set out to round up the herd and drive it to the corral. James Ogden, then superintendent of the Miller and Lux ranch was in charge of the affair. The riders found the elk in an alfalfa field near the San Emidio and Temblor ranges and started to drive them away from the hills and toward the corral. After a while the whole band turned and charged through the clouds of dust past the horsemen who wheeled and began chasing and roping what few they could catch. These were hog tied (all four feet together), placed on horse drawn wagons and carted to the corral. One wagon had three prostrate elk on its bed, an old bull, a two year old spike bull, both still alive, and a dead calf. All showed injuries from violent resistance to capture. Upon release, the old bull promptly charged the spike bull, driving his brow tines deeply into the youngster's side, thus causing his death a short time later. The old bull was again lassoed and his antlers sawed off.

Bull Tule Elk bugling

A second wagon brought in five more, an old cow, a two year old bull, a cow calf, and two bull calves. Only the cow and one bull calf reached the corral alive and the cow died later in transit.

It was from these dead specimens that C. Hart Merriam described the Tule Elk as a separate species. Their skeletons are now in the collection of the U.S. National Museum.

After a great battle inside the corral between the old bull and Ogden's favorite horse ridden by Billy Woodruff, the old monarch was finally enticed into a railroad cattle car. The old bull and one calf were hauled to Exeter. There they were transferred to crates on a wagon and hauled by team to Sequoia National Park where the fenced-in area awaited them. The old bull constantly kicked and butted the slats of his crate so hard that some of them splintered, and the crate twice had to be repaired. Upon release, the old bull was so worn out from his three day ordeal that he could barely hobble. He waded into the Kaweah River, drank, staggered up the far bank and lay down. The next day he was found in the same spot — dead. Thus only one calf survived out of eight captured.

Sequoia Park Transplant

1905 About 30 elk from Buttonwillow were roped October 15th by experienced vaqueros, 25 of these were shipped to Sequoia Park, with 20 reaching their destination alive to be placed in the fenced area along with the lone specimen from the previous year. These elk eventually escaped and wandered away so that by 1926 none remained.

More Transplants

1914 The elk herd numbered over 400 on the Miller and Lux ranch. They were doing an estimated $7,000 worth of damage yearly to the alfalfa fields as well as damaging fences. Dr. Barton Warren Evermann, then director of the California Academy of Sciences, and M. Hall McAllister adopted and executed a plan to catch and distribute some of the Tule Elk to other favorable locations in the state. Thus, on October 11th, 150 animals were trapped in an eight foot corral surrounding an alfalfa field, but about 100 either jumped the fence or broke out the first day. Three days later about 25 more were captured. These captive animals soon became quite tame and 54 were distributed to seven areas as follows: 12 to the San Diego City Park in a small enclosure, 10 to Big Basin Redwood Park, 10 to the Del Monte Park of Monterey through which runs the famous Seventeen Mile Drive, 10 to the private reservation owned by J. M. Danziger in the Santa Monica Mts., six to E. L. Doheny, also in the same area, four to the private park of S. C. Evans near Riverside, and two to Ensler City Park in Modesto.

1915 Using the same corral, more than 100 elk were captured and 92 were distributed to 14 different areas as follows: 23 to Balboa Park of San Diego, 12 to Petaluma City Park, 12 to Eden Valley Ranch, Mendocino Co., 12 to Del Paso Park, Sacramento, six to Laveoga Park, Santa Cruz, five to Casa del Rancho near San Felipe, five to the private ranch of J. F. Dunne near San Felipe, four to Vancouver Pinnacles National Forest reservation in San Benito Co., four to Big Basin Redwood Park, three to a private park of A. V. Lisenby, Fresno, two to a private park of P. H. Loinaz, Fresno, and one each to Roeding and Zapps Parks, Fresno.

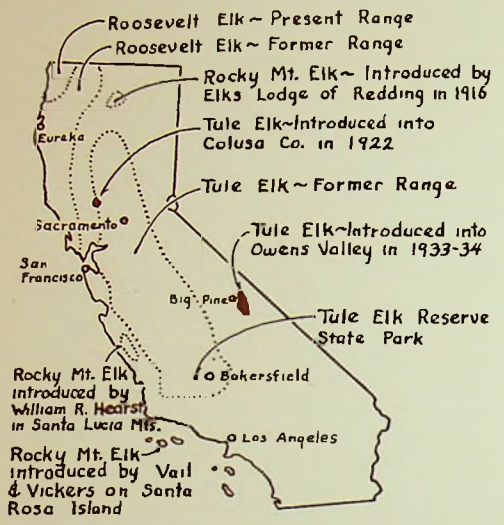
Thus a total of 146 elk were distributed among 19 different parks and reserves in California. Of these, 25 died soon after their distribution and three calves were born the next spring. Subsequently most of these transplanted elk have died out.

Dr. Evermann estimated the number of wild elk in Kern County to be between 350 and 400.

Yosemite Elk Paddock and Transplant

1920 It was decided to introduce Tule Elk into Yosemite National Park, and in July the elk paddock, which enclosed 28 acres with a shed for winter protection, was completed. The California Academy of Sciences bore the expenses for this.

1921 By September 1st the Yosemite herd numbered 10 animals, consisting of four bulls, five cows and one calf. Three were from Del Paso Park, Sacramento, and the rest came from the Buttonwillow Ranch of Miller and Lux. The Buttonwillow herd numbered about 350.



Elk in California

Colusa County Transplant

1922 Descendants of the elk placed in the Del Monte Park of Monterey Peninsula were captured and 21 were shipped to the Swanson Ranch in Colusa County. This band has subsequently grown to what is called the Cache Creek herd. However, there is some controversy as to whether or not this herd has interbred with another species of elk which was in the area before the transplant.

1923 The Yosemite Park herd numbered eight, the Sequoia Park band numbered about 12, the Del Monte Park herd numbered about 30, and at Buttonwillow there were about 405 elk.

1927 According to A. P. Ainsworth, warden for the Fish and Game, there were only 72 elk remaining at Buttonwillow.

Park Policy Concerning Caged Animals

1928 The National Park Service policy was now definitely against exhibiting caged animals or non native animals within a park.

1929 The great Miller and Lux ranch was now mostly subdivided into small ranches and the farmers on these ranches, who were growing cotton, alfalfa, corn, and lettuce, petitioned the agricultural commissioner's office of Kern County for relief from elk depredation. The agriculture commissioner took the matter up with the Fish and Game Commission and they proposed a plan to remove the entire herd from Kern County and into public parks in various parts of California. Upon the announcement of this plan there was a storm of protests from the Elks lodge, the Fish and Game Protective Association of Kern County and many other interested individuals who wanted to preserve the Tule Elk in its native habitat.

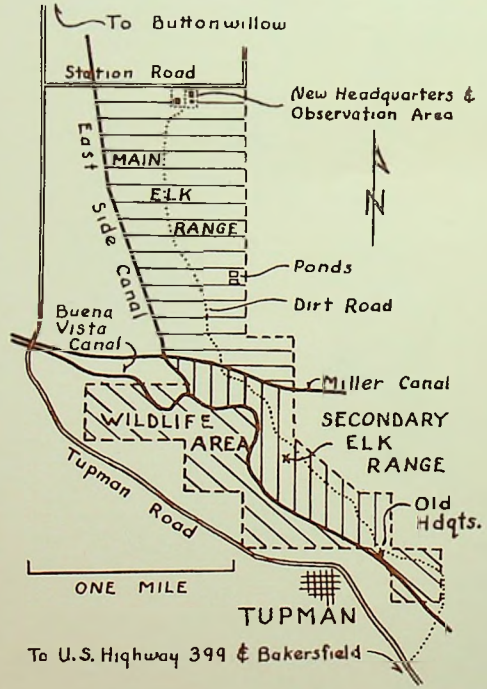
Elk Refuge Proposed

1930 In January it was proposed to the Kern County Board of Supervisors that an elk refuge be established. Miller and Lux generously offered a piece of ground for a temporary reserve and it was fenced by the Fish and Game Commission. In September, attempts by the ranch hands to corral part of the wild herd, numbering 250 to 300 and living in the Elk Hills near Tupman, were failures. The results were similar to the first drive of 1904. Many elk were killed and the rest escaped by dashing through the cordon of horseback riders attempting to herd them into the wings of a corral Finally a single rider with a number of dogs succeeded in driving about 75 elk into the enclosure.

At the request of the farmers, the Fish and Game Commission put on a night patrol to scare the elk away from the cultivated fields during the fall harvest.

Sanctuary Funds Provided

1931 Assembly Bill No. 973 was introduced by Assemblyman A. F. Jewett for $50,000 to assist in the purchase of an elk sanctuary in Kern County. This bill was referred to the Fish and Game Committee and rejected by them. The bill was amended to read $35,000 and again turned down by the committee. Senator Wagy then introduced a bill (No. 951) which would reimburse persons suffering loss through elk depredation and he agreed to withdraw the bill provided the committee would pass the $35,000 refuge bill. The committee finally reversed its decision and passed the refuge bill which was later approved by the state legislature and signed by Governor Rolph. Kern County then matched this sum, making available $70,000 for the purchase of an elk refuge.



Tule Elk Reserve State Park.

Elk Refuge Established

1932 The State Park Commission, on March 15, purchased 953 acres of land north of Tupman. A seven foot fence was constructed around the sanctuary by the Department of Public Works and completed on August 29th. The official status was that of a state park administered by the Division of Fish and Game.

The 75 elk in the temporary enclosure were transferred to the refuge, and then after months of hard work the wild herd was finally empounded within the confines of the park and artificial feeding of bailed hay was started due to the large numbers of elk on the small reserve. According to Grinnell about 170 elk now remained, but Burtch gives the figure of 140 within the refuge.

First Owens Valley Transplant

1933 By this time the Yosemite herd had built itself up to 27 individuals and on October 10th and 11th these 27 elk (7 bulls, 11 cows, 3 yearlings and 6 calves) were transplanted in crates from Yosemite Valley to Owens Valley. To avoid injury, the antlers of the bulls were removed by sawing them at their bases. All survived in fine shape except for one crippled bull which died of injuries received prior to the transportation. This move was financed and initiated by G. Walter Dow and executed by the Department of Fish and Game with the use of their trucks. These elk were kept for 10 days before their release in an enclosure by the Owens River near the town of Aberdeen, Inyo County. This is just south of the Tinemaha Reservoir.

Permission for the elk to be liberated on this land was obtained by Mr. Dow from the City of Los Angeles, the owner of most of the bottom land of Owens Valley. It leases this land to various cattlemen and packers for winter grazing of stock.

Second Owens Valley Transplant

1934 On February 10th and 13th an additional 28 elk (3 bulls, 19 cows, 6 calves) were introduced to the Owens Valley by Mr. Dow from a surplus (140 in all) at the Tule Elk Reserve near Tupman. Thus, altogether 55 elk were released in the valley with 54 surviving. In subsequent years, the transplanted elk prospered and increased in their new home. The largest herd of Tule Elk in existence today is directly due to Mr. Dow's very successful introduction into a well suited area.

First Legal Hunt Since 1873

1943 The Fish and Game Department of California allowed a limited hunt of the Owens Valley herd now numbering about 190 in which 75 permits were issued and 43 bulls were killed. This was the first legal hunt since 1873 when a law was passed protecting them.

1949 Another hunt in which 125 permits were issued eliminated 107 elk from the Owens Valley herd; 61 bulls and 46 cows were shot.

Management Plan

1952 After years of controversy in the Owens Valley area between hunters, ranchers, and the Department of Fish and Game, there was an agreement to a management plan to control the number of elk from a minimum of 125 to a maximum of 275. The official count was 229.

Disease and Malnutrition

1954 The administration of the Tule Elk Reserve at Tupman changed hands from the Fish and Game Department to the State Department of Beaches and Parks. It was decided that the number of elk on this small reserve should be limited to between 30 and 40 for the protection of their health. Overgrazing had reduced the ground to dust, and artificial feeding had caused bacterial infections of the gums and jaws of many individuals. This disease eventually leads to the death of its victim. The afflicted elk either died as a direct result of the disease, or they were eliminated by wardens so as not to foster the spread of the disease. The causative agent of this necrotic stomatitis is *Corynebacterium pyrogenes*, and the means of entrance is through abrasion of the gums caused by coarse dry feed. Elk are naturally browsers and grazers of green vegetation, and the dry hay was too coarse and rough.

Third Hunt

1955 A third hunt of the Owens Valley herd, in which 150 permits were issued, eliminating 144 elk (40 bulls and 104 cows) out of an estimated 301. Many of these hunters shot the elk from jeeps which were used for rounding up the herds. During and after the hunt many unclaimed wounded and dead animals were found.

Tule Elk Preservation Committee

1960 Another hunt of the Owens Valley herd was proposed in which 150 permits were to be issued. After a fish and game Commission hearing at Independence, the Committee for the Preservation of the Tule Elk was organized. It started immediately to inform the public on the status of the Tule Elk, now numbering an estimated 285. Almost 300 letters were written by interested citizens asking that the hunt be called off and advocating another solution to the problem. It was felt that if 150 elk were eliminated, leaving only 135, that this number was too small for such a rare and beautiful species of big game. The hunt was denied as a result of public pressure.

Fourth Hunt

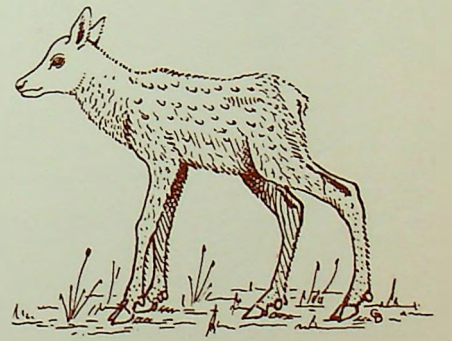
1961 A fourth hunt of the Owens Valley herd, in which 40 permits were issued, eliminated 42 elk (12 bulls and 28 cows all in good condition, plus two unusable carcases) out of an estimated 327.

Present Status

1962 The Owens Valley elk now extend from Bishop to Lone Pine east of Highway 395, and up the eastern escarpment of the Sierra from Big Pine to a little north of Independence and west of Highway 395. The official count is now 313. The elk usually stay in many separate herds numbering from a few up to over 60 individuals. Elk have been seen at elevations of over 8,000 feet in the mountains on both sides of the Owens Valley. The Cache Creek herd on private land in Colusa County numbers about 80 animals. Both of these herds are unfenced and in a wild state. In a small shadeless, fenced reserve near Tupman west of Bakersfield there is a semi-tame, hand-fed herd of 32 individuals which must be annually culled in order not to overpopulate the long overgrazed pasture.

The Los Angeles Griffith Park Zoo and the Fresno Roeding Park each has a few specimens on exhibit.

A fifth hunt in Owens Valley is planned for October in which 60 permits will be issued to hunt 20 bulls and 40 cows.



Tule Elk calf.

Developments and Controversies

As the number of hunts would indicate, the presence of the Tule Elk in Owens Valley poses a real problem. As soon as the original 54 elk increased their number to over a hundred, or thereabouts, the cattlemen began to register complaints of depredation to the Fish and Game Commission. The elk browse on

the bottom land most of the year while the cattle spend the summer in the higher National Forest area and are brought down to the valley for grazing in fall and winter. Thus, the cattlemen claim that they are supporting a year round competition for their winter cattle range which they lease from the Los Angeles Department of Water and Power. Also the small areas of irrigated alfalfa cannot be adequately fenced to keep out the elk which can easily jump five and six foot fences. The cattlemen claim the elk not only eat the alfalfa but trample and wallow in it, thus spoiling far more than they eat.

In chasing these marauding elk from the alfalfa fields or from their leased lands, the stockmen find that a panicked herd will not jump even low fences, but will run through them, tearing out lengths of barbed wire and toppling posts. Upon occasion, cattle separated for shipping have become intermixed because of fence breakage, thus causing added hours of work for the cow hands. Therefore, the cattlemen actively propose periodic hunts to thin out the elk. They frankly would like to see most of the elk eliminated and the remaining few either enclosed in a small reserve in Owens Valley or shipped out entirely to some other place. An eight foot fence surrounding even a small reserve is very expensive and even a few elk would soon over-graze the land so that again, as in the Tupman Reserve, a semi-tame, hand-fed herd would be the result.

Mr. G. Walter Dow suggests a drift fence running east-west across Owens Valley at the locality of the Tinemaha Reservoir Dam. The fence would extend eastward up the steep face of the Inyo Mountains and westward up the east side of the Sierra. All the southern end of the valley could then be a reserve with a minimum of fence, as the desert to the south and the 10,000 foot passes on either side would keep the elk in confinement. Although only a few stockmen and two packers lease this land, they oppose any large reserve and they have the backing of the Cattleman's Association.

The problems of ownership and administration of such a reserve, due to the complicated lease and management arrangements now in effect, are multiple, but not insoluble. Long range plans for Owens Valley invariably stress its unique scenic and recreational potential. A wildlife reserve could most certainly be of great scientific and tourist interest, if feasible plans for its creation could be carried out.

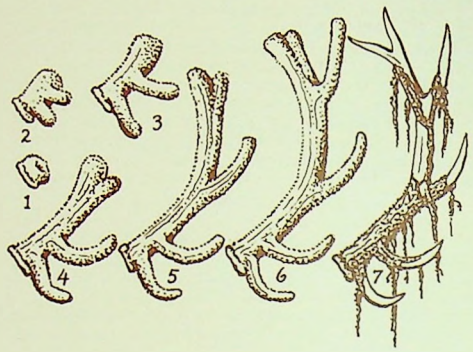
In the meantime, the Department of Fish and Game has reiterated its policy to manage the herd primarily for esthetic reasons, allowing hunting for culling purposes only. To this end, the Department has established the following policy which was adopted in a meeting of the Fish and Game Commission in December, 1960:

Owens Valley Elk Herd Management Plan

It is the objective to preserve the Owens Valley elk herd in a safe and thrifty condition. The herd will be counted and its condition ascertained regularly and at least once a year.

Regulations will be proposed by the Fish and Game Commission to accomplish the following:

1. The herd will be maintained at between 250 and 300 animals. Whenever the herd needs reduction, annual removal of selected animals on a cull basis will be authorized.
2. Each reduction of the herd will be controlled by the Department of Fish and Game under regulations established by the Fish and Game Commission. Each hunter or group of hunters (not to exceed four in number in each group) will be accompanied by a regular employee of the Department who will designate which animals are to be taken, the objective being a selective removal of the poorer animals.
3. Successful applicants will be required to demonstrate good marksmanship and safe handling of firearms.
4. Department employees will be authorized to carry guns and to insure that any animals that are wounded are dispatched humanely if the occasion demands.



Successive stages of antler growth. Approximate times of year are: 1—early March, 2—late March, 3—early April, 4—late April, 5—May, 6—June, 7—late July or early August.

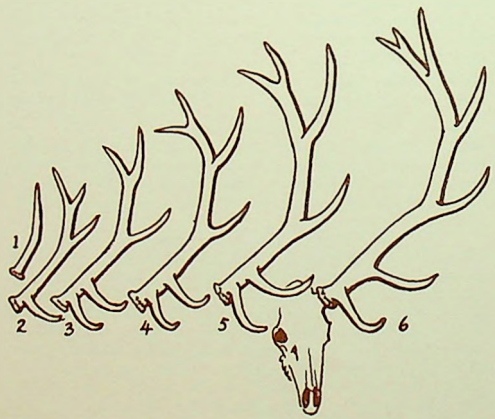
Yearly Cycle in the Life History of the Tule Elk

Mid August–September

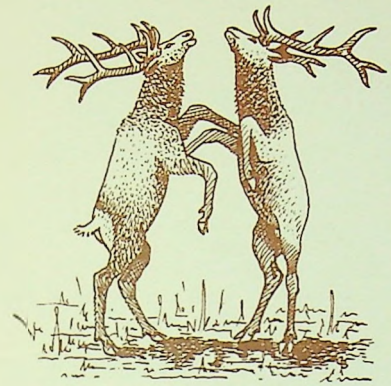
This is the rutting season, the older bulls each select a harem and defend it from rival bulls by fighting with their antlers. They also rear up on their hind legs and strike with their front hoofs. Their call or bugle is heard for long distances. Mating occurs all through this season and the gestation period is about eight to eight and one half months.

October–November

The longer, thicker winter coat replaces the summer pelage. The half grown calves are usually weaned by this time.



Average yearly increment in antler size and tine numbers except for number 6, which sometimes occurs in older bulls.



Both bulls and cows occasionally fight by rearing up on their hind legs and striking with their front hoofs.

Mid February–March

The older bulls shed their antlers at this time, but the younger spike bulls shed theirs a month or two later. The two antlers are rarely shed simultaneously, and occasionally one snaps off days or even weeks before the other. The antlers break away from their pedicels just below their burrs due to a thin layer of bone that has been absorbed by living bone destroying cells called osteoclasts. The pedicels are part of the frontal bones and protrude an inch or more above the forehead.

Soon after an elk sheds his antlers, new skin grows over the scars and the new antlers begin their rapid formation. The many blood vessels in this skin carry the nutrients necessary to nourish the bone growth. The ultimate size of a bull elk's antlers is primarily determined by his age, but it is also influenced by the type of spring food. Browse high in calcium and phosphorous compounds is needed. A mature bull produces twelve or more pounds of bony antlers in a little over four months. During the entire growing period the antlers are said to be "in the velvet" because of the very soft and fine hair covering them. The bulls carefully avoid hitting their sensitive growing antlers on any hard object.

Mid April–May

This is calving time. Usually a single calf is born, but occasionally twins are dropped. They are spotted at birth, but they lose their spots within two or three months and they make their first feeble attempts at feeding on browse at that time. In a healthy herd there is about a 15% to 18% yearly increment of the total number in the herd. Also at this time the winter coat is shed and is replaced by a shorter summer coat.

July–August

Velvet is shed from the mature antlers accompanied by much bleeding as the tissue is torn and rubbed away by the thrashing of the antlers on bushes. The antlers are finally rubbed and polished to a dull sheen, especially at the tips of the tines.

Color

Tule Elk are the lightest in color of all the North American elk. They are light brown on the body, darker brown on the neck and legs and tawny on the rump patch.

Food and Water

The Tupman herd is fed baled alfalfa and game feed pellets composed of 75% alfalfa, 25% barley and trace minerals of cobalt and phosphorous.

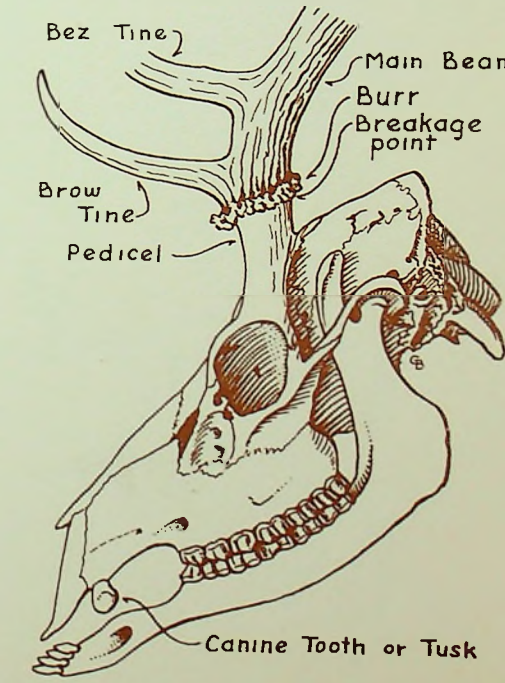
The Owens Valley Herd is thriving on perennials, such as sagebrush, willow, cottonwood, shad-scale, wild rose, sedges and tules, along with spring annuals and grasses. Elk are browsers of shrubbery and grazers of grasses, thus competing with both cattle and deer. They are ruminants, and they usually spend the night or cooler morning hours eating and the warmer afternoon hours resting and chewing their cuds.

While eating green feed, elk have been known to go for 35 days without a drink of water.

Vital Statistics

One mature bull shot in the 1944 hunt weighed 750 pounds, but the average was around 600 pounds. The heaviest cow weighed about 500 pounds, but the average was 400 pounds. The Tule Elk is the smallest of all the North American varieties. Captive and tagged individuals have been known to live for 25 years, but the life expectancy of a wild animal is probably about 17 years. Usually a cow elk does not mate until she is two and a half years old. Only bulls bear antlers. Yearling bulls usually have spike antlers and two year olds often have four or five tines on each antler. Mature bulls usually have six or more points on each antler.

Both bulls and cows have upper canine teeth known as tusks, but those of the bulls are much larger. These teeth wear to a beautifully rounded shiny surface and are much in demand by members of the Fraternal Order of the Elks. Many Tule Elk were killed for their tusks, particularly around Buttonwillow at the time the Elks Lodge was first organized in Kern County.



Bull Tule Elk skull.

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Bull Tule Elk in the velvet in May.