SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP

The Sheepherder

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JANUARY - FEBRUARY 1978

SOCIETY AGAIN INVOLVED IN PURCHASE OF WILDLIFE HABITAT

From the office of Dr. Loren L. Lutz, DDS, President of the Society---December 25, 1977

A joint effort by the Society for the Consevation of Bighorn Sheep and the California Society for the Care and Protection of Wildlife to preserve 34,000 acres of prime wildlife habitat in the Southern Sierras is now a reality.

It will be a new home for Tule Elk and Bighorn Sheep, and it now contains an excellent population of black bear, mule deer, and mountain lion. Smaller predators, game birds like quail, valley quail, and dove are in great abundance. Golden eagles and prarie falcons utilize the area for breeeding sites.

Money is urgently needed now for land purchase and for fencing. If each of us digs into his or her pocket for money now we will be doing what we know is best: preserving wildlife habitat for now and for the future. Unlike some unmentioned groups, 100% of this money will go towards land acquisition and fencing. PLEASE HELP.

Loren L. Lutz, DDS, President.

THE BIGHORN SHEEP AS A SPECIES IS FOUND IN WESTERN NORTH AMERICA ALL THE WAY FROM CENTRAL BRITISH COLUMBIA IN CANADA TO LOWER CALIFORNIA IN MEXICO. FROM NORTH TO SOUTH IT CHANGES IN IMPERCEPTIBLE GRADATION FROM A LARGER, DARKER AND HEAVIER-HAIRED ANIMAL TO ONE THAT IS LIGHTER IN WEIGHT, COLOR AND PELAGE. THE NAME "DESERT BIGHORN SHEEP" APPLIES TO THOSE BIGHORNS INHABITING COMPARITEVLY DRY AND BARREN DESERT RANGES, IN CONTRAST TO THOSE FOUND IN THE UPPER AND SNOWY PARTS OF THE ROCKY MOUNTAINS, THE SIERRA NEVADA, AND THE CASCADES.

FOR THOSE PEOPLE WHO INSIST ON CLASSIFICATION TO THE NTH DEGREE THE DESERT BIGHORN IS GENERALLY RECOGNIZED BY ZOOLOGISTS AS CONSISTING OF THE FOLLOWING RACES OR SUBSPECIES: THE MEXICAN BIGHORN, FOUND IN THE NORTHERN MEXICAN STATES OF SONORA AND CHIHUAHUA, IN SOUTHERN NEW MEXICO AND ARIZONA, AND IN THE SOUTHWESTERN TEXAS BEYOND THE PECOS RIVER; THE NELSON BIGHORN, FOUND IN CALIFORNIA SOUTH AND EAST OF THE SIERRAS AND IN SOUTHERN NEVADA, SOUTHERN UTAH, AND NORTHERN ARIZONA; AND (3 & 4) TWO SUBSPECIES FOUND IN EXTREME SOUTHERN CALIFORNIA ANDTHE PENINSUL OF LOWER CALIFORNIA IN MEXICO. THE LATIN SCIENTIFIC NAMES FOR THESE SPECIES, ARE IN ORDER: *Ovis canadensismexicana, Ovis canadensis nelsoni, Ovis canadensis weemsi, and Ovis canadensis cremnobates.* THE SIERRA BIGHORN IS PRESENTLY CLASSIFIED AS A CALIFORNIA BIGHORN *Ovis canadensis californiana.*

Sketch courtesy of Pat Hansen Wood

TULE ELK ARE NATIVE ONLY TO CALIFORNIA AND ARE A SMALLER, DISTINCTIVE RACE WITH PROBLEMS OF SURVIVAL.

NOTE: This 34,000 acre area lies to the north of Highway 58 and to the west of Highway 14, Jawbone Canyon is contained in the area.

Historically: The Tule Elk is a native of the San Joaquin Valley ONLY. Originally there were thousands of them inhabiting the valley. Discovery of gold in 1848 brought a flood of miners to California, providing a ready market for meat and hides. Market hunters and ranchers suffering heavy crop damage nearly eliminated the elk. In the early 1870's Henry Miller of Miller & Lux cattle company, stepped in and ordered complete protection for the tule elk on company property. In 1873 the California Legislature gave complete protection to both the Tule Elk and also the Bighorn Sheep of California. There are presently four established herds of Tule Elk in California, the Tule Elk Preserve State Park at Tupman, northwest of Bakersfield, begun by Henry Miller; the Cache Creek herd and Owens Valley herd, are free roaming; a small herd on San Luis Island near Los Banos and in late 1977 a transplat to the Naval Weapons Center near Concord. Even so, the total number of Tule Elk remaining is less than 800 animals. The small herds now existing have all come from the stock at Tupman, now numbering about 60 animals

SUMMATION:

1. The Society for the Conservation of Bighorn Sheep has embarked on a project that will benefit both tule elk and sierra nevada bighorn sheep by acquiring land in the Southern Sierra Nevadas.

2. This area will be a new home for both tule elk and the very rare sheep.

3. The area in question is now in private ownership and is subject to the usual sub-dividing and land development.

4. The purchase and holding of this land is necessary for this project.

5. The immediate need is for the construction of a holding pen to accustom the elk to their new surroundings.

6. The land will be held in foundation ownership for the care and protection of wildlife.

7. HOW WILL THE LAND PURCHASE BE FINANCED? By your donations. Please fill out the enclosed card and mail it with your check or money order. For further information call or write, the Society for the Conservation of Bighorn Sheep, 401 North Garfield, Alhambra, California 91801. Telephone number is (213) 284-5113. Donations are tax deductible.

McCAIN VALLEY WILDLIFE HABITAT MANAGEMENT PLAN

The Nov.-Dec. issue of THE SHEEPHERDER, under COMING EVENTS noted that there was to be a public meeting in San Diego on December 1st and requested information of this project. Tom Clotfelter, a Director of the Society for the Conservation of Bighorn Sheep has responded to the management plan in a position statement for the Society.

In his response Clotfelter has noted, in his letter to the El Centro Area Manager, the deep involvement and concern of the Society for the Conservation of Bighorn Sheep during the past 12 or 13 years for the welfare of the desert bighron sheep of the area--the rare Peninsular bighorn sheep, *Ovis canadensis cremnotaes.*

The State Parks have shortened certain access routes into Carrizo Gorge proper to vehicular traffic. Clotfelter states in part, "The chapparal line defines the sheep habitat. The buffer zone suggested by the Bureau is generous and because of the crises of increased vehicular penetration of the finger-ridges on the Carrizo escarpment, we support the suggested closure line. However, as management data is developed in ensuing years, we support the recommendation of the location of the closure line - possibly closer to the actual chapparal line.

Additionally, we will be willing to reconsider the seasonal closure at a time further data is available. However, at no time can we condone vehicular access South and East of the known peripheral jeep trail without adequate enforcement to prevent encroachment at all times.....The Society feels the vitality of the existing herd to be the primary priority for the Bureau. Much data must be compiled to indicate success before money should be afforded for the secondary goal of re-establishing the nearby Sawtooth Sub-unit." end quote.

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SHORT REPORT FROM UTAH

A note from Carl Mahon, Bureau of Land Management, Cedar City, Utah tells the editor that in spite of a dry summer season that the bighorns have done pretty well. There has been an approximately 65% lamb crop.. Dr.J. Juan Spillett, Utah State University at Logan, Utah has a student making a study in the Canyonlands National Park, and they have put radio-telemetry collars on five sheep as a part of this study.

BIGHORN COMEBACK --STATE OF WASHINGTON--Report by Dick Bolding, Assoc. Ed.

"A bighorn ram silhouetted against the deep blue mountain sky is one of nature's most breathtaking sights."

Washington has two of North America's five mountain sheep subspecies--the California and Rocky Mountain bighorns. Both varieties are native to the Northwest, both were extirpated from Washington and both have been re-introduced to the state.

The California bighorn was the first to be brought back. Game biologists released 18 California bighorns in a 500-acre enclosure at Sinlahekin Wildlife Recreation Area in Okanagen County in 1957. The transplanted sheep adapted well to the habitat and multiplied. Three years later biologists felt confident that there were enough animals to justify removing a few with which to stock another suitable wild sheep range in the state. To date, the Sinlahekin range has furnished California bighorns for introduction to 12 more locations in eastern and central Washington.

The transplants adjusted so well that biologists recommended a limited hunting season (by permit only) in some range areas. Hunting can help animal populations by removing surplus animals so they will not multiply beyond the number that their range can support. Hunting can also be a tool to control the ratio of rams to ewes.

Hunting is not allowed in all bighorn areas, though, because not all herds have shown healthy population increses. Population fluctuations may occur due to range problems, parasitism or disease. But overall, the California bighorn's status in Washington is good.

NOTE: The original 18 sheep transplant was obtained from the Williams Lake area of British Columbia.

As for Rocky Mountain bighorns, game men contemplated their introduction for many years before some of the animals finally became available for transplant in 1972. Eighteen Rocky Mountain bighorns were transplanted from the Waterton Lakes region of Alberta to Pend Oreille County.

Rocky Mountain bighorns are the largest of the five subspecies. Rams grow massive horns that often measure more than 15 inches in circumference at the base. The light brown males may also weigh more than 300 pounds.

Since their introduction into the northeast corner of the state, the Rocky Mountain bighorns have adapted well. Although some animals, especially rams, have been seen as far as 20 miles from their normal range, the main herd stays close to the original release site. They apparantly find enough food, shelter, and privacy there, for the little band of sheep has been steadily growing in numbers.

Earlier this year, some of these animals were live-trapped, examined, tagged and released. Nine were transplanted to the Chief Joseph Wildlife Recreation Area in Asotin County, where wildlife biologists hope they will establish another thriving herd.

Washington's total mountain sheep population is about 450 animals, of which about 5 per cent are Rocky Mountain bighorns. This subspecies is protected in this state, and it may never increase to the point where it can be hunted. For now, game department biologists' major concern is to firmly establish them here."

A FURTHER REPORT--concerning the 1976-1977 Big Game Status Report by Rolf L, Johnson, partially funded by Pittman-Robertson funds is broken down into the various areas into which the Department has carried out their re-establishment program. Joseph Creek herd's health is quite good but there has been found incidence of parasitism mainly of lungworm, stomach worm, intestinal worms andwhipworm. All sheep examined were treated for the infestations found. 11 sheep captured have also been tagged for future reference before being released. Research in the Tucannon area is being conducted by Rick Estes. a Graduate Student of Washington State University. His project titled"Ecological aspects of bighorn sheep productivity in southeastern Washington" is being funded by the Game Department and will last for two years. He is studying in particular the interspecies competition and productivity. In addition to the work done in the Joseph Creekarea radio collars have been installed on five sheep and colored neck markers on two others. In the Blue mountains there seems to be some dispersement. Five sheep were also given radio telemetry collars in this area.
It is believed that these various herds have established migration patterns satisfactorily.

During the years beginning in 1966 through 1976 there has been a very limited harvest of rams. To be legal game they must be not less than three-fourths curl. The number of permits to hunt began with six permits and in 1976 was 25 with an average of 22 permits. The harvest has varied from a low of only three in 1974 to thirteen in 1971 the average has been 9 with a total of 99 rams. Applications for permits has been high. The first year 1966 there were 3,024 applications to a 4,860 in 1971. The average has been 4,027. Success ratio has been rather high-- 41%.

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Glenn Sudmeier, Water Projects Coordinator for the Society has sent out a bulletin to volunteers of record concerning work projects for this coming spring months. These listed are all either repairs to existing facilities or are improvements to them. None of these will require a large work force. All projects will require some hiking. ALL TOOLS AND REPAIR PART MUST ALSO BE CARRIED IN TO THE PROJECT SITE AND CARRIED OUT AFTERWARDS. SUPPLIES AND TOOLS WILL BE FURNISHED BY THE D.F.G.

If interested in participation contact Glenn Sudmeier at 1728 Hillside Ave., Norco, Ca. 91760 of telephone him at (714) 735-4387.

February 11 - 12 Weavernoy / Surveyor

February 25 - 26 Dry Mountain / Last Chance. This project will require that everyone have transportation by FOUR-WHEEL DRIVE VEHICLE. It is a DRIVE THROUGH ROUTE---One Way only.

March 18 - 19 Pyramid / Kingston

April 8 - 9 Sheep Camp

April 29 - 30 Chuckwalla

In addition sometime this spring -date not set--Smith Spring in the Sacramento Mts

MARCH 5,1978

SAN GABRIEL MT. SHEEP COUNT

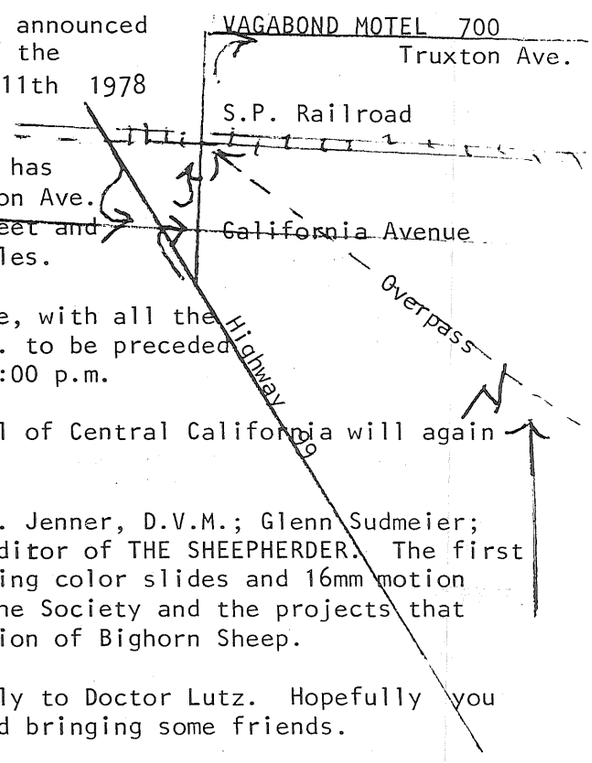
"Our third annual San Gabriel sheep count is scheduled for the 5th of March 1978. We haven't worked out all the details yet (such as who will hike where) but if anyone is interested in counting sheep and want to get aboard they can contact me at (714) 983-3272..Last year we had 163 volunteers and came upwith 374 sheep."

Jim DeForge,
218 E. "J" St., Ontario, Calif. 91764

Jim has assignment sheets, maps, and report forms for the use of each and every volunteer.

BAKERSFIELD DINNER ARRANGEMENTS ARE MADE

Society Director Marvin Wood of Lemoore has announced that arrangements have all been made for the holding of the Annual Bakersfield Dinner Meeting of the Society March 11th 1978



The Dinner is to be held in the same facility as it has during the past several years, even though the name has been changed. It is now the VAGABOND MOTEL-- 700 Truxton Ave. Take California Ave. off-ramp. Turn north at first street and over the railroad---then right on Truxton--about two miles.

We are promised the same fine steak dinner as before, with all the trimmings---price either $8. or $9. Dinner at 8:00 p.m. to be preceded by the NO-HOST WATERHOLE COUNT OR ADJUSTMENT HOUR at 7:00 p.m.

Homer Harrison, President of the Sportsmen's Council of Central California will again be the Chairman for the evening.

After dinner program will be conducted by Charles W. Jenner, D.V.M.; Glenn Sudmeier; James DeForge and William D. "Bill" Phifer, the first Editor of THE SHEEPHERDER. The first three named are presently Directors of the Society. Using color slides and 16mm motion pictures they will explain the aims and objectives of the Society and the projects that have been accomplished by the Society for the Conservation of Bighorn Sheep.

An addressed postpaid card is enclosed for your reply to Doctor Lutz. Hopefully you will tell him that you are going to be in attendance and bringing some friends.

The Board of Directors will hold a meeting at 5:00 p.m. preceeding the dinner. They will be glad to receive any suggestions that you amy have for benefits to the Society and the bighorns.

Doctor Lutz suggests that each of you purchase a copy of the February 1978 issue of PETERSEN'S HUNTING magazine. He says it contains an interesting article concerning what the Society and other conservationists are doing for the bighorn sheep.

DESERT BIGHORN COUNCIL

The Annual Meeting of the Desert Bighorn Council is to be held in Kingman, Arizona on the Fifth and Sixth of April. There will probably be a field trip on Friday April Seventh. Anyone desiring of submitting a paper should contact Monte M. Dodson, Refuge Manager, Kofa Game Range, P.O. Box 1032, Yuma, Arizona 85364

moving?

If you are moving or have a change of address we would very much appreciate it if you would letus know as soon as possible what your new address is to be. We do try to send your copy of THE SHEEPHERDER to you, and on time. HOWEVER, without a proper address this is virtually impossible to accomplish. The Postal Department just will not forward your THIRD CLASS MAIL. We are using Third Class Special Mailing in an effort to better utilize funds of the Society for best purposes. Frequently copies of T.S. are returned to the editor as much as six weeks after having been originally mailed. These must then be mailed by First Class mail, an added expense. A nine-cent postcard would really help.

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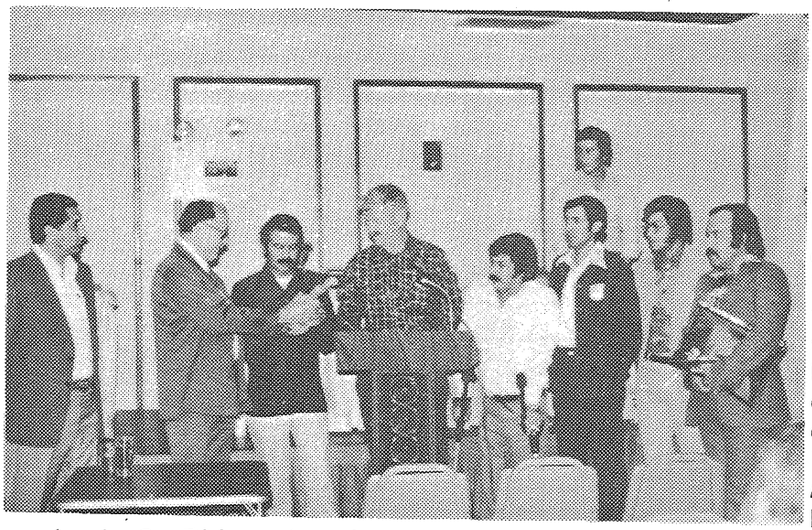
DESERT BIGHORN COUNCIL AWARD GOES TO MEXICO



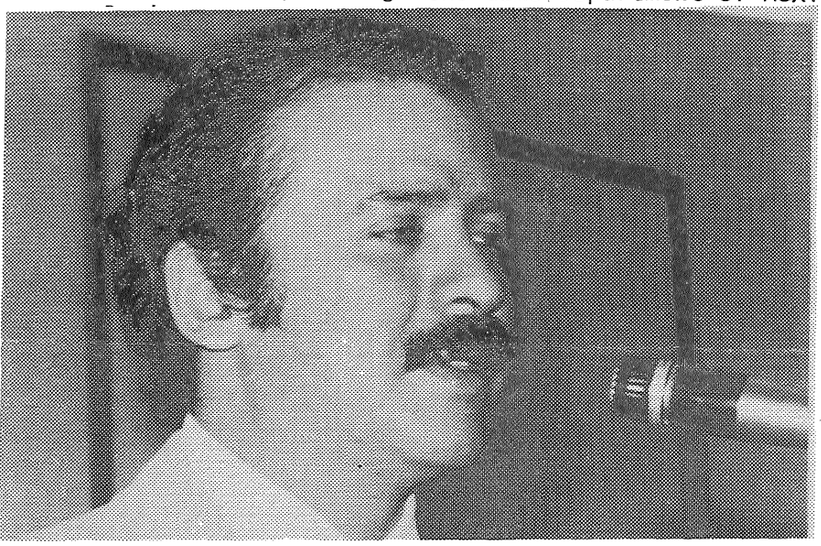
L. to R. Eliseo Araujo, Warren Kelly, Antonio Landazuri, Walt Snyder, Alfonso Martinez, C., Armandro Araujo, Mario C. Lopez Fonseca, Jorge E. Mendoza, in the rear Victor M. Orihyela & Gonzales. Sheepherder photo

During the Friday afternoon session DBC Chairman Walt Snyder commented on the extrordinary hospitallity of the Mexican people during the DBC meeting held in Kino during April 1976. Walt spoke of the tremendous forward strides that the Mexican Game Department had taken in their management of the desert bighorn populations of both Baja and on the mainland, and of their transplant to the Island of Tiburon, offshore from Kino Bay. Walt called upon Warren Kelly, a Past-Chairman and the chairman of the Awards Committee for the presentation of the DBC Award. This award is not given lightly and not every year.
A good many years ago the Mexican Government had presented a solid silver trophy of a bighorn ram that stands about 8 inches high, a truly beautiful trophy. There were seven representatives of the Mexican Department present to receive the award.

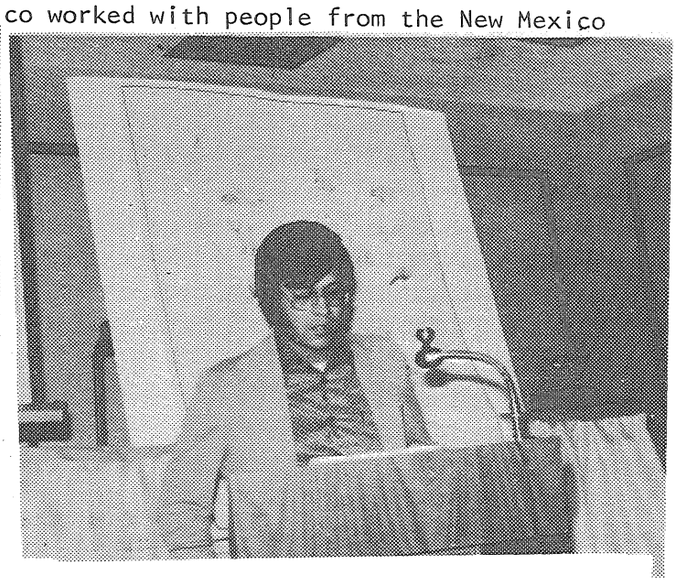
REPORTS FROM MEXICO

Dr. Antonio Landazuri, Direccion General de Fauna Silvestre of Mexico opened the reports of the Mexico Staff present. They have found many problems in the making of ecological studies in Mexico. They are making many studies yearly concerning the competition with the wild sheep. Biologists are sent into the field with each licensed hunter in order to gather samples of tissue and to make studies while this tissue is fresh. (NOTE: A letter from Dr. Jack Paal concerning this is in this issue.)

Several years ago the Game Department of Mexico worked with people from the New Mexico



Dr. Antonio Landazuri, Direccion General de Fauna Silvestre of Mexico



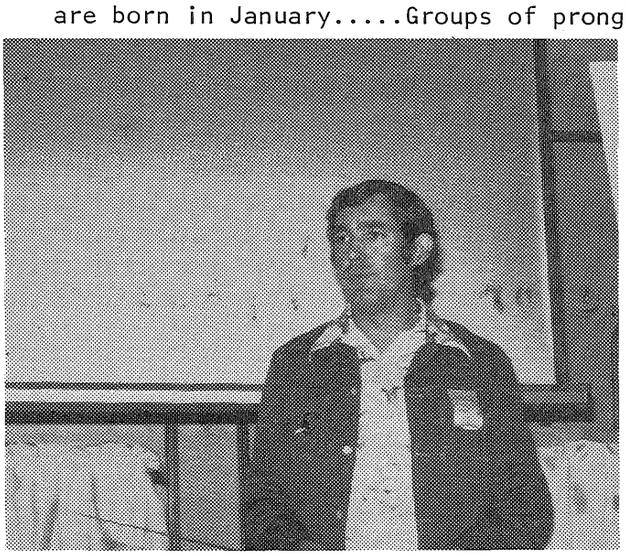
Sr. Mario C. Lopez Fonseca----Biologist

Department of Game and Fish in the capturing of several bighorns (*Ovis canadensis mexicaniana*) for transplant into New Mexico (This was reported a couple of years ago in T.S.) and in return received about 40 pronghorns(antelope) from New Mexico. Gerald Gates represented the N.M.G &F. at t hat time on the project.....In Sonora and in Baja there are men working on protection of the bighorn as poaching is a very serious problem. Poaching is not for trophies by the native people but is for food purposes. There has been some severe poaching by one of the Mexican people of trophy rams, which have then been sold in the United States. (NOTE: This illegal activity has been reported in The Sheepherder). To remedy this situation the government is trying to educate the people by use of radio, television and newspapers how

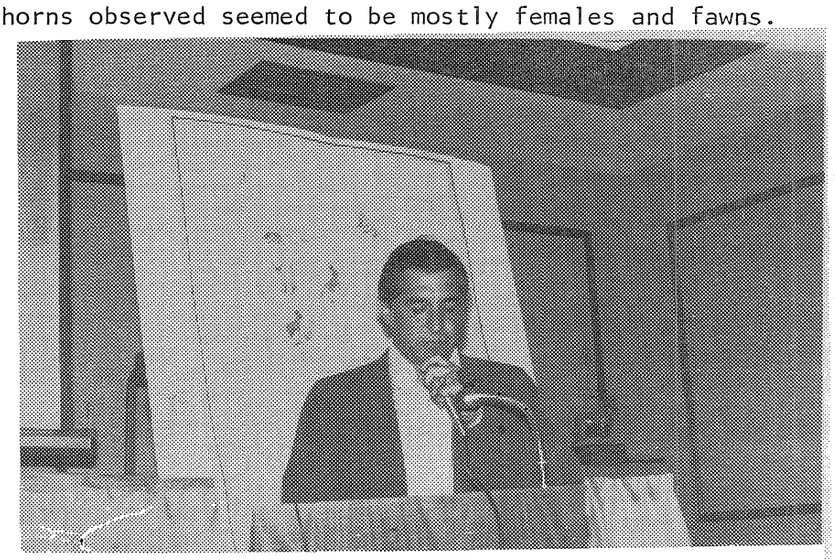
important the bighorns are to the welfare of the Mexican People.....Studies have been made of water conditions and efforts are being made to remedy some deficiencies. Studies to date: April 1977 have covered only about 35% to 40% of known sheep habitat. In the process of these studies the biologists discovered a colony of condors---in mid-March 1977. Until that time it had been thought that this specie was extinct.

NOTE: The editor must apologize to the Biologists and Game people from Mexico for some very sketchy reporting. Some of the reports were given in Spanish, of which I have no knowledge, and then translated----when this is done- - I failed to get it down properly. I'm sorry.

Victor M. Orihyela & Gonsales reported concerning food preferences and said that in his studies he had found that the sheep had distinct preferences for desired foods and of bedding areas. Sheep will knock down the agave plants and then eat the tender tops and the flowers. The larger horned rams showed their dominannce over the younger rams during the rut...Ewes and lambs tended to gather together and ewews with no lambs would form a distinct group. Sheep while approaching water and when leaving the water source were in the same order--behind the leader....His census showed that sheep herds were composed of 50% ewes, 35% rams and 15% lambs. Concerning pronghorns: best methods of censusing herds, they found, was from the top of a pickup truck....Two main areas of pronghorns were in the Jose de Castro and in the Volvadoras east of the Sierra de Vizcaino---He had seen 35 in one herd and 47 in another...Kids are born in January.....Groups of pronghorns observed seemed to be mostly females and fawns.

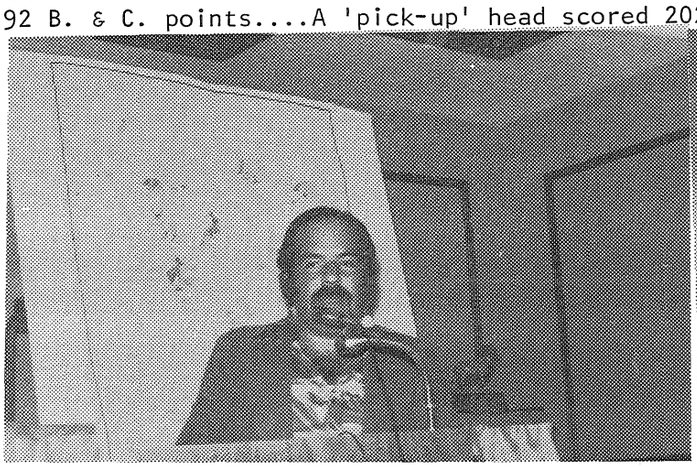


Sr. Armond Araujo

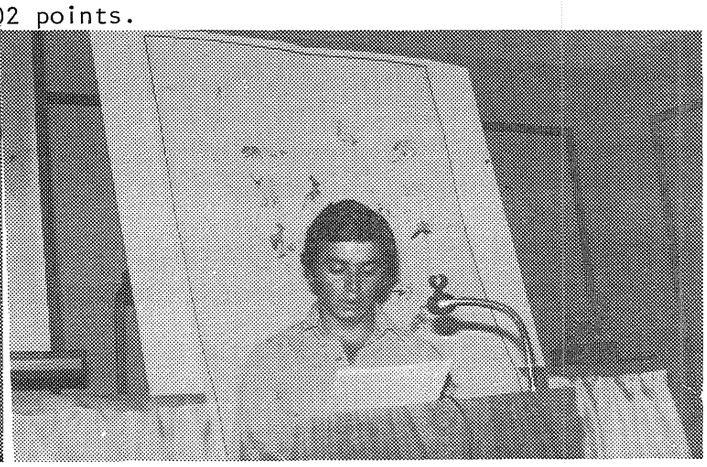


Sr. Eliseo Araujo

Males grouped together separately from the females and fawns.....feeding periods are during the early morning hours and late in the evening. They rest during the middle of part of the day... Pronghorns seemed very sensitive to noise...but have a lot of curiosity...A quick movement will cause them to spook....They can run 70 km per hour....They are having a 38.9% reproduction success. Of this, 32% are males and 68% females....George Belloc, a guide had taken a movie....Two sheep hunts are conducted---October-November and the other in January. A total of 70 to 75 permits are issued for different age classes and in different areas--with different requirements...Object is to harvest only the older rams....There are 15 to 18 Mature rams in the Rio Grande area about 1½ hours drive south of Mexicali....One ram taken scored 192 B. & C. points....A 'pick-up' head scored 202 points.



Sr. Jorge E. Mendoza



Sr. Victor M. Orihyela & Gonzales

Mario C. Lopez Fonseca spoke on parasites in the Baja sheep. In studies of 5 rams taken by hunters during October-November 1976 about 200 km. south of Mexicali they did find ectoparasites....Each hunt for a ram is conducted by the Department of Game. With the licensed hunter there will be two spotters, two carriers, one cook, one Biologist and one guide. Hunters shoot only at designated rams....Frequently they get within 5yards of the sheep. Some 'hunters' are very poor shots. One man fired three shots on each of three successive days at a ram that stood within 40 yards and he did not score a hit. These desert bighorns are of the two sub-species *Ovis canadensis cremnobates and o.c. weemsi*. There is no hunting season on the pronghorns which are thought to total 150 members in Sonora and 100 in Chihuahua. The transplants are doing well.

CONCERNING SHEEP HUNTING IN MEXICO

For along time there have been many misconceptions concerning the obtaining of permits to hunt bighorn sheep in Mexico and in Baja. These permits have been and are expensive and are hard to obtain. Perhaps we may be able to cast a little light on this matter. The finanacial problems of the Wildlife Department in Mexico have been even more severe than they have been here in the U.S. They have been severely handicapped by lack of equipment, such as transportation and communication while in the field. They have good and dedicated personnel. This has been reported on previously in T.S. We have reported that the Safari Club International had donated two fully equipped four-wheel drive Toyotas through the Conservation Fund, in 1976. This year the SCICFund is donating three four-wheel drive Broncos fully equipped and with short wave radios. The SCICF had received 10 sheep permits from the Mexican Government, these were raffled and/or auctioned off, as an at least partial source of funds for the vehicles.

A notice received (Oct.13th.) from Bob Housholder, a member of the Society for the Conservation of Bighorn Sheep and the Director of the North American Sheep Hunters Association that he had been advised that two sheep permits would be available to members of the Association. They wo uld be allotted to the two winners of a raffle. Tickets on the raffle would be $50. each---drawing October 31st. Money derived from the raffle would all be used to buy needed equipment for the Mexican Wildlife Department. Winners of the raffle would then buy their permits from Mexico at a cost of $4,700. each and does not include transportation to or from Mexico. Everything else is included. H unting period to be January 28 through February 6, 1978. A bit more information has come to the editor (T.S.) from Society member Dr. D.J. Paal, M.D. of Minneapolis, Minnesota. I have held this letter ever since last January in order to try to relate it to other things concerning Mexico. Dr. Jack Paal and a freind of his, A. Coe Frankhauser of Gettysburg, South Dakota, and also a Society member, had received permits from Mexico. No information given concerning how permits were obtained. Jack's letter to me says in part:

"I don't know if he (Frankhauser) told you of the hunt or not but I thought you would like to know a bit about the hunt. On the hunt proper I was accompanied by a guide, three assistants, two biologists, and last but not least, Jorge Belloc who is the Field Director of all of the hunting camps. I suspect that you have heard of him in your work. I felt it a great fortune to have him go out on the hunt with me. His whole life has been devoted to thinking about sheep hunting in Mexico. He is a very dedicated man and after the hunting season is over he is involved in attempting to control the poaching in Baja. The hunt was the best organized and equipped hunt I have ever been on in North America. The 'manana' philosophy certainly did not exist on this operation. The guide determines whether one shoots a sheep or not and it is based on age rather than quality of horn. Their objective is to crop the OLD rams. Most impressive was the fact that they send a biologist with each hunter and he makes daily observations of sheep sighted, flora, etc. Then, after the kill he conducts a very thorough autopsy. This consumed about three hours time and I have never seen such a complete exam especially under such circumstances. They even bring a field microscope with them to make instant microscopic studies. All of the guides, helpers, as well as Jorge showed infinite patience and interest while the biologist did his study. This was very impressive. The biologist assigned to me was Mario C.Lopez Fonseca....He is going to present the results of his studies at the Desert Bighorn Council, as I recall it is in April....."

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BIGHORN STUDY PROGRESSING AT JOSHUA TREE NATIONAL MONUMENT

A telephone conversation with Dick Weaver, California Department of Fish and Game, Sacramento reported that Dr. Charles L. Douglas of the Joshua Tree National Monument has trapped 9 bighorns and has installed radio collars on them. The trap used for this project was borrowed from the Nevada Department of Fish and Game and is the one that has been used in the trapping of bighorns near Lake Mead. These radio collared sheep are to be monitored on a two week schedule with the use of a fixed wing airplane. The Stubbe Spring area is to be restricted to use by legitimate wildlife biologists only. This Stubbe Spring being a primary water source of the Monument.

The Summary of desert bighorn research at the Monument during 1977 was sent to me later by Dick Weaver. I JUST DON'T KNOW WHAT I (THE EDITOR) WOULD DO WITHOUT DICK WEAVER. Thanks Dick. Douglas' report states; "Two weeks (7 days) of trapping were conducted at Stubbe Spring in July and resulted in nine individuals being equipped with radio telemetry collars. Four rams, ages 8, 8, 9, and 12, and five ewes, ages 1, 2, 3, 4, 5 were collared. These sheep have been monitored at least bi-weekly since the date of capture.
A helicopter survey of the major sheep areas was conducted in early October. Thirty-eight sheep were observed in the Stubbe Spring area, including ewes and lambs. Ten sheep were seen in the 49 palms Canyon and vicinity, and three were seen in the Eagle Mountains. Of the total of 38 sheep seen at Stubbe Spring, 27 were ewes, 3 were lambs, and 8 were rams (ages 1, 2, 4, 4, 7, 8, and 10).

Because of the time constraints related to trapping, the yearly camera census of waterholes was not conducted.

NOTE: Doctor Douglas gave an informative paper at the 2nd North American Wild Sheep Conference held in Denver, Colorado during April 1976 and told of his plans for this project and something of successes and failures. Douglas reported at that time that the census conducted with the use of w time-lapse camera had not, in his opinion, been too successful. It is

virtually impossible to set a camera so that it will take good pictures during the daytime and its great variations of light intensities. The trying to find 'a happy-medium' setting results, usually in early morning shots being under exposed and those at mid-day as being over-exposed. While numbers of animals and specie can be distinguished, usually, age and sex determination are frequently difficult or not possible.

Joshua Tree National Monument was set aside in 1936 to preserve more than 500,000 acres of outstanding desert terrain that includes large stands of Joshua Trees, unusual rock formations and varied forms of wildlife. The Monument is approxiamtely 150 miles east of Los Angeles. Bighorn habitat has been dissected by roads, campgrounds, hiking trails and parking lots. The bighorns have had to learn to live with humans, or perish. Visitation by people has increased from some 350,000 to 550,000 people during the past ten years. In 1950 powerful mining interests succeeded in convincing Congress that the Monument's boundary should be revised in order that several areas having mineral deposits could be deleted from Park Service control. These 289,500 acres were removed from the monument; they also were, and are, important parts of the bighorn habitat.....In the mid-1950's some springs within the Monument had already gone dry, and others were beginning to produce less water. The historic water sources, in the Monument were relatively numrous, whereas the remaining sources presently producing water are few and poorly distributed. Stubbe Spring in 1948 produced 222 gallons of water daily; its flow in 1964 had reduced to 96 gallons daily; and in 1967 to only 15 gallons; in 1968 the spring flowed only on an intermittent basis and was virtually useless to the bighorns. That year, 1968, a spring rehabilitation program was begun with a system of collection aprons and installation of a float valve drinker .

Bighorn sheep and park visitors are competing for the same resources in Jashua Tree National Monument. Visitors are attracted to the higher elevations and areas having shade and water, such as found in the fan palm oases. Bighorn sheep rely upon water sources throughout the summer months, but may be excluded from water by park visitors that thoughtlessly camp at a spring or tank. (THIS IS A COMMON OCCURRENCE THROUGHOUT THE DESERT SHEEP RANGES.) The highest visitor usages occur through the spring months of February into early May. This is the lambing season for the sheep and is a stressful period for both ewes and their lambs. At this time of year the sheep are beginning to rely on these waters and form habits of use that guide them into these water sources during the hot summer months.

In order to regulate visitor usage the National Park Service has proposed that about 60% of the Monument be given Wilderness status---accomplished in 1976. Areas having guzzlers are designated as "no-use areas" for the public. A third regulatory device is the Superintendent's prerogative to close areas for indefinite periods of time when such an administrative decision is appropriate. One of such closures was in the 49 Palms Oasis and the latest is the Stubbe Spring area, previously mentioned to all by designated research biologists .

The use of time-lapse photography has not answered many of the questions concerning bighons of the Monument . Waterhole censuses during the summers of 1975 and 1976 were not satisfactory and the summer 1977 also failed to give any good results. Frequent summer rains have provided water in many areas that have been normally dry throughout the desert. Water storage project plans were written into the legislation that Congress enabled that permitted the projects to be built after the area was given Wilderness Calssification. Otherwise the Wilderness Act would have precluded such projects to benefit any specie not designated at threatened or endangered.

Joshua Tree National Monument did not have any burro problem in 1976, neither are there any wild horses.

There is a good population of coyotes in the Monument but there has been no evidence of any predation by them on the bighorns. Study of possible conflict is continuing.

By Congressional Mandate for management of the Monument it is to be managed as a natural area, which means that definitely the flora and fauna come first. If the lambing areas can be identified, then, these areas will be put off limits to human use as have some of the water sources

BIGHORN HABITAT ACQUISITION

Again in 1976, wildlife habitat acquisition was one of the primary accomplishments of the Wildlife Conservation Board program.

The largest land acquisition project ever authorized by the board was consummated with 10,205 acres of bighorns sheep range preserved in Riverside County's Santa Rosa Mountains, southeast of Palm Springs.

This purchase, like the first 4,742 -acre bighorn range acquisition in Martinez Canyon completed in 1975, was made with 1974 Bond Act funds under a rather unusual funding arrangement. The land consisted of five ownerships with a fair market value of $1,349,000.

An advance of one-half the land value was received from the federal Land and Water Conservation Fund program, whereas normally these funds are received as a reimbursement. The cost was further reduced by $374,628. in land donations from some of the owners.

Final result was an out-of-pocket cost of $314,930. to the WCB including escrow and other closing costs. The Nature Conservancy and Riverside County assisted in purchase arrangements.----------Wildlife Conservation Board Annual Report--January 1977---Alvin Rutsch

Ass't Executive Officer WCB

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NOTE: The 4,742 acre bighorn range acquisition mentioned above was a Society for the Conservation of Bighorn Sheep project during the early 1970's and the Society raised the needed funds to buy the option on this property in the Martinez Canyon. lew.