SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP

The Sheepherder

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JULY - AUGUST 1974

OVIS CANADENSIS CANADENSIS RETURNS TO NEW MEXICO in 1973

On April 12, 1973 after three years of negotiations between the US Fish and Wildlife Service and the Canadian Government resulted in the release of seven bighorn sheep, five ewes and two rams, on the Ft. Wingate Army Depot near Gallup, New Mexico. These sheep will be managed by the N.M. Department of Game and Fish under a cooperative agreement with the US Army. It is hoped that this initial herd, which is enclosed by fence within 12,000 acres, will provide subsequent offspring for transplanting into suitable areas within New Mexico in the years to come.
NOTE: THE SHEEPHERDER carried an article concerning re-introduction of desert bighorns from Mexico a few months ago.

Two days prior to the release at Ft. Wingate, there were 13 bighorns airlifted by army helicopter into a remote inaccessible area of the Uintah and Ouray Indian Reservation of northeastern Utah. This site was selected by Federal wildlife workers as the most suitable for reintroduction of this magnificent animal into their former range. Again, it is hoped that this initial herd will prosper and grow; and, in time, will occupy not only those suitable areas on Indian lands, but will spread into the millions of acres of adjacent public lands which adjoin the release site.
This particular project was three years in the making. Anyone even vaguely familiar with agency operations and the limited supply of this trophy animal, the bighorn, realizes that the acquisition of 20 bighorn sheep in not an easy matter. In late October 1972, the Canadian government notified the Albuquerque Regional Office of the Fish and Wildlife Service that the Waterton Lakes National Park in southern Alberta would provide 20 to 25 head of sheep for export. It was expected that the sheep would be trapped in November. However the mild weather of that winter allowed the bighorns to stay in the high country and prevented trapping attempts until April of 1973 when the warmer weather had caused an early green-up in the lower country, and the sheep had moved down. By April 3, 1973 when the Canadian officials notified the New Mexico Department of Fish and Game to "Come and get them", they had already trapped some sheep and were holding them. The Transportation team cleared Canadian Customs of April 8th through the Sweetgrass, Montana border station. Men of the Canadian departments had captured 17 of the sheep by this time. The rams were caught in traps and the ewes captured by tranquillizer gun. There had been no mortallities. Luck was with them and the last 3 sheepwere captured the next day. On Monday the sheep were loadedwith the assistance of Graduate students from the University of Calgary. Each sheepwas weighed, measured, ewes were checked for pregnancy, given combiotic injections to fight infections(by the Veterinerian who was present), ear tagged and aged. The two - eight year old rams gave everyone a real tough time during loading. They left the Park on April 10th and cleared both Canadian and US Customs. They arrived at Ft. Duchesne, near Vernal, Utah the next morning, Wednesday. The Ute Indian Tribe had constructed two 4 X 4 X 8 foot crates in which to airlift the sheep the 80 miles to the release site. The only problem then was how to transfer the sheep from the trailer to these crates, especially the very rambunctious rams. This was solved by picking the

biggest and strongest Ute Indian men that could be found to help move bodily the sheep from trailer to crates. Two trips by the helicopter and the 13 sheep for Utah had been released into their new home above the Green River in Desolation Canyon. The sheep for New Mexico were released into their enclosure at Ft. Wingate the following day and after a number of samples were taken from the sheep to assist in furthering the cooperative research study between the Game and Fish Depasrtment and Colorado State University. This reasearch will increase the knowledge of the diseases and parasites which affect our North American bighorn population.....This was made possible as a result of effort and cooperation of many individuals and agencies, at the international level, who are working to make sure that the bighorn and all other forms of wildlife will be around us in the years to come.....At. the last report the five ewes and two rams were alive and doing well.....Some of the people involved in the project were from the Colorado State University; from the Los Alamos Scientific Laboratory; Colorado State College of Veterinary Medecine. Many tests were conducted to try to determine what diseases these sheep might have had previously or were carrying when released at F t. Wingate. Blood samples and numerous swabs were taken to obtain this data. Feces samples and ectoparasites were collected from all of the sheep to determine parasitic infestations. This knowledge will help the Department of Game and Fish in its sheep-rearing program at Ft. Wingate. Should a disease break out within this population, basic information will be available to determine if these sheep were pre-exposed to this particular agent prior to release at Ft. Wingate., or if, in fact, the disease organism was picked up after they were released on the Depot.....Chromosome and cell patterns of these sheep are also being studied and compared with tissues taken from the native desert bighorns in the San Andres. This comparative analysis identifies differences in chromosomes or cell patterns that will indicate whether the two groups of sheep should be separate sub-species as they are listed or if they are more closely related animals .

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Dr, J. Juan Spillette gave a paper at the Desert Bighorn Council meeting in Moab, Utah. entitled, "Transferrins of Two Populations of Nelson's Bighorns (Ovis Canadensis Nelsonii)--The Genetically defining of sheep."

NOTE: THIS PAPER WAS OF A TECHNICAL NATURE AND A LOT OVER THE HEAD OF THE EDITOR OF THE SHEEPHERDER. He hopes that he was ' in the ballpark' with his reporting,ie. fairly accurate. Goats have 60 chromosomes...North American sheep have 54 chromosomes...All sheep can interbreed between species.. ..Hemoglobin studies of blood samples from sheep trapped in the Lake Mead area and from those of Utah showed a difference in banding under spectrascopic examination....By this hemoglobin banding studies it is possible to classify animals according to species----that is to determine whether a blood sample came from an elk, deer, bighorn sheep, peccary, etc. Such classification for proof can be obtained even when there are only a few specks of blood to serve as a sample, for evidence. For these reasons alone the hemo-types must be considered when the introduction of a specie is considered for a given area.

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The September - October 1973 issue of New Mexico Wildlife carries an article by Pete Petersen and Larry Deaven----CYTOGENETICS. This is closely related to the paper by Juan Spillette referred to above . Cytogenetics is that branch of biological science that attempts to understand hereditary characteristics by studying chromosomes, the cellular structures which contain the genes, the basic units of inheritance. This subject was first only concerned with fruit flies and bread molds. Now however its impact is being measured in billions of dollars annually to the nation's economy. These two scientists of the radiology group of the Los Alamos Scientific Laboratory are spending their free time in studying applications of science to the field of wildlife.....All mammals have very close-to-identical amounts of genetic material in each cell. This statement holds not only for the common laboratory species- mice, rats and hamsters,etc., but for bobcats and bighorns as well. However the chromosomes are distinct in appearance and number and to a trained biologist are almost as distinctive as the animal itself....Cells from any animal have the property of living and growing in an artificial medium chemically quite similar in composition to blood serum.....Therefore a tiny sample of tissue can furnish a great deal of laboratory material.....The banding spoken of by Spillette is known as Giemsa banding, and is of course seen only under the microscope in the laboratory.....By this method it is possible to determine whether or not a particular animal would make a suitable animal with which to try to build a reintroduced specie, rather than to have to wait for a very long period of time to determine whether or not this animal might contaminate the gene pool of the species....Nature would in time remove this strain from the area, but it might take longer than we have time to wait....The authors pose a question, " A more subtle question concerns the true identity of species. Clearly, Dall, Stone and Rocky MOuntain bighorns shee p share range in the Yukon Territory, yet remain discrete species. Are Rocky Mountain and desert bighorn sheep, the other member of the "big four", also discrete? And can Rocky Mountain and desert bighorn sheep share range or should releases be remote from one another?.....These advanced methods will eventually permit the decisions to be made and the time scale is short enough to ensure that we will not inadvertantly lose animals more rare and precious than we realize" ....-New Mexico had a number of Asiatic red sheep and also some from northern Iran...Decison was made to phase out the Asiatic sheep for fear that they might interbreed with the desert bighorns and contaminate the strain. The next question to solve was whether or not there had been any interbreeding between the Asiatic and Iranian sheep...The Asiatics were known to have 54 chromosomes and the Iranian have 58 ...Therefore the laboratory could determing whether or not there had been any hybridization.....All of the propogated sheep were found to be Asiatics and worth a great deal more money...and were salable.

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TUCANNON SHEEP OF THE STATE OF WASHINGTON

The March - April issue of THE SHEEPHERDER carried an article concerning sheep introductions in the State of Washington. We now have a follow-up letter from L.D. Parsons, Supervisor of Big Game Management who states,"In Washington, our bighorns were all but gone until we re-introduced California bighorns from British Columbia in 1957 and Rocky Mountain bighorns from Alberta in 1972. Although we now have about 300 in the state, we are experiencing the same problems as other sheep states with some of our populations. I am sending you a copy of Rolf Johnson's March 1974 report in which he explains an analysis he made during 1973 in the Blue Mountains.(Wooten Wildlife Recreation Area.)
Whereas, we have been very successful with our stocking program, we are not kidding ourselves or anybody else that things are all peaches and cream. I would say that our enthusiasm of several years ago is now tempered with the reality that unlike deer and elk, bighorns are poor competitors with other ungulates. Finding a closet for bighorns to live in is difficult, but we will continue our sheep program anyway."

Rolf Johnson states in his report, " A declining bighorn sheep population in the Tucannon area of southeastern Washington precipitated an either sex hunt in 1973 to collect biological information from hunter harvested sheep. (Hunters were required to bring in all gut material from sheep killed, also to fill three test tubes with blood; to save the testes of any ram taken; the fecal pellets of the lower digestive tract were to be saved; also to be taken by a biologist a section of the femur and also the lower jaw of any animal taken. These were all to be classified and examined in a State-Federal Laboratory and in the Laboratory of the Washington State University, and in the laboratory of the Western Washington State College . Veterinarians of these institutions supervised and assisted in this work.)
A total of six sheep were collected on the Tucannon unit and a total of 13 statewide. Lungs of all sheep taken were analized.
No lungworm was found in any of Washington's bighorns in 1973. Fecal pellets analysis of Tucannon sheep confirmed absence of lungworm but revealed presence of the intestinal worm Nematodirus. A few Nodular Worms (Oesophagostomum sp.) and tapeworms (Wyominia tetoni) were found in the Tucannon sheep but not enough to be a serious problem. Pinworms (Skrjabinema ovis) were found in the intestine of the ewe killed in the Clockum area but the infection was insignificant.
Reproduction tracts from six ewes were examined. The four killed in September, before breeding, were not pregnant while the two ewes killed in December were pregnant. Ovarian functions appeared normal. Sperm smear slides from the epididymis of two rams killed in September revealed an abundance of sperm.
Results of kidney and marrow fat tests indicated most of the sheep are in good physical condition, at least in the fall of the year. The only sheep with low fat indices were lactating ewes. Blood tests for brucelosis and anaplamosis were negative.
The population of the Tucannon herd of sheep is thought to be about 80. The estimate in 1969 was for apopulation of 130. Part of the population decline may be attributed to the movement of sheep out of the Wooten WRA. Numerous sightings have been reported from areas away from the Tucannon area. The movement of a significant number of sheep out of the Wooten WRA is probably associated with increased competition from cattle and elk but could also be influenced by human activity. The scattering of small bands of sheep over vast areas has made population estimates more difficult . If the ages of the harvested animals are a reflection of the true age structure, the sheep remaining on the Wooten WRA are relatively old sheep.

Biological examination of the Tucannon sheep revealed no significant parasite or disease problems. The declining population is probably the result of poor survival of lambs and not a die off of adult sheep.
Either lambs have succumed to some disease fatal only to the young(such as nematodirosis), or human activity in the Wooten WRA has caused stresses adversely influencing reproduction or competition from cattle and elk has caused malnutrition, affecting especially lambs and pregnat ewes.
If a huntable population of bighorn sheep is to be maintained in the Tucannon, the population of competing herbivores will have to be regulated. If the population of competing herbivores is not regulated, then efforts to maintain a huntable population should be abandoned and sheep transplanted to a new location where fewer animals compete for available forage.

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DID YOU KNOW THAT James DeForge, a Director of the Society has an application before the California Fish and Game Commission, and which will be heard July 26, 1974 in Eureka? Jim is applying for permission to capture sheep in the San Gabriel Mountains and then use radio telemetry to track and study their movements. Previous studies by DeForge have caused the US Forest Service to modify some of their activities in the San Gabriel Mountains and in the Mt. Baldy area. Jim has also presented papers before the Desert Bighorn Council the past two years. If you would like to give Jim a hand in getting his study "off the ground", then write a letter to Mr. Les Edgerton, Executive Secretary of the C.F & G Commission, 1416 - Ninth St., Sacramento, California, 95814.--RIGHT AWAY

EDITORIAL APOLOGY: THIS WILL BE RECEIVED TOO LATE BY RECIPIENTS FOR THEM TO GIVE ANY INPUT TO C.F. & G. COMMISSION. LEW.

HELP WANTED

Project Date Changed

Manual labor, helping build big game guzzler in the Piute Mountains the weekend of NOVEMBER 9th and 10th., 1974. This will be rough, dirty, sweaty work, no compensation will be given except the satisfaction of a job well done for California's wildlife. Obtain maps and schedule from project leader John Massie, Volunteer Desert Water and Wildlife Survey Project, California Department of Fish and Game, 350 Golden Shore, Long Beach, Calif. 90802

(This is an equal opportunity volunteer agency, no discrimination on the basis of age, sex, race or religion.)

The reason for the date change from August 10th to November 9th is because a large number of people who wish to work on the project have signified that mid-August is just too darn hot to do manual labor in the desert, no matter how important the job may be.

John Massie in a letter also notes that the weekend of November 9 - 10th will be the second weekend of chukar and quail season. A good work-Saturday , hunt-Sunday could be had by a lot of volunteers. IT SOUNDS LIKE A WINNER, as Marv Wood is wont to say.

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HERE IS ANOTHER OPPORTUNITY FOR MEMBERS OF THE SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP TO MAKE A CONTRIBUTION.

A letter from James A. "Jim" Blaisdell, a frequent contributor to THE SHEEPHERDER, and a hard working member of the DESERT BIGHORN COUNCIL, CONCERNING PHOTOGRAPHS FOR THE SOON TO BE PUBLISHED book "THE DESERT BIGHORN". (I have seen the manuscripts and this is one book which every one interested in the bighorns will wish to have in their library.) Jim states, "Word has reached me from book editors Lowell Sumner and Gale Monson that most of the chapter work is completed, and that it is time for a call for photographs to illustrate " The Desert Bighorn." If you have good photos, please send them directly to: Gale Monson, 8831 North Riviera Drive, Tucson, Arizona 85704.

Here are several things you need to know regarding the photographs:

1. Black and white negatives are preferred, although black and white prints as well as original color slides could be used.

2. The photographs should not be just good pictures of bighorn, but should illustrate the subject of the chapter in which they are used. The bighorn should be doing something. Good habitat photos, fences, predation, water, etc., may also be used.

3. Negatives, prints or slides sent to the publisher probably will not be returned to the sender. Just consider it a donation for the priviledge of having it appear in the book

4. Please have your pictures in to Gale by August 3. Time is important if we are to go to press soon. Best do it now , lest you forget....."

DID YOU PUT THIS DATE ON YOUR CALENDAR YET?

If not, then now would be a good time to do so. The Society's fall dinner meeting has been set for Saturday evening, October 19th, 1974 at the TAIL O' THE COCK restaurant, 477 South La Cienaga Blvd., Los Angeles, California.

MORE WATER FOR BIGHORN SHEEP

Report and pictures by Bud Wiedeman

A volunteer wildlife project took place on May 18 and 19, 1974 to supplement the existing water supply at Weavernoy Spring in the Granite Mountains, north of Desert Center and east of Iron Mountain in Riverside County. The project was supervised by California Department of Fish and Game Habitat Supervisor John Massie.

On Thursday May 16, three 1500 gallon water tanks, 350 feet of 2-inch galvanized pipe and fittings, several lengths fo reinforcement bars, 3 cement mixers, 3 generators, 72 sacks of cement , , picks, shovels, buckets and tools, 8 -55 gallon barrels of water, 15 gallons of drinking water were all airlifted by helicopter to the project site at Weavernoy Spring.

To help the volunteer workers locate the camping area, a volunteer waater project sign and blinker was set up 8 miles east of the Iron Mt. road at the turn-off to the camping area. A camp site was selected 2.8 miles in from the turn-off. There a campsite sign was erected.

Saturday, May 18, at 8:15, 67 volunteer workers and 6 Fish and GAme personnel were shuttled four miles to the base of the Granite Mts. in six four-wheeel-drive pickups. Three of these pickups were furnished by members of the volunteer work party. From there the work party hiked two miles up the canyon to the project site at Weavernoy Spring.

There the work to be done was outlined and the work party was split into four groups. The largest group hiked up the canyon approximately 100 yards, to begin the construction of the main dam, which would be 3 feet high, 4 feet thick and 15 feet long. Before this could be done, the cement mixer they were to use had to be moved 100 yards or more down the boulder strewn canyon to the dam site. This involved a bit of ingenuity and man power. (The completed dam is shown at the left)

Upper dam after completion

The second group worked assembling a 2-inch diameter pipeline, that would carry the water from the dam down canyon 275 feet to the three 1500 gallon tanks.(see 2nd picture on left.) The pipeline was fastened to the side of the canyon wherever possible. When the distance was too great, across a ravine, a rock cairn was built to support the pipe.

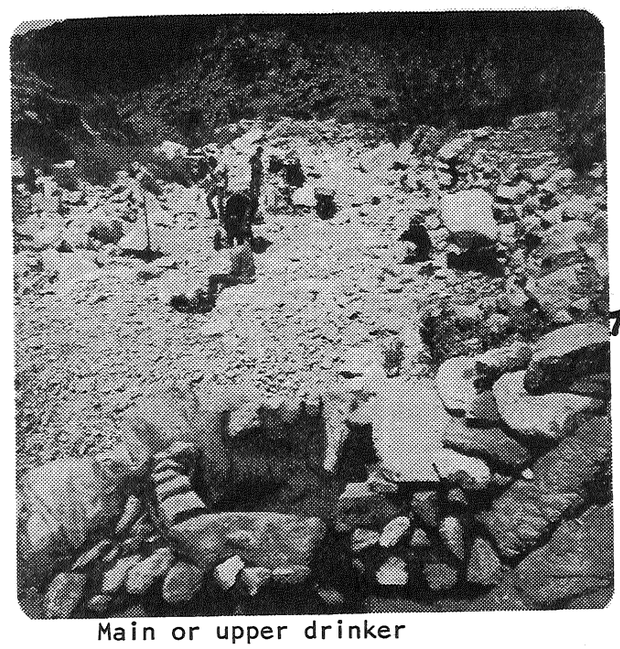
The third group went to work digging a space 12 feet wide, and 14 feet long to cement in a platform to set the three 1500 gallon water tanks on. The platform when completed was 15 feet above the canyon floor. In order to obtain the 12 foot width for the platform they had to build a three foot wall out of rock and cement and make a fill. When the wall and fill were completed the crew was able to cement and level the platform surface. The water tanks were then hoisted up onto the platform and set in place.

The fourth crew began construction on a smaller dam at Weavernoy Spring. This dam would be about ten feet long and two feet high. A 3/4 inch pipe was installed below the survace of the dam and later connected to a float valve controlled drinker , constructed on the lower front of the dam. This was done to collect under surface water which could be metered to wildlife from the drinker.

There were 11 women in the Volunteer Work Party. Some of these girls were really outstanding. Their enthusiasm and the work they accomplished is to be commended.

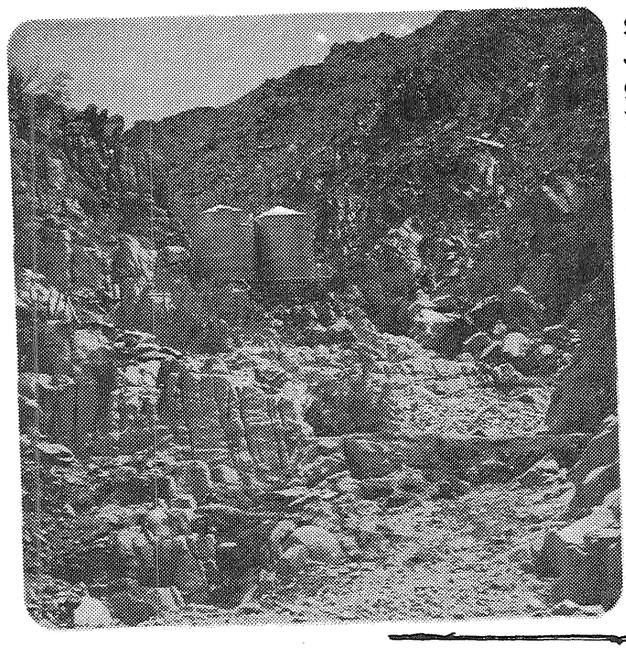
Tanks setting on the platform

By 6:30 p.m. the work had been completed on the upper dam, the pipe line, the lower dam and drinker, and the three 1500 gallon tanks were set in place on the platform. By 8:00 p.m. everyone was back at the campsite. Sunday, three Fish and Game personnel, and five men from the Sheep Society, and o ne from the Southern Council, two members of the San Fernando Sportsmen's Club, and four Pierce College students made up our work party. The work on Sunday, consisted of cementing the rock cairns that were constructed to support the pipe. The two-inch diameter pipeline and the water tanks were then connected together. The main drinker, (third picture on left),below the water tanks was constructed and 60 feet of 3/4 inch pipe was installed connecting the tanks to the drinker, after which, the entire 60 feet of pipe was wrapped with an insulation material. A float controlled valve was then attached to the drinker. Large flat rocks were placed over a portion of both the upper and lower drinkers to hide the float and valve from view. When this was completed, the area was cleaned up and all of the equipment, tools, extra cement and empty cans and drums, were put in chutes and were made ready for the air-lift out of the canyon. The work party was on its way out at 3:00 p.m. and arrived back at the campsite at 6:00 p.m. (sand on this project was at a premium--it was like looking for gold.)



Main or upper drinker

Those participating in the project were: Department of Fish and Game: John Massie, Wildlife Habitat Supervisor; Mike Bird, Les Coombs, Hal Clemmons, all of Long Beach; Jim Snowden, Blythe; Jim Worthington, Blythe; Society for Conservation of Bighorn Sheep: Bud Wiedeman, Glenn Sudmeier, and his guests: Richard Gifford, Lake Havasu, Arizona; Darrell Nowdesha, Torrance, and Michael Schmidt, Long Beach; Southern Council of Conservation Clubs--Bob Juergens; Douglas Rod and Gun Club LOng Beach, Harold Bogardue and Don Waltz Explorer Post 621X Los Angeles, John Lowery and his explorers Bill Lowery,, Matt LOwery , Scott Annand, and Robert Garcia; Altadena Sportsmen's Club-- Bill Dowell, Keith Dowell, and Ed Groleau; San Fernando Sportsmen's Club -- Fred Bebert and Bud Sheppard; Sierra Club -- Frank Baran, Alan Miller, Tina Hudson, Inis Gambrett and Anne Schoene; From the Long Beach State University -- Charles A. Allen; The Pierce College in the San Fernando Valley was well represented by --Kristin Erickson, Becky



Shinn, Brenda Thomas, Debbie Stamp, Mindy McCarthy, Janice Young, Kathy Lau, and Kim Kirkpatrick. These girls did fine work and contributed a great deal. These young ladies were assisted by the following young men from Pierce College - Richard Larimore, Michael Vradenburg, Kevin Strange, James Bean, Tim Thomas, David Satro, Roger Olson, Brooks Collom, Ted Shnur, Ron Damon, David Harper, Robert Perron, Steven Parsons, Robert Neaman, Leonard Birken, Brian Farrell, and Bryan Tarril. Boy Scouts of America--Troop 670, Cypress, California -- Dr. Spencer, Don Salmon, Manny Gabler, Jerry Gardner, and their 20 Boy Scouts, ages 11 to 17.

The Society for the Conservation of Bighorn Sheep extends their thanks and appreciation to everyone who gave of their time and effort in support of this project

Another view of the tanks - the upper drinker--the lower dam and its drinker.
(Thanks Bud for the good write-up and the pictures. lew.

Interior and Agriculture report on the Wild Horse and Burro Act.

On June 20, 1974 the Secretaries of Agriculture and Interior issued a report to Congress dealing with the administration of the Wild Free-Roaming Horse and Burro Act. The 1971 Act, Jointly administered by the Forest Service and the Bureau of Land Management, requires this report 30 months following enactment.

"The report to Congress shows that the wild horse and the wild burros are far from being a vanishing breed. It indicates that the number of these anim als using public lands is substantially greater than has been reported prior to the passage of the 1971 Act. At that time, based upon available data, it was estimated that there were approximately 17,000 wild horses and 10,000 burros on lands administered by the two Agencies. While the Forest Service reports no significant changes, it is now estimated that on BLM lands alone, there are 27,000 wild, free-roaming, unbranded and unclaimed horses and 14,000 burros grazing on public lands. In addition, 17,000 horses and 100 burros have been claimed as privately owned.

The reported increase in numbers is partially due to expanded efforts to locate wild herds and improved inventory methods. However, the larger figure also reflects a population growth. An annual growth rate of 20 to 25 percent has been documented for some herds. .....Officials estimate that it may take several years to complete the gathering of all horses now claimed under provisions of the Act.....Methods presently available for controlling populations are: relocating animals; assigning excess animals to private individuals and organizations under a cooperative agreement; and disposing of animals in a humane manner.....The relocation of wild horses and burros would merely delay the problem of overpopulation since the new herds could be expected to eventually increase beyond the carrying capacity of their new range. Also, the Act prevents relocating them to areas which were not inhabited by wild horses or burros at the time of the passage of the Act.

Although the disposal of excess wild horses and burros by humane methods has not been undertaken since implementation of the Act, such disposal practices will become necessary as populations increase.

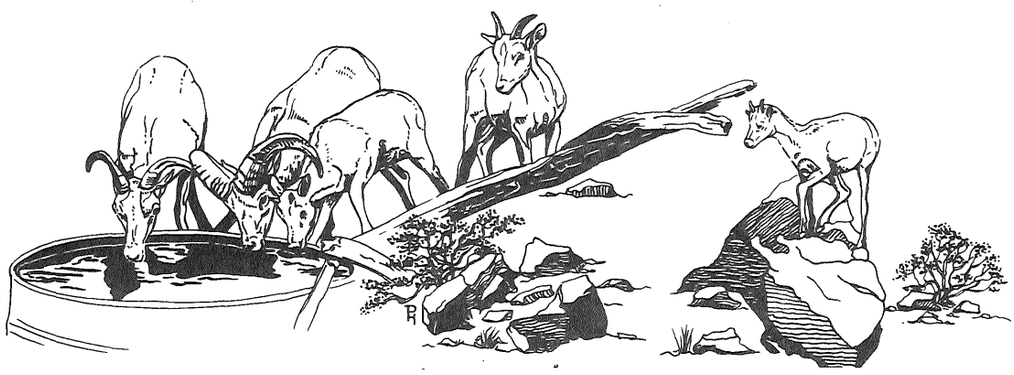
Two amendments to teh 1971 Act are being considered. The first amendment would permit the use of aircraft or other motorized vehicles to be used for the protection, management and control of wild horses and burros.....The second amendment would authorize the two Secretaries to sell or donate excess animals to private individuals or organizationa.

In the area of protection and surveillance of wild free-roaming horses and burros, the two Agencies have investigated many cases of suspected violations of the Act. In about 25 instances, there appeared to be sufficient reason to make a more detailed investigation. However, only three of these investigations produced sufficient information to refer the matter to the Department of Justice. To date, there has been no prosecution under the Act."

NOTE: The nine member Wild Horse and Burro Advisory Board met the last week in June. To date your editor has seen no report or news release which may have come out of this committee. Knowing the conflict for habitat between these feral animals and especially so between the burro and the wild sheep---your editor thought this report might be of some small interest.

A MEETING OF THE EXECUTIVE BOARD OF THE SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP was held in the Lake Arrowhead area Saturday evening July 13th. The Board met for dinner at the Sportsmen's Lodge and after dinner conducted the business of the organization at the Mountain Chalet of Bob Johnson, in nearby Cedar Glenn.
The Board voted to give full support to the project of Jim DeForge whose application for a sheep telemetry study is now before the California Fish and Game Commission. (see page three). This project also has the full support of the Calif. DFG.. Society Directors

will attempt to gain financial assistance for DeForge and his project.(Telemetry collars are about $50 each--and this is a small part of the expense.)
Dr. Lutz announces that (1) Tentative approval has been granted by the Riverside County Fish and Game Advisory Boardfor funds to purchase storage tanks for water to be used in the project scheduled in the Chuckwalla Mts. of Riverside County for October 5 and 6, 1974. Approval by the Riverside County Board of Supervisors must be obtained before plans for the project can be finalized. Necessary funds are on deposit in the County's Preservation Fund. Therefore, it is not expected that there will be any opposition to granting use of the funds.---(2) Dr. Lutz also announces that the water storage project scheduled for the Piute Mountains of Inyo County for November 9 and 10, 1974 (see page four) still appears favorable. Here again final authorization for the use of Fish adnd Game Preservation Funds is needed by the Inyo County Board of Supervisors. This approval is expected to be granted shortly. (3) Dr. Lutz wishes to remind all Members of the Society who have not yet conducted a waterhole census (sheep count) to date this summer that these counts should be completed prior to Labor Day if possible. A copy of census findings should be sent to Dr. Lutz as well as to John Massie of the DFG.---To this date (July 23 the only report that has been sent in has been from your editor concerning his lonely and meager count. (4) Dr. Lutz wishes to stress the October dinner meeting of the Society see page four. The Martinez Canyon Project is still alive--and still in the need of funds.



DEATH VALLEY NATIONAL MONUMENT NEEDS SOME HELP

On July 22nd your editor had a telephone conversation with Ranger Dean Garrett of the Death Valley National Monument. It is the wish of the Staff of the Monument to conduct the Annual Waterhole Sheep Count-Census this year during the Labor Day Weekend. As pointed out by Ranger Garrett this will be an excellent opportunity for husband-wife team to be together and at the same time achieve one of the main projects of the Society. Garrett said that last year (1973) there were a number of husband-wife teams. There are a large number of waterholes to be watched. Therefore, the schedule will have to be rather flexible. The present plan is for the volunteers to meet at the Visitors Center--Furnace Creek on August 30th for a period of orientation and then their final assignments to the specific spring or waterhole. Actual counting is planned for Saturday August 31, Sunday and Monday September 1 and 2, 1974. After the count is completed it is hoped that all participants can return to headquarters to make reports and check out before returning to their respective homes. Some areas of course will be at considerable distance from the headquarters and this type of check-out will not be convenient---this will be a flexible situation.
There are 2 or 3 sites which will require experienced backpackers to cover these water sources as they are in remote areas.
Some of the areas to be covered are in or near to the Valley floor and here the temperature can be expected to be a bit over 100 degrees.
Those areas above the Valley floor can be expected to have temperatures a little under 100 degrees. As everyone knows, in order for there to be a successful waterhole count the temperatures must be HOT.
Ranger Garrett requests that all volunteers PLEASE WRITE TO EITHER him or the Chief Ranger Dick Reiner at Death Valley National Monumnet, Death Valley, California . 92328---PRIOR to August 20, 1974
Death Valley National Monument personnel will then write to each respondent and give fuller particulars of what will be needed by the participants and what will be furnished by the Monumnet. I have been given assurance that shade from the sun will be available at each site to be covered.

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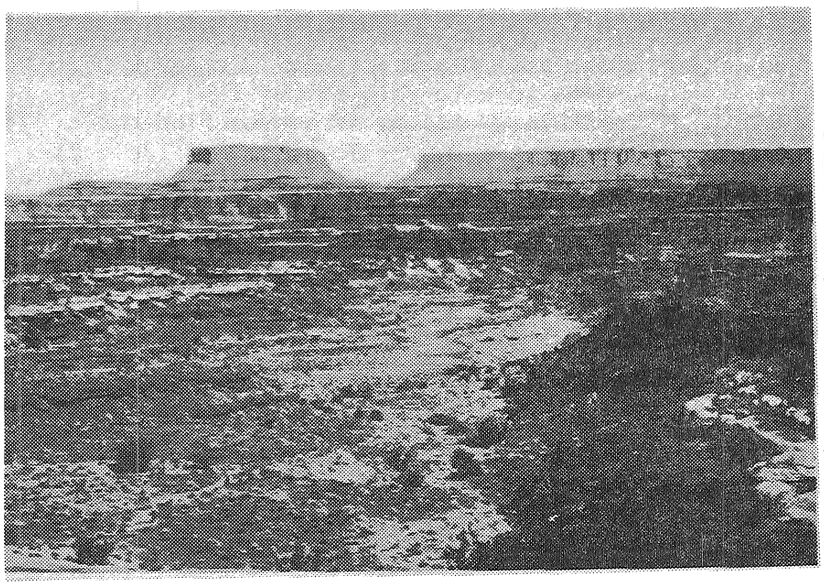
Your editor sat in a cave overlooking the Red Rock Caves Project in the Sacramento Mts. July 11, 12, and 13th. He saw only two ewes come in to drink during this time . Both ewes came in together, and each one of them had her right horn broken off about 3 inches from her head. The older ewe - the leader-would not permit the younger, although mature, ewe to drink until she had her fill. Tracks indicated that some sheep had come to water during the night. But, there is no way to tell whether there was one or more which did come in at night
Daytime temperatures varied from 92 to 94 to 98 degrees from 8:00a.m. until 6:30 p.m. The nights were pleasant. The tnks (2) of this project still contained approximately 700 gallons of water. A large number of bees are using the water. Sheep drank only from the up-hill side of the drinker. I have noticed this on numerous occassions and presume it is so that they may better watch for approaching danger. Reports this past week indicate heavy rains in parts of the Mojave esert.

A few notes from the Desert Bighorn Council meeting of April 1974, held in Moab, Utah.

Rodney John of the Utah Wildlife Resource Department reported on the "Capturing, Telemetrying and Monitoring of Desert Bighorn Sheep in Utah."

Two masters theses have been written concerning studies of the Desert Bighorn Sheep in the south-eastern part of Utah's Dark, White and Red Canyons. There is a great deal of information lacking concerning the sheep of Utah. Annual helicopter surveys are being conducted. This country is extremely rugged. It is a county of cliffs--hundreds of feet high and which have very few places where even an expert climber or hiker can get either up or down. In one 50 mile cliff area there are only 11 known places where climbing either up or down can be done by man. There is ~~little~~, therefore really very little known concerning movements of sheep throughout the year--migration routes are unknown. Cataract Canyon is known to have a good population of sheep as has the area between Newspaper Rock(pictured in the May - June issue) and Dead Horse State Park. There has been limited hunting(residents only) since 1965 except for the past two years. Sheep on the north side of White Canyon have been found to be infested with the Scabies Mite -none have been found on the sheep on the south side of this canyon. In 1970 a trapping program was begun. The trapping was done using small enclosures having drop wall traps. Posts were set in concrete--walls were smooth wire covered with burlap ~~on~~ the outside. Clover type traps have been tried--but not too successfully. The sheep trapped were fitted with colored collars and there are 12 which havehad radio collars installed on them. Mercury batteries used for power have been found to last about 8 months. In 1973 an improved transmitter was used with rechargable solar batteries which have a life expectancy of several years--these are now being combined with colored collars.



Typical sheep habitat in the area under discussion--photo by the editor.

Efforts are being made to determine the various "home ranges" of the herd units. No information has been obtained from the rams to date, although this should be coming available shortly as several have been captured during 1973. Due to the rugged type of terrain the capture by tranquillizing is very difficult. First a search is made for an animal by the use of helicopter. After a particular animal is chosen it is then pushed by the helicopter into a rough area having no escape, before darting is attempted. It is necessary to get within 40 to 50 feet of the animal due to the overhanging nature of the rock formations The Palmer 'Capshur Gun' is used to fire the dart . M-99 is used as the tranquillizing agent. Mortallity has been light there being a loss of only 2 sheep to date, compared with 24 animals successfully tranquillized. The animals go down in about 8 minutes. Tranquillized sheep are first blindfolded and tied. Blood samples are taken; they are checked for the Scabies Mite or other pests. As previously noted the scabies mite has been found only on the north side of White Canyon. Otherwise very few parasites have been found, except for an occassional round worm. Measurements of body length and height are made; tooth conditions are noted; in the case of rams they are measured as to the Boone and Crocket points vs. the seven-year age according to horn rings. M5050 is used as the agent to counteract the tranquillizer M-99 - restoration takes about 12 minutes. Telemeterized sheep are monitored at two week intervals. Each animal , of course, has its own broadcast frequency. Two Cessna - 180 fixed wing aircraft are used for the monitoring. Sheep having radios installed during 1972 were found in the same areas in 1973. Emphsis during 1974 will be in the tracking of ewes. It has been determined that the rams do a lot of travelling, while the ewes have a much smaller home range, and do not travel more than 8 miles from any given point. The establishment of the home range of sheep in Utah is very important. This information must be related to the granting or the denying of permits to oil and gas companies for their proposed explorations. A real effort is being made by the Wildlife Resource people to find any and all darts which have missed their targets. The drug M-99 is very dangerous to man- even on the surface of the skin. And, for man, there is no known specific, ie. certain remedy.

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CONTRIBUTIONS ARE NEEDED

You will note that Bud Wiedeman sent in a report of the development in the Granite Mts. Will some of the other members of the Society also PLEASE send in some reports of other projects, waterhole counting activities and things of interest which you may have observed. Picture accompanying the write-up are most welcome and may be either color, black and white prints, negatives or slides. THEY WILL BE RETURNED.

DID YOU MARK-UP THE VARIOUS DATES ON YOUR CALENDAR THAT HAVE BEEN MENTIONED? DO IT NOW.