SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP

The Sheepherder

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Dedicated to study and promote the conservation, propagation and preservation of the wild sheep of North America.

MAY -JUNE 1982

MOUNTAIN LION PREDATION ON THE MOUNT BAXTER HERD OF CALIFORNIA BIGHORN SHEEP - MARCH 1982

The California bighorn occurs in four populations in California: three in the Sierra Nevada, and one (a recent transplant) in the Warner Mountains. The subspecies is listed as "rare" by the California Department of Fish and Game.

There are approximately 290 of these sheep in the state. Most of these (about 200) occur in the Mount Baxter herd, west of Independence. This herd has been the source of sheep for transplant in recent years; and these transplanting efforts have allowed the re-establishment of at least two populations in their historic range. In order to remove these sheep from the "rare" classification, additional populations should be re-introduced. The Baxter herd is the only feasible source for transplant.

In recent months, predation by mountain lions has been significant. Considering only bighorn carcasses that were apparantly killed by mountain lions, an average of only one has been found on each of the previous four years on the Baxter herd winter range. This winter, five recent kills have been found. In addition to this, Dr. John Wehausen, an experienced bighorn researcher, observed a mountain lion catch an adult ewe near the mouth of Sawmill Canyon, one-half mile from the mouth on February 11, 1982.

Lion tracks are numerous, and size differences indicate the presence of at least two and possibly three different individuals. In the past, lion tracks were seen each year on the Baxter herd winter range, but during this winter the frequency has increased greatly. Locations of tracks indicate that at least two lions appear to be spending most of their time in bighorn habitat, where no deer occur at this time of year.

Lambs seem to be taken most frequently. Of the five recent kills found this year, three were identifiable as lambs. (At the other two sites, only hair and rumen contents were found).

Five censuses of this herd were done between February 8 and March 15, 1982 and the results are reported below:

	Bighorn Observed					
Dates	Ewes	Lambs	Yearling Rams	Adult Rams	Total	Lambs Per 100 ewes
2/8 to2/11	72	42	15	39	168	58
2/19	72	3 2	7	42	153	44
2/26 -2/27	60	26	12	49	147	43
3/5, 3/10	55	19	10	55	139	34
3/12, 3/15	52	17	9	51	129	33
M xima	72	42	15	55	184	58

Obviously, some bighorn were missed during each census. The observed lamb/ewe ratio is most likely accurate however. This ratio has decreased with each census done (from 58 to 33 lambs per 100 ewes), and carcasses found indicate that mountain lions are the cause of these losses.

Courtesy - Dick Weaver, California Department of Fish and Game

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Plans for capture:

General guidelines have been established regarding minimum numbers that should remain in the Baxter herd following removal for re-introduction, if something approaching a maximum sustained yield situation is to be maintained. These guidelines recommend a total population of 150, including at least 70 ewes.

Because the highest count of ewes this year was 72, it would be advisable not to remove the 10 to 15 ewes that normally would be desir able in an initial transplant. However, about five ewes could be removed without dropping significantly below the recommended maximum sustained yield figure; and this number of ewes (plus up to 15 lambs and rams) would provide significant augmentation to the 1980 Lubkin Creek transplant

Editorial note: It seems obvious that the California mountain lion is posing a significant threat to the bighorn sheep of the Mount Baxter herd.

Under the protection given the mountain lion by the California Legislature these past eight years, their population has seemingly gotten out of control. Predation by mountain lions in California has become rather widespread. Not only is wildlife being taken in increasing numbers but we get reports of predation on household pets--dogs and cats near population centers--especially where people have built their homes in canyon and foothill areas. Thirty-three of the California counties have reported mountain lion predation on domestic livestock since 1971. In Fresno County the Pacific Southwest Forest and Range Experiment Station working with the Cal. D.F.G. has been making a study on the North Kings Deer Herd. Radio collars have been put on fawn deer. Beginning in June 1979 fourteen collars were put on very young fawns. Of these four were killed by lions; one killed by a coyote; one killed by a bear and one of undetermined cause. In 1980 four of nine radio collared fawn were killed by lion. In 1981, five of ten collared fawns were killed by lions. Thus in a three year period 13 of the 33 radio collared fawns were killed by lions. This is a percentage of 39+ percent. How long can any species of wildlfie continue to withstand such pressure? The anti-hunting preservationists seek to make the mountain lion a completely protected species permanently. The DFG states in a report to the Legislature that "The mountain lion takes wildlife(eg. deer, elk, bighorn sheep) and may inhibit the effort to restore such species to the desired abundance."

CALIFORNIA LEGISLATURE GETS INVOLVED

On January 11, 1982 State Senator Robert Presley (D) of Riverside introduced his Senate Bill number 1333 which states: "Under existing law, until January 1, 1983, a mountain lion is not a game mammal and it is generally unlawful to take any mountain lion, except that a depredating mountain lion may be taken under a permit issued by the Department of Fish and Game. This bill would extend the January 1, 1983, termination date for the above provision to January 1, 1986, after which date it would be lawful to take mountain lions after procur- license tags and following a specified procedure.....". etc.
SB - 1333 after sel hearings was on March 28 passed out of the Senate Committee on Natural Resources and Wildlife with a "do Pass" report and sent to the Senate Committee on Finances. On April 13 the bill was sent to the Third Reading File. This practicaly assures that SB-1333- will get a "Do Pass" recommendation and sent to the Floor of the Senate for it's vote.

On May 11th the Senate floor vote was recorded on SB - 1333 passing the bill on to the Assembly. The vote was 21 to 13 for enactment. Central California Senators Ken Maddy, Rose Ann Vuich and Walter Stiern voted in opposition.

The Department of Fish and Game has been making a study of the mountain lion during the past eight years and has made its report to the Legislature and given it's recommendations, none of which included the terms of the Senate Bill introduced by Senator Presley. The DFG among its recommendations were that the present moratorium be permitted to expire on Jan. 1, 1983; that it be deleted as a game animal; that the F &G. Commission have the authority to regulate and manage mountain lions; that pursuit of mountain lions with dogs be allowed to continue as at present(which does not permit killing); that present depredation permit system be continued; to determine population trends; and to investigate the need to classify the subpopulation of Yuma lions as rare.

AGAIN THE LEGISLATURE Pays no heed to the advice of the professional biologists and wildlife managers of the Department of Fish and Game.

WHAT ELSE HAVE LEGISLATORS DONE FOR WILDLIFE?

On February 25, 1982 The honorable Gerald L. Felando (R) Assemblyman from Los Angeles introduced his AB - 2823. "This bill sought to delete bighorn sheep from that fully protected designation, and would make it unlawful to take any bighorn sheep without first obtaining a license tag from the Department of Fish and Game authorizing the taking of bighorn sheep."
In other words this bill would have returned management of the welfare of this species to that of the Department of Fish and Game and to the Fish and Game Commission where it has not been since the year 1873.
This bill was sent to the Assembly Committee on Water, Parks and Wildlife and set for its first hearing on March 31. Here it failed passage without any testimony being accepted by the committee. On April 14, Assemblyman Felando requested that reconsideration be granted. This was denied. Therefore the AB - 2823 by Assemblyman Felando is dead for this year.
WE WILL TRY AGAIN IN 1983.

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BIGHORN TRAPPING AND TRANSPLANT PROJECT; SPRING 1982

Tom Blankenship reported onApril 9, 1982 concerning the recently completed trapping operation on the winter range of the Mount Baxter herd of California bighorn.

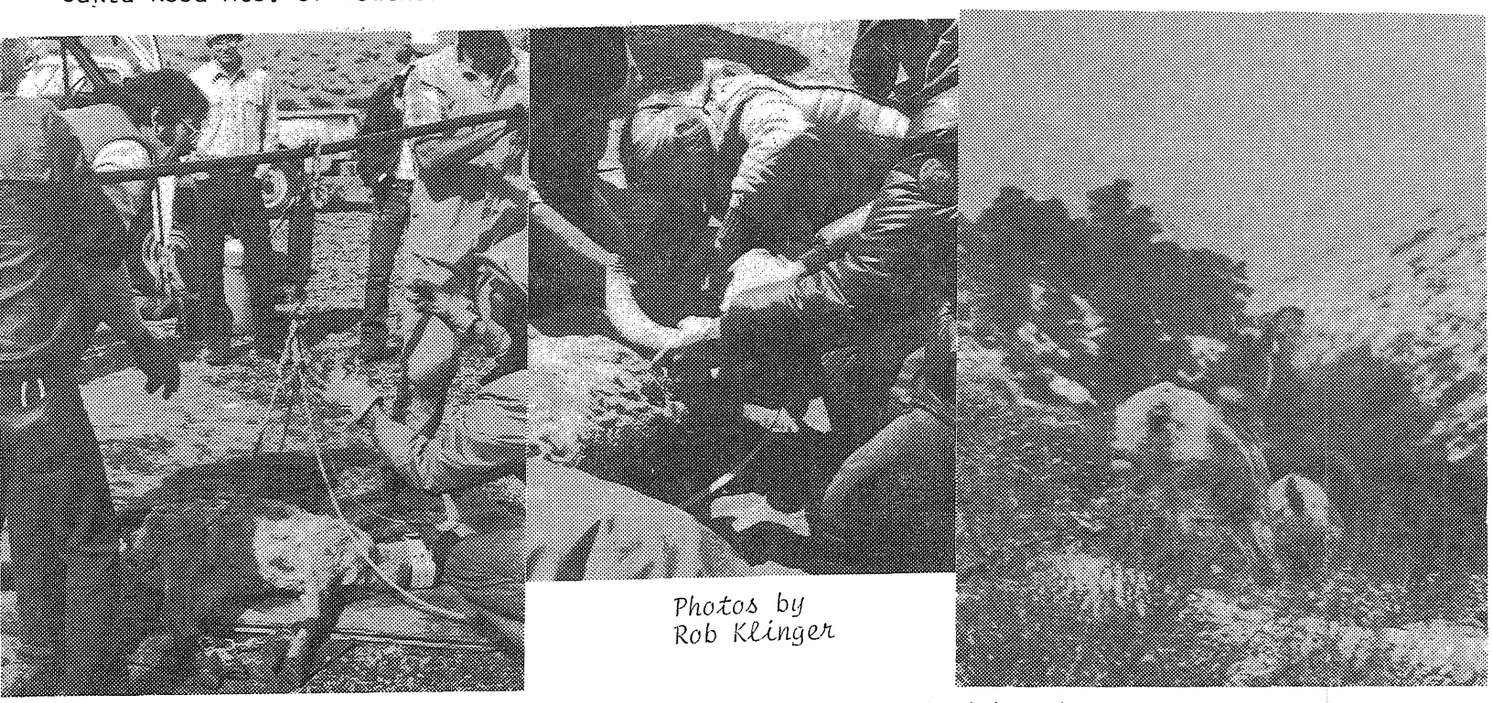
On March 31, ten bighorn were captured from the north side of Sawmill Canyon using drive nets. This group was consisted of six ewes , one lamb and three adult rams. One of these ewes escaped back into the Baxter herd range, after being collared. The remaining nine sheep were taken to Lubkin Creek, some 30 miles south of Sawmill Canyon, and released at about 06:00 the following morning.

That same day(April 1) ten adult rams were caught in drive nets south of Sawmill Canyon. Four of these were fitted with radio collars and taken to Wheeler Ridge. The remaining six rams were taken to Lubkin Creek to join those released there that day.

One additional ram taken on March 31 died immediately in the net. Necropsy showed the cause of death to be a crushed trachea. (This was the only sheep injured during the capture of 61 animals from the Baxter herd over the past four years). All other sheep taken on this two-day operation appeared to be in good condition when released.

All of the captured sheep were weighed and measured. Ages ranged from two to six years. Each animal recieved an eartag and a total of eight of them received radio telemetry collars including the ewe that escaped back into the area where capture took place.

The ram that was lost apparantly hit the net at full spead and a strand of the netting hit him at an especially vulnerable point. This is the only loss sustained in California with the use of the drive nets which have also been used effectively in capture efforts in the Santa Rosa Mts. of Southern California.



Photos by
Rob Klinger

Photos Courtesy of Dick Weaver, California Department of Fish and Game.
Left: the hobbled ewe is being weighed and measured; Center: shows the medical processing

47 SHEEP TRANSPLANTED FROM CANYON LANDS NATIONAL PARK

Mr. Keele Johnson, Chairman of the Utah Bighorn Sheep Society, headquartered in Blanding, Utah has sent in a report of some of the activities of the Utah soiety. The transplant program was carried out between January 25 and February 5, 1982. In all, 47 bighorns were captured by the use of helicopter and the drive-tangle nets. Utah has found that this manner of capture works a great deal better for them than has the capture by use of helicopter and use of the tranquillizer dart. As many as five sheep were caught at one time. It was found that if the helicopter was too close to the sheep that the sheep would scatter in all directions, and if too far away that the sheep just went where they pleased. A Hughes 500 helicopter was used because or the extra power and maneverability needed towork in the deep canyons.

The nets were set up by the Park Service and Wildlife Resources personnel at the lower ends of the canyons, across the washes. When driven by the helicopter the sheep were moved down the canyons into the washes at the bottom. The sheep were then run down the washes around a corner and directly into the tangle nets. After being captured the sheep were transported to nearby four-horse trailers. The sheep were moved to the trailers by two men grasping hands under the sheep's chest and holding the animals horns with the free hand. When the sheep were placed in the trailer, they were nervous until a second animal was placed in the trailer, then the sheep would settle down and there were no adverse effects as is common with drugs.

Twenty three sheep, 15 ewes and eight rams were transported by helicopter to the Maze district. The helicopter would transport the animals a few miles across the Green River saving hundreds of miles of travel by road. The remaining animals were transported by the horse trailers to the Kaiparowitz area---ten ewes and three rams and to the San Raphael Swell area. where the nine ewes and two rams were released.

The financing of these transplants was obtained with the help of the Foundation for North American Wild Sheep $5,000. and from the sealed bidding for a ram sheep permit which was sold in 1982 for $22,000. This method of capture has proven far less expensive than capture by use of helicopter and darting with drugs.

Two deaths of diseased sheep occured. Both had sinusitis. One was sent to Bob Glaze of Kerrville, Texas. Also a ewe that had been radio collared was repatured. She also had sinusitis and was sent alive to Dr. Glaze. The other sheep lost was also an old ram and had other complications.

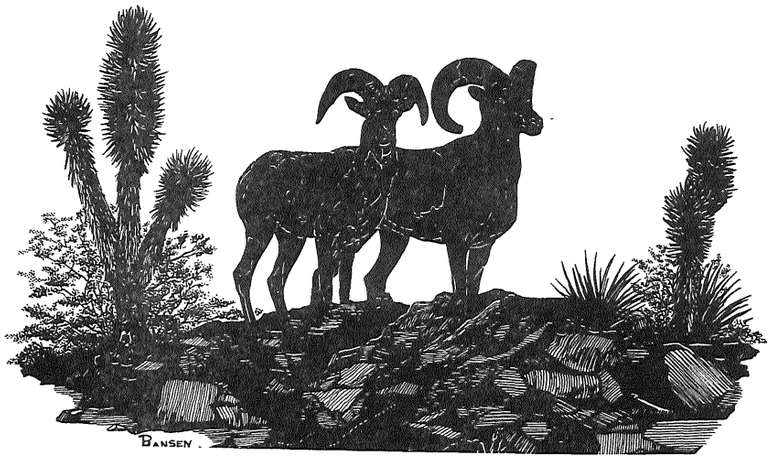
Six additional sheep were radio collared. These were on BLM lands east of the river. They will be used in a study being conducted by Mike King.

The Utah Society also has a program of water development. One such project was sceduled for the weekend of May 1st and 2nd, 1982 in the Red Canyon area of Southeastern Utah near Blanding.

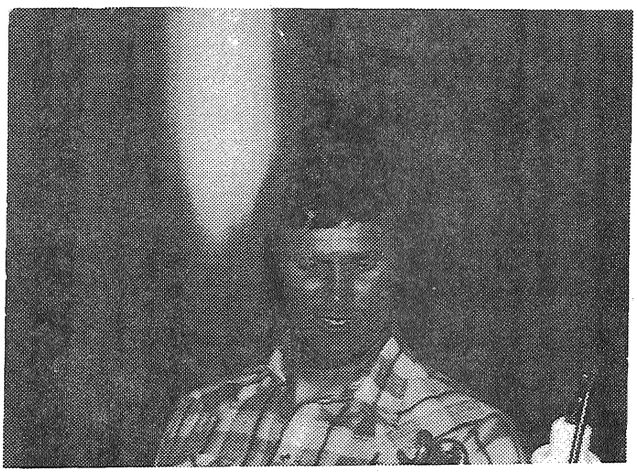
A SURGICAL TREATMENT OF CHRONIC SINUSITIS

Another article in this issue of T.S. mentioned the shipping of sheep suffering from sinusitis from Utah's Canyonlands to Dr. Robert Glaze, D.V.M. at Kerrivlle, Texas.

In order to attempt treatment of sinusitis by surgical means necessitated an active case of this infection. The radio collared ewe mentioned previously had an active abscess on the top of her head. Otherwise the ewe, which the Glazes named Emma arrived by air-freight in good shape. Treatment with antibiotics was begun at once. Then later after sedation, Dr. Glaze removed the horn that was infected. Emma survived for about four and one half months before dying from another cause than the surgery or the sinusitis



The above drawing by Pat Hansen is one of those used on the stationery for sale by the Society



Verne Bleich presents one of his two papers before the Desert Bighorn Council in April.

VOLUNTEER DESERT WATER AND WILDLIFE SURVEY SETS IMPRESSIVE RECORD

During sessions of the Desert Bighorn Council annuzl meeting held at Borrego Springs this past April Mr. Vern Bleich a biologist for the California Depaatment of Fish and Game reviewed two topics of great importance to the Society and to the desert bighorn sheep.

Mr. Bleich reviewed what has been accomplished by the Volunteers during the period of time beginning on July 1, 1969 up through June 30, 1981, as follows:
There have been recorded 10,138 man-days of labor the equivalent of 3½ man-years for 12 years; These volunteers have travelled a total of 706,900 vehicular miles at their own espense to perform this labor; these volunteers have also contributed $145,985 of services and supplies to this program .

Assuming a wage of $50. per man-day for labor and 15¢ per mile as a cost of vehiclular usage we arrive at a cash value in donated time, vehicle expense and $25 of per Diem expenses:

10,138 man-days @ $50 having a value of	$506, 900
10,138 man-days @ $25 per diem	$253,450
706,900 miles @ 15¢ per mile travelled	$106,035
donations of equipment and supplies to projects	$145,985

The grand total of the cash value of these contributions by the Volunteers then amounts to the impressive amount of $1, 012,370 and this is a conservative figure. This is because not all donated time, travel and materials have been recorded. Some of these volunteers have spent as much as 30 man-days per year for several years during the above time interval on the following:

(1) Inspected and maintained big game guzzlers of which only 336 have been reported,

(2) Inspected and/or maintained 897 small game guzzlers,

(3) developed 78 springs and maintained these 78 springs---as reported,

(4) Inspected and reported on 524 other springs, and

(5) Constructed 30 Big game guzzlers.

Vern Bleich's second report was concerned with the horizontal well program.

During this past year of 1981 the horizontal well equipment that was donated by the Safari Club International---Los Angeles Chapter a few years ago, was used on three projects only two of which proved successful. The successful wells were drilled at Jack Springon Ft. Irwin and at Wheelbarrow Spring in the Inyo Mountains. On the latter effort "we got 60 gallons per hour. The unsuccessful effort was at an unnamed site in the Chuckwalla Mountains of Riverside County. Vern reported that a soon to be published article in the Wildlife Society's bulletin will be concerned withthese horizontal wells as being drilled for wildlife benefits. Vern noted that the Wheelbarrow Spring site may well be a population center of a remnant herd of bighorns. If so, then this may be the determinant as to future survival of that herd. It is expected that this well will be heavily utilized by mule deer also.

Vern also reported that he had recently flown around the Marble and Clipper Mountains and the Piute Range in order to evaluate future guzzler locations that had been recommended by Glenn Sudmeier who coordinates the Water for Wildlife Program for the Society for the Conservation of Bighorn Sheep. The flight was real informative and resulted in some additional data that must now be evaluated and discussed prior to selecting additional sites in these ranges.

Bleich is also considering three locations for possible big game guzzler constructions for the coming year. The areas being considered by him are in the Chemehuevi Mountains, the Marble Mountains and in the Dry Mountain area

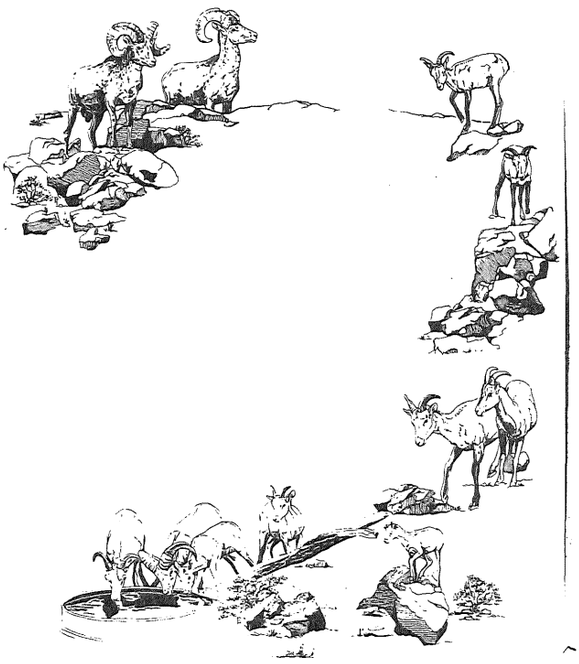
It is time to make plans for our summer waterhole counts. Try to pick the hottest time of the summer when rain is unlikely.

There will be another waterhole count in the Death Valley National Monument over the Labor Day weekend. Meet at Monument headquarters for instructions and assignment on September 3rd unless prior arrangements have been made. Counts to be made the4th, 5th and 6th of September.

Contact Pete Sanchez , Death Valley National Monument, Death Valley, Califoria, 92328 or phone him at: (714) 786 - 2331

November 13, 1982 Society's Annual Dinner for Southern California will be again held at Michael's Restaurant------DETAILS IN SEPTEMBER ISSUE OF THE SHEEPHERDER

WATER STILL NUMBER ONE FOR QUENCHING THIRST



The above drawing by Pat Hansen.

Thirst is the bane of those who travel the desert. especially in the summertime. It is something we each of us need to plan for these coming months as we plan our waterhole counts.

"Water, says the American College of Sports Medicine (ACSM), is the best thing to drink before, during and after strenuous exercise in the heat." None of the soft drinks or beer can match up to water for thirst quenching even if they are heavily diluted with water. A water loss of just three percent (thats six pounds - or six pints of sweat--if you are a 200 pounder) May significantly diminish exercise performance and provoke heat illness," warns Dr. Fox of the ACSM. He continues : "Taking of salt tablets without adequate water is far worse than taking no salt tablets at all." The recommended ratio is one pint of water for every seven grain salt tablet taken.

The majority of us on waterhole counts will drink an average of three or four quarts of water per day even if we are in deep shade throughout the day. We must make provision to have that much water available in our blind in addition to the water we will use for washing and for meals.

A bulletin from the University of California at Berkeley confirms the above which was taken from the Executive Fitness Newsletter of July 25, 1981 .

sent in by Dick Weaver

DESERT BIGHORN SHEEP NOTE PAPER STILL AVAILABLE

This select assortment of eight pen and ink drawings of bighorn sheep by artist Pat Hansen is offered on high quality paper with matching envelopes. Size of this stationery is 5" by 7". Pat Hansen who created this stationery is the widow of Chuck Hansen a wildlfe Biologist at Death Valley National Monument. During their years together in Death Valley she went into the field with Chuck during their studies of the bighorns and she did a lot of sketching while in the field with him.

Price is $5.75 per set and a charge of $1.50 per order to cover postage and handling. Send orders to the Editor of the Sheepherder, Lew Carpenter.

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SETTING IT STRAIGHT ON SHEEP RANGE PRESERVATION PURCHASE

In the November - December issue of T.S. the Editor questioned a statement that The Nature Conservancy had purchased some 7,700 acres of the Santa Rosa Mountains for a Desert Bighorn Sheep Preserve. He had received a plea for funds from T.N.C. in which the T.N.C. had stated that such a purchase had been made. His information was that such was not the case. He wrote to The Nature Conservancy in October, November and December seeking confirmation of such purchase. However no response had been received from Mr. Peter Seligman, the California Director of TNC until a letter was received in very late February. In that letter Mr. Seligman had stated that TNC had purchased some 37 sections of land in the Santa Rosa Mountains and that all of that land had been turned over to the Department of Fish and Game. Confirmation of this statement was requested of Mr. Fred Worthley, Regional Manager, Region 5 of the DFG in Long Beach. Being unable to answer these questions Mr. Worthley sent my letter to Mr. Chester M. Hart, Executive Officer of the California Wildlife Conservation Board. Mr. Hart has sent me two letters on this matter, the latter being received in Mid-April. Mr. Hart informs me (us) quote: "The Wildlife Conservation Board did receive assistance from both The Nature Conservancy and The Trust for Public Lands in acquiring bighorn sheep habitat in the Santa Rosa Mountains. Both of these organizations offered assistance in preacquiring lands in this area on the basis of assurances that the WCB would repurchase certain lands from them.

The WCB did meet all of its commitments of this nature, paying these organizations for all of their purchase and related costs for designated lands considered to be important bighorn habitat by the Department of Fish and Game and repurchased by WCB.

To the best of my knowledge, any deficits suffered by TNC in its transactions in the Santa Rosas involved other lands and possibly other governmental agencies.

During the period 1973 to 1978, the WCB acquired 24,873.66 acres of land in the Santa Rosa Mountains. Of this total, 17,820.83 acres were with TNC assistance, 1,945.00 with TPL assistance, and 5,107.83 acres without assistance of these organizations.

Of course, your organization and its members were helpful in supporting and aiding in the overall program, and particularly for the first major acquisition in 1975 from the Chemotti family in Martinez Canyon.

How we were able to put the funding together for this overall project may be interesting to you, because it is somewhat unusual and demonstrates the unique flexibility the WCB has for a governmental agency to work in such circumstances.

The main keys for the overall financing were $500,000 in 1974 Bond Act Funds that the WCB allocated for the project, and the availabilityto the WCB of federal grant monies from the Land and Water Conservation Fund, together with willingness of most of the sellers to donate some of the land value. Under the LWCF program, we were able to obtain federal reimbursements of 50% of the appraised fair market value of the land, but not to exceed the actual purchase price."

Through this procedure, the WCB was able to acquire land valued at nearly $2,756,000 for an expenditure of approximately $726,000 in State funds. Of this, approximately $550,000 came through the WCB from the 1974 and 1976 Bond Acts. About $176,000 was obtained by the Deparment of Fish and Game from special license plate monies, for the three parcels classified as ecological reserves within the area.

Nearly $1,290,000 in federal LWCF monies were utilized, and landowners donated approximately $740,000 in land values.

As you may be aware, the present federal administration has not budgeted for federal grants to states under the LWCF program, so this source of funds to the WCB has "dried up". We can no longer put together this kind of innovative financing scheme. However, we are glad that it was available during this period to enable us to carry out this major project for acquiring bighorn habitat in the Santa Rosas". end quote.

Mr. Wally Callam in a letter written for Mr. Worthley of the DFG confirms that The Nature Conservancy did attempt to obtain funding for land acquisition in the early stages of this project. Also, they joined the Society for the Conservation of Bighorn Sheep in the negotiations for the Chemotti properties in Martinez Canyon. The Nature Conservancy also participated in the purchase of the Siskon properties.

The purchase of 7,700 acres may be the Siskon purchase, which was turned over to the Wildlife Conservation Board. To the best of our knowledge, the transfer of 37 sections of land to federal or state governments in these mountains appears to be a misunderstanding.

The Editor of The Sheepherder appreciates getting this factual information from the above mentioned Mr. Fred Worthley, Mr. Wally Callam and from Mr. Chester Hart. It seems every increasingly a fact that there are many people and several organizations that are attempting to help assure that our beleaguered bighorn sheep have a suitable environment to help make certain that they will continue to exist in the wild and in suitable habitat.

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SOCIETY's RAFFLE DRAWING RESULTS ANNOUNCED

The drawing for the prizes on the raffle was held on March First this year as scheduled. The winner of the Five Day Alaskan Fishing trip is Mr. John Doll of 1518 North Benton Way, Los Angeles, California.

Second Prize winner is Sharon Nelson, 914 South 3rd Avenue, Arcadia, California. Sharon is the winner of the 12 guage Smith and Wesson shotgun.

Third Prize winner of the Weatherby spotting scope and tripod is Henry Weaver of 1113½ Stagg St., Sun Valley, California.

Fourth Prize winner of the Pachmayer stock is LaVelle Lasicka, 411 West "D" St., Brawley, California.

Fifth Prize winner of the .22 caliber rifle is Wilber Lyon, 1208 West Ramona Rd., Alhambra, California

The funds derived from this drawing will be put to good uses for bighorn sheep benefits.

Report sent to the Editor by Mrs. Marion Lutz.

AREAS BEING STUDIED FOR POSSIBLE TRANSPLANTS

There are many different areas of California that historically did have bighorn sheep rangeing on them. Some of these areas have been given reintroductions and others may receive such transplant effort during the next few years. One of these areas are in the mountains which lie to the South of Ventura and in the Los Angeles County. The San Gabriel Mountain herd of bighorn would serve as the source for such animals. The Los Angeles Fish and Game Advisory Commission has recommended to the L.A. County Board of Supervisors that some $20,000 be made available from the Propegation Fund for this effort.

Propagation Fund monies are derived through the Courts. People who are convicted of violations of the California Fish and Game Code are required to pay fines for their misdeads. These "Fine Monies" are then divided equally between the County of origin and the California Department of Fish and Game. These funds are supposed to be used for fish and wildlife restoration purposes. These Propagation Funds from the counties of California have been used to defray the costs of many of the big game guzzlers that have been built by the DFG with the assistance of the Volunteers for water for desert Wildlife program. (see another article this issue on this subject).

The area adjacent to and including the Lee Vining Canyon at the northeasterly part of the Yosemite National Park is also being studied for a reintrduction of bighorn sheep. This is historic range of the California bighorns. In fact, each year there are reports from Park visitors of some who have said that they have seen or have thought to have seen bighorns in some of this high and rugged area. Two areas within the Park at the head of the Lee Vining Canyon do seem to have good summer range possibilities. Winter range may not be of the quality needed. A study must be made of this area. In fact, a recent letter from Kathy Noland, Wildlife Biologist for the White Mountain Ranger District of the Inyo Nat'l Forest reports that : "Last winter, the Inyo National Forest began monitoring snow conditions on winter range in Lee Vining Canyon using photographic fixed points." Suggestions that this be done had been made by Dr. John Wehausen who has been studying the California bighorns of the Mt. Baxter herd during the past several years. Also a communication from Dick Riegelhuth a Biologist of the Yosemite National Park agrees that winter range conditions must be studied and suitabilities determined. Riegelhuth also is of the opinion that historically the bighorns of the Yosemite may have relied on a different type of terrain than that used by the Mt. Baxter herd. This is highly significant. Any reintroduction of bighorns must be from and into matching environments in order to be successful. as Dick says "The former Yosemite sheep might have been dependent on high, windswept plateaus, as they are in more northerly parts of the country, rather than the sheltered south exposures so favored by the Mt. Baxter sheep. For this reason satellite photography after each snowtorm might also be used to good advantage to get a good overview of snow conditions throughout what might be potential winter range inthe Lee Vining Canyon area.

Whatever decision may be made concerning a transplant into this Yosemite region it must be several years in the offing. The studies must be made and also the Mt. Baxter herd of bighorns must be allowed to rebuild its numbers before any sizeable number suitable for a reintroduction effort can be removed from it without jeopardizing the future of the Mt. Baxter herd.

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A phone conversation with Dr. Lutz (May 11) tells the Editor that he has been receiving reports that there have been sightings of bighorns in the Bighorn Range of mountains near the Big Bear Lake. Dr. Lutz says that the Bighorn Range is historic habitat and seems well suited for bighorns at present. The area will get further study for an augmentation transplant of bighorns from the San Gabriel Mountains.

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SAFARI INTERNATIONAL IS LATEST CONTRIBUTOR TO PUSCH STUDY

Safari Club International's Arizona Chapter recently donated $2,500 to support the Arizona Game and Fish Department's study of desert bighorn sheep living in the Pusch Ridge Wilderness area of the Coronado National Forest near Tucson. One of the several organizations to contribute financial support to the study, Safari previously gave $1,000 for the same purpose.

According to Department Field Coordinator Jim DeVos, $14,000 in funding has come from the U.S. Forest Service. The Arizona Desert Bighorn Sheep Society has donated $2,500 and $275 was given by the Tucson Rod and Gun Club.

Why is the Pusch Ridge so important? DeVos explains, "It's unique in that it's the only place in Arizona where we have a viable herd of desert bighorns in immediate proximity to people. All others are in isolated areas. Picknickers, backpackers and other recreationists enter the Pusch Ridge area in large numbers, and the area sees about 780,000 people-use-days per year."

The purpose of the anticipated five-year study will be to determine the effects of human encroachment on the sheep and to get baseline information on their movements, use areas and habitat preferences.

Mr. Ken Purdy a Graduate Student of the University of Arizona presented a paper to the Desert Bighorn Council during the Annual Meeting held in Kerrville, Texas in April 1981. This was reported in he Sheepherder issue of July-August 1981. Purdy had put in one year of graduate study on the above problems prior to his report

Wildlife Newsletter---Arizona G. & F. Dept. issueApril 23, 1982.

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LAST CHANCE GETS NEEDED FENCING

The November-December issue of T.S. carried a re½prt by Rocklin Wooley concerning the trespass of domestic livestock--cattle inside the fenced exclosure around the spring. The fence had been broken down and this permitted the cattle to enter the area.

Mr. Vernon Bleich, Associate Wildlife Biologist for the Department of Fish and Game-here in California has sent in a report about this project.

Mr. Tom Blankenship--DFG's Unit Manager for the Inyo County and surrounding area did the planning and directed the building of the project. Blankenship was also able to arrange the financing of the construction costs amounting to some $1,500. fron the Inyo-Mono Counties Fish and Game Advisory Committee. These funds were used to purchase the pipe, posts, barbed wire and the rentals of equipment used to weld the pipe in place.

The Project took place on April 17, 1982, and involved the installation of 240 feet of pipe fencing in the existing 1,800 foot barbed wire fence. In addition, all of the barbed wire was restretched, and the number of fence parts supporting the wire were doubled. As a result, we now have a 4.4 acres area within the fence, which will no longer be accessible to cattle, but will be available to mountain sheep and to mule deer.

Bleich also says, "During this project, volunteers contributed 123 man-days of labor and 6,256 vehicle miles toward the completion of this project. In addition, the funds previously mentioned defrayed the expenses for materials and support equipment. "Our (DFG's) (26-D) involvement was primarily one of supplying equipment, some recommendations, and manpower. Tom did a good job of planning the project."

A telephone call was also received from Rocklin Wooley about this project. Unfortunately he had been unable to be present due to business conflicts. He informs me, the Editor, that he will be sending photos of the rehabillitated area in the near future-after he has had an opportunity to again visit the area.

NOTE: The type of fencing used for this project was discovered as the result of studies made by Jack B. Helvie in Nevada. Helvie of the Bureau of Sports Fisheries and Wildlife, stitioned in Las Vegas made his report to the Desert Bighorn Council meeting during April 1971 held in Santa Fe, New Mexico. Helvie had determined that fences on desert bighorn sheep ranges can be detrimental to sheep. Experiments testing eight types of wire fences and five types of rail fences were conducted on the Desert National Wildlife Rnge from September 1970 through January 1971. Eleven captive bighorns were used as experimental animals. Fences that will minimize sheep mortality and cause minimal harmful effects on sheepmovements were studied. Helvie learned from his studies that a proper spacing of fence components would permit the passage through the fence by bighorn sheep and still prove effective barriers to cattle and to horses and burros.
Helvie's finding are being put to use on many of the sheep projects in the western states.

The type of fencing used is formally termed "A selective animal exclosure fencing." However it is also known, colloquially, as 'wild ass exclosure fencing'.

NATIVE SPECIES PROGRAM NEEDS A HELPING HAND

The Native Species Conservation program under the management of the Department of Fish and Game is in need of funds in order to carry out it's programs. The projects of this program are those species of California wildlife that are non-game species.

One of the species that have had assistance from these funds have been the desert bighorn sheep. One of the big game guzzlers was paid for out of these funds. In return for your gift of $5.00 or more you will receive a decal which may be used on your car or elsewhere. Send your checks to NATIVE SPECIES CONSERVATION PROGRAM, Department of Fish and Game, 1416 Ninth St., Sacramento, California 95814

If you do not already subscribe to Outdoor California you may do so by sending a check for $2.00 to Publication Section, P.O. Box 1015, North Highlands, Ca. 95660. The current issue has an article dealing with the radio lelemetry collars as have been installed on many of the bighorn sheep of California both on the Santa Rosa Mountains and the Mt. Baxter herds of bighorns reported on in these columnes.