THE SHEEPHERDER

The News Bulletin of the Society for the Conservation of Bighorn Sheep

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LOREN LUTZ AND DICK WEAVER REPRESENT THE SOCIETY ON TELEVISION--THE BEN HUNTER SHOW

BEN HUNTER: YOU SEE HERE A SCULPTURE OF A VANISHING SPECIES IN CALIFORNIA...THIS IS THE BIGHORN SHEEP...AND THE SHEEP HAS BEEN PROTECTED IN CALIFORNIA FOR THE PAST SEVENTY-FIVE YEARS. DESPITE THIS PROTECTION HIS NUMBERS ARE DECREASING EVERY YEAR. TO FIND OUT WHY, WE HAVE REPRESENTATIVES OF TWO DIFFERENT GROUPS. WE HAVE DR. LOREN LUTZ, WITH THE SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP AND WITH HIM IS DICK WEAVER, A BIOLOGIST WITH THE DEPARTMENT OF FISH AND GAME, AND DICK IS CURRENTLY CHAIRMAN OF AN ORGANIZATION OF PROFESSIONALS WHO ARE ALSO CONCERNED WITH THE BIGHORN SHEEP: THE DESERT BIGHORN COUNCIL. GENTLEMEN, IF THE ANIMAL HAS BEEN PROTECTED FOR SEVENTY-FIVE YEARS WHY ARE WE LOOSING HIM AND HOW DO WE KNOW THAT WE ARE LOOSING HIM?

DICK WEAVER: I THINK WE ARE LOOSING SHEEP BECAUSE WE ARE LOOSING HABITAT EVERY YEAR BECAUSE MORE AND MORE PEOPLE ARE GETTING OUT INTO OUR DESERT --FOR RECREATION, EVEN RESTAURANTS-- ARE MAKING INROADS INTO THE LIMITED SHEEP HABITAT.

BEN HUNTER: WOULD THESE BE VIOLATIONS, DICK WEAVER, OF THE LAW THAT IS SUPPOSED TO PROTECT THESE SHEEP? (WEAVER) NOT NECESSARILY AS THE LAW IS IN REFERENCE TO HUNTING AND POSSESSING THE ANIMAL. BUT THE LAND, IF IT IS GOVERNMENT LAND, THERE HAS BEEN QUITE A BIT DONE TO RETAIN IT IN GOVERNMENT OWNERSHIP AND PRIVATE LAND IS PRIVATE LAND, AND SOME OF IT NEEDS TO BE ACQUIRED FOR THE BIGHORN SHEEP.

(HUNTER) I WANT TO DIGRESS, FOR A SECOND, TO PINPOINT THESE TWO ORGANIZATIONS THAT YOU REPRESENT. (WEAVER) THE DESERT BIGHORN COUNCIL IS COMPOSED OF LAY CITIZENS AND PROFESSIONALS FROM THE DEPARTMENT OF FISH AND GAME FROM EVERY STATE IN THE SOUTHWEST, AND FEDERAL AGENCIES (THE FOREST SERVICE, THE PARK SERVICE, AND THE U.S. FISH AND WILDLIFE) HAVE BIOLOGISTS IN THE FIELD INTERESTED IN BIGHORN SHEEP. THE DESERT BIGHORN COUNCIL BEGAN BACK IN 1957, CONSIDERABLY BEFORE THE RECENT INTEREST IN ECOLOGY, AND WE MEET EVERY YEAR IN APRIL. THIS MEETING GIVES US A CHANCE TO COMPILE OUR PAPERS AND OUR KNOWLEDGE THAT WE HAVE ACQUIRED FROM YEAR TO YEAR.

(HUNTER) DR. LUTZ, YOU ARE A DENTIST, I KNOW, AND YOU ARE THE DIRECTOR OF THE SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP. I TAKE IT THAT THIS IS SORT OF A CITIZENS COMMITTEE. (LUTZ) THIS IS STRICTLY A LAY GROUP. OF COURSE, WE DO HAVE PROFESSIONAL MEMBERS WITHIN THE ORGANIZATION, AS DO MOST LAY GROUPS. WE CERTAINLY DO NEED PROF--

ESSIONAL ADVISEMENT, AND THERE ARE A LOT OF PEOPLE WHO HAVE DONATED TIME AND ENERGY THAT ARE NOT PROFESSIONALS. THE SOCIETY WAS FORMED IN 1964. IT IS A SINGLE CONCEPT SOCIETY HAVING TO DO WITH ALL OF THE AREAS OF ACCOMMODATION HAVING TO DO WITH THE CONSERVATION OF A SPECIES, AND THE SHEEP SOCIETY WAS SUCCESSFUL IN 1968 TO GET THE LEGISLATURE TO START A PROGRAM FOR SPECIES IDENTIFICATION AND NUMERICAL COUNT THROUGHOUT THE STATE OF CALIFORNIA...HOW MANY SHEEP WE DO HAVE...WHAT THEIR PROBLEMS ARE...WHAT KIND OF REGIME WE SHOULD HAVE, AND TRY TO CONSERVE THEM. THIS IS HOW DICK WEAVER AND HIS PARTNER JERRY MENSCH GOT INVOLVED WITH THE PROGRAM. THEY ARE IN CHARGE OF THIS IDENTIFICATION. ONE OF THE FIRST THINGS THEY FOUND WAS A DESERT WATERHOLE. THIS WATER HOLE WOULD FILL UP WITH WATER WHEN IT RAINED. NOW THE SHEEP WOULD EITHER FALL IN AND DROWN OR WOULD GO IN TO DRINK AND COULD NOT GET OUT. THE DEPARTMENT OF FISH AND GAME FOUND 34 SKELETONS IN THE TANK....THIS PROBLEM HAD BEEN OCCURING FOR CENTURIES AND IT IS HARD TO ESTIMATE HOW MANY SHEEP HAVE BEEN LOST. THE DEPARTMENT OF FISH AND GAME GOT IN THERE WITH A HELICOPTER AND BLASTED OUT A RAMP SO THE SHEEP CAN WATER WITHOUT DANGER OF BEING TRAPPED IN THE TANK.

(HUNTER) ACTUALLY WHAT WE ARE REALLY SAYING IS THAT THE SHEEP HABITAT IS BEING "EATEN" UP BY BUILDINGS AND CIVILIZATION AND HENCE THE ANIMAL IS BECOMING EXTINCT BECAUSE OF THAT. (WEAVER) THIS IS ONE OF THE MOST SERIOUS PROBLEMS...THERE ARE OTHER PROBLEMS-- COMPETITION WITH WILD BURROS... YOU CAN HAVE A WATERHOLE AND WATER SUPPLY IS LIMITED...THE BURRO IS DOMINANT AND WILL DRINK ALL OF THE WATER. THE SHEEP SOCIETY CAN BE HELPFUL IN TRYING TO GET LEGISLATION TO TRY TO CHANGE THE SITUATION. (HUNTER) ARE YOU TRYING TO GET A LAND PRESERVE OF SOME KIND FOR THESE ANIMALS? (LUTZ) NO! WE ARE AGAINST SANCTUARIES! IT'S JUST LIKE THE FRAILITY OF SAYING THAT THIS ANIMAL IS PROTECTED AND THEN NOT DOING ANYTHING ABOUT IT...YOU CAN'T JUST BUILD A LINE AND SAY THAT THIS IS A SANCTUARY AND THEN JUST IGNORE THE ANIMAL. ESPECIALLY WHEN WE CREATED THE PROBLEM TO START WITH...A CASE IN POINT-- PALM SPRINGS HAS AN AREA BEHIND IT BACK IN THE SANTA ROSA AND SAN JACINTO RANGES THAT HAS BEEN DECLARED BY THE STATE LEGISLATURE AS A SANCTUARY. LAST YEAR THE CITY OF PALM SPRINGS ANNEXED SOME FORTY SQUARE MILES OF THAT TERRITORY FOR HOUSING DEVELOPMENTS....SAYING THAT THEY THOUGHT THAT THEY WERE BETTER EQUIPPED TO MANAGE THE LAND AND THE WILDLIFE ON IT. IT WILL BE TURNED INTO PARCELS FROM ONE TO FOUR ACRES...THIS ISN'T THAT IMPORTANT FOR SHEEP...BUT THE SHEEP DO UTILIZE THE AREA. THE IMPORTANT THING ABOUT IT IS THAT ADJACENT TO, AND THEREFORE AFFECTED BY THIS DEVELOPMENT ARE VERY IMPORTANT WILDLIFE AREAS...ESPECIALLY TO SHEEP....AND THESE VALUES WILL BE DESTROYED BY THIS DEVELOPMENT.

(HUNTER) THEN WHAT SPECIFICALLY MUST BE DONE...IN OTHERWORDS IF YOU DO NOT WANT A SANCTUARY FOR THE ANIMALS, WHAT ARE YOU GOING TO DO IF YOU WANT THEM TO HAVE A PLACE TO LIVE? (LUTZ) THE IMPORTANT THING, OF COURSE, ANYTIME ANY AGENCY CONSIDERS ANY KIND OF A PLAN HAVING TO DO WITH THE MANIPULATION OF LAND , THE HABITAT OF WILDLIFE SHOULD BE CONSIDERED.

SIXTH ANNUAL MEETING OF THE MEMBERS OF THE SOCIETY FOR THE CONSERVATION OF BIGHORN SHEEP

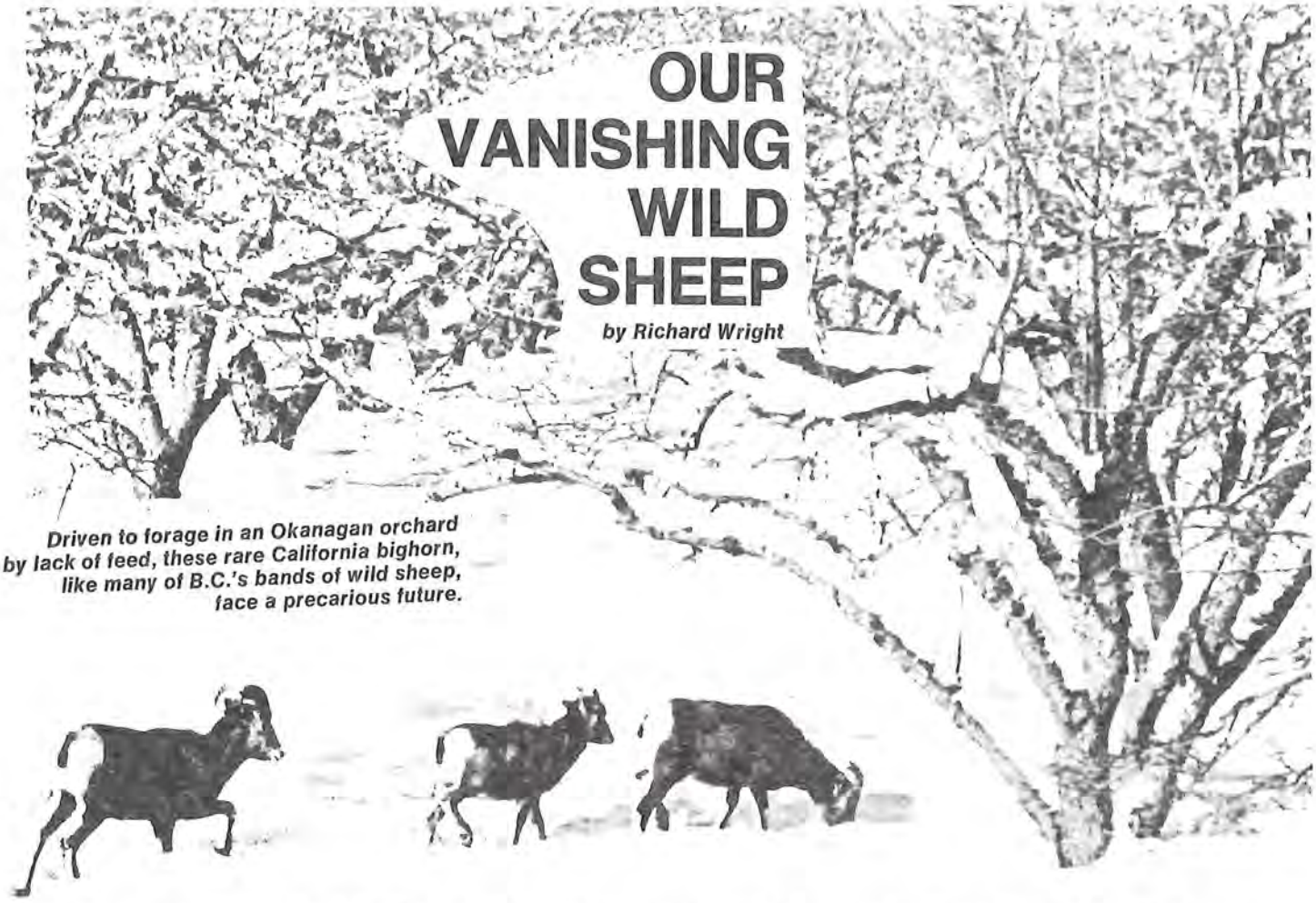
I HAVE ENCLOSED A SEPARATE PAGE GIVING DETAILS OF OUR ANNUAL MEETING TO BE HELD ON FEBRUARY 22, 1971. I HAVE PROVIDED A PROXY FOR YOU TO RETURN TO THE SOCIETY SHOULD YOU BE UNABLE TO ATTEND. ALL MEMBERS NOT ATTENDING ARE URGED TO RETURN YOUR PROXY. THIS IS VERY IMPORTANT.

YOUR DUES ARE DUE

IF THERE IS A LARGE RED CHECK IN THIS BOX ( ) OUR RECORDS INDICATE THAT YOU HAVE NOT PAID YOUR DUES FOR A PERIOD OF SIXTY (60) DAYS FROM THE BEGINNING OF THE FISCAL YEAR WHICH IS JANUARY 1, 1970. THESE DEFAULTING MEMBERS HAVE BEEN TERMINATED AS PER THE BOARD OF DIRECTORS ACTION NOVEMBER 17, 1970. THE SHEEPHERDER WILL NOT BE MAILED TO ANYONE WHO HAS NOT PAID THEIR DUES. IN THE EVENT OF AN ERROR, AND THAT I HAVE CHECKED THE ABOVE BOX, PLEASE NOTIFY ME TO ASSURE THAT YOU WILL CONTINUE TO RECEIVE THIS PUBLICATION. IF YOU HAVE NOT PAID YOUR DUES HOW ABOUT SENDING US YOUR CHECK. WE NEED YOUR SUPPORT AND THE BIGHORN SHEEP NEED YOUR HELP.

OUR VANISHING WILD SHEEP

by Richard Wright



Driven to forage in an Okanagan orchard by lack of feed, these rare California bighorn, like many of B.C.'s bands of wild sheep, face a precarious future.

THE SHEEP SOCIETY WANTS TO THANK MR. ART DOWNS, EDITOR OF BC OUTDOORS MAGAZINE, 5543 - 129th STREET, SURREY, BRITISH COLUMBIA, FOR HIS PERMISSION TO REPRINT THE ARTICLE "OUR VANISHING WILD SHEEP" WRITTEN BY MR. RICHARD WRIGHT.

"IT IS ENTIRELY POSSIBLE THAT UNLESS SOMETHING IS DONE TO PRESERVE AND IMPROVE BIGHORN RANGES IN NORTH AMERICA OUR GENERATION WILL SEE THE LAST WILD MEMBER OF A VANISHING, NEGLECTED SPECIES."

WORDS OF DOOM? NOT REALLY. THEY WERE SPOKEN BY ECOLOGIST JAMES K. MORGAN AT A MEETING OF THE NORTHERN WILD SHEEP COUNCIL IN WILLIAMS LAKE LAST SPRING. AND THEY ECHO THE THOUGHTS OF 53 PROFESSIONAL WILDLIFE BIOLOGISTS WHO ARE WORKING ON THE PROBLEMS OF WILD SHEEP. THESE MEN, THE FOREMOST AUTHORITIES IN NORTH AMERICA, BASE THEIR CONCERN ON HARD-EARNED FACTS, NOT IDLE CONJECTURE.

FROM PAPERS PRESENTED AT THE MEETING AND DISCUSSIONS WHICH FOLLOWED IT BECAME QUITE EVIDENT THAT WINTER RANGE IS THE KEY TO BIGHORN SURVIVAL. THE PROBLEMS WITH THESE RANGES REALLY DO NOT VARY A GREAT DEAL FROM STATE TO STATE OR PROVINCE TO PROVINCE. NOR IS THE PROBLEM EXCLUSIVE TO B.C. OR WESTERN CANADA, BUT TO THE WHOLE OF NORTH AMERICA. SHEEP DO NOT RECOGNIZE MAN-MADE BOUNDRIES SUCH AS PROVINCIAL OR INTERNATIONAL BORDERS: IF THEY ARE TO BE SAVED, NEITHER CAN MANAGEMENT PLANS.

THE MAIN PROBLEM FACING THE SHEEP, RANGE LOSS AND DETERIORATION, IS CAUSED BY MAN CHANGING THE ECOLOGY OF AN AREA, USUALLY BY INTRODUCING LIVESTOCK. PRACTICALLY EVERY BIOLOGIST GAVE EXAMPLES OF RANGE LOSS TO CATTLE, AND OFTEN THESE RANGES WERE ONLY MARGINAL FOR BEEF PRODUCTION, IN ADDITION THE PRICE PAID BY THE RANCHER FOR THESE PUBLICLY-OWNED RANGES IS FREQUENTLY VERY LOW.

IN MONTANA, FOR EXAMPLE, THERE IS A BIGHORN RANGE OF 10 SQUARE MILES WHICH IS LEASED FOR $800 YEAR. LAST YEAR A FIRE STARTED WHICH WOULD HAVE IMPROVED THE RANGE AND THE RANCHER PUT IT OUT, IN RETURN RECEIVING $650 FROM THE FORESTRY. IN IDAHO, WILD SHEEP RANGE LEASED FOR 44¢ PER COW MONTH. B.C. IS LITTLE BETTER. THERE IS AN AREA CALLED BUMMER FLATS IN THE KOOTENAYS COMPRISING 110 ACRES OF PRIME BOTTOM LAND WHICH IS LEASED FOR $36 A YEAR.

IT WILL NOT BE EASY TO CONVIENCE CATTLEMEN THAT PUBLICLY-OWNED RANGES VITAL TO THE SURVIVAL OF BIGHORN SHEEP HAVE TO BE MANAGED FOR THE BENEFIT OF SHEEP AND THAT SHEEP HAVE PRIORITY ON SUCH

IN SOME PARK AREAS BIGHORN CAN BUILD UP TO A POINT WHERE A DIE-OFF IS INEVITABLE WHEN A RANGE'S CAPACITY IS REACHED. IF THIS IS NATURAL, FINE, BUT IF THIS BUILD UP OF NUMBERS IS DUE TO MAN'S ERADICATION OF PREDATORS THEN WE MUST DECIDE WHETHER OR NOT TO MANAGE THE SPECIES BY SELECTIVE HUNTING. THE ALTERNATIVE IS TO REINTRODUCE PREDATORS SUCH AS WOLVES, BOBCATS, COUGARS, AND THE LIKE. THE PROBLEM WITH THIS ALTERNATIVE IS THAT TOO OFTEN BIG-GAME SPECIES WILL BECOME ACCUSTOMED TO MAN AND STAY NEAR THE TRAVELLED PORTIONS OF THE PARKS WHEREAS PREDITORS WILL FLEE TO THE BACK COUNTRY. AT THE WILLIAMS LAKE MEETING A NUMBER OF INTERESTING THEORIES AND IDEAS WERE PRESENTED. ONE FACT WHICH BECAME APPARENT IS THAT WE CAN NOW MANIPULATE RANGES BY SPRAYING AND INTRODUCING MORE NUTRITIOUS GRASSES FOR GAME ANIMALS. IT IS ALSO POSSIBLE, THOUGH POINTLESS, TO LOCATE A CAUSE OF DISEASES AND PARASITES AND SAVE THE ANIMALS THROUGH MEDICATION OR INNOCULATION IN A VETERINARIAN APPROACH. THERE IS NOW A CHOICE OF REINTRODUCING PREDATORS, OR CONTROLLED HUNTING. BIOLOGISTS CAN TRANSPLANT OR HUNT ANIMALS TO CONTROL PERIODIC NATURAL POPULATION BUILD-UPS. THEY CAN TAG AND TRAP, MARK AND MUTILATE IN ANY NUMBER OF WAYS TO STUDY AND CONTROL VARIOUS SPECIES. BUT SHOULD THEY? THIS INCREASED POWER AND KNOWLEDGE IS PRESENTING NEW PROBLEMS TO THE BIOLOGIST, JUST AS IT IS TO THE DOCTOR WHO MUST NOW DECIDE WHEN A HUMAN LIFE IS FINISHED AND WHAT ARTIFICIAL MEANS OF LIFE PROLONGING ARE JUSTIFIED.

THESE NEW PROBLEMS WERE ABLY SUMMED UP BY B.C. FISH AND WILDLIFE BRANCH BIOLOGIST RAY DEMARCHI IN HIS PAPER "ARTIFICIALITY." DEMARCHI REMINDED THE DELEGATES OF ALDO LEOPOLD'S STATEMENT THAT "THE VALUE OF A RECREATIONAL EXPERIENCE IS INVERSELY PROPORTIONAL TO THE ARTIFICIALITY OF ITS ORIGIN." ARTIFICIALITY IS DEFINED AS BEING MAN-MADE. A WILDLIFE POPULATION THAT WOULD DISAPPEARIF WE DIDN'T INTERFERE IS ONE EXTREME. FOR INSTANCE, WE SEEM TO SEE NOTHING WRONG WITH THE ARTIFICIALITY OF " PUT AND TAKE" FISHERIES, BUT WOULD WE WANT THIS ARTIFICIAL SITUATION TO DEVELOP FOR SHEEP THE WAY IS IS FOR PHEASANT? BIGHORN COULD BE RAISED ANYWHERE WE CHOOSE NOW, ALLOWED TO MATURE AND THEN RELEASED TO BE SHOT. TO WHAT EXTREMES WE WISH TO CARRY THESE THEORIES DECIDES WHAT OUR BIGHORN POPULATIONS WILL EVOLVE INTO.

VIRTUALLY ALL SPORTSMEN WOULD MUCH RATHER TRAVEL TO AN AREA WHICH IS TYPICAL OF HISTORIC BIGHORN RANGE, ONE WHICH HAS WAVING STALKS OF GOLDEN BLUEBUNCH WHEATGRASS, CROPPED ONLY BY NATIVE CLIMAX SPECIES. THEY OBVIOUSLY WOULD MUCH RATHER VISIT AN AREA TO OBSERVE AND PHOTOGRAPH ANIMALS WHERE THEY ROAM UNRESTRICTED THAN TO AN AREA WHERE GRASSES ARE PLOWED AND PLANTED AND THEN CUT AND FED THE SAME AS IN AN ORDINARY FEED LOT.

ANOTHER PROBLEM PRESENTED AS CAUSING A DECLINE IN BIGHORN, AND ONE WHICH RESULTED IN A LOT OF DISCUSSION, WAS PUT FORTH BY JAMES K. MORGAN OF IDAHO. HE SUGGESTED, AND BACKED IT UP WITH FACTS FROM HIS RECENT MASTER'S THESIS IN IDAHO, THAT A 3/4-CURL REGULATION, SUCH AS WE HAVE IN MANY PARTS OF B.C., CAN HURT A SHEEP POPULATION. THIS SUGGESTION, OF COURSE, IS HIGHLY CONTROVERSIAL SINCE MANY HUNTERS STILL STRONGLY OBJECT TO SHOOTING YOUNG OR FEMALES OF ANY SPECIES. NEVERTHELESS ANOTHER BIOLOGIST, DR. CHARLES HANSEN, WITH THE HELP OF LOCAL SPORTSMAN, PROVED THE VALIDITY OF THE 3/4-CURL BELIEF WITH A POPULATION OF DESERT BIGHORN. ALTHOUGH MANY PEOPLE DISAGREE WITH HUNTING, AND PARTICULARLY THE SOCIOLOGICAL ASPECTS OF IT, HUNTING IS A VALUABLE TOOL OF RESOURCE MANAGEMENT.

TWO OTHER METHODS ARE AVAILABLE WHERE HUNTING IS BEING USED AS A MANAGEMENT TOOL. ONE WHICH IS NOW USED IN MONTANA, AND WILL BE IMPLEMENTED IN IDAHO IN 1972, IS THE CONTROLLED PERMIT HUNT. UNDER THIS SYSTEM ONLY A LIMITED NUMBER OF PERMITS ARE ALLOWED, USUALLY RESULTING IN A HIGH HUNTER-SUCCESS RATIO. CONTROLLED PERMIT HUNTS ARE ALSO USED ON THE DESERT NATIONAL WILDLIFE RANGE IN NEVADA WHERE AN INDOCTRINATION PROGRAM IS HELD TO FAMILIARIZE PERMITEES WITH THE HABITAT AND BEHAVIOR OF THEIR QUARRY.

AN ALTERNATIVE TO THIS SYSTEM IS A SELECTIVE PERMIT HUNT, COMMON IN EUROPE OR PARK AREAS WHERE A RANGER OR WARDEN ACCOMPANIES THE HUNTER AND TELLS HIM SPECIFICALLY WHICH ANIMAL HE MAY SHOOT. THE SELECTIVE PERMIT HUNT IS USED TO CULL THE WEAK, OLD OR DISEASED ANIMALS, MUCH AS A NATURAL PREDATOR WOULD. IN EUROPE IT OFTEN DEPENDS ON HOW MUCH THE HUNTER PAYS AS TO WHAT HE IS ABLE TO SHOOT.

Richard Wright

James K. Morgan. "There is no right way to do a wrong thing."

THE PROBLEMS WITH INSTITUTING A EWE AND LAMB HUNT, AS SEEN BY JAMES MORGAN, WERE GIVEN IN A PAPER ENTITLED "RELEVANCY," "THERE IS NO RIGHT WAY TO DO A WRONG THING." HERE HE POINTED OUT THAT THERE IS NO BIOLOGICAL JUSTIFICATION FOR HUNTING ONLY 3/4-CURL RAMS. THE REASON FOR IT IS THAT OUR SOCIETY HAS FOR MANY YEARS FOSTERED A TROPHY IMAGE WITH BIG-GAME ANIMALS AND PARTICULARLY BIGHORN SHEEP. WE ALWAYS WANT TO HAVE THE BIGGEST AND BEST--SOMETHING THAT IS BECOMING HARDER TO ATTAIN IN BIG-GAME SPECIES. WHY NOT, THEN BE SATISFIED WITH A HALF CURL OR AN EWE WITH SMALLER HORNS AND GOOD COLORATION? IN OTHER WORDS, WHY NOT HUNT FOR A REPRESENTATIVE MEMBER OF THE SPECIES? THERE IS A GROWING STACK OF EVIDENCE THAT THIS COULD RESULT IN BETTER BIGHORN HERDS, AND COULD IN FACT RESULT ULTIMATELY IN BIGGER HORNS. BUT AS ALREADY MENTIONED SPORTSMEN THEMSELVES WOULD PROBABLY BE THE MAIN BLOCK TO A SEASON ON EWES.

TO JAMES MORGAN, HOWEVER, THIS CONFRONTATION WOULD BE JUST ANOTHER IN A SERIES HE HAS HAD DURING HIS WORK WITH BIGHORN. HIS

RANGES. THE FACT REMAINS, HOWEVER, THAT SUCH MANAGEMENT AND PRIORITY ARE VITAL IF BIGHORN ARE TO SURVIVE IN ANY NUMBERS. AT THE WILLIAMS LAKE MEETING IT SOON BECAME EVIDENT THAT THE ONLY BIOLOGISTS WHO DIDN'T HAVE CATTLE PROBLEMS WERE THOSE WORKING IN PRIMITIVE AREAS OR NATIONAL PARKS. BUT EVEN HERE MAN IS CHANGING THE ECOLOGY.

TO UNDERSTAND THIS CHANGE WE MUST LOOK AT THE ECOLOGY OF A BIGHORN RANGE. BIGHORN ARE A SPECIES WHOSE HABITAT IS GENERALLY CLIMAX BUNCHGRASS VEGETATION WITH EASY ACCESS TO ROCKY CLIFFS OF SOME TYPE FOR LAMBING AND ESCAPE HABITAT.

TRADITIONALLY THESE GRASSLANDS HAVE REMAINED THIS WAY DUE TO PERIODIC FIRES WHICH KILLED ENCROACHING GROWTH SUCH AS LODGEPOLE PINE. IN THE LAST CENTURY MAN HAS DEVELOPED MORE AND MORE SOPHISTICATED AND FASTER WAYS TO CONTROL FIRE IN HIS ATTEMPT TO MAINTAIN FORESTS. THIS CONTROL HAS RESULTED IN THE GRADUAL REDUCTION OF OUR GRASSLANDS. AND SINCE THE BIGHORN SHEEP REQUIRES THESE GRASSES FOR SURVIVAL, HE IS DISAPPEARING ALONG WITH THE STANDS OF GRASS.

AN EXAMPLE OF THIS SUCCESSION IS EVIDENT ON THE LAND AT VASEUX LAKE WHICH WAS PURCHASED BY THE OKANAGAN-SIMILKAMEEN PARKS SOCIETY TO PRESERVE WINTER RANGE FOR THE OKANAGAN HERD OF RARE CALIFORNIA BIGHORN. HERE THE OBSERVER CAN SEE MANY SMALL LODGEPOLE PINES THAT WILL EVENTUALLY FORM AN OVER--STORY OF TIMBER, CUTTING THE GROWTH OF THE GRASS. THE PARKS SOCIETY WILL HAVE TO DECIDE WHAT IT IS TRYING TO PRESERVE, SHEEP OR A NATURAL AREA. IF THE DECISION FAVORS SHEEP THEN IT APPEARS THAT THE ANSWER IS TO CUT ALL OF THE SMALL PINES OR SELL TIMBER LEASES. A WORK PARTY COULD CONTROL A LOT OF THIS REGENERATION BY CUTTING THE SMALLER TREES AND LEAVING THE LARGER ONES.

THE SAME PROBLEM IS PRESENT ON THE RANGE USED BY THE BAND OF CALIFORNIA BIGHORN AT THE JUNCTION OF THE FRASER AND CHILCOTIN RIVERS, BUT NOT TO THE SAME EXTENT. THIS HERD OF SHEEP IS UNIQUE IN THAT IT IS THE NORTHERN-MOST BAND OF CALIFORNIA BIGHORN ON THE NORTHERN-MOST STAND OF BLUE-BUNCH WEED GRASS. AT PRESENT THEIR NUMBERS ARE IN THE REGION OF 250-300. THEIR RANGE IS BADLY DETERIORATED FROM OVER-GRAZING BY CATTLE FROM THE GANG RANCH AND THERE APPEARS TO HAVE BEEN A DROP IN NUMBERS DURING THE HARD WINTER OF 1968-69.

THE FISH AND WILDLIFE BRANCH AND THE B.C. WILDLIFE FEDERATION HAVE HELD MEETINGS WITH GANG RANCH TO TRY AND ARRIVE AT A SOLUTION FOR THE WINTERING PROBLEMS OF THIS HERD. IN 1969 A FENCE WAS ERECTED BY THE B.C. FOREST SERVICE, CLOSING OFF THE MAIN WINTER GRASS AREA OF THIS HERD AND DURING THE WINTER OF 1969-70 NO CATTLE WERE ALLOWED ON THE RANGE. THERE APPEARS TO BE AN IMPROVEMENT IN THE QUANTITY OF GRASSES, IF NOT IN THE QUALITY, EVEN IN THIS SHORT TIME.

THE STRUGGLE TO HAVE THIS LAND SET ASIDE FOR SHEEP IS NOT NEW. THIS MAGAZINE HAS CARRIED MANY ARTICLES AND PLEAS FOR THE PRESERVATION OF BIGHORN HABITAT. SOME OF THIS PUBLICITY RESULTED IN THE MINISTER OF RECREATION AND CONSERVATION, KEN KIERNAN, ANNOUNCING ON NOVEMBER 7, 1968 THAT 35,059 ACRES OF RANGE LAND HAD BEEN RESERVED FOR THE USE OF SHEEP IN THE ASHNOLA COUNTRY. THIS AREA, ROUGHLY 16 MILES LONG BY 4 MILES WIDE, IS THE HOME RANGE FOR THE MAIN HERD OF CALIFORNIA BIGHORN IN B.C. IN RESERVING IT FOR THESE SHEEP--THERE ARE ONLY SOME 2,000 OF THEM LEFT ALIVE WITH PROBABLY 80% IN B.C.-OUR GOVERNMENT SHOWED COMMENDABLE FORESIGHT.

THE ALTERNATIVE TO PROVIDING BIGHORN SHEEP WITH PRIORITY USE OF VITAL WINTER RANGE IS A MASSIVE DIE-OFF SUCH AS OCCURRED IN THE EAST KOOTENAY DURING 1964-67. HERE 3,200 OUT OF 4,000 ROCKY MOUNTAIN BIGHORN DIED. IN THIS DISASTER, UP TO 75% OF THE HERDS--AND IN ONE CASE THE COMPLETE HERD--DIED WITH WHAT WAS REPORTED TO BE LUNGWORM PNEUMONIA COMPLEX. IT WAS BROUGHT ON BY OVER-GRAZING OF THE WINTER RANGES, IN SPITE OF THE FACT THAT 10 YEARS PREVIOUSLY REGIONAL WILDLIFE BIOLOGIST GLEN SMITH HAD PREDICTED THE DISASTER UNLESS DOMESTIC STOCK GRAZING PRACTICES WERE MODIFIED.

THE DIE-OFF HAS BEEN THE BASIS OF A CONTINUING STUDY BY DR. JOHN BANDY OF THE B.C. FISH AND WILDLIFE BRANCH. DON EASTMAN, WHO HAS WORKED ON THE STUDY, SUGGESTED THAT RANGES IN GOOD CONDITION CAN STAND HEAVY USE BY SHEEP IN WINTER OR PROPER USE BY CATTLE IN SUMMER, BUT NOT BOTH. IF SHEEP IN WINTER ARE FORCED ONTO RANGES WHICH HAVE BEEN OVERGRAZED AND DO NOT AS A CONSEQUENCE GET ENOUGH TO EAT, THEY BECOME EXTREMELY VULNERABLE TO THE LUNGWORM-PNEUMONIA COMPLEX. MOST SHEEP APPARENTLY CARRY THE LUNGWORM PAPASITES WITH THEM THROUGHOUT THEIR LIFE BUT ARE QUITE ABLE TO COPE WITH THEM PROVIDING THEIR DIET IS ADEQUATE.

THERE ARE NOW MANY MANAGERS OF WILDLIFE AND FORESTERS WHO BELIEVE THAT IN ORDER TO MAINTAIN A PROPER ECOLOGICAL BALANCE FOREST FIRES SHOULD BE LEFT TO BURN IN AREAS OF MARGINAL VALUE AS TIMBER CROPS. THIS IS PART OF THE PRESERVATION OF A NATURAL AREA. IF WE DO NOT DO THIS OUR WILDLIFE SPECIES WILL CHANGE TO THOSE WHICH HAVE BEEN CALLED WEED SPECIES, SUCH AS DEER, AND WE WILL END UP WITH A LESS DESIRABLE ENVIRONMENT.

PROLONGED BATTLE TO HAVE WINTER RANGE IMPROVED WAS DOCUMENTED IN LIFE MAGAZINE LAST MAY 22.

HE HAS BEEN SLANDERED, BEATEN UP, SHOT AT AND HARASSED FOR HIS STAND ON SHEEP. HE TRIED WORKING THROUGH "CHANNELS" AND WHEN THAT DIDN'T PRODUCE RESULTS, SEEING HIS STUDY HERDS DYING, HE STARTED KICKING. HE TALKED TO EVERYONE WHO WOULD LISTEN, WROTE REPORT AFTER REPORT, TRIED TO CONVINCE HIS MAIN ANTAGONISTS, THE CATTLEMEN, AND MADE MANY ENEMIES. BUT THE RESULT WAS A $77,000 RANGE REHABILITATION PROGRAM UNDERTAKEN BY THE BUREAU OF LAND MANAGEMENT. BUT HIS FIGHT IS NOT OVER YET. HE STILL HAS MANY TO CONVINCE THAT HIS ARGUMENTS ARE SOUND, ALTHOUGH THE UNANIMOUS VOTE OF CONFIDENCE AND SUPPORT HE RECEIVED FROM THE 53 PROFESSIONALS AT THE NORTHERN WILD SHEEP COUNCIL MEETING SHOULD HELP.

ALTHOUGH ALL THE HARASSMENT AND THREATS AGAINST JAMES MORGAN TOOK PLACE IN IDAHO, THEY COULD QUITE EASILY HAPPEN IN B.C. WHAT IF A BIOLOGIST SAID THAT HIS DEPARTMENT HAD MADE MISTAKES AND WAS NOT GETTING RESULTS BECAUSE OF POLITICAL PRESSURES? WHAT IF HE TOLD CATTLEMEN THAT THEIR CATTLE HAD TO GET OFF SHEEP RANGE? WHAT IF HE TRAPPED TRESPASSING LIVESTOCK AND CHARGED FOR THEIR RETURN? WOULD RANCHERS GET A COURT INJUNCTION TO STOP THE TRAPPING AND TRANSPLANTING OF STUDY ANIMALS AS THEY HAVE IN IDAHO? LET'S NOT BE TOO SURE.

MEANWHILE, AS THE BIOLOGISTS AT THE SHEEP COUNCIL MEETING EMPHASIZED, FOR THE VARIOUS SPECIES OF NORTH AMERICAN SHEEP TIME IS RUNNING OUT. IN B.C. WE HAVE THE LARGEST REMNANT POPULATION IN THE WORLD OF THE RARE CALIFORNIA BIGHORN AND THE LARGEST POPULATION OF STONE SHEEP IN NORTH AMERICA. WE HAVE HERDS OF ROCKY MOUNTAIN BIGHORN AND IN THE NORTHWEST CORNER OF THE PROVINCE A SMALL POPULATION OF THE WHITE DALL SHEEP. WE ARE FORTUNATE WITH OUR NORTHERN HERDS BECAUSE THEY HAVE BEEN RELATIVELY UNAFFECTED BY MAN TO DATE. THEY HAVE MAINTAINED THEIR POPULATIONS ALONG WITH THE PREDATORS AND OTHER WILDLIFE SPECIES OF THE REGION. THEY ARE IN AREAS WHICH ARE PERHAPS THE CLOSEST WE HAVE TO CONDITIONS AS EARLY MAN FOUND THEM. IT WOULD SEEM LOGICAL AND FEASIBLE THAT WE COULD CONTINUE THESE AREAS, THAT THESE ANIMALS CONTINUE THEIR LIFE CYCLE IN A NATURAL CONDITION. BUT THIS IS NOT THE CASE.

Typical bighorn country near the junction of the Fraser and Chilcotin Rivers.

IN OUR CONSTANT QUEST FOR MORE ELECTRIC POWER THESE SHEEP ARE THREATENED BY THE DROWNING AND FLOODING OF THEIR MAIN WINTER RANGES BY HYDRO PROJECTS. SHOULD THE LIARD BE DAMMED WE WILL LOSE VALUABLE WINTERING AREAS FOR HERDS OF STONE SHEEP. ALBERTA IS SUFFERING SHEEP HABITAT LOSSES FROM STRIP MINING JUST AS WE UNDOUBTEDLY WILL IN OUR NORTHERN HERDS. EXPLORATION LEASES HAVE BEEN LET FOR THOUSANDS OF SQUARE MILES IN THE NORTHERN HALF OF B.C. IF THESE ARE ULTIMATELY DEVELOPED, STONE SHEEP WILL SUFFER DIRECTLY.

WHAT COULD BE THE FATE OF STONE SHEEP, DROWNING FROM THE RESERVOIRS OF HYDRO-ELECTRIC POWER AND LOSS OF RANGE TO STRIP MINING, BRINGS US TO THE MAIN PROBLEM. THIS ARTICLE BEGAN BY SAYING THAT THE KEY TO BIGHORN SURVIVAL IS WINTER RANGE. AND THIS IS THE CASE. BUT IF WE GO ONE STEP FURTHER WE CAN SEE THAT THE REASON SOME OF THESE RANGES ARE BEING LOST IS THAT MAN IS NOT CONTROLLING OR MANAGING HIS OWN POPULATIONS THE WAY HE IS ATTEMPTING TO CONTROL WILD SPECIES. THE FACT IS THAT THERE ARE TOO MANY PEOPLE IN THE WORLD AND THE NUMBERS ARE GROWING. EACH NEW PERSON REQUIRES MORE ELECTRICITY AND MORE NATURAL RESOURCE EXPLOITATION. IF OUR POPULATION IS NOT CUT DOWN, OR AT LEAST STABILIZED, THEN MANAGING WILDLIFE OR WILDERNESS IS POINTLESS. IT MAY APPEAR TO SOME PEOPLE THAT POPULATION CONTROL HAS LITTLE TO DO WITH BIGHORN SHEEP, BUT IT IS ALL RELATED TO THE ECOLOGY OF OUR LAND.

PEOPLE NEED LAND FOR HOUSING AND NATURAL RESOURCES, AND ONE NORTH AMERICAN CHILD USES 25 to 50 TIMES THE NATURAL RESOURCES THAT A CHILD IN INDIA USES, THEREFORE, THIS MUST FIRST BE CUT DOWN IN ORDER TO SAVE NOT ONLY THE BIGHORN BUT ALL SPECIES OF ANIMAL LIFE, INCLUDING MAN HIMSELF. IT MEANS HAVING ONLY TWO CHILDREN AND TRYING TO USE LESS ELECTRICITY AND DEFINITELY HAVING A SLIGHTLY LOWER STANDARD OF LIVING. IT MEANS WALKING THREE BLOCKS TO THE STORE AND HAVING ONE CAR, PREFERABLY A SMALL ONE, PER FAMILY. THEN, IF WE DO THESE THINGS, WE ARE READY TO SEE WHAT WE CAN DO TO SAVE THE BIGHORN SHEEP.

BUT IN THE MEANTIME SOMETHING MUST BE DONE IN WESTERN NORTH AMERICA TO RESERVE BIGHORN SHEEP WINTER RANGES IN PERPETUITY FOR THE EXCLUSIVE USE OF THE SHEEP. OTHERWISE IT COULD WELL BE THAT THIS GENERATION WILL BE THE LAST TO SEE A BIGHORN, EXCEPT IN A ZOO POPULATION. VIRTUALLY EVERY HERD OF BIGHORN IN NORTH AMERICA IS DECLINING. BIGHORN ARE IN TROUBLE, AND IT IS UP TO THE PUBLIC TO CONVINCE OUR GOVERNMENTS THAT WE WANT LAND SET ASIDE FOR WILD SHEEP.

THE SOCIETY WANTS TO THANK DR. GRAF FOR THE FOLLOWING CONTRIBUTION:

SAN JOSE STATE COLLEGE

SCHOOL OF NATURAL SCIENCES AND MATHEMATICS
Department of Biological Sciences

November 23, 1970

Mr. William Phifer
Editor, The Sheepherder
401 North Garfield
Alhambera , California91801

Dear Mr. Phifer:

The weathered remains of the frontal bones and horn cores of a large, mature, and apparently old, bighorn sheep were picked up on Mt. Dade in the Muir Wilderness Area this past summer by Mr. Fred Granger, Biology teacher at Prospect High School in Campbell, San Jose.

Mr. Granger is a member of a Sierra Club hiking party and found the skull remains at 13,000 feet altitude, protruding from among the rock rubble of a talus slide. A few vertebrae were also found several yards below the skull remains. It is possible that the fragments were carried from even higher up by shifting of the talus over the years. The bones show extreme weathering and could be twenty years old or even older. the right core measures 12 inches around the base and what is left of it is 13 inches long, with probably at least two inches broken or weathered away. The left one measures 13 inches around the base and there is only 10 inches of length left. There is not enough of the skull left to tell much. Mr. Granger stated that, "outside of a very few sparse succulants there was no vegetation at that elevation." Mt. Dade, it should be mentioned, has an elevation of 13,600 ft, which left but little more for the ram to climb had he been so inclined.

Mr. Granger noticed a small part of the fragment of bone among the rocks and dug it out from under the rubble and placed it in his pack to bring to me as evidence of the former presence of Desert Bighorn Sheep in that area. He is to be commended for his critical observation and also his thoughtfullness in bringing the sample in. We need more such observers in the field.

This item may be of some interest to the members of the Society.

Sincerely,

William Graf
Professor of Conservation

SAN JOSE, PUBLIC EXT. CALIFORNIA 95114 (408) 294-6414

Press-Enterprise

What it's like to live with bighorns

By JOHN MILLRANY

PALM DESERT — Next June, Jack and Deana (Dee) Turner will probably break their own world record.

They'll be spending their second anniversary watching the elusive desert bighorn sheep (Ovis canadensis).

This little-publicized event will make a fine yarn to pass on to their grandchildren. But, the existence of their vigil may help insure that the sheep will still be around when children of the future grow up.

A year and a half ago Turner began an unprecedented study-odyssey in the rugged reaches of the Santa Rosa Mountains above Palm Desert, scene of perhaps the largest concentration of desert bighorn sheep in California.

Already married to the unusual research project, he shortly thereafter wed Dee.

"We spent our honeymoon here watching sheep," Turner recalls, "and our first anniversary, too. And there's a darn good chance we'll spend our second anniversary here."

"Here" is the Philip L. Boyd Desert Research Center, several miles up the Deep Canyon drainage slope above Palm Desert.

The center is central headquarters in a 3,680-acre sector owned by the University of California (Administered by the Riverside campus).

Jack lives here continually but Dee, a research chemist for Sunkist Growers, Ontario, is "a housewife on weekends," maintaining an apartment in Riverside during the work week.

The arrangement seems to work out fine and Jack, 26, hopes to remain at the Deep Canyon center indefinitely, or until he concludes his research or research-funding runs out.

There's still much to learn about the desert bighorn sheep which, because of its apparently dwindling (and sparse population) is one of the most legislatively protected animals in the state.

(Mere possession of any part of a desert bighorn, e.g. a skull or even a hoof, is punishable by a $500 fine and year's imprisonment.)

The Deep Canyon center (named for Regent Philip L. Boyd) is an ideal jumping off place for Turner's almost daily sheep-tailing forays into the steep slopes of the Santa Rosas.

Located at the mouth of Deep Canyon, the center is the gateway to 10,000 protected acres of reserve owned by the University of California and the U.S. Bureau of Land Management.

At an elevation of 1,200 feet, the center provides both laboratories and living quarters. Jack describes its surrounding territory this way:

"It's the last chunk of desert around that hasn't been dune-buggied, motorcycled, shot-up and collected to pieces."

Nevertheless, it's a little too low and open for desert bighorn sheep.

Turner recalls it took two years of political footwork to arrive at the center. Permits and authorizations from various conservation concerns had to be secured, due to the sensitive nature of invading the sheep's habitat.

Turner had been kidded by friends. "I supposedly was doing my doctor's thesis on a beast I had never seen."

Soon the biologist would be living among them.

It all began when a biology professor at Cal State Fullerton, where Turner was doing post-graduate work, persuaded him to tackle "the ideal project" for his doctoral dissertation.

Turner had been working on frogs and toads in the field in Arizona and, since "basically, I'm not a lab person," he decided to take on the bighorn sheep project "physically and mentally."

He secured a scholarship from an environmental granting agency and, after two years of achieving proper authorization, went to work.

"People told me I'd never get anywhere," recalls Turner. "Nobody had ever done this before in California."

A lifetime-experienced hiker, Turner went promptly into the precipitous abode of the sheep's domain, centered on the northern scrap of the contiguous Santa Rosa and San Jacinto mountains.

At elevations ranging from 800 to 4,000 feet, sometimes overlooking the desert communities of Palm Springs, Rancho Mirage and Palm Desert, Turner went among his quarry — alone.

"I lived for three months with the sheep. I could walk through a herd of about 30 without causing too much alarm."

However, he noted, it's unwise to believe the 4-foot-tall, muscular sheep weighing up to 200 pounds will take you in the family, no matter how tolerant they seem.

Since Turner's specialty is biology, his principal research target is somewhat pedestrian, as reflected in the title of his thesis: "Water Balance in the Desert Bighorn Sheep."

But every day Turner learns something new which may benefit the sheep, he believes.

The water-balance aspect is a study of how the sheep acquire water (through either food or drinking) and what the water does once it's inside their bodies.

Research also takes in laboratory study of plants the sheep eat (which includes virtually anything that grows in their habitat, Turner says, including the treacherous "jumping cholla" cactus).

In general, Turner rates the encroachment of man as the biggest threat to an estimated (and far from substantiated) population of 650 bighorn sheep in the Santa Rosa and San Jacinto mountains.

(Man, he says, recently drove a herd of about 40 sheep from a habitat in Magnesia Canyon above Rancho Mirage. However, he believes 80 per cent of the herd may have survived by migrating north toward Palm Springs.)

Running a close second as a menace is water supply.

Turner notes the Coachella Valley area is suffering from a 15-year drought. As man pumps deeper for his well water in the valley, it draws off supplies from the mountains above (borne out by native canyon palms dying off).

The water supply situation poses a thorny problem for the sheep, Turner explains: "He's big; he can't burrow in the ground when it's hot.

"He's not nocturnal — it's too dangerous for him to travel at night, unless there's a full moon. So in the summer it's a tough way to go."

An ironic peculiarity is a ram's antics during rutting (mating) season, from June to September.

"Rutting is a very laborious task," Turner explains. "We've seen animals chase ewes in 118 to 120 degree heat.

"Then we look at what water they drink and we think, geez, how can they make it?"

In winter months, the sheep are readily sustained by moisture from their food. In the dry, hot months, however, "the animals are very dependent on the water holes; extremely so."

When Turner goes trailing, sometimes for a week at a time, he looks for telltale signs such as droppings, tracks, bedding sites, gnawed plants, "how many sheep were there and which direction they were traveling."

Turner, noting "I'm only one person, hiking a helluva lot of range" — (he sometimes takes Dee along on weekends) — tells of the most hazardous problem in sheep-trailing: "A couple of times I've fallen off cliffs. I was trying to follow a sheep. They're a lot better at it than you are."

Turner, who plans to teach at the university level, has completed course work for his doctorate and has published two papers on bighorn sheep.

After completing his thesis in about a year, he hopes to stay at the Deep Canyon center to continue bighorn sheep research.

Meanwhile, the desert species continues to face adversity. In his 1968 book, "Mammals of Deep Canyon," R. Mark Ryan states:

"Encroachment of human activity into the natural habitat of their narrow range is perhaps the greatest potential hazard for the desert bighorns in the Deep Canyon area . . . Residential subdivisions above Palm Desert have already claimed portions of the sheep range and if sufficiently more follow they may lead to the extinction of the unique and most imposing wild mammal residing in the Santa Rosa slopes.

"It is indeed unfortunate that at so critical a time we still know very little about the habits, tolerances, populations, and life history (of the sheep in the area). Such information is greatly needed to plan any management program that may prove successful in maintaining our native bighorn herds."

Turner has mixed feelings about chances for the sheep's survival, but is hopeful he'll be able to contribute as much as possible.

"I'm only doing some groundwork," says the third-generation Californian (born in Oakland).

Asked about his contribution to date, he responded: "It's like a puzzle. The problem is the key piece to make them all fit.

"We know about how much water they (sheep) need in a given set of circumstances. We never knew this before.

"This is a desert animal that has adapted uniquely to a very harsh environment." If researchers such as Turner can find out why, maybe answers on how best to preserve the species can be known.

Turner again reminds interested persons that the desert bighorn sheep are protected by state law, noting that occasionally he finds evidence of poaching on sheep trails.

Even without guns, man — and his livestock — have driven bighorn sheep not only from mountain habitat but, historically, even from foothill habitat.

Turner points out that today's desert bighorn sheep population is probably less than it was in the 1940s (a time of active poaching).

And even though a ram or ewe might occasionally appear in someone's backyard (a few years ago a ram marched down Palm Springs' main street, Palm Canyon Drive), odds are against his survival if man doesn't raise a hand to help, Turner believes.

"Their population seems to be dwindling. We don't know why," says Turner.

"Some day I hope my kids would say, 'See, there's the same number of sheep we had several years ago.' "

HERE IS A LETTER WRITTEN BY DICK WEAVER IN RESPONSE TO A QUESTION CONCERNING THE SHEEP

Dear Miss Thomas:

It is gratifying to know that young people like yourself are taking so much interest in conservation. I hope that you have a very successful science fair project, and that it has an impact on many other people.

"How to prevent the extinction of bighorn sheep" is not a simple thing to answer. You have probably found out by now, that bighorn sheep have been fully protected by law in California since 1873. It became obvious that in spite of the diligent enforcement of that law, there are fewer sheep now than in 1873. The law alone is not enough. This is why the State is now investigating the bighorn sheep throughout the state to develope a management plan so that you and all future generations will be able to enjoy them and to assure that they will not become extinct.

A basic concept that should be understood is that wildlife is a product of the land just as is wheat or any other crop. Therefore, to preserve the bighorn sheep we must preserve the land upon which they depend. In its simplest terms, it takes wildland to produce wildlife.

The land that bighorn require is the open steep rugged spaces. This is their escape terrain where they can successfully ward off enemies and feel secure to raise their young. Sheep will never be found very far from this kind of landscape.

How many sheep can live in these places will depend on their food and water supply. The food is dependent on the weather, and there is little that man can do about that. However, in many places in our desert, water is the limiting factor. Springs or seeps can be developed, or rainwater catchments installed to benefit sheep. Quite a few of these developments have been made; many more are needed.

If we can assure these animals the food and water and space that they need, we should always have them. The greatest threat to their existance is competition. As thereare more and more people on this small globe, there is more demand on the remaining available land. People are building houses on sheep habitat. Wells are being drilled, thereby removing water from sheep habitat, and great demands for recreational use of these lands exist.

Some of the bighorn sheep habitat is preserved in State Parks, National Monuments, and National Forests. But even here there are management problems to be met. For instance, photographers trying for sheep pictures have kept sheep from freely using a desert water supply that was essential to their existance. Camping facilities must not be placed where people using them will displace sheep.

The United States Bureau of Land Management administers much of the land that is bighorn habitat. They are classifying this land for retention in government ownership. They have a program of wildlife water development, also.

Some important sheep habitat is in private ownership. Much of this land will be lost to sheep eventually. Some key habitats, such as water holes, need to be purchased and set aside for sheep and other wildlife. There are conservation groups interested in doing this.

One serious problem in much of our desert is that of wild burro (which are protected by law also). The wild burro has increased and in some places compete directly with the bighorn sheep for food and water. Sheep numbers have declined in some of these areas of heavy burro competition.

Sheep have become extinct in some portions of our state since the arrival of the white man. Many reasons are given, such as disease being introduced by domestic livestock, or heavy poaching by miners or settlers. Whatever the reason, once sheep are gone from an area, they do not seem to reoccupy it of their own will. Some other western states, Oregon for one, has had good results reintroducing sheep into historic ranges. California will attempt to reintroduce the bighorn sheep to the lava beds of Northeastern California next year.

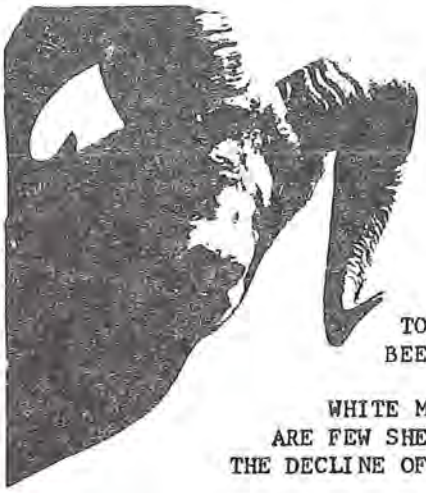
There are organizations that are concerned with the welfare and the future of bighorn sheep. One is the Desert Bighorn Council, and in California, The Society for the Conservation of Bighorn Sheep. I am sending you brochures about these organizations plus some other material on bighorn sheep.

In summation, let me say we must preserve the bighorn habitat and control the competing uses of this land. If we can educate the people that this must be done, we can always have these magnificent animals.

Sincerely,

Richard A. Weaver

Richard A. Weaver
Wildlife Biologist/Manager
California Department of Fish and Game
P. O. Box 5306
San Bernardino, California 92408



REPORT TO THE MEMBERSHIP ON THE 1970 SHEEP SOCIETY BANQUET

AS MOST OF YOU KNOW THE ANNUAL BANQUET WAS HELD LAST DECEMBER IN LOS ANGELES. I AM SORRY THAT ALL OF YOU COULD NOT ATTEND AS YOU MISSED A GREAT SOCIAL FUNCTION AS WELL AS A GOOD DINNER.

JERRY MENSCH GAVE A REPORT ON THE WORK DONE IN 1970 BY THE DEPARTMENT OF FISH AND GAME IN THIER SHEEP STUDY. JERRY REPORTED THAT THEY WERE UNABLE TO ATTACH A RADIO COLLAR TO SHEEP IN THE MOUNT BALDY AREA...THEY TRIED HIKING AND WERE UNABLE TO GET CLOSE ENOUGH TO THE SHEEP...A HELICOPTER WAS TRIED AND IT CRASHED. THE PROJECT HAS BEEN HALTED BUT WILL CONTINUE IN 1971.

JERRY AND DICK WEAVER COMPLETED A SURVEY IN THE INYO AND WHITE MOUNTAINS. TEN YEARS AGO THIS WAS REAL GOOD SHEEP RANGE BUT NOW THERE ARE FEW SHEEP. RESEARCH IS BEING DONE IN AN ATTEMPT TO DETERMINE THE CAUSE OF THE DECLINE OF THE SHEEP POPULATIONS IN THIS AREA....MAYBE DISEASE IS THE CAUSE.

A STUDY GROUP HAS BEEN SET UP AT THE UNIVERSITY OF CALIFORNIA TO PERFORM AUTOPSIES ON SHEEP THAT ARE COLLECTED. SHEEP ARE FULLY PROTECTED IN CALIFORNIA AND CANNOT BE COLLECTED...WE HOPE TO SEE A CHANGE OR A REINTERPRETATION OF THE LAW TO ALLOW LEGAL CAPTURE OF THE ANIMAL SO IT MAY BE STUDIED. APPROXIMATELY SIX SHEEP WERE OBTAINED IN 1970 IN VARIOUS FORMS...THREE WERE ROAD KILLS...AND ONE EWE DIED WHILE TWO MEMBERS OF THE B.L.M. WATCHED HER DRINK ON A WATERHOLE COUNT.

JACK TURNER IS STUDYING SHEEP FOR WATER UTILIZATION AT THE UNIVERSITY OF CALIFORNIA IN RIVERSIDE.

JERRY SAID THAT THEY ARE CONTINUING TO WORK WITH THE HIGHWAY DEPARTMENT AND THE B.L.M. TO ASK THEM TO TAKE THE SHEEP INTO CONSIDERATION IN THEIR CONSTRUCTION PROJECTS.

THE WATER TANK PROJECT IN ANZA BORREGO IS ABOUT 50% COMPLETED...IT IS ANTICIPATED THAT THE PROJECT WILL BE FINISHED IN THE NEAR FUTURE.

JERRY AND DICK WILL WORK ON THEIR SHEEP STUDIES UNTIL JUNE OR OCTOBER 1971. THEY HAVE NOW COMPLETED 8 OF THE 13 SHEEP RANGES.

DR. LUTZ SPOKE ON THE CONTINUAL PROBLEMS OF LAND USE PROGRAMS. THE TRAIL PEAK SITUATION IN THE SIERRAS HAS BEEN STALLED UNTIL A BILL GETS THRU CONGRESS AUTHORIZING A LAND EXCHANGE FOR HORSESHOE MEADOWS. A LOT OF US HAVE ASKED OUR REPRESENTATIVES NOT TO APPROVE OF THE EXCHANGE. WE HAVE NOT LOST THE FIGHT ON MOUNT BALDY...BUT WE LOST THE ONE IN PALM SPRINGS.

DON SWARTHOUT SHOWED SLIDES AND TOLD OF THE "SWARTHOUT EXPEDITION" TO HUNT OVIS AMMON AMMON IN MONGOLIA. DON HAD TO UNDERGO PHYSICAL CONDITIONING AS HE WOULD HUNT AT THE 13,000 TO 21,000 FOOT LEVEL. DON WAS INSPIRED TO HUNT FOR SHEEP BY THE 1919-1920 MORGAN/CLARK EXPEDITION TO COLLECT OVIS POLI (MARCO POLO SHEEP) FOR THE AMERICAN MUSEUM OF NATURAL HISTORY IN NEW YORK. WHEN CLARK WENT TO MONGOLIA THEY WERE CAPTURED, AND HAD ROUGH TREATMENT. DON SAID THAT FROM THE REPORT ON THE CLARK/MORGAN EXPEDITION HE VOWED THAT HE WOULD HUNT FOR OVIS POLI BUT HE DID NOT WANT TO GO TO MONGOLIA. AS IT ENDED UP, DON WAS UNABLE TO HUNT FOR OVIS POLI AND HE WENT TO MONGOLIA TO HUNT FOR AMMON AMMON ON THE GOBI DESERT. DON HUNTED IN MONGOLIA--A PLACE HE DID NOT WANT TO HUNT. DON COLLECTED A NICE SPECIMEN OF AN OVIS AMMON AMMON AND AN IBEX. DON REPORTED THAT HE HAD OBSERVED WILD SHEEP LIVING IN CLOSE CONTACT WITH DOMESTIC SHEEP...AND HAD BEEN FOR CENTURIES...THEY DID NOT FIND ANY REMAINS OF DEAD LAMBS OR YOUNGER SHEEP...THE ONLY REMAINS THAT WERE FOUND WERE THOSE OF MATURE SHEEP. DON WONDERS THAT IF THE DOMESTIC AND WILD SHEEP HAD BUILT UP AN IMMUNITY TO THE DISEASES THE DOMESTIC SHEEP HAD BEEN CARRYING.

DON, THE SOCIETY WANTS TO THANK YOU FOR TAKING TIME TO SHARE YOUR EXPERIENCES WITH US. WE ALL ENJOYED HEARING ABOUT YOUR VENTURE AND WE ARE GLAD THAT YOU DID NOT ENCOUNTER THE PROBLEMS THAT CLARK DID IN 1919. WE ALSO HOPE THAT SOMEDAY YOU WILL BE ABLE TO RETURN FOR THE MARCO POLO SHEEP THAT YOU HAD HOPED TO ACQUIRE.

EDITOR'S COMMENTS

I WAS QUITE IMPRESSED WITH RICHARD WRIGHT'S ARTICLE OF "OUR VANISHING WILD SHEEP." HE HAS EMPHASIZED MANY POINTS WHICH I HAVE COMMENTS ON.

WRIGHT HAS STATED THAT IT IS ENTIRELY POSSIBLE THAT OUR GENERATION WILL SEE THE LAST WILD MEMBER OF A VANISHING, NEGLECTED SPECIES, THE BIGHORN SHEEP, UNLESS SOMETHING IS DONE TO PRESERVE AND IMPROVE THEIR RANGES. HOW TRUE HIS STATEMENT IS. WRIGHT WAS WRITING ABOUT THE SHEEP DECLINE IN AN AREA THAT HAS A LOT OF SHEEP IN COMPARISON TO OUR PROBLEM HERE IN SOUTHERN CALIFORNIA. IF HE FEELS THE SHEEP ARE THREATENED HOW ABOUT THE DESERT BIGHORN IN SOUTHERN CALIFORNIA? WILL B.C. HAVE THE SAME PROBLEMS WE ARE HAVING NOW IN THE NEAR FUTURE?

IF THE SHEEP IN BRITISH COLUMBIA ARE CONSIDERED TO BE IN TROUBLE HOW ABOUT THE DESERT SHEEP IN CALIFORNIA, UTAH, AND ARIZONA? SOUTHERN CALIFORNIA HAS FREEWAYS, HOUSING DEVELOPMENTS, PEOPLE, BURROS, AND A MIRIADE OF OTHER PROBLEMS THAT THE SHEEP IN B.C. DON'T HAVE TO CONTEND WITH.

A GIVEN LAND AREA CAN SUPPORT SO MANY ANIMALS. IF THIS GIVEN LAND AREA IS REDUCED IN SIZE BY A NEW FREEWAY, OR LAND DEVELOPMENT, THE REMAINING AREA WILL SUPPORT LESS ANIMALS...AND IF THE REMAINING AREA HAD ONLY MARGINAL FOOD AND WATER, IT WOULD SUPPORT FEWER ANIMALS. TO PUT IT ANOTHER WAY, COULD TWO PEOPLE EXIST IF THERE WERE ONLY ENOUGH FOOD FOR ONE? THERE IS A GREAT CHANCE THAT BOTH PEOPLE MIGHT DIE AS THEY WOULD BOTH BECOME WEAK. THUS, WHEN SHEEP RANGE IS REDUCED THE AFFECT IS GREAT ON THE POPULATION OF THE HERD. THIS IS WHY YOUR SHEEP SOCIETY IS FIGHTING TRAM EXPANSION ON MOUNT BALDY AND IS FIGHTING LAND DEVELOPMENT IN PALM SPRINGS. THIS IS WHY THE SHEEP IN NORTH AMERICA NEED YOUR SUPPORT.

ANOTHER SUBJECT THAT RICHARD WRIGHT MENTIONED WAS THE LUNGWORM-PNEUMONIA COMPLEX. MY LIMITED INVESTIGATIONS INTO THIS AREA HAVE LED ME TO BELIEVE THAT ALL SHEEP HAVE LUNGWORM PARASITES IN THEIR LUNGS, AND THAT THE SHEEP ARE ABLE TO COPE WITH THE LUNGWORM PARASITE AS LONG AS THEY REMAINED HEALTHY. WHEN SHEEP DO NOT HAVE AN ADEQUATE DIET (NOT ENOUGH FOOD DUE TO SCARCITY OF FOOD OR OVERPOPULATION) THE LUNGWORM BECOMES ACTIVE AND KILLS THE SHEEP. THUS A CAUSE FOR HUNTING, AND I MEAN MANAGED HUNTING. WHEN A SHEEP POPULATION BECOMES TO GREAT FOR THE FOOD IN A GIVEN AREA THE SHEEP HAVE TO BE REDUCED IN NUMBER OR THE WHOLE HERD WILL BECOME WEAK AND THE LUNGWORM PARASITE IS IN A POSITION TO KILL MANY OF THE ANIMALS. HUNTING IS NECESSARY AS A GAME MANAGEMENT, GAME CONSERVATION TOOL UNDER SUCH CIRCUMSTANCES.

ANOTHER AREA MENTIONED WAS THAT FOREST FIRES BENEFITED THE SHEEP BY KILLING OFF THE LODGEPOLE PINE. THE GROWTH OF THE PINES WOULD STOP SUNLIGHT FROM REACHING THE GROUND BETWEEN THE TREES AND WOULD NOT LET GRASS GROW. IN 1969 I HAD THE OPPORTUNITY TO INSPECT AN AREA IN NORTHERN BRITISH COULMBIA THAT HAD BEEN BURNED OVER ON PURPOSE. EACH SPRING THE OWNER OF THE PROPERTY WOULD FLY OVER, AND DROP FLARES, TO BURN THOUSANDS OF ACRES OF TIMBER, TO ALLOW GRASS TO GROW TO PROVIDE FOOD FOR THE ANIMALS IN THE AREA. I RODE ON HORSEBACK FOR TEN DAYS AND NEVER DID GET OUT OF AN AREA THAT HAD NOT BEEN TOUCHED BY FIRES. THE RESULT WAS A GOOD CROP OF HEALTHY ANIMALS AND ADEQUATE FOOD FOR THEM. MANY PEOPLE I HAVE SPOKEN TO SINCE THEN SAY THAT THIS APPROACH TO PROVIDING FOOD FOR ANIMALS DOES NOT DO ANY GOOD...BUT THE FELLOW WEST OF FORT NELSON IS DOING WHAT WORKS BEST FOR HIM.

I SINCERELY HOPE THAT THE ARTICLE HAS OPENED YOUR EYES TO THE PROBLEMS THAT OUR SHEEP HAVE. I HOPE YOU HAVE BEEN INSPIRED TO DO MORE FOR OUR SHEEP. IF YOU DON'T START MAKING YOUR MOVE NOW WHO ELSE WILL SAVE THE BIGHORN SHEEP?

WHAT AFFECT DO HELICOPTERS HAVE ON SHEEP?

THIS PAST AUGUST/SEPTEMBER I HAD THE OPPORTUNITY TO OBSERVE THE AFFECT THAT HELICOPTERS HAVE ON BIGHORN SHEEP IN THE AREA SOUTH OF GRANDE PRAIRIE, ALBERTA, CANADA. I HAD THE OPPORTUNITY TO OBSERVE A BAND OF EWES FOR SEVERAL DAYS NEAR THE ALBERTA/ BRITISH COLUMBIA BORDER.

THE CANADIAN BUREAU OF MINES AND MINERALS IS DOING QUITE A BIT OF SURVEY WORK IN THE AREA I WAS IN AND I FELT IT A WORTHWHILE PROJECT TO OBSERVE THE AFFECT THAT HEAVY HELICOPTER TRAFFIC HAD ON THE BAND OF SHEEP. I OBSERVED THE EWES--THIRTEEN IN TOTAL--WHILE THEY FED AND RESTED WHILE HELICOPTERS FLEW BACK AND FORTH IN AN AREA NOT OVER A MILE FROM THE SHEEP. WHEN THE HELICOPTERS FLEW OUT OF THE AREA THEY WOULD FLY AN ESTIMATED 150-200 YARDS FROM THE EWES. WHEN THE HELICOPTERS WOULD FLY DOWN THE MOUNTAIN PASS YOU COULD HEAR THE ROAR OF THE ENGINE SOME FIVE MINUTES BEFORE THE HELICOPTER CAME INTO SIGHT.

AFTER THREE DAYS I CAME TO THE CONCLUSION THAT HELICOPTERS DID NOT HAVE ANY AFFECT ON THIS BAND OF SHEEP. I NEVER DID NOTICE ANY OF THE ANIMALS STOP FEEDING OR EVEN LOOK UP TO OBSERVE THE HELICOPTER AS IT FLEW BY. THE SHEEP DID NOT SEEM AT ALL CONCERNED AND NEVER DID MOVE ON THE OTHER SIDE OF THE MOUNTAIN. I LEFT THE AREA BEFORE THE SHEEP DID AS THE HELICOPTERS AND THEIR NOISE STARTED TO BOTHER ME. THE BAND OF THIRTEEN EWES CONSISTED OF EIGHT ADULT ANIMALS. I FELT THAT THE SHEEP WOULD RUN AND BE AFRAID OF THE HELICOPTERS BUT I WAS QUITE WRONG, AND OBVIOUSLY QUITE PLEASED TO OBSERVE THE POSITIVE AFFECT THE HELICOPTERS HAD ON THIS PARTICULAR BAND OF EWES I OBSERVED. OH YES, I NEVER DID OBSERVE ANY RAMS ON THE SIDE OF THE MOUNTAINS THE HELICOPTERS WERE FLYING ON...BUT THEN RAMS DO NOT NORMALLY MIX WITH THE EWES.

SIDELINES

I WANT TO REMIND YOU THAT WE ARE HAVING A BANQUET ON SATURDAY, JANUARY 30, 1971, AT FREDDIES TOWN HOUSE (HILL HOUSE) IN BAKERSFIELD. DINNER IS AT 8:00 P.M...BUT TRY TO BE THERE BY 7:00 P.M....I AM IN THE MARKET FOR REPORTS FROM OTHER STATES CONCERNING BIGHORN SHEEP...IF YOU HAVE A REPORT PLEASE SEND IT IN. I WANT TO REMIND EVERYONE THAT NOW IS A GOOD TIME TO GET OUT AND CHECK A WATERHOLE. IF YOU WANT AN ASSIGNMENT CONTACT THE SOCIETY. SEE YOU IN BAKERSFIELD.