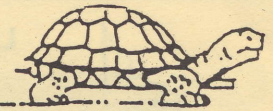


TORTOISE TRACKS



THE DESERT TORTOISE PRESERVE COMMITTEE NEWSLETTER
P.O. Box 453, Ridgecrest, CA 93556

SUMMER, 1990
Volume 11, No. 2

FUNDING WELL SPENT

Land and Water Conservation funding has allowed the Bureau of Land Management to acquire 10,000 acres of critical desert tortoise habitat from private landowners in the Chuckwalla Bench Area in the past two years.

Important habitat remains in private ownership. The Bureau intends to consolidate ownership of as much of the critical habitat in this area as possible, taking advantage of opportunities as they arise. The Nature Conservancy is currently negotiating with Santa Fe Pacific Realty Co. who has received competing offers for their 6,300 acres.

Threats to the habitat in Chuckwalla Valley have increased due to the recently constructed State prison along the Wiley Well road. Rumors of two proposals, Kaiser's Eagle Mountain Mine

"Trash Train" Project and an Orange County prison near Chiriaco Summit, have attracted land speculators to the area. Many of the landowners report that they are receiving competing offers for their property.

Bureau Rangers have increased patrol of the area to enforce both road closures and other regulations designed to protect the fragile resources. The Bureau has also posted new signs at major entrances to the Bench area advising visitors of the special resources and regulations.

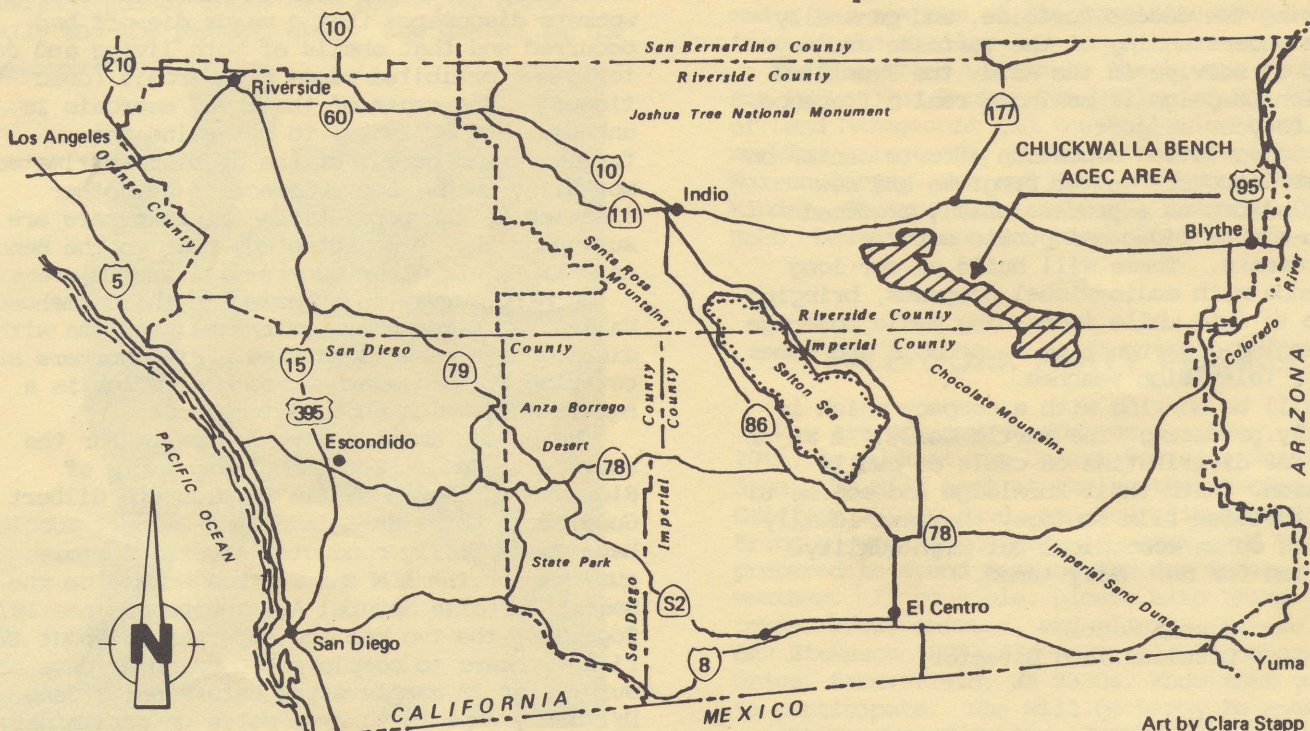
Candace Ojala
Bureau of Land Management
Riverside District Office

CHUCKWALLA BENCH

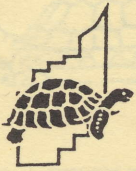
Area of Critical Environmental Concern

(ACEC)

Location Map



Art by Clara Stapp



LIFELINE FUND REPORT

Land acquisition by the Desert Tortoise Preserve Committee at the D.T.N.A. is taking a large stride forward. Purchase of a

40 arce parcel has recently been completed, and offers have been made to nearly two hundred small parcel owners in the important southern boundary Section 5. Offers for eight parcels have been immediately accepted, totalling about 22 acres, and other responses continue to come in. Follow-up contracts are being made to overcome obstacles to purchase wherever possible.

We are also delighted with the response to our recent membership drive, and would like to extend a warm welcome and thank-you to all new Committee members and donors. Your support makes all the difference in our ability to meet the challenges facing tortoise and desert conservation today. And it gives a real boost to our hard-working volunteers and to me to know that so many more who care have joined us.

The information reaching the public about the desert tortoise, both wild and captive, will be vastly improved now that detailed information packets have been distributed through the Committee's Frontline Education Campaign project. Especially researched and compiled for the Campaign, the project uses a comprehensive address and phone list of over 1400 local, state, and federal government offices, law enforcement, chambers of commerce, libraries, utilities, veterinarians, recreation groups, and other relevant public and private organizations or individuals.

Designed to prevent the spread of disease, curb vandalism, increase compliance with laws protecting the desert tortoise, and generally improve understanding of the tortoise and ways to help it survive in the wild, the Frontline Education Campaign is making a real difference, thanks to your support.

New Conservation education efforts center on Tortoise Discovery Center programs and new materials such as a professionally produced fifteen-minute video and public service announcements. These will build on our long experience with audio-visual programs, bringing them up to date while increasing media coverage and learning opportunities in schools and homes, wherever television reaches.

We will be working with a company which is currently producing "The Turtle World," a major series for distribution on cable or public television. With their knowledge and access to desert tortoise film footage, they are ideally suited to do an economical but high quality production for us. Stay tuned.

Curtis Horton
Lifeline Fund Director

BLM UNDERTAKES MAJOR TORTOISE FIELD SURVEYS IN CALIFORNIA

The Bureau of Land Management (BLM), under the direction of Dr. Kristin Berry, initiated seven field projects the first week of April in different parts of the desert.

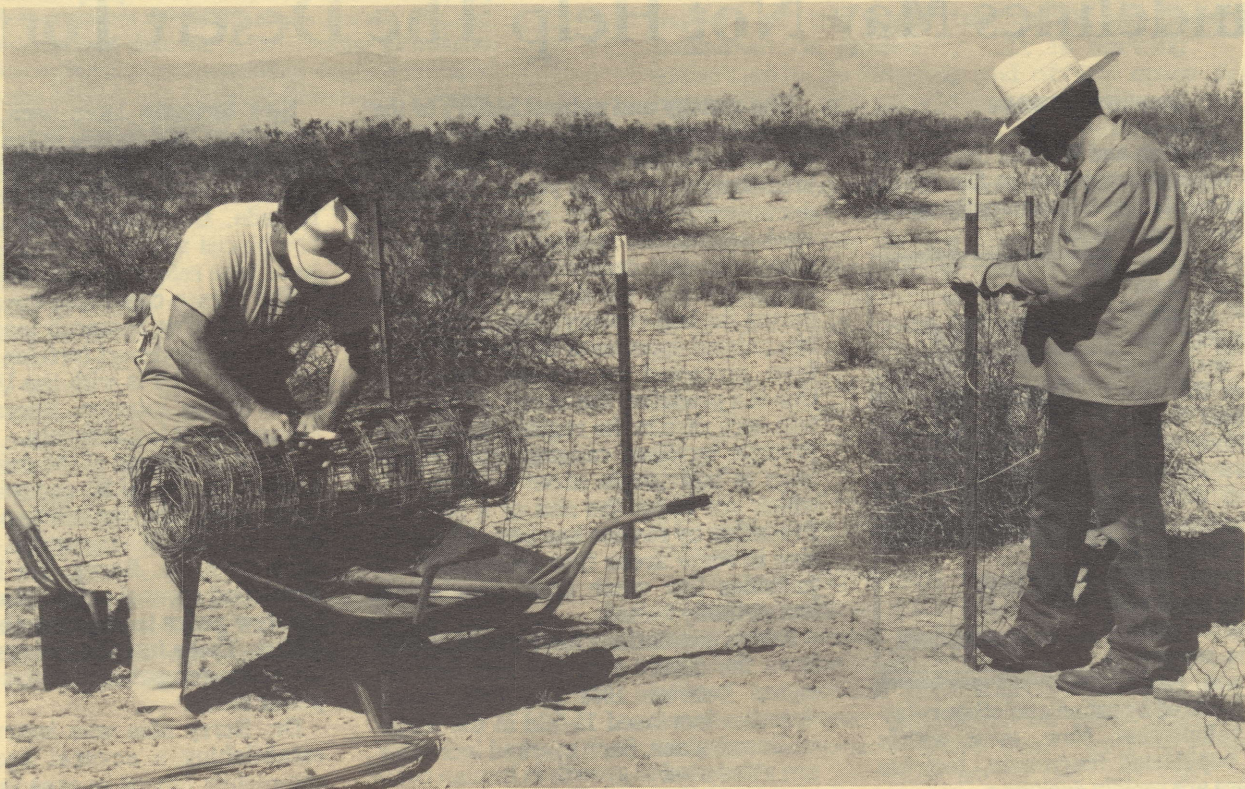
Four projects are focused on the typical 60-day spring surveys at permanent study plots to determine population attributes of tortoises and condition of habitat. Sites for the 1990 surveys are Lucerne, Johnson, and Ivanpah Valleys and Goffs. Lucerne and Johnson Valleys were surveyed in 1980 and 1986, whereas Ivanpah Valley has a longer history of surveys (1977, 1978, 1979, and 1986). The Goffs study plot has received intensive scrutiny, not only as part of the BLM program in 1977 and 1980 but in a cooperative four-year effort with Southern California Edison and UCLA between 1983 and 1986.

The remaining three surveys are focused on health and disease issues. The first site is in the western Mojave Desert, where field surveys are underway at two permanent study plots at the Desert Tortoise Natural Area and a third permanent study plot in Fremont Valley. The surveys will provide information on the epidemiology of upper respiratory disease (URDS), mortality rates since 1989, frequency of tortoises with symptoms of URDS, and gross estimates of numbers of live tortoises. Research veterinarians in the Fish and Wildlife Service have emphasized the importance of tracking the course of URDS in wild populations with marked tortoises, where histories of individuals are known.

A second survey is nearing completion on the Chuckwalla Bench Area of Critical Environmental Concern in Riverside County. In 1988, field workers discovered that a major die-off had occurred and that shells of both living and dead tortoises exhibited signs of necrosis (dead tissue). The cause of the shell necrosis is unknown, and BLM hopes to determine the frequency and extent of the problem, estimated mortality rates, and evidence of any other diseases in the population. Fieldworkers are surveying the permanent study plot on the Bench, as well as six other square-mile sample areas.

A third survey is underway in the Chemehuevi Valley, at sites where potential problems with disease have been identified. Fieldworkers are covering 12 sample areas, each of which is a square mile, with abbreviated surveys.

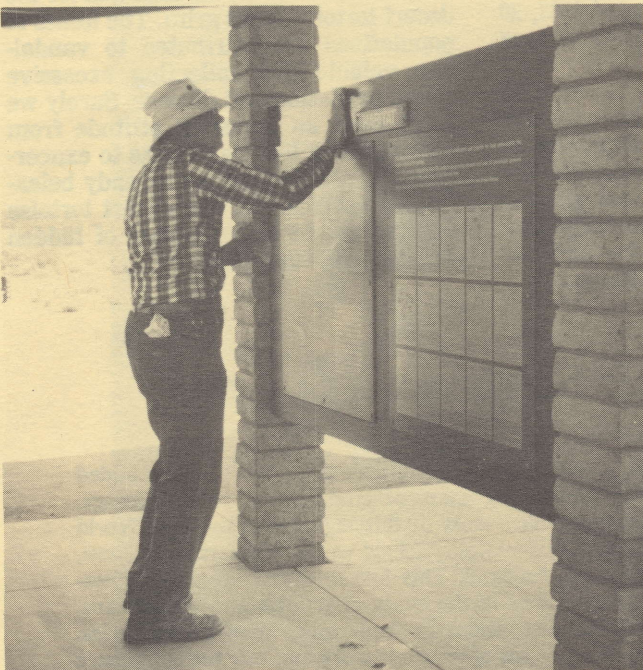
The Bureau awarded five contracts for the surveys to EnviroPlus Consulting Group of Ridgecrest, headed by Tim Shields and Gilbert Goodlett. Both Tim Shields and Gilbert Goodlett have successfully conducted several tortoise surveys for the BLM and Tim has worked on the Desert Tortoise Natural Area surveys since 1979. Together, the two men are supervising about 17 field workers to complete 600 calendar days of surveys at 23 sample sites before early June. Dr. Berry expects to have notes on preliminary findings by late summer.



Lloyd Brubaker (left) and Warren Forgey, constructing gate into DTNA at Spring Work party.

SPRING WORK PARTY REPORT

On Sunday, March 18, thirteen volunteers scrubbed the Desert Tortoise Natural Area (DTNA) out-houses and kiosk to a sparkling clean. Several loads of rocks were placed to border trails and the parking area. The gravel in the



Ron Henry, part of volunteer DTNA maintenance crew at Spring work party, cleaning kiosk.

parking area was redistributed and our new Discovery Center was put in place. A new workable gate was made for the entrance to the DTNA and the fence was straightened in a number of places.

The work crew met naturalist, Shanon Ginn, and a few members of the Committee gave her a tour of the trails.

The Committee wishes to thank very much the Bob Parker and Ranger Don Dollar of the Bureau of Land Management and the following hard working volunteers: Dave Bolus, Lloyd Brubaker, Warren Forgey, Ron and Mary Ann Henry, Robert Kinder, Barbara Maxwell, Carol Panlaqui, Darrell Robb, Bev Steveson and Laura Stockton.

FALL WORK PARTY PLANNED

You are invited to join us Saturday, October 20th, to work at the Desert Tortoise Natural Area. We will meet at the northeast corner of California City Blvd. and Neuralia at 9:00 a.m. Bring gloves, food, lots of water, and be prepared to spend most of the day in any kind of weather. If possible, please also bring heavy rakes, hoes, shovels, and pliers. Please let Bev Steveson (805) 832-9121, 418 Brookhaven Drive, Bakersfield, CA 93304, know that you plan to participate. She will be happy to answer questions regarding the planned activities and will keep you posted should any last minute changes occur.

Guidelines May Not Help The Desert Tortoise

By WHIT GIBBONS

The U.S. Fish and Wildlife Service recently offered protection to the desert tortoise by placing it temporarily on the endangered species list.

The original, natural geographic range of the desert tortoise included parts of the Mojave and Sonoran deserts of southwestern United States and Mexico. The species was once widespread and common, but populations have become separated from each other, isolated by urban and other related developments. Now, even within these population fragments, tortoise numbers are rapidly declining.

I saw a television newscast recently in which several individuals from Las Vegas were interviewed about the tortoise's federal listing. Some appeared to represent local government; others were definitely private enterprise. They were explaining why Las Vegas should be exempt from the law. They claimed that strict adherence to the law would lead to the stalling or halting of certain construction projects.

After listening to their arguments, all I was convinced of was that Las Vegas did not believe it should have to obey the law because it was Las Vegas. Odd logic, but unfortunately an attitude that is widespread among the development sector of the business world. The objective and justification appear to be personal gain, and if the cost is an endangered species or another lost habitat, too bad.



The ecology and natural history of the desert tortoise is fairly well documented, thanks to the efforts of a handful of investigators over the years. Also well-documented are the pressures that work against the species, and they are many. Habitat destruction has been a major factor in the decline in numbers during the last century. And, ironically, two natural enemies of the tortoise have been promoted by human activities. One is a predator, the raven, a bird that was once rare in the region. Ravens eat juvenile tortoises ranging from hatchlings to individuals about 8 years old, which are about the size of a softball. Predation by ravens has been so excessive in some areas that recruitment of juveniles into some adult populations has virtually halted.

Raven populations have grown rapidly in the desert over the last few decades. Between 1968 and 1988, raven densities increased 15-fold in the Mojave Desert alone. Such marked increases are attributed to growth in human populations, which enhance the raven's sources of food and water (garbage dumps, sewage ponds, agricultural fields, road-killed animals) and provide additional perch sites (transmission towers, poles, and other structures).

A second, more insidious, problem has arisen that threatens the species in an entirely different manner. Wild adult tortoises are dying in many areas from an upper respiratory disease. The mortality rate is enormously high. For example, of 168 animals observed alive in one study area in the spring of 1988, 20 percent were found dead on the surface a year later.

The respiratory disease appears to have been introduced to the wild tortoises through unauthorized release of ailing captives. This may seem like the thing to do, if you have a pet tortoise that is sick. But, unfortunately the disease is apparently contagious and has spread through many populations.

Sick tortoises have been found over more than 1000 square miles of the western Mojave Desert in the last few years. These include populations in California, Nevada, Utah and Arizona. All areas are places where ill captives occur or have been released to the wild.

The person deserving the most credit for conducting research leading to protection of the desert tortoise is Dr. Kristin Berry, who is with the U.S. Department of the Interior, Bureau of Land Management in California.

About 70 percent of the desert tortoise habitat in the U.S. occurs on public lands under the jurisdiction of the Bureau of Land Management. With guidance from Dr. Berry, the bureau has developed several action plans over the last few years to improve the tortoise's status. These include rulings related to the management of tortoise habitat on public lands.

Dr. Berry also was instrumental in establishing a several square mile, completely fenced in area in California to protect tortoises from sheep grazing, off-road vehicles, and mineral development. The preserve is called the Desert Tortoise Natural Area. The hogwire fence surrounding the site is low enough to permit native wild animals other than tortoises to move in and out. The tortoise population inside Natural Area boundaries has been protected from vandalism, trampling from sheep, and deterioration of habitat from cross-country vehicle travel.

Overall, however, the situation for the desert tortoise looks grim. The losses of populations are attributed to vandalism, vehicle kills, collecting, excessive raven predation and disease. Surely we don't need an uncaring attitude from communities like Las Vegas to exacerbate the problems of an already beleaguered species. But the desert tortoise ruling may force a number of hidden attitudes into the open.

Life Sciences

ZOOLOGY

During 1989 scientific publications and conferences added to the burgeoning mass of communication in zoology. Among notable events in this regard was the first World Congress of Herpetology, held at the University of Kent, Canterbury, England. This first international-scale gathering of specialists in the study of reptiles and amphibians, which included scientists from more than 60 countries, allowed syntheses of previous work and saw the emergence of new findings in several subfields of zoology.

Conservation of animals and natural habitats remained a dominant theme during the year, reflecting worldwide

Ed. Note: The newspaper column above and the excerpt from the *Encyclopedia Britannica* at the right were contributed by Whit Gibbons, Professor of Zoology with the University of Georgia's Savannah River Ecology Laboratory in South Carolina. A dedicated herpetologist and ecologist, Whit has long been interested in and concerned about the desert tortoise. His book, "Their Blood Runs Cold" is a sparkling account of his lifelong interest in all creatures reptilian or amphibian--both enjoyable and informative reading. Thanks, Whit!

concern about the elimination of species. Kristin H. Berry of the U.S. Department of the Interior's Bureau of Land Management reported that the desert tortoise (*Xerobates agassizii*) had suffered severe population declines throughout the western Mojave and Colorado deserts of California and attributed human influences as the primary cause in most cases. Among documented effects on desert tortoise numbers were poaching, vandalism, off-road vehicle use, and the loss, deterioration, and fragmentation of habitats.

Two new threats to the desert tortoise were recently identified. One was a 15-fold increase in numbers of the common raven (*Corvus corax*) in the Mojave Desert since the late 1960s. Ravens eat juvenile tortoises ranging from hatchlings to those about eight years of age. Predation was found to be so excessive among some populations that virtually no juvenile tortoises remained. The increase in ravens was blamed on local growth of human populations and consequent increases in year-round sources of food and water (road kills, garbage dumps, sewage ponds, and agricultural fields) for the birds and in perch sites (transmission towers, poles, and other structures). In many areas wild adult tortoises were also dying from an upper respiratory disease. The illness appeared to have been introduced to wild tortoises through unauthorized release of sick captives. Contagious and eliciting a high mortality rate, the disease was spreading through populations in California, Nevada, Utah, and Arizona.

DISCOVERY CENTER UPDATE

The Desert Tortoise Discovery Center has finished a very successful tour of duty at the Natural Area this spring, capably operated by Committee naturalist Shannon Ginn. With its striking new wildlife graphics, the Center

commands attention as a rallying point for support of the Committee's work and desert conservation generally. It is serving effectively as housing and office space for the naturalist, and providing an important outlet for educational materials and fundraising products.

By helping make it possible to have a naturalist at the Natural Area, the Center has helped keep the nature trails and other educational facilities open to the public during the present quarantine conditions. In addition, we have already used the Discovery Center at several events off-site, with excellent feedback from the public, as we continue to develop its outreach program. Media coverage in response to our announcement of the Center's opening has been excellent, including local TV news coverage featuring Committee Board member Bev Stevenson, and statewide wire service and newspaper stories.

We need additional funding to take the outreach program full-time into the schools, recreation areas, and other sites where its message can be most effective. As part of our effort to provide more support for the Discovery Center and other projects, we have launched our largest membership drive ever, with a first-rate new brochure produced at no cost to the Committee through the generosity of an anonymous donor and the partial donation of services by Geographics in Riverside. We are grateful for their tremendous support. Carefully selected mailing lists were also provided free of charge or for a token fee. With costs at a minimum, we will be able to devote that much more to our programs.



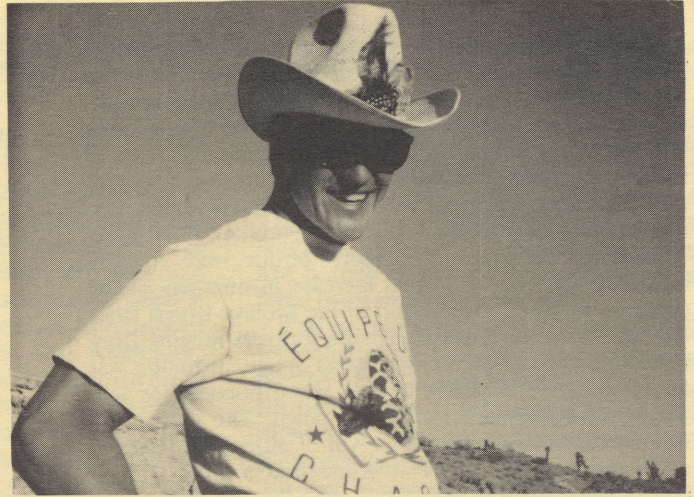
Naturalist Shannon Ginn beside the Keith B. Drake Desert Tortoise Discovery Center.

IBM DONATES COMPUTER EQUIPMENT

The Desert Tortoise Preserve Committee takes an exciting leap forward in office capabilities with the recent donation of \$7,300 worth of computer equipment by the IBM Corporation. The equipment, donated through its Fund for Community Service, includes an IBM Personal System/2 computer, color monitor, and Quietwriter printer. Committee member and IBM employee Marie C. Stortz submitted the request, with assistance from Committee Board members and staff, especially Board President Jayne Chavez-Scales.

The computer improves the Committee's ability to administer its educational programs and other conservation projects. With its graphics and text capabilities, design and production of publications can be done more effectively, at reduced cost. The Committee will also be able to develop databases making information from its land acquisition and naturalist programs more accessible and useful for educational and planning purposes. And of course, full computerization of membership and financial information eases the burden on the Board members who volunteer so much time in those areas, particularly as the Committee grows.

We wish to thank IBM Corporation and the Fund for Community Service staff for their generous support and recognition of the importance of desert tortoise conservation. We deeply appreciate the initiative of Marie Stortz and Jayne Chavez-Scales in pursuing the request--an example that offers inspiration to anyone looking for ways to make the connection between their support of tortoise conservation and a corporate employer's giving program.



ROGER DALE JOINS BOARD OF TRUSTEES

Roger Dale was elected to the Committee Board of Trustees in January and is currently serving as Recording Secretary. Roger has been a Desert Tortoise Preserve Committee (DTPC) member since 1986 and has been active in the California Turtle and Tortoise Club for many years. His interest in tortoise conservation started about ten years ago when he participated in a DTPC guided tour of the Desert Tortoise Natural Area. He has since visited the DTNA many times, both to enjoy and to help with Committee fence and trail maintenance activities. Roger graduated from Claremont McKenna College in 1988 with a bachelor's degree in economics. He currently lives in Los Angeles where he is employed at an economic consulting firm which specializes in studies related to urban and regional planning.



FROM THE BLM CORNER

PROGRESS IN LAND ACQUISITION

The combined efforts of The Nature Conservancy, Bureau of Land Management (BLM), Desert Tortoise Preserve Committee and the State Wildlife Conservation Board have resulted in some important gains in land acquisition in the Desert Tortoise Natural Area (DTNA) recently. As shown by the figures below, private ownership has been reduced to less than 5,000 acres.

MAJOR LANDOWNERS IN THE DESERT TORTOISE NATURAL AREA JULY 20, 1990

Desert Tortoise Preserve Committee:	66 acres
The Nature Conservancy:	715 acres
Wildlife Conservation Board:	1,035 acres
Bureau of Land Management:	18,963 acres
ALL OTHER PRIVATE OWNERSHIP:	<u>4,696</u> acres
TOTAL ALL OWNERSHIP:	25,465 acres

A major element of acquisition progress has come from completing the five exchanges listed below:

Case #/Proponent	Private/Public acres	Status
CA 23834 (Niederberger)	38.75 / 40	COMPLETED
CA 23915 (Novicoff)	38.89 / 40	COMPLETED
CA 23920 (Detjen)	110 / 110	COMPLETED
CA 23914 (Welsh)	342.50 / 340	COMPLETED
CA 24291 (Howard)	38.82 / 40	COMPLETED

TOTALS:	558.96	560
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In addition, BLM has the following exchanges nearing completion:

Case #/Proponent	Private/Public acres	Estimated Completion date
CA 23839 (Maron)	157.41 / 160	July 1990
CA 24307 (Jaskiewicz)	38.67 / 40	August 1990
CA 24290 (Smith)	38.90 / 40	August 1990
CA 23836 (Batz)	81.87 / 80	October 1990
CA 23833 (Lichter)	81.65 / 80	November 1990
CA 24454 (McMahon)	30.38 / 30	November 1990
CA 25521 (Reinelt)	20 / 20	December 1990
CA 26238 (Collins)	40 / 80	December 1990
CA 20236 (TNC/LUZ)	40 / 21	November 1990
CA 26393 (Orton/Bower)	140 / 140	December 1990
CA 27147 (Bergey)	20 / 20	December 1990

TOTALS: 11 Pending Cases	648.88	751
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A key factor in the success of the exchange effort has been the encouragement and support of the Desert Tortoise Preserve Committee. Without the financial support of the Desert Tortoise Preserve Committee in funding equalization payments, many of these exchanges could not be completed.

Although exchanges have been a major workload, BLM has continued to make some direct purchases as shown below:

Fiscal Year 1988:	TNC Purchase	1560 acres	\$352,000
	Hean Purchase	20 acres	\$6,000
	Guidett Purchase	40 acres	\$10,000
	Pfeister Purchase	40.31 acres	\$10,100
	Farber Purchase	160 acres	\$28,000
Fiscal Year 1989:	Rudometkin Purchase	40 acres	\$10,000
	Adat Ari El Purchase	37 acres	\$9,250
	King Purchase*	40 acres	\$10,000
Fiscal Year 1990:	Boyce Purchase	80 acres	\$24,000
	Madden Purchase	40 acres	\$12,000
	Wells Purchase	5 acres	\$3,000
	Santa Fe Purchase	319 acres	\$88,000
	Darling Purchase	35 acres	\$19,500
	Graham Purchase*	20 acres	\$10,000
TOTALS:		2,463 acres	\$591,350

* Offer accepted or in escrow

Working cooperatively, BLM, The Nature Conservancy and the Desert Tortoise Preserve Committee have divided the DTNA into sections for purposes of negotiating acquisitions. What seemed like an insurmountable job two years ago, has yielded to encouraging gains from the efforts of all three parties.

Thomas Gey, Realty Specialist
Bureau of Land Management
Ridgecrest Resource Area

BLM HIRES NEW EMPLOYEES FOR DESERT TORTOISE PROGRAM

The Bureau of Land Management's California Desert District has hired three new permanent, full-time employees for the Desert Tortoise Program and expects to make a selection on a fourth employee in the next few weeks. The new employees will work for Dr. Kristin Berry.

Hal Avery, who arrived May 7th, obtained bachelors and masters degrees from Buffalo State College in New York and is currently a doctoral candidate at UCLA with Dr. Laurie Vitt. He has worked extensively with turtles for several years, including three years with Dr. Justin Congdon at the George Reserve. He has published a chapter with R. Parmenter on feeding ecology of slider turtles in a book published in March, Life History and Ecology of the Slider Turtle. Hal's specialties are in nutrition, feeding ecology, and physiology of digestion. He will be assisting with parts of the desert tortoise program dealing with health profiles, disease, and nutrition.

On June 25, William Boarman arrived to take the reins of the raven management program and assist with the education programs. Bill recently taught at Pacific Lutheran University at Tacoma, Washington. Bill received a bachelors degree from California State University at Northridge, a masters degree from San Francisco State University, and expects to finalize a doctoral degree in late summer from Rutgers University in New Jersey. Bill's specialty is birds.

On June 11, Lynn Jung arrived from the Denver Federal Center to assist as Secretary to the Desert Tortoise Program, including Dr. Berry and

three other biologists. Lynn has held positions in the federal government in Oklahoma, Sacramento, and Washington, D.C.

A third new biologist will be selected, who will focus on several, more general aspects of the Tortoise Program, including demography, education, mitigation and compensation, and habitat condition.

WELCOME TO YOU ALL
FROM THE DESERT TORTOISE PRESERVE COMMITTEE!

BLM TO PURCHASE DTNA LAND FROM COMMITTEE

The Desert Tortoise Preserve Committee has agreed to the offer of the Bureau of Land Management (BLM) to purchase 26.5 acres of Committee property in the Desert Tortoise Natural Area (DTNA) for \$15,000. The Board of Trustees accepted this offer with the understanding that this land will continue to be maintained for the benefit of the desert tortoise and other wildlife, as is the case with all public lands in the Natural Area.

This action will provide additional funds for Committee programs, including land acquisition, while guaranteeing the future protection of the habitat being transferred. Similar transfers of property from The Nature Conservancy to BLM are ongoing, as part of the coordinated habitat acquisition and protection effort.

The property to be sold is made up of a twenty acre parcel and three parcels under 2.5 acres, all owned by the Committee for several years.

DESERT TORTOISE PRESERVE COMMITTEE, INC.
P.O. Box 453, Ridgecrest, CA 93556

ADDRESS CORRECTION REQUESTED

