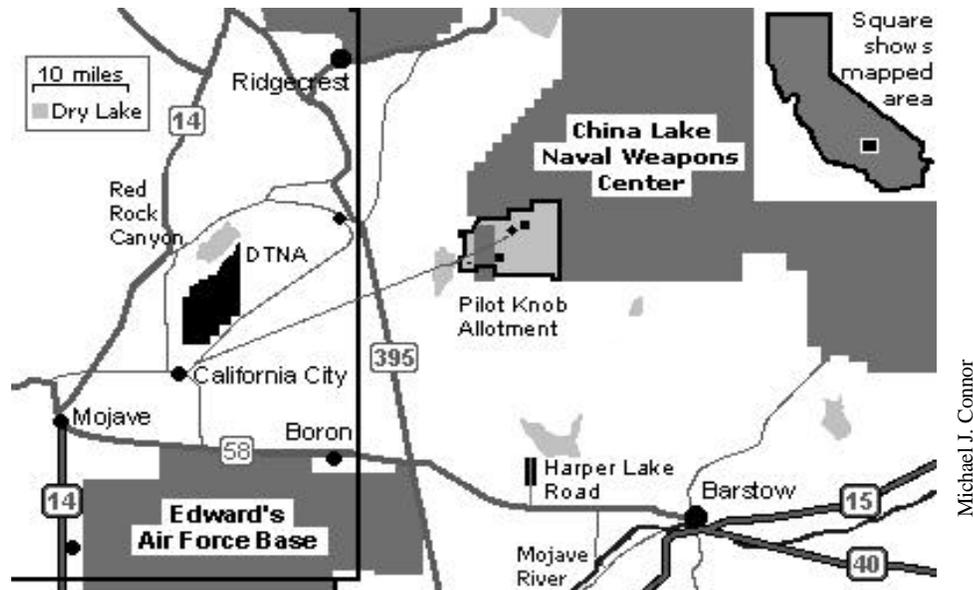

Tortoise Tracks

The Desert Tortoise Preserve Committee, Inc.

Spring 1999 19:1



This map shows the location of major Desert Tortoise Preserve Committee projects in the western Mojave Desert.

ANNUAL REPORT

1998 Stewardship Report

By Laura Stockton

When the Desert Tortoise Preserve Committee was formed almost 25 years ago, the primary focus was the establishment and protection of the Desert Tortoise Natural Area. Additional goals included promoting desert tortoise welfare throughout its geographic range. Since then the need to protect the desert tortoise and desert tortoise habitat has become increasingly critical. The role of the Committee has broadened in response to the challenges of insuring desert tortoise survival. Few, if any, of the founding members of the Committee envisioned the magnitude of our current activities. In line with the expanding roles of the Committee, revisions of the Articles of Incorporation and Bylaws revisions were completed in 1998.

In the 1970's fund raising for \$5,000 to begin the DTNA boundary fence was a realistic endeavor. In 1998 Committee assets in the six-figure range reflect the ongoing dedication of the DTPC members, supporters and partner organizations

and agencies to the protection of desert habitat and the desert tortoise.

In the beginning, 16 of the 38 sections in the DTNA were in private ownership. A partnership with The Nature Conservancy brought land acquisition expertise to begin direct efforts to purchase the private inholding. Federal Land and Water Conservation Funds were available for land acquisition for several years due to successful lobbying by such organizations as Defenders of Wildlife and the Natural Resources Defense Council. Coordinated efforts to acquire lands by the Bureau of Land Management, the Conservancy and the Committee represented a unique and productive system that resulted in purchase and exchange of much of the inholdings. In 1998 the Committee and the Bureau continued land acquisition efforts with less than 2 sections of private inholdings remaining.

In 1988 the Committee began its involvement in the mitigation/compensation process required of developers affecting desert tortoises and desert

(Continued on page 4)

SPRING WORK PARTY VOLUNTEERS NEEDED

The weekend of *March 21-22* has been scheduled for this spring's annual DTPC work party. Volunteers are welcome to come either day or both. If you can't spend a whole day, that's OK, come anyway. Those who can give us the whole weekend are invited to camp with the group at Blackwater Well on the Pilot Knob Allotment on Saturday evening.

Volunteers are needed for work at the Desert Tortoise Natural Area (DTNA) near California City on Saturday, March 21. Cleanup of the Interpretive Center area and Kiosk and general trail maintenance, in preparation for the spring influx of desert visitors to the DTNA, are the primary goals. For further information on when and where to meet and what to bring, contact *Laura Stockton*.

(805) 831-2325 or lstockton@lightspeed.net

On Sunday, March 22 volunteers will be working with the BLM and members of Desert Survivors at the Pilot Knob Allotment to inventory, measure, and photograph roads in the Grass Valley Wilderness area as preparation for road rehabilitation and closure during Winter 2000. Volunteers who plan to work at Pilot Knob are invited to camp as a group at Blackwater Well on Saturday night. For further information please contact *Karen Spangenberg*.

(818) 766-4327 or EkarenSp@aol.com



HIGH SCHOOL BAND DONATES CONCERT PROCEEDS TO DTPC

The Desert Tortoise Preserve Committee received a surprise gift from the Sundai High School Band from Sundai, Japan. The 50-member band was on a brief tour of Southern California with stops in its sister city of Riverside and a stay in California City. The band gave a concert performance along with the Mojave High School Orchestra at California City on January 4. The band members wanted any money received from that performance to go toward an environmental cause.

They chose to donate the money raised from their concert to the Desert Tortoise Preserve Committee, thanks to the recommendation and good wishes of their counselor, Ms. Terrie Thompson. The concert raised \$125 which was presented to Board of Trustees member, Mark Hagen as part of the evening's program. The performance and the presentation were extremely professional and well received by the California City community. Mark reported, "Not only were they very generous, but very talented."

(909) 683-3872 or (800) 525-2443



e-mail: DTPCINC@aol.com

<http://www.tortoise-tracks.org>

The Desert Tortoise Preserve Committee, Inc.

James Anderson Executive Director

Mary Shepherd Newsletter Editor

Board of Trustees

Bob Brooks President

Laura Stockton Vice President

Mark Hagan Vice President

Dr. Kristin Berry Treasurer

Rae Packard Recording Secretary

Roger Dale Board Member

Karen Spangenberg Board Member

Letty Brooks Board Member

FEATURING VOLUNTEERS

ANNUAL BANQUET AWARDS PRESENTATIONS

At the DTPC's Annual Banquet in Victorville, California on January 23, four very special individuals were honored for their service to preservation of the desert tortoise and its habitat and for their volunteerism.

Frank Hoover Golden Tortoise Award Honoree

The Committee expressed its deepest appreciation to Frank Hoover for his long-term and significant contributions to the conservation and management of the desert tortoise with the presentation of its Golden Tortoise Award.



© Laura Stockton

Frank was involved with the desert tortoise for more than 20 years before the Desert Tortoise Research Natural Area was formally designated, and long before the State and Federal listings. He has unselfishly and quietly supported professional and scientific approaches to its management.

In the past few years, Frank has made several very important contributions of time and energy to the Desert Tortoise Preserve Committee and Desert Tortoise Research Natural Area. In 1997, he gave unselfishly of his time to participate in the survey for tortoises at the Interpretative Center. By doing

so, he ensured that we had a sufficient number of field experts for a scientifically sound survey. In 1998, he led the field team and conducted a special survey of the Honda project site for tortoises. This project was designed to provide baseline data for an experimental recovery program for the species in a remote part of the Natural Area. Frank surveyed, with his colleagues and assistants, the entire area, locating over 30 live tortoises and collecting shell-skeletal remains. Armed with this critical background information, the Committee can move forward in 1999 with a recovery design for ensuring survival of hatchling and juvenile tortoises.

In addition to his field and lab work, in 1998 he also published an article in *Outdoor California* on the desert tortoise. This was a major accomplishment not only for Frank and the Department of Fish and Game, but for the general public as well. The article reached thousands of readers in California and elsewhere in the West.

The Golden Tortoise Award is but a small token of the Committee's appreciation. Congratulations and best wishes to Frank for a happy, healthy and active retirement.

"In Appreciation" Award Honorees

Chuck Hemingway and *Sterling Kendrick* were presented with plaques, featuring a photo of a juvenile tortoise taken at the DTNA by Laura Stockton, in appreciation for the many hours they have volunteered at the Desert Tortoise Natural Area and the Pilot Knob Allotment, respectively.

David Myers of The Wildlands Conservancy, was also awarded a photo plaque in recognition of the environmental group's involvement in the largest land deal in California history. The Wildlands Conservancy will donate 430,000 acres of desert land to the National Park Service and Bureau of Land Management and partner the purchase of 45,000 additional acres. The total land involved is 475,000 acres worth about \$52 million scattered in small sections throughout The Mojave National Preserve, Joshua Tree National Park, and desert areas critical to the threatened desert tortoise and other sensitive species.

ANNUAL REPORT - (Continued from page 1)

tortoise habitat. (*Tortoise Tracks*, 13:3, Fall, 1992) This has facilitated acquisition of DTNA inholdings and other desert tortoise habitat while increasing the stewardship responsibilities of the Committee. During 1998 a land stewardship subcommittee began working with Jun Lee to review the seven mitigation agreements to more efficiently coordinate efforts and resources in fulfilling the responsibilities of these agreements.

In 1995 with a substantial bequeath the Committee entered into a partnership with the newly formed Wild Lands Conservancy to purchase the ranching operation at Pilot Knob which represented the "base property" for a 49,000-acre cattle-grazing allotment. The Committee continues to work to permanently retire that grazing allotment and to develop a management/stewardship plan for the 1,360 acres and Blackwater Well ranching headquarters. (*Tortoise Tracks*, 15:4, Fall, 1995)

Protection and monitoring of the DTNA remains important. Biannual volunteer work parties began in 1994. The 1998 spring and fall work parties participants included members of the Desert Survivors; staff and volunteers of Bureau of Land Management; members of the DTPC board; members of the San Diego Herpetological Society and several local desert residents. In the spring the participants prepared the Interpretive Center for the spring visitors, including removal of a pickup truck load of exotic weeds from the paths. During both the spring and fall several miles of fence line maintenance was completed. In the fall a small dent was made in the trash accumulation that is evident around the southern and western boundaries of the DTNA.

The continuing success of the Committee to protect the desert tortoise and desert habitat depends on the vision and commitment of Committee members, volunteers, resource agencies, partner organizations and contractors. Each individual, from volunteer, to Committee board member, to resource manager, to co-operating organization representative, to Committee contractor, make invaluable contributions to the Committee's stewardship efforts. For instance in 1998, as with past DTNA naturalists, Karen Randall contributed her own unique talents, perspectives and recommendations. Committee contractors, in addition to doing

outstanding jobs, volunteer a great deal of time and effort on behalf of the Committee.

Pilot Knob Summary - 1998

By Karen Spangenberg

Visitation - A total of 103 person-day visits to Blackwater Well and the Pilot Knob Allotment area were made during 1998. This is twice the number from the previous year. Bureau of Land Management/DTPC volunteers, Richard Olson and Jim Bills, both residents of nearby Randsburg, served as Host/Interpreters at the Blackwater Well ranch complex from January 15 through April 30, 1998. During this time they interacted with 96 visitors to the area, maintained structures at Blackwater Well, and made periodic checks of range improvements throughout the Allotment. DTPC volunteer Sterling Kendrick, of Ridgecrest, visited the Allotment on 13 days outside the period the Host/Interpreters were on site and generally kept the DTPC informed about the area. Spring and Fall work parties included 45 DTPC and Desert Survivors volunteers who combined cleanup of the Blackwater Well area with inspection of outlying range improvements and locating the section markers of the private property within the Allotment. A group of interested upland game hunters led by Tim Boyle, Bill Callen, and Mike Cole helped survey and patch water tanks and troughs on the Allotment and reconnected the water system at Rock Springs on the Naval Air Weapons Station (NAWS). Thanks to all for their help.

Range Improvement Maintenance and Repair - Host/Interpreter Richard Olson visited all range improvements and patrolled the interior and boundary fence lines at least once each during the spring months. Several breaks were found in the fence line of the NAWS parcel in the southeastern part of the Allotment. Other fences and the numerous wire gates remained in good condition. During fall, the pumping mechanism on the windmill stopped working, precipitating a thorough overhaul of the windmill to be completed early in 1999. Tim Boyle and Mike Cole, with assistance from friends and NAWS's Tom Campbell and Mike Stoner, were successful in restoring flow from Rock Springs and repairing

ANNUAL REPORT - (Continued on page 5)

ANNUAL REPORT - (Continued from page 4)

the north/south Pilot Knob pipelines to fill all four sets of tanks and troughs on the Allotment. The spring work party did a major cleanup of barnyard junk just north of the ranch buildings. The fall work party cleared dried weeds from around the corral fences as a fire prevention measure.

Research and Proposed Studies - The natural environment of Pilot Knob Allotment will be studied as part of three research projects, which commenced during 1998. Pilot Knob was selected out of a list of 12 proposed sites for a baseline study of population and life history (primarily food habits) attributes of the state-listed Mohave Ground Squirrel. This study is sponsored by DTPC with funding from the California Energy Commission. Two studies sponsored by the Biological Resources Division of the USGS, under the direction of DTPC member Dr. Kristin Berry, began this spring. Dr. Matt Brooks (USGS) is investigating alien plant species in desert habitats with an emphasis on potential fire hazards. Results from this study will be valuable in developing the Pilot Knob Management Plan. Jeff Aardahl of the BLM in Washington, D. C., Wes Chambers of BLM Riverside, join USGS's Kristin Berry and Matt Brooks for a "rephotography" study at Pilot Knob and throughout the Mojave Desert. They will be comparing historical photographs with current conditions to learn about landscape and vegetation changes and recovery, and, in particular, to analyze natural and human disturbances.

The Year Ahead - After his return from travels in Mexico, Sterling Kendrick, will serve as Host/Interpreter at Blackwater Well during April and May. Sterling Kendrick has been volunteering at Pilot Knob for the past three years. We look forward to his continued involvement. A major overhaul of the historical windmill at Blackwater Well will be completed this spring. Tim Boyle and Mile Cole have expressed interest in maintaining the Allotment water resources throughout the year. The research projects will help us learn more about the natural environs of Pilot Knob. In May 1999, the BLM will be submitting an application for National Historic Register of the prehistoric resources at Blackwater Well. The West Mojave Coordinated Management Plan, and with it the retirement of the Pilot Knob grazing permit, is due for

completion this year.

Desert Tortoise Preserve Committee and Research Programs on its Preserves

By Kristin H. Berry

Preparations for Recovery of Tortoise Populations at the Desert Tortoise Research Natural Area (DTRNA) - One objective of the Desert Tortoise Preserve Committee (DTPC) is to hasten recovery of the tortoise at the DTRNA. One method is to improve protection of juvenile tortoises when they are small and vulnerable to predators, thereby increasing survivorship. The DTPC has discussed the use of predator-proof pens, similar to those used by Dr. Morafka at the National Training Center, Fort Irwin, to raise juveniles until they reach "raven-proof" size. Females living in the vicinity would be placed in the pens for a few days in spring to dig their nests and to lay eggs. After egg deposition, females would be removed, and the young allowed to hatch and develop without intervention.

In spring of 1998, Frank Hoover of the California Dept. of Fish and Game's Chino Field Office, offered to evaluate the population of tortoises living within an experimental fenced area of ~ 0.8 square mile in the northwestern DTRNA. Frank, with the assistance of Chuck Hemingway, Karen Spangenberg, Bob Parker, and Joyce Schlacter, conducted surveys for live and dead tortoises in spring and fall. Frank reported finding 32 live tortoises, of which 26 had been previously marked. Fourteen of the 32 were females, 13 were males, and 5 were juvenile or immature tortoises. Remains of 44 dead tortoises were also found (24 had been previously marked). The findings indicate that females of breeding size are present. These females are likely to be appropriate sources of eggs for enhancing the population locally. The next steps for the DTPC are to (1) prepare a summary of Frank Hoover's findings, (2) prepare a research proposal to test the efficacy of predator-proof enclosures for enhancing the recovery process at an experimental site within the DTRNA, (3) obtain a research permit from the U.S. Fish and Wildlife Service and Bureau of Land Management, and (4) raise the necessary funds to construct the predator pens and carry out the project.

ANNUAL REPORT - (Continued on page 6)

ANNUAL REPORT - (Continued from page 5)

Research on the Mohave Ground Squirrel - In March of 1998, the DTPC submitted a proposal to the California Energy Commission (CEC) to conduct research on the state-listed Mohave Ground Squirrel. The proposal was prepared by Dr. Phil Leitner and the DTPC, in response to a request by the CEC. The DTPC committed \$10,000 to add to ~\$51,000 from the CEC to study distribution and abundance of the squirrels at two sites. To provide peer review and advice, a Steering Committee was established. The Steering Committee is composed of biologists and scientists from the DTPC, CEC, Calif. Dept. of Fish and Game, California Dept. of Transportation, U.S. Geologic Survey, Bureau of Land Management, Naval Air Weapons Station, and National Training Center, Ft. Irwin. Dr. Leitner is the senior advisor. The Steering Committee met in December, evaluated the proposal, and selected three study sites for preliminary field evaluations. Two of the three study sites are on DTPC preserves--Pilot Knob and the Desert Tortoise Research Natural Area. Fieldwork begins in February. To ensure success of the project, additional funds are needed, up to \$15,000 per year for the next two years.

Research on Livestock Grazing and Alien Annual Plants at Pilot Knob - Matt Brooks, now a research ecologist at the U. S. Geological Survey, Biological Resources Division, initiated a research project at Pilot Knob in the vicinity of old livestock water tanks during 1998. The project is part of the Weeds of the West research program. Objectives are to evaluate intensively used livestock areas as foci for the establishment and invasion of alien plant species. Data were collected from 10 watering sites. At each site, plant samples were collected along an 800-meter gradient, with the zero point at the old watering tank. Samples were collected also at distances of 50, 200, and 800 meters outward from the tanks. Dr. Brooks reported that frequency and cover of alien annual plants were highest at the tanks, and decreased with increasing distances outward. In contrast, native annuals were at the lowest levels at the tanks, then increased in frequency, cover, and richness with increasing distances away from the tanks. The study will be repeated annually during the next few years. Results should increase our understanding of effects of grazing on weed invasions and impacts on native vegetation.

Repeat Photography - In November 1998, Kristin Berry, Matt Brooks, Wes Chambers, and Jeff Aardahl combined efforts to conduct long-term research on changes in vegetation, effects of human uses, invasions of alien annual plants, and natural recovery of disturbed sites in the Mojave Desert using repeat photography. They located several hundred old photographs (1899-1940) of the Mojave and Colorado deserts at the U.S. Geological Survey's Photographic Library in Denver, purchased them, and took a field trip to locate the old sites and re-photograph them. Several of the sites are in the vicinity of Pilot Knob, the Rand Mountains, Johannesburg, China Lake, and Trona. We anticipate that this project will take many years and be highly productive not only for management of the preserves but for the desert as a whole.

Publications - In late 1998, the journal *Oecologia* published results of a 3.5-year study on field metabolic rates and water relations of adult desert tortoises (*Gopherus agassizii*). The research team included Drs. Brian T. Henen, Charles C. Peterson, Ian R. Wallis, Kristin Berry and Kenneth A. Nagy. The study sites were at three locations, one of which was the DTRNA. Two other localities were in the eastern Mojave Desert in Ivanpah and Fenner valleys. The project was part of Dr. Henen's doctoral research at the University of California, Los Angeles, and was partially funded by the BLM. Reprints will become available in February from the authors and the DTPC's office in Riverside. (Henen, B. T., C. C. Peterson, I. R. Wallis, K. H. Berry, and K. A. Nagy. 1998. Effects of climatic variation on field metabolism and water relations of desert tortoises. *Oecologia* 117:365-373.)

In June of 1998, Matt Brooks received his doctoral degree from the University of California at Riverside. His thesis, titled "Ecology of a Biological Invasion: Alien Annual Plants in the Mojave Desert", included results of research conducted at the DTRNA. Congratulations, Matt!





Tortoise Tracks

NONPROFIT ORG.
U.S. POSTAGE
PAID
PASADENA, CA
PERMIT NO. 1444

**THE DESERT TORTOISE PRESERVE COMMITTEE
4067 MISSION INN AVENUE
RIVERSIDE, CALIFORNIA 92501**

Address Service Requested

WEB PAGE UPDATE

By Michael J. Connor

The Desert Tortoise Preserve Committee web site continues to grow and develop. New information added includes a Pilot Knob page, where you will find basic facts, photographs and a map of this relatively new venture. On the tortoise information page is a fascinating (unpublished) manuscript from Karen Spangenberg on the diets of hatchling tortoises at the Fort Irwin study site. A list of the DTNA's reptiles, mammals and birds can be reached from the DTNA page. There is also a downloadable membership form that can be used for renewals and new memberships. You might like to print it out and pass it on to other like-minded individuals.

The site is now listed on all the major internet search engines, and links are appearing on conservation and environmental web pages. The number of visitors to the site is climbing, and has included visitors from over 25 countries. The table below gives the raw numbers of hits per day over the period the site has been operational.

November - 80 hits per day
December - 179 hits per day
January - 263 hits per day

For those of you who have yet to visit the web site, the site offers information about the DTPC's history, goals and objectives, copies of newsletters and publications, tortoise information, a wonderful virtual tour of the Natural Area's interpretive trails, and a gift shop. <http://www.tortoise-tracks.org>
