
Tortoise Tracks

The Desert Tortoise Preserve Committee, Inc.

Winter 1999 19:4

DR. KRISTIN BERRY TO BE DINNER SPEAKER AT THE 25TH ANNIVERSARY MEETING OF THE DTNA



Dr. Kristin Berry measuring a tortoise as part of her research in 1973, at the soon to be established Desert Tortoise Natural Area (DTNA). *Photo by Bev Steveson*

The dinner speaker for the 25th Silver Anniversary Meeting of the Desert Tortoise Preserve Committee will be Dr. Kristin Berry. She is one of the founders of the Committee and it was her tortoise research that created the impetus and provided the key to establishing the Desert Tortoise Natural Area. The title of her slide-illustrated presentation is "Major Scientific Contributions from the Desert Tortoise Research Natural Area: 1973-1999."

Dr. Berry will review the role of the DTNA in

providing critical information for understanding desert tortoise behavior, ecology, physiology, and health in the Mojave Desert and elsewhere. She will outline findings of major research projects that have been completed and others that are underway.

The DTNA has played an important role in identifying major issues for the tortoise, such as the discovery of upper respiratory disease, the impacts of raven predation on juvenile tortoises, and the protective effects of fencing. The DTNA has provided biologists and land managers with valuable lessons for design and management of reserves for the recovery of tortoise populations in the Mojave and Colorado deserts.

During the next century, the DTNA, as well as many other parks and reserves, will face many challenges from urban, recreational, and industrial developments. Dr. Berry will address how the Preserve Committee can prepare for those challenges.

Dr. Berry is a Station Manager and Research Scientist with the Western Ecological Research Center, U. S. Geological Survey, in Riverside, California. She has conducted research at the DTNA since 1973 and is known internationally for her work on the desert tortoise.

The Annual Meeting and Banquet will be held on Saturday, January 22, 2000 at the Holiday Inn in Palmdale, California. The Annual Meeting will begin at 2 p.m., followed by a no-host social hour 6 to 7 p.m. The banquet begins at 7 p.m. A banquet reservation form, additional information on the location and the day's events schedule can be found on page 3 of this newsletter.

For further information contact Michael Connor at

FALL 1999 WORK PARTY

Michael J. Connor

Twenty-one adults and 4 youngsters gathered together the weekend of November 6-7 to ensure that the DTPC's fall 1999 work party was an outstanding success.

Most of the work party members assembled at the Desert Tortoise Natural Area's Interpretive Center by 9:00 a.m. Saturday morning. Some attendees had come a long way, including members of the *Desert Survivors*, who have been such stalwart supporters of DTPC work parties. It was good to see group leader David McMullen, Claudia Davison, and Loretta Bauer at the work party again. This time Loretta brought her granddaughter Amber Ward who proved to be an adept fire builder when it came time to light the traditional Saturday night campfire. *Survivors* attending for the first time were Amanda Roze and Alan Siraw and their young daughter Angela.

A DTNA work party consisting of Board of Trustees member Laura Stockton, DTPC volunteers Chuck Hemingway and Mark Massar, and the BLM's Joyce Schlachter set off for a major trash removal project along the south fence. Lead by your intrepid Executive Director, the rest of the party moved in a caravan along a very dusty 20 Mule Team Parkway to the Pilot Knob Allotment. Besides the *Desert Survivors*, caravan members included Jack Woodson and Evelyn Moran, Skip and Colin Braudrick, Board of Trustees President Bob Brooks, and the BLM's Bob Parker. Joann Barbee and Howard Derrickson joined the caravan at the "Pink Post" (where the Parkway crosses route 395). Waiting for us at Blackwater Well were Host/

Interpreter Sterling Kendrick and DTPC supporters Dave and Joan Prince and children.

The Pilot Knob work party had several major tasks ahead of it including: completing the restoration and clean up of the Blackwater Well windmill; trash removal from the cabin area; removal of the antennae from "TV Hill"; trash and debris removal from the "bone yard" corral near the cabin where recovery of natural vegetation is occurring; and demarcation of the roads in the area north of the Blackwater Well cabin to facilitate re-vegetation.

Jack Woodson spent most of Saturday perched atop the windmill where he used his considerable carpentry skills and assorted battery powered tools to repair, secure and strengthen the platform. The Barbees hauled rocks and loose granite from the pile behind the cabin up to Skip and Colin Braudrick who completed the stabilization of the windmill base and who hauled out numerous railroad ties and other large items of debris that were in the windmill area. The *Desert Survivors*, the Princes and other volunteers cleaned out the bone yard corral by loading up Bob Parker's BLM truck for short hauls to an empty, heavily-compacted corral behind the cabin. They also removed the fallen fencing. All that remains of the bone yard now are a few dozen metal fence posts. Unfortunately a piece of wire punctured one of the tires of the BLM truck so Bob was only able to haul one load over to the dump in Ridgecrest. This load consisted of the rodent-infested sofas and lounges that littered the front of the cabin (seeing the back of these fire risks made me very happy!).

Fall Work Party - (Continued on page 6)

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Http://www.tortoise-tracks.org

The Desert Tortoise Preserve Committee, Inc.

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DTPC's Silver Anniversary Banquet Reservation Form

CHECKS AND RESERVATION FORMS MUST BE RECEIVED BY JANUARY 10, 2000

**Make checks payable to the DTPC and send to:
 DTPC - Annual Banquet
 4067 Mission Inn Blvd.
 Riverside, CA 92501**

The 25th Annual Meeting and Banquet will be held on **Saturday, January 22, 2000** at the Holiday Inn, Palmdale, 38630 Fifth Street West, Palmdale, California. There will be a no-host social hour from 6-7 p.m. The Annual Banquet will include a buffet dinner at \$20 per person (including tax, tip & beverage) beginning at 7 p.m. Dr. Kristin Berry will be the dinner speaker. Her slide-illustrated presentation is titled "Major Scientific Contributions from the Desert Tortoise Natural Area: 1973-1999."

Dinner reservations at \$20 each: \$ _____
 Optional tax-deductible donation: \$ _____
 Enclosed is my check for a total of: \$ _____

Name(s): _____ Phone Number: (____)____-_____

Address: _____ Email: _____

City: _____ State: _____ Zip: _____

Organization Affiliation (if any) _____

I (we) plan to attend the afternoon business meeting: Yes _____ No _____



**Holiday Inn Palmdale/Lancaster
 38630 Fifth Street West, Palmdale (661) 947-8055**

Saturday – January 22, 2000

Annual Meeting 2:00 p.m. - 5:00 p.m.
 No-host social hour ... 6:00 p.m. - 7:00 p.m.
 Dinner / Program 7:00 p.m. - 10:00 p.m.

If you want to stay overnight after the banquet, the Holiday Inn is offering a \$64 room rate, single or double. It is advisable that you make reservations as soon as possible. Call the Holiday Inn, Palmdale (661) 947-8055 for room reservations and mention the DTPC banquet.

**We look forward to seeing you at the
 Annual Meeting and Banquet!**

DESERT TORTOISE NATURAL AREA SPRING 1999 – NATURALIST PROGRAM REPORT

This past spring, from 28 March through 2 May and 8 May to 6 June, the Desert Tortoise Preserve Committee (DTPC) sponsored an on-site Naturalist at the Desert Tortoise Natural Area (DTNA) Interpretive Center for the 10th year. During that four-month period, a Naturalist was on-site at the DTNA seven days per week, 10 hours per day for 65 days. Karen Randall was on duty for 35 days, Lou Silva for 29 days and Chuck Hemingway for one day. Since Lou Silva lived in the Desert Tortoise Discovery Center at the DTNA, the number of hours when a DTPC representative was present is actually much higher.

The Naturalists led scheduled tours, interacted with visitors, collected visitation data and sold DTPC merchandise. They utilized the Desert Tortoise Discovery Center (a thirty-two foot motor home, with brightly colored tortoises and other desert fauna and flora painted on its sides, which is parked on-site during the spring only) as a base and living quarters. The Discovery Center has educational displays which include information on Mojave rattlesnakes, black-tailed hares, kit foxes, and common ravens, as well as tortoise shells, a freeze-dried tortoise, DTPC newsletters, handouts on desert tortoise natural history and upper respiratory tract disease (URTD). These displays are in addition to the permanent on-site Interpretive Center kiosk and the self-guided nature trails. The Discovery Center also has a small library of field guides and reference books on the flora and fauna of the Mojave Desert.

A total of 595 individuals in 213 groups were recorded on the 65 days a naturalist was on-site for an average of 9.2 individuals per day. More visitors arrived in groups of 2 than any other group size. Most visitors were from California. There were visitors from seven other states and two foreign countries. Twenty-seven percent of the visitor groups saw at least one tortoise during their visit. A Naturalist made contact with 94% of the 213 visitor groups. Word-of-mouth, books/guides and road signs were the most common ways people had heard about the DTNA. The busiest visitation days were Saturdays and Sundays, and Easter week.

There were a total of 58 tortoise sightings recorded

this spring by the Naturalists and visitors. Eight individual marked tortoises and 14 unmarked tortoises were observed. No tortoises observed this spring exhibited symptoms of URTD; all seemed healthy and alert. Chuck Hemingway reported finding one tortoise carcass.

The diverse assortment of visitors, and the wide range of awareness, knowledge and perceptions they brought with them made interacting with the public both interesting and enlightening for the Naturalists. Considering all the direct and indirect problems the tortoise faces in its native habitat, most visitors were not only sympathetic to the desert tortoise, but were also anxious to learn how they might help save the species.

The Naturalists frequently discussed the inherent problems associated with the release of captive-bred juveniles as a means to re-populate the species. Interest and concern over the desert tortoise allowed the Naturalists to expand the discussion to include conservation of all southwestern deserts and how a whole-systems approach to managing a habitat, or preserving an ecosystem in its entirety, provides inherent protection for other flora and fauna species in the desert. The Naturalists used the desert tortoise to illustrate how the decline in the population was symptomatic of the general health of the deserts of the southwest.

People are still surprised to learn just how fragile and delicate the desert habitat is, the abundance of life it supports, and how long it takes to recover from disturbance and injury, despite its seemingly harsh appearance. A strong argument for the Committee to continue this program of providing an on-site Naturalist during the periods of highest visitation to the DTNA.

On-Track Consulting and Research, of Ridgecrest, staffed and supervised the Naturalist position for the DTPC in cooperation with the Bureau of Land Management. This article was excerpted from their report to the Committee.

SUMMER AND EARLY FALL AT THE DTNA

Charles 'Chuck' Hemingway lives in California City and volunteers his time to the DTPC and BLM by making weekly checks of the Desert Tortoise Natural Area's boundaries, fence, the parking lot, kiosk, toilet and trails. He picks up trash, makes notes and reports on any unusual activities, wildlife sightings and tortoise sign as well as keeping the fence in good repair. The following notes were excerpted from his reports.

7 August – I was out to the DTNA yesterday. All was calm and peaceful. No torts to be seen. Spent time on sections 4, 32 & 6 – mostly replacing raven wire about 20 minutes a stop – 15 for the work, and 5 to stop and let the blood dry. I'm shooting to get this area 100% trash and repair wise so we won't have to mess with it during the November work party. Last week of July, I put a day into the section 5, fence line.

13 September – The DTNA is in good shape. Took my ladder out last week and at last got the hunk of re-bar off the kiosk roof that has been bugging me for about a year.

I've been keeping a record of brochures that I replaced in the box at the start of the main loop trail. I initially put 15 brochures in the box and each week add the amount needed to return the number to 15. The missing number of brochures may "suggest" the number of visitors that were at the DTNA that week.

Number of Brochures Replaced by Week

9 July = 11	6 August = 4	3 September = 1
15 July = 3	12 August = 4	9 September = 5
22 July = 4	20 August = 9	
29 July = 10	26 August = 6	Total = 57

July 9 included the 4th of July weekend. The weeks of July 15 & July 22 had rain with overcast skies, lightening and flooding in nearby areas. This was and is a mild summer and it certainly didn't warm up that much in July.

Only a few days over 100 °F this month and last. 90 °F to 97 °F temperatures have been the norm of late. No rain last month or yet this month. There was some fantastic lightning last night that was taking place behind the distant clouds to the northeast. Watched it for about half an hour, wonderful display. A little later on coyotes started up and sounded near – closest they have been in a

long time. I went out with a flashlight and could see 2 pairs of white/silver eyes looking back at me. (Chuck lives on the eastern edge of California City, 3.5 miles from the SW corner of the DTNA.)

Included in Chuck's 13 September report was a map of Sections 4-6 and 31-34 of the DTNA dated, 10 September. He had indicated notations on tortoise sightings and sign on the map. Of note was a juvenile tortoise seen inside the DTNA near the SE corner of Section 31. In total he had noted 7 sightings of individual tortoises and one carcass within those sections. One active tortoise was sighted outside the DTNA, near the off-road vehicle camping area (commonly referred to as "the pit").

8 October – I just got back from the weekly check of the DTNA. Discovered a new sign-in box mounted on a log post across the path from the first brochure/trail guide box. It is a nice pine box with a lid and has a plaque stating, "Made by the Mesquite High School woodwork class 98-99." It had BLM information sign-in sheets inside with a pen on a chain. Nice! Sheet shows 19 visitors from 2-5 October. I restocked 11 brochures, picked up a little trash (2 bottle caps in the kiosk). It looked like the BLM had recently checked the outhouse.

6 November – Led the DTNA's fall work party to the sites on the south and west side fence lines that I'd identified earlier as needing a major trash pick up, including a number of larger items. Along with Board member Laura Stockton, volunteer Mark Massar and Joyce Schlachter (of the BLM), using a BLM truck, we handled the DTNA clean up project. Laura then followed Joyce to the designated dumpsters and assisted her with unloading the truck.

Thanks to Chuck's on going repairs and clean up work at the DTNA, the majority of this fall's work party volunteers' time was allocated to Blackwater Well and the Pilot Knob allotment.

Desert Tortoise Council Schedules 25th Annual Symposium

The Desert Tortoise Council will hold its 25th Annual Symposium beginning on Friday, April 21 thru Sunday, April 23, 2000 at The Orleans Hotel in Las Vegas, Nevada. Registration is \$75 for members and \$95 for nonmembers. For more information call Tim Duck at (435) 628-7231.

NEW TORTOISE RESEARCH PAPER

SEROEPIDEMIOLOGY OF UPPER RESPIRATORY TRACT DISEASE IN THE DESERT TORTOISE OF CALIFORNIA

Mary S. Brown, Kristin H. Berry, Isabella M. Schumacher,
Kenneth A. Nagy, Mary M. Christopher, and Paul A. Klein

Journal of Wildlife Diseases, Vol. 35, No. 4, 1999

ABSTRACT: Several factors have combined with an upper respiratory tract disease (URTD) to produce declines in some population numbers of desert tortoises (*Gopherus agassizii*) in the western USA. This study was designed to determine the seroepidemiology URTD in a population of wild adult tortoises at the Desert Tortoise Research Natural Area (DTNA) study site in Kern County (California, USA). Prior to initiation of the study, there was a dramatic decline in the number of individuals in this population. At each individual time point, samples were obtained from 12 to 20 tortoises with radio transmitters during winter, spring, summer, and fall from 1992 through 1995. During the course of the study, 35 animals were sampled at one or more times. Only 10 animals were available for consistent monitoring throughout the 4-year period. Specific antibody (Ab) levels to *Mycoplasma agassizii* were determined for individual tortoises by an enzyme-linked immunosorbent assay (ELISA) test. Specific antibody levels were not influenced by the gender of the tortoise. Levels of Ab and distribution of ELISA+, ELISA- and suspect animals were not consistently affected by season within a single year or for a season among the study years. Significantly more tortoises presented with clinical signs in 1992 and 1995. The profile of ELISA+ animals with clinical signs shifted from 5% (1992) to 42% (1995). In 1992, 52% of tortoises lacked clinical signs and were ELISA-. In 1995, this category accounted for only 19% of tortoises. Based on the results of this study, we conclude that URTD was present in this population as evidenced by the presence of ELISA+ individual animals, and that the infectious agent is still present as evidenced by seroconversion of previously ELISA- animals during the course of the study. There is evidence to suggest that animals may remain ELISA+

without showing overt disease, a clinical pattern consistent with the chronic nature of most mycoplasmal infections. Further, there are trends suggesting that the clinical expression of disease may be cyclical. Continued monitoring of this population could provide valuable information concerning the spread of URTD wild tortoise populations.

Fall Work Party – (Continued from page 2)

The Barbees followed Bob back to the Ridgecrest dump to help unload the trash.

The railroad ties and various pieces of very heavy pipe that littered the windmill and bone yard areas were used to close a cut-off road that bisected the bone yard and to demarcate the road in front of the cabin. This ground in front of the cabin had suffered heavy trampling in the cattle ranching days and only one solitary creosote bush located next to the “privy” had survived in a baseball field sized area. Bob Brooks and I got quite a workout moving railroad ties and pipes around to mark out the road to keep cars off 2 infant and 6 sprouting creosote bushes (clones of the privy bush). Perhaps the new bushes had been stimulated to grow by this year’s unusually prolific summer rains?

On Sunday, the *Desert Survivors* marched up TV Hill and removed the much-despised (by me) TV antennae and associated wires that trailed down the mountainside. The original plan was to cut down the antennae so as not to cause any additional ground disturbance in what is potentially an archeologically significant area, but it turned out that they were simply wedged in place by rock piles so could be completely removed without ground disturbance. Removing the trailing wires was a slow tedious exercise but thanks to the persistence of the *Survivors* they are now gone. The view of the mountain is now unsullied by TV antennae.

Wildlife was flourishing and relatively abundant considering the time of year. Numerous flocks of warblers and sage sparrows were seen visiting the water troughs. A beautiful iridescent grackle

(Continued on page 7)

DESERT TORTOISE PRESERVE COMMITTEE

MEMBERSHIP/DONOR FORM

NAME _____ DATE _____ NEW _____ (Check one)
 ADDRESS _____ RENEWAL _____
 CITY _____
 STATE _____ ZIP _____

Individual membership	\$ 15 annually	[]
Family membership	\$ 20 annually	[]
Sponsor membership	\$ 30 annually	[]
Benefactor membership	\$ 75 annually	[]
Patron membership	\$100 annually	[]
Life	\$500	[]

Membership Dues	\$ _____
Additional Donation	\$ _____
Total Enclosed	\$ _____

DONATION ONLY

Enclosed is my donation of \$ _____

Please make checks payable to: **DTPC**

And mail to: **DTPC**
4067 Mission Inn Avenue
Riverside, CA 92501

The DTPC is an IRS recognized tax-exempt 501 (c)(3) nonprofit corporation. All contributions above the basic \$15 annual membership dues are tax-deductible to the full extent allowed by law.

All members and donors receive the quarterly newsletter *Tortoise Tracks*.

Membership and donor information are kept confidential and will not be disclosed to third parties.

I WANT TO VOLUNTEER

My area of interest/expertise is:

My e-mail address is:

Fall Work Party – (Continued from page 6)

strutted about the cabin grounds for most of Sunday, making the most of the many beetles uncovered during trash removal. Sterling saw a meadowlark (the local quail hunters have reported seeing large flocks of these recently). Four species of lizard were found at the Windmill: spiny lizards (*Sceloporus magister*), side-blotches (*Uta stansburiana*), desert night lizards (*Xantusia vigilis*), and a baby Mojave collared lizard (*Crotaphytus bicinctores*). I found a tortoise scat about 100 feet north of the cabin while cleaning up a new fire ring and accompanying broken glass and ashes. The overnight campers were treated to the thrill of a coyote chorus just after dawn (definitely less scary than the 4:30 a.m. car alarm that sounded when a certain work party member attempted to answer the call of nature...). Other mammals seen during the day included cottontails and blacktailed hares (jackrabbits), and a large rat that was evicted from its home under an abandoned wooden box by President Brooks. At dusk a trio of bats gave an impressive aeronautical display as we all relaxed around the traditional campfire in front of the cabin.

The fall work party visibly improved the appearance of the Blackwater Well site, and has significantly enhanced the wilderness experience for subsequent visitors. Besides the aesthetic improvement, the fire risk has been reduced, and large areas have been cleared of trash to facilitate natural re-vegetation. All the attendees should be justly proud of their efforts and the Committee owes them a debt of thanks. It was a fun-filled, hard working bunch that met for this fall's work party, and I know that many of them plan to return again in spring 2000. If you are interested in joining them, please call me at (909) 683-3872 or email me at <dtpc@pacbell.net> and I will add you to our volunteers mailing list.



