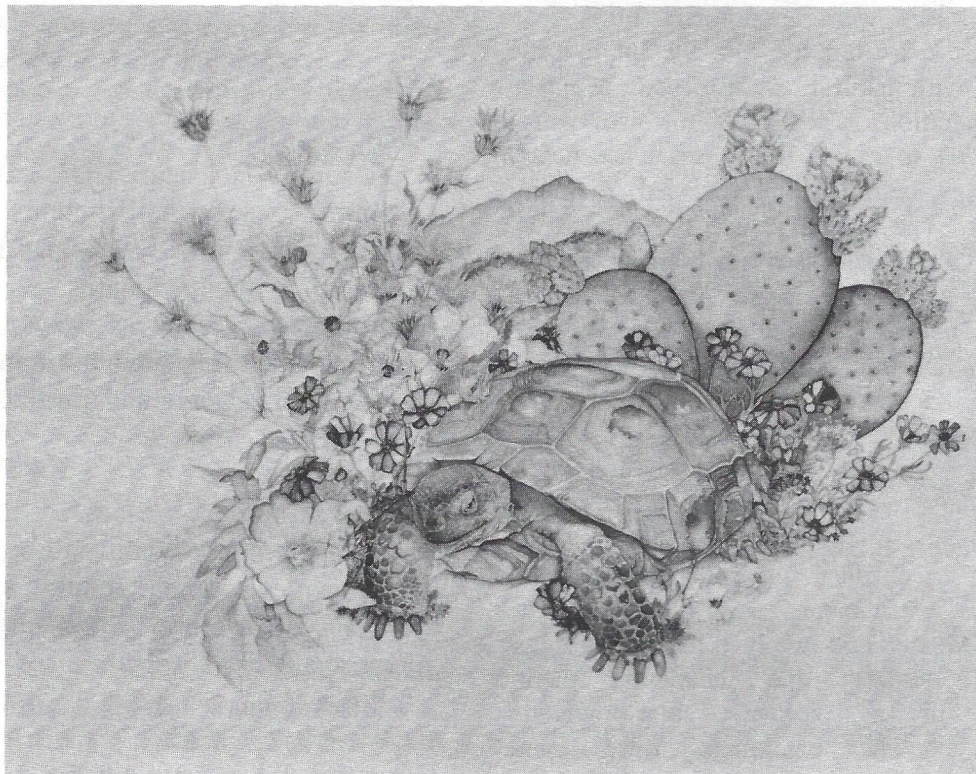


Tortoise Tracks

The Desert Tortoise Preserve Committee, Inc.

Fall 1993

14:3



This beautiful design by Celia Howe is now available in a colorful new DTPC T-shirt. Please see Page 5 for an article on Howe and information on ordering the shirt.

Dr. David Morafka to Speak at Committee's Annual Banquet

The Committee is pleased to announce that this year's annual banquet will feature an after-dinner address by Dr. David Morafka of California State University, Dominguez Hills. The banquet will be held on Saturday, January 22, 1994 at the Green Tree Inn in Victorville.

To those of you who have attended the Desert Tortoise Council's annual symposia in previous years, Dr. Morafka is already a familiar figure. He is well known in the tortoise conservation community for his

work with both the desert tortoise and the Mexican bolson tortoise (*Gopherus flavomarginatus*). His current research on these species includes work on semi-wild, protected breeding programs aimed at improving the survivorship of juvenile tortoises.

The field work for Dr. Morafka's current research on desert tortoises is being conducted at Fort Irwin, where wild

Continued on Next Page

Dr. David Morafka
(Continued from first page)

female tortoises were temporarily borrowed and placed in a 70m by 70m by 3m fenced enclosure with natural, undisturbed Mojave Desert vegetation. The female tortoises were then allowed to range freely, excavate nests and lay eggs, before being returned to their home sites. The hatching success rate was 94 percent. Of 150 tortoises maintained in the enclosure, twenty-six were lost to avian predation before chicken wire roofing was provided. Of the remaining 124 tortoises, more than 85 percent were still alive by the third spring census (1993).

Dr. Morafka's work with the bolson tortoise has also included the use of predator-proof enclosures to enhance juvenile survivorship. This field experiment was conducted in Durango, Mexico and involved harvesting eggs from wild females and incubating them outdoors in a passive, solar-powered incubator. The hatchlings were then transferred to a nursery consisting of 20 wood and adobe pens, each measuring 3m by 1m. In this study, the hatching success rate was 67 percent, and the three-year survivorship rate was 76 percent.

Join us on January 22 to enjoy Dr. Morafka's talk on the results of these important studies, and his plans for follow-up research.

Please see Page 3 for a more detailed article on Dr. Morafka's current work with the bolson tortoise in Mexico.

ANNUAL MEETING AND BANQUET

The Desert Tortoise Preserve Committee, Inc. will host the annual meeting of the corporation and banquet on Saturday, January 22, 1994 at the Green Tree Inn in

Victorville. The meeting of the corporation is open to all members and the general public. The price of the dinner is \$16.50 per person, including tax, tip, beverage and dessert.

The afternoon meeting will offer an opportunity to hear firsthand about the Committee's accomplishments during 1993 and its plans for 1994. The meeting will include a special status report on the Committee's progress towards planning and establishing a permanent visitor center and educational outreach facility in the western Mojave Desert.

If you cannot be present for the afternoon meeting, we hope you will be able to join us for the evening dinner and program which will feature a talk by Dr. David Morafka. The schedule of events is as follows:

Business Meeting	2:00 - 5:00 p.m.
Social Hour	5:00 - 6:00 p.m.
Dinner Program	6:00 - 9:30 p.m.

Please note that your reservation must be received by January 15, 1994. A reservation form is provided on Page 7.

Desert Tortoise Preserve Committee

Officers

Roger Dale	President
Tom Dodson	Vice President
George Moncsko	Vice President
Laura Stockton	Vice President
Jayne Chavez-Scales	Secretary
Carol Panlaqui	Treasurer
Bev Steveson	Board Member
Dr. Kristin Berry	Board Member

Proposal to Establish Reserve for Bolson Tortoise

The following article was adapted from a grant proposal written by David J. Morafka and Eddie Trevino of California State University, Dominguez Hills (CSUDH) and Gustavo Aguirre of Instituto de Ecologia (IE), Durango, Mexico. It describes a proposal to establish and operate a formal reserve for the bolson tortoise (*Gopherus flavomarginatus*) in Chihuahua, Mexico.

Description of the Proposed Reserve

Virtually all of the "Sierra del Diablo Region" population fragment of the bolson tortoise may be protected within a voluntary reserve program involving local ranches. This fragment may include as many as 3,000 adult tortoises, which constitute as much as 30 percent of the surviving adult population of the species. Most of the target area is inscribed by the boundaries of five ranches and one ejido. These are: Rancho Tortola, Rancho Reliz, Rancho Benthon, Ejido Emiliano Zapata, Rancho Sombreretillo and Rancho Esparanza. Rancho Sombreretillo has the most robust populations, and a very cooperative ownership as well. For these reasons, we view this ranch as a potential nucleus for a future tortoise reserve. Additional attributes of this ranch include its remoteness, low density human population, good grasslands, and tortoises which are phenotypically distinct from those in the south (Mapimi Reserve).

Conservation Objective

We wish to conclude cooperative agreements (*Carta de Acuerdo*) with each of the five managers of the ranches listed above. These agreements would include the assurance that local residents would not eat tortoises and resist and report poaching by others. Sr. Jorge Chow has agreed to supervise a seasonal warden to protect tortoise populations at Rancho Sombreretillo. As an

added assurance, we would encourage visits by appropriate wildlife officers. As the plan is implemented, we will also attempt to reduce grazing intensity at sensitive sites during nesting and hatching seasons. This is already consistent with common practice for other economic reasons. Specifically, cattle are sent to market before the onset of the hatching seasons in August/September. The program described here may eventually justify designation of this area as a National Wildlife Reserve by the Mexican Government under the System of National Protected Areas.

Progress During 1993

A general survey of Rancho Sombreretillo has been completed with some data drawn from past visits. When Sombreretillo proper and the satellite Rancho Papalote are combined, the resulting property is the largest ranch in the Diablo fragment of bolson tortoises. It includes some 45,000 acres which are enclosed by 80 kilometers of fencing.

Livestock management by the Chow family, which has owned this for 100 years, has contributed significantly to the sustained quality of grassland and continued abundance and vigorous recruitment of local tortoises. The cattle calve in the fall so that large herd size is maintained on the ranch only between December and April. During the Spring, calves are rounded up for shipment to Texas where they are raised to adults for market. By the onset of the summer rains in July all but the breeding stock has been removed from the ranch, leaving the grasslands at their growth peak available to tortoises, including the physically vulnerable and nutrient demanding hatchlings.

Continued on Next Page

Bolson Tortoise Reserve (Continued from Page 3)

In our meetings of August 24 and September 22, Sr. Jorge Chow agreed to sign a letter of understanding establishing cooperation with the Instituto de Ecologia. Sr. Mario Medina, of the adjacent Rancho Benthon, attended the first of these meetings and was also sympathetic to the proposal. The letter will commit the ranch and its owners to long term tortoise conservation. The agreement will promote livestock rotations and densities favorable to continued tortoise survival and recruitment, and make available technical assistance from Mexico's Instituto de Ecologia and Chihuahua State Office of Forestry to assist the Chow family in resolving future management and protection issues.

During these same discussions, we invited suggestions from the local land owners as to how to best protect the tortoise. Sr. Chow suggested a seasonal warden working under his supervision would provide better protection than the addition of a vehicle or other forms of assistance. Protection would be most needed from May to September when tortoises engage in most of their surface and reproductive activities. It is at this time that tortoises are most vulnerable to poaching.

At a September 21 meeting, Ing. Oscar Estrada Murrieta, state chief for wildlife protection for the federal Secretariat of Agriculture and Hydrological Resources, indicated very strong support for the program. He offered to officially endorse our educational pamphlets and to send regular government patrols into the Sombreretillo region for both enforcement and education purposes. He also offered to provide documents to the local residents and wardens at the Ranch to give them the legal authority to protect the tortoises from poachers.

The regional nonprofit wildlife conservation

organization of Chihuahua, Fundacion Chihuahuense de la Fauna will be a cosigner of the letter of accord with the Chow family and will assist in the establishment of a local warden, provide transportation support for regular patrols by a Chihuahua state officer, and contribute to local education programs for residents in the Sombreretillo community.

The local Catholic diocese of Esmeralda, Coahuila, is ministered by Father James Leinert, an American affiliated with the Maryknoll Order. He is a committed natural historian with an active interest in the biological resources of the parish. We have contacted him by letter, asking that he encourage tortoise protection through the church ministry.

Action Plan for 1994

A seasonal warden will be employed by the Chow family to protect their tortoise populations from May to September.

In tandem with the warden program, we propose to launch an education effort with pamphlets directed to a local community audience. In addition we will post signs at property gates declaring wildlife to be protected in the ranch.

CSUDH and IE will continue to pursue funding to study the impacts of alternative grazing practices on grassland quality and tortoise populations.

We will also pursue long term planning for the reserve itself through a master plan now being developed in the M.A. thesis of Mr. Eddie Trevino of CSUDH. We are also investigating the possibility of designating the region as a Mexican national reserve, including the relict woodlands of adjacent Sierra del Diablo and the repatriation of javalina and pronghorn into the region.

Artist Celia Howe Prepares New T-Shirt Design For Committee

By Kristin H. Berry

Two years ago the Desert Tortoise Preserve Committee asked me to arrange for artist Celia Howe of Truckee, California, to prepare a new and realistic T-shirt design for our stable of products and fund-raising efforts. I've very much enjoyed this assignment and want to share the experience and a little about the artist and her interests with our members. The Committee is honored to have this talented artist prepare the new art, which we know will be enjoyed by our members and sought by the public.

I first became acquainted with Celia Howe's T-shirt designs a few years ago, after discovering a fabulous wildflower shirt at the nursery and garden shop in Truckee. The art work was so carefully executed and accurate that I wished the Desert Tortoise Preserve Committee might have such careful art of the tortoise and its habitat for a T-shirt. Subsequently I showed our Board of Trustees some examples of T-shirts by the artist (whom I had not yet met) and then obtained Board approval to pursue an arrangement with Ms. Howe.

I discovered that Ms. Howe owns and operates a custom picture framing business and gallery in Truckee and had prepared other art work for T-shirts. Working in her favorite medium of water color, she did a design titled *Wildflowers of the Sierra Nevada* in 1990, followed by *California Desert Wildflowers* in 1991, and *Wildflowers Across America* and *Endangered Wildflowers* in 1992. Her previous designs are in T-shirts marketed through Steve Kasper of "Wild by Design" and a portion of the proceeds from the sale of these earlier works go to the Department of Fish and Game and various groups supporting nature.

Ms. Howe agreed to the Committee's commission and has produced a fantastic design. The original art, which is in water color, is a beautiful scene of a large adult male tortoise surrounded by wildflowers with an overall back drop of the Sierra Nevada. Ms. Howe carefully and meticulously researched each of the many species of flowers so that they would be not only scientifically accurate but with the appropriate colors and textures. The tortoise is perfect, down to details of the flattened scales on the forelegs, the bright eyes, and rings of the scutes typical of a middle-aged male. Ms. Howe used pictures, the Committee's freeze-dried specimen, a live tortoise, as well as her own experience. She asked me to check the drawing of the head for accuracy of the scales, eyes, and mouth, so I was able to see the work in various phases. The tortoise is resting in a field of Mojave asters, lacy phacelia, checker fiddleneck, coreopsis, star flowers, filaree, and evening primroses. For those of you who have visited the Desert Tortoise Natural Area in spring, you will have a beautiful remembrance of the event each time you see the design.

Now for more about the artist. Celia Howe was born in Chandler, Arizona, and had her first experience with a captive desert tortoise when she lived on the desert edge in Las Vegas as a small child. She has always been interested in art and botany and, as a child, won a "Smoky the Bear" Poster Print in elementary school. After studying botany for two years at Santa Barbara Community College and working in the botany, biology, and oceanography labs at the school, she proceeded to the University of California at Santa Barbara, where she received a Bachelor of Arts degree in 1978 in studio art.

Continued on Next Page

Celia Howe
(Continued from Page 5)

Celia Howe loves nature and appreciates California's wildlands. She has spent much of her professional life outdoors. After graduating from college, she worked 12 years with the U. S. Forest Service on the Lassen and Tahoe National Forests as a wildlands fire fighter, in silviculture preparing sites for reforestation, on surveys for endangered plants, and in designating wildlife habitat areas. During the last 13 years, and covering much of the same time period, she worked on ski patrols. For the last eight winters, she has been on ski patrols at Alpine Meadows Ski Area, north of Lake Tahoe. If you are in Truckee, stop by *Backstreet Framers* on Jibboom Street in the old part of town and see her and her art.

**Order Our New T-Shirt Designed by
Renowned Wildlife Artist Celia Howe**

Our new T-shirt design, pictured on the front page, is now available to order. It is an impressive multi-color design on all-white shirts. The shirts are preshrunk 100 percent cotton.

The shirts are available in adult sizes only -- XL, L, and S (sorry, we're already out of mediums; we will order again in 1994).

**Price: \$17.00 each including tax and postage
(\$16.00 for out-of-state orders)**

Please Send Your Orders to:

**DTPC
P.O. Box 2910
San Bernardino, CA 92406**

Please include your name, address, and phone number with your order.

**News Release on Yucca Valley Church
Construction Project**

By Edward L. LaRue, Jr.
Tierra Madre Consultants, Inc.

On October 7, 1993 the Valley Community Chapel and Good Shepherd Lutheran Church began constructing their worship facilities in the recently incorporated Town of Yucca Valley. The Yucca Valley Churches have postponed construction of the facilities since 1990 because the state and federally threatened desert tortoise was found on their five-acre site.

On February 9, 1993, Boyd Gibbons, Director of the California Department of Fish and Game, signed the permit that will allow the churches to be constructed and the tortoises to be legally removed from the parcel. In an unprecedented move, the U.S. Fish and Wildlife Service issued California's first federal permit allowing construction of a private project in tortoise-occupied habitat. Such permits have previously been issued in the Coachella Valley for the federally threatened fringe-toed lizard, and in Western Riverside County for the federally endangered Stephens' kangaroo rat.

The permit, referred to as a "federal 10(a) permit," issued to the churches was California's first, and only the second ever issued for tortoises; the first 10(a) permit was issued in the Las Vegas Valley in 1991 covering 400,000 acres of tortoise habitat in Clark County, Nevada. It took 17 months, from the time Tierra Madre Consultants, Inc. of Riverside, California drafted the report, to August 30, 1993 when the Deputy Regional Director of the U.S. Fish and Wildlife Service signed the permit.

Continued on Back Page

RESERVATION FOR ANNUAL BANQUET

Please make checks payable to the Desert Tortoise Preserve Committee, Inc. and send to:

DTPC Annual Banquet
P.O. Box 2910
San Bernardino, CA 92406

If you have any questions, please call Roger Dale at (818) 569-5634.

CHECKS AND RESERVATION FORMS MUST BE RECEIVED BY JANUARY 15, 1994

Please make a reservation for ____ persons in my name, for the Desert Tortoise Preserve Committee Annual Banquet at the Green Tree Inn, Victorville, California, to be held Saturday, January 22, 1994. I understand that the dinner will be \$16.50 per person, including tax, tip, beverage, and dessert.

I am enclosing a check for \$_____, as full payment.

Name:_____ Phone Number:_____

Address:_____

City:_____ State:_____ Zip:_____

Organization (if any)_____

I plan to attend the afternoon business meeting: Yes___ No___

A vicinity map for the Annual Meeting and Banquet is provided for your convenience. If you are interested in staying overnight after the banquet, call the Green Tree Inn at (619) 245-4361 for reservations and room rate information.

Reserve Early by Completing and Mailing Your Reservation Form at Your Earliest Convenience. We look forward to seeing everyone!



Yucca Valley Church Construction Project
(Continued from Page 6)

The Habitat Conservation Plan supporting the 10(a) permit will allow tortoises to be removed from the site if they still occur at the time of construction. Biologists will be present prior to and during construction to ensure that no tortoises are killed. Tortoises removed from the site would be cared for and receive health inspections at a local veterinary clinic. After a two-week quarantine period, healthy tortoises would be given to a zoo, museum, researcher, or put up for adoption by the California Department of Fish and Game.

In order to compensate for the loss of tortoise habitat resulting from the construction project, the Churches have given sufficient funds (approximately \$7,500) to the Desert Tortoise Preserve Committee to purchase and manage five acres of tortoise habitat in state-designated crucial habitat in the western Mojave Desert. The Preserve Committee will be responsible for managing tortoises in the five-acre parcel in perpetuity, and for providing long-term stewardship of the acquired habitat. In exchange, the Churches will be allowed to construct their facilities in the urbanized area of Yucca Valley where state and federal programmatic management plans will not seek to maintain viable tortoise populations. The Habitat Conservation Plan will result in a net benefit to tortoise populations, permitting the possible loss of a few individuals and five acres of habitat, and the protection of many more individuals in their essential habitats.

DESERT TORTOISE PRESERVE COMMITTEE, INC.
P.O. BOX 2910, SAN BERNARDINO, CA 92406

NONPROFIT ORG.
BULK MAIL
PAID
PERMIT NO. 76
93556

Address Correction Requested

Laura L. Brackton
415 Brookhaven
Sakersfield CA 93304-3417