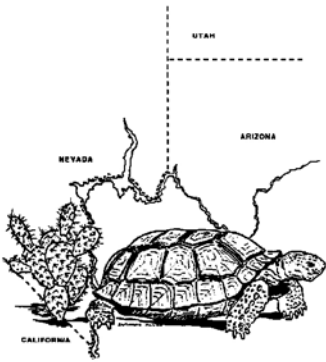


THE DESERT TORTOISE COUNCIL NEWSLETTER

WINTER 2010-OUR 35th YEAR

Our Goal: To assure the continued survival of viable populations
of the desert tortoise throughout its range



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ANOTHER SUCCESSFUL SYMPOSIUM!!

Presentations of the 35th Annual Symposium of the Desert Tortoise Council, held February 26-28, 2010 in Ontario CA were a mixture of new information and reports of achievements and frustrations. They represented the level of complexity faced by those who seek to protect the desert tortoise and its desert habitat and their dedication to supporting the mission of the DTC.

Dr. Howard Wilshire's special presentation, with Dr. Jane Nielson, on the choices we all face in adding to our renewable energy production was a sobering look at the scale of a problem of conflict and choice. He made it very clear that unless choices are made based more on providing both green energy and ecosystem conservation together, and less on narrow economic predispositions (be they those of individuals, corporations or public agencies) there will be losses of species and habitats. There appear to be opportunities to achieve national goals for renewable energy production that do not require massive destruction and disruption of our desert ecosystems and the questionable mitigations accompanying that approach. Dr. Wilshire, a recipient of the Research Award, suggested that such opportunities be prioritized over those that permanently degrade ecosystems.



Photo Credit: Ginny Stigen
2010 Captive Desert Tortoise Winner

More winning photos from this year's contest will be printed in subsequent newsletters.

Several speakers updated us on the specifics of renewable energy projects especially in California where we heard that one politician's question is: "If we can't put solar plants in the desert, where can we put them?" The complexity of the problem of providing renewable energy, convincing people that conservation of energy is a rational choice, and the need to merge the goals of energy production with those of conservation were made very clear. The idea of legally permitting incidental take to an otherwise lawful activity provided the take is minimized and fully mitigated presents a serious challenge. Energy projects on a "fast track" ("shovel ready" by December 2010) present a problem, in that at present there are no clear, official standards or guidelines for projects to provide optimum ways to supply renewable energy while conserving species and habitats and following the laws that were written to protect species at risk. As Dr. Larry Lapré wrote concerning the solar and wind energy projects proposed for public lands "timing is everything". It appears to me that the definition of "environmentalism" is at stake.

The presentations on desert wildflowers, featuring photographs by Richard Dickey and an excellent talk by Dr. Richard Minnich, also a recipient of the Research Award, showed us the complexity of variations of the desert's heat, rain, seasonality and history, especially pertaining to invasive species, as those affect the survival and vitality of the desert's annual flora.

Field studies and modeling documented the latest invasive problem plant species, Sahara Mustard (*Brassica tournefortii*), which appears to be an out of control influence on tortoise habitats. Several papers focused on the relationships between native and non-native plants (not biological categories by the way) and the influences of fire, climate and nitrogen levels on the composition of plant assemblages.

Agency personnel reported on both accomplishments and frustrations. Frustrations are still driven by a lack of funding and staffing as usual but worsened by the current economic crisis. Nevertheless agencies were able to conduct projects and studies on translocation and headstarting, illegal

collection, increased predation (especially by ravens and roving dogs), road designations and closures, fire recovery, and public education. One upcoming issue is the petition to list the Sonoran populations of *Gopherus agassizii*. Another is for agencies, especially the Desert Tortoise Recovery Office, to respond to the fast-track energy projects. Some suggest that this situation not only presents problems but also a potential to fund critical recovery projects. But clear criteria are needed to assure optimum placement of projects, appropriate mitigations, and guidelines for construction and operation. It appears that the USFWS Desert Tortoise Recovery Office and other agencies will have their hands full and my question is how can the DTC help?

We heard about the updates by the San Diego Zoo's Institute for Conservation Research at the Desert Tortoise Conservation Center in Las Vegas, which expects to support range-wide recovery efforts for the desert tortoise through conservation research, participation in on-the-ground recovery actions, training of biologists, and public education.

The research at Fort Irwin following the fate of translocated tortoises is a valuable addition to designing future projects. Hopefully we will hear a lot more next year in order to recommend conditions for translocation projects as mitigation for take resulting from habitat conversion to green energy production. In addition papers on headstarting (including work on the Bolson tortoise at two sites in New Mexico as well as on the desert tortoise), including nutrition issues for raising young tortoises, showed more progress in understanding how we might apply such techniques to sustain the desert tortoise in the future.

We heard about the collaborative and impressive international effort to acquire baseline data on *G. agassizii* ecology, status, and conservation biology in Mexico. With so many people involved and with international cooperation this project is an example of how collaboration can yield good data and broaden the support base for conservation. We also heard from several private and non-profit groups whose activities have supported the tortoise and its

habitat through education, restoration, and political and legal action.

We heard that multiple paternities might be the rule in tortoises with females storing sperm as sources of genetic diversity. We saw that an expert using endoscopy can sex small tortoises. We heard about, and need to pay careful attention to, the complexities of disease testing and learned that we cannot expect the kind of “for certain” categories we would like to have. We will have to expect and accept that we are working with risks and probabilities and not certainties.

I was personally delighted to hear about the long-term follow-up study on roadside fencing and tortoise populations suggesting that the fencing is effective in preventing mortality and that sign near the road has increased. Yet it is notable that after 19 years a population depression is still detectable up to 1.5 km on either side of a road.

The most striking impression I had was of the presenters themselves and how passionate they were about their work and its implications for tortoise conservation for which we thank them all. My overall impression is that not only are the problems facing the tortoise and the desert habitats complex and difficult to resolve but also that there are many people and groups who are dedicated to such resolutions. In times when there is little time even for one’s own work it is difficult to build and maintain collaboration but this symposium gathering makes it clear to me that collaboration with these many fine people is essential to the mission of the DTC.

To read the abstracts please to go: <http://www.deserttortoise.org/abstract.html>

-Margaret H (Maggie) Fusari

BOARD OF DIRECTORS

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Website:	Michael Connor

FROM THE EDITOR

Since most of the newsletters are being received electronically, we would like to invite everyone to send us your photos. Have really great pictures of tortoises or other wildlife? Send them to us and we will put a few of them in the newsletter each issue. Any other updates or news items are welcome as well.

Please make sure you update your mailing and email addresses.

In an effort to conserve time, money, and paper, we strongly encourage all of our members to receive the newsletter electronically rather than hardcopy.

Send your photos and any other updates to sdaly@burnsmcd.com.

ANNOUNCEMENTS

Address Updates!!!

Please renew your addresses, including e-mail. Every time we e-mail newsletters, 10 to 20 percent of the e-mail addresses we have are bad.

Save the Date

The 36th Annual Symposium of the Desert Tortoise Council will be held February 18-20, 2011 at Sam's Town in Las Vegas, NV.

Registration information will be available in our Fall 2010 newsletter and on our website in October. We look forward to seeing you there!

2010 SYPOSIUM AWARD AND PHOTO CONTEST WINNERS

Awards:

David J. Morafka Memorial Research Award - Danna Hinderle, M.S. student at San Diego State University, for project entitled "Exploring Homing Ability in the Desert Tortoise Through Displacement Experiments on the Fort Irwin National Training Center"

Best Student Paper Award - Christina Davy, Ph.D. student at the University of Toronto for paper entitled "Potential Conservation Benefits of Multiple Paternities in the Threatened Desert Tortoise, *Gopherus agassizii*"

Kristin H. Berry Annual Award - Tracy Bailey

Robert C. Stebbins Research Award - Howard G. Wilshire

Robert C. Stebbins Research Award - Richard A. Minnich

Glenn R. Stewart Service Award - Douglas Duncan

Special Award - BLM, Southern District

Special Award - Cristina Melendez Torres

Special Award - Comision de Ecologia y Desarrollo Sostenible del Estado de Sonora

Special Award - Volunteers of the NW Mexico Desert Tortoise Project



Tracy Bailey, first winner of the newly named "Kristin H. Berry Annual Award, with Dr. Kristin Berry.



David J. Morafka Memorial Research Award Winner Danna Hinderle with Sylvia Morafka.

Photo Contest:

Wild Desert Tortoises

- 1st Kerry Lee Holcomb
- 2nd Jeff Servoss
- 3rd Terry Christopher

Captive Pet Tortoises

- 1st Ginny Stigen
- 2nd Mike Bailey
- 3rd Terry Christopher

Other Desert Reptiles

- 1st Jeff Servoss
- 2nd Kerry Lee Holcomb
- 3rd Melanie Day

Desert Mammals

- 1st Kerry Lee Holcomb

Other Desert Wildlife

- 1st Lauren Hunt
- 2nd Alison Cockrum
- 3rd Debbie Beckett

Wild Desert Plants

- 1st Mickey Quillman
- 2nd Paula Kahn
- 3rd Terry Christopher

Desert Scenics

- 1st Jeff Servoss
- 2nd Lauren Hunt-Pejza
- 3rd Mickey Quillman

Tortoise Conservation

- 1st Scott Hillard
- 2nd Brent Sparks
- 3rd Paula Kahn

Best of Show

Jeff Servoss for "Southwestern Speckled Rattlesnake"

NEWS

Seasonal Variation in Survivorship and Mortality of Desert Tortoises in the Sonoran Desert, Arizona

ABSTRACT.—We determined annual survivorship and causes of mortality at two Desert Tortoise, *Gopherus agassizii*, study sites in the Sonoran Desert, Arizona, based on radio-telemetry data. Annual survivorship was high (89–97%), did not differ between sexes, and was comparable to previous studies using mark–recapture methods. Survivorship between sexes differed seasonally at one site, based on differences in seasonal activity patterns and differential exposure to predation by mountain lions, *Puma concolor*. In the absence of mammalian predation, seasonal survivorship did not differ between sexes. The next leading cause of mortality was failure to right oneself after a fall or after being flipped during reproductive or combat events.

Full text of the article (Journal of Herpetology, Vol. 44, No. 1, pp. 164–167, 2010) can be found at: http://www.cnah.org/pdf_files/1441.pdf

IN MEMORIAM: RAY E. ASHTON (1945-2010)

© Joseph T. Collins, 2010

Ray E. Ashton, Jr., a well-known herpetologist who specialized in Gopher Tortoise conservation and operated a research and conservation facility devoted to them in Archer, Florida, died on 11 March 2010 of pancreatic cancer. He was 64. Ray was head of the Ashton Biodiversity Research and Preservation Institute, a 200-acre preserve near Watermelon Pond in southwestern Alachua County. The facility includes an office, laboratory, library, herbarium, wet-lab, limited researcher/student housing, tortoise isolation and breeding facilities, and a diversity of native habitats.

Ray was born in Middletown, Ohio, on 30 March 1945 and came of age in herpetology at an auspicious time in the Buckeye state. During his teenage years in southwestern Ohio, he soon met an astonishing number of budding herpetologists from across that state, like-minded folks whose interest in these animals was so intense and so compelling that, to this day, they are often referred to (sometimes affectionately, sometimes otherwise) as "The Ohio Mafia." And Ray was one of them, pursuing undeterred with a single-minded purpose the knowledge necessary to have a notable career in herpetology that spanned nearly a half century.

In 1971, Ray Ashton received a master's degree in biology from Miami University in Oxford, Ohio, with a thesis entitled "A Study of the Movements, Home Range, and Winter Behavior of *Desmognathus fuscus* (Rafinesque)." He went on to write many scientific articles as well as handbooks to the reptiles, turtles, crocodilians, and amphibians of Florida, and in 2008 published his best-known work, "The Natural History and Management of the Gopher Tortoise, *Gopherus polyphemus* (Daudin)," co-authored with his wife, colleague, best-friend, and close companion, Pat. He was also co-owner of Ashton, Ashton and Associates, an environmental consulting firm that specializes in sustainable and environmentally sound projects with an emphasis on ecotourism, tourism, greenways, parks, museums, and similar developments.

Ray also served on a Florida Fish and Wildlife Conservation Commission panel that helped draft guidelines for the protection of Gopher Tortoises, classified as a threatened species in the state. His conservation efforts also took him around the world and across the nation. He was one of the founders of a number of herpetological organizations in several states, including those in North Carolina and Florida.

Ray Ashton served as education director at two state museums (in Lawrence, Kansas, at the KU Museum of Natural History and in Raleigh, North Carolina, at the State Museum of Natural Science), as director of travel planning for three major travel firms including the Massachusetts Audubon Society, and worked for two consulting firms before semi-

retiring to found the institute and develop the Ashton research station.

His mother, Betty, wife Patricia, children Kevin and Elizabeth, and grandchild Xander survive Ray. For more information about Ray Ashton's accomplishments, please see www.AshtonBiodiversity.org

In lieu of flowers, please send donations to the Ashton Fund at:

SunTrust Bank
14420 West Newberry Road
Newberry, Florida 32669-2765

90-DAY FINDING ON A PETITION TO LIST THE MOHAVE GROUND SQUIRREL AS ENDANGERED WITH CRITICAL HABITAT

DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
50 CFR Part 17
[FWS-R8-ES-2010-0006]
[MO 92210-0-0008 B2]

Endangered and Threatened Wildlife and Plants;
90-day Finding on a Petition to List the Mohave Ground Squirrel as Endangered with Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 90-day petition finding and initiation of status review. SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the Mohave ground squirrel (*Xerospermophilus mohavensis*) as an endangered species under the Endangered Species Act of 1973, as amended (Act). Based on our review, we find that the petition presents substantial scientific or commercial information indicating that listing the Mohave ground squirrel may be warranted. Therefore, with the publication of this notice, we are initiating a status review of the species to determine if listing the species is warranted. To ensure that this status review is comprehensive, we are requesting scientific and

commercial data and other information regarding this species. Based on the status review, we will issue a 12-month finding on the petition, which will address whether the petitioned action is warranted, as provided in section 4(b)(3)(B) of the Act. We will make a determination on critical habitat for this species, which was also requested in the petition, if and when we initiate a listing action.

DATES: To allow us adequate time to conduct this review, we request that we receive information on or before June 28, 2010. After this date, you must submit information directly to the Ventura Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT** section below). Please note that we may not be able to address or incorporate information that we receive after the date noted above.

ADDRESSES: You may submit information by one of the following methods:

•Federal eRulemaking Portal:
http://www.regulations.gov. Search for docket FWS-R8-ES-2010-0006 and then follow the instructions for submitting comments.

• U.S. mail or hand-delivery: Public Comments Processing, Attn: FWS-R8-ES-2010-0006; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will post all information received on *http://www.regulations.gov*. This generally means that we will post any personal information you provide us (see the Information Solicited section below for more information).

FOR FURTHER INFORMATION CONTACT:
Michael McCrary, Listing and Recovery Coordinator, Ventura Fish and Wildlife Office, 2593 Portola Road, Suite B, Ventura, CA 93003
telephone (805)644-1766
facsimile (805) 644-3958

If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at (800) 877-8339.

The full listing on the Federal Register can be seen at: <http://edocket.access.gpo.gov/2010/pdf/2010-9377.pdf>

HABITAT CONSERVATION PLAN TO BE SIGNED, 13 YEARS IN THE MAKING

By Dave Maxwell
The Lincoln County Record

After nearly 13 years of work, the Southeastern Lincoln County Habitat Conservation Plan (HCP) is ready for signing by the involved parties. The signing ceremony will take place in the historic Thompson Opera House in Pioche Wednesday May 5 at 1 pm.

Commissioner Ronda Hornbeck said representatives of the three permit holders: Lincoln County, City of Caliente, and Union Pacific Railroad will be on hand for the ceremony. “It will be Lincoln County’s Section 10, but the others signed for a Section 10 also,” she said.

In order for Lincoln County to have growth and development in areas the HCP is assigned to, including Meadow Valley Wash and the Lincoln County Land Act, (Toquop), even the location for the Sithe Global solar power generation facility, a plan has to be agreed upon.

The HCP represents the culmination of work on the document that meets the requirements for Section 10 of the Endangered Species Act of the U.S. Fish and Wildlife Service. It provides for mitigation/concessions and protection of the endangered species that inhabit the areas of planned development within the County, in this case the Western Willow Flycatcher in the Meadow Valley Wash, and the Desert Tortoise in the lower part of the County, including the Alamo Industrial Park and Toquop.

“For our even being able to turn dirt, we have to have a Section 10,” Hornbeck says, which is what the HCP permit provides.

According to the U.S. Fish and Wildlife Service, Section 10 of the Endangered Species Act requires a habitat conservation plan to obtain an “incidental take permit when non-Federal activities will result in “take” of threatened or endangered wildlife. A habitat conservation plan must accompany an application for an incidental take permit. The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate minimizing and mitigating of the effects of the authorized incidental take. The purpose of the incidental take permit is to authorize the incidental take of a listed species, not to authorize the activities that result in take.”

The term “take” is defined in the Endangered Species Act as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction).

The U.S. Fish and Wildlife Service (FWS) also defines in Section 10 what needs to be in an HCP as including:

- An assessment of impacts likely to result from the proposed taking of one or more federally listed species.
- Measures the permit application will undertake to monitor, minimize, and mitigate for such impacts; the funding that will be made available to implement such measures; and the procedures to deal with unforeseen or extraordinary circumstances.
- Alternative actions to the taking that the applicant analyzed, and the reasons the applicant did not adopt such alternatives.
- Additional measures that the FWS may require as necessary or appropriate.

Mitigation measures are actions that reduce or address potential adverse effects of a proposed activity on species covered by a HCP. They should address specific needs of the species involved and

be manageable and enforceable. Mitigation measures may take many forms, such as preservation (via acquisition or conservation easement) of existing habitat; enhancement or restoration of degraded or a former habitat; creation of new habitats; establishment of buffer areas around existing habitats; modifications of land use practices, and restrictions on access.

Once the plan is implemented, the City of Caliente will be able to clean out the Meadow Valley Wash area and do things necessary to protect against future flooding, and development at both the Alamo Industrial Park and Toquop can move ahead as well.

The original story can be found at:

http://www.lincolncountyrecord.com/pages/100422_habitat

BLM DIRECTOR SEEKS INPUT ON GOLD BUTTE AREA

BOB CHALLINOR, DESERT VALLEY TIMES • APRIL 13, 2010

Bureau of Land Management Director Bob Abbey told a group of about 20 northeast county community leaders that federal designation of Gold Butte is coming and they should decide what kind of designation they could live with.

Abbey, who was confirmed by the Senate as BLM director in July 2009, visited Mesquite and the Gold Butte area Friday. He answered questions from northeast Clark County community leaders invited by Mayor Susan Holecheck and County Commissioner Tom Collins. The gathering was part of a process “to facilitate a better understanding of what we want to accomplish in Gold Butte,” Holecheck said.

It was also the first step in building local consensus for one of three designations that congress would consider for Gold Butte: an Area of Critical Environmental Concern, a National Conservation area or an NCA with wilderness.

“Mr. Abbey said the reality is that something will happen out there,” Holecheck said. “Congress will mandate what’s included in an NCA. If you wanted to change or amend that, it would have to be done by a congressional delegation. They could say you need to do an NCA with local consensus input.”

Abbey also debunked some myths, Holecheck said.

“I’ve heard people tell me that if there is no NCA they could have grazing again,” she said. “But they (grazing rights) were all withdrawn in perpetuity for desert tortoise protection. You won’t have grazing out there. People heard that when Mr. Abbey was out here. They also heard you could have an NCA without wilderness. There are already two wilderness areas designated. There may be other wilderness areas for Gold Butte, but those have not been done yet.”

Holecheck said that Abbey told citizens wilderness areas could have roads and people still would be allowed to hunt and fish in wilderness areas.

“We’re trying to say there’s never been a better time for local input on this,” Holecheck said. “We don’t know what will happen if this is not done this year. We have a good relationship with the congressional delegation now.

“The question is should Gold Butte remain an ACEC; should it be an NCA or should it be an NCA with wilderness? That’s where we need local input. We need to see the advantages and disadvantages of each.”

Moving ahead will create more opportunity for federal funding, Holecheck said, and greater opportunities for education.

“The real spotlight is on the beauty of Virgin Valley and Clark County,” she said.

Holecheck said it would be a mistake to underestimate the value of Abbey’s eight years as Nevada State Director for the U.S. Bureau of Land Management when he provided oversight and direction for 48 million acres of public land managed by the agency.

Abbey served as chairman of the executive committee for implementation of the Southern Nevada Public Lands Management Act from 1999 through 2005. During the period Gold Butte and other northeast county areas received ACEC designation.

Mesquite city council already passed a resolution supporting NCA designation with wilderness for Gold Butte. City council, however, will bring back the resolution for review. At least two council members have mentioned possibly rescinding the resolution.

“I’ve been talking about all of this for three years,” Holecheck said. “I’ve invited people to get involved and share their comments. One day it will be too late for public comment and congress will designate what it wants for Gold Butte without our input.”

Environmental Letters

The original article can be found at:

<http://www.thespectrum.com/article/20100413/DVTONLINE01/100412024/1053/DVTONLINE/BLM+director+seeks+input+on+Gold+Butte+area>

DESERT TORTOISE COUNCIL ADVISORY COMMITTEE ACTIONS

The DTC Board of Directors and its Ecosystems Advisory Committee engaged two issues in recent months that potentially affect wild desert tortoises. First, in letters to the CDFG and BLM in August 2009, the DTC expressed its concern for the future of the Northeastern Mojave Desert Tortoise Recovery Unit due to the potential impacts of BrightSource Energy’s Ivanpah Solar Electric Generating System (ISEGS) and other planned industrial developments on the tortoise population in the northern Ivanpah Valley. The DTC urged the agencies to set a habitat loss mitigation ratio at a level that will fully mitigate for adverse impacts to the tortoise population. The DTC recommended in December 2009 and February 2010, respectively,

that the CEC and the BLM select the “No Project/No Action Alternative” in the FSA/DEIS and reject BrightSource Energy’s applications for right-of-way grants because the Proposed Action Alternative fails to avoid significant and adverse impacts to the Northeastern Mojave Desert Tortoise Recovery Unit. The letter to the BLM is printed in this issue of the newsletter.

Second, the Desert Tortoise Council intervened with the CEC on Solar Millennium’s application for its Ridgecrest Solar Power Project due to the Council’s concern for the abundance of adult desert tortoises (some 69) identified on the proposed site and the potential adverse impacts of the project to that population and its habitat. A letter of comment was submitted in January 2010, and is reproduced here.

-Sid Silliman

RELATED MEETINGS

Turtle Survival Alliance/Tortoise and Freshwater Turtle Specialist Group Joint Meeting

August 16 – 19, 2010
Orlando, Florida

The Turtle Survival Alliance (TSA) and the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group (TFTSG) are pleased to announce the dates of their joint Symposium, Monday – Thursday, August 16 – 19, 2010 in Orlando, Florida (immediately preceding the National Reptile Breeders Expo in Daytona). This is the 8th annual conference hosted by the TSA, and has become the world’s largest gathering of tortoise and freshwater turtle biologists, turtle enthusiasts, and captive breeding specialists in the world.

As the tradition continues, we are grateful for the generous support of our conference title sponsor, ZooMed. This promises to be a major international conference, with over 100 presentations. We have many special sessions arranged including:

- Madagascar Freshwater Turtle and Tortoise Conservation: Christina Castellano & Michael Ogle, chairs
- Captive Husbandry: Cris Hagen and Ben Anders, Chairs
- Chelonian Health and Disease: Elliott Jacobson, chair
- Chelonians of China: Torsten Blanck, chair - presentations on both captive and field efforts
- Community Ecology of Turtles: Daren Riedle, chair
- Cuora: Ray Farrell, chair - presentations on both captive and field efforts
- Florida Turtles: Conservation Challenges and Opportunities: George Heinrich, chair
- Soft Shell Turtles: Peter Praschag, chair presentations on both captive and field efforts
- Survey Methods for Terrestrial Turtles/Tortoises with workshop on field tools (GPS, PDA, Burrow Cams, etc.) and Line Distance Sampling demo: Lora Smith and Jonathon Stober, chairs
- Turtle Farms and Facilities: Hans-Dieter Philippen, chair

For more information, including the Call for Papers, visit the conference page on the TSA website: <http://www.turtlesurvival.org/get-involved/2010-conference>

We hope to see you in Orlando!

Joint Meeting of Ichthyologists and Herpetologists

July 6 – 11, 2010
Providence, Rhode Island

The massive joint 2010 annual meeting of the American Society of Ichthyologists & Herpetologists, Herpetologists League, and Society for the Study of Amphibians & Reptiles will be held in Providence, Rhode Island. Access the web site below for more information.

<http://www.dce.k-state.edu/conf/jointmeeting/>

Editor's note- See the special Symposium section listed below, it may be of interest. –SMD

Head-starting turtles-learning from experience

Monday, July 12; 8:00 a.m. – 5:15 p.m.

Rhode Island Convention Center, Ballroom B

Head-starting is a controversial topic in turtle conservation that has received little serious academic examination. Here we are focusing on head-starting itself, that is, the release of captive-raised hatchlings for conservation purposes. The symposium includes people involved in turtle head-starting projects addressing academic concerns regarding head-starting, comparing examples of serious head-starting projects using a common set of criteria for success, and learning which, if any, conservation practices are more likely to lead to success.

interesting and secretive species in this area, and we hope to fill some holes in the herpetological knowledge in the area. In accordance with the North American Field Herping Association By-laws, there will be no collecting on the trip; however, records for specimens found during the outing will be entered into the national herpetological database at

<http://www.naherp.com>

Contact information:

Ryan Shofner
cell: 303-518-8413
shofmon88@gmail.com

Rodeway Inn: <http://www.rodewayinn.com/hotel-cainville-utah-UT151?promo=gglocal>
Google Maps Coordinates for Luna Mesa:
N38.34734, W-110.976951

INVOLVEMENT OPPORTUNITY

UTAH HERPETOFAUNAL COUNT SET

The second Annual Rocky Mountain Chapter Spring Herpetological Field Trip will take place on 21-23 May 2010. This year's trip will be in Wayne County, Utah (and other surrounding areas as we see fit). Our base of operations will be out of the Luna Mesa Cantina in Cainville (West of Hanksville 15 miles on Utah Rt. 24). Luna Mesa has a couple rooms to rent (for brave souls only), and room to park an RV or pitch a tent. Recommended lodging is at the Rodeway Inn in Cainville. There is additional lodging available in Green River and Torrey, with Torrey being the closer option (45 minutes-1hr), and a very scenic drive to Cainville through Capital Reef National Park. There is fuel in Hanksville, and food (and beer!) in both Hanksville and Cainville.

Late May is prime herpetological collecting time in southeastern Utah, with mild temperatures and occasional thunderstorms. The Fremont River runs by both Hanksville and Cainville, and Utah State Route 24 traversing the river valley, crossing through many different habitats. There are many

SCHOLARSHIPS / AWARDS

FUNDING OPPORTUNITIES

Conservation Maven (an online hub for the conservation community)

The Conservation Funding board profiles government and foundation grants for restoration, land preservation, stewardship, environmental education, research, fellowships, volunteers, outreach, clean-up, training, and more. We also list funding opportunities for work related to birds, fish, forests, oceans, watersheds, wildlife, & wetlands.

Please check out the numerous resources available at their website, <http://www.conservationmaven.com/>

Response to the Desert Tortoise Council Position Paper on the Massive Project Proposal

J.O. Juvik (jjuvik@hawaii.edu), R. Kiester (rkiester@gmail.com), and K. Nagy (kennagy@biology.ucla.edu)

Since writing the original Massive Project Proposal (see massivetortoise.org) and since having the pilot project funded we have received much valuable input from the broad desert tortoise community. The position paper written by the Desert Tortoise Council (Desert Tortoise Council Newsletter, Winter 2009) is part of that input. Here we wish to comment on their points.

Conservation of the desert tortoise (*Gopherus agassizi*), as of any organism, is done at the interface of science and policy. Science informs actions, but does not determine them. Scientific uncertainty is a major reason why work at the science/policy interface is so difficult. Decisions must be made and actions taken in the face of serious uncertainty. Shrader-Frechette and McCoy (1993) give an excellent discussion of these topics. Put another way, both the action of releasing head-started tortoises and the action of doing nothing have risks and the policy maker must balance these risks.

We take each paragraph of the DTC position paper in turn.

1. Introduction and background. This is a straightforward account of the background of desert tortoise conservation.
2. Head-starting background. Conveys some of the uncertainty surrounding desert tortoise head-starting.
3. Disease and food competition. The position paper wants a guarantee of disease free eggs. Although we believe that vertical transmission of mycoplasma does not occur, we propose to carefully screen head-started tortoises for all diseases many times before they are released. We plan to have at least 4 to 5 years to make sure baby tortoises are healthy. So our goal is to produce disease free juveniles that

are to be released. Rideout (2010) has recently emphasized the role of errors in disease screening prior to releasing animals. Multiple tests through time as a tortoise matures will help reduce these errors, but we can never eliminate all of them. We believe this kind of screening gives a more practical goal to work towards.

The position paper is also concerned that released tortoises would compete for food with native tortoises and among themselves. We do not intend to release tortoises where there are native populations so competition with natives will not occur. Certainly competition will occur among the released tortoises themselves. We will have to take care that food is not a limiting factor in release sites.

4. Ethics. Here we are in the realm of pure policy. Science cannot inform this discussion very much. We would like to emphasize that there is a continuum of beliefs held by people on this issue. At one end someone from, say, PETA, would claim that a conservation action that results in a single death is unethical. At the other end, people who recognize that tortoises are mortal and that nearly all juveniles die in natural populations would claim that is ethical for a large proportion of introduced tortoises to die in the process of reestablishing a healthy population. Where any one person falls on this continuum is a very personal decision. It is not clear to us how a consensus could be reached on this issue although there is no question that the desert tortoise community must continue to debate it.

5. Genetics issues. The debate between adaptedness and adaptability is again about a continuum. This continuum can also be understood as the choice of the appropriate spatial scale for the interpretation of genetic variation in conservation action. The entire range of the desert tortoise is clearly too large, and a population on 10 hectares is too small. Is the genetic scale implied by the mapped recovery units appropriate? We are not sure. The position paper claims that our assumption that adaptability is important is not science. However, Fisher's Fundamental Theorem of Natural Selection is regarded as one of the cornerstones of evolutionary theory (see massivetortoise.org). There is no

question that there is considerable uncertainty about the details of the application of this theorem in any particular case. So the real question is how to make policy decisions in the presence of uncertainty.

Note on use of the word “hypothesize.” We used the word in the more general sense, not in the strict sense of Neyman-Pearson hypothesis testing. Nonetheless it is worth noting that probabilistic hypotheses can be tested making the word “may” acquire a quantitative sense. The relationship between specific hypotheses and general (and sometimes stochastic) theories is well described in Ford (2000). The necessity of synthesizing hypotheses for policy is reviewed in Ford and Ishii (2001). Neyman-Pearson hypothesis testing is only a part of the scientific enterprise.

There have been field tests for a reptile introduction of the trade-off between adaptedness and adaptability by A. R. Templeton (Templeton et al., 2007). More genetically variable populations of introduced collared lizards do better than genetically more uniform populations. In his review of the Massive Project Templeton writes:

This issue of adaptiveness vs. adaptability has come up in two release projects I’ve been involved with, the collared lizards (which we talked about in Hawaii) and, more recently, the reintroduction of the wild ass in the Negev Desert in Israel. I have attached some reprints outlining our logic in these reintroductions. Concerning the collared lizards, I have attached a 1996 paper that outlined our strategy. The discussion starting on page 318 is especially relevant. As you will see, I come down on the side of adaptability. Basically, we can never be sure that the environments into which we reintroduce the animals are exactly like their historical environments, and moreover during this time of global climate change, the environments are likely to continue to change. Hence, adaptability is more important than adaptiveness, but you will see that we did not totally ignore the issue of adaptiveness.

6. Recovery plan and legal and regulatory issues. The newer recovery plan explicitly contains provisions for population augmentation. The

Massive Project falls under this section of the plan. There are of course many legal and regulatory issues that must be addressed for this, or any, reintroduction plan to move forward. Our initial meetings with regulatory agencies in 2009 have made these issues clear and we believe that they can be solved.

7. Illegal releases and predator subsidy. We simply do not know if legal reintroductions will “encourage” illegal ones. This is an empirical question about human behavior. How one feels about the possibility in the absence of any study probably depends on their general view of human behavior (cynical vs. optimistic). Certainly the Massive Project will need to emphasize this issue and publicize the appropriate alternatives available to people who need to find homes for desert tortoises.

If reintroductions do end up subsidizing predators that then move to impact native populations, we will conclude that the Massive Project has backfired and not move forward with it. We are only interested in increasing the *total* number of desert tortoises in the Mojave Desert.

8. Location, location, location. We agree with the idea expressed in the position paper that release site identification should occur at the beginning of the pilot study. We have begun that process in discussions with landowners and stakeholders.

9. Priorities. Certainly we agree that the protection of natural populations and their habitats is the top priority. But we also believe that it is not the only priority and certainly not the only tool that should be used. We have learned from work on the Asian Turtle Crisis and on the ploughshare tortoise that using all available tools in an ecumenical, diverse strategy is the best overall strategy.

The current “Draft Revised Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*)” (2008) has two goals: 1.) Increase the number of tortoises in current populations in the Mojave and 2.) Expand their distribution into areas of their former range. Because of the nature of desert tortoise

demographics, achievement of these goals in any reasonable timeframe leads the recovery plan to embrace the role of population augmentation as a part of any strategy of timely recovery actions. Unfortunately, the proposed recovery plan price tag of \$50 million may be difficult to implement over the next few years in the current federal budgetary environment. The Massive Project is designed to support the augmentation component of the recovery plan by employing a novel, comparatively large-scale, low cost head-starting approach that simply scales-up from existing, scientifically proven head-starting protocols.

Ford, E.D. 2001. *Scientific Method for Ecological Research*. Cambridge University Press. 588 pp.

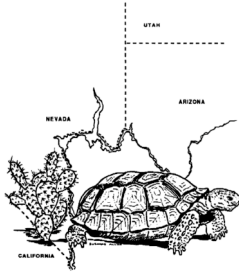
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March 25, 2009



DESERT TORTOISE COUNCIL

P.O. Box 3273
Beaumont, California 92223
www.deserttortoise.org

February 10, 2010

Via Email at CA690@ca.blm.gov and U.S. Mail

Bureau of Land Management
Needles Field Office
Attention: George R. Meckfessel,
Planning and Environmental Coordinator
1303 South U.S. Highway 95
Needles, CA 92363

Re: Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment, Ivanpah Solar Electric Generating System (07-AFC-5)

Dear Mr. Meckfessel:

The Desert Tortoise Council is a private, non-profit organization made up of hundreds of professionals and lay-persons who share a common fascination with wild desert tortoises and a common commitment to advancing the public's understanding of the desert tortoise. Established in 1976 to promote conservation of the tortoise in the deserts of the southwestern United States and Mexico, the goal of the Desert Tortoise Council is to assure the perpetual survival of viable populations of desert tortoise within suitable areas of its historical range.

It is our considered recommendation that the Bureau of Land Management (BLM) should reject BrightSource Energy's applications for four ROW grants to construct its Solar Electric Generating System (ISEGS) on 4,073 acres of public land in the Ivanpah Valley. While we recognize that solar power facilities are an allowable use of Multiple Use-Class L lands as classified in the California Desert Conservation Area (CDCA) Plan of 1980, as amended, the BLM should select the "No Project/No Action Alternative" analyzed in the *Final Staff Assessment/Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment for the Ivanpah Solar Electric Generating System (FSA/DEIS)* for the sufficient reason that the ROW applications fail to satisfy the fourth Decision Criterion in the Energy Production and Utility Corridors Element in Chapter 3 of the CDCA Plan to "avoid sensitive resources wherever possible" (1999, 93). Specifically, the Proposed Action Alternative fails to avoid significant and adverse impacts to the Northeastern Mojave Desert Tortoise Recovery Unit of the Federally-listed Mojave desert tortoise.

The U.S. Fish and Wildlife Service (USFWS) ruled on April 2, 1990, that the survival of the Mojave population of the desert tortoise was threatened under the Federal Endangered Species Act and deserving of special protection. As you well know, the Endangered Species Act requires that agencies consult with USFWS to ensure that proposed actions do not jeopardize the survival of listed species or adversely modify critical habitat. Whether ISEGS jeopardizes the survival of the Mojave desert tortoise or one of its distinct population segments must, therefore, be a primary consideration of the BLM's in its decision on the BrightSource Energy ROW applications.

We further assert that, with respect to the potential impacts of ISEGS on the Mojave desert tortoise, the essential decision framework for the BLM is that ISEGS is proposed for construction within the Northeastern Mojave Desert Tortoise Recovery Unit. The Biological Assessment emphasizes that the proposed site is located within the southeastern portion of the planning area boundary of the *Northern and Eastern Mojave Desert Management Plan* (Biological Assessment 2009, p. 3-1). While an accurate statement geographically, the key consideration for the BLM must be that the construction of ISEGS will directly, indirectly and cumulatively impact the Northeastern Mojave Desert Tortoise Recovery Unit.

The Northeastern Recovery Unit is one of the six Desert Tortoise Recovery Units designated in the *Desert Tortoise (Mojave Population) Recovery Plan* (1994). These populations were previously and appropriately identified based on genetics, behavior, ecology, geographic isolation, and morphology. Since the Recovery Plan was published, a number of studies have compared tortoises between different Recovery Units and confirmed biological differences among the populations. Most recently, "*A Genetic Assessment of the Recovery Units for the Mojave Population of the Desert Tortoise...*" (Murphy, et al. 2007) presents new evidence that tortoises in the Recovery Units constitute distinct populations, confirming the validity of the 1994 Plan's six Recovery Units. Given that the Northeastern Recovery Unit is a distinct and evolutionary significant population of the threatened Mojave desert tortoise, the BLM is legally obligated, as Chapter 3 of the CDCA Plan asserts, to "avoid sensitive resources" in granting any ROW.

The importance of avoiding impacts to the Northeastern Desert Tortoise Recovery Unit is underscored by our conviction that the cumulative impacts of ISEGS and the other energy projects proposed for the vicinity could result in the loss of the Northeastern Mojave Desert Tortoise Recovery Unit as a viable population in the northern Ivanpah Valley. The recent history of the desert tortoise is that entire populations have been extirpated in numerous areas of the Mojave Desert due to the cumulative impacts of human activities, and we fear that this will be repeated in the Ivanpah Valley. Indeed, the potential cumulative impacts to the desert tortoises and supporting habitat within the Northeastern Mojave Recovery Unit are alarming. Direct, indirect and cumulative impacts of the proposed ISEGS project on the desert tortoise include destruction and loss of high quality habitat, take of the population, population fragmentation, and compromised viability. Should the ISEGS project, the DesertXpress High-Speed Passenger Train, the upgrade of the 35-mile Eldorado-Ivanpah Transmission line, and the proposed OptiSolar (First Solar) power project all become a reality, impacts to the habitat supporting tortoises in this recovery unit may be insurmountable and could endanger this distinct

tortoise population. These cumulative impacts are even more staggering when the facilities proposed by Nextlight Renewable Power on 7,840 acres of high quality tortoise habitat in the eastern side of the Valley are factored in.

BLM and Energy Commission staffs “have concluded that without mitigation the ISEGS project would be a substantial contributor to the cumulatively significant loss of Ivanpah Valley’s biological resources, including the desert tortoise...” (FSA/DEIS 2009, 6.2-2). As specified in BIO 18, staff proposes to mitigate the impacts of the project by acquiring habitat and implementing recovery actions in the area of the Eastern Mojave Recovery Unit (FSA/DEIS 2009, 120-125). However, acquisition of habitat in the Eastern Mojave Unit will not mitigate impacts to the Northeastern Desert Tortoise Recovery Unit, the specific segment of the Mojave desert tortoise population that will be adversely affected by ISEGS. Acquiring mitigation lands “as close to the ISEGS site as possible...” (FSA/DEIS 2009, 6.2-56) is not scientifically justifiable and would not meet the goals of the Desert Tortoise Recovery Plan. The only acceptable compensatory mitigation for the cumulatively significant loss of the Ivanpah Valley’s biological resources would be the acquisition of lands that can be improved, protected and maintained to support a healthy Northeastern desert tortoise population. The Eastern and Northeastern Recovery Units are distinct and equally significant evolutionary segments. The loss of habitat and the loss of one population cannot be mitigated through actions with respect to another Recovery Unit. In the absence of sufficient habitat within the Northeastern Desert Tortoise Recovery Unit within California to achieve compensatory mitigation - the situation with respect to ISEGS - the only option for the BLM is to select the No Project/No Action Alternative.

The No Project/No Action Alternative should be selected because the Applicant’s proposed relocation/translocation plan, if implemented as specified in Attachment D of the Biological Assessment (2009), will jeopardize both the relocated/translocated and the host populations of desert tortoise. There has been no study of the host populations nor will the applicant be required to complete a study of the host populations at the relocation/translocation sites to establish population densities and the health of the host desert tortoises. There is no requirement in the relocation/translocation plan that the desert tortoises be fully inspected for disease, raising the possibility that the relocation/translocation of tortoises from the ISEGS site could spread disease into a healthy host population. Further, the FSA/DEIS seriously underestimates the probable desert tortoise mortalities as a result of relocation/translocation. We know from experience that at least 38 percent of the monitored tortoises in the 2008 Fort Irwin translocation expired. The relocation/translocation of desert tortoises – even if done well - will contribute little to the long-term survival of the desert tortoises in the northern Ivanpah Valley because the habitat surrounding the ISEGS site and the relocation/translocation sites will be severely fragmented as a consequence of ISEGS. Finally, the relocation/translocation plan does not require long-term monitoring and study of the relocated/translocated desert tortoises. BrightSource Energy will simply dump the tortoises under the current plan.

In sum, we recommend that the Bureau of Land Management reject BrightSource Energy’s applications for four ROW grants to construct its Solar Electric Generating System on public land in the northern Ivanpah Valley.

Sincerely,

Glenn R. Stewart

Glenn R. Stewart, Ph.D.
DTC Board of Directors

References

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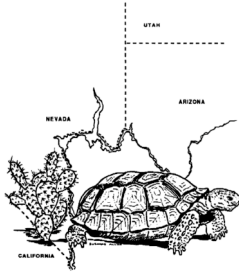
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U.S. Bureau of Land Management and California Energy Commission. *Final Staff Assessment and Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment. Ivanpah Solar Electric Generating System Application for Certification (07-AFC-5)*. October 2009.



DESERT TORTOISE COUNCIL

P.O. Box 3273
Beaumont, California 92223
www.deserttortoise.org

January 21, 2010

Via Email and U.S. Mail

BLM California Desert District
22835 Calle San Juan de los Lagos
Moreno Valley, California 92553
Attn: Janet Eubanks

California Energy Commission
1516 Ninth Street, MS-15
Sacramento, California, 95814
Attn: Eric Solorio

RE: Notice of Intent to prepare an Environmental Impact Statement and Staff Assessment for the proposed Solar Millennium Ridgecrest Solar Power Project

Dear Ms. Eubanks and Mr. Solorio:

The Desert Tortoise Council welcomes the opportunity to offer comments in response to the notice that the Bureau of Land Management (BLM) and the California Energy Commission (CEC) intend to prepare an Environmental Impact Statement /Staff Assessment as well as an amendment to the California Desert Conservation Area Plan of 1980 for the proposed Solar Millennium Ridgecrest Solar Power Project in Kern County.

The Desert Tortoise Council is a private, non-profit organization made up of hundreds of professionals and lay-persons who share a common fascination with wild desert tortoises and a common commitment to advancing the public's understanding of the desert tortoise. Established in 1976 to promote conservation of the desert tortoise in the deserts of the southwestern United States and Mexico, the goal of the Desert Tortoise Council is to assure the perpetual survival of viable populations of desert tortoise within suitable areas of its historical range.

Based on the preliminary findings in the biological sections of the Application for Certification, it is evident that the Ridgecrest Solar Power Project (Ridgecrest SPP) will directly and indirectly impact several of the desert's most sensitive and valued species. Our comments and recommendations will focus largely on the desert tortoise because a primary objective of the Desert Tortoise Council is to serve in a professional advisory manner on matters involving the management, conservation and protection of desert tortoises. Potential impacts to the Mohave ground squirrel and burrowing owl are of concern as well.

The fundamental issue that the Environmental Impact Statement/Staff Assessment (EIS/SA) must address is the large number of desert tortoises resident on the proposed Ridgcrest SPP site. The Application for Certification (AFC) states that a total of 50 desert tortoises were observed within the biological resources survey area, 40 of which were detected within the disturbance area (p. 5.3-35). Based on U.S. Fish and Wildlife Service (USFWS) approved methodology, the estimated abundance of adult desert tortoises within the disturbance area is 69. The proposed site is obviously high-quality desert tortoise habitat and, therefore, should not be considered for energy generation.

To place this recommendation in context, the AFC calculates an adult desert tortoise density within the Ridgcrest SPP disturbance area of 0.040 tortoise per acre or 9.8 tortoise per square km. The population density at the proposed site is twice the average density of 4.7 desert tortoise per square km within the West Mojave Desert Tortoise Recovery Unit as recently reported by USFWS in its *Range-Wide Monitoring of the Mojave Population of the Desert Tortoise* (2009). Relative to the Recovery Unit as a whole, the population at the proposed Ridgcrest SPP site is too important to move and the habitat is too good to be converted to energy generation.

The Mojave Desert Tortoise was listed as a “threatened species” under the Federal Endangered Species Act in 1990 because of the precipitous decline in desert tortoise numbers due largely to human-caused mortality and the destruction and fragmentation of desert tortoise habitat. The construction of the Ridgcrest SPP on occupied desert tortoise habitat as proposed by Solar Millennium would contribute to the continued decline of the Mojave Desert Tortoise. Given that desert tortoise populations have been extirpated or almost extirpated from large portions of the western and northern parts of their geographical range in California, it is reasonable, as recommended above, that the EIS/SA urge that the high quality habitat at the proposed site be protected for desert tortoise conservation rather than for energy generation.

The EIS/SA should incorporate an analysis of the genetic diversity of the Mojave Desert Tortoise and a recommendation that priority be given to maintaining that diversity. The West Mojave Desert Tortoise Recovery Unit is one of six Desert Tortoise Recovery Units designated in the *Desert Tortoise Recovery Plan* (1994) These populations were appropriately identified based on genetics, behavior, ecology, geographic isolation, and morphology. Since the Recovery Plan was published, a number of studies have compared tortoises between different Recovery Units and confirmed biological differences among the populations. Most recently, “*A Genetic Assessment of the Recovery Units for the Mojave Population of the Desert Tortoise...*” (Murphy, et al. 2007) presents new evidence that desert tortoises in the Recovery Units constitute distinct populations, confirming the validity of the 1994 Plan’s six Recovery Units. Each of these evolutionary significant population units faces a distinct suite of past and ongoing impacts to tortoises and supporting habitat, and each Unit must be protected for its genetic diversity. The Murphy study identifies, as well, at least three genetically diverse desert tortoise populations within the West Mojave Recovery Unit. This finding should be incorporated into the EIS/SA analysis.

The EIS/SA should include a recommendation that the Applicant must adhere to “Appendix B: Guidelines for Translocation of Desert Tortoises” in the Desert Tortoise Recovery Plan (1994) if the CEC should mandate the relocation of tortoises. Translocation is an experimental process that

carries high risk for the animals. The consensus of the Desert Tortoise Science Advisory Committee is that "...translocation is fraught with long-term uncertainties...and should not be considered lightly as a management option" (2009). As evidence of the risk carried by translocations, the relocation of tortoise in 2008 in connection with the southern expansion of Fort Irwin resulted in the tragic deaths of an unacceptable number of tortoises, some 38 percent of the monitored animals. Relocating tortoises also carries the risk of disease transmission from one group of tortoises to a healthy population of tortoises. The "Guidelines" stipulate that all desert tortoises that might be relocated be medically evaluated for indications of disease using the latest available technology before they are moved.

The EIS/SA should address the layer of problems that the Ridgecrest SPP design presents for the number of special-status species on the proposed site. Western burrowing owls are present and will be negatively impacted. The Desert Kit Fox is common in the area. Over 800 acres of the proposed project are located within the Mohave ground squirrel conservation area delineated in the 2006 West Mojave Plan. In addition, the Ridgecrest SPP, if constructed, would block the movement of Mohave ground squirrels between the Indian Wells population and the population to the south. This adverse impact to the Mohave ground squirrel corridor is not mitigable and the EIS/SA should state that in no uncertain terms.

What follows logically from our assessment is that the EIS/SA should include an analysis of at least one alternative that would avoid direct and indirect impacts to special status species by siting the Ridgecrest SPP on disturbed lands. These lands might be in the Ridgecrest area or elsewhere, but the lands must be more suitable to energy generation than desert tortoise conservation and recovery. Former agricultural lands are likely to meet this criterion. This alternative should be the Preferred Alternative as it would avoid the occupied, high-quality desert tortoise habitat at the site proposed by Solar Millennium and avoid negative impacts to the other species on the site. Avoidance of environmental harm is the most appropriate NEPA resource protection in this case. Minimization, even those detailed in the AFC, will not significantly reduce impacts to the special-status species at the site. No amount of compensatory mitigation can be adequate in this case as there are too many desert tortoise to be relocated and too many uncertainties regarding successful translocation.

The Desert Tortoise Council appreciates the opportunity to submit scoping comments on the proposed solar power project. Please contact me by telephone at (909) 946-5027, by e-mail at gssilliman@csupomona.edu, or by U.S. mail at the address below.

Sincerely,

Sidney Silliman
Board Member, Desert Tortoise Council
1225 Adriana Way
Upland, CA 91784

References

Desert Tortoise Recovery Team, U.S. Fish and Wildlife Service. *Desert Tortoise (Mojave Population) Recovery Plan*. Portland: U.S. Fish and Wildlife Service, 1994.

Murphy, R.W., K. H. Berry, T. Edwards, and A.M. McLuckie. "A Genetic Assessment of Recovery Units for the Mojave Population of the Desert Tortoise, *Gopherus Agassizi*." *Chelonian Conservation and Biology* 6, no. 2 (2007): 229-251.

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Invitation to Ejido San Ignacio de Yermo, Durango, Mexico “The Last Stronghold for the Bolson Tortoise”

On March 17, 2010 the Behler Chelonian Conservation Center/Turtle Conservancy signed an agreement with the members of Ejido San Ignacio de Yermo to purchase approximately 4,800 hectares (12,000 acres) of prime Bolson tortoise (*Gopherus flavomarginatus*) habitat. The Turtle Conservancy has obtained expert legal counsel from Jose Amate Perez of Mexico Matters, a law firm based in Ensenada, Mexico. Mr. Perez has 25 years legal experience in purchasing land in Mexico. Mr. Perez, accompanied by Mercy Vaughn and Myles Traphagen, negotiated the deal with Ejido President Jose Luis Montañez on March 17, 2010 in Ceballos, Durango. The following day meetings were held in Torreón with government officials from Reforma Agraria to discuss the technicalities of the purchase. The meetings were successful and officials from all levels of government have given their support for the purchase. Furthermore, funding commitment from the Desert Tortoise Council is a strong endorsement for the conservation value of this property. In short, the heavy lifting has been done and the table is set to move forth with a successful purchase if the remaining funding is acquired.

Estimates of the population of the Bolson tortoise made from data collected in 1983 state that there are fewer than 10,000 tortoises. 27 years later this number is far lower, perhaps as low as 2000 to 5000 tortoises. Surveys conducted from 2006 to 2009 confirm that Ejido San Ignacio de Yermo contains approximately 1500 tortoises-the highest density of Bolson tortoises anywhere. It is likely that the ejido may harbor 50% of the entire population of the species.

The purchase of Ejido San Ignacio de Yermo is the single most important conservation action for the survival of the Bolson tortoise.

The facts:

Price: \$250,000
Govt fees \$ 30,000
Legal fees \$ 10,000
Total Price \$290,000

Committed donors:

Mr. Eric Goode: Turtle Conservancy \$100,000
The Desert Tortoise Council \$ 20,000
Others \$ 4,500
Total committed donors: \$124,500
Total needed: \$165,500

Location:

The property is located within the Mapimí Biosphere Reserve in Durango, Mexico and borders the states of Chihuahua to the north and Coahuila to the east. Click on the link below, or copy and paste these coordinates into a Google search to access the generalized location of the property: [+26° 42' 43.20", -103° 47' 24.00"](#).



To learn more about the Bolson tortoise click here: http://en.wikipedia.org/wiki/Bolson_Tortoise.

For Further Information Contact:

Mercy Vaughn (928) 380-5507
Jose Amate Perez PC (619) 819-9369

manydogs10@aol.com
leejose@mexicomatters.info

DESERT TORTOISE COUNCIL MEMBERSHIP
619 Pinon Ct.
Ridgecrest, CA 93555

Check one: _____ MEMBERSHIP APPLICATION/RENEWAL _____ CHANGE OF ADDRESS
DATE: _____ EMAIL ADDRESS: _____
NAME: _____ PHONE: _____
(Please Print) *(Include Area Code)*

ADDRESS: _____
CITY: _____ STATE: _____ ZIP CODE: _____

_____ Regular (**\$30.00** per year) _____ Organization (**\$125.00** per year)
_____ Contributing (**\$100.00** per year) _____ Lifetime (**\$300.00** or more)
_____ Student (**\$20.00** per year- Requires endorsement of student's advisor or Major Professor)

NEWSLETTER FORMAT:
_____ Pdf file via e-mail _____ E-mail notice for web page viewing _____ Hardcopy

Make check or money order payable to the Desert Tortoise Council
and **send** with this application
to: **Desert Tortoise Council, P.O. Box 3273**
Beaumont, CA 92223

The Desert Tortoise Council does not release its membership list