SUMMARY
DESERT TORTOISE
MANAGEMENT OVERSIGHT GROUP
TECHNICAL ADVISORY COMMITTEE
MEETING
JULY 22-23, 2002
LAS VEGAS, NEVADA

The MOG/TAC meeting was convened in Las Vegas, Nevada on July 22-23, 2002. The purpose of the meting was to provide an overview to all members of the status of recovery actions, rangewide. Previous to the meeting, a questionnaire was distributed to MOG/TAC members and interested researchers requesting updates on recovery implementation by jurisdictional area. The group discussed responses to the narrative outline of recovery accomplishments included in the questionnaire, for each recovery unit (RU) and the various subdivisions within each unit. The University of Redlands volunteered to compile responses into a usable format for and provide it to the MOG/TAC members and meeting attendees.

Discussion of each RU proceeded with information presented on the purchase and retirement of grazing allotments (on a willing seller basis), control of wild burros, restriction of OHV racing to designated OHV use areas, and construction of tortoise-proof fencing along paved roads as road widening projects or road repair takes place.

In the late afternoon of July 22, 2002, the group began an in-depth discussion of threats to desert tortoise populations. The discussion began with western DWMAs and proceeded eastward. By the end of the day an extensive list of threats to the desert tortoise populations had been outlined for each RU. It was obvious that the threats vary greatly from area to area, and there are considerably more threats perceived in the western portions of its geographic range of the tortoise than in the eastern portions (Appendix A). Most of the threats identified by the group were previously identified in the Recovery Plan.

In conjunction with a continuation of the discussion of threats, Bill Boarman provided copies of a Raven Management Plan for the Mojave and Colorado Deserts. In addition, Bill has been working on a larger "Threats Analysis" document which should be completed shortly and distributed. This document would greatly assist the MOG/TAC in prioritizing workshops in the future.

In summary, the following points were made during the meeting:

1. In general, several RUs barely meet the recommended 1,000 square miles of conserved tortoise habitat recommended by the Desert Tortoise Recovery Team as identified in the Recovery Plan. In addition, when experimental zones are considered to be used for other purposes including disposal, the available area for recovery may be reduced by up to 1%.

2. Once all land use plans are approved and initiated rangewide the MOG/TAC felt that greater solidarity among constituents and stakeholders would result.

3. Stakeholders should play a role in the development of monitoring recovery and participate in the implementation of recovery actions.

4. Recovery accomplishments vary greatly among RUs. The smallest RU, the Upper Virgin River RU, has implemented many of the necessary actions addressing threats to tortoise populations, *e.g.*, fencing along roads, reducing impacts from grazing, designating a desert tortoise translocation area, designating roads and reducing road proliferation, and rehabilitating disturbed habitat. RUs in California are a few years behind but nearing completion of bioregional plans with recovery implementation components.

5. The 1994 Desert Tortoise Recovery Plan is still adequate and valid, and therefore, does not need to be revised at this time. The threats that were outlined with the Recovery Plan are as valid today as when the plan was written, as demonstrated by the recent listing of threats which are nearly identical to those outlined in the Plan. The focus ahead should be implementation of recommendations outlined in the Recovery Plan, including monitoring the actions undertaken.

6. Land use plans in California should be finalized as soon as possible.

7. A number of science based workshops need to be held to evaluate disease and threats to the desert tortoise.

8. There is a perceived lack of public support for the desert tortoise program Possibly more public exposure with television, radio, and newspaper articles would bolster public support.

9. **Once the GAO draft review is made public (August 2002), and the MOG meeting is held on September 19, 2002, the MOG/TAC should meet again. The tentative meeting dates are October 23 or 24, 2002.**

Proposed Workshops

Disease Workshop

The tentative date and location for the Disease Workshop is November 14-17, 2002, in Zzyzx, California, which has a maximum capacity of 40 people. A discussion of the "Disease Workshop" followed. Comments and recommendations presented include:

a) Declines in tortoise populations have been documented on Permanent Study Plots and a number of entire shells were found while conducting Line Distance Sampling transects during 2001 and 2002.

b) The workshop should be designed to review what is perceived, what has been learned, and what needs to be done.

c) We need to discuss disease in relation to headstarting and translocation, and disseminate the results of such discussions.

d) We need to obtain new information pertaining to heavy metals, toxicants, herpes virus, shell disease, and bone lesions.

e) Vertical transmission of disease and die-offs should be included as topics.

f) Recommendations to management should be an outcome of the disease meeting.

Bob Williams, Field Supervisor for the Nevada Fish and Wildlife Office, proposed the following questions pertaining to the upcoming workshop on disease:

- Who should attend the meeting?
- What are the hypotheses?
- What topics will be discussed?
- Where do we go from here?

Most importantly, consensus should be reached on disease issues including recommendations to managers. Additionally, Clark County, Nevada issues need to be resolved or addressed at the workshop, *e.g.*, translocation, housing animals, and the status and disposition of ELISA-positive tortoises.

Participants in the disease workshop represent all areas across the geographic range of the desert tortoise. Eminently qualified individuals should be invited to evaluate what has, and has not been not done, and what needs to be done in the future. Participants such as Dr. Earl McCoy and others should be invited to critique the workshop.

Copies of the summaries for the two previous disease workshops (Las Vegas, Nevada, October 12-13, 1989, and Soda Springs, California, October 31-November 3, 1996) have been sent to Jill Heaton at the University of Redlands for redistribution to MOG/TAC members by email.

Tortoise Population Monitoring Workshop

The MOG/TAC felt that the primary task of the MOG is to ensure adequate funding is available for monitoring. The question arose, *why are we still collecting plot data*? In response, a recommendation was made to hold a workshop to evaluate the efficacy of Line Distance Sampling (LDS) and Study Plots. A discussion of the merits of LDS and Study Plots needs to take place in order to determine what gets done during periods of limited financial resources. Some meeting participants contended that conducting Study Plots censuses recommended in the Recovery Plan and is consistent with the delisting criteria for population monitoring. Such a workshop held prior to the next field season would be beneficial but there may not be sufficient time to complete this year. The LDS-Study Plot issue was not resolved at the meeting and, therefore, should be addressed at the workshop

Another important monitoring issue is when to sample, or not sample populations, particularly before contracting and training starts. An evaluation of rainfall during the fall and winter, *i.e.*, 1"-2" falling between late September and early January, should ensure the growth of winter annuals which tortoises consume. If rainfall is insufficient and no surface germination occurs, perhaps sampling should not occur. Funding priorities, therefore should be allocated to enhance recovery actions, including future sampling.

Steve Corn suggested the following: Continuing to sample every year for 5 consecutive years to complete the baseline. If the sample size is sufficient to compute a range-wide density estimate, the data set is valuable. Focal animal data are collected specifically to compensate for variation in activity among years. Data can also be pooled across years to obtain a single mean density for the baseline period. We are less concerned with year-to-year variation during this baseline period, than with obtaining a sound view of the current status of tortoises, and the more data we collect now, the more power we'll have to detect trends later.

Threats Workshop

A committee was formed to craft a proposal for a "Threats" workshop. The committee consists of Larry Foreman, Bill Boarman, Jill Heaton, Phil Medica, and Dick Tracy. The group will review land use plans and the perceived threats, and will organize threats to facilitate workshops on one or more threat groups if possible, e.g.,. predators. The ultimate goal is to build a model based upon GIS to enable one to change a parameter (threat) and see how it changes the model.

Appendix A: **THREATS TO THE MOJAVE POPULATION OF THE DESERT TORTOISE** (Threat order does not reflect any prioritization).

UPPER VIRGIN RIVER RECOVERY UNIT

- Fire
- Exotic plants
- Disease
- Recreation, including mountain biking
- Release of captive tortoises

NORTHEASTERN MOJAVE

- Fire (CO_2)
- Exotic plants (*Brassica*)
- Disease
- Recreation
- Energy development
- Road mortality
- Urban development
- Predation: Ravens, feral dogs
- Fragmentation
- Human access
- OHV's
- Vandalism (habitat and tortoises)
- Mine shafts

EASTERN MOJAVE

- Exotic plants
- Disease
- Road mortality
- Predation: Ravens
- Mine shafts
- Burros
- Grazing
- Effects of livestock removal
- Sound and light
- Toxicants

EASTERN MOJAVE (Continued)

- Herbicides
- Insecticide
- Mine tailings

NORTHERN COLORADO

- Shell disease
- Road mortality (culverts)
- Grazing
- Toxicants

EASTERN COLORADO

- Fire
- Exotic plants (e.g., *Brassica*)
- Shell disease
- Recreation
- Road mortality (culverts)

WESTERN MOJAVE

- Fire
- Exotic plants
- Disease/post epidemic
- Recreation
- Road mortality
- Urban development
- Predation: Ravens, feral dogs
- Agriculture and landfills
- Human access
- Habitat fragmentation
- Mine shafts
- Grazing
- Environmental contaminants, air pollution
- DOD military maneuvers
- Mine shafts
- Poaching