

Partners for the Desert



2001
ANNUAL REPORT



DESERT
MANAGERS GROUP

Desert Managers Group 2001 Annual Report

DMG Members

State of California

Department of Fish and Game

Department of Parks and Recreation

Department of Transportation (Caltrans)

Department of the Defense (DOD)

Naval Air Weapons Station, China Lake

Edwards Air Force Base

National Training Center, Fort Irwin

Marine Air Ground Task Force Training Center, Twenty-nine Palms

Marine Corps Logistics Base, Barstow

Marine Corps Air Station, Yuma, Arizona

Department of the Interior (DOI)

Bureau of Land Management (BLM)

National Park Service (NPS)

Fish and Wildlife Service (FWS)

Geological Survey (USGS)

For more information

Desert Managers Group: www.dmg.gov

**California desert recreational opportunities
and resources: www.californiadesert.gov**

Contents

The DMG: Integrating management of the California deserts	1
Resource Conservation and Management	2
Salt cedar removal restores desert rivers	3
Ending the tradition of desert dumping	4
Reducing burro populations leads to recovery of native plants and animals	5
The Millenium Conference provided a forum for discussions of paleontological and cultural resources	6
The California Historic Resource Information System (CHRIS) provides regional data management of cultural resources	7
Science and Data Management	8
Desert tortoise population monitoring will provide data to assess recovery efforts	9
Wetlands inventory lays the groundwork for effective management of precious desert water resources	10
Spatial data standards facilitate sharing information for land management and planning	11
DMG Program Management	12
Comprehensive evaluation of the DMG aimed at improving the effectiveness of collaborative efforts	13

Resource Conservation and Management



Salt cedar removal restores desert rivers

The California deserts have been subject to the invasion and spread of many non-native plant and animal species. One of the most problematic has been salt cedar (*Tamarix ramosissima*)—a native to Eurasia that has invaded most riparian areas and spring habitats within the deserts. These habitats are rare, biologically rich, and critically important to a healthy ecosystem. Salt cedar effectively out-competes native flora, provides little wildlife forage, uses massive amounts of water, and is often so dense that many animals cannot reach the associated water sources. The removal of salt cedar results in a tremendous increase in biological diversity due to the re-establishment of native plant and animal species.

Two outstanding examples of riparian recovery efforts were partially funded through the DMG restoration initiative: the Amargosa River and the Afton Canyon portion of the Mojave River, both on public lands managed by the BLM's Barstow Field Office.

The Amargosa River is born in the mountains of Nevada and crosses private and public lands before reaching its terminus in Death Valley



Chemical treatment is one step in the removal process.

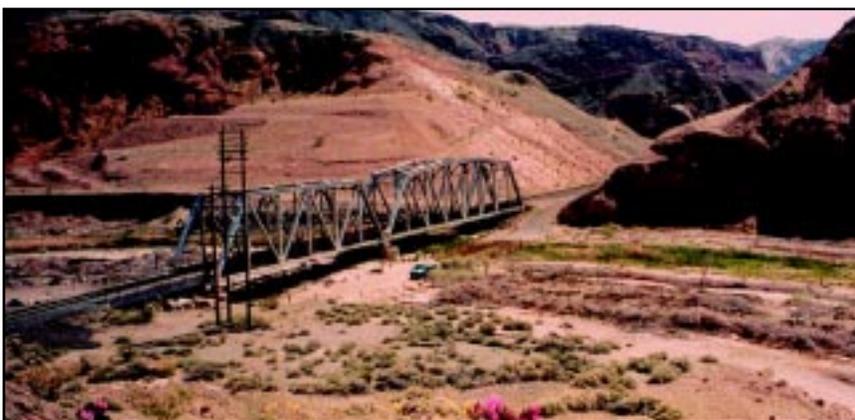
National Park. The Amargosa forms a major riparian artery in an otherwise arid landscape. Four-hundred acres of public lands along the river have been identified for salt cedar removal. Thirty acres were treated in Fiscal Year 2001 at a cost of \$35,000 or about \$1,200 per acre.

The Mojave River flows from the San Bernardino Mountains above Hesperia across private and public lands to its terminus at Soda Lake within Mojave National Preserve. The Afton Canyon reach, which flows through BLM's Afton Canyon Area of Critical Environmental Concern, has been identified as a priority for salt cedar treatment. Within Afton Canyon, 233 acres have been treated. The initiative funded treatment of fifty acres during Fiscal Year 2001 at a cost of about \$58,000 or about \$1,200 per acre. Work in both Afton Canyon and the Amargosa River was accomplished by the BLM in partnership with the California Conservation Corps (CCC).

Although great effort has been expended to control salt cedar, most have been small-scale restoration projects. To be effective, a watershed approach is needed to contain upstream and downstream infestations of salt cedar. The DMG's focus has been to create a partnership of federal, state, local and private entities to control salt cedar on a watershed basis. A database of riparian sites requiring restoration efforts will be developed and maintained on the World Wide Web to provide managers with a broad scale perspective on the extent of the problem and how it might best be addressed. With such vast areas of the desert affected, collaborative efforts and shared resources are critical to making dollars stretch farther and maximizing long term success.

For more information, contact Russ Scofield at 760-365-0955.

Before and after salt cedar removal in Afton Canyon.



Ending the tradition of desert dumping



Illegal dumping has been taking place in the California deserts for many years. A variety of materials such as old furniture, household trash, worn out vehicles, auto parts, scrap tires, construction debris, appliances and household hazardous waste are dumped illegally. Some of these items are banned from landfills and in many cases its more convenient and less expensive to dump trash in the desert than it is to dispose of it legally. In addition to creating a blot on the landscape and reducing property values, illegal dumps pose a human health threat in some areas and create artificial habitat for the raven, which is a major predator of juvenile desert tortoises. Because illegal dumping is a serious concern throughout the California deserts, the DMG began an initiative aimed at cleaning up illegal dumps and reducing the incidence of illegal dumping in the future.

The DMG Hazardous Material Work Group developed a detailed work plan and interagency budget request to address illegal dumping in the deserts. The work plan calls for cleaning up 10 to 20 illegal dumps annually, educating the public about the problems associated with illegal dumping, enforcing existing laws, and providing viable alternatives to illegal dumping. In Fiscal Year 2001 the BLM received \$172,000 to implement the program. Accomplishments include:



above: A partnership with the California Integrated Waste Management Board contributed to cleaning up this area.

left: Illegal dumps mar the desert landscape.

- Partnerships were established with the California Integrated Waste Management Board, and San Bernardino and Los Angeles counties.
- \$220,000 in grants and in-kind services were provided by partner agencies; 28 dumps were cleaned up.
- A plan for preventing illegal dumping was approved by the DMG. The plan will be implemented in Fiscal Year 2002.
- A contractor was funded to complete a systematic inventory of illegal dumps throughout the desert.

For more information, contact Russell Scofield at 760-365-0955.

Reducing burro populations leads to recovery of native plants and animals



Domesticated in Africa and brought to the southwest by Spanish explorers, burros are prolific breeders and are well-adapted to the desert.

Early settlers and miners introduced burros to the desert and their numbers increased dramatically due to a lack of natural predators and their adaptability to the desert environment. Uncontrolled populations resulted in extreme overgrazing, local extirpation of some native plant species, and declines in biological diversity around spring areas. The BLM is mandated to manage burro populations at “appropriate management levels.” The NPS goal is total elimination of burros from National Park units. However, due to a lack of funds and a coordinated plan, management efforts were fragmented and largely ineffective. In 1998, the DMG began discussions aimed at developing a coordinated, desert-wide plan for managing wild burros. In January 1999, the Strategic Plan for the Management of Wild Burros was finalized which established goals and objectives for burro management and committed NPS, BLM, FWS and state agencies to share staff and resources to manage wild burros in the most effective and efficient manner possible.

Under this strategy, over 2800 burros have been gathered by BLM, NPS and DOD over the past three years. All of these burros have or will be placed in private or BLM sponsored adoption programs. In Fiscal Year 2001, BLM also began working with California Department of Fish

and Game on a four-year study to track the movements of both burros and deer within the Picacho and Chocolate-Mule mountain region. BLM also initiated habitat monitoring within the herd management areas, focusing on the impacts of burros on riparian and threatened and endangered species habitat. Assuming continued funding support and adoptions, the burro management goal of the various agencies will be met by 2003. Beyond Fiscal Year 2003, the primary need will be for continued removal and adoptions to keep populations in check, burro population and rangeland monitoring, and implementation of management actions to minimize burro impacts.

For more information, contact Dave Sjaastad at 760-384-5430.



Helicopters are used to round up burros for wranglers on horseback to gather.

Results of burro gathers and adoptions for Fiscal Year (FY) 1999, 2000 and 2001 with proposed targets for FY 2002.

	FY99	FY00	FY01	FY02
Planned Number of Burros to be Gathered	1108	1017	1000	1065
Actual Numbers of Burros Gathered				
BLM	184	124	265	675
NPS	600	508	377	100
BLM/NPS	205	197	31	190
BLM/DOD	119	188	246	100
Total Gathered	1108	778	919	1065
Burros Placed				
BLM Adoption	529	457	440	400
Interest Groups/Contractors	579	560	377	100
Total Placed	1108	1017	817	500

The Millennium Conference provided a forum for discussions of paleontological and cultural resources

The DMG Paleontology and Cultural Resources Work Group (PACRAT) conducted a public conference, May 9–12, 2001, to hear over 75 reports from scholars who have made significant contributions to the understanding of cultural and paleontological resources in the California deserts. The conference explored the accumulated knowledge from archeology, history, native studies, landscapes, architecture and paleontology of California's deserts. The purpose of the Millennium Conference was to:

- Review significant contributions to cultural resources.
- Review the status of our knowledge in the respective cultural resource fields.
- Identify research/information needs in these areas.
- Recommend future research direction for public education related to cultural resource protection.

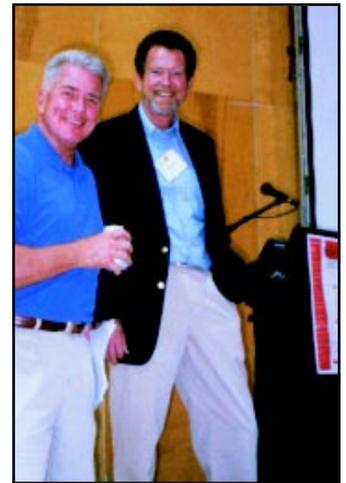
Over 250 leading researchers, native cultural experts, contemporary tribal experts, agency staff and interested individuals participated in sessions. The speakers, panel presentations, and poster displays focused on the thousands of years of Indian desert occupation, changes over the past two hundred years from railroad, military, mining, agriculture, recreational land uses, and late 20th century public lands conservation initiatives.

Key points that surfaced include:

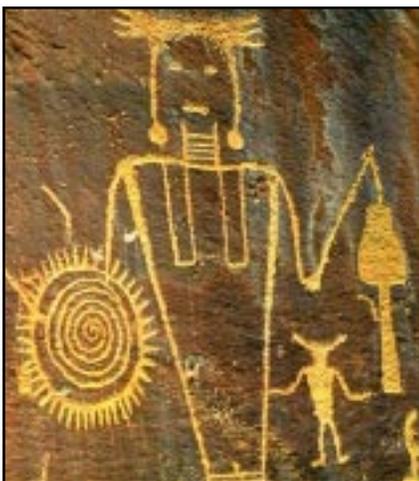
- The California deserts are one of the most significant centers of cultural and paleontological resources in the world.
- Cultural and paleontological resources in the California deserts are disappearing at an alarming rate due to vandalism, neglect, and natural deterioration.
- Cultural and paleontological resources should be managed holistically as part of a cultural landscape (not as individual sites).
- There is a critical need for a comprehensive inventory and evaluation of these resources as part of a long-term protection strategy.
- Interagency databases should be developed to facilitate a comprehensive evaluation of cultural resources.
- While the public places great value on cultural resources and landscape, there is a need to develop a greater public constituency for California deserts' cultural and paleontological resources.

The consensus of the participants was that the conference was an excellent forum for everyone to share ideas and the results of their work and that it should become a regular, periodic event.

For more information contact Russell Kaldenburg (BLM) at 916-978-4630 x4635, or Roger Kelly (NPS) at 510-817-1400.



Huell Howser and John Hamill at the Millennium Conference.



Cultural resources such as these petroglyphs at Inscription Canyon are easily damaged by vandalism.

The California Historic Resource Information System provides regional data management of cultural resources

The Mojave Desert Historical Resource GIS Project is an effort to support multi-agency, cooperative management of cultural/historical resources in the Mojave Desert. Cultural resource management is grounded in the concept of “context.” Decisions about how best to manage and treat a resource are based not only on the resource itself, but also on information about other resources in the area, their relationships to each other, and their values and meaning as a whole. Cultural and historic resources frequently do not correlate with modern-day land ownership and land management boundaries. To efficiently manage cultural/historical resources, management agencies need access to a broad-based, inclusive resource information base. By coordinating and combining their resources, the DMG and Office of Historic Preservation’s California Historic Resource Information System are providing a complete and consistent information base that allows cultural/historical resource managers to cooperatively, consistently, and efficiently manage the Mojave Desert’s cultural/historical resources.

Database development and scanning of all associated site records for the Mojave Desert Historic Resources GIS (MDHRGIS) system, a subset of the California Historic Resource Information System (CHRIS), was completed. A CD-ROM set, containing the cultural resource data for their land management area along with a four-paper map set, was provided to each



The Rock House in Mojave National Preserve.

MDHRGIS partner agency. One final deliverable remains in this effort—establishing electronic connection of each partner agency to the CHRIS server. This will allow each agency to download, digitally via the Internet, updates on cultural resources in their respective land management areas and allow them to assess their cultural resources in context with similar resources throughout the region. Completion of electronic connection for each partner desiring to be connected to the system is scheduled for September 2002. The California State Historic Preservation Office (CASHPO) conducted several training sessions to familiarize users with the ArcView software used by the system. More training sessions will be conducted in the future. The CASHPO also agreed to support maintenance for the CHRIS system for the next two years.

For more information contact Eric Allison at 916-653-7278.

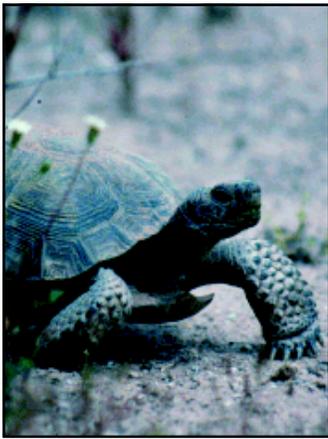
below: Blythe geoglyphs from the air.

right: Plank road crosses desert sands.



Science and Data Management





The desert tortoise was added to the federal list of threatened species in 1990.

Desert tortoise population monitoring will provide data to assess recovery efforts

In 2001, a multi-year desert tortoise population study was initiated on 4.7 million acres of critical habitat in the California deserts. Over the next several years, the study will establish the population baseline to evaluate whether tortoise populations are increasing, stable, or declining, and assess the effectiveness of recovery efforts. The monitoring technique that is being used is known as Line Distance Sampling (LDS), a technique that is widely used to monitor bird and mammal populations. This is the first time funding and coordination has allowed its use to monitor desert tortoise populations throughout the Mojave Desert.

The Fish and Wildlife Service is coordinating the monitoring effort on behalf of DMG agencies. In Fiscal Year 2001, over 70 agency and contract personnel were trained in the use

of the LDS protocols. Approximately 3000 kilometers of transects were sampled in recovery units in the Mojave Desert on lands managed by the BLM, NPS, and DOD. The tortoise monitoring data are being maintained in an interagency database that was established by the DOD Mojave Desert Ecosystem Program (MDEP). The number of tortoises that were encountered in 2001 (388) was relatively small and less than needed to establish statistically reliable baseline estimates of tortoise density. In Fiscal Year 2002, the sampling protocols will be adjusted and an increased area sampled to provide reliable estimates of tortoise density. A complete report on the 2001 tortoise monitoring effort will be available in early 2002.

For more information, contact Phil Medica at 702-515-5245.

Desert tortoise monitoring areas.



Wetlands inventory lays the groundwork for effective management of precious desert water resources



Springs, seeps, playa lakes, marshes, oases, and other wetland areas are extremely scarce in California deserts. However, these areas support human settlement, are rich in bio-diversity, and provide habitat for 35 endangered, threatened, and sensitive plants and animals. Human activities and invasive species have seriously impacted natural springs and wetlands in the California deserts over the past century. Rapid population growth in southern California and Nevada, related plans to export the deserts' underground water resources, and increased recreation use will further impact critical desert water and related biological resources. Information on the deserts' water and water-dependant biological resources is essential to effective stewardship of desert water resources to meet both human and environmental needs in the California deserts.

Under the auspices of the Desert Managers Group, NPS, GS, BLM, FWS, and several DOD facilities initiated an interagency study aimed at improving management and protection of water and biological resources. The DMG water study includes mapping the distribution of wetlands throughout the deserts, assessing the hydrological and biological characteristics of priority wetlands and riparian sites, and

implementing actions to restore their Proper Functioning Condition (PFC).

In Fiscal Year 2001, the FWS National Wetlands Inventory Program mapped wetlands on thirteen 7.5-minute USGS quadrangles and digitized the wetlands on 52 quads that were previously mapped. The National Wetlands Inventory maps will be made accessible to management agencies through the DMG website being maintained by DOD's Mojave Desert Ecosystem Program. In addition, under the leadership of the USGS, standard protocols were developed for collecting hydrological and biological data, and an interagency data management system was developed by DOD. In March 2001, approximately 60 staff representing all the land management agencies in the deserts participated in a training session on use of the standardized protocols. In FY 02, BLM, NPS and DOD will begin assessing the hydrological and biological conditions of priority springs and wetlands using the standardized protocols.

For more information on the DMG water study, contact Annie Kearns at 760-255-8815

Scarce water resources support a diversity of plants and animals.

Spatial data standards facilitate sharing information for land management and planning



top left: Setting up a sound monitoring station. The data is one of many spatial data sets conforming to common standards.

bottom right: A GPS unit is used to record the precise location of a mine site.

Spatial data standards vary considerably among the DMG partners. These differences hinder the manner in which agencies can share related information, a necessity for the execution of common, collaborative efforts. To address this problem, the DMG Data Management Work Group developed common spatial data standards to facilitate the sharing of geographic data among DMG participants. The Work Group also developed the minimum metadata that should be documented for each data set that will be made available for sharing. The metadata requirements developed were based on Federal Geographic Data Committee standards and are designed to

document the source, vintage, limitations, and other basic characteristics of a data set.

The Mojave Desert Ecosystem Program has established a Geographic Information System (GIS) containing over 50 maps of natural and cultural resources in the California deserts (see www.mojavedata.gov). To expand the database, each manager will provide a minimum of five corporate data sets, adhering to the new data standards.

For additional information contact James Essex at 760-255-8898.

DMG Program Management



Comprehensive evaluation of the DMG aimed at improving the effectiveness of collaborative efforts

In Fiscal Year 2001, the DMG initiated a comprehensive evaluation of its effectiveness, priorities, and operating procedures. Surveys of the managers and DMG work group members along with several professionally facilitated meetings lead to the following conclusions:

1. The DMG plays a valuable role in fostering better management of the California deserts.
2. The primary value of participating in the DMG is to meet people with shared professional interests and responsibilities and network with those contacts in a way that is valuable to them personally.
3. The DMG plays an important role in helping to identify and/or facilitate collaborative projects and ecosystem initiatives among participating agencies.
4. Significant additional funding for DMG collaborative projects will not be forthcoming from either the federal or state government in the foreseeable future. Consequently, new initiatives will need to be funded from existing agency budgets or non-traditional sources (e.g., grants).
5. The ability of the DMG to achieve common goals comes exclusively from the member agencies and the leadership they provide (i.e., the DMG has no independent authority to design or direct work in the California deserts).

Based on these findings, the DMG agreed to the following changes:

1. DMG meetings will be structured to foster a broader level of networking among the managers and key stakeholders in the California deserts.
2. The DMG will encourage but not manage interagency collaborative projects. Project management will be provided by a lead agency that is directly involved in the project. The DMG Coordinators will provide guidance and assistance to the agencies, as requested.
3. The DMG will continue to coordinate and/or sponsor training programs that meet the special needs and interests of its members.



4. The DMG will sponsor a collaborative resource management class for managers and key staff to enhance communication and collaboration skills, build trust, and create a shared vision for the California deserts.
5. The number of goals and projects included in the DMG 5-Year Plan will be scaled back to address only the highest priority needs commensurate with the available level of staff, funds and agency support.
6. Managers will provide adequate time and performance incentives for their staff's work on collaborative projects.
7. Some DMG work groups have completed their mission or no longer support an active agenda. The Paleontology and Cultural Resources, Hazardous Materials, and Overflight work groups will continue as active standing DMG committees. By April 2002, the Managers will evaluate the Data Management, Restoration, Desert Information Resources, Wilderness, and Law Enforcement work groups to determine if they will remain active or be formally placed in an inactive status. The Science Team will be placed in an inactive status.
8. As needed, the Managers will establish ad hoc work groups to address specific goals/projects in the DMG 5-Year Plan.
9. Each agency will evaluate and determine the best strategy for securing the resources needed to support its participation in DMG collaborative projects. The agencies will then discuss how best to secure funding in a coordinated and timely manner.

For more information, contact John Hamill (DOI) at 760-255-8888 or Clarence Everly (DOD) at 760-255-8896.

