

# Ca Ventana en los Valles

*News of the Valles Caldera National Preserve  
from the Valles Caldera Trust*

## *Climate Variability Drives Valles Caldera Grassland Productivity*

*by Dr. Robert R. Parmenter, Preserve Scientist*

Production of grasses and forbs in the valles of the Preserve is critical to the maintenance of healthy and sustainable ecosystems. The rich grasslands of the Preserve's valles support a vast array of herbivores, including elk and livestock, small mammals such as rabbits, field mice and gophers, seed-eating birds, insects, fungi, and microbes. In addition, the dense growth of healthy grasslands prevents soil erosion and contributes to soil organic matter enrichment and carbon storage. Many of the Trust's operations and programs depend in large part on the continued productivity of the valles, including wildlife viewing, hunting, and



[Above] The meteorological station in the Valle Grande. This station also includes a NOAA Climate Reference Network station, with hourly weather data posted on the Internet at:

[http://www.ncdc.noaa.gov/crn/hourly?station\\_id=1138](http://www.ncdc.noaa.gov/crn/hourly?station_id=1138)

[Below] Summer rainstorm in the Valle Grande.

(All photos with this article are courtesy of the author.)

*The Valles Caldera Trust oversees the Valles Caldera National Preserve, formerly the privately owned "Baca Ranch." The 89,000 acre property is located in the Jemez Mountains in northern New Mexico. It was purchased by the federal government in 2000 under the Valles Caldera Preservation Act. The property is known for its huge meadows, abundant wildlife, meandering streams, and remarkable scenery. The mission of the Trust is to create a successful model of public land management that protects and preserves the unique values of the Preserve. Toward that end, the Trust will operate the Preserve as a working ranch; strive to become financially self-sustaining; meet the varied needs of visitors; strive to use and steward the multiple resources of the Preserve; and work collaboratively with our neighbors.*



(con't on page 10)

## The Valles Caldera Trust

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Jemez Springs, NM 87025  
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Lucia Turner, Acting Executive Director

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The Board of Trustees is composed of seven members appointed by the President of the United States and two who serve ex officio (Superintendent of Bandelier and Supervisor of Santa Fe National Forest). The appointed Trustees generally serve four-year terms and, except for the Chair, receive no compensation for their work.

*If you would like to receive a copy of the Comprehensive Management Framework, the Annual Report to Congress, the State of the Preserve, or notices regarding events, public Board meetings, or planning for management of the Valles Caldera National Preserve, contact*  
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## Trust Selects Acting Executive Director

The Valles Caldera Trust has announced the selection of Lucia Sandoval Turner for the position of Acting Executive Director. Ms. Turner recently retired from the Forest Service as Deputy Regional Forester of the Southwest Region. She has been involved with the Valles Caldera since the property was purchased by the Federal government in 2000 and is familiar with all aspects of the Trust and the Preserve.

William B. Keleher, Chairman of the Board of Trustees, stated, "The Trust is very fortunate to have someone with Ms. Turner's experience. She is a native of New Mexico and a direct descendent of Luis Maria Cabeza de Baca."

Keleher stated that the Board of Trustees will be seeking a permanent Executive Director and advertising the position in the near future.

Jeffrey Cross, the previous Executive Director, resigned to accept a position with the National Park Service's Natural Resource Program Center as Chief of Ocean and Coastal Resources.

### "Catalyst for Progress"

Ms. Turner stated that she wants "to be a catalyst for significant progress in enabling the Valles Caldera National Preserve and the Trust to meet the goal of achieving a financially self-sustaining operation by the year 2015. In addition, I want to leverage the knowledge, skill, and experience gained in my 42 years of Federal employment to protect and preserve the scientific, scenic, and natural values of the Preserve while offering public recreation opportunities and operating a working ranch."

From May 2002 to February 2008, Turner was Deputy Regional Forester, U.S. Department of Agriculture - Forest Service, Southwestern Region. She has 42 years of combined experience in the USDA with the Forest Service and Farm Service Agency. Over 28 of those years were in leadership

(con't on page 11)

## *From Trust Chair, William B. Keleher*

In the Winter-Spring 2008 Issue of *La Ventana de Los Valles*, three major points were discussed in my Chairman's column and an update is appropriate.

### *Appropriation*

First, as to the appropriation of the Trust for the fiscal year 2009, we are now confident Congress will appropriate sufficient funds for the Preserve to carry on the contemplated activities during the year.

### *Grazing*

Second, as to livestock grazing, six proposals for grazing were submitted. Each proposal was rated on the applicant's livestock management plan and resource protection strategy, experience of the applicant and key personnel, the benefit to local communities as well as the economic return to the trust. Gary Morton, the successful applicant, has moved 2,000 steer yearlings to the Preserve for the summer grazing season. Range conditions will be monitored to determine when cattle rotation should take place. Cattle are to be herded away from the riparian areas at every opportunity.

The Trust believes cattle operations will continue only if the natural resources of the land are preserved. We believe that, by Fall, the Preserve will have demonstrated that 2,000 head of cattle grazing on the Preserve are compatible with the other activities of the Preserve.

### *Business Plan*

Third, with respect to the requests for proposals to develop a Business Plan, ENTRIX, Inc., a company with experience with a variety of planning activities, was hired by the Trust. ENTRIX will focus on economic feasibility and recreation planning and is to deliver a plan which sets forth the suitability of various economic activities within

the Valles Caldera Preserve. As described in the ENTRIX proposal, "A Business Plan is a written document that describes

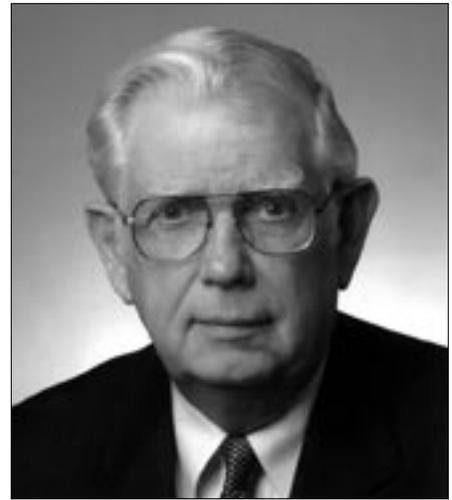
in detail all the operating, managerial, and financial characteristics of a company or business enterprise." Once the Business Plan has been reviewed by the Board of Trustees, a decision will be made on whether the proposed plan is acceptable, whether modifications are needed, and how to proceed. Compliance with NEPA will be part of the process before a Business Plan can be implemented.

For the Trust to be financially viable, as mandated in the Valles Caldera Preservation Act, a sound Business Plan will be needed. We will need the public's input as we proceed, for without the support of the public, the Trust will not succeed.

### *Executive Director*

It is with regret that we accept the resignation of Jeff Cross, Executive Director, who accepted a position as Chief of Ocean & Coastal Resources at the National Resources Program Center of the National Park Service. We wish Jeff well in his new position and thank him for his many contributions as Executive Director of the Trust. The board has engaged an Acting Executive Director (see story on page 2) and will start searching soon for a permanent Executive Director.

Again, I want to thank Los Amigos de Valles Caldera for their support and encouragement. The path ahead may be rocky but, hopefully, we will succeed.



# Biologists Study Coyote Ecology in Valle Grande

by Suzanne Gifford, Graduate Student, Utah State University

Often portrayed in stories as a trickster or shameless trouble maker, the coyote is a conspicuous member of the Valles Caldera community. Its adaptive nature allows the coyote to play diverse roles, including scavenger, predator of large and small prey, and even a consumer of vegetation. Though coyotes are abundant throughout the United States, the Valles Caldera offers a somewhat rare opportunity to observe coyotes closely because of the visibility afforded by the vast open meadows (see photo on page 12). Because of their potential to interact with numerous other species, including the Preserve's elk herd, it is important to understand the role of coyotes in the Valles Caldera ecosystem and how their role changes in relation to climate fluctuations and the abundance and health of other creatures on the Preserve.

## Began in 2005

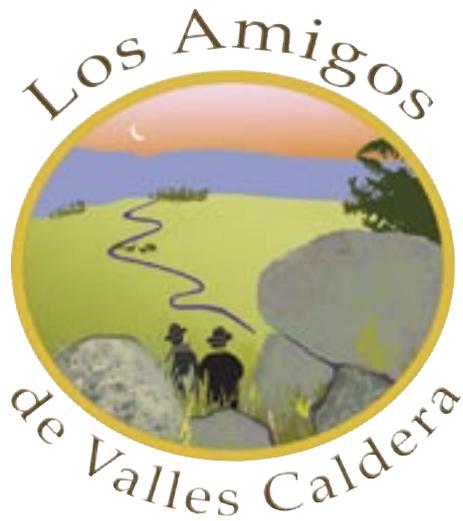
With co-funding from the USDA Forest Service, Rocky Mountain Research Station, and Los Alamos National Laboratory, and support from many citizen volunteers, the Valles Caldera Trust began a study in 2005 to answer some basic ecological and behavioral questions relating to both resident and transient coyotes on the Preserve. Through radio tracking and direct observations of coyotes, as well as collecting and analyzing coyote fecal pellets (scats) for diet composition, Preserve biologists are learning how coyotes use the landscape in the vicinity of the Valle Grande, and what impacts they might have on their prey populations. To date, 35 coyotes have been captured and fitted with radio-transmitter collars, marked with ear tags, and released (see photos at right). Radio signals from the collars allow scientists to locate and observe individuals. Most of the collars

[Right] Utah State University graduate student Suzanne Gifford with captured coyote in the Valle Grande, autumn 2005. (Photo courtesy of Molly Padgett.) [Below] Biologists transport a muzzled coyote from a helicopter during a capture campaign in winter 2008, then fit it with a GPS radio-transmitter



collar and ear tags before releasing it back into its territory in the Valle Grande. (Photos courtesy of J. Kinzer.)

(con't on page 12)



Summer 2008

## News from Los Amigos

*Supporting the Valles Caldera  
National Preserve  
for Present and Future Generations*

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### *Los Amigos Donates Signs to the Preserve*

Los Amigos de Valles Caldera recently donated two temporary signs to the Preserve. They are bright yellow polyethylene sandwich board signs for use along the highway in Jemez Springs at the gift shop, and along Highway 4 at the far northern pullout for the Highway Information Program. They are about 2'x2' in size and direct the passing motorists to the gift shop and highway volunteers passing out information. They contain about five pounds of sand for ballast to accommodate New Mexico spring winds.

TKThompson of Los Amigos reported they are already making a difference at the Jemez Springs Gift Shop. Customer counts the first day the signs were in place (Wednesday, May 28, 2008) were about twice the previous day without any signs in place! Shop sales followed the same general trend. He noted that several customers made the statement that, "We have driven by here for a year and never knew this shop

existed." The new sign also enticed several visitors to the Jemez Monument across the street to come over and see what the Valles Caldera National Preserve was all about!

The signs also will prove to be very helpful in the Highway 4 Information Program, Thompson said. He worked that program last year and sometimes people in cars were rather dubious of strange looking bearded persons approaching them with literature in hand (shades of the Hare Krishnas in Chicago's O'Hare International Airport!). The signs will announce that



*The new sign beside the highway at the Jemez Springs Gift Shop. (Photo courtesy of TK Thompson.)*

Valles Caldera Information is ahead and you won't be mugged!

This is a low cost way for your Los Amigos dues to make a significant contribution to the Valles Caldera National Preserve's operation and financial well-being. Thanks to all Amigos for making this possible!!!!

# June 7: Historic District Clean-up

On June 7, Los Amigos volunteers came out to help the Preserve clean up the Historic Headquarters Area in preparation for the summer recreation season.

We started the day with a talk by Acting Cultural Resources Coordinator Ana Steffen and Shannon Dennison of Bandelier National Monument, who discussed the historic structures in the headquarters dis-



trict, including their character-defining architectural features and historic integrity, and offered an array of best approaches for preserving those historic architectural and design features.

After the talk, we ate lunch at the Information cabin. After enjoying a rest on the grass with a beautiful view of the Valle Grande, Trust (and Los Amigos) Board member Tracy Hephner and Trust Landscape Architect Rourke McDermott led us as we did maintenance in the headquarters area. We broke into two groups: one painted propane tanks and the other built wooden enclosures around them.

This page: [Above] The group listens to Ana at the Foreman's Cabin. [Below] Members enjoy lunch and the view. [Top right] Enclosure building. [Bottom right] Enclosure around the newly painted propane tank. Page 7: [Right] The Forest Service crew attacks a fallen ponderosa. [Left] Workers rest at the end of the day. (Photos courtesy of Greg and Karen Kendall.)



(con't on page 7)

## *Clean-up*

(con't from page 6)



Several volunteers from the Forest Service who were chain-saw certified spent their time cleaning up a ponderosa that had fallen in the historic district.

The volunteers were very interested in the morning's talk, including a brief discussion of Jemez Pueblo's history on the Preserve by elder Paul Tosa who was a four-term Governor for Jemez Pueblo and is a lifetime appointee to the Jemez Tribal Council. Everyone was ready to go in the afternoon and hoping to get a lot done. Even so, we were missing some latillas and other supplies and so were not able to complete all the tasks we had hoped to get to. Therefore, we are planning a second clean-up in conjunction with the BBQ on July 20.

### *Supporting Los Amigos*

The Board of Directors of Los Amigos de Valles Caldera has created two new opportunities for individuals to contribute to the Los Amigos mission of supporting the Valles Caldera National Preserve for present and future generations.

#### *The Obsidian Guild*

The Valles Caldera Obsidian Guild recognizes individuals who provide support for the Valles Caldera National Preserve through planned gifts. Membership belongs to those who have made deferred gifts to Los Amigos de Valles Caldera through one or more of the following methods:

- provision in a will or revocable trust;
- retirement plan beneficiary designation; or
- life insurance policy beneficiary designation.

Members of the Obsidian Guild share a common bond of generosity and visionary leadership, nourishing the Preserve's unique assets. An optional benefit of membership is the listing of Obsidian Guild members in Los Amigos publications from time to time. Members who inform Los Amigos of deferred gifts made in 2008 and 2009 will receive special Founding Member status.

#### *Become a Los Amigos Lifetime Member*

Life membership status is awarded to members who make a one-time, \$1,000 undesignated gift to Los Amigos. Lifetime members have the option of being recognized annually in this newsletter. For further information, please contact Larry Icerman, [licerman@aol.com](mailto:licerman@aol.com).

## *From the Chair, Doug Fraser*

Los Amigos has been active in working for the Preserve this year to help the Trust achieve its goals.

We began staffing the Jemez Springs Gift Shop (see story on this page), we bought signs to help the Preserve's and the Gift Shop's presence on Hwy 4 (see story on page 5), we helped clean up the historic district (see story on page 6), we will be helping to preserve the bog birch at Alamo Bog (see page 9), and we made another grant proposal to increase the amount of work we can do on San Antonio Creek.

We are starting a Lifetime Membership and a planned giving program (see box on page 7). In addition, we have opened our office at the Trust complex in Jemez Springs. We hope to have staff or volunteers at the office at least one day a week by the end of the year.

If you have not yet renewed your membership, please do so today! You are the reason we are able to do these things to help the Preserve. Please consider an extra gift, or becoming a Lifetime Member. Please also join us in our endeavors at the Gift Shop or on the Preserve. We appreciate your help. Thank you.

## *Amigos Help Out at the Jemez Springs Gift Shop*

Starting in late May, Los Amigos de Valles Caldera has been staffing the Jemez Springs Gift Shop on Wednesdays and Saturdays. The purpose of this is to help the Preserve by freeing staff for other activities. This effort is staffed by volunteers who not only give out information on our favorite spot in New Mexico but also sell maps, cards, T-shirts, etc. In fact, they are responsible for the complete gift shop operation. This is another fine example of Los Amigos putting their "money where their mouth is" and doing something useful to assist the Preserve instead of just complaining!

Special thanks go out to the Frasers, Stoddards, Thompsons, Brookses, and Armijos who have given freely of their time to date. We are always looking for more volunteers to help with this fun endeavor. The more days we can operate the shop, the more the Preserve can better utilize their limited staff—everybody wins! For more information, contact TK Thompson (672-9498, [tkincnm@msn.com](mailto:tkincnm@msn.com)).



*(Photo courtesy of Kathy Fraser.)*

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# *Calendar of other Cos Amigos Events for 2008*

## **Alamo Bog Wetlands Tour**

**Saturday, August 9**

**10:00 a.m. - 4:00 p.m.**

We will tour the Alamo Bog area where work will begin working on the wetlands grant Los Amigos and the New Mexico Environment Department received from the EPA. The Alamo Canyon restoration will include preserving habitat for the rare bog birch (see *Alamo Bog Work Weekend*), lowering the height of the falls at a significant headcut to reduce the force of falling water, dispersing the flow, hardening the base of the falls to protect subsoil, and conserving soil moisture within the bog upstream of the headcut, thus protecting existing wetland plant growth. This part of the Preserve is not generally open to visitors, so this will be an opportunity to see some rare scenery and to learn about watershed restoration techniques.

## **Alamo Bog Work Weekend**

**Friday, Saturday, Sunday, August 15-17  
with Bill Zeedyk**

Join the Albuquerque Wildlife Federation, the New Mexico Wilderness Alliance, and the New Mexico Native Plant Society in working to preserve the bog birch at Alamo Bog. Under the direction of Bill Zeedyk, internationally known riparian restoration specialist and one of our experts on the wetlands grant, the volunteers will construct fencing around three patches of bog birch struggling to survive around Alamo Bog. The birch is being eaten almost to extirpation by the elk. Fencing around other patches has shown promise in keeping this unique species alive.

Volunteers will convene Friday, work all day Saturday and part of Sunday. Volunteers will be allowed to camp at the site on one of the well pads in the area. Let Volunteer Coordinator Greg Kendall know if you are interested in this project. Only about 35 volunteers will be allowed.

## **Journey into the Geologic History of the Preserve**

**Saturday, September 20**

**8:45 a.m. - 5:00 p.m.**

Please join us for an exciting geologic tour of the north rim of the Valles Caldera led by local geologist, international tour guide, and Los Amigos member, Kirt Kempter. Departing from Española at 9:00 am, we will drive west on Forest Road 144 (also known as 39-mile road), stopping at several view points as we wind our way into the northern Jemez Mountains. As we ascend the back side of Chicoma Peak there will be spectacular views of the Rio Grande Rift, Pajarito Plateau, and other geologic features of the northern Jemez Mountains. The road also cuts through the core of an old volcano, active 10 million years ago. Our destination will be a picnic lunch stop along the north rim of the Valles Caldera, providing a spectacular view of the northern portion of the caldera. A lecture at this stop will provide a geologic history of the caldera since the massive eruption occurred 1.2 million years ago, a dynamic story including multiple lakes and volcanic eruptions within the caldera since its collapse. We will finish up with a tour through the Preserve to the Valle Grande Staging Area.

Kirt is offering this tour as a fundraiser for Los Amigos.

**Lunch provided! Cost: \$35/person;  
max: 35 participants.**

## **Wildlife Tour**

**Wednesday, October 1**

**4:00 p.m. - 8:00 p.m.**

Last year 15 Los Amigos members took advantage of an offer from the Trust for a wildlife viewing tour during the hiatus in the elk hunt that occurs every year during mating season (the "rut"). The group was able to see many elk and hear them bugle into the night. This year's tour will be on October 1 and will start at the Valle Grande Staging Area at 4 p.m. We hope you will join us for another memorable experience on the Preserve!

# Climate Variability Drives Grassland Productivity

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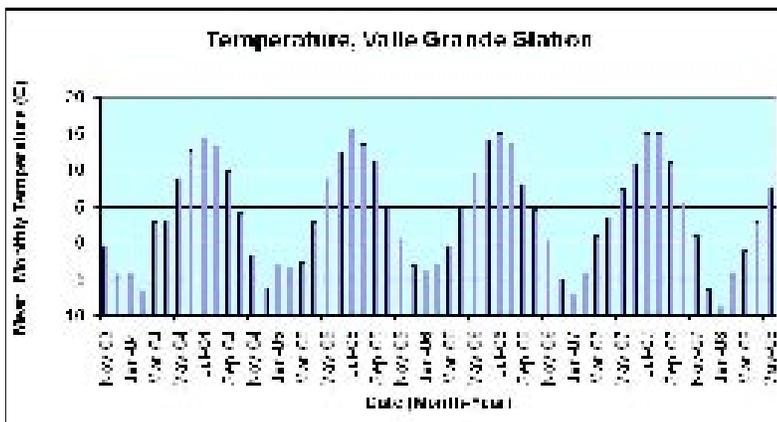
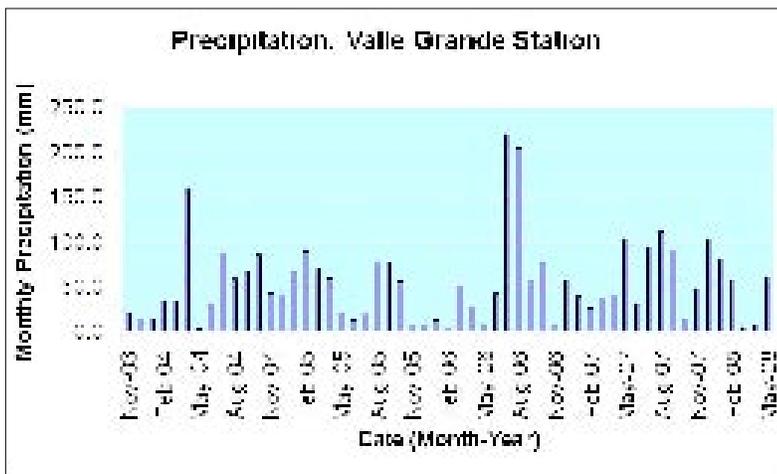
cattle grazing.

Climate, particularly the amount and timing of precipitation, is of prime importance in regulating the amount of plant growth in the Preserve's grasslands. In view of the importance of sustained grassland production to the Valles Caldera, we need to understand the detailed relationship of climate and vegetation growth. Scientists working with the Trust have set up a network of weather stations throughout the Preserve (see photo, page 1), measuring such variables as rain and snowfall, air temperatures and relative humidity, wind speed and direction, solar radiation, and soil temperatures and moisture at different depths of plant root zones. Data from these stations have documented the large variability in precipitation among years—from the extreme drought

period of winter-spring 2005-2006, to the exceptionally wet summer monsoons of 2006 and 2007 (see graphs below).

## Monsoons

Summer precipitation during New Mexico's "monsoon" season (~10 weeks from early July to mid-September) typically comes during high-intensity, short-duration thunderstorms (see photo, page 1), and the rain from these storms makes up more than half of the total annual precipitation on the Preserve. This summer moisture (or lack thereof if the monsoons fail!) drives the growth of grasses and forbs, which in turn contributes to the health and growth of wildlife populations and livestock. But summer moisture is not the only important factor—winter snows and autumn/spring rains serve to recharge soil moisture, allowing plant roots to be ready to go as soon as temperatures rise in the spring. Lack of winter moisture can leave the valles' grasslands brown and crunchy-dry in the spring, as we experienced in April-June 2006. In addition, lack of snow allows the Preserve's 2,500+ elk to remain in the high country, continuously foraging through the winter on the cured grasses of the valles.



## Monitoring Forage Resources

In order to monitor the forage resources for livestock and the native wildlife, Trust scientists, range scientists from the USDA Agricultural Research Service, Jornada Experimental Range in Las Cruces, and a small army of volunteer citizens sample the above-ground biomass of grasses and forbs every spring and autumn (see photo, page

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## Climate Variability Drives Grassland Productivity

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11). These samples are dried and weighed, and the total amount of available forage in each grassland type is estimated. The goal of the Trust management is to only use up to 40% of the forage, with 60% of the plant biomass remaining behind after all the herbivores (elk, livestock, mice, grasshoppers, aphids, etc.) have had their fill—this amount ensures that the plant roots remain healthy and vigorously growing, and that live plants and litter cover the soil surface to prevent wind and water erosion of the soil.

Summer precipitation clearly influences the overall plant production in the valleys. If the forage values in the Biomass table (right) and the monthly precipitation from the graph on page 10 are compared, one can see that the drier summers of 2004 and 2005 produced considerably less forage than the wet summers of 2006 and 2007. Plant biomass in autumn 2007 was ~2.5 times greater than in 2004. This inter-annual variability is one of the critical aspects of managing the complex resources for plant production, wildlife populations, livestock operations, and ecosystem preservation on the Valles Caldera National Preserve.



Site Type	Average Autumn Standing Biomass (lbs/ac)					
	2002	2003	2004	2005	2006	2007
<b>GW</b>	560	919	565	1074	1125	1745
<b>MM</b>	1233	1481	843	1431	2211	2463
<b>MV</b>	765	912	904	1639	1574	1944
<b>RR</b>	<u>1103</u>	<u>1091</u>	<u>944</u>	<u>1584</u>	<u>2268</u>	<u>2834</u>
<b>Average</b>	915	1101	814	1432	1795	2246

[Top] In May 2008, volunteers from the Sierra Club Service Trip clip vegetation samples to measure plant production and herbivore utilization [Bottom] Data table showing forage biomass values from 2002 – 2007.

Abbreviations are:

- GW** = Grazeable woodland (subcanopy grassland under Ponderosa pines)
- MM** = Mountain Meadow (wet meadows near streams)
- MV** = Mountain Valley (drier grasslands on valley slopes)
- RR** = Riparian grasslands (along streambanks)

## Trust Announces Acting Executive Director

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positions with increasing levels of responsibility, accountability, and success.

Ms. Turner has a:

- History of success working collaboratively with multiple constituencies and with significant complexity.
- Demonstrated track record of delivering results by navigating through the regulatory environment with numerous Federal, State, and local governmental entities, Tribal Governments, and private organizations.

- Reputation for bringing the disparate interests of ranchers, farmers, State and Federal Governments, academia, and the public together for the greater good.

She has been instrumental in developing processes and methods for implementation of organization-wide change and in the development of non-traditional methods to carry out departmental requirements.

She has been cited throughout her career for outstanding service and commitment.

## Biologists Study Coyotes

(con't from page 4)

also have on-board Global Positioning System (GPS) units that automatically record detailed movements of the coyotes year-round.

Preliminary GPS location data and direct observations have shown that four packs occupy the Valle Grande in territories that are roughly 4.2 square miles in size (2,700 acres), very similar to home ranges of coyotes elsewhere in the western United States. Packs are made up of 5-6 adult coyotes, led by an "alpha" male and female.



Some individuals have been very loyal to the Valle Grande area, staying within their pack's territory, whereas others have traveled impressive distances (>15 miles) within and outside of the VCNP.

### Information to Better Manage Wildlife

Biologists and citizen volunteers have collected over 3,000 coyote scats. Scat analyses have shown that coyotes consume large and small mammals, grasshoppers and beetles, some vegetation, and even occasional birds. Further analyses are helping to determine the relative abundances of diet items, how the coyote diet changes by season, and whether there are differences in the coyote diet during the years of the study. Studying location data in conjunction with diet data will allow biologists to further determine whether diet varies by pack, and whether habitat use changes coincide with diet changes.

By the end of this study, Trust scientists will have a detailed understanding of coyote movement patterns, habitat use preferences, and population characteristics, including population density, social organization, age structure, disease prevalence, and causes of mortality. They also will have detailed data on coyote diets and potential impacts on their prey species, allowing Trust staff to better manage the wildlife resources on the Valles Caldera.



[Above] Coyote pouncing on its prey (a rodent) in the tall grass of the Valle Grande. (Photo courtesy of the author.)

[Top left] Trust biologist Marc Chipault locates one of the radio-collared coyotes in the Valle Grande during winter 2008. (Photo courtesy of Dr. R. R. Parmenter.)