19th Annual North American Wolf Conference
Flagstaff, Arizona

Wednesday April 25th

8:00 – 8:30	**Welcome: Introductions and Announcements**
8:30 – 9:00	**Mexican Wolf Conservation in the American Southwest** Terry Johnson, Endangered Species Coordinator, Arizona Game and Fish Department
9:00 – 9:30	**Mexican Wolf Reintroduction Update** John Oakleaf, U.S. Fish and Wildlife Service
9:30 – 10:00	**Modeling Potential Mexican Wolf Habitat in the Grand Canyon Ecoregion** Kurt Menke, Bird's Eye View
10:00 – 10:30	**~ Break ~**
10:30 – 11:00	**Mexican Wolf Reintroduction: Put and Take Wolf Recovery?** David R. Parsons, The Rewilding Institute
11:00 – 11:30	**Mexican Wolf Reintroduction Outreach Efforts in the Southwest – Separating Myth from Reality** Shawna Nelson, Arizona Game and Fish Department
11:30 – 12:00	**Predator Control and Scientific Chicanery Undermines Mexican Wolf Recovery** Michael Robinson, Center for Biological Diversity
12:00 – 1:00	**~ Buffet Style Lunch ~**
1:00 – 1:30	**Red Wolf Restoration: 20 Years of Success, Lessons and Challenges** Bud Fazio, Team Leader, USFWS Red Wolf Recovery Program
1:30 – 2:00	**Howling in a New Paradigm: Wolf Management in Southwestern Alberta, 2003-2007** Dr. Carita Bergman, Alberta Sustainable Resource Development
2:00 – 2:30	**Wolves, Prey and Fire in the Central Idaho Wilderness** Jim Peek, Department of Fish & Wildlife Resources

2:30 – 3:00 **~ Break ~**

3:00 – 3:30 **Wolf Depredation Investigation and Reporting**
Rick Williamson, Wolf Specialist, USDA Wildlife Services, Idaho

3:30 – 4:00 **The French Connection**
Carter Niemeyer, Retired USFWS, Idaho

4:00 – 4:30 **Training Gray Wolves (Canis lupus) As Conservation Ambassadors at Busch Gardens Williamsburg**
Rob Yordi, Busch Gardens

Beginning at 7:00 **Alpha Award Banquet Dinner with our 2007 keynote speaker: Vic Van Ballenberghe, University of Alaska -- Predator Control, Politics and Wildlife Management in Alaska**

Alpha Award for 2006 presented by The Wolf Recovery Foundation.

Live Auction (with Rick Williamson) and Silent Auction benefiting nonlethal western wolf management efforts.

Thursday April 26th

8:00 – 8:30 **The New Range War**
Rob Edward, Carnivore Restoration Program Director, Sinapu

8:30 – 9:00 **Evaluation of Global Positioning System Collars to Study Mexican Gray Wolves in the Blue Range Wolf Recovery Areas**
Dan Stark, USFWS, Mexican Wolf Recovery Program

9:00 – 9:30 **Addressing Social Concerns and Moving Mexican Wolf Reintroduction Efforts Forward - Mexican Wolf / Livestock Interdiction Program: A Concept**
Jose Viramontes, Southwest Region, USFWS

9:30 – 10:00 **Genealogy and Genetic Viability of the Gray Wolves of Yellowstone National Park**
Bridgett vonHoldt, University of California, Ecology and Evolutionary Biology

10:00 – 10:30 **~ Break ~**

10:30 – 11:00	**Partnerships in the Development of a Captive Wolf Population to make possible Mexican Wolf Recovery in the Wild** Peter Siminski, The Living Desert & Patrick Valentino, California Wolf Ctr.
11:00 – 11:30	**Federal Wolf Delisting in the Northern Rockies: a Chronology of Questionable Actions** Amaroq Weiss, Defenders of Wildlife
11:30 – 12:00	**Ethics and Wolves** Bill Lynn, Tufts University, Center for Animals and Public Policy
12:00 – 1:00	**~ Buffet Style Lunch ~**
1:00 – 1:30	**Cracker Shells, All-nighters, and Big White Dogs: Five Years of Living With Wolves and Other Predators on a Large Range Sheep Operation in Idaho** Mike Stevens, Lava Lake Land and Livestock
1:30 – 2:00	**Wolves and Ranching: Proactive Efforts to Reduce Conflicts in the USA Northern Rockies** Suzanne Stone, Defenders of Wildlife
2:00 – 2:30	**~ Break ~**
2:30 – 4:30	**Non-Lethal Panel** Lane Adamson, Carter Niemeyer, Mike Stevens, Suzanne Stone, Rick Williamson
4:30 – 4:50	**Closing Comments and Discussion**

Thank you and see you all next year. **The 2008 North American Wolf Conference will be held April 7 – 11, 2008** and we will be back at Chico Hot Springs, Montana. Please contact Laura Jones at ljones@defenders.org for more information.

Friday April 27th -- Grand Canyon Field Trip

For those registered, the Grand Canyon field trip vans will depart Little America main lobby at 7:00 am and will return 3:00 pm. Sack breakfast and sack lunches are provided. Please dress for the weather (layers are best), wear good walking shoes, and bring your own binoculars, sunscreen (hopefully needed), and water. For more information, please contact Craig Miller at cmiller@defenders.org or 520-623-9653.

19th Annual North American Wolf Conference
Abstracts
In Order of Appearance

Wednesday 8:30 – 9:00 am

Mexican Wolf Conservation in the American Southwest

Terry B. Johnson, Endangered Species Coordinator, Arizona Game and Fish Department, 2221 West Greenway Road, Phoenix, Arizona 85023-4399, (602) 789-3707, Fax (602) 789-3926, teebeej@azgfd.gov

Wolves in the Southwest once occupied a land largely unfragmented by human presence. From Durango and Michoacan north through Chihuahua and Sonora, El Lobo roamed at will, although the middle elevations of 3000 to 6000 feet were likely its stronghold. Oak-studded hills and pine-oak forested mountains separated by grass-covered valleys characterized wolf habitat, in which long ridges and rocky outcrops providing denning sites galore. Farther north, in Arizona and New Mexico into southern Utah and Colorado, historical wolf country was very similar: oak, pine-oak, and pine woodland and forest were typical haunts. Before the frontier was conquered, free-flowing streams cut the narrow canyons and rivers dissected the lands below. Water, cover, and prey were plentiful, and the wolf thrived. But, as the 1800s gave rise to an increasingly settled West, conflicts emerged that led to systematic elimination of free-ranging wolves. In the early 1900s, several subspecies of western wolves were eliminated entirely, and the Mexican wolf was driven deeper and deeper into Mexico. By the 1970s, estimates of wild Mexican wolves centered on 50 or fewer. From 1977 to 1980, five of the remaining wild animals in Mexico were trapped and brought into captivity to start a captive breeding program. The captures marked the beginning of recovery, and eventually reintroduction, efforts that are today as controversial as any wildlife program anywhere.

In sharp contrast to many other endangered species, the Mexican wolf's story is not about habitat destruction and inevitably shrinking wildlife populations. Habitat is not and never has been the biggest problem for wolves. Instead, the major issue is and always will be whether humans will share the landscape in such a way that wolves can persist. In this case, sharing means accepting, and where possible mitigating, inevitable human conflicts stemming from livestock and big game depredation, nuisance wolves, and wolf control. It means finding room on an increasingly fragmented landscape for an animal that by its very nature fails to recognize boundaries imposed by humans. At the core of the controversy are huge differences in human understanding, acceptance, and values, with state, federal, and tribal agencies obligated to manage the conflicts and try to find common ground among widely disparate interests. The controversy also revolves around basic questions of how many wolves, and where should they be? The media would say the most common answers to those questions are "not even one" and "definitely not in my back yard," or "as many as possible" and "everywhere they want to be." Both extremes are unrealistic, but the public has never been obligated to be realistic, especially about wolf management. This presentation provides a personal perspective on Mexican wolf conservation from 1982 through 2006, a relatively brief moment in the never-ending wolf wars of the American Southwest.

Wednesday 9:00 – 9:30 am

Mexican Wolf Reintroduction Update

John K. Oakleaf[1], John Morgart[1], Daniel W. Stark[1], Dan Groebner[2], Saleen M. Richter[3], and Krista Beazley[4] ([1]U.S. Fish and Wildlife Service, P.O. Box 856, Alpine, AZ 85920, (928) 339-4329, John_Oakleaf@fws.gov, [2]Arizona Game and Fish Dept, [3]New Mexico Dept of Game and Fish, [4]White Mountain Apache Tribe)

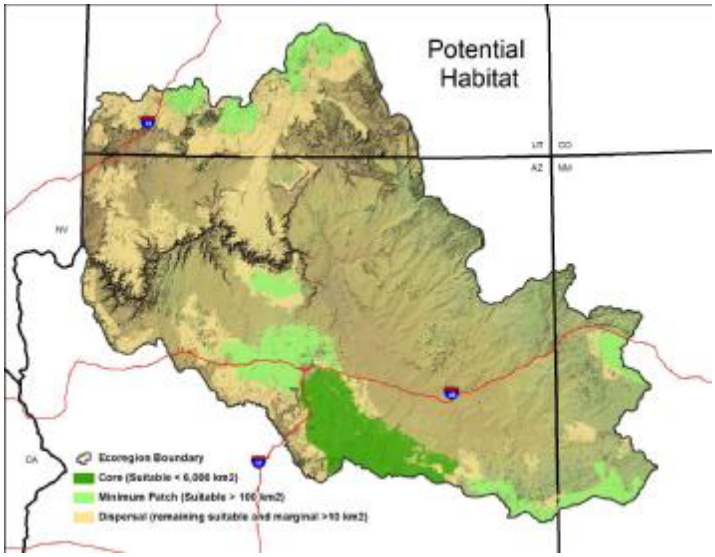
We will report the progress of field efforts from 1998-2006 to reestablish Mexican wolves (*Canis lupus baileyi*) into the Blue Range Wolf Reintroduction Area (BRWRA). The reintroduction area encompasses approximately 9,290 mi^2, composed of the Apache-Sitgreaves National Forests (A-SNF) and the Fort Apache Indian Reservation (FAIR) in east-central Arizona and the Gila National Forest (GNF) in west-central New Mexico. The primary goal of this reintroduction effort is to restore a self-sustaining population of about 100 wild Mexican wolves distributed across the BRWRA. In January 1998, the first Mexican wolves were released into Arizona. At the end of 2006, a minimum of 59 wolves in 12 groups and seven breeding pairs could be confirmed inhabiting areas of Arizona and New Mexico. Further, an increased number of second-generation wild born pups are being produced in the population. However, several changes in the reintroduction program may increase the ultimate success of wolves in the area.

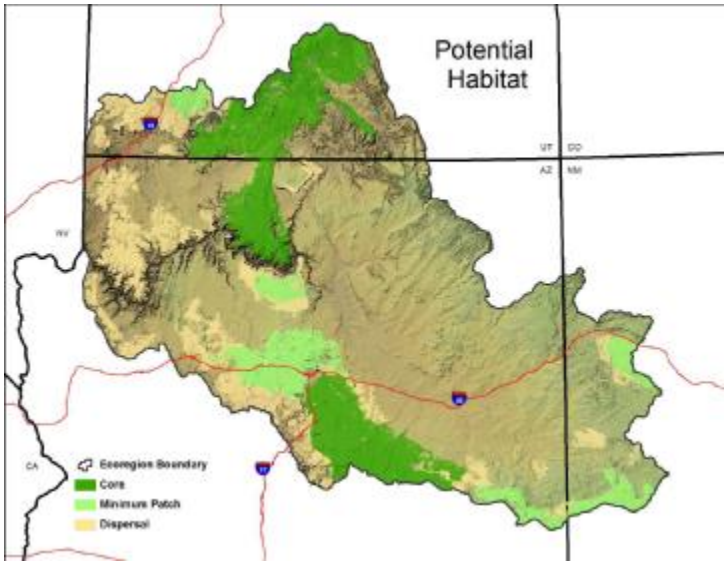
Wednesday 9:30 – 10:00 am

Modeling Potential Mexican Wolf Habitat in the Grand Canyon Ecoregion

Kurt Menke[1], Paul Sneed[2], Larry Stevens[3], Nicole Corbo[4], Kelly Burke[3] and Kim Crumbo[3] ([1]Bird's Eye View, GIS Services, 3016 Santa Clara SE, Albuquerque, NM 87106, voice (505) 265-0243, cell (505) 362-1776, kurt@birdseyeviewgis.com, [2]Prescott College, 4906 Box Canyon Rd, Billings, MT 59101, [3]Grand Canyon Wildlands Council, PO Box 1594, Flagstaff, AZ 86002, [4]Coordinator, Grand Canyon Wolf Recovery Project, P.O. Box 1594, Flagstaff, AZ 86002)

The Gray Wolf (*Canus lupus*) historically inhabited much of the Grand Canyon Ecoregion but has been extirpated for much of the last century. The 36 million-acre Grand Canyon Ecoregion is bounded on the west by the Grand Wash, on the east by the Little Colorado River, and extends from the Mogollon Rim in central Arizona north to southern Utah's High Plateau's. As part of an ongoing effort to rewild this region, Grand Canyon Wildlands Council generated a GIS-based static wolf habitat suitability model. The results will be used to estimate what portions of the ecoregion can potentially support wolves under current conditions. The model was based on four assumptions: 1) wolves are habitat generalists whose main habitat requirement is prey, 2) they require remote areas with little human disturbance, 3) they tend to hunt in packs pursuing their prey and thus prefer flatter terrain, and 4) the ecoregion is an arid environment and availability of surface water is a limiting factor. The model used elk and mule deer density to represent available prey. Three datasets were used to represent human impact to the landscape: roads, population density, and land ownership. Slope and proximity to water were used to represent the final assumptions. These data were weighted and combined in an arithmetic overlay using ArcGIS 9.1. The resulting grid was classified into core habitat, minimum patch habitat, and dispersal areas. One core area was identified measuring nearly 7,000km^2 along with 12,000km^2 of minimum patch areas, and 24,000 km^2 of dispersal areas.


Potential
Habitat
UT
CO
AZ
NM
NV
CA
Ecoregion Boundary
Core (Suitable < 6,000 km2)
Minimum Patch (Suitable > 100 km2)
Dispersal (remaining suitable and marginal >10 km2)


Potential
Habitat
UT
CO
AZ
NM
NV
CA
Ecoregion Boundary
Core
Minimum Patch
Dispersal

Wednesday 10:30 – 11:00 am

Mexican Wolf Reintroduction: Put and Take Wolf Recovery?

David R. Parsons[1], Jean C. Ossorio[2], ([1]Carnivore Conservation Biologist, The Rewilding Institute, 8613 Horacio Place NE, Albuquerque, NM 87111, (505) 275-1944, pbc@cybermesa.com, [2] Southwest Environmental Center, 275 North Downtown Mall, Las Cruces, NM 88001)

Mexican wolves were first released into the Blue Range Wolf Recovery Area in 1998. According to pre-project projections, the end of 2006 was to be the point in time that the Blue Range Mexican wolf reintroduction project reached its objective of 102 wolves and 18 successfully breeding packs. Instead the official population estimate is 57 wolves and 5 breeding pairs (using a strict application of the official definition). As a comparative measure of the lack of progress toward reintroduction objectives, the population estimate at the end of 2003 was 55 wolves and 4 breeding pairs. One key difference between the proposed and actual projects is the time frame and number of new releases of wolves. The proposal anticipated the release of about 66 wolves from 1998 through 2002. Unsustainable failure rates (mortalities plus removals) have necessitated ongoing releases of wolves through 2006, with the number of released wolves now totaling 99. We present a hypothetical population trend as if no new wolves were released after 2002 to offer a more accurate comparison between projected and actual results and to assess the capacity of the wild population to increase in the absence of new releases under current management practices. We present guidelines for future scenarios that would achieve the reintroduction project objective under two pre-selected rates of population increase. Recommendations are offered to the Mexican Wolf Adaptive Management Oversight Committee for timely achievement of the Mexican wolf reintroduction project objective.

Wednesday 11:00 – 11:30 am

Mexican Wolf Reintroduction Outreach Efforts in the Southwest – Separating Myth from Reality

Shawna Nelson, Arizona Game and Fish Department, Mexican Wolf Reintroduction Project, P.O. Box 856, Alpine, Arizona, 85920, SNelson@azgfd.gov

The reintroduction of an endangered species is difficult enough from a biological standpoint – but when dealing with a highly controversial animal, such as the Mexican wolf that may involve potential human/wolf conflict, the effort becomes exceedingly more difficult and complex. This is especially so when public attitudes and "crisis" wolf-related issues come in to play. The objective, therefore, of the Mexican wolf outreach program is to provide timely, accurate, innovative, unbiased information and encourage two-way communication between and among cooperating agencies and the public to ensure that cooperators and the public are aware of the issues and activities of concern to them. The program's focus is on providing information that enables listeners and readers to draw their own conclusions about wolf reintroduction. Various information dissemination methods are used and include, but are not limited to, the following: presentations to and interactions with specific organizations and individuals, news releases, monthly project updates, Web site postings, natural history workshops, media interviews and one-on-one individual contacts with emphasis on residents and visitors in the reintroduction area. An increased tolerance for the reintroduction effort

and of the wolves themselves, by the affected stakeholders, is the desired result of the outreach program. This program is committed to continual refinement of methods for and the facilitation of effective communication about the reintroduction project to the interested and affected public and to identify what should be communicated and how this information should be disseminated.

Wednesday 11:30 – 12:00 pm

Predator Control and Scientific Chicanery Undermines Mexican Wolf Recovery

Michael J. Robinson, Center for Biological Diversity, P.O. Box 53166, Pinos Altos, NM 88053, (505) 534-0360, michaelr@biologicaldiversity.org

The 1996 EIS on Mexican gray wolf reintroduction to the Blue Range Wolf Recovery Area projected growth of the population to 102 wolves and 18 breeding pairs by Dec. 31, 2006. But the January 2007 government census found sign of only 59 wolves and 6 breeding pairs (plus a 7th pair that did not breed but is counted as such by the U.S. Fish and Wildlife Service). Government predator control largely accounts for the discrepancy between projected and actual wolf numbers. From 1998 through 2006, eight Mexican wolves were shot by the federal government, 20 more were killed unintentionally as a result of capture, and 24 wolves were captured and not re-released. Dozens more were captured and translocated, often traumatized and sometimes injured, resulting in established packs breaking up and individual wolves wandering widely in unfamiliar terrain. Two formal reviews of the reintroduction program came to sharply different conclusions as to population dynamics and concomitant recommendations for future management. The 2001 Three-Year Review, conducted by non-governmental biologists led by Paul C. Paquet, Ph.D., warned that removal levels were too high and predicted that the population would lag significantly behind projections unless key reforms to project regulations were enacted. The Paquet Report recommended two measures to obviate both the Fish and Wildlife Service's legal obligation and its perceived social obligation to remove Mexican wolves: (1) allowing wolves to roam outside the arbitrary boundaries of the recovery area (just as all other endangered species managed by the Service are allowed, including wolves elsewhere); and (2) requiring ranchers to take some responsibility for removing or rendering inedible the carcasses of livestock not killed by wolves to prevent wolves from scavenging on them and becoming habituated to stock (similar to longstanding regulations for wolf recovery in the northern Rocky Mountains). The Service has not enacted either reform.

The Five-Year Review, developed by agency insiders and formally accepted by the Service in 2006 as the template for upcoming regulatory changes, recommends four contrary provisions that would perpetuate and even worsen the status quo in predator control: (1) no regulation of non-wolf-killed livestock carcasses; (2) broadening the circumstances in which private individuals could kill wolves; (3) applying the current (unsuccessful) wolf management protocols to all new areas made available for wolf occupation; and (4) allowing the states of Arizona and New Mexico and tribal authorities to cap the population of wolves in the bi-state area at just 125 individuals and permit the killing of any and all wolves above that number — a number with no scientific basis and no relationship to long-term preservation or recovery of wolves in the Southwest.

As justification, the Five-Year Review systematically under-represents and mischaracterizes the roles of (1) wolves scavenging in precipitating depredations, and (2) wolf translocations

in killing wolves. Service documents obtained via the Freedom of Information Act reveal the results of the Service's disregard for the Paquet Report's warnings and recommendations, and indicate that the Five-Year Review's recommendations, if enacted, will prevent recovery of the Mexican wolf altogether.

Wednesday 1:00 – 1:30 pm

Red Wolf Restoration: 20 Years of Success, Lessons and Challenges

Bud Fazio, Team Leader, Red Wolf Recovery Program, USFWS ARNWR, Manteo, NC, (252) 473-1131 x 240, Cell (252) 305-1183, Buddy_Fazio@fws.gov

The year 2007 marks 20 years of red wolves restored to the wild since 1987. Faced with near extinction during the 1960's, biologists continue to meet the challenges of restoration year after year. We describe highlights from twenty years of pioneering efforts and lessons learned which contribute to today's red wolf restoration success on the ground. We discuss survival success of wild vs. captive vs. island-reared wolves, as well as other techniques such as pup fostering, genetics and disease management. Human factors are addressed each year. We also briefly discuss today's challenges and future activity.

Wednesday 1:30 – 2:00 pm

Howling in a New Paradigm: Wolf Management in SW Alberta, 2003-2007

Carita Bergman, PhD, Senior Wildlife Biologist, Southern Rockies Area, Fish & Wildlife Division, Alberta Sustainable Resource Development, Box 1420, Pincher Creek, AB T0K 1W0, (403) 627-1116, Fax: (403) 627-4316, carita.bergman@gov.ab.ca

Agency management attitude towards wolves in Alberta has slowly shifted over the past century, showing a recent trend towards tolerance and conservation. Because of their high numerical abundance within the province of Alberta, however, wolves do not possess any protected status, regardless of local population structure. Moreover, regulations applicable to the killing of wolves and the lack of mortality quotas hamper management for stable populations. In contrast to northern Alberta, the band of wolf habitat in southwestern Alberta is so narrow in places that only a single pack can subsist between the Continental Divide and the cultivated prairie to the east, even under the best conditions. Because cattle ranching is a pervasive activity in SW Alberta, wolves had been intentionally eliminated from the landscape by mid-century to minimize their impact on ranching activities. Natural re-colonization of wolves began to occur in the 1980's, and as conflicts with ranching also grew, management interest increased. A multi-jurisdictional group formed in the early 1990's to begin to gather more information on the SW Alberta wolf population, and begin work on a management plan for wolves in the area. This initiative came to a sudden halt when most of the wolf population was harvested in a single year, and all collared individuals were lost.

In 2003, wolf-ranching conflicts were again on the increase, and a multi-stakeholder committee was formed to make recommendations to the management agency. Recommendations address all aspects of wolf management, with a focus on reducing wolf-ranching conflicts. A collaring program began shortly after the inception of the Oldman Basin Carnivore Advisory Group, and the use of Argos collars allowed instantaneous tracking of packs to assist not only in the collection of biologically relevant information, but

also to help address conflicts that were occurring. The information obtained from our collaring program has helped to frame new management goals that are more widely accepted by participating groups. Collars have also allowed a new approach to lethal control that limits mortality within packs when conflicts are occurring, and assists in maintaining occupied territories. Active participation by several ranchers, both on the Advisory Group and in the field, had been key to our success. Opportunities for non-lethal control continue to be investigated where feasible. For continued success, urgent attention is needed in several areas: staff and funds, enhanced communication and participation within the local community, and area-specific hunting regulations that address local population needs.

Wednesday 2:00 – 2:30 pm

Wolves, Prey and Fire in the Central Idaho Wilderness

James M. Peek, Department of Fish & Wildlife Resources, University of Idaho, Moscow, ID 83844-1136, peek@uidaho.edu

Ten years after the reintroduction of the gray wolf into central Idaho, enough information has accumulated to postulate on the effects of the wolf on its prey, bighorn sheep, elk, and mule deer. There are four Idaho Fish & Game hunting units, comprising 2.2 million acres, including the wolf reintroduction sites. Much of this area is within the Frank Church River-of-No-Return Wilderness, where prescription wildfire has burned approximately 52% of the land. At least 15 wolf packs were estimated present winter 2006-7, with over 100 individuals in these packs. Bighorn sheep are not subject to substantial predation in this area. Mule deer populations, as indexed by the known hunter harvest, are increasing. Elk are declining in one hunting unit, increasing in one unit and fluctuating with no apparent trend in two units. Wildfire, summer drought, winter severity, and predation are the major factors that influence this ecosystem. An interpretation of trends in large mammal populations depends upon knowledge of how these factors affect the system.

Wednesday 3:00 – 3:30 pm

Wolf Depredation Investigation and Reporting

Rick Williamson, Wolf Management Specialist, USDA-WS-Idaho, P.O. Box 465, Arco, Idaho, (208) 681-3127, lobo@ida.net

Agency officials responsible for investigating reports of wolf predation on livestock must carefully observe and analyze available evidence to determine if in fact the animal was killed by a predator, and if so, what type of predator, or whether the animal's death was due to some cause other than predation. Presence or absence of subcutaneous hemorrhaging and tissue damage, size and spacing of canine puncture marks, presence of tracks, scat, drag marks, and/or other evidence might all potentially be used in determining cause of death. Careful documentation of available evidence is required in order to support decisions regarding compensation for damage. Various record-keeping forms may be used in different states, but documentation typically includes at a minimum the investigator's and the livestock owner's contact information, type and number of livestock reportedly killed, species of predator confirmed or likely to have caused the damage, and a narrative description of the physical evidence upon which conclusions are based.

Wednesday 3:30 – 4:00 pm

The French Connection
Carter Niemeyer, Retired USFWS, Boise, Idaho 83705, (208) 338-7917,
cjniemeyer@msn.com

In 1992 wolves returned to the French Alps from Italy, thrilling many people, frustrating shepherds and nudging French government officials into action. Though their numbers are few, the wolves regularly killed sheep in Southern France's rugged, remote areas surrounding Le Parc Mercantour, a French national park. French officials realized the need to assemble a protocol for dealing with depredating wolves. I was invited to help France develop wolf-handling protocol and demonstrate wolf capture techniques for their biologists. My mission: capture three wolves in the Alps and fit them with radio collars for scientific study. Though the wolves eluded capture, and I spoke no French, my guidance united French wildlife agencies and opened dialogue with other European countries, allowing them to take the first steps in their country's history toward a scientific wolf program.

Wednesday 4:00 – 4:30 pm

Training Gray Wolves (Canis lupus) As Conservation Ambassadors at Busch Gardens Williamsburg
Rob Yordi, Manager/Zoological Operations, Thad Lacinak, VP Animal Training, Busch Entertainment Corporation, Busch Gardens Williamsburg, One Busch Gardens Blvd., Williamsburg, VA 23185, (757) 253-3083, fax (757) 253-3083,
Robert.Yordi@buschgardens.org

Busch Gardens Williamsburg currently houses 3.3 Adult Gray Wolves (Canis lupus) and 2.0 Juvenile Arctic Wolves (Canis lupus arctos). The principles of animal training that have been developed for Marine Mammals by the SeaWorld Adventure Parks have been applied to the daily training of the wolves. Initially the idea to train the wolves in this fashion was met with skepticism but with the use of established methods the program has been very successful. The goal of the training program has been to present a conservation-based show for our guests that highlights the importance of the wolf in the environment and their current challenges. The animal training staff does not represent part of each pack but act as a neutral source of enrichment and food that the wolves voluntarily accomplish behaviors for. Training sessions with the wolves are done in both free contact and protected contact settings with a recall trainer for control. As a result of the successful animal training program the wolves are able to act as conservation ambassadors for over 2.5 million guests per year.

2007 Keynote Speaker

Predator Control, Politics, and Wildlife Conservation in Alaska

Victor Van Ballenberghe, Department of Biology and Wildlife, University of Alaska Fairbanks, Fairbanks, AK 99775, vicvanb@alaska.com

Lethal control programs aimed at reducing wolf (*Canis lupus*) and bear (*Ursus arctos* and *U. americanus*) numbers while attempting to increase densities of moose (*Alces alces*) and caribou (*Rangifer tarandus*) for hunters have occurred intermittently in Alaska, USA, for the past 3 decades. These programs were accompanied by considerable controversy, much of it directed at methods of control including helicopter shooting by government employees, snaring, and fixed-wing aircraft shooting by private citizens. From 1976 to 1983, 1,300 wolves were taken in several areas of Alaska by a combination of helicopter shooting and private trapping. Adverse public reaction largely restricted wolf control from 1984 to 1994 when a snaring program again produced controversy and that control program was terminated. In 1997, a National Research Council review suggested numerous biological standards for Alaska's predator control programs. The review strongly endorsed the approach of conducting predator control as adaptive management. Control proponents sponsored legislation in the 1990's that mandated intensive management of certain depleted populations of ungulates deemed important for consumptive use by humans.

The primary management tool to increase such populations is predator control. Intensive management also required setting population and harvest objectives for ungulates. These objectives often were based on historical highs that are now likely unattainable and almost certainly unsustainable. Implementation of intensive management programs involving reductions of black bears and brown bears as well as wolves has now been approved in 5 areas of Alaska totaling about 60,000 square miles with up to 664 wolves scheduled to be shot by April 2007. Approval of additional programs is pending. Controversy now is focused not merely on ethical objections to methods of control, but extends to basic principles of wildlife conservation including sustainability of ungulate populations, protection of habitat integrity for ungulates, and population viability of predators. Recommended biological standards and guidelines for justifying, implementing, monitoring, and evaluating control programs are not being applied.

~~~~~~

Thursday 8:00 – 8:30 am

The New Range War

Rob Edward, Carnivore Restoration Program Director, Sinapu, 1911 11th Street, Suite 103, Boulder, CO 80302, rob@sinapu.org

As efforts to restore gray wolves (*C. lupus*) to the Northern Rocky Mountains move into a new phase, with managers now focused on the transition to de-listing and state management of the species, court rulings and conservation science indicate that more must be done to affect a range-wide recovery of wolves. Yet, current policy direction appears to be on a collision course with the courts and Congressional intent as expressed in the Endangered Species Act, setting the stage for a protracted fight over whether delisting is presently appropriate. At the heart of this debate is the way the U.S. Fish & Wildlife Service has chosen to define a key word: "range". Depending upon the interpretation of that word, and
~~~~~~

the associated legal mandate of the Endangered Species Act to restore wolves to "all or a significant portion" of their range, wolf recovery may be considered complete, or the job may not be done yet. The legal and policy outcomes of this debate have far-reaching implications, not only for the future of wolves in North America, but also for the recovery of other imperiled species.

Thursday 8:30 – 9:00 am

Evaluation of Global Positioning System Collars to Study Mexican Gray Wolves in the Blue Range Wolf Recovery Area

Daniel W. Stark[1], Paul R. Krausman[2], John K. Oakleaf[3], John R. Morgart4,
([1]Wildlife Biologist, USFWS, Mexican Wolf Recovery Program, P.O. Box 856,
Alpine, AZ 85920, (928) 339-4329, dan_stark@fws.gov, [2]University of Arizona, Tucson, AZ,
[3]U.S. Fish and Wildlife Service, Alpine, AZ, [4]U.S. Fish and Wildlife Service, Albuquerque,
NM)

We used global positioning system (GPS) collars to collect biological information of Mexican gray wolves *(Canis lupus baileyi)* in the Blue Range Wolf Recovery Area (BRWRA) of east central Arizona and southwestern New Mexico. We evaluated GPS collar performance, home range, prey selection, and kill rates, during different times of the year, between June 2005 and March 2007. The primary prey of wolves in summer and winter was elk. Wolves selected for elk calves and against cow and bull elk in proportion to their availability. The use of GPS collars is an effective method to collect data on ungulate kills and other biological information (e.g., collar performance, home range, and kill rates) about Mexican gray wolves in the BRWRA. With increased performance of GPS collar technology, researchers will be able to assess the impacts of Mexican gray wolves on ungulate populations in the BRWRA and address concerns of the public.

Thursday 9:00 – 9:30 am

Addressing Social Concerns and Moving Mexican Wolf Reintroduction Efforts Forward - Mexican Wolf / Livestock Interdiction Program: A Concept

Jose Viramontes, Congressional Liaison, USFWS, Southwest Region
(505) 248-6404 Office. jose_viramontes@fws.gov http://southwest.fws.gov

The ultimate goal for the Fish and Wildlife Service in Mexican wolf reintroduction efforts is the eventual recovery of this native species. Recognizing that there are a number of barriers to achieving this goal, the Service is working with all involved entities to overcome those barriers. Some barriers are based in biology, while others are of a more sociological nature. One such barrier is the financial impact caused when wolves kill livestock that are on private lands or are legally present on grazing allotments. Building on the success of the Defenders of Wildlife Bailey Wildlife Foundation Wolf Compensation Trust and Proactive Carnivore Conservation Fund the Service is currently exploring the development of a non-federal interdiction program to provide economic relief to those experiencing a financial impact by Mexican wolf reintroduction. The concept is in the development stages but its ultimate success is directly dependant on the involvement and support of all involved entities.

The concept includes a multi-faceted approach to addressing livestock depredations with the intent of limiting the occurrence of permanent removal of Mexican wolves. It outlines both proactive steps to discourage livestock depredation as well as reactive measures to address the financial concern associated with depredation. Potential funding sources and program managers are identified. The Service will continue to work with all interested parties to reintroduce and recover the Mexican wolf. In the spirit of cooperative conservation, successful reintroduction relies on a multi-partner approach. Whether working to address the concerns of the livestock industry or environmental organizations, Service efforts are always focused on successful reintroduction and eventual recovery of the Mexican wolf for the benefit of the American public.

Thursday 9:30 – 10:00 am

Genealogy and Genetic Viability of the Gay Wolves (*Canis lupus*) of Yellowstone National Park

B. M. vonHoldt[1], D. R. Stahler[1,2], D. W. Smith[2], D. A. Earl[1], J. P. Pollinger[1] and R. K. Wayne[1], ([1]University of California, Los Angeles, Ecology and Evolutionary Biology, 621 Charles E. Young Dr. South, Los Angeles, CA 90095, (310) 825-5014, bvonhold@ucla.edu, [2]Yellowstone Center for Resources, National Park Service, P.O. Box 168, Yellowstone National Park, Wyoming 82190)

We discuss the genealogy and genetic viability of the reintroduced population of gray wolves in Yellowstone National Park (YNP). The gray wolf was reintroduced to YNP in 1995 and 1996 with 31 founders from Alberta and British Columbia, Canada. Now, over 300 wolves exist in the Greater Yellowstone Ecosystem as a result of this successful recovery effort. Despite very limited gene flow from other wolf populations, we find that high levels of genetic diversity have been maintained during the reintroduction. Based on genetic analysis of 30 microsatellite loci and field data, we have produced a completely resolved genealogy of over 200 YNP wolves that elucidates the breadth and variety of social dynamics within the

Yellowstone population. Despite currently high levels of variation, there is concern for maintaining the genetic health over the long-term given the lack of connectivity with other populations. Population-based simulations provide a pessimistic outlook for genetic viability of the Greater Yellowstone wolf population if the population is isolated and not maintained at high numbers.

Thursday 10:30 – 11:00 am

Partnerships in the Development of a Captive Wolf Population to make possible Mexican Wolf Recovery in the Wild

Peter Siminski, The Living Desert, 47-900 Portola Avenue, Palm Desert, CA, psiminski@livingdesert.org, Patrick Valentino, (California Wolf Center & Mexican Wolf Conservation Fund, PO Box 1389, Julian, CA 92036, patrick@californiawolfcenter.org)

One of the first realizations of the newly formed Mexican wolf recovery team in the late 1970s was that the Mexican wolf was about to become extinct in the wild and that no one could change this outcome. One of the first recommendations of the binational recovery team and one of the first binational actions was to capture as many wild Mexican wolves as possible and then hold and breed them in captivity until a day for re-establishment in the wild could be realized. The Mexican wolf went extinct in the wild in 1980. Today there are 291 Mexican wolves in 48 captive facilities in the U.S. and Mexico, there are ten packs in a reintroduced population in Arizona and New Mexico, and Mexico is planning for reintroductions within Mexico. The robust captive population is the result of binational partnerships, government agency and non-government organization partnerships, and professional zoo, private animal holding facility and university partnerships. The principle organizing structure of the captive program today is the Association of Zoos and Aquarium's Species Survival Plan program. This program provides systems for tracking captive pedigrees through a studbook, expertise in small population management with demographic and genetic conservation goals, husbandry and animal welfare guidelines, and planning and goal setting processes for species conservation outcomes.

The activities of the holding facilities go beyond the holding and breeding of wolves, and preparing wolves for the wild. The educational displays and programs in the 48 institutions holding wolves are attended annually by over 20 million people. Research activities conducted at and by these institutions or in collaboration with universities provides direct conservation benefit to the Mexican wolf. Fundraising activities and contributions by the NGOs amount to millions of dollars annually to the benefit of Mexican wolf conservation.

Thursday 11:00 – 11:30 pm

Federal Wolf Delisting in the Northern Rockies: a Chronology of Questionable Actions

Amaroq Weiss, Defenders of Wildlife, 258 A Street, Suite 16, Ashland, OR, 97520, (541) 552-9653, aweiss@defenders.org

In 1995, after a 70-year absence from the region, wolves were reintroduced to the northern Rockies. Five years later, the US Fish and Wildlife Service embarked on a series of efforts to remove federal wolf protections. A 2000 proposal to reclassify and delist wolves, finalized in

2003, was overturned by court order in 2005. Prior to the ruling, 10(j) regulations governing wolves in Idaho and Montana were loosened, allowing broader lethal control of wolves and transitioning management prior to federal delisting. The Service responded to the court ruling with a near-instantaneous issuance of 10(a)(1)(A) permits to kill wolves for livestock depredations, subsequently halted in a separate court decision.

With its February 2007 proposal, the Service now stands poised to delist wolves in a Distinct Population Segment (DPS) that includes the northern Rockies plus portions of adjacent states not included in the original recovery area. The DPS boundaries are legally questionable, inconsistent, and dismiss input from Washington, Oregon and Utah state agencies. While federal delisting in the region requires all three northern Rockies states to have approved wolf plans prior to delisting, only Montana's provides a balanced, conservation-based approach. Idaho's plan, legislative actions, agency proposals and governor's rhetoric demonstrate it cannot be trusted to manage wolves. Wyoming's state laws and wolf plan allow wolves to be shot on sight in 90% of the state, yet the Service has indicated it would approve a Wyoming plan with only slight modifications, if completed by May 1st. Recently, the Solicitor's office for the Service released an opinion defining the term "significant portion of range" to relieve itself of responsibility for recovering species in places other than where they currently exist, and to forestall more legal defeats. Lastly, the Service will soon be proposing to modify 10(j) to further expand authority to kill wolves for killing other wildlife. The last seven years of Service proposals and actions regarding wolves in the northern Rockies seem to be based far more on politics than on science or federal law.

Thursday 11:30 – 12:00 pm

Ethics and Wolves

William S. Lynn, PhD, Assistant Professor, Center for Animals and Public Policy, Tufts University, 200 Westboro Road, North Grafton, MA 01356, (508) 887-4570, fax (508) 839-3337, william.lynn@tufts.edu)

Wolves are not the only way to explore the ethics of humanity's relationship to animals. They have, nonetheless, a special resonance in many human cultures -- as beasts of waste and desolation, as vital ecological agents, as creatures exemplifying the best of humanity, as wild beings we can respect in all their familiarity and strangeness. Wolves move people, pro and con, and this opens up possibilities for dialogue about human-animal relations.

From an ecological perspective, wolves are an indicator of landscape health. They are indispensable 'top carnivores' that promote the health of ecosystems, as well as a 'flagship species' whose cache helps protect or restore other animals and plants that are not so charismatic. Yet the ability of wolves to thrive in wild and humanized landscapes may also be a cogent indicator of our own moral health. If we can learn to live with wolves – large predators require substantial habitat and human tolerance – then we will per force have taken significant steps towards living in a sustainable manner. If this were to occur, wolves would be both one instance of, as well as a model for, our ability to coexist with a more-than-human world. The recovery and presence of wolves (and other predators) in a rapidly urbanizing and globalizing world raises old fears and new issues. Learning to share both natural and humanized landscapes with wolves is a difficult personal and cultural shift of perspective for some. It also entails real and unavoidable social and political conflict. We should expect such difficulties when we try to optimize the well-being of people and wolves.

To help mitigate or resolve such conflict, we need an ethics of wolf recovery. This ethics should not only help reveal the moral issues at stake, but provide guidance on how we ought to live with wolves in a shared landscape. When speaking about ethics and wolves, one can get caught up in particular ethical theories and what they might say about wolves. This does little to advance our thinking. Ethics is not about rigid rules or dogmatic theories. It is really about the moral values that inform (or should inform) how we ought to live. With this in mind, this paper looks at several questions that have emerged in recent debates over humanity's relationship to wolves.

- What is the relationship between ethics, science and public policy?
- Do wolves have intrinsic value?
- Can changes in land use help us coexist with wolves?
- Is the intrusive management of wolves justified?

Getting our heads straight about ethics and wolves has never been more important. The moral-political landscape of wolf recovery has changed over the course of thirty years. It is a landscape where the assertions of anti-wolf interest groups are brazen, the junk science and regulatory mendacity of the current federal and many state administrations intentionally undermines conservation, and wolf management has become an excuse for a gulag of wolf 'parks' surrounded by zones of species cleansing. Moreover, a policy focus on technical matter instead of practical ethics has resulted in a distorted vision of how and where we ought to live with wolves. This paper will explore this larger vision, contrasting the presuppositions that inform contemporary efforts at wolf recovery with a broader notion of what it means to live sustainably alongside wolves.

Thursday 1:00 – 1:30 pm

Cracker Shells, All-nighters, and Big White Dogs: Five Years of Living with Wolves and Other Predators on a Large Range Sheep Operation in Idaho

Mike Stevens, President, Lava Lake Land & Livestock, LLC, P.O. Box 2249, Hailey, Idaho 83333, (208) 788-1710 Office, (208) 720-2781 Mobile, (208) 788-1264 Fax, mike@lavalake.net, www.lavalakelamb.com

Lava Lake Land & Livestock operates a range sheep operation on 850,000 acres of private, state, and federal lands in south-central Idaho. Founded in 1999 with a two-pronged mission to achieve landscape-scale conservation in the spectacular Pioneer Mountain-Craters of the Moon region and to support its conservation work through environmentally sound business practices, Lava Lake has received multiple conservation awards for its wide range of conservation and scientific projects and markets its own brand of all-natural and certified organic lamb. Since 2002, Lava Lake has worked with a coalition of conservation groups and agencies to develop proactive non-lethal methods to prevent predation of sheep by wolves, bears, coyotes, and mountain lions. While the risk of large predation events remains, we have successfully tested proactive methods of wolf deterrence with sheep bands in direct contact with wolf packs.

Thursday 1:30 – 2:00 pm

Wolves and Ranching: Proactive Efforts to Reduce Conflicts in the USA Northern Rockies

Suzanne Asha Stone, Defenders of Wildlife, P.O. Box 773, Boise, ID 83702, (208) 424-9385, (208) 861-4655 Cell, (208) 424-0169 Fax, sstone@defenders.org

The optimal way to manage conflicts between livestock owners and wolf conservationists is to proactively prevent wolf depredations on livestock by non-lethal means. This goal led to the creation of The Bailey Wildlife Foundation Proactive Carnivore Conservation Fund in 1998, which supports the use of non-lethal deterrents and preventative animal husbandry practices including livestock guard dogs, electric night pens, fladry, task-specific range riders, alternative grazing, removal of attractants, and other methods. Many of these deterrents were developed in partnership with ranchers, and tribal, state and federal agencies. Working with livestock owners, resource managers and others to prevent or reduce predator problems has important conservation benefits. The single leading cause of wolf mortality in the western USA is government lethal control actions to stop livestock losses. Reducing conflicts can help protect wolves from being unnecessarily killed. Additionally, addressing these conflicts and implementing common-sense solutions creates opportunities for collaboration, which can help reduce social tension and encourage co-existence.

Over the course of the program, we have conducted a wide range of proactive and non-lethal wolf projects throughout the region including several range rider projects in Montana, turbo-fladry development in central Idaho, grazing allotment retirement near Yellowstone National Park; supplementing livestock guard dogs on Idaho's Boise, Payette and Sawtooth National Forests, and building predator proof fencing for llama protection near Missoula,

Montana and sheep enclosures in the Paradise Valley in Montana. From these efforts, we developed general guidelines to help prioritize and manage potential projects, which include the project's importance to species conservation, location, level of cooperation among participants, feasibility, evaluation and limitations. Please visit www.defenders.org/wildlife/new/facts/pro.html