



Snow Leopard Trust

2006 Annual Report



Snow
Leopard
Trust



Celebrating 25 Years

Keeping anything going for 25 years is a challenge, whether it's a business, a friendship, or a wildlife conservation organization. As the Snow Leopard Trust celebrates its 25th anniversary this year, I have been thinking about the many people who have played a role in the Trust's success.

I realized what these many people have in common when I heard Harry Freeman, the son of Snow Leopard Trust founder Helen Freeman, speak about his mother's approach to conservation:

Although my mom is not likely to shrink from her beliefs, she is adept at perceiving those of others and reaching compromises that benefit all involved. I believe it is her expert recognition of the value of relationships that has helped establish the Trust as a global model for wildlife conservation.

The Snow Leopard Trust is built on strong relationships and they are the key to the success of our conservation, education, and research programs. And it will be these strong relationships that will, in the end, ensure the survival of the snow leopard.

Brad Rutherford
Executive Director

Project List 2006

Science & Research

Afghanistan – *snow leopard & prey baseline surveys*
Bhutan – *snow leopard & prey baseline surveys*
China – *snow leopard & prey baseline surveys*
India – *snow leopard & prey monitoring, Tibetan antelope population monitoring*
Kyrgyz Republic – *snow leopard & prey monitoring, baseline surveys*
Mongolia – *snow leopard & prey monitoring*
Nepal – *snow leopard & prey baseline surveys*
Pakistan – *GPS collaring study, snow leopard & prey monitoring and baseline surveys*
United States – *genetic analysis*

Community-based Conservation

China – *Community surveys*
India – *Livestock Insurance, Livestock-free Wildlife Reserves*
Kyrgyz Republic – *Handicrafts project (SLE); training in felt-making techniques & marketing*
Mongolia – *Handicrafts project (SLE); training in wool dyeing & spinning*
Pakistan – *Livestock Vaccinations, Handicrafts project (SLE); training in small business mgnt*

Education

Afghanistan – *training in wildlife management for graduate students*
India – *wildlife clubs, pilot program for elementary schools*
Kyrgyz Republic – *grade-school textbook, student eco-camp, teacher workshops*
Mongolia – *newsletter, year-end reporting, grade-school textbook*
Pakistan – *workshops for rangers, small-business training*

Policy & Legislation

India - *Project Snow Leopard*



In Memory of Mountains

GPS Collaring Study, Pakistan

Thanks to their shy nature, the steep terrain they inhabit, and their twilight activity, snow leopards are extremely difficult to study. Much of the information on their movements and habitat use was based on anecdote, extrapolation or older research using less-accurate radio collars—until now.

On November 17, 2006, a healthy, 75lb (35kg) female was captured by our staff in Chitral Gol National Park. She was fitted with a GPS collar that will track her daily movements for the next 14 months. If successful, this project will give us a more accurate idea of how much space a snow leopard needs. Current estimates range widely between 65 sq km and 1,000 sq km! The study will also help us know whether the cats avoid human settlements and roads, or cluster around livestock areas.

The research team named this historic cat Bayad-e-Kohsaar, Urdu for “In Memory of Mountains,” to remember the conservationists who lost their lives in Nepal in a helicopter accident last September.



Shirdaks and Snow Leopards

Community Conservation, Kyrgyzstan

The Kyrgyz Republic, or Kyrgyzstan, has been referred to by travelers as the “Switzerland” of Central Asia. Over 80% of the country is covered in high mountains, interspersed with lush valleys and alpine lakes. As a result of its geography, very little of the land is cultivated and the largest agricultural activity is herding. The mountains also make perfect snow leopard habitat and Kyrgyzstan is believed to have the third highest snow leopard population in the world.

The community-based conservation programs have been extremely successful in Kyrgyzstan, growing from 11 households in one village in 2002 to 40 households in two villages in 2005. The program has provided an average of \$143 per family, nearly doubling the annual income for these families and giving them an incentive to engage in conservation efforts in their region.

We began the process of expanding this successful model even further in 2006 to include three additional villages near the protected area of Naryn, which will more than double our snow leopard conservation efforts in Kyrgyzstan.



Gold Star

Independent Program Review, Mongolia

We're proud to announce that the Snow Leopard Trust recently received top marks for its work in Mongolia. Last year we commissioned an independent evaluation of Snow Leopard Enterprises (SLE), our largest and longest-running community-based conservation program. A generous grant from the Turner Foundation enabled us to send Dr. David Mallon on a five week trek to 19 of 21 SLE communities in Mongolia. He interviewed nearly 100 SLE participants, as well as local government and protected area officials from around SLE communities.

In his final report, Dr. Mallon reported that "SLE is an outstanding example of an integrated rural development and conservation project."

The cash income "adds flexibility" to family budgets, enabling participants to purchase food, household items, and to pay school fees. At the same time, "[t]he raised awareness of the snow leopard and the environment, the reduction in poaching of large prey, and the wider protection of the environment as a whole have undoubtedly made a significant contribution to snow leopard conservation."

Participating in SLE strengthens family and community ties, and helps link remote communities with the outside world, alleviating some of the isolation that often is a result of the herding lifestyle.



Science Fiction to Fact

Genetic Mapping

Because of their shy nature, large home ranges, and low numbers snow leopards are extremely difficult to count. Sign transect surveys (walking a path and counting pugmarks, scrapes, scent sprays, etc.), have been commonly used to estimate relative snow leopard density (high to low), but is open to many potential errors. There has long been a need for a better way to estimate populations and monitor trends so that we can thoroughly evaluate and improve conservation efforts.

One technique for estimating abundance of rare species uses the DNA obtained from shed hairs or in feces, which are easier to find in the wild than an actual snow leopard! This “non-invasive” genetic sampling has been successfully used to obtain population estimates in other large carnivores including bears, cougars, wolves, and coyotes. But a lot of laboratory work must be done ahead of time to perfect the method for each species.

Using samples from cats in the Woodland Park Zoo, we painstakingly identified small sections of the snow leopard’s genetic code that showed large variation between individual cats. These 10 “micro-satellite loci” we discovered are now being used to estimate the actual population size of snow leopards in a specific areas for the first time ever.

The method was recently tested in the wild in two sites in Kyrgyzstan and one just across the border in China. In one of the study areas in Kyrgyzstan where we knew a lot of poaching had occurred the genetic technique identified only one cat. But in the similar sized China study area we counted a minimum of 8 leopards. This new tool will allow us to monitor changes in leopard numbers over time so we can determine if our conservation programs are successful in reversing decline like we have seen in Kyrgyzstan and other areas.



2006 Financial Review

The Snow Leopard Trust was able to provide the most funds ever to its growing field conservation efforts. Donations, sales, and grants rose 41% versus the previous year – rising to just over \$881,000. Support from every category grew, allowing the Trust to expand efforts in every country.

2006 Income Source	Dollars	Percentage
Individual Donations	\$342,000	39%
Grants	\$366,000	42%
Zoos	\$82,000	9%
Product Sales	\$91,000	10%
Total	\$881,000	100%

The Trust works hard to minimize its administrative costs and ensure the largest possible percentage of funds goes to direct conservation efforts. One indicator of our success in this area is our recent 4-star rating from Charity Navigator. This is the highest rating given by America's largest independent evaluator of charities, which ranks organizations according to their organizational efficiency and capacity to sustain programs over the long term.

The demand for expanded protection of snow leopards in the wild continues to outpace our ability to fund expanding programs. While the growth of our programs is encouraging we have additional program needs of more than \$250,000. Snow Leopard Trust staff will continue to make every effort to bring protection to more snow leopards and their mountain habitat.



Natural Partnership Program

Akron AAZK Chapter	Melbourne Zoo
Albuquerque Biological Park	Mill Mountain Zoo
Big Cat Rescue	Milwaukee County Zoological Gardens
Binder Park Zoo	Nashville AAZK Chapter
Blank Park Zoo	Oklahoma City Zoo
BREC's Baton Rouge Zoo	Oregon Zoo
Brookfield Zoo	Parc Zoologique de Doué la Fontaine
Buffalo Zoological Gardens	Philadelphia Zoo
Burgers Zoo	Potawatomi Zoo
Chattanooga Zoo	San Antonio Zoological Gardens & Aquarium
Cheyenne Mountain Zoo	Santa Barbara Zoo
Cleveland Chapter of AAZK	Societe Zoologique de Granby
Columbus Zoo	Sunset Zoo
Disney Wildlife Conservation Fund	Tautphaus Park Zoo
Jackson Zoo	The Living Desert - California Desert AAZK
Jardin Zoologique du Quebec	Toledo Zoo AAZK Chapter
John G. Shedd Aquarium	Tulsa Zoo and Living Museum
Jungle Cat World	Utah's Hogle Zoo
Knoxville Zoological Gardens	Wildlife Heritage Foundation
Les Felins d'Auneau	Woodland Park Zoo
Marwell Zoological Park	Zoo Dresden

Foundations & Corporate Partners

Bosack-Kruger Charitable Foundation	Adobe Systems Incorporated
Edwards Mother Earth Foundation	Bank of America Matching Gifts
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Felidae Conservation Fund	Formulations, Inc
The Hugh and Jane Ferguson Foundation	IBM Matching Grants Program
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Turner Foundation, Inc.	Mutual of America
Raynier Institute & Foundation	New York Time Company Foundation
David Shepherd Wildlife Foundation	Nippon Express USA, Inc.
Wildlife Conservation Network	Organic Bouquet
Wildlife Conservation Society	RH Donnelley
	Schwab Fund for Charitable Giving
	The Williams Foundation
	Wachovia Foundation
	Washington Mutual



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Conservation Partners

Gifts of over \$1000

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Staff

Regional

Raghunandan Chundawat, *Regional Science & Conservation Director*

China

Ma Ming, *Field Project Coordinator*
Ge Yun, *Program Administrator*

India

Charudutt Mishra, *Program Director*
Yash Veer Bhatnagar, *Associate Program Director*
Tsewang Namgail, *Research Affiliate*
Pranav Triyedi, *Education Officer*

Kyrgyz Republic

Cholpon Dyikanova, *Program Director*
Asel Tagaeva, *Program Administrator*
Alexander Vereshagin, *Field Project Leader*
Kubanych Jumabai uulu, *Research Assistant*
Maxim Kulikov, *Project Assistant*
Jarkyn Samanchina, *Community Conservation Coordinator*

Mongolia

A. Bayarjargal, *Country Director*
B. Munkhtsog, *Science & Research Director*
L. Purevjav, *Researcher / Database Manager*
M. Tserennadmid, *Project Assistant*
G. Enkhtuvshin, *Snow Leopard Enterprises*

Pakistan

Javed Khan, *Program Director*
Jaffar Ud-Din, *Field Biologist*
Naseema Nazir, *Community Conservation Coordinator*

United States

Brad Rutherford, *Executive Director*
Tom McCarthy, *Science & Conservation Director*
Jennifer Snell-Rullman, *Conservation Coordinator*
Jennifer Akin, *Development Director*
Jeff Brown, *Technology Director*
Marissa Berryman, *Program Manager*
Gina Robertson, *Program Assistant*
Xiao Chen, *Student Intern*

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Charles Morse
Andrea Gates Sanford
Seshadri (Sesh) Velamoor
Mike Waller
Craig Zehnder
Helen Freeman, *Founder*

Special Thanks

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