



Fall 2010

Snow Leopard Tracks

Snow Leopard Trust

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Reserve your exclusive Snow Leopard Trust calendar for next year now! Call 206-632-2421 or e-mail info@snowleopard.org.

CYRIL GRUNDMANN



Cat Tails

Honest to Goodness

We are proud to be partnering with Mary Wolff, founder and owner of Honest Pet Products, producer and marketer of eco-friendly pet toys. She is a genuine example of how one woman can make a difference. Honest Pet Products is distributing some of our Cat Toy Mice, hand-felted in Mongolia. Please visit www.honestpetproducts.com to see these "Eco-Pouncers" as well as the rest of the products.

The List of "Snow Cubs" Grows

We are excited to report the births of more than a dozen snow leopard cubs at partner zoos this year! Check our blog at blog.snowleopard.org for updates to the list and if you live close by, visit these babies soon—they do grow up fast!

Banham Zoo: 3 cubs
Buffalo Zoo: 2 cubs

Cape May Zoo: 2 cubs
Granby Zoo: 2 cubs
Oklahoma Zoo: 2 cubs
Parc des Felins: 1 cub
Planckendael Zoo: 1 cub
Rio Grande Zoo: 3 cubs



CAPE MAY ZOO

Sept. 22-25: European Association of Zoos and Aquariums (EAZA) Annual Conference, Verona, Italy

Sept. 29-Oct. 1: North American Association for Environmental Education (NAAEE) Annual Conference, Buffalo, NY

Oct. 2: Snow Leopard Trust Annual Fall Dinner, Seattle, WA

Oct. 2: Wildlife Conservation Network (WCN) Wildlife Expo, San Francisco, CA

Oct. 23-24: Green Festival, Washington, DC

Nov. 6-7: Green Festival, San Francisco, CA

Dec. 1: Seattle Tennis Club Bazaar, Seattle, WA

Dec. 5: St. Anne's Fair Trade Bazaar, Seattle, WA

For more information visit www.snowleopard.org/events.

Upcoming Events

Catch the snow leopards this fall! Here's where we'll be:

Sept. 7-12: Association of Zoo and Aquarium Docents (AZAD) Annual Conference, Chicago, IL

Sept. 11-16: Association of Zoos and Aquariums (AZA) Annual Conference, Houston, TX



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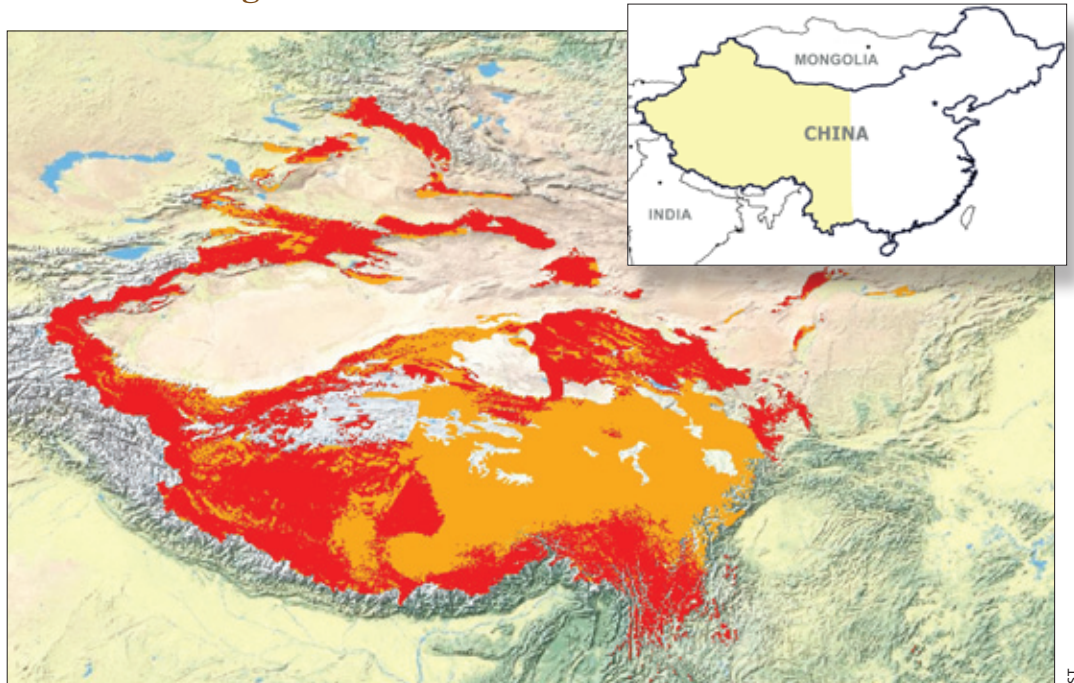
Through innovative programs, effective partnerships, and the latest science, the Snow Leopard Trust is saving the magnificent snow leopard and improving the lives of people who live in the snow leopard countries of Central Asia.

Building a Better Snow Leopard Map

Looking at the effects of climate change in China

Snow Leopard Trust is pleased to announce that we have created a new snow leopard range map that provides more accurate and comprehensive information about the cat's habitat in China. The map will help the Trust hone its conservation strategy for this crucial snow leopard country (home to the largest remaining population of wild snow leopards in the world), and provide some clues about how the cats may be affected by global climate change.

The previous snow leopard range map for China was based on physical habitat characteristics, like elevation and ruggedness, and 40 years of data on snow leopard sightings—a solid start, but we knew of habitat modeling techniques that could help us locate some overlooked areas where the cats might live, especially in the poorly



The area shown in red represents habitat predicted by the new model using sightings and climatic variables. The area shown in orange represents habitat predictions from the old model (which were based on physical characteristics like elevation and ruggedness) that do not overlap with the new model. Creating this new map was the first step in projecting how snow leopard habitat might be affected by climate change (see climate change scenario map on page 2).

MAPS: SNOW LEOPARD TRUST

The climate change maps indicate a possible geographical shift in snow leopard habitat by the middle of the century

studied western part of the country. With a grant from the Google.org Fund of the Tides

Foundation, the Trust hired GIS specialist Jamie Kass to carry out the mapping project.

Jamie began by running a model that predicts where snow leopards are likely to live based on sightings data and 19 climate variables such as temperature and rainfall. Then, he created a map for western China that predicts ideal habitat based on the data. Using this new map to more precisely compare snow

leopard range to existing protected areas we found that the majority of China's snow leopards may live in unprotected areas.

Next, Jamie integrated the new habitat model with two climate change scenarios for the year 2050, obtained from the Intergovernmental Panel on Climate Change (IPCC), and developed a series of maps exploring the possible effects of climate change on

snow leopard habitat. We were surprised to learn that in 2050, the overall area of climatically suitable habitat may be roughly the same size as the snow leopard's current range in China (~1,382,405 km²).

While size of the habitat is projected to remain constant, the climate change maps indicate a possible geographical shift in snow leopard habitat

...continued on page 2



MAP ...continued from page 1

by the middle of the century. More habitat is likely to open up to the north and east of the cat's current center of distribution, while the habitat on the outer edges of its range in China is likely to become much more fragmented.

While the map represents an excellent initial effort, further study is necessary to determine whether the new habitat areas will actually be habitable by snow leopards or their prey, and how human populations and their predicted movements will overlap with snow leopard areas as climate change continues. To answer some of those questions, we hope to obtain better municipal and regional human census data from China, which will help predict where increased conflicts between humans and snow leopards are likely to occur. In the future we would like to apply this valuable new mapping method to other snow leopard range countries.

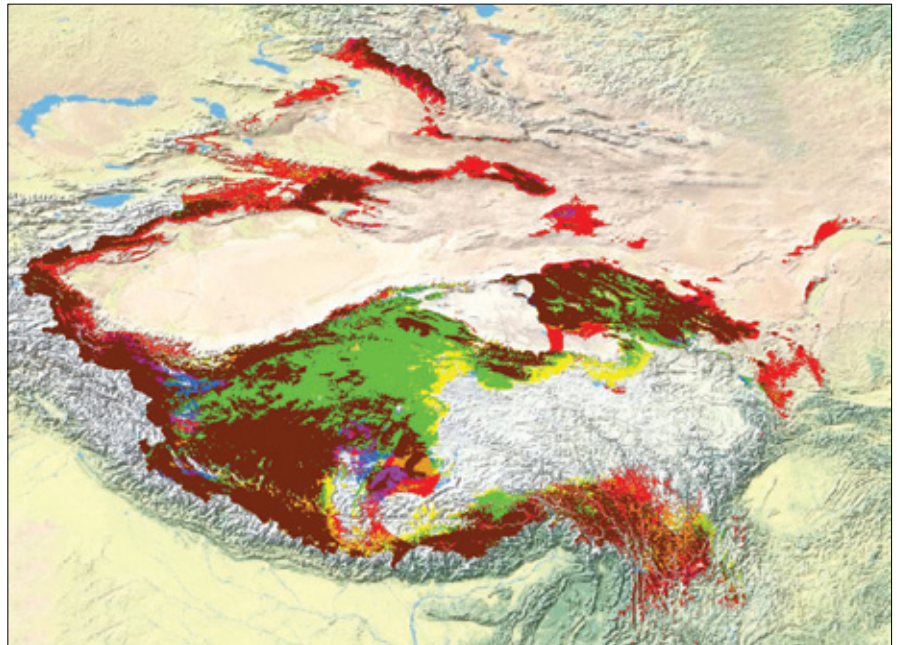
Despite Unrest, Work Continues in Kyrgyzstan

This spring and summer, violent antigovernment protests occurred in the Kyrgyz capital of Bishkek followed by ethnic riots in the southern part of the country, especially around the city of Osh. This unrest left us worried for the safety of the people we work with in Kyrgyzstan, as well as the wild species that are so often the victims of human strife.

The difficulty of effective conservation under such circumstances was highlighted when officials discovered three snow leopard cubs in former Kyrgyz President Kurmanbek Bakiyev's illegal personal menagerie just weeks after he abdicated his position.

Despite these difficulties, our field staff in Kyrgyzstan have continued their important work, thanks to your support. Most of the Trust's programs take place in the Central Tien Shan Mountains in the eastern part of the country, and Kuban Jumabai uulu, the Trust's Kyrgyzstan Program Coordinator, recently returned from a trip to six mountain villages where we are working.

Although this region is relatively distant from the recent violence, Kuban was concerned about how the villages were being affected by the political turmoil. After meeting with Snow Leopard Enterprises (SLE) participants he reported, "The local people did not talk about politics. They did not discuss the



This map displays how snow leopard habitat is predicted to be affected by climate change. Most notably, green represents new habitat snow leopards would move to under the climate change predictions for 2050, while red is current habitat that would be lost. Brown represents the overlap between current snow leopard habitat and expected habitat under the climate change models, making it the most important area to focus our conservation efforts over the next several decades.

MAP: SNOW LEOPARD TRUST

changes in government or the new country leader or violence in the south. They were more passionate to discuss the degrading roads and bridges in their area and the extremely harsh winter—both making it very difficult to dry felt for local carpets and to travel outside of the village."

Kuban purchased handicrafts the communities produced for Snow Leopard Enterprises, solidifying their commitment to snow leopard conservation. He also made plans to return this fall to begin an in-depth assessment of the current threats facing snow leopards in the region.

Residents of the village of Eki-Naryn, like the mother pictured here, have been participating in SLE and helping the Trust protect snow leopards in Kyrgyzstan.



PHOTO L: KYLE MCCARTHY/SNOW LEOPARD TRUST; PHOTO R: SNOW LEOPARD TRUST

MONGOLIA MINING UPDATE

Protected Area Proposal Moves Forward

Communities in the Tost region have mobilized rapidly to fight the threats to their herding traditions, and to snow leopards, represented by the mining development that we reported on in the last issue of this newsletter.

In early June, the Trust's Mongolia Program Director, Bayara Agavantseren, and Regional Ecologist, Koustubh Sharma, traveled to the Gurvantes township to help local government officials complete an application to establish a People's Protected Area. The proposed protected area encompasses 6,689 square kilometers surrounding the Tost and Toson Bumba Mountains, and includes important herding community resources as well as crucial snow leopard habitat.

"I am extremely pleased with the progress so far," says Koustubh. "What seems most exciting and inspiring in the whole exercise is the willingness, commitment, and enthusiasm of the local communi-

ties." Koustubh added that the governor of Gurvantes township has been an important ally and fully engaged in the application process

The application has been approved at the township, district, and provincial levels and was submitted to the Authority of Mineral Resources and Energy (AMRE) within the federal government this July. It's not clear how long approval of the protected area might take. AMRE officials warned that the mining companies may resist giving up their permits, or request compensation. Bayara will be working with the Ministry of Nature, Environment, and Tourism to help move the proposal along.

As always, we are thankful to everyone who sent in donations during our spring appeal to keep this process moving forward.



LONG-TERM STUDY UPDATE

Female finally joins study

We have great news to share from our long-term snow leopard study. Since February, we have placed GPS radio collars on three new cats: two males, Devekh and Khavar, and...drumroll please...a female named Zaraa. She is the only female in the study right now—our research team tried for a year to attract a female snow leopard, even going so far as to set out perfume! Interestingly, the collars have recently shown that the home ranges of Khavar and Aztai overlap by more than 90%, while Zaraa is traveling to the east of "the boys."

In addition to their collaring exploits, our team also finished setting out 40 trap cameras in their continued efforts to count snow leopards in the study area and track their numbers over time. Interested in an exclusive first glimpse of the photos (perhaps even of snow leopards!) that these cameras capture? Please call Siri at 206-632-2421 and ask about our camera "adoption" program.

This summer we placed a GPS radio collar on a female snow leopard, Zaraa (above), and continued to track Aztai (right) as well as five other males.

The long-term study is in partnership with Snow Leopard Conservation Fund (Mongolia) and Panthera Foundation, and in collaboration with the Ministry of Nature, Environment and Tourism, the Mongolian Academy of Sciences, and the Mongolian State University of Agriculture.

Study Seeks to Reduce Use of Steel-jawed Traps

While we work to address mining activity, we are also keeping an eye on other threats to snow leopards in Mongolia. This summer, Trust biologist Tserennadmid Mijidorj (Nadia) interviewed more than 100 herders in the Tost Mountains to understand hunting and trapping practices in the region.

Herders in the South Gobi sometimes set steel-jawed leg hold traps to protect their livestock from wild predators, particularly wolves. Hunting and trapping wolves is legal in the province, but the traps are extremely strong and do indiscriminate harm to any large animal that encounters them. In July 2009, Trust staff removed a trap from the shattered leg of a snow leopard near our scientific base camp. We don't know whether he survived his injuries.

Nadia's study, which is supported by the Nysether Family Foundation, will gather information about where and when herders place traps, how many they place, and the cultural and socioeconomic motivations behind these activities. This understanding will help us design collaborative, culturally sensitive programs to help reduce their use.

