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04

THE MODERN FACE OF TIBETAN TRADITIONAL CULTURE

HOW SPECIAL IS THE

TIBET'S CHANGTANG?

Text & Photo by Joel Berger

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IMPRESSIONS:

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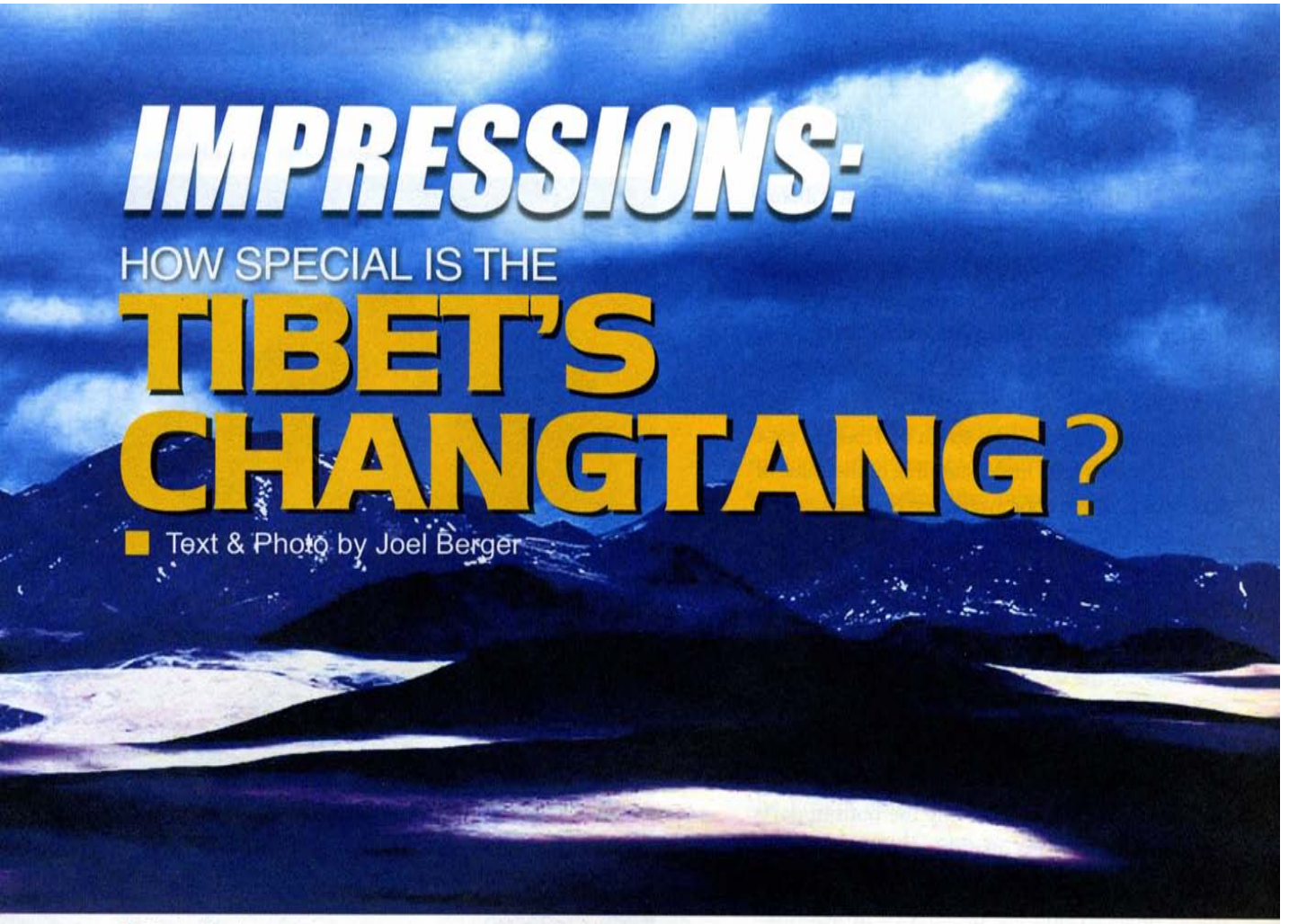


Tibetan Landscape.

The group, numbering 30 or 35, all moved in unison, dressed in thick bluish-gray coats, they descended the steep rocky slopes. Their goal was obvious. These blue sheep were looking for water. They dropped lower. My colleague and friend, Dr. Aili Kang, and I used our binoculars for a better look. Suddenly, the animals bolted, fleeing in different directions and all moving upslope away from snowfields. We saw why. A wolf appeared, its tail hanging low and curved. We waited and watched, getting a better look. It was no wolf. Strutting out into the open, its luxuriant tail and spotted fur coat were lit by the sun. It was the majestic and primary predator of blue sheep, a snow leopard. In the rarified and cold December air at 5,200 meters, we tried to get closer. By the time we reached the spot, the sheep were gone. So was the cat. Aili and I savored the two minutes we had spent observing the crown jewel of Tibet's mountains.

I've visited the Tibetan Plateau just once. As such, my experience pales when contrasted to that of local biologists, of herders, and of officials and others who have lived for generations there. Undoubtedly, my perspective will differ, being both an American and having worked elsewhere. But, I think my impressions are important because they represent not only those of a biologist but those of a person with broad interests in conservation by which I mean wildlife and people. I have three points to make; uniqueness, opportunity, and responsibility.

Male chiru fighting.

First, while many places on the planet are special, few match the Changtang, the 'northern plain' in Tibetan. The Changtang Nature Reserve – some 330,000 square kilometer of central and northern Tibet – is a huge tract of open land, generally between about 4,700 and 7,000 meter above the sea level. At twice the size of Guangdong or about the size of Norway, the Changtang differs in important ways. Guangdong has 90 million people; Norway five million. The number of permanent residents in Changtang is estimated at less than 10,000. Whereas the population density of Guangdong exceeds 200 people per square kilometer and that of Norway is 12, in the Changtang it is less than 0.03 people per square kilometer. By contrast, two other countries well known for their iconic wildlife – Namibia and Outer Mongolia – have human densities of about 2.6 and 1.7 people per square kilometer. In other words, outside the Polar regions, the 'northern plain' of the Tibetan Plateau is one of this planet's least peopled regions, with a human density 6 times less than China's neighbor to the north. As we know from so many other areas, there is a cause and effect relationship between the abundance of wildlife and people. More people generally means less tolerance and less wildlife. Indeed, George Schaller, author of the acclaimed book, Wildlife of the Tibetan Steppe, points out that 19 species of large herbivores occupy the Tibetan Plateau.

Hence, my first point is simple; whether compared within or beyond China, there are few places on the planet that hold such value for the human spirit and for the species that reside there. Species unique to areas on or adjacent to the Changtang have exceptional adaptations shaped over the millennia and iconic value. There are massive wild yaks with black skirts that that almost reaches the ground. Some live below glacial summits. There is the Tibetan antelope (chiru) with its sleek and saber-like horns, Tibetan foxes, Tibetan gazelles, and the world's highest elevation brown bears and the world's highest equids – the dun yet brightly colored kiang. To these we add Tibetan gazelles, white-lipped deer, and black-lipped pika. Other species but with broader ranges and sizeable populations within the Changtang are snow leopards and blue sheep.

The region is unlike anything that I had been prepared for. Gazelles foraged with kiang, chiru with yaks. At times, gazelles were mixed in with chiru, and kiang

A Tibetan girl and her family's yaks.

loomed near-by yaks. Wolves hunted on the plains, blue sheep foraged on slopes above. The vegetation was not taller than 20 centimeters, canyons were deep, glaciers prominent, and skies blue and sunny. The cold was cold, and the winds of Tibet were, as Sven Hedin described in his 1910 book, Trans-Himalaya, "in gusts ... whistling through the grass and dying away in the distance, only to be followed by another which rushes down the mountains like a waterfall, and seems to be determined to carry away the tent with its headlong flight." Beyond the elements, the topography was elegant – red cliffs and plateaus, limestone and volcanic rock. Ancient paintings and carvings depicted hunting cultures of the past.

In both the Russian Far East and in Southeast Asia, forests, other vegetation, and roads may impede one's abilities to watch wildlife. In the Arctic, productivity is low although large concentrations of caribou may occur and musk ox, moose, and Dall sheep are also found. But, the Changtang is more African-like than many places either in or out of Africa. Long distance migrations still occur – chiru possessing the ability to move nearly 1000 kms to calving grounds in the north and then to breeding grounds in the south. Finding intact areas where people and wildlife coexist and where extinctions have not yet occurred is rare in most of the world. China is fortunate to have the Changtang.

My second point; no place in the world is without challenge. Change is ubiquitous. Where herders were once true nomads, traveling solely by foot, by yak, or by horse, today's modes of transport are enhanced by motorcycle or car. The purpose of my visit to the Changtang was to absorb some of the change, to listen

and to learn, and to think about population trends. I worked with Aili, the lead biologist for the Wildlife Conservation Society's (WCS) office in Lhasa. In conjunction with George Schaller and working with Tibetan Forestry officials and several non-government organizations including the World Wildlife Fund, the WCS has established conservation goals for the region. These include assuring a healthy environment not only for wildlife but also for people. My specific goal was, in part, to help develop statistically robust sampling methods to understand whether populations have been increasing, remaining relatively stable, or declining. Based on our interactions with herders, we were told that blue sheep and chiru are increasing, but little is known of the other species.

Our work focused on chiru. We documented minimum counts of 21,000 in just the Naqqu Prefecture. We know we did not detect every chiru, and so are working with different models to derive confidence in our upper and lower bounds in estimations of abundance. We also counted about 500 blue sheep, finding them in 9 of 10 mountain ranges where we sampled for more than 20 minutes or so. While we did not target Tibetan gazelles, yaks, or kiang, we recorded more than 2000 gazelle, almost 200 yaks and more than 3000 kiang. On top of this, there were countless pikas, one set of fresh brown bears tracks in snow, several lammergeyers and Himalayan vultures, and eagles, buzzards, and falcons.

During our surveys, opportunities to interact with herders were plentiful. And, although I never fully acquired the taste for yak butter tea, the hospitality, the noodles, the mutton and yak meat, and the hot water all did wonders to keep me warm and my stomach happy. It was through the eyes of semi-nomads, and recent immigrants as well as through Aili and George, I came to realize conflicts with wildlife, and to understand all is not peaceful harmony

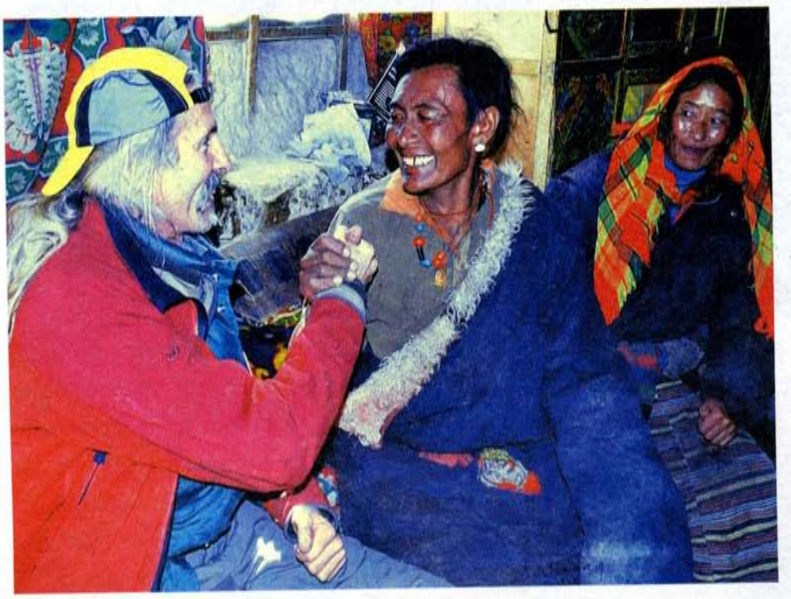
Like everywhere, the human population of Tibet is growing. Land is being leased for periods of 30 to 70 years, fences are being constructed across huge swaths of land, and there continues to be a big push to populate low density regions. This all makes some sense when one considers the livelihoods of people and that economic gains are critical in any modern society. If land is limited and if people desire easy ways to manage their livestock, fencing may be a sage solution. But, fencing has great costs that excise tolls beyond finances. One just needs to look beyond the immediacy of overgrazing – a problem that has been repeated over and over across areas of not only China but in Africa, in North America, and virtually everywhere people and livestock have co-existed. The question becomes, what is the cost of sedentarization, and what are the short- and long-term effects on both wildlife and on people?

● Yak Group.

As people expand their permanent range northward and upward in Changtang, more problems - not less - will occur. Pastures that once saw people only during the brief summer and fall now have residents year-round, and up to elevations above 5000 meters. Problems come in the form of wildlife conflicts, of which there are many. Brown bears may not just injure or kill people; they also are attracted to livestock and to poorly protected homes that have easily accessible food, like carcasses. Even odors like butter attract bears. Elsewhere we know bears prefer easy food and so if herders are unable or unwilling to alter some of their practices, conflicts with bears will continue. The result will be injuries to people and either more dead bears or more herders or economies harmed. Changes in human practices must occur. This requires understanding more about both human behavior and bear behavior and their ecology. If co-existence between bears and people is a goal, which it is, at least based on my conversations with herders and government officials, the time is ripe to extend pilot projects and garner fund additional funds to gather knowledge and take action.

Conflicts will also involve other species – notably wolves, lynx, and Tibetan red fox – all of which take either young or adult livestock at different times of the year. However, other species offer other sorts of difficulties including kiang, snow leopards, and yaks – all endangered. Kiangs have the capacity to decimate herder pastures in just 1-2 days if they occur in sufficiently large numbers. Wild yak bulls appropriate domestic females and can injure or kill – as has occurred – herders trying to protect their stock from raids. Snow leopards, at times, prey on domestics as well. Tibetan wildlife officials are sympathetic to the dual challenges they face: 1) protecting people, 2) assuring wildlife persistence. They are eager for solutions to minimize conflicts. So, while the Changtang has exceptional offerings to the world, the conflicts between wildlife and people are reflective of problems occurring elsewhere in the world.

My final point is a given; China's wildlife is entrusted to the government and to the Chinese people. China has a responsibility to protect the species it has designated as Class 1. Because people-less space still exists in the central and northern Changtang, it is fortunate that biologists like Aili and George and local and county and prefecture



Tibetans and the author Joel Berger. Photo by Kang Aili

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Joel Berger, is the John J. Craighead Chair of Wildlife Biology at the University of Montana (USA) and also Senior Scientist for the Wildlife Conservation Society. He has worked in the Gobi Desert of Mongolia, the Russian Far East, and the Arctic. His latest book is, The Better to Eat You With; Fear in the Animal World (University of Chicago Press, 2008).

and provincial and central agencies take an interest in improving lifestyles and assuring conservation. That WCS-Lhasa and WCS-China is using science to identify both core and buffer areas where species like yak, kiang, snow leopards, and chiru can be assured of sufficiently large regions to maintain population sizes is a good thing. That they are working to identify demographic thresholds above which populations should be maintained is good for conservation in this unique region.

Still, some challenges are more demanding than others and defy immediate solutions. Finding ways to balance people, and to create buffer zones and core areas are essential first steps, and need to be addressed immediately. Other issues will take more time. Changes in glacial ice and alteration of high elevation temperature and precipitation regimes will mean changes in the way herders do business. Species reliant on cold and perhaps even glacial refugia – maybe wild yaks – will need more protection, more space, less interactions with domestics. On the other hand, anti-poaching patrols or changing economic climates have bolstered species like chiru, whose populations have grown with awareness. Blue sheep are increasing and healthy blue sheep will be good for snow leopards because interactions between snow leopards and domestic stock may then be minimized. Funding, time, and expertise are available. The challenge is tapping these resources and then finding ways to do it right.

Vast, open, and wild, the Changtang offers the world hope. On par with the Serengeti, nearly 40 times the size of Yellowstone, it is the second largest protected area on the Earth. It is a place where carnivores can still be seen hunting their prey, a place of vast herds, of highlands where mountains meet the sky, and where animals outnumber people and visitors. China has an incredibly rich wildlife heritage. No place on the earth has tigers and elephants, golden monkeys and snow leopard, pandas and wild camels. If the Changtang can be protected, China will assuredly become one of the world's conservation giants. If China succeeds in protecting Changtang wildlife and assuring human livelihoods, future generations will look back and, I would hope, say – 'you did well'.