

notes from the field

SUMMER 2017



Cats
of
Central
Asia

2017
Scholarship
Recipients



WCN

Wildlife Conservation Network

Known for the famous “Silk Road,” Central Asia has always been a crossroads of cultures, but is also a land of varied and unique wildlife. In this newsletter, we explore two of its most charismatic animals—the snow leopard and the manul—both wild cats and both critical to this fascinating part of the world.

Snow Leopard Discovery Found in DNA

High up in the stark, oxygen thin Himalayas, conservationists search for an endangered cat so elusive and well camouflaged it's nearly impossible to find. Notified by local herders who caught a rare glimpse of a snow leopard, scientists comb these remote, craggy peaks for the tell-tale scrapes and trails that could only signal a snow leopard's presence. Unfortunately, despite being the biggest carnivore in this high-altitude landscape above the tree-line, the conservationists see neither hide nor hair of this beautiful, silvery creature. But in their search, they find the next best thing; snow leopard poop.

Unlike the animal that produces it, snow leopard poop (or scat, in scientific parlance), is fairly visible; it's found in open areas at the base of rock cliffs, outcrops, saddles, and ravines. Conservationists often search these areas specifically for scat because fecal analysis provides such unique insight into snow leopards' evolution and ecology. It might sound silly, but

snow leopard scat may well be a key to their conservation.

If conservationists are detectives, then scat is a jackpot of clues. So informative, in fact, that a group of scientists from 20 institutions, including the Snow Leopard Conservancy, worked together in a recent study that specifically analyzed snow leopard scat and uncovered a fascinating discovery. Procuring and analyzing fecal samples from across the snow leopards' range—through China, Mongolia, India, and Central Asia—scientists upturned the long-time assumption that there is one singular species of snow leopard. They found there are actually three distinct subspecies geographically separated into northern, central, and western regions.

Scat contains DNA that has revealed genetic differences in different populations of snow leopards who might otherwise look physically identical. It also shows what the snow leopards are eating, providing a road map to the location of these

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distinct groups. This is why fecal analysis can help conservationists understand these animals in a way that observational techniques, like camera trapping, cannot. Armed with this new information, conservationists can now tailor management and research to the needs of each individual snow leopard subspecies, providing more strategically targeted protection. Different subspecies of snow leopards in different areas may face different threats; being aware of these variances helps inform where conservationists should put their programs and resources and where to designate protected landscapes. Even if you can't find an actual snow leopard, just finding its scat can help establish more adaptable conservation efforts to protect these beautiful, if rarely visible, big cats. ■

Special thanks to Dr. Rodney Jackson of the Snow Leopard Conservancy and Dr. Jan Janecka of Duquesne University for assistance with this piece.



Manuls Losing Their Underground Homes

Manuls are most significantly impacted by nomadic herders killing off large numbers of marmots.

Standing on top of a rocky outcrop, Dr. Jim Sanderson—founder of Small Wild Cat Conservation Foundation (SWCCF)—takes stock of the vast, spreading landscape around him. The Mongolian steppe extends into the distance, wide plains and grasslands with nary a tree to obscure the view or cast shadows. Above, a golden eagle navigates the sky, scanning the ground for movement; in a treeless landscape, any animal darting across the steppe is visible and unprotected. Below, safely tucked into a marmot hole, is a manul (also known as Pallas's cat), a bushy, broad faced wild cat about the size of a house cat. If not careful, the manul could be a tasty meal for a golden eagle; in the expansive openness of the steppe, the safest place for this cat is underground.

Few people live in this part of Mongolia, but those who do—mainly small, isolated pockets of livestock herders—are impacting manuls' survival. As herders utilize more land for livestock grazing, they are dramatically reducing and altering manul habitat. Herders are nomadic, moving four times per year, so they affect far more habitat than if they were stationary. Because small cats are such specialized eaters, when they lose their habitat or prey they can go extinct much faster than their larger cousins, who are more adaptable to changes.

While some manuls are hunted for their skins, they are most significantly impacted by herders killing off large numbers of marmots; shooting them to free up land for their goats, but also for their meat and skins. Unable to dig their own subterranean hideaways, manuls make their dens in marmot holes; without marmots, manuls are disappearing. This means SWCCF's conservation approach for these small cats must focus primarily on protecting marmots and eliminating other negative effects of livestock herding.

Precious little is known about manuls; research is scarce, making it hard to determine how to protect them. Jim Sanderson is currently spending time in Mongolia trying to fill this knowledge gap and find the best way forward for manul conservation. So far, he has found, as with many conservation issues, the key to success lies with educating local children. SWCCF is already seeing that as children of herders become better educated and have access to opportunities outside of their remote communities, their economic choices extend beyond herding. Diversifying their income opportunities means the next generation on the Mongolian steppe may not be herders at all, which could benefit their way of life and make the landscape safe for wildlife. This is what SWCCF recommends for the conservation of this stocky, little-known small cat; invest in local children's education today and build a sustainable landscape for both people and manuls tomorrow. ■

Empowering Future Conservation Heroes



RABIN KADARIYA Country: Nepal
Species: Asiatic black bear, tiger, and Asian elephant
Ph.D. in Wildlife Biology and Medicine
Hokkaido University, Japan
Sydney Byers Scholarship



THAIS QUEIROZ MORCATTY Country: Brazil
Species: jaguar, ocelot, puma, Brazilian snake-necked turtle
Ph.D. in Anthropology and Geography
Oxford Brookes University
Sydney Byers Scholarship



MARTIAL KIKI Country: Republic of Benin
Species: West African lion, spotted hyaena
Ph.D. in Wildlife Ecology and Conservation
University of Florida
Sydney Byers Scholarship



ANYA RATNAYAKE Country: Sri Lanka
Species: fishing cat, rusty-spotted cat, jungle cat
M.Phil. in Environmental Management
University of Queensland
Handsel Scholarship



KRYSTELLE LAVAKI Country: Fiji
Species: marine species, in particular coral reef fish
M.Sc. in Marine Science
The University of the South Pacific
WCS-WCN Joint Scholarship



ARISTIDE TAKOUKAM KAMLA Country: Cameroon
Species: African manatee
Ph.D. in Large Animal Clinical Sciences
University of Florida, College of Veterinary Medicine
Pat J. Miller Scholarship



JOSEPH LOPSALA LETOOLE Country: Kenya
Species: Grevy's zebra
M.A. in Environmental Law
University of Nairobi
Sydney Byers Scholarship



SURAJ UPADHAYA Country: Nepal
Species: snow leopard
Ph.D. in Integrative Conservation of Nature and Forestry
University of Georgia
Sydney Byers Scholarship

Protecting endangered wildlife requires a special kind of hero; one who can navigate the labyrinth of challenges wildlife face with a unique brand of courage and optimism, immense stamina, and a nimbleness to adapt to constantly fluctuating political and cultural landscapes. These individuals need to be forward thinkers and out-of-the-box problem solvers.

Like marathon runners, they need to be adept at clearing hurdles with patience, unwavering determination, and a forward eye toward the larger picture.

The WCN Scholarship program was founded eleven years ago to discover and nurture such individuals, so they can one day take up the fight for wildlife in their home countries. Since then, WCN has provided 88 graduate level scholarships to incredible young women and men across 31 countries, from Asia, Africa, Eastern Europe, and Latin America. This year eight scholarships were awarded to individuals dedicated to protecting species as wide ranging as fishing cats, spotted hyenas, and turtles.

The scholarship program enables these emerging conservationists to learn new skills with their peers, share ideas, and make lifelong connections. In turn, WCN has been able to expand our conservation efforts across continents and species, thereby making a larger impact worldwide.

We look forward to expanding the WCN Scholarship Program and supporting many more generations of wildlife conservationists.

If you'd like to help support these future conservationists, visit wildnet.org/scholarships ■

DISCOVER THE WILD Wildlife Conservation EXPO

October 14
San Francisco, CA

Tickets on sale August 15 at wildnet.org/events

WCN protects endangered species and preserves their natural habitats by supporting entrepreneurial conservationists who pursue innovative strategies for people and wildlife to co-exist and thrive.

Invest In Wildlife Conservation

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We are honored to have a number one rating amongst wildlife conservation organizations from Charity Navigator; with four stars and a perfect score.



Notes from the Field is a quarterly peek into the world of a few of the 17 partners WCN supports. For the whole story, please visit our website at wildnet.org

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