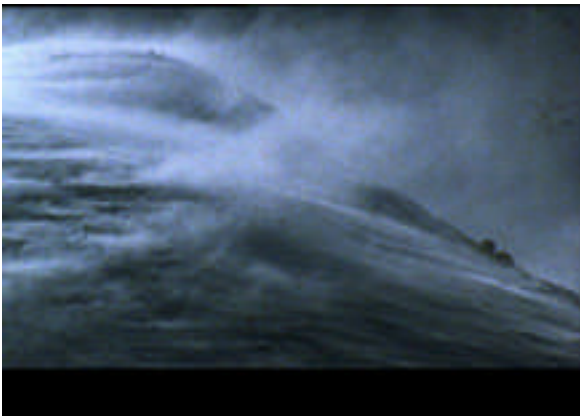


# Searching for the Snow Leopard

*Conditions in some parts of our planet are so brutal that any creature which can survive in them acquires almost mythical status.*



Himalaya

The **Snow Leopard** (*Uncia uncia*) is such a creature; rare and beautiful, it lives in the greatest mountain range in the world – the highest, the most hostile – the **Himalaya**. Towering above India's northern borders, the unforgiving peaks are this leopard's hunting grounds and its ghost-like qualities

have given it the reputation of one of the most glamorous animals on earth.



Snow Leopard

Previous searches for this elusive animal have yielded little more than tantalizing glimpses. Their vast inhospitable mountain territories and secretive nature have made the production of a snow leopard film the ultimate wildlife challenge.

Two remarkable men – top filmmaker **Hugh Miles** and wildlife cameraman **Mitchell Kelly** – believed that they could find and film the snow leopard, but it took them four hard years and like many Himalayan adventures, it was a quest that would end in both tears and triumph...



Hugh Miles

Having wanted to make a film about snow leopards for as long as he could remember, Hugh led the team into the mountains. Mitchell, similarly keen to film the big cats, describes them as possibly “...*the most potent emblem of wildness left on the planet.*”



Mitchell Kelly

Other members of the team included local horseman - **Namgial**, Chief Guide - **Chitta**, and local snow leopard expert - **Rinchen Wanchuk**; their observations and tracking skills would all play a part in the eventual success of the expedition.

Snow leopard populations are fragmented and thinly distributed across about two million square miles of the remotest mountain ranges in Central Asia, countries such as: Russia, Mongolia, Pakistan, Afghanistan, China and Tibet, which includes the whole Himalaya range. Hugh and Mitchell travelled to Ladakh’s **Hemis National Park** in the northern Indian state of **Jammu and Kashmir** as this area offers not only the rugged, broken and steep terrain preferred by snow leopards, but also local knowledge.



Rinchen Wanchuk

The snow leopard population is dwindling as they are driven to near extinction by poachers, reduction of habitat, diminishing food supplies, and revenge killings by herders. Since 1972 the snow leopard has been on the **Red List** for endangered species of the **World Conservation Union** and is protected under the **Convention on International Trade in Endangered Species of wild Fauna and Flora (CITES)**. It is estimated that there are only

around 5,000 left in the wild and some 650 in zoos scattered across the world.



Snow Leopard sighting- 4,600 mtrs (15,000 ft )

The leopards have developed superb camouflage for their survival amongst the rock and snow of the mountains; a thick pale grey coat with dark spots, tinged with yellow, a dense, furry underbelly and long furry tail. The tail, often up to a metre in length, helps the leopards balance. Large padded front paws and shorter fore limbs give them a sure footing and an amazing ability to move quickly on the perilous cliff faces, ice and scree. These cats live at high altitude: 3,000 – 5,500 metres (9,500 to 17,500 feet) in the Himalaya, and have developed broad chests and wide nasal cavities to cope with the thin air. Medium sized, in comparison with their other big cat relatives, the snow leopard weighs in

at 35 – 55 kilos and ranges in length from 1.8 to 2.3 metres, standing around 60 centimetres at the shoulder; they can neither purr like their smaller relatives, nor roar like their larger ones.

The team found fresh tracks (or pug marks) close to their base camp and began to piece together these and other signs left behind by the cats in the hope of finding a pattern to their movements.



Pug marks in snow

Snow Leopards need lots of space, and although solitary, do keep in touch with each other by leaving messages, which warn other cats of their presence. They leave markers: scraped up piles of earth at frequent intervals, sometimes peeing on the earth to leave their own pungent smell, and spraying urine on overhanging rocks that are sheltered from the fierce weather, again as a sign of their presence. The leopard's territories often overlap due to scarce food supplies and a surprise confrontation with another could be dangerous.

The cat's diet is largely wild sheep, goats, small mammals and birds. Hugh's team used this knowledge in their search and kept an eye on the scattered herds of **Bharal** - a type of wild sheep that are high on the menu for a hungry leopard. Fantastically agile, the Bharal are always on the look out for the well camouflaged leopards.



Bharal

Three weeks in and the team hadn't even caught a glimpse of the snow leopard, but patience is a huge part of this type of film making and this was only one of the challenges they faced. Camping and working at an altitude of 3,600 to 4,600 metres (12,000 to 15,000 feet) in sub-zero temperatures made life very difficult, as only half the normal amount of oxygen is available to heart and lungs.



Climbing at 4,600 mtrs (15,000 ft)

The days of walking and tracking, however, meant that the team did find clues to the leopards' whereabouts and Mitchell plotted these on a map of the area. A pattern soon emerged of their travel routes and Mitchell put into place his plan to capture the cats on film.

Along the leopards' routes the team hid small video cameras, which were triggered by an object passing through a pre set beam (similar to a home security system), and which would stop filming after a set interval. The little cameras worked day and night; the lighting provided by an infrared lamp.

The plan worked really well, though initially Hugh and Mitchell only got footage of herders and sheep. Eventually their patience was rewarded by their first images of wild snow leopards using the trail and replenishing their scent rocks and scrapes.



'Facing rubbing' on an overhanging rock

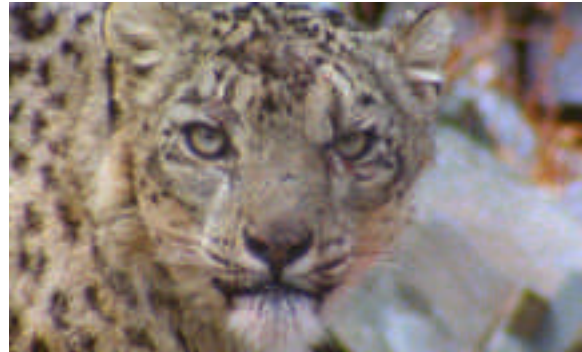
The team discovered that each cat passes along a travel route every four to ten days, each one leaving their scent on the rock or scrape. In this way all the leopards using that route know who's been there before them and when - allowing them all to keep their distance.



Leopard at scrape

The team are now beginning to recognise different snow leopards; seeing one male more than the others, they name him **Mikmar**, which is Ladakhi for 'red eye', in honour of the battle scar over one of his eyes. With his scarred eye and twisted tail, Mikmar appears to be the

predominant male in the territory and having recognised him and plotted some of his routes they began to build a much more intimate picture of the leopard's life.



Mikmar

The team were keen to film a snow leopard hunting and in early December went back as the Bharal mating season arrives. The sheep were caught up in the hurly-burly of mating and were often too distracted to keep a lookout for a hungry leopard. The complete quiet of the mountain passes makes difficult stalking terrain, as a carelessly placed paw could alert prey to the leopard's presence. Hugh noted that one of the most striking things about this mountainous region was the "*deafening silence*"... appearing devoid of life, but feeling tense, as all the animals living there are involved in a daily battle for survival.

Snow leopards have been known to kill prey three times their own weight, often attacking from above and using height and speed to their advantage.



Snow leopard, mid hunt

In another remarkable achievement Mitchell managed to film a snow leopard mid hunt – skimming the sheer rock faces at great speed in pursuit of a bharal.

In order to get closer to the cats Mitchell began to leave his scent on the camera housings. After another frustrating wait the leopards did seem to accept the scent, giving the team even more amazing footage as an adolescent male nonchalantly prodded and sniffed the camera.

Over the months of observation the team discovered that there were around five leopards, and possibly three transients, that lived in the area. The team had also recognised and tracked a local female

snow leopard they named **Dolma**, and as she approached the breeding season the messages she left on the scent rocks changed from 'keep away' to 'you're free to approach'... Mikmar got on her trail and the team tracked the pair. In the moonlit night Dolma called out to Mikmar; this is the only time that snow leopards would call to each other or get together. Dolma used the steep terrain to carry her call as far as possible, the sound bounced off the high valley walls and reverberated in the canyons. Eventually, cautiously, the two met and mated, gently and quietly. It was the first time anyone had ever seen or filmed wild snow leopards mating - it had taken the team three years.



Mikmar and Dolma

Mitchell wanted to film the cubs that Dolma would bear so he returned to Hemis, camping high at 4,600 metres (15,000 feet) and staking out the Bharal herds once more.



Mitchell Kelly filming in the Himalaya

The harsh conditions that he endured, however, finally took their toll and Mitchell was struck by acute altitude sickness. Unable to film or even stand and dangerously ill, he was taken down the mountain to receive urgent medical attention. It was a huge loss for the team but they still hoped to find Dolma and her cubs, and so began their fourth winter in the mountains.

Mitchell made a good recovery but wasn't able to return to the expedition. Hugh and his team kept working and managed to capture more ground breaking footage of Mikmar with the carcass of one of his kills – a large bharal – one of the goals that the team first set out to achieve. The one shot, however, the team had not managed to capture was of Dolma's cubs.



Mikmar with his kill

Snow leopards give birth in late spring/early summer when prey is more plentiful. Born blind with dark woolly fur and generally in litters of two or three, the cubs begin to move out of the den at around five to six weeks but remain with their mother through their first harsh winter. They venture out on their own the following spring, or at around 18 months old, reaching sexual maturity between two to three years old.

Just as the team's time was almost up they had a wonderful piece of luck. After finding tracks of a mother and her cub they set their cameras for the last time. The images they recorded were of a female leopard padding over a snowy ridge followed shortly after by her fluffy cub, leaving only the tell tail pug marks behind them. The team were ecstatic - happy in the knowledge that another young leopard was making the Himalaya its home.





Cub moves away from camera over ridge

The snow leopard's mythical status remains intact. Its veil of secrecy and elusive reputation is confirmed. For four years, Hugh Miles, Mitchell Kelly and their team enjoyed a unique privilege living with the most beautiful cats in the world. They have brought back some remarkable, magical images and new knowledge of these wonderful creatures.



Superbly camouflaged - snow leopard

## Further information:

*If you would like to find out more about snow leopards, other wild animals and how you can be involved in helping endangered species, visit some of the following organisation's websites for more information:*

### The Snow Leopard Conservancy

*"SLC is dedicated to promoting community-based stewardship of the endangered snow leopard, its prey and habitat. SLC currently supports conservation, education and research initiatives in China, India, Nepal, Pakistan, Tajikistan and the USA."*

SLC Website

[www.snowleopardconservancy.org](http://www.snowleopardconservancy.org)

### The International Snow Leopard Trust

*"Set up to develop successful strategies for protecting the snow leopard and its habitat."*

ISLT Website

[www.snowleopard.org](http://www.snowleopard.org)

### World Wildlife Fund

*"Known worldwide by its panda logo, World Wildlife Fund (WWF) leads international efforts to protect endangered species and their habitats."*

WWF Website

[www.worldwildlife.org](http://www.worldwildlife.org)



## **The International Fund for Animal Welfare**

*“From the outset, the founders of the International Fund for Animal Welfare, or IFAW, rejected the notion that the interests of humans and animals were separate. Instead they embraced the understanding that the fate and future of harp seals - and all other animals on Earth - are inextricably linked to our own...over the years our approach has been as varied as the species we protect.”*

*IFAW Website*

[www.ifaw.org](http://www.ifaw.org)

## **Born Free Foundation**

*“Animal welfare and conservation charity that campaigns for the protection and conservation of animals in their natural habitat and against the keeping of animals in zoos and circuses and as exotic pets.”*

*B F F Website*

[www.bornfree.org.uk](http://www.bornfree.org.uk)

## **IUCN**

**International Union for conservation of nature and natural resources.** This body produces **The Red List** (see both links below).

## **The World Conservation Union**

*“For more than 50 years this ‘Green Web’ of partnerships has generated environmental conventions, global standards, scientific knowledge and innovative leadership.”*

*IUCN website*

[www.iucn.org](http://www.iucn.org)

[www.redlist.org](http://www.redlist.org)

Within this site is an extensive *links* page to enable you to find out more about species on the Red List and organisations involved in research, education and conservation based all over the world. [www.redlist.org/info/links.html](http://www.redlist.org/info/links.html)

## **The Convention on International Trade in Endangered Species UK**

[www.ukcites.gov.uk](http://www.ukcites.gov.uk)



## Film maker's biographies:

**Hugh Miles** has made more than fifty films, working with some of the best professionals in the business. He developed his passion for wildlife as a boy in the watery Fens of Eastern England and spent three years at film school before joining the BBC. Motivated largely by conservation, Hugh's contribution to wildlife filmmaking is vast having worked with all the major broadcasters in some of the wildest corners of the Earth. Recent projects have included sea lions in Alaska, wolves in Yellowstone, tigers in India, fish in Newfoundland, pumas in Patagonia, crocodiles in Africa, polar bears in the Arctic and penguins in Antarctica. His films (many of which have gone on to become best selling books) have won numerous awards, including British Academy Awards and Emmys in America. In 2002 Hugh was honoured by the International Film Festival, 'Wildscreen', with a *Lifetime Achievement Award*.

**Mitchell Kelly** studied Zoology and Botany at the University of Western Australia also gaining a BA in film and television. In 1997, Mitchell established 'Cinema Binatang' – his wildlife documentary production company.

Dedicated to this craft, Mitchell has won numerous international awards for his cinematography and production skills as a wildlife specialist, his work takes him all over the globe from rainforests and jungles to the remote mountains of Central Asia.



## **Production team credits:**

Narrator  
MICHAEL PENNINGTON

Photography  
MITCHELL KELLY

Additional Photography  
DOUG ALLAN  
ROB MCGREGOR  
DAVID WILLIS  
DOUG ANDERSON  
RALPH BOWER  
MIKE LEMMON  
HUGH MILES

Editor  
JILL GARRETT

On-Line Editor  
TIM BOLT

Dubbing Mixers  
KATE HOPKINS  
GRAHAM WILD



Composer  
NICK HOOPER  
LADAKHI FLUTE - RALAM ANGCHUK

Scientific Advisor  
RODNEY JACKSON

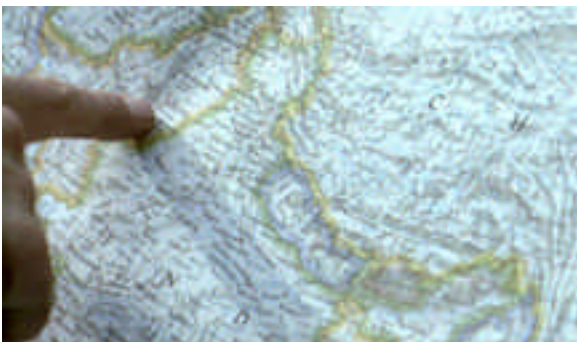
Field Assistants  
RINCHEN WANCHUK  
TSERING DORJE CHITTA  
JIGMET DADUL  
STACY CROSS

With thanks to  
CHIEF WILDLIFE WARDEN – JAMMU  
AND KASHMIR  
REGIONAL WILDLIFE WARDEN,  
LADAKH  
SNOW LEOPARD CONSERVANCY  
JERRY ROE  
BARBARA PALMER  
SUHAIL GUPTA & TOBY SINCLAIR

Executive Producers  
BRIAN LEITH  
FRED KAUFMAN

Writer & Producer  
HUGH MILES

A Co-Production of Granada Wild at  
Bristol with Thirteen/ WNET New York and  
Devillier Donegan Enterprises



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