



# Snow Leopard Study Summary 2003

## Langtang National Park, Nepal

### I. Research Team

#### **PIs:**

Randy C. Kyes and Mukesh K. Chalise

#### **Field Assistants:**

Minish Ghimire

Janak Raj Khatiwada (Grad student – TU, Masters, Zoology)

Jagan Nath Adhikari (Grad Student – TU, Masters, Zoology)

Kamal Chaudhary

### II. Study Area

#### **Langtang National Park - Geographic Coordinates:**

#### Study Blocks (major designation):

A – Ghoda Tabela	N28°11.875' / E085°27.316' (elev: 3000m)
B – Langtang (village)	N28°12.955' / E085°30.465' (elev: 3328m)
C – Kyanjin (village) and <u>BASECAMP</u>	N28°... ' / E085°... ' (elev: 3972m)
D – Numthan	
E – Langsisa Kharka	N28°12.286' / E085°39.169' (elev: m)

### III. Total Field Days

- 12 Feb – 26 Feb 2003 (14 days including training)

- 5 April – 8 June 2003 (62 days)

- 23 August – 18 Sept 2003 (25 days)

TOTAL: ~ 101 days

## IV. Sign Transect Locations:

### BLOCK A: (no transects)

A1  
A2  
A3

### BLOCK B:

B1	Yamphu	N28°12.419' / E085°33.261' (3980m) N28°12.492' / E085°32.992' (3930m)
B2	Opposite Mundu Village (across river)	N28°12.627' / E085°31.438' (3660m) N28°12.750' / E085°31.416' (3830m)
B3	Falls side of Mundu Village	N28°13.125' / E085°31.468' (3720m) N28°12.917' / E085°31.620' (3690m)
B4	Down side Mundu Village	N28°12.727' / E085°31.845' (3660m) N28°12.660' / E085°32.107' (3680m)
B5	Way to Yamphu (across river)	N28°12.610' / E085°32.335' (3700m) N28°12.600' / E085°32.634' (3720m)

### BLOCK C:

C1	Langtang khola basin (1.7km from Kyanjin)	N28°12.480' / E085°33.810' (m) N28°12.501' / E085°33.784' (m)
C2	Cherokori base camp (kharka)	N28°12.480' / E085°33.810' (m) N28°12.501' / E085°33.784' (m)
C3	Ganjala pass base camp	N28°12.107' / E085°33.550' (m) N28°11.705' / E085°34.977' (m)
C4	Tharchepisa (Cherokori I)	N28°12.578' / E085°35.153' (4240m) N28°12.499' / E085°34.630' (3950m)
C5	Langtang glacier area (near Kyanjin)	N28°12.974' / E085°33.975' (4000m) N28°13.307' / E085°34.058' (4040m)
C6	Langtang Lirung base camp	N28°14.030' / E085°33.571' (4350m) N28°13.755' / E085°33.560' (4300m)
C7	Langtang glacier lake side	N28°13.348' / E085°33.640' (4220m) N28°13.090' / E085°33.667' (4160m)
C8	Glacier kharka	N28°13.214' / E085°34.013' (4350m) N28°13.657' / E085°34.286' (4220m)

**BLOCK D:**

D1	Chyadan	N28°11.800' / E085°36.705' (m) N28°11.781' / E085°36.430' (m)
D2	Yala base camp	N28°12.920' / E085°35.123' (m) N28°12.214' / E085°36.487' (m)
D3	Thungchung (way to Yala)	N28°11.711' / E085°35.973' (m) N28°11.706' / E085°36.509' (m)
D4	Yala kharka	N28°12.768' / E085°36.926' (4750m) N28°12.957' / E085°36.739' (4810m)
D5	Way of Yala base camp	N28°13.177' / E085°36.344' (4800m) N28°13.314' / E085°36.392' (4750m)
D6	Way of Yala peak kharka	N28°12.146' / E085°35.928' (4400m) N28°12.199' / E085°36.458' (4510m)
D7	Numthan kharka	N28°11.790' / E085°36.780' (4000m) N28°11.797' / E085°37.075' (4010m)
D8	Kinggurchen kharka (opposite Chandan)	N28°11.741' / E085°35.535' (3950m) N28°11.709' / E085°35.811' (3980m)

**BLOCK E:**

E1	Langsisa kharka (I)	N28°12.926' / E085°40.521' (m) N28°13.192' / E085°40.681' (m)
E2	Langsisa kharka (II) (near Numthang)	N28°12.286' / E085°39.169' (4070m) N28°12.176' / E085°39.421' (4060m)
E3	Langsisa kharka (III)	N28°12.275' / E085°39.816' (4170m) N28°12.467' / E085°39.978' (4130m)
E4	Langsisa kharka (IV)	N28°12.912' / E085°40.518' (4200m) N28°13.155' / E085°40.672' (4240m)

Other significant land marks:

Kyanjin bridge (old)	
Airport (Kyanjin)	N28°11.955' / E085°27.316' (elev: 3000m)
Marku	

## **V. Survey Questionnaire**

Total households in the 5 survey blocks = 60 (population 530)

- We surveyed 55 households (individuals). More than 90% of respondents were herders.

Selected results from the “Snow Leopard and Prey Species Survey Questionnaire”

- responses to the question: “*Should they [snow leopard] be protected or eliminated and why?*”

51% said snow leopards should be eliminated (because “they kill my livestock”)

44% said snow leopards should be protected

## **VI. Snow Leopard (Signs) Sightings**

- Numerous scat samples were recorded (collected) during sign transect sampling (to be summarized)

- No trap camera photos of snow leopards were obtained.

- We had one sighting of a snow leopard by our field team. Janak and Jagan Nath and our cook (Durge Sherpa) had a visual encounter with a SL on 26 April 2003 at 11pm coming down from Cherkerie, about 4300m, close to the kill site of the yak calf. They spotted the SL about 15m away using flashlights. They observed the animal and confirmed it was a SL when they saw the long thick tail. There was no snow on ground so they were unable to track the cat.

## **VII. Prey Species (Signs) Sightings**

### **Himayalan Thar**

#### **Marku cliff area**

7 April 2003 – two grps of 6 and 12 Himalayan Thar

5 May 2003 – one grp of 50 Himalayan Thar

7 May 2003 – one grp 15 Himalayan Thar

#### **Numthang area**

7 May 2003 – one grp of 42 Himalayan Thar

#### **Way to Yala Peak**

11 May 2003 – one grp of 30 Himalayan Thar

21 May 2003 – one grp of 6 Himalayan Thar

## **Musk deer**

10 April 2003 – fresh dropping near glacier in Kyanjin (N28°13.840' / E085°33.774')

16 May 2003 – fresh droppings in Musk deer conservation area – across bridge in forest across from Kyanjin (N28°12.133' / E085°33.488')

20 May 2003 – found 8 snares in Musk deer conservation area – across bridge in forest across from Kyanjin (N28°12.133' / E085°33.488')

Other notes of importance:

\* Feb-May was a good time to observe prey and snow leopard signs as the area was not disturbed by herders taking their animals to graze in the higher kharka.

\* In June the herders began moving their livestock (sheep, goats, yak, horses) to upper grazing land - in Oct they began moving back down. Seems that the natural prey may be moving to other more remote locations to graze – thus the snow leopard signs also decrease.

## **VIII. Outreach Program:**

### **Overview:**

#### **1<sup>st</sup> Pre-outreach Snow Leopard Knowledge/Attitude Questionnaire**

Each student is individually asked 20 questions relating to snow leopards (~10min/student)

#### **2<sup>nd</sup> Conservation Presentation (~15-20min):**

“We want to talk about conservation...”

1. Do you know what conservation means?
2. Saving the ecosystem/environment (plants and wildlife)
3. Why should we conserve the environment (plants and wildlife)?
4. Provide basic info about Langtang NP – What animals live in LNP?
5. Do you know what a snow leopard is?

Present info on Snow leopard behavior, biology, etc. from ISLT data sheet.

Show snow leopard pictures from poster

#### **3<sup>rd</sup> Conservation Art Contest (~30-45min)**

Students are asked to participate in art contest and draw pictures about the plants/wildlife in the park.

Students receive pencil/pen and small notebook.

They all receive a certificate of participation

They all receive snow leopard stickers

The winners (3-5) receive small prize (magic markers, etc.)

#### **4<sup>th</sup> Post-outreach repeat questionnaire (~1-2 months following outreach presentation)**

Each student is asked the same questions from the original Knowledge/Attitude Questionnaire

### **Six outreach activities conducted in 2003:**

1) 16 Feb 2003 – Rasuwa secondary school, Dunche (grade 4) Conservation Presentation and Art contest.

2) 23 Feb 2003 – Langtang elementary school (all classes, primary – 4<sup>th</sup> grade). Presentation and art contest.

3) 26 Aug 2003 – Shyamewangphel secondary school, Syabrubensi (grade 8). Presentation and questionnaire.

4) 26 Aug 2003 – Shyamewangphel secondary school, Syabrubensi (grade 6). Presentation and Art contest.

5) 10 Sept 03 – Rasuwa secondary school, Dunche (grade 8) Conservation Presentation and questionnaire.

6) 10 Sept 03 – Rasuwa elementary school, Dunche (grade 3) Conservation Presentation and Art Contest.

## **IX. Major Problems/Obstacles during 2003 Study Period**

- 1) Rainy season (July-Sept) Major landslides – roads washed out, bridges washed away, very difficult to see at higher elevations due to thick clouds/fog.
- 2) Maoist related-issues, banda (strike) – transportation problems, individual threats. This is an ongoing problem.
- 3) Somewhat difficult to conduct extended surveys in remote areas due to limited logistical support – had to return to Kyanjin base camp at night.
- 4) Survey Questionnaires, respondents hesitate to readily provide information; we suspect that they are afraid the info may get back to the military personnel in the park.