

# Counting cats: The endangered snow leopards of the Himalayas

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The elusive snow leopard (*Panthera uncia*) lives high in the mountains across Central Asia. Despite potentially living across 12 countries the actual numbers of this beautiful large cat are largely unknown. It is thought that there might be somewhere between 350 and 500 distributed across Nepal's northern frontier. New research published in BioMed Central's open access journal *BMC Research Notes* has used genetic analysis to show that the numbers of snow leopards in the central Himalayas is actually much lower than suggested.

Snow leopards prefer to live solitary lives in rugged, inaccessible habitats. Most estimates of the number of snow leopards depends on counting signs, such as tracks (pugmarks), scrapes, and their droppings (scat), camera trapping, or talking to local residents. Researchers from Nepal analyzed snow leopard scats originally collected to look at leopard diet from Shey Phoksundo National Park and Kangchanjunga [Conservation Area](#) of Nepal.

Despite the age of these samples (some had been stored for up to three years prior to this study) the team led by Dibesh Karmacharya was able to isolate and interpret [genetic data](#) from scats identified as [snow leopard](#) in the field. They found that only 19 of the original 71 samples were actually *P. uncia* (the rest were other [carnivores](#) or were too degraded for [genetic analysis](#)). Of the 19 positively identified samples only 10 were successfully genotyped, these were found to come from nine individuals, three males and six females, with a mix of males and female in both of the national parks.

Mr. Karmacharya commented, "In conjunction with our national and international partners we are the first team using genetics to look at conservation of snow leopards in Nepal. This method has the advantage over traditional methods - it is non-invasive and does not require us to disturb the cats in any way. We have also been able to show that traditional methods of counting snow leopards overestimate the size of the population. With more (and fresher) samples) we will be able to investigate the family relationships, genetic diversity, social structure and territories of snow leopards, and better understand how to conserve this endangered animal."

Provided by BioMed Central

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