

# CAT

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# news





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# Camera trap records of Asiatic golden cat at high altitudes in Bhutan

**Recent camera trap evidence from a biodiversity survey in eastern Bhutan recorded an Asiatic golden cat *Catopuma temminckii* at 4,282 m making it the highest altitudinal record for the species to date. There have been several previous records of the species at high altitudes in Bhutan and India. This suggests that the highlands may be an important habitat for the species, and may also act as movement corridors. Hence, it is important that these habitats are considered in the course of conservation initiatives and decisions for the species.**

In 2015, a camera trapping exercise was carried out in the unexplored frontiers of eastern Bhutan. The study area covered parts of Wangchuck Centennial National Park, Phrumsengla National Park and Bumdeling Wildlife Sanctuary. The terrain is undulating, and elevations within the study area range from 2,485 m to 4,958 m. In total, 100 grids were laid across the entire study area and at every camera trap station; two cameras (Reconyx HC500 Hyperfire "passive infra-red cameras") were placed so as to capture both flanks of the animal that passes by. The cameras were deployed from June to September 2015.

During the survey, a common morph of the Asiatic golden cat was recorded at a camera trap (27°42'56.6" N / 90°55'37.1" E) at an elevation of 4,282 m in the montane forests of Wangchuck Centennial National Park, the largest protected area in Bhutan (Fig. 1). The animal was photographed walking along a game trail in a rhododendron scrub. This is thus far the highest recorded elevation at which Asiatic golden cats have been detected throughout their entire range. The previous highest record was at 4,033 m in Jigme Dorji National Park in northern Bhutan (Jigme 2011).

During the same survey, a spotted "ocelot" morph of the Asiatic golden cat was also detected at a record elevation of 3,999 m in rhododendron forest of Phrumsengla National Park (27°35'00.2" N / 90°58'34.4" E) in Central Bhutan (Fig. 2). Historically, the morph was known only from China; however, it was first reported in Bhutan in Serphu in Jigme Singye Wangchuck National Park at 3,738 m (Wang 2007). In 2014, the morph was recorded in a conifer forest at 3,717 m in Bumthang (Vernes et al. 2015). So far, the ocelot morphs have only been camera trapped above 3,600 m suggesting that there may be a selection for specific morphs at different altitudes (Jigme 2011).

To date, very few targeted studies have been conducted on the Asiatic golden cat in its range countries; however, many by-catch camera trap photographs of the species have been recorded at high altitudes. A survey in Sikkim, India reported the species in altitudes ranging from 1,980 m to 3,960 m, all comprising of the melanistic morph, and suggested that the species is more common in montane forests (Bashir et al. 2011). In Nepal, it was photographed at an elevation of 2,517 m (Yadav & Pal 2009), and in China

at 3,170 m (Smith & Xie 2008). In Bhutan, Jigme (2011) reported grey, ocelot and black morphs above 2,500 m, with the grey morphs at relatively higher altitudes of 3,900 m, and golden morphs between 1800 m to 4,033 m. A recent survey in central Bhutan reported 11 occurrences of the species between 2,985 m to 3,900 m (Vernes et al. 2015). Thinley et al. (2015) reported its occurrences between elevation ranges of 3488 m to 3,810 m in Jigme Dorji National Park. In the present survey, the species was recorded between 3,161 m to 4,282 m.

The findings from this and other recent studies suggest that the highlands may play a significant role in terms of conservation of the species in Bhutan and in the region. The South and South-east Asian region is currently undergoing the world's fastest deforestation rate. As a result, the Asiatic golden cat, which is primarily a forest dependent species, is threatened by significant habitat loss and fragmentation across its range (McCarthy et al. 2015). It is widely perceived that human intercession in land use has changed forest cover over time and become a proximate component that catalyses deforestation and forest degradation (Ives & Messerli 1989). In many instances, human pressures on natural resources are higher at lower elevations which can be more readily accessible. In Sikkim, India, extensive clear cutting continues, especially in more easily reachable southern districts, while the northern highlands seem to have good forest cover. In Nepal, lowland Terai have suffered extensive planned and spontaneous deforestation over the years (Ives & Messerli 1989). In Bhutan, a net forest loss has been observed mainly along the southern, more lowland half of the country (Bruggeman et al. 2016). Here, development coupled with rising population pressure on the forests, and land conversion is a noteworthy threat



**Fig. 1.** Photo of the common morph of the golden cat at 4,282 m, Wangchuck Centennial National Park (Photo UWICE/DoFPS).



**Fig. 2.** Photo of the spotted "Ocelot" morph of the golden cat at 3,999 m in Phrumsengla National Park (Photo UWICE/DoFPS).

to the species (McCarthy et al. 2015, Dhendup 2016a, b).

With lowland areas becoming more prone to fragmentation and degradation as a result of increasing human activities, highland regions represent an important refuge for the Asiatic golden cat. Because of their remoteness and inaccessibility, the highlands are less infringed upon by human activities, and are often more pristine, providing a relatively undisturbed habitat for the species. They may also act as natural corridors for individuals traversing between different forest patches (Mohamad et al. 2013). As such, it is imperative that these highlands are well preserved and are given special consideration for the species while planning conservation initiatives and other developmental activities.

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## References

- Bashir T., Battacharya T., Poundyel K. & Sathya-kumar S. 2011. Notable observations on the melanistic Asiatic Golden Cat (*Pardofelis temminckii*) of Sikkim, India. *NeBio* 2, 1-4.
- Bruggeman D., Meyfroidt P & Lambin E. F. 2016. Forest Cover Changes in Bhutan: Revisiting the forest transition. *Applied Geography* 67, 49-66.
- Dhendup T. 2016a. Status of Asiatic Golden Cat *Catopuma temminckii* Vigors and Horsfield, 1827 (Carnivora: Felidae) in Bhutan. *Journal of Threatened Taxa* 8, 8698-8702.
- Dhendup T. 2016b (subm.). Notes on the occurrence of Marbled Cats in high altitudes of Bhutan. *NeBio* 7.
- Ives J. D. & Messerli B. 1989. *The Himalayan Dilemma: Reconciling Development and Conservation*. United Nations University Press. Routledge London and New York. The United Nations University. 272 pp.
- Jigme K. 2011. Four colour morphs of and the altitudinal record for the Asiatic Golden cat in Bhutan. *Cat News* 55, 12-13.
- Mohamad S. W., Christopher W. C. T., Siwan S., Hamirul M., Lau C. F., Mohamad A. & Tayan D. K. 2013. Highest recorded elevation of tiger presence in Peninsular Malaysia. *Cat News* 58, 39-40.
- McCarthy J., Dahal S., Dhendup T., Gray T.N.E., Mukherjee S., Rahman H., Riordan P., Boontua N. & Wilcox D. 2015. *Catopuma temminckii*. The IUCN Red List of Threatened Species 2015: e.T4038A50651004. <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T4038A50651004.en>. Downloaded on 01 April 2016
- Smith A. T. & Xie Y. (Eds). 2008. *A guide to the mammals of China*. Princeton University Press, Princeton, New Jersey, 544 pp.
- Thinley P., Morreale S. J., Curtis P. D., Lassoie J. P., Dorji T., Leki, Phuntsho S. & Dorji N. 2015. Diversity, occupancy, and spatio-temporal occurrences of mammalian predators in Bhutan's Jigme Dorji National Park. *Bhutan Journal of Natural Resources & Development* 2, 19-27.
- Vernes K., Sangay T., Rajaratnam R & Singye R. 2015. Social interaction and co-occurrence of colour morphs of the Asiatic golden cat, Bhutan. *Cat News* 62, 18-20.
- Wang S. W. 2007. A rare morph of the Asiatic Golden Cat in Bhutan's Jigme Singye Wangchuck National Park. *Cat News* 47, 27-28.
- Yadav & Pal. 2009. First camera trap image of Asiatic Golden Cat in Nepal. *Cat News* 51, 19.

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