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Clouded leopard camera-trapped in the Annapurna Conservation Area, Nepal

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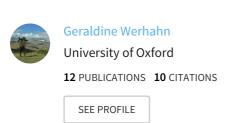
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Abstract: During a camera-trapping survey in the Annapurna Conservation Area (ACA), Nepal, a clouded leopard Neofelis nebulosa was photographed on 8 February 2012 at 19:11 h. The felid was captured at an altitude of 2,174 m in a mixed broadleaved temperate forest dominated by ring-cupped oak Quercus glauca.

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Clouded leopard cameratrapped in the Annapurna Conservation Area, Nepal

During a camera-trapping survey in the Annapurna Conservation Area (ACA), Nepal, a clouded leopard *Neofelis nebulosa* was photographed on 8 February 2012 at 19:11 h. The felid was captured at an altitude of 2,174 m in a mixed broadleaved temperate forest dominated by ring-cupped oak *Quercus glauca*.

The clouded leopard was first reported in Nepal in 1853 (Hodgson 1853). The felid was thought to be extinct in the country until during the late 1980s when four specimens were found in southern Nepal and near the city of Pokhara (Dinerstein & Mehta 1989), which borders the ACA to the south. Our photographic record (Fig. 1) is the first of a live individual within this protected area and confirms the felid's westernmost distribution as central Nepal.

With an area of 7,629 km² the ACA is the largest protected area in Nepal. Covering tropical, temperate and alpine climatic regions it harbours 22 different forest types (NTNC 2009). The entire area is recognized as a global biodiversity hotspot (Myers et al. 2000). Mid-hills in the ACA range from 1,000 m to 3,000 m altitude and comprise lower subtropical to upper temperate bioclimatic zones (NTNC 2009). These mid-hills are steep and intersected by precipitous gorges.

Our survey area was located in the Hugu-Kori forest in the south-eastern part of the ACA, south of the peaks of Annapurna II and Lamjung Himal. We covered an elevation ranging from 1,553 m to 2,928 m in lower subtropical to upper temperate bioclimatic zones. This area is off the main trekking route and was fairly undisturbed during the late winter season when the present study was conducted.

Camera trapping was carried out from 18 January to 20 February 2012, using 15 camera traps placed along wildlife trails. The total sampling effort of 370 trap nights yielded one picture of a clouded leopard taken on 8 February at 19:11 h at an altitude of 2,174 meters (28°22.870′N/84°7.363′E). The individual was photographed 1 h 18 min after sunset (17:53 h) in a mixed broadleaved forest that is dominated by ring-cupped oak and accompanied by *Rhododendron sp., Ficus sp.,* mountain bamboo *Himalayacalamus asper* and paper tree *Daphne papyracea*. Various fern

species form dense undergrowth. A small settlement comprising two households is a one-hour's walking distance downhill from the site, while the nearest village, Sikles, is located a day's walk to the south across the Madi River.

Other felids photographed are leopard *Panthera pardus* and leopard cat *Prionailurus bengalensis*. We recorded Assamese macaque *Macaca assamensis*, barking deer *Muntiacus muntjak*, Malayan porcupine *Hystrix brachyura*, orange-bellied Himalayan squirrel *Dremomys lokriah*, and kalij pheasant *Lophura leucomelanos*, all of which constitute potential prey species for clouded leopards. We frequently heard the calls and observed the droppings of hill partridge *Arborophila turqueola* and satyr tragopan *Tragopan satyra*.

Hunting, firewood collection and seasonal livestock herding in high elevation pastures cause the main disturbances in the forests of this area. It is common practice for the human inhabitants of the ACA to use trees for timber and firewood and to collect non-timber forest products (NTNC 2009). According to local people, hunting of birds and deer is prevalent in the area. This hunting pressure may deplete the clouded leopard's prey base.

Clouded leopards are classified as a nationally endangered species and are listed as a protected mammal in Nepal (Jnawali et al. 2011). More extensive camera-trapping efforts are needed to assess the clouded leopard's status, ecology and threats to its survival via observations and interviews in this area as well as over larger areas of Nepal.

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Fig. 1. Clouded leopard in the ACA (Photo Friends of Nature).

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