

Chapter 9

Large Mammals

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Summary

We present the results of a large mammal survey performed during a Rapid Assessment Program (RAP) survey conducted at three sites in the Heng Duan Mountains, Sichuan, China from August 21 to September 12, 2005. To survey for the presence of large mammals we used three methodologies: (1) tracks, scats, sounds, and visual observations, (2) interviews with local people, and (3) camera phototraps. We suspect the presence of 39 large mammal species and confirmed 17 species in the region. Of the mammals recorded, one is listed as Endangered (*Ailurus fulgens*) and three are considered Vulnerable (*Cervus albirostris*, *Catopuma temminckii*, and *Ursus thibetanus*) by the IUCN. Interviews with local people suggested that an additional three species listed as Endangered and three listed as Vulnerable are likely to occur in the area.

While all three sites were heavily utilized for grazing domestic stock such as yaks, horses, and goats, each of three sites was impacted differently by the local people. We found no evidence of blue sheep or bears at any sites. Our evidence suggests that some of the sites we sampled still contain large mammal species characteristic of western Sichuan, but in very low densities thus supporting the need for immediate conservation action for long-term protection. Further surveys are necessary to confirm or refute the presence of Argali, Tibetan gazelles, brown bears, wolves, and snow leopards.

Materials and Methods

We conducted our surveys at the end of the wet season at three sites in western Sichuan: Danba, Dongma, Kuiyong (N 30° 36', E 101° 47') from August 21 to August 26, 2005, Kangding, Pengta (N 30° 30', E 102° 20') from August 29 to September 3, 2005, and Yajiang, Decha (N 29° 40', E 100° 46') from September 5 to September 9, 2005. Henceforth, we refer to these sites as Danba, Kangding, and Yajiang, respectively. The elevation range surveyed in Danba, Kangding, and Yajiang was 3000 – 4300 m, 2300 – 3900 m, and 3600 – 4600 m, respectively. At Danba the forest was conifer - oak-bamboo and treeline was approximately 4300 m. The second site at Kangding was lower elevation consisting of conifer – secondary broadleaf – oak forests to oak forests and grasslands at 3900 m. Yajiang vegetation was conifer – oak and grasslands up to 4600 m. All sites were utilized to graze yaks, horses, and goats. Due to abnormally high rainfall throughout western Sichuan, interior forests streams were flowing with unusually high volumes of water for this time of year. We surveyed two sites 6 km apart at Danba but present the combined results for this site.

To survey for the presence of large mammals we used three methodologies: (1) tracks, scats, sounds, and visual observations, (2) interviews with local people, and (3) camera phototraps at each of the three study sites. Because these methods provide different confidence levels, all results are presented separately. To determine presence of large mammalian species, each day during daily excursions from base camp we recorded direct observation of species along with track and sound identification, nests, dung and other indirect information. Because our records were also collected opportunistically by our colleagues and some observations may have been repeated, we used this information only to document species presence.

We also interviewed local people using Wang and Hu 1999 as a guide. Small groups of between one and five people were asked to page through the book and select which mammals they had observed in the past five years. We avoided making comments that might influence their decisions, and no time pressure was used to coerce responses.