

In this issue

The winter habitat selection of red panda

The red panda (*Ailurus fulgens*) is a scarcely known threatened mammal in Asia. Habitat fragmentation, poaching and human disturbance are the main threats currently facing red pandas throughout their distribution range. Zhou and his colleagues (page 1425) have studied the habitat selection of the red panda in the Meigu Dafengding National Nature Reserve



(MDNNR) in the Hengduan Mountains of China between December 2006 and February 2007. They report the presence red panda in most of the MDNNR and also report that red pandas select a specific habitat type based on micro-habitats. The red pandas preferred mixed broadleaved and coniferous forest habitat with bamboo understorey, as bamboo was the main source of food for the pandas. The red pandas preferred habitats with more than 45° slope and avoided habitats with 15° to 30° slope. They preferred the southern aspect and avoided the northeast-facing aspect. There are more than 10 villages in the Reserve and the villagers depend directly or indirectly on the Reserve for their livelihood. Livestock grazing, human disturbances, poaching, collection of

illegal wood and other forest products for local use or commercial purposes are all putting pressure on the area. The study on the habitat selection of the red panda for the winter season in the MDNNR will be helpful for further understanding of the ecology and help government to prepare conservation strategy and habitat conservation plan for the reserve.

Himalayan glaciers in Patsio region

The spatio-temporal variations in Great Himalayan glaciers of Patsio region, Himachal Pradesh, India were examined for the past four decades using the remote sensing and field observations. The overall area and length of the three studied glaciers, i.e. Panchi-Nala, Zing-Zing-Bar and Baralacha-La were found retreating in this region. An upward shift was observed in Equilibrium Line Altitude. The climate data collected in the region suggests an increasing trend in the mean annual temperature and a decreasing winter precipitation. These observations



support the effect of climate variability on the retreating trend of the glaciers. The rates of retreat vary from one glaciers to another, based on their size, terminus altitude, slope variations and debris cover. The loss in the area of a glacier was found to be maximum ($16.35 \pm 3.74\%$) for the smallest selected glacier. Such loss in glacier area, at an average of 0.4%

per year, was also reported earlier for other Himalayan glaciers in different climatic region. The Zing-Zing-Bar glacier was found to be the faster retreating glacier than Panchi-Nala and Baralacha-La. Non-climatic factors such as size of the glacier, slope variation and debris cover of the glaciers were found to influence variable responses of different glaciers in the same climatic zone. The high rate of retreat in the Zing-Zing-Bar glacier was attributed to large slope variations and slow rate of retreat in the Panchi-Nala glacier was found due to thick debris deposition on the glacier. See page 1383.

Mineralogical C-sequestration

The concentrations of greenhouse gases (GHGs) in the atmosphere have increased many folds from the pre-industrial era to the present century. Due to the 'blanketing effect' of GHGs, the temperature of the earth increases gradually. To mitigate this harmful effect of carbon emission in the form of GHGs, the utmost need of the present century is to sequester carbon into a sink from where it may not be reemitted easily. Soil, by virtue of its heterogeneous mineralogical composition, is considered as a potential sink for carbonaceous materials. The soil organic carbon can be stabilized through its interactions with highly reactive short-range order (SRO) minerals. They also have a strong propensity to adsorb humic substances, microbial biomass and organic acids. Thus, soils having high SRO minerals (e.g. volcanic ash soils, E horizons of podzols) usually have much higher C content than other soils in the same environment. In this regard, Chatterjee *et al.* (page 1404) have studied the SRO minerals, their role in carbon sequestration capacity and its relation with clay carbon in three contrasting soils of India.