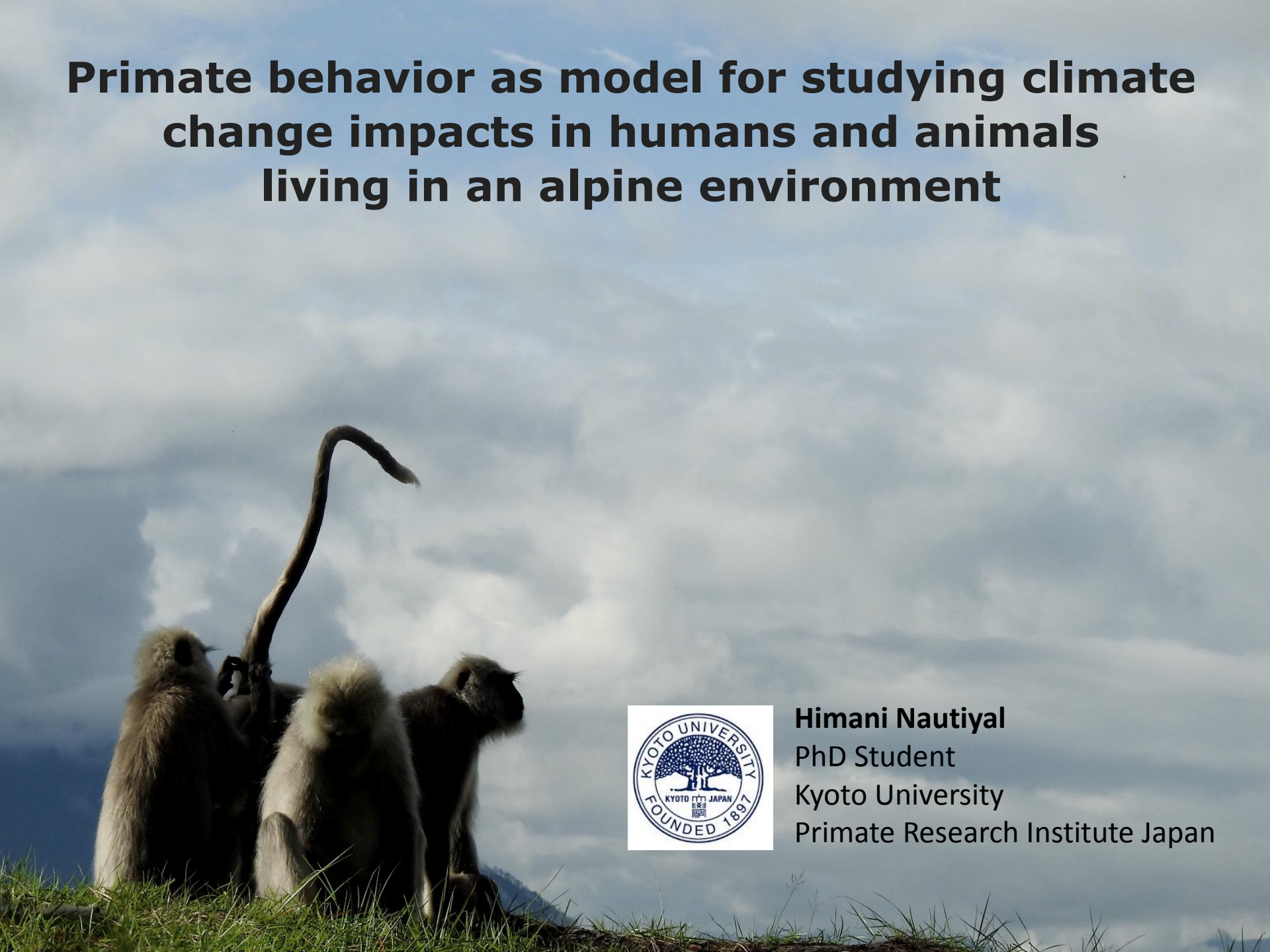
Primate behavior as model for studying climate change impacts in humans and animals living in an alpine environment



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Climate change and biodiversity

Attributing observed changes in populations of plants and animals to climatic change, to be concentrated in areas where temperature changes are largest (**that is, at higher latitudes and altitudes**) and for changes to be less evident elsewhere.

Root et al, Nature 2003

Prediction: Under mid-range climate change scenarios a quarter of terrestrial plants and animals may be extinct by 2050

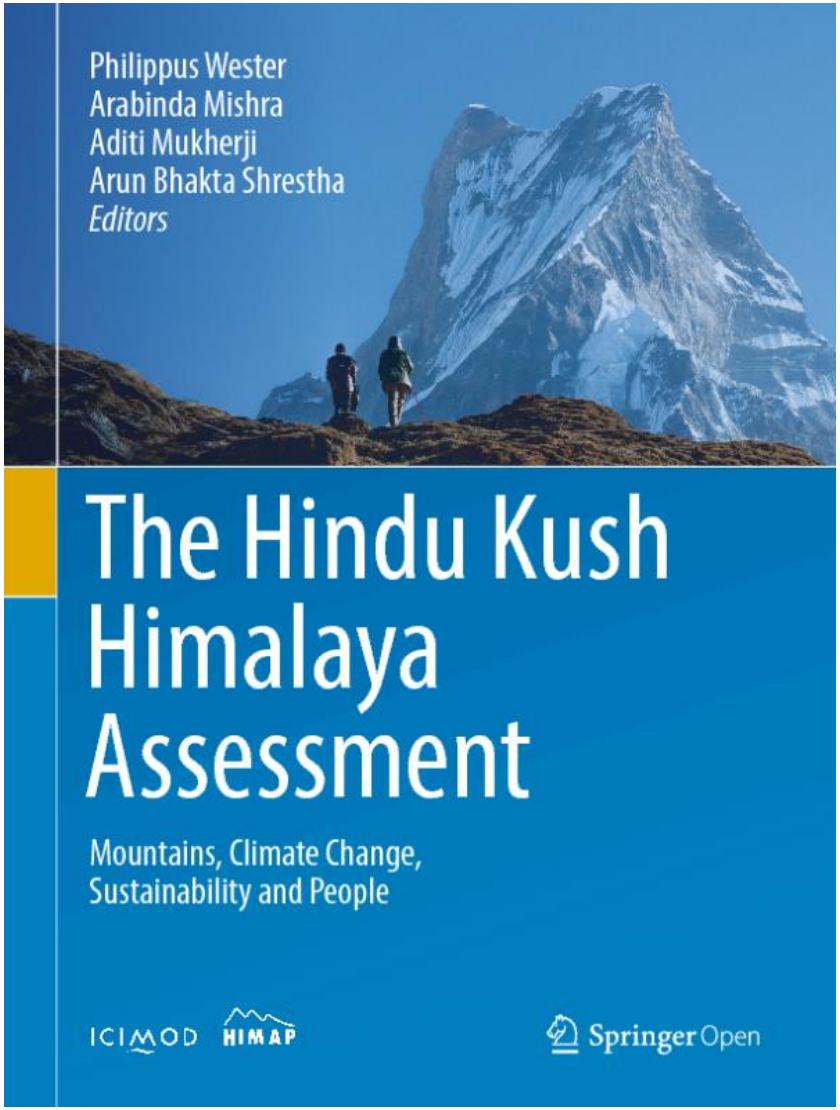
Thomas et al. Science 2014

Himalayan langur at 3600 m a.s.l, Western Himalayas India

Climate change: Hindu Kush Himalaya

Global warming – biodiversity loss, increased glacial melting, and less predictable water availability

long-term observational data for more robust climate change analysis and adaptation planning



2019

Himalayan Langur behavior as climate change model

- Only one primate species found throughout the entire Himalayan region up to an elevation of 4500 meters a.s.l

- Future research in climate change biology will require the measurement of physiological and behavioral characteristics of **identified individual mammals** for long periods.

Visser 2008, Berteaux et al 2004

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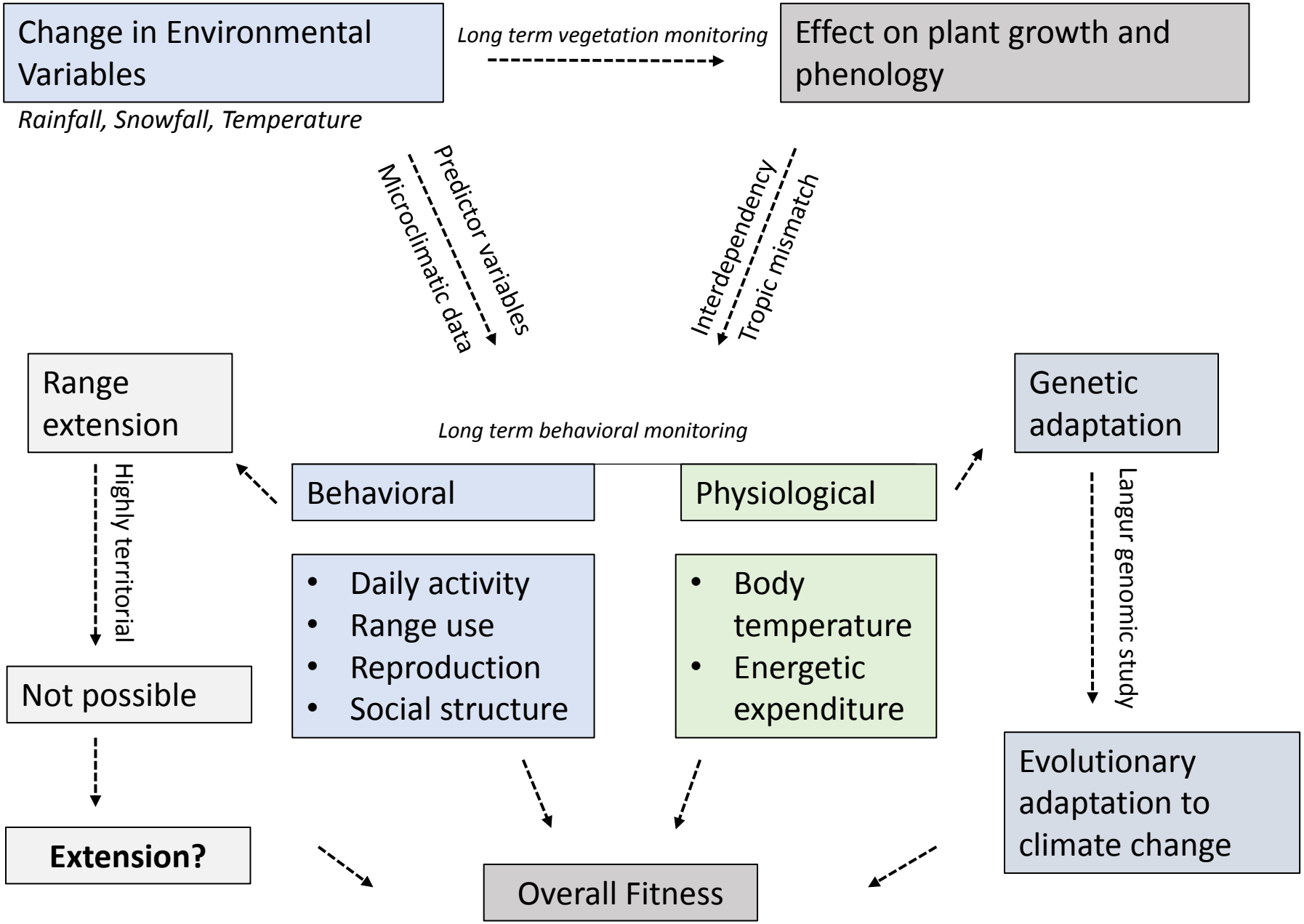
Primates are a suitable model for behavioral studies

Findings might also be helpful for humans as we are closely related to them

Himalayan Langur behavior model