



Systematic revision of *Pedicularis* L. (Orobanchaceae) for the Flora of Bhutan.

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Pedicularis, a charismatic genus of hemiparasitic plants in Orobanchaceae, predominantly thrives in the alpine and arctic regions of the Northern Hemisphere. Bhutan is home to 69 taxa of *Pedicularis*, of about 800 species worldwide. Despite several taxonomic efforts a considerable number of *Pedicularis* taxa remain taxonomically unresolved and a significant portion of species from Bhutan are known from a limited location. Further, there is no taxonomic consensus, spatial records are sparse, and a global phylogeny is lacking. I will address these knowledge gaps in my PhD. Using existing collections, I will conduct a revision of the endemic taxa within Bhutan. I will then integrate these taxa into a comprehensive phylogeny of *Pedicularis* being developed by collaborators. I will also investigate a particularly difficult group, the *P. gracilis* complex. I will test the hypothesis that the effects of altitude on germination timing plays a crucial role in determining the distinct habits of *P. gracilis* vs. *P. pennelliana*. through morphological, ecological, biogeographic and molecular approaches. Finally, this study will assess the conservation status using IUCN red list categories and criteria to inform and prioritize conservation initiatives essential for protecting these enigmatic and ecologically significant species.

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