Does inbreeding reduce population growth of alpine ibex? A planned project

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The history of the Alpine ibex, *Capra ibex ibex* represents a large-scale genetic experiment: The Alpine ibex went extinct in Switzerland, was reintroduced from a small number of founder individuals, and recovered to number approximately 12'000 individuals spread over large parts of the Swiss Alps. Due to several bottlenecks the genetic variability in Alpine ibex populations is low. Yet there are no studies that address the functional consequences of this low variability. These consequences, in particular the effects of inbreeding on populations dynamics and disease susceptibility will be the focus of this study.

Historic samples of Alpine ibex, collected in the 1980`s, and modern samples, collected during this study, will be analyzed using microsatellite loci to estimate levels of inbreeding within and among Alpine ibex populations.

To test whether inbreeding depression is involved in changing population dynamics, we will relate the mean population inbreeding to various life-history parameters, which are well documented for many ibex populations. Furthermore we will test whether inbred individuals and populations are more susceptible to disease. We hope that a better understanding of potential inbreeding effects in Alpine ibex will help the adaptive management of that species.