Universität Basel

Research Project

Bale Mountains Conservation

Third-party funded project

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The Bale Mountains contain a remarkable diversity of species, many with highly restricted distributions. Among the most impressive examples of this endemism are the four monotypic genera of amphibians, three of which are only found in Bale. All these species have narrow distributions, with two restricted to just two montane sites in Harenna forest. Because of this narrow distribution these species are of high conservation priority. Recently, Bale has been subjected to devastating levels of deforestation (a ten-fold increase in deforestation in the last 10 years). Our recent surveys have revealed that the endemic species of Harenna have declined in numbers since their original description in 1986. Without immediate conservation action these species are likely to become threatened with extinction. Habitat change seems the most likely causal factor for the decline in amphibians but it might be further exacerbated by disease and climate change that affects many other amphibians in other parts of the world.

To address this conservation crisis we have formed a collaborative group - including university researchers, international and local conservation groups and federal and regional Ethiopian research authorities - to conduct research on this problem. In addition we outline a plan of training of parataxonomists and an Ethiopia based Masters student. Our group is an important stakeholder in the Bale Mountains. The group comprises experts on amphibians, environmental managers and administrators (at a regional and federal level in Ethiopia) and international conservation organisations. This collaboration is important for successful execution of the project and for the development and future instigation of appropriate conservation strategies in the region.

Our project plans to survey and monitor Bale species via bimonthly surveys of amphibians and habitat parameters across Harenna Forest for 1 year in order to improve basic biological knowledge of Bale Mountain frogs. In doing so we will also be able to determine how habitat quality and degradation across the Harenna escarpment is impacting the abundance of frog species. The surveys will allow us to make better estimates of IUCN-based conservation assessments and to better understand and promote the conservation of these remarkable species. The assessments will also provide a basis for mitigating future declines by developing appropriate conservation strategies (including optimal monitoring schemes). Both pre-emptive and restorative approaches will be used. The data will also be assimilated into future integrated management strategies for Bale Mountains National Park. Such strategies are likely to pinpoint areas for special conservation protection. Beyond the project we foresee the development of projects that range from specific amphibian conservation programs, to community based development projects. Beneficiaries of the project will be wide ranging and include local communities, local, national and international conservation and government organisations who can utilize the information to better formulate conservation priorities. Overall the project will provide a timely impetus to promoting the conservation of amphibians and the globally important habitats of the Bale Mountains.

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