PhD position in Computational Conservation Biology
Statistical and Computational Biology Group, Prof. Wegmann, University of Fribourg, Switzerland

Who we are
We are a young, international, interdisciplinary and enthusiastic research group at the University of Fribourg, Switzerland, aiming at understanding the evolutionary and ecological processes shaping the realm of biological diversity we see today. To achieve this, we design and develop new statistical and computational approaches, and apply them to big data from many biological fields. A current focus of the lab is the characterization and quantification of biodiversity, and to monitor its trends to inform conservation management.

Your tasks
We seek a highly motivated PhD student to support our conservation efforts, particularly regarding African mammals. The successful candidate will work closely with our partners at the Chinko Nature Reserve in Central Africa (https://www.africanparks.org/the-parks/chinko) to monitor trends in population abundances. The work involves

- Curating ecological big data such as camera trap images and records from transects.
- Automating these curation tasks (where possible) using Machine Learning.
- Developing computational methods to identify trends in ecological data.
- Applying these methods to inform conservation management.

The position is fully funded with a competitive salary for four years, with the possibility to extend by one additional year. The successful candidate should ideally start in Summer 2022. The research does not involve field work, but a visit to the Chinko Nature Reserve can be arranged.

What we offer
We offer a stimulating research environment, well embedded in the strong bioinformatic and conservation communities of western Switzerland. We are part of the Swiss Institute of Bioinformatics (SIB) and boost excellent research facilities, including state-of-the-art high-performance computational infrastructures. Fribourg is a lively university town with pleasant surroundings (such as the Alps) and an excellent quality of life. It is located only 20 minutes from the capital of Switzerland, Bern, and just a little over an hour from Geneva and Zürich. While some knowledge of German or French is beneficial for living in Switzerland, it is not essential. The working language in our lab and institute is English.

What you bring
Either **A)** a master degree in bioinformatics, computational biology, computer science, statistics or a related field, and a strong interest in applying these skills to support the conservation of nature, or **B)** a master degree in ecology, conservation, evolutionary biology or a related field and a strong interest in computational methods. While experience in programming is not required, we expect candidates to be highly motivated to acquire skills in programming (R and C++) and statistical inference, for which we provide state-of-the-art training. Good knowledge of written and spoken English is expected.

How to apply
To receive full consideration, apply before May 15 2022 at https://forms.gle/XwShdJJECqe1X7Sn8 with a single PDF file including

- a brief summary of your previous research and motivation for the position,
- a Curriculum Vitae,
- copies of degree certificates and list of coursework, including grades,
- names, addresses and emails of two professional references.

Further information on our lab:

- http://www.wegmannlab.com
- https://www.sib.swiss/daniel-wegmann-group

Recent papers on the topic

- Ait Kaci Azzou *et al.* (2021) A sparse observation model to quantify species interactions in time and space
- Aebischer *et al.* (2020) Apex predators decline after an influx of pastoralists in former Central African Republic hunting zones
- Aebischer *et al.* (2017) First quantitative survey delineates the distribution of chimpanzees in the Eastern Central African Republic