Séminaire de Biologie

Research applied to conservation: Ethiopian wolves

lundi 02 juillet 2018

Amphi Fontannes

11:00 AM

Jorgelina Marino

Oxford University

Research Fellow @ Wildlife Conservation Research Unit (WildCRU), Zoology Dept.

www.wildcru.org/members/dr-jorgelina-marino

Ethiopian wolves (Canis simensis) evolved in the highlands of Ethiopia and are now restricted to six isolated mountain enclaves, with no more than 500 individuals surviving. The species' distinctive adaptations made them successful top predators of the Afroalpine ecosystem, but processes of habitat loss and exposure to diseases are now threatening them with extinction. Thirty years of research have helped elucidate the wolves' behavioural adaptations and how populations work, informing conservation actions and policies. This talk presents results of the long-term monitoring of many wolf families by the Ethiopian Wolf Conservation Programme, bringing light into their social and reproductive system, ecological requirements, use of space, and how these affect population dynamics and levels of genetic variation. Among other applications, this in-depth knowledge allowed the development of epidemiological models to explore vaccination strategies to control outbreaks of rabies, transmitted to the wolves by domestic dogs. Since 1987, seven outbreaks of rabies or canine distemper viruses have affected the largest wolf population in the Bale Mountains, followed by reactive vaccination interventions in most cases. Current research includes testing the effectiveness and delivery of an oral rabies vaccine, which will be used pre-emptively, and predicting the impacts of land use and climate change on the survival of extant wolf populations, conducing to the development of a metapopulation management plan for the species.

• Laurenz Fischer: Ethiopian wolves

Hôte BioEnviS: *Nicolas Ferry, Marion Cordonnier, Marion Valeix*

nicolas.ferry@univ-lyon1.fr, marion.cordonnier@hotmail.fr