



# UNIVERSITÀ DI PAVIA

## Corso di Dottorato in Scienze della Terra e dell'Ambiente

### FORM PER PROGETTI BANDO DOTTORATO

#### 1. Project title

Serengeti Ecosystem Raptors Project: the first in-depth study of the secretarybird in the Serengeti National Park

#### 2. Proposer

Surname	Pavan
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#### 3. Research Unit

Surname	Name	Institution
Pavan	Gianni	University of Pavia
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#### 4. Keywords

(Max. 5 – at least 2)

Secretarybird; Conservation Biology; Bioacoustics; Ecoacoustics

#### 5. Abstract

(Max.1.500 characters with spaces)

The iconic secretarybird is a unique raptor species that can be found in open savannahs of sub-Saharan Africa. Secretarybird populations are declining and the species has been classified as Endangered in the IUCN Red List of Threatened Species. Being a top predator, the secretarybird plays an important role in regulating the communities at lower trophic levels and its presence is an indicator of the overall health of the environment. We will focus on the secretarybird population of the Serengeti National Park, where we will do the first accurate census of the individuals and a bioacoustic and ecoacoustic monitoring to discover how they interact with each other, with other species, the most relevant environmental factors affecting their distribution and potential threats. In fact, vocal behaviour provides important information in a non-invasive way for understanding the biology of the species; moreover, ecoacoustics allows to obtain a wider comprehension of the health status of the whole ecosystem. Serengeti National Park records the highest number of sightings of secretarybirds in Tanzania and it could represent one of the last strongholds that can still support a healthy population. This might be the result of effective protection and optimal habitat, or other factors which we intend to investigate by combining the traditional approaches of wildlife management and the most innovative ones, like bioacoustics and ecoacoustics.