Fonseca Species Conservation Fund
First Request for Proposals:
Primates
in Countries of the African Continent and the Indian Ocean

Proposal Form
Fonseca Species Conservation Fund

Summary information

Name of applicant:	Elisante Kimambo
Title of project / proposed activities:	Spatial Distribution, Population Density and Conservation of *Galagoides rondoensis* in Two Important Coastal Forest Reserves, Tanzania.
Start and end dates of proposed activities:	February, 2025 to December, 2025
Country location of project / proposed activities:	Tanzania
Total sum requested *(amount in US Dollars)*:	**10,000.00 USD**

Applicant information

Paste a photo of the applicant that clearly shows their face in the box below:

Family name(s):	Kimambo
First name:	Elisante
Email:	kimamboleo@trco.or.tz or kimamboleo@gmail.com
Your age bracket at time of submission *(highlight the option that applies)*:	[18-25], [26-30], [30-35]
Nationality/citizenship country:	Tanzania
Current professional position or academic program:	Wildlife Researcher, currently doing MSc in Wildlife Management and Conservation
Institution/affiliation:	- Tanzania Research and Conservation Organization - Sokoine University of Agriculture
Are you currently a Fellow with the Fonseca Fellowship Program? *(highlight the option that applies)*	Yes / No
How did you hear about the Fonseca Species Conservation Fund?	An internet search for conservation grants

We strive to create programs and services that represent the full diversity of the conservation community. We are asking the following questions to ensure that we are meeting this goal.

How do you describe your gender? Type your answer under option a) or highlight option b).	a) Male
	b) I prefer not to answer.
What is the highest level of education that you have completed?	Bachelor of Science in Wildlife Management

Project information: Fonseca Species Conservation Fund priorities

In the box below, paste a photo of the target species of your project / proposed activities:

List the Latin name(s), common name(s) of the target species of your project / proposed activities:

Latin name(s)	Common name(s)
Galagoides rondoensis or Paragalago rondoensis	Rondo Dwarf Galago or Rondo Bush Baby

Describe which of the fund priorities are met by your project / proposed activities (see priorities for each taxonomic group, e.g., priority IUCN Red List categories, priority geographies, priority taxonomies, etc):

IUCN Red List as Endangered (EN) (Perkin, 2020)

Project information: objectives, activities, outputs, and outcomes

Describe the objective(s) of your overall project (250-word limit):

(1) To map the spatial distribution of *Galagoides rondoensis* in Ruvu South and Pugu/Kazimzumbwi Forest Reserves, Tanzania. *Galagoides rondoensis* locations will be recorded using GPS wherever observed to produce spatial distribution maps for the two FRs. Habitat characterization and environmental factors influencing the distribution of *species* will be collected during biophysical surveys and from key informants. Spatial distribution will be analyzed by MAXENT and multiple linear regression using

presence and absence data, and environmental data.

(2) To estimate the population density of *Galagoides rondoensis* in the two forest reserves. Distance sampling technique will be adopted for population and density (individuals per Km^2) estimation. Transects will be laid down and surveyed where detection occurs (sighting/acoustic) will be recorded. Data will be analyzed using DISTANCE software.

(3) Raising awareness and conservation education about *Galagoides rondoensis* and its habitat to local communities and other stakeholders surrounding the two forest reserves. Awareness raising will be done through training and dissemination of the outputs from the project and literature. This will involve stakeholder workshops and outreach programs. Descriptive statistics and content analysis will be used to analyze the information gathered to facilitate the drafting of conservation management plans at the local and national levels.

Since detailed information on *Galagoides rondoensis* is not well documented in Tanzania, this project aims to accomplish and fill this research gap. We will collaborate with wildlife and forestry regulatory authorities and ecologists from the respective areas to improve awareness and share conservation skills and understanding.

List the activities you propose to do with funding from the Fonseca Species Conservation Fund, the timelines, and anticipated outputs *(add additional rows as needed)*. Proposed activities may contribute to a broader project that takes place beyond the grant period.

Activity #	**Activity description**	**Outputs**	**Timeline**
1. To map the spatial distribution of *Galagoides rondoensis* in Ruvu South and Pugu/Kazimzumbwi Forest Reserves, Tanzania.	(i) Develop survey tools (ii) Purchase Passive AudioMoth automatic recorders (v1.1.0 Open Acoustics Devices, Southampton, UK), RAVEN PRO 1.6 (Cornell University, Ithaca, NY), and torches. (iii) Conduct nocturnal acoustic surveys to record Rondo dwarf galago vocalizations (iii) Conduct surveys on habitat characteristics and environmental factors that influence the distribution of *Galagoides rondoensis* (iv) Conduct key informant interviews in sampled villages surrounding the two forest reserves. Village leaders, district game, forest, and environmental officers, protected area ecologists, and anti-poaching teams will be interviewed to get information on the presence or absence of *Galagoides rondoensis* (v) Perform data analysis for all data collected (vi) Write reports on the distribution of *Galagoides rondoensis* (vi) Producing maps showing the spatial distribution (Observed and predicted) of *Galagoides rondoensis* and its habitat preference including environmental factors influencing species distribution.	(i) Spatial distribution maps of *Galagoides rondoensis* will be produced. (ii) Report on the distribution of *Galagoides rondoensis* produced and shared with communities, forest ecologists, district wildlife and environmental officers, as well as villager leaders. (iii) Publication of peer-reviewed journals to share our findings with other researchers and conservation practitioners. (iv) Additionally, data sets of GPS locations and environmental factors, species distribution models using MAXENT, and conservation strategy recommendations will be produced.	4 months
2. To estimate the population density of *Galagoides rondoensis* in the two forest reserves	(i) Develop survey tools (ii) Conduct transect surveys and record sightings/acoustic) of *Galagoides rondoensis* (iii) Perform data analysis (iv) Write a report on the population density of *Galagoides rondoensis* (v) Disseminate results through social media platforms (Twitter, LinkedIn, YouTube,	(i) Estimates of population density (individuals per Km^2) for *Galagoides rondoensis* in both forest reserves. (ii) A report on the population density of *Galagoides rondoensis* will be shared with communities in each sampled village in terms of active	2 months

	Instagram, Facebook).	presentations during training and awareness creation. (iii) Reports available on social media platforms (iv) Publication in peer-reviewed journals	
3. Raising awareness and conservation education about *Galagoides rondoensis* and its habitat to local communities and other stakeholders surrounding the two forest reserves.	(i) Identify villages and stations where training will be done (ii) Introducing the project in each sampled village (iii) Prepare presentations to be used in community training (iv) Inform local villagers and conservation authorities on threats and conservation needs to *Galagoides rondoensis* (v) Collect knowledge and attitude data after training the participants (vi) Capacity building training to conservation practitioners (rangers, tour guides, protected area ecologists, district game and forest conservation officers) on the conservation need of *Galagoides rondoensis* (vii) Develop a report on awareness, conservation education and capacity building conducted.	(i) Communities will be aware of the conservation needs of *Galagoides rondoensis* and its habitat. (ii) Report on the perception of communities to support the conservation of *Galagoides rondoensis* and its habitat after awareness creation and conservation education.	4 months
4. Preparation of final reports	Prepare and submit progress and final reports to the Fonseca Species Conservation Fund.	Final reports submitted to the Fonseca Species Conservation Fund	2 months

Briefly summarize any past and ongoing conservation efforts focused on your target species and/or conservation site. These may or may not have been conducted by you. Cite previous work. (250 word limit)

Legally, Ruvu South and Pugu / Kazimzumbwi Forest Reserves have been/ and still are under state management (Burgess et al., 2017; Perkin, 2020), and so, most of the management and conservation efforts also came from the state as described under section 22 of Tanzanian Forest Act of 2002). One of the overall objectives of this act is to ensure ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility. Under the umbrella of Wildlife Act no.27 cap 283 of 2008, which is also national legislation in Tanzania, the *Galagoides rondoensis species* is protected from unlawful hunting, killing capturing or trapping and any of these offences is punishable by law. However, the state is often limited in capacity to manage all the protected under her care.

International organizations like IUCN and WWF together with NGO like Tanzania Forest Conservation Group (TFCG) have been chipping in through projects in different capacities to improve the conservation of *G. rondoensis* conservation. In the recent past NGO projects by Tanzania Forest Conservation Group (TFCG) have helped to seizure some threats in both Ruvu South and Pugu / Kazimzumbwi Forest Reserves. Therefore, conservation action is urgently needed, and more research is required to determine the continuing rate of threats at these forest reserves (Honess et al., 2008). Additional surveys in both Ruvu South and Pugu / Kazimzumbwi Forest Reserves to determine the current species status in terms of spatial distribution and population density are urgently required (Perkin, 2020).

Explain why the proposed activities are important for the conservation of the target species and the anticipated outcome(s) of the project (250 word limit):

Galagoides rondoensis species was first classified as endangered in 2000, and in 8 years, it was moved to critically endangered according to IUCN Red list species in 2008 (Perkin, 2020). This species is highly affected by one major proximate threat which includes; habitat loss as a result of agricultural encroachment, logging, charcoal production, and forest fires. Most of projects involved in conservation of the species aimed at minimizing habitat disturbances but rarely conduct species status assessments. The area of the species occurrence does not exceed 101.6 km^2 (Gwegime, 2016), and the most recent assessment was in 2004 (Perkin, 2020), showing absolute species density was around 3–6 individuals/ha at Pande Game Reserve and 8 individuals/ ha at Pugu Forest Reserve. Relative abundance from encounter rates are 3-10 individuals/ hr at Pande Game Reserve and Pugu/ Kazimzumbwi Forest Reserve and 3.94 individuals/ hr at Rondo Forest Reserve. Majority of these sites are national or local authority reserves highly affected by the bordering village land. It has been at least 20 years now since this last survey, and considering the overwhelming pressure on natural resources due to increase in human population and expansion of cities, there is a pressing need to update this species status. Although this study is aimed towards Ruvu South and Pugu/ Kazimzumbwi Forest Reserves which have been receiving laser attention lately compared to the rest, it will also include other sites in later stages as well.

Next steps and future considerations: describe your vision for a longer-term conservation strategy for the target species. The proposed activities may represent a component of this strategy. Discuss how this strategy may be achieved and who might be involved with this effort. (250 word limit)

After the end of this project, we will continue working with local communities by securing funds for the long-term conservation of *G. rondoensis*. Outreach programs will also be determined after gathering and analyzing the baseline collected in this project for future conservation of *G. rondoensis*. Also, we will ensure that wildlife and forest officers are well-equipped to monitor *G. rondoensis* in their protected areas by securing funds from other sources and collaborating with respective wildlife and forest regulatory authorities. Camera traps will help to monitor *G. rondoensis* within these forest reserves and other ecosystems where this species inhabits.

This project will contribute to the achievement of the National Development Plan of 2021-2025 which aims to reduce the loss of biodiversity by 30% (URT, 2021, page 96). The project will contribute to the National Environmental Master Plan (URT, 2022, pages 57, 61, and 68) that focuses on habitat restoration in coastal forest areas including areas surrounding Ruvu South and Pugu/Kazimzumbwi Forest Reserves, ending poaching events by 2032. However, the findings of this study will act as a baseline for the development of a national strategic conservation plan for *Galagoides rondoensis*. Moreover, the research results will be shared with the policy and decision-makers so that they can make policy amendments where necessary.

What are the likely challenges you will encounter during the project / proposed activities and how do you plan to address them?

i. *Galagoides rondoensis* is a nocturnal species and elusive, this may pose a challenge to spot or hear them. Therefore, highly efficient equipment will be used during data collection at night.
ii. Navigating through difficult terrain, thick underbrush, and swamps can be physically demanding and time-consuming. This will be addressed by proper field plans and logistics.
iii. Ensuring that GPS devices, cameras, and other equipment remain functional in harsh field conditions.
iv. Dealing with potential health and safety issues among team members in the field.
v. Securing sufficient funding to cover all aspects of the project, including equipment, personnel, and logistics.

List the collaborators and stakeholders you are planning to work with during this project and their role in the activities *(add additional rows as needed)*:

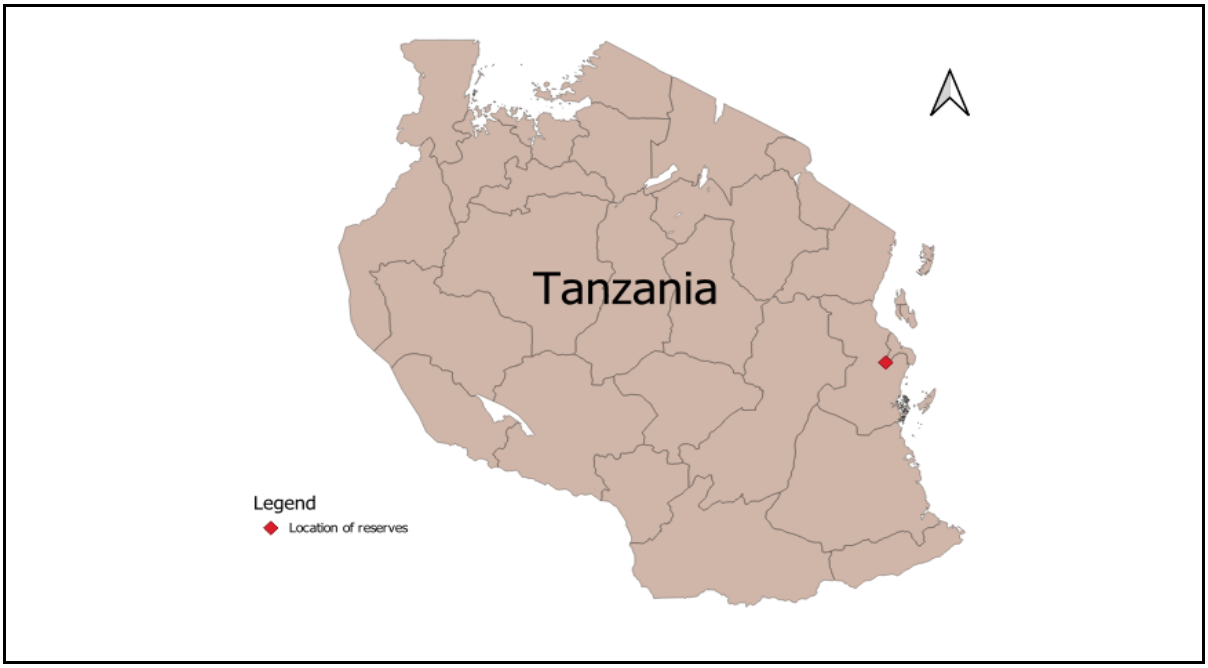
Collaborator/stakeholder name	**Role**
Indigenous communities	Participates in all stages of implementing the project activities. Beneficiaries of research findings that support conservation efforts of *Galagoides rondoensis*.
Educational and training institutions	They will provide technical support during research activities They will use research findings for academic purposes
Ministry of Natural Resources and Tourism (MNRT), Commission of Science and Technology of Tanzania (COSTECH), Tanzania Wildlife Research Institute (TAWIRI), Tanzania National Parks (TANAPA), Tanzania Forest Services (TFS), and Tanzania Wildlife Management Authority (TAWA)	They will support this research through decision-making and taking necessary actions including permit provision.
Researchers and research institutions e.g., TAWIRI	They will be involved directly or indirectly in research and use research findings for both scientific knowledge and field application purposes.
National and International organizations (e.g., UNESCO, WTO, IUCN, UNEP, UNDP, TRAFFIC)	They will also make use of research findings to support decision-making. Providing data were necessary e.g., IUCN

Local government authorities	They will be involved in all stages during the implementation of project activities. They will provide permits and guidance at the local level during the implementation of project activities.

If the proposed activities take place in an existing or proposed Protected or Conserved Area (e.g., National Park, Wildlife Reserve, etc.), please list here:

The proposed activities of this project will take place in two important Coastal Forest Reserves and the sampled villages bordering these reserves. 1. Ruvu South Forest Reserve under state or central government ownership 2. Pugu and Kazimzumbwi Forest Reserves under state or central government ownership

In the box below, provide a map of the project area / site (a point or polygon is fine):



Regulatory and Safety parameters

Type your initials in the box below if you agree with the following mandatory stipulations:

- There will be no collection or destructive sampling of any target species or other significant fauna, flora, or fungal (e.g., no museum specimen collection).
- All proposed activities will adhere to applicable permit requirements.

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In the table below, provide a list of any permits that you require to undertake the proposed activities and their status.

Permit	**Status (not yet applied, in process, approved)**
Permit from Tanzania Wildlife Research Institute (TAWIRI)	Not yet applied
Permit from Tanzania Commission for Science and Technology (COSTECH)	Not yet applied
Permit from Tanzania Forest service agency (TFS)	Not yet applied
Introduction letter from Ministry of President's Office - Regional Administration and Local Government to Regional office	Not yet applied
Introduction letter from Regional office to District office to Ward offices and finally to Village offices	Not yet applied

Describe the provisions you have / will put in place to ensure the safety of your staff and collaborators, and how will these be implemented in the proposed activities?

i. Conduct preliminary scouting trips/reconnaissance surveys to identify the best and safer routes and access points.
ii. Collaborate with local communities for logistical support and local knowledge.
iii. Plan fieldwork during the dry season to avoid difficult roads and easier navigation.
iv. Use specialized equipment like machetes for thick underbrush and hiking boots for rugged areas.
v. Increase the duration and frequency of surveys to improve chances of detection.
vi. Provide thorough training in identifying visual and auditory cues of *Galagoides rondoensis.*
vii. Develop and follow standardized data collection protocols.
viii. Develop a detailed budget and monitor expenses closely.
ix. Be prepared to adapt the research plan based on real-time observations and challenges encountered.
x. Keep all electronic equipment in good protective materials and keep spare batteries, memory cards, and other essential parts readily available.

Funding request

Using the Proposed Budget Excel sheet, provide a budget for the project / proposed activities. Indicate the costs requested from the Fonseca Species Conservation Fund. Indicate any other funding, the source(s), and timeframe when you expect to receive the additional funds.

Download the Proposed Budget Excel sheet from the Fund webpage

References

List the names, emails, and phone numbers (including country and area codes) of two references that the Fund can contact about the proposed activities, if we choose to do so. If possible, at least one should be external to the applicant's current organization.

1. George Bunyata Bulenga
   Tanzania Research and Conservation Organization (TRCO)
   PO Box 6873
   Morogoro, Tanzania
   Mobile: +255 713991257 or +255 682836690
   Email: bbunyata@gmail.com or george.bulenga@trco.or.tz

2. Dr. Nsajigwa Emmanuel Mbije
   Department of Wildlife Management
   College of Forestry, Wildlife and Tourism
   Sokoine University of Agriculture
   P.O. Box 3073 Morogoro, Tanzania
   Telephone: +255 23 2601376
   Fax +255 23 2604648
   Or: +255 23 2601699
   Mob +255 784 797425
   Email: mbije@yahoo.com or mbije@sua.ac.tz