

CURRICULUM VITAE

CIVIL STATUS:

Name: Andry Laurent RAZAFIMAHEFA

Date and location of birth: 15 February 1989 in Antsirabe/ Madagascar

Gender: Male

Matrimony: Single

Email : laurent.razaf@gmail.com

Telephone: 034 76 470 40



DOMAINS OF COMPETENCE:

Biology, ecology of the flora and characterization of the tropical plant formations;

Mapping and Geographic Information System using QGIS and ArcGIS softwares;

Assessment of threats to biodiversity and ecosystems;

EDUCATION:

2013-2015: MSc in Plant Biology and Ecology, Faculty of Sciences, University of Antananarivo, Madagascar

Dissertation topic: Effects of habitat fragmentation to *Adansonia rubrostipa* in the Menabe region.

2012-2013: BSc in Plant Biology and Ecology, Faculty of Sciences, University of Antananarivo, Madagascar

2011-2012: Certificate from the University of Antananarivo Sciences Faculty (DEUS II)

2010-2011: Certificate from the University of Antananarivo Sciences Faculty (DEUS I)

2009-2010: Baccalauréat degree série D

ATTENDED FORMATIONS:

April 2018: Transforming civil society's impact in hotspot conservation by Tropical Biology Association in the Andasibe region, Madagascar.

January 2018: Training in mapping of forest in IOGA using QGIS software.

February 2017: Training on Leadership by Association FAMELONA.

February 2017: Training on ecological restoration and forest management by Association RENIALA.

October 2013: System of rice intensification by Association TAOEZAKA in the Ambatomirahavavy region.

RECENT RESEARCHES:

- Management of brush fires and mapping of sensitive area in the New protected area of Baly bay with MNP, Durell, Tany Meva.
- Member of the scientific team of expedition " OPERATION WALLACEA " in Mariarano as leader botanist.
- Terrestrial Biodiversity Survey in Mangrove Forest at the New protect Area Velondriake with Blue Ventures.
- Value chain analysis, habitat characterization of wild silk of mangrove in the Boeny region and identification of the pilot sites with GIZ and Biodev Consulting.
- Floristic inventory and categorization of mangroves types in the Benjavily region of Madagascar with WWF and Association RENIALA.
- Workshop on the validation of the ecosystems collapse of Madagascar with IUCN.
- Monitoring and evaluation of mangroves restoration in the Ambaro Bay with WWF and Association RENIALA.
- Environmental Impact Assessment for the rehabilitation of path Talata Volonondry with Company Always Higher (CoAH).

SKILLS

- **Computer skills:** Microsoft Office (Word, Excel, PowerPoint), R, QGIS, ArcGIS.
- **Language skills:** Malagasy (native), French (fluent), English (low intermediate level)

Abstract

Title: Future prediction of Bombetoka Bay Mangroves facing Population Growth. Anthropogenic actions on ecosystems are increasingly devastating. Mangroves one of the most productive ecosystems in fisheries resources, a carbon sink and playing an important function in the protection of the coast are among the most affected by the harmful actions of the man. A fragile ecosystem, most of which is located in the western part of Madagascar. Since the last decade, studies have shown a regressive evolution of the mangrove population. The area of mangroves of the island decreased by 7% between the period 1975 and 2005. The factors of this degradation are mainly of anthropic origin by various uses by the coastal populations (slash, charcoal and construction). This regressive evolution is correlated with the demographic increase. In the case of the Mangrove of Bombetoka Bay, the area of mangroves decreased by 20% in 1975 to 1990 and by 34% in 1990 to 2000. For the population of the Region, it increased from 262,795 in 1993 to 424,768 in 2001. It is therefore important to predict the trend in time and space evolution of the mangrove ecosystems of Bombetoka Bay in the face of population growth in order to develop conservation measures.

Keywords: Mangroves, Bombetoka, population growth, ecosystem.

Statement of Interest and Intent

For my short-term projects, this training workshop will bring new perspectives on conservation research. The goal of my short-term project is to undertake a modeling of the spatial and temporal evolution of the mangroves of Bombetoka Bay. In Madagascar, as in most tropical countries, the economic interest of mangroves is recognized by the large production of mangrove wood and the abundance of fish products associated with them. Mangroves are one of the most productive ecosystems in biomass on our planet. They have now become an indisputable public utility. These particular environments provide important flora and / or fauna and fish resources for the populations living on these coasts. Thus, anthropogenic actions constitute serious pressures and threats on these mangroves. For this model will take into consideration all the parameters that can influence dynamism of this ecosystem such as human action (cutting, conversion to agriculture, reforestation ...) but also the natural parameters on all climate change which leads to an increase in the level of the sea, increasing salinity ... A model will be able to better focus on the real threat that affects this ecosystem. In the long term, participating in such training would give more perspective on research given the results that will be achieved in my current research project. In addition, acquiring a modeling database in epidemiology or ecology will create a model to preserve and sustain the environment. The field of conservation requires reference models that will facilitate decision-making for conservation activities. From the results of my research, it is conceivable to make a model of the other mangrove ecosystems distributed in Madagascar to see an overview of the dynamics of the coverage of mangroves in a precise time. The rapid degradation of mangroves around the world has become a concern because they constitute a buffer zone as effective stabilizers for some fragile coastal areas that are now under threat, and because they contribute to the ecological resilience of ecosystems after cyclones. and tsunamis and the effects of climate

change and / or disruption, including the gradual rise of the sea and oceans. Dynamic modeling for the ecosystems is therefore essential for their conservation.