Voahangielisoa Miatrana RASAMOELINA
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26 years old

Education and Qualification

- 2016-2018: Master thesis projects « Seroprevalence of West Nile in wild birds on four area of Madagascar» with CIRAD and Institut Pasteur de Madagascar
- 2016: Training on "leadership" with the program "young women leadership program" by the NGO Youth first
- 2015 : Final year (6th years) at the Veterinary School of the University of Antananarivo
- November2013 : Diplôme Approfondi de Langue Française (DALF C2) at Alliance Française Fianarantsoa
- 2008: Baccalauréat série D avec mention Assez Bien

Experiences

- March 2018: IPM's trainee, epidemiology's unit
- August 2017: online course on using R software by FUN MOOC
- June 2017: training on the use of QGIS software by IPM's SAGEO team
- May 2016 - January 2017: data collection and laboratory analysis for master thesis projects with CIRAD
- May 2016- March 2018: CIRAD's trainee
- January - March 2016: Training on pet medicine in a private veterinary clinic in Antananarivo
- November – December 2014 : Training on livestock medicine in a private farm in Antananarivo
- December – January 2014 :Training on pet medicine in a private veterinary clinic in Antananarivo
- June 2013 : Initiation to conservation medicine at Ivoloina Zoological Park
- May – June 2013 : Volunteer on taking care of the confiscated radiated tortoises with Durrell Wildlife Conservation Trust - Madagascar
- February 2013: Training on cattle medicine at Kianjasoa Station
- December 2012: Training on Veterinary Laboratory works at the National Veterinary Laboratory, Antananarivo
- November – December 2011 :Training on Pet medicine in a private veterinary clinic in Antananarivo
- October – November 2010 : Sale's moderator at Mad'Or Company

Other activity

- Member of SCOUT association

IT Skills

- Word, Excel, PowerPoint and Internet, R software, QGIS software

Language skills

- Malagasy, French, English

Personal Vision

Madagascar, one of top hotspots in the world, many of its endemic species is threaten to extinction. But because of the weakness of the economy of the country, conservation is being a big issue. As a future and young Veterinarian, I want to contribute to enhance the situation with the skills and experiences that I've learned.

Abstract describing the research project:

The project is entitled "seroprevalence of West Nile in wild birds in four regions of Madagascar". It is my thesis. The main objective of this study is to determine the seroprevalence of WNV in wild birds. The specific objectives are: to identify birds in areas with horses and / or a large bird population, to determine if certain birds have been in contact with WNV and to identify risk factors may explain why some birds are more in contact with the virus than others.

To carry out this transversal prospective study, wild birds were caught in four regions (Itasy, Analamanga, Alaotra-Mangoro and Vakinankaratra). A subset of samples was confirmed using the gold standard test Plaque reduction neutralization test. Blood samples were taken and analyzed using the IDVET® ELISA competitive test. Bird count data were also collected at some catch sites.

Given the objective of the study, the variable to be explained is the result of the serological status (either the individual is seropositive or seronegative) and the explanatory variables are the other variables collected which are the risk factors of the contact of the West Nile virus. These variables include biology, ecology and geographical distribution of the bird such as catch region, age, sex, affinity of water and urban area, habitat, nest location, near wetland, gregariousness, migration status, geographical distribution, order and family of the bird.

Statistical analyzes were performed using software R 3.4.4. For univariate statistical analyzes, the Pearson test or Chi-square test (χ^2) was used. As the variable to be explained, the serological status of birds, is binary, to identify the risk factors, we used the logistic regression model. Significant variables in univariate analyze at p –value ≤ 0.2 were included in the multivariate analysis. In multivariate analyzes, only significant variables at the 0.05 threshold (value of "p" ≤ 0.05) are retained. Logistic regression models were developed using two stepwise regressions (downward and upward), in both cases, we verify that the final model is the one with the lowest Akaike criterion (AIC: Akaike Information Criterion). In multivariate analyzes, interactions between the variables that were retained in the final model were tested. These interactions all have biological meanings, and the significant interactions will be retained in the models and will constitute a risk factor.

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E²M²: Ecological and Epidemiological Modeling in Madagascar
January 12-21 2019
Centre ValBio, Ranomafana National Park &
Institut Pasteur de Madagascar, Antananarivo

Dear Sir,

Following the reading of the announcement of the workshop on "Ecological & Epidemiological Modeling in Madagascar» online, I show my interest in it. Indeed, I am preparing my thesis in veterinary medicine which in the field of epidemiology, and currently I do an internship at the epidemiology unit within the "Institut Pasteur de Madagascar".

As I am a future veterinary doctor I am particularly interested in wildlife disease. And I think the emergence of diseases that affect wildlife can be predicted from modeling if we master this kind of mathematical tool and especially the ecology and environment of wildlife. I have already read some scientific article that uses modeling to predict or obtain the risk of emergence or reemergence of a disease or even to explain why such a disease has occurred in a particular species or country. After reading these articles, I thought that we could do the same for Malagasy wildlife diseases. Indeed, many diseases, especially those affecting wildlife but also those that are transmissible to humans can be better understood and thus prevent an epidemic or epizootic.

After my fieldwork and I did the analysis of my data for the preparation of my thesis, I took a liking to analyze the data even though it was not always easy. Because, having done my own analysis of data and statistics allowed me to familiarize myself with the software R and to control so little is it the linear regression to explain the epidemiological situation of my data. I hope that my thesis will not be the only data analysis I will have to do, and I hope to do much more in the future as part of my work as veterinary epidemiologist. That's why, I need to go further and deepen especially in the field of epidemiology and at the same time I will practice the knowledge I will have acquired during the workshop.

I admit that I have little experience with modeling, however during my thesis I have had the opportunity to use it and I was really fascinated and amazed how we can predict or explain a given situation by using modeling. And know I want to learn more and keep down about modeling, and acquire new knowledge. And also participating in this workshop would allow me to facilitate future work that will need to use modeling.

This workshop sparked my interest because later I would like to practice in the field epidemiological research, as I said above. So participating in this workshop seems a great opportunity for me to deepen my knowledge and have more skills and about epidemiological modeling and familiarize with it. This workshop is an opportunity not to be missed because this kind of training opportunity does not come up often, and that the area in question really interests me a lot. It is also an opportunity to share and receive new knowledge from other participants because I saw that this workshop is multidisciplinary. And at the same time make new friends or future collaborator if we present the same center of interest.

Looking forward to a favorable response from you, please accept my most distinguished greetings.

The interested,

Miatrana Voahangielisoa RASAMOELINA