GENERAL INFORMATION

Program sponsor: Princeton Environmental Institute
Position number: U2MET
Project title: Poultry Farming and Newcastle’s Disease in Antananarivo: Sustaining Diverse Income Streams in an Urban Setting
Organization/research group: Metcalf Lab
Primary location(s) of internship: Antananarivo, Madagascar
Additional cities and/or countries to be visited (if applicable): n/a

Note: If this internship is located in a country with an International SOS risk rating of High or Extreme, final candidates must participate in a travel review process overseen by the Travel Oversight Group (TOG), and obtain safety guidance prior to departure. The University reserves the right to revoke support and funding for travel at any time there has been a significant deterioration in the safety and security conditions surrounding travel arrangements, or in the sector of the country, or countries, where travel is to occur.

FACULTY SPONSOR(s)/HOST INFORMATION

Name(s): C. Jessica E. Metcalf
University Department(s): Ecology and Evolutionary Biology
E-mail: cmetcalf@princeton.edu
Website: https://metcalflab.princeton.edu

INTERNERSHIP/RESEARCH PROJECT INFORMATION

Internship/project description:

Antananarivo, the capital of Madagascar, is a growing city of more than two million inhabitants. Poultry farming flourishes informally across the city, providing food security and an income stream for many households. Yet, devastating poultry diseases affect the livelihood of farmers, and the potential of known mitigation strategies remains uncharacterized. Interns on this project will map both farms and an important poultry disease across the city in order to expand our understanding of this aspect of food security, and inform a unique feature of the urban environment of cities in resource poor settings.

Student’s role and responsibilities:

The student will work with a team that includes students from the Veterinary School in Antananarivo to design surveys to map both poultry farm and trade networks. Surveys will include questions on costs, benefits, vaccination practices, seasonality and demography of poultry farming practices.
Farm structure will be identified from the supply, age structure, and diversity of all poultry. Students will participate in survey deployment in Madagascar in summer 2019, and data collation.
Anonymized summaries of the data will be made available to all participating students; students will be responsible for coordinating all geographic data and relevant descriptors to contribute back to OpenStreetMap.org.
Internship/project learning objectives:
Students will develop a knowledge of survey design, and survey deployment, as well as knowledge of mapping techniques for mapping. Students will also acquire skills in analysis of epidemiological data, of a level and detail dependent on the scale of their interest.

PROGRAM REQUIREMENTS

Academic background and any course pre-requisites:
Broadly accepted - but ENV304, or GHP351 would be helpful.

Technical skills:
Some statistical / coding experience desirable.

Additional training(s):
n/a

Equipment:
All students should bring a laptop, and good walking shoes.

Physical demands:
This project will likely require a certain amount of walking. Air quality in many parts of Antananarivo is poor, given pollution, etc.

Language abilities/competencies (if applicable): French/Malagasy desirable, but not required.

Additional information about the internship/project:
Antananarivo is quite chilly during this time of year. Students will need to complete Protecting Human Research Participants (IRB) training. Participating students will need to obtain visas and research permits. Students are to visit UHS for international travel health and immunization information.

INTERNATIONAL TRAVEL REQUIREMENTS (if applicable)

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INTERNISHIP/PROJECT SUPERVISOR(S)

Name and title of primary supervisor: C. Jessica E. Metcalf
Email: cmetcalf@princeton.edu

Name and title of additional supervisor, if applicable: Fidisoa Rasambainarivo
E-mail: f.rasambainarivo@gmail.com

PROGRAM DATES AND FUNDING INFORMATION

| Weekly Stipend: $500 (plus int'l travel award) | Number of Positions Available: 5 |
| Tentative Start Date (mm/dd/yyyy): 6/15/2019 | Number of Weeks: 8 |
| Tentative End Date (mm/dd/yyyy): 8/11/2019 | Note: PEI funding is for full-time work, 35 hours per week minimum, and for a period of at least 8 continuous weeks. |

Application deadline: January 11, 2019