

# Ekipa Fanihy

*Ekipa Fanihy* means ‘Team Fruit Bat’ in Malagasy. We are a collection of hard-working students and research staff investigating infection dynamics in three species of Madagascar fruit bat (*Pteropus rufus*, *Eidolon dupreanum*, and *Rousettus madagascariensis*). In an effort to build the longitudinal dataset needed to answer our research questions, we collect monthly biological samples from wild populations of the three Malagasy fruit bat species at several remote Madagascar field sites, then conduct molecular and serological assays on these samples to determine infection and immune status in the laboratory. Visit our National Geographic Blogsite to follow our progress in the field!

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## Angelo Andrianiana

**Angelo Andrianiana** is a **PhD student** in the Department of Zoology and Animal Biodiversity at the University of Antananarivo, Madagascar, where he studies seasonal variation in ectoparasite infestation of two Malagasy fruit bats (*Eidolon dupreanum* and *Rousettus madagascariensis*) and the impacts of this variation on the dynamics of infection for vector-borne pathogens, such as *Bartonella* spp. Angelo holds a Master’s degree in Animal Conservation from the University of Antananarivo and has previously worked on projects promoting lemur conservation in vanilla plantations in northern Madagascar, as well as projects documenting small mammal and herpetological biodiversity in the Moramanga District of east-central Madagascar.

## Santino Andry

**Santino Andry** is finishing his **Master’s** degree in the Department of Entomology at the University of Antananarivo, Madagascar, where he worked with the Madagascar Biodiversity Center to document the effects of logging intensification on exotic and native ant assemblages in the new protected area of Ambohidray, District of Moramanga, Madagascar. Santino joined Ekipa Fanihy in August 2019 and will be enrolling as a PhD student with the team in 2020.

## Anecia Gentles

**Anecia Gentles** is our senior **Field Project Manager** for Ekipa Fanihy. Anecia joined our team in January 2019 and has been with us through two field seasons. She works closely with Sami Kreling and Katie Fitzgerald to organize and lead monthly field collections on our project. In addition to field work, Anecia is currently reviewing previous modeling studies of bat infection dynamics and plans to apply to PhD programs in disease ecology in fall 2019. Anecia graduated with a Bachelor’s of Science in Ecology from Rice University in 2018.

## Sarah Guth

**Sarah Guth** is a third-year **PhD Candidate** in the Department of Integrative Biology at the University of California, Berkeley. Sarah is advised by Professor Mike Boots and studies the evolutionary underpinnings of cross-species zoonotic emergence. Sarah is carrying out a subset of dissertation chapters in part with Ekipa Fanihy, specifically investigating seasonal variation in inter-species contact rates, as well seasonal viral pulsing of potentially zoonotic viruses shed in bat excreta. Sarah holds a Bachelor of Arts degree in Conservation Biology from Middlebury College and has previously studied foraging and learning behavior in bees, as well as served as the Program Coordinator for Harvard University’s Planetary Health Alliance.

## Christian Ranaivoson

**Christian Ranaivoson** is just finishing his **PhD** in the Department of Zoology and Animal Biodiversity at the University of Antananarivo, Madagascar, and has already started his appointment as a **postdoctoral researcher** in the Virology Unit at Institut Pasteur de Madagascar. Christian’s PhD research focused on the distribution and transmission of intra-erythrocytic parasites of Malagasy fruit bats, specifically *Babesia* spp. infections of the Malagasy flying fox, *Pteropus rufus*, and *Bartonella* spp. infections of the Malagasy fruit bat, *Eidolon dupreanum*. As a postdoc, Christian will lead Next Generation Sequencing studies with targeting viral discovery in Malagasy fruit bats. Christian holds a Master’s degree in Biology, Ecology, and

Animal Conservation from the University of Antananarivo and has previously studied infections of Malagasy crayfishes and nematode parasites of Malagasy reptiles.

### **Fifi Ravelomanantsoa**

**Fifi Ravelomanantsoa** is a **PhD student** in the Department of Zoology and Animal Biodiversity at the University of Antananarivo, Madagascar, where she is studying seasonal variation in microbiome gut flora in Malagasy fruit bats and the interactions of these microbiome communities with the dynamics of viral and bacterial infections. Fifi holds a Master's degree in Animal Conservation from the University of Antananarivo and has previously studied patterns in chiropteran biodiversity in the Melaky region of western Madagascar.

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### **Ekipa Alumni**

#### **Kimberly Rivera**

**Kimberly Rivera** was a **Field Project Manager** for Ekipa Fanihy from January-August 2019. Along with Anecia Gentles (see above), Kim organized and led monthly field collection on our NIH- and DARPA-funded project. Kim graduated with a Bachelor of Science in Environmental Science from the University of Delaware in 2016 and has worked previously on projects studying bighorn sheep in the Mojave Desert, white-tailed deer in Pennsylvania, gray wolves in northern Minnesota, and migratory shorebirds on the Delaware coast. Kim recently started a Master's degree in the lab of Dr. Brian Gerber in September 2019, investigating human-wildlife conflict related to fossa depredation of domestic poultry in central Madagascar.

#### **Katheryn Fitzgerald**

**Katheryn Fitzgerald** was a **Field Project Manager** for Ekipa Fanihy in fall 2019. Along with Anecia Gentles and Samantha Kreling (see below), Katie organized and led monthly field collection on our NIH- and DARPA-funded project. Katie has previously studied bats in a variety of ecosystems, ranging from the deserts of the American southwest to the rainforests of Borneo. She earned her B.S. in Environmental Studies from San Francisco State University in 2018 and hopes to continue graduate studies in bat ecology in the future.

#### **Samantha Kreling**

**Samantha Kreling** was a **Field Project Manager** for Ekipa Fanihy in fall 2019. Sami worked closely with Anecia Gentles and Katie Fitzgerald to organize monthly field collections on our project. Sami graduated with a B.S. in Environmental Science, Policy, and Management from UC Berkeley in 2019, where she studied black-tailed deer response to fire disturbance in northern California, among other topics. Sami plans to apply to graduate programs focused on ecology at the urban-wildland interface in the future.