

Ryan S. Rothman, M.Res., Ph.D. Student

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EDUCATION

2018 - Present: Stony Brook University- Stony Brook, New York, USA

Degree Anticipated: Ph.D. in Biological Anthropology

Thesis: *T.B.D.*

2016 - 2017: Imperial College London at Silwood Park- Ascot, England, UK

Degree Achieved: Master of Research with Merit in Tropical Forest Ecology

Thesis: *Does Anthropogenic Disturbance Affect the Diversity and Size of Seeds Dispersed by Lemurs?*

2012 - 2016: University of St Andrews- St Andrews, Scotland, UK

Degree Achieved: Bachelor of Science with Honours in Zoology

Thesis: *An Analysis of African Bush Elephant (*Loxodonta africana*) Damage to Woody Plants in Balule Nature Reserve, Limpopo Province, South Africa.*

2008 - 2012: Southold High School- Southold, New York, USA

PROFFESIONAL DEVELOPMENT

July 2020 – Present: Campfire Academy- Hoedspruit, Limpopo, ZA (distance learning)

Certification Anticipated: Apprentice Field Guide & Nature Enthusiast FGASA Theory Certificate

PUBLICATIONS

Rothman RS, et al. (in preparation). Refuge or Relict? An Isolated Forest Fragment Offers Insight on Historic Forest Cover in Madagascar's South-Central Highlands.

Smaers JB, **Rothman RS, et al.** (in review). The Evolution of Mammalian Brain Size. *Science Advances*.

Ksepka DT, et al. [incl. **Rothman RS**] (2020). Tempo and Pattern of Avian Brain Size Evolution. *Current Biology*, 30 (11). <https://doi.org/10.1016/j.cub.2020.03.060>

Greene LK, Clayton JB, **Rothman RS, et al.** (2019). Local Habitat, Not Phylogenetic Relatedness, Predicts Gut Microbiota Better Within Folivorous Than Frugivorous Lemur Lineages. *Biology Letters*, 15 (6).

<https://doi.org/10.1098/rsbl.2019.0028>

PRESENTATIONS

Rothman RS and Smaers JB (2019). *The Evolution of Primate Brain Size Follows the Pattern of an Adaptive Radiation*. Poster presentation at the 5th Meeting of the *Northeastern Evolutionary Primatologists Group* at the University of Massachusetts, Amherst, Massachusetts, USA.

Rothman RS, et al. (2019). *Dispersal of an Invasive Plant Species by a Native Seed Predator*. Podium presentation at the 56th Congress of the *Association for Tropical Biology and Conservation* at the Ivato International Conference Centre, Antananarivo, Madagascar.

Rothman RS, et al. (2018). *Ring-Tailed Lemurs (*Lemur catta*) Broaden Their Niche in a Novel Rainforest Habitat*. Poster presentation at the 27th Congress of the *International Primatological Society* at the United Nations Office, Nairobi, Kenya.

Rothman RS, et al. (2017). *Ring-Tailed Lemurs (*Lemur catta*) Dispersing Seeds in a Novel Rainforest Habitat*. Podium presentation at the Inaugural Congress of the *Malagasy Primatological Society* at the University of Toamasina, Toamasina, Madagascar.

Rothman RS, et al. (2017). *Does Anthropogenic Disturbance Affect the Diversity of Seeds Dispersed by Lemurs?* Podium presentation at the Imperial College London *Frontiers in Ecology and Evolution* Graduate Symposium at Silwood Park, Ascot, England, UK.

GUEST LECTURES & INVITED TALKS

Rothman RS (2020). *What Makes Us Primates.* Guest Zoom lecture in ANP:102 What Makes Us Human? at Stony Brook University.

Rothman RS and Koenig AK (2019). *What is a Primate?* Guest lecture in ANP:120 Introduction to Biological Anthropology at Stony Brook University.

Rothman RS and Smaers JB (2019). *Grade Shifts in the Allometric Scaling of Avian Brain to Body Size.* Invited speaker at the University of Fianarantsoa, Fianarantsoa, Madagascar.

Rothman RS (2019). *Programming with R Statistical Computing Software.* Guest lecture at Centre ValBio Research Station, Ranomafana, Ifanadiana, Madagascar.

Rothman RS and Harmand S (2019). *What are Primates?* Guest lecture in ANT:377 Animal Tool Use at Stony Brook University.

Rothman RS and Russo GA (2018). *Introduction to Palaeontology.* Guest lecture in ANP:120 Introduction to Biological Anthropology at Stony Brook University.

RESEARCH EXPERIENCE

June 2020 – Present: Graduate Research Assistant for the Institute for the Conservation of Tropical Environments (ICTE) at Stony Brook University, Stony Brook, New York, USA: Leading the first research paper to describe the Analamary-Ivohiboro Protected Area of South-Central Madagascar.

August 2019 – May 2020: “Tempo and Pattern of Mammalian Brain Size Evolution Reveal Hallmark Signs of an Adaptive Radiation in Primates.” We use phylogenetic comparative methods to infer where deviations in the allometry of relative brain size lie across a phylogeny of 1374 mammalian taxa.

July 2019: Fifth Centre ValBio Research Expedition to the Analamary-Ivohiboro Protected Area, Ivohibe, Ihorombe, Madagascar: We followed groups of ring-tailed lemurs and collected faecal samples for collaborative microbial and genetic analyses.

April 2017: Third Centre ValBio Research Expedition to the Analamary-Ivohiboro Protected Area, Ivohibe, Ihorombe, Madagascar: We collected faecal samples from ring-tailed lemurs to investigate if they are performing the ecosystem service of seed dispersal in a novel rainforest habitat.

March – May 2017: Lemur Seed Dispersal Research in Ranomafana National Park, Ranomafana, Ifanadiana, Madagascar: I collected faecal samples from four diurnal frugivorous lemur species across rainforest sites that differed in their levels of anthropogenic disturbance.

January 2017: Imperial College Tropical Ecology Field Course at Kalabakan Forest Reserve & Maliau Basin Conservation Area, Sabah, Malaysian Borneo: This taught field course involved taxonomic ID of plants and animals, and hands-on experience collecting and handling ecological data.

August - September 2016: Research Assistant for ICTE at Stony Brook University, Stony Brook, NY, USA: I was tasked to clean and manipulate large ecological datasets using Microsoft Excel and R.

July – August 2015: Conservation Ecology Internship for Campfire Academy at Balule Nature Reserve, Hoedspruit, Limpopo, South Africa: I investigated the role of African elephants as ecosystem engineers in the savanna by assessing rate, intensity, and type of damage done to woody trees and shrubs.

August - September 2014: University of St Andrews Ecology Field Course at Orielton Field Centre, Pembroke, Wales, UK: This taught field course included hands-on sampling and measuring of aquatic and terrestrial biodiversity, and a mini research project presented on grasshopper feeding ecology.

June 2014: Research Assistant for the Tern Project on Great Gull Island, New York, USA: Tasks included marking clutch numbers, using cage traps at nest sites to process adults, and weighing and ringing chicks.

February – April 2014: Research Assistant for the Evolution, Genes, and Genomics Group at the University of St Andrews, St Andrews, Scotland, UK: Tasks included breeding and sexing *Drosophila* fruit flies and testing for the presence of the *fruitless (fru)* gene through observational courtship experiments.

June - July 2011: Research Assistant for Operation Wallacea at Welgevonden Game Reserve, Vaalwater, Limpopo, South Africa: Tasks included habitat surveys, bird point-counts, and large mammal tracking.

TEACHING EXPERIENCE

Stony Brook University – Stony Brook, New York, USA

<u>Term(s)</u>	<u>Graduate Teaching Assistant</u>
Fall & Spring 2020	ANT:102 What Makes Us Human?
Fall 2019 & 2018	ANP:120 Introduction to Biological Anthropology
Spring 2019	ANT:377 Animal Tool Use

Centre ValBio Research Station – Ranomafana, Ifanadiana, Madagascar

<u>Term(s)</u>	<u>Graduate Teaching Assistant (SBU Undergraduate Study-Abroad Programme)</u>
Winter & Summer 2019	ANP:307 Comparing Ecosystems of Madagascar; ANP:350 Methods in Studying Primates; ANP:387 Independent Biodiversity Research Project

AWARDS

January 2019: Stony Brook University IDPAS Travel Grant (**Internal**) - \$300

November 2018: Stony Brook University GSO RAP Travel Grant (**Internal**) - \$500

December 2017: *Coup de Coeur* Presentation Prize – For favourite student oral presentation –Awarded by the *Malagasy Primatological Society* inaugural congress executive committee of judges.

SCIENTIFIC OUTREACH

May 2019: “Food Webs in the African Savanna” Educational Workshop at WS Mount Elementary School in Stony Brook, New York, USA

March 2019: Animal Sciences Judge for the Long Island Science and Engineering Fair at the Crest Hollow Country Club in Woodbury, New York, USA

PROFESSIONAL SERVICE

2020 – Present: Secretary of the Behavioral Ecology Group (BEG) at Stony Brook University

2019 - 2020: EndNote Database Manager for the IDPAS at Stony Brook University

July 2017: Delegate at the 54th Congress of the *Association for Tropical Biology and Conservation* at the Hotel Fiesta Americana in Merida, Yucatan, Mexico

2015 - 2016: Class Representative for the Ecology, Evolution, & Organismal Biology Undergraduate Degree Programs at the University of St Andrews

June 2015: Co-Organizer (with The Viscount Matt Ridley) of the Revive & Restore: Great Auk De-extinction Scientific Meeting at the International Centre for Life in Newcastle, England, UK

2014 - 2015: Vice President of the Wildlife and Conservation Society at the University of St Andrews

2014 - 2015: Academic Liaison Officer of the Biology Society at the University of St Andrews

PROFESSIONAL MEMBERSHIPS

From 2020: *Field Guides Association of Southern Africa (FGASA)*

From 2018: *International Primatological Society (IPS)*

From 2017: *Association for Tropical Biology and Conservation (ATBC)*

From 2017: *British Ecological Society (BES)*

ADDITIONAL EXPERIENCE

May – Aug 2018: Veterinary Assistant at East End Veterinary Center- Riverhead, New York, USA

2008 – 2012: Animal Caretaker at North Fork Animal Hospital- Southold, New York, USA