

VRATIKA CHAUDHARY

PhD candidate, Quantitative Ecology, University of Florida

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SUMMARY

- PhD candidate experienced in data analysis, statistical methods, quantitative ecology and, disease ecology. Currently based in University of Florida, alumna of Clemson University, SC and West Bengal University of Health Sciences, India.

PROJECTS

Image classification using deep learning

📅 Apr 2018 - ongoing

- Automated categorization of camera trap images using convolutional neural network.
- Tool - Keras library in Python

Species distribution modeling

📅 August 2017- ongoing

- This Project is part of my PhD dissertation to understand distribution and habitat selection dynamics of carnivore community in northeast India.
- Tool - occupancy modeling, GIS

Accounting for uncertainty in disease diagnosis

📅 August 2017- ongoing

- Accounting for imperfect detection in wildlife diseases
- Tools - Hierarchical modeling, Occupancy modeling

Demography of California pocket mouse

📅 January 2019 - ongoing

- Use of Pradel's model to estimate growth rate, survival and recruitment of California pocket mouse population.
- Tool - Capture mark recapture analysis

Population Viability Analysis- Quality assessment

📅 Published June 2019, Conservation Biology

- Review of 160 peer reviewed publications for assessing their quality as per PVA guidelines.
- Tools - GLM, Mixed effect models

Risk of disease spillover in wild carnivores of central India

📅 June 2014-2016

SKILLS

Quantitative Ecology

Population modeling

Infectious disease modeling

Data analysis and visualization

Spatial modeling

Lab skills- Cell culture, PCR, ELISA

Data wrangling

Machine Learning

Research design

Geographic Information System

Remote surveying

Grant writing

Google Earth Engine

Tropical conservation and Development

LANGUAGES

R



Python



Java script



TEACHING

Population Ecology

📅 2017 – present 📍 University of Florida

General Biology

📅 2015 – 2016 📍 Clemson University

Clinical immunology

📅 2015 📍 Clemson University

Anatomy and Physiology

📅 2014 📍 Clemson University

- Understanding spatial and temporal patterns of detection of viral pathogens in feral carnivores of central India. These pathogens can cause diseases in wild carnivores like tigers
- Tools - Antibody detection, PCR, GLM

EDUCATION

PhD, Quantitative Ecology

GPA 3.9

📅 2016 – present 📍 University of Florida, USA

MS, Biological Sciences

GPA 3.5

📅 2016 📍 Clemson University, USA

BDS(DDS)

80%

📅 2011 📍 WBU of Health Sciences, India

LEADERSHIP AND SERVICE

Certified instructor

Data carpentry

📅 July 2019 - present

Volunteer statistician

Statistics without borders

📅 June 2019 - present

Instructor

Girls Who Code, Gainesville

📅 Jan 2019 - present

Mentor

Cameratrap working group, UF

📅 Jan 2018 - present

Mentor

Undergraduate R workshops, UF

📅 Jan 2018 - present

Travel grant coordinator

Wildlife Graduate Student Association, UF

📅 June 2018 - present

Secretary

GRANTS AND AWARDS

Outstanding student award for graduate research

2019

Tropical Conservation and Development fellowship USD 20,000

2019

Graduate student council travel award USD 350

2019

University of Florida Biodiversity Institute fellowship USD 20,000

2018

American society of mammalogists travel award USD 500

2018

WildLandscapes International graduate fellowship USD 20,000

2017

Rufford small grants for nature conservation USD 6,000

2018

College of Agriculture and Life Sciences UF scholarship USD 2,000

2018

Society of Conservation Biology fellowship USD 1,000

2017

Tropical Conservation and Development field research grant USD 2000

2017

Wildlife Graduate student travel award USD 250

2017

Tropical conservation and development, UF

📅 June 2017 - June 2018

Social chair

Wildlife graduate student association, UF

📅 June 2017 - June 2018

Treasurer

Biological Science graduate student association, Clemson University

📅 June 2014 - June 2015

PUBLICATIONS

- Chaudhary V and Oli M.K. 2019. A critical evaluation of population viability analysis. Conservation Biology (in press).
 - Chaudhary V., Wisely S., Hernandez F., and Oli M.K. 2019 Accounting for uncertainty in detection of wildlife diseases (in prep) 2019
 - Chaudhary V., Tietje W.D., Polyakov A.Y., and Oli M.K. 2019 Factors driving California pocket mice (*Chaetodipus californicus*) population dynamics (in prep) 2019
 - Chaudhary V, Rajput N., Shrivastav AB, Tonkyn DW. Risk of disease spillover from dogs to wild carnivores in Kanha Tiger Reserve, India bioRxiv 360271; doi: <https://doi.org/10.1101/360271>
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PRESENTATIONS

- Chaudhary V and Oli M.K. A critical evaluation of population viability analysis. International Congress of Conservation Biology, Kuala Lumpur, Malaysia (2019).
 - Chaudhary V., Wisely S., Hernandez F., and Oli M.K. 2019 Accounting for uncertainty in detection of wildlife diseases. Annual meeting of Florida co-op unit co-operators. 2019
 - Chaudhary V and Oli M.K. A critical evaluation of population viability analysis (poster). International Congress of Conservation Biology, Cartagena, Colombia (2017).
 - Chaudhary V, Rajput N., Shrivastav A. B., Tonkyn D. W. Risk of disease spillover from dogs to wild carnivores in Kanha Tiger Reserve, India. International Congress of Conservation Biology; Montpellier, France (2015).
 - Chaudhary V, Rajput N., Shrivastav A. B., Tonkyn D. W. Risk of disease spillover from dogs to wild carnivores in Kanha Tiger Reserve, India. International Congress of Conservation Biology; Ecological Society of America (2015).
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COURSEWORK

- Population ecology, GIS programming, Regression analysis, Landscape Ecology, Facilitation skills, Population genetics, Biological statistics, Data carpentry, Fundraising, Ecology, Statistics, GIS, Conservation biology, Microbiology, Immunology, Epidemiology, Oral and maxillofacial pathology, Oral surgery, medicine etc.