Rajeev Kumar

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Education

M.S. Student at Purdue University (January 2021 –Present)

- Graduate Research Assistant (75% time) Graduate Teaching Assistant (25% time). Dept of FNR
- Current GPA: 3.55

The University of Tennessee (UTK) – Knoxville (August 2015 –May 2019)

- Graduated *Cum Laude* with a B.S. in Biology; Ecology and Evolutionary Biology Concentration

Professional Experiences

M.S. Research Assistant, Höök Lab, Purdue Univeristy (Stipend = 26,000/yr) (January 2021- Present)

- Reintroduction and Conservation Biology –Laurentian Great Lakes Region
- Quantitative Bioenergetics Modeling & Environmental Monitoring
- Project lead for both Thesis Chapter Studies & Permission to work with State Endangered Species
- Constructed, deployed, maintained, retrieved >$50K worth of environmental sensors from the field over 2 years
- Big data sharing, collection, and analysis with federal and state agencies

Technician, Stephen J. Walker Lab, Wake Forest Institute of Regenerative Medicine (June 2020- December 2020)

- Autism Spectrum Disorder –Blood Based Biomarker Search
- Multi-Omics and Gut Microbiome

Technician, Gray/Miller Lab, UTK Dept. Wildlife, and Fisheries (September 2017- September 2019; Summer 2023)

- Amphibian Pathology and Disease Exposure Trial Methods
- Disease Ecology

Seasonal Field technician with Giam Lab, UTK Dept. Ecology and Evolutionary Biology **(**Summer 2017)

- Freshwater Fish Thermal Tolerance Testing and Field Collection

Research Assistant for the Bruce Lab, UTK Dept. Biochemistry and Molecular Biology (May 2016- 2017)

- Cyanobacteria culturing, *E. coli* gene transformation, and protein collection

Awards and Grants

- **Graduate Research Assistantship 01/11/2021-Present (Purdue University) –** Tuition Remission and 26,000 additional stipend annually (65,000/yr) total value
- **Undergraduate Research Travel Grant** by University of Tennessee, Knoxville ($300) to give poster presentation at Southeastern Partners for Amphibian and Reptile Conservation conference
- **Outstanding Undergraduate Poster Presentation**, 2nd Place UTK F&W Annual Poster Symposium ($150)
- **UTK Office of Undergraduate Research Video Competition 1st Place 2018**- Research Communication Contest
    - First Place, Fan Favorite "3-Minutes to Win-It" Research Video Competition ($400)
- **Finalist (Invitation Only) – Indianapolis Zoo Conservation Grant 2022**.
- **Merit-Based Scholarships 08/2015- 05/2019**
  • Volunteer Scholarship (6,000/yr) & HOPE Scholarship (4,000/yr)

Select Publication (N = 3, Citations = 8, In progress = 4)

- **Rajeev Kumar**; Daniel A. Malagon; Edward Davis Carter; Markese Bohanon; Joseph Patrick Cusaac; Anna C. Peterson; Debra L. Miller; Matthew J. Gray. "Experimental methodologies can affect pathogenicity of Batrachochytrium salamandrivorans infections". *PLOS ONE* https://doi.org/10.1371/journal.pone.0235370

Classes Taught, Select Presentations, and Guest Lectures (N = 5)

- **Teaching Assistant –** Biology and Ecology of Fishes FNR 24250**, Led 4 Sections (48 students) as Sole Instructor in Room and assisted with writing exams. (Fall 2021)**
- **Conference Oral Presentation, "Implications of monitoring oxythermal habitat of rear-edge populations of Cisco (*Coregonus artedii)"*** Rajeev Kumar, Paris Collingsworth, Jacob Hosen, Matthew Linn, Madeline Ritter, Ben Szczgiel, Tomas Höök. **Joint Aquatic Sciences Meeting** (**JASM**, **International Conference**) (May 2022)
- **Conference Poster, "Molecular Co-Expression Analysis Identifies Dysregulated Ion Transport As a Potential Mechanism for Right-Sided Colonic Hypomotility in Children with Autism"** Rajeev Kumar, Arthur Krigsman, Emma Koukos, Trang Simon, Stephen J. Walker. **International Society for Autism Research** (**INSAR**) (May 2021)
- **Guest lecture, "More than Skin Deep: Blood Serum Protein Changes in Response to *Batrachochytrium salamandrivorans* Chytridiomycosis"** Rajeev Kumar, Agata Grzelak, E. Davis Carter, Kurt Ash, Markese Bohanon, Matthew J. Gray, and Debra L. Miller. *UTK EEB/WFS 433* (Senior Level Course) (April 2019)

Software and Relevant Skills

- Analyze and model large datasets using multiple IDE's and languages (Rstudio, Qiagen IPA, IDL, Python)
- Proficient with Microsoft Office
- Field techniques: Boat Operation, Biopsies, Surgical (fish laparotomy), GPS based Sensor Deployment, etc.
- Wet Lab techniques: PCR, Electrophoresis, DNA extraction, etc.
- IACUC certified, HAZMAT certified, Biosafety level 2 trained, Wildland Firefighter Level 1 certified
- NAUI certified Open Water Diver
- Blood smears, Necropsies, Surigical Techniques, Animal Blood Draws, and Blood cell identification
- Trained and hired multiple undergraduate technicians for lab work and fieldwork