

# Mumtahina Riza

Graduate Research Assistant

Department of Applied Ecology

North Carolina State University; Raleigh, NC 27695, USA

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## EDUCATION

**North Carolina State University, USA**

**MS in Biology (Integrative)**, Anticipated graduation in Spring 2023

August 2021-Continue

CGPA: **3.812** (Up to Fall 2022)

*Thesis (ongoing)*: Risk screening of Phosphorus (P) capturing materials for eutrophication control: Environmental impacts and sustainable management

*Major Advisor*: **Khara D. Grieger, PhD**

### Coursework (Graduate):

- Foundation of Ecology
- Water Quality Assessment
- Environmental Toxicology
- R coding for Data Management and Analysis
- Environmental Risk Assessment
- Statistical Methods for Researchers-I
- Research Ethics
- Environmental Issues in Aquatic Ecology

**Bangladesh University of Professionals (BUP), Bangladesh**

**MSc. in Environmental Science and Management**

March 2021

CGPA: **3.86/4.00**

*Position*: **1<sup>st</sup> out of 40 students**

*Thesis*: Phytoremediation of heavy metal contaminated soil located around textile industries

*Supervisor*: **Dr. Sirajul Hoque**

### Relevant coursework (Graduate):

- Fundamentals of Environmental Sciences
- Research Methodology
- Environmental Pollution Mitigation Strategy
- Climate Change and Disaster Management
- Industrial Waste Treatment and Management
- Ecosystem and Natural Resource Management
- Environmental Monitoring and Assessment
- GIS and RS for Environmental Management

**Bangladesh University of Textiles, Bangladesh**

**BSc. in Textile Engineering**, Position: **1<sup>st</sup> out of 42 students**

June 2014

CGPA: **3.77/4.00**

## PUBLICATIONS ([Google Scholar](#))

- **Riza, M.**, Ehsan, M. N., Pervez, M. N., Khyum, M. M. O., Cai, Y., & Naddeo, V. (2023). Control of eutrophication in aquatic ecosystems by sustainable dredging: Effectiveness, environmental impacts, and implications. *Case Studies in Chemical and Environmental Engineering*, 7, 100297, [doi:10.1016/j.cscee.2023.100297](https://doi.org/10.1016/j.cscee.2023.100297).

**Riza, M., & Hoque, S.** (2021). Phytoremediation of Copper and Zinc Contaminated Soil around Textile Industries using *Bryophyllum pinnatum* Plant. *Journal of Ecological Engineering*, 22(4), 88–97.

<https://doi.org/10.12911/22998993/134035>

**Riza, M., Ehsan, M. N., & Hoque, S.** (2021). Portrayal of Textile Based Pollutants and its Impact on Soil, Plants and Fisheries. *Nature Environment and Pollution Technology*, 20(3). <https://doi.org/10.46488/NEPT.2021.v20i03.038>

## RESEARCH & PROFESSIONAL EXPERIENCE

- **2021- Present, Graduate Research Assistant**, Science and Technologies for Phosphorus Sustainability ([STEPS](#)), Department of Applied Ecology, North Carolina State University
- **2015 – 2021, Lecturer**, Department of Textile Engineering, Southeast University, Dhaka, Bangladesh

## AWARD AND HONORS

- September 2022- Winner of “[SRA Advanced Materials and Technologies Specialty Group \(AMTSG\) Student Merit](#)” Award. \$750
- August 2021- August 2023, Graduate Research Assistantship, Annual \$28,600 + Tuition and Health insurance, Department of Applied Ecology, NCSU
- 2021 Fall & 2022 Spring, American Rescue Plan (ARP) Emergency Fund, Office of Scholarships and Financial Aid, NCSU. \$750 + \$750
- 2017, **Prime Minister Gold Medal Award 2014** for holding **1<sup>st</sup> position** in the Faculty of Textile Engineering, Bangladesh University of Textiles, University Grants Commission, Bangladesh
- 2010 - 2013, Student Merit Based Academic Scholarship, Bangladesh University of Textiles
- 2006, Exim Bank Merit-Based Scholarship, Exim Bank Ltd. Bangladesh
- 2006, Prothom Alo Meritorious Student Award, Prothom Alo Daily Newspaper

## PRESENTATION

**Riza, M.**, December 2022. Risk screening of phosphorus (P) capturing materials for eutrophication control: Environmental impacts and sustainable management. SRA Annual Meeting, Tampa, Florida. Oral

**Riza, M.**, Grieger, K., November 2022. Phosphorus-capturing materials for eutrophication control: Environmental risk, impacts, and implications for sustainable management, Phosphorus Week 2022, Raleigh, NC. Poster

**Riza, M.**, October 2021. Phytoremediation of Copper and Zinc Contaminated Soil around Textile Industries using *Bryophyllum pinnatum* Plant. Research Triangle Regional Organization, Society for Risk Analysis. Poster

## TECHNICAL REPORT

Grieger, K., **Riza, M.**, Horgan, M., Merck, A. (2022). Society for Risk Analysis Strategic Initiative Funding: Final Report. Prepared for the Society for Risk Analysis, grant no. 2020-1006, SRA internal account code 879-265

## PROFESSIONAL DEVELOPMENT & OUTREACH ACTIVITIES

2021- Present, **Treasurer**, Society of Risk Analysis- Research Triangle- Regional Organization, NC

2022- Present- **Student lead of Session 1: Feast or Famine: P Sustainability in Agriculture**, [Phosphorus Week 2022](#), Sustainable Phosphorus Summit, Raleigh, NC

2022- Present, **Seminar Coordinator**, Graduate Student Association of Biology, NCSU

2022- Present, **Patron Representative**, Feed the Pack, NC State University, 2022-2023 Board

April 2022, NC State Feed the Pack's Panel Discussion with Multicultural Student Affairs

## Skills

- MS Office
- R
- ArcGIS Pro
- Atomic Absorption Spectrophotometer (Varian AAS)
- Color Measurement Spectrophotometer (Datacolor)

## CERTIFICATION & TRAINING

Collaborative Institutional Training Initiative (CITI program)  
NCSU Office of Information Technology (OIT) Data Security  
Gallup Clifton Strength Assessment  
NCSU Office for Institutional Equity and Diversity (OIED) Diversity, Equity, and Inclusion  
How to Structure Results and Discussion Sections  
How to Synthesize Literature Reviews, DISC Style Personality Assessment

## MEMBERSHIP

2021-present, Student Member, Society for Risk Analysis  
Present- Member, Student Leadership Council, Science and Technologies for Phosphorus Sustainability (STEPS)

## REFERENCES

### Khara Grieger, PhD

Assistant Professor & Extension  
Specialist in Environmental Health and  
Risk Assessment, Department of  
Applied Ecology, NCSU  
Email: [kdgriege@ncsu.edu](mailto:kdgriege@ncsu.edu)

### Dr. JoAnn Burkholder

William Neal Reynolds Distinguished  
Professor and Director – [Center for  
Applied Aquatic Ecology](#)  
Email: [jburk@ncsu.edu](mailto:jburk@ncsu.edu)

### Dr. Tamara Pandolfo

Teaching Assistant Professor  
College of Natural Resources  
NCSU  
Email: [tjpandol@ncsu.edu](mailto:tjpandol@ncsu.edu)