MICHAEL ADU-BREW

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EDUCATION

M.S. in Entomology
University of Maryland, College Park 08/2023 – Present

B.S. in Biological Science
Kwame Nkrumah University of Science and Technology 09/2017 – 11/2021

RESEARCH EXPERIENCE

University of Maryland, College Park (UMD)
Research Assistant 08/2023 – Present

- Conducting toxicity bioassays, undertaking exposure estimates, and assessing risk of pesticides on Lepidoptera, particularly monarch butterfly
- Rearing of butterflies
- Data entry and analysis
- Writing blogs on seminar presentations

Kwame Nkrumah University of Science and Technology, Ghana (KNUST)
Undergraduate Project: "Identification of insect pest on some vegetables". 01/2021 – 10/2021

- Sampled a total of 609 insects, that spread across 8 orders, 14 families and 21 genus/species. Among our findings, we discovered that the farmers lacked knowledge of Integrated Pest Management (IPM) approach of controlling insect pests.
- Served as the project leader for a group of four students. Delivered an oral defense of research work to faculty members and submitted a research paper to be graded.

CONFERENCE PRESENTATION

Poster:
Michael, A. & Krishnan, N., "Assessing the toxicity and risk of newer conventional and biological pesticides on monarch butterflies (*Danaus plexippus*)", 2024 Eastern branch ESA annual meeting, Morgantown, WV, March 2024.

SEMINAR BLOG

- Jenan EL. and Michael A. "Complex Problems Requires Complex, Data-Informed Solutions", February, 2024.
- Michael A. and Ben, B. "Going viral with a tick talk: Modeling tick life histories using fifteen years of field data", December, 2023.

MENTORSHIP (*Undergraduate students*)

- Luke Humke | Biology | University of Maryland | 06/2024 – Present
- Daffa Villandiar | Biology | University of Maryland | 07/2024 – Present
- Jordyn Hautz | Biology | University of Maryland | 08/2023 – 05/2024; 09/2024 – Present
- Margaret Kato | Biology | University of Maryland | 08/2023 – 08/2024

TEACHING EXPERIENCE

Department of Theoretical and Applied Biology, KNUST **[**National Service] 11/2021 – 08/2022

Teaching Assistant / Lab Instructor Assistant
Instructor: Dr. Sandra Abankwa (Entomology); Dr. Augustina A. Sylverken (Microbiology); Dr. Kwadwo Boampong (Population genetics).

- Collaborated with laboratory technicians to ensure availability of chemicals for each experiment
- Worked with other teaching assistants to supervise laboratory projects of over 200 Biological science students.
- Organized tutorials for students on courses that were challenging.

AWARDS, HONORS & SCHOLARSHIP

- Phi Kappa Phi Honors 04/2024
- University of Maryland, College Park (Graduate Assistantship). 07/2023
- College of Science Students' Achievement Program (COSSAP). 06/2022
- Science Student Association (SCISA), KNUST 08/2020

ACADEMIC ACHIEVEMENTS

- One of ten distinguished baccalaureates from the 2021 class to be engaged as teaching and research assistants at the Department of Theoretical and Applied Biology, KNUST.
- Outstanding performance in undergraduate Project (BIOL 455/456) in the 2021 graduating class of the bachelor's degree program in the KNUST.

LEADERSHIP/SERVICE

- Member of the Science Student Association's Advisory Board for the 2020/2021 Academic year.
- Served as the Vice President of the Science Student Association (SCISA), College of Science for the 2019/2020 Academic year.
- Served as the Chairman of the Welfare Committee, SCISA for the 2019/2020 Academic year.

VOLUNTEERING/OUTREACH

- Insect Zoo, Maryland Day 05/2024
- Intern: *Kumasi Centre for Collaborative Research in tropical medicine* 10/2022
- Tutor: *College of Science Students' Achievement Program, KNUST* 03/2022 – 08/2022
- Project Coordinator: *Science Students Association (SCISA), KNUST* 11/2018

PROFESSIONAL AFFLIATION

- American Association for the Advancement of Science (AAAS). 2024
- Entomological Society of America 2023 – Present
- Entomology Students' Association, UMD 2023 – Present
- Ghana Science Association (GSA). 2021 – 2023
- Biological Science Student Association (BIOSSA), KNUST 2017 – 2021

SKILLS

- **Lab Skills:** LC-MS/MS, generation of toxicity dose-response curves, butterfly rearing
- **Application**: MS Office (Word, Excel, PowerPoint)
- **Data Analysis tools**: SPSS, Excel, R

REFERENCE

Niranjana Krishnan
Assistant Professor
Department of Entomology,
University of Maryland, College Park
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