Luke Feeney

lfeeney@umces.edu
611 S Charles St, Baltimore, MD 21230

PERSONAL STATEMENT

Studying and learning from the nature is my passion. I have always been intrigued by the way scientists are able to find ways to mimic the processes found in nature in order to further improve technology and scientific knowledge. While interning at the Institute of Marine and Environmental Technology, I found myself wanting to learn more about all the different studies going on at the aquaculture center and their potential scientific and commercial applications.

WORK EXPERIENCE

Volunteer Herpetology Assistant – December 2019 - September 2020 (present)
National Aquarium, Rainforest Department
Baltimore, MD

Responsibilities:

- Animal care and husbandry
  - Feeding and maintaining the enclosures of various exotic reptiles and amphibians
  - Creating specialized diets for maintaining optimal animal health
  - Monitoring animal health by examining behavior and appearance
  - Assisting in the rearing of offspring
- Maintaining insect and rodent feeder colonies
- Creating enrichment activities to help maintain animal health

Lab Assistant – July 2019 – September 2020 (present)
IMET, Place Labs
Baltimore, MD

Responsibilities:

- Enhancing insect production for aquaculture feed
  - Growing and breeding yellow mealworm, *Tenebrio molitor* under optimized conditions
  - Raising insect stock on different media in order to enhance production yields
  - Testing industrial sorting methods for large scale *Tenebrio molitor* production and harvesting
- Atlantic Salmon Diet trials with insect-based diets
- Assessing and growing sustainable sources of food for mealworm stock

Lab Assistant – June 2018 - July 2020
Instar Farms
Baltimore, MD

Responsibilities:

- Maintaining a mealworm grow out facility, which housed all life stages of the yellow mealworm *Tenebrio molitor*
  - Feeding standard gel diets and wheat bran media
  - Sorting various sizes and life stages
  - Cleaning and sanitization of mealworm growing bins
  - Rearing early instar mealworms
  - Breeding adults and maintaining their broodstock bins
- Performing experiments to improve growth rate, size, and fecundity of *Tenebrio molitor*
  - Diet trials
  - Genetic selection
  - Population density

    - Artificial insemination
- Harvesting and converting insect stock into insect meal to be used in aquaculture feeds

Intern Position – May 2016 - August 2016
IMET, Aquatic Research Center
Baltimore, MD

Responsibilities:

- Distributing feed and specialized diets for various species of fish in the aquaculture center
- Helped to maintain environmental conditions for the animals by:
    - Adjusting the pH conditions within the enclosures
    - Performing inspection of enclosures to observe fish health and removing any fish suffering from illness
    - Cleaning and maintenance of filtering systems
    - Fish transport between enclosures
    - Enclosure sanitation

EDUCATION

B.S. Environmental Science -- August 2014 - May 2018
Virginia Polytechnic and State University of Blacksburg

- During my time at Virginia Tech I hoped to improve my scientific knowledge and research skills
- Received extensive lab experience
    - Soil and water sampling techniques
    - Proper lab equipment use
    - Lab Safety
    - Proper data collection and scientific reporting
    - Various microbe culturing techniques
    - Chemical analysis tests
    - DNA analysis techniques
- Aquatic Entomology lab experience
    - Specimen capture techniques
    - Water quality assessment based on macroinvertebrate indicator species
    - Aquatic macroinvertebrate dissection and identification techniques
    - Aquatic macroinvertebrate morphology and ecology
- Maintaining a job while getting my college education has helped me to develop important time management skills and discipline in my studies and everyday life.

PERSONAL INTERESTS

Although I chose environmental science as my major, I am still very passionate about the wildlife and entomological sciences.

- Beekeeping club
    - Working with woodenware to construct bee hives
    - Learning about the environmental, economic, and ecological importance of bees
- Volunteer at the Hokie Bugfest at Virginia Tech
    - Teaching and learning from other students and Blacksburg residents
    - Learning about the studies being done by entomology professors at Virginia Tech and other universities
- Experiential Learning Conference at Virginia Tech
    - Students sharing their experiences form their study abroad trips and research experiences
    - Our group shared our experience from our study abroad in Ecuador, during which we learned about the Amazon rainforest and the many factors resulting in the destruction of this unique ecosystem