Towson University’s Department of Biological Sciences is excited to announce a professional learning experience for middle school teachers of grades 6-8. The Ant Analysis: Using insect investigations to engage students in science workshop will focus on learning more about insects, their role in the ecosystem, and their relationships with other organisms through a hands-on, authentic research experience. Participants will also learn how to use insects in the classroom to engage students in the Science and Engineering Practices that are an essential part of the new Next Generation Science Standards (NGSS). The workshop will be facilitated by Dr. Faith Weeks, a professor of entomology and science education at Towson University.

Workshop goals include:
- increased knowledge about, and understanding of, entomology, the role of insects in the environment, and their relationships with other organisms
- increased understanding of how to handle and maintain live and preserved insects
- contribution to actual research by describing species, learning lab techniques, and working with researchers in the field. Their work will be a part of the research conducted for the NSF grant.
- increased comfort with authentic science research and laboratory practices
- increased ability to engage students in the Science & Engineering Practices using live insects

Who can apply? This workshop is appropriate for any middle school teacher of grades 6-8 in Maryland who is interested in conducting authentic research that enhances our understanding of insects, as well as learning how to incorporating insects into their science teaching. Priority will be given to applicants from underserved schools.

What: The workshop will take place over 19 days in July and August, with a final follow-up meeting in October (see below for dates). Only three participants will be accepted to provide for a more cohesive and personal environment with one-on-one attention and small group experiences. Participants will also work in a collaborative, hands-on, learner-centered environment in an actual laboratory to learn how to incorporate insects into their curriculum, contribute to our understanding of insects and their evolutionary relationships with other organisms, and actively engage their students in the Science and Engineering Practices that are at the core of the Next Generation Science Standards.

During the workshop, participants will engage in laboratory experiments and model lessons aligned with NGSS that focus on insects, explore how to handle a variety of live and preserved insects, and maintain insect habitats in the classroom. Participants will be challenged to develop and implement a science lesson plan that includes entomology, research conducted in the laboratory, and is aligned with NGSS, with a report on the implementation during the Fall follow-up meeting. All participants will be provided with an insect ‘starter’ kit that includes live insects and the materials needed to keep them in the classroom.
Participants are expected to:

- Complete pre- and post-workshop surveys and participate in all 20 days of the workshop.
- Create and implement a classroom lesson with insects that actively engages students in the Science and Engineering Practices and reflects your authentic summer research experience. This will require some time outside of the workshop to complete.
- Share implementation experience/plan with during fall meeting and complete a final written reflection.

**Where:** The main campus of Towson University, located at 8000 York Rd. We will be located primarily in Smith Hall. Parking will be provided.

**When:** Participants are expected to attend all twenty days of the workshop:

- Monday, July 8th – Friday, July 12th 8:30am – 3:30pm
- Monday, July 15th – Friday, July 19th 8:30am – 3:30pm
- Monday, July 22nd – Friday, July 26th 8:30am – 3:30pm
- Monday, August 5th – Thursday, August 8th 8:30am – 3:30pm
- Saturday, October 19th, 8:30am – 3:30pm

**Why:** All participants who successfully complete the workshop will:

- May be eligible for 8 Continuing Professional Development Credits (CPD) from MSDE (application pending).
- Engage in authentic laboratory research into the role of insects in the environment, including comparing species, observing and describing new species, and learning new laboratory techniques.
- Learn more about implementing the new NGSS state science standards in their classroom, as well as learn how to effectively engage their students in science using insects.
- Receive an insect 'starter kit' that will include live insects and the materials necessary to keep them in their classroom.
- Receive a $1,500 stipend for successful completion of workshop (must be a U.S. citizen or permanent resident alien to receive stipend).

**How:** Applications are due Friday, April 19th!

- Fill out the application at [https://www.surveymonkey.com/r/CD6RDS2](https://www.surveymonkey.com/r/CD6RDS2)
- Have your principal fill out the “Principal Support Form” found online at [https://www.surveymonkey.com/r/CBSSXLX5](https://www.surveymonkey.com/r/CBSSXLX5). Remember, it is your responsibility to forward the link to your principal. Contact Dr. Faith Weeks (fweeks@towson.edu) at any time to confirm whether or not your principal has submitted their “Support Form”.

Please note that we will send a confirmation email for every application we receive. If you do not receive this confirmation email, you can assume we did not receive your application and you should re-submit. Acceptance notifications will be sent by April 26. Only complete applications (application and principal support form) will be considered. Contact Dr. Faith Weeks at fweeks@towson.edu with any questions.