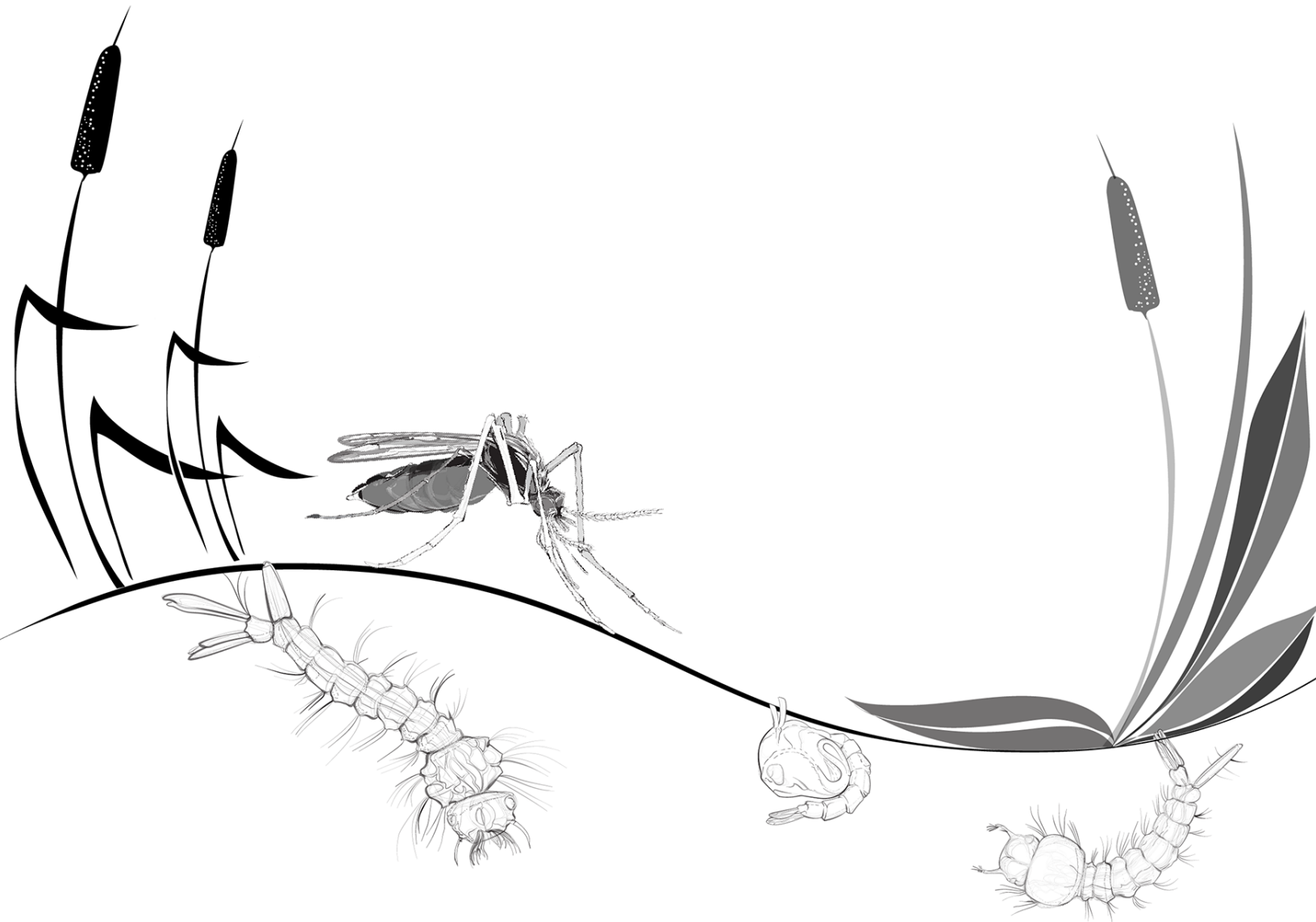


A COMPANION GUIDE
TO THE
**MISSION MOSQUITO
SCIENCE NOTEBOOK**

SUGGESTIONS FOR PARENTS AND CAREGIVERS



COMPANION GUIDE

Mission Mosquito Science Notebook

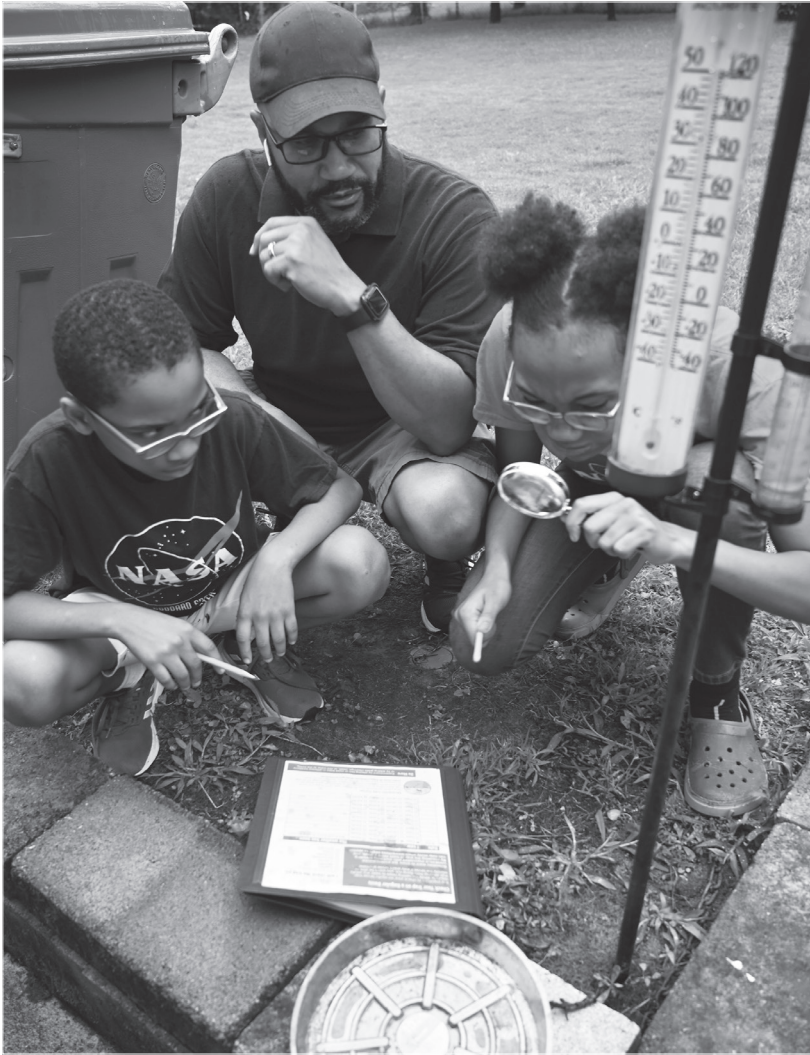


Photo courtesy Otrell Edwards, Esq.

INTRODUCTION

To parents, guardians, and caregivers of mosquito investigators

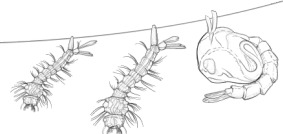
The *Mission Mosquito Science Notebook* is designed to reflect basic aspects of a science notebook while also incorporating information and activities that build relevant background knowledge, confidence in independent learning and research, and engagement in science.

By adopting this notebook as their own, learners will become volunteer scientists (also called citizen scientists). A volunteer scientist contributes to science research by making, recording, and sharing scientific observations. But they may need an assistant ...you.

GET YOUR GUIDE

Download this *Companion Guide*, *Mission Mosquito Science Notebook*, and supplements at:

<https://strategies.org/mosquito-notebook>



FIVE SUGGESTIONS FOR WORKING WITH YOUR CHILD

1. Engage the entire family in keeping science notebooks and talk about what you're learning. Communicating what they have done and learned will help children develop a deeper understanding of the science involved. Reflecting, discussing, and describing will reinforce skills used by scientists.

2. Ask questions that begin with ... *"Why do you think ...?"*

a. For example, ask: *Why do you think that mosquitoes show up in the summer, but not in the winter? The child may come up with these possible answers:*

- Water is frozen in winter (no place to lay eggs).
- Humans (blood source) are not outside as much/skin is not exposed as much (nothing to bite to get blood).
- Mosquitoes are cold-blooded (their body temperature is determined by air temperature), so their bodies would not function at cold temperatures).

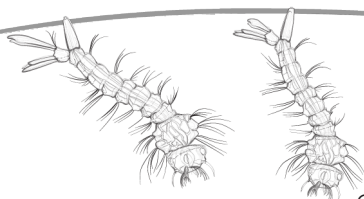
b. Other questions might include:

- *What do you predict will happen when ...?*
- *What would be a solution to ...?*
- *What are some things about mosquitoes that you are most curious about?*
- *What other questions do you have about mosquitoes?*

3. Provide mosquito books/audiobooks for the child to read or listen to. In addition to books listed in the *Mission Mosquito Science Notebook*, there are many other mosquito-related books and audiobooks available from your local public library. Many library systems offer free services like Overdrive and Hoopla, as well as audiobooks that you can access online using your library card.

Visit or check your local public library online or in person. Together with the child, listen to an audiobook or read the book and have a "Book Club Dinner" where you discuss the book while sitting at the dinner table. You could discuss a chapter as a family on "Mosquito Mondays" or "Science Sundays"!

4. Become a Science Volunteer Family. Download the free GLOBE Observer app, register, and start mapping mosquito habitats and removing standing water.



In order to create a GLOBE Observer account, do the following:

- Download the app to a smart phone or tablet at <https://observer.globe.gov/about/get-the-app>.
- Create an account using your email address.
- Check your email for your password.
- Sign in to the app with your email and password.

Note: Those under 13 years old should use the app with an adult.

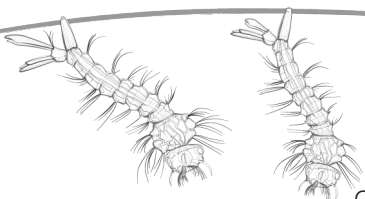
5. Create a GLOBE Team and share the team code with your family members to keep track of your family's observations. To create your team on the GLOBE website (globe.gov) follow these steps:

- Sign in on the GLOBE website using your GLOBE Observer user name and password (step 4 above).
- Under **Community**, select **GLOBE Teams** page.
- Click "Create a GLOBE Team."
- Enter a team name in English. Engage the entire family in naming your team!
- All team names are reviewed. If potentially offensive terms are identified, the team name will be rejected. Please try again with a different name.
- Select your country and, if you choose, your city and zip code. This information will be public on the GLOBE Teams page.
- You will receive an email confirming that you successfully created a team. Your confirmation email will include information about how to manage your team.

More About GLOBE Teams

Teams can be open or private. Anyone can join a public team. The team manager must invite participants to join a private team. Your team will initially be private. To invite people to join a private team, the team manager must provide the team's referral code.

- **Log in** to the GLOBE website.
- **Click on "Go to"** in the top white bar. You will see a list of My Organizations that will include the team you manage.
- **Select the team.** The team's referral code will be below the team name. Provide that code to invite people to join your team. When they login to the GLOBE Observer app, they will join the team by (1) clicking the gear icon at the top right, (2) selecting "Join a GLOBE Team," then (3) entering the referral code.



IGES

Virginia, United States of America

Year Created: 2019 Referral Code: GLIDRJU8

Manage Team  Leave Team



Data Site Locations



Members / Observations

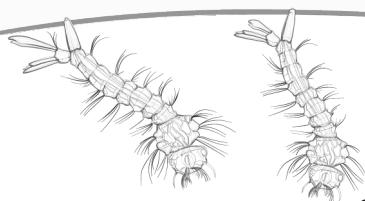
Members	6
Air Temperature	2
Biometry / Tree Heights	1
Clouds	23
Land Cover	26
Mosquito Habitat Mapper	20
Surface Conditions	27

Above: Example of a GLOBE team, with the arrow pointing to the referral code.

WHY DOES NASA WANT MY MOSQUITO OBSERVATIONS?



Mosquitoes can't be seen from satellites in space ... but the warm, moist conditions they prefer can be observed by NASA satellites. Climate and weather conditions can suggest to scientists where to expect spikes in mosquito populations during the year, but your mosquito observations at ground level can verify those population changes. By reporting possible mosquito habitats using the **GLOBE Observer** app, you are helping NASA scientists doing broad scale satellite-based research with local ground-based observations.



ACKNOWLEDGEMENTS

The *Mission Mosquito Science Notebook* and accompanying *Companion Guide* were developed by **Elizabeth Burck**, Senior Science Educator, Institute for Global Environmental Strategies, and **Theresa Schwerin**, Principal Investigator, NASA Earth Science Education Collaborative and Vice President for Education, Institute for Global Environmental Strategies.

Design, cover art, illustrations and graphics by **Jenn Paul Glaser**, Science Illustrator, Scribe Arts for Our Planet, Oceans and Fisheries.

Contributors

Brad Burck • Middle School Science Teacher • Denver School of Science and Technology

Brian Campbell • Senior Earth Science Education Specialist • GST, Inc./NASA Goddard Space Flight Center's Wallops Flight Facility

Dr. Warren Edwards • STEM Instructional Coach • Tuskegee Airmen Global Academy, Atlanta Public Schools

Dr. Trena Ferrell • Earth Science Division Education and Public Outreach Lead • NASA Goddard Space Flight Center

Dorian Janney • Senior Earth Science Education and Communications Specialist • ADNET/ NASA Goddard Space Flight Center

Tina Harte • Task Leader/Senior Education Specialist • SSAI/NASA Langley Research Center

Dr. Russanne Low • Senior Earth Scientist and Science Lead for NASA GLOBE Observer Mosquito Habitat Mapper • Institute for Global Environmental Strategies

Cassie Soeffing • Senior Science Educator • Institute for Global Environmental Strategies

Dr. L. Octavia Tripp • Associate Professor / Curriculum and Teaching • Auburn University

Rachel Zimmerman Brachman • Public Engagement Specialist • NASA Jet Propulsion Laboratory

A special thank you to our young scientists

Thank you to the following young scientists for their feedback and help with the *Mission Mosquito Science Notebook*: Ben Brachman, Andy Campbell, Beatrix, Briar, and McClain Burck, Sanai and Warren Edwards II, Emma Ensworth, Bryant Harte, Hailey and Lily Rogers, and Neil Stafford.

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Partner

This document was developed by the Institute for Global Environmental Strategies under the NASA Earth Science Education Collaborative, which is supported by NASA under IGES award No. NNX16AE28A. Any opinions, findings, and conclusions or recommendations expressed in this material or are those of the authors and do not necessarily reflect the views of the National Aeronautics and Space Administration.

