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Issue 11



**MONARCH
JOINT VENTURE**



Top: Monarchs overwintering in California. Photo: Wendy Caldwell.
Bottom: Viceroy's Nectaring. Photo: Candy Sarikonda



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Citizen Science Updates

Monarch Health's Successful Summer Funding Campaign

- Monarch Health raised over \$8700 this summer to support their citizen science efforts. Monarch Health tracks the presence of the protozoan parasite OE (*Ophryocystis elektroscirrha*) in monarch butterflies. Read more about the project on their website, monarchparasites.org.

SciStarter Receives NSF Funding

- SciStarter, an online database of over 1,100 citizen science projects, has received a \$300,000 grant from the National Science Foundation. The funding will be used to make it easier for volunteers to contribute to multiple citizen science projects, track their participation, and find projects near them. Read more about it on the SciStarter website, scistarter.com.

New Paper Examines Citizen Scientists' Contribution to Conservation

- A new research paper on butterfly citizen science has been published by Eva Lewandowski and Karen Oberhauser of the University of Minnesota Monarch Lab. The paper, which examines the extent to which citizen scientists engage in conservation and what projects can do to support their efforts, relies on input provided by butterfly citizen scientists from across the country. You can read the article on the Monarch Lab website, monarchlab.org.

New Citizen Science Website Launched

- A new website, called Citizen Science Today, has launched. The website aims to share high quality citizen information from a variety of formats, ranging from peer-reviewed research papers to blog articles and newspaper stories. Visit the site at citizensciencetoday.org.

New MonarchNet Website Has Launched

Visit the central website for monarch monitoring programs and data!

- Explore monarch population data from across the continent.
 - Search the library of over 700 monarch research articles.
 - Find information on monitoring programs and scientists.

www.monarchnet.org

White House Open Science Event

The White House recently hosted a forum on citizen science called *Open Science and Innovation: Of the People, By the People, For the People*, in order to raise awareness of citizen science and get more people to become citizen scientists. The event included four hours of talks and panels, and the [video recording](#) is available online. In addition to the main forum, the event included several other components, including the debut of the [Federal Crowdsourcing and Citizen Science Toolkit](#), a website designed to help federal agencies engage in citizen science. The toolkit contains resources and guidelines to help federal employees integrate citizen science into their work, as well as case studies of existing citizen science projects, including the Monarch Larva Monitoring Project. After the public forum, a closed-session workshop was held at which scientists from across the country discussed how to use citizen science to address a number of different topics. Dr. Karen Oberhauser, from the University of Minnesota Monarch Lab, attended the event and participated in the pollinator discussion. Below, she shares some of her reflections from that day.

Reflections from Open Science and Innovation, by Dr. Karen Oberhauser

On September 30, dozens of federal employees and leaders of citizen science projects gathered for two meetings organized by the White House Office of Science and Technology Policy. The overarching goal of the morning session was to highlight the importance to society of citizen science, and these highlights were accompanied by the announcement of a series of federal initiatives to support citizen science. The meeting was kicked off by Dr. John Holdren, President Obama's senior advisor on science and technology issues. Dr. Holdren said that in order to address societal and technical challenges through citizen science and crowd-sourcing, these programs needed to be held to the same standards as "traditional science", the data and technologies need to be preserved and shared, and that the public needed to be engaged in ways that maximize value to the project and to the public. These goals are key to MonarchNet. France Cordova, director of the National Science Foundation (NSF) and Rush Holt, president of the American Association for the Advancement of Science (AAAS) both spoke about the importance of and their organizations' commitment to supporting citizen science, and Senator Chris Coons from Delaware announced that he was introducing a bill to support citizen science and crowdsourcing.

A highlight of the morning was a series of panels that included representatives from citizen science programs focused on Community Science, Oceans, Innovative Tools, Water and Agriculture, Community Science, and Communities and Health. Jacqueline Yates, a mother working with the Morris Justice Project in New York City, described her work to document experiences of policing, especially as they related to young black men, in her 40 block community near Yankee stadium. Her talk was an excellent example of the broad capacity for citizen science to document phenomena that matter to people. Dr. Sylvia Earle, with the National Geographic's Mission Blue, introduced the Oceans panel and noted how citizen science provided people with the opportunity to "observe carefully and report accurately", key scientific skills. Focusing on the threats to oceans, she noted the "magnitude of ignorance" in our society, of both "what is not known, and also what is not known about what is known". While Dr. Earle didn't make this connection explicitly, citizen science, by supporting engagement in science by people of all backgrounds, has the potential to help address the magnitude of our ignorance.

The afternoon session involved a smaller group of individuals involved in citizen science, with tables focused on Oceans and Coasts, Community Resilience, Lake and Stream Monitoring, Drought, Soil Moisture, Apps and Health, and Pollinators. Each of these groups discussed the common challenges facing their programs and the actions that they can take moving forward. At the pollinator table, our progress coordinating monarch citizen science efforts and the ways in which we have worked together to understand monarch populations were held up as examples of excellence. We're working on a summary of the outcomes from our table, but with support from federal agencies, and the desire to build programs that capitalize on the power of many people working together, I'm very hopeful that good things will come from this meeting.



Monarch larvae. Photo: Kathy Johnson.

Researcher Spotlight: Doug Taron

Doug Taron grew up in New England where he received his first butterfly net from the Easter Bunny at age 7. Doug moved to the Midwest to study biochemistry and molecular biology, earning a doctorate from Northwestern University in 1984. While at Northwestern, he became active as a volunteer at Bluff Spring Fen in northeastern Illinois, and then the vibrant stewardship community of the Chicago area.



While spending a dozen years working in the biotechnology industry, Taron became involved in The Illinois Butterfly Monitoring Network (IBMN), a group founded by The Nature Conservancy to try to help them gauge the effects of ecological restoration on butterflies. He became director of that program in 1989. In 1997, Doug was approached by the Chicago Academy of Sciences as they were building the Peggy Notebaert Nature Museum and seeking somebody to help build and run a proposed butterfly vivarium. He joined the team, bringing the monitoring network with him and initiating a research program in butterfly conservation. The professional connections that resulted from his new job allowed him to introduce the IBMN to others around the country, and new networks emerged in several other states.

Doug has published several papers using IBMN data, including an interesting [recent paper](#) on monarch population dynamics. Doug is now a co-director of the North American Butterfly Monitoring Network and is a primary resource for helping new groups start their own butterfly monitoring network and has also been working with European colleagues to help spread butterfly monitoring worldwide.

Monarch Scientists Release Statement on Mass Rearing and Captive Breeding

A group of ten monarch researchers and conservationists from across the U.S. recently issued a statement* highlighting concerns with the release of mass-reared monarch butterflies and recommended against the practice.

The authors describe concerns over the rearing of large numbers of monarchs in backyard operations or obtaining them from commercial breeders, in order to release them with the goal of supplementing local populations. Rearing monarchs can offer excellent educational opportunities and encourage connections with nature, but according to the authors, releasing commercially-produced or otherwise mass-reared monarchs could actually harm the already dwindling monarch population. Release of mass-reared monarchs has led to concerns about disease transmission, deleterious genetic effects, and negative impacts on monarch scientific research. The statement urges individuals who wish to contribute to monarch conservation to focus on creating habitat and participating in citizen science. Citizen science volunteers who rear monarchs for the Monarch Larva Monitoring Project or Monarch Health are asked to do so under careful, sanitary, and uncrowded conditions and to always report their data.

You can read more about proper rearing conditions [here](#), and you can read the full statement on captive breeding and mass rearing [here](#).

*Please note that this statement does not represent the position of all partners of the Monarch Joint Venture, but rather of the individual authors and the institutions that they represent.

We want to hear from you!

Are you a butterfly citizen scientist with a story, photos, or artwork to share? Would you like to nominate a volunteer or program for recognition in the newsletter? Write to us at monarchs@monarchjointventure.org with what you would like to see in the newsletter.

Help us spread the word. Send this newsletter to friends who may be interested, and encourage them to “Get Updates” under News & Events on the MJV website at monarchjointventure.org/news-events/get-updates.