

Maryland Biodiversity Project Highlights - 2023



Overview

Happy New Year! Thank you, everyone, for making 2023 the most productive year yet for Maryland Biodiversity Project. We're doing more than ever to document and understand our state's biodiversity. We're especially excited about the project's focus on targeted data collection. We're not just curating and archiving community data, but actively working to address critical gaps in our knowledge. MBP and our partners led the third year of the Turkey Point Bird Count and the second year of the Dans Rock Bird Count. Lead counters Aaron Reb (Turkey Point), Josh Heiser (Dans Rock), and a team of outstanding alternate counters collected invaluable migration data. We also worked with the Maryland DNR NHP and other stakeholders to target high priority

summer insect surveys. Aaron monitored endangered King's Hairstreak and Frosted Elfin butterfly populations, searched for some of the Eastern Shore's rarest dragonflies and damselflies, and surveyed for globally rare and highly localized firefly species. Our first three seasons of bird count data were also published in the peer-reviewed *Maryland Birdlife*. We also made major leaps forward on the website modernization, making the website mobile friendly and increasingly useful.

Highlights

One Million Records

MBP has reached ONE MILLION records permanently and securely archived! Record 1,000,000 was this Soybean Looper Moth by Dave Webb. High-fives all around!



MBP Bird Counts

Before we get into this year's counts, we're pleased to report our first batch of bird count publications. Our 2021 Turkey Point season report (Daniel Irons), 2022 Turkey Point season report (Jonathan Irons), and 2022 Dans Rock (Carl Engstrom) season report were published in the peer-reviewed journal *Maryland Birdlife*. Great work! Thanks to Gene Scarpulla and Mark Johnson for their support. These entries were added to the MBP bibliography:

- Engstrom, Carl A. 2023. Dans Rock Fall migration count: 2022 season report. *Maryland Birdlife* 72(1):78-96. Available at: https://www.marylandbiodiversity.com/docs/engstrom_2023.pdf.
- Irons, Daniel J. 2023. Turkey Point Fall migration count: 2021 season report. *Maryland Birdlife* 72(1):15-34. Available at: https://www.marylandbiodiversity.com/docs/irons_d_2021.pdf.
- Irons, Jonathan D. 2023. Turkey Point Fall migration count: 2022 season report. *Maryland Birdlife* 72(1):56-77. Available at: https://www.marylandbiodiversity.com/docs/irons_j_2022.pdf.



Sunrise at Dans Rock by Josh Heiser

Dans Rock Bird Count

Josh Heiser did a wonderful job as our lead counter for our second season of the Dans Rock Bird Count. You check out Josh's blog posts and the Dans Rock data below.



- Dans Rock project page at MBP:
<https://www.marylandbiodiversity.com/project/dansrock/viewDansRock2023.php>
- Dans Rock Trektellen 2023 summary:
<https://www.trektellen.org/site/totals/3411/2022>
- Blog posts from the lead counter:
<https://marylandbiodiversity.com/blog/?author=7>

Turkey Point Bird Count

Aaron Reb also did a fantastic job as our lead counter for the third year of the Turkey Point Bird Count. You check out Aaron's blog posts and the Turkey Point data below.



- Turkey Point project page at MBP:
<https://www.marylandbiodiversity.com/project/turkeypoint/viewTurkeyPoint2023.php>
- Turkey Point Trektellen 2023 summary:
<https://www.trektellen.org/site/totals/3157/2022>
- Blog posts from the lead counter:
<https://marylandbiodiversity.com/blog/?author=3>

Summer Insect Surveys

In collaboration with Maryland DNR NHP and other stakeholders, MBP conducted prioritized targeted surveys for Frosted Elfin, King's Hairstreak, rare and local fireflies, and rare Odonata (dragonflies and damselflies). Aaron Reb was also for these surveys and captured a wealth of invaluable data about these rare and poorly understood species.

BioBlitz

Our major BioBlitz of the year was held at New Germany State Park and Savage River State Forest in Garrett County. The team documented over 1,000 species during the event, including multiple new species for the project. The team also led a variety of field trips around the state, collaborated with state and regional conservation efforts, and joined conversations at the continental level about the value of all-taxa biodiversity inventories and community science.



Read more here:

<https://www.marylandbiodiversity.com/blog/?p=1137>

BioBlitz iNaturalist project:

https://www.inaturalist.org/observations?project_id=171024

MBP field trips and the field trip blog

We had fewer field trips than some years due to the busy schedule, but still covered much of the state. We plan to ramp up field trips more in 2024. Follow the latest on the MBP blog (<https://www.marylandbiodiversity.com/blog/?cat=19>).

New features

On the technical side, the MBP development team is stronger than ever with awesome support from Jacqueline Palacios and new team members Linda Zhang and Kai Russell. We're making rapid progress on the mobile-friendly upgrade of the website. We also updated the site infrastructure for speed and stability.

- Dozens of pages have been upgraded to our modern, mobile-friendly template. These look great on mobile devices and tend to add new functionality. For example, the upgraded checklist page now lets you filter checklists by county, quad, user, and more. Another beautiful example is the [MBP Bibliography](#).
- We upgraded the MBP Data Processing Stats page at Explore > MBP Data Processing Stats. This newly public report exposes new views of record and media ingestion by time window and user.
- Added support for MP3 audio files.

iNaturalist Integration

We continued to refine our game-changing integration with iNaturalist, which dramatically increased our data ingest efficiency. Check out a summary of [results so far](#). This year we also presented our project successes to conservation stakeholders in the U.S. and Canada, celebrating the merits of citizen science, all-taxa biodiversity inventories, and automation tools to maximize value with limited resources.

Supported research and conservation

MBP works to not just archive this valuable data, but to put it to use for science and conservation. Here are some representative efforts we supported, always with great care and stakeholder support:

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- Collaborated with Wes Knapp and Rob Naczi on keeping our plant checklist in sync with their *Vascular Plants of Maryland* and suggesting candidates for addition.
 - Collaborated with Maryland Department of Natural Resources (DNR) Natural Heritage Program (NHP) about summer insect surveys, data-sharing, and new visualizations.
 - Coordinated with the NatureServe network about MBP lessons learned and how we might be able to assist other states and provinces with all-taxa atlases and efficient curation of community science data.
 - Collaborated with isopod researcher Pallieter De Smedt on terrestrial isopod work.
 - Provided new-for-MBP butterfly data to Rick Borchelt for use in [LepLog](#) discussion.
 - Collaborated with Hal White on the rare dragonflies and damselflies of Delmarva.
 - Coordinated with Joe Gyekis about publication on migratory behavior of Tufted Titmice.
 - Supported many efforts related to the City Nature Challenge and other BioBlitzes.

Data Mining

We continued mining publications for data of interest, such as liverwort data from McAvoy, Knapp, and Biechele (2011). Several MBP editors actively support media ingestion from the MBP Flickr group.

Social Media

Biodiversity-focused outreach remains a high priority for MBP!

- We shared hundreds of Maryland natural history posts on social media via Facebook (<https://www.facebook.com/MarylandBiodiversity>), Twitter (<https://twitter.com/MDBiodiversity>), and Instagram (<https://www.instagram.com/mdbiodiversity/>).
- The MBP [Facebook](#) page reached 16,000+ followers! (16,340)
- [Instagram](#) outreach reached 2,144 followers.
- [X](#) (formerly Twitter) has 679 followers. We maintained a [LinkedIn](#) presence for major announcements and created an initial [Bluesky](#) account.

The MBP Board

The MBP Board works to ensure we do the most good in accomplishing our mission, which is to catalog the living things of Maryland. We promote science, conservation, and education by helping to build a vibrant nature study community. The MBP Board is made up of Jim Brighton (president), John Hall (secretary), Bill Hubick (treasurer), Maren Gimpel, Jane Hill, and Dan Small.

By the numbers - 2023

- New records in 2023: **180,660**
- Media files added in 2023: **230,131**

Explore those numbers [here](#).

By the numbers - All Time

- Species/taxa featured: **21,069**
- Species with photos: **13,478**
- Total Records: **1,007,851**
- Total Photos: **932,374**
- Contributors: **24,000+**

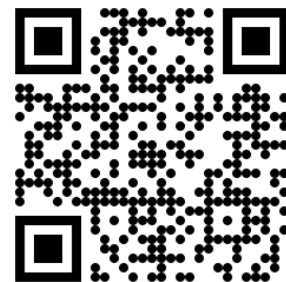
Thank you!

As always, thank you to our incredible community of contributors, editors, and supporters.

Donations

There is no better time to collect biodiversity data for conservation than right now. With your help, we can keep growing this amazing project and community. Thank you!

<https://www.marylandbiodiversity.com/donate>



Cover Photo Credit

Cover photo is the highly rare Mysterious Lantern Firefly (*Photuris mysticalampas*) by Aaron Reb. More at Maryland Biodiversity Project: <https://www.marylandbiodiversity.com/view/22581>