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Monarch Watch mobile app
for iOS and Android today!
monarchwatch.org/app



Note: Monarch Watch tag codes contain 4 letters & 3 numbers. Please be sure to record the **complete (and accurate) tag code** for each monarch you tag.

2024 TAGGING SEASON NEWSLETTER

by Kristen Baum,
Director, Monarch Watch

Greetings, taggers!

Welcome to Monarch Watch's 33rd tagging season! Since the tagging program started in 1992, thousands of people have tagged over 2 million monarchs and we have received more than 20,000 tag recoveries from the overwintering sites in Mexico.

The tagging data have revealed new information on where the overwintering monarchs come from, the timing and pace of the migration, differences among regions, the impact of weather on the migration, and many other factors. These insights into the dynamics of the migration and the monarch's annual cycle are only possible with your assistance. Thank you for the time and energy that you generously donate to support this effort!

There is more to learn about monarchs and their migration, and the long-term tagging dataset provides important information for answering those questions. Tagging also helps us learn about how monarchs are responding to changing conditions, including habitat loss and climate change. We need more research to support monarch conservation and identify approaches for addressing current and future issues.

Thank you for your support and if you get the opportunity this fall, share your passion for tagging monarchs with someone else.

Please review our tagging videos at monarchwatch.org/tagging for helpful information for new taggers or a

refresher course for returning taggers. Good luck with your tagging and thanks again for your participation!

Status of the Population

Many of you eagerly await Chip's predictions about the status of the monarch population each year. Starting last year, the report about expectations for the fall migration was removed from the tagging newsletter to allow for more flexibility in timing (based on the information coming in about the population) and to get the tagging kits out on time. For the most recent information about what to expect this fall, visit the Monarch Watch Blog at monarchwatch.org/blog.

Monarch Watch App

If you have a mobile device, you can download the Monarch Watch app from your device's app store. The app contains many resources to assist you with tagging, including much of the information in this newsletter. More information about the app is available at monarchwatch.org/app.

Goals for 2024

For this season, our goal is to increase the number of monarchs tagged throughout the migration, especially towards the end of the season. More information about the proportion of late-season monarchs that reach the overwintering sites will help us learn more about migration timing and the implications for the monarch population. Many people run out of tags before the migration season ends and it would help us to know when this happens. There is a place to report

that date on the online tagging data submission form.

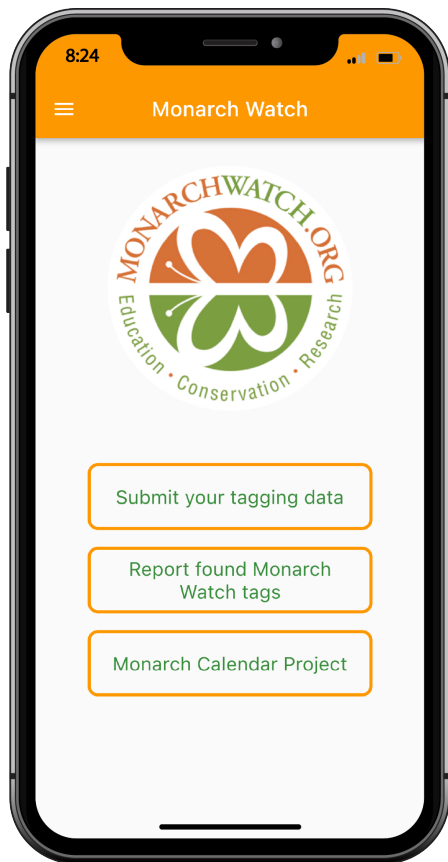
We are also seeking Monarch Calendar data (estimates of the number of monarchs you see each day) during the fall migration. We plan to add an optional data field where you can include the amount of time you spend looking for monarchs each day. That will give us information on the number of monarchs per amount of time which will be helpful information for understanding the fall migration.

You can report Monarch Calendar data using the Monarch Watch app or by submitting them to us at the end of the season. Complete information can be found on the project page at monarchwatch.org/calendar.

Reared Monarchs

Tagging data show that recovery rates at the overwintering sites in Mexico are about 2x higher for wild-caught versus reared monarchs (0.9% vs 0.5%). Rearing conditions and smaller wing sizes likely contribute to the lower recovery rate. If you are rearing monarchs to tag and release during the fall migration, we suggest maximizing exposure to natural conditions (temperature, light/dark, etc.) and following best rearing practices (using sterilized containers with one monarch per container, providing a continuous and fresh supply of sterilized milkweed, cleaning containers daily, etc.).

Additional suggestions are available in the "Tagging wild and reared monarchs: Best practices" article provided via monarchwatch.org/tagging.



Tagging Monarchs

Tagging should begin in early to mid-August north of latitude 45N, in late August at other locations north of 35N, and in September and early October in areas south of 35N.

For additional guidance specific to your latitude, please see the tables at monarchwatch.org/tagging or the tagging instructions section of the Monarch Watch app.

Monarchs are difficult to catch in flight so it is often easiest to locate monarchs feeding on flowers or in roosts late in the day or early in the morning. For tips on catching monarchs, please watch our "how to" videos at monarchwatch.org/tagging or in the Monarch Watch app.

We also have videos to show you how to hold a butterfly, how to identify males and females, how to tag a monarch, and how to submit data and report tag observations. Insect nets and other monarch materials are available from the Monarch Watch Shop at shop.monarchwatch.org.

You can record your data in the field using the Monarch Watch app or the included paper datasheet. Do not use the page number or "do not use" tags from your tag sheets as these do not provide data to the tagging program.

Recording Tagging Data Using the Paper Datasheets

- Include your complete contact information at the top of every datasheet.
- Record the complete tag code for each tagged monarch and double check that you recorded the code correctly.
- Record all other information requested on the datasheet.
- Double check that you recorded complete tag codes, dates, and location information for each monarch that you tagged and released. Without this information, we cannot match tag recoveries to where monarchs were tagged.

Submitting Your Data

Please submit your data once you are finished tagging for the season! We can only use data from tag recoveries when we know where the butterflies were tagged and released.

Tagging data can be submitted directly from the Monarch Watch app or entered into the spreadsheet version of the Monarch Watch Tagging Datasheet using Excel, Numbers, Google Sheets or another spreadsheet application, then saved and submitted using our online form.

Paper datasheets may also be scanned or photographed for submission using our online form. If you are submitting paper datasheets or pictures of them, please check that all the writing can be read. If you are not able to submit your data electronically, paper datasheets may be mailed to us.

Datasheets and instructions are available at monarchwatch.org/tagging.

Monarch Tag Recoveries

Tagged monarchs observed in the United States, Canada, and northern Mexico are recorded in our "domestic" recoveries database. These recoveries are mostly based on tag codes and pictures submitted by people during the fall migration.

Most of the tag recoveries are from the overwintering sites in Mexico. These recoveries are based on tags found at the overwintering sites and the occasional picture of tagged monarchs from the overwintering sites. Early each year we visit the overwintering sites, particularly El Rosario and Sierra Chincua, where we purchase tags from the guides and ejido members. There are many more untagged than tagged monarchs, so it takes several hours on average to find each tag among the dead butterflies on the trails and under the monarch-covered trees. We pay approximately \$5US for each tag as compensation for the time and energy spent locating them.

A portion of the cost of the tagging kits covers the purchase of recovered tags in Mexico. However, in years when mortality is high at the overwintering sites and the number of recoveries is also high, the cost of purchasing tags exceeds these funds. Tax-deductible contributions to Monarch Watch help offset the costs associated with running the tagging program and are always welcome and very much appreciated (monarchwatch.org/donate).

Thank you for your support!

