

Peak Migration Dates: When will the migration peak in my area?

We receive many questions from the public, reporters, and taggers as to when the migration is most likely to first arrive and to peak in their area. The following is a general, not a specific, guideline for when you are most likely to encounter good numbers of monarchs at each latitude. The table below gives the latitude, the midpoint of the migration and the period of peak abundance. These predictions are derived from reports to our list serve Dplex-L, communications directly to Monarch Watch, my personal observations and the thousands of tagged butterflies that have been recovered over the years. Each recovered butterfly is associated with a date and the dates of these recoveries show the migration to be relatively predictable over the continent. The record at specific locations for a given year may differ from this overall pattern but it has proven to be remarkably consistent when viewed as a large-scale phenomenon. As such, it has a phenology and it's predictable. Notice that I have used midpoint as a predicted date rather than a mean. We don't have enough information on the flow of the migration to generate a mean. Further, the distribution of the migrants appears not to be a normal bell-shaped curve but a curve that is shifted strongly to the left. Hence, when estimating the time of peak abundance below I have used a 12-day interval with 7 days before the midpoint and 4 days after the midpoint.

As mentioned above, this is a general pattern. It is likely to be modified by weather patterns that retard, such as strong southwesterly winds, or advance the migration, such as a series of rapidly moving cold fronts arriving from the northwest. Similarly, the pattern of the migration is likely to be modified along the coasts due to strong head winds or storms that have the effect of sweeping monarchs toward the coast on the backside of fronts.

Here's a challenge. If you are outdoors during much of the migration, why not keep a notebook and record the number of monarchs you see each day to see how well these general predictions fit your area this year? If you don't know your latitude, you can look it up quickly by typing your location into "How Far Is it?"

<http://www.indo.com/distance/>

You can also just use [Google](#) to find your latitude by entering your city, state and the word latitude, like

"Lawrence, KS latitude" (without the quotes)

Thanks go out to fellow Monarch Watcher Richard Breen for this handy tip!

Midpoints and peaks of the migration by latitude.

Latitude	Midpoint	Peak in monarch abundance
49	26 August	18-30 August
47	1 September	24 August -5 September
45	6 September	29 August - 10 September
43	11 September	3 - 15 September
41	16 September	8 - 20 September
39	22 September	14-26 September

37	27 September	19 September - 1 October
35	2 October	24 September - 6 October
33	7 October	29 September - 11 October
31	12 October	4-16 October
29	18 October	10-22 October
27	23 October	15-27 October
25	28 October	20 October - 1 November
23	4 November	27 October -8 November
21	11 November	3-15 November
19.4*	18 November	10-22 November

*This latitude represents the general vicinity of the overwintering colonies. The monarch colony at El Rosario is usually opened to the public around the 18th of November.

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 Monarch Watch (888) TAGGING - or - (785) 864-4441
monarch@ku.edu