



Monarch Butterfly Chronicle

Summer 2023

Statistics - success rate: As of August 31, 2023

Raised	Successful Release	Black Death	Other Causes
67	61	5	1 Tachinid Fly
	35 Males		
	26 Females		

Females: 12

Males: 14

Summer 2023 started out with a more normal weather pattern. The first butterfly appeared mid-May just as the Milkweed was starting to come up. My Milkweed patch continues to expand and is spreading beyond the area I planned for it. It definitely has a mind of its own! This means that I don't have to hunt for other patches around the area. But I also don't want it to overwhelm the other wildflowers.

There were very few pollinators this Spring. I only saw one or two Monarch butterflies, but those that visited blessed me with an abundance of eggs! I began collecting them at the end of May and continued to find eggs, then caterpillars through June. By June 30th, I had more in one month than I raised all last year. 2023 promised to be a very good year!

Group 1 – May/June

Critter Cages

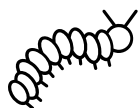
Cage #	Found date	Cocoon	Emerged/Died
1a	5/30 (egg) 5/31 (hatch)	6/25	7/6 Female
2a	5/30 (egg) 5/31 (hatch)	6/25	7/7 Female
3a	6/1 (baby)	6/24	7/6 Female
4a	6/10 (baby)	6/25	7/6 Female
5a	6/12 (2 nd instar)	6/23 Taken to MUMC children	7/5 Female
6a	6/10 (2 nd instar)	6/25	7/7 Male
7a	6/10 (2 nd instar)	6/25	7/7 Female
8a	6/15 (2 nd instar)	6/25	7/6 Female
9a 9b	6/16 (3 rd instar)	6/25	7/7 Male 7/7 Male
10a 10b	6/12 (2 nd instar) 6/12 (1 st instar)	6/25	7/7 Male 7/10 Male
11a	6/10 (egg) 6/12 (hatched)	6/24	7/6 Female
12a	6/14 (1 st instar)	6/28	7/10 Male
13a	6/8 (1 st instar)	6/28	7/10 Male
14a	6/24 (full grown)	6/25	7/10 Male
15a	6/12 (2 nd instar)	6/29	7/9 Female
16	Empty		
17a	6/25 (3 rd instar)	6/29 Taken to MUMC Children	7/9 ???
18	Empty		
19a	6/25 (3 rd instar)	6/29	7/11 Female
20	Empty		

Tupperware #	Found Date	Cocoon	Emerged/Died
13a	6/13 (1 st instar)	6/29	7/10 Male
14a	6/19 (2 nd instar)	6/28	7/10 Male
15a	6/17 (2 nd instar)	6/29	7/11 Female
16a	6/17 (2 nd instar)	6/28	7/10 Male
17a	6/19 (3 rd instar)	6/26	7/9 Female
18a	6/19 (2 nd instar)	6/29	7/12 Male

Terrarium	Found Date	Cocoon	Emerged/Died
Ta	6/20	6/29	7/11 Male
Tb	6/21	6/29	7/11 Male

Everything started out slowly. The weather was cool, and the caterpillars hatched on schedule, then settled in to eat and grow. The weather warmed up in the second week of June, with no rain, and suddenly all the caterpillars grew amazingly fast. The pace picked up and some of them almost ran out of leaves. I spent one night catching up and making sure all of them had several leaves. Then I had to check them throughout the day, because they were eating through their supply in a few hours. I started a color code system to keep track of their stages. Yellow was for warning: the caterpillar was fast approaching the final stage. Red was for those that were full-grown, and I needed to make sure they had enough to eat. Purple was for those that formed a J. Then when they spun their cocoons, I added the date. By June 26th, there were 13 cocoons.

Group 1: 14 males, 12 females



Group 2 – July

Females: 13

Males: 11



Black Death: 2


Tachinid Fly: 1

The Milkweed is beginning to bloom and attracting Monarch Butterflies. There still are not many adults laying eggs. The general pollinator population is low. I see very few bees and there is an occasional white cabbage butterfly.

I started pulling up Milkweed shoots that are outside the boundaries I set (Ha!). I found eggs on them and brought them inside.

There was one caterpillar that hatched on the Milkweed plants I collected two weeks ago. I am counting it as the start of the July group. It is already a 3rd instar.

Cage #	Found date	Cocoon	Emerged/Died
1b	Found on a broken plant that I put in a vase: 3 rd Instar 7/11	7/17	7/29 Female
2b	Found after a rainstorm: 2 nd Instar 7/13	7/24 Not a lucky caterpillar. It was a victim of the Tachinid Fly	7/25 Tachinid Fly 
3b	Hatched 7/8	7/23	8/4 Male
4b	Egg found 7/4 Hatched 7/6	7/17	7/29 Male
5b	Found on inside plant: 7/8 3 rd Instar	7/17	7/29 Male
6b	Infant found: 7/10	7/30	8/10:Male
7b 7c	Egg: 7/10 Hatched:7/13	7/26	8/9:Male 8/10: Female
8b	Egg: 7/10 Hatched: 7/12	7/25	
8c (Green)	Egg: 7/10 1 st Instar: 7/13	7/25	8/5 Male
9c	Egg: 7/9 Hatched:7/13	7/27	8/8 Male
10c	Hatched 7/11	Did not grow	Black Death 
11b	Found 7/10 3 rd Instar	7/17	7/29 Female
12b	Egg: 7/10 Hatch: 7/13	7/23	8/12: Male

13b 13c	Eggs found 7/4 Hatched 7/6	7/17	7/29 2 Females 1 seemed to have a crippled leg, but was able to fly *
14a 14b	Egg: 7/9 Hatched: 7/11	7/29 7/29	8/7 Male 8/7 Male
15a 15b	Eggs: 7/14 Hatched: 7/14	7/30 7/30	8/10: Male
16	Found: 7/6	7/15	7/29 Male
18a	Hatched inside on a Milkweed shoot I brought inside. 3 rd instar on 6/28	7/5	7/21 Female
16a	Eggs found 7/4 Hatched 7/6		Lost
19a	Egg: 7/15 Hatched: 7/17	7/30	8/12:Female
20a	Found 7/4 Hatched 7/6	7/17	Black Death 

Terrarium	Found Date	Cocoon	Emerged/Died
Tc	Cohort 7/15 3 rd Instar 7/28	8/3	8/15: Female
Td	Cohort 7/15 3 rd Instar 7/28	8/3	8/15: Female

Tupperware #	Found Date	Cocoon	Emerged/Died
Tupperware 13b	Egg: 7/15 Hatch: 7/20	8/7	8/21 Female
Tupperware 14 14b	4 th Instar: 7/25 Found In refuse leaf pile	7/29	8/11 Male
Tupperware 15b	Found: 7/15	8/1	8/12 Female
Tupperware 16b	Cohort 7-15	0	Black death 7/29

			💀
Tupperware 17b	Cohort 7/15	8/5	8-18: Male
Tupperware 18 18a 18b	Eggs: 17/14 Hatched: 7/17	8/2	8/15: Male 8/15: Male

There were five caterpillars on plants in a vase. Moved to Critter Cages on July 7th.

Finding more eggs and infants every day. My nursery dishes are full of caterpillars!

The Milkweed is taking over the flowerbeds and I am starting to give it away.

First black death ([Nuclear polyhedrosis virus \(NPV\)](#)) was on July 17th. I have no evidence as to where this caterpillar contracted the disease. I disposed of the caterpillar, leaves, and cage liner in a bottle of bleach. I washed the Caterpillar Condo and the leaf vials in bleach and set them outside in the sun for two days.



I found 13b on the bottom of the critter condo. She seemed to have just emerged and did not hang on to her chrysalis shell. I rescued her using a Milkweed stem and noticed that her two front legs did not work. She was unable to use the front legs to hang onto the stem, which may have been why she fell. As her wings unfolded and her body began to form, one of her front legs began to work. I let her stay on a stem in the Butterfly hatchery. At last, she became active and was ready to fly. When I took her outside, she flew up into the Apple tree and seemed to be doing just fine. She was determined to go!





Group 3 – July/August

Females: 11

Males: 9

Black Death: 2

The summer midpoint between the solstice and the Autumnal Equinox is August 7th. The light is changing from the cream yellow of early summer to the gold of high summer. Everything notices the change in the daylight and the shorter days. Dawn is later and the sunset is at 8:15 instead of after 9:00 PM. The birds know and they are raising their last babies of the year. The crickets will start singing soon. This is the time when there are fewer caterpillars and those that become butterflies now will be the migrators.

Critter Condo	Found date	Cocoon	Emerged/Died
1c 1d	Cohort 7/15 3 rd Instar:8/1	8/7	8/19: Female 8/21 Female
2c	Hatched: 7/11	7/28	8/8 Female
2d	Hatched: 7/11		Black death: 7/28 
3c	Cohort: 7/25 Moved from tower: 3 rd Instar 8/6	8/12	8/27 Male
4c	2 nd Instar: 7/30	8/2	8/20: Female
5c	Moved from Milkweed growing in a flowerpot. 3 rd Instar:8/1	8/7	8/20: Female
7d	Hatch: 8/10	8/24	
8d Green	Final Instar: 8/8 Found in the garden		Black Death 
9d 9e	Cohort:7/30	8/13	8/28 Female & Female
10d	Cohort 7/25 Moved from tower: 8/7 3 rd & 4 th instar	8/11	8/25 Male
11c 11d	Infants: 7/30 2 nd Instar	8/7 8/8	8/21 Female and Male
12c	Egg: 8/7 Hatch:8/10	8/27	
13d	Cohort 7/15 3 rd Instar 7/30	8/5	8/18: Male
14c	Cohort: 7/31 Moved from tower: 3 rd Instar -8/10	8/16	9/2 Male
15c	Egg: 8/2 Hatch: 8/7	8/22	
16b	2 nd Instar: 7/29	8/7	8/20: Male

17			
18b	Baby:7/20	8/1	8-13: Male
19b	Hatch: 8/10	8/26	
20b	Infant:7/23	8/3	8/15: Female
0a	Infants: 7/15 Cohort	8/4	8/15: Male
0b			8/17: Male

Tupperware	Found date	Cocoon	Emerged/Died
13c	Hatched: 7/20	8/7	
16c	Cohort7/15 3 rd Instar 7/30	8/7	8/20: Female
17c	Cohort 7/15	8/5	8/18: Male
18c	Hatch: 7/17	8/2	8/15:Male
18d			8/15: Male

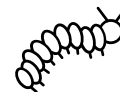
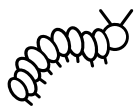
Group 4 – August

This is the final group. There are fewer eggs and infants on the Milkweed. The butterflies I let go do not stay in the yard more than two or three days. The caterpillars and chrysalises are slower to develop and emerge. The weather is cooler and the daylight is shorter. Everything feels the change in the weather.

Critter Condo	Found date	Cocoon	Emerged/Died
2e	Cohort: 8/4	8/21	
3			
4d	Cohort 15		
5d	8/16		
6c	Cohort 8/15	8/28	
7			
8e	Hatch: 8/4	8/23	
8f		8/25	
9			
10			
11			
12			
13e	Cohort 8/15		
15			
16c	Cohort 8/6		
17			

18c	Hatch:8/4	8/27	
19			
20b	Cohort: 8/4	8/25	
00c	Cohort 8/15		

Tupperware	Found date	Cocoon	Emerged/Died
T13d			
T14c	Cohort 8/5		
T15d	Cohort 8/6 3 infants		
T16d			
T17d			
T18e			



And finally, the last two caterpillars. I found their eggs on August 20th and they hatched on August August 23rd and 24th. These two will probably become butterflies at the end of September. This is when I began to watch for the first frosts and hope they are launched before the weather become too cold. Let's see....

Critter Condo	Found date	Cocoon	Emerged/Died
1e	Egg: 8/20 Hatch: 8/23		
14d	Egg: 8/20 Hatch: 8/24		