



New Mexico Butterfly Monitoring Network: Five-Year Report 2020-2025

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NEW MEXICO
BIO**PARK**
SOCIETY

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Introduction

The New Mexico Butterfly Monitoring Network (NMBMN) aims to track the abundance and diversity of butterfly populations across the state of New Mexico. Starting in 2020, community scientists have collected butterfly count data, through Pollard Walks, at various set routes throughout the state. The data contributed by volunteer monitors helps researchers answer important questions about butterfly biology, ecology, and conservation.

The need for butterfly monitoring in the Southwest has never been so pressing. Several recent studies analyzing community science data like that collected by the NMBMN, are finding substantial declines in overall butterfly abundance across the United States (Forister *et al.* 2021,2023; Edwards *et al.* 2025; Wepperich 2019). Using data from across the North American Butterfly Monitoring Network, as well as several other monitoring programs, Edwards *et al.* (2025) found that total butterfly abundance has decreased across the US at a rate of 1.3% per year. This amounts to a cumulative decline of 22% from 2000 to 2020. This means for every five butterflies we saw twenty years ago, today we only see four. This was the first major paper to utilize data from the NMBMN. Shockingly, the reported declines are even more pronounced in the Southwest, where the annual decline was almost 4%. Species richness was also found to be declining. Drivers of decline were not specifically examined by Edwards *et al.* (2025), though other authors have pointed to increased fall warming as a possible explanation for declines in butterfly populations across the West (Forister *et al.* 2023). A possible mechanism might have to do with fat stores, which deplete more rapidly in warmer temperatures when butterflies are unable to diapause effectively, leading to reduced overwintering success and higher mortality rates. These findings are incredibly important for helping us understand insect declines in general, as butterflies are more closely monitored than most any other group. Trends in butterflies might hint at what is going on at large, enabling us to act more quickly to mitigate threats, protect important habitats, and otherwise move to conserve species.

While the NMBMN officially started in 2020, only two routes were run that year. In 2021, we grew to 17 routes and in 2022 to 35 routes. Since 2022, the number of routes has not grown substantially. Therefore, the 2025 season marked five years of continuous surveys on more than half of the routes. While five years of data is not quite enough to show statistically significant trends, it is enough to start seeing some patterns emerge. Therefore, this five-year report provides an update on the growth of the program, and reports some preliminary findings, based on the data we do have. Insect populations can vary widely from one year to the next, so continued monitoring in the years to come will ensure we can more accurately track any patterns of change. The report starts with an overview of the NMBMN, presents program wide preliminary findings from the data we have collected, and then details results for each route across the state.



Sandia Hairstreak (*Callophrys mcfarlandi*) observed on 2/12/26 on the Oso Spring from Embudito Trailhead route. Photo: Joe Schelling

Overview

Throughout the life of the New Mexico Butterfly Monitoring Network, 74 volunteer monitors and recorders surveyed 41 routes. Collectively, monitors have spent 1,717 hours conducting 1,643 surveys. In total, 38,705 individual butterflies, representing 163 different species, have been counted (Table 1).

TABLE 1 OVERVIEW PROGRAM STATISTICS FROM 2020 THROUGH 2025.

	2020	2021	2022	2023	2024	2025	Total
Number of Volunteers (Observers)	1	16	29	33	31	27	44
Number of Routes	2	17	31	34	34	35	41
Number of Surveys	26	187	336	363	357	374	1,643
Number of Butterfly Species Documented	24	74	132	118	113	119	163
Total Number of Butterflies Counted	294	5,128	8,701	9,475	9,876	5,231	38,705
Total Number of Survey Hours	22	231	385	365	359	356	1,717
Index of Abundance (# butterflies/hr.)	13.3	22.2	22.6	25.9	27.5	14.7	22.5

Throughout the life of the program, data has been collected on 41 different routes, though only 36 routes have two or more years of data. Three routes were new in 2025, so only have one year of data, and two other routes were surveyed for just one year, before being discontinued. The program has routes in five of New Mexico's eight major ecoregion types, including the Southern Rockies, Arizona/ New Mexico Plateau, Arizona/ New Mexico Mountains, Chihuahuan Desert, and Southwest Tablelands (Figure 1). Ideally in future years, we will expand to cover the remaining three ecoregions, which include the Colorado Plateau in the extreme northwest corner of the state, the High Plains along the Texas border, and the Madrean Archipelago in the extreme southwestern corner of the state. In addition, better coverage of the Chihuahuan Desert and Southwest Tablelands is a future priority, as currently these ecoregions are represented by very few routes. Additional details of route coverage in different ecoregions can be found in Table 2. Due to ease of access, routes are clustered near the population centers of Albuquerque and Santa Fe. While this is beneficial for understanding the impacts of urban areas on butterfly abundance and diversity, expanding routes to less populated areas of the state would better represent variation across ecoregion types, and help us paint a clearer picture of what is happening to butterfly populations across rural areas, wildlands, and wilderness areas. This is also a future goal.



Renee Robillard running surveys at Bachechi Open Space, in Albuquerque. Photo: Jim Lynch

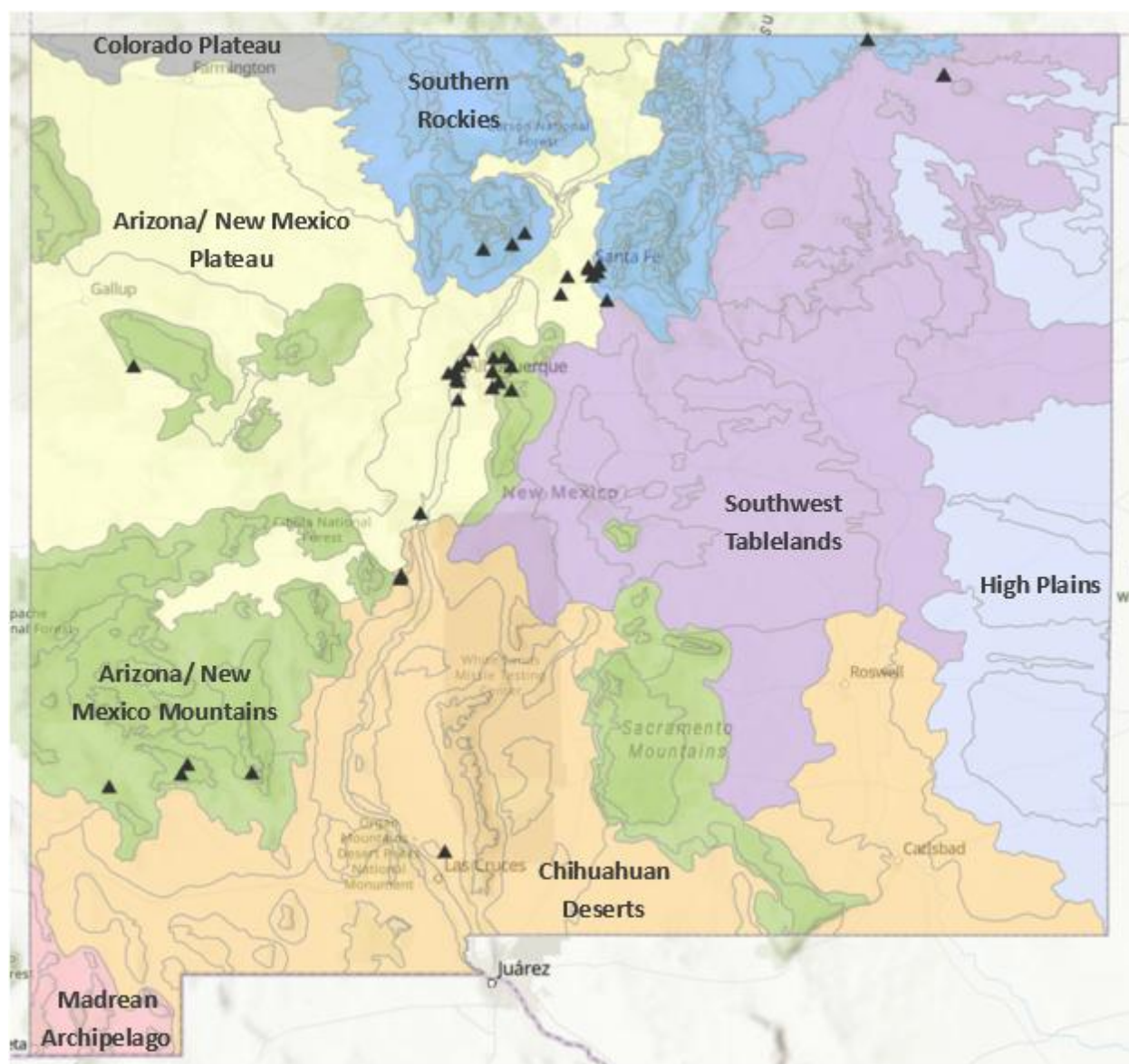


FIGURE 1 MAP OF ROUTES ACROSS ECOREGION TYPES IN NEW MEXICO.

TABLE 2 LEVEL III AND IV ECOREGION DESIGNATIONS FOR EACH NMBMN ROUTE.

Site	Route	#	Region (Level III Ecoregion)	Ecoregion (Level IV)
Jemez Mountains	Rendija Crack	21d	Southern Rockies	Foothill Scrub
Santa Fe Mountains and Foothills	Eldorado Community Trails	21d	Southern Rockies	Foothill Scrub
Santa Fe Mountains and Foothills	Little Tesuque Creek	21d	Southern Rockies	Foothill Scrub
Santa Fe Mountains and Foothills	Santa Fe Canyon Preserve	21d	Southern Rockies	Foothill Scrub
Sugarite Canyon State Park	Little Horse Mesa	21f	Southern Rockies	Sedimentary Mid-Elevation Forests
Jemez Mountains	Upper Water Canyon Trail	21h	Southern Rockies	Volcanic Mid-Elevation Forests
Jemez Mountains	Las Conchas Trail #137	21h	Southern Rockies	Volcanic Mid-Elevation Forests
Middle Rio Grande Bosque	ABQ BioPark Botanic Garden	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	ABQ Open Space Visitors Center	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	Bachechi Open Space	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	Bosque adjacent to the Rio Grande Nature Center	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	Corrales Bosque Preserve	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	La Orilla Restoration Area	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	Rio Grande Nature Center State Park	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	Valle de Oro National Wildlife Refuge	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Middle Rio Grande Bosque	Wildlife Management Ponds	22g	Arizona/ New Mexico Plateau	Rio Grande Floodplain
Santa Fe Valley	La Tierra Trails at Ridgetop Road	22h	Arizona/ New Mexico Plateau	North Central New Mexico Valleys and Mesas
Santa Fe Valley	Leonora Curtin Wetland Preserve	22h	Arizona/ New Mexico Plateau	North Central New Mexico Valleys and Mesas
Santa Fe Valley	Municipal Recreation Complex	22h	Arizona/ New Mexico Plateau	North Central New Mexico Valleys and Mesas
Santa Fe Valley	Santa Fe Botanic Garden	22h	Arizona/ New Mexico Plateau	North Central New Mexico Valleys and Mesas
Santa Fe Valley	Zocalo Neighborhood Arroyo	22h	Arizona/ New Mexico Plateau	North Central New Mexico Valleys and Mesas
Petroglyph National Monument	Petroglyph Rinconada Canyon Trail	22m	Arizona/ New Mexico Plateau	Albuquerque Basin
Sevilleta NWR	Sevilleta Visitor Center Loop	22m	Arizona/ New Mexico Plateau	Albuquerque Basin
Gila River	Gila Bird Area	23b	Arizona/New Mexico Mountains	Madrean Lower Montane Woodlands
Black Range	Railroad Canyon	23c	Arizona/ New Mexico Mountains	Montane Conifer Forests
Pinos Altos Range	Little Cherry Creek	23c	Arizona/ New Mexico Mountains	Montane Conifer Forests
Pinos Altos Range	Meadow Creek	23c	Arizona/ New Mexico Mountains	Montane Conifer Forests
Manzano Mountains	Manzano Open Space	23e	Arizona/ New Mexico Mountains	Conifer Woodlands and Savannas
Ramah Area	Ramah Reservoir from Lakeview Road	23e	Arizona/New Mexico Mountains	Conifer Woodlands and Savannas
Sandia Mountains	Oso Spring from Embudito Trailhead	23e	Arizona/ New Mexico Mountains	Conifer Woodlands and Savannas
Sandia Mountains	Three Gun Springs Trail	23e	Arizona/ New Mexico Mountains	Conifer Woodlands and Savannas
Manzano Mountains	Cedro Creek Nature Trail at Otero Canyon	23f	Arizona/ New Mexico Mountains	Rocky Mountain Conifer Forests
Sandia Mountains	Capulin Spring and Balsam Glade	23f	Arizona/ New Mexico Mountains	Rocky Mountain Conifer Forests
Sandia Mountains	Cienega Spring Nature Trail	23f	Arizona/ New Mexico Mountains	Rocky Mountain Conifer Forests
Sandia Mountains	Tramway Trail at La Luz Trailhead	23f	Arizona/ New Mexico Mountains	Rocky Mountain Conifer Forests
Chihuahuan Desert Nature Park	Arroyo Trail to Vista Hill	24a	Chihuahuan Desert	Chihuahuan Basins and Playas
The Box Recreation Area	Black Canyon	24b	Chihuahuan Desert	Chihuahuan Desert Grasslands
The Box Recreation Area	Gramont Peak	24b	Chihuahuan Desert	Chihuahuan Desert Grasslands
Capulin Volcano National Monument	Boca Trail	26l	Southwestern Tablelands	Upper Canadian Plateau
Capulin Volcano National Monument	Crater Rim Trail	26l	Southwestern Tablelands	Upper Canadian Plateau

Program-Wide Results

Total Index of Abundance

The most important metric to consider when comparing the results of survey data across routes, years, and throughout the season is the index of abundance. This metric takes into account the amount of time spent running surveys, making all butterfly counts comparable. It is the index of abundance that will help us to understand whether butterfly populations are stable, declining, or increasing. Program wide, the index of abundance increased slightly from 2021 until 2024 and then crashed sharply in 2025 (Figure 2). The first year of the program, 2020, is not directly comparable to the other years, as there were only two routes, neither of which boast high abundance. Similarly, 2022 had fewer routes than subsequent years, and four relatively high abundance routes in the mountains near Silver City were added to the program. This may have artificially propped up abundance figures in 2022. No such change in the number of routes can explain the drop in abundance in 2025. Just 14.7 butterflies were counted for every hour spent surveying, which is only 65% of the number of butterflies counted on average across the other years (2021-2024).

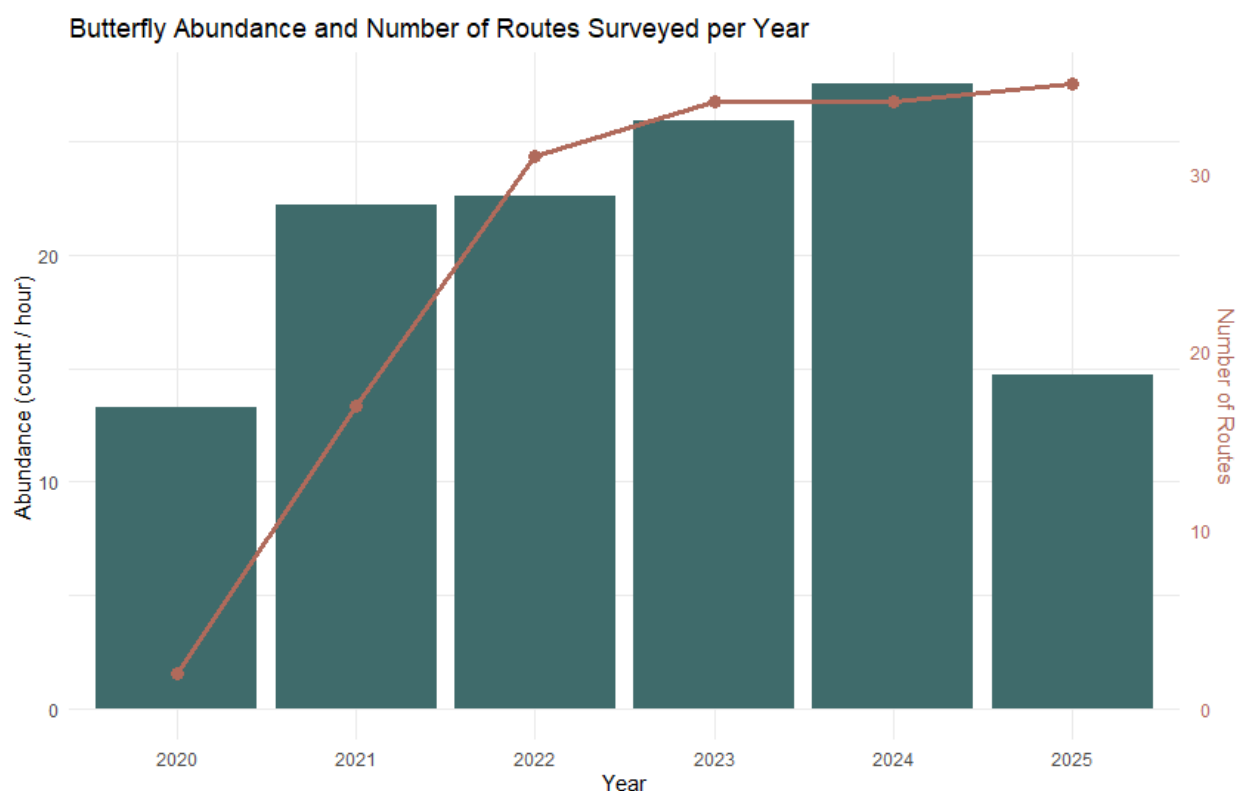


FIGURE 2 INDEX OF ABUNDANCE OF BUTTERFLY POPULATIONS ACROSS ALL NMBMN ROUTES, IN RELATION TO THE NUMBER OF ROUTES ACTIVE EACH YEAR FROM 2020-2025.

Index of Abundance per Route

Abundance also varies widely across routes, ranging from a low of 1.34 butterflies counted per hour at La Tierra Trails at Ridgetop Road, a route through piñon-juniper forest on the outskirts of Santa Fe, to a high of 118.09 at Meadow Creek, a route along a montane stream in the Pinos Altos range of southwestern New Mexico (Figure 3). The numbers at Meadow Creek are skewed slightly by several very high abundance Echo Azure and Marine Blue puddle parties, numbering in the hundreds during six separate surveys, typically in August and September. Other

abundance outlier events include hundreds of Orange and Clouded Sulphurs counted at Valle de Oro National Wildlife Refuge, across three different surveys in 2021.

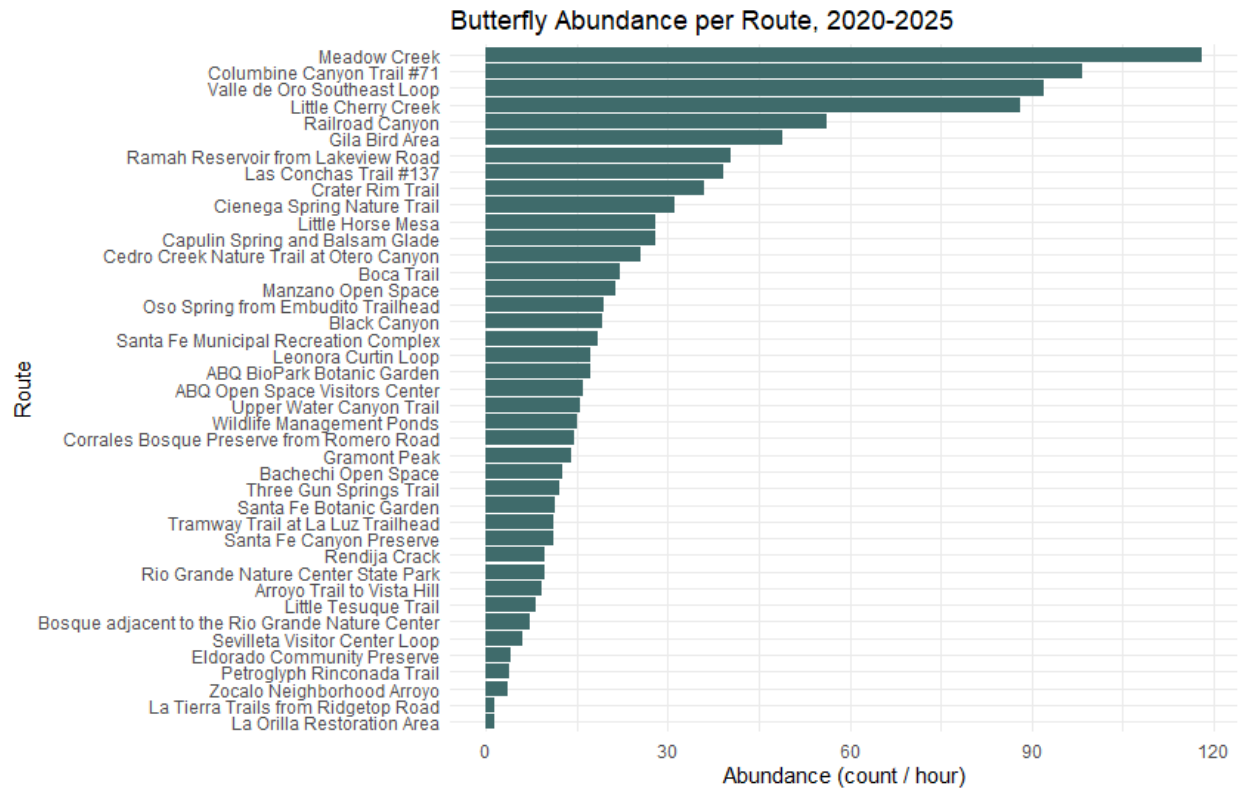


FIGURE 3 INDEX OF ABUNDANCE PER ROUTE, AVERAGED ACROSS ALL YEARS FROM 2020-2025.



Puddle party of moderate abundance and high diversity at Meadow Creek, a route in the Pinos Altos range of southwestern New Mexico. Photo: Elaine Halbedel

Most and Least Abundant Species

Across the network, several species are observed more frequently and/or in greater numbers than others. There are labeled here as abundant, or common. The most abundant species is the Echo Azure, which has been observed 3,844 times (Figure 4). This species was by far the most abundant at the sites in the Gila National Forest, with the highest single-survey total count of 608 at Little Cherry Creek on August 21, 2024. Below is a quote from Elaine Halbedel on the abundance observed during this survey:

“Butterfly activity in this canyon was phenomenal despite a notable lack of water in the stream (no flow) and only a few muddy areas in The Narrows... I photographed the groups and counted from the pictures since it was impossible to determine how many were there or in the clouds of blue confetti once I got close. I suspect that I have undercounted the Echo Azures by 10-20%, but could do no better.”

No other species came close to being observed in such high numbers during a single survey, but many were similarly likely viewed during a population “boom” to achieve status among the most abundant species, for example the Red-bordered Satyr, Painted Crescent, and the American Snout. Others, like the Marine Blue and Clouded/Orange Sulphurs, were not only observed in booms, but are also observed regularly and frequently across routes and years.

Notably, many of these extremely abundant species have only been observed in the Gila region, where the four sites, including Gila Bird Area, Railroad Canyon, Meadow Creek, and Little Cherry Creek, rank within the top six most abundant sites across the network (Figure 3). The species only observed in that region include the Red-bordered Satyr, Small Checkered-Skipper, Perse Checkerspot, and Nokomis Fritillary.

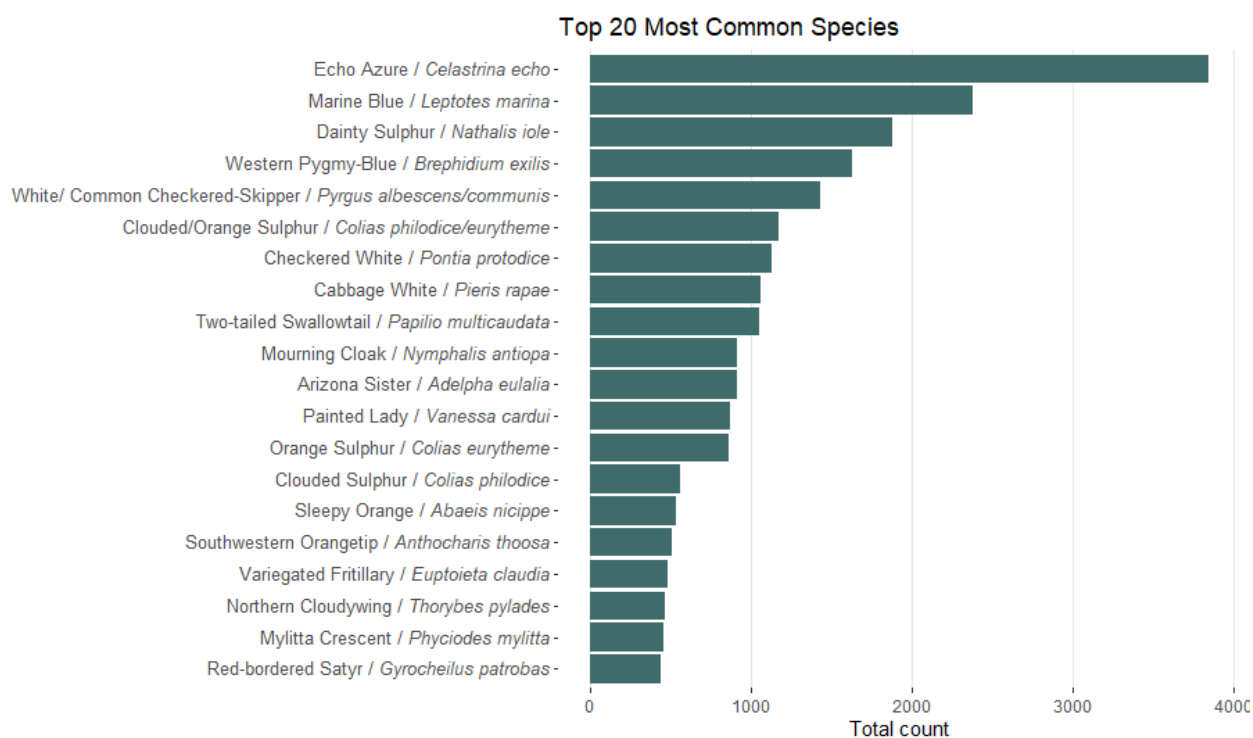


FIGURE 4 TWENTY MOST ABUNDANT/COMMON BUTTERFLIES RECORDED ACROSS THE NMBMN FROM 2020-2025.

The least abundant species are those that were each only observed once on surveys (Table 3). In most cases these species are not necessarily rare. They may be under recorded for other reasons such as identification difficulty or few survey routes within the range of the species or within the appropriate habitat.

TABLE 3 SPECIES ONLY OBSERVED ONCE ON NMBMN ROUTES IN THE PERIOD FROM 2020-2025. *IN NEW MEXICO, THIS SPECIES IS CONSIDERED BAIRD’S SWALLOWTAIL (*PAPILIO BAIRDI*) BY MANY TAXONOMIC TEXTS. HISTORICALLY, AND HEREIN, IT IS CONSIDERED A SUBSPECIES OF THE OLD WORLD SWALLOWTAIL (*PAPILIO MACHAON BAIRDII*).

Common Name	Scientific Name
Gulf Fritillary	<i>Agraulis vanillae</i>
Mormon Metalmark	<i>Apodemia mormo</i>
Nais Metalmark	<i>Apodemia nais</i>
Moon-marked skipper	<i>Atrytonopsis lunus</i>
Western Pine Elfin	<i>Callophrys eryphon</i>
Theona Checkerspot	<i>Chlosyne theona</i>
Gold-costa Skipper	<i>Cogia caicus</i>
Uncas Skipper	<i>Hesperia uncas</i>
Leda Ministreak	<i>Ministrymon leda</i>
Giant Swallowtail	<i>Papilio cresphontes</i>
Old World Swallowtail*	<i>Papilio machaon</i>
Mountain Checkered-skipper	<i>Pyrgus xanthus</i>
Small Checkered-skipper	<i>Pyrgus scriptura</i>



Leda Ministreak (*Ministrymon leda*) observed at Railroad Canyon, in the Black Range in southwestern New Mexico. Photo: Elaine Halbedel

Most Widespread Species

Several species are seen regularly across the state in all surveyed ecoregions (Figure 5). For example, the Mourning Cloak is not only widespread in New Mexico, but across the entire Northern Hemisphere and is known for being an excellent flier that can travel far distances and survive in a wide range of temperatures. In contrast, the Marine Blue is only common within the Southwest region of North America, representing a more regional specialty. The list of the least widespread species closely matches the list of species only observed once (Table 3).

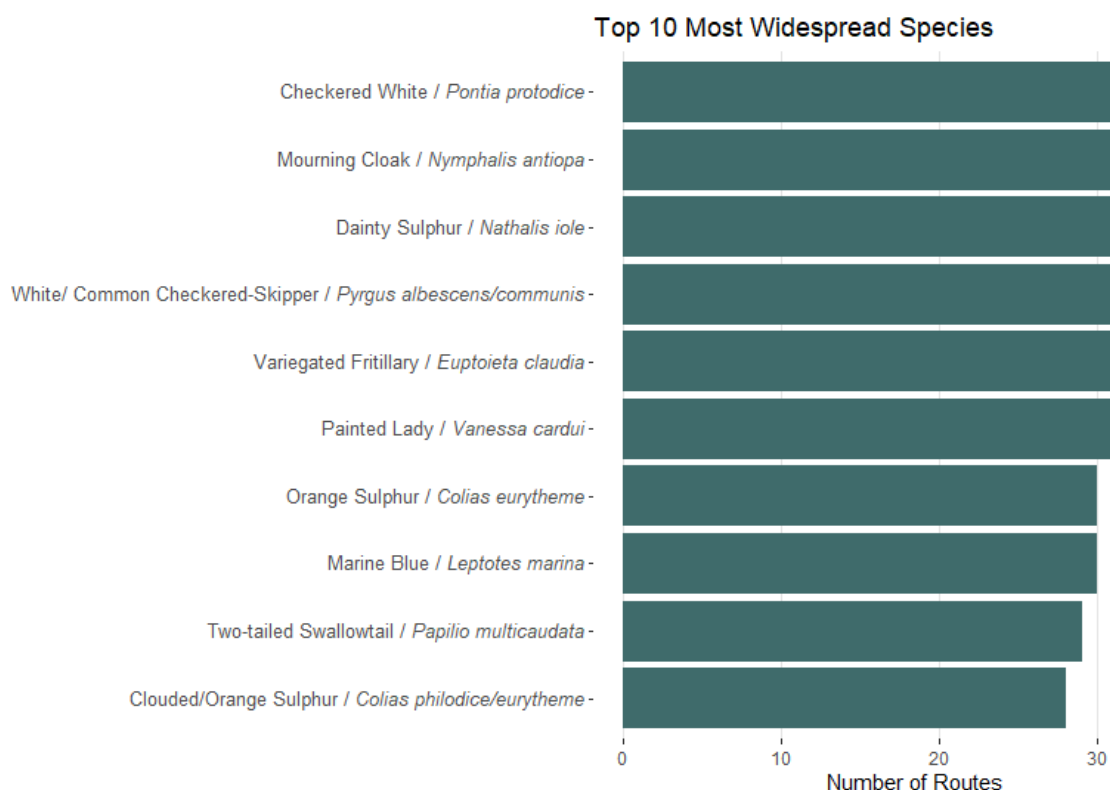


FIGURE 5 THE TOP TEN MOST WIDESPREAD (PRESENT ON HIGHEST NUMBER OF ROUTES) SPECIES ACROSS THE NMBMN FROM 2020-2025.

Seasonal Occurrence of Butterflies

Month-to-month measures of abundance throughout the year fluctuated more than expected from year to year (Figure 6). Most notably, there was an obvious abundance spike in the late summer and fall of 2021, that was not matched in any of the years following. This spike may have been heavily influenced by an apparent population boom of Clouded/Orange Sulphurs, but also high numbers of Western Pygmy-blues. Because this was only the second year of sampling, it is not clear if this type of boom was uncommon or if the following years of relatively lower abundances in the late season are what is uncommon. The following three years saw more even phenological spread, with peaks earlier in the summer. However, 2025 followed a similar early-season dip and late-season peak, just in much lower numbers. The pattern seen in 2022 — where there is a late spring/ early summer peak, followed by a trough in mid-summer, then another peak in late summer, after the monsoon rain arrives — was the trend we expected to see. This pattern would reflect moisture availability and plant growth trends in the region.

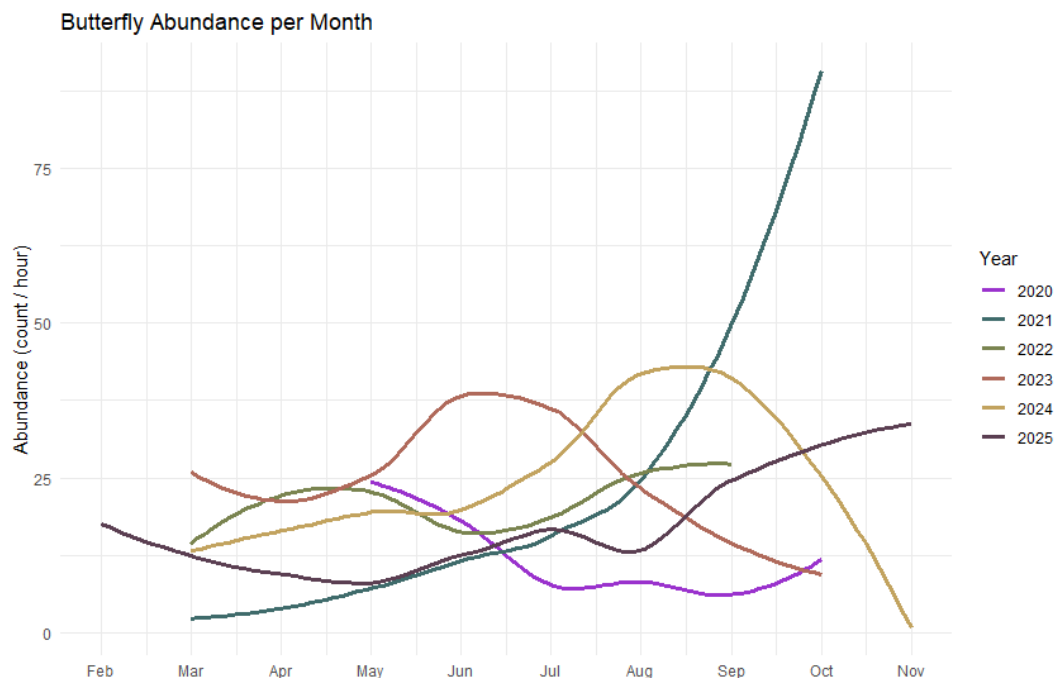


FIGURE 6 SEASONAL ABUNDANCE PER YEAR ACROSS THE NMBMN FROM 2020-2025.

Family Level Abundance

At the family level, abundance was fairly evenly spread among the Gossamerwings (Lycaenidae), Whites and Sulphurs (Pieridae), and Brushfoots (Nymphalidae) (29%, 27% and 26%, respectively). Skippers (Hesperiidae) represented about 15% of butterflies observed. The lowest abundance was seen in the Metalmarks (Riodinidae), comprising less than 1% of the butterflies observed, and the Swallowtails (Papilionidae), at just 4%. The highest species diversity was seen in the Hesperiidae (34%), followed closely by the Nymphalidae (31%), then Lycaenidae (17%), Pieridae (10%), Papilionidae (4%), and Riodinidae (3%) (Figure 7). This is in line with what might be expected, as skippers are the most diverse butterfly family in New Mexico, making up about a third of New Mexico's butterfly fauna, followed closely by the Brushfoots (Cary and Toliver 2026).

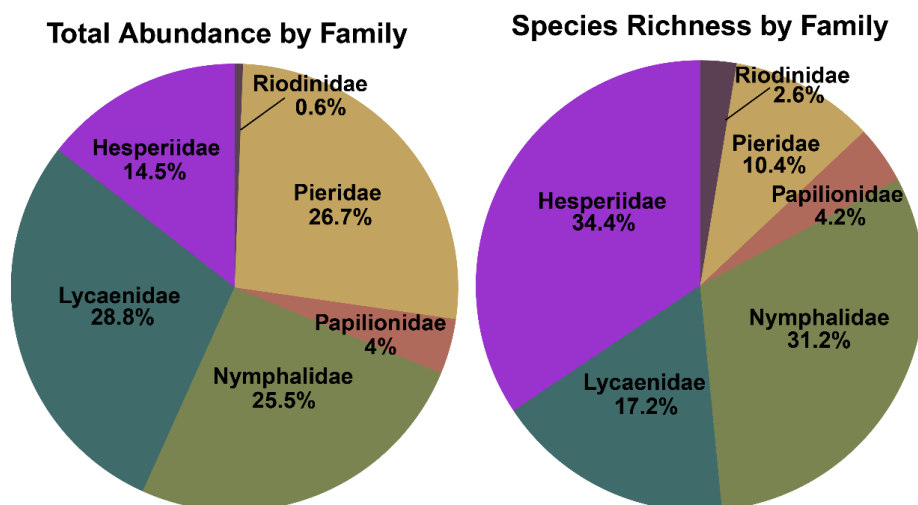


FIGURE 7 FAMILY-LEVEL PROPORTIONS OF ABUNDANCE AND NUMBER OF SPECIES ACROSS THE NMBMN FROM 2020-2025.

Species Diversity by Year

Over the life of the program, diversity was highest in 2022 and 2025 (Figure 8). In 2020 and 2021, the diversity was lower, likely due to fewer routes being surveyed. It is unclear why the diversity in 2023 and 2024 was reduced, though, interestingly, these two years were the highest abundance years recorded, so far (Figure 2). This may indicate high abundance in some years is driven by population booms in just a few species, rather than a larger number of butterflies over all. The diversity in 2025 was likely boosted by the addition of new routes in previously under-represented northern reaches of the state (including at Capulin Volcano National Monument and Sugarite Canyon State Park, which collectively added three routes in 2025). In addition, increased identification skills of monitors over repeated years could have played a role. More data is needed to better understand these trends.

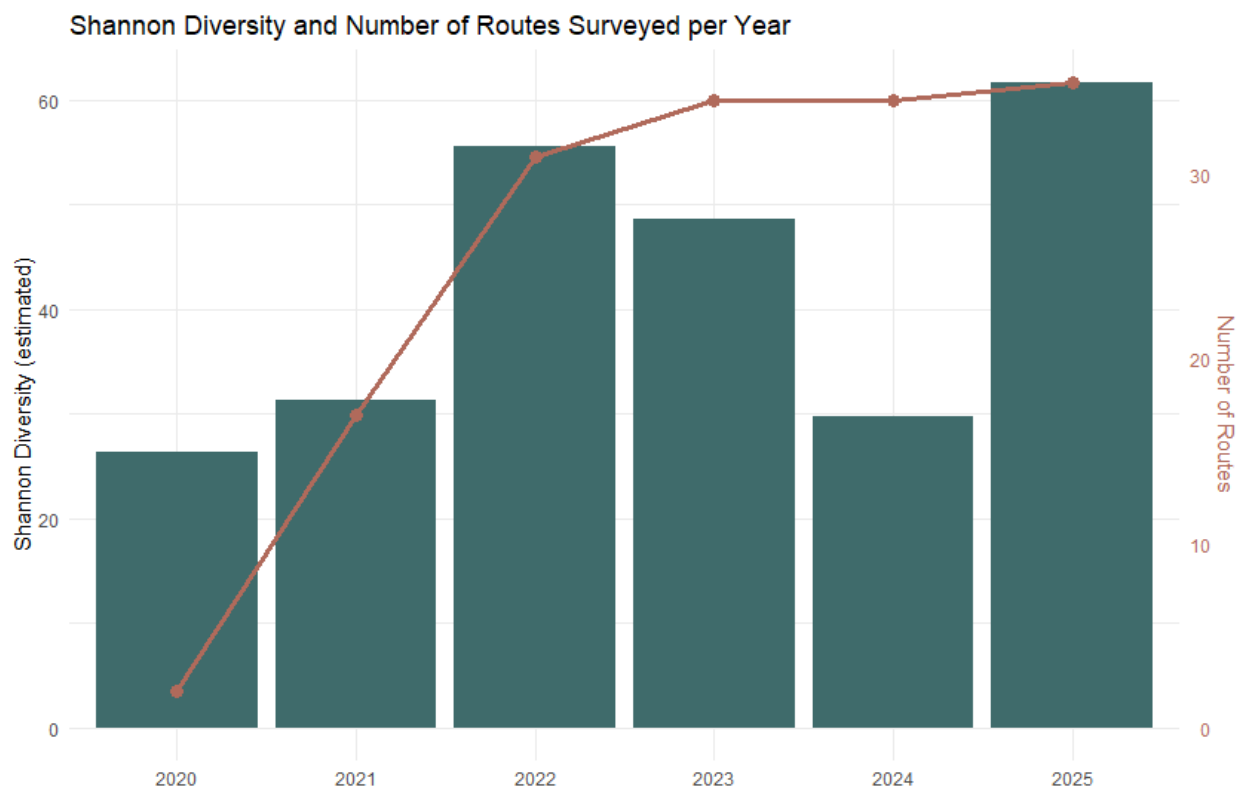


FIGURE 8 SHANNON’S DIVERSITY ACROSS ALL NMBMN ROUTES EACH YEAR FROM 2020-2025, IN RELATION TO THE NUMBER OF ROUTES ACTIVE EACH YEAR FROM 2020-2025.

Species Diversity per Route

The routes with the highest diversity are all near permanent or semi-permanent waterways. The most diverse is the Gila Bird Area, along the Gila River in southwestern New Mexico (Figure 9). Others that are ranked highest are within the Sandia and Manzano Mountains, as well as the newly-added route in Sugarite Canyon State Park, near Raton. Both water sources and elevation play an important role in the distribution of butterfly habitats across the state, and this is well represented by our sampling.

Many of the routes that we find to be low in diversity are also among the most unevenly sampled, via inconsistent monitor coverage and/or monitor turnover. Uneven sampling may be a symptom of low butterfly diversity, where monitors are not motivated to survey routes with few butterflies to report. However, until these routes are more consistently monitored, it is difficult to tell whether diversity is as low as is currently reported. Either way, routes with low diversity are as important for data collection as every other route and may give us more valuable insight on patterns of distribution and population fluctuations.

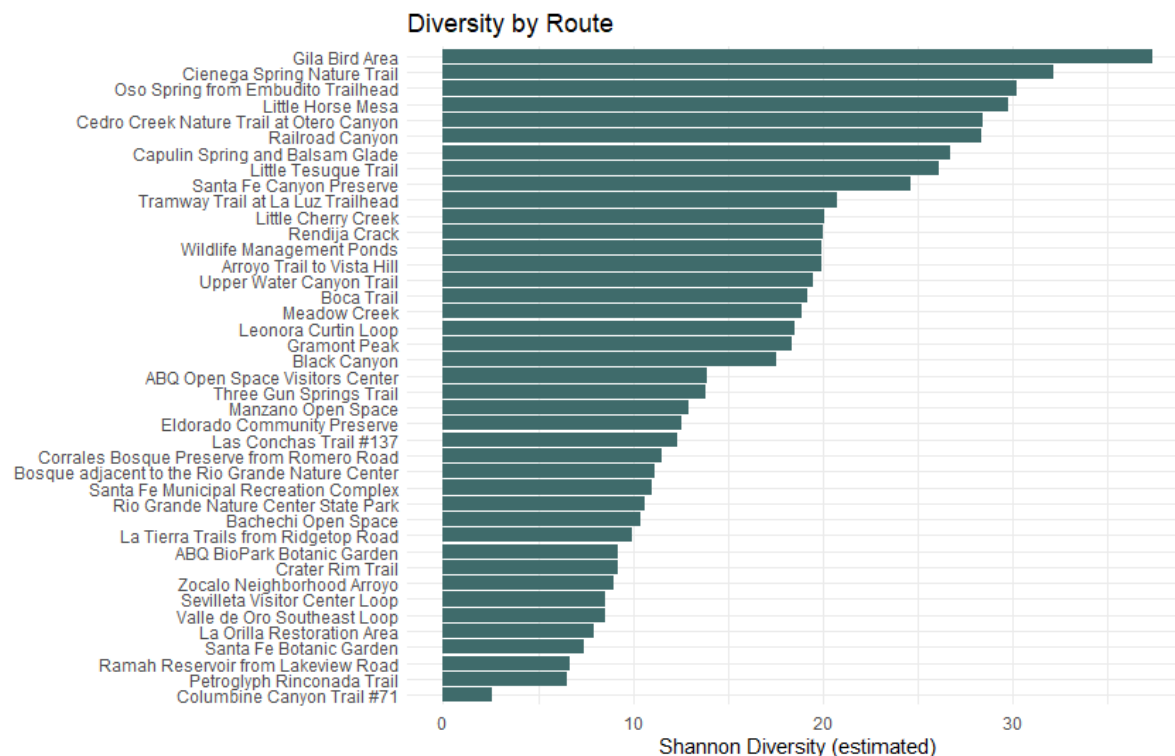


FIGURE 9 SHANNON'S DIVERSITY ACROSS ALL YEARS PER ROUTE TOTALED FROM 2020-2025.



Gila Bird Area, the route where the most butterfly diversity has been observed, to date.
Photo: Anna Walker



Nokomis Fritillary (*Speyeria nokomis*) observed at Meadow Creek, a route in the Pinos Altos range of southwestern New Mexico. Photo: Elaine Halbedel

Climate Correlates

A major goal of ongoing monitoring is to see how butterflies are responding to changes in climatic conditions. This is of particular importance in the Southwest, where drought is prevalent and strongly influences the quality of habitat and survival of wildlife. Droughts are also projected to become more prolonged, severe, and common in the region under future climate change scenarios (USGCRP 2018) and the Southwestern U.S. saw its driest 22-year period from 2000 to 2021, since at least 800 CE (Williams *et al.* 2022).

When average state-wide monthly precipitation is compared to the butterfly index of abundance of NMBMN, some intriguing patterns can be visualized (Figure 10A), even though the time period is not long enough for statistically robust comparisons. The most obvious pattern is that the peak in precipitation during midsummer of 2021 is shortly followed (~3-4 months) by the NMBMN's highest abundance recorded to date. Even though the peaks are not as high in 2023, 2024 and 2025, a similar timing can be observed: the greatest precipitation per year is shortly followed by the highest abundance in a proportionally equal manner. However, 2022 clearly does not follow this trend.

The Palmer Drought Severity Index is a measure that combines data on precipitation with temperature to get a proxy of soil moisture availability (Figure 10B). This may explain the low abundance in 2022 despite precipitation: the period immediately preceding that precipitation happened to be the most severe PDSI of the time period by far, at a value of almost -6 (anything <-4 is classified as "extreme drought"). It is likely that this drought resulted in significant mortality for immature and/or overwintering butterflies.

Without the data collected by the NMBMN, we may have only had limited anecdotal reports to suggest that butterfly populations are linked to climate. This apparent connection remains to be statistically supported and will be an important line of investigation as we continue to monitor into the future.

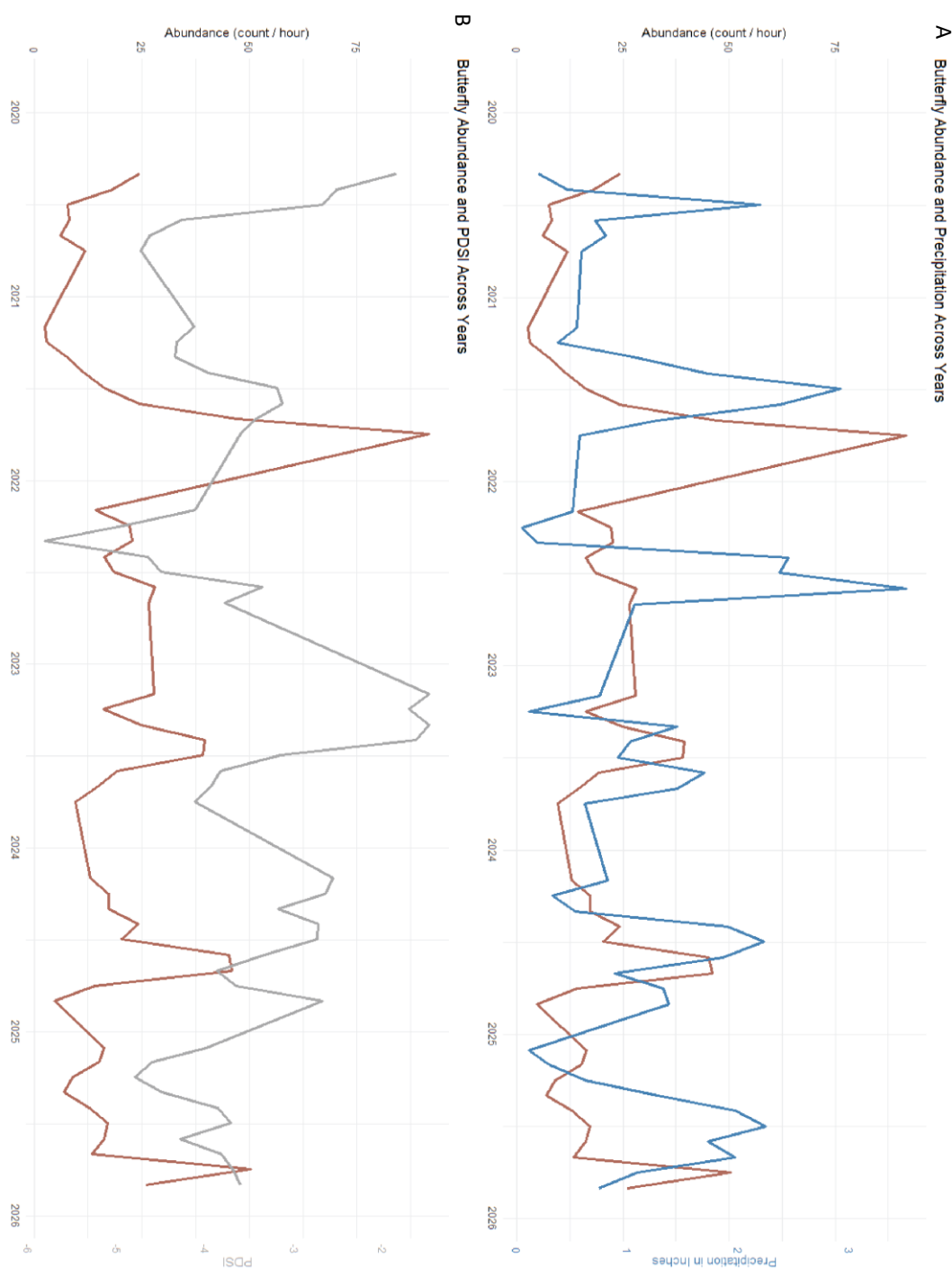


FIGURE 10 INDEX OF ABUNDANCE AVERAGED PER MONTH ACROSS TIME FROM 2020-2025, OVERLAID WITH FLUCTUATION OF CLIMATE VARIABLES. A. OVERLAY IS AVERAGED NEW MEXICO PRECIPITATION PER MONTH (PRECIPITATION IS REPRESENTED IN BLUE AND BUTTERFLY ABUNDANCE IS REPRESENTED IN RED). B. OVERLAY IS AVERAGED NEW MEXICO PALMER DROUGHT SEVERITY INDEX (PDSI) PER MONTH (DROUGHT SEVERITY INDEX IS REPRESENTED IN BROWN AND BUTTERFLY ABUNDANCE IS REPRESENTED IN RED). CLIMATE DATA FROM NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION (NOAA 2026).

Future Directions

The progress that the NMBMN has made since 2020 is significant, but there remains room to grow. We have developed a list of goals for the next five years (2026-2030) that will increase the network's reach and impact.

Target 1: Expand the NMBMN's geographic coverage to new ecoregions and habitats.

Currently, the NMBMN routes are not distributed evenly across the state's ecoregions. With targeted recruitment, residents in poorly sampled areas could make a huge improvement to the network's distribution and coverage (Figure 11). The areas that are currently not covered that are a priority in the next five years are:

1. The High Plains ecoregion: There are no routes in eastern New Mexico or in this ecoregion. Routes could be established near the cities of Carlsbad, Artesia, Roswell, Portales, or Santa Rosa.
2. The Sacramento, Capitan, and White Mountains: This continuous group of mountains is a region of extremely high endemism as an isolated southernmost reach of the Rocky Mountains. Coverage of this region is particularly needed because of recent documentations of "lost" and possibly extirpated species there (Doneski and Baine 2026).
3. Southern Rockies in Taos and Rio Arriba Counties: While there are several routes established nearer to Santa Fe, in the Jemez region, and up near Raton, there are no routes near the city of Taos, which is home to New Mexico's tallest peak in the Sangre de Cristos, or on the Abiquiu-Chama stretch into the Tusas Mountains. These high-elevation forests and meadows are home to many montane specialists butterflies.
4. The Colorado Plateau ecoregion: The northwest corner of the state is home to the San Juan River, which is the only major river in the state currently not covered by NMBMN routes. The region is also home to some Four-corner restricted butterfly species and is historically vastly under-surveyed.
5. The Mesilla Valley: The section of the Rio Grande that passes through Las Cruces, before continuing on through the major metropolitan cities of El Paso and Juarez, is a region of intensive resource use and edge habitat for many desert species that depend on the river's water.
6. The Madrean Archipelago ecoregion: The small section of this ecoregion that falls into New Mexico's bootheel in the southwest corner of the state represents the farthest north range for several subtropical and tropical species of butterflies. In general, this region is poorly-sampled for butterfly fauna.

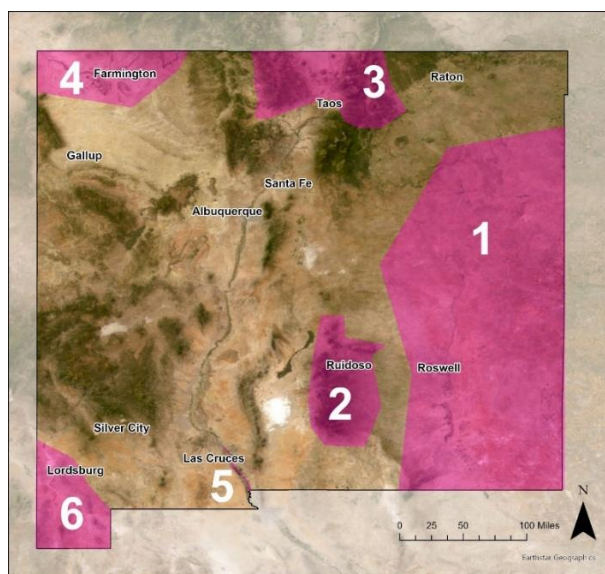


FIGURE 11 MAP OF FUTURE PRIORITY REGIONS FOR ESTABLISHING NEW NMBMN ROUTES TO CAPTURE A MORE GEOGRAPHICALLY COMPREHENSIVE MONITORING DATASET.

Target 2: Set up routes where detection of New Mexico Species of Greatest Conservation Need (SGCN) may be possible.

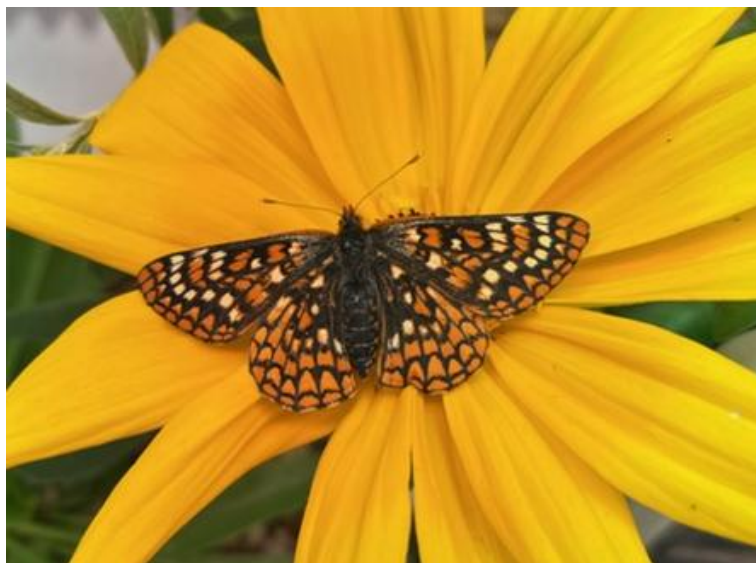
In 2025, the New Mexico Department of Wildlife revised The State Wildlife Action Plan (SWAP), adding 36 species of butterflies to the SGCN list. These are species that are endemic to the state, in decline, vulnerable to extinction because of their life history or ecology, vulnerable to climate change, found in disjunct distributions, and/or are keystone species (The New Mexico Department of Wildlife 2025). The conservation needs for many, if not all, of these species, includes increased monitoring. As it is, we understand very little about most of these species and whether their populations are stable. While many of these species are restricted to remote habitats that may be difficult to survey, others could be relatively easy to target, if routes are set up in the correct areas and habitats.

Target 3: Analyze plant occurrence data on routes.

Taking stock of the plants found along our butterfly routes will allow us to better understand how butterflies are using these habitats and draw stronger conclusions on the quality and trends of butterfly habitat. Thankfully, this is already well on its way. Many monitors already do amazing notetaking in surveys, allowing us to begin compiling species lists of flowering plants. Furthermore, many of the routes are traversed by iNaturalist users that collect plant data while exploring or hiking the area. We can start compiling lists from these community science sources and then augment with targeted floral survey trips.

Target 4: Continue collecting data.

The best improvement that can be made to the NMBMN is creating a more robust dataset of continuous, and long-term data. We are already doing this! The more data we can collect, the better quality our data will be, and that will allow us to see statistically supported trends with stronger evidence. The data after 10 years of the network will be an amazing resource, not just for our own interests in the health and longevity of New Mexico butterflies, but also for the broader community of scientists, conservationists, educators, and advocates who are researching and spreading the word about decline of biodiversity in North America and across the globe. We look forward to the next 5 years, and the next 100 after that!



A Sacramento Mountains Checkerspot Butterfly, one of the New Mexico SGCN, in captivity at the ABQ BioPark. Photo: Jason Schaller

Individual Route Statistics

Summary statistics for each route can be found in Table 4, below. Metrics for each route include the number of species observed, the total number of butterflies counted, the number of surveys completed, the number of hours spent counting butterflies and the rate of occurrence of butterflies. This last metric is the most important, as it provides an index of abundance that is comparable across sites and years.

TABLE 4 OVERVIEW STATISTICS BY ROUTE.

Route	Total Abundance	Number of Species Observed	Total # of butterflies counted	Surveys Completed	Total # of Survey Hours
Meadow Creek	118.09	88	5430	36	45.98
Columbine Canyon Trail #71	98.30	7	154	1	1.57
Valle de Oro Southeast Loop	91.93	20	2050	24	22.30
Little Cherry Creek	88.20	81	4313	37	48.90
Railroad Canyon	56.29	78	2077	29	36.90
Gila Bird Area	48.84	73	2009	40	41.13
Ramah Reservoir from Lakeview Road	40.35	27	801	23	19.85
Las Conchas Trail #137	39.10	39	1517	34	38.80
Crater Rim Trail	35.97	19	253	9	7.03
Cienega Spring Nature Trail	31.10	55	2141	51	68.83
Little Horse Mesa	27.99	35	271	9	9.68
Capulin Spring and Balsam Glade	27.97	55	1797	45	64.25
Cedro Creek Nature Trail at Otero Canyon	25.57	44	914	33	35.75
Boca Trail	22.10	25	186	8	8.42
Manzano Open Space	21.34	25	972	50	45.55
Oso Spring from Embudito Trailhead	19.53	57	1297	48	66.42
Black Canyon	19.26	31	1034	49	53.70
Santa Fe Municipal Recreation Complex	18.55	28	410	25	22.10
Leonora Curtin Loop	17.21	27	620	42	36.02
ABQ BioPark Botanic Garden	17.12	20	648	51	37.85
ABQ Open Space Visitors Center	15.96	31	1209	45	75.73
Upper Water Canyon Trail	15.41	37	832	46	54.00
Wildlife Management Ponds	15.07	28	811	74	53.82
Corrales Bosque Preserve from Romero Road	14.57	30	1118	33	76.73
Gramont Peak	14.15	20	192	35	13.57
Bachechi Open Space	12.60	20	612	43	48.58
Three Gun Springs Trail	12.17	18	186	18	15.28
Santa Fe Botanic Garden	11.45	17	176	30	15.37
Tramway Trail at La Luz Trailhead	11.17	39	1000	64	89.52
Santa Fe Canyon Preserve	11.11	31	404	28	36.37
Rendija Crack	9.75	41	1212	55	124.37
Rio Grande Nature Center State Park	9.74	23	370	38	38.00
Arroyo Trail to Vista Hill	9.18	24	219	27	23.85
Little Tesuque Trail	8.31	23	146	15	17.57
Bosque adjacent to the Rio Grande Nature Center	7.28	25	381	55	52.37
Sevilleta Visitor Center Loop	6.09	13	182	34	29.88
Eldorado Community Preserve	4.03	15	117	27	29.00
Petroglyph Rinconada Trail	3.79	11	104	19	27.43
Zocalo Neighborhood Arroyo	3.61	18	464	263	128.43
La Tierra Trails from Ridgetop Road	1.34	13	69	47	51.33
La Orilla Restoration Area	1.34	5	7	3	5.22
Total	22.54	163	38705	1643	1717.45

Route By Route Summaries

Jemez Mountains: Rendija Crack

Region: Southern Rockies **Ecoregion:** Foothill Woodlands and Shrublands

Start: 35.904734°, -106.301723°, elevation 7170 ft. **End:** 35.905068°, -106.301316°, elevation 7170 ft.

Length: 1.4 miles

First Survey Year: 2021

Status: Active

Route Overview:

This site is within the foothill woodlands and shrublands of the Southern Rockies. This semiarid foothill forest is characterized by conifer and oak woodlands. The route passes through a conifer woodland, down a foothill drainage and across an open meadow. This is a natural, unmanaged site, bordering the urban area of Los Alamos. It is owned and managed by Los Alamos Open Space.

Route History:

Surveys started on this route in 2021. The route was closed briefly in June of 2022 due to the nearby Cerro Pelado Fire. The route itself was not damaged during the fire. The route has remained unchanged throughout its history otherwise and the same monitor has surveyed the route throughout.



Route Statistics:

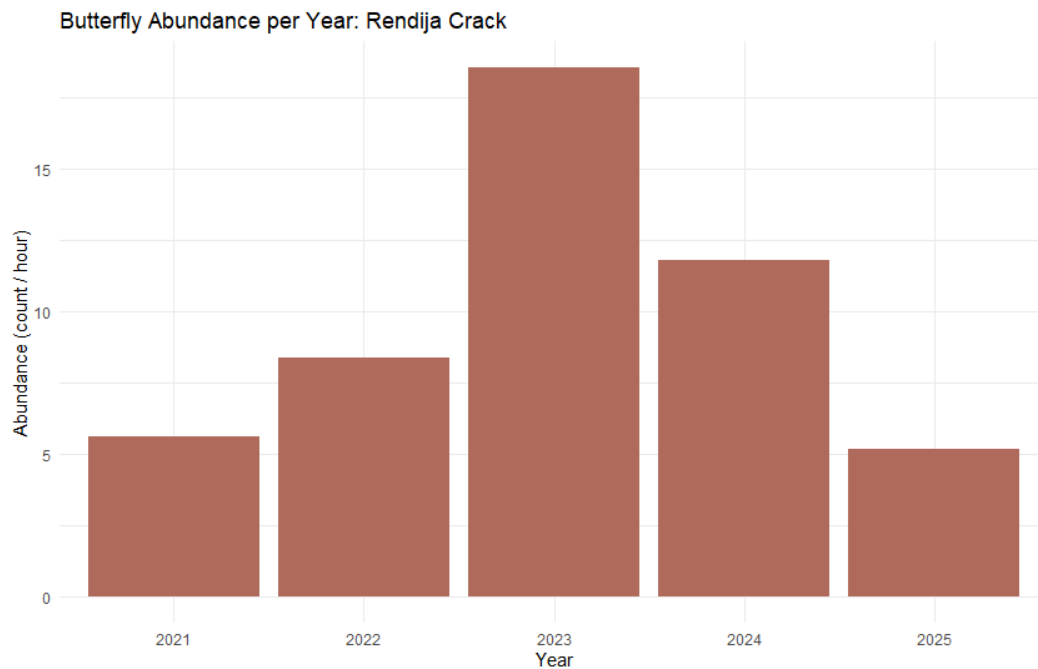


FIGURE 12 INDEX OF ABUNDANCE AT RENDIJA CRACK DURING YEARS SURVEYED BETWEEN 2020-2025.

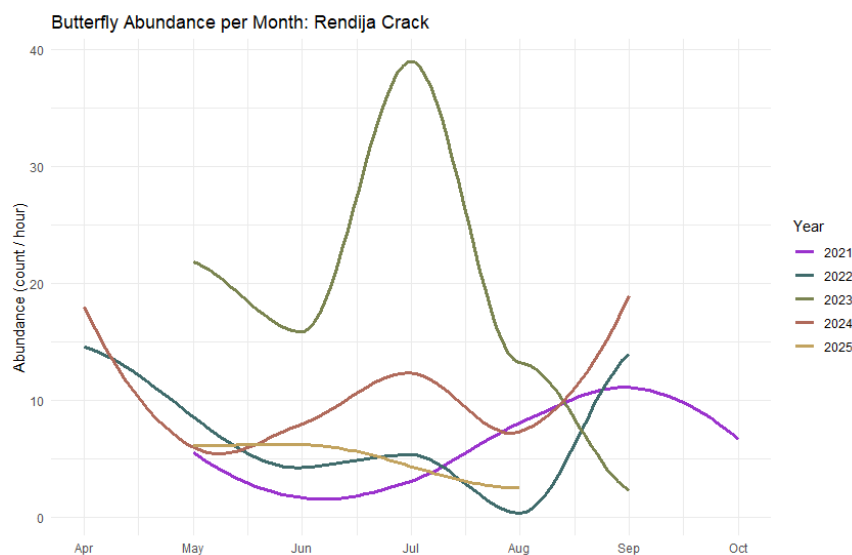


FIGURE 13 INDEX OF ABUNDANCE PER MONTH AT RENDIJA CRACK ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 5 SPECIES RECORDED ON THE RENDIJA CRACK ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 1 Dun Skipper (<i>Euphyes vestris</i>) - 1 Edwards' Skipperling (<i>Oarisma edwardsii</i>) - 1 Funereal Duskywing (<i>Erynnis funeralis</i>) - 1 Horace's Duskywing (<i>Erynnis horatius</i>) - 2 Meridian Duskywing (<i>Erynnis meridianus</i>) - 1 Pacuvius Duskywing (<i>Erynnis pacuvius</i>) - 16 Pahaska Skipper (<i>Hesperia pahaska</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 11 Sachem (<i>Atalopedes campestris</i>) - 1 Sleepy Duskywing (<i>Erynnis brizo</i>) - 13 Taxiles Skipper (<i>Poanes taxiles</i>) - 2 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 1 unidentified duskywing (<i>Erynnis</i> sp.) - 100 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 117	Arizona Sister (<i>Adelpha eulalia</i>) - 1 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 2 Field Crescent (<i>Phyciodes pulchella</i>) - 26 Gray Buckeye (<i>Junonia grisea</i>) - 1 Hoary Comma (<i>Polygonia gracilis</i>) - 3 Mourning Cloak (<i>Nymphalis antiopa</i>) - 27 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 1 Painted Lady (<i>Vanessa cardui</i>) - 2 unidentified anglewing (<i>Polygonia</i> sp.) - 1 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 8 unidentified crescent (<i>Phyciodes</i> sp.) - 5 unidentified Fritillary (<i>Fritillary</i> sp.) - 5 unidentified greater fritillary (<i>Speyeria</i> sp.) - 3 unidentified lady (<i>Vanessa</i> sp.) - 4 Variegated Fritillary (<i>Euptoieta claudia</i>) - 49 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 8
Family: Lycaenidae	Family: Pieridae
Echo Azure (<i>Celastrina echo</i>) - 25 Gray Hairstreak (<i>Strymon melinus</i>) - 2 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 1 Lupine Blue (<i>Plebejus lupini</i>) - 34 Marine Blue (<i>Leptotes marina</i>) - 16 Reakirt's Blue (<i>Echinargus isola</i>) - 10 unidentified Azure (<i>Celastrina</i> sp.) - 6 unidentified blue (<i>Polyommata</i> sp.) - 64 unidentified hairstreak (<i>Theclinae</i> sp.) - 2 Western Square-dotted Blue (<i>Euphilotes battoides</i>) - 1 Western Tailed-Blue (<i>Cupido amyntula</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 2 Checkered White (<i>Pontia protodice</i>) - 49 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 31 Dainty Sulphur (<i>Nathalis iole</i>) - 241 Orange Sulphur (<i>Colias eurytheme</i>) - 45 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 99 Spring White (<i>Pontia sisymbrii</i>) - 12 unidentified sulphur (<i>Coliinae</i> sp.) - 7 unidentified white (<i>Pierinae</i> sp.) - 48
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 93 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 6 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 2	None

Santa Fe Mountains and Foothills: Eldorado Community Trails

Region: Southern Rockies **Ecoregion:** Foothill Woodlands and Shrublands

Start: 35.530434°, -105.845248°, elevation 6839 ft. **End:** 35.529370°, -105.845095°, elevation 6804 ft.

Length: 1.7 miles

First Survey Year: 2023

Status: Active

Route Overview:

This foothill scrub site in the Southern Rockies includes sections of piñon-juniper woodland and juniper grassland. The main vegetation types include juniper, piñon, four wing saltbush, mountain mahogany, grasses, forbs, and scrub oak. This community preserve is a 4,094-acre day-use area managed by the Conservation Committee of the Eldorado Community Improvement Association (ECIA).



Route History:

Surveys started on this route in 2023. The route has remained unchanged throughout its history and the same monitor has surveyed the route throughout.

Route Statistics:

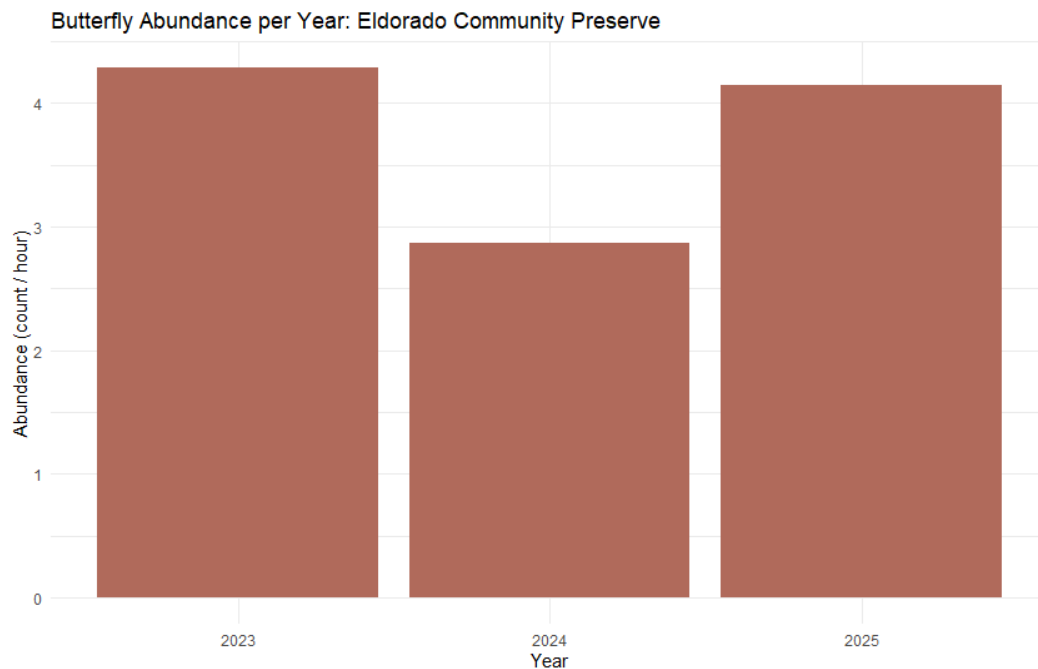


FIGURE 14 INDEX OF ABUNDANCE AT ELDORADO COMMUNITY TRAILS DURING YEARS SURVEYED BETWEEN 2020-2025.

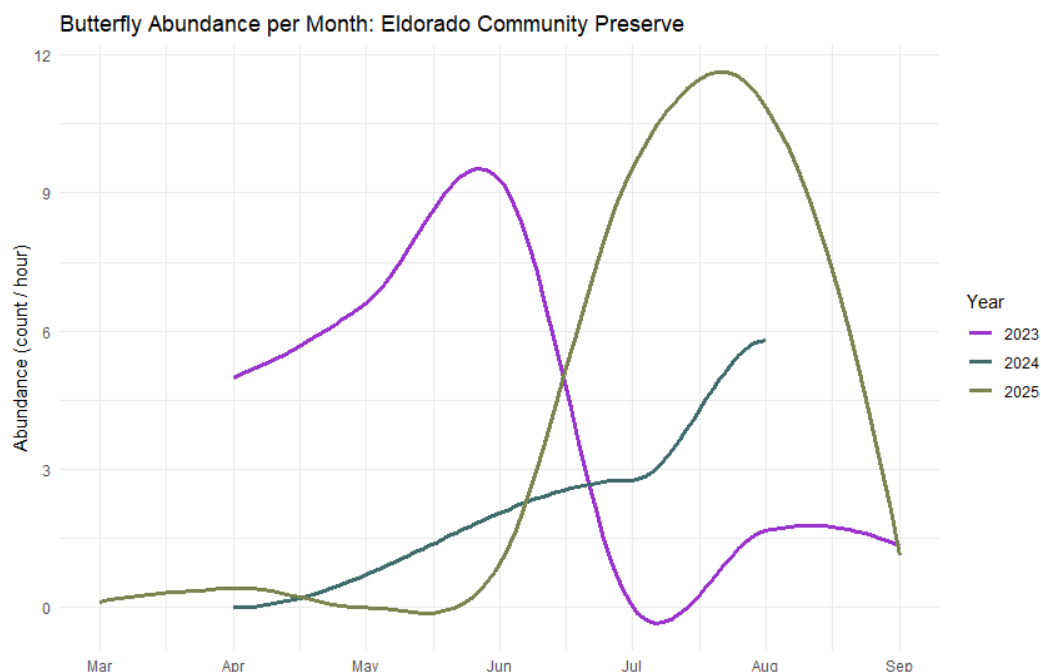


FIGURE 15 INDEX OF ABUNDANCE PER MONTH AT ELDORADO COMMUNITY TRAILS ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 6 SPECIES RECORDED ON THE ELDORADO COMMUNITY PRESERVE ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 11	Mourning Cloak (<i>Nymphalis antiopa</i>) - 2
unidentified grass skipper (<i>Hesperiinae</i> sp.) - 3	Painted Lady (<i>Vanessa cardui</i>) - 3
unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1	Variegated Fritillary (<i>Euptoieta claudia</i>) - 11
White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 1	
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 2	Checkered White (<i>Pontia protodice</i>) - 10
Juniper Hairstreak (<i>Callophrys gryneus</i>) - 3	Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 1
Marine Blue (<i>Leptotes marina</i>) - 1	Dainty Sulphur (<i>Nathalis iole</i>) - 7
Thicket Hairstreak (<i>Callophrys spinetorum</i>) - 2	unidentified sulphur (<i>Coliinae</i> sp.) - 7
Unidentified Gossamerwing (<i>Lycaenidae</i>) - 1	unidentified white (<i>Pierinae</i> sp.) - 32
unidentified hairstreak (<i>Theclinae</i> sp.) - 1	
Western Pygmy-Blue (<i>Brephidium exilis</i>) - 17	
Family: Papilionidae	Family: Riodinidae
unidentified swallowtail (<i>Papiliononinae</i> sp.) - 1	None

Santa Fe Mountains and Foothills: Little Tesuque Creek

Region: Southern Rockies **Ecoregion:** Foothill Woodlands and Shrublands

Start: 35.726085°, -105.886817°, elevation 7533 ft. **End:** 35.725713°, -105.901208°, elevation 7336 ft.

Length: 1.16 miles

First Survey Year: 2023

Status: Active

Route Overview:

This route is along a small mountain stream in the foothills of the Sangre de Cristo Mountains of the Southern Rockies, just outside of Santa Fe. The surrounding hills are characterized as a scrub woodland of piñon and juniper as well as other pine trees. This is a natural, unmanaged site, isolated from urban areas, though several housing developments are beginning to encroach into the surrounding forest. It is an out and back trail on Santa Fe County Open Space lands, directly adjacent to the Santa Fe National Forest.



Route History:

Surveys began on this route in 2023. No changes to the route have been noted. One monitor ran surveys in 2023 and 2024, and a second monitor took over the surveys in 2025.

Route Statistics:

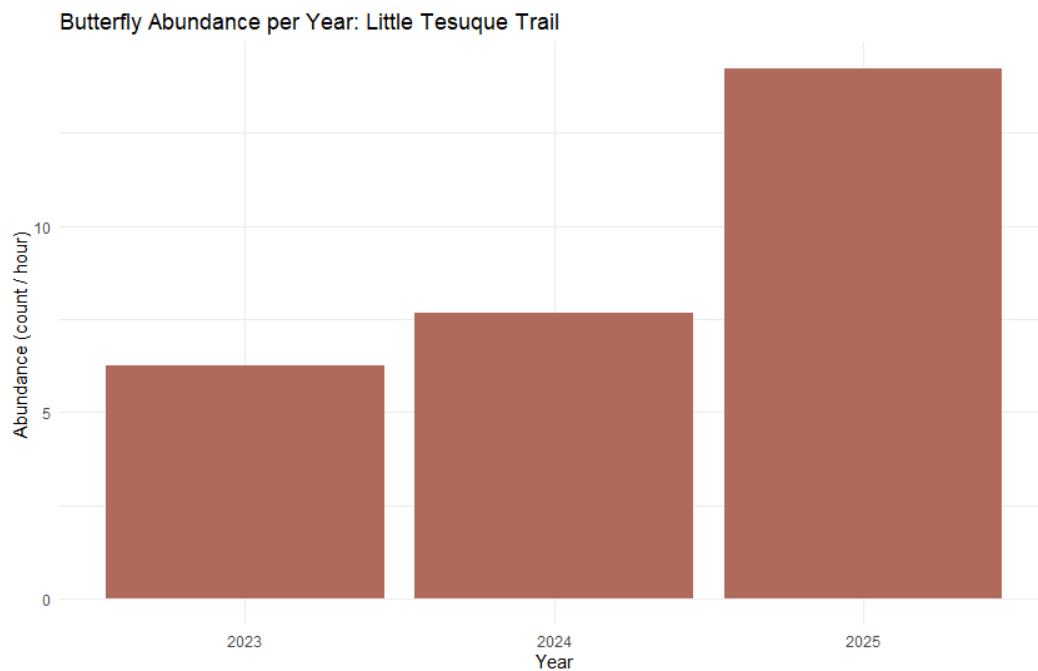


FIGURE 16 INDEX OF ABUNDANCE AT LITTLE TESUQUE CREEK DURING YEARS SURVEYED BETWEEN 2020-2025.

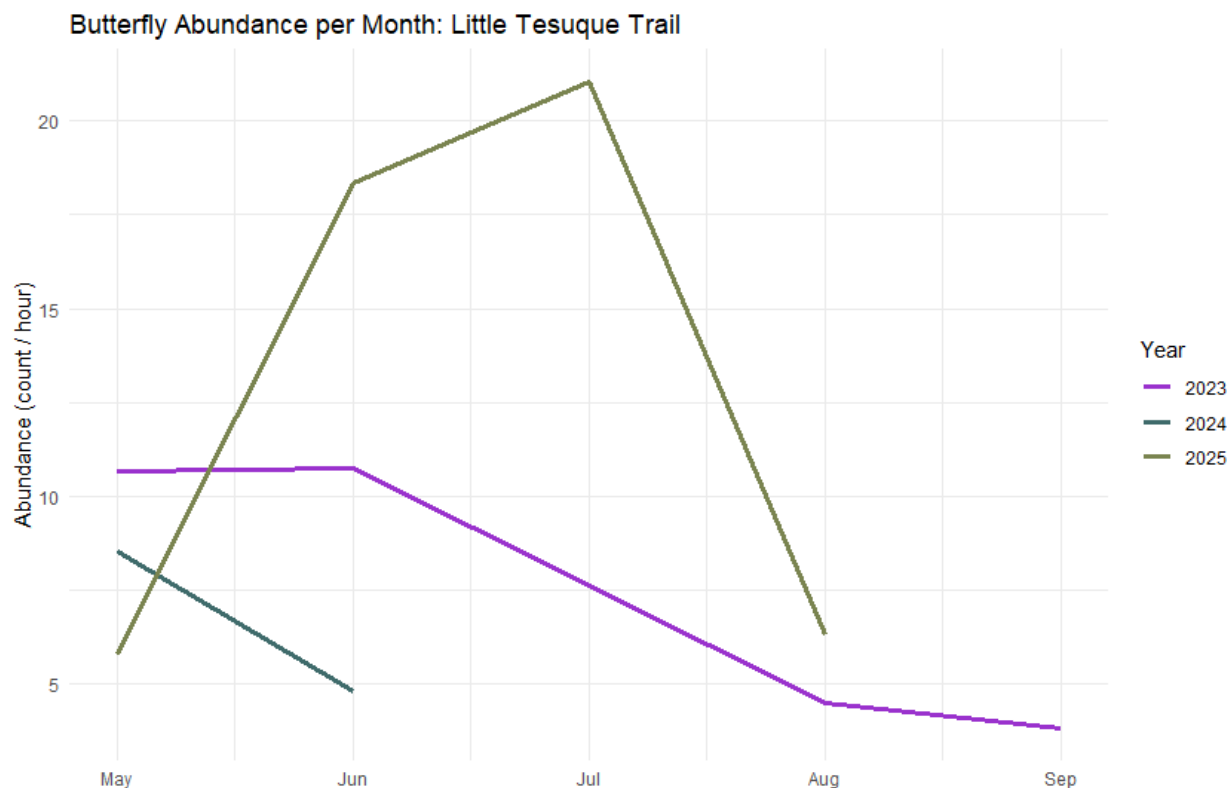


FIGURE 17 INDEX OF ABUNDANCE PER MONTH AT LITTLE TESUQUE CREEK ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 7 SPECIES RECORDED ON THE LITTLE TESUQUE TRAIL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Mountain Checkered-Skipper (<i>Pyrgus xanthus</i>) - 1 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 4 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 1 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 2 Yucca Giant-Skipper (<i>Megathymus yuccae</i>) - 12	American Lady (<i>Vanessa virginiensis</i>) - 2 Arachne Checkerspot (<i>Poladryas arachne</i>) - 1 Arizona Sister (<i>Adelpha eulalia</i>) - 4 Field Crescent (<i>Phyciodes pulchella</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 15 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 2 Painted Lady (<i>Vanessa cardui</i>) - 4 unidentified crescent (<i>Phyciodes</i> sp.) - 2 unidentified Fritillary (<i>Fritillary</i> sp.) - 10 unidentified greater fritillary (<i>Speyeria</i> sp.) - 2 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 7
Family: Lycaenidae	Family: Pieridae
Juniper Hairstreak (<i>Callophrys gryneus</i>) - 3 Marine Blue (<i>Leptotes marina</i>) - 3 unidentified blue (<i>Polyommata</i> sp.) - 3 unidentified hairstreak (<i>Theclinae</i> sp.) - 9 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 4 Checkered White (<i>Pontia protodice</i>) - 6 Dainty Sulphur (<i>Nathalis iole</i>) - 7 unidentified sulphur (<i>Coliinae</i> sp.) - 6 unidentified white (<i>Pierinae</i> sp.) - 6
Family: Papilionidae	Family: Riodinidae
Pale Swallowtail (<i>Papilio eurymedon</i>) - 1 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 13 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 9 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 4	None

Santa Fe Mountains and Foothills: Santa Fe Canyon Preserve

Region: Southern Rockies **Ecoregion:** Foothill Woodlands and Shrublands

Start: 35.686347°, -105.894593°, elevation 7330 ft. **End:** 35.686510°, -105.895564 °, elevation 7311 ft.

Length: 1.16 miles

First Survey Year: 2022

Status: Active

Route Overview:

This foothill scrub site includes sections of shrub scrub, riparian habitat, and piñon-juniper woodland. The main vegetation types include Chamisa, four-winged saltbush, juniper, piñon, cottonwood, willow and dogwood. The Nature Conservancy (TNC) manages the Santa Fe Canyon Preserve portion of this route. From 1894 to 1976, much of the preserve was submerged under Two-Mile Reservoir, a water supply project along the Santa Fe River. This is a natural but managed site, bordering a foothill Santa Fe neighborhood. The last section of this route leaves the preserve and utilizes trails in the Dale Ball Trail system, owned and managed by the City of Santa Fe.



Route History:

Surveys began on this route in 2022. In 2023, an orchard was built at the end of the route and the path leading to the road was discontinued. Therefore, in 2024, the trail was redirected back up to the parking lot, instead of the road, and a new habitat section was added for the orchard. One pair of monitors ran surveys on this route in 2022 and 2023, and another pair ran surveys in 2024 and 2025.

Route Statistics:

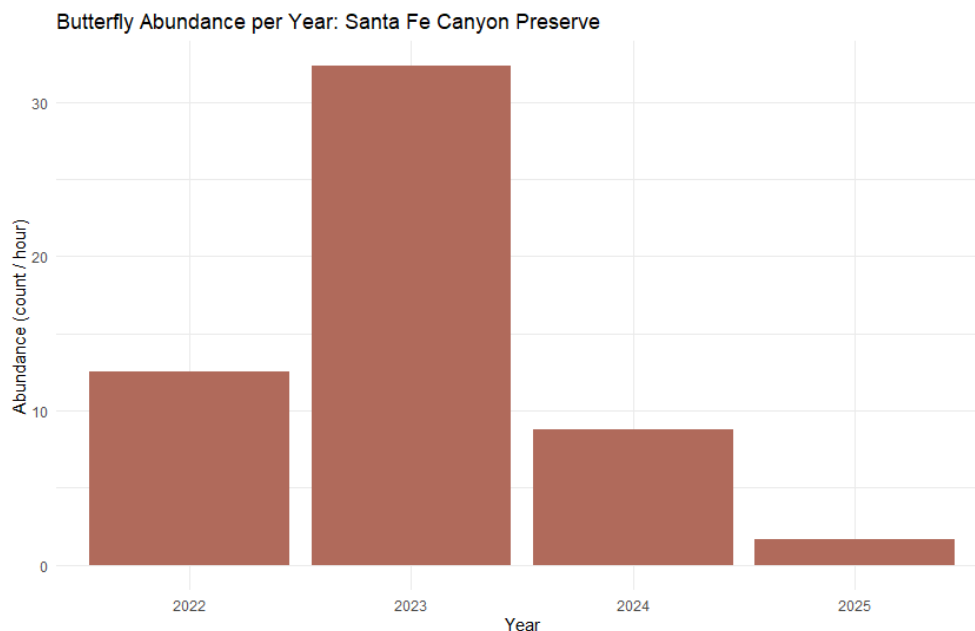


FIGURE 18 INDEX OF ABUNDANCE AT SANTA FE CANYON PRESERVE DURING YEARS SURVEYED BETWEEN 2020-2025.

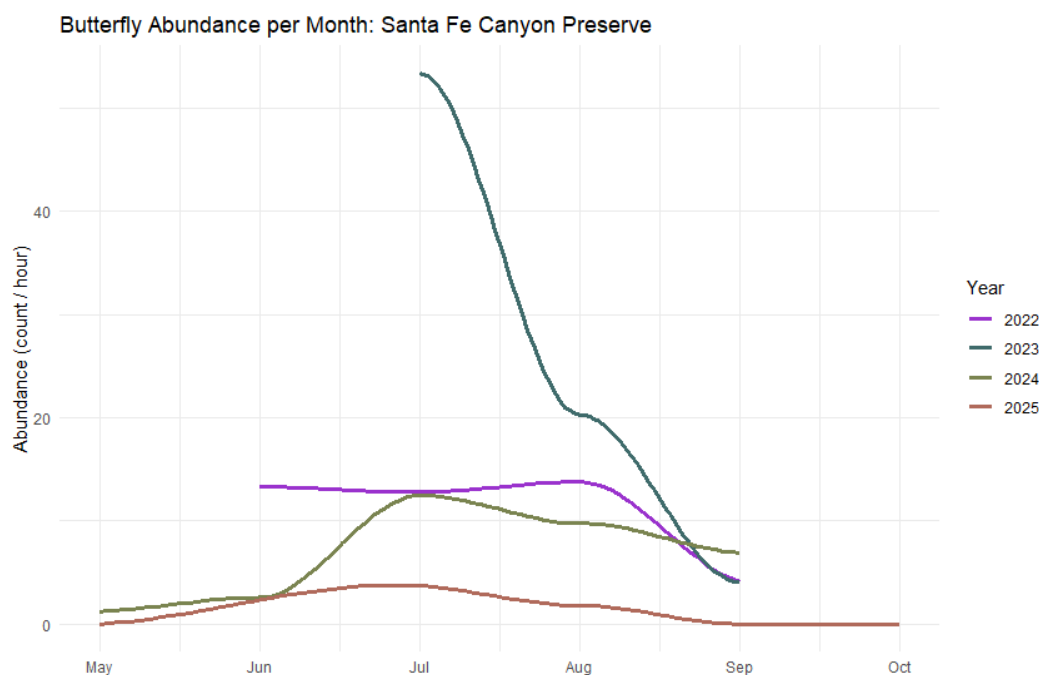


FIGURE 19 INDEX OF ABUNDANCE PER MONTH AT SANTA FE CANYON PRESERVE ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 8 SPECIES RECORDED ON THE SANTA FE CANYON PRESERVE ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Dun Skipper (<i>Euphyes vestris</i>) - 1 Edwards' Skipperling (<i>Oarisma edwardsii</i>) - 1 Funereal Duskywing (<i>Erynnis funeralis</i>) - 1 Garita Skipperling (<i>Oarisma garita</i>) - 2 Taxiles Skipper (<i>Polites taxiles</i>) - 11 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 18 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 9 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 1 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 6 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 40	Common Wood-Nymph (<i>Cercyonis pegala</i>) - 4 Field Crescent (<i>Phyciodes pulchella</i>) - 5 Hoary Comma (<i>Polygonia gracilis</i>) - 5 Monarch (<i>Danaus plexippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 48 Pearl Crescent (<i>Phyciodes tharos</i>) - 1 unidentified crescent (<i>Phyciodes</i> sp.) - 2 unidentified Fritillary (<i>Fritillaria</i> sp.) - 2 unidentified greater fritillary (<i>Speyeria</i> sp.) - 1 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 13 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 6
Family: Lycaenidae	Family: Pieridae
Echo Azure (<i>Celastrina echo</i>) - 1 Gray Hairstreak (<i>Strymon melinus</i>) - 5 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 9 Lupine Blue (<i>Plebejus lupini</i>) - 1 Marine Blue (<i>Leptotes marina</i>) - 23 Reakirt's Blue (<i>Echinargus isola</i>) - 23 unidentified blue (<i>Polyommata</i> sp.) - 20 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 22	Checkered White (<i>Pontia protodice</i>) - 8 Clouded Sulphur (<i>Colias philodice</i>) - 8 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 19 Dainty Sulphur (<i>Nathalis iole</i>) - 14 Orange Sulphur (<i>Colias eurytheme</i>) - 2 unidentified sulphur (<i>Coliinae</i> sp.) - 31 unidentified white (<i>Pierinae</i> sp.) - 16
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 1 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 22	None

Sugarite Canyon State Park: Little Horse Mesa

Region: Southern Rockies **Ecoregion:** Sedimentary Mid-elevation Forests

Start: 36.978456°, -104.396728°, elevation 7959 ft. **End:** 36.987881°, -104.405953°, elevation 8241 ft.

Length: 1.36 miles

First Survey Year: 2025

Status: Active

Route Overview:

This route is within Sugarite Canyon State Park, in Colfax County. The site is within the Sedimentary Mid-Elevation Forests ecoregion of the Southern Rockies, which occurs from about 7,500 to 10,000 feet in elevation. Forests in this ecoregion are primarily comprised of ponderosa pine and Douglas-fir, with large areas of Gambel oak woodlands. Carbonate substrates in some areas affect water quality, hydrology, and biota, and overall, the soils tend to be quite fine-textured. With a variety of habitats, such as piñon-juniper and ponderosa pine forest, oak shrubland, and montane riparian systems, Sugarite Canyon State Park supports a diversity of wildlife.



Route History:

Surveys began on this route in 2025. No changes to the route have been noted.

Route Statistics:

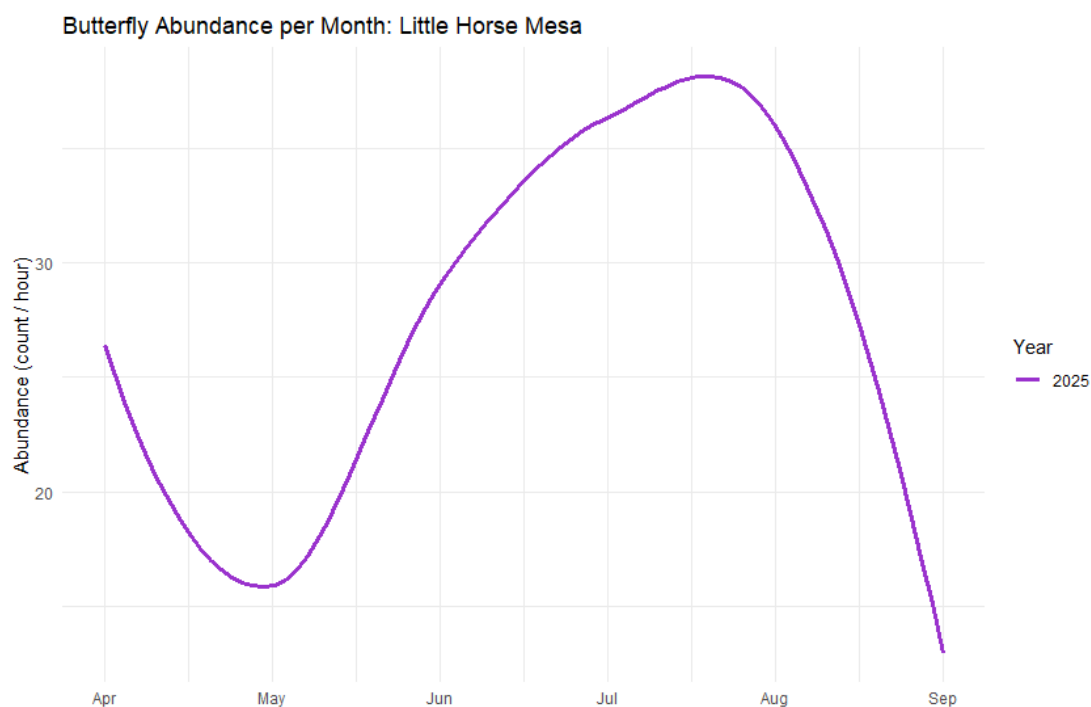


FIGURE 20 INDEX OF ABUNDANCE PER MONTH AT LITTLE HORSE MESA ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 9 SPECIES RECORDED ON THE LITTLE HORSE MESA ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Common Roadside-Skipper (<i>Amblyscirtes vialis</i>) - 2 Common Sootywing (<i>Pholisora catullus</i>) - 3 Dreamy Duskywing (<i>Erynnis icelus</i>) - 1 Garita Skipperling (<i>Oarisma garita</i>) - 1 Orange-headed Roadside-Skipper (<i>Amblyscirtes phylace</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 5 Russet Skipperling (<i>Piruna pirus</i>) - 2 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 20 unidentified duskywing (<i>Erynnis</i> sp.) - 7 unidentified grass skipper (<i>Hesperinae</i> sp.) - 13 Unidentified Sootywing (<i>Unidentified Pholisora</i> sp.) - 1 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 9	American Lady (<i>Vanessa virginiensis</i>) - 1 Aphrodite Fritillary (<i>Speyeria aphrodite</i>) - 2 Common Ringlet (<i>Coenonympha tullia</i>) - 2 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 1 Field Crescent (<i>Phyciodes pulchella</i>) - 1 Hoary Comma (<i>Polygonia gracilis</i>) - 1 Milbert's Tortoiseshell (<i>Aglais milberti</i>) - 50 Mourning Cloak (<i>Nymphalis antiopa</i>) - 1 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 2 Northwestern Fritillary (<i>Speyeria hesperis</i>) - 1 Pearl Crescent (<i>Phyciodes tharos</i>) - 1 Red Admiral (<i>Vanessa atalanta</i>) - 1 unidentified anglewing (<i>Polygonia</i> sp.) - 3 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 3 unidentified crescent (<i>Phyciodes</i> sp.) - 1 unidentified Fritillary (<i>Fritillaria</i> sp.) - 5 unidentified greater fritillary (<i>Speyeria</i> sp.) - 19 unidentified lady (<i>Vanessa</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 5
Family: Lycaenidae	Family: Pieridae
Boisduval's Blue (<i>Plebejus icarioides</i>) - 4 Echo Azure (<i>Celastrina echo</i>) - 7 Gray Hairstreak (<i>Strymon melinus</i>) - 1 Melissa Blue (<i>Plebejus melissa</i>) - 3 Reakirt's Blue (<i>Echinargus isola</i>) - 3 unidentified blue (<i>Polyommata</i> sp.) - 12 Western Pine Elfin (<i>Callophrys eryphon</i>) - 1	Checkered White (<i>Pontia protodice</i>) - 6 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 8 Dainty Sulphur (<i>Nathalis iole</i>) - 17 Orange Sulphur (<i>Colias eurytheme</i>) - 14 Sleepy Orange (<i>Abaeis nicippe</i>) - 6 unidentified sulphur (<i>Coliinae</i> sp.) - 5 unidentified white (<i>Pierinae</i> sp.) - 8
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 8 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 1	None

Jemez Mountains: Upper Water Canyon Trail

Region: Southern Rockies **Ecoregion:** Volcanic Mid-elevation Forests

Start: 35.842198°, -106.371272°, elevation 7815 ft. **End:** 35.837551°, -106.360088°, elevation 7555 ft.

Length: 0.97 miles

First Survey Year: 2021

Status: Active

Route Overview:

This site is a semiarid foothill canyon, draining the east slope of Cerro Grande, which is a 10,207 foot mountain in the rim of Valles Caldera. In 2000, there was a large fire in the area which burned some of the canyon slopes along the route. Several post-fire flood events have deepened the water channel in places and created a large boulder pile up along part of the trail. This route passes through shady conifer forests, burned woodlands, and grassy meadows. Water runs year-round through some parts of the canyon. This site is within the Santa Fe National Forest, and is a natural, unmanaged site, not far from the small urban area of Los Alamos.



Route History:

Surveys started on this route in 2021. The route was closed briefly in June of 2022 due to the nearby Cerro Pelado Fire, though ultimately the fire did not damage the route. The same pair of monitors have surveyed the route throughout its history.

Route Statistics:

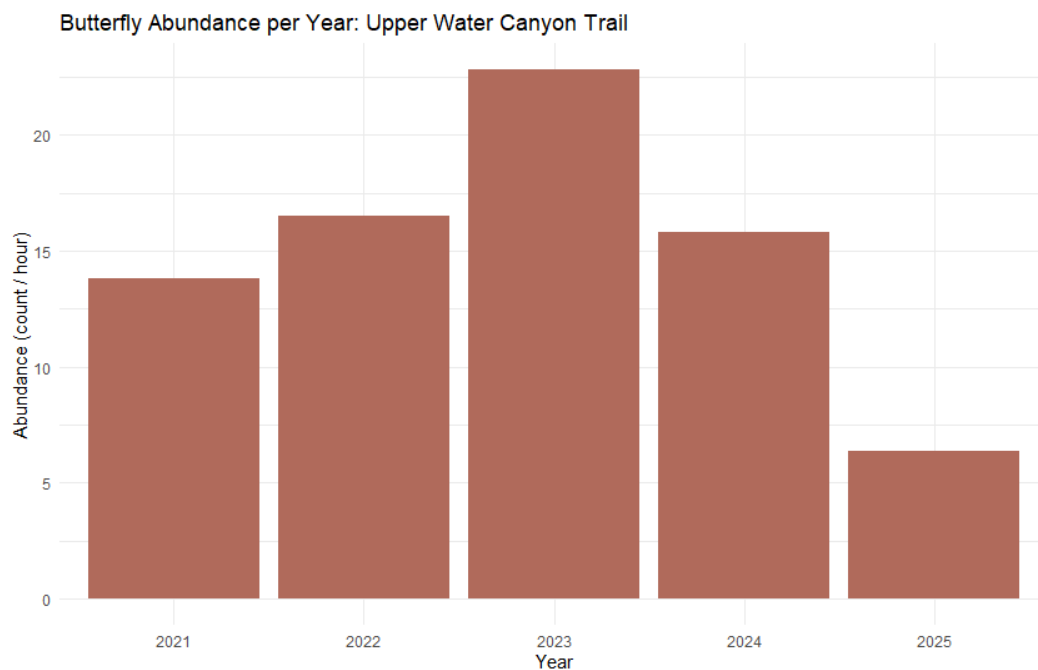


FIGURE 21 INDEX OF ABUNDANCE AT UPPER WATER CANYON TRAIL DURING YEARS SURVEYED BETWEEN 2020-2025.

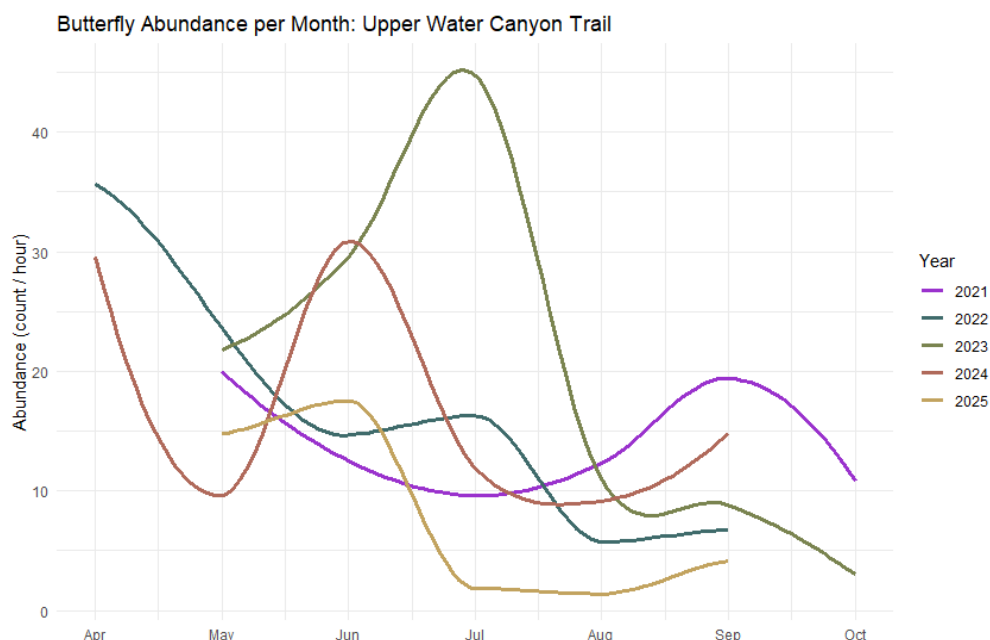


FIGURE 22 INDEX OF ABUNDANCE PER MONTH AT UPPER WATER CANYON TRAIL ACROSS YEARS SURVEYED.

TABLE 10 SPECIES RECORDED ON UPPER WATER CANYON TRAIL, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 1 Northern Cloudywing (<i>Thorybes pylades</i>) - 3 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 28 Russet Skipperling (<i>Piruna pirus</i>) - 69 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 11 Sleepy Duskywing (<i>Erynnis brizo</i>) - 1 Taxiles Skipper (<i>Poanes taxiles</i>) - 30 unidentified cloudywing (<i>Thorybes</i> sp.) - 2 unidentified duskywing (<i>Erynnis</i> sp.) - 36 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 1	Arizona Sister (<i>Adelpha eulalia</i>) - 1 Field Crescent (<i>Phyciodes pulchella</i>) - 10 Hoary Comma (<i>Polygonia gracilis</i>) - 2 Milbert's Tortoiseshell (<i>Aglais milberti</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 17 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 7 Painted Crescent (<i>Phyciodes picta</i>) - 8 Painted Lady (<i>Vanessa cardui</i>) - 7 Pearl Crescent (<i>Phyciodes tharos</i>) - 1 Red Admiral (<i>Vanessa atalanta</i>) - 1 Satyr Comma (<i>Polygonia satyrus</i>) - 10 Silvery Checkerspot (<i>Chlosyne nycteis</i>) - 6 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 10 unidentified crescent (<i>Phyciodes</i> sp.) - 11 unidentified Fritillary (<i>Fritillaria</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 1 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 8
Family: Lycaenidae	Family: Pieridae
Echo Azure (<i>Celastrina echo</i>) - 88 Gray Hairstreak (<i>Strymon melinus</i>) - 1 Marine Blue (<i>Leptotes marina</i>) - 124 Reakirt's Blue (<i>Echinargus isola</i>) - 3 unidentified Azure (<i>Celastrina</i> sp.) - 5 unidentified blue (<i>Polyommata</i> sp.) - 35 Western Green Hairstreak (<i>Callophrys affinis</i>) - 2 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 1 Western Tailed-Blue (<i>Cupido amyntula</i>) - 1	Checkered White (<i>Pontia protodice</i>) - 17 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 11 Dainty Sulphur (<i>Nathalis iole</i>) - 128 Orange Sulphur (<i>Colias eurytheme</i>) - 15 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 13 unidentified sulphur (<i>Coliinae</i> sp.) - 12 unidentified white (<i>Pierinae</i> sp.) - 12
Family: Papilionidae	Family: Riodinidae
Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 78	Nais Metalmark (<i>Apodemia nais</i>) - 1

Jemez Mountains: Las Conchas Trail #137

Region: Southern Rockies **Ecoregion:** Volcanic Mid-elevation Forests

Start: 35.815199°, -106.532989°, elevation 8417 ft. **End:** 35.822208°, -106.547552°, elevation 8354 ft.

Length: 1.27 miles

First Survey Year: 2022

Status: Active

Route Overview:

This route, Las Conchas Trail, meanders along the East Fork of the Jemez River through open meadows, and mixed-conifer woodlands in a steep rocky canyon. There is a diversity of plant and animal life. This trail is within the Santa Fe National Forest and is adjacent to the boundary for Valles Caldera National Preserve.

Route History:

Surveys started on this route in 2022. The route was closed briefly in June of 2022 due to the nearby Cerro Pelado Fire, though the route itself was not impacted. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.



Route Statistics:

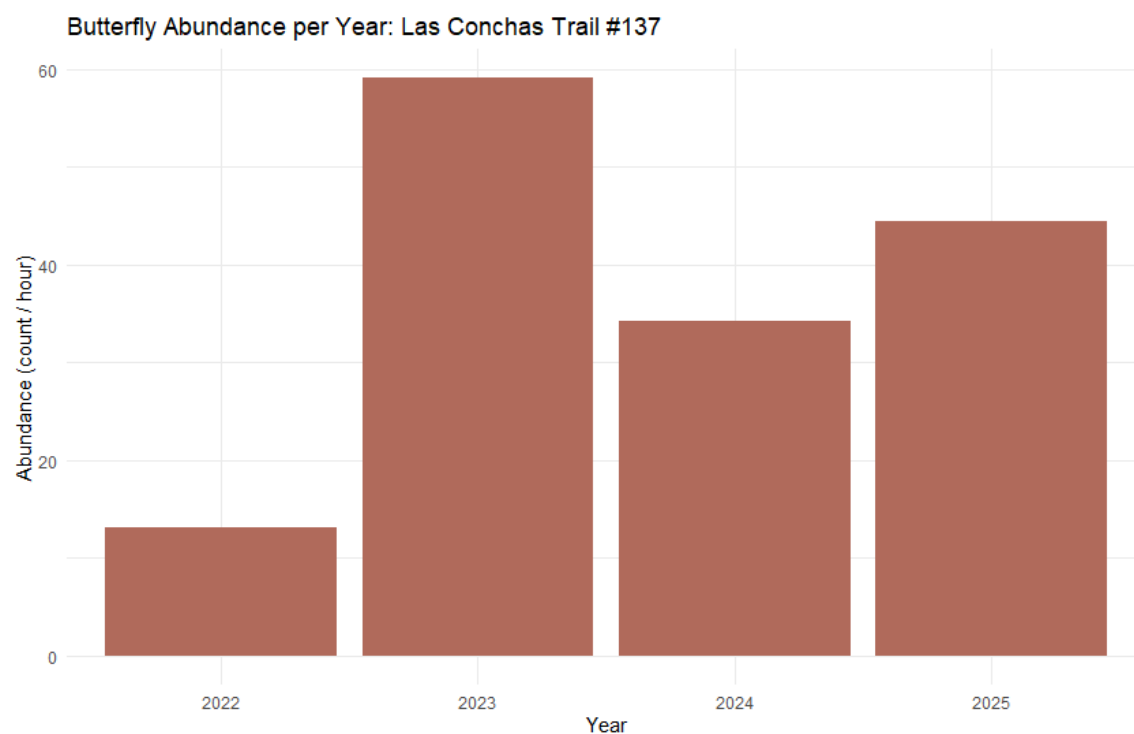


FIGURE 23 INDEX OF ABUNDANCE AT LAS CONCHAS TRAIL #137 DURING YEARS SURVEYED BETWEEN 2020-2025.

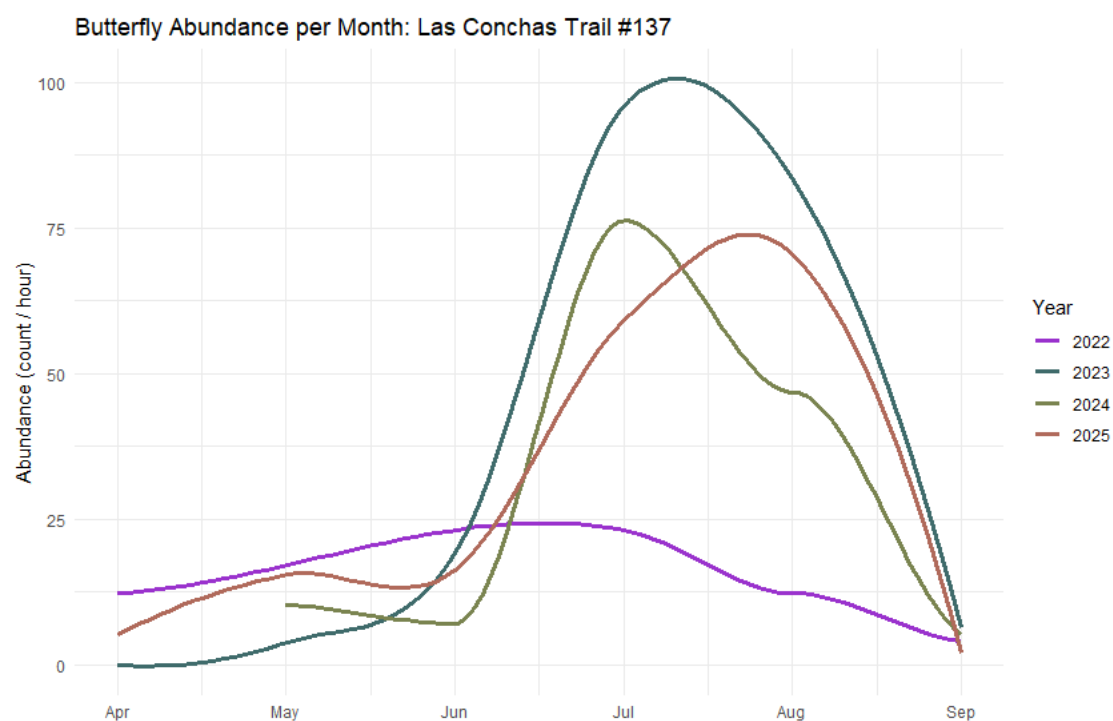


FIGURE 24 INDEX OF ABUNDANCE PER MONTH AT LAS CONCHAS TRAIL #137 ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 11 SPECIES RECORDED ON THE LAS CONCHAS TRAIL #137 ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Garita Skipperling (<i>Oarisma garita</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 2 Russet Skipperling (<i>Piruna pirus</i>) - 1 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 6 Taxiles Skipper (<i>Poanes taxiles</i>) - 96 unidentified cloudywing (<i>Thorybes</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 9	American Lady (<i>Vanessa virginiensis</i>) - 8 Arizona Sister (<i>Adelpha eulalia</i>) - 2 Atlantis Fritillary (<i>Speyeria atlantis</i>) - 21 Field Crescent (<i>Phyciodes pulchella</i>) - 4 Great Spangled Fritillary (<i>Speyeria cybele</i>) - 198 Hoary Comma (<i>Polygonia gracilis</i>) - 97 Milbert's Tortoiseshell (<i>Aglais milberti</i>) - 5 Monarch (<i>Danaus plexippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 64 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 1 Painted Lady (<i>Vanessa cardui</i>) - 185 Queen (<i>Danaus gilippus</i>) - 2 Red Admiral (<i>Vanessa atalanta</i>) - 5 Silvery Checkerspot (<i>Chlosyne nycteis</i>) - 4 Small Wood-Nymph (<i>Cercyonis oetus</i>) - 31 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 1 unidentified crescent (<i>Phyciodes</i> sp.) - 1 unidentified Fritillary (<i>Fritillary</i> sp.) - 472 unidentified greater fritillary (<i>Speyeria</i> sp.) - 86 unidentified lady (<i>Vanessa</i> sp.) - 27 Variegated Fritillary (<i>Euptoieta claudia</i>) - 2 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 54
Family: Lycaenidae	Family: Pieridae
Arctic Blue (<i>Plebejus glandon</i>) - 1 Echo Azure (<i>Celastrina echo</i>) - 22 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 1 Purplish Copper (<i>Lycaena helloides</i>) - 1 Tailed Copper (<i>Lycaena arota</i>) - 30 unidentified Azure (<i>Celastrina</i> sp.) - 2 unidentified blue (<i>Polyommata</i> sp.) - 5	Cabbage White (<i>Pieris rapae</i>) - 2 Checkered White (<i>Pontia protodice</i>) - 2 Clouded Sulphur (<i>Colias philodice</i>) - 1 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 1 Dainty Sulphur (<i>Nathalis iole</i>) - 1 Margined White (<i>Pieris marginalis</i>) - 1 Orange Sulphur (<i>Colias eurytheme</i>) - 9 Pine White (<i>Neophasia menapia</i>) - 2 unidentified sulphur (<i>Coliinae</i> sp.) - 8 unidentified white (<i>Pierinae</i> sp.) - 9
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 1 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 11 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 20	None

Middle Rio Grande Bosque: ABQ BioPark Botanic Garden

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.093258°, -106.682031°, elevation 4955 ft. **End:** 35.093258°, -106.682031°, elevation 4953 ft.

Length: 1.26 miles

First Survey Year: 2021

Status: Active

Route Overview:

Opened in 1996, the Botanic Garden at the ABQ BioPark has 32 acres of exhibits, showcasing plants from the American Southwest and around the world. This route travels along the main route through the garden and passes through several areas where pollinators are concentrated. The route also wanders through Heritage Farm, which contains a cultivated garden and a crop field, as well as the Cottonwood Gallery, which is a cottonwood gallery forest in the floodplain of the Rio Grande.



Route History:

Surveys started on this route in 2021. No changes to the route were noted in 2022. In 2023, construction within the Heritage Farm area of the Botanic Garden impacted Habitats C and D, which were unable to be surveyed throughout the season. In 2024, access to Habitat D was possible and surveys were carried out on this section of the route, however, construction continued to impact Habitat C. Also in 2024, an event pavilion was constructed adjacent to Habitat A, which directly affected the route slightly and disturbed the surrounding area slightly as well. The same monitor has surveyed this route throughout its history.

Route Statistics:

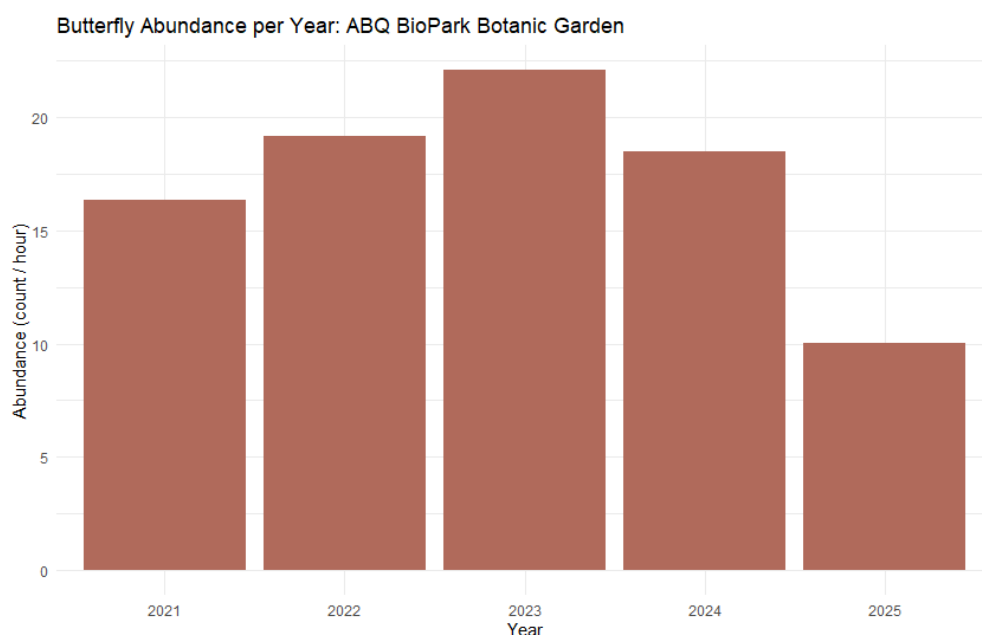


FIGURE 25 INDEX OF ABUNDANCE AT ABQ BIOPARK BOTANIC GARDEN DURING YEARS SURVEYED BETWEEN 2020-2025.

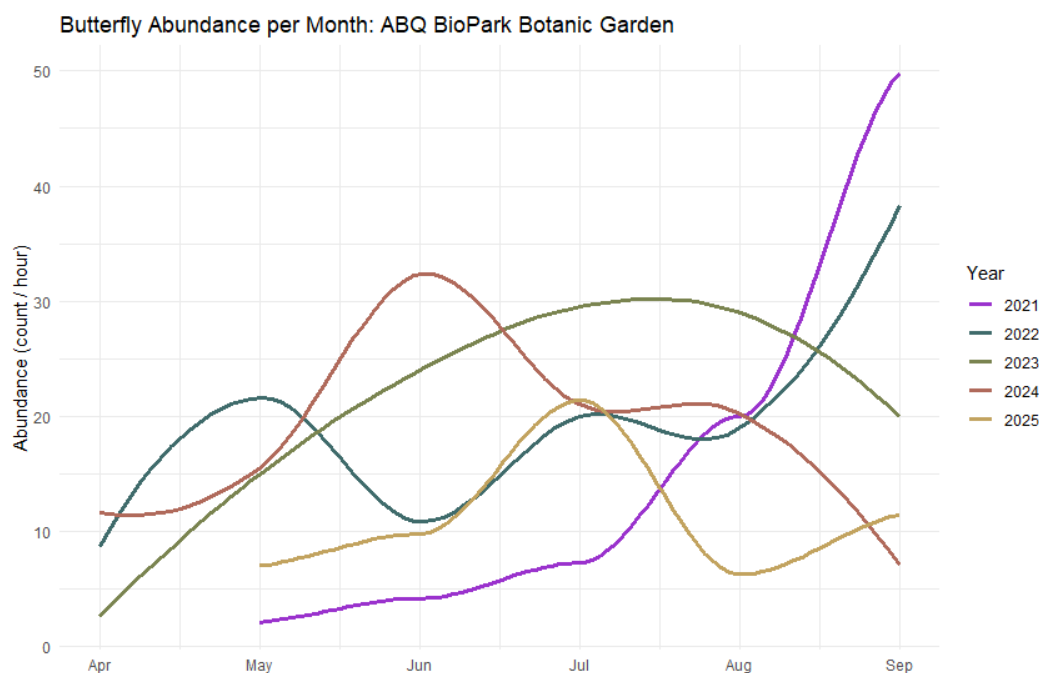


FIGURE 26 INDEX OF ABUNDANCE PER MONTH AT ABQ BIOPARK BOTANIC GARDEN ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 12 SPECIES RECORDED ON THE ABQ BIOPARK BOTANIC GARDEN ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Fiery Skipper (<i>Hylephila phyleus</i>) - 14 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 1 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 1	Common Buckeye (<i>Junonia coenia</i>) - 1 Monarch (<i>Danaus plexippus</i>) - 2 Mourning Cloak (<i>Nymphalis antiopa</i>) - 6 Painted Lady (<i>Vanessa cardui</i>) - 36 Pearl Crescent (<i>Phyciodes tharos</i>) - 13 Queen (<i>Danaus gilippus</i>) - 1 unidentified anglewing (<i>Polygonia</i> sp.) - 1 unidentified buckeye (<i>Junonia</i> sp.) - 1 unidentified crescent (<i>Phyciodes</i> sp.) - 7 unidentified lady (<i>Vanessa</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 2
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 2 Marine Blue (<i>Leptotes marina</i>) - 12 Reakirt's Blue (<i>Echinargus isola</i>) - 1 unidentified blue (<i>Polyommata</i> sp.) - 76 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 34	Cabbage White (<i>Pieris rapae</i>) - 257 Checkered White (<i>Pontia protodice</i>) - 7 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 64 Dainty Sulphur (<i>Nathalis iole</i>) - 9 unidentified sulphur (<i>Coliinae</i> sp.) - 45 unidentified white (<i>Pierinae</i> sp.) - 29
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 1 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 24	None

Middle Rio Grande Bosque: ABQ Open Space Visitors Center

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.164988°, -106.672986°, elevation 4989 ft. **End:** 35.164994°, -106.673802°, elevation 4994 ft.

Length: 1.25 miles

First Survey Year: 2022

Status: Active

Route Overview:

The City of Albuquerque Open Space Visitors Center manages 18 acres of land adjacent to the Albuquerque Bosques and Rio Grande River. The land was once primarily agricultural fields and now is a combination of fields managed for wildlife and cultivated spaces. Though many native plants are grown and showcased, the managed areas also include small plots of vegetables and herbs as well as fruit trees. The fields cultivated for wildlife include rotations of corn, sorghum, millet and alfalfa that feed migratory birds such as the Sandhill Crane. Many of the plantings specifically target pollinators, and there is a high amount of plant diversity in the cultivated areas along the route. In addition, the route includes sections through native shrub scrub and along an acequia at the edge of the Rio Grande Bosque.



Photo: Renee Robillard

Route History:

Surveys started on this route in 2022. The route has remained mostly unchanged throughout its history and the same monitor has surveyed the route throughout. Some small changes have been noted. The cultivated fields in Habitat E used to be a rotation of crops such as sorghum and millet, but now native plants are prioritized. In addition, the acequia in Habitat F, which once had water, is now completely dry and filled with plant life, including several young cottonwoods and ample weeds. The bank of the acequia (east side of the route), which used to have many plants that attracted butterflies, has been mowed down to bare dirt.

Route Statistics:

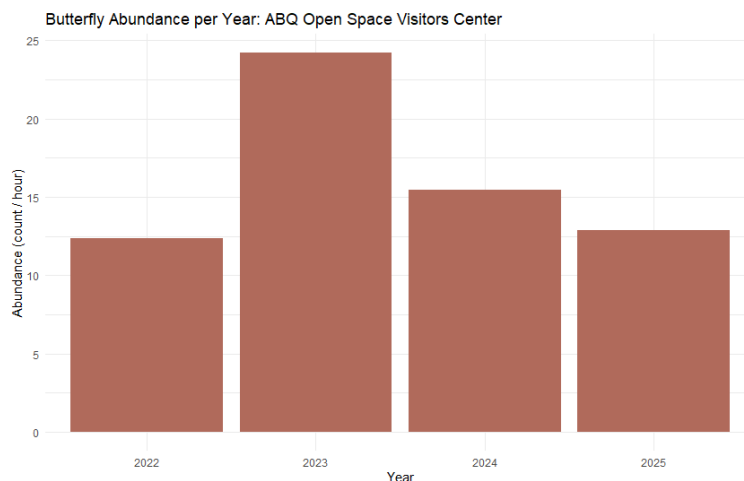


FIGURE 27 INDEX OF ABUNDANCE AT ABQ OPEN SPACE VISITORS CENTER DURING YEARS SURVEYED.

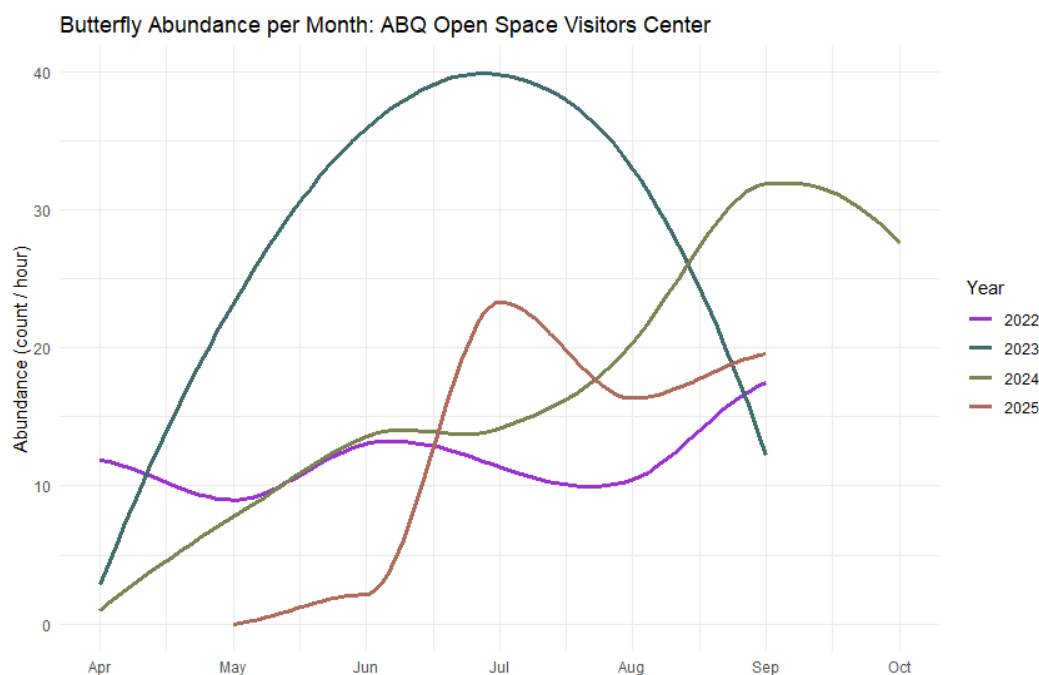


FIGURE 28 INDEX OF ABUNDANCE PER MONTH AT ABQ OPEN SPACE VISITORS CENTER ACROSS YEARS.

TABLE 13 SPECIES RECORDED AT ABQ OPEN SPACE VISITORS CENTER, INCLUDING THE TOTAL NUMBER OBSERVED.

Family: Hesperiidae	Family: Nymphalidae
Fiery Skipper (<i>Hylephila phyleus</i>) - 12 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 50	Bordered Patch (<i>Chlosyne lacinia</i>) - 98 Common Buckeye (<i>Junonia coenia</i>) - 43 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 2 Gray Buckeye (<i>Junonia grisea</i>) - 21 Monarch (<i>Danaus plexippus</i>) - 3 Mourning Cloak (<i>Nymphalis antiopa</i>) - 1 Painted Lady (<i>Vanessa cardui</i>) - 24 Pearl Crescent (<i>Phyciodes tharos</i>) - 2 Queen (<i>Danaus gilippus</i>) - 9 Red Admiral (<i>Vanessa atalanta</i>) - 1 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 2 unidentified crescent (<i>Phyciodes</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 1 Viceroy (<i>Limenitis archippus</i>) - 1
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 8 Great Purple Hairstreak (<i>Atlides halesus</i>) - 2 Marine Blue (<i>Leptotes marina</i>) - 183 Melissa Blue (<i>Plebejus melissa</i>) - 1 Reakirt's Blue (<i>Echinargus isola</i>) - 5 unidentified blue (<i>Polyommata</i> sp.) - 58 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 208 Western Tailed-Blue (<i>Cupido amyntula</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 121 Checkered White (<i>Pontia protodice</i>) - 29 Dainty Sulphur (<i>Nathalis iole</i>) - 36 Orange Sulphur (<i>Colias eurytheme</i>) - 156 Sleepy Orange (<i>Abaeis nicippe</i>) - 1 Southern Dogface (<i>Zerene cesonia</i>) - 1 unidentified sulphur (<i>Coliinae</i> sp.) - 23 unidentified white (<i>Pierinae</i> sp.) - 91
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 7 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 3 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 1	None

Middle Rio Grande Bosque: Bachechi Open Space

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.194537°, -106.637382°, elevation 4998 ft. **End:** 35.194505°, -106.638831°, elevation 4998 ft.

Length: 0.91 miles

First Survey Year: 2021

Status: Active

Route Overview:

The Bachechi Open Space is adjacent to the Rio Grande Bosque, situated alongside an acequia. This property has a long history as a farm, stable, and nursery. Since the county purchased the property, restoration efforts have been underway to create a multipurpose recreational and environmental educational space. Habitats include xeric and native landscaping, an expanded pecan tree orchard, a rose garden, and an expanded wetland. This is a managed, restored site, surrounded by an urban center. It is owned and managed by Bernalillo County Open Space.



Route History:

Surveys started on this route in 2021. No changes to the route have been noted. One monitor ran surveys in 2021, the route was not surveyed in 2022, and a second monitor surveyed the route from 2023 through 2025.

Route Statistics:

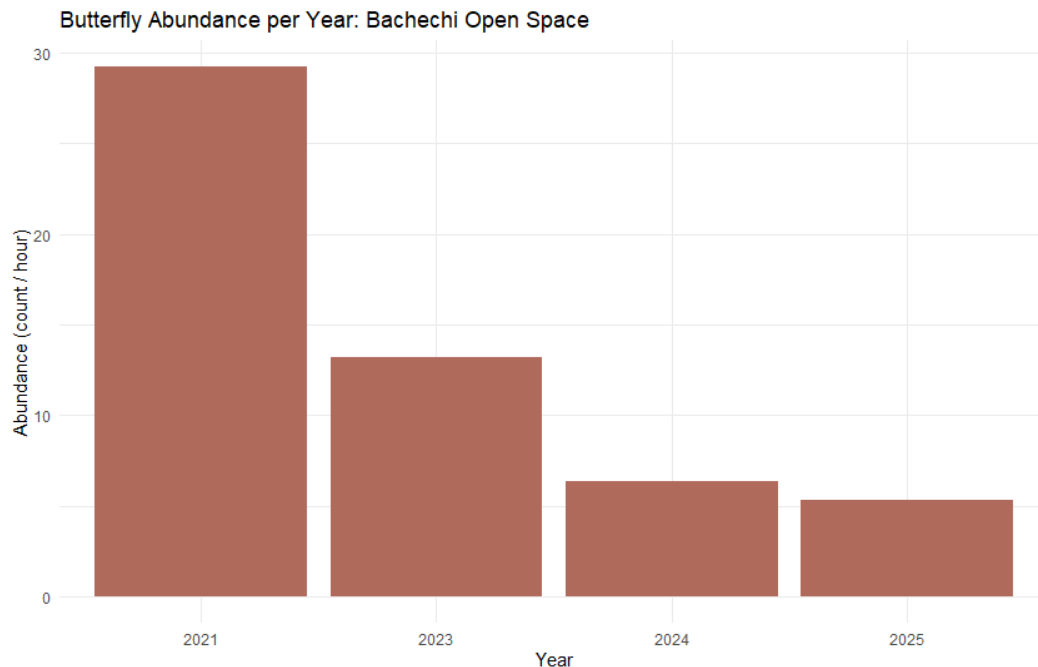


FIGURE 29 INDEX OF ABUNDANCE AT BACHECHI OPEN SPACE DURING YEARS SURVEYED BETWEEN 2020-2025.

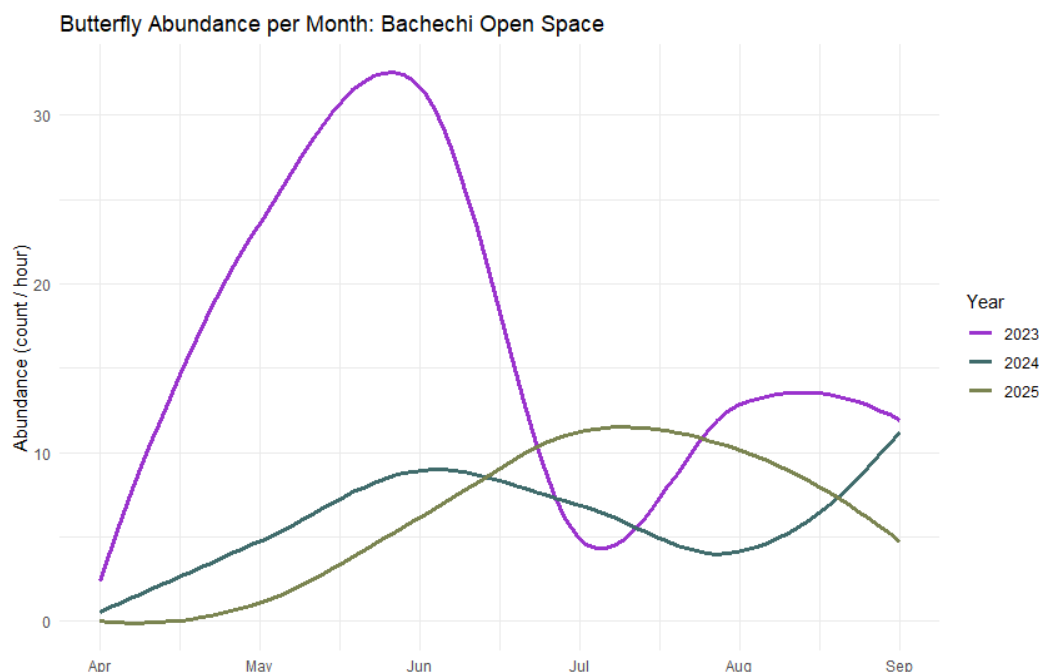


FIGURE 30 INDEX OF ABUNDANCE PER MONTH AT BACHECHI OPEN SPACE ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 14 SPECIES RECORDED ON THE BACHECHI OPEN SPACE ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Fiery Skipper (<i>Hylephila phyleus</i>) - 23 unidentified duskywing (<i>Erynnis</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 14	Gray Buckeye (<i>Junonia grisea</i>) - 1 Monarch (<i>Danaus plexippus</i>) - 2 Mourning Cloak (<i>Nymphalis antiopa</i>) - 7 Painted Lady (<i>Vanessa cardui</i>) - 17 Queen (<i>Danaus gilippus</i>) - 1
Family: Lycaenidae	Family: Pieridae
Brown Elfin (<i>Callophrys augustinus</i>) - 2 Gray Hairstreak (<i>Strymon melinus</i>) - 6 Marine Blue (<i>Leptotes marina</i>) - 58 Reakirt's Blue (<i>Echinargus isola</i>) - 8 unidentified blue (<i>Polyommata</i> sp.) - 20 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 66	Cabbage White (<i>Pieris rapae</i>) - 191 Checkered White (<i>Pontia protodice</i>) - 11 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 3 Orange Sulphur (<i>Colias eurytheme</i>) - 29 Sleepy Orange (<i>Abaeis nicippe</i>) - 1 unidentified sulphur (<i>Coliinae</i> sp.) - 33 unidentified white (<i>Pierinae</i> sp.) - 99
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 10 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 4	Mexican Metalmark (<i>Apodemia mejicanus</i>) - 5

Middle Rio Grande Bosque: Bosque adjacent to the Rio Grande Nature Center

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.129227°, -106.685828°, elevation 4967 ft. **End:** 35.130942°, -106.685059°, elevation 4968 ft.

Length: 1.25 miles

First Survey Year: 2021

Status: Active

Route Overview:

This route is within the Albuquerque Bosque, a unique gallery forest ecosystem, consisting of a cottonwood overstory, and a coyote willow, New Mexico olive, false indigo, and seepwillow understory. This loop includes mowed and unmowed sections along an acequia, a couple stretches of cottonwood gallery forest, as well as a section directly adjacent to the main river course, which is more open than the gallery forest and contains diverse vegetation, such as willows and grasses. This is a natural, yet disturbed and partially managed site, surrounded by an urban center. It is owned and managed by ABQ Open Space.



Route History: Surveys started on this route in 2021. No changes are noted. However, mowed and unmowed habitats along the acequia, both get mowed, though not at the same time. They remain separate habitats to capture these differences. One monitor surveyed the route in 2021 and a second monitor has run surveys since.

Route Statistics:

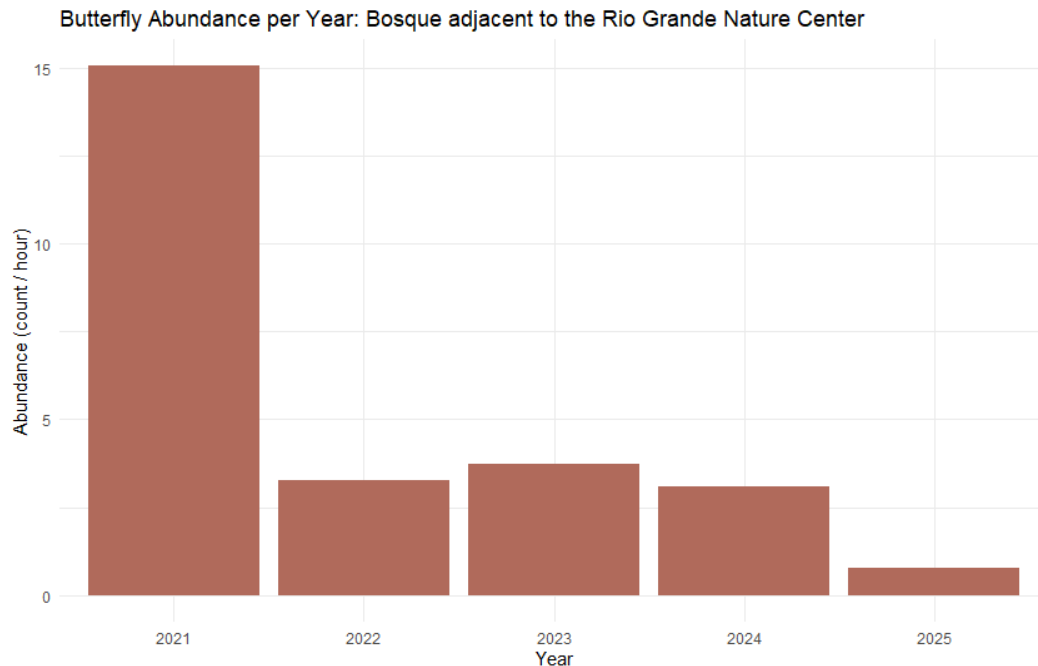


FIGURE 31 INDEX OF ABUNDANCE AT BOSQUE ADJACENT TO THE RIO GRANDE NATURE CENTER DURING YEARS SURVEYED BETWEEN 2020-2025.

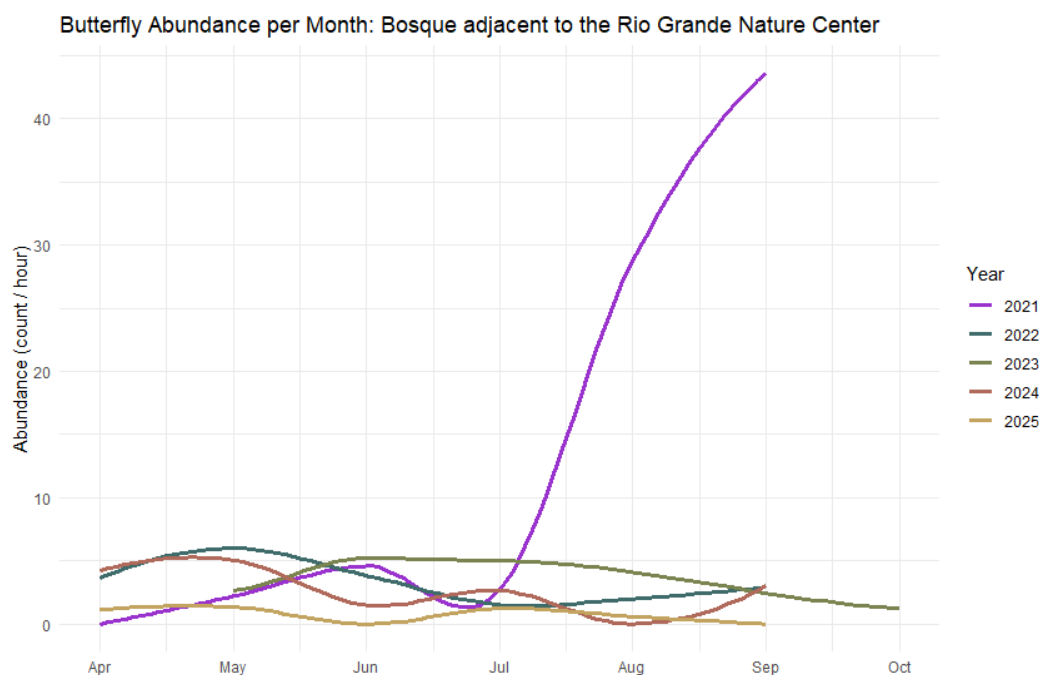


FIGURE 32 INDEX OF ABUNDANCE PER MONTH AT BOSQUE ADJACENT TO THE RIO GRANDE NATURE CENTER ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 15 SPECIES RECORDED ON THE BOSQUE ADJACENT TO THE RIO GRANDE NATURE CENTER ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Tropical Least Skipper (<i>Ancyloxypha arene</i>) - 3 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 10 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 4	American Lady (<i>Vanessa virginiensis</i>) - 1 Monarch (<i>Danaus plexippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 6 Painted Crescent (<i>Phyciodes picta</i>) - 3 Painted Lady (<i>Vanessa cardui</i>) - 1 Pearl Crescent (<i>Phyciodes tharos</i>) - 134 Queen (<i>Danaus gilippus</i>) - 10 Red Admiral (<i>Vanessa atalanta</i>) - 2 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 1 unidentified crescent (<i>Phyciodes</i> sp.) - 2 unidentified Fritillary (<i>Fritillary</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 1 Viceroy (<i>Limenitis archippus</i>) - 1
Family: Lycaenidae	Family: Pieridae
Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 1 Great Purple Hairstreak (<i>Atlides halesus</i>) - 1 Marine Blue (<i>Leptotes marina</i>) - 2 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 70	Cabbage White (<i>Pieris rapae</i>) - 9 Checkered White (<i>Pontia protodice</i>) - 27 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 1 Cloudless Sulphur (<i>Phoebis sennae</i>) - 2 Dainty Sulphur (<i>Nathalis iole</i>) - 23 Orange Sulphur (<i>Colias eurytheme</i>) - 7 unidentified sulphur (<i>Coliinae</i> sp.) - 25 unidentified white (<i>Pierinae</i> sp.) - 12
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 9 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 6 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 3	unidentified metalmark (<i>Riodinidae</i> sp.) - 2

Middle Rio Grande Bosque: Corrales Bosque Preserve from Romero Road

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.256037°, -106.595929°, elevation 5024 ft. **End:** 35.255995°, -106.595854°, elevation 5024 ft.

Length: 1.82 miles

First Survey Year: 2022

Status: Active

Route Overview:

The Corrales Bosque Preserve is situated along the Rio Grande Bosque and contains many riparian habitats that are important for wildlife communities in the arid Southwest. Birds such as the Endangered Southwestern Willow Flycatcher and the Western yellow-billed Cuckoo, a species of conservation concern, migrate through preserve. The preserve was designated an Important Bird Area (IBA) in 2013. The preserve is owned by the Middle Rio Grande Conservation District (MRGCD) and is jointly managed by the MRGCD and the Village of Corrales, in Sandoval County.



Route History:

Surveys started on this route in 2022. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.

Route Statistics:

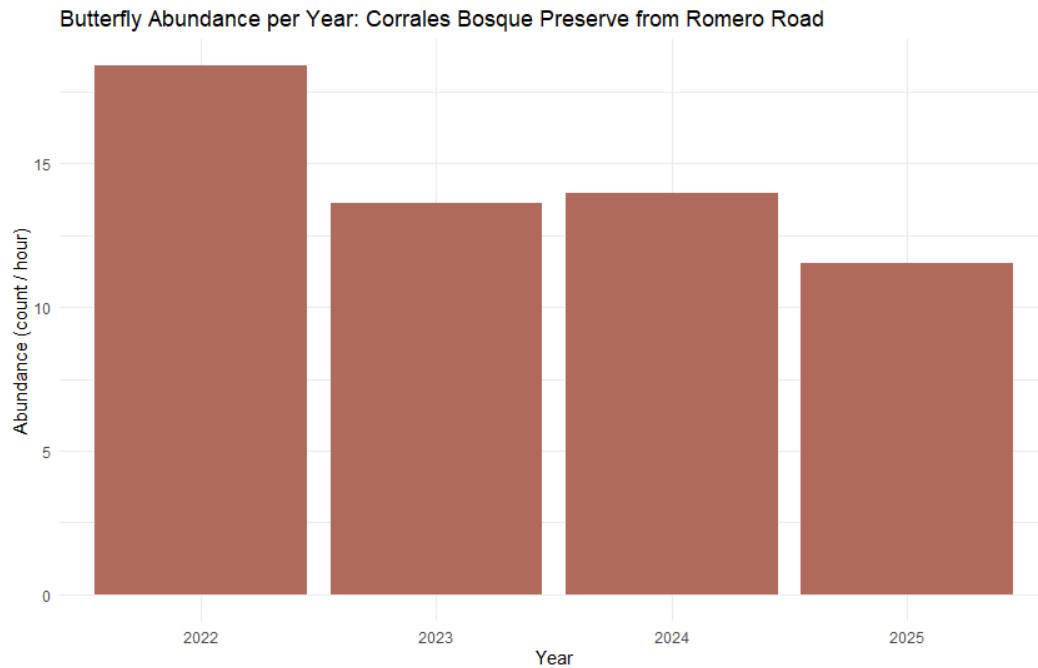


FIGURE 33 INDEX OF ABUNDANCE AT CORRALES BOSQUE PRESERVE FROM ROMERO ROAD DURING YEARS SURVEYED BETWEEN 2020-2025.

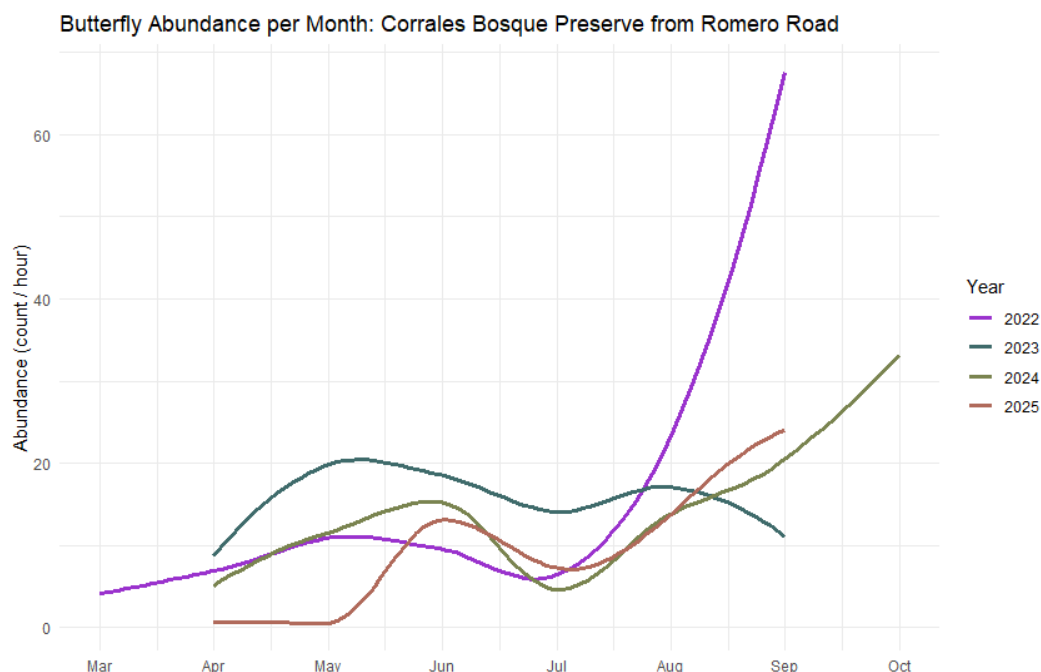


FIGURE 34 INDEX OF ABUNDANCE PER MONTH AT CORRALES BOSQUE PRESERVE FROM ROMERO ROAD ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 16 SPECIES RECORDED ON THE CORRALES BOSQUE PRESERVE FROM ROMERO ROAD ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 3 Dotted Roadside-Skipper (<i>Amblyscirtes eos</i>) - 3 Tropical Least Skipper (<i>Ancyloxypha arene</i>) - 3 Uncas Skipper (<i>Hesperia uncas</i>) - 1 unidentified spreadwing skipper (<i>Pyrginae sp.</i>) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 30	Common Buckeye (<i>Junonia coenia</i>) - 27 Monarch (<i>Danaus plexippus</i>) - 1 Monarch/ Queen/ Viceroy (<i>Danaus plexippus/gilippus/Limenitis archippus</i>) - 4 Mourning Cloak (<i>Nymphalis antiopa</i>) - 25 Pearl Crescent (<i>Phyciodes tharos</i>) - 6 Queen (<i>Danaus gilippus</i>) - 2 Question Mark (<i>Polygonia interrogationis</i>) - 1 unidentified brushfoot (<i>Nymphalinae sp.</i>) - 1 unidentified buckeye (<i>Junonia sp.</i>) - 6 unidentified crescent (<i>Phyciodes sp.</i>) - 10 Variegated Fritillary (<i>Euptoieta claudia</i>) - 1
Family: Lycaenidae	Family: Pieridae
Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 1 Gray Hairstreak (<i>Strymon melinus</i>) - 4 Great Purple Hairstreak (<i>Atlides halesus</i>) - 4 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 1 Marine Blue (<i>Leptotes marina</i>) - 95 Melissa Blue (<i>Plebejus melissa</i>) - 1 Reakirt's Blue (<i>Echinargus isola</i>) - 9 unidentified blue (<i>Polyommata sp.</i>) - 44 Unidentified Gossamerwing (<i>Lycaenidae</i>) - 6 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 385	Cabbage White (<i>Pieris rapae</i>) - 95 Checkered White (<i>Pontia protodice</i>) - 64 Clouded Sulphur (<i>Colias philodice</i>) - 11 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 100 Dainty Sulphur (<i>Nathalis iole</i>) - 7 Orange Sulphur (<i>Colias eurytheme</i>) - 2 Tailed Orange (<i>Pyrisitia proterpia</i>) - 1 unidentified sulphur (<i>Coliinae sp.</i>) - 25 unidentified white (<i>Pierinae sp.</i>) - 114
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 5 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 17 unidentified swallowtail (<i>Papiliononinae sp.</i>) - 2	None

Middle Rio Grande Bosque: La Orilla Restoration Area

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.147223°, -106.681053°, elevation 4975 ft. **End:** 35.147904°, -106.682382°, elevation 4975 ft.

Length: 1.31 miles

First Survey Year: 2021

Status: Inactive

Route Overview:

La Orilla Restoration Area includes a section of the Albuquerque Bosque that has been under restoration by the city's Open Space Division and its partners (including the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) and SWCA Environmental Consultants) since 2012. This route includes mature cottonwood gallery forest, a section directly adjacent to the main river course, and a stretch along an acequia, which divides the Bosque from a suburban development. This is a natural, yet disturbed and partially managed site, surrounded by an urban center. It is owned and managed by ABQ Open Space.



Route History: This site was surveyed only in April and May of 2021. No changes to the route were noted. The route was then discontinued due to an overabundance of routes along the Albuquerque Bosque.

Route Statistics:

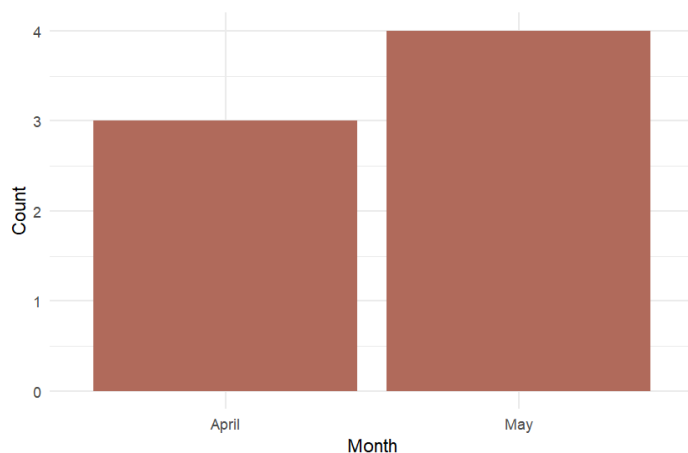


FIGURE 35 INDEX OF ABUNDANCE PER MONTH AT LA ORILLA RESTORATION AREA IN 2021.

TABLE 17 SPECIES RECORDED AT LA ORILLA RESTORATION AREA, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
None	Mourning Cloak (<i>Nymphalis antiopa</i>) - 2 Pearl Crescent (<i>Phyciodes tharos</i>) - 1 Queen (<i>Danaus gilippus</i>) - 2
Family: Lycaenidae	Family: Pieridae
None	unidentified sulphur (<i>Coliinae</i> sp.) - 1 unidentified white (<i>Pierinae</i> sp.) - 1
Family: Papilionidae	Family: Riodinidae
None	None

Middle Rio Grande Bosque: Rio Grande Nature Center State Park

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.128979°, -106.682031°, elevation 4968 ft. **End:** 35.129568°, -106.683035°, elevation 4968 ft.

Length: 0.97 miles

First Survey Year: 2021

Status: Active

Route Overview:

The Rio Grande Nature Center State Park is located in the floodplain of the Rio Grande River, in an area of Albuquerque that is a patchwork of historic farms and residential neighborhoods. It is adjacent to the Albuquerque Bosque, a unique cottonwood and willow forest ecosystem supported by intermittent flooding of the Rio Grande River. The State Park contains several ponds, a native plant garden, and a pollinator garden, which makes it a wonderful place to watch wildlife.



Route History:

Surveys started on this route in 2021. In 2024, the path along the western side of the pond, in the second section of Habitat B, became impassable due to dangerous cottonwood limbs above. Therefore, Habitat B (and the route as a whole) are shortened by 0.16 miles (823 feet). This route has changed hands several times throughout its history. One monitor ran surveys in 2021, a second monitor took over in 2022, no surveys were run in 2023, a third monitor ran surveys in 2024, and yet a fourth monitor ran surveys in 2025.

Route Statistics:

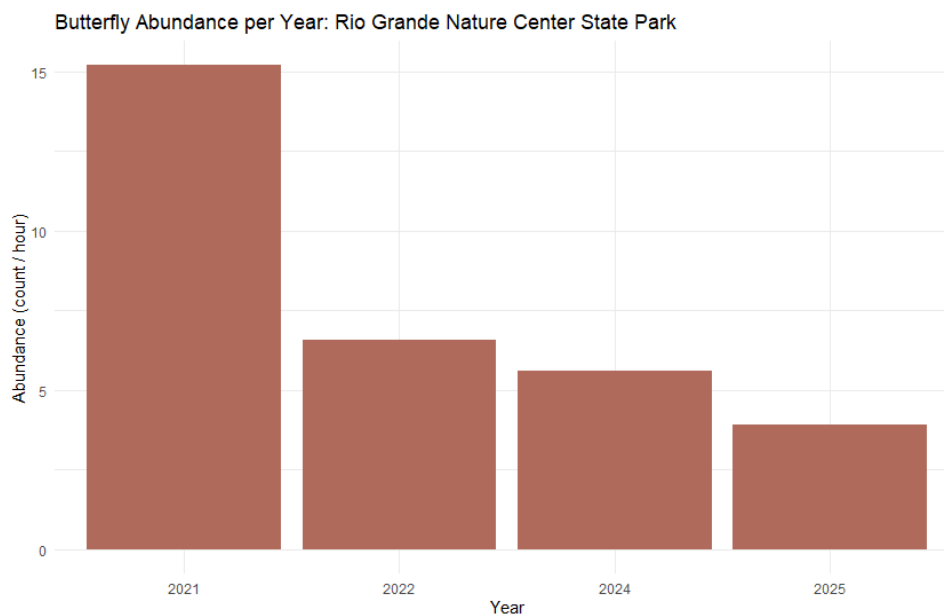


FIGURE 36 INDEX OF ABUNDANCE AT RIO GRANDE NATURE CENTER STATE PARK DURING YEARS SURVEYED BETWEEN 2020-2025.

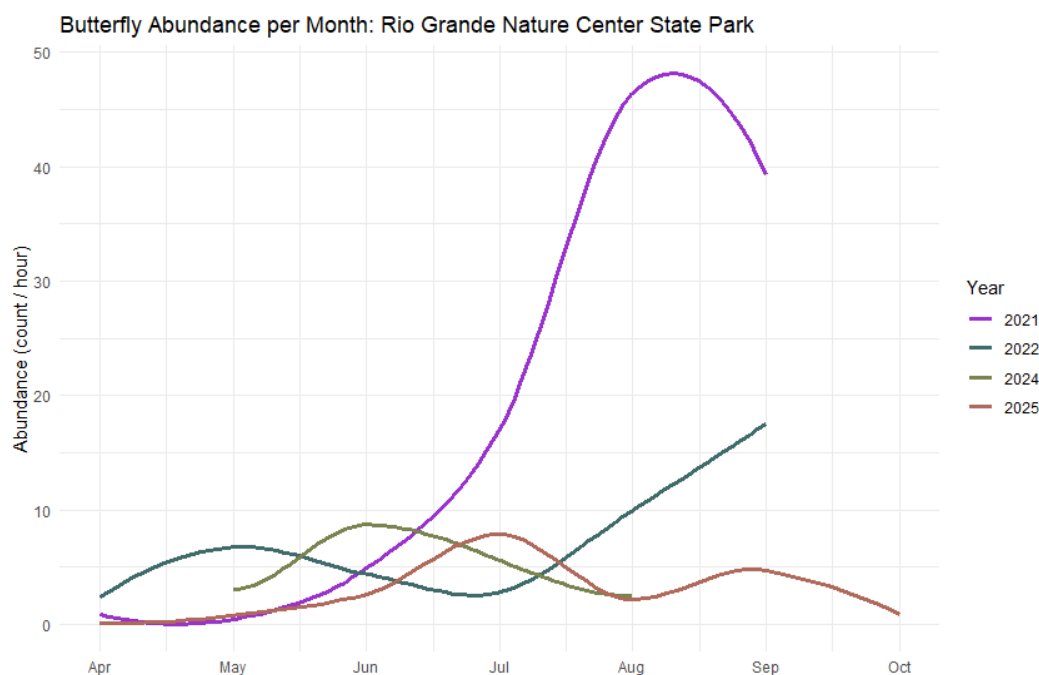


FIGURE 37 INDEX OF ABUNDANCE PER MONTH AT RIO GRANDE NATURE CENTER STATE PARK ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 18 SPECIES RECORDED ON THE RIO GRANDE NATURE CENTER STATE PARK ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Fiery Skipper (<i>Hylephila phyleus</i>) - 1 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 44 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 1	Bordered Patch (<i>Chlosyne lacinia</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 3 Painted Lady (<i>Vanessa cardui</i>) - 1 Pearl Crescent (<i>Phyciodes tharos</i>) - 15 Queen (<i>Danaus gilippus</i>) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 3
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 2 Great Purple Hairstreak (<i>Atlides halesus</i>) - 4 Marine Blue (<i>Leptotes marina</i>) - 5 Reakirt's Blue (<i>Echinargus isola</i>) - 7 unidentified blue (<i>Polyommata</i> sp.) - 6 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 136 Western Tailed-Blue (<i>Cupido amyntula</i>) - 2	Cabbage White (<i>Pieris rapae</i>) - 16 Checkered White (<i>Pontia protodice</i>) - 5 Clouded Sulphur (<i>Colias philodice</i>) - 7 Dainty Sulphur (<i>Nathalis iole</i>) - 18 Orange Sulphur (<i>Colias eurytheme</i>) - 6 Sleepy Orange (<i>Abaeis nicippe</i>) - 2 unidentified sulphur (<i>Coliinae</i> sp.) - 46 unidentified white (<i>Pierinae</i> sp.) - 28
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 1 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 4 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 4 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 1	None

Middle Rio Grande Bosque: Valle de Oro Southeast Loop

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 34.979894°, -106.672051°, elevation 4917 ft. **End:** 34.978551°, -106.672517°, elevation 4914 ft.

Length: 0.84 miles

First Survey Year: 2021

Status: Active

Route Overview:

Valle de Oro is a 570 acre National Wildlife Refuge (NWR) located in the floodplain of the Rio Grande river, in Albuquerque's South Valley. The surrounding area is a patchwork of agricultural land, neighborhoods, and industrial developments. It is adjacent to the Albuquerque Bosque, a unique cottonwood and willow forest ecosystem supported by intermittent flooding of the Rio Grande. The land was historically a dairy farm, but the hay fields have been fallowed for several years. The refuge has plans to restore the land to native Rio Grande Valley habitats, including seasonal and permanent wetlands, chihuahu desert upland, and riparian cottonwood gallery forest.



Route History:

Surveys started on this route in 2021. No changes to the route have been noted. One monitor ran surveys on this route from 2021 through 2023. A different monitor took over surveys in 2024 and 2025.

Route Statistics:

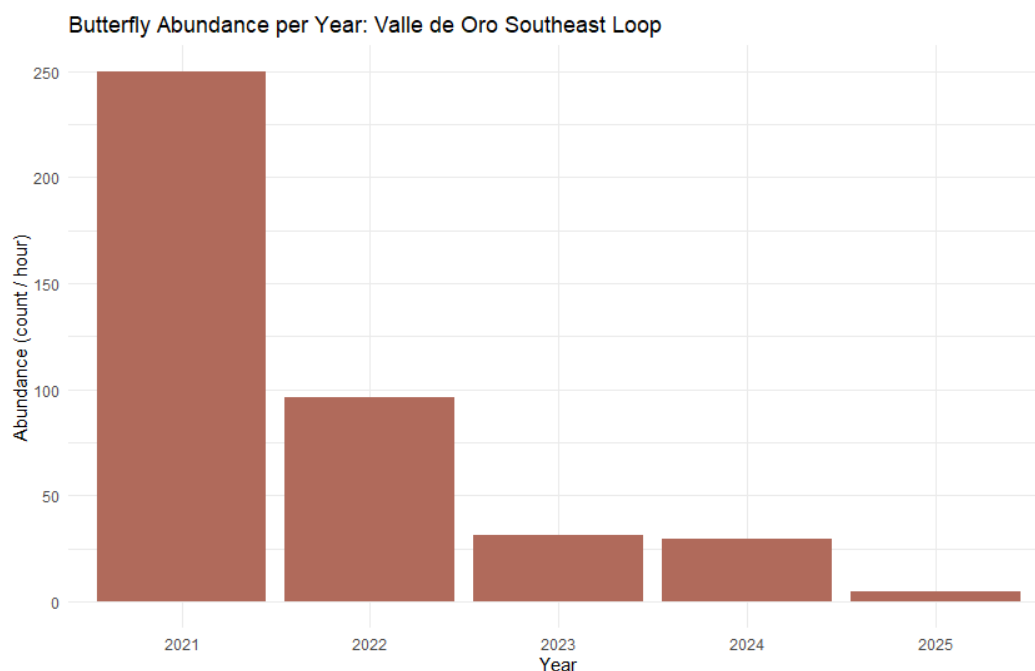


FIGURE 38 INDEX OF ABUNDANCE AT VALLE DE ORO SOUTHEAST LOOP DURING YEARS SURVEYED BETWEEN 2020-2025.

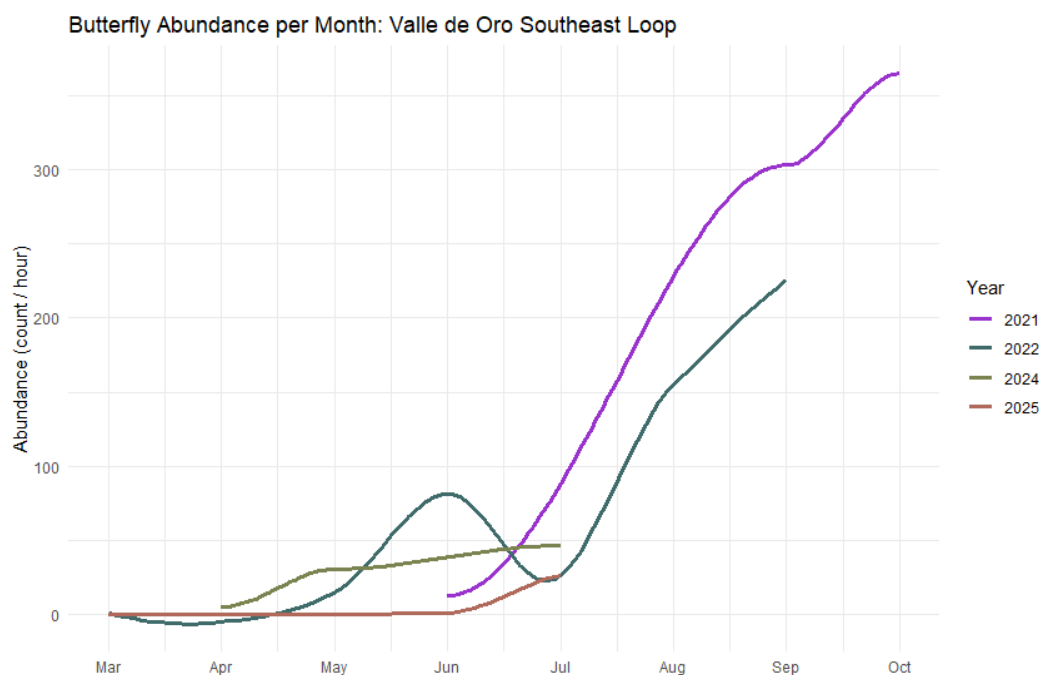


FIGURE 39 INDEX OF ABUNDANCE PER MONTH AT VALLE DE ORO SOUTHEAST LOOP ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 19 SPECIES RECORDED ON THE VALLE DE ORO SOUTHEAST LOOP ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 1 Saltbush Sootywing (<i>Hesperopsis alpheus</i>) - 7 unidentified grass skipper (<i>Hesperiinae sp.</i>) - 2 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 17	Common Buckeye (<i>Junonia coenia</i>) - 11 Field Crescent (<i>Phyciodes pulchella</i>) - 4 Monarch (<i>Danaus plexippus</i>) - 4 Painted Crescent (<i>Phyciodes picta</i>) - 191 Painted Lady (<i>Vanessa cardui</i>) - 9 Queen (<i>Danaus gilippus</i>) - 4 unidentified lady (<i>Vanessa sp.</i>) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 3
Family: Lycaenidae	Family: Pieridae
Marine Blue (<i>Leptotes marina</i>) - 156 Melissa Blue (<i>Plebejus melissa</i>) - 89 unidentified blue (<i>Polyommata sp.</i>) - 27 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 240	Cabbage White (<i>Pieris rapae</i>) - 58 Checkered White (<i>Pontia protodice</i>) - 21 Clouded Sulphur (<i>Colias philodice</i>) - 408 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 648 Cloudless Sulphur (<i>Phoebis sennae</i>) - 32 Southern Dogface (<i>Zerene cesonia</i>) - 83 unidentified sulphur (<i>Coliinae sp.</i>) - 27 unidentified white (<i>Pierinae sp.</i>) - 7
Family: Papilionidae	Family: Riodinidae
None	None

Middle Rio Grande Bosque: Wildlife Management Ponds

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rio Grande Flood Plain

Start: 35.080506°, -106.668648°, elevation 4950 ft. **End:** 35.080058°, -106.669622°, elevation 4949 ft.

Length: 1 miles

First Survey Year: 2020

Status: Active

The Wildlife Management Ponds route is within the Albuquerque Bosque. It includes sections of cottonwood gallery forest and willow overstory, as well as a disturbed weedy area and sections surrounds two artificial lakes. This is a natural, yet disturbed and partially managed site, surrounded by an urban center. It is owned and managed by ABQ Open Space.

Route History:

Surveys started on this route in 2020. Only minor changes have been reported on the route, including beaver activity and two small fires. The same volunteer ran the route from 2020 through 2024. In 2025, a new volunteer took over the route.



Route Statistics:

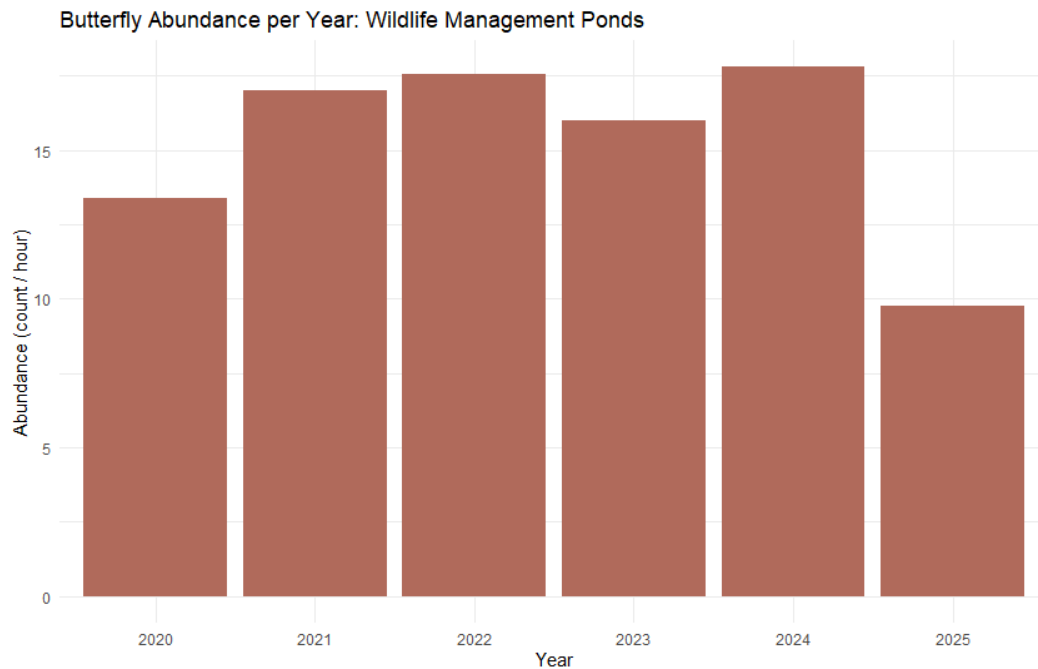


FIGURE 40 INDEX OF ABUNDANCE AT WILDLIFE MANAGEMENT PONDS DURING YEARS SURVEYED BETWEEN 2020-2025.

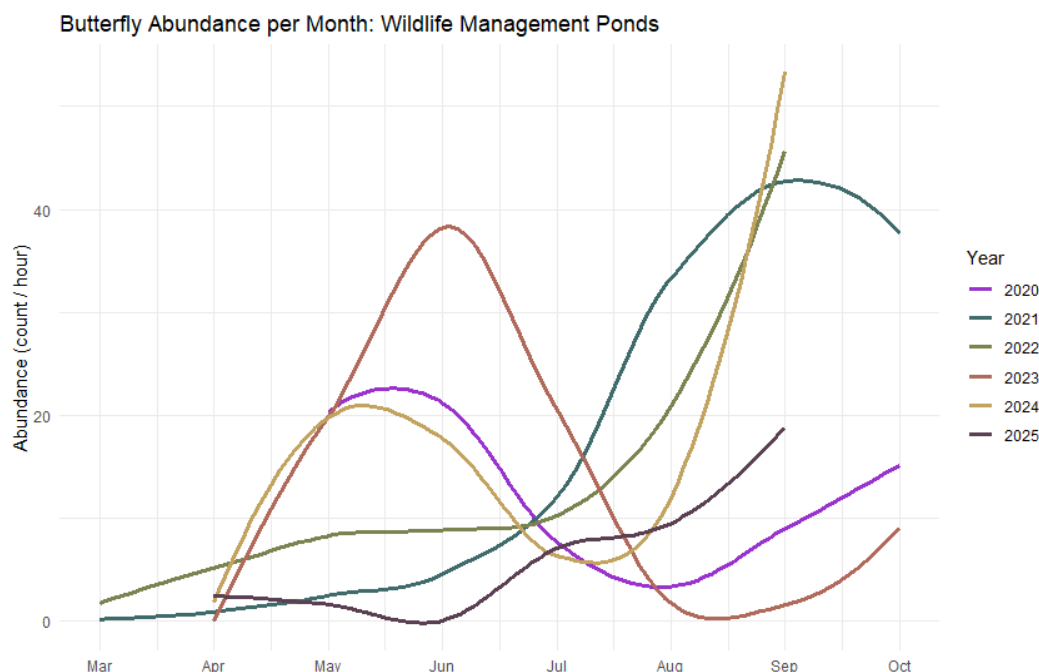


FIGURE 41 INDEX OF ABUNDANCE PER MONTH AT WILDLIFE MANAGEMENT PONDS BETWEEN 2020-2025.

TABLE 20 SPECIES RECORDED ON THE WILDLIFE MANAGEMENT PONDS ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED.

Family: Hesperiidae	Family: Nymphalidae
Fiery Skipper (<i>Hylephila phyleus</i>) - 13 Tropical Least Skipper (<i>Ancyloxypha arene</i>) - 38 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 1 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 10 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 57	American Snout (<i>Libytheana carinenta</i>) - 4 Bordered Patch (<i>Chlosyne lacinia</i>) - 1 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 1 Monarch/ Queen/ Viceroy (<i>Danaus plexippus/gilippus/Limenitis archippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 9 Painted Lady (<i>Vanessa cardui</i>) - 5 Pearl Crescent (<i>Phyciodes tharos</i>) - 45 Queen (<i>Danaus gilippus</i>) - 7 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 1 unidentified buckeye (<i>Junonia</i> sp.) - 10 unidentified crescent (<i>Phyciodes</i> sp.) - 50 unidentified lady (<i>Vanessa</i> sp.) - 7
Family: Lycaenidae	Family: Pieridae
Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 26 Gray Hairstreak (<i>Strymon melinus</i>) - 8 Great Purple Hairstreak (<i>Atlides halesus</i>) - 1 Lupine Blue (<i>Plebejus lupini</i>) - 2 Marine Blue (<i>Leptotes marina</i>) - 44 Purplish Copper (<i>Lycaena helloides</i>) - 1 Reakirt's Blue (<i>Echinargus isola</i>) - 52 unidentified blue (<i>Polyommata</i> sp.) - 47 Unidentified Gossamerwing (<i>Lycaenidae</i>) - 1 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 141	Cabbage White (<i>Pieris rapae</i>) - 8 Checkered White (<i>Pontia protodice</i>) - 42 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 79 Dainty Sulphur (<i>Nathalis iole</i>) - 25 Orange Sulphur (<i>Colias eurytheme</i>) - 12 unidentified sulphur (<i>Coliinae</i> sp.) - 22 unidentified white (<i>Pierinae</i> sp.) - 30
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 5 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 1 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 1	None

Santa Fe Valley: La Tierra Trails at Ridgetop Road

Region: Arizona/ New Mexico Plateau **Ecoregion:** North Central New Mexico Valleys and Mesas

Start: 35.719341°, -105.947329°, elevation 7279 ft. **End:** 35.719886°, -105.948384°, elevation 7321 ft.

Length: 1.8 miles

First Survey Year: 2022

Status: Active

Route Overview:

This site is characterized by arid piñon-juniper forest scattered across hilly terrain, and drained by small arroyos with more diverse vegetation than the surrounding forest. The La Tierra Trail system contains 25 miles of trails for hiking, biking, and horse riding, within 1,500 acres of terrain. The trails are built and maintained by The Santa Fe Conservation Trust and GUSTO partners, on land owned by the City of Santa Fe. It is a natural site that borders suburban neighborhoods of the city.



Route History:

Surveys started on this route in 2022. No changes to the route have been noted. The same monitors have surveyed the route throughout its history.

Route Statistics:

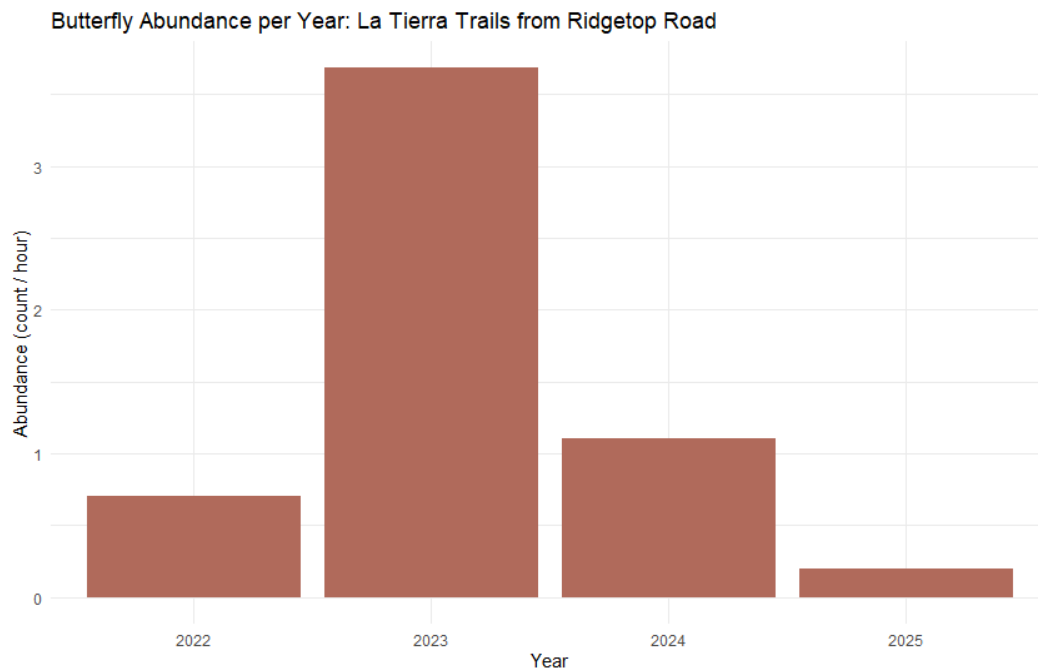


FIGURE 42 INDEX OF ABUNDANCE AT LA TIERRA TRAILS AT RIDGETOP ROAD DURING YEARS SURVEYED BETWEEN 2020-2025.

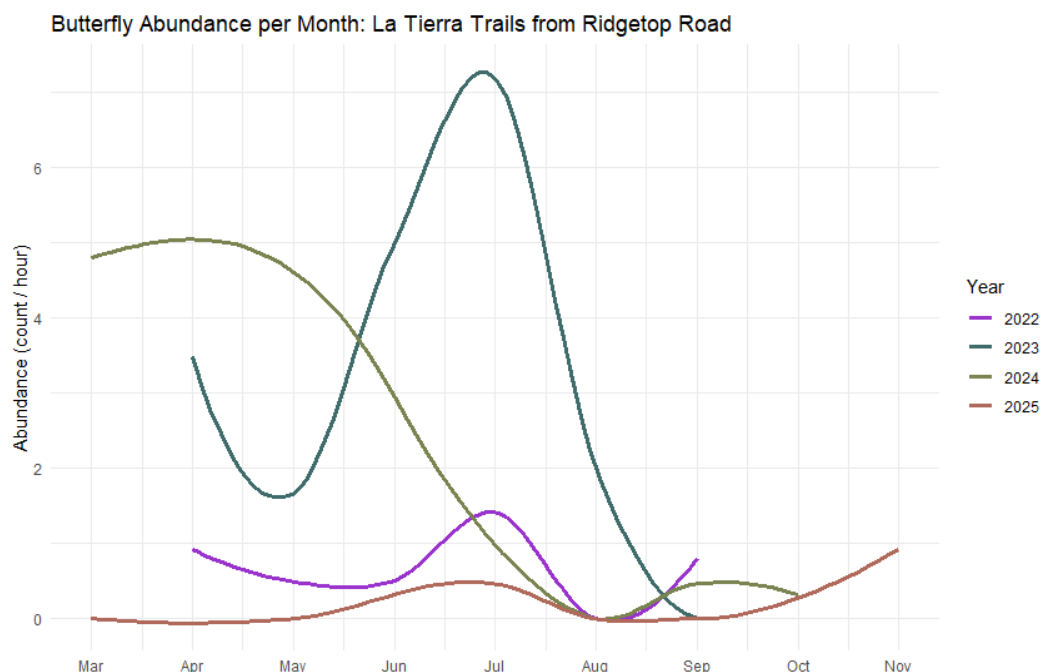


FIGURE 43 INDEX OF ABUNDANCE PER MONTH AT LA TIERRA TRAILS AT RIDGETOP ROAD ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 21 SPECIES RECORDED ON THE LA TIERRA TRAILS AT RIDGETOP ROAD ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 1	Monarch (<i>Danaus plexippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 7 Painted Lady (<i>Vanessa cardui</i>) - 6 Variegated Fritillary (<i>Euptoieta claudia</i>) - 19
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 1 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 4 Western Tailed-Blue (<i>Cupido amyntula</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 18 Clouded Sulphur (<i>Colias philodice</i>) - 1 Cloudless Sulphur (<i>Phoebis sennae</i>) - 4 Dainty Sulphur (<i>Nathalis iole</i>) - 4 unidentified sulphur (<i>Coliinae</i> sp.) - 1
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 1	None

Santa Fe Valley: Leonora Curtin Wetland Preserve

Region: Arizona/ New Mexico Plateau **Ecoregion:** North Central New Mexico Valleys and Mesas

Start: 35.565019°, -106.102498°, elevation 6101 ft. **End:** 35.565245°, -106.103290°, elevation 6089 ft.

Length: 0.69 miles

First Survey Year: 2021

Status: Active

Route Overview:

Leonora Curtin Wetland Preserve is a 35-acre nature preserve with a spring fed natural cienega and pond. Cienegas are important refuges for a variety of wildlife in an otherwise arid landscape. The preserve is owned and operated by the adjacent living history museum, El Rancho de las Golondrinas. For a long time, the Preserve was leased to the Santa Fe Botanical Garden. Volunteers worked hard over the years to ensure the integrity of the cienega and protect the wildlife it serves. Restoration projects have included invasive species removal, revegetation, and monitoring of the pond ecosystem. This is a natural, yet partially managed site, isolated from an urban center. The surrounding landscape is characterized by juniper savanna with mesa and valley topography.



Route History:

Surveys started on this route in 2021. No changes were reported on the route from 2021 through 2025. One monitor surveyed this route in 2021 and 2022. The route was not surveyed in 2023. A different monitor ran surveys in 2024 and 2025.

Route Statistics:

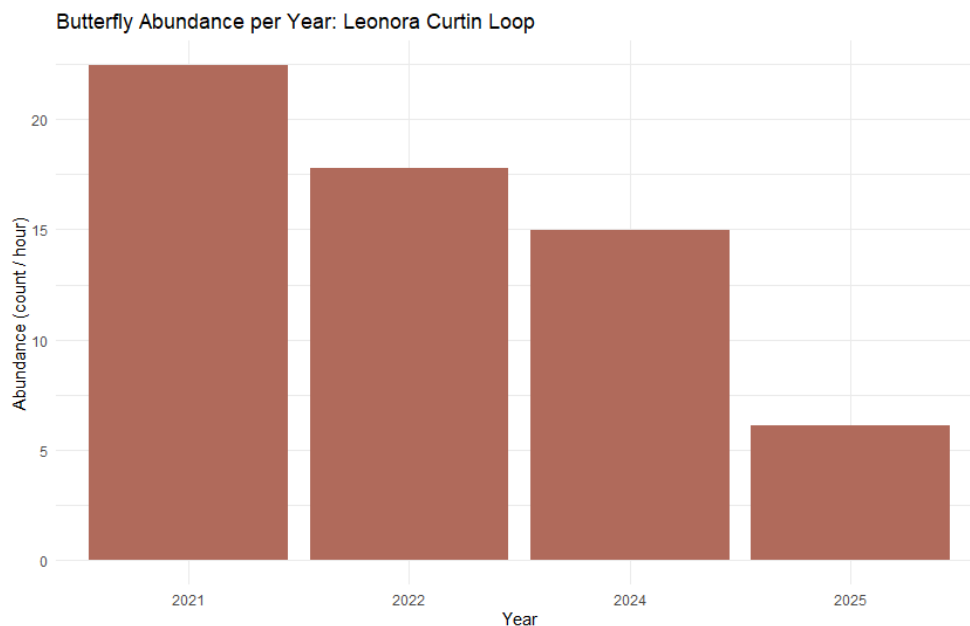


FIGURE 44 INDEX OF ABUNDANCE AT LEONORA CURTIN WETLAND PRESERVE DURING YEARS SURVEYED BETWEEN 2020-2025.

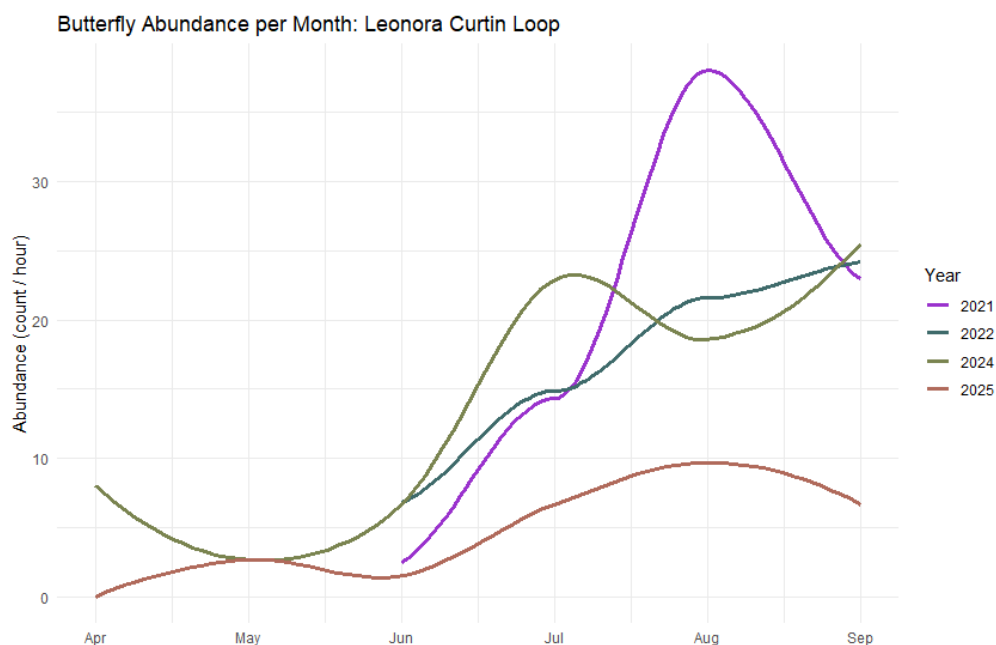


FIGURE 45 INDEX OF ABUNDANCE PER MONTH AT LEONORA CURTIN WETLAND PRESERVE ACROSS YEARS.

TABLE 22 SPECIES RECORDED AT LEONORA CURTIN WETLAND PRESERVE, INCLUDING THE TOTAL NUMBER OBSERVED.

Family: Hesperiidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 3 Dun Skipper (<i>Euphyes vestris</i>) - 3 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 73 unidentified duskywing (<i>Erynnis</i> sp.) - 2 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 17 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 2 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 3 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 64	American Snout (<i>Libytheana carinenta</i>) - 1 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 87 Field Crescent (<i>Phyciodes pulchella</i>) - 16 Monarch (<i>Danaus plexippus</i>) - 108 Mourning Cloak (<i>Nymphalis antiopa</i>) - 9 Painted Crescent (<i>Phyciodes picta</i>) - 1 Painted Lady (<i>Vanessa cardui</i>) - 6 Pearl Crescent (<i>Phyciodes tharos</i>) - 11 Queen (<i>Danaus gilippus</i>) - 1 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 9 unidentified buckeye (<i>Junonia</i> sp.) - 12 unidentified crescent (<i>Phyciodes</i> sp.) - 5 unidentified Fritillary (<i>Fritillary</i> sp.) - 1 unidentified lady (<i>Vanessa</i> sp.) - 1 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 27 Variegated Fritillary (<i>Euptoieta claudia</i>) - 6 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 1
Family: Lycaenidae	Family: Pieridae
Marine Blue (<i>Leptotes marina</i>) - 1 unidentified blue (<i>Polyommata</i> sp.) - 7 unidentified copper (<i>Lycaeninae</i> sp.) - 2 unidentified hairstreak (<i>Theclinae</i> sp.) - 1 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 3 Checkered White (<i>Pontia protodice</i>) - 14 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 10 Dainty Sulphur (<i>Nathalis iole</i>) - 19 Orange Sulphur (<i>Colias eurytheme</i>) - 3 unidentified sulphur (<i>Coliinae</i> sp.) - 41 unidentified white (<i>Pierinae</i> sp.) - 42
Family: Papilionidae	Family: Riodinidae
Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 7	None

Santa Fe Valley: Santa Fe Municipal Recreation Complex

Region: Arizona/ New Mexico Plateau **Ecoregion:** North Central New Mexico Valleys and Mesas

Start: 35.686347°, -105.894593°, elevation 6411 ft. **End:** 35.665894°, -106.064248°, elevation 6417 ft.

Length: 0.9 miles

First Survey Year: 2023

Status: Active

Route Overview:

This site includes both native juniper savanna scattered across hilly terrain, and non-native, heavily maintained grass fields for recreation purposes. The route also circles a retention pond which once offered a valuable wetland habitat, before maintenance on the liner was carried out. The Municipal Recreation Complex is owned and operated by the City of Santa Fe. It is on the edge of town, so is mostly surrounded by undeveloped lands for the time being.



Route History:

Surveys started on this route in 2023. Prior to the 2025 season, the pond was drained and most of the native vegetation around the pond was removed. A new liner was added before the pond was refilled, to water the soccer fields. The same volunteers have surveyed the route throughout its history.

Route Statistics:

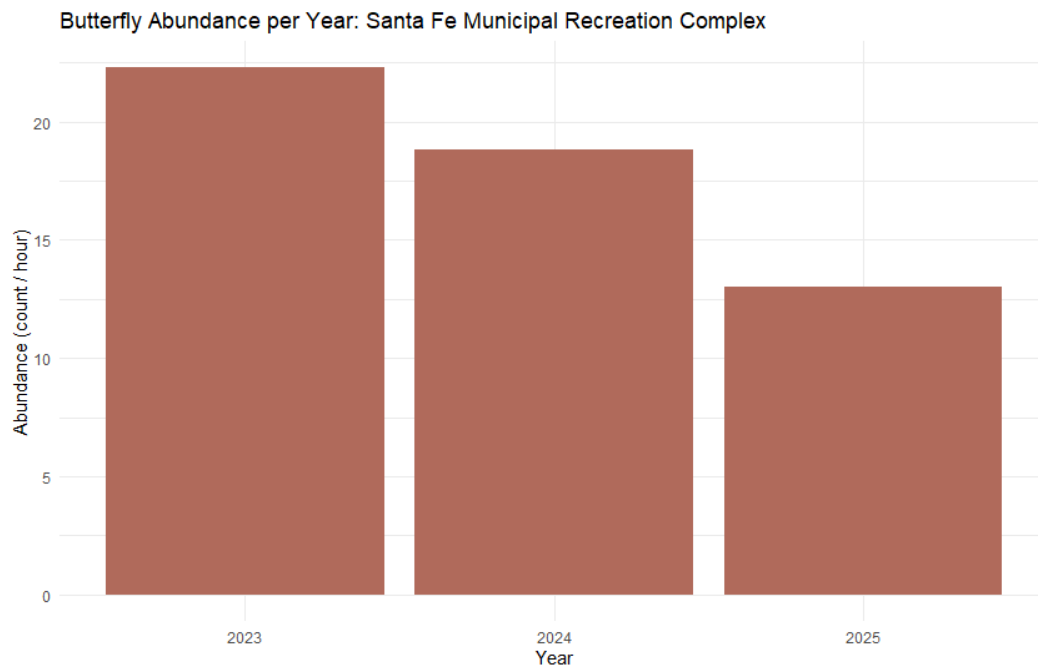


FIGURE 46 INDEX OF ABUNDANCE AT SANTA FE MUNICIPAL RECREATION COMPLEX DURING YEARS SURVEYED BETWEEN 2020-2025.

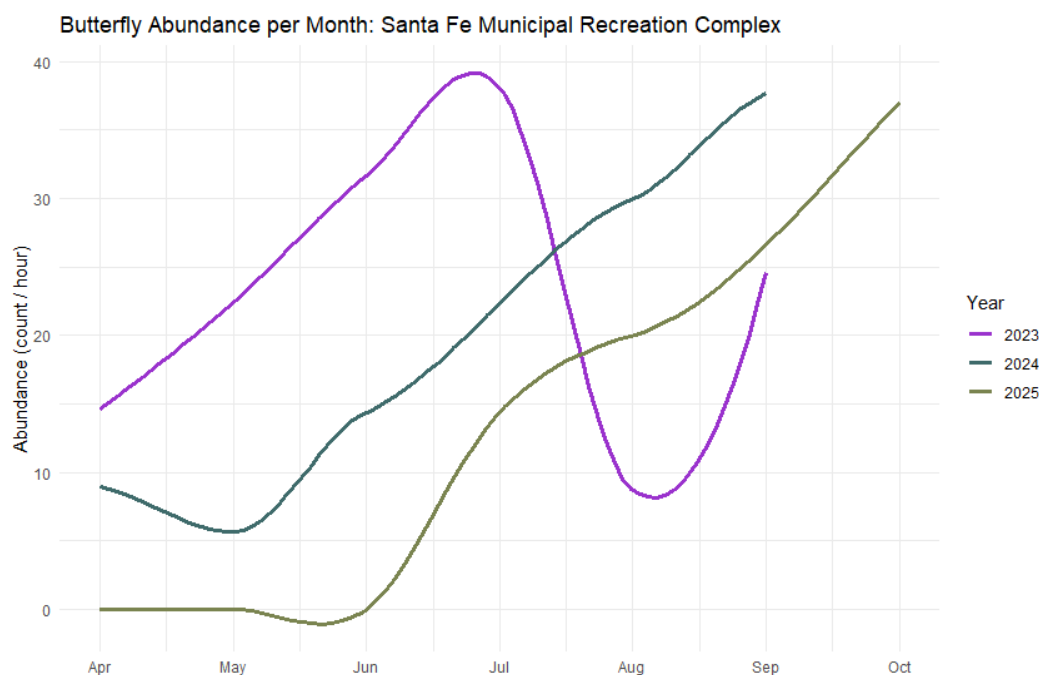


FIGURE 47 INDEX OF ABUNDANCE PER MONTH AT SANTA FE MUNICIPAL RECREATION COMPLEX ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 23 SPECIES RECORDED ON THE SANTA FE MUNICIPAL RECREATION COMPLEX ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 1 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 13 unidentified grass skipper (<i>Hesperinae</i> sp.) - 3 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 68	Monarch (<i>Danaus plexippus</i>) - 1 Monarch/ Queen/ Viceroy (<i>Danaus plexippus/gilippus/Limenitis archippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 5 Painted Lady (<i>Vanessa cardui</i>) - 50 Red Admiral (<i>Vanessa atalanta</i>) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 18
Family: Lycaenidae	Family: Pieridae
Lupine Blue (<i>Plebejus lupini</i>) - 1 Marine Blue (<i>Leptotes marina</i>) - 5 Reakirt's Blue (<i>Echinargus isola</i>) - 3 unidentified blue (<i>Polyommata</i> sp.) - 8 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 8	Checkered White (<i>Pontia protodice</i>) - 51 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 33 Dainty Sulphur (<i>Nathalis iole</i>) - 76 unidentified sulphur (<i>Coliinae</i> sp.) - 6 unidentified white (<i>Pierinae</i> sp.) - 54
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 2	None

Santa Fe Valley: Santa Fe Botanic Garden

Region: Arizona/ New Mexico Plateau **Ecoregion:** North Central New Mexico Valleys and Mesas

Start: 35.664899°, -105.927363°, elevation 7183 ft. **End:** 35.664963°, -105.928012°, elevation 7178 ft.

Length: 0.8 miles

First Survey Year: 2022

Status: Active

Route Overview:

The Santa Fe Botanic Garden is located within a piñon-juniper woodland, some of which is left in a natural state with minimal plantings to demonstrate the local native plants. Other sections of the garden include an orchard, with lavender and roses around the border, and a native meadow bordering the fruit trees, and an ethnobotanical garden featuring a collection of plants with medicinal uses. There are also plantings scattered around the garden intended to attract pollinators. The site is within the City of Santa Fe, in the Museum Hill area. The 20.5 acre site is leased by the garden from the City of Santa Fe.



Route History:

Surveys started on this route in 2022. No changes to the route have been noted. The same volunteer monitored the route in 2022 and 2023. The route was not surveyed in 2024 and 2025, though it remains active.

Route Statistics:

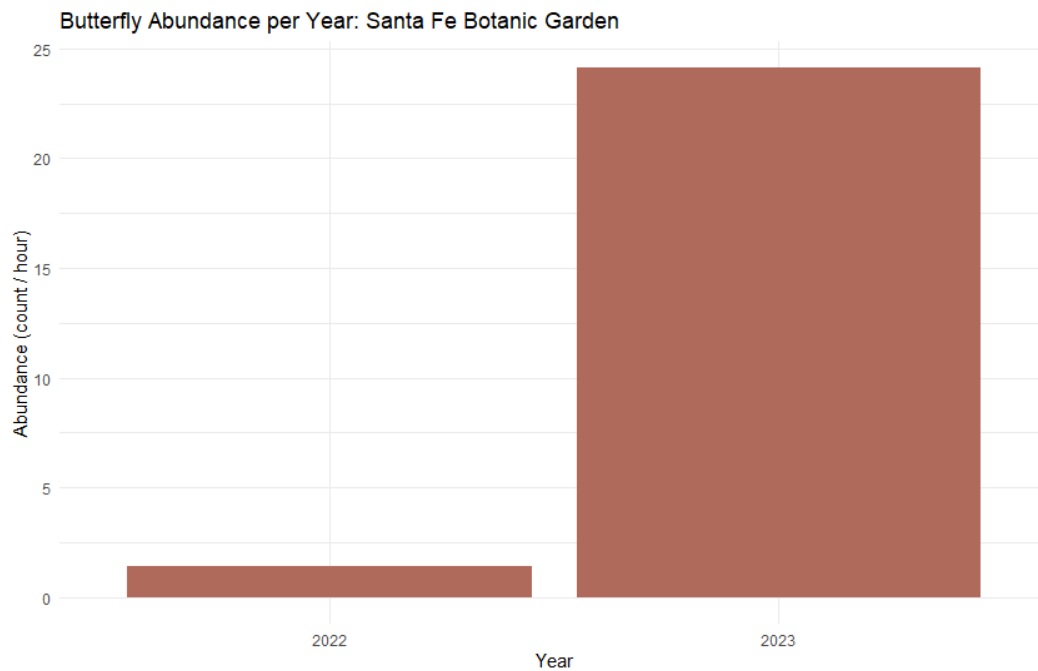


FIGURE 48 INDEX OF ABUNDANCE AT SANTA FE BOTANIC GARDEN DURING YEARS SURVEYED BETWEEN 2020-2025.

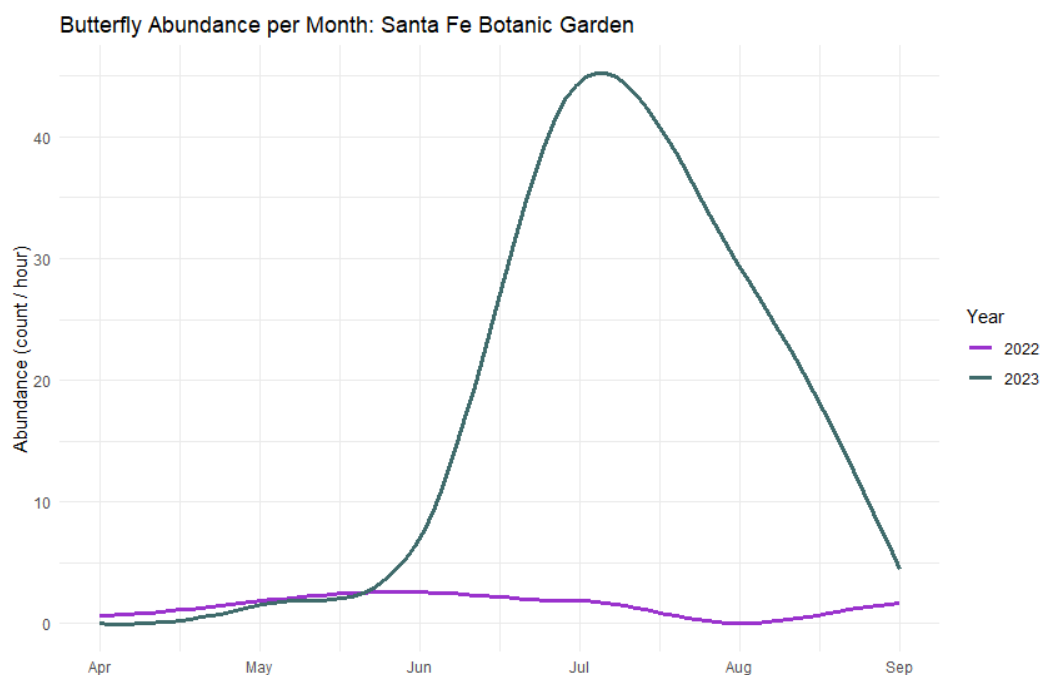


FIGURE 49 INDEX OF ABUNDANCE PER MONTH AT SANTA FE BOTANIC GARDEN ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 24 SPECIES RECORDED ON THE SANTA FE BOTANIC GARDEN ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
unidentified grass skipper (Hesperiinae sp.) - 1 White/ Common Checkered-Skipper (Pyrgus albescens/communis) - 4	American Lady (Vanessa virginiensis) - 2 Gray Buckeye (Junonia grisea) - 1 Mourning Cloak (Nymphalis antiopa) - 2 Painted Lady (Vanessa cardui) - 74 Queen (Danaus gilippus) - 1 Variegated Fritillary (Euptoieta claudia) - 7
Family: Lycaenidae	Family: Pieridae
Marine Blue (Leptotes marina) - 1 Reakirt's Blue (Echinargus isola) - 1 unidentified hairstreak (Theclinae sp.) - 1 Western Pygmy-Blue (Brephidium exilis) - 2	Cabbage White (Pieris rapae) - 3 Checkered White (Pontia protodice) - 23 Orange Sulphur (Colias eurytheme) - 34 unidentified sulphur (Coliinae sp.) - 10 unidentified white (Pierinae sp.) - 7
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (Papilio polyxenes) - 1 Two-tailed Swallowtail (Papilio multicaudata) - 1	None

Santa Fe Valley: Zocalo Neighborhood Arroyo

Region: Arizona/ New Mexico Plateau **Ecoregion:** North Central New Mexico Valleys and Mesas

Start: 35.706089°, -105.947737°, elevation 7067 ft. **End:** 35.706074°, -105.947757°, elevation 7067 ft.

Length: 1.03 miles

First Survey Year: 2022

Status: Active

Route Overview:

This urban route is located in the northwest hills of Santa Fe, in a spacious neighborhood with a majority of native vegetation. The ecoregion is characterized by arid piñon-juniper forest scattered across hilly terrain, and drained by small arroyos with more diverse vegetation than the surrounding forest. The route runs adjacent to one of the many arroyos that runs through the city. It then runs along a neighborhood street.



Route History:

Surveys started on this route in 2021. No changes to the route have been noted. The same volunteers have surveyed the route throughout its history.

Route Statistics:

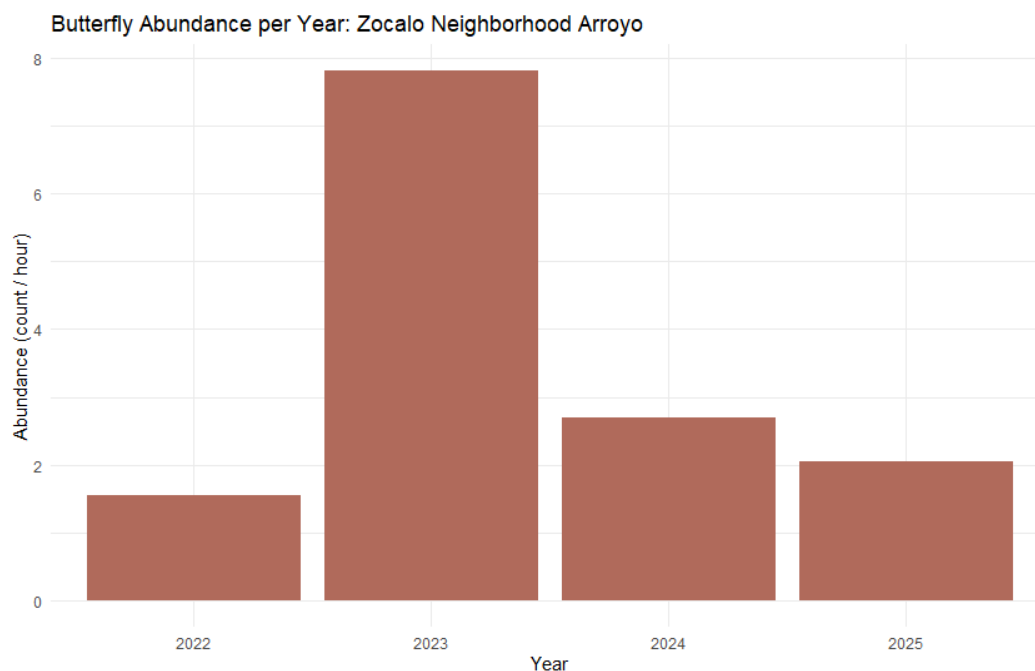


FIGURE 50 INDEX OF ABUNDANCE AT ZOCALO NEIGHBORHOOD ARROYO DURING YEARS SURVEYED BETWEEN 2020-2025.

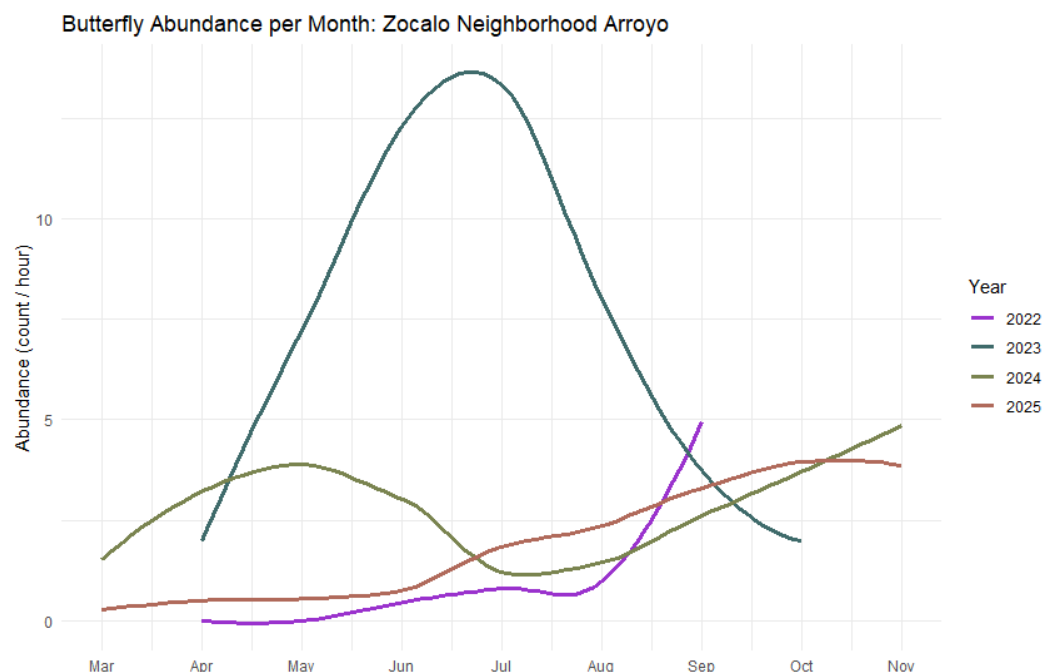


FIGURE 51 INDEX OF ABUNDANCE PER MONTH AT ZOCALO NEIGHBORHOOD ARROYO ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 25 SPECIES RECORDED ON THE ZOCALO NEIGHBORHOOD ARROYO ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 2	Field Crescent (<i>Phyciodes pulchella</i>) - 1 Monarch (<i>Danaus plexippus</i>) - 8 Mourning Cloak (<i>Nymphalis antiopa</i>) - 5 Painted Lady (<i>Vanessa cardui</i>) - 53 Red Admiral (<i>Vanessa atalanta</i>) - 9 unidentified lady (<i>Vanessa sp.</i>) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 47
Family: Lycaenidae	Family: Pieridae
unidentified blue (<i>Polyommata</i> sp.) - 1 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 10	Cabbage White (<i>Pieris rapae</i>) - 149 Checkered White (<i>Pontia protodice</i>) - 26 Clouded Sulphur (<i>Colias philodice</i>) - 7 Cloudless Sulphur (<i>Phoebis sennae</i>) - 19 Dainty Sulphur (<i>Nathalis iole</i>) - 91 Orange Sulphur (<i>Colias eurytheme</i>) - 3 Southern Dogface (<i>Zerene cesonia</i>) - 1 unidentified sulphur (<i>Coliinae sp.</i>) - 10
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 8 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 11	None

Petroglyph National Monument : Petroglyph Rinconada Canyon Trail

Region: Arizona/ New Mexico Plateau **Ecoregion:** Albuquerque Basin

Start: 35.127241°, -106.725294°, elevation 5177 ft. **End:** 35.12749°, -106.727076°, elevation 5184 ft.

Length: 2.1 miles

First Survey Year: 2022

Status: Active

Route Overview:

Petroglyph National Monument plays an important role in protecting a native section of this ecoregion from the encroaching urban development of the City of Albuquerque. In this ecoregion, there is a mix of sand scrub and desert grassland vegetation. Native vegetation includes black grama, sand dropseed, mesa dropseed, blue grama, galleta, sand sage, alkali sacaton, threeawns, and scattered yucca. This route follows the Rinconada Canyon Trail, a sandy path that follows along the northern edge of a volcanic escarpment.



Route History:

Surveys started on this route in 2022. No changes to the route have been noted. One monitor surveyed the route in 2022 and 2023, and a different monitor surveyed the route in 2024. The route was not surveyed in 2025 but remains active.

Route Statistics:

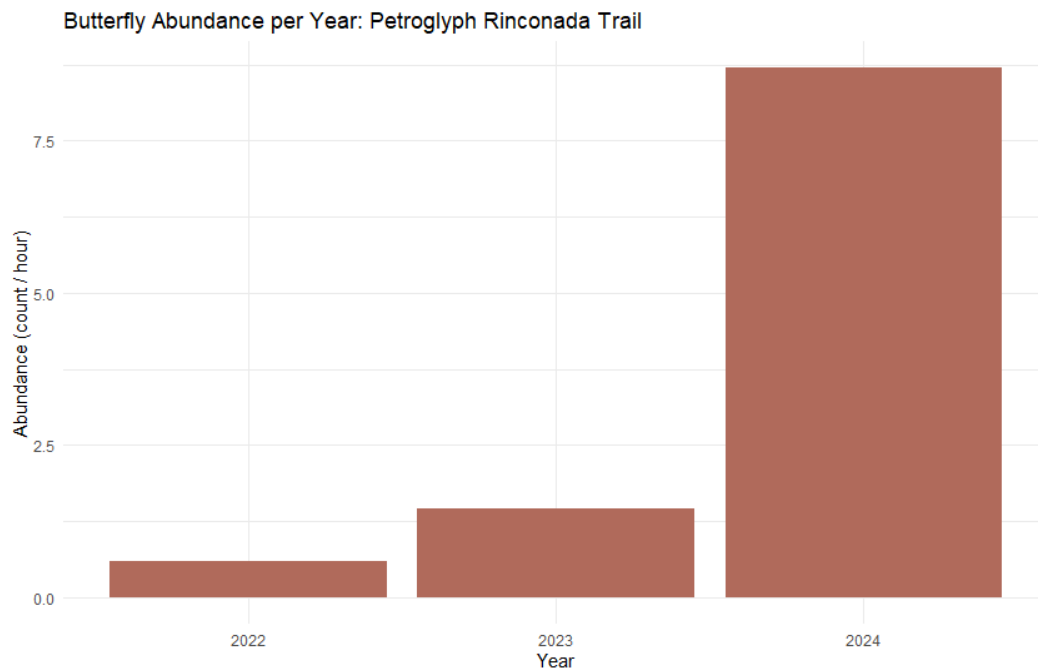


FIGURE 52 INDEX OF ABUNDANCE AT PETROGLYPH RINCONADA CANYON TRAIL DURING YEARS SURVEYED BETWEEN 2020-2025.

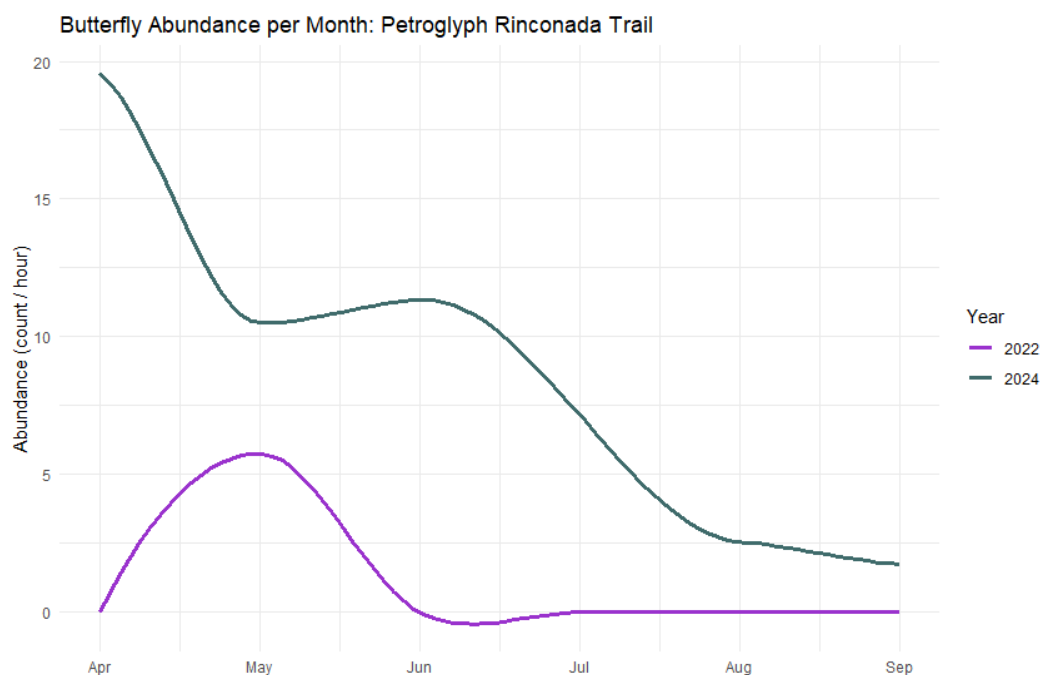


FIGURE 53 INDEX OF ABUNDANCE PER MONTH AT PETROGLYPH RINCONADA CANYON TRAIL ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 26 SPECIES RECORDED ON THE PETROGLYPH RINCONADA CANYON TRAIL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 2	unidentified brushfoot (<i>Nymphalinae</i> sp.) - 34 unidentified Fritillary (<i>Fritillary</i> sp.) - 1 unidentified greater fritillary (<i>Speyeria</i> sp.) - 7 unidentified lady (<i>Vanessa</i> sp.) - 3 Variegated Fritillary (<i>Euptoieta claudia</i>) - 3
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 1 Lupine Blue (<i>Plebejus lupini</i>) - 3 Reakirt's Blue (<i>Echinargus isola</i>) - 3 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 8 Checkered White (<i>Pontia protodice</i>) - 37 unidentified sulphur (<i>Coliinae</i> sp.) - 1
Family: Papilionidae	Family: Riodinidae
	None

Sevilleta National Wildlife Refuge: Sevilleta Visitor Center Loop

Region: Arizona/ New Mexico Plateau **Ecoregion:** Albuquerque Basin

Start: 34.351542°, -106.882176°, elevation 4841 ft. **End:** 34.350591°, -106.882024°, elevation 4833 ft.

Length: 1.29 miles

First Survey Year: 2021

Status: Active

Route Overview:

The Sevilleta National Wildlife Refuge is located near the Rio Grande River, at the southern tip of the Albuquerque Basin ecoregion, though it is uniquely positioned at the periphery of three other ecoregions, and therefore contains components of each. Just to the south is the Chihuahuan Desert, with which it shares creosote bush and four wing saltbush. To the east is the edge of the Southwestern Tablelands, a sub-region of the Great Plains Short Grass Prairie, which contributes native grass species as well as Gunnison's Prairie Dog and Pronghorn. Lastly, to the west are higher elevation pinyon-juniper woodlands. This diversity in biomes attracts a wide array of flora and fauna.



Route History:

Surveys started on this route in 2021. No changes to the route have been noted. One monitor surveyed the route in 2021, and a different monitor has surveyed the route since 2022.

Route Statistics:

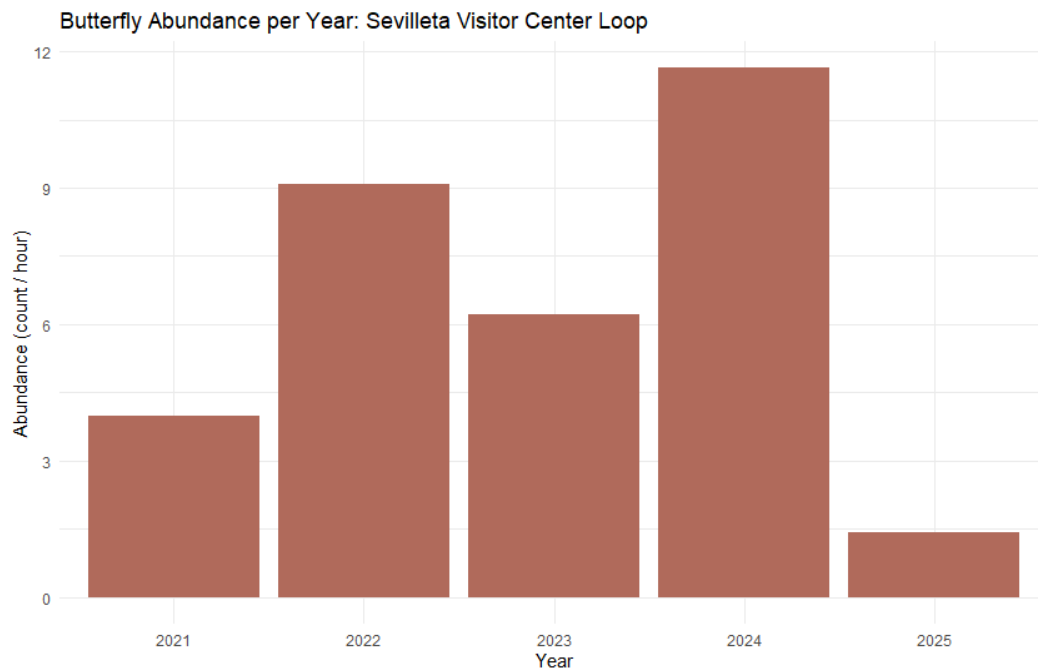


FIGURE 54 INDEX OF ABUNDANCE AT SEVILLETA VISITOR CENTER LOOP DURING YEARS SURVEYED BETWEEN 2020-2025.

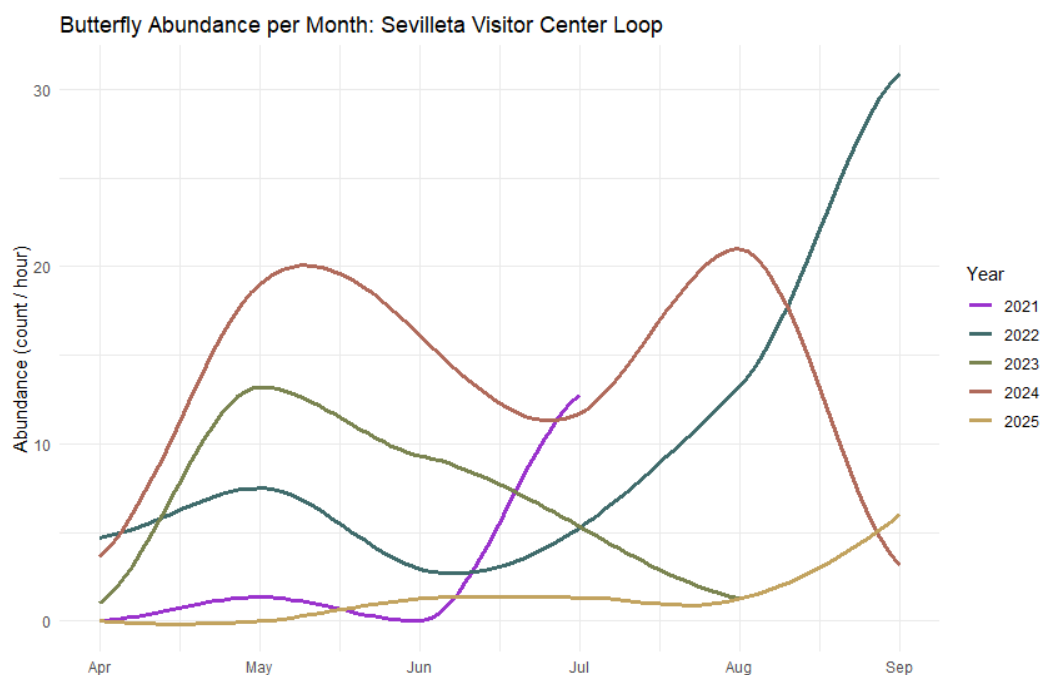


FIGURE 55 INDEX OF ABUNDANCE PER MONTH AT SEVILLETA VISITOR CENTER LOOP ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 27 SPECIES RECORDED ON THE SEVILLETA VISITOR CENTER LOOP ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
unidentified duskywing (<i>Erynnis</i> sp.) - 3	Tiny Checkerspot (<i>Dymasia dymas</i>) - 1
unidentified grass skipper (<i>Hesperiinae</i> sp.) - 1	unidentified brushfoot (<i>Nymphalinae</i> sp.) - 3
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 3	Checkered White (<i>Pontia protodice</i>) - 1
Marine Blue (<i>Leptotes marina</i>) - 6	Clouded Sulphur (<i>Colias philodice</i>) - 1
unidentified blue (<i>Polyommata</i> sp.) - 3	Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 18
unidentified hairstreak (<i>Theclinae</i> sp.) - 11	Cloudless Sulphur (<i>Phoebis sennae</i>) - 7
	Dainty Sulphur (<i>Nathalis iole</i>) - 1
	Orange Sulphur (<i>Colias eurytheme</i>) - 5
	Sleepy Orange (<i>Abaeis nicippe</i>) - 18
	unidentified sulphur (<i>Coliinae</i> sp.) - 61
	unidentified white (<i>Pierinae</i> sp.) - 39
Family: Papilionidae	Family: Riodinidae
None	None

Gila River: Gila Bird Area

Region: Arizona/ New Mexico Plateau **Ecoregion:** Madrean Lower Montane Forests

Start: 32.847701°, -108.592608°, elevation 4367 ft. **End:** 32.848311°, -108.592126°, elevation 4350 ft.

Length: 1.59 miles

First Survey Year: 2022

Status: Active

Route Overview:

This route is along the Gila River, which originates above 10,000 feet in Mogollon Mountains, and flows 500 miles to Yuma Arizona, where it joins the Colorado River. However, due to irrigation and municipal diversions, the Gila now dries up long before it meets the Colorado. In New Mexico, the Gila remains wild and undammed, supporting a lively riparian forest community with cottonwoods, sycamores, willows and alders. It also acts as a flyway for neotropical migrant birds and butterflies. This particular route is in the Gila Bird Area, within the Gila National Forest. The area supports extensive areas of riparian habitat and several restoration projects have worked to maintain the integrity of the riparian ecosystem.

Route History: Surveys started on this route in 2022. The same monitor has surveyed the route throughout its history. In August of 2022, a millennial level flood event impacted the area. The high water in the river itself undercut the ground along the survey route trail, causing it to collapse and taking down many of the huge cottonwoods that lined the riverbank. After the flood waters receded, it was impossible to proceed beyond about 0.3 miles from the start position because of the tangle of downed trees. Despite the apparent destruction, the trees were removed quickly, and the riverbank erosion was minimal. Therefore, no permanent changes to the route were made.



Ventral and dorsal photos of a Perse Checkerspot (*Microtia perse*) observed at Gila Bird Area. This species has not been observed at any other route, so far. Photos: Elaine Halbedel

Route Statistics:

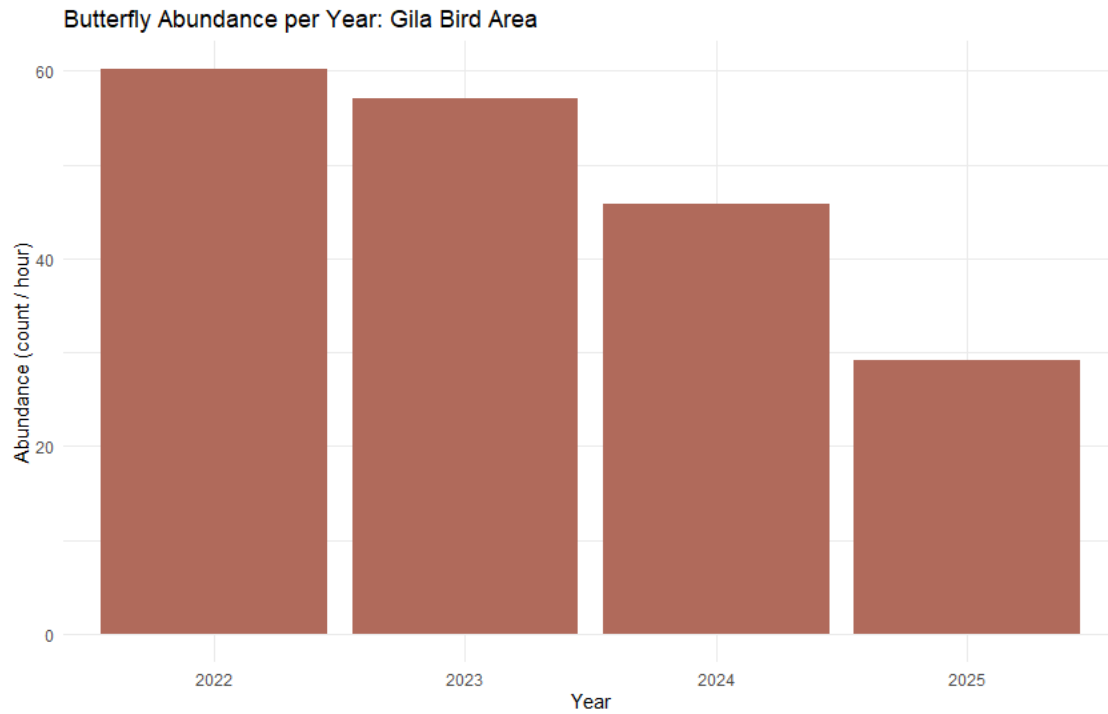


FIGURE 56 INDEX OF ABUNDANCE AT GILA BIRD AREA DURING YEARS SURVEYED BETWEEN 2020-2025.

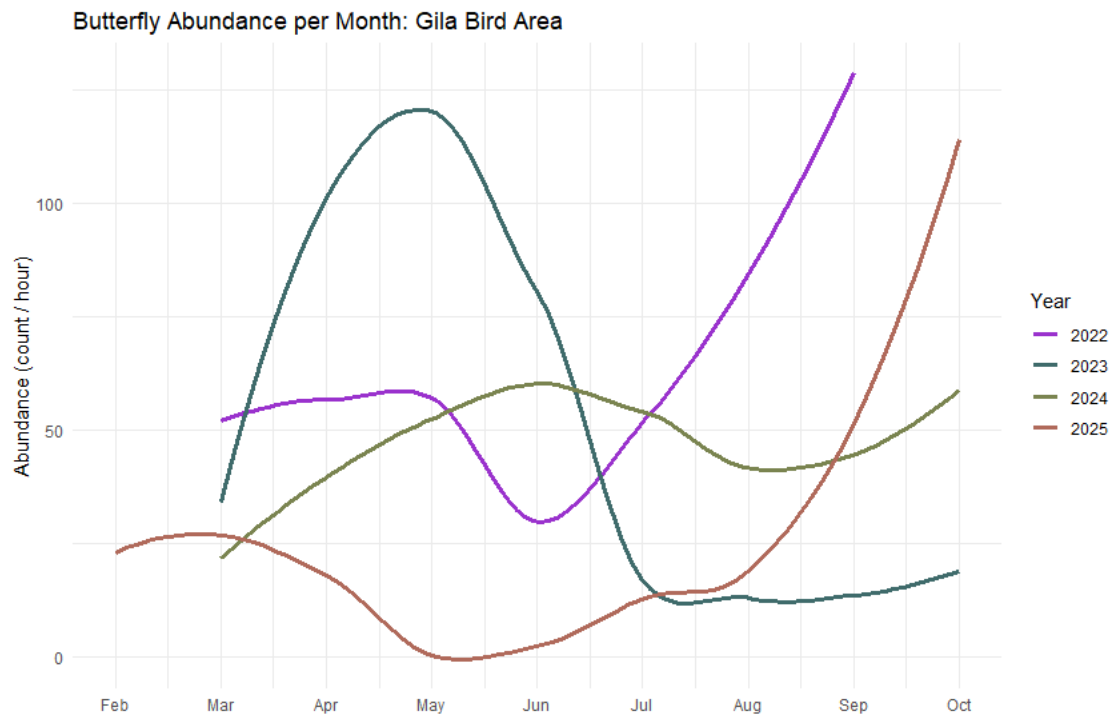


FIGURE 57 INDEX OF ABUNDANCE PER MONTH AT GILA BIRD AREA ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 28 SPECIES RECORDED ON THE GILA BIRD AREA ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Arizona Powdered Skipper (<i>Systasea zampa</i>) - 3 Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 2 Common Sootywing (<i>Pholisora catullus</i>) - 32 Common Streaky-Skipper (<i>Celotes nesus</i>) - 38 Dotted Roadside-Skipper (<i>Amblyscirtes eos</i>) - 1 Dun Skipper (<i>Euphyes vestris</i>) - 1 Edwards' Skipperling (<i>Oarisma edwardsii</i>) - 1 Funereal Duskywing (<i>Erynnis funeralis</i>) - 3 Garita Skipperling (<i>Oarisma garita</i>) - 1 Golden-headed Scallopwing (<i>Staphylus ceos</i>) - 22 Meridian Duskywing (<i>Erynnis meridianus</i>) - 4 Mournful Duskywing (<i>Erynnis tristis</i>) - 4 Northern Cloudywing (<i>Thorybes pylades</i>) - 11 Orange Skipperling (<i>Copaodes aurantiaca</i>) - 72 Pacuvius Duskywing (<i>Erynnis pacuvius</i>) - 1 Pahaska Skipper (<i>Hesperia pahaska</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 2 Sleepy Duskywing (<i>Erynnis brizo</i>) - 2 unidentified duskywing (<i>Erynnis</i> sp.) - 12 unidentified grass skipper (<i>Hesperinae</i> sp.) - 7 Unidentified Sootywing (<i>Unidentified Pholisora</i> sp.) - 4 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 111 White-barred Skipper (<i>Atrytonopsis pittacus</i>) - 1 White-tufted Sootywing (<i>Pholisora albicirrus</i>) - 4	American Snout (<i>Libytheana carinenta</i>) - 61 Arizona Red-spotted Purple (<i>Limenitis arthemis arizonensis</i>) - 6 Arizona Sister (<i>Adelpha eulalia</i>) - 8 Bordered Patch (<i>Chlosyne lacinia</i>) - 37 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 2 Common Buckeye (<i>Junonia coenia</i>) - 13 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 3 Goatweed Leafwing (<i>Anaea andria</i>) - 10 Gray Buckeye (<i>Junonia grisea</i>) - 11 Hackberry Emperor (<i>Asterocampa celtis</i>) - 29 Monarch (<i>Danaus plexippus</i>) - 10 Mourning Cloak (<i>Nymphalis antiopa</i>) - 83 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 33 Painted Lady (<i>Vanessa cardui</i>) - 7 Perse Checkerspot (<i>Microtia perse</i>) - 263 Queen (<i>Danaus gilippus</i>) - 45 Red Satyr (<i>Megisto rubricata</i>) - 6 Red-spotted Purple or White Admiral (<i>Limenitis arthemis</i>) - 5 Sagebrush Checkerspot (<i>Chlosyne acastus</i>) - 3 Satyr Comma (<i>Polygonia satyrus</i>) - 35 Tawny Emperor (<i>Asterocampa clyton</i>) - 2 Texan Crescent (<i>Anthanassa texana</i>) - 26 Tiny Checkerspot (<i>Dymasia dymas</i>) - 37 unidentified lady (<i>Vanessa</i> sp.) - 2 Variegated Fritillary (<i>Euptoieta claudia</i>) - 26 Viceroy (<i>Limenitis archippus</i>) - 3
Family: Lycaenidae	Family: Pieridae
Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 5 Echo Azure (<i>Celastrina echo</i>) - 20 Gray Hairstreak (<i>Strymon melinus</i>) - 7 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 6 Lupine Blue (<i>Plebejus lupini</i>) - 4 Marine Blue (<i>Leptotes marina</i>) - 110 Reakirt's Blue (<i>Echinargus isola</i>) - 41 unidentified blue (<i>Polyommata</i> sp.) - 66 Western Green Hairstreak (<i>Callophrys affinis</i>) - 1 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 8 Western Tailed-Blue (<i>Cupido amyntula</i>) - 65	Cabbage White (<i>Pieris rapae</i>) - 52 Checkered White (<i>Pontia protodice</i>) - 37 Clouded Sulphur (<i>Colias philodice</i>) - 1 Cloudless Sulphur (<i>Phoebis sennae</i>) - 20 Dainty Sulphur (<i>Nathalis iole</i>) - 138 Mexican Yellow (<i>Eurema mexicana</i>) - 29 Orange Sulphur (<i>Colias eurytheme</i>) - 68 Sleepy Orange (<i>Abaeis nicippe</i>) - 112 Southern Dogface (<i>Zerene cesonia</i>) - 15 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 10 Spring White (<i>Pontia sisymbrii</i>) - 7 Tailed Orange (<i>Pyrisitia proterpia</i>) - 7 unidentified sulphur (<i>Coliinae</i> sp.) - 6 unidentified white (<i>Pierinae</i> sp.) - 20
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 17 Giant Swallowtail (<i>Papilio cressphontes</i>) - 1 Pipevine Swallowtail (<i>Battus philenor</i>) - 7 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 21	Fatal Metalmark (<i>Calephelis nemesia</i>) - 2

Black Range: Railroad Canyon

Region: Arizona/ New Mexico Plateau **Ecoregion:** Montane Conifer Forests

Start: 32.909032°, -107.816588°, elevation 7057 ft. **End:** 32.923410°, -107.816076°, elevation 7325 ft.

Length: 1.31 miles

First Survey Year: 2022

Status: Active

This route is in the Black Range, in the Gila National Forest of southwestern New Mexico. It is a natural, unmanaged site, isolated from any towns or cities. It runs along Gallinas Creek in Railroad Canyon, which drains snowmelt from higher elevations of the Black Range and joins Iron Creek before eventually feeding the Mimbres River. It runs perennially, except in very dry years. The riparian ecosystem and old-growth forest along the canyon floor attract a diversity of wildlife. Some sections of this route, especially toward the top, were severely burned during the Silver Fire, in 2013, which covered over 130,000 acres. Human disturbances in the Black Range include mining and ranching.

Route History:

Surveys started on this route in 2022. Forest closures due to nearby wildfires prevented surveys from taking place after June 3rd during the 2022 season. Surveys resumed in 2023. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.



Route Statistics:

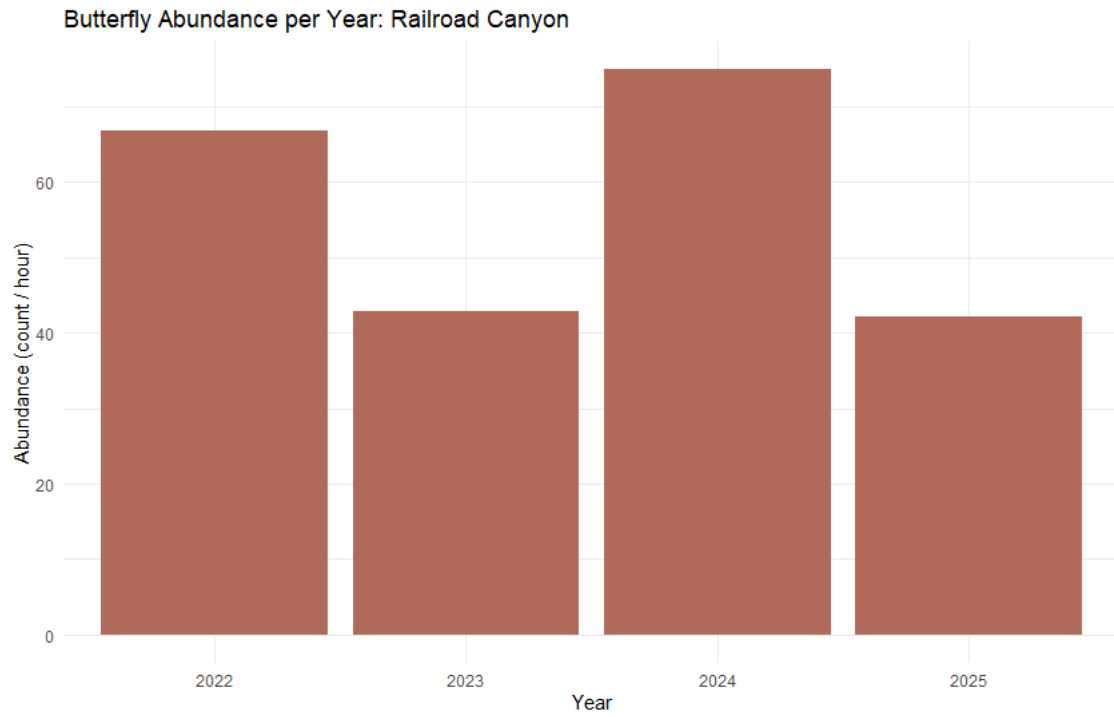


FIGURE 58 INDEX OF ABUNDANCE AT RAILROAD CANYON DURING YEARS SURVEYED BETWEEN 2020-2025.

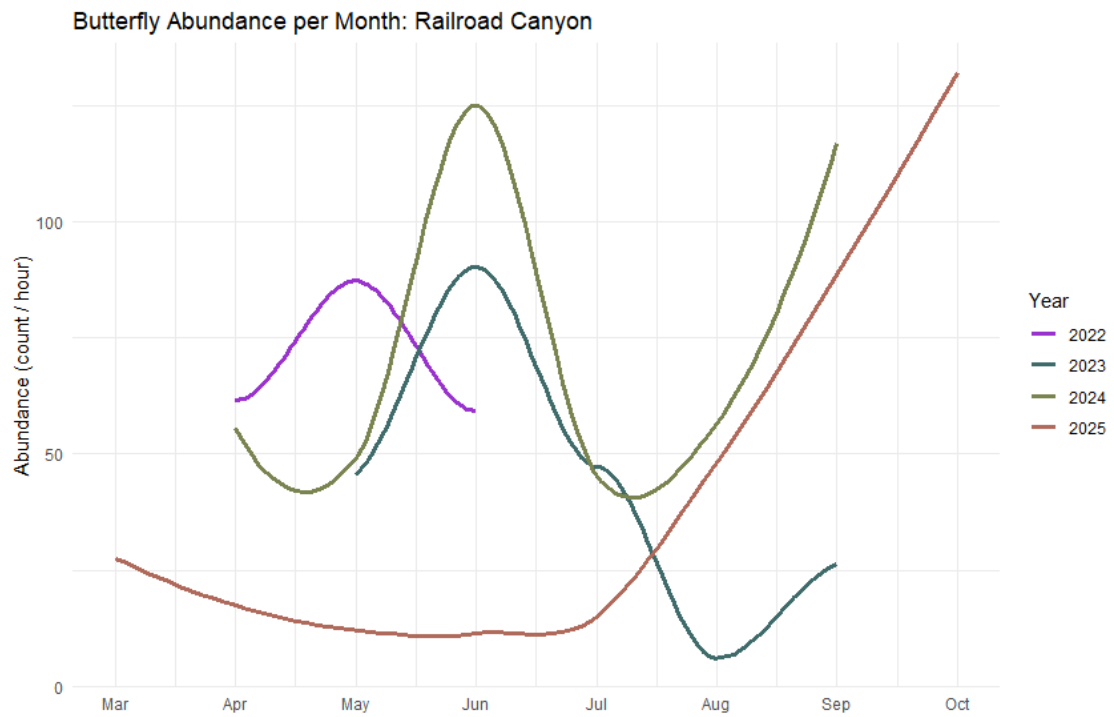


FIGURE 59 INDEX OF ABUNDANCE PER MONTH AT RAILROAD CANYON ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 29 SPECIES RECORDED ON THE RAILROAD CANYON ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Afranius Duskywing (<i>Erynnis afranius</i>) - 2 Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 10 Cassus Roadside-Skipper (<i>Amblyscirtes cassus</i>) - 4 Common Sootywing (<i>Pholisora catullus</i>) - 7 Deva Skipper (<i>Atrytonopsis deva</i>) - 2 Dreamy Duskywing (<i>Erynnis icelus</i>) - 6 Edwards' Skipperling (<i>Oarisma edwardsii</i>) - 5 Four-spotted Skipperling (<i>Piruna polingii</i>) - 15 Funereal Duskywing (<i>Erynnis funeralis</i>) - 9 Gold-costa Skipper (<i>Cogia caicus</i>) - 1 Golden Banded-Skipper (<i>Autochton cellus</i>) - 9 Golden-headed Scallopwing (<i>Staphylus ceos</i>) - 2 Large Roadside-Skipper (<i>Amblyscirtes exotera</i>) - 1 Meridian Duskywing (<i>Erynnis meridianus</i>) - 12 Mournful Duskywing (<i>Erynnis tristis</i>) - 11 Northern Cloudywing (<i>Thorybes pylades</i>) - 52 Orange Skipperling (<i>Copaeodes aurantiaca</i>) - 6 Pacuvius Duskywing (<i>Erynnis pacuvius</i>) - 6 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 17 Short-tailed Skipper (<i>Zestusa dorus</i>) - 5 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 18 Slaty Roadside-Skipper (<i>Amblyscirtes nereus</i>) - 1 Sleepy Duskywing (<i>Erynnis brizo</i>) - 12 Small Checkered-Skipper (<i>Pyrgus scriptura</i>) - 1 Taxiles Skipper (<i>Poanes taxiles</i>) - 8 unidentified duskywing (<i>Erynnis</i> sp.) - 40 unidentified grass skipper (<i>Hesperinae</i> sp.) - 6 Viereck's Skipper (<i>Atrytonopsis vierecki</i>) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 167 White-barred Skipper (<i>Atrytonopsis pittacus</i>) - 2 Yucca Giant-Skipper (<i>Megathymus yuccae</i>) - 14	American Lady (<i>Vanessa virginiensis</i>) - 7 American Snout (<i>Libytheana carinenta</i>) - 12 Arizona Red-spotted Purple (<i>Limenitis arthemis arizonensis</i>) - 5 Arizona Sister (<i>Adelpha eulalia</i>) - 30 Bordered Patch (<i>Chlosyne lacinia</i>) - 12 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 17 Common Buckeye (<i>Junonia coenia</i>) - 1 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 1 Field Crescent (<i>Phyciodes pulchella</i>) - 62 Gray Buckeye (<i>Junonia grisea</i>) - 6 Hoary Comma (<i>Polygonia gracilis</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 18 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 104 Northwestern Fritillary (<i>Speyeria hesperis</i>) - 6 Painted Lady (<i>Vanessa cardui</i>) - 23 Queen (<i>Danaus gilippus</i>) - 2 Red Satyr (<i>Megisto rubricata</i>) - 19 Red-bordered Satyr (<i>Gyrocheilus patrobias</i>) - 38 Red-spotted Purple or White Admiral (<i>Limenitis arthemis</i>) - 3 Sagebrush Checkerspot (<i>Chlosyne acastus</i>) - 116 Satyr Comma (<i>Polygonia satyrus</i>) - 11 Tiny Checkerspot (<i>Dymasia dymas</i>) - 2 unidentified anglewing (<i>Polygonia</i> sp.) - 1 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 5 unidentified crescent (<i>Phyciodes</i> sp.) - 6 unidentified lady (<i>Vanessa</i> sp.) - 4 Variegated Fritillary (<i>Euptoieta claudia</i>) - 5 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 6
Family: Lycaenidae	Family: Pieridae
Arizona Hairstreak (<i>Erora quaderna</i>) - 6 Brown Elfin (<i>Callophrys augustinus</i>) - 2 Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 3 Echo Azure (<i>Celastrina echo</i>) - 359 Gray Hairstreak (<i>Strymon melinus</i>) - 11 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 2 Leda Ministreak (<i>Ministrymon leda</i>) - 1 Lupine Blue (<i>Plebejus lupini</i>) - 9 Marine Blue (<i>Leptotes marina</i>) - 280 Reakirt's Blue (<i>Echinargus isola</i>) - 6 unidentified blue (<i>Polyommata</i> sp.) - 67 Western Tailed-Blue (<i>Cupido amyntula</i>) - 11	Cabbage White (<i>Pieris rapae</i>) - 4 Checkered White (<i>Pontia protodice</i>) - 6 Clouded Sulphur (<i>Colias philodice</i>) - 1 Cloudless Sulphur (<i>Phoebis sennae</i>) - 2 Dainty Sulphur (<i>Nathalis iole</i>) - 51 Mexican Yellow (<i>Eurema mexicana</i>) - 7 Orange Sulphur (<i>Colias eurytheme</i>) - 37 Pine White (<i>Neophasia menapia</i>) - 3 Sleepy Orange (<i>Abaeis nicippe</i>) - 30 Southern Dogface (<i>Zerene cesonia</i>) - 16 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 22 Spring White (<i>Pontia sisymbrii</i>) - 23 Tailed Orange (<i>Pyrisitia proterpia</i>) - 1 unidentified sulphur (<i>Coliinae</i> sp.) - 2 unidentified white (<i>Pierinae</i> sp.) - 5
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 135	None

Pinos Altos Range: Little Cherry Creek

Region: Arizona/ New Mexico Plateau **Ecoregion:** Lower Montane Conifer Forests

Start: 32.901777°, -108.209309°, elevation 7088 ft. **End:** 32.897824°, -108.232151°, elevation 6639 ft.

Length: 1.51 miles

First Survey Year: 2022

Status: Active

Route Overview:

This route is in the Pinos Altos Range, in the Gila National Forest. It runs along Little Cherry Creek, in a mixed conifer/ deciduous woodland. Ponderosa pine, silverleaf oak, and gamble oak dominate the surrounding forest, while box elder, Arizona alder, choke cherry, golden currant, smooth sumac, and Gooding's willow can be found in the riparian area.

Route History:

Surveys started on this route in 2022. The same monitor has surveyed the route throughout its history. A large fire nearby in 2025 does not seem to have affected the watershed properties. In addition, due to an inhaling property at the end of the road which appears to have changed hands, the condition of the route has improved. There is increased interest in preserving access, so occasional truckloads of gravel and road improvement take place.



Route Statistics:

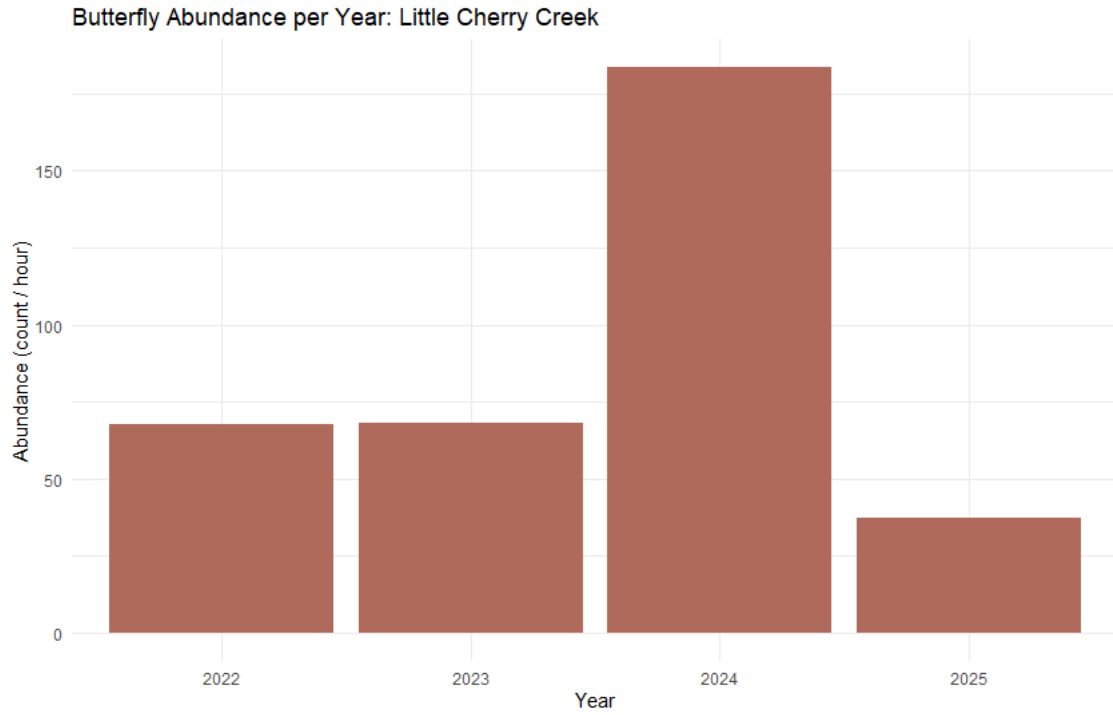


FIGURE 60 INDEX OF ABUNDANCE AT LITTLE CHERRY CREEK DURING YEARS SURVEYED BETWEEN 2020-2025.

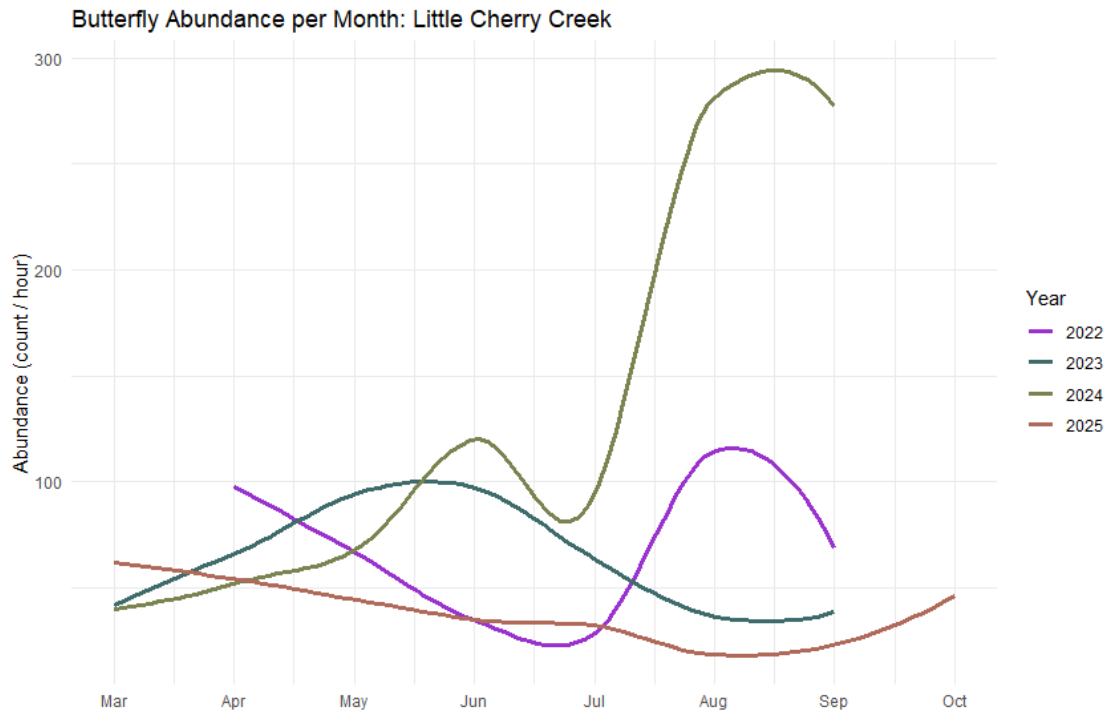


FIGURE 61 INDEX OF ABUNDANCE PER MONTH AT LITTLE CHERRY CREEK ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 30 SPECIES RECORDED ON THE LITTLE CHERRY CREEK ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Afranius Duskywing (<i>Erynnis afranius</i>) - 19 Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 12 Cassus Roadside-Skipper (<i>Amblyscirtes cassus</i>) - 14 Common Sootywing (<i>Pholisora catullus</i>) - 9 Deva Skipper (<i>Atrytonopsis deva</i>) - 1 Dreamy Duskywing (<i>Erynnis icelus</i>) - 5 Edwards' Skipperling (<i>Oarisma edwardsii</i>) - 17 Four-spotted Skipperling (<i>Piruna polingii</i>) - 21 Funereal Duskywing (<i>Erynnis funeralis</i>) - 17 Garita Skipperling (<i>Oarisma garita</i>) - 3 Golden Banded-Skipper (<i>Autochton cellus</i>) - 13 Large Roadside-Skipper (<i>Amblyscirtes exotera</i>) - 3 Meridian Duskywing (<i>Erynnis meridianus</i>) - 34 Mexican Cloudywing (<i>Thorybes mexicana</i>) - 2 Mournful Duskywing (<i>Erynnis tristis</i>) - 26 Northern Cloudywing (<i>Thorybes pylades</i>) - 122 Orange Skipperling (<i>Copaodes aurantiaca</i>) - 6 Orange-headed Roadside-Skipper (<i>Amblyscirtes phylace</i>) - 1 Pacuvius Duskywing (<i>Erynnis pacuvius</i>) - 15 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 31 Short-tailed Skipper (<i>Zestusa dorus</i>) - 32 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 40 Slaty Roadside-Skipper (<i>Amblyscirtes nereus</i>) - 1 Sleepy Duskywing (<i>Erynnis brizo</i>) - 49 Taxiles Skipper (<i>Poanes taxiles</i>) - 15 unidentified duskywing (<i>Erynnis</i> sp.) - 110 unidentified grass skipper (<i>Hesperinae</i> sp.) - 3 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 1 Viereck's Skipper (<i>Atrytonopsis vierecki</i>) - 17 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 66 Yucca Giant-Skipper (<i>Megathymus yuccae</i>) - 2	American Lady (<i>Vanessa virginiensis</i>) - 11 American Snout (<i>Libytheana carinenta</i>) - 15 Arizona Red-spotted Purple (<i>Limenitis arthemis arizonensis</i>) - 77 Arizona Sister (<i>Adelpha eulalia</i>) - 491 Bordered Patch (<i>Chlosyne lacinia</i>) - 3 California Tortoiseshell (<i>Nymphalis californica</i>) - 5 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 67 Common Buckeye (<i>Junonia coenia</i>) - 4 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 2 Field Crescent (<i>Phyciodes pulchella</i>) - 8 Gray Buckeye (<i>Junonia grisea</i>) - 16 Hoary Comma (<i>Polygonia gracilis</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 97 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 96 Northwestern Fritillary (<i>Speyeria hesperis</i>) - 25 Painted Lady (<i>Vanessa cardui</i>) - 17 Red Admiral (<i>Vanessa atalanta</i>) - 5 Red Satyr (<i>Megisto rubricata</i>) - 13 Red-bordered Satyr (<i>Gyrocheilus patrobas</i>) - 246 Red-spotted Purple or White Admiral (<i>Limenitis arthemis</i>) - 32 Sagebrush Checkerspot (<i>Chlosyne acastus</i>) - 13 Satyr Comma (<i>Polygonia satyrus</i>) - 41 Texan Crescent (<i>Anthanassa texana</i>) - 2 unidentified crescent (<i>Phyciodes</i> sp.) - 1 unidentified lady (<i>Vanessa</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 13 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 27
Family: Lycaenidae	Family: Pieridae
Arizona Hairstreak (<i>Erora quaderna</i>) - 16 Brown Elfin (<i>Callophrys augustinus</i>) - 4 Colorado Hairstreak (<i>Hypaurotis crysalus</i>) - 1 Echo Azure (<i>Celastrina echo</i>) - 1394 Gray Hairstreak (<i>Strymon melinus</i>) - 6 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 13 Lupine Blue (<i>Plebejus lupini</i>) - 11 Marine Blue (<i>Leptotes marina</i>) - 169 Reakirt's Blue (<i>Echinargus isola</i>) - 2 Thicket Hairstreak (<i>Callophrys spinetorum</i>) - 3 unidentified blue (<i>Polyommata</i> sp.) - 191 unidentified hairstreak (<i>Theclinae</i> sp.) - 1 Western Green Hairstreak (<i>Callophrys affinis</i>) - 1 Western Tailed-Blue (<i>Cupido amyntula</i>) - 29	Cabbage White (<i>Pieris rapae</i>) - 9 Checkered White (<i>Pontia protodice</i>) - 13 Clouded Sulphur (<i>Colias philodice</i>) - 3 Cloudless Sulphur (<i>Phoebis sennae</i>) - 2 Dainty Sulphur (<i>Nathalis iole</i>) - 14 Mexican Yellow (<i>Eurema mexicana</i>) - 26 Orange Sulphur (<i>Colias eurytheme</i>) - 55 Sleepy Orange (<i>Abaeis nicippe</i>) - 19 Southern Dogface (<i>Zerene cesonia</i>) - 26 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 68 Spring White (<i>Pontia sisymbrii</i>) - 38 unidentified white (<i>Pierinae</i> sp.) - 9
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 152	None

Pinos Altos Range: Meadow Creek

Region: Arizona/ New Mexico Plateau **Ecoregion:** Lower Montane Conifer Forests

Start: 32.948194°, -108.169505°, elevation 7241 ft. **End:** 32.967057°, -108.187935°, elevation 6984 ft.

Length: 1.87 miles

First Survey Year: 2022

Status: Active

Route Overview:

This site is in the montane conifer forests ecoregion, which is found west of the Rio Grande at elevations from about 7000 to 9500 feet. Ponderosa pine and Gambel oak are common, along with mountain mahogany and serviceberry. This route is in the Pinos Altos Range, in the Gila National Forest. A diversity of grasses and forbs are abundant along the trail.

Route History:

Surveys started on this route in 2022. The same monitor has surveyed the route throughout its history. In June of 2025, the Trout Fire burned 47,294 near Meadow Creek and Highway 15. The fire was firmly held to the north side of the road, and the south side remains pristine. The Ponderosa pines were damaged in places, but in 2026, the ground vegetation appears to be restoring itself well and with the same species that were there originally. For example, even in the burned areas, Rothrock's Basketflower is chest high and forming fields. The creek banks are down cut by several feet and there are debris corridors from the higher elevations alongside.

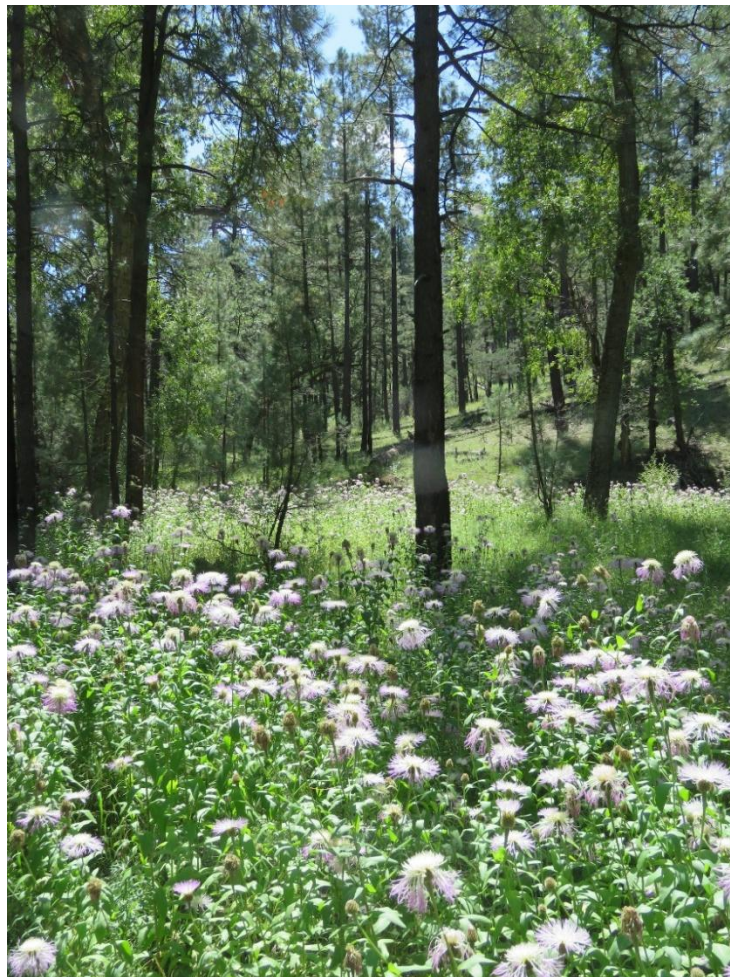


Photo: Elaine Halbedel

Route Statistics:

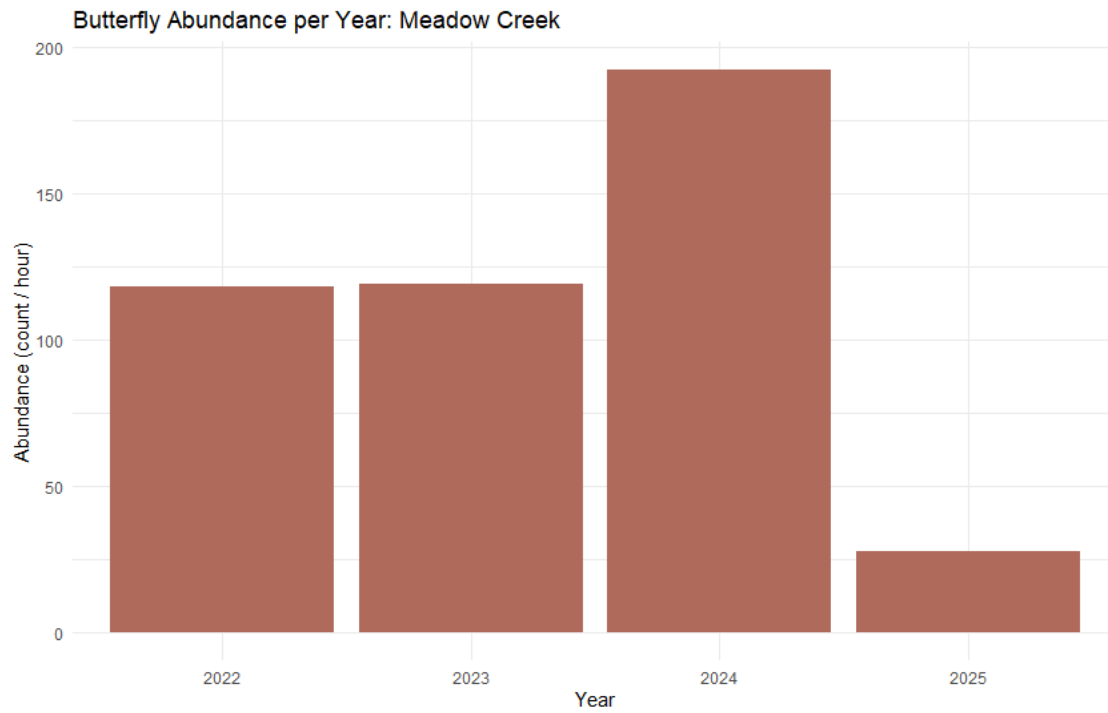


FIGURE 62 INDEX OF ABUNDANCE AT MEADOW CREEK DURING YEARS SURVEYED BETWEEN 2020-2025.

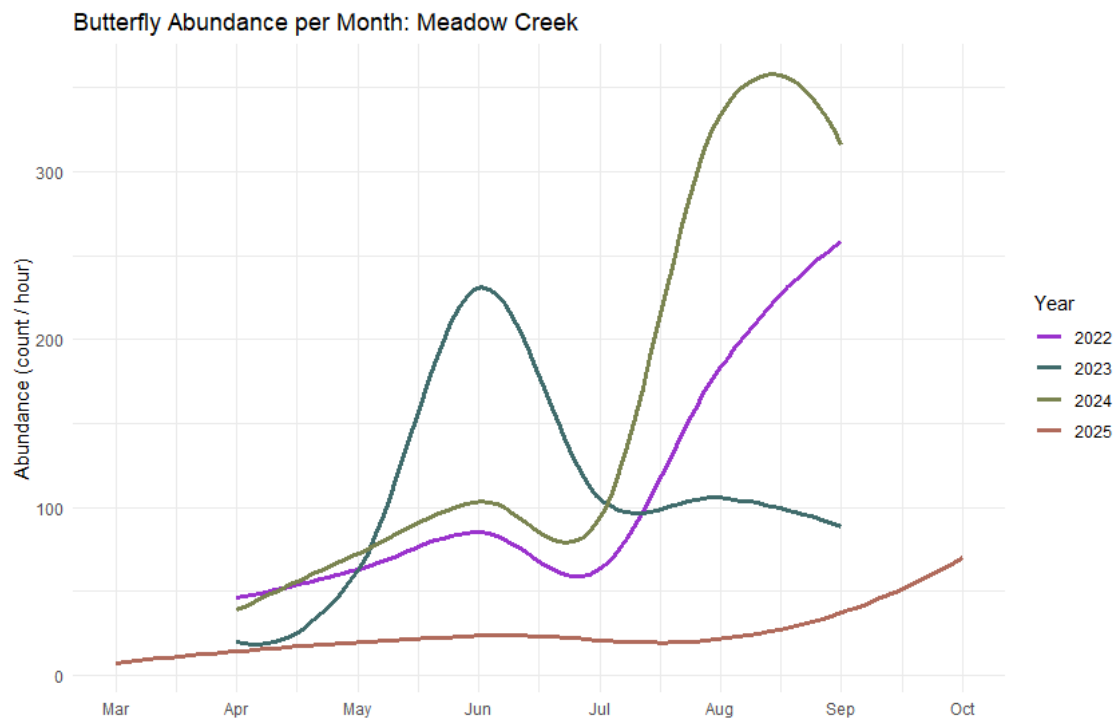


FIGURE 63 INDEX OF ABUNDANCE PER MONTH AT MEADOW CREEK ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 31 SPECIES RECORDED ON THE MEADOW CREEK ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Afranius Duskywing (<i>Erynnis afranius</i>) - 13 Cassus Roadside-Skipper (<i>Amblyscirtes cassus</i>) - 1 Common Sootywing (<i>Pholisora catullus</i>) - 3 Deva Skipper (<i>Atrytonopsis deva</i>) - 2 Dreamy Duskywing (<i>Erynnis icelus</i>) - 3 Edwards' Skipperling (<i>Oarisma edwardsii</i>) - 1 Four-spotted Skipperling (<i>Piruna polingii</i>) - 27 Funereal Duskywing (<i>Erynnis funeralis</i>) - 30 Golden Banded-Skipper (<i>Autochton cellus</i>) - 6 Large Roadside-Skipper (<i>Amblyscirtes exoteria</i>) - 1 Meridian Duskywing (<i>Erynnis meridianus</i>) - 24 Moon-marked skipper (<i>Atrytonopsis lunus</i>) - 1 Mournful Duskywing (<i>Erynnis tristis</i>) - 44 Northern Cloudywing (<i>Thorybes pylades</i>) - 235 Orange Skipperling (<i>Copaeades aurantiaca</i>) - 3 Orange-headed Roadside-Skipper (<i>Amblyscirtes phylace</i>) - 2 Pacuvius Duskywing (<i>Erynnis pacuvius</i>) - 10 Python Skipper (<i>Atrytonopsis python</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 25 Sachem (<i>Atalopedes campestris</i>) - 1 Short-tailed Skipper (<i>Zestusa dorus</i>) - 6 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 29 Slaty Roadside-Skipper (<i>Amblyscirtes nereus</i>) - 1 Sleepy Duskywing (<i>Erynnis brizo</i>) - 18 Snow's Skipper (<i>Paratrytone snowi</i>) - 4 Taxiles Skipper (<i>Poanes taxiles</i>) - 12 unidentified duskywing (<i>Erynnis</i> sp.) - 84 Unidentified Giant-skipper (<i>Agathymus</i> sp. or <i>Megathymus</i> sp.) - 1 unidentified grass skipper (<i>Hesperinae</i> sp.) - 11 Unidentified Sootywing (<i>Unidentified Pholisora</i> sp.) - 2 Viereck's Skipper (<i>Atrytonopsis vierecki</i>) - 6 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 264 White-tufted Sootywing (<i>Pholisora albicirrus</i>) - 1	American Lady (<i>Vanessa virginiensis</i>) - 106 American Snout (<i>Libytheana carinenta</i>) - 4 Arachne Checkerspot (<i>Poladryas arachne</i>) - 2 Arizona Red-spotted Purple (<i>Limenitis arthemis arizonensis</i>) - 38 Arizona Sister (<i>Adelpha eulalia</i>) - 156 Bordered Patch (<i>Chlosyne lacinia</i>) - 7 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 58 Common Buckeye (<i>Junonia coenia</i>) - 4 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 8 Field Crescent (<i>Phyciodes pulchella</i>) - 66 Gray Buckeye (<i>Junonia grisea</i>) - 43 Monarch (<i>Danaus plexippus</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 26 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 175 Nokomis Fritillary (<i>Speyeria nokomis</i>) - 119 Northwestern Fritillary (<i>Speyeria hesperis</i>) - 19 Painted Crescent (<i>Phyciodes picta</i>) - 7 Painted Lady (<i>Vanessa cardui</i>) - 41 Pearl Crescent (<i>Phyciodes tharos</i>) - 2 Red-bordered Satyr (<i>Gyrocheilus patrobas</i>) - 156 Red-spotted Purple or White Admiral (<i>Limenitis arthemis</i>) - 20 Sagebrush Checkerspot (<i>Chlosyne acastus</i>) - 8 Satyr Comma (<i>Polygonia satyrus</i>) - 9 Texan Crescent (<i>Anthanassa texana</i>) - 2 Tiny Checkerspot (<i>Dymasia dymas</i>) - 1 unidentified crescent (<i>Phyciodes</i> sp.) - 3 unidentified lady (<i>Vanessa</i> sp.) - 13 Variegated Fritillary (<i>Euptoieta claudia</i>) - 17 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 6 West Coast Lady (<i>Vanessa annabella</i>) - 1
Family: Lycaenidae	Family: Pieridae
Arizona Hairstreak (<i>Erora quaderna</i>) - 1 Boisduval's Blue (<i>Plebejus icarioides</i>) - 7 Brown Elfin (<i>Callophrys augustinus</i>) - 1 Echo Azure (<i>Celastrina echo</i>) - 1860 Gray Hairstreak (<i>Strymon melinus</i>) - 51 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 11 Lupine Blue (<i>Plebejus lupini</i>) - 35 Marine Blue (<i>Leptotes marina</i>) - 462 Melissa Blue (<i>Plebejus melissa</i>) - 1 Reakirt's Blue (<i>Echinargus isola</i>) - 60 Silvery Blue (<i>Glaucopsyche lygdamus</i>) - 4 unidentified blue (<i>Polyommata</i> sp.) - 296 Western Green Hairstreak (<i>Callophrys affinis</i>) - 13 Western Tailed-Blue (<i>Cupido amyntula</i>) - 95	Cabbage White (<i>Pieris rapae</i>) - 8 Checkered White (<i>Pontia protodice</i>) - 14 Clouded Sulphur (<i>Colias philodice</i>) - 11 Cloudless Sulphur (<i>Phoebis sennae</i>) - 10 Dainty Sulphur (<i>Nathalis iole</i>) - 174 Mexican Yellow (<i>Eurema mexicana</i>) - 9 Orange Sulphur (<i>Colias eurytheme</i>) - 161 Pine White (<i>Neophasia menapia</i>) - 2 Queen Alexandra's Sulphur (<i>Colias alexandra</i>) - 3 Sleepy Orange (<i>Abaeis nicippe</i>) - 16 Southern Dogface (<i>Zerene cesonia</i>) - 27 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 2 Spring White (<i>Pontia sisymbrii</i>) - 18 unidentified sulphur (<i>Coliinae</i> sp.) - 4 unidentified white (<i>Pierinae</i> sp.) - 5
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 8 Pipevine Swallowtail (<i>Battus philenor</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 67	Fatal Metalmark (<i>Calephelis nemesia</i>) - 2

Manzano Mountains: Manzano Open Space

Region: Arizona/ New Mexico Plateau **Ecoregion:** Conifer Woodlands and Savannas

Start: 35.046023°, -106.481892°, elevation 5987 ft. **End:** 35.045614°, -106.481912°, elevation 5988 ft.

Length: 1.44 miles

First Survey Year: 2021

Status: Active

Route Overview:

This mid-elevation transition zone site is characterized by juniper woodland, interspersed with grassland and shrubland. The main vegetation types include rabbitbrush, mountain mahogany, apache plume, juniper, yucca, beargrass, and native grasses. This is a natural, unmanaged site, bordering a suburban Albuquerque neighborhood on one side. This trail is owned and managed by ABQ Open Space.



Photo: Lisa Tannenbaum

Route History:

Surveys started on this route in 2021. No changes to the route have been noted. The route has changed hands several times, with one monitor surveying in 2021 and 2022, a second monitor in 2023, and a third monitor in 2024 and 2025.

Route Statistics:

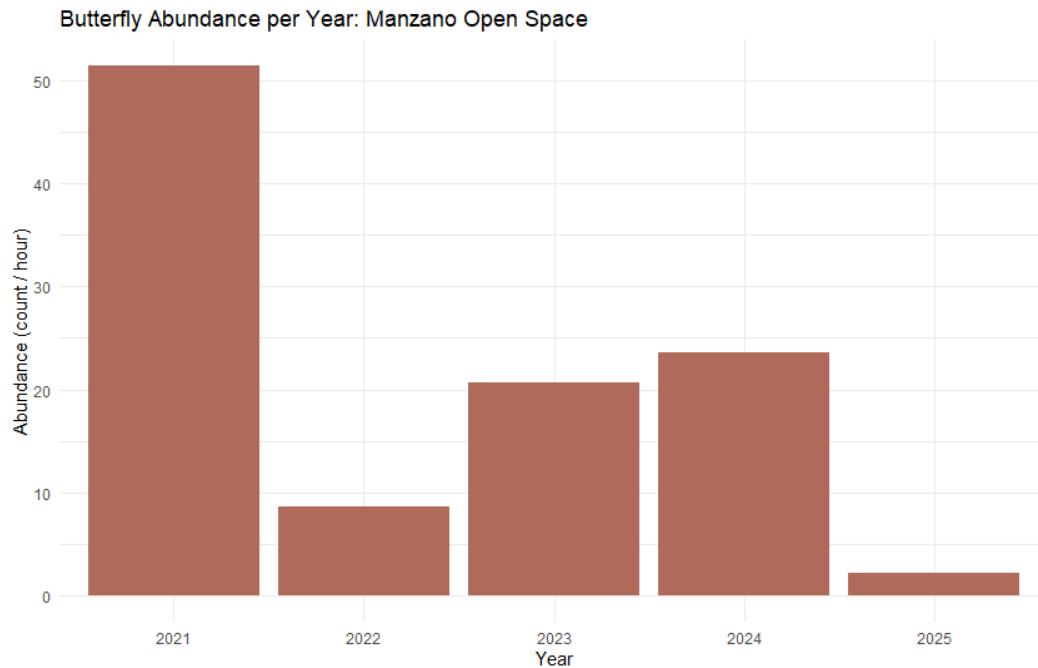


FIGURE 64 INDEX OF ABUNDANCE AT MANZANO OPEN SPACE DURING YEARS SURVEYED BETWEEN 2020-2025.

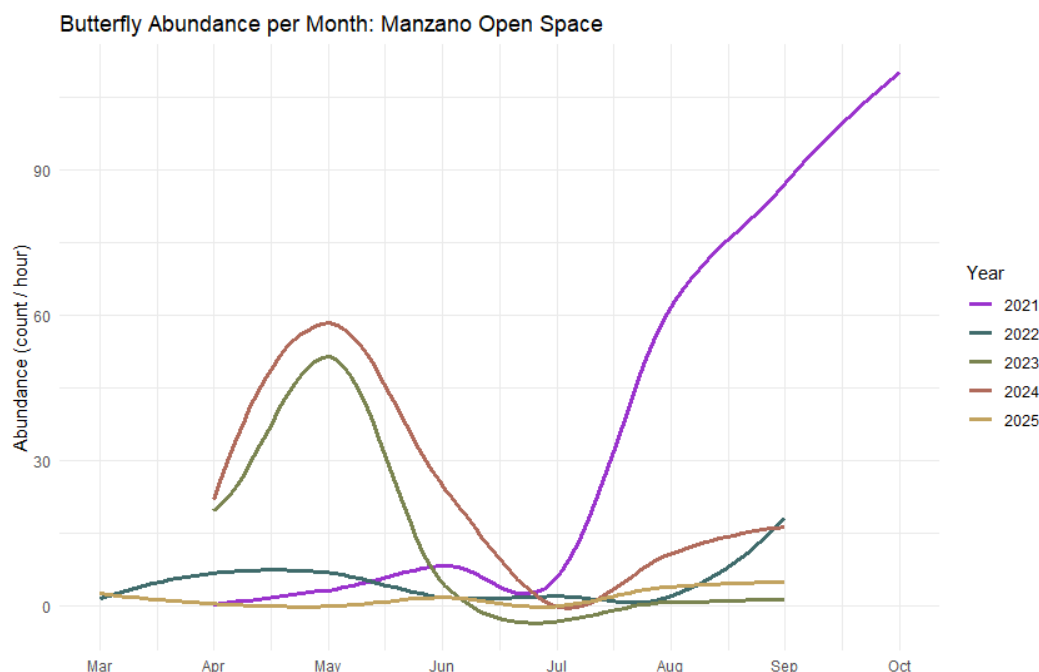


FIGURE 65 INDEX OF ABUNDANCE PER MONTH AT MANZANO OPEN SPACE ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 32 SPECIES RECORDED ON THE MANZANO OPEN SPACE ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 5	American Snout (<i>Libytheana carinenta</i>) - 46
Saltbush Sootywing (<i>Hesperopsis alpheus</i>) - 3	Bordered Patch (<i>Chlosyne lacinia</i>) - 4
Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 1	Monarch (<i>Danaus plexippus</i>) - 2
Sleepy Duskywing (<i>Erynnis brizo</i>) - 1	Monarch/ Queen/ Viceroy (<i>Danaus plexippus/gilippus/Limenitis archippus</i>) - 2
unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 9	Painted Lady (<i>Vanessa cardui</i>) - 8
unidentified duskywing (<i>Erynnis</i> sp.) - 2	unidentified brushfoot (<i>Nymphalinae</i> sp.) - 18
unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 9	unidentified Fritillary (<i>Fritillaria</i> sp.) - 2
White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 31	unidentified greater fritillary (<i>Speyeria</i> sp.) - 6
	unidentified lady (<i>Vanessa</i> sp.) - 15
	Variegated Fritillary (<i>Euptoieta claudia</i>) - 25
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 5	Checkered White (<i>Pontia protodice</i>) - 63
Lupine Blue (<i>Plebejus lupini</i>) - 19	Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 9
Marine Blue (<i>Leptotes marina</i>) - 2	Dainty Sulphur (<i>Nathalis iole</i>) - 88
Reakirt's Blue (<i>Echinargus isola</i>) - 1	Orange Sulphur (<i>Colias eurytheme</i>) - 4
Sandia Hairstreak (<i>Callophrys mcfarlandi</i>) - 4	Sleepy Orange (<i>Abaeis nicippe</i>) - 8
unidentified blue (<i>Polyommata</i> sp.) - 30	unidentified sulphur (<i>Coliinae</i> sp.) - 240
unidentified hairstreak (<i>Theclinae</i> sp.) - 8	unidentified white (<i>Pierinae</i> sp.) - 84
Western Pygmy-Blue (<i>Brephidium exilis</i>) - 203	
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 1	Mexican Metalmark (<i>Apodemia mejicanus</i>) - 6
unidentified swallowtail (<i>Papiliononinae</i> sp.) - 7	
Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 1	

Ramah Area: Ramah Reservoir from Lakeview Road

Region: Arizona/ New Mexico Plateau **Ecoregion:** Conifer Woodlands and Savannas

Start: 35.166031°, -108.474220°, elevation 6955 ft. **End:** 35.153413°, -108.484125°, elevation 6933 ft.

Length: 1.07 miles

First Survey Year: 2021

Status: Inactive

Route Overview:

This mid-elevation transition zone site is characterized by piñon-juniper woodland, interspersed with grassland and shrubland. It is at the foot of the Zuni Mountains, and neighbors the semiarid tablelands of the Arizona/New Mexico Plateau. The main vegetation types include rabbitbrush, juniper, piñon pine, and native grasses. The route runs along Ramah Reservoir, which was first dammed by Mormon settlers in 1894 for irrigation. This is a natural, unmanaged site, bordering the small town of Ramah, in McKinley County.



Route History:

Surveys started on this route in 2021, though no surveys were carried out in 2024 and 2025. No changes to the route have been noted. The same monitor surveyed the route throughout its history.

Route Statistics:

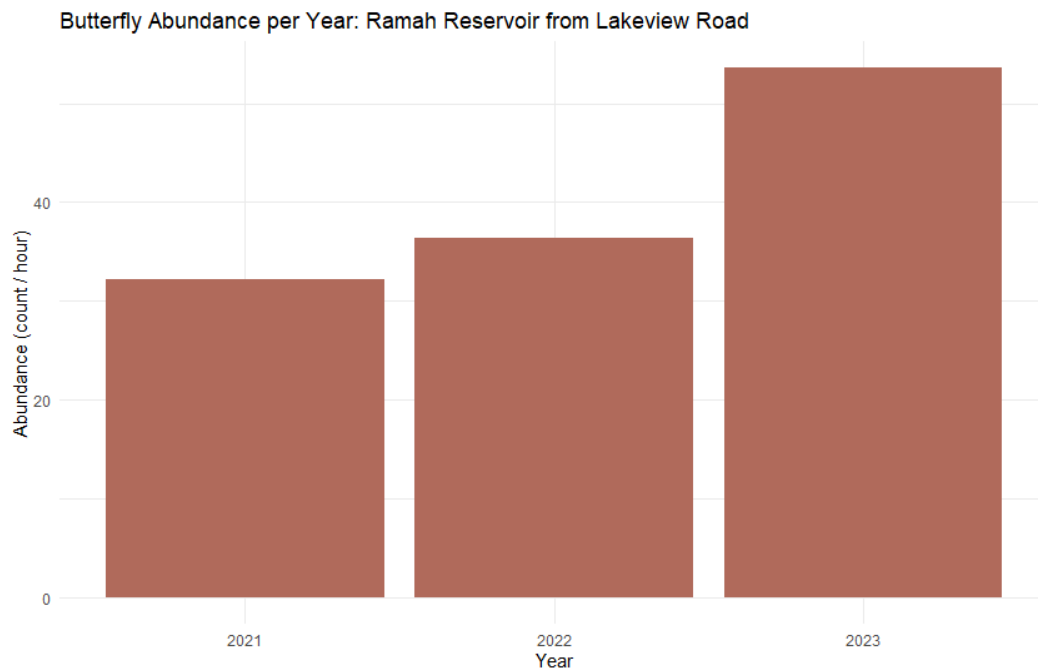


FIGURE 66 INDEX OF ABUNDANCE AT RAMAH RESERVOIR FROM LAKEVIEW ROAD DURING YEARS SURVEYED BETWEEN 2020-2025.

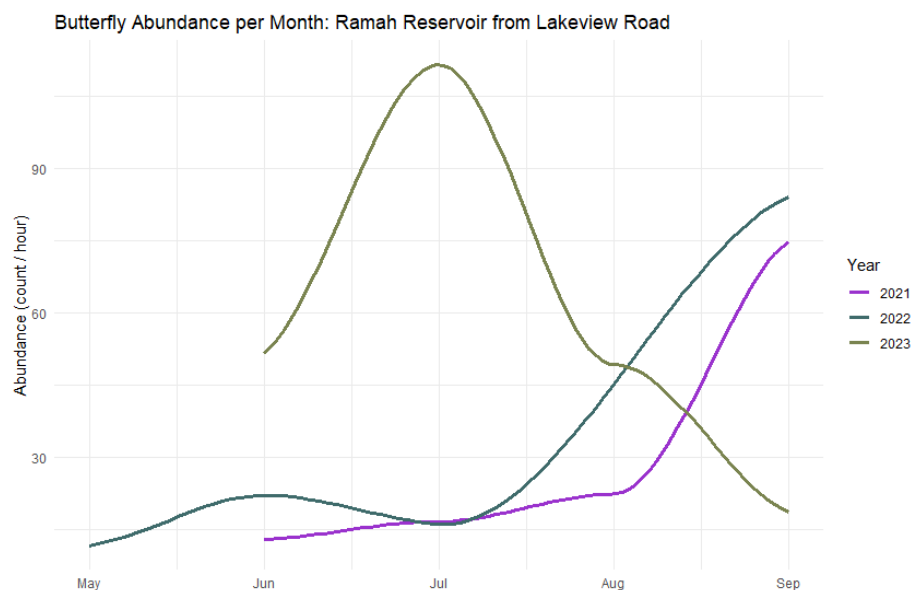


FIGURE 67 INDEX OF ABUNDANCE PER MONTH AT RAMAH RESERVOIR FROM LAKEVIEW ROAD ACROSS YEARS.

TABLE 33 SPECIES RECORDED AT RAMAH RESERVOIR FROM LAKEVIEW ROAD, INCLUDING THE TOTAL NUMBER OBSERVED.

Family: Hesperiidae	Family: Nymphalidae
Orange Skipperling (<i>Copaeodes aurantiaca</i>) - 1 Taxiles Skipper (<i>Poanes taxiles</i>) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 27	American Snout (<i>Libytheana carinenta</i>) - 5 Arizona Sister (<i>Adelpha eulalia</i>) - 1 Bordered Patch (<i>Chlosyne lacinia</i>) - 9 Dark Buckeye (<i>Junonia nigrosuffusa</i>) - 2 Field Crescent (<i>Phyciodes pulchella</i>) - 10 Fulvia Checkerspot (<i>Chlosyne fulvia</i>) - 1 Gray Buckeye (<i>Junonia grisea</i>) - 2 Hoary Comma (<i>Polygonia gracilis</i>) - 1 Monarch (<i>Danaus plexippus</i>) - 12 Mourning Cloak (<i>Nymphalis antiopa</i>) - 6 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 8 Painted Lady (<i>Vanessa cardui</i>) - 8 Queen (<i>Danaus gilippus</i>) - 1 unidentified brushfoot (<i>Nymphalinae sp.</i>) - 1 unidentified buckeye (<i>Junonia sp.</i>) - 1 unidentified crescent (<i>Phyciodes sp.</i>) - 3 Variegated Fritillary (<i>Euptoieta claudia</i>) - 16
Family: Lycaenidae	Family: Pieridae
Juniper Hairstreak (<i>Callophrys gryneus</i>) - 3 Melissa Blue (<i>Plebejus melissa</i>) - 2 unidentified blue (<i>Polyommata sp.</i>) - 7	Checkered White (<i>Pontia protodice</i>) - 167 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 4 Cloudless Sulphur (<i>Phoebis sennae</i>) - 5 Dainty Sulphur (<i>Nathalis iole</i>) - 398 Orange Sulphur (<i>Colias eurytheme</i>) - 8 Sleepy Orange (<i>Abaeis nicippe</i>) - 4 Southern Dogface (<i>Zerene cesonia</i>) - 3 unidentified sulphur (<i>Coliinae sp.</i>) - 63 unidentified white (<i>Pierinae sp.</i>) - 11
Family: Papilionidae	Family: Riodinidae
Old World Swallowtail (<i>Papilio machaon</i>) - 1 unidentified swallowtail (<i>Papiliononinae sp.</i>) - 1 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 8	None

Sandia Mountains: Oso Spring from Embudito Trailhead

Region: Arizona/ New Mexico Plateau **Ecoregion:** Conifer Woodlands and Savannas

Start: 35.136225°, -106.481980°, elevation 6240 ft. **End:** 35.136044°, -106.480450°, elevation 6258 ft.

Length: 1.07 miles

First Survey Year: 2021

Status: Active

Route Overview:

This mid-elevation transition zone site is characterized by piñon-juniper woodland, interspersed with grassland and shrubland. The main vegetation types include rabbitbrush, mountain mahogany, apache plume, juniper, yucca, beargrass, and native grasses. The presence of a spring along this route encourages the growth of black willow and elm trees, at the mouth of Oso Canyon. This is a natural, unmanaged site, bordering a suburban Albuquerque neighborhood on one side. Most of this route is in the Sandia Mountain Wilderness of the Cibola National Forest, but the trailhead is owned and managed by ABQ Open Space.



Route History: Surveys started on this route in 2021. The same pair of monitors have been surveying the route throughout its history. In May of 2021, the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) closed access to a section of Habitat C leading back to the start, where the route also ended. Therefore, the route took a detour north, still through Habitat C, to end at a different location. Six surveys in March and April of 2021 were carried out on the original route, before this change was made. In 2022, additional changes were made to this route in Habitat A and Habitat B. Two detours were added to the north side of the main trail in Habitat A. The first is short and was added to include additional stands of bear grass. The second is more extensive and was added to include a row of Hackberry trees. Habitat B was extended up the narrow canyon. The route was once 0.95 miles and is now 1.1 miles. The start and end point did not change.



Viereck's Skipper (*Atrytonopsis vierecki*) seen at Oso Spring on 22 April 2026.

Photo: Joe Schelling

Route Statistics:

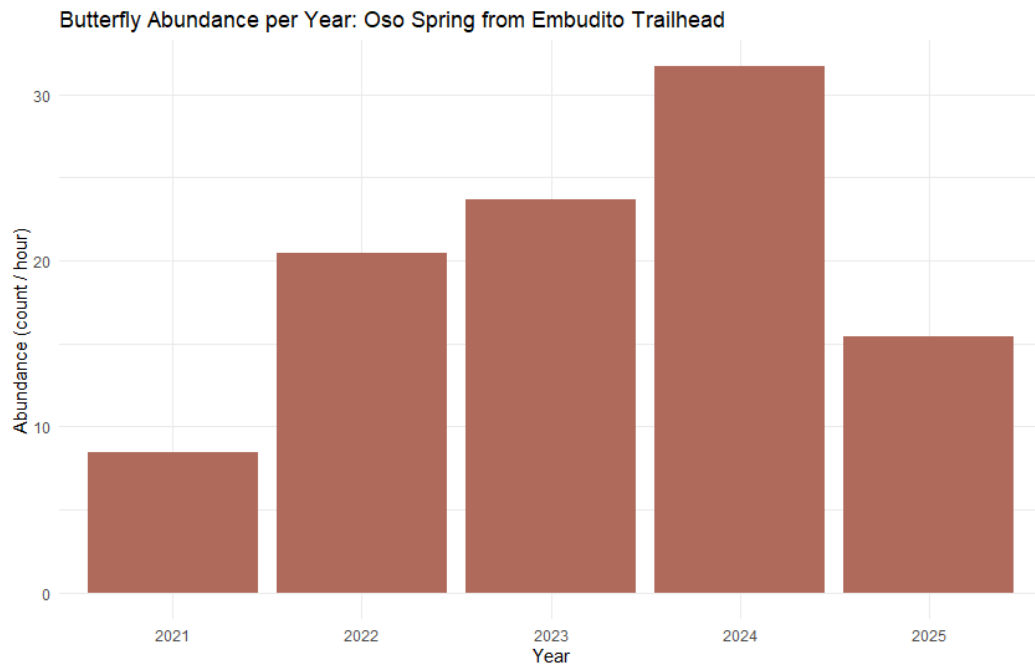


FIGURE 68 INDEX OF ABUNDANCE AT OSO SPRING FROM EMBUDITO TRAILHEAD DURING YEARS SURVEYED.

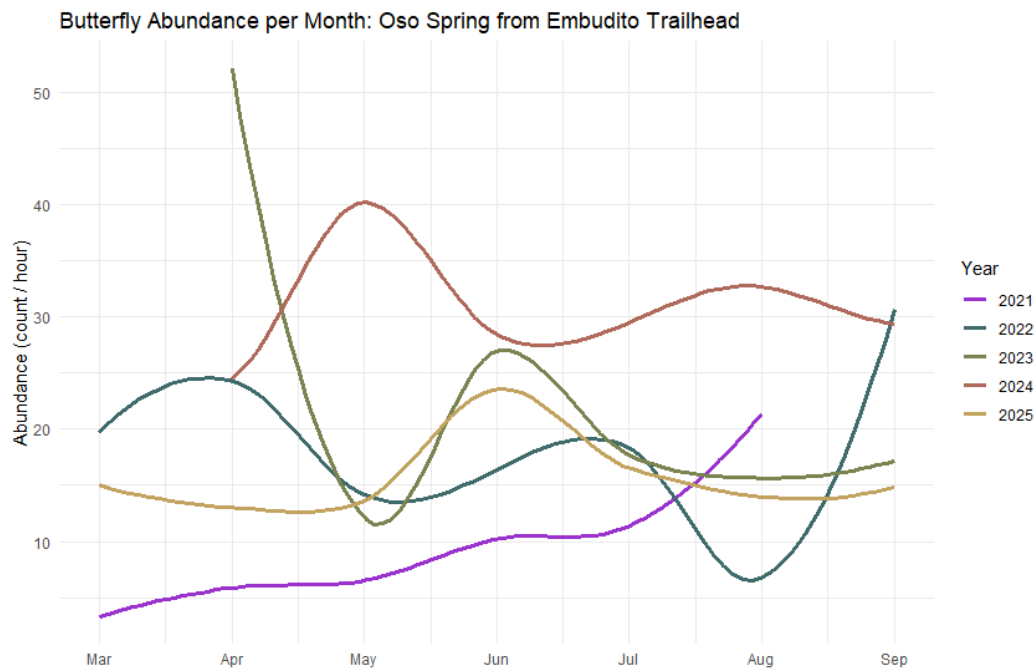


FIGURE 69 INDEX OF ABUNDANCE PER MONTH AT OSO SPRING FROM EMBUDITO TRAILHEAD ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 34 SPECIES RECORDED ON THE OSO SPRING FROM EMBUDITO TRAILHEAD ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Afranius Duskywing (<i>Erynnis afranius</i>) - 1 Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 2 Common Sootywing (<i>Pholisora catullus</i>) - 6 Dun Skipper (<i>Euphyes vestris</i>) - 2 Funereal Duskywing (<i>Erynnis funeralis</i>) - 2 Green Skipper (<i>Hesperia viridis</i>) - 15 Margarita Skipper (<i>Atrytonopsis margarita</i>) - 1 Meridian Duskywing (<i>Erynnis meridianus</i>) - 2 Mexican Sootywing (<i>Pholisora mejicanus</i>) - 19 Northern Cloudywing (<i>Thorybes pylades</i>) - 9 Orange Skipperling (<i>Copaodes aurantiaca</i>) - 4 Oslar's Roadside-Skipper (<i>Amblyscirtes oslari</i>) - 1 Pahaska Skipper (<i>Hesperia pahaska</i>) - 9 Pahaska/ Green Skipper (<i>Hesperia pahaska/viridis</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 26 Russet Skipperling (<i>Piruna pirus</i>) - 2 Short-tailed Skipper (<i>Zestusa dorus</i>) - 15 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 7 Sleepy Duskywing (<i>Erynnis brizo</i>) - 9 Taxiles Skipper (<i>Poanes taxiles</i>) - 2 unidentified cloudywing (<i>Thorybes</i> sp.) - 1 unidentified duskywing (<i>Erynnis</i> sp.) - 22 unidentified grass skipper (<i>Hesperinae</i> sp.) - 2 Unidentified Sootywing (<i>Unidentified Pholisora</i> sp.) - 6 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 7 Viereck's Skipper (<i>Atrytonopsis vierecki</i>) - 3 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 81	Arizona Sister (<i>Adelpha eulalia</i>) - 75 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 33 Common Buckeye (<i>Junonia coenia</i>) - 1 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 12 Field Crescent (<i>Phyciodes pulchella</i>) - 4 Fulvia Checkerspot (<i>Chlosyne fulvia</i>) - 1 Hackberry Emperor (<i>Asterocampa celtis</i>) - 4 Hoary Comma (<i>Polygonia gracilis</i>) - 7 Mourning Cloak (<i>Nymphalis antiopa</i>) - 35 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 9 Painted Lady (<i>Vanessa cardui</i>) - 78 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 1 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 2 Variegated Fritillary (<i>Euptoieta claudia</i>) - 15 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 15
Family: Lycaenidae	Family: Pieridae
Echo Azure (<i>Celastrina echo</i>) - 10 Gray Hairstreak (<i>Strymon melinus</i>) - 11 Great Purple Hairstreak (<i>Atlides halesus</i>) - 1 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 3 Lupine Blue (<i>Plebejus lupini</i>) - 45 Marine Blue (<i>Leptotes marina</i>) - 32 Reakirt's Blue (<i>Echinargus isola</i>) - 5 Sandia Hairstreak (<i>Callophrys mcfarlandi</i>) - 88 unidentified blue (<i>Polyommata</i> sp.) - 19 unidentified hairstreak (<i>Theclinae</i> sp.) - 1 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 56 Western Square-dotted Blue (<i>Euphilotes battoides</i>) - 2	Cabbage White (<i>Pieris rapae</i>) - 2 Checkered White (<i>Pontia protodice</i>) - 136 Clouded Sulphur (<i>Colias philodice</i>) - 26 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 5 Dainty Sulphur (<i>Nathalis iole</i>) - 25 Orange Sulphur (<i>Colias eurytheme</i>) - 4 Sleepy Orange (<i>Abaeis nicippe</i>) - 5 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 103 Spring White (<i>Pontia sisymbrii</i>) - 15 unidentified white (<i>Pierinae</i> sp.) - 11
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 2 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 132 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 5	Mexican Metalmark (<i>Apodemia mejicanus</i>) - 4

Sandia Mountains: Three Gun Springs Trail

Region: Arizona/ New Mexico Plateau **Ecoregion:** Conifer Woodlands and Savannas

Start: 35.0765°, -106.444205°, elevation 6324 ft. **End:** 35.07697°, -106.444186°, elevation 6343 ft.

Length: 1.1 miles

First Survey Year: 2022

Status: Active

Route Overview:

This mid-elevation transition zone site is characterized by piñon-juniper woodland, interspersed with grassland and shrubland. The main vegetation types include rabbitbrush, mountain mahogany, apache plume, juniper, yucca, beargrass, and native grasses. This is a natural, unmanaged site, isolated from an urban center. It is owned and managed by ABQ Open Space.



Route History:

Surveys started on this route in 2022, though no surveys were carried out in 2025. No changes to the route have been noted. One monitor ran the surveys in 2022 and 2023, and a different monitor took over the route in 2024.

Route Statistics:

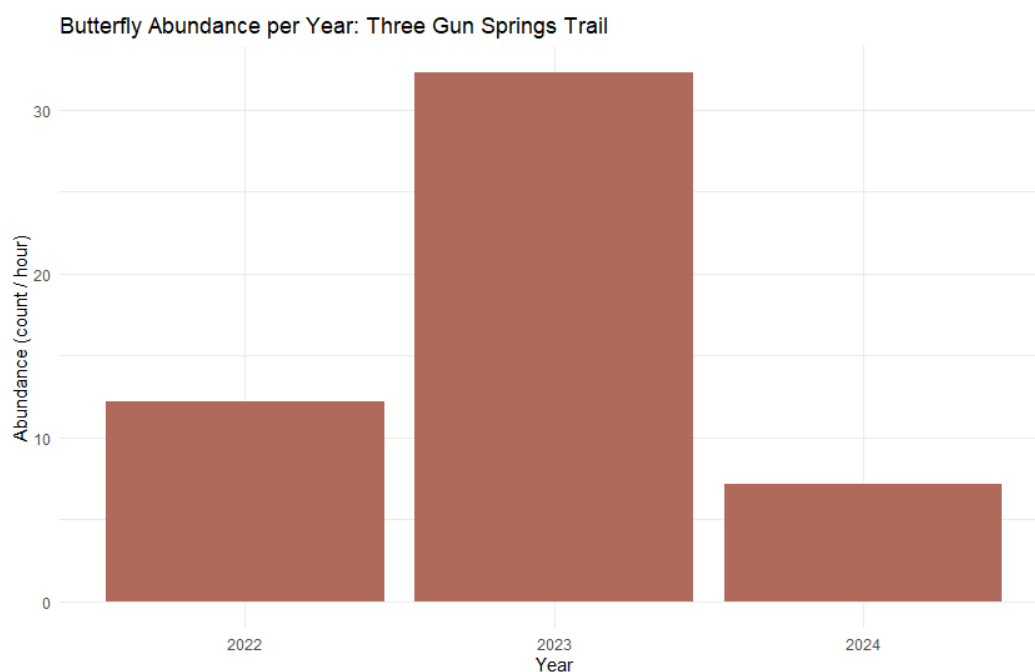


FIGURE 70 INDEX OF ABUNDANCE AT THREE GUN SPRINGS TRAIL DURING YEARS SURVEYED BETWEEN 2020-2025.

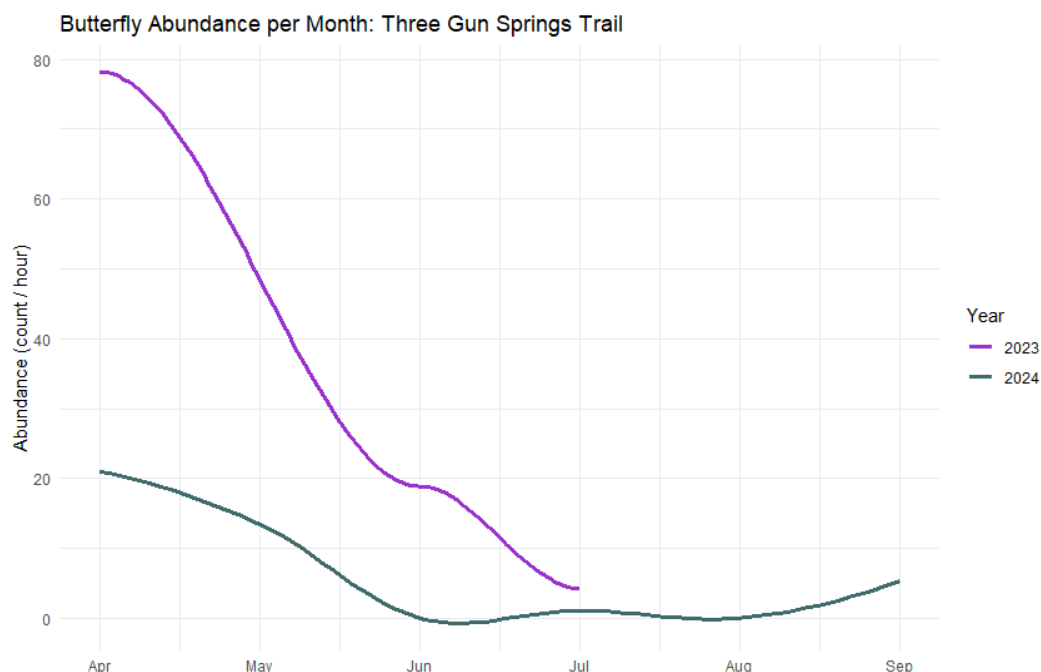


FIGURE 71 INDEX OF ABUNDANCE PER MONTH AT THREE GUN SPRINGS TRAIL ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 35 SPECIES RECORDED ON THE THREE GUN SPRINGS TRAIL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
unidentified duskywing (<i>Erynnis</i> sp.) - 25 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 10	Arizona Sister (<i>Adelpha eulalia</i>) - 2 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 3 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 2 Painted Lady (<i>Vanessa cardui</i>) - 15 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 2 unidentified crescent (<i>Phyciodes</i> sp.) - 1
Family: Lycaenidae	Family: Pieridae
Great Purple Hairstreak (<i>Atlides halesus</i>) - 4 Lupine Blue (<i>Plebejus lupini</i>) - 8 Marine Blue (<i>Leptotes marina</i>) - 3 Sandia Hairstreak (<i>Callophrys mcfarlandi</i>) - 37 unidentified blue (<i>Polyommata</i> sp.) - 3	Cabbage White (<i>Pieris rapae</i>) - 8 Checkered White (<i>Pontia protodice</i>) - 3 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 2 Orange Sulphur (<i>Colias eurytheme</i>) - 16 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 3 unidentified sulphur (<i>Coliinae</i> sp.) - 27 unidentified white (<i>Pierinae</i> sp.) - 10
Family: Papilionidae	Family: Riodinidae
unidentified swallowtail (<i>Papiliononinae</i> sp.) - 1	None

Manzano Mountains: Cedro Creek Nature Trail at Otero Canyon

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rocky Mountain Conifer Forests

Start: 35.033907°, -106.373987°, elevation 6810 ft. **End:** 35.032481°, -106.364237°, elevation 6887 ft.

Length: 1.23 miles

First Survey Year: 2022

Status: Active

Route Overview:

This site is on the northeast side of the Manzanita Mountains. It starts in a dense mixed conifer forest, passes through a short section juniper grassland before running along a small willow and cattail lined creek that typically has water. In very dry years this creek may not be flowing. This is a natural, unmanaged site, isolated from urban areas, in the Cibola National Forest. It is owned and managed by The US Forest Service.

Route History:

Surveys started on this route in 2022. No changes to the route have been noted. One monitor ran the route in 2022, and a different monitor surveyed the route from 2023-2025.



Route Statistics:

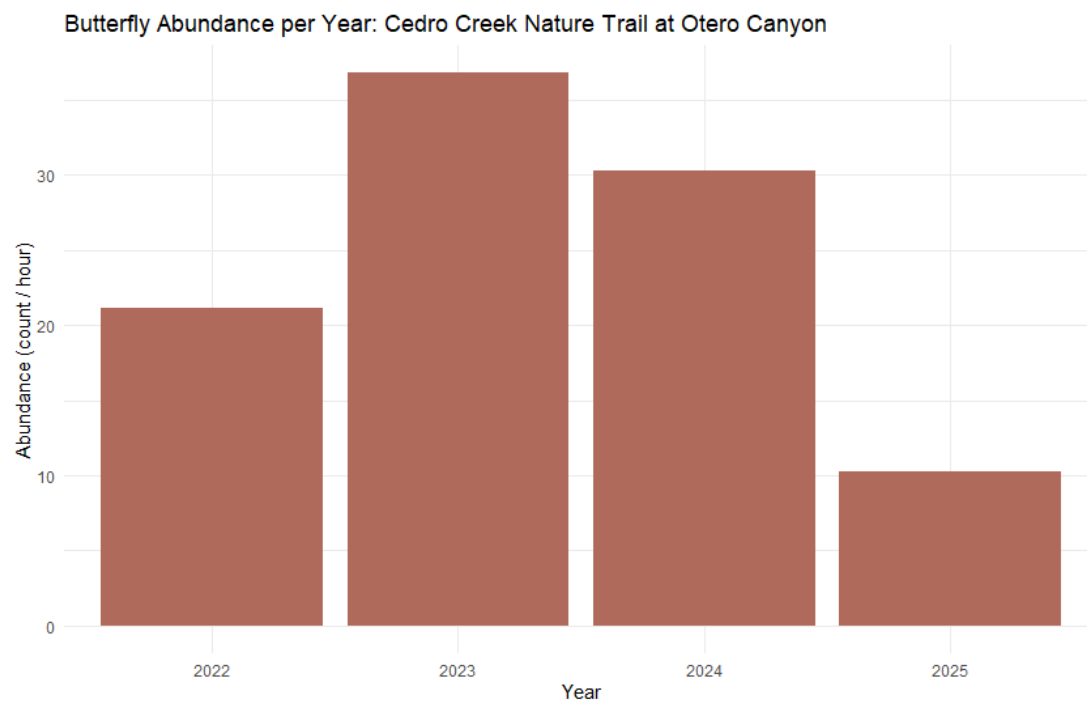


FIGURE 72 INDEX OF ABUNDANCE AT CEDRO CREEK NATURE TRAIL AT OTERO CANYON DURING YEARS SURVEYED BETWEEN 2020-2025.

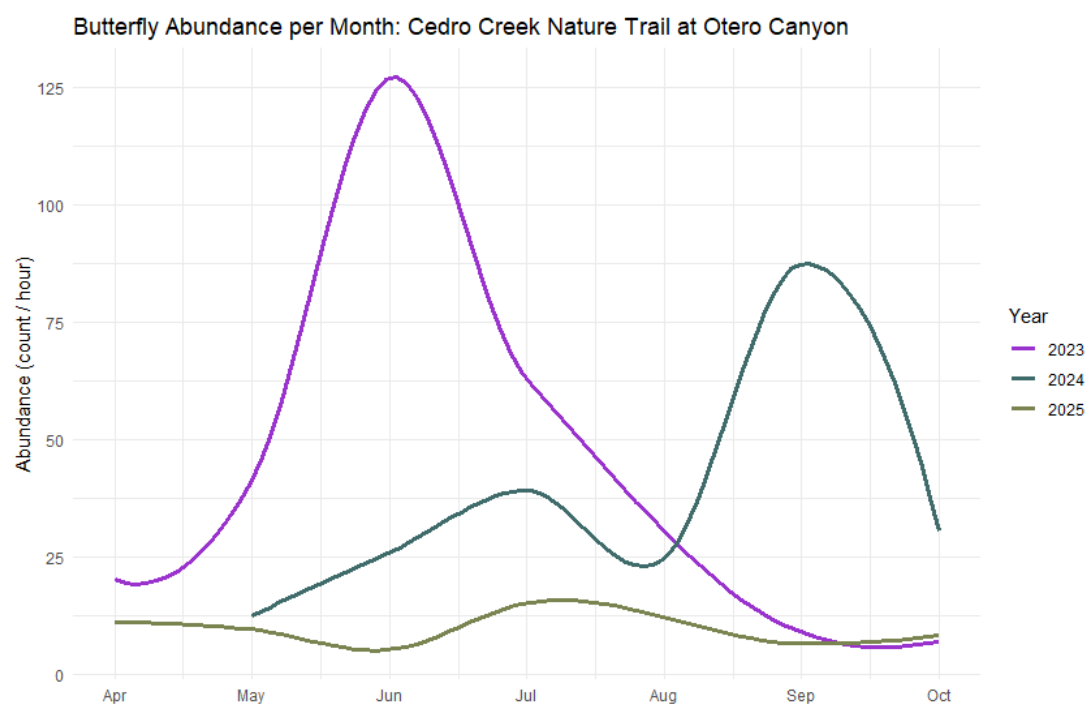


FIGURE 73 INDEX OF ABUNDANCE PER MONTH AT CEDRO CREEK NATURE TRAIL AT OTERO CANYON ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 36 SPECIES RECORDED ON THE CEDRO CREEK NATURE TRAIL AT OTERO CANYON ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 1 Common Sootywing (<i>Pholisora catullus</i>) - 2 Dun Skipper (<i>Euphyes vestris</i>) - 11 Margarita Skipper (<i>Atrytonopsis margarita</i>) - 1 Northern Cloudywing (<i>Thorybes pylades</i>) - 3 Oslar's Roadside-Skipper (<i>Amblyscirtes oslari</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 10 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 96 unidentified cloudywing (<i>Thorybes</i> sp.) - 1 unidentified duskywing (<i>Erynnis</i> sp.) - 56 unidentified grass skipper (<i>Hesperinae</i> sp.) - 7 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 12	American Snout (<i>Libytheana carinenta</i>) - 1 Arachne Checkerspot (<i>Poladryas arachne</i>) - 8 Arizona Sister (<i>Adelpha eulalia</i>) - 20 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 34 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 1 Dotted Checkerspot (<i>Poladryas minuta</i>) - 2 Field Crescent (<i>Phyciodes pulchella</i>) - 12 Fulvia Checkerspot (<i>Chlosyne fulvia</i>) - 2 Mourning Cloak (<i>Nymphalis antiopa</i>) - 86 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 4 Painted Lady (<i>Vanessa cardui</i>) - 17 Queen (<i>Danaus gilippus</i>) - 1 Question Mark (<i>Polygonia interrogationis</i>) - 1 Red Admiral (<i>Vanessa atalanta</i>) - 4 unidentified anglewing (<i>Polygonia</i> sp.) - 5 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 7 unidentified buckeye (<i>Junonia</i> sp.) - 6 unidentified crescent (<i>Phyciodes</i> sp.) - 10 unidentified greater fritillary (<i>Speyeria</i> sp.) - 3 unidentified lady (<i>Vanessa</i> sp.) - 8 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 26
Family: Lycaenidae	Family: Pieridae
Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 1 Gray Hairstreak (<i>Strymon melinus</i>) - 2 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 57 Marine Blue (<i>Leptotes marina</i>) - 41 Reakirt's Blue (<i>Echinargus isola</i>) - 2 Thicket Hairstreak (<i>Callophrys spinetorum</i>) - 1 unidentified blue (<i>Polyommata</i> sp.) - 24 unidentified buckwheat blue (<i>Euphilotes</i> sp.) - 2 unidentified hairstreak (<i>Theclinae</i> sp.) - 6 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 6 Western Tailed-Blue (<i>Cupido amyntula</i>) - 1	Cabbage White (<i>Pieris rapae</i>) - 1 Checkered White (<i>Pontia protodice</i>) - 54 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 57 Dainty Sulphur (<i>Nathalis iole</i>) - 70 Sleepy Orange (<i>Abaeis nicippe</i>) - 16 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 30 Spring White (<i>Pontia sisymbrii</i>) - 1 unidentified sulphur (<i>Coliinae</i> sp.) - 16 unidentified white (<i>Pierinae</i> sp.) - 28
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 28 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 6 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 3	None

Sandia Mountains: Capulin Spring and Balsam Glade

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rocky Mountain Conifer Forests

Start: 35.216068°, -106.415392°, elevation 8816 ft. **End:** 35.213998°, -106.406641°, elevation 8688 ft.

Length: 1.3 miles

First Survey Year: 2021

Status: Active

Route Overview:

This site is on the east side of the Sandia Mountains. It is within the Rocky Mountain Conifer Forests ecoregion, which is characterized by ponderosa pine, white fir, Douglas fir, Gambel oak, and mountain mahogany, with a dense understory. This is a natural, unmanaged site, isolated from urban areas, in the Cibola National Forest. It is owned and managed by The US Forest Service.

Route History:

Surveys started on this route in 2021. No changes to the route have been noted. The same pair of monitors has surveyed the route throughout its history.



Photos: Rebecca Gracey

Route Statistics:

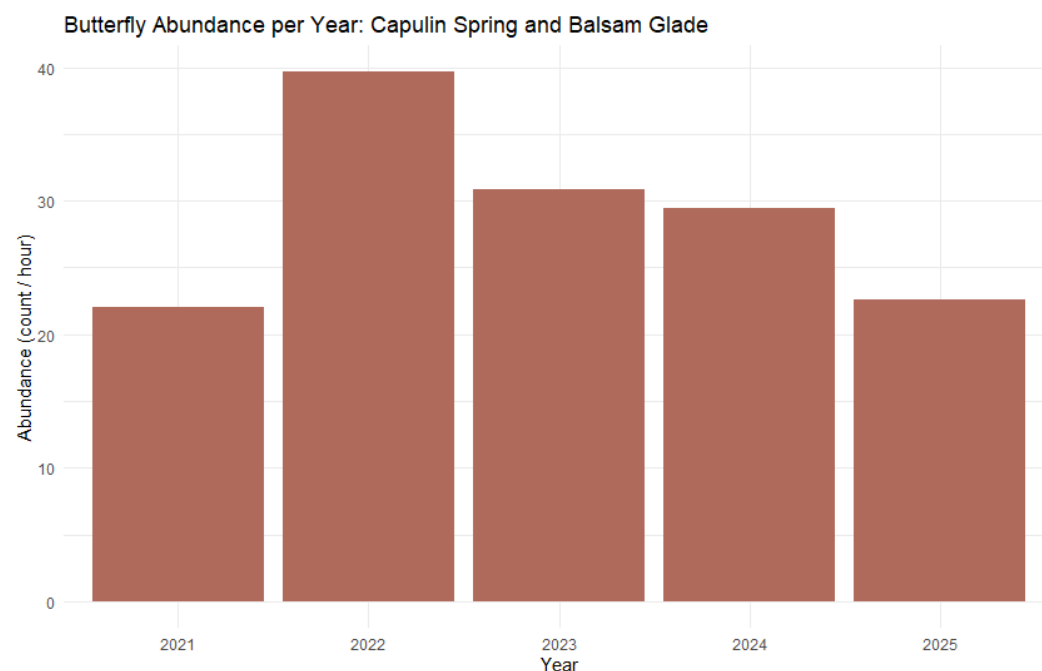


FIGURE 74 INDEX OF ABUNDANCE AT CAPULIN SPRING AND BALSAM GLADE DURING YEARS SURVEYED BETWEEN 2020-2025.

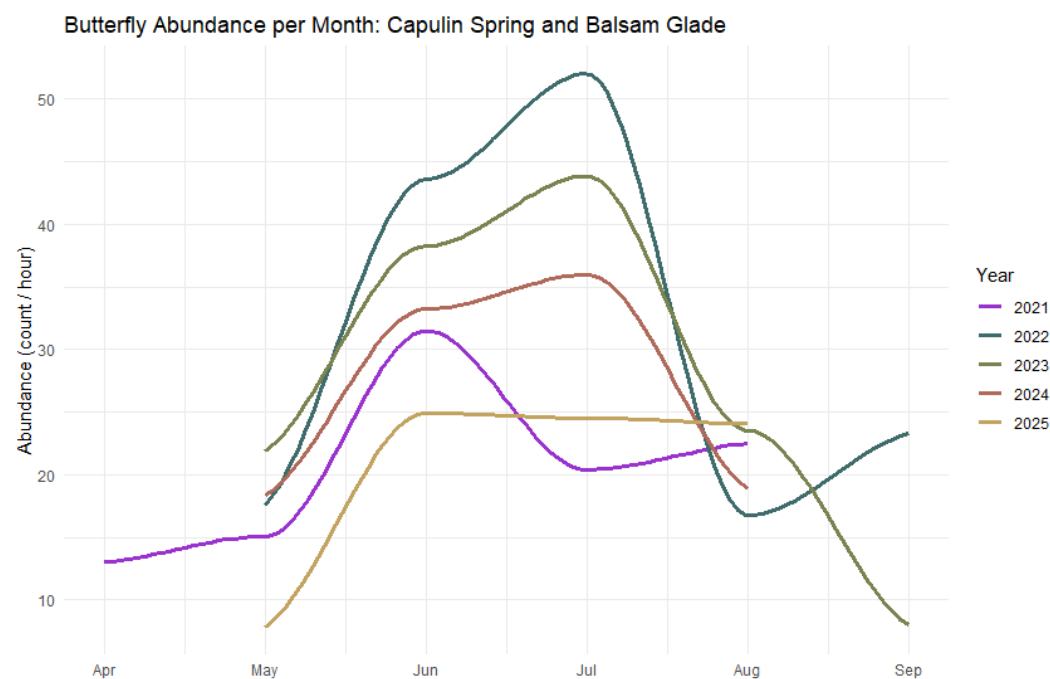


FIGURE 75 INDEX OF ABUNDANCE PER MONTH AT CAPULIN SPRING AND BALSAM GLADE ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 37 SPECIES RECORDED AT CAPULIN SPRING AND BALSAM GLADE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Afranius Duskywing (<i>Erynnis afranius</i>) - 8 Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 1 Dreamy Duskywing (<i>Erynnis icelus</i>) - 10 Dun Skipper (<i>Euphyes vestris</i>) - 17 Green Skipper (<i>Hesperia viridis</i>) - 1 Horace's Duskywing (<i>Erynnis horatius</i>) - 3 Meridian Duskywing (<i>Erynnis meridianus</i>) - 3 Mexican Cloudywing (<i>Thorybes mexicana</i>) - 1 Northern Cloudywing (<i>Thorybes pylades</i>) - 9 Persius Duskywing (<i>Erynnis persius</i>) - 7 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 43 Russet Skipperling (<i>Piruna pirus</i>) - 52 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 44 Taxiles Skipper (<i>Poanes taxiles</i>) - 93 unidentified duskywing (<i>Erynnis</i> sp.) - 23 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 29	American Lady (<i>Vanessa virginiensis</i>) - 3 Arizona Sister (<i>Adelpha eulalia</i>) - 16 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 3 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 2 Field Crescent (<i>Phyciodes pulchella</i>) - 88 Hoary Comma (<i>Polygonia gracilis</i>) - 62 Mourning Cloak (<i>Nymphalis antiopa</i>) - 88 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 15 Northwestern Fritillary (<i>Speyeria hesperis</i>) - 13 Painted Lady (<i>Vanessa cardui</i>) - 64 Queen (<i>Danaus gilippus</i>) - 2 Red Admiral (<i>Vanessa atalanta</i>) - 8 Small Wood-Nymph (<i>Cercyonis oetus</i>) - 1 unidentified anglewing (<i>Polygonia</i> sp.) - 3 unidentified crescent (<i>Phyciodes</i> sp.) - 1 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 2 Variegated Fritillary (<i>Euptoieta claudia</i>) - 17 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 103 West Coast Lady (<i>Vanessa annabella</i>) - 1
Family: Lycaenidae	Family: Pieridae
Arctic Blue (<i>Plebejus glandon</i>) - 7 Colorado Hairstreak (<i>Hypaurotis crysalus</i>) - 7 Echo Azure (<i>Celastrina echo</i>) - 17 Gray Hairstreak (<i>Strymon melinus</i>) - 19 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 6 Marine Blue (<i>Leptotes marina</i>) - 349 Reakirt's Blue (<i>Echinargus isola</i>) - 23 Silvery Blue (<i>Glaucopsyche lygdamus</i>) - 4 Tailed Copper (<i>Lycaena arota</i>) - 73 unidentified blue (<i>Polyommata</i> sp.) - 30 Western Square-dotted Blue (<i>Euphilotes battoides</i>) - 4 Western Tailed-Blue (<i>Cupido amyntula</i>) - 10	Checkered White (<i>Pontia protodice</i>) - 25 Clouded Sulphur (<i>Colias philodice</i>) - 64 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 10 Dainty Sulphur (<i>Nathalis iole</i>) - 25 Margined White (<i>Pieris marginalis</i>) - 25 Orange Sulphur (<i>Colias eurytheme</i>) - 39 Pine White (<i>Neophasia menapia</i>) - 5 Sleepy Orange (<i>Abaeis nicippe</i>) - 4 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 25 unidentified white (<i>Pierinae</i> sp.) - 8
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 3 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 160 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 18	None

Sandia Mountains: Cienega Spring Nature Trail

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rocky Mountain Conifer Forests

Start: 35.165337°, -106.375797°, elevation 7251 ft. **End:** 35.167974°, -106.481229°, elevation 7717 ft.

Length: 1.06 miles

First Survey Year: 2021

Status: Active

Route Overview:

This site is on the east side of the Sandia Mountains. It starts in a Ponderosa pine dominated conifer forest and passes through a montane spring fed meadow, before heading up a steep small montane drainage. This is a natural, unmanaged site, isolated from urban areas, in the Cibola National Forest. It is owned and managed by The US Forest Service.

Route History:

Surveys started on this route in 2021. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.



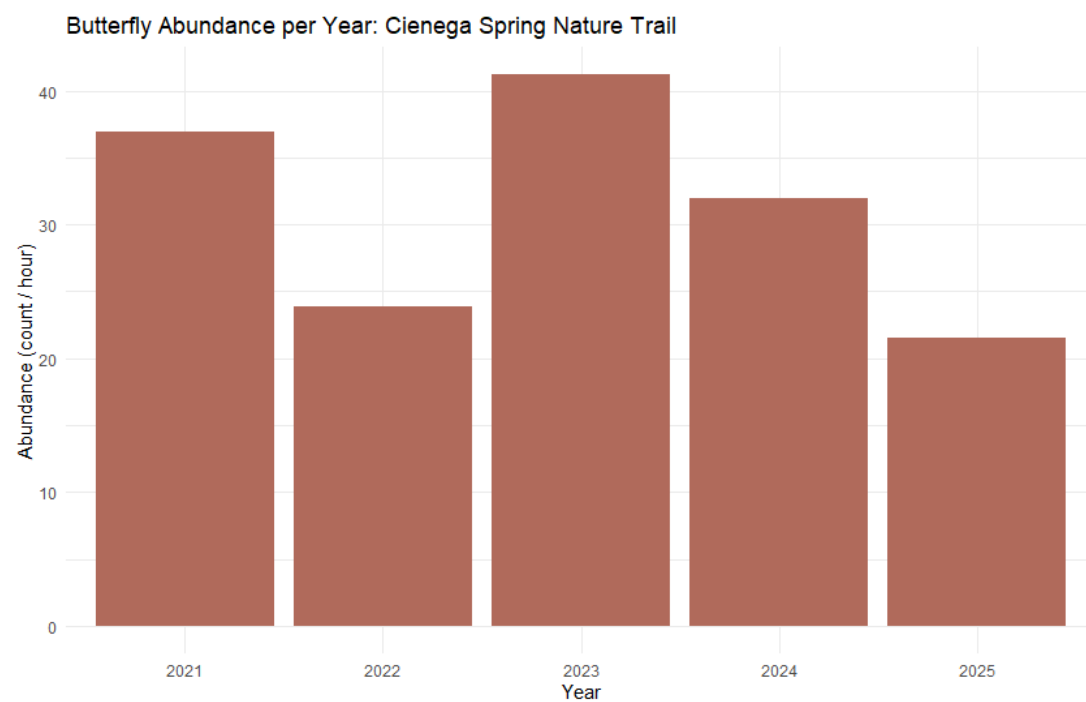
Route Statistics:

FIGURE 76 INDEX OF ABUNDANCE AT CIENEGA SPRING NATURE TRAIL DURING YEARS SURVEYED BETWEEN 2020-2025.

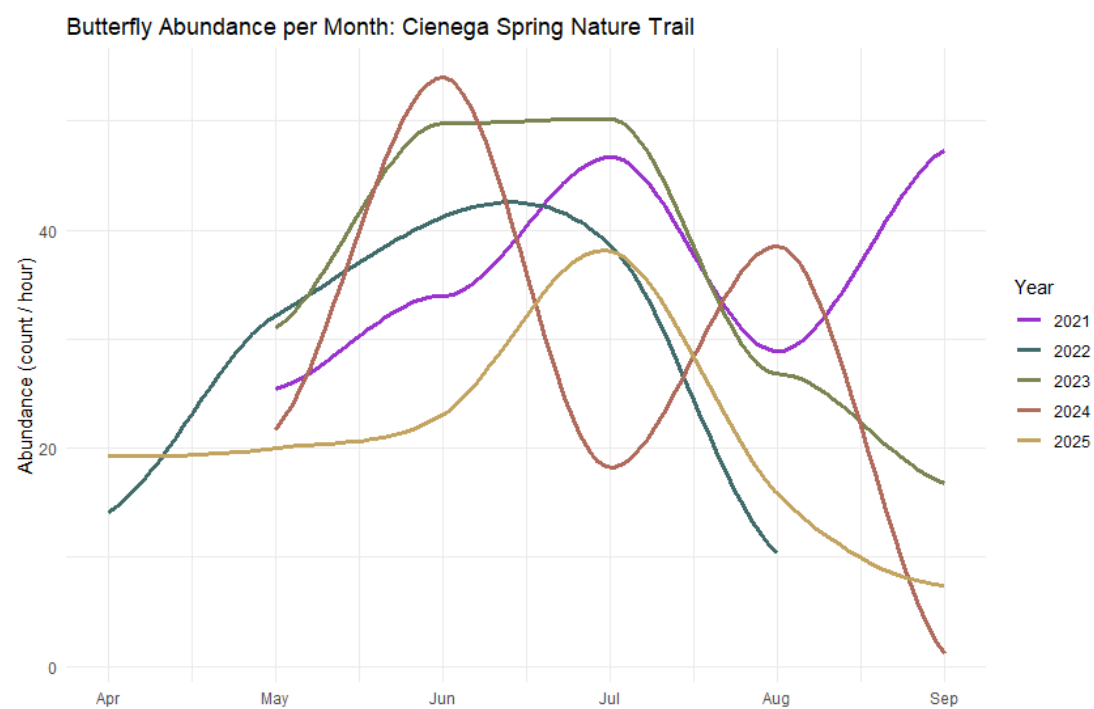


FIGURE 77 INDEX OF ABUNDANCE PER MONTH AT CIENEGA SPRING NATURE TRAIL ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 38 SPECIES RECORDED ON THE CIENEGA SPRING NATURE TRAIL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Dreamy Duskywing (<i>Erynnis icelus</i>) - 1 Dun Skipper (<i>Euphyes vestris</i>) - 42 Green Skipper (<i>Hesperia viridis</i>) - 1 Meridian Duskywing (<i>Erynnis meridianus</i>) - 1 Mexican Cloudywing (<i>Thorybes mexicana</i>) - 1 Northern Cloudywing (<i>Thorybes pylades</i>) - 20 Orange-headed Roadside-Skipper (<i>Amblyscirtes phylace</i>) - 3 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 54 Russet Skipperling (<i>Piruna pirus</i>) - 13 Short-tailed Skipper (<i>Zestusa dorus</i>) - 4 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 18 Tawny-edged Skipper (<i>Polites themistocles</i>) - 5 Taxiles Skipper (<i>Poanes taxiles</i>) - 24 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 1 unidentified cloudywing (<i>Thorybes</i> sp.) - 6 unidentified duskywing (<i>Erynnis</i> sp.) - 16 unidentified grass skipper (<i>Hesperinae</i> sp.) - 27 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 2 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 3 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 110	American Lady (<i>Vanessa virginiensis</i>) - 5 American Snout (<i>Libytheana carinenta</i>) - 5 Arizona Sister (<i>Adelpha eulalia</i>) - 85 California Tortoiseshell (<i>Nymphalis californica</i>) - 3 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 1 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 10 Field Crescent (<i>Phyciodes pulchella</i>) - 97 Hoary Comma (<i>Polygonia gracilis</i>) - 47 Milbert's Tortoiseshell (<i>Aglais milberti</i>) - 1 Monarch (<i>Danaus plexippus</i>) - 7 Mourning Cloak (<i>Nymphalis antiopa</i>) - 183 Mylitta Crescent (<i>Phyciodes mylitta</i>) - 3 Northwestern Fritillary (<i>Speyeria hesperis</i>) - 1 Painted Lady (<i>Vanessa cardui</i>) - 62 Pearl Crescent (<i>Phyciodes tharos</i>) - 3 Queen (<i>Danaus gilippus</i>) - 3 Red Admiral (<i>Vanessa atalanta</i>) - 12 Small Wood-Nymph (<i>Cercyonis oetus</i>) - 3 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 4 unidentified crescent (<i>Phyciodes</i> sp.) - 9 unidentified Fritillary (<i>Fritillary</i> sp.) - 5 unidentified greater fritillary (<i>Speyeria</i> sp.) - 4 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 18 Variegated Fritillary (<i>Euptoietia claudia</i>) - 2 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 161
Family: Lycaenidae	Family: Pieridae
Colorado Hairstreak (<i>Hypaurotis crysalus</i>) - 5 Echo Azure (<i>Celastrina echo</i>) - 35 Gray Hairstreak (<i>Strymon melinus</i>) - 6 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 48 Marine Blue (<i>Leptotes marina</i>) - 162 Reakirt's Blue (<i>Echinargus isola</i>) - 1 Silvery Blue (<i>Glaucopsyche lygdamus</i>) - 4 Tailed Copper (<i>Lycaena arota</i>) - 32 Thicket Hairstreak (<i>Callophrys spinetorum</i>) - 1 unidentified blue (<i>Polyommata</i> sp.) - 199 unidentified hairstreak (<i>Theclinae</i> sp.) - 7 Western Tailed-Blue (<i>Cupido amyntula</i>) - 23	Cabbage White (<i>Pieris rapae</i>) - 30 Checkered White (<i>Pontia protodice</i>) - 27 Clouded Sulphur (<i>Colias philodice</i>) - 12 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 2 Dainty Sulphur (<i>Nathalis iole</i>) - 23 Margined White (<i>Pieris marginalis</i>) - 19 Orange Sulphur (<i>Colias eurytheme</i>) - 26 Pine White (<i>Neophasia menapia</i>) - 14 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 14 Spring White (<i>Pontia sisymbrii</i>) - 5 unidentified sulphur (<i>Coliinae</i> sp.) - 99 unidentified white (<i>Pierinae</i> sp.) - 71
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 93 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 94 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 3	None

Sandia Mountains: Tramway Trail from La Luz Trailhead

Region: Arizona/ New Mexico Plateau **Ecoregion:** Rocky Mountain Conifer Forests

Start: 35.212839°, -106.474817°, elevation 7391 ft. **End:** 35.219317°, -106.481229°, elevation 7036 ft.

Length: 1 mile

First Survey Year: 2020

Status: Active

Route Overview:

At just over 7,000 feet on the west side of the Sandia Mountains, this site is on the lower end of the Rocky Mountain conifer forest ecoregion and therefore retains some characteristics of the transition zone, such as the mixed conifer woodland and shrubland. The main vegetation types include mountain mahogany, gamble oak, Apache plume, juniper, yucca, beargrass, and native grasses. This is a natural, unmanaged site, isolated from urban areas. This trail is in Cibola National Forest so is owned and managed by The US Forest Service. The type locality for the Sandia Hairstreak is very near this site.



Route History:

Surveys started on this route in 2020. No changes to the route have been noted. One monitor ran the route in 2020 and 2021, and a different monitor ran the route from 2022-2025.

Route Statistics:

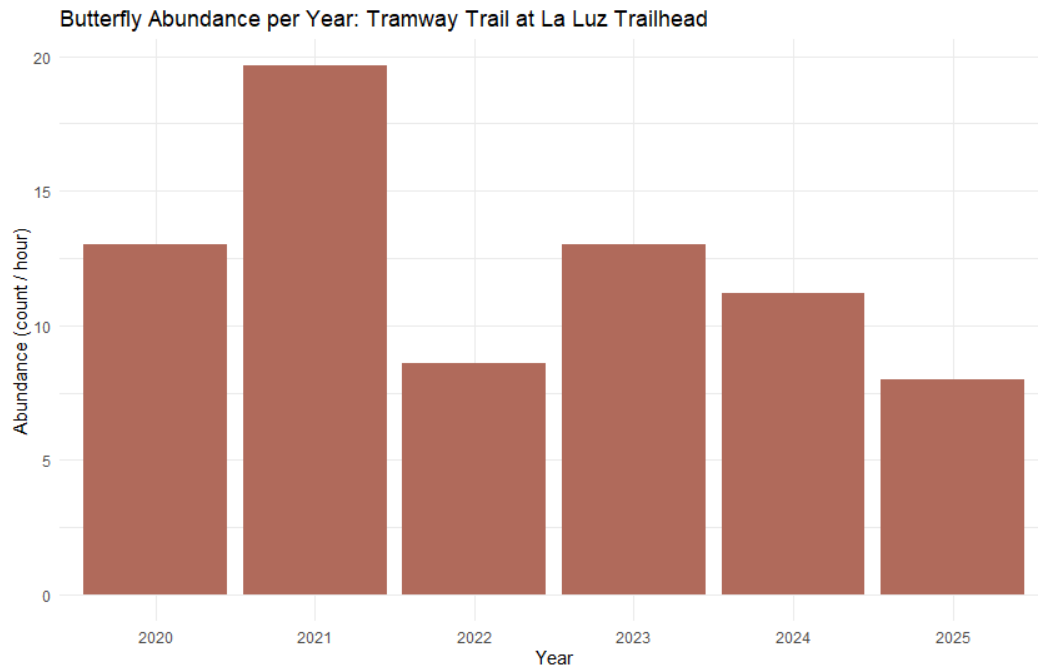


FIGURE 78 INDEX OF ABUNDANCE AT TRAMWAY TRAIL FROM LA LUZ TRAILHEAD DURING YEARS SURVEYED BETWEEN 2020-2025.

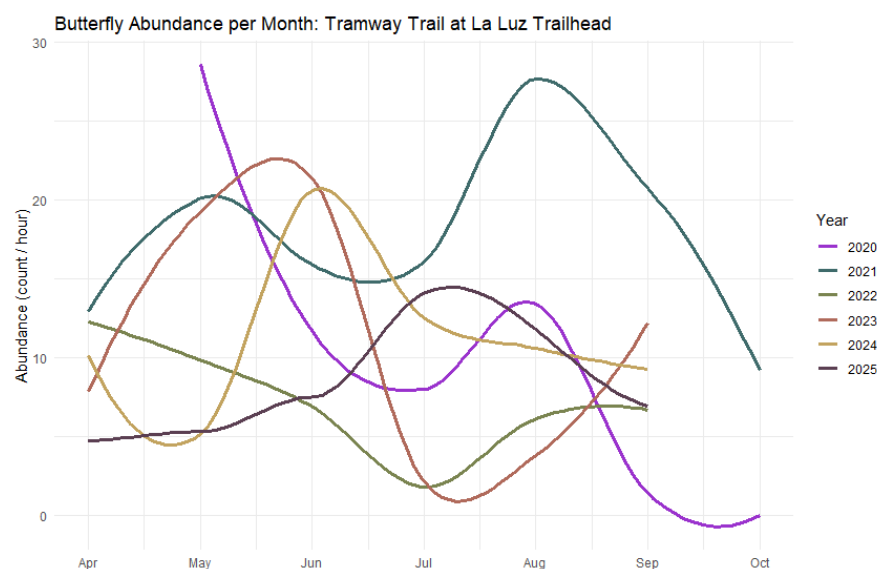


FIGURE 79 INDEX OF ABUNDANCE PER MONTH AT TRAMWAY TRAIL FROM LA LUZ TRAILHEAD ACROSS YEARS SURVEYED.

TABLE 39 SPECIES RECORDED AT TRAMWAY TRAIL FROM LA LUZ TRAILHEAD, INCLUDING THE TOTAL NUMBER OBSERVED.

Family: Hesperiidae	Family: Nymphalidae
Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 7 Common Sootywing (<i>Pholisora catullus</i>) - 1 Fiery Skipper (<i>Hylephila phyleus</i>) - 1 Green Skipper (<i>Hesperia viridis</i>) - 2 Pahaska Skipper (<i>Hesperia pahaska</i>) - 3 Pahaska/ Green Skipper (<i>Hesperia pahaska/viridis</i>) - 1 Python Skipper (<i>Atrytonopsis python</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 4 Russet Skipperling (<i>Piruna pirus</i>) - 1 Silver-spotted Skipper (<i>Epargyreus clarus</i>) - 40 unidentified cloudywing (<i>Thorybes</i> sp.) - 1 unidentified duskywing (<i>Erynnis</i> sp.) - 18 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 14 unidentified roadside-skipper (<i>Amblyscirtes</i> sp.) - 2 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 15	Arizona Sister (<i>Adelpha eulalia</i>) - 27 Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 64 Common Wood-Nymph (<i>Cercyonis pegala</i>) - 64 Fulvia Checkerspot (<i>Chlosyne fulvia</i>) - 1 Hoary Comma (<i>Polygonia gracilis</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 24 Painted Lady (<i>Vanessa cardui</i>) - 16 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 3 unidentified buckeye (<i>Junonia</i> sp.) - 4 unidentified crescent (<i>Phyciodes</i> sp.) - 1 unidentified wood-nymph (<i>Cercyonis</i> sp.) - 12 Weidemeyer's Admiral (<i>Limenitis weidemeyerii</i>) - 22
Family: Lycaenidae	Family: Pieridae
Echo Azure (<i>Celastrina echo</i>) - 3 Gray Hairstreak (<i>Strymon melinus</i>) - 13 Juniper Hairstreak (<i>Callophrys gryneus</i>) - 3 Lupine Blue (<i>Plebejus lupini</i>) - 2 Marine Blue (<i>Leptotes marina</i>) - 9 Reakirt's Blue (<i>Echinargus isola</i>) - 2 Sandia Hairstreak (<i>Callophrys mcfarlandi</i>) - 17 Tailed Copper (<i>Lycaena arota</i>) - 3 unidentified blue (<i>Polyommata</i> sp.) - 16 unidentified hairstreak (<i>Theclinae</i> sp.) - 7 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 7	Cabbage White (<i>Pieris rapae</i>) - 1 Checkered White (<i>Pontia protodice</i>) - 98 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 6 Dainty Sulphur (<i>Nathalis iole</i>) - 5 Orange Sulphur (<i>Colias eurytheme</i>) - 1 Southwestern Orangetip (<i>Anthocharis thoosa</i>) - 119 unidentified sulphur (<i>Coliinae</i> sp.) - 3 unidentified white (<i>Pierinae</i> sp.) - 31
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 44 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 45 Western Tiger Swallowtail (<i>Papilio rutulus</i>) - 6	Mexican Metalmark (<i>Apodemia mejicanus</i>) - 200 unidentified metalmark (<i>Riodinidae</i> sp.) - 9

Chihuahuan Desert Nature Park: Arroyo Trail to Vista Hill

Region: Chihuahuan Desert **Ecoregion:** Chihuahuan Basins and Playas

Start: 32.472011°, -106.745523°, elevation 4387 ft. **End:** 32.471331°, -106.753526°, elevation 6020 ft.

Length: 1.17 miles

First Survey Year: 2023

Status: Active

Route Overview:

This site is on the edge of the Chihuahuan Basins and Playas ecoregion of the Chihuahuan Desert. The area has saline or alkaline soils that support typical desert shrubs and grasses, including the dominant creosotebush, along with tarbush, fourwing saltbush, mesquite, gyp grama, and alkali sacaton. This region experiences large seasonal and diurnal ranges in temperature, low available moisture, and a high evapotranspiration rate. Cacti and yucca are also common. The Chihuahuan Desert Nature Park is a 935 acre property which encompasses a section of the Doña Ana Mountains, northeast of Las Cruces.



Route History:

Surveys started on this route in 2023. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.

Route Statistics:

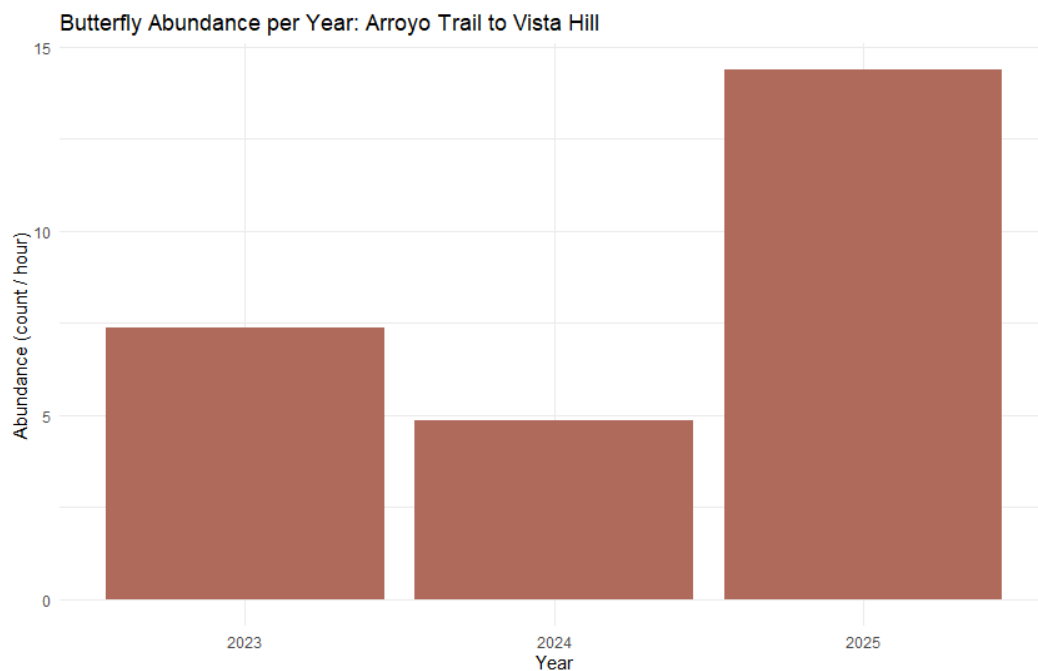


FIGURE 80 INDEX OF ABUNDANCE AT ARROYO TRAIL TO VISTA HILL DURING YEARS SURVEYED BETWEEN 2020-2025.

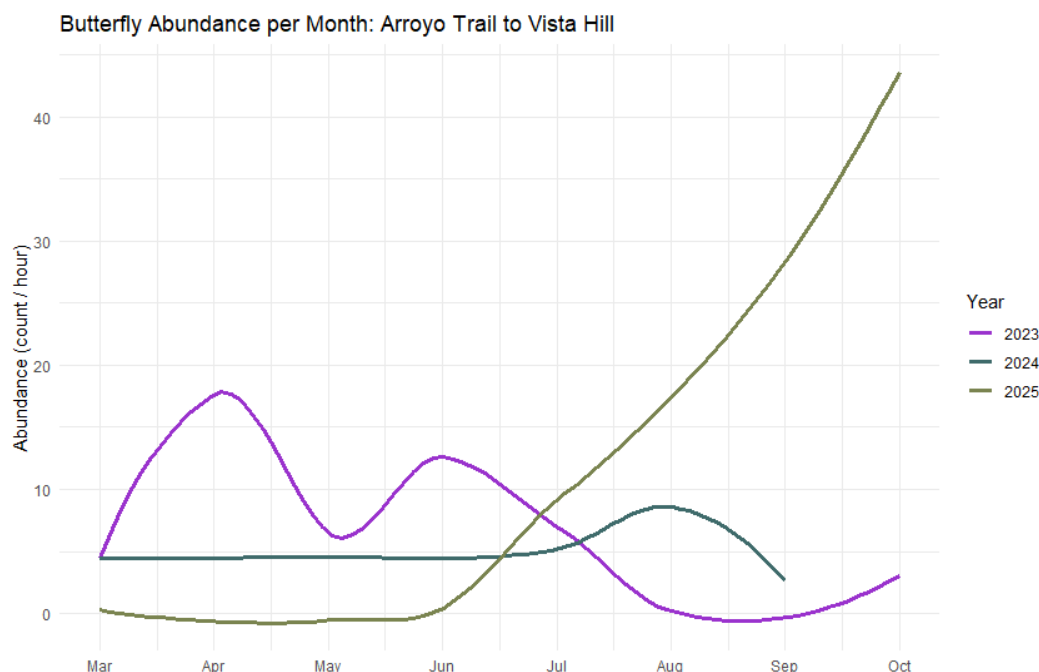


FIGURE 81 INDEX OF ABUNDANCE PER MONTH AT ARROYO TRAIL TO VISTA HILL ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 40 SPECIES RECORDED ON THE ARROYO TRAIL TO VISTA HILL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Bronze Roadside-Skipper (<i>Amblyscirtes aenus</i>) - 1 Funereal Duskywing (<i>Erynnis funeralis</i>) - 19 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 2 unidentified duskywing (<i>Erynnis</i> sp.) - 1	American Snout (<i>Libytheana carinenta</i>) - 6 Bordered Patch (<i>Chlosyne lacinia</i>) - 2 Gulf Fritillary (<i>Agraulis vanillae</i>) - 1 Painted Lady (<i>Vanessa cardui</i>) - 2 Queen (<i>Danaus gilippus</i>) - 4 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 4 unidentified Fritillary (<i>Fritillary</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 13
Family: Lycaenidae	Family: Pieridae
Ceraunus Blue (<i>Hemiargus ceraunus</i>) - 1 Gray Hairstreak (<i>Strymon melinus</i>) - 7 Great Purple Hairstreak (<i>Atlides halesus</i>) - 1 Marine Blue (<i>Leptotes marina</i>) - 23 Reakirt's Blue (<i>Echinargus isola</i>) - 18 unidentified blue (<i>Polyommata</i> sp.) - 1 unidentified hairstreak (<i>Theclinae</i> sp.) - 1	Checkered White (<i>Pontia protodice</i>) - 2 Cloudless Sulphur (<i>Phoebis sennae</i>) - 3 Dainty Sulphur (<i>Nathalis iole</i>) - 24 Desert Marble (<i>Euchloe lotta</i>) - 6 Desert Orangetip (<i>Anthocharis cethura</i>) - 9 Sleepy Orange (<i>Abaeis nicippe</i>) - 26 Southern Dogface (<i>Zerene cesonia</i>) - 3 unidentified sulphur (<i>Coliinae</i> sp.) - 22 unidentified white (<i>Pierinae</i> sp.) - 6
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 7 Pipevine Swallowtail (<i>Battus philenor</i>) - 1 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 2	None

The Box Recreation Area: Black Canyon

Region: Chihuahuan Desert **Ecoregion:** Chihuahuan Desert Grasslands

Start: 33.984933°, -106.969796°, elevation 5355 ft. **End:** 33.985673°, -106.990889°, elevation 5713 ft.

Length: 1.48 miles

First Survey Year: 2022

Status: Active

This site is within the Chihuahuan Desert Grasslands ecoregion of the Chihuahuan Desert region. The soils in this ecoregion are fine-textured silt and clay, so they have higher water retention capacity than the coarse-textured, rocky soils of neighbouring ecoregions. These grasslands also occur in areas with slightly higher annual precipitation (10 to 15 inches) than the Chihuahuan Basins and Playas ecoregion. Grass species typical to this area are black, blue, and sideoats grama, dropseeds, bush muhly, and tobosa. Other vegetation types include creosotebush, prickly pear and cholla cacti. The route at this site is along Black Canyon, a new trail managed by the BLM.



Route History:

Surveys started on this route in 2022. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.

Route Statistics:

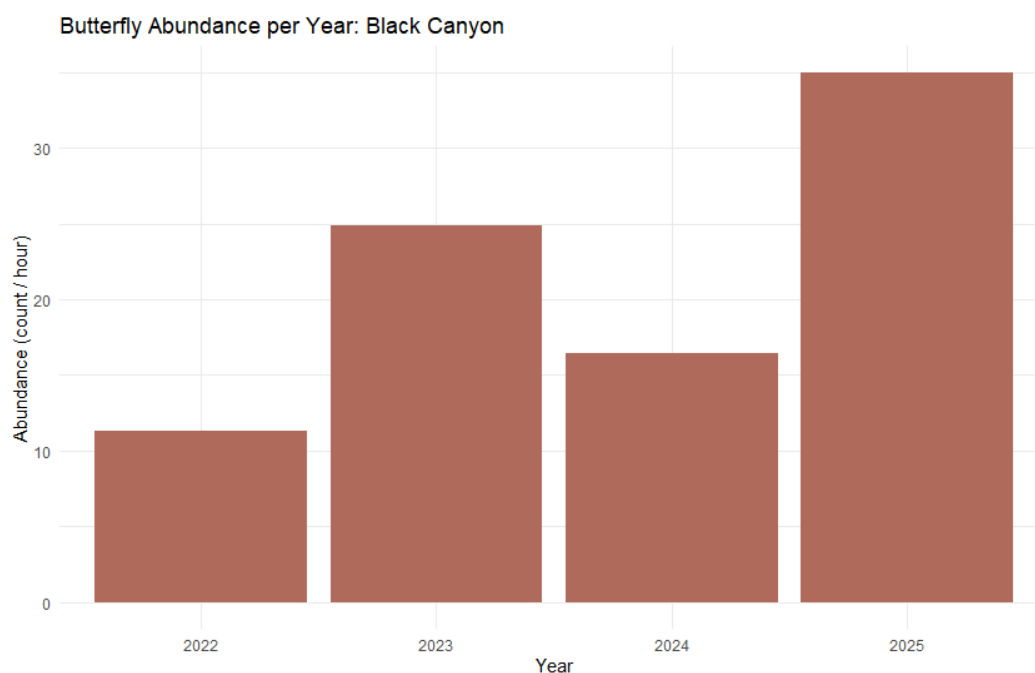


FIGURE 82 INDEX OF ABUNDANCE AT BLACK CANYON DURING YEARS SURVEYED BETWEEN 2020-2025.

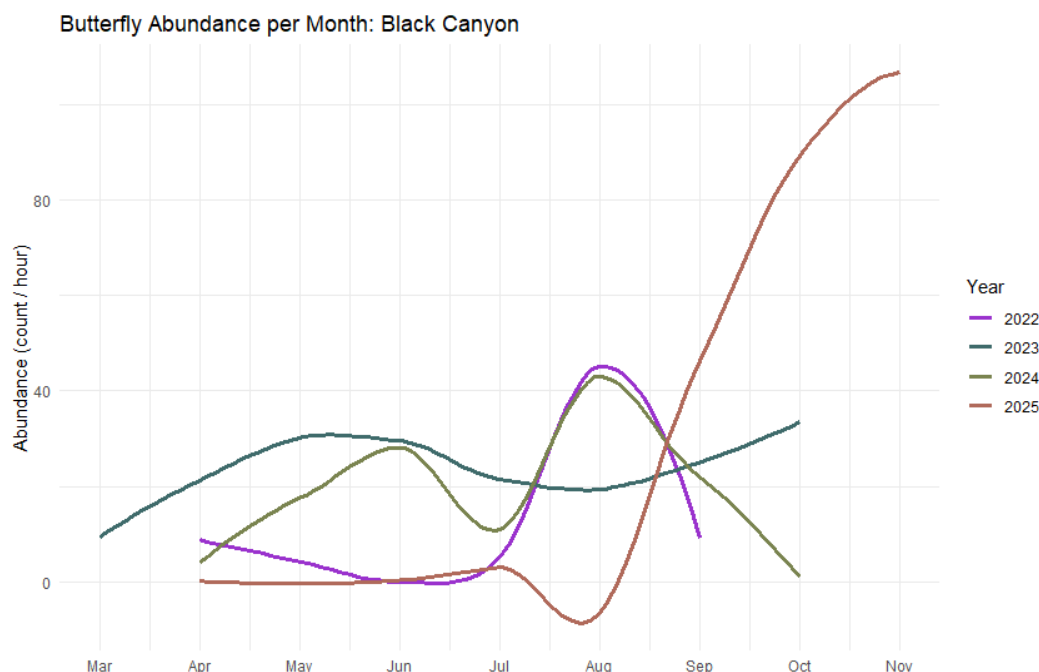


FIGURE 83 INDEX OF ABUNDANCE PER MONTH AT BLACK CANYON ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 41 SPECIES RECORDED ON THE BLACK CANYON ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 19 Dotted Roadside-Skipper (<i>Amblyscirtes eos</i>) - 1 Orange Skipperling (<i>Copaeodes aurantiaca</i>) - 5 Sleepy Duskywing (<i>Erynnis brizo</i>) - 4 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 28 unidentified duskywing (<i>Erynnis</i> sp.) - 30 unidentified grass skipper (<i>Hesperinae</i> sp.) - 1 unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 28	American Snout (<i>Libytheana carinenta</i>) - 80 Bordered Patch (<i>Chlosyne lacinia</i>) - 22 Common Buckeye (<i>Junonia coenia</i>) - 9 Gray Buckeye (<i>Junonia grisea</i>) - 3 Hackberry Emperor (<i>Asterocampa celtis</i>) - 1 Mourning Cloak (<i>Nymphalis antiopa</i>) - 2 Painted Lady (<i>Vanessa cardui</i>) - 31 Queen (<i>Danaus gilippus</i>) - 21 Tiny Checkerspot (<i>Dymasia dymas</i>) - 1 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 12 unidentified buckeye (<i>Junonia</i> sp.) - 13 unidentified Fritillary (<i>Fritillary</i> sp.) - 31 unidentified greater fritillary (<i>Speyeria</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 97
Family: Lycaenidae	Family: Pieridae
Gray Hairstreak (<i>Strymon melinus</i>) - 2 Lupine Blue (<i>Plebejus lupini</i>) - 8 Marine Blue (<i>Leptotes marina</i>) - 6 Reakirt's Blue (<i>Echinargus isola</i>) - 3 Rita Dotted-Blue (<i>Euphilotes rita</i>) - 7 unidentified blue (<i>Polyommata</i> sp.) - 27 Western Pygmy-Blue (<i>Brephidium exilis</i>) - 3	Checkered White (<i>Pontia protodice</i>) - 16 Clouded Sulphur (<i>Colias philodice</i>) - 1 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 29 Dainty Sulphur (<i>Nathalis iole</i>) - 90 Orange Sulphur (<i>Colias eurytheme</i>) - 61 Sleepy Orange (<i>Abaeis nicippe</i>) - 260 Southern Dogface (<i>Zerene cesonia</i>) - 5 unidentified sulphur (<i>Coliinae</i> sp.) - 58 unidentified white (<i>Pierinae</i> sp.) - 10
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 6 unidentified swallowtail (<i>Papiliononinae</i> sp.) - 1	None

The Box Recreation Area: Gramont Peak

Region: Chihuahuan Desert **Ecoregion:** Chihuahuan Desert Grasslands

Start: 33.986807°, -106.991406°, elevation 5715 ft. **End:** 33.987757°, -106.988141°, elevation 6020 ft.

Length: 0.64 miles

First Survey Year: 2023

Status: Active

Route Overview:

This site is within the Chihuahuan Desert Grasslands ecoregion of the Chihuahuan Desert region. The soils in this ecoregion are fine-textured silt and clay, so they have higher water retention capacity than the coarse-textured, rocky soils of neighbouring ecoregions. These grasslands also occur in areas with slightly higher annual precipitation (10 to 15 inches) than the Chihuahuan Basins and Playas ecoregion. Other vegetation types include creosotebush, prickly pear and cholla cacti. This is one of two routes at this site. It is a new trail, managed by the BLM, that goes up Gramont Peak. It was chosen to try and document any hill topping species.



Route History:

Surveys started on this route in 2023. No changes to the route have been noted. The same monitor has surveyed the route throughout its history.

Route Statistics:

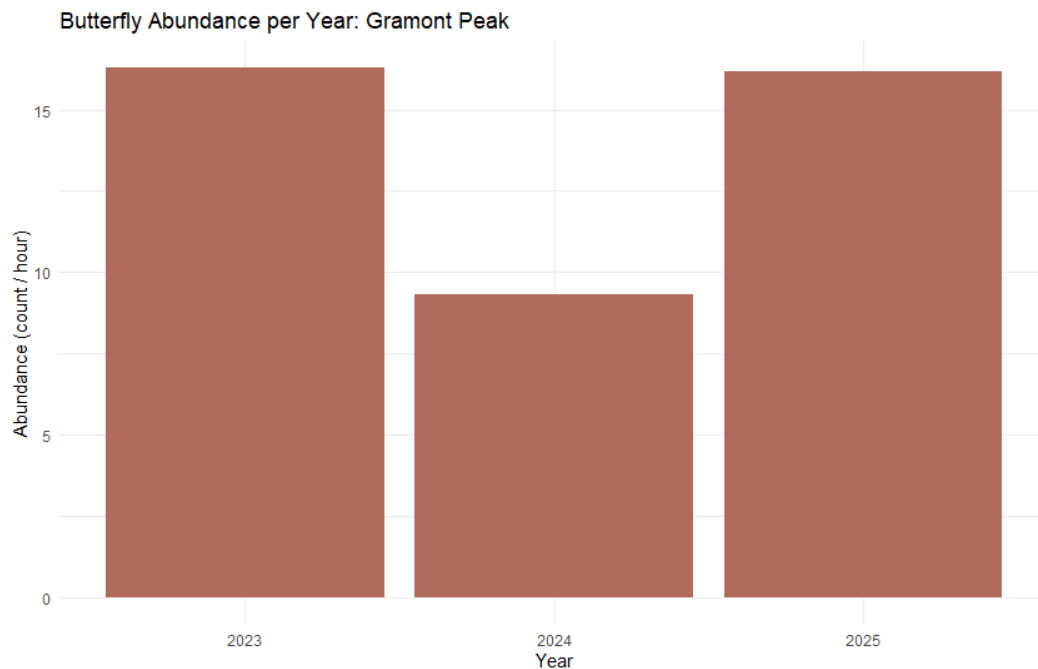


FIGURE 84 INDEX OF ABUNDANCE AT GRAMONT PEAK DURING YEARS SURVEYED BETWEEN 2020-2025.

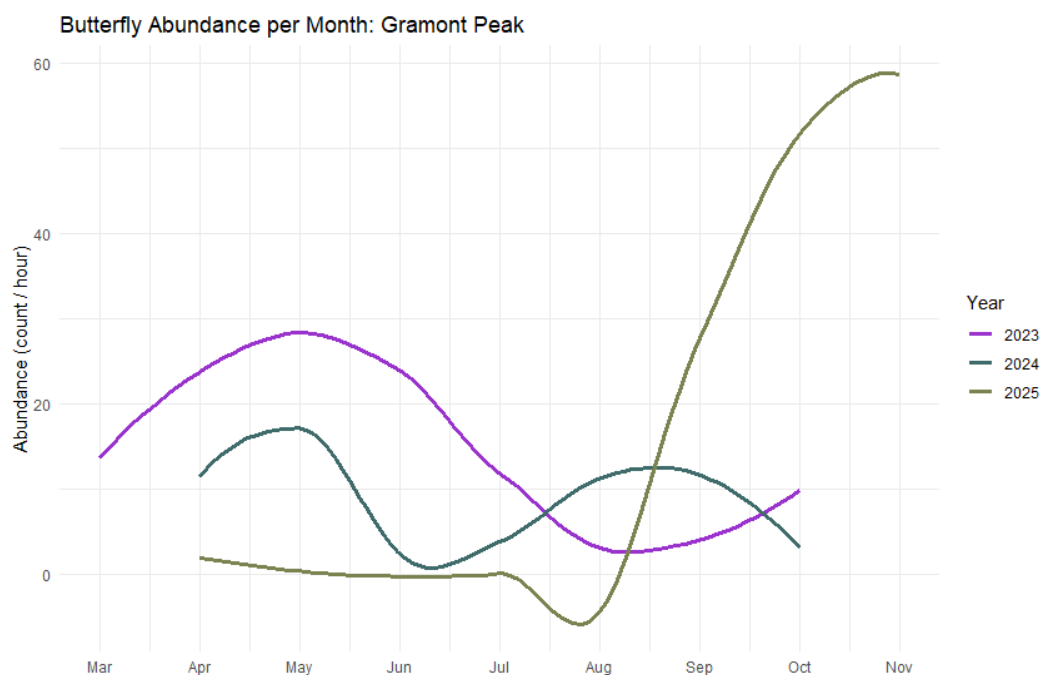


FIGURE 85 INDEX OF ABUNDANCE PER MONTH AT GRAMONT PEAK ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 42 SPECIES RECORDED ON THE GRAMONT PEAK ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperiidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 22 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 3 unidentified duskywing (<i>Erynnis</i> sp.) - 11 unidentified grass skipper (<i>Hesperiinae</i> sp.) - 1 White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 3	American Snout (<i>Libytheana carinenta</i>) - 7 Bordered Patch (<i>Chlosyne lacinia</i>) - 9 Common Buckeye (<i>Junonia coenia</i>) - 1 Fulvia Checkerspot (<i>Chlosyne fulvia</i>) - 1 Queen (<i>Danaus gilippus</i>) - 1 Theona Checkerspot (<i>Chlosyne theona</i>) - 1 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 3 unidentified Fritillary (<i>Fritillaria</i> sp.) - 8 Variegated Fritillary (<i>Euptoieta claudia</i>) - 21
Family: Lycaenidae	Family: Pieridae
Great Purple Hairstreak (<i>Atlides halesus</i>) - 2 unidentified blue (<i>Polyommata</i> sp.) - 9	Checkered White (<i>Pontia protodice</i>) - 5 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 5 Dainty Sulphur (<i>Nathalis iole</i>) - 20 Orange Sulphur (<i>Colias eurytheme</i>) - 1 Sleepy Orange (<i>Abaeis nicippe</i>) - 11 unidentified sulphur (<i>Coliinae</i> sp.) - 6 unidentified white (<i>Pierinae</i> sp.) - 19
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 21	Mormon Metalmark (<i>Apodemia mormo</i>) - 1

Capulin Volcano National Monument: Boca Trail

Region: Southwest Tablelands **Ecoregion:** Upper Canadian Plateau

Start: 36.779908°, -103.976981°, elevation 7284 ft. **End:** 36.781744°, -103.977106°, elevation 7359 ft.

Length: 1.58 miles

First Survey Year: 2025

Status: Active

Route Overview:

This route is in Capulin Volcano National Monument. The site is within the Upper Canadian Plateau ecoregion of the Southwestern Tablelands, in the Great Plains. This area of the Great Plains is characterized by volcanism. The route is within the lava flow area of Capulin Volcano, which is one of many volcanos in southeastern New Mexico that collectively make up the Raton-Clayton Volcanic Field. Capulin rises to a height of 8,182 feet above sea level, which is about 1,300 feet higher than the surrounding plains. Vegetation covering the volcano is a mixture of shortgrass prairie, midgrass prairie, scattered juniper grassland, and juniper woodlands.



Route History:

Surveys started on this route in 2025. No changes to the route have been noted.

Route Statistics:

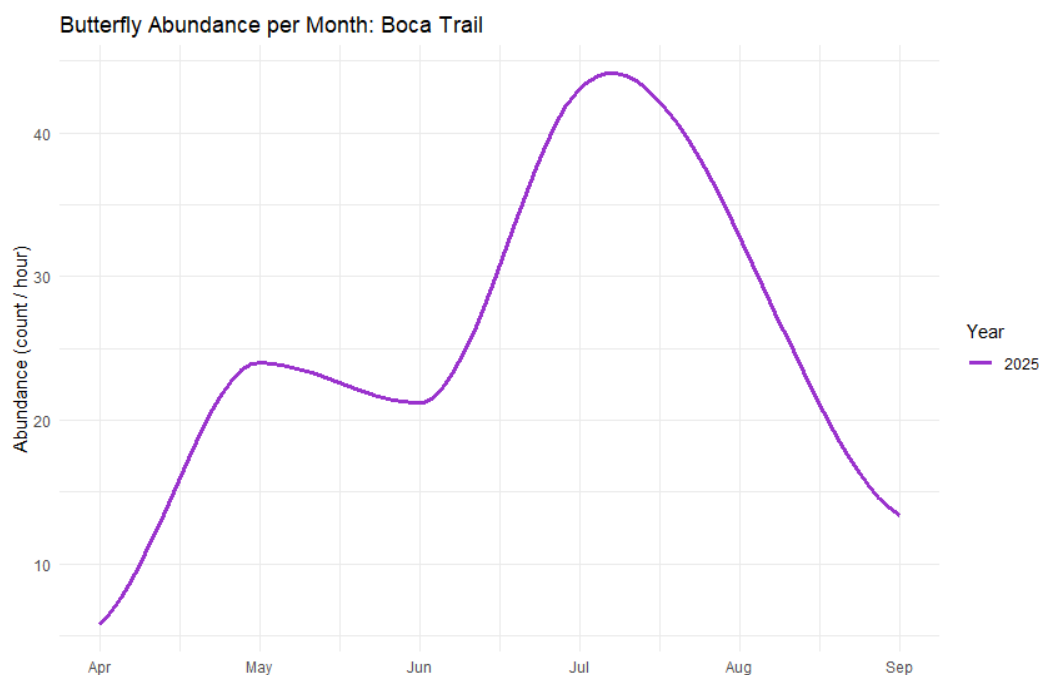


FIGURE 86 INDEX OF ABUNDANCE PER MONTH AT BOCA TRAIL ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 43 SPECIES RECORDED ON THE BOCA TRAIL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Common Sootywing (<i>Pholisora catullus</i>) - 1	Aphrodite Fritillary (<i>Speyeria aphrodite</i>) - 1
Dreamy Duskywing (<i>Erynnis icelus</i>) - 2	Bordered Patch (<i>Chlosyne lacinia</i>) - 2
Dun Skipper (<i>Euphyes vestris</i>) - 1	Canyonland Satyr (<i>Cyllopsis pertepida</i>) - 2
Green Skipper (<i>Hesperia viridis</i>) - 3	Common Wood-Nymph (<i>Cercyonis pegala</i>) - 10
Horace's Duskywing (<i>Erynnis horatius</i>) - 2	Hoary Comma (<i>Polygonia gracilis</i>) - 2
Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 9	Mourning Cloak (<i>Nymphalis antiopa</i>) - 2
Sleepy Duskywing (<i>Erynnis brizo</i>) - 1	unidentified brushfoot (<i>Nymphalinae</i> sp.) - 2
unidentified duskywing (<i>Erynnis</i> sp.) - 39	unidentified crescent (<i>Phyciodes</i> sp.) - 1
Unidentified Sootywing (Unidentified <i>Pholisora</i> sp.) - 1	unidentified Fritillary (<i>Fritillaria</i> sp.) - 2
unidentified spreadwing skipper (<i>Pyrginae</i> sp.) - 1	unidentified greater fritillary (<i>Speyeria</i> sp.) - 1
White/ Common Checkered-Skipper (<i>Pyrgus albescens/communis</i>) - 6	unidentified lady (<i>Vanessa</i> sp.) - 1
	Variegated Fritillary (<i>Euptoieta claudia</i>) - 1
Family: Lycaenidae	Family: Pieridae
Boisduval's Blue (<i>Plebejus icarioides</i>) - 17	Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 13
Juniper Hairstreak (<i>Callophrys gryneus</i>) - 2	Dainty Sulphur (<i>Nathalis iole</i>) - 4
Lupine Blue (<i>Plebejus lupini</i>) - 2	Orange Sulphur (<i>Colias eurytheme</i>) - 31
Reakirt's Blue (<i>Echinargus isola</i>) - 3	unidentified sulphur (<i>Coliinae</i> sp.) - 5
unidentified blue (<i>Polyommata</i> sp.) - 7	unidentified white (<i>Pierinae</i> sp.) - 1
Family: Papilionidae	Family: Riodinidae
Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 7	None
unidentified swallowtail (<i>Papiliononinae</i> sp.) - 1	

Capulin Volcano National Monument: Crater Rim Trail

Region: Southwest Tablelands **Ecoregion:** Upper Canadian Plateau

Start: 36.782828°, -103.971983°, elevation 7880 ft. **End:** 36.782294°, -103.972247°, elevation 7884 ft.

Length: 0.86 miles

First Survey Year: 2025

Status: Active

This route is in Capulin Volcano National Monument. The site is within the Upper Canadian Plateau ecoregion of the Southwestern Tablelands, in the Great Plains. This area of the Great Plains is characterized by volcanism. The route encircles the crater rim of Capulin Volcano, which is one of many volcanos in southeastern New Mexico that collectively make up the Raton-Clayton Volcanic Field. Capulin rises to a height of 8,182 feet above sea level, which is about 1,300 feet higher than the surrounding plains. The slopes of the volcano have been stabilized by the formation of soil, created from the breakdown of volcanic rock by mosses and lichens. Vegetation covering the volcano is a mixture of shortgrass prairie, midgrass prairie, scattered juniper grassland, and juniper woodlands.



Route History:

Surveys started on this route in 2025. No changes to the route have been noted.

Route Statistics:

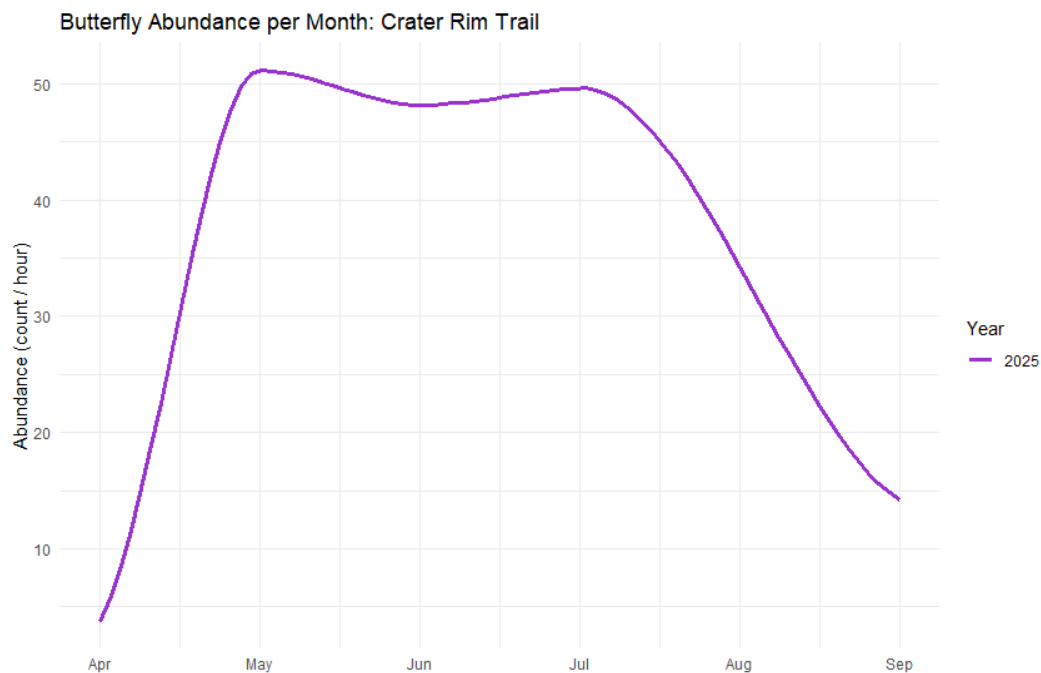


FIGURE 87 INDEX OF ABUNDANCE PER MONTH AT CRATER RIM TRAIL ACROSS YEARS SURVEYED BETWEEN 2020-2025.

TABLE 44 SPECIES RECORDED ON THE CRATER RIM TRAIL ROUTE, INCLUDING THE TOTAL NUMBER OBSERVED, TO DATE.

Family: Hesperidae	Family: Nymphalidae
Horace's Duskywing (<i>Erynnis horatius</i>) - 3 Pahaska Skipper (<i>Hesperia pahaska</i>) - 13 Pahaska/ Green Skipper (<i>Hesperia pahaska/viridis</i>) - 1 Rocky Mountain Duskywing (<i>Erynnis telemachus</i>) - 1 Sleepy Duskywing (<i>Erynnis brizo</i>) - 25 unidentified checkered-skipper (<i>Pyrgus</i> sp.) - 1 unidentified duskywing (<i>Erynnis</i> sp.) - 117 unidentified grass skipper (<i>Hesperia</i> sp.) - 19	Bordered Patch (<i>Chlosyne lacinia</i>) - 5 unidentified brushfoot (<i>Nymphalinae</i> sp.) - 5 unidentified greater fritillary (<i>Speyeria</i> sp.) - 1 unidentified lady (<i>Vanessa</i> sp.) - 1 Variegated Fritillary (<i>Euptoieta claudia</i>) - 1
Family: Lycaenidae	Family: Pieridae
Coral Hairstreak (<i>Satyrus titus</i>) - 2 Echo Azure (<i>Celastrina echo</i>) - 3 Lupine Blue (<i>Plebejus lupini</i>) - 3 unidentified blue (<i>Polyommata</i> sp.) - 7	Checkered White (<i>Pontia protodice</i>) - 7 Clouded/Orange Sulphur (<i>Colias philodice/eurytheme</i>) - 1 Dainty Sulphur (<i>Nathalis iole</i>) - 4 Orange Sulphur (<i>Colias eurytheme</i>) - 6 unidentified sulphur (<i>Colias</i> sp.) - 2 unidentified white (<i>Pieris</i> sp.) - 13
Family: Papilionidae	Family: Riodinidae
Black Swallowtail (<i>Papilio polyxenes</i>) - 11 Two-tailed Swallowtail (<i>Papilio multicaudata</i>) - 1	None

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Appendix A: List of Recorded Species

List of all Papilionidae recorded by the NMBMN to date

Common Name	Scientific Name	Total Count
Black Swallowtail	<i>Papilio polyxenes</i>	88
Giant Swallowtail	<i>Papilio cresphontes</i>	1
Old World Swallowtail	<i>Papilio machaon</i>	1
Pale Swallowtail	<i>Papilio eurymedon</i>	2
Pipevine Swallowtail	<i>Battus philenor</i>	10
Two-tailed Swallowtail	<i>Papilio multicaudata</i>	1052
Western Tiger Swallowtail	<i>Papilio rutulus</i>	194
unidentified swallowtail	<i>Papiliononinae sp.</i>	204

List of all Pieridae recorded by the NMBMN to date

Common Name	Scientific Name	Total Count
Cabbage White	<i>Pieris rapae</i>	1060
Checkered White	<i>Pontia protodice</i>	1129
Clouded Sulphur	<i>Colias philodice</i>	563
Clouded/Orange Sulphur	<i>Colias philodice/eurytheme</i>	1172
Cloudless Sulphur	<i>Phoebis sennae</i>	106
Dainty Sulphur	<i>Nathalis iole</i>	1877
Desert Marble	<i>Euchloe lotta</i>	6
Desert Orangetip	<i>Anthocharis cethura</i>	9
Margined White	<i>Pieris marginalis</i>	45
Mexican Yellow	<i>Eurema mexicana</i>	71
Orange Sulphur	<i>Colias eurytheme</i>	860
Pine White	<i>Neophasia menapia</i>	26
Queen Alexandra's Sulphur	<i>Colias alexandra</i>	3
Sleepy Orange	<i>Abaeis nicippe</i>	539
Southern Dogface	<i>Zerene cesonia</i>	180
Southwestern Orangetip	<i>Anthocharis thoosa</i>	510
Spring White	<i>Pontia sisymbrii</i>	119
Tailed Orange	<i>Pyrisitia proterpia</i>	9
unidentified sulphur	<i>Coliinae sp.</i>	1006
unidentified white	<i>Pierinae sp.</i>	1032

List of all Lycaenidae recorded by the NMBMN to date

Common Name	Scientific Name	Total Count
Arctic Blue	<i>Plebejus glandon</i>	8
Arizona Hairstreak	<i>Erora quaderna</i>	23
Boisduval's Blue	<i>Plebejus icarioides</i>	28
Brown Elfin	<i>Callophrys augustinus</i>	9
Ceraunus Blue	<i>Hemiargus ceraunus</i>	38
Colorado Hairstreak	<i>Hypaurotis crysalus</i>	13
Coral Hairstreak	<i>Satyrrium titus</i>	2
Echo Azure	<i>Celastrina echo</i>	3844
Gray Hairstreak	<i>Strymon melinus</i>	186
Great Purple Hairstreak	<i>Atlides halesus</i>	20
Juniper Hairstreak	<i>Callophrys gryneus</i>	172
Leda Ministreak	<i>Ministrymon leda</i>	1
Lupine Blue	<i>Plebejus lupini</i>	187
Marine Blue	<i>Leptotes marina</i>	2383
Melissa Blue	<i>Plebejus melissa</i>	97
Purplish Copper	<i>Lycaena helloides</i>	2
Reakirt's Blue	<i>Echinargus isola</i>	295
Rita Dotted-Blue	<i>Euphilotes rita</i>	7
Sandia Hairstreak	<i>Callophrys mcfarlandi</i>	146
Silvery Blue	<i>Glaucopsyche lygdamus</i>	12
Tailed Copper	<i>Lycaena arota</i>	138
Thicket Hairstreak	<i>Callophrys spinetorum</i>	7
Western Green Hairstreak	<i>Callophrys affinis</i>	17
Western Pine Elfin	<i>Callophrys eryphon</i>	1
Western Pygmy-Blue	<i>Brephidium exilis</i>	1630
Western Square-dotted Blue	<i>Euphilotes battoides</i>	7
Western Tailed-Blue	<i>Cupido amyntula</i>	240
unidentified Azure	<i>Celastrina sp.</i>	13
unidentified blue	<i>Polyommata sp.</i>	1554
unidentified buckwheat blue	<i>Euphilotes sp.</i>	2
unidentified copper	<i>Lycaeninae sp.</i>	2
unidentified Gossamerwing	<i>Lycaenidae</i>	8
unidentified hairstreak	<i>Theclinae sp.</i>	56

List of all Riodinidae recorded by the NMBMN to date

Common Name	Scientific Name	Total Count
Fatal Metalmark	<i>Calephelis nemesia</i>	4
Mexican Metalmark	<i>Apodemia mejicanus</i>	215
Mormon Metalmark	<i>Apodemia mormo</i>	1
Nais Metalmark	<i>Apodemia nais</i>	1
unidentified metalmark	<i>Riodinidae sp.</i>	11

List of all Nymphalidae recorded by the NMBMN to date

Common Name	Scientific Name	Total Count
American Lady	<i>Vanessa virginiensis</i>	146
American Snout	<i>Libytheana carinenta</i>	247
Aphrodite Fritillary	<i>Speyeria aphrodite</i>	3
Arachne Checkerspot	<i>Poladryas arachne</i>	11
Arizona Red-spotted Purple	<i>Limenitis arthemis arizonensis</i>	126
Arizona Sister	<i>Adelpha eulalia</i>	919
Atlantis Fritillary	<i>Speyeria atlantis</i>	21
Bordered Patch	<i>Chlosyne lacinia</i>	212
California Tortoiseshell	<i>Nymphalis californica</i>	8
Canyonland Satyr	<i>Cyllopsis pertepida</i>	286
Common Buckeye	<i>Junonia coenia</i>	115
Common Ringlet	<i>Coenonympha tullia</i>	2
Common Wood-Nymph	<i>Cercyonis pegala</i>	192
Dark Buckeye	<i>Junonia nigrosuffusa</i>	19
Dotted Checkerspot	<i>Poladryas minuta</i>	2
Field Crescent	<i>Phyciodes pulchella</i>	415
Fulvia Checkerspot	<i>Chlosyne fulvia</i>	6
Goatweed Leafwing	<i>Anaea andria</i>	10
Gray Buckeye	<i>Junonia grisea</i>	105
Great Spangled Fritillary	<i>Speyeria cybele</i>	198
Gulf Fritillary	<i>Agraulis vanillae</i>	1
Hackberry Emperor	<i>Asterocampa celtis</i>	34
Hoary Comma	<i>Polygonia gracilis</i>	235
Milbert's Tortoiseshell	<i>Aglais milberti</i>	57
Monarch	<i>Danaus plexippus</i>	165
Monarch/ Queen/ Viceroy	<i>Danaus plexippus/gilippus/Limenitis archippus</i>	8
Mourning Cloak	<i>Nymphalis antiopa</i>	919
Mylitta Crescent	<i>Phyciodes mylitta</i>	460
Nokomis Fritillary	<i>Speyeria nokomis</i>	119
Northwestern Fritillary	<i>Speyeria hesperis</i>	65
Painted Crescent	<i>Phyciodes picta</i>	210
Painted Lady	<i>Vanessa cardui</i>	872
Pearl Crescent	<i>Phyciodes tharos</i>	235
Perse Checkerspot	<i>Microtia perse</i>	263
Queen	<i>Danaus gilippus</i>	121
Question Mark	<i>Polygonia interrogationis</i>	2
Red Admiral	<i>Vanessa atalanta</i>	49
Red Satyr	<i>Megisto rubricata</i>	38
Red-bordered Satyr	<i>Gyrocheilus patrobas</i>	440
Red-spotted Purple or White Admiral	<i>Limenitis arthemis</i>	60
Sagebrush Checkerspot	<i>Chlosyne acastus</i>	140
Satyr Comma	<i>Polygonia satyrus</i>	106
Silvery Checkerspot	<i>Chlosyne nycteis</i>	10

Small Wood-Nymph	<i>Cercyonis oetus</i>	35
Tawny Emperor	<i>Asterocampa clyton</i>	2
Texan Crescent	<i>Anthanassa texana</i>	30
Theona Checkerspot	<i>Chlosyne theona</i>	1
Tiny Checkerspot	<i>Dymasia dymas</i>	42
Variegated Fritillary	<i>Euptoieta claudia</i>	487
Viceroy	<i>Limenitis archippus</i>	5
Weidemeyer's Admiral	<i>Limenitis weidemeyerii</i>	424
West Coast Lady	<i>Vanessa annabella</i>	2
unidentified anglewing	<i>Polygonia sp.</i>	14
unidentified brushfoot	<i>Nymphalinae sp.</i>	140
unidentified buckeye	<i>Junonia sp.</i>	53
unidentified crescent	<i>Phyciodes sp.</i>	133
unidentified Fritillary	<i>Fritillary sp.</i>	547
unidentified greater fritillary	<i>Speyeria sp.</i>	134
unidentified lady	<i>Vanessa sp.</i>	91
unidentified wood-nymph	<i>Cercyonis sp.</i>	63

List of all Hesperiiidae recorded by the NMBMN to date

Common Name	Scientific Name	Total Count
Afranius Duskywing	<i>Erynnis afranius</i>	43
Arizona Powdered Skipper	<i>Systasea zampa</i>	3
Bronze Roadside-Skipper	<i>Amblyscirtes aenus</i>	37
Cassus Roadside-Skipper	<i>Amblyscirtes cassus</i>	19
Common Checkered-skipper	<i>Pyrgus communis</i>	5
Common Roadside-Skipper	<i>Amblyscirtes vialis</i>	2
Common Sootywing	<i>Pholisora catullus</i>	120
Common Streaky-Skipper	<i>Celotes nessus</i>	38
Deva Skipper	<i>Atrytonopsis deva</i>	5
Dotted Roadside-Skipper	<i>Amblyscirtes eos</i>	5
Dreamy Duskywing	<i>Erynnis icelus</i>	28
Dun Skipper	<i>Euphyes vestris</i>	79
Edwards' Skipperling	<i>Oarisma edwardsii</i>	26
Fiery Skipper	<i>Hylephila phyleus</i>	64
Four-spotted Skipperling	<i>Piruna polingii</i>	63
Funereal Duskywing	<i>Erynnis funeralis</i>	82
Garita Skipperling	<i>Oarisma garita</i>	8
Gold-costa Skipper	<i>Cogia caicus</i>	1
Golden Banded-Skipper	<i>Autochton cellus</i>	28
Golden-headed Scallopwing	<i>Staphylus ceos</i>	24
Green Skipper	<i>Hesperia viridis</i>	22
Horace's Duskywing	<i>Erynnis horatius</i>	10
Large Roadside-Skipper	<i>Amblyscirtes exoteria</i>	5
Margarita Skipper	<i>Atrytonopsis margarita</i>	2
Meridian Duskywing	<i>Erynnis meridianus</i>	81

Mexican Cloudywing	<i>Thorybes mexicana</i>	4
Mexican Sootywing	<i>Pholisora mejicanus</i>	19
Moon-marked skipper	<i>Atrytonopsis lunus</i>	1
Mountain Checkered-Skipper	<i>Pyrgus xanthus</i>	1
Mournful Duskywing	<i>Erynnis tristis</i>	85
Northern Cloudywing	<i>Thorybes pylades</i>	464
Orange Skipperling	<i>Copaeodes aurantiaca</i>	97
Orange-headed Roadside-Skipper	<i>Amblyscirtes phylace</i>	7
Oslar's Roadside-Skipper	<i>Amblyscirtes oslari</i>	2
Pacuvius Duskywing	<i>Erynnis pacuvius</i>	48
Pahaska Skipper	<i>Hesperia pahaska</i>	27
Pahaska/ Green Skipper	<i>Hesperia pahaska/viridis</i>	3
Persius Duskywing	<i>Erynnis persius</i>	7
Python Skipper	<i>Atrytonopsis python</i>	2
Rocky Mountain Duskywing	<i>Erynnis telemachus</i>	268
Russet Skipperling	<i>Piruna pirus</i>	140
Sachem	<i>Atalopedes campestris</i>	2
Saltbush Sootywing	<i>Hesperopsis alpheus</i>	10
Short-tailed Skipper	<i>Zestusa dorus</i>	62
Silver-spotted Skipper	<i>Epargyreus clarus</i>	234
Slaty Roadside-Skipper	<i>Amblyscirtes nereus</i>	3
Sleepy Duskywing	<i>Erynnis brizo</i>	135
Small Checkered-Skipper	<i>Pyrgus scriptura</i>	38
Snow's Skipper	<i>Paratrytone snowi</i>	4
Tawny-edged Skipper	<i>Polites themistocles</i>	5
Taxiles Skipper	<i>Poanes taxiles</i>	294
Tropical Least Skipper	<i>Ancyloxypha arene</i>	44
Uncas Skipper	<i>Hesperia uncas</i>	1
Viereck's Skipper	<i>Atrytonopsis vierecki</i>	27
White/ Common Checkered-Skipper	<i>Pyrgus albescens/communis</i>	1437
White-barred Skipper	<i>Atrytonopsis pittacus</i>	3
White-tufted Sootywing	<i>Pholisora albicirrus</i>	5
Yucca Giant-Skipper	<i>Megathymus yuccae</i>	28
unidentified checkered-skipper	<i>Pyrgus sp.</i>	279
unidentified cloudywing	<i>Thorybes sp.</i>	12
unidentified duskywing	<i>Erynnis sp.</i>	768
unidentified Giant-skipper	<i>Agathymus sp. or Megathymus sp.</i>	1
unidentified grass skipper	<i>Hesperiinae sp.</i>	169
unidentified roadside-skipper	<i>Amblyscirtes sp.</i>	10
Unidentified Sootywing	<i>Pholisora sp.</i>	14
unidentified spreadwing skipper	<i>Pyrginae sp.</i>	36