

## BUTTERFLY COLLECTING IN TEXAS AND NEW MEXICO

by H. A. FREEMAN

The area covered by this paper is so vast that it is almost impossible to cover more than the most interesting localities. I will point out some of the best places to collect based on personal collecting and the notes obtained from other collectors. In Texas we have five distinct zones, the pine woods area of east Texas, the central Texas area in which Dallas is located, the lower Rio Grande valley area, the southwestern area in which Alpine and the Big Bend National park are located, and the panhandle area in which is the very interesting Palo Duro Canyon. Each of these areas will be taken up with some comments as to the best exact localities to visit and the period of the year when collecting is at its height.

For East Texas I will deal with one in particular. Situated a few miles north of Tyler is Tyler State Park, in which a person can get a fair example of most of the species of butterflies that occur over the entire area. This park is in a wooded section with a fair sized lake in about the center. The soil is mostly sandy and the prevailing types of vegetation are pines, oaks, cedars, several flowers such as *Verbena canadensis* and the interesting Button-bush (*Cephalanthus occidentalis*) and *Yucca louisianensis*. During March you can collect *Incisalia hadros* C. & W., *Incisalia henrici turneri* Clench several species of *Papilio*, *Hesperia metea licinius* Edw., *Erynnis martialis* (Scud.), which is a rarity in Texas, and *Megathymus yuccæ* (Bdv. & Lec.). The last named can best be collected by gathering the pupæ from the caudex of *Yucca louisianensis* the first week of March. During September it is possible to get an occasional specimen of *Amblyscirtes alternata* (Grote & Robinson) in and around Tyler. This is the only place that I have ever found this species in Texas. It might be noted here that the weather plays a very important part in just how successful you are in collecting during March in Tyler State Park as I have found during the past six years that *I. hadros* has been very hard to locate because of the bad climatic conditions. About the only species that seems to be easy to locate is *Megathymus yuccæ*.

The central part of Texas in which Dallas is located is characterized by having two distinct types of soil. The prevailing type is black sticky humus and the other is where you find limestone outcroppings. It is in the latter places that you will find your best localities to collect. There is one such place in Dallas on Buckner Blvd. one-half mile west of the drive-in theater. On *Yucca arkansana* in this area I have now collected around two hundred specimens of *Megathymus yuccæ stallingsi* Freeman from those plants during the past six years. During March the *Prunus* are in bloom and *Incisalia henrici turneri* fairly swarms at times around those blossoms. Another interesting species that will show up from year to year around that time of the season is *Euchloe olympia rosa* Edw. Beginning around the last of May and continuing until fall, other species that you can collect in this area are *Cogia*

outis Skinner, *Amblyscirtes nysa* Edw., *Amblyscirtes belli* Freeman, *Polites vibex brettoides* (Edw.), *Mitoura gryneus castalis* (Edw.), and many more, of more or less importance. In this particular area you get strays from all the other four areas of the state. Even though the type locality of *Amblyscirtes eos* (Edw.) is Dallas this is distinctly a stray into this area. It is found commonly in the Palo Duro Canyon and around Alpine. It enters the central area more commonly around Palo Pinto and Mineral Wells. There are a number of others like that but one other in particular is worth some comment. I collected a number of *Mitoura xami* (Reakirt) in and around Pharr in the lower Rio Grande valley; however, one specimen was collected at Lancaster, ten miles south of Dallas, on *Ceanothus ovatus* Desf. This specimen was collected April 15, 1949, which was considerably off the time that I collected my south Texas specimens (October-December).

The Pharr area, which is in about the center of the lower Rio Grande Valley section, is one of the most interesting places to collect as you do not know what you are going to collect from day to day and from one year to the next. This part of Texas is definitely sub-tropical and many of the species that occur as native species are the same as you will find two hundred miles south in Mexico. The number of strays and new records for the United States that turn up in and around Pharr is remarkable. Because of the condition of the land and other factors the best collecting is to be done around the irrigation ditches and canals and along the Rio Grande river. One of the best places to collect was found to be on the La Reforma ranch which is situated north of Hidalgo just off the McAllen road. Any person desiring to find this locality can get there by driving from Hidalgo along beside the railroad and turn left on a dirt road that has the high power line running parallel with it. This turn-off is just about two miles from Hidalgo and you can go forward on this dirt road for about three-fourths of a mile and you will drive into the wooded area. Here is the place where I turned up a number of new United States records and saw my only *Morpho* in the United States. Butterflies fairly swarm during all the months of the year and only a few of the most interesting will be mentioned. Here along the sides of the road *Astraptus fuligator* (Walsh), *Pellicia bromias* (G. & S.) and *costimacula* (H.-S.), *Spathilepia clonius* (Cramer), *Timochares ruptifasciata* (Ploetz), *Achlyodes thraso* (Hbn.), *Gorgythion begga pyralina* (Möschler), *Aguna asander* (Hew.), *Proteides mercurius* (Fab.), *Lerodea tyrtaeus* Ploetz, *Lerodea edata* (Ploetz), *Amblyscirtes celia* Skinner, *Anteos mæcula* (Fabr.), *Adelpha fessonia* Hew., *Chlorippe pavon* Latr., *Apodemia walkeri* G., *Lasaia sessilis* Schaus, *Thecla bazochii* G., *Thecla facuna* Hew., *Thecla cestri* (Reak.), and many others may be found. Another excellent place to collect is six miles north of McAllen on the road to Edinburg. It is up and down the irrigation canal that crosses under the highway. Just west of Mission two species of Megathymidæ may be collected, *Megathymus yuccæ wilsonorum* Stallings & Turner and *Stallingsia maculosus* (Freeman). To collect in that part of the state, just locate a nice irrigation ditch that has been there for several years and has had a lot of vegetation around it.

Every year that I go back to the southwestern part of Texas I learn a little more about collecting out there. When I first started going there in 1940 I found little to collect and I have heard a number of other collectors say the same. You must know the right places to visit or else your whole trip will have been without results. The best place to find good tourists courts and such is in Alpine. From there you can go in a number of directions. My favorite places are to go to Fort Davis and then on up to the summit of Mt. Locke. Eleven miles from Alpine there is a bridge that crosses a small stream of water which is usually flowing. In this particular area I have found a lot of very interesting butterflies, namely *Amblyscirtes oslari* (Skinner), *nysa nereus* (Edw.), *eos*, *ænus* Edw., *texanæ* Bell, and *simius* Edw., *Adopæoides simplex* (Felder), *Celotes nessus* (Edw.), *Antigonus evansi* Bell and *pulverulenta* (Felder), *Cogia hippalus* (Edw.), *Thorybes drusus* (Edw.) and *pylades albosuffusa* Freeman, *Phyciodes picta* Edw., *Adelpha eulalia* D. & H., *Papilio multicaudatus* Kirby and many others. These species have been collected from late May until August. At the summit of Mt. Locke, around the McDonald Observatory, during the first of June, I have seen *Strymon polingi* (B. & B.) fairly common as they flew around *Quercus emoryi* and *Quercus grisea*, and *Amblyscirtes phylace* (Edw.) could be found flying around the blooms on *Linum rigidum* and *Houstonia nigricans* and *Oarisma edwardsii* (Barnes) sitting on the ground to dart about for a few seconds and then again alight. During July and August *Minois meadi* Edw. is common at high elevations throughout that area and many other very desirable butterflies. There are several species of *Agave* and *Yucca* found in the southwestern part of the state and so far only five species of *Agathymus* have been collected in that particular part of the state, *marice* (Barnes & Benjamin), *macalpinei* (Freeman), *florenceæ* (Stallings & Turner), *judithæ* (Stallings & Turner), and *chisosensis* (Freeman). I am sure that there are others just waiting to be collected. For best collecting results in the southwestern part of Texas locate some wooded canyon or else go up into the mountain areas where there is plenty of vegetation. The flats around Alpine are practically devoid of desirable species of butterflies, as is the case over most of that section.

I have found several nice places to collect in the panhandle of Texas. Perhaps the best is in the Palo Duro Canyon. The most productive part of the canyon is below Claude instead of the part near the town of Canyon. About fifteen miles due south of Claude there is a small hill just before you progress down into the canyon proper and it was on this hill that I first collected *Megathymus texanus* B & McD. and its form "albocincta. There are many other interesting butterflies found on that particular little hill: *Papilio multicaudatus*, *Mitoura gryneus castalis*, *Erynnis burgessi* (Skinner) and *meridianus* Bell, *Hesperia viridis* Edw., *uncas* Edw., *Amblyscirtes oslari*, *simius*, and *nysa*. Down in the bottom of the canyon there are a number of smaller canyons that lead into the main one and it is in these that you have the best results. In one spot I found *Pholisora alpheus* (Edw.) fairly common. It was interesting to me to note that in one small canyon I would find *Amblyscirtes erni* Freeman commonly while just a little way off another

small canyon would yield not a single *erna* but plenty of *ænus* and both *texana* and *eos*. The only two specimens of *Megathymus yuccæ* Bdv. & Lec. (I believe this subspecies to be *coloradensis* Riley), that I collected in three years in the Panhandle were found flying around in one of these small canyons near the main canyon. Another good place to collect is on the Gray's ranch north of Skellytown. Here *Yucca glauca* grows very abundantly and during May and the first of June you can catch many fine specimens of *Megathymus texanus* and its form "albocincta". The best collecting season in the Panhandle is during the spring as there are only a few interesting species to be collected during the fall months. *Hesperia uncas* and *Amblyscirtes eos* are two of the species that are about as common during September as they are during May.

If I were to make a suggestion to collectors wishing to collect in Texas I would say that it would be best to select one particular area and concentrate on that place for the entire length of their visit. Most of the state has been collected over in more or less spasmodic trips by a lot of collectors; however, only a very few places have been thoroughly collected. Of those places I would say that the area around Dallas is perhaps the best known in the state and the areas in the west the least known. I have collected around Alpine almost every year since 1940 but actually it is almost virgin territory as far as being well known. In the section around Pharr it is doubtful whether a person would ever get all of the species that occur around that locality, as each year new things make their appearance and ones that were there the year before fail to appear. If a collector is wanting to get into some more or less virgin territory I would suggest the Guadalupe Mountains west and south of Pine Springs, Texas, during May and June. This section of the state has only been collected over in a very poor manner. There are a number of plants that grow in these mountains that also occur in the Chisos Mountains, in the Big Bend National Park. Because of the fact that the Chisos Mountains are in a National Park there has been little collecting done there so it is hard to say whether the same butterflies are associated with the plants that grow there and also in the Guadalupe Mountains. If a collector should desire to collect this area I would suggest that they go prepared to camp out, as there are no tourist courts nor places to sleep within miles of the mountains.

Actually the state of New Mexico affords a golden opportunity for any collector, as that state has been collected over less than most of the others in our union. Several collectors have collected around Raton, Folsom, Santa Fe, Jemez Springs, Ft. Wingate, Alamogordo, and Silver City; however, the northwestern, west, and southwestern parts of the state have been practically untouched. I have made only brief collecting trips to New Mexico and each time with very good results. On the Canadian river north of Tucumcari many interesting species were collected and observed during May. Around Raton may be found several *Hesperia* and *Speyeria* as well as *Pholisora mejanus* (Reak.), *Strymon falacer godarti* Field, *Strymon titus immaculosus* Comst., especially during the month of August. While driving from Rodeo to Lordsburg I noticed a species of *Agave* growing in the mountains, most likely *pal-*

*meri*, so there should be some *Agathymus* in the *baueri* group in those mountains. I have specimens of *Agathymus mariæ* and *Megathymus violæ* Stallings & Turner from near Carlsbad, *Megathymus streckeri* Skinner from around Santa Fe and Albuquerque and *Megathymus texanus* from around Folsom. The type locality of *Megathymus yuccæ navajo* Skinner is near Ft. Wingate, and I have seen specimens of that subspecies from Zuni Mountains collected during May and June.

The geography of New Mexico is such that you can find almost any type of country in which to collect. The southeastern section from Carlsbad and Clovis where the elevation is slightly above three thousand feet affords one type of collecting; the mountains that run through the central part northward range up to over twelve thousand feet and are rich in butterflies, especially during the spring and early summer; the mountains northeast of Gallup should show an entirely different fauna, as should the ones northwest of Silver City and would be well worth a collector's time to investigate.

To sum up collecting in New Mexico I would simply say that so little is actually known about the best places to find butterflies in that state almost any mountainous area would be worthwhile. If I were going to do some extensive collecting there I would go to Silver City or Santa Rita during the last of May and work the mountains of that area on through June. Another place that might be worth selecting would be Gallup and visit thoroughly the mountains north of that city. When more work has been done, we can get a much better idea of just where to go to collect in New Mexico.

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## THE SAGA OF AN ORPHAN *SPEYERIA DIANA* LARVA

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All collectors know how important it is to label their specimens accurately. Of course, the small size of labels limits the data to essential information which does not reveal any of the events involved in the capture of the specimens. Even in the case of a preserved larva, the story behind the label is often interesting. An example of this can be shown in the eventful life of a *Speyeria diana* Cramer larva now in the preserved collection at Yale University. Perhaps an account written from the viewpoint of this larva will reveal all the important facts.