

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.

In September 1957, a badly worn female *S. diana* was captured in the Smoky Mountains of Tennessee and taken to Yale University where, under the guidance of Dr. C. L. REMINGTON, she laid four eggs. Apparently the academic life was too strenuous for a lady of her age, for she died a few hours after arrival.

The four eggs were entrusted to me for rearing of anything that might emerge. Soon after arrival, three eggs shriveled; but the fourth changed to a darker color. Twenty-eight days after the oviposition, the hero of this epic first saw the full light of day after chewing its way out of the only good egg. Regardless of the number of times it crawled across the paper on the floor of its one-inch-plastic-cube living quarters, it was unable to detach the egg shell from its last two or three segments. Soon he or she (we never learned which) crawled onto the lower surface of the paper and settled down for what should have been a very long nap. Suddenly it was swept off its feet by a small camel-hair brush and dumped into a puddle of water — really only one drop of rain water which had been dripped from a medicine dropper onto a small fragment of paper towel. When the drop spread out and soaked into the paper, the larva was able to escape from the damp surface.

A quick trip around the interior of its new home revealed it to be identical with its previous habitation, only the furnishings were different. On the floor were two bits of paper towel, one wet and one dry, and in one corner was a small pile of wet sand just large enough to hold the stem of a tender *Viola cornuta* leaf. By stretching a bit, the larva managed to reach the leaf and climb aboard without getting its feet wet. After exploring the upper surface, it found a hiding place in the curled edge of the leaf and went to sleep not expecting to be awakened for at least six months; however, he (she?) was not allowed to do what comes naturally, and was soon aroused by the prod of a broom straw. It was bad enough to suffer the discomfort of a clinging egg shell, but to be subjected to the bullying of the brute on the other end of that straw — that was too much! She (he?) coiled into a ball and rolled off the leaf landing in a drop of water on the floor of the box. While struggling out of the water onto a dry bit of paper towel, it dislodged the empty egg shell which had clung to its rear segments forty-eight hours.

By the time the larva found its way back to the leaf, it was hungry enough to eat a small notch out of the tender edge. After a few hours rest, it returned to the leaf edge for a full meal. From this time on, it ate and slept alternately without further prodding. Occasionally his (her?) privacy was invaded by a lepidopterist's prying eye peering through a magnifying glass. After devouring most of the first leaf and part of a fresh one, it molted after 14 days in the first instar.

In the first instar, the larva had been a whitish shade; but, after the first molt, it changed to jet black with no markings on the body or spines. During her (his?) 8 days in the second instar it ate several leaves, and grew rapidly, requiring no attention other than the furnishing of new leaves and an occasional cleaning of the rearing container. In the third instar, which lasted 10

days, some of the spines had a narrow orange ring around the base of the shaft. When it molted again, after 7 days in the fourth instar, it had outgrown the plastic box and had to be transferred to a cottage cheese cup with a wire-mesh top. The stems of fresh *Viola* leaves were pushed through holes in the bottom into water in a shallow jar beneath. It thrived on this diet and doubled its size during 10 days spent in the fifth instar.

In the last instar, it was quite a handsome creature with spotless glistening black body adorned with bright red jewels. The red coloring was not actually on the body, but on the lower one-third of each spine shaft. On the first segment, two very long black-shafted spines pointed forward and over and beyond the black head which was colored dark orange along its upper part. Up to this time, the larva had eaten all the leaves supplied in the cheese cup, which was kept in a warm place in its guardian's living room; however, for some unknown reason, it suddenly became fastidious in his eating habits. It would take only a few bites from each leaf, and then crawl around rapidly five or ten minutes before pausing for a few more bites. When it was taken outside and placed on a *Viola* plant growing in a flower bed, it quickly devoured a number of tender leaves, then crawled off the plant and back into the rearing container where it rested several hours before getting hungry again. Twice each day for almost three weeks, it was put out to graze in the flower bed while its caretaker guarded it from a lizard that often eyed the larva hungrily. No doubt these brief periods of freedom in the warm December sunshine were the best moments of its life. A few days were chilly and rainy, but the weather was not bad enough to interfere with the daily outings.

The larva had been treated as such a pampered pet that one would think it was devotion that caused its lepidopterist caretaker to look at it so often. Actually, a sinister plot was under way, and unfortunately the larva's I.Q. was not high enough for it to comprehend what was going to happen to it when it climbed aboard the twig which had always been used to transfer it to its *Viola* pasture. Its life came to a sudden tragic end when the twig was dropped into a pan of boiling water.

EPILOGUE

I must confess that I am the perpetuator of this evil deed, but hope it will not be considered murder since the larva sacrificed its life for the sake of science. It was unfortunate in showing structural features which differed so much from other species in the genus that it was imperative to kill it mercifully and in ideal condition in hot water and then preserve it permanently in a vial of alcohol. I hope this obituary will serve as a tribute to this heroic larva who made the supreme sacrifice.