

BUTTERFLIES AT WATER HOLES IN CENTRAL ARIZONA

by DAVID L. BAUER

The habit of many species of butterflies to frequent water holes and moist ground has been observed and commented upon many times, and of a truth it is nothing out of the ordinary for it is wide spread and common. But one day while collecting at a water hole about two miles above the almost ghost town of Jerome, Arizona, I was amazed at the great numbers and wide variety of butterflies slaking their thirst at the water hole and flying about it.

As a result on June 28 and 29, 1951, I sat by the hole for several hours and jotted down the species as they came, netting those that needed closer observation for determination. At the end of my observations on the second day the list had reached the unusual number of forty distinct species that had come to get a drink. Below is a list of those that came during my three or four hours' observation on these two successive days last June.

<i>Papilio philenor</i> L.	<i>Asterocampa celtis</i> Bdv. & Lec.
" <i>multicaudata</i> Kirby	<i>Libytheana bachmanii</i> Kirt.
<i>Colias eurhytheme</i> Bdv.	<i>Apodemia nais</i> Edw.
<i>Eurema nicippe</i> Cramer	<i>Atlides halesus</i> Cramer
<i>Danaus plexippus</i> L.	<i>Strymon melinus</i> Hbn.
" <i>berenice</i> Cramer	" <i>autolyceus</i> Edw.
<i>Neonympha dorothea</i> Nab.	<i>Leptotes marina</i> Reak.
<i>Megisto rubricata</i> Edw.	<i>Hemiargus isola</i> Reak.
<i>Melitaea fulvia</i> Edw.	<i>Plebeius acmon</i> West. & Hew.
" <i>theona</i> Mén.	<i>Philotes enoptes</i> Bdv.
<i>Phyciodes mylitta</i> Edw.	<i>Lycaenopsis pseudargiolus</i> Bdv. & Lec.
<i>Chlosyne lacinia</i> Geyer	<i>Epargyreus clarus</i> Cramer
" <i>californica</i> Wright	<i>Pyrgus communis</i> Grote
<i>Polygonia satyrus</i> Edw.	<i>Heliopetes ericetorum</i> Bdv.
<i>Nymphalis antiopa</i> L.	<i>Pholisora mejicanus</i> Reak.
<i>Vanessa atalanta</i> L.	<i>Erynnis afraimius</i> Lint.
" <i>carye</i> Hbn.	" <i>boratius</i> Scud. & Burg.
" <i>cardui</i> L.	<i>Copaeodes aurantiaca</i> Hew.
<i>Limenitis wiedemeyerii</i> Edw.	<i>Atrytone ruricola</i> Bdv.
" <i>astyanax</i> Fabr.	<i>Atrytonopsis vierecki</i> Skin.

Having observed that many species in two days I decided to go through my data book on spring collecting and see how many additional species visited the water hole that spring. Fourteen more species were there in the spring up to June 27th:

<i>Papilio bairdii</i> Edw.	<i>Incisalia iroides</i> Bdv.
<i>Anthocaris sara</i> Bdv.	<i>Plebeius melissa</i> Edw.
<i>Euchloe creusa</i> Dbldy. & Hew.	<i>Zestusa dorus</i> Edw.
<i>Pieris sisymbrii</i> Bdv.	<i>Thorybes pylades</i> Scud.
" <i>protodice</i> Bvd. & Lec.	<i>Erynnis juvenalis</i> Fabr.
<i>Agraulis vanillae</i> L.	" <i>burgessi</i> Skin.
<i>Melitaea gabbii</i> Behr	<i>Megathymus yuccae</i> Bdv. & Lec.

Then during the rest of the season I jotted down the additional species that were observed there from June 28 and 29 to the end of October, and another fifteen species were recorded:

<i>Eurema mexicana</i> Bvd.	<i>Adelpha bredowii</i> Geyer
<i>Nathalis iole</i> Bdv.	<i>Apodemia mormo</i> F. & F.
<i>Minois meadii</i> Edw.	<i>Hyphaurotis chrysalus</i> Edw.
<i>Gyrocheilus patrobas</i> Hew.	<i>Brephidium exilis</i> Bdv.
<i>Euptoieta claudia</i> Cramer	<i>Hemiargus gyas</i> Edw.
<i>Melitaea dymas</i> Edw.	<i>Hesperia woodgatei</i> Wms.
<i>Nymphalis californica</i> Bvd.	<i>Megathymus neumægeni</i> Edw.
<i>Vanessa virginiensis</i> Drury	

This made a total of sixty-nine species of butterflies recorded from one series of water holes. This series of water holes is in the canyon above Jerome at about 5,300 ft. elevation and runs for about a mile parallel to the Highway 89 alternate. The best place to park the car for collecting there is at the water tanks, that can be seen from the road and where there is plenty of room for parking. I give this information because there might be some collector driving through that would like to stop.

The summer of 1951 was unusual in that the holes did not dry up during the entire summer; usually there is a time in the early summer, before the summer rains, when they are dry, and then there are practically no butterflies to be found.

Another observation made was that on hot days with low humidity such as was the case when the June observations were made there were many more butterflies at the holes. In the spring and fall months there were damp cool days when very few butterflies were found.

There is another water hole on the western side of the mountain, which is also along the Highway, where conditions are about the same as to elevation and great variety of species visiting the watering hole. At this hole additional species were taken as follows:

<i>Mitoura spinetorum</i> Hew.	<i>Erora quaderna</i> Hew.
" <i>siva</i> Edw.	

No exact records were kept on this water hole on the western side, but from appearances there were considerably fewer species visiting it; however, some species were more abundant.

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SEASON SUMMARY FOR 1953

Individual reports for the 1953 Lepidoptera season in North America should be sent to the Area Summarizers now. Advice for the preparation of these reports may be found in *The Lepidopterists' News*, vol.6: pp.89-91. The latest Season Summary, for 1952, was published in the last issue of the *News* (5 Nov. 1953). This should be used to develop comparisons for 1953 and for the names and addresses of the eight Area Summarizers.

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