SOME BUTTERFLIES OF THE PINOS ALTOS MOUNTAINS, NEW MEXICO

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The Pinos Altos Mountains lie just north of Silver City in Grant County, New Mexico. This range is of rather small extent and has maximum elevations of just over 9,000 feet. On north-facing slopes at higher elevations there are forests of Douglas fir (*Pseudotsuga taxifolia*), limber pine (Pinus flexilis), quaking aspen (Populus tremuloides), New Mexico locust (Robinia neo-mexicana), and mountain maple (Acer glabrum). A more xeric forest is also present and is composed mainly of ponderosa pine (Pinus ponderosa) and Gambel oak (Quercus gambelii). Evergreen woodland occurs at lower elevations and consists mainly of pinyon (Pinus edulis), junipers (Juniperus deppeana and J. monosperma), and live oaks (Quercus hypoleucoides, Q. emoryi, and Q. grisea and/or arizonica). Chaparral is composed of such plants as mountain mahogany (Cercocarpus sp.), squawbush (Rhus trilobata), buckbrush (Ceanothus greggii), silk tassel (Garrya sp.), manzanita (Arctostaphylos sp.), bear grass (Nolina microcarpa), and scrub oak (Quercus turbinella). Streamside vegetation of middle and lower elevations in these mountains is dominated by Arizona alder (Alnus oblongifolia), narrow-leaved cottonwood (Populus angustifolia), box elder (Acer negundo), Arizona walnut (Juglans major), and willows (Salix spp.).

Collecting was done in this area in the years 1957 through 1959 and was concentrated in the canyon of Cherry Creek. All of the previously mentioned habitats are present in some degree in or near this canyon. No species of butterflies which were found elsewhere in this range were absent from this particular site, although several which occurred here were not found elsewhere.

In the following list, species are grouped on the basis of their abundance in suitable habitat and at the proper season. Doubtless some species were under-collected and with further study would be found to be more common. All species records listed here are based on collected specimens with the exception of the Monarch (*Danaus plexippus*), and include only true butterflies (a short list of skippers will be presented at a later date). I wish to thank Messrs. L. P. Grey, Fred Thorne, and Raymond Jae for their help in the identification of certain species.

I. Common to abundant. Papilio multicaudata Kirby Eurema mexicana (Boisduval) Strymon melinus Hübner Callophrys apama (Edwards)

Celastrina argiolus (Linnaeus) Phyciodes mylitta (Edwards) Melitaea minuta Edwards Speyeria atlantis nausicaa (Edwards) II. Uncommon to fairly common. Battus philenor (Linnaeus) Papilio rutulus Lucas Neophasia menapia (Felder & Felder) Pieris sisymbrii Boisduval P. protodice Boisduval & LeConte Colias eurytheme Boisduval C. cesonia (Stoll) Phoebis sennae (Linnaeus) *Eurema nicippe* (Cramer) Nathalis iole Boisduval Limenitis bredowii (Geyer) Nymphalis californica (Boisduval) N. antiopa (Linnaeus) Polygonia zephyrus (Edwards) Chlosyne lacinia (Gever) Phyciodes texana (Edwards)

III. Rare.

Papilio polyxenes asterius Stoll P. ?bairdii Edwards Colias philodice Godart Strymon leda (Edwards) Hemiargus isola (Reakirt) Everes comyntas (Godart) Glaucopsyche lygdamus (Doubleday) Anthocaris sara Lucas Apodemia nais (Edwards) Hypaurotis crysalus (Edwards) Mitoura siva (Edwards) Erora quaderna (Hewitson) Leptotes marina (Reakirt) Plebejus acmon (Westwood & Hewitson) Libytheana bachmanii (Kirtland) Limenitis astyanax (Fabricius) L. weidemeyerii Edwards Euptoieta claudia (Cramer) Danaus gilippus (Cramer) Euptychia dorothea (Nabokov) E. rubricata Edwards Gyrocheilus patrobas (Hewitson)

Vanessa atalanta (Linnaeus) V. virginiensis (Drury) V. cardui (Linnaeus) Melitaea fulvia Edwards Agraulis vanillae (Linnaeus) Danaus plexippus (Linnaeus)

Such species as *Cercyonis sthenele* (Boisduval), *Pieris napi* (Linnaeus), and *Colias alexandra* Edwards were not found in this mountain range during the course of this study, although they are common in the nearby Mogollon Mountains. Their absence may be correlated with the fact that the Mogollons are higher, more extensive, and more mesic than the Pinos Altos Mountains.

In summary, 52 species of butterflies of the superfamily Papilionoidea were recorded in the low, forested Pinos Altos Mountains in southwestern New Mexico in three years of collecting.