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A CHECKLIST OF UTAH BUTTERFLIES AND SKIPPERS

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THE STATE OF UTAH is a very interesting area for the study of butterflies. Its 84,916 square miles of mountains, plateaus, and deserts is a region of considerable diversity of climate and vegetation representing every life zone from Arctic-Alpine to Lower Sonoran. Within this floral range are habitats of a large number of species of butterflies of which 175 have been recorded. The relative inaccessability of many areas in the State has limited collecting in the past and thus provides numerous virgin territories for the lepidopterist to explore.

The State of Utah includes parts of three great physiographic provinces of the Western United States: the Great Basin, portion of the Basin and Range Province in the west, the Rocky Mountains in the northeast, and the Colorado Plateau Province in the south and southeast. A line following the almost continuous front east of U.S. Highway 91 through Ogden to a point a few miles south of Cedar City marks the east boundary of the Great Basin part of the Basin and Range Province. The Great Basin has interior drainage with the Great Salt Lake as the lowest portion (4197 feet). The boundary of the Province turns abruptly westward south of Cedar City to the Beaver Dam Valley and thence along the Grand Wash Cliffs in Arizona.

The Rocky Mountain Province includes the Wasatch and Uintah mountains and extends as far south as Nephi and the south side of the Uintas. Altitudes reach more than 11,000' in the Wasatch and more than 13,000' in the Uintas. The Alpine

zone in the latter contains Utah's only examples of true alpine butterfly fauna. While other ranges in the State go over 12,000', typical alpine forms are notably lacking.

The Great Basin is characterized by isolated mountain ranges rising above desert valleys. The lowest part of the desert valleys is occupied by the Great Salt Lake from which the mean altitude rises about 1000' to the south. The desert ranges rise to variable altitudes, mainly 7,000' to 9,500' although some peaks in the Stansbury and Deep Creek ranges rise to over 11,000' and 12,000' respectively. Though the valleys and lower ranges have a desert climate with less than 14 inches of rainfall, the high ranges reach above the tree line and have more than 30 inches and permanent to semi-permanent streams. Vegetation is mainly Upper Sonoran juniper-pinon forests with small areas of Canadian zone vegetation above 8000'.

The western part of the Colorado Plateau is aptly named the High Plateau for it reaches altitudes of more than 10,000'. The highest point is over 12,000' in the Tushar Mountains well above the treeline, where precipitation exceeds 30 inches. The upland areas are characterized by aspen, pine and balsam-spruce forests with open mountain meadows. Many streams are permanent and for the most part flow into the Sevier River which in turn finds its way into the Great Basin. A prominent escarpment overlooking the Canyonlands of the Colorado Plateau marks the east and south sides of the High Plateau.

The Canyonlands are characterized by deep dissection by the Colorado River and its tributaries, including the Virgin River which drains the southwest corner of the State. The area south of St. George has the lowest elevation in the State and brings many Lower Sonoran desert plants and animals within Utah borders. Most of the Canyonlands area lies below 8000'. But three groups of mountains, each characterized by masses of intrusive rocks, rise to altitudes of more than 10,000'. These include the La Sals (12,721'), Abajo, and Henry groups of mountains. The Uinta Basin is separated from the Canyonlands by the bold escarpment of the Book Cliffs north of Price and Green River, Utah.

The following list of Utah butterflies was compiled from the records of a number of private collections. These were primarily those of the authors, John Emmel and Oakley Shields. Don Eff provided records from the F. M. Brown and W. N. Burdick collections in the Museum of the University of Colorado. The nomenclature follows the dos Passos List (1964)

except for those groups and species which have undergone revision since its publication. The Lycaenidae were reviewed by Harry K. Clench and the HesperIIDae by Lee D. Miller. The authors are particularly grateful to Don Eff, F. Martin Brown, John Downey, and Cyril F. dos Passos who made many useful comments on the total list. Finally, George F. Edmunds of the Department of Biology, University of Utah offered many suggestions regarding form and taxonomy.

For the purpose of recording the geographic occurrence of species, the State has been mapped into 20 zones which form the habitats of different ecological groupings of its butterfly fauna. Under each zone, following a description, are listed the principal collecting localities from which the butterflies were taken. For each species the arabic numbers refer to zones of occurrence; specific localities are mentioned under a species only if there is a single record. Flight periods are shown by giving the months in Roman numerals. The small case letters indicate relative abundance of each species: (c) common, (u) uncommon, (r) rare, and (d) doubtful occurrence.

The zones referred to in the text are as follows:

1. Raft River mountains, Box Elder County, elev. 5000' to 9000'; Upper Sonoran *Juniperus* association to Canadian Zone. Locality: Clear Creek Canyon.
2. Mountainous areas of Cache, Rich, and Weber counties, elev. 5500' to 8000'; Upper Sonoran oak association to Canadian Zones. Localities: Logan Canyon drainage, Bug Lake, Cottonwood Canyon (Rich Co.), 10 mi. S. of Avon (Cache Co.).
3. Intermountain park areas of Summit and Wasatch counties; rolling sage and grasslands around 6000'. Localities: Snyderville, Park City, 6600'.
4. Wasatch Mountains, west drainage, from Davis to Utah counties including the Salt Lake Valley. Upper Sonoran oak Canadian and Alpine zones; elev. 5500' to 9000'. Localities: Records from all the canyons along the Wasatch Front; Alta, Brighton, Little Mountain.
5. Stansbury Mountains, Tooele County, elev. 5000' to 8000', Upper Sonoran *Juniperus* association and Canadian zones. Localities: South Willow Creek; North Willow Creek.
6. The other Great Basin ranges extending from Tooele County southward to Washington County, elev. 6000' to 7000'. Areas are characterized by Upper Sonoran *Juniperus* association with sage and grasslands higher up. Localities: Cedar Mountains, Granite Mountain, Bennion Creek, Sheep Rock Mountains. (Tooele Co.).
7. Deepcreek Mountains, western Juab and Tooele counties, elev. 6000' to 10000'. Sonoran *Juniperus* association and aspen Canadian zone with small fir forests. Alpine flora on highest peaks. Localiy: Thoms Canyon.
8. Uintah Mountains, Summit, Wasatch, Duchesne, and Uintah counties, elev. 6000' to 10000'. Upper Sonoran oak or *Juniperus* depending on the amount of rainfall, Transition Zone of yellow pine, and typical aspen Canadian zone with douglas and white pine below 8000' and with Engleman spruce, lodgepole pine above. Localities: South &

- North Forks of the Provo River; East Fork of Bear River, (Summit Co.); Soapstone Mountain, (Wasatch Co.); Bush Creek, Ashley Creek, (Uintah Co.); Duchesne River, (Duchesne Co.).
9. Uintah Mountain above 10000', Alpine zone. Localities: Bald Mountain, (Summit Co.); Leidy Peak, (Uintah Co.).
 10. Extension of the Yampa Plateau into the northwest corner of Uintah County, elev. 7000' to 8000'. Vegetation is mixed oak and *Juniperus* with some aspens. Localities: Dinosaur National Monument.
 11. Uintah Basin south to the Tavaputs Plateau, elev. 5000' to 7500'. Uintah County. Mostly desert vegetation with juniper and pinon in the higher elevations. Localities: Willow Creek, Bonanza, Jensen, Grassy Trail Creek, (Carbon Co.).
 12. La Sal and Abajo Mountains of Grand and San Juan Counties, elev. 6000' to 10000'. Upper Sonoran oak and *Juniperus* association and fir and aspen Canadian zones. Localities: Warner Ranger Station, 9750'; Pack Creek, 6000' (La Sal mts.); Buckboard Flat, 9600' (Abajo Mts.).
 13. Henry Mountains, Garfield County elev. 5000' to 10000'. Mostly Upper Sonoran *Juniperus* and oak with a small aspen and fir Canadian zone present. Locality: Bull Creek.
 14. Aquarius Plateau, Garfield County, elev. 5000' to 11000'. Upper Sonoran zone, prominent Transition zone of ponderosa pine and aspen Canadian zone with white fir. Grass land above 10000'. Localities: Rogers Peak, 10000'.
 15. Wasatch Plateau, elev. 6000' to 10000'. Oak, Canadian zone with sagebrush flats to 10000'. Localities: Big Spring Wash (Emery Co.); Ivie Creek, Last Chance Creek, (Sevier Co.); near Mt. Sanpete, (Sanpete Co.).
 16. Tushar Mountains, Beaver and Piute Counties, 6000' to 12000'. Upper Sonoran juniper and oak, Transition and Canadian zones. Localities: Kent's Lake, 9750', Puffer Lake.
 17. Markgunt Plateau, elev. 7800' to 9000'. Vegetation is ponderosa Transition zone with yellow pine. Aspen and fir Canadian zone above 8500'. Localities: Cedar Breaks National Monument, Brian Head ski area.
 18. Pine Valley Mountains, Washington County, elev. 3500' to 10000'. Mostly Upper Sonoran oak and *Juniperus* associations with some Transition and aspen and white fir Canadian zone above. Localities: Leeds Canyon, Red Cliffs Park, 3500'; Pine Valley, 4500', Oak Grove Campground.
 19. Lower Sonoran intrusion from St. George, Washington County, to the Arizona border, elev. 2500' to 3000'. Creosote bush, barrel cactus, joshua trees and live oak. Localities: *circa* St. George; Virgin River to Arizona border; Beaver Dam Mountains, south slope.
 20. Upper Sonoran to Transition Zones of Kane, San Juan, and the eastern edge of Washington Counties, north to Sevier and Carbon Counties, elev. 3500' to 6000'. *Juniperus* association with drier desert areas, sage (*Artemisia* sp.) and black brush. Localities: entrance to Zion National Park, Kanab; Navajo Mountain Natural Bridges National Monument; and the Canyonlands National Park area, San Raphael Desert.

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LIST OF BUTTERFLIES AND SKIPPERSSuperfamily HESPERIOIDEAFamily MEGATHYMIDAE

1. Agathymus alliae (Stallings & Turner) 18; ix; (r).
Foodplant is Agave utahensis Engelm.
2. Megathymus coloradensis browni Stallings & Turner 15,
20; iv-v; (u). Foodplant is Yucca harrimaniae Trelease.
3. Megathymus yuccae ssp. 18; iii; (r).

Family HESPERIIDAESubfamily HESPERIINAE

4. Lerodea eufala (Edwards) 19; viii-ix; (u).
5. Atryonopsis deva (Edwards) 18, 20; v; (r).
6. Poanes taxiles (Edwards) 5, 12, 18; vi-vii; (u).
7. Ochlodes yuma (Edwards) 17, 20; viii; (u).
8. Ochlodes sylvanoides napa (Edwards) Statewide in the
mountains at lower elevations; viii-ix; (c).
9. Atalopedes campestris (Boisduval) 19; vi; (u).
10. Polites sabuleti chusca (Edwards) 4, 8, 12, 15; double
brooded, v, viii-ix; (c). Especially in populated
areas on lawns.
11. Polites draco (Edwards) 1, 2, 4, 8, 12, 14; vi-vii; (u).
12. Polites siris utahensis (Skinner) 2, 3; vi-vii; (u).
13. Polites themistocles (Latreille) 2, 3; vi-vii; (u).
14. Hesperia uncas Edwards 15, 20; vi-vii; (u).
15. Hesperia comma idaho (Edwards) 2, 3, 5, 8, 12; viii; (c).
16. Hesperia nevada (Scudder) 8, 12, 13; v-vi; (u).
17. Hesperia comma ruricola Boisduval 4; vi-vii; (r).
18. Hesperia pahaska martini 12; vi; (r). One record from
Pack Creek, La Sal mts.
19. Hylephila phyleus (Drury) 19; viii; (u).
20. Copaeodes aurantiaca (Hewitson) 19; v-vi; (u).
21. Oarisma garita (Reakirt) 2, 3, 4, 8, 15, 16, 20; vi-vii;
(u).
22. Oarisma edwardsi (Barnes) 20; vii; (d).
23. Piruna pirus (Edwards) 4; vi; (u). Probably more
widespread.

Subfamily PYRGINAE

24. Staphylus ceos (Edwards) 20; vii; (d).
25. Pholisora catullus (Fabricius) Statewide in the mountains;
vii; (c).
- 26a. Pholisora libya libya (Scudder) 19; Double-brooded vi,
viii; (u).
- 26b. Pholisora libya lena (Edwards) 11, 12; vi-vii; (u).
27. Helioptes ericetorum (Boisduval) 4, 18, 20; Double-brooded
v-vi, viii; (u).
28. Pyrgus centaureae loki Evans 9; viii; (u).
29. Pyrgus ruralis (Boisduval) 3, 4, 8, 14; vi; (r).
30. Pyrgus xanthus Edwards 4; v; (r).
31. Pyrgus scripta (Boisduval) 18; v; (r).
- 32a. Pyrgus communis communis (Grote) Statewide vi-viii; (c).
- 32b. Pyrgus communis albescens Plotz 5, 6; vi-vii; (u).
Probably more widespread.
33. Erynnis icelus (Scudder & Burgess) 4, 8, 14; v-vi; (u).
34. Erynnis brizo burgessi (Skinner) 4, 5, 16, 17; iii-vi; (u).
35. Erynnis persius ssp. 5, 6, 18, 20; vii; (c). There may
be several ssp. here. Only knowledge of the foodplant will
enable determination of which ssp. are involved.
36. Erynnis lucilius afranius (Lintner) 2, 3, 4, 5, 8;
Double-brooded v, vii-viii; (c).

37. Erynnis telemachus Burns Statewide in the mountains; iv-vi; (c).
 38. Erynnis tristis tatus (Edwards) 20; vi; (u). Recorded only from Navajo Mountain.
 39. Erynnis pacuvius pacuvius (Lintner) 8, 20; vi; (u).
 40. Erynnis zarucco funeralis (Scudder & Burgess) 20; iv; (u). Recorded only from Zion Nat. Park.
 41. Thorybes pylades (Scudder) 4, 12; vi; (u).
 42. Thorybes mexicans nevada Scudder 3, 4, 8, 12; vi; (c).
 43. Epargyreus clarus (Cramer) 4; vi; (u).

Superfamily PAPILIONOIDEAFamily PAPILIONIDAESubfamily PARNASSIINAE

44. Parnassius clodius menetriesii Edwards 2, 4, 8; vi-viii, depending on elevation; (c).
 45a. Parnassius phoebus savii Edwards 2, 4, 5, 8; vi-viii; (c). More local than clodius.
 45b. Parnassius phoebus hollandi Bryk & Eisner 12; vi; (c) local.

Subfamily PAPILIONINAE

46. Papilio bairdii bairdii Edwards 5, 11, 18, 20; vi-vii; (r). form brucei Edwards 5, 11; v-vii, (c). Becomes more dominant from south to north. Fond of hilltopping.
 47. Papilio rudkini rudkini J.A. Comstock 19, iii; (u). form clarki Chermock & Chermock 19, iii; (r). Fond of hilltopping. Foodplant is Thamnosma montana Torr. & Frem. ex Frem.
 48a. Papilio rutulus rutulus Lucas Statewide in the mountains; vi-vii; (c).
 48b. Papilio rutulus arizoniensis Edwards 18; vii; (c).
 49a. Papilio indra indra Reakirt 5; vi; (r). Only recorded from South Willow. Probably more widespread.
 49b. Papilio indra minori Cross 20, (Moab); iv, vii, double brooded; (u).
 49c. Papilio indra nr. martini 18; iv; (r). John Emmel reports finding the larvae on Lomatium Parryi macbr. at Oak Grove Campground.
 50. Papilio zelicaon Lucas 2, 4, 5, 6, 13; iv-vii, (u). May be double brooded. Foodplant is Lomatium greyi Coult.
 51. Papilio multicaudata Kirby Statewide in the mountains to 9000'; vi-vii; (c).
 52. Papilio eurymedon Lucas 2, 4; vi-vii; (u).

Family PIERIDAESubfamily PIERINAE

53. Pieris beckerii Edwards Statewide; three broods, iv, vi, viii; (c) The early spring form is pseudochloridice McDunnough
 54a. Pieris sisymbrii 6, 11, 19, 20; iv, v, always in desert areas. (c). This butterfly is larger and more heavily marked than typical California. P.S. sisymbrii Boisduval
 54b. Pieris sisymbrii elivata (Barnes & Benjamin) Statewide above 6000'; v-vi; (c).
 55. Pieris protodice protodice Boisduval & LeConte Statewide probably multiple brooded; v, viii. (c).
 56a. Pieris occidentalis occidentalis Reakirt Statewide in the mountains to 8000'; multiple brooded; vi-viii. (c).
 56b. Pieris occidentalis calyce Edwards 4, 9; vi, vii; (u)
 57. Pieris rapae (Linnaeus) Statewide near agricultural areas; iv, viii, multiple brooded; (c).

58. Pieris napi macdunnoughi Remington Statewide in the mountains; v-vi; (c).

Subfamily COLIADINAE

59. Colias meadii meadii Edwards 9; vii-viii; (u).
 60. Colias eurytheme eurytheme Boisduval Statewide near agricultural areas; v-viii; (c).
 61. Colias philodice eriphyle Edwards Statewide, mainly in the mountains; v-ix; (c).
 62. Colias scudderii scudderii Edwards 9; vii-viii; (u).
 63a. Colias alexandra alexandra Edwards 13, 14, 15, 16; vi, vii; single brooded; (u). The exact status of alexandra and its subspecies in Utah to my knowledge has not yet been fully worked out. Thus, its distribution must remain tentative for the present.
 63b. Colias alexandra edwardsii Edwards 2, 5, 6, 7; v, viii; double brooded. The habitat is dry foothill country (in the Great Basin) with Juniperus association.
 63c. Colias alexandra astraia Edwards 8; transition zone; vii; (u).
 64. Colias (Zerene) caesonia (Stoll) 18, 12; vi; (r).
 65. Nathalis iole Boisduval 4, 5, 8, 12, 13, 18; vi-vii; (c), (u).

Subfamily EUCHLOEINAE

- 66a. Anthocaris sara nr. thoosa Scudder 6, 7, 18; vi-vii; (c) (u).
 66b. Anthocaris sara julia Edwards 8; Inhabits sagebrush flats at Brush Creek; v-vi; (u).
 66c. Anthocaris sara browningi Skinner 2, 4, 8, 15; iv-vi; (c).
 67. Euchloe hyantis lotta Beutenmuller 6, 7, 18; iv-vi; (c). This designation follows Opler, (1966).
 68. Euchloe ausonides Lucas 2, 3, 4, 5, 8, 12, 13, 18; iv, early vii; (c). Found moist canyons in the oak belt above 5800'.

Family RIODININAE

69. Apodemia mormo mormo (Felder & Felder) 4, 5, 8, 12, 19, 20; Double brooded v, viii; (u) local. In Southwestern Utah, (19), the larvae overwinter in the stems of Eriogonum inflatum. Torr. and Frem. ex Frem.
 70. Apodemia palmerii palmerii (Edwards) 19; double brooded v, viii; (u). Common on mesquite (Prosopis sp.).

Family LYCAENINAE

Subfamily THECLINAE

71. Habrodais grunus (Boisduval) 18; vii; (d). Reportedly found in the live oak canyons near St. George. No recent records have been discovered, however.
 72a. Hypaurotis crysalus crysalus Edwards 17, 18; vii-viii; (u). 6000' to 7000'.
 72b. Hypaurotis crysalus citima (H. Edwards) 4; vii; (u). The Great Basin form, found in Oak canyons on the western slope of the Wasatch range.
 73. Atlides halesus estesi Clench 18; iii-vi; (r). Found commonly on Manzanita blooms, (Arctostaphylos sp.), in areas where mistletoe (Loranthaceae sp.) is common.
 74. Satyrion behrii crossi Field 2, 3, 4, 12, 18; vi-vii; (u).
 75. Satyrion fuliginosum semiluna Klots 1, 8; vi-vii; (r), very local.
 76. Callophrys (Mitoura) spinetorum (Hewitson) 4, 5, 8, 18; vi; (r).
 77. Callophrys (Mitoura) siva siva (Edwards) 4, 5, 7, 13, 17, 18; vi; (c). Typical siva are found in the Colorado

- Plateau area in the eastern half of the State. The Great Basin specimens differ in that they lack the typical green underside approaching the color of C. nelsoni. (Boisduval) from California. Whether or not the Great Basin material should be named must await further study.
78. Callophrys (Incisalia) iroides (Boisduval) 2, 4, 8, 15; iv-v; (u). Clench informs me that Utah specimens are half way between C. i. augustinus (Westwood) and typical iroides. Food plant is Manzanita (Arctostaphylos sp.).
 79. Callophrys (Incisalia) fotis fotis (Strecker) 6, 18; iii-iv; (u), on Cliffrose (Gowania mexicana Don)
 80. Callophrys (Incisalia) eryphon eryphon (Boisduval) 2, 4, 8; vi; (u).
 81. Strymon melinus ssp. Statewide at lower elevations, 5000' to 7000'; multiple brooded v-ix; (u).
 82. Chrysophanus titus immaculosus Comstock 1, 2, 4, 8; vi-vii; (u) local.
 83. Satyrium californica (Edwards) 1, 2, 5; vi-vii; (u) local.
 84. Satyrium sylvinus putnami (H. Edwards) 1, 2, 4, 5, 8; vi-viii; (c).
 85. Satyrium saepium provo (Watson & Comstock) 1, 2, 4, 18; vii; (u). Southern specimens are larger and more distinctly marked. They may require a different designation.
 86. Callophrys (Callophrys) comstocki Henne 19; iii, local. Recorded only from Beaver Dam Mountain.
 87. Callophrys (Callophrys) affinis affinis (Edwards) 1, 2, 4, 5, 8, 10; vi; (u).
 88. Callophrys (Callophrys) sheridanii neoperplexa Barnes & Benjamin. 4, 8; iv-v; (r) very local.

Subfamily LYCAENINAE

89. Lycaena arota shellbachi Tilden 2, 4, 5; vii-viii; (u).
- 90a. Lycaena heteronea heteronea Boisduval 2, 4, 7, 8, 12, 15; vi-viii; (c).
- 90b. Lycaena heteronea gravenotata Klots 17; vii; (c).
91. Lycaena editha montana Field 2, 3, 4; vii; (u).
92. Lycaena rubidus sirius (Edwards) 2, 4, 5, 8, 15; vii-viii; (c). There are two populations of this species, one low (5000') and the other high mountain (above 8500').
93. Lycaena nivalis browni dos Passos 2, 4, 8, 12, 15; vii-viii; (c).
94. Lycaena helloides (Boisduval) Statewide; vi-viii; (c).
95. Lycaena cupreus (Edwards) 3, 9; vi, vii-viii; (r). There are two distinct populations of this species in Utah, one high altitude and the other lower (6500'), the former with larger and darker markings on the underside than the latter. Both are smaller than Colorado L. c. snowi Edwards and more heavily marked.

Subfamily PLEBEJINAE

96. Brephidium exilis (Boisduval) 5, 11, 19; vii-viii; (u).
97. Leptotes marina (Reakirt) 5, 6, 19; vii-viii; (u).
98. Hemiargus ceraunus gyas (Edwards) 19; vii; (u).
99. Hemiargus isola alce (Edwards) 16, 17, 18, 19; vi-vii; (u).
- 100a. Lycaeides melissa melissa (Edwards) Statewide vi-viii; (c). Multiple brooded.
- 100b. Lycaeides melissa annetta (Edwards) 4; vii; (r). Found only in the Wasatch Front Range, above 8000'.
- 101a. Plebejus saepiolus saepiolus (Boisduval) 2, 4, 7, 8, 9, 15; vi-viii; (c).
- 101b. Plebejus saepiolus gertschi dos Passos 13, 14, 16, 17, 18; vi-vii; (c).
102. Icaricia icarioides ardea (Edwards) Statewide in the mountains; vi-vii; (c). Feeds on lupine-larvae associated

- with ants of the genus Formica in Big Cottonwood and Emigration Canyons, Salt Lake County. (Downey, 1962).
103. Icaricia shasta (Edwards) 1, 6, 7, 10, 15; vi-vii; (r). In Utah, I. Shasta is not found above 7500', but usually occurs in the juniper-pinon belt in the foothills. The only exception is a record from Mt. Sanpete. The high altitude form minnehaha (Scudder) has not as yet been recorded from Utah.
104. Icaricia acmon lutzi dos Passos Statewide in the mountains; vi-vii; (u). The females are quite rarely collected.
105. Agriades glandon rustica (Edwards) Statewide in the mountains; vi-vii; (c).
106. Everes amyntula albrighti Clench 2, 4, 7, 8, 12, 15, 18; v-vi; (c).
107. Philotes spaldingi Barnes & McDunnough 4, 17; vii; (r). Prefers juniper-pinon areas.
108. Philotes enoptes ancilla Barnes & McDunnough 3, 4, 5, 6, 8, 15; vi-vii; (u). Found in moist meadows on Eriogonum sp. around 7000'.
- 109a. Philotes rita pallescens Tilden & Downey 6; viii; (r). In juniper areas around 6000' on Eriogonum sp.
- 109b. Philotes rita ssp. 20, San Rafael Desert; villi; (u), local. The undersides of the wings are darker than on P.r. pallescens.
- 110a. Philotes battoides centralis Barnes & McDunnough 11; viii; (r). Usually found in arid, treeless areas on Benth. E. corybosum; 5400'.
- 110b. Philotes battoides ssp. 20; vii-ix; (u). This butterfly is widespread in Kane and San Juan counties. It may be synonymous with what I have called centralis above. Oakely Shields is working on these at present, so final judgement must await the outcome of his investigation.
111. Scolitantides piasus daunia (Edwards) Statewide in the mountains, but always rare; vi; (r). Foodplant is lupine.
112. Glaucopsyche lygdamus oro (Sudder) Statewide in the mountains; iv-vii; (c). Feeds on Lupinus and Hedysarum in Utah and has been associated with ants.
113. Celastrina pseudargiolus (Boisduval & LeConte) Statewide in the mountains; iv-vi; (u). The subspecific status of Utah material is as yet undetermined.

Family NYMPHALIDAE

Subfamily APATURINAE

114. Asterocampa celtis (Boisduval & LeConte) 13; vi; (u).
115. Asterocampa leilia (Edwards) 20, (Washington Co); vi; (u).

Subfamily LIMENITIDINAE

116. Limenitis weidemeyerii latifascia Perkins & Perkins 1, 2, 3, 4, 5, 8, 12, 17, 18; vi-viii; (c).
117. Limenitis archippus archippus (Cramer) 4, 8, 12; vi, viii; (r). 4, 8, 12; vi, viii; (r). This species occasionally strays into the State.
118. Limenitis bredowii eulalia Doubleday 13, 18, 19, 20; vi; (u).

Subfamily VANESSINAE

119. Vanessa atalanta (Linnaeus) 4, 5, 20; vi-viii; (u). Double brooded.
120. Vanessa virginiensis (Drury) 8; vi; (r). Single record for the State; South Fork of the Provo River, Summit Co. Probably more widespread.
121. Vanessa cardui (Linnaeus) Statewide; multiple brooded. v-ix; (c).
122. Vanessa carye Hubner Statewide in the mountains, vi-ix; (c).

Subfamily NYMPHALINAE

123. Nymphalis californica (Boisduval) 4, 8; vii-viii; (r).
 124. Nymphalis milberti furcillata (Say) Statewide in the mountains vi-ix; (c).
 125. Nymphalis antiopa (Linnaeus) Statewide in the mountains, v-ix; double brooded; (c).
 126. Polygonia satyrus satyrus (Edwards) 1, 2, 4, 5, 8, 15; vi, viii, double brooded; (u). Polygonia in Utah are quite variable and need much further study.
 127. Polygonia hylas (Edwards) 2, 4; vi; viii; (u).
 128. Polygonia zephyrus (Edwards) 4, 5, 8, 13, 16, 17; vi, viii; (c).

Subfamily MELITAEINAE

129. Chlosyne lacinia crocale (Edwards) 19; ix; (c). In Utah, two forms are recognized; C.I. rufecens (Cockerell) and nigrescens (Cockerell).
 130. Chlosyne damoetas (Skinner) 9; viii; (u).
 131. Chlosyne gorgone carlota (Reakirt) 4; vi; (u). This species is found along the Jordan river in Salt Lake County, 4800'.
 132. Chlosyne flavula (Barnes & McDunnough) 4; vi; always montane. In some localities is sympatric with acastus.
 133. Chlosyne acastus (Edwards) Statewide to 8000'. v, viii; (u). For most of the State the species is double brooded. However, in (20) a third brood has been reported in ix.
 134. Chlosyne neumogeni (Skinner) 18; iii-iv; (r).
 135. Thessalia alma (Strecker) 5, 6; v; (u).
 136. Poladyras arachne arachne (Edwards) 15, 20; vi; (u).
 137. Phyciodes tharos pascoensis Wright Statewide in the mountains to 9000'; vi-vii; (c).
 138a. Phyciodes mylitta mylitta (Edwards) Statewide in the mountains; iv-v, viii-ix; double brooded; (c).
 138b. Phyciodes pallida barnesi Skinner 4, 5, 8; vi; (u). barnesi is somewhat larger than mylitta and frequents sagebrush in the mentioned areas. In many cases they are sympatric.
 139. Phyciodes campestris camillus Edwards Statewide, vi-viii; at least two broods; (c).
 140a. Euphydryas anicia maria (Skinner) 3, 4, 8; vi-viii; (u) local.
 140b. Euphydryas anicia alena Barnes & Benjamin 12, 13, 17, 20; v; (c) local. Principally in the Colorado River drainage.
 140c. Euphydryas anicia euryton (Mead) 8; vi-vii; (u) local. Uintah County only.
 140d. Euphydryas anicia wheeleri (H. Edwards) 5, 6, 16; vi; (u). Found mainly in the Basin & Range Province.
 141. Euphydryas colon (Edwards) 1; vi; (r). Known only from Clear Creek, 7500'.
 142. Euphydryas editha ssp. 15; vi; (u). A single record; Grassy Trail Creek Carbon Co..

Subfamily ARGYNNINAE

143. Boloria selene tollandensis (Barnes & Benjamin) 2; vi; (u) local.
 144. Boloria kriemhild (Strecker) 4, 8, 15; vi-vii; (c).
 145. Boloria freija browni (Higgins) 2, 8; vi; (u) local.
 146. Boloria titania helena (Edwards) 8; viii; (r).
 147a. Speyeria nokomis nokomis (Edwards) 8, Uintah County only, 5600'; viii; (u) local.
 147b. Speyeria nokomis apacheana (Skinner) 17, 18, 20; viii; (u).
 148. Speyeria coronis snyderi (Skinner) 2, 4, 5, 8, 15, 16, 20; vii-viii; (c).

- 149a. Speyeria zerene platina (Skinner) 2, 4, 5, 7, 8, 10; vii-viii; (c).
 149b. Speyeria zerene cynna dos Passos & Gray 1, 7; vii-viii; (c).
 150a. Speyeria callippe harmonia dos Passos & Gray 1, 2, 4, 5, 7, 8, 15, 16; vi-viii; (u).
 150b. Speyeria callippe nr. gallatini (McDunnough) 10; vii; (c).
 151a. Speyeria egleis utahensis (Skinner) 2, 4, 8, 15, 16; early vi-vii; (c).
 151b. Speyeria egleis linda (dos Passos & Gray) 1, 4, 5; late vi-vii; (u).
 152a. Speyeria atlantis wasatchia dos Passos & Gray 1, 4, 8, 15; vii-viii; (c).
 152b. Speyeria atlantis chitone (Edwards) 17, 18, 20; vii-viii; (u).
 152c. Speyeria atlantis nikias (Ehrmann) 12, 13; vii-viii; (u).
 152d. Speyeria atlantis tetonia dos Passos & Gray 5; vii-viii; (u).
 153. Speyeria hydaspe sakuntala (Skinner) 2; vii-viii; (r).
 154. Speyeria mormonia mormonia (Boisduval) 1, 2, 4, 8, 15, 17; vii-ix; (c).
 155a. Speyeria cybele carpenterii (Edwards) 12; vii-viii; (c).
 155b. Speyeria cybele letona dos Passos & Gray 2, 4, 5, 8, 15; vii-viii; (c). Females are quite rare.
 156. Speyeria aphrodite ethene (Hemming) 2; vii; (d). Although Gray (1947) lists Utah within the range of the species, I have not seen any records to confirm it. If it does occur, it would be in Cache County.
 157. Euptoieta claudia (Cramer) 8, 11, 18, 20; vi, viii; could be double brooded; (u).

Family DANAIDAESubfamily DANAIDAE

158. Daunus plexippus (Linnaeus) Statewide viii; (c).
 159. Daunus gilippus strigosus (Bates) 5, 19; viii; (r).

Family SATYRIDAESubfamily SATYRIDAE

160. Euptychia dorothea (Nabokov) 12, 20; vi, viii; double brooded; (r).
 161. Euptychia henshawi Edwards 16, 18; vi; (u).
 162. Coenonympha ampelos elko Edwards 2, 4, 4500'; vi, viii; double brooded; (c).
 163. Coenonympha ochracea ochracea Edwards Statewide in the mountains 5000' - 8000'; vi-vii; (c).
 164. Neominois ridingsii stretchii (Edwards) 10, 14, 15, 20; vi-vii; (u) local.
 165. Cercyonis pegala ariane (Boisduval) 2, 4; 4500'; vii; (u). Among Utah specimens, the female forms stephensi (Wright) is quite common.
 166. Cercyonis meadii mexicana (Chermock) 20; vii-viii; (u).
 167. Cercyonis sthenele masoni (Cross) 4, 6, 7, 10, 11, 13; vii; (c).
 168. Cercyonis oetus charon (Edwards) Statewide in the mountains; vii-viii; (c).
 169. Oeneis chryxus chryxus (Doubleday) 4, 7, 8, 15; vi-viii; (u).
 170. Oeneis jutta reducta McDunnough 8; vi-vii; (r). This species is most common in the upper Bear River drainage, Uintah Mountains, in odd numbered years.
 171. Oeneis taygete edwardsi dos Passos 9; viii; (r).
 172. Oeneis melissa lucilla Barnes & McDunnough 9; viii; (r).
 173. Erebia episodea episodea Butler 12; vi; (u) local.
 174. Erebia magdalena magdalena Strecker 9; viii; (r).
 175. Erebia callias Edwards 9; vii-viii; (u).



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