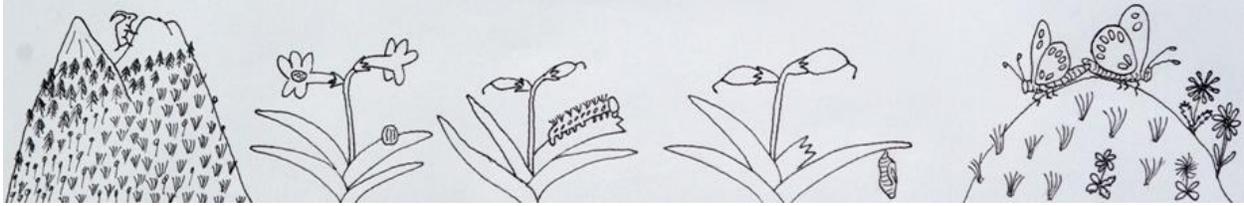


PAPILIO (NEW SERIES) # 25

2016 ISSN 2372-9449



ERNEST J. OSLAR, 1858-1944: HIS TRAVEL AND COLLECTION ITINERARY, AND HIS BUTTERFLIES

by

James A. Scott, Ph.D. in entomology University of California Berkeley, 1972
(e-mail: JameScott@juno.com)

Abstract. Ernest John Oslar collected more than 50,000 butterflies and moths and other insects and sold them to many taxonomists and museums throughout the world. This paper attempts to determine his travels in America to collect those specimens, by using data from labeled specimens (most in his remaining collection but some from published papers) plus information from correspondence etc. and a few small field diaries preserved by his descendants. The butterfly specimens and their localities/dates in his collection in the C. P. Gillette Museum (Colorado State University, Fort Collins, Colorado) are detailed. This information will help determine the possible collection locations of Oslar specimens that lack accurate collection data. Many more biographical details of Oslar are revealed, and the 26 insects named for Oslar are detailed.

Introduction

The last collection of Ernest J. Oslar, ~2159 papered butterfly specimens and several moths, was found in the C. P. Gillette Museum, Colorado State University, Fort Collins, Colorado by Paul A. Opler, providing the opportunity to study his travels and collections. Scott & Fisher (2014) documented specimens sent by Ernest J. Oslar of about 100 *Argynnis* (*Speyeria*) *nokomis nokomis* Edwards labeled from the San Juan Mts. and Hall Valley of Colorado, which were collected by Wilmatte Cockerell at Beulah New Mexico, and documented Oslar's specimens of *Oeneis alberta oslari* Skinner labeled from Deer Creek Canyon, [Jefferson County] Colorado, September 25, 1909, which were collected in South Park, Park Co. Colorado, in May or early June. And Thorp (2005) reported that a dozen bumblebee species that Oslar labeled from southern Arizona were later found to be from the Pacific coast states, including the red-listed *Bombus franklini* Frison only found at Gold Hill, Jackson Co. Ore. And Brown et al. (1957) reported that the butterfly *Coenonympha haydeni* was labeled from Colorado (Oslar), but has not been found in the state since. The labels on those and other insects such as ants etc. noted below suggested the need for a study of all of Oslar's specimens to determine his collection itinerary, to help people studying his specimens to determine more precisely where his specimens might have been collected.

In 2015, I identified the specimens in Oslar's final collection in the museum, and computerized that information, and prepared a taxonomic list of those collected specimens, plus an Oslar collection itinerary based on the minority of specimens that possess locality and date labels written

by Oslar. I wanted to identify them because several more specimens of *Argynnis nokomis* were discovered in Oslar's material, and I wanted to attempt to determine the localities of those and the types of *Hesperia* butterflies collected by Oslar that are currently embroiled in nomenclatural uncertainty.

That Oslar material was given to the museum by David E. Ruitter (museum director Boris Kondratieff, pers. comm.), and is the remains of the Oslar collection described by Ewan (1950): "A portion of his collection is at the old Oslar home in North Denver now occupied by his daughter, Mrs. Harold A. Seiler" [Emily M. Seiler] [no relative of Oslar has lived there since the 1980s, according to the current residents].

The daughter Emily M. Seiler had kept Ernest Oslar's remaining butterflies in cigar boxes in steamer trunks in a screened back porch at his then her house at 4189 Julian St., and when Emily died in January 1981, Dorothy E. Seiler McRill (Emily's daughter) and Paul McRill and Harold E. Seiler (Emily's son) cleaned out the home and conferred with Ruitter and gave him Oslar's remaining butterflies and related items (Ruitter pers. comm.).

This paper presents Oslar's travel and collection itinerary during his life in America from 1892 to 1944, details those museum specimens and discusses the accuracy of their labels, and gives a much-improved biography of Oslar. An important goal of this study is to enable taxonomists who study Oslar specimens in other museums to be better able to deduce the locations where specimens without good data might have been collected. Collectors a hundred years ago did not consider exact collection localities as important as biologists consider them today, and they did not consider the collection date to be important. Most Oslar envelopes—including 6 of 8 *nokomis* envelopes in Oslar's collection—have no locality or date; most have species and sex written in pencil, but some have no writing at all. But hundreds of envelopes do have written localities and often have dates, written by Oslar mostly in pencil. All these specimens are listed below, including the ones with data and the ones without. Oslar specimens of butterflies and moths and Trichoptera and other insects that are listed in published taxonomic treatments (found in internet literature search for E. J. Oslar etc.) are also included here, if they have definite locality and date information (I also include detailed information about all 26 species that were named to honor Oslar, such as insect species named "*oslari*"). The accuracy of labeling of some of those specimens is discussed.

Biography of Ernest J. Oslar (1858-1944)

Scott & Fisher (2014) gave some biographical details of Oslar based on the brief biography of Ewan (1950) and Ewan & Ewan (1981). This paper combines that information with information from his obituaries in two Denver newspapers (Denver Post Sept. 29 1944 p. 6 with portrait, Rocky Mtn. News Sept. 30 1944 p. 13, 17), the biographical information prepared by Ruitter after study of Oslar's papers, specimens, and correspondence, his butterfly collections including his collection itinerary reconstructed below, the 1930 and 1940 census and other obituaries, and other sources.

Oslar was born in Whittlesford, Cambridgeshire, England in 1858. As a young man, he made at least nine trips between England and the U.S. including western U.S., mostly with his family. About 1878 Oslar returned to America, apparently living in Philadelphia for several years where he worked as a bookkeeper at Sharpless and Sons. He reportedly studied for the ministry in Philadelphia (Rocky Mountain News obituary). Both obituaries report that he graduated from Oxford University in the early 1890s where he studied entomology, although I saw no record of his graduating. He finally settled in Denver in 1893, though he also resided in Denver for considerable time in 1891-1892. He returned to England to marry the family servant Martha E. Robinson in Essex (London) while visiting Oct. 11, 1893, and brought her back to Denver (in 1906 he lived at 4535 Raleigh Street in Denver, and bills and census records and obituaries indicate that in 1926 and

1940 and 1944 he lived at 4189 Julian St. in Denver Colo. until his death in 1944). His marriage to Martha lasted 51 years and they had 14 children (11 living in 1944) that required support. Ewan writes "It is a tribute to his enterprise that he was able to support his wife and fourteen children by butterfly collecting". The primary income apparently was the sale of insect specimens, augmented by some accounting work.

Ewan (1950) wrote that Osler took high honors for his exhibits of diurnal Lepidoptera at the 1893 World's Fair. When Ruitter visited the Julian Street home of Osler's daughter ~1981, he was shown a large old tall glass picture frame ("floor to ceiling, maybe 10-12' long", so large that it appeared difficult to transport into the room) that enclosed geometrically-arranged wings of butterflies and other insects, and the Osler descendants (Dorothy and Paul McRill) told him that Osler had displayed it at the 1893 Chicago World's Fair and had won awards for it (his fine displays in Figs. 1-2 are similar in design although in the large display the insects were much closer together with many thousand Lepidoptera and Coleoptera in the display). Osler reportedly only settled in Denver in 1893, although he collected in Colorado in 1892 and played soccer in Denver in 1891, so Osler evidently frequently resided in Denver earlier, at least long enough to assemble that exhibit in Colorado.

{David Bruce also had a large exhibit at that Chicago World's Fair. Ewan & Ewan (1981) wrote that in 1892 Bruce prepared an exhibit of Colo. moths and butterflies for the Chicago World's Fair, and Brown (1966) wrote that in 1892 Bruce was commissioned to gather an exhibit of moths and butterflies of Colorado to be part of the Colorado State exhibit at that Fair and Bruce was paid for travel and salary [half by Colorado Agricultural and Mechanical College=Colorado State University, half by the World Fair committee] to make the exhibit, which appeared at the Columbian Exposition Chicago World's Fair May 1-Oct. 30, 1893.}

Osler published one scientific paper (Osler 1900), a note on the sounds and dusk-oviposition and difficulty of catching the giant skipper butterfly *Megathymus streckeri* (Skinner). And a note written by Osler was included in the paper by Skinner (1899) that described *Amblyscirtes osleri*.

Osler liked football (soccer) and was secretary of the Swifts Football Club (which probably paid little or nothing); in the Rocky Mtn. News Nov. 29, 1891 he detailed proper player positions and football rules.

Osler lived in Colorado at the same time as other naturalists but there is little evidence that he associated with those peers. There is no record of him associating with T. D. A. Cockerell or C. P. Gillette, though he received a paper on Orchard Plant Lice from Gillette with "Compliments of the Authors" on the cover. His obituaries called him "Professor Ernest J. Osler", but I found no indication of his employment at schools or colleges.

Osler was a charter member of the American Entomological Society. Osler was listed as a member of the Boston Entomological Club in 1918 when "The Lepidopterist" became the official bulletin of the club, but there is no evidence that he received copies (but it appears he often sold copies of his back journals).

Osler was the first curator of entomology at the Colorado Museum of Natural History (now Denver Museum of Nature & Science), from 1908-1911 (evidently as a volunteer in 1908). In 1907 he prepared a letter of introduction (typed on the Colorado State Historical and Natural History Society letterhead) with the purpose of obtaining a patron to cover the costs of preparing a collection of Colorado insects. The "Denver Municipal Facts" journal in 1909 (vol. 1{4}:9) reported that the museum created an entomological section on Feb. 1, 1909 and appointed Osler as the first curator, and an article in the July issue of Denver Municipal Facts (vol. 1{22}:9) titled "Greatest Butterfly Collection in America" reported that Osler had installed six cases of 10,000 ornamentally-placed butterflies and moths in the museum (two of those beautiful cases are shown in figs. 1-2), and reported that his entire collection of about 75,000 specimens will be installed in the

museum in the next two years (in 1907 correspondence his collection was reported to number only 30,000), and reported that Oslar's collection was from Colorado, New Mexico, Arizona, California, Utah and Nevada, with some from Europe and Mexico, collected over nearly 25 years. Oslar's 1909 report to the museum wrote that he had installed those six cases and additional thousands of specimens were ready to be mounted and identified. A 1910 report indicated that Oslar had installed 2500 labeled and "type" [identified] specimens in the museum, and reported that he had collected 1200 duplicate specimens of moths at lights of Denver, and had given numerous talks on insects to various classes of school children [today many classes of school children visit the museum and are given guided talks there]. Ewan wrote that he gifted that museum "around 10,000 specimens, mainly regional Lepidoptera, also some material from Africa". However, Scott saw few if any Oslar butterfly specimens when he visited that museum with his father Glenn R. Scott in the 1960s and reorganized the butterflies. Frank Krell (current DMNH curator of Entomology, pers. comm.) learned that Oslar tried to sell 10,000 specimens to the museum but failed, so he removed all his specimens and left at the end of 1911. Krell & Stephenson (2012) reported that there appears to have been a disagreement with museum leadership when Oslar presented an invoice for these [10,000] specimens, and this led to his departure. They reported that only a few specimens with Oslar on the label have been identified in the collections today {a Pyralid moth *Catantia actualis* (Hulst) and a rodent *Tamias minimus* are there}. Oslar was evidently laid off at the end of 1911, and he wrote letters to the Board of Trustees (John Campion and the museum curator Jessie D. Figgins) to request reinstatement, which did not happen. On May 16, 1913 Oslar requested \$2000 for the "20,000" specimens he had donated and collected while working for the museum, and Campion responded that the \$75/month wage Oslar had received during his employ was meant to cover donated and collected specimens; Campion returned Oslar's bill. (On May 29, 1922, Oslar wrote to George Talbot that he was classifying and identifying a large collection of Lepidoptera for the local museum; but I found no record connecting him with any museum in 1922.)

Oslar attempted to identify some of those moths using works on Lepidoptera including J. B. Smith's 1891 list of Lepidoptera, but the task was too great so most could not be confidently identified (there are ~20,000 species of North American Lepidoptera so the task remains difficult).

Oslar sold/exchanged most of those specimens he had in 1913. He corresponded with many entomologists and institutions in attempts to sell his material, and he sold specimens to very many of them. He sometimes sent more specimens than requested, or supplied specimens the purchaser had not requested, in hopes of being paid more. On Oct. 28, 1907 he wrote to request that W. J. Palmer purchase his collection of 30,000 specimens for \$5000 and Oslar would donate one year of his time to classify and arrange it in cabinets in the Colorado College museum; this did not happen. Collections of insects have never been of great value. A U.S. Representative from the 19th District in Illinois (Allen F. Moore) wrote Oslar to ask if the U.S. government should purchase the William Barnes collection of Lepidoptera for \$300,000 (just .0015 of one % of the annual insect-related damage in the U.S., he wrote), and Oslar eloquently replied that the collection should be bought and deposited in the Smithsonian. However Barnes' huge collection of 473,000 well-curated specimens (including 1,950 type specimens) was later purchased by the Smithsonian in 1931 for only \$50,000.

Oslar's collection itinerary in the U.S. and Mexico below indicates that he started collecting insects including butterflies in 1892, collected often through 1932, and then apparently collected less often through 1941. There is a gap with few records from 1905-1911, when he may have collected less (he worked as Curator of Entomology at the museum 1909-1911 where he might have been busy). His children evidently collected some butterflies. In Europe Oslar may have started collecting in 1884 at age 26; there are European butterflies in his display in Fig. 1. There are a few butterflies from Europe in his last collection, which lack date of collection and bear no evidence they were collected by Oslar.

Oslar often traveled by railroad. In a 16 June 1911 letter to Jessie D. Figgins of the Colorado Museum, Oslar requested \$100 to cover the costs of the collecting season as well as a season's pass on the Moffat Road. If the Moffat was not acceptable he thought a Columbus and Southern Pass as far as Grand Junction would be useful. There is no evidence that Oslar received the money or pass, but he did collect sometimes at Plainview, a railroad stop on the Moffat Tunnel line on the west side of Rocky Flats northwest of Denver. Oslar also traveled on foot. And in a postcard placed on the train at Grant Colorado, date illegible, Oslar wrote "be home by Thursday, everything fine, horse slow".

Oslar collected and sent to other people butterflies and moths and other insects (often beetles especially *Cicindela*, but also Trichoptera, Diptera, Blattodea, Orthoptera, Cicadidae, Hemiptera, Hymenoptera, Ephemeroptera, etc.). He collected almost everything: Oslar's major effort was expended on Lepidoptera and Coleoptera, but all insects, and occasionally even spiders, birds, flowers, snakes, a rodent, and ferns were fair game. In Colorado "He became a familiar figure to mountain visitors with his butterfly net and knapsack." (Denver Post obituary). He placed advertisements in journals {such as *Psyche* 13(1):3, Feb. 1906} requesting contracts to collect insects of any order from Colorado, New Mexico, and Arizona. An obituary notes that he was commissioned to make entomological collections for individuals and museums throughout the world.

Ewan (1950) wrote that Oslar sometimes collected with David Bruce, but available records indicate that Oslar mostly collected later than Bruce. Labels on his specimens indicate that Oslar collected in Hall Valley and nearby Bullion Peak and Gibsons Gulch (all Park Co. Colo.) at least five times if accurate, where David Bruce collected earlier in 1884 while Bruce headquartered in a cabin above Whale Mine on the slope of Bullion Mtn. near the head of Gibson Gulch in Hall Valley (Bruce may not have been there in 1888-1889 as Ewan & Ewan 1981 wrote, according to Brown 1966). Bruce may have sent (sold?) specimens to Oslar, because the remains of Oslar's collection included a shipping box with Bruce's label on it, and a copy of W. H. Edwards' *Can. Ent.* 27:229-243 paper with the note "with compl. of David Bruce."

Oslar sent numerous specimens to Walter Rothschild, who (often with Karl Jordan) named seven moths after him. Oslar corresponded with Karl Jordan of *Papilio* fame, based on letters in BMNH. An obituary stated "During the course of his work he traveled over most of the world [I saw no records to confirm that], making special collections of insect and plant life, one of which he assembled privately for Baron Rothschild." Between 1900 and 1903 he was "in the employ" of Walter Rothschild and shipped 15,812 (by Oslar's count) Colorado, Arizona, New Mexico and northern Mexico moths and butterflies to Rothschild. Oslar's initial contract was for three years (200 pound per year) and covered 5 pairs of each species of Lepidoptera that occurred in Colorado. By 1903 he had expanded the area to the southern desert areas including Yuma and Phoenix, Arizona, which he noted in correspondence were the hottest places in the U.S. and only fit for cacti and rattlesnakes, where a man without a gallon canteen of water would soon shrivel and burn up like the vegetation. Frank Clay Cross met Ernest Oslar in Colorado and wrote about Oslar's butterfly pursuits (Cross 1938). Oslar told Cross that he once sold four butterflies to Baron Rothschild for "\$250", and told of camping in "Mesa Verde" for an entire month to catch "a new species of hesperid which took flight whenever he approached it" (*Megathymus streckeri* Skinner). Oslar wrote (Oslar 1900) that *streckeri* males 20 miles E of Durango Colorado flew in the daytime, both sexes made snapping sounds as they rocketed upward from rest, and females made a humming sound as they oviposited just after sunset on small solitary *Yucca* [those humming females were probably Sphingidae moths visiting white *Yucca* flowers].

Recipients of Oslar's specimens. Ewan (1950) noted that Oslar collected large numbers of diurnal Lepidoptera in the Rocky Mountains for the Field Museum (Chicago Museum of Natural History)

and other institutions including the John D. Rockefeller collection in Chicago and the Smithsonian (where several records of expenses for purchase of Oslar specimens are dated July 1, 1905 to June 30, 1906) and the British Museum of Natural History and other museums. Some Oslar specimens of various insects such as moths and Tipulidae etc. and numerous butterflies are in many museums. The Oslar correspondence indicates that Oslar sent specimens to William Harris Ashmead at the U. S. National Museum (?--perhaps 660 Hymenoptera in 1898), Nathan Banks (Banks possessed many Trichoptera collected by Oslar), William Barnes (many Lepidoptera, from 1898-1923), Ernest L. Bell (*Pamphila* skippers in 1925), Foster Hendrickson Benjamin (one of Barnes' curators), H. H. Brehme (1790 specimens on consignment in 1912), August Busck (insects such as moths sent in early 1900s, some of them described by W. D. Kearfott), E. E. Calder (26 *Cicindela* in 1916), Col. Thomas L. Casey (*Cicindela* ~1898), S. E. Cassino (1200 butterflies in 1921 and 175 Geometridae in 1924), G. Chagnon (Cerambycidae and Chrysomelidae in 1921), Sister Mary Chantel (student study collections sent to St. Mary's Academy in Leavenworth, KS in 1912), Benjamin Preston Clark (Sphingidae in 1918+), D. W. Coquillett? (Diptera?), G. C. Crampton (insects in 1925), William T. Davis (700 Colorado grasshoppers and crickets and 185 California grasshoppers, crickets and Cicadidae in 1914), Cyril F. dos Passos (12 butterflies of 7 sp. in 1937), Harrison Gray Dyar Jr. at USNM (many esp. moths from 1901-1904 at least, many probably collected while Oslar was in the employ of Rothschild), George P. Engelhardt at the Brooklyn Museum (Sesiidae in 1929), Jean D. Gunder (butterflies, especially aberrations), E. D. Harris (100 *Cicindela* in 1914 and some earlier), W. D. Kearfott (many moths), W. Knaus (*Cicindela* in 1899), J. A. Kusche (*Cicindela* in 1914, and some of the foreign material in Oslar's collection might have been collected by Kusche, a friend who traveled widely), Charles W. Leng at American Museum of Natural History (*Cicindela*), Alton W. Lindsey (305 butterflies of >60 sp. in 1917, probably HesperIIDae), A. D. MacGillivray? at Cornell Univ., G. A. Martin (moth cocoons at least, in 1921-1924, the later shipment sent in part because specimens ordered earlier had been eaten by a mouse in Oslar's cellar), M. E. Mosely (Trichoptera in 1919), H. H. Newcomb (Oslar sold 740 butterflies of 157 kinds to him in 1905, and some in 1936, perhaps his last sale. Newcomb also made ornamental displays of butterflies like Oslar), H. Osborn (350 Hemiptera in 1898), W. Reiff (236 butterflies and 439 moths for auction and sale by Boston Entomological Club, 1918), F. M. Schott (300 Diptera and Hymenoptera, in 1925), George Talbot (of Hill Museum, England—600 or fewer moths, in 1922), Lord Walsingham (100 moths in 1896, plus others that Walsingham transferred to British Museum of Natural History for their pick and then to the Stevens' auction house), William M. Wheeler at Univ. Chicago (665 Diptera in 1898, and also ants), A. B. Wolcott (? , Coleoptera, Cleridae? in 1898), and William C. Wood (740 Lepidoptera of 157 kinds in 1894 or 1905, *Cicindela* in 1898, & Sphingidae in 1922). Also, Oslar's *Argynnis nokomis* specimens were in the collections of Mr. Cary, Mr. Dodge, Mr. Marloff, Robert Potts, Arthur J. Snyder, William C. Wood, and Frederic Hova Wolley-Dod, and in the Smithsonian (USNM), American Museum of Natural History, California Academy of Sciences, Canadian National Collection, Carnegie Museum of Natural History, and Los Angeles County Museum. Other Oslar specimens were in the Academy of Natural Sciences Philadelphia, Univ. Kansas museum, Hill Museum in England, the British Museum of Natural History, the Tring Museum, and the museum in Berlin, etc. The Denver Municipal Facts {1909, 1(22):9} reported that in the last 25 years Oslar "has collected for the late Duke Alexis under the present czar [of Russia], Lord Walter Rothschild, Lord Walsingham, W. Schaus of London, for the British Museum, for the Smithsonian, for Cornell, Yale, Harvard, Princeton, for the American Museum of Natural History New York, and for nearly every institution of note in Europe and America. His specimens are on exhibition even in Tokio and in Calcutta." (Oslar provided that information for the story of course).

Oslar sent some moth cocoons to a dealer in Vienna and never received the money, which he thought had gone down with the sinking of the Titanic (based on a letter to J. A. Kusche).

At least 26 insects are named honoring Oslar (butterflies, moths, caddisflies, bees, beetles, flies, grasshoppers, ants), including four butterflies, testifying to the large numbers of insects (evidently 50,000 or more) that he sent to numerous entomologists. Lionel Walter Rothschild & Karl Jordan named many moths after Oslar. Harrison Dyar named four moths and butterflies after Oslar. Nathan Banks named several Trichoptera after him. Most of the types of these species have localities and dates useful in determining Oslar's travels. The species named after Oslar are as follows (and there may be a few more that were missed):

Oeneis alberta oslari Skinner 1911 (Nymphalidae) Ent. News 22(5):220, 1911 "Described from two males and two females taken by E. J. Oslar in Deer Creek Canyon, Colorado. September 25, 1909.", types in Academy of Natural Sciences Philadelphia. {The *Limnephilus externus*=*oslari* type below was collected from "South Park, Col., 25 May [year not given unfortunately] (Oslar)", so Oslar may have collected these *Oeneis* at that location and time.}

Euphydryas anicia capella aberration *oslari* Gunder, 1925 (Nymphalidae) Ent. News 36{7}:196-197 pl. 5 fig. 7 m "holotype" AMNH. "Holotype male Platte Canyon, Colorado, July, 1924. Named for Mr. E. J. Oslar, Denver, Colorado."

Phaeostrymon alcestis oslari (Dyar, 1904) (Lycaenidae) J. New York Ent. Soc. 12(1):40. From "Two specimens, Tucson, Arizona (E. J. Oslar)", type USNM.

Amblyscirtes "Mastor" "Pamphila" oslari (Skinner, 1899) (Hesperiidae, Hesperinae) Ent. News 10(5):112, type Academy Natural Sciences Philadelphia. "Described from four males taken in Chimney Gulch, Colorado, by Mr. E. J. Oslar on the 18th of June." [no year unfortunately].

Eacles "Basilona" (imperialis) oslari Rothschild, 1907 (Saturniidae). Novitates Zoologicae 14:423. "Nogales, Arizona July 1903" evidently by Oslar, type probably BMNH.

Anisota "Adelocephala" oslari Rothschild, 1907 (Saturniidae). Novitates Zoologicae 14:432. From "Nogales, Arizona, July 1903 (E. J. Oslar) 2 females. Mr. Oslar says he 'obtained these two specimens from chrysalids dug from the roots of the century or mescal plant'" [that actually refers to *Agathymus* (Hesperiidae) larvae that live in *Agave*, while *Anisota oslari* larvae eat *Quercus* leaves], BMNH.

Orgyia (= *Hemerocampa*=*Notolophus*) *leucostigma*=*oslari* Barnes 1900 (Lymantriidae-tussock moth) Canadian Entomologist 32:45-46. "Types: One male. Poncha Springs, Colorado. July 5th" [presumably coll. Oslar in 1898]. (*Habrobracon hopkinsi* Viereck {Braconidae} was reared from it, R. Cushman 1914 Proc. Ent. Soc. Wash. 16:99-108; and *Telenomus coloradensis* Crawford was also reared from it).

Oslaria Dyar 1904 (new genus of Noctuidae) J. N. Y. Ent. Soc. 12:41. "The type species {*Zothea viridifera* (Grote) [1883] 1882, Can Ent. 14:217} I have received from Mr. E. J. Oslar, collected in the Catalina Mountains, Arizona."

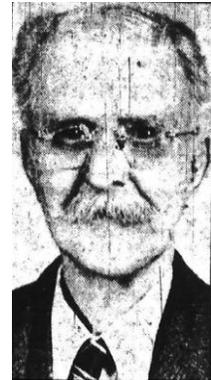
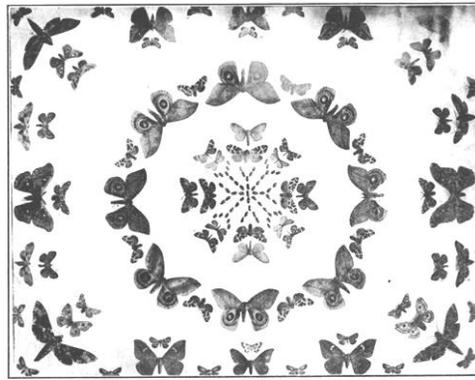
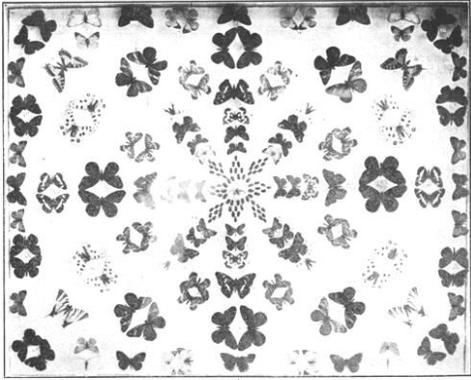
Aflia oslari Dyar 1904 (Noctuidae/Notodontidae) Proc. Ent. Soc. Washington 6:64. "Four specimens males, Nogales, Arizona (Oslar), Guadalajara, Mexico (Neumoegen)", type USNM.

Halysidota tessellaris J. E. Smith 1797=*oslari* L. W. Rothschild 1909 (Arctiidae) Novitates Zoologicae 16:283. TL "Denver, Colorado, and Glenwood Springs [evidently 1901], Colorado (Oslar)", BMNH.

Hypercompe "Ecpantheria" oslari (Rothschild, 1910) (Arctiidae) Novitates Zoologicae 17:174. TL "Asper Ranch, Brownsville, Tex." (the specimen was not collected by Oslar).

Pygarctia murina Stretch 1885=*oslari* Rothschild 1910 (Arctiidae) Novitates Zoologicae 17:175. From "Las Vegas, New Mex., July 1902 (J. E. [initials reversed] Oslar), 3m", BMNH.

- Proserpinus juanita* Strecker ssp. *oslari* Rothschild & Jordan 1903 (Sphingidae) (p. 610 in “A Revision of the Lepidopterous Family Sphingidae”, Part 1). From “Hab. Verde R., Arizona, June 1902 (Oslar)”, Type evidently Tring Museum.
- Sphinx* “*Hyloicus*” *gordius oslari* Rothschild & Jordan 1903 (Sphingidae) (p. 136 in “A Revision of the Lepidopterous Family Sphingidae”, Part 1). “In the Tring Museum 3m2f from Glenwood Springs Colorado, June 1901 (Oslar).”
- Paranthrene tricinctus tricinctus* form *oslari* Engelhardt, 1946 (Sesiidae) U. S. National Museum Bulletin 190:140. Male type says “Bear Creek, Morrison, Col.” [evidently coll. by Oslar].
- Crambus oslarellus* Frank Haimbach 1908 (Pylalidae) Entomological News 19:264. “Described from 10 specimens, collected at Silverton, Colo., and Clear Creek, Colo., VII, 3, '07 by Mr. E. J. Oslar, in whose honor this species is named.”
- Homoeosoma oslarellum* Dyar 1905 (Pylalidae, Phycitinae) Proc. Ent. Soc. Wash. 7:38. From “11 specimens, Chimney Gulch, Golden, Colorado (E. J. Oslar); five of the specimens are in Mr. Kearfott’s collection”, type USNM.
- Hydropsyche* “*Symphitopsyche*, *Ceratopsyche*” *oslari* Banks, “1906” (Trichoptera). Trans. Amer. Ent. Soc. 32:13-14. “Several specimens from southwestern Colorado, July 16th (Oslar).” H. Ross 1938 Psyche 45:18 wrote “Lectotype, male. South West Colorado, July 23, 1899. Lectoallotype, female.—Same, but July 17.”, in MCZ. So Oslar evidently collected them July 16, 17, 23 (the area with Durango evidently).
- Limnephilus externus*=*oslari* Banks, “1906” (Trichoptera) Proc. Ent. Soc. Wash. 8:121-122 pl. 9 fig. 19. “One female from South Park, Col., 25 May [year unknown] (Oslar)...” Lectotype is from “South Park, Colorado, August 25, 1899” (Ross 1938 Psyche 45:1-61), in MCZ.
- Anabolia* “*Goniotaulius*” *consocia* Walker=*Anabolia oslari* (S. Ling, 1938) (Trichoptera) Pan-Pacific Entomologist 14:67. From “Glenwood Springs, Colorado (Oslar)” [no date].
- Megachile* (*Xeromegachile*) *oslari* Mitchell, 1934 (Megachilidae bee) Trans. Amer. Ent. Soc. 62:381. “Type. Female; Berkley [suburb of Denver], Colorado, 6. 10 [June 10?] (E. J. Oslar)”, type USNM.
- Neivamyrmex audrei* (Emery)=*Eciton* (*Acamatus*)” *oslari* (Wheeler 1908) (Formicidae ant) Bull. AMNH 24:415. “Described from a single specimen collected by E. J. Oslar at Nogales, Arizona, July 15, 1903 (Cornell Univ. Coll., Lot 256)”.
- Cicindela longilabris* bronze form *oslari* Charles W. Leng 1901 (Cicindelidae) Trans. Amer. Ent. Soc. 28:121. From near top King Solomon Peak, Needle Mts., San Juan Range, San Juan? Co. Colo. 9500’ July 29-August 7. Oslar found the green form on SW slope of Mt. Wilson, San Miguel Range, Dolores Co. 12000’ in SW Colorado July 18-27 [both forms evidently 1900, because that *oslari* beetle was named in 1901]. Leng wrote that Oslar’s “labors have added materially to our knowledge of the Colorado Coleoptera.”
- Prionocera dimidiata* (Loew, 1866)=*Pachyrhina oslari* (Dietz, 1918) (Diptera, Tipulidae) Trans. Amer. Ent. Soc. 44:112-113. “Holotype male; South Park, Colorado. June 20, 1916 (E. J. Oslar) Allotype: female; topotypic, June 16, 1916.”
- Shannonomyia* “*Limnophila*” *oslari* (Alexander, 1916) (Tipulidae) J. N.Y. Ent. Soc. 24:123-124. “Holotype, male, Platte Canyon, Colorado; July 30, 1914; E. J. Oslar”.
- Lactista gibbosus*=*oslari* A. N. Caudell, 1905 (Orthoptera) Proc. U. S. National Museum 28:468-469. From “One male, Nogales, July 3” [evidently 1903] “I also have a male taken by Oslar at Albuquerque, New Mexico, without date [evidently 1903].”



Figs. 1-2. Two of Osler's beautiful radially-geometric displays of butterflies (fig. 1) and moths (fig. 2) in the Colorado Museum of Natural History (now Denver Museum of Nature and Science), 1909. Fig. 3. Ernest J. Osler late in life (Krell & Stephenson 2012 have photo of a younger Osler ~1909 with glasses, brown mustache, and nearly-full hair).

Genealogy. Ernest John Osler was born March 29, 1858 in Whittlesford, Cambridgeshire, England. He was the first of 11 children of parents Ernest Fredrick Osler and Eliza Dorkings Osler. On a trip to Essex (London) England he married the family servant Martha Elizabeth Robinson (1875-) on Oct. 11, 1893 and brought her back to Denver. They had 14 children, 11 of whom were alive in 1944 (Ernest H. Osler of 2545 Albion St. in Denver; Walter Russell Osler (1904-) of San Diego; Albert Edward Osler of San Diego; William Frederick Osler of Sacramento, California; Mrs. Emily M. Osler Seiler (1899-1981) of Casper Wyoming [who lived in Casper at least 1925-1944 and moved into Ernest J. Osler's home at 4189 Julian St. in 1946 after his death and lived there from 1946 until 1981 when she died]; Mrs. Virginia Corning of Casper; Mrs. Constance R. Bolton of Broomfield Colorado; Mrs. Agnes M. Angerman of 1208 Lipan St. in Denver; Mrs. Ethel R. Redd of Beaumont California; Mrs. Victoria R. Hollenbeck of Phoeniz, Arizona; and Mrs. Katherine E. Taylor of Richland, Washington). Emily M. Osler married Harold A. Seiler (1898-before 1981) of Denver (she much later married Mr. McKenzie) and had a daughter Dorothy E. Seiler (1925-)(who married Paul McRill) and another daughter Elizabeth L. Seiler (later Eaker) (1927-before 2007) and son Harold E. Seiler (1929-2007). (Dorothy & Paul McRill and Harold E. Seiler gave Ernest J. Osler's materials to Dave Ruitter.) Ernest J. Osler had 19 grandchildren in 1944, when he died of pneumonia Sept. 27, 1944 in Denver at the age of 86, and is buried in Fairmount Cemetery.

Osler's interesting butterfly triangles. Osler's butterflies were in triangles, folded sometimes out of clear glassine or thick brown butcher paper but usually out of regular paper, often clipped from interesting printed pages that reveal aspects of his life and the Denver culture of his time. Many triangles were cut from store catalogues, such as one cut from a coupon order form from The May Company, a Denver department store, which had the typed words "E J OSLAR/ 4189 JULIAN/ CITY and NOV 25 1926 -19". Many triangles were cut from booksellers' catalogues of entomology books offered for sale (books dated from the late 1800s and early 1900s to 1921 or later), or were cut from pages of newspapers or advertisement flyers concerning local news or society events, or were cut from pages of stories from magazines or novels. But very many were cut from mimeographed or printed pages hyping the earning potential of oil wells and the securities (stocks) of oil well drilling companies, plus a few promotions for gold and copper and potash mines, treasure-hunting ships, etc. Osler possibly bought some of those oil well investments, and might have been involved in recruiting people to invest in them, though there is no proof of any of this--the only certainty is that he possessed a large number of advertisements of these speculative

investments from which he cut and folded his bug envelopes. He may have just used those investment advertisements as waste paper good only for folding envelopes in which to keep his collected butterflies.

Those envelopes have these revealing and entertaining words: gusher—OHIO MID-CITIES CORPORATION--oil wells in Andrews Co. Texas--Texas oil strikes--speculate 5 to 1 or 100 to 1 to get rich on Nelson Holding Company a Texas oil well driller--how the writer won two victories on a Nelson well and a Carpenter-W well in the panhandle of Texas--get rich if you invest in oil wells--we are drilling in Stephens and Young Cos. west of Dallas Texas--buy stock in CHRISTMAS OIL CORPORATION in proven oil well gusher territory...Dunn building Fort Worth Texas—C B McKennon 2nd floor Neil P. Anderson Bldg. [another envelope says 6th floor Burk Burnett Bldg.] Fort Worth Texas---buy \$10 stock in a well—“TAKE MY WARNING, DELAY NO LONGER. I BELIEV/ A FEW DAYS WILL BRING YOU BIG RETURNS IF YOU ACT IMMEDIATELY.”—“make twenty thousand dollars”—\$9. per share Capital stock of Yates Ranch Royalties--gusher—Murchison-Fain Well 1800 feet—Constantin-Nelson well—New England Refining Company--Panhandle Oil Company stock—J. K. Hughes Developing Company—Nabob well—Empire of Golden—16,000 barrel gusher—six hundred dollars—American School of Aviation—Kercheval Production Company 304 & S Cotton Exe Building Fort Worth Texas—Reno Marine Salvage-opportunity sunken treasure—Rio Pecos well—handsome returns now—strike! act! final chance—paid out \$3,259,000.—Halley Ranch Royalty Winkler Co. West Texas—vessels-our divers-Egyptian fleet-treasure report-jewels—Spindletop!—Potash Resources-rich potash—roaring in for a 1500 to 10,000 barrel gusher—Copper King Mine—inevitable as the crack of doom—a monster winner...most glorious winnings—Messrs Gilbert Johnson & Company PO Box 624 Fort Worth Texas—Brown County HIGH GRAVITY GUSHER—first showing of gold...Chuckwalla Mountain—market value on one San Francisco...TWENTY THREE STREAMS OF LIQUID GOLD—Grasp this golden fortune—gala parade of newly made millionaires—Rio Pecos Syndicate—one billion barrels—Yates Field Royalty Club-wonderful gushers there-greatest opportunity in oildom—OPPORTUNITY OF SKOOKUM GIGANTIC WINNINGS—third largest gusher ever-that beat the Devil!—R. G. Lawton geologist in Stephens County—65,000 BARRELS PER DAY MONSTERS—40 acres in Archer County Texas. These gems go on and on; only a third of the ones copied from the paper triangles are listed here, and there are plenty more not copied.

One envelope had this message: “the commission encloses herewith an...examination for the federal civil service”. Perhaps Oslar sometimes sought steadier employment than selling insects and accounting, or he had to fill out civil service forms to become the first Curator of Entomology at the Colorado Museum of Natural History officially from 1909-1911.

LIST OF OSLAR BUTTERFLY SPECIMENS IN THE C. P. GILLETTE MUSEUM at Colorado State University, Fort Collins, Colorado

Following is a list of Oslar's ~2159 newly-studied (2015) papered specimens of butterflies (several dozen are now mounted), compiled by Scott. They are generally in folded paper triangles (mostly regular paper, a few in thicker butcher paper, a few in folded transparent glassine triangles) with one specimen (sometimes two, rarely three) inside each envelope, with name and sex and locality/date (if present) written in cursive with pencil. A few have cursive ink species/locality/date information. Many were attacked by dermestids at some early time (probably 1944-1981). They had already been sorted previously in the 1980s by David E. Ruiter, a Trichoptera expert who identified most fairly well but was not an expert on western U.S. butterflies, so some very similar species were not identified well; the details of their phenotype examined in May 2015 allowed Scott

to place them into the subspecies and species listed below. Ruiter (pers. comm.) had to discard hundreds of paper triangles that had no locality and contained only dust from specimens eaten by dermestid beetles.

The name of each butterfly below is followed by the total number of specimens, then the localities and dates of specimens that have that data written on the paper envelopes, using Oslar's spellings even when incorrect [correct spellings and counties or helpful locations of the localities are added in brackets]. Labels that seem to be inaccurate are listed as such and explained. About 2/3 of the envelopes had no locality or date, and some even lacked the species name—those specimens are usually counted after “no data”, or can be enumerated by subtracting the labeled specimen numbers from the total. The sex is indicated for most (m=male symbol, f=female symbol).

*Specimens with nice inked cursive localities, mostly written Juan Viñas, C.R. [Costa Rica] 1924 4000 ft. Those specimens were in Oslar's collection, and were evidently sent to Oslar from G. A. Martin of the National Museum of Wales (South Wales, England) that were caught by someone else who sent them to Martin, based on a letter from Martin to Oslar Feb. 10, 1924 stating that he would send Oslar some Central America material to be collected during the summer of 1924.

Papilionidae

Parnassius clodius Menetries. 9. Gunnison S.W. Colo July 2m; Gunnison Col July 1m; S.W. Colo July 1m; no data 5m. The Gunnison and S. W. Colo localities are inaccurate because the species does not occur in Colorado. They are probably from California.

Parnassius phoebus smintheus Fabricius=*sayi* W. Edwards (*sayi* is commonly used in Colorado but looks like a synonym of *smintheus*). 53. Colo or Col Oslar; Colo or Col; Halls [Hall] Valley [Park Co.] Col July (one June) 5m1f; Gibsons Gulch [near Hall Valley] Col 12000 ft Alt. July or Aug 3m; Oslar. Most of these “Halls Valley” and “Gibsons Gulch” specimens are large so may be inaccurate-locality low-altitude “*sayi*” (there is variation in size).

Parnassius phoebus hermodur Hy. Edwards. 25. Bullion Peak [near Hall Valley] Col. July or Aug. 3m; Halls Valley [Park Co.] Col July 1m; most had no data. These are smaller, which is typical of *hermodur*.

Parnassius phoebus pseudorotgeri Eisner. 3. Silverton [San Juan Co.] Col Aug 3m.

Battus philenor hirsuta (Skinner). 7. No data [actually from lowland Calif. mts.] 4m3f.

Papilio multicaudata multicaudata Kirby. 1. Ariz June.

Papilio eurymedon Lucas. 17 no data (many have underside covered by orange pollen from a lily such as *Hemerocallis fulva*).

Papilio polyxenes Fabricius. 9. No data 9m.

Papilio zelicaon Lucas. 2. Santa Monica [L. A. Co.] Calif May; S. D. [San Diego] 6/28/30 1m.

Pieridae

Anthocharis lanceolata Lucas. 2. No data 2m. [Actually from Calif.]

Anthocharis sara sara Lucas. 27. Mission Valley [San Diego] Calif 5/19/31, 6/1/31; San Diego Calif 4/30/31, 5/5/31; Bear Creek [Jefferson Co.] Col May 3m1f, June 1m; Strontia Springs [near upper end of Waterton Canyon which is near base Platte Canyon] Col May 2m. Those 7 “Colorado” locality labels are inaccurate because the specimens are clearly Calif. *A. sara sara* based on the size and position of dorsal forewing black bar and the seven 2nd-generation-phenotype specimens with little ventral hindwing mottling etc. (a 2nd generation occurs only in California) {Colo. only has two other *A. sara* ssp. and *A. julia* (W. Edwards)}.

Euchloe olympia (W. Edwards). 1. Clear Creek [W of Denver, Jefferson Co. Colo.] Col May 1m.

- Euchloe ausonides coloradensis* (Hy. Edwards). 40. Clear Creek [W of Denver Colo.] Col. May; Strontia Springs [near base Platte Can.] Col May; Chimney Gulch [Jefferson Co.] Col May; Halls Valley Park Co. Col. July or Aug.
- Euchloe ausonides ausonides* (Lucas). 1. “Webster [Park Co. NE Grant] Col July” 1f (the “Webster” locality is inaccurate because the female is a large yellow California female--*coloradensis* females are smaller & less yellow).
- Zerene eurydice* (Boisduval). 7. Gunnison Col July 2f (the “Gunnison” label is inaccurate, because both are actually Calif. specimens--the species occurs only in Calif.); Mission Valley [San Diego] Calif 6/30/31 1f; Mission Canyon San Diego Calif 5/10/31 1f; Whitewater oil desert [just NW Palm Springs] S Calif Octo 9/26 1m.
- Zerene cesonia* (Stoll). 50. Gunnison Colo. July 3f, Sept. 1m; Deer Creek [Jefferson Co.] Col Sept. 1f; Deer Creek Cañon Col Oct 1m (these six nice Colorado specimens are probably inaccurately labeled, because this is a very rare stray into Colo. so known Colo. specimens are beat up from the long flight from southern Arizona or New Mexico); Mission Valley [San Diego] Calif 6/30/31; Ariz.
- Colias eurytheme* Boisduval. 50. Strontia Springs [near base Platte Can.] Col July 28, 1927; San Diego Calif 5/5/31; Los Angeles Calif Fbr. 27/27; Beaumont [Riverside Co.] Calif 7/20/40; Mill Gulch [“Platte Canon 8,000 ft”] Colo July; S. D. [San Diego] 5/5/31, 5/10/31; Bluffs [Aurora] Col 8/11/31; Calif.
- Colias philodice eriphyle* W. Edwards. 36. Halls Valley [Park Co.] Col. July, Aug.; Clear Creek [W of Denver Colo.] Col June; Sedalia [Douglas Co.] Col; Sedalia Col April 21, 1922, April 27, 1922; G. S. [Glenwood Springs Garfield Co. Colo. evidently] 7/16/31.
- Eurema nicippe* (Cramer). 1. No data 1f.
- Eurema mexicana* (Boisduval). 75. Catalina Mts Ariz. Aug. 1m; Ariz July 1m; Halls Valley [Park Co.] Col July 1m (this is a rare migrant in Colorado, so the specimen is either a rare stray or was inaccurately labeled); 44m29f no data (most are probably from Ariz.).
- **Eurema lisa* (Boisduval & LeConte). 1. In pencil Oslar’s handwriting “*T. lisa* var. *alba*” f El Paso Tex. Aug., plus a nice cursive ink “Juan Viñas, C.R. 15/9/24 [1924] 4000 ft.” 1m. Obviously it cannot have two localities so one is wrong. The Costa Rica specimens came from G. A. Martin.
- **Eurema daira* (Boisduval & LeConte). 1. Limon, C.R.[Costa Rica] Cast. 10/9/24 [1924]. 1f.
- Pereute charops* (Boisduval). 26. “Galapa” [Jalapa] Mex. 23m3f. All written in fancy inked cursive.
- Aporia crataegi* Linnaeus. 1. No data [Europe].

Nymphalidae

- Coenonympha tullia ochracea* W. Edwards. 18. Casper Wyo. July 1m; Halls Valley [Park Co.] Col. Aug 2m1f; Durango [La Plata Co.] Colo July 3m; S.W. Colo [evidently Durango] 6/10/99 Oslar 1m; Col [evidently Durango] 6/2?0/99 Oslar 1m; Silverton [San Juan Co.] Colo July 2m; Jacksons Hole Wyo July 1m; no data 6m.
- Coenonympha tullia californica* Westwood. 40. San Diego [Calif.] 3/17/31, April, 4/30/31, May, 5/18/31, 5/20/31, 5/22/31, 5/23/31, June, 6/1/31, 6/2/31, 6/4/31, 6/8/31; Mission Valley [San Diego] Calif. 5/23/31, 6/30/31.
- Cercyonis oetus oetus* (Boisduval). 29. Big Horn Mts Wyo 7/21/32 [Oslar evidently was S of Casper that morning, then drove here that day] 3m1f, 7/23/32 1m, 7/25/32 4m; Big Horns Mts Wyo July 2m; Casper Mts. [Laramie Mts. S Casper] Wyo. Aug 2m; Jacksons Hole Wyo July 3m1f; no data 6m7f.
- Cercyonis oetus charon* (Boisduval). 52. South Park Col 8/20/14, August; Oslar. S.W. Colorado [tiny label] with penciled July; Casper Mts. [Laramie Mts. S Casper] Wyo 8-8-32; 7/21/32;

Glenwood Springs [Garfield Co. Colo.] 7/16/31; Oslar Silverton [San Juan Co.] Col. [tiny yellowed labels] with penciled July or Aug; Halls Valley Park Co. Colo. 8/20/14; Plainview [Rocky Flats near Coal Creek, Jefferson Co.] Col July; July; Col.

Cercyonis pegala nephele Kirby = "*olympus*" (W. Edwards). 57. Clear Creek [W of Denver Colo.] July or Aug; Garden Creek, Casper Mts. [Laramie Mts. S of Casper, Natrona Co.] Wyo 8/5/32; Casper Mts. Wyo 5,000 ft Alt July; Eldorado Springs Col. July; Bluffs [Aurora] Col. Aug.; Glenwood Springs [Garfield Co. Colo.] 7/12/30; Oslar Glenwood Spgs Col [tiny label]; Nigger [now Negro] Hill Deer Creek [Laramie Mts. S of Casper] Wyo 7/31/32; Mill Gulch Platte Canon 8,000 ft Alt Col. July.

Oeneis probably *calais altacordillera* Scott. 2. No data 1m1f (the female may be *O. chryxus*?).

Erebia callias W. Edwards. 23. Halls Valley [Park Co.] Col July 1m; Bullion Peak [near Hall Valley] Col. July [a large glassine envelope says Bullion Peak 12,000' E. Oslar July 1933 in someone else's handwriting] 1m; no data 21m.

Erebia epipsodea Butler. 51. Bullion Peak Gibsons Gulch [near Hall Valley] July 1m; Bullion Peak Halls Valley [Park Co.] Col. July 13000 ft. 1m; Halls Valley Col. July 1m; North Park Col. July 1m; no data 47m.

**Ithomia patilla* Hewitson 1m, *Ithomia heraldica* Bates 2m1f, *Heterosais edessa nephele* Bates 4f, all Ithomiinae from Juan Viñas Costa Rica 4000 ft. 12 (two 13)/9=Sept./24 (all fancy inked cursive).

Asterocampa leilia W. Edwards. 1. Tucson Arizona 1m.

Asterocampa celtis jeffermont Scott & Fisher. 4. Clear Creek [W of Denver] Col Aug. 2m; Clear Creek Canon [Jefferson Co.] Col June 1m; Chimney Gulch [Jefferson Co.] Col June 1m.

Limenitis arthemis astyanax Fabricius. 2. No data 2m.

Adelpha californica (Butler). 4. Mission Valley [San Diego] Calif. July 1f; San Bernardino Mts Calif June 1m; Durango [La Plata Co.] Colo July 1m (the Durango label is inaccurate, as *A. californica* occurs only in Calif. so the fresh specimen would have had to fly from there); no data 1f.

Adelpha eulalia Doubleday. 6. Mission Valley [San Diego] Calif. July 1m (inaccurate label, as only *A. californica* occurs in Calif.—it probably came from Arizona where *eulalia* is resident); Florida Mesa [S of Durango, La Plata Co.] Colo July 1m; Durango Colo July 1m (these two perfect "Colo." specimens might be inaccurately-labeled also, as *Adelpha* are rare in Colo., and strays tend to get beat up and all the Colorado specimens that have been confidently collected have been worn); Mid Wide Ridge Chiricahua Mts Ariz July 1f; no data 2m.

Junonia coenia Huebner. 21. 7/30/40 [probably Beaumont Calif.]; Beaumont [Riverside Co.] Calif. 7/23/40; S. D. [San Diego] 7/6/30, 5/10/31, 5/20/31, 6/2/31, 6/4/31, 6/7/31, 7/6/31; San Diego Calif July; Bear Lake, San Bernardino Calif Aug 1/26; Calif 8/1/26 (same day as San Bernardino).

Junonia evarete nigrosuffusa Barnes & McDunnough. 9. No data 7m2f (surely all are from SE Arizona).

**Anartia fatima* (Fabricius). 3. Juan Viñas, C.R.[Costa Rica](one says 4000 ft.) 26/8/24 three.

Aglais milberti (Godart). 9. Casper Wyo July one; Golden [just W Denver] Col 5/27/00 one; Oslar Platte Canon Col. 2 [tiny label]; no data 5.

Nymphalis antiopa Linnaeus. 1. No data.

Nymphalis californica californica (Boisduval). 2. No data, but both are the strongly-striped form that is usual in Calif., and they are not the unstriped Colo. ssp. *timidar* Scott & Kondla, so they are probably from California.

Polygonia satyrus satyrus (W. Edwards). 1. No data 1f.

Polygonia gracilis zephyrus (W. Edwards). 14. Strontia Springs [near base Platte Can.] Col June 1m; no data 13 (including 1m slightly darker underside mounted no data, determined by gnathos).

Polygonia oreas nigrozephyrus Scott. 1. No data 1m (mounted), determined as *oreas* from blackish underside and wide gnathos. Its dorsal hindwing phenotype shows it is ssp. *nigrozephyrus* collected from Front Range Colorado.

Vanessa atalanta (Linnaeus). 3. S.[an] F.[rancisco]. Calif Sept. 16/12 one; no data 2.

Vanessa virginiensis (Drury). 5. Beaumont [Riverside Co.] Cal. 7/9/40 one; no data 4.

Vanessa carye annabella (Field). 23. Durango [La Plata Co.] Colo 6/5/99 Oslar 1; [no locality] Oslar 7/19/99 one; S. D. [San Diego] Calif 2; Mission Beach [San Diego] Calif 5/9/31 one; Mint Canon [L. A. Co.] Calif May (probably 1927 along with *Chlosyne leanira wrighti*) one; no data 17.

Vanessa cardui cardui (Linnaeus). 40. Clear Creek [W of Denver] Col May 1; Oslar. Glenwood Spgs [Garfield Co.] Oslar. [tiny label] 1; no data 38.

Hamadryas feronia (Linnaeus). 1. El Paso Texas July 1m nice specimen (a rare stray or inaccurately labeled, because this is a subtropical butterfly).

Poladryas minuta arachne (W. Edwards). 8. No data 7m1f [probably from Colo. Front Range].

Euphydryas editha quino (Behr)=*wrighti* Gunder probably [ssp. *quino* based on appearance and known Oslar collections from San Diego Co.]. 1. No data 1f.

Euphydryas chalcedona chalcedona (Doubleday). 4. Grand Junction [Garfield Co.] Col July 1m; Grand Junction July (in black ink instead of the usual pencil) 2m (all three inaccurately-labeled because this large black ssp. *chalcedona* only occurs in Calif. Coast Ranges and nothing like it occurs in Colorado); no data 1m.

Euphydryas anicia carmentis Barnes & Benjamin. 29. Most labeled S.W. Col 6/(1, 3, 4, 10, 14, 15, 16, 17, 20, 21, 23, 25, 27, 30)/[18]99. These have the paler ventral hindwing of *carmentis*, so are evidently from Durango area (it is common at Pagosa Springs, and occurs W to Dolores Co.) just S of the San Juan Mts. The dates coincide with those of *E. anicia capella* below, so it could be thought that many dates are inaccurately labeled because their locales are 400 mi apart, but a reasonable explanation is that Oslar's kids caught the *capella* while Oslar was in SW Colo.

Euphydryas anicia capella (Barnes). 145. Coal Creek [Jefferson Co.] Col June; Coal Creek Cañon Col June; Platte Cañon Col June; Plainview [Rocky Flats near Coal Creek, Jefferson Co.] Col June; Golden [just W Denver] Col 6/10/99, 6/17/99 Oslar, 6/20/99, 6/27/99, 6/29/99, 6/17/00, 6/17/00 Oslar; Clear Creek [W of Denver] Col 6/15/99, 6/20/99; S.W. Col 6/10/99 (1m inaccurately-labeled SW Col. because ssp. *capella* does not occur in SW Colo. {only ssp. *carmentis* occurs there} and he or one of his kids was at Golden that day) The *capella* dates coincide with those of *E. anicia carmentis* above, so many dates could be considered inaccurately-labeled as their locales are 400 mi apart, but it's likely that one of Oslar's 14 kids caught these *capella* while Oslar was in SW Colo.

Microtia dymas chara (W. Edwards). 6. No data 3m3f. These are surely from S Arizona.

Chlosyne nycteis drusius (W. Edwards) X *nycteis* (Doubleday). 1. Salida [Chaffee Co.] Colo July 1m. *C. nycteis* does not occur right at Salida though occurs southward at N end of Wet Mountain Valley. This male has upperside less black than normal *drusius*, and resembles NW Colo. *drusius*X*nycteis*.

Chlosyne gorgone (Huebner). 21. Bailey [Park Co.] Colo July 2f; Baileys Colo July 1m; Clear Creek [W of Denver] Col. June 2m; Casper Wyo July 2m; Denver Col May 2f; May 1f; no data 7m4f.

- Chlosyne theona thekla* (W. Edwards). 1. Pagosa Springs [Archuleta Co.] Col July (1m inaccurately-labeled because the nearest known population is in southern Arizona where he probably collected it).
- Chlosyne leanira wrighti* W. Edwards). 25. Rico [Dolores Co.] Col Aug (1f inaccurately labeled Rico, because *wrighti* only occurs in Calif.--the "Rico Col. Aug." handwriting is larger than the rest and was evidently added later). The others seem properly labeled with "M. wrightii" and sex plus: Mission Hills San Diego Co. Calif 6/2/31 4m1f; [evidently Mission Hills] 6/2/31 4f; Mission Hills S. D. [San Diego] 6/4/31 4m1f; San Diego Co. Calif 1m; San Diego Calif July 2m; Mint Can. L.A. Co Calif 4/29/27 1m; no data 5m2f.
- Chlosyne leanira fulvia* (W. Edwards). 37. Durango [La Plata Co.] Col Aug 4m2f. One m is very black; no data 21m10f.
- Chlosyne palla palla* (Boisduval). 1. S.W. Col 6/11/99 Oslar 1m (inaccurately labeled SW Col, because the butterfly matches Calif. specimens of ssp. *palla* which has dorsal forewing rather pale--paler than Front Range *C. p. calydon*--and ssp. *flavula* (Barnes & McDunnough) is not known to occur in SW Colo. and has much paler underside.).
- Chlosyne palla calydon* (Holland). 2. Plainview [Rocky Flats near Coal Creek, Jefferson Co. Colo.] June 1m; Plainview Col June 1f.
- Chlosyne gabbii gabbii* (Behr). 1. Mission Valley [San Diego] Calif 5/23/31 1m.
- Chlosyne acastus neumoegeni* (Skinner). 12. Eagle [Eagle Co.] Col Aug 4m6f (all are inaccurately labeled "Eagle" and are actually Calif. butterflies, because all have the upperside much too pale to be Colo. *acastus* and they match Calif. *neumoegeni* and Oslar probably caught them in San Diego Co. Calif.); no data 1m1f.
- Phyciodes mylitta mylitta* (W. Edwards). 5. Big Horn Mts Wyo July 2m (inaccurately labeled because *mylitta* did not occur there); Gunnison Colo July 1m (inaccurately labeled because *mylitta* does not occur there either and Gunnison is too cold for the species); 1m1f no data. Oslar caught them probably in San Diego Co. Calif.
- Phyciodes orseis orseis* W. Edwards. 3m (mounted). 2m no data. 1m has tiny label "Oslar Gunnison Col" which is inaccurately-labeled because ssp. *orseis* only occurs in NW Calif. (Trinity and Siskiyou Cos. today, and it became extinct southward to Napa Co. and evidently San Francisco where it occurred in the early 1900s) and extreme SW Ore. (Jackson, Klamath Cos.) so these were evidently coll. by someone in NW Calif. All three were in transparent glassine triangles as were many *P. pulchella pulchella* with the same tiny Gunnison labels, but the phenotype of those *pulchella* occurs at many places in S and N Calif. (except the Central Valley and higher Sierra Nevada) so is no help in determining the origin of these three *orseis*. Oslar's collection had no other butterflies from NW Calif. except two *Argynnis hydaspe purpurascens* from the N Sierras or NW Calif. that were also inaccurately labeled "Gunnison Col July" in pencil. The most likely origin of these *orseis* is the Shasta City area based on accessibility (Oslar labeled a *Callophrys sheridanii viridis* "Shasta City" but it was inaccurately labeled and probably came from San Francisco).
- Phyciodes pallida pallida* (W. Edwards). 4. Platte Canon Strontia Spgs [base of Platte Can.] Colo June 1m; Clear Creek Canon [Jefferson Co.] Colo June 1m; no data 2m.
- Phyciodes pallida barnesi* Skinner. 6. Oslar Glenwood Spgs [Garfield Co.] Col 6/7/01 1m; Oslar. Glenwood Spgs Col. [tiny label]; no data 3m.
- Phyciodes tharos orantain* Scott. 1. Casper Wyo 8/7/32 1f.
- Phyciodes cocyta selenis* (Kirby). 10. Halls Valley [Park Co.] Col July 1m; Casper Wyo [Laramie Mts. to south evidently] Aug 1m; Catalina Mts. Ariz. Sept 1f (this "Ariz." female inaccurately labeled because *P. cocyta* does not occur in S Ariz., it was evidently switched from a *Phyciodes graphica*=*vesta* envelope labeled "Montrose Colo July", see below); no data 4m3f.

- Phyciodes pulchella pulchella* (Boisduval). 23. Oslar Gunnison Col [tiny labels] 19m2f (8m2f were mounted); no data 2m. All the Gunnison specimens are inaccurately labeled “Gunnison” because all are clearly ssp. *pulchella* which only occurs in Calif. 3m *P. orseis orseis* were in same transparent triangles with same tiny labels and *orseis* only occurs in NW Calif., so these *pulchella* may also be from NW Calif.].
- Phyciodes pulchella camillus* W. Edwards. 41. Casper Wyo July 1m1f; Plain View [Plainview, on W side Rocky Flats near Coal Creek, Jefferson Co.] Col June 1f; Clear Creek Cañon [Jefferson Co.] Colo July 1f; S.W. Colo [evidently Durango] 6/14/99 Oslar 2m; Jacksons Hole Wyo July 2m; no data 33.
- Phyciodes picta canace* (W. Edwards). 18. Tucson Ariz July 1m; Ariz 1m; Oslar. S.W. Colorado [tiny labels] 3m; Oslar. S.W. Colorado [tiny labels] 6-10-04 1m; Oslar. San Miguel Col. [tiny label] 2m; Gunnison Colo July 1f (inaccurately-labeled “Gunnison”, because *picta* does not occur there); no data 9m.
- Phyciodes graphica* (Felder)=*vesta* (W. Edwards). 3. Catalina Mts Ariz Sept 1m; Ariz Sept 1m; Montrose Colo July (1m in perfect condition, inaccurately-labeled because *vesta* is a very rare stray from near Mexico to Colo. and would be worn after flying that far; this specimen was evidently switched from a *Phyciodes cocyta* envelope saying “Catalina Mts Ariz Sept” [see *P. cocyta* above]).
- Phyciodes (Anthanassa) texana texana* (W. Edwards). 6. El Paso Tex June 1m2f; Catalina Mts. Ariz June 1m; no data 2m.
- **Eresia clara* Bates. 1. Juan Viñas, C.R. 4000 ft. 12/9/24 1f.
- **Actinote pellenea*. Juan Viñas, C.R. 26/8/24 4000 ft. one; Jacaris? 9-4-72.
- Callicore ~faustina* (Bates). 1. French Guiana, S. A.
- Dione “Agraulis” vanillae* (Linnaeus). 18. San Diego Calif 5/20/34 1m, 6/23/40 1m; San Diego Calif May 6m1f; San Diego Cala 6/22/40 2m; S. D. [San Diego] 7/9/31 1f; Beaumont [Riverside Co.] Cal or Calif or Cala 7/9/40 1m, 7/14/40 1m, 7/23/40 1f; Calif July 1m; Platte Cañon Col June 1m; Platte Canon June 1m; Littleton [Denver suburb] Col June 1m. (*D. vanillae* is a very rare stray to Colorado as a stray from Mexico, so these three “Colorado” specimens are probably inaccurately labeled because finding 3 fresh ones is highly unlikely after flying that far.)
- Dione moneta poeyi* Butler. 1. No data 1m.
- Euptoieta hegesia* (Cramer). 4. Nogales Ariz 7/17/03 one; Nogolis [Nogales] Ariz July three.
- Euptoieta claudia* (Cramer). 50. San Diego or S. D. [San Diego] Calif May-15 spec., June-5 spec.; Santa Monica {L. A. Co.] Calif May-2, June-2; Banning [W of Palm Springs] Calif June-1; Cardif Col June [inaccurately written, Oslar meant to write Cardiff just N San Diego Calif.]-1; Clear Creek [W of Denver] Col June-6, July-2; Plain View [Plainview, W side Rocky Flats near Coal Creek, Jefferson Co.] Col June-5, July-1; Denver Col July-1; Platte Cañon [one has Canon] Col June-5, July-1; Colo June-3.
- Argynnis paphia* (Linnaeus). 3. [Europe]
- Argynnis aglaja* (Linnaeus). 1. [Europe]
- Argynnis adippe* (Schiffermueller) form cleodippe. 1. [Europe]
- Argynnis (Speyeria) cybele leto* Behr. 5. Garden Creek [Laramie Mts. S of Casper in Natrona Co.] Wyo 7/21/32 1m, 8-3-32 2m; 7/21/32 1m1f [surely from Garden Creek Wyo also based on date]. These ssp. *leto* have female whiter, ventral hindwing submarginal band narrower, dorsal hindwing base less dark than ssp. *charlotti*).
- Argynnis (Speyeria) cybele charlotti* Barnes. 14. Oslar. Glenwood Spgs [Garfield Co.] Col. (tiny printed labels) 7/11/31 2m, 7/12/31 1m, 7/13/31 1m, 7/14/31 2m; Glenwood Spgs Col (no tiny labels) 7/12/31 1m, 7/31/31 2m, 8/5/31 1m; 7/15/31 1m & 7/17/31 1m & 7/18/31 2m & are surely Glenwood Spgs also based on dates.

Argynnis (Speyeria) aphrodite byblis (Barnes & Benjamin). 7. Glenwood Spgs [Garfield Co.] Col 7/12/31 1m, 7/29/31 1m, 7/30/31 1m, July 1f; 7/21/31 [date suggests it is Glenwood Spgs also, see *A. cybele charlottii* records] 1m; Gunnison Col July 2m; Senator (=Maxton, S of Prescott, Yavapai Co.) Ariz 7/5- [18]98 1m. Some or most of these could be ssp. *whitehousei*=*ethne* because ssp. *byblis* is mainly identified by smaller size and these are not especially small.

Argynnis (Speyeria) aphrodite whitehousei Gunder=*ethne* Hemming. 9. Clear Creek [W of Denver] Col Aug 1m; Bluffs [Aurora] Col July 1f, Aug 5m; Plainview [Rocky Flats near Coal Creek, Jefferson Co.] Col July 1f; no data 2m.

Argynnis nokomis nokomis W. Edwards (figs. 4-5). 1 labeled “*A. nitocris* female/ Hayden Peak/ S. W. Colo/ Aug.”, and 1 labeled “*A. nitocris* male/ Hayden Peak/ San Juan Mts./ S. W. Col/ Aug.” were inaccurately labeled (Scott & Fisher 2014). 5m had no data just “*A. nitocris* male”. All specimens have wing phenotype like other known *A. nokomis* from the E side of the Sangre de Cristo Mts. in New Mexico, and all were collected at Beulah New Mexico by Wilmatte Porter Cockerell. Oslar collected the type of *Pygarctia murina oslari* Rothschild (Arctiidae) from “Las Vegas New Mex. July 1902”, which is near the Beulah NM *nokomis* colony, and he collected in Sapello Canyon, New Mexico (where Beulah occurs) on July 26-27 1902, but that July date is a little too early for them except for rare fresh males, and there is no indication from specimen labels and the numbers of specimens found in museums that he collected them there (Scott & Fisher 2014). In a 1919 letter to William Barnes he wrote that he had collected in the Sneffel and Hayden mountains near Ouray where he collected what he determined to be *Autographa snowi* Dyar 1902 (Noctuidae), but he collected no *Argynnis nokomis* there, as Scott & Fisher (2014) determined that his specimens do not match butterflies since collected in Ouray Co.



Figs. 4-5. E. Oslar *Argynnis nokomis nokomis* specimens newly found in Gillette Museum, Colorado State Univ. (#1-5 no data or locality, #6-7 labeled Hayden Peak San Juan Mts. SW Colo. Aug.). All are actually from Beulah, San Miguel County, New Mexico.

Argynnis (Speyeria) edwardsii Reakirt. 56. Clear Creek [W of Denver] Col June; City Park Denver 9/2/31; Denver Col or Colo 5/26/34, 5/28/34, 5/30/34, June, June 6/30, 6-11/32; Chimney Gulch [Jefferson Co.] Col June; Platte Cañon Col June; Casper Wyo. 8/22/32; Bighorn Mts 7-25-32 Wyo.; no data 32.

Argynnis (Speyeria) hydaspe rhodope W. Edwards. 3. Casper Mts [Laramie Mts. S Casper] Wyo 8-8-32 1f; Big Horn Mts. Wyo 7/25/32 1m; Senator (=Maxton, S of Prescott, Yavapai Co.) Ariz 7/7/98 1m (inaccurately labeled, because *A. hydaspe* does not occur in Ariz. and confidently-collected populations only occur as far south as northwestern Colo.).

- Argynnis (Speyeria) hydaspe purpurascens* Hy. Edwards. 4. “Gunnison Col July”, all 4m inaccurately-labeled because *S. hydaspe* does not extend farther south than the Colorado River. The phenotype is that of ssp. *purpurascens* from N California.
- Argynnis (Speyeria) callippe meadii* W. Edwards. 5. Clear Creek Canon [Jefferson Co.] Col Aug 3f; Chimney Gulch [Jefferson Co.] Col 6/15/32 1m; 7-25-32 1f.
- Argynnis (Speyeria) callippe gallatini* McDunnough. 1. Big Horn Mts Wyo July 1f.
- Argynnis (Speyeria) atlantis sorocko* Scott, Kondla & Spomer. 1. No data 1m, surely coll. in the Colorado Mts. (Canadian-Hudsonian Zones).
- Argynnis (Speyeria) hesperis electa=cornelia* W. Edwards=*nikias* Ehrmann. 11. Glenwood Spgs [Garfield Co.] Col 7/14/31 1m, 7/16/31 1m, 7/17/31 1m, 8/3/31 1m, 8/6/31 1f; no data 6m.
- Argynnis (Speyeria) hesperis hesperis* W. Edwards. 7. Clear Creek Can. [Jefferson Co.] Col. June 1m; Coal Creek [Jefferson Co.] Col. June 1m; Platte Canon or Cañon Col June 2m, July 1f; Mill Gulch [“Platte Canon 8,000 ft”] Col July 1m; Casper Wyo [evidently Garden Creek in Laramie Mts. S of Casper, Natrona Co. 7/21/32] July 1m.
- Argynnis (Speyeria) zerene platina* Skinner Xgarretti Gunder. 8. Big Horn Mts Wyo July 1m, 7/24/32 1f, 7/25/32 1m3f, 7/26/32 1m; no data 1m.
- Argynnis (Speyeria) zerene zerene* Boisduval. 1. “Gunnison Colo July” 1m is inaccurately labeled, as the butterflies are clearly ssp. *zerene* which only occurs in the Calif. Sierra Nevada.
- Argynnis (Speyeria) coronis semiramis* W. Edwards. 2. Calif 6/15/40 2m [these are surely from S Calif. near San Diego where Oslar collected in June 1940].
- Argynnis (Speyeria) coronis snyderi* Skinner. 1. Bighorn Mts Wyo 7-25-32 1f.
- Argynnis (Speyeria) coronis halcyone* W. Edwards. 43. Chimney Gulch [Jefferson Co.] Col 6/9/00, 6/25/00; Golden [just W Denver] Colo 6/2/00, 6/5/00, 6/7/00, 6/9/00, 6/12/00, 6/15/00, 6/16/00, 6/17/00, 6/22/00; Plainview [Rocky Flats near Coal Creek, Jefferson Co.] Col June; Platte Canon Col 8/30/00; Clear Creek [W of Denver] Col; Colo.
- Argynnis (Speyeria) mormonia eurynome* W. Edwards. 69. Tolland [Gilpin Co.] Col July; Halls Valley [Park Co.] Col July, Aug; Kenosha Pass [Park Co.] Colo; Silverton [San Juan Co.] Col; North Park Col July 30; Deer Creek Muddy Mts. [S Casper, Natrona Co.] Wyo. 7/31/32; Casper Mts. [Laramie Mts. S Casper] Wyo. 8-8-32; Bighorn Mts. Wyo. July; 7-25-32 [he was in Big Horn Mts. Wyo. that day]; Webster [Park Co. NE Grant] Col. July.
- Boloria eunomia caelestis* (Hemming). 8. Gibsons Gulch [near Hall Valley] Col 2m; Rico [Dolores Co. Colo.] Col Aug 5m; no data evidently also Rico [Dolores Co.] Col Aug 1m. The Rico specimens are inaccurately labeled, because *B. eunomia* does not occur in SW Colo. Oslar probably caught them in Hall Valley.
- Boloria epithore sierra* E. Perkins. 3. Rico [Dolores Co.] Colo Aug 2m; Rico [Dolores Co.] Col 1m. All 3m from Rico are inaccurately labeled, because *B. epithore* only occurs in the Pacific states and does not occur in Colo. They seem to be ssp. *sierra* from Sierra Nevada of Calif. because the dorsal hindwing black markings are rather thin.
- Boloria titania helena* (W. Edwards). 20. Rico [Dolores Co.] Col July 3m [the butterfly surely occurs at Rico, although all other Oslar Rico specimens are inaccurately labeled because those butterflies do not occur in SW Colo.]; Halls Valley [Park Co.] Col July 8m; Tolland [Gilpin Co.] Col June 1m, July 6m; no data 2m.

Lycaenidae

- Lycaena virgaureae virgaureae* (Linnaeus). 4. No data, but caught in Europe.
- Lycaena arota virginensis* (W. Edwards)=*schellbachi* Tilden. 11. Mill Gulch [“Platte Canon 8,000 ft”] Col 2m; Platte Can Col July 1m; Oslar; Bear Creek Morrison [Jefferson Co.] Col. [tiny labels] 1m2f; no data 4m1f. The Bear Creek butterflies are evidently inaccurately labeled

- because Scott found that *L. arota* does not get north to Bear Creek, it only extends north to South Turkey Creek where it is very rare at Tinytown; the reason is that its area host *Ribes leptanthum* occurs only in the Platte River Canyon valley bottoms southward. They were probably collected in the Platte Can.
- Lycaena gorgon* (Boisduval). 15. "Oslar. San Miguel Col." [tiny labels] with July in pencil on envelope 4m; no data 11m. All 4m "San Miguel" specimens are inaccurately labeled because *L. gorgon* does not occur outside California where they must have been caught.
- Lycaena xanthoides* "editha (Mead)" vurali Kocak. 14. Big Horn Mts Wyo July 5m4f; Jacksons Hole Wyo 1f; no data 2m2f.
- Lycaena dione* (Scudder). 4. Plainview [Rocky Flats near Coal Creek, Jefferson Co.] Col July 1m; July 2m; no data 1m.
- Lycaena helloides* (Boisduval). 19. Mission Valley S. D. [San Diego] 6/1/31 1m; San Gabriel Canon [N of L.A.] Calif May 1m; no data 12m5f.
- Lycaena* probably *helloides* [or *L. florus* (W. Edwards)]. 4. Aug 2f; August in pencil plus tiny label "Oslar. Platte Cañon Col." 1f; no data 1m. Without good localities Scott cannot be certain that these are *L. helloides* or *L. florus*, but they all resemble *helloides*.
- Lycaena florus megaloceras* (Ferris). 2. Teton Mts. Wyo July 1m1f. The female has cream upperside and male has few orange dorsal hindwing lunules, both typical of *megaloceras*.
- Lycaena heteronea gravenotata* Klots. 23. Plain View Col July 4m; Deer Creek [Laramie Mts. S of Glenrock, Converse Co.] Wyo. 7/31/32 1f; no data 13m5f.
- Lycaena heteronea* near *heteronea* Boisduval (high altitude of Colo.). 7. Platte Canon Col July 1m; Platte Cañon July 2m; "clara" 4m. The "clara" on envelopes evidently was written because at high altitude near the continental divide (on Clear Creek and evidently also Platte Canyon) about 2% of females are all powdery-blue on upperside similar to females of S Calif. ssp. *clara* Hy. Edwards.
- Lycaena heteronea heteronea*. 4. Big Horn Mts July 1f; Big Horn Mts Wyo July 1m2f. Ssp. *heteronea* has very small to absent ventral hindwing spots.
- Lycaena rubidus* (Behr). 39. Casper Wyo Aug 1f; no data 38.
- Habrodais grunus* (Boisduval). 1. "Thecla unknown f Taos Colo. Aug." 1f. Obviously inaccurately labeled, because the butterfly only occurs in Ariz. and in Calif. and does not occur in Taos New Mexico or in Colorado. Oslar probably collected this female in San Diego Co.
- Hypaurotis crysalus* (W. Edwards). 4. Jarre Canon [Douglas Co.] Col Aug 1m; Strontia Spgs [near base of Platte Can.] Col July 1m; no data 2m.
- Satyrium titus watsoni* (Barnes & Benjamin). 10. Platte Canon Colo July 1m1f; no data 6m2f.
- Satyrium titus immaculosus* (W. Comstock). 2. Casper Mts [Laramie Mts. S of Casper] Wyo 8-8-32 1m1f.
- Satyrium behrii crossi* (Field). 13. Platte Canon Col July 2m; Clear Creek Canon [Jefferson Co.] Colo July 1m; no data 5m5f.
- Satyrium saepium saepium* (Boisduval). 6. Casper Wyo Aug 1m; Clear Creek Cañon [Jefferson Co.] Col July 1m; Boulder Cañon [Boulder Co.] Colo July 1m; S. D. [San Diego] 6/4/31 1m; no data 2m.
- Satyrium californica californica* (W. Edwards)=*cygnus* (W. Edwards)=*helenae* Fisher. 1. No data 1m. This male has considerable tawny on dorsal hindwing tornus so is not ssp. *wapiti* Fisher. It is probably from W of Denver.
- Satyrium liparops aliparops* (Le Conte). 5. Platte Canon Col (one Colo) July 3m; Clear Creek Canon [Jefferson Co.] Col July 1m; no data 1m.
- Satyrium calanus godarti* (Field). 13. Platte Canon Col (one Colo) July 3m; Clear Creek Canon [Jefferson Co.] Col July 1m; no data 3m6f.

- Callophrys sheridanii sheridanii* (W. Edwards). 1. Chimney Gulch [Jefferson Co.] Col May 1m.
Callophrys sheridanii viridis (W. Edwards). 2. San Francisco Calif Mar 1m; "Mt. Shasta Cal April" 1f (inaccurately labeled from "Mt. Shasta" because butterflies with the very white antenna shaft and many white ventral hindwing spots as this female possesses occur only on the C-N Calif. coast in ssp. *viridis*, so this female was probably collected in San Francisco).
Callophrys dumetorum dumetorum (Boisduval)=*perplexa* Barnes & Benjamin. 5. San Diego Calif Feb 1f; S D [San Diego] Cal Feb 1f; no data 2m1f. These are similar to *homoperplexa* in wing pattern, but have some whitish streaks along antenna shaft but not as much white as *viridis*.
Callophrys dumetorum "affinis (W. Edwards)" *homoperplexa* Barnes & Benjamin. 25. Chimney Gulch [Jefferson Co.] Col May 1m; Chimney Gulch. Col. ?/5-?/27 1m; no data 18m5f.
Callophrys gryneus siva (W. Edwards). 12. Chimney Gulch [Jefferson Co.] Col June 3m1f; Strontia Sprgs. (1m Springs) [near base Platte Can.] Col. 6/29/27 1m3f; no data 2m2f.
Callophrys polios (Cook & Watson). 2. No data 2f. Surely from the Front Range Colo. foothills.
Callophrys mossii schryveri (Cross). 39. Chimney Gulch [Jefferson Co.] Colo April 1m; Chimney Gulch Col 4/27/27 2m; 4/27/27 [evidently Chimney Gulch] 1m; Chimney Gulch. Col 5/4/27 3f; Clear Creek Col 4/29/27 1f; May 1m1f; no data 18m8f.
Strymon melinus Huebner. 42. Col 1f; Denver Col June 1f; Plainview [Rocky Flats near Coal Creek, Jefferson Co.] Col July 2m; Chimney Gulch [Jefferson Co.] Col May 1m; Chimney Gulch Col 4/27/27 1m1f; Clear Creek Cañon [Jefferson Co. Colo.] 4/29/27 1m; Clear Creek [W of Denver Colo.] Col June 2m; San Francisco Calif March 1f; San F[rancisco] March 6m; Mission Beach [San Diego] Calif. 6/7/31 2m; Mission B[each] Calif 5/9/31 2m.; San Diego Cal 6/29/40 1m; S. D. [San Diego] 5/18/31 1m, 5/20/31 1m, 6/4/31 1f, 6/9/31 1m; no data 13m2f.
Ministrymon leda (W. Edwards). 4. Tucson Ariz June 1m2f; Nogalis [Nogales] Ariz June 1f.
 **Calycopis?* sp. 1. Juan Viñas, C.R. [Costa Rica] 4000 ft. 1/9/24.
Plebejus lupini lutzi dos Passos. 1. Jacksons Hole Wyo July 1f.
Euphilotes bernardino bernardino (Barnes & McDunnough). 1. S. D. [San Diego] Calif. May 1m (has *battoides* genitalia).
 **Cupido (Everes) comyntas* (Godart). 3. Juan Viñas, C.R. [Costa Rica] 4000 ft. 13 & 13 & 14/9/24; Limon, Costa Rica 15 Oct. 24 sea level.
 **Hemiargus hanno zacheina* (Butler & Druce). 1. Limon, Costa Rica 15 Oct. 24 sea level.

Hesperiidae

- Panoquina panoquinoides errans* (Skinner). 1. Big Horn Mts Wyo July 1m. This specimen is inaccurately labeled, as the species occurs only on salty ocean coasts; it is probably from *errans* populations on the San Diego Calif. coast.
Oarisma garita (Reakirt). 2. Jacksons Hole Wyo July 2m.
Copaeodes aurantiaca (Hewitson). 14. Ariz June 2m2f; no data 6m4f.
Amblyscirtes oslari (Skinner). 2. No data 2m.
Hylephila phyleus phyleus (Drury). 4. Beaumont [Riverside Co.] Calif 7/9/40 2m; San Diego Calif 6/22/40 1f, 6/29/40 1f.
Hesperia comma idaho (W. Edwards). 1. Casper Mts [S of Casper] Wyo 8-8-32 1m.
Hesperia comma ochracea Lindsey and *H. c. colorado* (Scudder) are discussed below.
Hesperia comma manitoba (Scudder). 1. Jacksons Hole Wyo July 1f (greenish ventral hindwing with yellow margins like many Canadian ssp. *manitoba*).
Polites peckius (Kirby). 4. Jacksons Hole Wyo July (one lacked the word July) 4m (1m1f others discarded totally consumed by dermestids).
Polites sonora utahensis (Skinner). 2. Jacksons Hole Wyo July 1m1f.

Polites themistocles (Latreille). 9. Walden North Park [Jackson Co.] Col 7/4/30 1f; Walden N.[orth] Park Col 7/4/30 1m; Walden N. Park Col July 1m; Jacksons Hole Wyo July 1m2f; no data 3m.

Atalopedes campestris (Boisduval). 1. Clear Creek [W of or in Denver] Col 9/25/29 Oslar 1m.

Ochlodes sylvanoides sylvanoides (Boisduval)=*napa* (W. Edwards). 3. Casper Mts [S of Casper] Wyo August (one Aug.) 2m1f.

Megathymus streckeri (Skinner). side of Florida Mesa 20 mi. E Durango, La Plata Co. Colo. 1899 May 27, June 3 to late June (Oslar 1900).

Apyrothrix araxes arizonae (Godman & Salvin). 2. Ariz 1m; no data 1m.

Epargyreus clarus (Cramer). 15. No data 15m.

Cogia hippalus (W. Edwards). 3. Nogales Ariz July (one lacks the word July) 1m2f.

Thorybes pylades (Scudder). 6. Patagonia Mts [S of Tucson] Ariz July 1m; Nogales Ariz July 1m; Platte Cañon Col July 1m; no data 2m1f.

Pholisora catullus (Fabricius). 10. Chimney Gulch [Jefferson Co.] Col July 1f; Denver, Col 6/21/04 1f; S.W. Colo. [evidently Durango] 6/7/99 Oslar 1f; Durango [La Plata Co.] Col 5/27/99 Oslar 1m (specimen totally consumed by dermestids); no data 3m2f.

Hesperopsis libya libya (Scudder). 4. No data 2m2f, probably near San Diego Calif.

Hesperopsis alpheus (W. Edwards). 1. No data 1f.

Erynnis martialis (Scudder). 1. No data 1m.

Erynnis propertius propertius (Scudder & Burgess). 2. Durango [La Plata Co.] Col (one Colo) July 2m (1m genitally determined [other male's abdomen eaten by dermestids] and wing pattern of both is *propertius*). Both were inaccurately labeled "Durango" because butterflies like those only occur in California, so it was probably collected in S Calif. *E. p. propertius* only occurs in Calif., while ssp. *meridianus* Bell with identical genitalia occurs in Arizona.

Erynnis tristis tristis (Boisduval). 1. Chimney Gulch [Jefferson Co.] Colo June 1m genitally determined (this male was inaccurately labeled, because butterflies with this wing pattern and genitalia only occur in Calif.).

Erynnis funeralis (Scudder & Burgess). 1. Beaumont [Riverside Co.] Calif 7/22/40 1m.

Erynnis afranius (Lintner)? 1. Bluffs [Aurora], Colo. 8/9/33 1f.

Pyrgus communis (Grote). 51. Ouray Peak [NW Chaffee Co.] Col 12000 ft Alt (and all three have tiny label "Oslar Ouray Peak Col" with penciled Aug) 1m2f (probably inaccurately labeled, because Scott has never found that many individuals at this altitude and they are normally common below 9000 ft.); S. D. [San Diego] Calif May 1f; June 1m; no data 46.

Pyrgus philetas W. Edwards. 3. No data 2m1f. These are surely from S Ariz. 1m1f were in an envelope with 1f *P. communis*.

Pyrgus scriptura (Boisduval). 7. No data 5m2f, probably San Diego Calif. One m (mounted) is the spring form pseudoxanthus with larger white spots.

Moths in the Oslar Collection

Hemaris? (Sphingidae). 1 7/22/40 (probably S Calif.).
 geometrid moth. 1. Mission B[each] Calif 5/9/31.
 *miscellaneous moths. 11. Juan Viñas, C.R. 1924.

Other butterflies caught by Ernest J. Oslar. W. H. Edwards' Butterflies of North America notes that Oslar caught 10m *Oeneis melissa lucilla* Barnes & McDunnough on the W side of Pikes Peak (El Paso Co. Colo.) just above Windy Gap 2000' below the summit, on July 8, 1892. F. M. Brown et al. (1957, Colorado Butterflies, Denver Mus. Nat. Hist. p. 14) reported for *Coenonympha haydenii* (Edwards) (Nymphalidae) "A single specimen collected many years ago is tagged "Estes

Park, E. J. Oslar”; no one has found a valid specimen in Colorado since, because western Wyoming is its southernmost range.

Specimens of *Hesperia* (Hesperiidae) in published works. I have been preparing a petition to designate a neotype for the name *Hesperia comma ochracea*, so this paragraph mentions various Oslar specimens of *Hesperia comma* cited in MacNeill (1964) which seem to be inaccurately labeled. Half the specimens in Lindsey’s original description of *ochracea* were Oslar specimens. The *ochracea* holotype is an Oslar specimen with vague locality on one of Oslar’s small printed labels “Oslar. Platte Canon Col.” (a canyon 100 km long that goes from the plains edge to the alpine zone) which has an added penciled date of 8-14-04. For *ochracea*, a paratype female from “Kenosha Pass Col. Oslar August” has its underside tawny-yellowish like foothills specimens, whereas actual specimens from there are browner; the paratype from “Rio Blanco Mt.” seems to be inaccurately labeled because butterflies from there have greenish ventral hindwing with silvery chevron; the “June 5” and “June 25” paratypes are way too early for this species which only flies from late July to mid September. And the *ochracea* specimens cited by MacNeill [1964, p. 122-123] from the following areas also seem to be inaccurately labeled: (1) Gunnison [Gunnison Co. Colo.] July 2m2f; (2) “Ouray Peak in Ouray Co. Colo. Aug” [Ouray Peak is actually in Chaffee Co.] 3m1f; (3) Silverton [San Juan Co. Colo.] 1f & Aug. 2m2f & Sept. 3 1904 1m; (4) “Hall’s [Hall] Valley [Park Co.] Colo. July” 1m2f; (5) “Como [Park Co.] Colo. Sept” 2m, because butterflies from those areas would be darker than *ochracea*. MacNeill placed specimens from Webster [Park Co. Oslar AMNH] Col June 1m2f & Aug. 3f into a “blend zone” so those may be correctly placed darker specimens, though the June specimens are inaccurately labeled as the butterflies do not fly in June. MacNeill’s (1964) specimens of *Hesperia comma colorado* from “?Ouray Peak, Ouray Co. Aug.” 2m2f and from Wilson Peak [Dolores Co.] Col 1m may be inaccurately labeled because ssp. *colorado* is dark and the butterflies in SW Colorado are generally pale; high-altitude specimens from the San Juan Mts. have not been studied adequately, but all the darker specimens MacNeill mentioned (1964, p. 123 middle) from Gunnison and the higher elevations to the southwest were collected by Oslar and may be inaccurately labeled.

Summary of Labeling of Oslar Butterfly Specimens. Most Oslar specimens lack data. Of the ones with localities and dates that he wrote, a majority seem to be accurate, but some seem inaccurate, based on the identifications of butterflies detailed above, which compared Oslar’s labels to the distribution of the butterflies compiled over several hundred years by myself and several thousand other lepidopterists (the maps in Scott 1986, and butterfly distribution county record maps prepared later for the entire United States). Butterflies are the best known invertebrates, regarding their taxonomy and distribution and natural history. While most Oslar data seems to be accurate, 29 butterfly species noted above have inaccurate labels from one state even though the butterflies do not occur in that state, based on mapped distribution information determined by the horde of butterfly collectors that roam about North America, and the vast horde of thousands of butterfly watchers that now aim their binoculars at butterflies everywhere. Thorp (2005) notes a dozen other inaccurate cases among bumblebees, and other cases are mentioned below in the collection itinerary. Most cases of inaccurate butterfly labeling involve California species labeled Colorado: *Parnassius clodius*, *Anthocharis sara sara*, *Euchloe ausonides ausonides*, *Zerene eurydice*, *Adelpha californica*, *Euphydryas chalcedona chalcedona*, *Chlosyne leanira wrightii*, *C. palla palla*, *C. acastus neumoeni*, *Phyciodes mylitta mylitta*, *P. orseis orseis*, *P. pulchella pulchella*, *Euptoieta claudia*, *Argynnis nokomis nokomis*, *A. hydaspe purpurascens*, *A. zerene zerene*, *Boloria epithore sierra*, *Lycaena gorgon*, *Habrodais grunus*, *Erynnis propertius propertius*, *E. tristis tristis*. California specimens inaccurately labeled Wyoming: *Phyciodes mylitta mylitta*, *Panoquina panoquinoides errans*. Arizona specimens inaccurately labeled Colorado: *Chlosyne theona thekla*, *Phyciodes graphica*. New Mexico specimens inaccurately labeled Colorado: *Argynnis nokomis*

nokomis. Colorado specimens inaccurately labeled Arizona: *Phyciodes cocyta*. Wyoming? specimens inaccurately labeled Arizona: *Argynnis hydaspe rhodope*. Several were inaccurately labeled within Colorado (*Oeneis alberta*, ?*Euphydryas anicia capella*, ?*E. a. carmentis*, *Phyciodes picta*, *Boloria eunomia caelestis*, *Lycaena arota virginiensis*, *Hesperia comma*) and one within California (*Callophrys sheridanii viridis*). And Brown et al. (1957) wrote that *Coenonympha haydeni* is a Wyoming species inaccurately labeled “Estes Park Colorado (Oslar)”. Some rare migrants labeled from Colorado or El Paso Texas were probably caught farther south because the specimens are in perfect condition, and butterflies migrating 500-1000 km would have rather worn wings.

Circumstances Influencing the Degree of Precision of Specimen Labeling. As noted above, collectors 200-100 years ago did not consider precise localities to be important, and the famous butterfly expert William Henry Edwards actually discarded much of the locality information that he received and his specimens often lack even the state of collection or are just labeled “Col^o” (meaning Colorado) or some other minimal location, and they mostly lack the date of collection. Most of Oslar’s specimens lack localities also. Most of Oslar’s specimens that are suspected of inaccurate labels lack exact month/day/year dates (except the inaccurately-labeled *Oeneis alberta*, *Argynnis hydaspe rhodope*, *A. hydaspe purpurascens*, *Euphydryas anicia capella*, and *Chlosyne palla palla* do have exact dates). Oslar sometimes gave exact dates on common butterflies, but in the case of the inaccurately-labeled butterflies, most of them are the more desirable species, for which he sometimes apparently wrote localities where he had collected such as “Rico Col. Aug” on the envelopes that he thought might make them more desirable to sell, even though he had not collected them there. He labeled the 2m2f types of *Oeneis alberta oslari* (named after him) Deer Creek Canyon Colorado Sept. 25, 1909 (Skinner 1911), perhaps in order to make sure that other people would not collect it there and decrease the sales market (actual *oslari* occurs far away at much higher altitude in May and June, and Oslar may have caught them when he caught the caddisfly *Limnephilus externus=oslari* type from “South Park, Col. on 25 May” [year not given unfortunately]). Or perhaps he just forgot where he had collected them (they occur in South Park in May or early June), but those butterflies are distinctive-looking small and grayish colored so he may have remembered where he collected them. No one else collected that *oslari* for 29 years until Bernard Rotger rediscovered them in South Park in May 1938. The *Argynnis nokomis* that have inaccurate labels mostly came from localities he had never visited and few were labeled with localities he had visited, in an apparent attempt to boost their sales (Scott & Fisher 2014). Perhaps the main reason that some specimens are inaccurately labeled, is that he frequently just did not have the time to fully label most of his paper triangles when he collected the specimens, and then when he sold butterflies he thought they might sell better with localities but did not bother to spend the time to look up localities where that species had actually been taken (and he evidently did not maintain good journals of all his exact collecting localities, so he could not look them up), so he just wrote down localities that popped into his mind, using locality names that sounded familiar plus the approximate month of capture. Anyone who has 14 children probably would be short of time. Probably Oslar often could not remember where he had collected specimens, because there were so many of those specimens. Oslar was thought by his peers to be a smart educated person, so there is no reason to suspect any age-related memory loss as a cause of some of his specimens being inaccurately labeled. The *Oeneis alberta* were inaccurately labeled in 1909 or earlier, and his collection itinerary below suggests that inaccurately-labeled specimens were collected throughout his years, with fewer after 1928. Basically, it seems that Oslar—like many collectors of that era--did not care very much whether his specimens had exact localities.

CHRONOLOGICAL COLLECTION ITINERARY OF OSLAR'S SPECIMENS

Ewan (1950) wrote that Oslar “evidently kept no field books of his trips”. But David Ruitter went through Oslar’s papers, correspondence, mail, journals, and specimen labels that he received from Oslar’s descendants, and found some good evidence of his collection sites. Ruitter constructed a history of where Oslar had collected, mostly from collection labels, personal correspondence to family members and other collectors, and a few cryptic field diaries. The following list—collection itinerary--takes those few Oslar butterfly specimens that have precise year/month/day dates listed above, rearranges those dates by year/month/day and then sorts them chronologically, incorporates David Ruitter’s collection itinerary, and adds specimens of other insects in the published taxonomic literature that have data that might be accurate, in order to produce an itinerary of collection date and locality and species collected then and there.

The following itinerary indicates that he collected in America from 1892 to 1941 (He may have started collecting in England in 1884, as the Denver Municipal Facts 1909 {1(22):9} reported that he had been collecting 25 years prior to 1909). Edwards’ Butterflies of North America cites his collection July 8, 1892 of *Oeneis melissa lucilla* on Pikes Peak Colo., before he permanently moved to Denver in 1893, and he exhibited [butterflies] at the 1893 World’s Fair, and played soccer in Denver in 1891. All of his fully-dated collected butterflies prior to 1898 must have been sold/exchanged, as none are present now in the C. P. Gillette museum. The records below suggested that he collected specimens continuously in that period 1892-1941, except for gaps from 1893-1895 and 1905-1906 and 1908-1910 when specimens and records are currently unknown to fill those gaps (and there are few records for 1907). Oslar evidently sold/exchanged those earlier specimens and most of the desirable species even in his later years, because the remaining specimens are mostly common species, especially the ones that have month/day/year dates written on the triangles. In later years he often collected on trips to visit his children, and evidently collected his final specimens in 1941.

Oslar evidently did collect at most of the places whose locations he used to label his butterflies. According to localities on his specimen triangles, he collected butterflies in Hall “Halls” Valley and adjacent Bullion Peak and Gibsons Gulch in Park Co. at least five times if those are all accurate, a location made famous by David Bruce. He collected the Hayden Mountains near Ouray once.

{{Brown’s confusing locality of Hayden Mountains in Park County--there are now no Hayden Mountains in that county. There is considerable confusion about the use of the name “Hayden Mountains” in Park County Colorado. Brown (1966 p. 130) wrote that in 1884 Bruce “had been on the summits of the Hayden Mountains at 12,000 feet” and also wrote that “During the summer of 1884 when in the high country Bruce made his headquarters at or near the Whale Mine in Hall Valley.”, which seems to indicate that the mountains near Hall Valley were called the Hayden Mts. Thus Brown’s writing indicates that Bruce collected in those Hall Valley “Hayden Mts.” Brown (1964) repeated that now-incorrect locality in stating that the TL of *Chionobas* [*Oeneis*] *brucei* [Edwards] is “Vicinity of Bullion and Hayden Mountains in Hall Valley, Park Co. Colorado; 12,000 feet above sea level and higher; August.”, even though all the specimens listed were actually labeled by David Bruce as “Bullion Mtn.” or “Cashier Mts.” or “Cashier.” Ewan & Ewan (1981) but not Ewan (1950) copied that information. On today’s maps and internet, Hayden Peak/Hayden Mts. 13206’ is in the San Juan Mts W of Mt. Sneffels in San Miguel Co. in SW Colorado, and a second Hayden Peak is S of Aspen in Pitkin Co. in west-central Colorado, while Hayden Peak does NOT occur near Hall Valley today, and does NOT occur on the map of Hayden (1877). Brown’s usage, that some people in 1884 called the Hall Valley area mts. “Hayden Mts.”, causes confusion between the incorrect “Hayden Mts.” in Park Co. and the Hayden Peak/Mts. in the San Juan Mts. of San

Miguel Co. Colo. Oslar's inaccurately labeled Hayden Peak/Hayden Mts. *Argynnis nokomis* in the C. P. Gillette Museum were also inaccurately labeled from SW Colorado as they had labels written SW Col or Ouray Co. or San Juan Mts. or were with specimens labeled Sneffels Mts. which is nearby in the San Juan Mts. Oslar's collection in the C. P. Gillette Museum has no Hayden Mts. specimens other than those *nokomis*. However, Oslar may have started the confusion with his usage of the word Hayden Mts. in connection with Hall Valley, because *Formica fusca* var. *neoclara* Emery ants collected by Oslar are labeled "Hall's Valley, Park Co. 10500' and Gibson's Gulch, Hayden Peak, 12000' (E. J. Oslar)" (W. Wheeler 1917, *The Mountain Ants of Western North America*, p. 548), so maybe Oslar heard someone in Hall Valley using the name "Hayden Peak"?; that labeling occurred prior to Brown's usage. Perhaps that had something to do with Oslar labeling two *nokomis* in LACM "Hall Valley"? The Oslar *nokomis* in other museums labeled "Hayden Mts. were presumably intended to mean the SW Colo. mts. Bruce may have collected in the SW Colorado San Juan Mts. "Hayden Mts." in later years, but there is evidently no proof of that. The only evidence that Oslar collected on the real Hayden Peak/Mtn. in the San Juan Mts. is a 1919 letter to William Barnes in which he wrote that he had collected in the Sneffel and Hayden mountains near Ouray where he collected what he determined to be *Autographa snowi*, but his *nokomis* specimens all look different than the *nokomis* later caught in SW Colorado so he did not collect them there (Scott & Fisher 2014). Oslar evidently did collect in the San Juan Mts. in SW Colorado for the bronze *Cicindela longilabris* form *oslari* beetle named after him from King Solomon Peak in Needle Mts. San Juan Range 9500', and the green form from SW slope Mt. Wilson, 12000' San Miguel Range (though he evidently inaccurately labeled *Hesperia comma colorado* from Mt. Wilson as noted above, and Scott has never seen a *Cicindela* beetle in the alpine zone so those *Cicindela* localities may be somewhat inaccurate also). (Wheeler also wrote that Oslar's elevations noted above are excessive as he has never seen the *Formica fusca* var. *neoclara* ants above 7000-8000'.)}}}

Oslar mostly collected near Denver, probably because of his many children, but his specimens seem to confidently show that Oslar made some long trips outside of the Denver area, including to SW Colorado in 1899 where he caught *Euphydryas anicia carmentis* etc., to Glenwood Springs in SW Colo. in 1901 and 1931, to Arizona and New Mexico in 1902, to Southern Arizona and Mexico in 1903, to southwestern Colorado in 1918, and the Laramie Mts. Wyoming S of Casper) in 1932 and 1938. Oslar obviously visited two daughters Mrs. Emily M. Seiler and Mrs. Virginia Corning in Casper during those last two trips (both lived in Casper then, and later Emily moved to Denver).

His collection contains many specimens from California. Some of the early ones might have been collected by others, because there are very few specimens from California in his current collection, but he might have sold most of them. He labeled a *Vanessa atalanta* San Francisco Sept. 1912, and a cicada Sonoma Co. Calif. Feb. 2013, so maybe he collected in California over that fall/winter, and on 12 Sept. 1914 he sent William T. Davis of Staten Island NY 185 California grasshoppers, crickets and Cicadidae, which he probably collected in California, maybe over that 1912-1913 fall/winter. He visited California Aug. 1-Oct. 1926 (Whitewater oil desert just NW Palm Springs & San Bernardino), Feb.-April 1927 (Los Angeles), June 28-July 6 1930 (San Diego), March 17-June 9 1931 (San Diego), May 20 1934 (San Diego), and 1940 (June 15-29 San Diego then July 9-23 Beaumont SE of San Bernardino). Those California trips in 1926-1940 were made to visit some of his children in S California: he visited two sons Walter Russell Oslar and Albert Edward Oslar in San Diego, and his daughter Mrs. Ethel R. Redd in Beaumont Calif. Another daughter Mrs. Victoria R. Hollenbeck lived in Phoenix. (Some children lived where there is little evidence that he collected: William Frederick Oslar of Sacramento, Calif., and Mrs. Katherine E. Taylor of Richland, Wash.). Thorp (2005) noted that many bumblebees Oslar labeled from S

Arizona were actually collected in the Pacific states including Oregon; when and who collected those is uncertain.

The collection itinerary below reveals some problems: at four times, butterflies were collected on the same dates in the mts. next to Golden Colo. (“Golden, Clear Creek, Chimney Gulch”) or in North Park, that other butterflies were collected in SW Colorado or N Wyoming or California:

<i>Euphydryas anicia capella</i> June 10-29 1899 near Golden	<i>Euphydryas anicia carmentis</i> etc. May 27-June 30, 1899 in SW Colorado
<i>Strymon melinus</i> & <i>Callophrys mossii schryveri</i> April 29, 1927 near Golden	<i>Chlosyne leanira wrightii</i> April 29, 1927 Mint Canyon near Los Angeles
<i>Argynnis callippe meadii</i> July 25, 1932 near Golden	various butterflies in the Bighorn Mts. of N Wyoming July 21-26, 1932
<i>Polites themistocles</i> Walden North Park Colo. July 4, 1930, and Walden July 4-6, 1930	<i>Junonia coenia</i> San Diego July 6, 1930

Obviously, Oslar could not collect two localities hundreds of miles apart simultaneously. The *Chlosyne leanira wrightii* from “Mint Canyon” near L.A. is probably accurately labeled as there is a specimen of *Vanessa carye* labeled Mint Canyon May that was probably collected on the same trip. So, a reasonable explanation for these specimens is that one or more of Oslar’s children (or his wife Martha E. Oslar) also collected butterflies sometimes, so those near-Golden butterflies may have been collected by that son or daughter (or wife) while Oslar was away on those collecting trips. One son and two daughters still lived in Denver when he died (Ernest H. Oslar, Mrs. Constance R. Bolton, Mrs. Agnes M. Angerman). And maybe his son caught the *Junonia* in San Diego while Oslar was in Walden. {Sons especially often learn to collect at least sometimes, and Scott’s father Glenn Scott sometimes collected on the same dates as son James Scott who was far away. Scott has a specimen of *Papilio polyxenes* form *pseudoamericanus* collected by Raymond “Jae” Jablonski’s son Dane, who caught it after it flew over the roof of the family house. Raymond told Scott that he and his son were at Guanella Pass one day when *Erebia callias* was abundant, and Raymond told his son “Let’s see who can catch 100 first”.} Oslar had 14 children (11 lived to 1944 when Oslar died), so some of his sons surely collected sometimes, and traveling west to Golden was a short trip only ~7 miles from the Oslar home in north Denver.

Ernest J. Oslar’s Collection Itinerary and Travel Locations

The following list was combined from the lists prepared by both Scott and Ruiter.

Scott’s list is from the remaining butterfly specimens in the C. P. Gillette Museum at Colorado State University in 2016, plus miscellaneous insects specimens labeled Oslar plus locality and date found in various publications, including the types of insect species named after Oslar, and the lectotypes of specimens collected by Oslar (in various papers including Ross, 1938). Each Scott line lists the year month day and the species and locality.

Ruiter’s list (every line containing the symbol <†> after the year) is more comprehensive, derived from specimens plus books/journals/correspondence he received from the Oslar descendants in about ~1983. This material included specimens of butterflies and the labels of hundreds of mounted specimens too damaged or totally consumed by dermestids that had to be thrown away (he later donated the remaining papered specimens to the C. P. Gillette Museum), personal correspondence to family members and other collectors, and a few cryptic field diaries (this material will be donated to the same Museum). Ruiter’s list lumped some of the collection localities into county listings to conserve space: Clear Creek County includes Chimney Gulch, Golden, Clear Creek Canyon, and Clear Creek Localities [so Scott changed Ruiter’s words “Clear

Creek County” to “Clear Creek Area”, which means along Clear Creek itself (in Denver and Jefferson Counties), Golden (which straddles Clear Creek in Jefferson Co.), Chimney Gulch (at the edge of Golden in Jefferson Co.), Clear Creek Can. (Jefferson Co. mostly), and Clear Creek County (where Oslar evidently rarely or never visited).]. Denver County includes [the current metropolitan Denver neighborhoods of] Berkeley, Bluffs, Denver, Valverd[e] and Montclair localities. Boulder County includes Boulder Canyon and Boulder [town] localities. Jefferson County includes Bear Creek Canyon, Bear Creek, Plainview [a railroad stop at the mountain front at the west edge of Rocky Flats], Turkey Creek Canyon, Platte River Canyon, and Strontia Springs [in lower Platte Canyon] localities. The limited Wyoming records include Deer Creek, Casper, Garden Gulch, Glen Rock and Nigger [now Negro] Hill localities [all in Laramie Mts. just S of Casper], and the Bighorn Mts.

Note that the butterflies listed and not stated to be inaccurately labeled, could have been collected from the listed localities, but the other insects listed might have been inaccurately labeled, as Scott does not have the expertise to determine the confident ranges of those insects. Localities that appear out of place within clusters of other specific locations/times would seem to be more likely to be inaccurate.

(<r> below denotes localities determined by David E. Ruiter)

1892<r>Salt River Arizona, 10 April

1892? *Hydropsyche divisa* Banks (Tricoptera) coll. Salt River April 10 (Oslar) (Proc. Ent. Soc. Wash. 5:244)

1892 May 1 Oslar caught a bird in Littleton (p. 55, 156, Birds of Colorado)

1892 July 8 *Oeneis melissa lucilla* 10m just above Windy Gap ~2000 feet from summit of Pikes Peak on W side of mountain above timberline, El Paso Co. Colo.

1892? *Anabrus coloradus* Thomas (Orthoptera) was coll. “Pikes Peak, July 21, and South Park, by Oslar” (Proc. USNM 26:806).

1892<r>Denver County, Colorado, 1 September

1892<r>Portland, Oregon, 12 September

1892<r>Victoria, British Columbia, 20 September

1892<r>San Francisco, California, 28 September

1896<r>Bear Creek Canyon, Colorado, 15 April

1896? *Cicindela scutellaris* Say. Oslar collected it at mouth Bear Creek Canyon Jefferson Co.

Colo. April 15-May 10, and in Boulder Co. April 25-May 30 and September (second brood) (no year stated).

1897<r>Jefferson County and Clear Creek Area, Colorado, April and May

1898<r>Jefferson County and Clear Creek Area, Colorado, March to June

1898 July 5 *Argynnis (Speyeria) aphrodite byblis*. Senator [=Maxton S of Prescott, Yavapai Co.] Ariz. (Both Senator records were probably collected in 1902 when Oslar collected in central Arizona including Prescott.)

1898 July 7 *Argynnis (Speyeria) hydaspe rhodope*. Senator [=Maxton S of Prescott, Yavapai Co.] Ariz. (inaccurate label, as noted above, because *A. hydaspe* does not occur farther south than NW Colorado). (Both Senator records were probably collected in 1902 when Oslar collected there.)

1898? July 5 *Orgyia oslari* (Lymantriidae) type coll. “Poncha Springs, Colorado. July 5th” presumably by Oslar in 1898.

- 1898<r>Salida [Fremont Co.], Colorado, 7-10 July
 1898<r>Golden [Jefferson Co.], Colorado, 20 July
 1898<r>Hall's Valley [Park Co.], Colorado 24 July
 1898<r>South Park [Park Co.], Colorado, 31 July
 1898<r>Denver, Clear Creek and Boulder Counties, Colorado, August
 1898 August 10 *Rhion aeschna multicolor* (Hagen) (Odonata) Berkeley, Calif., at Univ. Michigan Museum.
- 1899 May 27 *Pholisora catullus*. Durango [La Plata Co.] Col.
 1899<r>Durango, Colorado, 19 May-20 July. Oslar roomed with C.C. Benson in Durango in May 1899.
 1899 June (1, 3, 4, 10, 14, 15, 16, 17, 20, 21, 23, 25, 27, 30) *Euphydryas anicia carmentis*. Most labeled S.W. Col. [somewhere near Durango, as the butterfly occurs from Pagosa Springs in Archuleta Co. to Dolores Co.]. But dates coincide with dates for *E. anicia capella*, probably because the *capella* were collected simultaneously by his children or wife, as noted above.
 1899 June 5 *Vanessa carye annabella*. Durango Colo.
 1899 June 7 *Pholisora catullus*. S.W. Colo. [Durango].
 1899 June 10 *Coenonympha tullia ochracea*. S.W. Colo. [evidently Durango]
 1899 June 10 *Euphydryas anicia capella*. S.W. Col (1m, inaccurate locality because ssp. *capella* does not occur in SW Colo. and he or his son or daughter collected at Golden that day where the butterfly flies.
 1899 June 10-17-20-27-29 *Euphydryas anicia capella*. Golden Col. These dates coincide with dates for *E. anicia carmentis*, but a reasonable explanation is that one or more of Oslar's 14 kids collected these *capella* while Oslar was away in SW Colo. collecting *carmentis*.
 1899 June 11 *Chlosyne palla palla*. S.W. Col. (inaccurate label, as noted above, because the butterfly resembles California ssp., not the Colorado ssp., and Oslar was near Durango then).
 1899 June 14 *Phyciodes pulchella camillus*. S.W. Colo. [evidently near Durango].
 1899 June 15-20 *Euphydryas anicia capella*. Clear Creek [*capella* occurs only near Clear Creek on mts. at Golden, W of Denver] Col. See above.
 1899 June 20 *Coenonympha tullia ochracea*. Col. [evidently near Durango.]
 1899 *Hydropsyche oslari* Banks (Trichoptera) O.D. Trans. Amer. Ent. Soc. 32:13-14 states "Several specimens from southwestern Colorado, July 16th (Oslar). H. Ross 1938 (Psyche 45:18) reports "Lectotype, male. South West Colorado, July 23, 1899. No. 11501. Lectoallotype, female.—Same, but July 17." So Oslar evidently collected them July 16, 17, and 25, 1899 (evidently in the area around Durango).
 1899 July 19 *Vanessa carye annabella*. [no locality].
 1899 *Arctopsyche grandis* Banks (Trichoptera) "Lectotype male.—South West Colorado July 20, 1899." (Ross, 1938).
 1899 *Rhyacophila hyalinata* Banks (Trichoptera) "Lectotype, male.—South West Colorado, July 23, 1899." (Ross 1938).
 1899 *Dicosmoecus tristis* (Banks) (Trichoptera) "Lectotype, male.—South Park, Colorado, August 17, 1899. Oslar. Lectoallotype, female.—Same data, but August 20." (Ross 1938).
 1899 August 19 *Euparyphus major* Hine (Stratiomyidae) Boulder, Colorado (J. Hine 1901, Ohio Naturalist 1:113)
 1899 *Asynarchus pallidus* Banks (Trichoptera) "Lectotype female.—South Park, Colorado, August 23, 1899. Oslar." (Ross 1938).
 1899 *Homophylax flavipennis* Banks (Trichoptera) "Lectotype male.—South Park, Colorado, August 23, 1899, Oslar. Lectoallotype, female.—Same data." (Ross 1938).

- 1899 *Limnephilus oslari* Banks (Trichoptera), Proc. Ent. Soc. Wash. 8:121-122 (Trichoptera) O.D. is “One female from South Park, Col., 25 May [year unknown] (Oslar)...”, while lectotype is from “South Park, Colorado, August 25, 1899” (Ross 1938 Psyche 45:1-61).
- 1899 *Hesperophylax consimilis* Banks (Trichoptera) “Lectotype, male.—South Park, Colorado, August 25, 1899, Oslar. Lectoallotype, female.—Same data but July 20 [dubious].” (Ross 1938).
- 1899 *Asynarchus centralis* Banks (Trichoptera) “Lectotype male.—Clear Creek, Colorado, September 10, 1899, Oslar. (Ross, 1938).
- 1899 *Limnephilus nigriculus* (Banks) (Trichoptera) “Lectotype, male.—Clear Creek Colorado, September 10,”1889” [must be 1899], Oslar.” (Ross 1938)
- 1900 May 27 *Aglais milberti*. Golden Col.
- 1900<r>Clear Creek Area, Pueblo and Fremont Counties, Colorado, June
- 1900 June 2-5-7-9-12-15-16-17-22 *Argynnis* (*Speyeria*) *coronis halcyone*. Golden Colo.
- 1900 June 9 *Argynnis* (*Speyeria*) *coronis halcyone*. Chimney Gulch Col.
- 1900 June 17 *Euphydryas anicia capella*. Golden Col.
- 1900 June 25 *Argynnis* (*Speyeria*) *coronis halcyone*. Chimney Gulch Col.
- 1900 evidently. July 18-27 *Cicindela longilabris* green form beetle found SW slope Mt. Wilson, San Miguel Range, Dolores Co. Colo. 12000’ by Oslar.
- 1900<r>Rico [Dolores Co.] Colorado, 23 July
- 1900? *Schinia bimatrix* Harvey (Noctuidae) coll. at Rico by Oslar?, date unstated.
- 1900 evidently. July 29-August 7 *Cicindela longilabris* bronze form *oslari* Leng 1901 beetle found near top King Solomon Peak, Needle Mts., San Juan Range, San Juan? Co. Colo. 9500’ by Oslar.
- 1900<r>Jefferson County, Colorado, 30 August
- 1900 August 30 *Argynnis* (*Speyeria*) *coronis halcyone*. Platte Canon Col.
- 1901<r>Glenwood Springs [Garfield Co.], Colorado, 20 May-22 June (return to Denver during period)
- 1901 *Sphinx* “*Hyloicus*” *gordius oslari* (Sphingidae) types coll. Glenwood Springs Colorado, June 1901 by Oslar.
- 1901 June 7 *Phyciodes pallida barnesi*. Glenwood Spgs Col.
- 1901<r>Durango [La Plata Co.], Colorado 30 June-7 July
- 1902? *Chrysopa sabulosa* Banks (Chrysopidae) coll. Prescott AZ April 7 (Proc. Ent. Soc. Wash. 5:239)
- 1902<r>Prescott [Yavapai Co.], Arizona, 20 April
- 1902<r>Phoenix, Arizona, 29 April
- 1902<r>Prescott, Arizona 15 May-10 June
- 1902? *Sympistis* “*Oxycnemis*” *subsimplax* (Dyar, 1904) (Noctuidae) types “Described from 3m from Prescott, Arizona, May 19 (E. J. Oslar)”.
- 1902<r>Oracle [Pinal Co.], Arizona, 11 June
- 1902? *Corydalid cognata* Hagen (Sialidae) Phoenix and Rio Verde (Oslar) (Proc. Ent. Soc. Wash. 5:239).
- 1902<r>Verde River [near Prescott, Yavapai Co.], Arizona 13-25 June
- 1902 *Proserpinus juanita oslari* (Sphingidae) type coll. Verde R., Arizona, June 1902 by Oslar.
1902. *Limnephilus assimilis* (Banks) (Trichoptera) “Lectotype, male.—Prescott, Arizona. Lectoallotype, female.—Same data, June 15, 1902, Oslar.” (Ross 1938). {*Limnephilus diversus* (Banks) (Trichoptera) “Lectotype, male.—Prescott, Arizona. Oslar. Lectoallotype, female.—Same data. [no date]” (Ross 1938).}

1902? *Anabolina diversa* Banks (Trichoptera) coll. Prescott June 19-25 (Proc. Ent. Soc. Wash. 5:245).

1902? *Chauliodes filicornis* Banks (Sialidae) Jerome [NE of Prescott, Yavapai Co.] June 24 Oslar (Proc. Ent. Soc. Wash. 5:239).

1902? *Tricorythus explitatus* Eaton (Ephemeridae) Copper Basin [SW Prescott, Yavapai Co.] July 8 (Oslar) (Proc. Ent. Soc. Wash. 5:239).

1902<r>Copper Basin [SW Prescott, Yavapai Co.], Arizona, 8 July

1902<r>Rio Grande River, New Mexico 15-20 July

1902<r>Pecos River [San Miguel Co.?], New Mexico, 21 July

1902 *Pygarctia murina=oslari* (Arctiidae) types coll. Las Vegas, New Mex., July 1902 by Oslar.

1902<r>Gallinas Canyon [San Miguel Co.], New Mexico 24 July

1902? *Chararica "Myeloides" annuliferella* (Dyar, 1905) (Pyralidae) types "Two specimens, male and female, Gallinas Cañon [San Miguel Co.], New Mexico (E. J. Oslar)".

1902 July 26 *Melissodes agilis* Cresson (bee) Las Vegas [New Mexico] July 26 1902 Oslar, and Santa Fe Oslar (SCAN Symbiota4.acis... website)

1902 July "16" *Coelioxys alternata* Say and *Hylaeus episcopalis* (Cockerell) (both bees) both coll. Sapello Canyon July "16" [26?], 1902 (SCAN Symbiota4.acis... website)

1902<r>Sapello Canyon [San Miguel Co.], New Mexico, 26-27 July

1902 July 28 *Melissodes confusa* Cresson (bee) Sapello Canyon (SCAN Symbiota4.acis... website)

1902<r>Nogales [Santa Cruz Co.], Arizona, 2 August [actually 1903?]

1903<r>La Junta [Otero Co.], Colorado 16 April

1903<r>Albuquerque, New Mexico, 17-19 April

1903 *Lactista gibbosus=oslari* (Orthoptera) O.D. says "I also have a male taken by Oslar at Albuquerque, New Mexico, without date [evidently 1903]."

1903<r>El Paso, Texas, ?? 20-24 April

1903<r>Benson [Cochise Co.], Arizona, ??? 25 April

1903<r>Nogales [Santa Cruz Co.], Arizona, 25-26 April

1903<r>Guaymas, Mexico, 27 April-7 May

1903<r>Water Works, Guaymas, Mexico 7-11 May

1903 May 10 *Callophrys spinetorum* (Hewitson) (Lycaenidae) "Santa Catalina Mts. V-10-03 one specimen (Oslar, CMNH)" [Pima Co. AZ] (O. Shields 1965 J. Res. Lepid. 4:233-250).

1903<r>Nogales [Santa Cruz Co.], Arizona, 12-16 May

1903<r>Tucson, Arizona, 16 May-8 June

1903? *Hypostrymon critola* Dyar (Lycaenidae) "Mr. Oslar has sent me a pair which he took in the Patagonia Mts. Arizona May 21." (Dyar 1904 J. N.Y. Ent. Soc. 12:39).

1903? *Codatractus "Thorybes" mysie* (Dyar 1904) n. sp. (Hesperiidae) J. N. Y. Ent. Soc. 12:40, "Described from two specimens, Patagonia Mts., Arizona (E. J. Oslar)" USNM.

1903<r>Oracle [Pinal Co.], Arizona, 8-15 June

1903<r>Tucson, Arizona 15-20 June

1903? *Zothea viridifera* (Grote, [1883] 1882) (Noctuidae) received from Mr. E. J. Oslar, collected in the Catalina Mountains, Arizona.

1903 June 17, July 25, August 23, *Arenivaga hopkinsorum* Hopkins 2014 (Blattodea) Zookeys 384:1-384 (p. 123) Nogales Arizona Oslar, USNM.

1903<r>Nogales [Santa Cruz Co.], Arizona, 20 June-8 August

1903 *Polycentropus arizonensis* Banks (Trichoptera) "Lectotype male.—Huachuca Mts. Arizona, June 21. Lectoallotype female same July 20, 1903." (Ross 1938).

1903 July 3 *Lactista gibbosus=oslari* (Orthoptera) coll. Nogales," [evidently 1903] by Oslar.

- 1903 July *Eacles "Basilona" (imperialis) oslari* (Saturniidae) types coll "Nogales, Arizona" by Oslar.
- 1903 July *Anisota oslari* (Saturniidae) 2f Nogales AZ types "reared" by Oslar.
- 1903 July 15 *Neivamyrmex oslari* (Formicidae) holotype coll. Nogales by Oslar.
- 1903 July 17 *Euptoieta hegesia*. Nogales Ariz.
- 1903 *Helicopsyche arizonensis* Banks (Trichoptera), O.D. says "Three examples from Nogales, Ariz. (Oslar) in July. Ross (1938) says "Lectotype, male.—Nogales, Arizona, July, 1903, Oslar."
- 1903? *Salebria nogalesella* Dyar, 1905 (Pylalidae, Phycitinae) "One male [holotype], Nogales, Arizona (E. J. Oslar)"
- 1903? *Apatelodes pudefacta* Dyar 1904 (Bombycidae) types "Three males, Guadalajara, Mexico (Neumoegen), Nogales, Arizona (Oslar)".
- 1903<r>Huachuca Mountains [~Cochise Co.], ??? 8-23 August
- 1903 August 20 *Arenivaga hopkinsorum* Hopkins 2014 (Blattodea) Zookeys 384:1-384 (p. 123) Huachuca Mts. Oslar, Univ. Kansas Lot 968 (2, ANSP).
- 1903<r>Albuquerque, New Mexico, 23-24 August
- 1903? *Rhodophaea intransitella* Dyar 1904 (Pylalidae, Phycitinae) coll. Albuquerque by Oslar.
- 1903<r>Denver County, Colorado, 24 August
- 1904<r>Denver County, Colorado, 2 May-30 June
- 1904 June 10 *Phyciodes picta*. S.W. Colorado (inaccurate label, as noted above).
- 1904 June 21 *Pholisora catullus*. Denver, Col.
- 1904 *Ecclisomyia maculosa* Banks (Trichoptera) "Lectotype, female.—Boulder, Colorado, July 31, 1904, Oslar." (Ross 1938). Maybe he caught the following two Boulder Co. Trichoptera also in 2004: *Limnephilus tarsalis* (Banks) (Trichoptera) "Lectotype, male.—Ward [Boulder Co.], Colorado, [no date] Oslar." (Ross 1938). *Holocentropus orotus* Banks (Trichoptera) "Lectotype male.—Clear Creek, Colorado. Lectoallotype female, Chimney Gulch, Boulder, Colorado, Oslar. [no date]" (Ross 1938).
- 1904 August 14 (the date of 8-14-04 was written in pencil on a printed label "Oslar Platte Canon Col." on the *Hesperia comma ochracea* (Hesperiidae) holotype)
- 1904 September 3 *Hesperia comma ochracea* Silverton Col 1m AMNH (MacNeill 1964)(inaccurate label as noted above, this ssp. only occurs in Colo. Front Range).
- 1907 *Crambus oslarellus* (Pylalidae) types coll. at "Silverton, Colo., and Clear Creek, Colo., VII, 3, '07" by Oslar.
- 1911<r>Albuquerque, New Mexico, 15 May
- 1911<r>Grand Junction [Mesa Co.], Colorado 30 June
- 1911? *Gryllus pennsylvanicus* Burmeister (Orthoptera) labeled Grand Junction July 7 and Canon City July and Golden June 5 and Platte Canyon June 10 and Denver June 17 Oslar, and *Gryllus personatus* Uhler labeled Grand Junction Oslar (Caudell, Proc. USNM 26:810)
- 1912 May 27 *Platypedia putnami* (Uhler) (Cicadidae) "Durango [La Plata Co. Colo.], May 27, 1912 1m, June 3, 1912 f, June 10, 1912 m, & 3m2f no date (Oslar)" (Davis 1920 p. 104).
- 1912 June 22 *Tipula ingrata* Dietz, 1914 (Tipulidae) paratypes coll. Chimney Gulch & Golden [Jefferson Co.] Colo. by Oslar.
- 1912 July 16 *Tipula ingrata* holotype coll. Denver, Col. by Oslar
- 1912 August 14 *Tipula ingrata* paratypes coll. Bear Creek, Jefferson Co. Colo. by Oslar.

1912 September 16 *Vanessa atalanta*. S.[an] F.[rancisco]. Calif.

1913 February *Platypedia similis* David (Cicadidae) Sonoma Co. [California], February, 1913, m (Oslar) (Davis 1920 p. 113).

1913 July 1 *Platypedia putnami* (Uhler) (Cicadidae) “Chimney Gulch, Golden, 7500’, 3m4f & 1m1f July 1, 1913 [Clear Creek m & f had no date]] (Oslar)” (Davis 1920 p. 104).

1913 July 10 *Platypedia putnami* (Uhler) (Cicadidae) “Platte Canyon, 8000’, July 10 1913, 1m5f (Oslar)” (Davis 1920 p. 104).

1913 July 27 *Platypedia putnami* (Uhler) (Cicadidae) “Bear Creek, Morrison, July 27 1913, m & f (Oslar)” (Davis 1920 p. 104).

1914 *Shannonomyia oslari* (Tipulidae) holotype male “Platte Canyon, Colorado; July 30, 1914; E. J. Oslar”.

1914 August 20 *Cercyonis oetus charon*. Halls Valley Park Co. Colo.

1914 August 20 *Cercyonis oetus charon*. South Park Col.

1914 October 31 *Tamias minimus operarius* (Merriam) (Rodentia) Turkey Creek [Jefferson Co.] Colo. Oslar (in Denver Museum of Nature & Science)

1915 *Trichocera (Diarosma) subsinuata* Alexander, 1916 (Tipulidae) new species. J. N. Y. Ent. Soc. 24:124-5 “Holotype, male, Hall Valley, near Platte Canyon, Colorado; August 11, 1915; E. J. Oslar. Allotype, female, topotypic. Paratypes, 4 males 1 female, topotypic;...”

1916<r>Clear Creek Area and Denver County, Colorado, 20 April-24 July

1916 July 16 (allotype) & July 20 (holotype) types of *Prionocera dimidiata*=*oslari* (Tipulidae) from South Park, Park Co. Colo.

1917<r>Clear Creek Area and Jefferson County, Colorado, 11-19 July

1917 “southern Arizona” {Oslar actually collected in S Arizona in 1903, and all the following 1917 specimens listed in Frison 1921 Ent. News 32:144-148 were evidently inaccurately labeled west-coast species according to Thorp (2005): *Bombus appositus* (Cress.) Patagonia Mts. July 12-14; *Bombus fernaldi* (Franklin) Catalina Mts. June 24 and Nogales July 12; *Bombus vosnesenskii* (Rad.) Nogales July 8-17 and Patagonia Mts. July 11 and Catalina Mts. June 2-25; *Bombus occidentalis* (Greene) Nogales July 1-12; *Bombus occidentalis nigroscutatus* (Franklin) Nogales July 17; *Bombus ambiguus* (Franklin) Catalina Mts. June 24 & 26; *Bombus californicus* (F. Sm.) Nogales July 7-8; *Psithyrus crawfordi* (Franklin) Nogales July 7-9 and Oracle Ariz. June 5; *Bombus franklini* (Frison) Nogales July 7-8 (now red-listed in Jackson Co. Ore.)}

1918<r>Clear Creek Area, Colorado 11 June-5 July

1918<r>Durango [La Plata Co.], Colorado, 5 August

1918<r>Silverton [San Juan Co.], Colorado, 23 August

1918<r>Dolores [Montezuma Co.], Colorado, 30 August

1918<r>Mancos [Montezuma Co.], Colorado, 30 August

1918<r>Telluride [San Miguel Co.], Colorado, 31 August

1918<r>Parkdale [Fremont Co.], Colorado, 17 September

1918<r>Texas Creek [Fremont Co.], Colorado, 17 September

1918<r>Salida [Fremont Co.], Colorado, 17 September

1918<r>Royal Gorge Canyon [Fremont Co.], Colorado, 17 September

1919<r>Clear Creek Area, Colorado, 11 June

1919 June *Platypedia minor* Uhler (Cicadidae). Davis (1920) wrote “In the writer’s collection there are 22 males and 35 females collected at Glenwood Springs, Colorado, June, 1919 (Oslar)”, suggesting that he read that information off the labels. Kondratieff et al. (2002 p. 50) state “This species has not been collected in Colorado since the original 1919 collection of 22m & 35f taken by E. J. Oslar at ‘Glenwood Springs’. The collection site may be in error, perhaps a California locality. Oslar was known to collect at railroad stops throughout the western U.S.” Oslar’s correspondence notes that “Oslar sent 700 Colorado grasshoppers and crickets and 185 California grasshoppers, crickets and Cicadae, 12 September 1914.” to Davis, but that was long before Davis wrote the specimens were labeled 1919. One could hypothesize that Oslar caught them at the railroad stop Glenwood California, a ghost town 1880-1940 in Santa Cruz Co., and one could guess that the labels said Glenwood Ca and Davis mistook those for Glenwood Canyon, but there is no evidence for that. The current view (Boris Kondratieff, pers. comm.) is that this cicada is a far western species, “one of Oslar’s lapsus in proper labeling”.

1919<r>Jefferson County, Colorado, 19 July

1919<r>Durango [La Plata Co.], Colorado, 8 August

1919? In a 1919 letter to William Barnes he wrote that he had collected in the Sneffel [Ouray Co. Colo.] and Hayden Mountains near Ouray [San Miguel Co. Colo.] where he collected what he determined to be *Autographa snowi* (Noctuidae).

1919<r>Denver County, Colorado, 20 September

1920 June 24 Clear Creek Canyon [Jefferson Co.] 7500 ft. Colo. Ewan (1950) mistakenly wrote that this was the last Oslar field trip for which Ewan had a record (no butterfly species were mentioned).

1920<r>Clear Creek Area and Boulder County, Colorado, 5-12 July

1920<r>Rio Blanco [Rio Blanco Co.], Colorado, 21 July

1920<r>LaVeta [Huerfano Co.], Colorado, date?

1920<r> Kenosha Pass, Park County, Colorado (date?)

1921<r>Clear Creek Area and Denver County, Colorado, 23 May-13 September

1922 April 21 *Colias philodice* “*eriphyle*”. Sedalia Col.

1922 April 27 *Colias philodice* “*eriphyle*”. Sedalia Col.

1922<r>Plainview [Jefferson County], Colorado 23 June-12 September

1923<r>Clear Creek Area, Colorado, 18 July

1923<r>Halls Valley [Park Co.], Colorado, ??? June

1923 or 1924?<r> Oslar sent 175 Geometridae “all from Kenosha Pass and Hall’s Valley” in 1924 to S. E. Cassino.

1924<r>Jefferson County, Colorado, ??? July

1924 July Platte Canyon, Colorado (holotype of *Euphydryas anicia capella* aberration *oslari*)

1924<r>Tolland [Gilpin Co.], Colorado, 26 July

1924<r>Clear Creek Area, Colorado, 5 September

1924 September 12-15 *Ithomia patilla* 1m, *Ithomia heraldica* 2m1f, *Heterosais edessa nephele* 4f (all *Ithomiinae*) from Juan Viñas Costa Rica 4000 ft. Oslar evidently received these from G. A. Martin of National Museum of Wales, according to correspondence.

1925<r>Clear Creek Area and Jefferson County, Colorado, 13 May-28 June
1925<r>Casper, Wyoming, 12-27 July

1926<r>Jefferson County, Colorado, 11 July-13 August
1926 August 1 *Junonia coenia*. Bear Lake, San Bernardino Calif.
1926 October 3 *Euhagena nebraskae* Edwards (Sesiidae) Golden [Jefferson Co.] Colo. USNM
1926 October 9 *Zerene eurydice*. Whitewater oil desert [just NW Palm Springs] S Calif.

1927 February 27 *Colias eurytheme*. Los Angeles Calif.
1927<r>Clear Creek Area, and Denver and Jefferson Counties, Colorado, 27 April-17 September
1927 April 27 *Callophrys mossii schryveri*. Chimney Gulch [Jefferson Co.] Col.
1927 April 27 *Strymon melinus*. Chimney Gulch Col.
1927 April 29 *Callophrys mossii schryveri*. Clear Creek Col. [must be mts. at Golden, Jefferson Co.](same date as *C. leanira wrightii* in Calif. next, but Oslar's children might have collected it).
1927 April 29 *Chlosyne leanira wrightii*. Mint Can. L.A. Co Calif.
1927? A *Vanessa carye* from Mint Can. is just labeled May.
1927 April 29 *Strymon melinus*. Clear Creek Cañon [Jefferson Co. Colo.].
1927 May 4 *Callophrys mossii schryveri*. Chimney Gulch. Col.
1927 5- [5- evidently means May] *Callophrys dumetorum* "affinis" *homoperplexa*. Chimney Gulch. Col.
1927 June 29 *Callophrys gryneus siva*. Strontia Sprgs. [lower Platte Can.] Col.
1927 July 28 *Colias eurytheme*. Strontia Springs Col.
1927<r>Tex Canyon and Patagonia Mountains [Santa Cruz Co.], Arizona, 1 October

1928<r>Clear Creek Area, Colorado 9 May
1928 July 29 *Argynnis nokomis nokomis* "Hall Valley Park Co. Colo. E. J. Oslar 1m LACM (inaccurately labeled from Beulah New Mex., see Scott & Fisher 2014).
1928 August 2 *Argynnis nokomis nokomis* "Hall Valley Park Co. Colo. E. J. Oslar 1f LACM (inaccurately labeled from Beulah New Mex., see Scott & Fisher 2014).

1929<r>Clear Creek Area, and Denver and Jefferson Counties, Colorado, 29 April- 9 July
1929<r>Tolland [Gilpin Co.], Colorado, 16 July-18 July
1929<r>Halls Valley [Park Co.], Colorado, 21 July-1 August
1929<r>Denver and Jefferson Counties, Colorado, 13 August-25 September
1929 September 25 *Atalopedes campestris*. Clear Creek [W of or in Denver] Col.

1930<r>Denver County and Clear Creek Area, Colorado, 4-28 June
1930 June 6 *Argynnis (Speyeria) edwardsii*. Denver Col.
1930 June 28 *Papilio zelicaon*. S. D. [San Diego Cal].
1930 July 4 *Polites themistocles*. Walden North Park Col.
1930<r>Walden (North Park [Jackson Co.]), Colorado 4-6 July
1930 July 6 *Junonia coenia*. S. D. [San Diego Cal].
1930<r>Denver County, Colorado, 8-July-22 August
1930 July 12 *Cercyonis pegala nephele*. Glenwood Springs Col. [actually 1931?]
1930<r>Santa Monica, California 27 October

1931 March 17 *Coenonympha tullia californica*. San Diego Cal.
1931 April 30 *Anthocharis sara sara*. San Diego Calif.

1931 April 30 *Coenonympha tullia californica*. San Diego Cal.
 1931 Mission Valley and San Diego, California, 1 May-9 July
 1931 May 5 *Anthocharis sara sara*. San Diego Calif.
 1931 May 5 *Colias eurytheme*. S. D. [San Diego Calif.].
 1931 May 5 *Colias eurytheme*. San Diego Calif.
 1931 May 9 *Strymon melinus*. Mission B[each] Calif.
 1931 May 9 *Vanessa carye annabella*. Mission Beach Calif.
 1931 May 9 geometrid moth Mission B[each] Calif.
 1931 May 10 & 20 *Junonia coenia*. S. D. [San Diego Calif.].
 1931 May 10 *Colias eurytheme*. S. D. [San Diego Calif.].
 1931 May 10 *Zerene eurydice*. Mission Canyon San Diego Calif.
 1931 May 18-20 *Strymon melinus*. S. D. [San Diego Calif.].
 1931 May 18-20-22-23 *Coenonympha tullia californica*. San Diego Calif.
 1931 May 19 *Anthocharis sara sara*. Mission Valley [San Diego] Calif.
 1931 May 23 *Chlosyne gabbii gabbii*. Mission Valley [San Diego] Calif.
 1931 May 23 to 1931 June 30 *Coenonympha tullia californica*. Mission Valley [San Diego] Calif.
 1931 June 1 *Anthocharis sara sara*. Mission Valley [San Diego] Calif.
 1931 June 1 *Lycaena helloides*. Mission Valley S.D. [San Diego Calif.].
 1931 June 1-2-4-8 *Coenonympha tullia californica*. San Diego [Calif.].
 1931 June 2-4 *Chlosyne leanira wrightii*. Mission Hills San Diego Co. Calif 6/2/31 4m1f; 6/2/31
 4f; Mission Hills S. D. [San Diego Calif.]
 1931 June 2-4-7 *Junonia coenia*. S. D. [San Diego Calif.].
 1931 June 4 *Satyrrium saepium saepium*. S. D. [San Diego Calif.].
 1931 June 4 & 9 *Strymon melinus*. S. D. [San Diego Calif.].
 1931 June 7 *Strymon melinus*. Mission Beach [San Diego] Calif.
 1931 June 30 *Coenonympha tullia californica*. Mission Valley [San Diego] Calif.
 1931 June 30 *Zerene cesonia*. Mission Valley [San Diego] Calif.
 1931 June 30 *Zerene eurydice*. Mission Valley [San Diego] Calif.
 1931 July 6 *Junonia coenia*. S. D. [San Diego Calif.].
 1931 July 9 *Dione "Agraulis" vanillae*. S. D. [San Diego Calif.].
 1931 Glenwood Springs [Garfield Co.], Colorado, 11 July-6 August
 1931 July 11-12-13-14-15-17-18 & 31 *Argynnis (Speyeria) cybele charlotti*. Glenwood Spgs Col.
 1931 July 12-21-29-30 *Argynnis (Speyeria) aphrodite byblis*. Glenwood Spgs Col.
 1931 July 14-16-17 *Argynnis (Speyeria) hesperis electa*. Glenwood Spgs Col.
 1931 July 16 *Cercyonis oetus charon*. Glenwood Springs Col.
 1931 July 16 *Colias philodice "eriphyle"*. G. S. [Glenwood Springs Col.].
 1931 August 3-6 *Argynnis (Speyeria) hesperis electa*. Glenwood Spgs Col.
 1931 August 5 *Argynnis (Speyeria) cybele charlotti*. Glenwood Spgs Col.
 1931 August 11 *Colias eurytheme*. Bluffs [Aurora] Col.
 1931 Denver, Colorado, 2 September
 1931 September 2 *Argynnis (Speyeria) edwardsii*. City Park Denver.

1932 Clear Creek Area and Denver County, Colorado, 14 April-29 June
 1932 June 11 *Argynnis (Speyeria) edwardsii*. Denver.
 1932 June 15 *Argynnis (Speyeria) callippe meadii*. Chimney Gulch Col.
 1932 Casper, Big Horn and Muddy Mountains [S Casper], Wyoming, 21 July-22 August
 1932 July 21 *Argynnis (Speyeria) cybele leto*. Garden Creek [Laramie Mts. S of Casper in Natrona
 Co.] Wyo.

1932 July 21 *Argynnis (Speyeria) hesperis hesperis*. Casper Wyo [evidently Garden Creek in Laramie Mts. S of Casper Natrona Co. Wyo.].

1932 July 21 *Cercyonis oetus charon*. Casper Mts. [Laramie Mts. S Casper] Wyo.

1932 July 21-23-25 *Cercyonis oetus oetus*. Big Horn Mts Wyo [evidently was S of Casper that morning, then drove here that day].

1932 July 24-25-26 *Argynnis (Speyeria) zerene platina-garretti*. Big Horn Mts Wyo.

1932 July 25 *Argynnis (Speyeria) callippe meadii*. Chimney Gulch Col. This date is in the middle of Oslar's Bighorn Mts. trip, so maybe one of his 14 kids collected it while he was gone.

1932 July 25 *Argynnis (Speyeria) coronis snyderi*. Bighorn Mts Wyo.

1932 July 25 *Argynnis (Speyeria) edwardsii*. Bighorn Mts Wyo.

1932 July 25 *Argynnis (Speyeria) hydasphe rhodope*. Big Horn Mts. Wyo.

1932 July 25 *Argynnis (Speyeria) mormonia eurynome*. [evidently Big Horn Mts. Wyo.

1932 July 31 *Argynnis (Speyeria) mormonia eurynome*. Deer Creek Muddy Mts. [S Casper, Natrona Co.] Wyo.

1932 July 31 *Cercyonis pegala nephele*. Nigger [now Negro] Hill Deer Creek [Laramie Mts. S of Casper] Wyo.

1932 July 31 *Lycaena heteronea gravenotata*. Deer Creek [S of Glenrock, Converse Co.] Wyo.

1932 August 3 *Argynnis (Speyeria) cybele leto*. Garden Creek [Laramie Mts. S of Casper in Natrona Co.] Wyo.

1932, August 3 *Argynnis (Speyeria) cybele leto* tr. f. *lethe* Gunder, 1934 Can. Ent. 46:125 "Big Horn Mts., Wyoming (E. J. Oslar). Holotype female, Aug. 3, 1932." [probably coll. July]

1932 August 5 *Cercyonis pegala nephele*. Garden Creek, Casper Mts. [Laramie Mts. S of Casper, Natrona Co.] Wyo.

1932 August 7 *Phyciodes tharos orantain*. Casper Wyo.

1932 August 8 *Cercyonis oetus charon*. Casper Mts. [Laramie Mts. S Casper] Wyo.

1932 August 8 *Argynnis (Speyeria) hydasphe rhodope*. Casper Mts [Laramie Mts. S Casper] Wyo.

1932 August 8 *Argynnis (Speyeria) mormonia eurynome*. Casper Mts. [Laramie Mts. S Casper] Wyo.

1932 August 8 *Hesperia comma idaho*. Casper Mts [Laramie Mts. S Casper] Wyo.

1932 August 8 *Satyrrium titus immaculosus*. Casper Mts [Laramie Mts. S Casper] Wyo.

1932 August 22 *Argynnis (Speyeria) edwardsii*. Casper Wyo.

1933 July ? *Erebia callias*. Bullion Peak 12,000' [near Hall Valley Park Co. Colo.].

1933<r>Denver County, Colorado, 5-14 August

1933 August 9 *Erynnis afranius?* Bluffs [Aurora], Colo.

1934<r>San Diego, California, 20 May

1934 May 20 *Dione "Agraulis" vanillae*. San Diego Calif.

1934<r>Denver County, Colorado, 26-30 May

1934 May 26-28-30 *Argynnis (Speyeria) edwardsii*. Denver Colo.

1935<r>Jefferson County, Colorado, 17 August

1936<r>Denver County, Colorado, 31 May-1 June

1938<r>Casper Mountains [S of Casper], Wyoming, 29 July-7 August

1940<r>Clear Creek Area and Denver County, Colorado, 1 June-5 August [before and after the San Diego trip obviously]
 1940 June 15 *Argynnis (Speyeria) coronis semiramis*. Calif [surely from S Calif. near San Diego based on date]
 1940 June 22 *Hylephila phyleus phyleus*. San Diego Calif.
 1940 June 22-23 *Dione "Agraulis" vanillae*. San Diego Calif.
 1940 June 29 *Hylephila phyleus phyleus*. San Diego Calif.
 1940 June 29 *Strymon melinus*. San Diego Cal.
 1940 July 9 *Hylephila phyleus phyleus*. Beaumont [Riverside Co.] Calif.
 1940 July 9 *Vanessa virginiensis*. Beaumont [Riverside Co.] Cal.
 1940 July 9-14-23 *Dione "Agraulis" vanillae*. Beaumont [Riverside Co.] Calif.
 1940 July 20 *Colias eurytheme*. Beaumont [Riverside Co.] Calif.
 1940 July 22 *Erynnis funeralis*. Beaumont [Riverside Co.] Calif.
 1940 July 23 *Junonia coenia*. Beaumont [Riverside Co.] Calif.
 1940<r>Clear Creek Area and Denver County, Colorado, 1 June-5 August [before and after the San Diego trip obviously]

1941<r>Denver County, Colorado, 10 July

Discussion

This paper should help taxonomists deduce the possible localities of many of Oslar's specimens, which may number more than 50,000 in collections throughout the United States and Europe at least. If a taxonomist is interested in an Oslar specimen lacking accurate data, he should try to determine the confident distribution of that insect from the literature, and then look in the Oslar itinerary to deduce where that specimen might match that confident distribution, in order to deduce where that specimen might have been collected. Taxonomists throughout the world are busy studying animals and plants and determining which are species or subspecies, and exact localities are important in that process. Many of Oslar's specimens lack locality labels, and some labels are inaccurate. Oslar often wrote good localities and dates on his specimens, but evidently did not have the time or desire to record all of them, and perhaps he wrote them on some specimens only if purchasers wanted them. George Talbot of the Hill Museum in England received 600 moths from Oslar in 1922 but wrote that he would keep only a few as most lacked collection labels. Oslar responded that the collection labels were "on the boxes", and requested that Talbot dispose of the excess material at the auction houses and send the proceeds.

Type specimens that have inaccurate labels can cause severe problems, because the Principle of Priority makes it nearly impossible to get rid of them, and considerable effort must be spent fixing them. Many people think that they can take a poorly-labeled type and "fix" it by "restricting" the type locality to some reasonable locality. Actually, the only way someone can change a type locality is—stated in ICZN terminology--"proof of origin of the name-bearing type", which means that someone must prove that the holotype or lectotype or syntype(s) was collected in some specific location which thus becomes the valid type locality. Mere guesses of a type locality among equally-likely localities are not valid, because "type locality restriction" does not exist in the ICZN Code. So, if there is a disputed type locality, and the types cannot be proven to have been collected in some specific area, only a neotype obtained from a successful petition to the ICZN can create an undisputed type locality, and those petitions take a long time to research and prepare and take months to review after submission to Bulletin of Zoological Nomenclature and take a year or so to

be published and attract comments and be voted on by the ICZN commissioners. So hopefully this paper will help people deduce the localities where Oslar might have collected some specimens.

Based on experience examining museum collections, it seems that half the oldest specimens in museums—specimens more than 100 years old especially—are not accurately labeled. So lepidopterists must be wary about accepting label data on very old specimens. In the 1800s, lepidopterists such as William Henry Edwards cared little about localities and dates, and few of their specimens had adequate localities (partly because maps were primitive and many places lacked names), and even fewer had dates. Charles Darwin later regretted not placing exact island collection data on the Galapagos Islands finches that he collected. In the early 1900s more people used good localities and dates, and today good localities are considered very important.

It will take a lot of work by experts to determine the confident locations of some type localities of insects named from Oslar specimens that did not have accurate labeled locations. If one Oslar specimen belongs to a taxon that confidently only occurs in one small geographic area, that Oslar specimen of that taxon was probably collected there (unless it went extinct elsewhere due to human development etc.). But if the confident ranges are larger, the data from numerous insects known to have Oslar labels from one particular locality could be determined from the literature and museum specimens, then experts on each insect known to occur at that Oslar locality would make a map of the known confident distribution of each species, those maps would be scanned into computer files, then all those maps would be superimposed on top of each other in a computer that would count the number of mapped ranges for each point on the map, then the computer would print out that “topographic” map. Peaks on that topographic map—showing sites where the most species occur that are also found at that particular Oslar locality--would represent the most likely sites where those specimens came from. That would be a huge study, which will probably never be done because biological studies of real insects are generally considered to be more important. So taxonomists must continue to do what they have been doing: study the phenotype of Oslar specimens, and assign localities where populations have similar phenotype to those specimens.

There must be thousands of Oslar specimens in museums all across North America and Europe which are labeled with locality and date, which are not included in this study because finding most of those would require laborious thorough search of the published taxonomic literature on all North American insects, as well as considerable travel expense to museums in North America and Europe at least, and would take years. Perhaps there should be an Ernest J. Oslar Specimen Website, where taxonomists everywhere could deposit--Wikipedia-style--the Oslar records of species/locality/date that they discover on specimens or in publications, together with their opinion as to those records' accuracy.

Acknowledgments

David E. Ruitter kindly allowed some of his research to be used in this paper. Paul Opler found and loaned the Oslar specimens in the C. P. Gillette museum. He and Boris Kondratieff, Michael S. Fisher, and Frank Krell provided helpful information. Oslar's daughter Emily M. Seiler McKenzie preserved Oslar's correspondence and the remains of his collection, and after Emily passed away in January 1981, her children Dorothy E. Seiler McRill (and husband Paul McRill) and Harold E. Seiler made the effort to contact Ruitter and kindly donated Ernest J. Oslar's remaining collection and papers/journals etc. studied by Ruitter. Without their recognition of the historic value of the Oslar material the collection would have been discarded, and ultimately the correspondence.

Literature Cited

- Brown, F. Martin. 1966. David Bruce (1833-1903) and other entomological collectors in Colorado. *J. New York Entom. Soc.* 74:126-133.
- Brown, F. Martin., assisted by Donald Eff and Bernard Rotger. 1957. Colorado butterflies. Proceedings #3-7. Denver Museum of Natural History, Denver, Colo. 368 p.
- Cross, Frank Clay. 1928. Reminiscences of a butterfly bungler. *Hobbies. The magazine for collectors.* 42(2):112-113. (The "man in Denver" on p. 113 was obviously Ernest J. Oslar.)
- Davis, William T. 1920. North American cicadas belonging to the genera *Platypedia* and *Melampsalta*. *J. New York Entomol. Soc.* 28:95-135.
- Dyar, Harrison G. 1905. New North American Lepidoptera and synonymical notes. *Proc. Ent. Soc. Washington* 7:29-40.
- Edwards, William Henry. 1964. The types of the Satyrid butterflies described by William Henry Edwards. *Trans. Amer. Ent. Soc.* 90:323-419 (pp. 395-398).
- Ewan, Joseph. 1950. Rocky Mountain naturalists. The University of Denver Press, Denver, Colo. 353 p. (p. 275)
- Ewan, Joseph, & Nesta Dunn Ewan. 1981. Biographical dictionary of Rocky Mountain naturalists. Bohn, Scheltema & Holkema. Utrecht/Antwerpen. Dr. W. Junk, publishers, The Hague/Boston. 253 p.
- Hayden, F. V. 1877. Northern central Colorado. Sheet XII *In: Geological and geographical atlas of Colorado and portions of adjacent territory.* Department of the Interior, Washington, D.C.
- Kondratieff, Boris C., A. R. Ellingson, & D. A. Leatherman. 2002. The Cicadas of Colorado (Homoptera: Cicadidae, Tibicinidae). *Insects of Western North America* 2:1-63. Contributions of the C. P. Gillette Museum of Arthropod Diversity. Department of Bioagricultural Sciences and Pest Management. Colorado State University.
- Krell, Frank-Thorsten, and Jeffrey T. Stephenson. 2012. The entomology collection at the Denver Museum of Nature and Science. Denver Museum of Nature and Science Technical Report 2012-6: 5 pages.
- MacNeill, C. Don. 1964. The skippers of the genus *Hesperia* in western North America, with special reference to California. *University of California Publications in Entomology* 35: i-iv, 1-230. University of California Press, Berkeley and Los Angeles.
- Oslar, Ernest J. 1900. Some notes on the habits and capture of *Aegiale streckeri* Skinner. *Entomological News* 11:495-498.
- Ross, Herbert H. 1938. Lectotypes of North American caddisflies in the Museum of Comparative Zoology. *Psyche* 45:1-61.
- Scott, James A. 1986. The butterflies of North America, a natural history and field guide. Stanford University Press, Stanford, California. 600 p.
- Scott, James A., Michael S. Fisher. 2014. *Argynnis (Speyeria) nokomis nokomis*: geographic variation, metapopulations, and the origin of spurious specimens. *Papilio (New Series)* #21: 1-32, free pdf <http://dspace.library.colostate.edu>, click on Colorado State Univ., search for *Papilio (New Series)*.
- Skinner, Henry. 1899. Notes on butterflies, with descriptions of new species. *Entomological News* 10:111-113.
- Skinner, Henry. 1911. A new variety of *Chionobas*. *Entomological News* 22:220.
- Thorp, Robbin W. 2005. Species profile: *Bombus franklini*. 8 p. *in: Shepherd, M. D., D. M. Vaughan, & S. H. Black (editors). Red list of pollinator insects in North America. CD-ROM version 1 (May 1905), Portland, Oregon: the Xerces Society for Invertebrate Conservation.*
-

ADDITIONS TO PREVIOUS PAPILIO (NEW SERIES) ISSUES:

#19 p. 11, Holland's 1931 book plate XXXV figure #15 is *C. philodice* lectotype.

#22 p. 27, add to Literature Cited: Scott, J. A. 2011. Comment on the proposed designation of a neotype for the nominal species *Chionabas chryxus* Doubleday, 1849 (currently *Oeneis chryxus*; Insecta, Lepidoptera, NYMPHALIDAE). Bulletin of Zoological Nomenclature 68:211-212.

ADDITIONS TO paper "Flower Visitation by Colorado Butterflies (40,615 records) with a Review of the Literature on Pollination of Colorado Plants and Butterfly Attraction", Scott, J. A. 2014. Lepidoptera of North America 13. Contributions of the C. P. Gillette Museum of Arthropod Diversity, Colorado State University. 190 p. (Free pdf at <http://dspace.library.colostate.edu>):

P. 42, *Oeneis melissa lucilla* visited *Silene acaulis* purple flower (a visited pressed flower Scott found in envelope from Sangre de Cristo Mts. July 1970). And A. Gradish & G. Otis (J. Lepid. Soc. 69:109, 2015) saw rare visits to *S. acaulis*, *Arenaria groenlandica*, and *Vaccinium* sp. including *vitis-idaea* in White Mts. New Hampshire).

P. 71 *Lycaena heteronea* and *rubidus* references are: 1) Bernard, G., C. Remington. 1991. Color vision in *Lycaena* butterflies: spectral tuning of receptor arrays in relation to behavioral ecology. Proc. Nat. Acad. Sci. USA 88:2783-7. & 2) Sison-Mangus, M., G. Bernard, J. Lampel, A. Briscoe. 2006. Beauty in the eye of the beholder; the two blue opsins of lycaenid butterflies and the opsin gene-driven evolution of sexually dimorphic eyes. J. Experimental Biology 209:3079-90.

NOTE: PAPILIO (NEW SERIES), ISSN 2372-9449, appears irregularly. It publishes scientific studies of butterflies and related topics, especially from Colorado and vicinity. A free pdf of this publication and other issues in the series may be downloaded from the Digital Collections of Colorado by going to <http://dspace.library.colostate.edu>, then click on Colorado State University, then search for Papilio (New Series). Any new name or nomenclatural act in this publication is intended for permanent, public, scientific record. Manuscripts must be scientifically sound and readable. To eliminate page charges and reprint charges (all charges demanded by the traditional vanity press scientific journals), publication delays, correcting proofs, and printer's errors, accepted papers are now reproduced in identical copies in pdf form for free dissemination on the internet. Mss. should be sent to James A. Scott, JameScott@juno.com. "Papilio Bonus" parts are diversions from the regular scientific content— political or sarcastic commentaries or purely humorous cartoons or writings—concerning some aspect of entomology.