

## WESTERN LEPIDOPTERA — I.

BY KARL R. COOLIDGE, PALO ALTO, CALIFORNIA.

## PIERIDAE.

*Euchloe pima* Edw.— On March 10th, I received from Mr. N. Weil of Calhoun, Kentucky, three *euchloeid* pupae, of which he wrote, “Am sending you by to-day’s mail three *anthocaris* pupae; all I think are alive and healthy, notwithstanding the fact that it has been almost exactly two years since pupation — to be exact pupation took place March 10–20, 1906. All were taken on the same food-plant; don’t know the name, but think it is a species *Turritis*. Specimens were all taken at Tucson, Arizona.” Two of the pupae were of *sara*, or of one of its varieties, and the other is undoubtedly *pima* as it comes from a locality in which that species occurs, and it differs distinctively from the pupa of *sara*, *ausonides* and *lanceolata*, all of which are known to me.

Pupa.— Length about 19 mm.; thin, sub-cylindrical, of a light mouse brown, streaked and speckled with darker; ventral surface but slightly darker than ground color; posterior end to base of pronotum straight; pronotum rather high, abruptly rounded; palpi-case straight, with not a trace of recurvation, as in other species; spiracles indicated by blackish points.

Dr. R. E. Kunze, of Phoenix, Arizona, writes of *pima*, “I have never yet found a *pima* ovipositing, and only know the plant on which the imago feeds. *Pima* is scattered over the desert, have often followed it yet never took but one ♀ while so doing. The latter looks like the male, and one can hardly tell ♂ from ♀ after capture unless the abdomen is squeezed with a pair of forceps. Last season I did not capture a single female. Mr. W. G. Wright has the only ♀ he ever saw from myself, which is figured in his book. Yet that veteran collector had taken lepidoptera in Arizona for more than twenty years.”

Pupa of *Euchloe lanceolata*.

*Euchloe lanceolata* Boisd.— Mr. F. X. Williams has kindly made me the drawing here figured of the pupa of *lanceolata*, which was described by myself in the Canadian Entomologist, XL, p. 130. Several of the imagoes have emerged and Mr. Williams tells me they are somewhat smaller than the adults of the var. *australis* Grinnell (see Can. Ent. XL, p. 71). The measurement given for *australis* is 50 mm., and for *lanceolata* 40 mm.

## NYMPHALIDAE.

*Lemonias eremita* Wright.—*Eremita* proves to be, as I have before suspected, only the dark ♀ of *palla*. It seemed incredible to me that a new species of *Lemonias* should turn up in this locality, probably the most thoroughly collected one in California, for it was here that Agassiz, Henry Edwards, Behr, and Lorquin, Boisduval's collector, did a great deal of their collecting. Wright (Butterflies West Coast) figures two females and a "male", but the latter is undoubtedly a female as can be seen by the shape of the abdomen. Hy. Edwards has written (Pr. Cal. Acad. Sci. and quoted in Mead's Report Wheeler Exp. 5, 759, 1875), "This (*palla*) is one of the commonest and most variable of the Pacific Coast butterflies, and is found in every cañon in California and Oregon from April to July. It is dimorphous — one form of the female being blackish, while the other is foxy-red. All intermediate grades are found, and suffused varieties are by no means rare." The extreme light female appears to be quite rare, the usual color being blackish, more or less reddish. *Whitneyi* Behr I would consider only a mountain form of *palla*. Wright records specimens of both *palla* and *whitneyi* from Summit, California. Hy. Edwards also writes under *palla*, "The form described by Dr. Behr as *Melitaea whitneyi* is, I think, only a mountain variety, as I have recently met with some specimens near San Francisco which bear a remarkable resemblance to his types."

I doubt that, if in good series, the two forms could be correctly picked out. *Lemonias sabina* Wright is the light ♀ of *palla*. The synonymy, therefore, I would place as follows:

*Lemonias palla* Boisd.  
                   = *eremita* Wright  
                   = *sabina* Wright  
 var.          *whitneyi* Behr  
                   = *pola* Boisd.

*Lemonias gabbii* Behr.—The habitat given for this species by Holland (Butterfly Book) and Wright (Butt. West Coast) is Southern California. Mr. E. J. Newcomer found it abundant this season in a very limited sandy hill at Pacific Grove, Monterey County, in early April. This is probably the northern limit of its range.

*Thessalia leanira* Boisd. var. *obsoleta* Hy. Edw.—Under the name *leona*, Mr. Wright has redescribed *obsoleta*, the types of both coming from San Rafael, in Marin County, California. Mr. F. X. Williams has also taken it at Fairfax in the same county in late May or early June, and he tells me that it intergrades into typical specimens. As far as I am aware, it is known from no other localities. As the original description is probably accessible to but few, I give it ad verbatim:

“Near San Rafael, in Marin County, I annually take specimens of a curious variety of *M. leanira*, so constant in its characters as to suggest the idea of a new species. In the lower side of the typical form, the secondaries are marked with black blotches near the base, and a double submedian band inclosing a series of seven spots of the pale ochraceous color of the ground. In the variety *obsoleta* these marks are all obliterated, and nothing appears but the black nervules and a slight black marginal line. In all other respects the insect agrees with the typical form. It is somewhat singular that in the locality in which these varieties are found I never met with the true *leanira*, which is a very local insect, and that, although I know several localities in which *leanira* is found, it is only in the one mentioned above that I ever met with the var. *obsoleta*.”

#### LYCAENIDAE.

*Callophrys affinis* Edw.— This species, I think, should properly be placed as a synonym of *dumetorum* Boisduval. W. H. Edwards, in his original description of *affinis*, (Proc. Phila. Acad. Sci. XIV, 224) writes, “Both *viridis* (= *dumetorum*) and *affinis* are related to *T. Rubi* and to *T. Dumetorum* of Boisduval. The latter I have not seen, but it is briefly described as being entirely like *Rubi*, and to be considered a local variety of that species, a description which does not apply to either of the above named species. *Affinis* approaches most nearly to *Rubi* in color below, but the upper side is much brighter, and the white spots of under side are wanting. *Viridis* has similar spots to *Rubi*, but the color of both sides, is different, as is that of the antennae, edge of costa and fringe.” Dr. Boisduval’s description of *dumetorum* is as follows: “Wings olive brown without spots; anal palette of the secondaries nearly obsolete. Under side of primaries russet, a little greenish; that of the inferiors greenish, with a transverse row of small white points.” The distinction between the two, it would thus appear, is that *dumetorum* has on the underside “a common sinuous band of elongated, clear-white spots (Edwards’s description of *viridis*), while the wings of *affinis* below are immaculate. *Dumetorum* ranges throughout California and I have seen examples from a number of localities. The spotting of the underside varies so that it is rarely that a specimen is found which will answer perfectly to the description of either form. Wright (Butterflies West Coast) says under *affinis* “There are but few examples that are fully and fairly marked with the dots across either wing; most specimens have one or more dots on one of the wings, but in that case they are a sort of intergrade, belonging to neither form.” Edwards and Boisduval evidently described their species from extremes. *Dumetorum* and *affinis* are always found in the same locality. Prof. A. J. Snyder writes (Ent. News XI,

302), "*Affinis* and *dumetorum*.—Same localities as *sheridani*. *Dumetorum* always rare, but *affinis* common when found." Dr. Barnes (Ent. News XI, 330) also says, "*Thecla affinis* Edw.—I have only received this species from Utah, though specimens of *dumetorum* from Colorado are often taken with only the slightest trace of the white spots." In this locality *dumetorum* is double brooded, the larva feeding on *Hosackia*. It is quite probable that the larva sometimes, at least, hibernates. I have taken specimens here in early April with all degrees of spotting, some being quite typical of both forms, and I have no doubt that *affinis* and *dumetorum* are one and the same species. Hence the synonymy should stand:

*Callophrys dumetorum* Boisd.  
= *viridis* Edwards.  
= *affinis* Edwards.

*Chalceria cupreus* Edw.—In addition to the localities which I gave this species in PSYCHE, v. xiv, p. 120, 1907, Wright records it indefinitely from "the Sierras," and Mr. E. J. Newcomer took it commonly at Lake Tahoe (Eldorado County, California, 6800 ft. alt.). Dr. Barnes reports it from Beaver Cañon, Idaho, and I have also received a single specimen from near Orr, Montana, between Helena and Great Falls, taken by Dr. Britton.

*Cupido lycea* Edw.—Egg. Flattened, glabrous, with the micropylar area much concave; in color light delicate green when first laid, gradually changing to a cream color; surface covered with very fine whitish lace-work; diameter about .02 inch.

Young Larva.—Head rather small, retractile, sub-hyaline white, the rest of the larva yellowish green, with long whitish hairs. Eggs found in late June at Martina, Missoula County, Montana. The above brief description is from my note-book; I had a lengthier description of the larva after the first moult, but have unfortunately mislaid it. The only other reference to the preparatory stages of *lycea* is a few indefinite remarks by Mead (Report Wheeler Exp. 785, 1875): "Later in the season, in the South Park an empty egg and a caterpillar, both evidently of some *Lycæna*, were found on wild lupines. The larva was pale green, with one or two whitish dorsal stripes, but was lost before I had an opportunity to make a detailed description."

#### SATURNIDÆ.

*Telea polyphemus* Cram.—In addition to the list of food plants which I gave for this species (Ent. News XIX, p. 13) in California, Mr. Fordyce Grinnell of Pasadena writes, "Near here I have found the cocoon on willow, so I judge they must feed on that tree. They also feed on the pepper tree." Mr. J. G. Grundel at

Alma in the Santa Cruz Mountains also writes, "Feeds on quince, prune, alder, madrone and hazel-bush." Last winter I found the cocoons abundantly in the prune orchards of this valley. The encina oak (*Quercus lobata*), a deciduous tree, is another food-plant of *polyphemus*.

#### NOCTUIDAE.

*Feralia jocosa* Gn.—I took several specimens of this handsome species at Alta, in Placer County, California (elevation about 4000 ft.), in early April. Smith in his Catalogue of the Noctuidae gives New Hampshire, New York and New Jersey as the habitat of *feralia*. Dyar (Bull. 52, U. S. Nat. Mus.) also gives the Atlantic States. Dr. John B. Smith, to whom I am indebted for the identification of this species, writes me, "It is possible that with more material it may be distinguishable from the eastern species; but except for a somewhat greater size I am unable to differentiate it from my series of *jocosa*."

#### NOTES ON THE FEEDING HABITS OF *CIMEX LECTULARIUS* LINNAEUS.

BY A. ARSÈNE GIRAULT, URBANA, ILL.

THERE are so few specific records of the habits of this insect in the literature of entomology, that I do not hesitate to present for publication the following account of a recent personal experience with it.

On the night of October 29th, 1907, I arrived at Cincinnati, Ohio, near midnight and obtained a room at what is considered one of the largest and best hotels there. This room was on the second floor, and proved to be a rather small one, about 18 feet long and about 12 feet wide. It was elegantly and neatly furnished, with the walls painted a dark gray and ornamented with mural paintings of flowers; the floor was well carpeted. The bed was of iron, painted black, and the whole room, including the rest of the furniture, presented the usual neat, cleanly, and attractive appearance found in hotels of this class. The room was lighted with two 16-candle power electric globes on a chandelier suspended from the middle of the ceiling, and about six and a half feet above the floor. Also these lights were just



**Hindawi**

Submit your manuscripts at  
<http://www.hindawi.com>

