

placed directly beneath the lower outer one of the median interspaces, instead of basad of it as in modern *Chlorippe*. The inner is also shifted more apicad, forming a large patch beneath the inner lower one of the median interspaces. There is no pale marginal line or band. The venation agrees with that of *Chlorippe*, with the same open cell. The cell is about 16 mm. long, thus reaching beyond the middle of the wing.

Florissant, Station 21 (hill south of the sawmill), July, 1907 (W. P. Cockerell).

With regard to the wing-form, it is noteworthy that it resembles more that of *Vanessa* than that of the modern North American *Chlorippe*, but it agrees well with the South American *C. sultana*, Foetterle. The markings, however, are much nearer to those of the North American species. Modern *Chlorippe* shows a noteworthy sexual difference in wing-form, the males possibly approximating to the elder type, if we are justified in regarding the fossil as a representative of such.

Since the North and South American species of *Chlorippe* differ very strongly, we are naturally led to ask which is on the whole the older, and where did the genus originate? The fossil certainly is not decisive upon this point, and I do not pretend to offer a definite opinion. Assuming, however, that such a species as *C. sultana* represents an early type of *Chlorippe*, certain things follow in an interesting manner. Taking such a species as *Vanessa j-album*, we find that the markings of the anterior wings take the form of three oblique, parallel, more or less broken bands. These bands may be traced in many Nymphalidæ; thus, in *Junonia cania* the middle one is especially prominent. Now, in *Chlorippe sultana*, or rather in the variety or allied species, *favorita*, Foetterle, we find these bands all very distinctly represented by rows of white spots, the first and third by two each, the middle one by five. If this is a primitive condition, what has happened in the evolution of the North American species? The first or apical band remains unaltered, except that the lower spot is often an ocellus. The second is broken by the shifting of the three upper spots to form somewhat of a crescent, while the two lower spots are no longer oblique, but one above the other. Moreover, a new spot has appeared, just above the first of the two lower, and the three form a straight line parallel with the margin. The lowermost is usually an ocellus. The inner band is modified by the intrusion of the fulvous base of the wing, and has some additional spots.