

ground in shades of buff instead of yellow, the cloud and patches brown instead of ferruginous; sometimes the discal patch large, triangular and occupying a large part of the basal area; or in the form of an oblong band extending from middle of the wing to the inner margin, and met by a similar band filling the cell. C passes by grades into D. The fourth, D, has the ground color reddish-ochreous, the lines ferruginous, as also the extra discal points; the cloud and both patches pale brown, often a mere wash of color; on the fore wings the black spots are reduced and very pale, and the margin is pale fulvous and reddish-ochraceous. Of this type are the northern examples mostly; but in the Catskills and White Mountains, and in West Virginia, the red tint is less decided and the cloud and patches deeper colored.

And this variety D gradually shades into the summer form, particularly in the male, so that many examples of this sex cannot be distinguished from many males of the summer form. There is not much variation in these last, they being generally characterized by a restricted marginal cloud, obsolete discal patch, and very small, if not obsolete, costal patch. But the summer females are of two distinct types, one closely like the male, and consequently also the male of var. D of the winter form; the other quite different from its male, characterized by large brown patches on disk and costa, and a diffuse marginal cloud. This finds its counterpart in the female of var. D, or at any rate agrees most nearly with it, the peculiarities of the winter form being exaggerated in the summer.

Of these varieties, A is rare, and has appeared in none of the butterflies bred by me. I have occasionally taken it on the wing at Coalburgh, and in the Catskills. Var. B is common in W. Va., and nearly all the females taken in the spring are of this type; in the other sex it is rather rare, most of the examples being of var. C. Through the South also as far as Texas, beyond which I have not followed the species, var. B seems to be the prevailing winter form. It becomes less abundant to the north of Virginia, appearing but occasionally in the Catskills. At Albany, neither Mr. Lintner or Mr. Meske ever met with it.

Var. C is common in W. Va., in the male, and somewhat so in the female. So also in N. Carolina, if I may judge by examples sent me by Mr. Morrison. But I have not seen it from farther South, nor from Texas. It is common in the Catskills, and is occasional even to the extreme northern limit of the species.