

spread, I can detect none. Even if their existence is not a variable character, their prominence most certainly is, on both continents, and *smithii* must be dropped. Sir George Hampson makes it a synonym.

204. *N. patefacta* Smith.—Sir George Hampson treats *juncta* as distinct, figuring the male type from Nova Scotia. It has head and thorax paler than the wings, and collar still paler tipped. I have seen no other specimens like it. The wings are paler than the average run of *patefacta*, but they are pretty obviously faded, as Grote says it resembles *treatii* in its "dead black primaries." The type was a unique, taken by and received from Mr. Roland Thaxter, and is badly rubbed. I have one *patefacta* almost as dark as most *treatii*, and they vary to as pale as Hampson's figured *juncta*. In one of my specimens the spots do not join on one side, and scarcely so on the other. But in all the thorax is unicolorous with primaries, though the tip of the collar is sometimes appreciably paler. Their distinctness from Grote's species is perhaps a doubtful point, but, as Sir George Hampson thinks, they may as well be kept apart, pending the discovery of more specimens from Nova Scotia, or thereabouts. There are two specimens of *patefacta* from Yellowstone Park in the American Museum of Natural History.

205. *N. cynica* Smith, var. *perumbrosa* Dyar.—I took several specimens of this form on the wing after dark and at treacle between July 31st and August 15th, 1909, and conclude that it is correctly named. I have a Kaslo series, some of them co-types, and have seen about thirty co-types at Washington, besides the type of *cynica*, which seemed a paler form of the same species. Prof. Smith states under his description of *cynica* that his specimen came from Albany, N. Y. The only type I have recorded having seen is a male at Washington which is labelled "Bailey, /83." It was described as distinct from *rubifera* in being broader winged, lacking a median shade (which it was suggested might not be constant), and having totally different male genitalia. These are shown of both species, and certainly indicate some strong differences.

My Calgary specimens are darker than most seen from Kaslo, and have darker secondaries. Some of the Kaslo specimens are not a bit darker than any of a series of six females that I have from Ottawa as *rubifera*, and look the same. One of the latter is almost exactly like Hampson's figure of *rubifera* female type, noted in the key as a male from New York, but merely labelled "U. S. A." This type he calls