the vastly more abundant "alba" females. For recent reviews of the biochemistry and adaptive value of the "alba" variant see Watt (1973, Evolution 27:537–548) and Graham et al. (1980, Proc. Natl. Acad. Sci. USA 77:3615–3619). The selective (if any) and biochemical details of the white male coloration remain unknown.

The new white male *C. meadii* also exhibits a second interesting genetic character, that of "black-vein" (Fig. 1 does not show this character particularly well). A typical and a wild-captured "black-vein" *C. alexandra* Edw., both taken 5 km east of Crested Butte, elev. 8950 m, late June 1977, are shown for comparison (Fig. 3). Ae (1958, Genetics 43:564–576) demonstrated that "black-vein" is almost certainly the product of a single autosomal allele. The white male *C. meadii* is indeed curious, as the viability and/or penetrance of the "black-vein" character appear low (ibid.; Remington, op. cit.). The two white males have been deposited in the entomological collections at the Peabody Museum of Natural History, Yale University.

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ON THE STATUS OF *PSEUDOTHYATIRA EXPULTRIX* (GRT.) AND *EUTHYATIRA PENNSYLVANICA* J. B. SMITH (THYATIRIDAE)

Pseudothyatira cymatophoroides (Guenée, 1852) and *P. expultrix* (Grote, 1863) were described as distinct species and continued to be regarded as such until about 1917. I am not sure who was responsible for the change, but in the Barnes & McDunnough check list of that year *expultrix* was treated as a form of *cymatophoroides*. There it remained until 1966, when Werny, in a world revision of a large part of the Thyatiridae, restored it to specific rank (p. 322), citing in support of this some minor genital differences as well as the more obvious differences in wing markings. I have dissections of several specimens of each form and can see no differences in the genitalia. The two "species" always occur together, from Newfoundland to British Columbia, south to northern California, Maryland, West Virginia, Kansas, and in the Appalachians to North Carolina (probably, also the White Mountains, Arizona, but only one example seen, a male of the nominate form from Pinetop, Navajo Co., about 8000 ft, R. B. Nagle collection). I have recently seen both forms from a locality much farther south than previously reported—West Feliciana Parish, Louisiana (V. A. Brou collection). It is, therefore, not surprising that doubts concerning the validity of Werny's taxonomic change should have persisted. I know that these moths have been reared by others, but no conclusive results of such a test have appeared in the literature.

On 31 May 1980 I collected at bait a female of the nominate (well-marked) form (Fig. 1) at Colesville, Montgomery Co., Maryland, and from eggs laid by this moth reared a brood of 37 adult progeny in August and September of the same year. The larvae were reared on *Betula nigra* L., *B. populifolia* Marsh, and *Prunus virginiana* L., as available. Sixteen of the offspring were of the nominate form (Fig. 2), and 21 were of form *expultrix* (Fig. 3), showing conclusively that these are indeed forms of the same species.

The situation with respect to *Euthyatira pudens* (Guenée, 1852) and *E. pennsylvanica* J. B. Smith, 1902 is not so certain. Werny (1966, Untersuchungen über die Systematik der Tribus Thyatirini, Macrothyatirini, Habrosynini und Tetheini (Lepidoptera: Thyatiridae), Inaugural-Dissertation, Universität des Saarlandes, Saarbrücken, Germany, pp. 237, 245) also elevated *pennsylvanica* from the status of an infrasubspecific form to that of a species. The few *pudens* that have been reared from eggs have turned

FIGS. 1–3. *Pseudothyatira cymatophoroides:* **1,** ♀, Colesville, Montgomery Co., Maryland, 31 May 1980, parent of brood; **2,** ♂, reared from ♀ shown in Fig. 1; **3,** ♂ of form *"expultrix,"* reared from ♀ shown in Fig. 1. About natural size.

out to be of the same form as the parent, which does not prove anything. There is still a need for broods to be reared from females of *pennsylvanica.* The circumstances are different from those of *E. cymatophoroides* in that normal *pudens* has a very wide distribution similar to that of *cymatophoroides*; whereas, *pennsylvanica* seems limited to certain areas of the Middle Atlantic States. This is the region where industrial melanism has been most prevalent in North America, affecting perhaps as many as a hundred species, and I had supposed that *pennsylvanica* was the industrial melanic of *pudens.*

Werny (p. 245) also introduced a problem of authorship with respect to the name *pennsylvanica.* In elevating the name to specific rank, he listed himself as author in accordance with Article 10b of the International Code of Zoological Nomenclature. Although Smith (1902, J. N.Y. Entomol. Soc. 10:34) referred to *pennsylvanica* by the ambiguous term of "variety," it is clear from the original description that he was applying the name to an infrasubspecific form. In his check list published the next year, Smith (1903, Check List of the Lepidoptera of Boreal America, Amer. Entomol. Soc., Philadelphia, p. 61) listed it as *"b* pennsylvanica *Sm.,"* as though it were a subspecies, but again, it is clear from the general context that he did not differentiate between infrasubspecific forms and subspecies. Other authors of that period, such as Dyar, also failed to make this distinction or did so inconsistently. Barnes & McDunnough (1917, Check List of the Lepidoptera of Boreal America, Herald Press, Decatur, Illinois, p. 96) did consistently make the distinction and treated *pennsylvanica* as a subspecies. The elevation of *pennsylvanica* to the rank of a species group name by Barnes & McDunnough far antedates that of Werny, and it appears that they should be cited as the authors in the event of its continued use in a specific sense. However, in the new *Check List of the Lepidoptera of America North of Mexico* (Hodges et al., in press) I have returned *expultrix* and *pennsylvanica* to their former status as synonymic names based on forms, with their original authorship, and have had to add *pennsylvanica* Werny, 1966, to the synonymy of *E. pudens.*

Werny's 1966 work is not easily obtained, and the reader may wish to note that it was reviewed in this journal by J. C. E. Riotte (1969, J. Lepid. Soc. 23:101).

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