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NOMENCLATURAL CORRECTNESS OF *PHYCIODES PRATENSIS* VS. *PHYCIODES PULCHELLUS* (NYMPHALIDAE)

Additional key words: nomenclature, *pulchella*.

Scott (1994) published an exhaustive analysis of *Phyciodes* species names, including the issue of whether *pulchella* (Boisduval, 1852) or *pratensis* (Behr, 1863) is the correct name in accordance with the rules of zoological nomenclature, for the widespread "Field Crescent" butterfly of western North America. Bird et al. (1995) adopted the use of *pulchella*, as did Emmel et al. (1998) who emended the spelling to *puchellus* to conform to the gender congruence provisions of the International Code for Zoological Nomenclature (International Commission on Zoological Nomenclature [ICZN] 1999). Other recent authors, such as Guppy and Shepard (2001), Layberry et al. (1998) and Opler (1999), used *pratensis*, with only Layberry et al. (1998) providing any reasons for taking this approach. This on-going disagreement regarding the usage of these two names needs further discussion, to establish nomenclatural stability.

Layberry et al. (1998) disagree with the use of *pulchella* because of two alleged shortcomings in the original description. One stated shortcoming is that the name ". . . lacked a description (required for all new species) . . .". This alleged shortcoming is an incorrect summary of nomenclatural requirements. New names published prior to 1931 are in fact available on the basis of a description, a definition or an indication (ICZN 1999, Article 12). An indication denotes "the proposal of a new . . . species-group name in association with an illustration of the taxon being named, or with a bibliographic reference to such an illustration . . ." (ICZN 1999, Article 12.2.7). In naming *pulchella*, Boisduval (1852) provided a clear indication to two published illustrations that he considered to be *pulchella*. He cited "Drury, Ins. I. Pl. 21, f.5,6" which is a clear reference to two illustrations in Drury (1770). This, together with Boisduval having met the requirements of ICZN (1999) Article 11, establishes the availability of the name *pulchella* Boisduval, 1852.

Scott (1994) missed the simplicity of this conclusion, and instead concluded that the reference to the illustrations, combined with Drury's statement that *pulchella* is not to be confused with *P. tharos* or *P. morpheus*, constitutes a description or definition. Whether this conclusion is correct (it is, at best, a very poor definition) is irrelevant, because the name *pulchella* is available through an indication, regardless of whether a description or definition is provided. It is also interesting to note that *P. tharos* Drury, 1773 was named through indication to the same figures in Drury (1770). This situation gets even more interesting when one realises that Kirby (1837) also referenced the same figures in his description of *P. selenis*.

The second shortcoming stated by Layberry et al. (1998) was that *pulchella* ". . . was proposed by Boisduval to be applied to an illustration of *Phyciodes tharos* in Drury's classical book (1773) . . ." and thus *pulchella* should be viewed as a junior synonym of *tharos*. While researching this issue, one colleague suggested that the type of *pulchella* is the figure in Drury and hence *pulchella* is an objective synonym of *tharos*. This cannot be. The International Code of Zoological Nomenclature (Article 72.5.6) sets out that the name bearing type is the specimen or specimens and not the illustration, although perhaps our colleague intended to suggest that the type was the specimen(s) on which Drury's illustration was based. However, Boisduval only indicated that the specimen(s) illustrated by Drury (1770) represented his new species *pulchella*; he did not assert that the illustration was the "type" specimen to which he was applying the name. Boisduval did not specify a holotype, and the actual name bearing type of *pulchella* is a specimen in the United States National Museum. The specimen has been designated both as a lectotype and as a neotype (Scott 1994, Emmel et al. 1998). *Pulchella* can only be a subjective synonym of *tharos* for those people who might be inclined to view *pulchella* and *tharos* as being the same taxon. We are unaware of anyone who has suggested such a taxonomic interpretation. It is also irrelevant that the illustrations in Drury (1770) that were indicated in Boisduval's description of *pulchella* are in fact illustrations of dark *tharos*, because the type specimen determines the application of a name and the actual identities of all other specimens or illustrations are irrelevant.

The name *pulchella* is therefore available in conformance with the International Code of Zoological Nomenclature. Furthermore, there is no question that the name-bearing type of *pulchella* is a different butterfly than the name-bearing type of *tharos*, so *pulchella* cannot be a synonym of *tharos* Drury, 1773. An author denying the correctness of *pulchella* must demonstrate a deficiency in the lectotype designation, followed by demonstration of a deficiency in the neotype designation, or they stand in non-compliance with the International Code of Zoological Nomenclature. Nothing has been published to upset the correctness of *pulchella* over *pratensis*. So the correct name for

this butterfly is *Phyciodes pulchellus* (Boisduval, 1852) by virtue of the provisions of the Code, including gender congruence.

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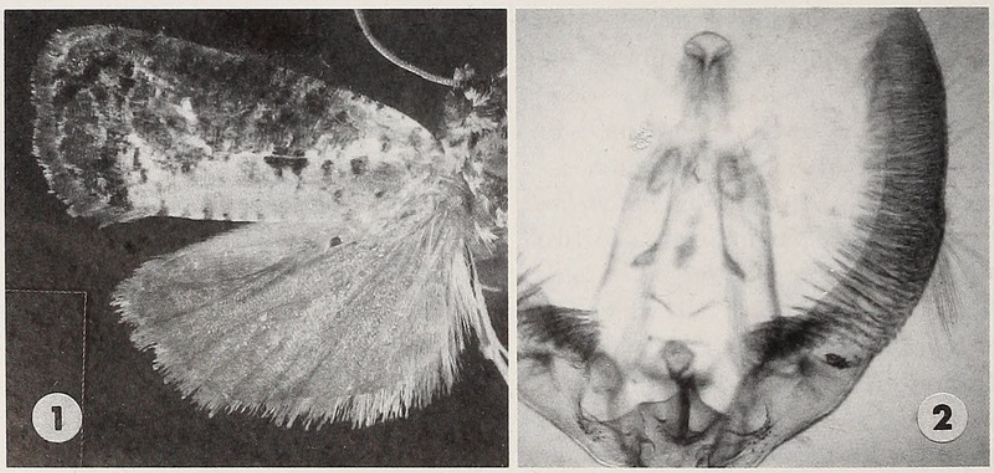
HEDYA SALICELLA (L.), A PALAEARCTIC SPECIES, COLLECTED IN NORTH AMERICA (TORTRICIDAE)

Additional key words: immigrant, Olethreutinae, *Salix*, *Populus*.



FIGS. 1–2. *Hedya salicella* male from Atchison Co., Missouri. **1.** Wings. **2.** Genitalia (genit. slide MS 97199).

Hedya salicella (L.) is a trans-Palaearctic species whose larvae feed in spun shoots and folded leaves of *Salix* and *Populus* species (Salicaceae). The five North American specimens reported here were in three different collections, two public and one private. The distinctive forewing and genitalia of these specimens (Figs. 1, 2) match illustrations and adult sizes in Bentinck & Diakonoff (1968), Bradley et al. (1979), and other handbooks on Eurasian Olethreutinae. They also match three pinned adults of *H. salicella* from England and Germany that we examined.

The American specimens were collected over a 30-yr period at scattered localities: 1956 in Ontario, 1975 in Massachusetts, and 1985 in Newfoundland and Missouri. Such a diffuse temporal-geographic pattern provides little specific information about introduction and spread beyond the general conclusion that *H. salicella* is an immigrant in North America.