A NEW SUBSPECIES OF *GONEPTERYX RHAMNI* FROM TIAN-SHAN MOUNTAINS, U.S.S.R.

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When compiling the recent monograph of the genus *Gonepteryx* (Nekrutenko, 1968), I felt the lack of material from areas surrounding the great mountains of Asia, and some gaps still remain in the geographical scope of this survey. Consideration of modest amount of material available from Tibet and the Himalayas showed this area to be a center of subspecific diversity of *Gonepteryx rhamni* (L.). However, there was no material from the neighboring mountain areas of Pamir and Tian-Shan, so that trends in the geographic variation of *G. rhamni* could not be detected.

This paper is based on material kindly collected on my request by Dmitri S. Lastochkin of Kiev. Examination of these specimens showed that in the Tian-Shan Mountains, or more exactly, in Alma-Ata vicinity, occurs a population of distinctive individuals which I now describe as a new subspecies.

Gonepteryx rhamni tianshanica Nekrutenko, **new subspecies**

Decidedly larger than specimens of nomenotypic race from Scandinavia and adjoining areas of western Siberia (alar expanse 55–60 mm versus 40–50 mm in *G. rhamni rhamni*).

Male: Ground color bright, vivid, lemon-yellow; orange discal spots large, about 2 mm in diameter, easily recognizable. Hairs on thorax and abdomen whitish, brighter than in *G. rhamni rhamni*. Underside of wings yellow, silky-smooth.

Superficially very close to *G. rhamni transiens* Verity of southern Europe.

Female: Ground color greenish, discal spots of same size and color as in male.

By hidden wing pattern (reflected ultraviolet)[1] this subspecies is closer to *G. rhamni rhamni* than to *G. rhamni transiens*. Forewing *zona opaca marginalis* wide, especially in anal area. Reflected elements of hidden wing-pattern on hind wing expressed poorly, diffused, in some specimens absent.

Female showing no reflected ultraviolet, appearing dark in the photographs.

Holotype male: Union of Soviet Socialist Republics, Pravy Talgar, Tian-Shan Mts., 1500 m, Alma-Ata prope, 8–12 July 1967 (D. S. Lastochkin) (Plate, fig. 1). Allotype female: Same data (Plate, fig. 2). Para-

[1] For method of material treatment and terminology see Nekrutenko, 1964.

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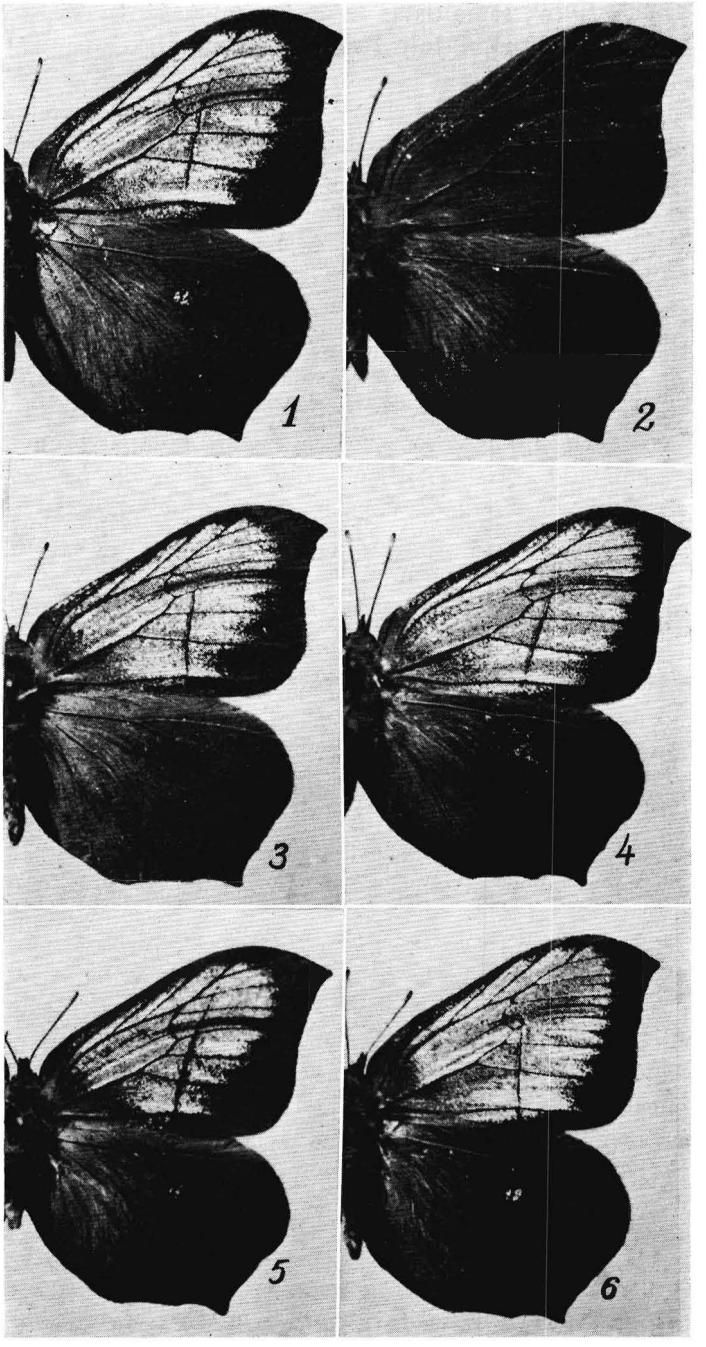
Figs. 1–6. Hidden wing-pattern of *Gonepteryx rhamni tianshanica* Nekrutenko; 1, holotype; 2, allotype; 3–6, paratypes.


1
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types: 17♂♂, 10♀♀, same data; 4♂♂, 1♀ Zailijski Ala-Too, Tian-Shan Mts., Tugok-su, 2500 m, 7 July 1968 (A. Kozubowski) (ex coll. D. S. Lastochkin).

All material deposited in the collection of Ukrainian Research Institute for Plant Protection, Kiev; 2♂♂ and 2♀♀ paratypes forwarded to Deutsches Entomologisches Institut, Eberswalde, D.D.R. (East Germany).

Comparative notes. As was stated, *G. rhamni tianshanica* occupies an intermediate position between *G. rhamni transiens* and *G. rhamni rhamni.* To the former it is closer by visible characters, to the second by characters of the hidden wing pattern. Taking this into account, we can see that *G. r. transiens* is a western form intermediate between *G. rhamni rhamni* and *G. rhamni meridionalis* Röb., another described subspecies transitional between *G. rhamni rhamni*, or its Siberian form, and *rhamni nepalensis* Dbld. When material from the Pamir Mountains becomes available, the correct position of *tianshanica* in the system of West Palearctic forms of *G. rhamni* will become even clearer.

Literature Cited

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HOST-PLANT FINDING BY ODOR IN ADULT *CORYPHISTA MEADI* (GEOMETRIDAE)

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Introduction

The barberry geometer, *Coryphista meadi* (Packard), is a monophagous geometrid which completes its life cycle on *Berberis* L. (barberry) (Dyar, 1902; Comstock, 1967). Ranging across the U. S., it is locally common where barberry is common. The species is multivoltine and in the Northeast occurs from June through September.

By day, the moths rest among the lower barberry canes, and become active shortly after sunset when large numbers can be observed fluttering above barberry shrubs. In the present study, I found that most of these

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