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## Notes on two Transcaucasian Lepidoptera described by Gusztáv Emich in 1872 and 1873

### Замечания о двух закавказских видах бабочек (Lepidoptera), описанных Густавом Эмихом в 1872 и 1873 годах

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**Ключевые слова:** Грузия, Geometridae, Sesiidae, Венгерский естественно-исторический музей, синтип.

**Abstract.** The syntypic specimens of *Cidaria guriata* Emich, 1872 (Geometridae) and *Sesia guriensis* Emich, 1872 (Sesiidae) are documented. The publication date of the scientific name *Cidaria guriata* is corrected. The lectotype designation of *Sesia guriensis* is invalidated. With 8 figures.

**Резюме.** Изучены типовые экземпляры (синтипы) *Cidaria guriata* Emich, 1872 (Geometridae) и *Sesia guriensis* Emich, 1872 (Sesiidae). Исправлена дата опубликования научного названия *Cidaria guriata*. Обозначение лектотипа *Sesia guriensis* признано невалидным.

Working on science history topics we crossed the person of the prominent but nowadays forgotten entomologist Gusztáv Emich von Emöke (1843–1911) [Víg, 2014]. He was the one who wrote and published the first book in Hungarian dedicated solely to Lepidoptera [Emich, 1868]. Meanwhile Emich was an Academic publisher, whose printing house produced many important books with fine coloured lithographies, including the first summary of faunistical knowledge regarding the Carpathian Basin [Frivaldszky, 1865].

Emich extensive collection of Lepidoptera was auctioned in Great Britain and then landed in the Natural History Museum (NHM, London, Great Britain) [Bálint, Frivaldszky, 2009]. Hence it was considered by the recent staff of the Hungarian Natural History Museum (HNHM, Budapest, Hungary) that the type specimens of *Sesia guriensis* and *Cidaria guriata* he described from Transcaucasian material can be found in London. It was a surprise that potential syntypic specimens of both species have been detected in the HNHM general collection.

Present paper aims to fully document the type material of the two Emich taxa and correct some technical information exists in the literature regarding the species.

*Chloroclysta guriata* (Emich, 1872)  
(Figs 1–4)

*Cidaria Guriata* Emich, 1872: 64 (male syntype(s), Georgia: “Transcaucasie (...), province de Gurie”.

*Cidaria guriata* Emich, 1873: Emich, 1873: 43 (redescription;

type locality restriction, Georgia: “bei dem Dorfe Surebia, im Schri-Sattip-Thale”), pl. IIB, fig. 1 (adult dorsal view); Prout, 1914: 218 (“Transkaukasien”), pl. 13, fig. d. “*guriata*” (adult dorsal view).

*Larentia Guriata* (Emich, 1873): Staudinger, Rebel, 1901: 291 (“Arm.” = Armenia).

*Chloroclysta guriata* (Emich, 1873): Viidalepp, 1996: 22 (“S. Georgia?... N. Turkey”), unjustified new combination; Hausmann, Viidalepp, 2012: 273 (“Transcaucasus”).

*Thera guriata* (Emich, 1873): Scoble, 1999: 934, unjustified new combination.

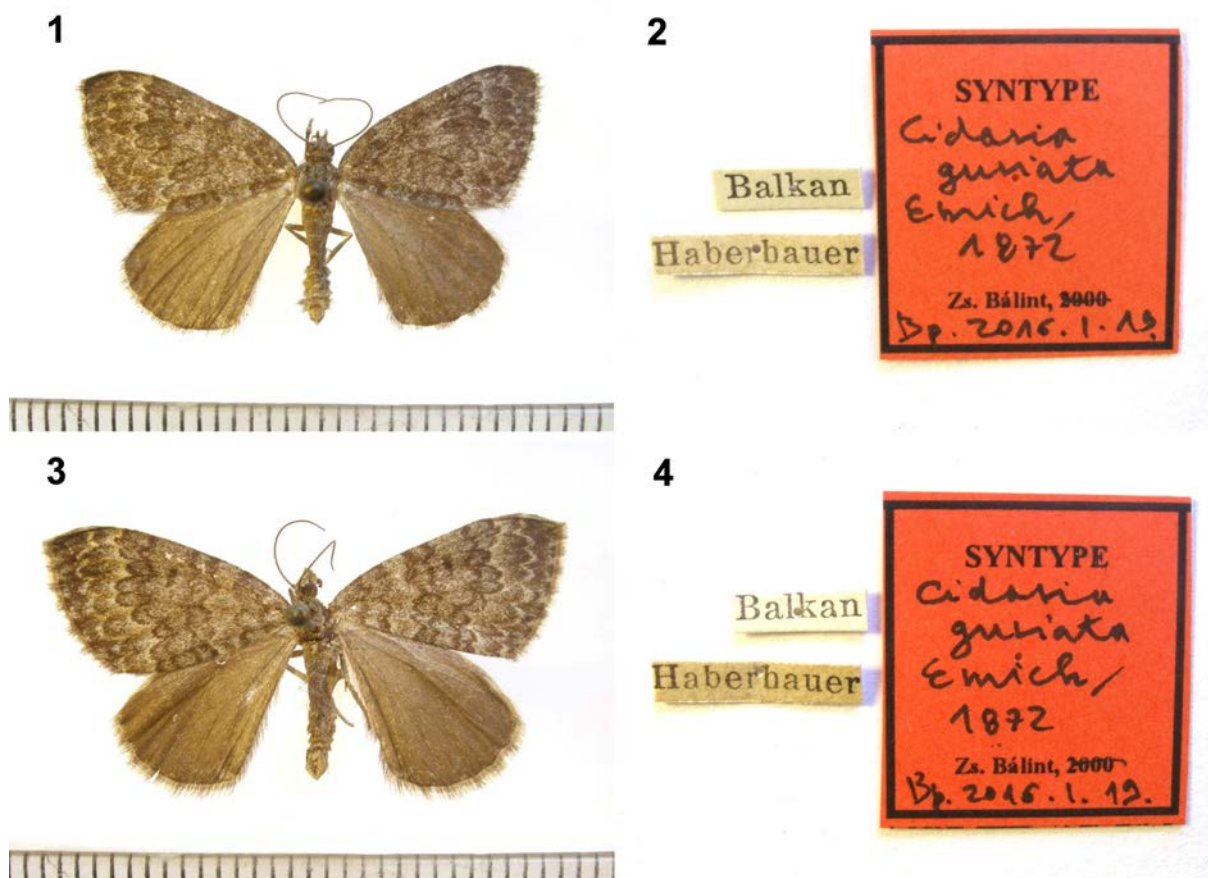
**Type material.** 1♂, syntype no. 1, originally labelled as “Balkan” (white, printed); “Haberhauer” (white, printed); pinned, set dorsally, in good condition (Figs 1, 2); 1♂, syntype no. 2, originally labelled as no. 1; pinned, set dorsally, in good condition (Figs 3, 4). Both are curated in HNHM general collection: 8A/12.

**Remarks.** It is a Transcaucasian species described from Georgia in 1872. The type locality was subsequently restricted by Emich [1873]. Hitherto the year of description was considered to be 1873. This is corrected here.

The species was recorded from “Armenia”, a term understood as “Armenia, russisch Transcaucasien” by Staudinger and Rebel [1901: XXVII].

Subsequently the species-group name *guriata* was combined with *Larentia* Treitschke, 1825 (type species *Geometra clavaria* Haworth, 1809), when the genus was considered to be a synonym of *Cidaria* Treitschke, 1825 (type species *Phalaena fulvata* Forster, 1771) [Prout, 1914]. Later it was placed in *Chloroclysta* plainly by Viidalepp [1996], who recorded the species also from Turkey (on the basis of specimens originating from “Kars”, deposited in the Zoological Institute (ZIP, St. Petersburg, Russia), (pers. comm.). Later it was misplaced in *Thera* Stephens, 1831 (type species *Geometra variata* [Denis & Schiffermüller], 1775) by the World Catalogue [Scoble, 1999]. Then again transferred to *Chloroclysta* in Hausmann and Viidalepp [2012], when the genus has been properly characterized. The current combination of the taxon is *Chloroclysta guriata* (Emich, 1872) Viidalepp, 1996 in the sense of the International Code of Zoological Nomenclature, Recommendation no. 51G [1999].

Although the locality labels of the two specimens we found are erroneous, as the species was never recorded in the Balkans, we consider them to be syntypes and, we label them accordingly (see Figs 2 and 4). Our reasons are



Figs 1–4. *Cidaria guriata* Emich, 1872, males, Hungarian Natural History Museum syntype specimens and their labels.

1 – syntype no. 1; 2 – labels for syntype no. 1; 3 – syntype no. 2; 4 – labels for syntype no. 2.

Рис. 1–4. *Cidaria guriata* Emich, 1872, самцы (синтипы) и их этикетки, Венгерский естественно-исторический музей.

1 – синтип 1; 2 – этикетки синтипа 1; 3 – синтип 2; 4 – этикетки синтипа 2.

as follows: (1) in the NHM there is no syntypic material and (2) the syntypic material of *Sesia guriensis* and further Transcaucasian specimens collected by Haberhauer located in the HNHM support the hypothesis that Emich did not incorporate the Transcaucasian material to his private collection but left them in the HNHM. Haberhauer subsequently worked in the Balkans and supplied specimens also to the HNHM [Abafi-Aigner, 1898, 1903] so probably the *guriata* specimens were known by the staff members that they originate from Haberhauer but were erroneously labelled.

In the HNHM general collection there are further three *Ch. guriata* specimens, their data are as follows: “Adshara mont.”, 1910, Korb (male); “Adshara mont.”, 1910, Korb; coll. V. Bartha (male); “Kaukasus” (= Caucasus), coll. V. Bartha (male).

*Chamaesphaecia guriensis* (Emich, 1872)  
(Figs 5–8)

*Sesia Guriensis* Emich, 1872: 63 (male and female syntypes, type locality, Georgia: “Transcaucasie (...), province de Gurie”).

*Sesia guriensis* Emich, 1873: Emich, 1873: 41 (redescription, pl. IIB, fig. 1 (male dorsal view); type locality restriction, Georgia: “Provinz Gurien, bei dem Dorfe Surebia, im Thale Dschri-

Sattip”); Staudinger, Rebel, 1901: 404 (“Arm.” = “Armenia, russisch Transkaukasien”).

*Chamaesphaecia guriensis* (Emich, 1873): Bartel, 1912: 407 (“Transkaukasien”), pl. 52, fig. c. “*guriensis*” (male dorsal view), new combination.

*Chamaesphaecia guriensis* (Emich, 1872): Gorbunov, 1991: 135 (redescription, “Transcaucasus”); Pl. XXII, fig. 11 (male dorsal view), fig. 12 (female dorsal view); Gorbunov, 1992: 70 (lectotype designation); Laštůvka, Laštůvka 2001: 95 (“Caucasus”), pl. 8, fig. 9 (female dorsal view).

**Type material.** 1♂, syntype no. 1, originally labelled as “Transcauc. </> Haberhauer” (white, handwritten by J. Újhelyi); “*guriensis*” (white, handwritten by A. Schmidt); pinned, set dorsally in good condition (Figs 5, 6). 1♀, syntype no. 2, originally labelled as no. 1, pinned, set dorsally, in good condition (Figs 7, 8). Both are curated in HNHM general collection: 13A/34.

**Remarks.** The type locality was subsequently restricted by Emich [1873]. Staudinger and Rebel [1901] put a question mark before the species-group name indicating that its identity was not clear for them. They also remarked “*praec., synonym?*” in parenthesis, and recorded the species erroneously from Armenia.

Bartel [1912] convincingly characterised the taxon but indicated the original description for Emich, 1873. This was corrected subsequently by Gorbunov [1991], and followed by Laštůvka and Laštůvka [2001].



Figs 5–8. *Sesia guriensis* Emich, 1872, Hungarian Natural History Museum syntype specimens and their labels.  
5 – syntype no. 1, male; 6 – labels for syntype no. 1; 7 – syntype no. 2, female; 8 – labels for syntype no. 2.

Рис. 5–8. *Sesia guriensis* Emich, 1872, синтипы и их этикетки, Венгерский естественно-исторический музей.  
5 – синтип 1, самец; 6 – этикетки синтипа 1; 7 – синтип 2, самка; 8 – этикетки синтипа 2.

Gorbunov [1992: 70] designated the lectotype of *Sesia guriensis* taking a male specimen with the labels “Grusia” and “coll. Erschoff”, deposited in ZIP. The female became paralectotype. There was no supporting evidence published that these specimens were syntypic. Therefore we consider the lectotype designation for *Sesia guriensis* as invalid on the basis of International Code of Zoological Nomenclature, Article 74.2. [1999]. Consequently, the HNHM specimens are syntypes and not paralectotypes; we labelled them accordingly (Figs 6 and 8).

Regarding the ZIP specimens selected as *guriensis* type material we give the following remarks:

1) The specimens possess the locality label “Grusia” – a geographical term never used by Emich. This label must originate either from Nikolay Grigorievich Ershov (1837–1896) or it is a subsequent label added by an unknown person.

2) The plate IIB depicting only *Cidaria guriata* (fig. 2) and the male *Chamaesphaecia guriensis* (fig. 1). It was prepared by Joseph Mann (1804–1899), who was a well known entomologist and lithographer based in Vienna (Austria). Most probably the lithographic work has been ordered by Emich himself as there is evidence that Mann worked for Emich (Bálint, in prep.). The original Mann work was inserted by the editor as the lower, obviously

distinct part of the plate II appeared in the 9<sup>th</sup> volume of “Horae Societas Entomologicae Rossicae”. We presume that the specimens served as models for the figures, including types of *guriensis*, was returned to Emich, who lived in Budapest but occasionally visited Vienna.

3) That the specimens were returned from Mann to Emich is supported by the evidence that there is no ZIP syntypic material of *Cidaria guriata*.

4) The ZIP *guriensis* specimens could be syntypes only when there would be supporting evidence that they were sent directly by Emich to Saint Petersburg either for lithography (and were not returned) or they were sold.

The identity of the HNHM specimens was clear for one of the previous curator Antal Schmidt [Bálint, Katona, 2014]. This is testified by his own and his technician’s (József Újhelyi) handwritten labels. Although the specimens were curated under the name “Guriensis Emich”, their type status was overlooked by visiting scientists as they were not labelled as such. There was no further *Ch. guriensis* specimens in the HNHM collection.

The current combination of the taxon is *Chamaesphaecia guriensis* (Emich, 1872) Bartel, 1912 in the sense of the International Code of Zoological Nomenclature, Recommendation no. 51G [1999].

## Discussion

The scientific names *Cidaria guriata* and *Sesia gurensis* were proposed in the same paper of Emich [1872], published in February, 1872. The names were based on specimens collected in Georgia. Subsequently both species became redescribed and their type locality had been restricted [Emich, 1873].

Although the Emich collection are in the NHM, two male *Cidaria guriata* and one male, one female *Sesia guriensis* syntype specimens are deposited in the HNHM. The *S. guriensis* lectotype of Gorbunov, 1991, suggesting that Emich specimens are also in Saint Petersburg, turned to be invalid in the light of available evidences.

Both of the names have been transferred from their original generic placements by subsequent workers, resulting the current combinations *Chloroclysta guriata* (Emich, 1872) Viidaleep, 1996 and *Chamaesphaecia guriensis* (Emich, 1872) Bartel, 1912, respectively.

The geometrid *Ch. guriata* is a less known species. The clearwing *Ch. guriensis* has been reviewed by Gorbunov [1991].

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Colleagues in London (NHM), namely Mr John Chainey and Mr Geoff Martin, Dr David Lees, confirmed that there are no Emich types in the collections under their care. Dr Axel Hausmann (Munich, Germany) and Dr Jan Viidalepp (Tartu, Estonia) helped in some literature issues related to *Chloroclysta guriata*. Our sincere thanks deserve to all of them.

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