

***Egira titori* Hreblay, 1994 - a new species for the European fauna (Lepidoptera: Noctuidae: Hadeninae)**

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HREBLAY (1994) described a new species from the tribe Orthosiini as *Egira titori* from Asiatic part of Turkey (Asia Minor and Marash). It belongs to the *conspicillaris* group and differs from the other West Palaearctic *Egira* species in the male genitalia; examination of these structures is necessary for correct identification. It can be distinguished from the other *Egira* species using the valvae only, but the main difference is in the everted vesica. The female genitalia are still undescribed and external differences between the other closely related species have been not found.

The present author examined the genitalia, including the everted vesica of all *Egira* specimens from his collection. Five male specimens of the recently described *E. titori* (from 39 dissected males) from five localities were discovered. The other specimens were all *E. conspicillaris*. Another European *Egira* species, *E. anatolica* (Hering, 1933), known from the near surroundings of Bulgaria, has not been found with certainty in this country; only three female specimens which might be it have been examined (Gen. preps 2; 8; and 17./30.I.1996). The localities of *E. titori* which the author has found in Bulgaria suggest that it is to be expected also in Greece, Macedonia, Romania (Dobrogea) and the European part of Turkey. So far, most Bulgarian localities where *E. titori* has been found are in South Bulgaria for the simple reason that it is from these places that the author has obtained material for examination. It seems that in temperate lowlands *E. titori* and *E. conspicillaris* are sympatric. The specimens (five *E. conspicillaris* from five checked specimens) from Dragalevtzi Village at an altitude of 750 m, situated in the northern slopes of Vitosha Mts suggest that *E. conspicillaris* is not such a thermophilous species as *E. titori*.

The examined material (all males) is as follows:

***Egira titori*:** East Rhodopi Mts, Studen Kladenetz Village, 200 m, 22.III.1990, Gen. prep. 2./09.IV.1990; East Rhodopi Mts, Studen Kladenetz Dam, Kroyatzi Hunt

Chalet, 200 m, 24.III.1990, Gen. prep. 8./26.XII.1995; Black Sea Coast, Beliya Bryag Camping between Balchik and Kavarna, 01.V.1989, Gen. prep. 2./06.I.1996; Bessaparski Ridove Hills above Byaga Village, Pazardzhik Region, 250 m, 14.IV.1985, Gen. prep. 9./26.XII.1995; SW Bulgaria, Kresna Gorge, Stara Kresna Railway Station, 10.IV.1988, Gen. prep. 10./26.XII.1995 (all leg and in coll. Beshkov).

***Egira conspicillaris*:** SW Bulgaria, Ploski Railway Station, Sandanski District, 150 m, 08.IV.1991, B. Petrov leg., Gen. prep. 11./26.XII.1995; SW Bulgaria, Kresna Gorge, Stara Kresna Railway Station, 21.IV.1995, Gen. prep. 6./26.XII.1995; East Rhodopi Mts, Arda Chalet near Dabovetz Village, 160 m, 04.IV.1992, Gen. prep. 1./06.I.1996; East Bulgaria, Sakar Mt, Radinchevo above Dossiteevo Village, Harmanli District, 400 m, 29.IV.1989, Gen. prep. 7./26.XII.1995;

Dragalevtzi Village, Sofia Region, 750 m, 20.IV.1987, Gen. preps 12-16/26.XII.1995 (all leg. and in coll. Beshkov).

The main difference in the valvae of *E. tibori* and *E. conspicillaris* is in the clavus. In *E. conspicillaris* it is large and wide with the base narrower than the top (Fig. 1-2). In *E. tibori* the clavus is pointed, narrow, wide at the base and slender towards the tip (Fig. 3-4).

The everted vesica in both species also shows important differences. The proximal diverticulum of *E. conspicillaris* is simple, longer and bears one strong bulbous cornutus (Fig. 5-6). The proximal cornu-



Figs 1-2. *Egira conspicillaris*, male genitalia, Dragalevtzi Village, Sofia Region, 20.IV.1987: 1 - Gen. prep. 12./26.XII.1995; 2 - Gen. prep. 14./26.XII.1995.



Fig. 3. *Egira tibori*, right valva, East Rhodopi Mts, Studen Kladenetz Village, 22.III.1990, Gen. prep. 2./09.IV.1990.

Fig. 4. *Egira tibori*, male genitalia with a half everted vesica, East Rhodopi Mts, Kroyatzi Hunt Chalet, 24.III.1990, Gen. prep. 8./26.XII.1995.

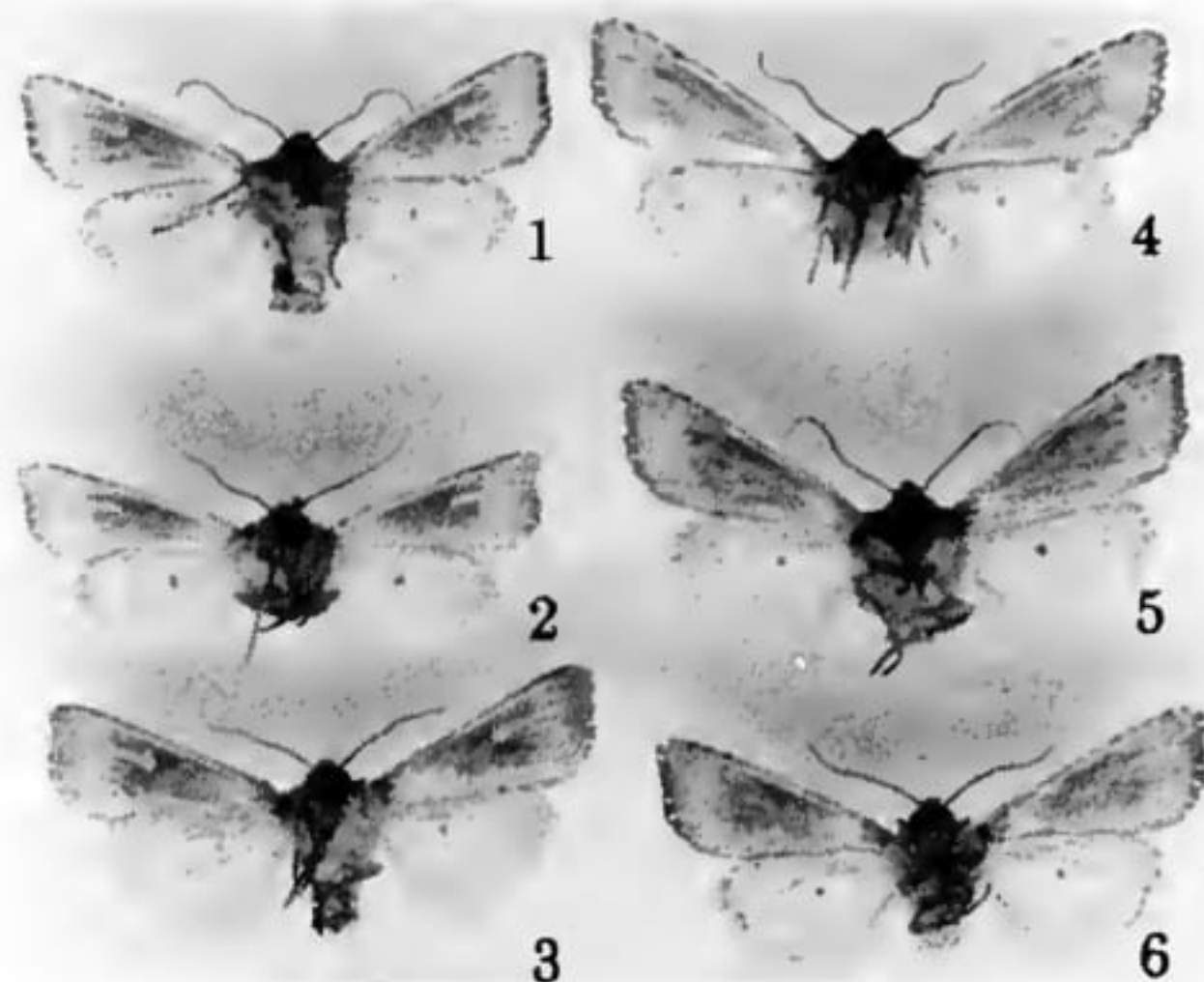


Plate 1-2. *Egira tibori* (left column) and *Egira conspicillaris* (right column): Pl. 1 - upper-side; Pl. 2 - underside

Localities: 1. East Rhodopi Mts, Studen Kladenetz Village, 200 m, 22.III.1990. 2. SW Bulgaria, Stara Kresna Railway Station, 10.IV.1988. 3. Black Sea Coast, Beliya Bryag Camping between Balchik and Kavarna, 01.V.1989. 4-5. Dragalevtzi Village, Sofia Region, 750 m, 20.IV.1987. 6. SW Bulgaria, Stara Kresna Railway Station, 21.IV.1995 (all leg. and in coll. Beshkov)

tus on the main tube of vesica is usually dentate with 2-4 teeth (Fig. 11-14). In *E. tibori* the proximal diverticulum is divided into two nearly equal parts, each with a strong bulbous cornutus (Fig. 4, 7-8, 10). The proximal cornutus on the main tube of vesica is usually simple (Fig. 15-18). The differences in the vesica of both species can be seen without everting them: in *E. tibori* both strong bulbous cornuti can be seen near the top of aedeagus (Fig. 9). In *E. conspicillaris* the strong bulbous cornutus is single. In dry pinned specimens of *E. tibori* is possible to see the bifid half-everted vesica between the valvae. Probably on further investigation it will turn out that *E. tibori* is a common species in Bulgaria and adjacent countries.



Figs 5-6. *Egira conspicillaris*, male genitalia with everted vesica, SW Bulgaria: 5 - Stara Kresna Railway Station, 21.IV.1995, Gen. prep. 6./26.XII.1995; 6 - Ploski Railway Station, Sandanski District, 08.IV.1991, Gen. prep. 11./26.XII.1995.



Fig. 7. *Egira tibori*, male genitalia with a half everted vesica, SW Bulgaria, Stara Kresna Railway Station, 10.IV.1988, Gen. prep. 10./26.XII.1995.

and Macedonia were examined after having been inflated in concentrated alcohol. On the sclerotisation, position and shape of cervix bursae they were separated into three types. Some other differences have been found in the size of female genitalia and in the ostial plates. The writer would not like to take responsibility at this point to state which type belongs to which species for fear of making an incorrect determination. In this paper therefore, they are tentatively called „*conspicillaris*“, „*tibori*“ and „*anatolica*“. It is surprising that most of the examined female specimens, all of them from or near the localities where males

The only external difference the present author has found between *E. conspicillaris* and *E. tibori* is in the underside of the forewings. In *E. tibori* the area between veins M1 and M2 from the discoidal cell to the outer margin is conspicuously white (Pl. 2, Fig. 1-3). In *E. conspicillaris* it is of the same colour as the area between the other veins or only slightly paler (Pl. 2, Fig. 4-6). This difference can be seen in both sexes but it was considered unwise to use the character as a guide to finding the female genitalia of *E. tibori*. Genitalia of 19 female specimens of *Egira* from Bulgaria, Albania

of *E. tibori* were found, probably belong to *E. conspicillaris*.

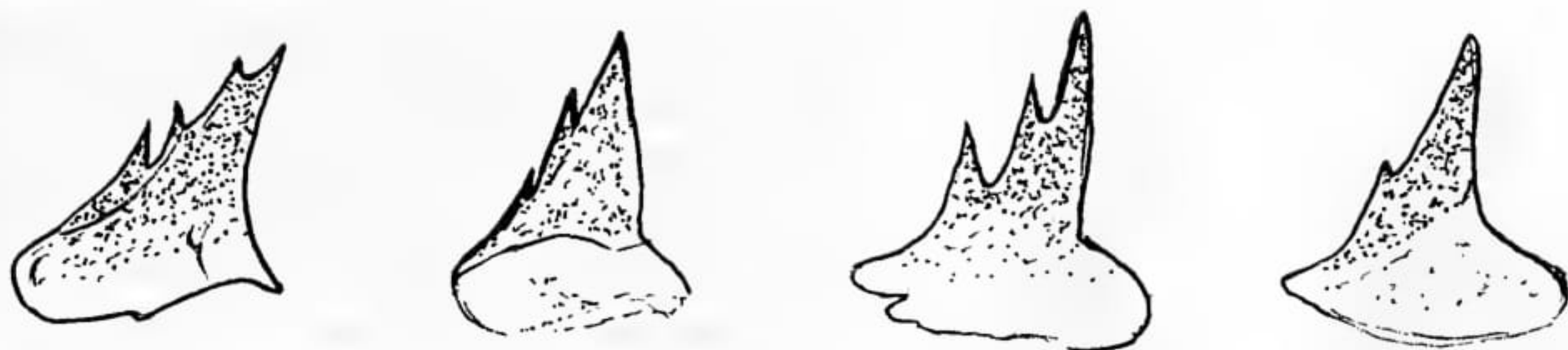
The type called here „*conspicillaris*“ (Fig. 19-21) shows some variation: there are specimens with more or less sclerotisation and with more and less curved ductus bursae and distal part of the bursa copulatrix. In those with more curved distal part of the bursa copulatrix the cervix bursae is situated more distally (Fig. 19). The strong sclerotisation makes



Fig. 8. *Egira tibori*, everted vesica, East Rhodopi Mts, Studen Kladenetz Village, 22.III.1990, Gen. prep. 2./09.IV.1990.

Fig. 9. *Egira tibori*, aedeagus, East Rhodopi Mts, Studen Kladenetz Village, 22.III.1990, Gen. prep. 2./09.IV.1990.

Fig. 10. *Egira tibori*, everted vesica, Bessaparski Ridove Hills above Byaga Village, Pazardzhik Region, 250 m, 14.IV.1985, Gen. prep. 9./26.XII.1995.



Figs 11-14. *Egira conspicillaris*, proximal cornutus on the main tube of the vesica: 11. Dragalevtzi Village, Sofia Region, 750 m, 20.IV.1987, Gen. prep.15./26.XII.1995; 12. Ibid, Gen. prep.16./26.XII.1995; 13. East Rhodopi Mts, Arda Chalet near Dabovetz Village, 160 m, 04.IV.1992, Gen. prep. 1./06.I.1996; 14. SW Bulgaria, Stara Kresna Railway Station, 21.IV.1995, Gen. prep. 6./26.XII.1995.



Figs 15-18. *Egira tibori*, proximal cornutus: 15. Black Sea Coast, Beliya Bryag Camping between Balchik and Kavarna, 01.V.1989, Gen. prep. 2./06.I.1996; 16. East Rhodopi Mts, Studen Kladenetz Dam, Kroyatzi Hunt Chalet, 200 m, 24.III.1990, Gen. prep. 8./26.XII.1995; 17. SW Bulgaria, Stara Kresna Railway Station, 10.IV.1988, Gen. prep. 10./26.XII.1995; 18. Bessaparski Ridove Hills above Byaga Village, Pazardzhik Region, 250 m, 14.IV.1985, Gen. prep. 9./26.XII.1995.

good inflation of the genitalia difficult, and these apparent differences in the type „*conspicillaris*“ may be mere artifacts. The cervix bursae in some

specimens is small (Fig. 19-20), in others it is large, elongated proximally (Fig. 21). The ostial plate consists of two regular, strong sclerotisations pointed towards the ostium. Sclerotised ventral plate on ductus bursae is strong, large.

The female genitalia referred to here as „*anatolica*“ (Fig. 22) are smaller and with less sclerotised cervix bursae than „*conspicillaris*“ but are more sclerotised than in „*tibori*“, mainly on the ventral side, near the ductus seminalis. The cervix bursae



Figs 19-21. *Egira „conspicillaris“* - 19. Bessaparski Ridove Hills above Byaga Village, Pazardzhik Region, 250 m, 14.IV.1985, Gen. prep. 7./30.I.; 20. Ibid., 28.IV.1985, Gen. prep. 18./30.I.1996; 21. Bulgarian North Black Sea coast, SBA (Beliya Briag) camping near Touzlata, Balchik District, between Balchik and Kavarna, 01.V.1989, Gen. prep. 1./30.I.1996.



Fig. 22. *Egira „anatolica“* ?- SW Bulgaria, Stara Kresna Railway Station, 21.IV.1995, Gen. prep. 4./30.I.1996.

Fig. 23. *Egira „tibori“* ? - SW Bulgaria, Stara Kresna Railway Station, 21.IV.1995, Gen. prep. 8./30.I.1996.

has two pockets, one of which is pointed and bears the ductus seminalis and the other, rounded without sclerotisation in dorsal direction. Laterally, the cervix bursae looks like a section of mushroom. The two pockets may correspond to both proximal diverticulata of the vesica of *E. anatolica* on the „lock and key“ principle. The ostium is with smaller and thinner sclerotisations, lamina vaginalis and the ostial plate are more sclerotized. Female genitalia of both *E. conspicillaris* and *E. anatolica* are illustrated and discussed in PARENZAN (1982). They can be find illustrated as well in HREBLAY (1994). According to HREBLAY (1994) the identification of the females of this species-group is often doubtful even by the study of the

genitalia. However, females of both *E. conspicillaris* and *E. anatolica* can be easy distinguish each other taking into account the structure of seventh sternit and sclerotised ventral plate on ductus bursae, which is weaker and narrower than in *E. conspicillaris*. The ostial plate consists of two irregular, more or less strong and genticulate sclerotisations, sometime bifid, pointed towards the ostium.

The third kind of female genitalia (Fig. 23) are probably those of *E. tibori*. They are with less sclerotised ductus and cervix bursae and with most rounded cervix bursae.

For a precise designation of female specimens, respective female genitalia will have to be examined from localities where the three species are not sympatric, or from bred series in which male and female structures can be correlated.

I would like to express my sincere gratitude to Mr Barry Goater (Hants, England) for his critical advice and for the corrections of my English.

Reference

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Received on 3.11.1998

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***Egira tabori* Hreblay, 1994 - нов вид пеперуга за Европа (Lepidoptera: Noctuidae: Hadeninae)**

Стоян БЕШКОВ

(Р е з ю м е)

Egira tabori Hreblay, 1994 е един неотдавна описан вид нощна пеперуга, досега известен само от типовия материал от Азиатска Турция (Мала Азия и Мараш), който се съобщава тук за първи път от Европа. Той е установен в пет находища в България: Източни Родопи при с. Студен Кладенец и до ловна хижа „Крояци“ при с. Нановица; Бесанарските ридове при с. Бяга, Пазарджишко; Северното Черноморие между Балчик и Каварна; Кресненско дефиле при жп. спирка Стара Кресна. Находищата в България предполагат намирането на *Egira tabori* в Гърция, Македония и Румъния. Видът се различава със сигурност от *Egira conspicillaris* (Linnaeus, 1758) само по разлики в мъжката генитална арматура и по-специално по структурата на нагута в алкохол везика. Направен е и опит за илюстриране и на женските гениталии, както и да се намерят външни различия между *E. tabori* и *E. conspicillaris*. Две фотографии илюстрират горната и долната страна на крилата на двата вида, а 23 фигури - мъжката и женската генитална арматура, включително на нагута в алкохол везика.