

New and rare noctuid species (Lepidoptera, Noctuidae) in the fauna of the Republic of Moldova

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Summary: Data on 17 rare species of noctuids (Noctuidae) in the fauna of the Republic of Moldova are given in the present paper. The investigations were carried out during 2012-2020 in 26 sites throughout the Republic of Moldova. The genus *Actebia* STEPHENS, 1829 and the species *Actebia praecox* (LINNAEUS, 1758) and *Xylena solidaginis* (HÜBNER, 1803) are reported as new for the fauna of the Republic of Moldova. Thus, the number of noctuid species in the fauna of the Republic of Moldova reached 427. The species: *Acontia titania* (ESPER, 1798), *Aedophron rhodites* (EVERSMANN, 1851), *Periphanes delphinii* (LINNAEUS, 1758), *Eucarta amethystina* (HÜBNER, 1803), *Dasypolia temples* (THUNBERG, 1792), *Oxytripia orbiculosa* (ESPER, 1799), *Euxoa cos* (HÜBNER, 1824), *Gortyna cervago* (EVERSMANN, 1844), *Meganephria bimaculosa* (LINNAEUS, 1758) and *Cucullia argentea* (HUFNAGEL, 1766) needs protection and conservation, so it is recommended according to IUCN criteria to be included in the next edition of the Red Book of the Republic of Moldova and the elaboration of concrete management measures.

Rezumat: Lucrarea prezintă 17 specii de noctuide (Noctuidae) rare în fauna Republicii Moldova. Investigațiile au fost efectuate în intervalul 2012-2020 în 26 situri de pe întreg teritoriul Republicii Moldova. Genul *Actebia* STEPHENS, 1829 este semnalat pentru prima dată din Republica Moldova. Speciile *Actebia praecox* (LINNAEUS, 1758) și *Xylena solidaginis* (HÜBNER, 1803) reprezintă taxoni noi pentru fauna Republicii Moldova. Astfel, numărul speciilor de noctuide din fauna Republicii Moldova se ridică la 427. Speciile *Acontia titania* (ESPER, 1798), *Aedophron rhodites* (EVERSMANN, 1851), *Periphanes delphinii* (LINNAEUS, 1758), *Eucarta amethystina* (HÜBNER, 1803), *Dasypolia templi* (THUNBERG, 1792), *Oxytripia orbiculosa* (ESPER, 1799), *Euxoa cos* (HÜBNER, 1824), *Gortyna cervago* (EVERSMANN, 1844), *Meganephria bimaculosa* (LINNAEUS, 1758) și *Cucullia argentea* (HUFNAGEL, 1766) sunt rare și localizate, necesitând protecție și conservare. Conform criteriilor IUCN se recomandă includerea speciilor menționate în următoarea ediție a Cărții Roșii a Republicii Moldova și elaborarea unor măsuri concrete de management.

Key words: Noctuidae, Republic of Moldova, new species, rare species, protected species.

Introduction

After regrouping the subfamily Catocalinae and Calpinae to the Erebidae family, the Noctuidae family, with about 12000 species is the second largest family of Noctuoidea in the world. According to the latest studies (ȚUGULEA and DERJANSCHI 2015, ȚUGULEA 2020) in the Republic of Moldova, the Noctuidae family consists of 425 species, taxonomically classified in 169 genera and 17 subfamilies: Plusiinae (23 species), Eustrotiinae (5), Acontiinae (6), Pantheinae (1), Dilobinae (1), Acronictinae (21), Metoponiinae (5), Cuculliinae (24), Oncocnemidinae (5), Amphipyriinae (7), Psaphidinae (5), Heliiothinae (11), Condidinae (3), Bryophilinae (10), Xyleninae (141), Hadeninae (84) and Noctuinae (73 species). Given that neighboring countries recorded a much higher number of noctuid species (e.g. Romania with 557 [RÁKOSY *et al.* 2021]), their number could increase in the coming years in the fauna of the Republic of Moldova.

Despite the fact, that noctuids are most often viewed only from the point of view of pests, as a

result of the large number of published works on this subject, a number of factors have contributed to the decrease of the numbers of specimens in the populations, which has led to the increase of the number of endangered noctuid species (ȚUGULEA 2020). In recent years we have witnessed an alarming decline in some species of butterflies and moths that a few decades ago were considered very common. The noctuids are as endangered as diurnal butterflies and face the same problems, such as intensification of agriculture, abandonment of traditional land use, changes in forest management and pollution of the environment.

There is a decrease in the number of specimens of noctuid populations not only of endangered species but also of those with harmful status. If on August 27 1971, the scientist M. Tkaci collected in Glodeni district for one night, at the with light trap – 205 specimens of *Anarta trifolii* (HUFNAGEL, 1766) (TKACI 1977), then between 2012-2020, the number of individuals of this species has decreased extremely much. The scientist mentions that in the following year, the number of captured individuals increased.

Comparing these data with the data obtained in the last eight years of studies following the systematic collection in two sites in the northern and central area of the Republic of Moldova, there is a decrease in the number of species, most specimens being collected in Brânzeni village (Edineț district) on the night of 24.06.2016 was 81 (ȚUGULEA 2020).

The small number of noctuid species present on various Red Lists is due to the insufficient study of this group of insects, both nationally and internationally, which does not allow for risk assessment disappearance based on population distribution or status. Insufficient data and lack of information on the distribution, abundance, bioecological particularities classify many species of noctuids in an endangered category. It explains the status of extinct species (EX) attributed to many noctuids that have not been previously assessed and qualified in any category of endangered species. The same situation is attested in the Republic of Moldova. Before our investigations, there were no data on the endangered status of Noctuidae, and the Red Book of the Republic of Moldova does not mention a single species from the Noctuidae family.

We recommend adding some rare and endangered Noctuidae species to the Red Book of the Republic of Moldova and the National Operational List in order to ensure protection and the necessary information for the population and authorities.

Material and Methods

The materials of this work were obtained during the years 2012-2020 from different natural and anthropic habitats of the Republic of Moldova.

The noctuid collections were carried out from March to November on 26 sites in the north, center and south of the Republic of Moldova, distributed the entire territory and all habitats suitable for moths (fig. 1).

The noctuids were collected by the following methods: manual collection, with the entomological net, at the standard electric lamp (100 W), with the help of an illuminated white cloth and by installing ultraviolet and white light traps. The entomological traps with white and ultraviolet light were located at a distance of 15 m from each other. The collection was carried out with a periodicity of two days per week.

The nomenclature and classification was given according to FIBIGER and HACKER (2005) and WITT and RONKAY (2011). For species identification we have used the works by RÁKOSY (1996), KLYUCHKO (2006), the 13 volumes of Noctuidae Europeae and the Lepiforum website (<http://www.lepiforum.de>). We have also made genitalia examination for species that are difficult to determine.

Results and Discussions

The paper presents 17 species of noctuids (Noctuidae) rare in the fauna of the Republic of Moldova, taxonomically classified in 8 subfamilies: Acontiinae (1 species), Heliothinae (2), Condicinae

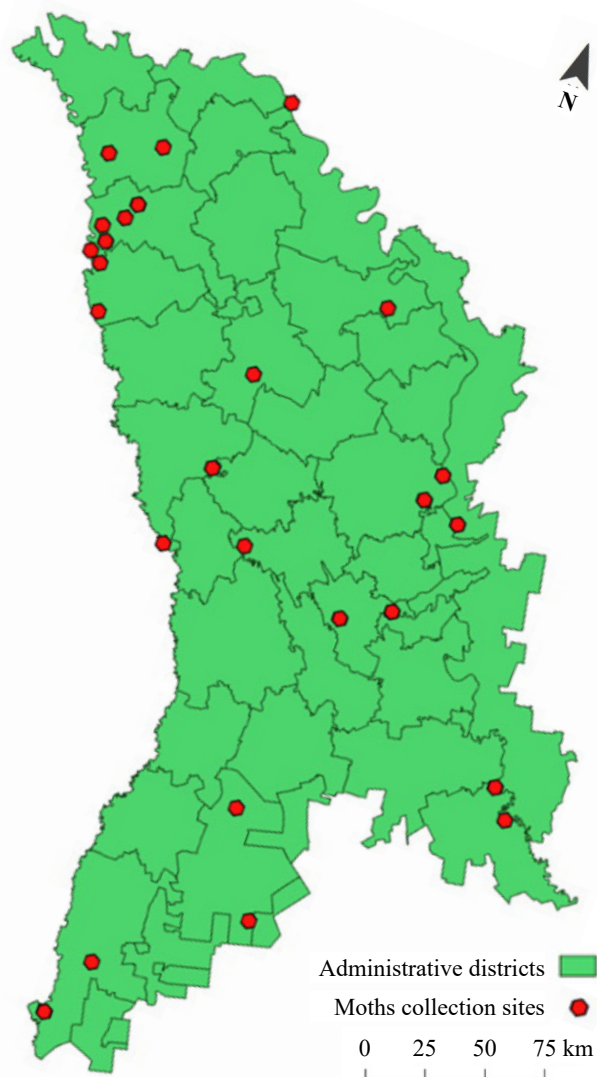


Fig. 1. Diagram of the location of noctuid collection sites on the territory of the Republic of Moldova.

(1), Xyleninae (5), Noctuinae (5), Oncocnemidinae (1) Psaphidinae (1) and Cuculliinae (1 species). The data presented in the paper are mostly the first or second report of noctuid species in the fauna of the Republic of Moldova.

The genus *Actebia* STEPHENS, 1829 with the species *A. praecox* (LINNAEUS, 1758) and *Xylena solidaginis* (HÜBNER, 1803) represent new taxa for the country's fauna. Thus, the number of noctuid species in the fauna of the Republic of Moldova reached 427.

The species: *Acontia titania* (ESPER, 1798), *Aedophron rhodites* (EVERSMANN, 1851), *Periphanes delphinii* (LINNAEUS, 1758), *Eucarta amethystina* (HÜBNER, 1803), *Dasypolia templi* (THUNBERG, 1792), *Oxytrippia orbiculosa* (ESPER, 1799), *Euxoa cos* (HÜBNER, 1824), *Gortyna cervago* (EVERSMANN, 1844), *Meganephria bimaculosa* (LINNAEUS, 1758) and *Cucullia argentea* (HUFNAGEL, 1766) needs protection and conservation, so it is recommended according to IUCN criteria to be included in the next edition of the Red Book of the Republic of Moldova. The other species mentioned in the paper need to be included in the National Operational List of the Republic of Moldova and further directed research

for better knowledge. In the list of Noctuidae moths shown below, we mention the most important species, their records, some ecological and distribution data as well the conservation status in some European countries.

New taxa for the fauna of the Republic of Moldova are marked with an asterisk (*).

Familia Noctuidae LATREILLE, 1809

Subfamilia Acontiinae

Acontia titania (ESPER, 1798) (fig. 2)

Collected material: the species was reported in the Forest Nature Reserve “Cobîleni” (Orhei district) on July 31 2016, 1 spec. Although the species is mentioned by the site <https://fauna-eu>, the specimen collected in the “Cobîleni” Reserve is the only confirmatory evidence of the presence on the territory of the Republic of Moldova.

Geographical spread: central-asian-mediterranean element.

Ecological preference: xero-thermophilous species.

Protection and conservation: *Acontia titania* is a rare species in the fauna of the Republic of Moldova. In Romania *Acontia titania* has the status of a vulnerable species (VU) (RÁKOSY *et al.* 2003).

Subfamilia Heliiothinae

Aedophron rhodites (EVERSMANN, 1851) (fig. 3)

Collected material: the species was reported for the first time in the fauna of the Republic of Moldova in the “Cobîleni” Reserve, June 25 2016, 1 spec. (ȚUGULEA 2017).

Geographical spread: central-asian-mediterranean element.

Ecological preference: xero-thermophilous species.

Protection and conservation: it is very rare species in the fauna of the Republic of Moldova. It is included in the Red List of Romania with endangered critical status (CR) (RÁKOSY *et al.* 2003, RÁKOSY *et al.* 2021). In Ukraine it is included in the list of species that need protection and conservation, reported in several sites in the southeastern region (KLYUCHKO 2006). The species *Aedophron rhodites* needs protection and conservation, so it is proposed to be included in the next edition of the Red Book of the Republic of Moldova.

Periphanes delphinii (LINNAEUS, 1758) (fig. 4)

Collected material: on the territory of the Republic of Moldova there were three records of the species *Periphanes delphinii*. The first time in the fauna of the Republic of Moldova was reported in Chisinau on April 23 1903, 1 spec. (MILLER and ZUBOVSKI 1908). Later, in Ivancea village (Orhei district), between August 07 and September 16 1964 four more specimens were collected by the naturalist R.

Stepanov. The most recent report took place in the “Cobîleni” Reserve, July 15 2016, 1 spec. (ȚUGULEA and ȚUGULEA 2019b).

Geographical spread: west-asian-mediterranean element.

Ecological preference: xero-thermophilous species.

Protection and conservation: *Periphanes delphinii* is an endangered species both in the Republic of Moldova and in many European countries (ȚUGULEA 2020). In Romania it has the status of endangered species (EN) (RÁKOSY *et al.* 2003, RÁKOSY *et al.* 2021). In Ukraine it is included in the Red Book and in the list of species that need protection and conservation (AKIMOVA 2009, KLYUCHKO 2006). The species is also included in the Red List of Hungary with endangered status (<https://lepidoptera.eu/>). In Germany and the Czech Republic it has extinct species status (EX) (WOLF and HACKER 2003, HERJA *et al.* 2017). The species *Periphanes delphinii* needs protection and conservation, so it is recommended to be included in the Red Book of the Republic of Moldova.

Subfamilia Condicinae

Eucarta amethystina (HÜBNER, 1803) (fig. 5)

Collected material: the only report on the territory of the Republic of Moldova was in the “Cobîleni” Reserve, on August 19 2016, 1 spec. (ȚUGULEA and ȚUGULEA 2019a).

Geographical spread: euro-asian element.

Ecological preference: thermo-hygrophilous species.

Protection and conservation: it is very rare species in the fauna of the Republic of Moldova. In Romania it has the status of a vulnerable species (RÁKOSY *et al.* 2003, RÁKOSY *et al.* 2021). In Ukraine it was reported only in the northwestern region of the country (KLYUCHKO 2006). In Germany the species has endangered critical status (CR) (WOLF and HACKER 2003). The species *Eucarta amethystina* needs protection and conservation, so it is recommended to be included in the Red Book of the Republic of Moldova.

Subfamilia Xyleninae

Dasypolia templi (THUNBERG, 1792) (fig. 6)

Collected material: the species was reported in the “Cobîleni” Reserve on October 17, 23 2016, 2 specs., being the only report of the species on the territory of the Republic of Moldova (ȚUGULEA 2017).

Geographical spread: euro-asian element.

Ecological preference: meso-xero-thermophilous species.

Protection and conservation: in Romania and Germany *Dasypolia templi* has the status of endangered species (EN) (RÁKOSY *et al.* 2003, WOLF and HACKER 2003).

Oxytripia orbiculosa (ESPER, 1799) (fig. 7)

Collected material: the first report on the territory

of the Republic of Moldova happen in the Ivancea village (Orhei district) on October 20 1970, 1 spec., leg. R. Stepanov. Later, *Oxytripia orbiculosa* was collected in the “Cobîleni” Reserve, on October 11 2017, 1 spec.

Geographical spread: euro-asian element.

Ecological preference: xero-thermophilous species, prefers xero-thermophyte habitats near a running water source (RÁKOSY 1996).

Protection and conservation: very rare species in the fauna of the Republic of Moldova. In Romania it has the status of critically endangered species (CR) (RÁKOSY *et al.* 2003). In Ukraine it was reported only near the Donetsk (KLYUCHKO 2006). *Oxytripia orbiculosa* is also included in the Hungarian Red List (<https://lepidoptera.eu/>). The species needs to be included in the next edition of the Red Book of the Republic of Moldova.

***Gortyna cervago* (EVERSMANN, 1844) (fig. 8)**

Collected material: the species was reported for the first time on the territory of the Republic of Moldova in Chisinau on September 14 1922, 1 spec. (MILLER *et al.* 1932). Later it was collected in Chisinau, September 27 1932, 1 spec.; Bahmut village (Ungheni district), September 5-14 1961, 2 specs., leg. S. Plugaru and Ivancea village (Orhei district), September 28 1971, 1 spec., leg. R. Stepanov. After a period of several decades, the species *Gortyna cervago* was reported in the “Cobîleni” Reserve, in period August 31 and October 07 2016, 4 specs.; September 23 2017, 1 spec. and August 12 2018, 1 spec. (ȚUGULEA 2020).

Geographical spread: ponto-caspian element.

Ecological preference: xero-thermophilous species.

Protection and conservation: the species was reported only in the central area of the Republic of Moldova. In Romania, the species *Gortyna cervago* was considered CR (RÁKOSY *et al.* 2003), but was downgraded to NT in the new edition of the Red List (RÁKOSY *et al.* 2021). In Ukraine it has been reported only in a few sites in the southern region of the country (KLYUCHKO 2006).

***Episema tersa* (DENIS & SCHIFFERMÜLLER, 1775) (fig. 9)**

Collected material: the presence of the species on the territory of the Republic of Moldova until our studies was mentioned by the site <https://fauna-eu.org/>. These data were confirmed in 2016, in the “Cobîleni” Reserve where 13 individuals were collected on September 07 2016 and September 17 2017. In other parts of the country, *Episema tersa* was not reported.

Geographical spread: ponto-caspian element.

Ecological preference: xero-thermophilous species.

Protection and conservation: In Romania, the species *Episema tersa* was considered VU (RÁKOSY *et al.* 2003), but was downgraded to LC/NT in the new edition of the Red List (RÁKOSY *et al.* 2021). In the Czech Republic *Episema tersa* has the status of vulnerable species (VU) (HERJA *et al.* 2017).

****Xylena solidaginis* (HÜBNER, 1803) (fig. 10)**

Collected material: is a new species for the fauna of the Republic of Moldova, reported in the “Codrii” Scientific Reserve, Lozova village (Strășeni district), July 26 2019, 1 spec.

Geographical spread: holarctic element.

Ecological preference: hygrophilous species.

Protection and conservation: in Romania *Xylena solidaginis* has the status of a near threatened (NT) (RÁKOSY *et al.* 2021).

Subfamilia Noctuidae

***Euxoa cos* (HÜBNER, 1824) (fig. 11)**

Collected material: the only report on the territory of the Republic of Moldova was in the “Cobîleni” Reserve, September 17 2016, 1 spec. (ȚUGULEA 2019).

Geographical spread: west-asian-mediterranean element.

Ecological preference: xero-thermophilous species.

Protection and conservation: is rare species in the fauna of the Republic of Moldova.

***Euxoa birivia* (DENIS & SCHIFFERMÜLLER, 1775) (fig. 12)**

Collected material: the only report on the territory of the Republic of Moldova was in the “Cobîleni” Reserve, September 17 2016, 1 spec. (ȚUGULEA 2019).

Geographical spread: euro-asian element.

Ecological preference: mesophilous species.

Protection and conservation: In Romania it has data deficient (DD) status. In Ukraine the species has been recorded in two western regions and in the south of the Crimean peninsula (KLYUCHKO 2006). The species *Euxoa birivia* is included in the Hungarian Red List (<https://lepidoptera.eu/>).

***Xestia sexstrigata* (HAWORTH, 1809) (fig. 13)**

Collected material: the species was first reported in



Fig. 2. *Acontia titania* (♂), 31.07.2016, Republic of Moldova, Forest Nature Reserve “Cobîleni” (Orhei district).



Fig. 3. *Aedophron rhodites* (♂), 25.06.2016, Republic of Moldova, “Cobîleni” Reserve (the pink color disappeared due to the immobilization solution).

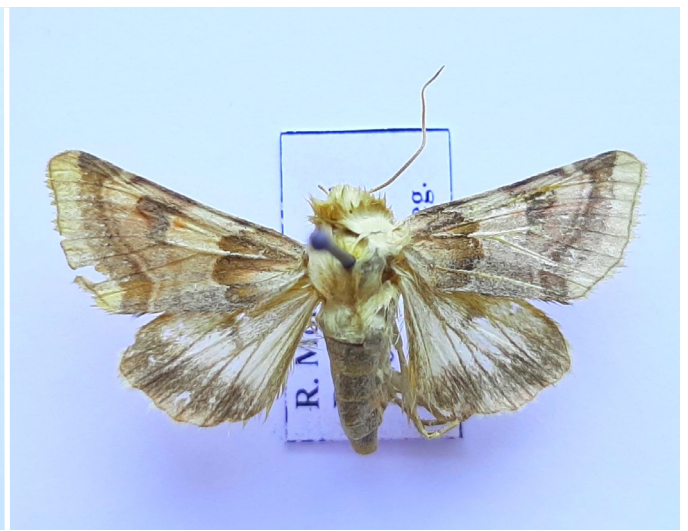


Fig. 4. *Periphanes delphinii* (♂), 15.07.2016, Republic of Moldova, “Cobîleni” Reserve.



Fig. 5. *Eucarta amethystina* (♂), 19.08.2016, Republic of Moldova, “Cobîleni” Reserve



Fig. 6. *Dasypolia templi* (♀), 17.10.2016, Republic of Moldova, “Cobîleni” Reserve



Fig. 7. *Oxytripia orbiculosa*, 11.10.2017, Republic of Moldova, “Cobîleni” Reserve



Fig. 8. *Gortyna cervago* (♂), 07.10.2016, Republic of Moldova, “Cobîleni” Reserve.



Fig. 9. *Episema tersa* (♂), 29.09.2016, Republic of Moldova, “Cobileni” Reserve.



Fig. 10. *Xylena solidaginis* (♀), 26.07.2019, Republic of Moldova, “Codrii” Scientific Reserve



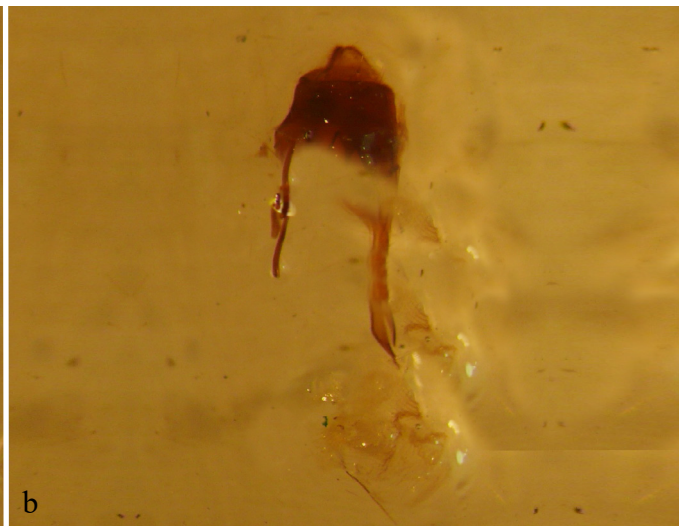
a



a



b



b

Fig. 11. *Euxoa cos*, 17.09.2016, Republic of Moldova, “Cobileni” Reserve, a. – imago (♂); b. – the genital armature with the detached aedagus (Gen. prep. C. Țugulea).

Fig. 12. *Euxoa birivia*, 17.09.2016, Republic of Moldova, “Cobileni” Reserve, a. – imago (♀); b. – the genital armature (♀) (Gen. prep. C. Țugulea).



Fig. 13. *Xestia sexstrigata* (♀), 02.09.2016, Republic of Moldova, Brînzeni village (Edineț district).



Fig. 14. *Epilecta linogrisea* (♂), 27.07.2016, Republic of Moldova, “Cobîleni” Reserve.



Fig. 15. *Actebia praecox*, 26.07.2019, Republic of Moldova, “Codrii” Scientific Reserve



Fig. 16. *Calophasia opalina* (♀), 20.07.2019, Republic of Moldova, “Cobîleni” Reserve



Fig. 17. *Cucullia argentea* (♂), 26.07.2019, Republic of Moldova, “Codrii” Scientific Reserve



Fig. 18. *Meganephria bimaculosa* (♂), 26.09.2020, Republic of Moldova, “Codrii” Scientific Reserve

the fauna of the Republic of Moldova in Brînzei (Edineț district) on September 02 2016, 1 spec., leg. I. Chiriac (ȚUGULEA 2017).

Geographical spread: atlanto-mediterranean element. Records from Austria, Hungary, Ukraine and the Republic of Moldova collected in the last 30 years suggest that *Xestia sextrigata* is extending its range towards South-Eastern Europe (RÁKOSY and RÁKOSY 2020).

Ecological preference: meso-hygrophilous species. Protection and conservation: the species is included in the Hungarian Red List (<https://lepidoptera.eu/>).

***Epilecta linogrisea* (DENIS & SCHIFFERMÜLLER, 1775) (fig. 14)**

Collected material: the species was reported for the first time on the territory of the Republic of Moldova in Strășeni, August 16 1931, 1 spec. and Chișinău, August 25 1931, 3 specs., leg. N. Zubovschi. Later, after 85 years, it was reported in the “Cobîleni” Reserve on July 27 and September 11 2016, 2 specs. Geographical spread: central-asian-mediterranean element.

Ecological preference: xero-thermophilous species. Protection and conservation: is rare species in the fauna of the Republic of Moldova. In Romania and Germany it has the status of a near threatened species (NT) (RÁKOSY *et al.* 2021, WOLF and HACKER, 2003).

****Actebia praecox* (LINNAEUS, 1758) (fig. 15)**

Collected material: new species for the fauna of the Republic of Moldova, reported in the “Codrii” Reserve, July 26 2019, 1 spec.

Răspândire: euro-asian element.

Ecological preference: mesophilous species.

Subfamilia Oncocnemidinae

***Calophasia opalina* (ESPER, 1794) (fig. 16)**

Collected material: the species was first reported in the fauna of the Republic of Moldova in Chișinău at the beginning of the last century: May 15 1924, 2 specs.; June 6, August 26 1934, 2 specs.; May 24 1935, 1 spec.; August 31 1938, 1 spec. (DERJANSCHI *et al.* 2016). Later it was reported in Ivancea village (Orhei district), August 18 1975, 1 spec., leg. R. Stepanov and in the “Cobîleni” Reserve, July 20 2019, 1 spec. Geographical spread: central-asian-mediterranean element.

Ecological preference: xero-thermophilous species. Protection and conservation: the species is rarely found in the fauna of the Republic of Moldova.

Subfamilia Cucullinae

***Cucullia argentea* (HUFNAGEL, 1766) (fig. 17)**

Collected material: the species was first reported in the fauna of the Republic of Moldova in Ivancea village (Orhei district), in July 1963, 1 spec., leg.

R. Stepanov. Later, it was collected in the “Codrii” Reserve, July 26 2019, 1 spec.

Geographical spread: euro-asian element.

Ecological preference: mesophilous species.

Protection and conservation: the species *Cucullia argentea* is rarely found on the territory of the Republic of Moldova. In Romania it has the status of a vulnerable species (VU) (RÁKOSY *et al.* 2003) and data deficient (DD) in the new edition of the Red List (RÁKOSY 2021). The species is also protected in Ukraine and Germany with endangered species status (EN) (AKIMOVA 2009, WOLF and HACKER 2003).

Subfamilia Psaphidinae

***Meganephria bimaculosa* (LINNAEUS, 1758) (fig. 18)**

Collected material: the first time in the fauna of the Republic of Moldova the species *Meganephria bimaculosa* was reported in Bender, October 13 1923, 2 specs., later in Chișinău, October 01 1925, 1 spec.; October 01 1932, 1 spec. and Bularda village (Călărași district), September 23, 24 1935, 2 specs., leg. N. Zubovschi. The most recent report happen in the “Codrii” Reserve, September 26 2020, 1 spec.

Geographical spread: central-asian-mediterranean element.

Ecological preference: thermo-meso-hygrophilous species.

Protection and conservation: the species *Meganephria bimaculosa* is rarely found on the territory of the Republic of Moldova. In Germany, the species has the status of critically endangered species (CR) (WOLF and HACKER 2003). In Romania the species was regarded as CR (RÁKOSY *et al.* 2003) but entered in the new edition of the Red List as NT *et al.* 2021 (RÁKOSY *et al.* 2021). This species needs protection and conservation, so it is recommended to be included in the Red Book of the Republic of Moldova.

Conclusions

The genus *Actebia* STEPHENS, 1829 and the species *Actebia praecox* (LINNAEUS, 1758) and *Xylena solidaginis* (HÜBNER, 1803) represent new taxa for the country's fauna. Thus, the number of noctuid species in the fauna of the Republic of Moldova reached 427.

The noctuid species: *Acontia titania* (ESPER, 1798), *Aedophron rhodites* (EVERSMANN, 1851), *Periphanes delphinii* (LINNAEUS, 1758), *Eucarta amethystina* (HÜBNER, 1803), *Dasypolia templi* (THUNBERG, 1792), *Oxytripia orbiculosa* (ESPER, 1799), *Euxoa cos* (HÜBNER, 1824), *Gortyna cervago* (EVERSMANN, 1844), *Meganephria bimaculosa* (LINNAEUS, 1758) and *Cucullia argentea* (HUFNAGEL, 1766) needs protection and conservation, so it is recommended to be included in the next edition of the Red Book of the Republic of Moldova.

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