

THE INVASIVE COLEOPTEROFAUNA FOR REPUBLIC OF MOLDOVA

Asea M. Timuş *

* The State Agrarian University of Moldova, Institute of Zoology, Kishinev, Republic of Moldova
E-mail: asea_timus@yahoo.com

Abstract

The invasive coleopteroфаuna for Republic of Moldova consists of the 100 species. After correlation local database with Fauna Europaea for our country registered are 31 of species, but for 69 mentioned with the „absent” and 38 „no date”. In the meantime 24 species were recorded for our country: *Acanthoscelides abtectus*, *A.pallidipennis*, *Alphitobius diaperinus*, *Alphitophagus bifasciatus*, *Bruchus pisorum*, *B.rufimanus*, *Caulophilus latinasus*, *Diabrotica virgifera*, *Gnathocerus cornutus*, *Harmonia axyridis*, *Lasioderma serricorne*, *Leptinotarsa decemlineata*, *Lignyodes bischoffi*, *Lithocharis nigriceps*, *Oryzaephilus surinamensis*, *Rhyzopertha dominica*, *Sitophilus granarius*, *S. oryzae*, *S. zeamais*, *Tenebrio molitor*, *Tenebrioides mauritanicus*, *Tribolium castaneum*, *T. destructor*, *Trogoderma granarium*. According periods penetration the invasive beetles it was found that 2 species have entered the XVIII century, 16 species in the XIX, 53 species in the XX and 29 species in the XXI century. The registration invasive beetles in countries of interest to the our country is in: Bulgaria – 54 species; Poland – 39; România – 3; other countries- 4.

Keywords: the invasive coleopteroфаuna, Republic of Moldova.

1. INTRODUCTION

Of all the insects on the planet, beetles are most numerous in number of species, such coleopteroфаuna invasive in Europe, including our country is one of the richest. Some beetles constitute a significant part in the history of international and national entomological research, because migration from one continent to another accidentally or intentionally started several centuries ago (Elton, 1958; Derjanschi et al., 2012).

Some of nonnative species became agricultural plant pests with economic impact: *Acanthoscelides obtectus* (Timuş, 2004), *Leptinotarsa decemlineata* (Timuş, 2001, 2002, 2003), *Popillia japonica*, *Autoserica castanea*, *Anomalina orientalis*, *Xylosandrus germanus*, *Lignyodes bischoffi* (Poiras, 1989), *Diabrotica virgifera*, etc. (Perju et al., 2005; Timuş, 2005; Voineac, 2007; Timuş and Covali, 2008; Perju and Teodor, 2009). Other launched intentionally became useful niches, being effective predators of agricultural pests, for example *Rodolia cardinalis* the ocean origin and *Harmonia axyridis* of Asian origin (Semianov, 1974; Ijevski, 2008; Ruicănescu and Alexandru, 2009; Beliakova, 2010; Kubisy, 2011; Iazloveţchii and Sumencova, 2013; Timuş, 2013; Timuş and Stahi, 2013 a,b; Vition, 2013).

Some species have penetrated accidentally or specifically released on some continents, contribute to recycling decaying organic matter (*Lithocharis nigriceps*, *Oxytelus migrator*, species from genus

Geotrupes, *Attagenus*, *Dermestinus*, *Corticaria*, etc.). Knowledge aspects of geographical origin, distribution into new ecological niches, bioecological peculiarities, the economic impact, environmental aspects, etc., these species are needed for each country, which was taken and in our country (Busuioc, 2003; Timuş and Croitoru, 2006 a,b; Bacal et al., 2013; Muntean et al., 2014; Timuş, 2015).

In this context, the paper exposes some aspects from basic research of the coleopterofauna invasive from database of Republic of Moldova.

2. MATERIALS AND METHODS

Research the invasive entomofauna from the superorder Mecopteroidea was performed according to: a) analysis of the individual insect host-plants of agricultural land and the cultural landscapes (parks, squares, alleys, niches without control); b) literature in the archives and the libraries sectional "old book"; c) in the conjunction with databases of interest to the countries: Romania, Poland and Bulgaria. In the agricultural fields and the cultural landscapes, the individuals specimens of insects harvested during the growing season were installed by the methods of collecting and their conservation (Croitoru et al., 2012).

3. RESULTS AND DISCUSSIONS

The invazive coleopterofauna consists of the 100 species divided into the 2 suborder (Adephaga, Polyphaga), 3 infraorder (Staphyliniformia – 11,0%; Bostrichiformia – 19,0%; Cucujiformia – 67,0%), 10 suprafamily and 26 family (Table 1, 2 and Figure 1).

The data presented is observed as a most species are part of superfamily Cucujoidea (29.0%), coming up Bostrichoidea (19.0%), Tenebrionoidea (15.0%), Chrysomeloidea (11.0%), Curculionoidea (11.0%), etc. At the level of families dominated Tenebrionidae with 10 of species, Anobiidae, Dermestridae and Nitidulidae each with 9 species, 10 other families with one species and the other to a variable number of from 2 or 7 species.

From the chronological analysis the invazive coleopterofauna, observed that beginning of the XVIII century and continues to the present. The earliest recorded invasive beetles were: *Stegobium paniceum* – 1792 (on the stored plant products); *Nausibius clavicornis* – 1794 (in sugar cane stored); *Alphitobius diaperinus* – 1794 (in organic matter decomposing being saprophagous and coprophagous); *Bruchus pisorum* – 1832 (in beans of *Pisum sativum*); *Sitophilus oryzae* – 1806 (on the stored plant products); *Lasioderma serricorne* – 1832 (in organic matter decomposing being pantophagous); *Bruchus rufimanus*, *Tribolium castaneum* – 1848 (in beans of *Vicia fabae* and others the stored plant products); *Rhyzopertha dominica* – 1852 (in stored grain), etc. Registering an invasive beetle fauna was conducted primarily by sea route, on the north side, that is, in Poland, then through the southern side or Bulgaria, and then through the west side or Romania and a small amount from the south or through Ukraine.

In total, in this century were dated 33 invasive beetles, but recording continued in the XIX century (16 species), the XX century (53 species) and the XXI century (29 species) (figure 2).

Table 1. The invasive entomofauna from superorder Coleopteroidea, Coleoptera order, registered in the countries of interest for Republic of Moldova

| Clasification | number of species | Romania | | Bulgaria | | Poland | | Other country | | FaEu / Republic of Moldova | | | | | |
|--|-------------------|---------|------|----------|------|--------|------|---------------|------|----------------------------|------|--------|------|---------|------|
| | | total | % | total | % | total | % | total | % | present | % | absent | % | no date | % |
| Suborder Adephaga | | | | | | | | | | | | | | | |
| Caraboidea | 3 | 0 | 0 | 33.3 | 0 | 66.6 | 0 | 0 | 0 | 2 | 66.6 | 1 | 33.3 | 0 | 0 |
| Total | 3 | 0 | 0 | 33.3 | 0 | 66.6 | 0 | 0 | 0 | 2 | 66.6 | 1 | 33.3 | 0 | 0 |
| suborder Polyphaga | | | | | | | | | | | | | | | |
| infraorder Staphyliniformia | | | | | | | | | | | | | | | |
| Staphylinioidea | 6 | 2 | 33.3 | 0 | 0 | 4 | 66.6 | 0 | 0 | 2 | 33.3 | 1 | 16.6 | 3 | 50.0 |
| Histeroidea | 3 | 0 | 0 | 3 | 100 | 0 | 0 | 0 | 0 | 1 | 33.3 | 2 | 66.6 | 0 | 0 |
| Hydrophiloidea | 2 | 0 | 0 | 0 | 0 | 2 | 100 | 0 | 0 | 0 | 0 | 2 | 100 | 0 | 0 |
| Total | 11 | 2 | 18.1 | 3 | 27.2 | 6 | 54.5 | 0 | 0 | 3 | 27.2 | 5 | 45.4 | 3 | 27.2 |
| infraorder Bostrichiformia | | | | | | | | | | | | | | | |
| Bostrichoidea | 19 | 0 | 0 | 12 | 63.1 | 6 | 31.5 | 1 | 5.2 | 10 | 52.6 | 8 | 42.1 | 1 | 5.2 |
| Total | 19 | 0 | 0 | 12 | 63.1 | 6 | 31.5 | 1 | 5.2 | 10 | 52.6 | 8 | 42.1 | 1 | 5.2 |
| Infraorder Cucujiformia | | | | | | | | | | | | | | | |
| Cucujoidea | 29 | 0 | 0 | 20 | 68.9 | 8 | 27.5 | 1 | 3.4 | 10 | 34.4 | 10 | 34.4 | 8 | 27.5 |
| Tenebrionoidea | 15 | 0 | 0 | 7 | 46.6 | 8 | 53.3 | 0 | 0 | 2 | 13.3 | 5 | 33.3 | 8 | 53.3 |
| Chrysomeloidea | 11 | 1 | 9.0 | 5 | 45.4 | 5 | 45.4 | 0 | 0 | 1 | 9.0 | 1 | 9.0 | 9 | 81.8 |
| Curculionoidea | 11 | 0 | 0 | 5 | 45.4 | 4 | 36.3 | 2 | 18.1 | 3 | 27.2 | 0 | 0 | 9 | 81.8 |
| Cleroidea | 1 | 0 | 0 | 1 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 | 0 | 0 |
| Total | 67 | 0 | 0 | 38 | 56.7 | 26 | 38.8 | 3 | 4.4 | 16 | 23.8 | 17 | 25.3 | 34 | 50.7 |
| Total | 100 | 3 | 3.0 | 54 | 54.0 | 39 | 39.0 | 4 | 4.0 | 31 | 31.0 | 31 | 31.0 | 38 | 38.0 |
| Suborder – 2; Infraorder – 3; Superfamilies – 10 | | | | | | | | | | | | | | | |

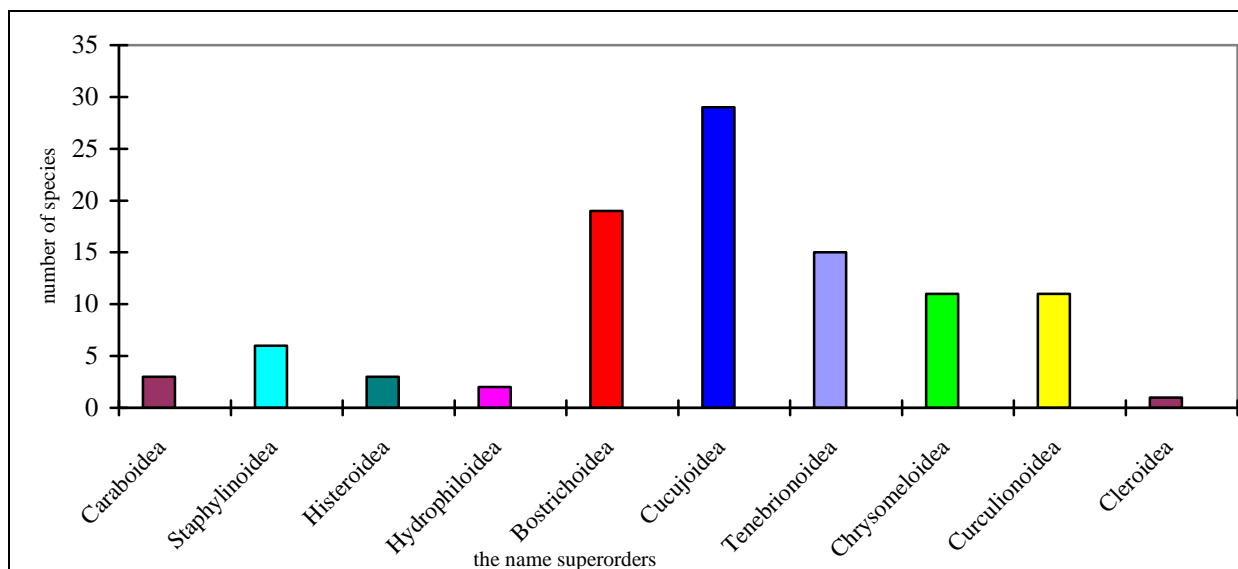
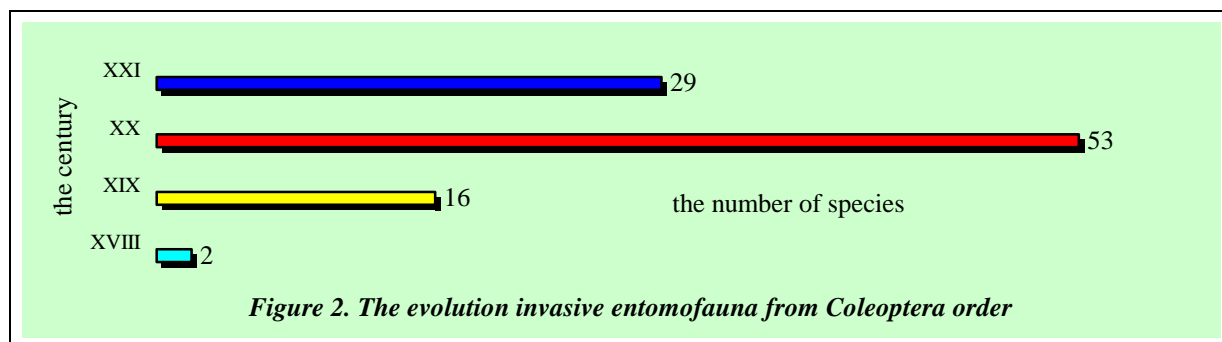
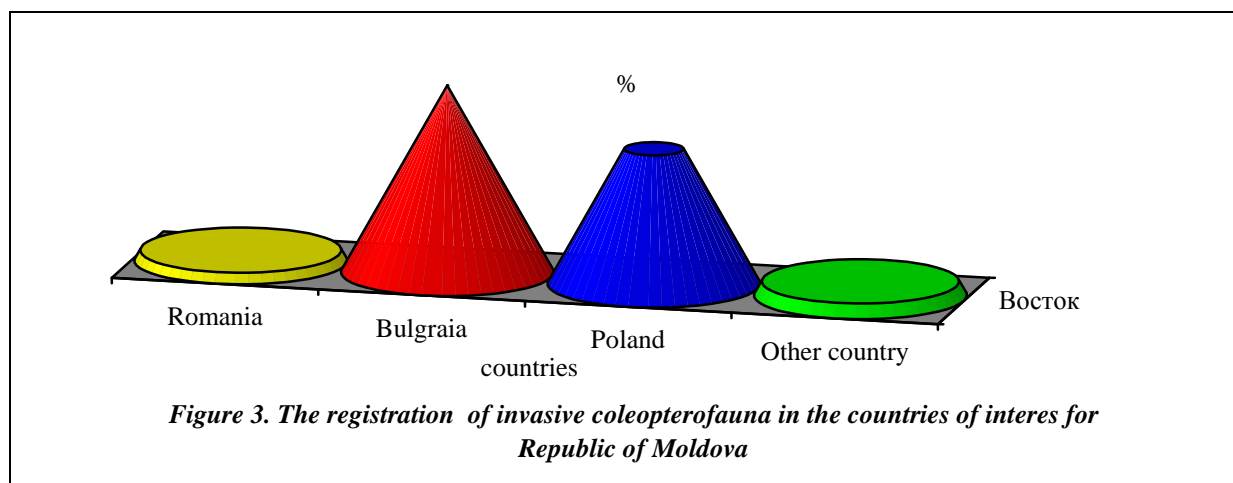


Figure 1. The invasive entomofauna from Coleopteroidea superorder



From the chronological correlation of databases with the countries of interest to mention that most species were recorded: in the Bulgaria – 54.0%; then in the Poland – 39.0%; in the Romania – 3.0%; in other countries – 4.0% (Figure 3).



The invasive coleopterofauna has been correlated with the database of Fauna Europaea and for the Republic of Moldova 69.0% of species mentioned were „absent” and „no date”. Of these, in our country, 24 species were recorded: 1 of the Anobiidae family (*Lasioderma serricornis* – 2003), 1 of the Bostrichidae family (*Rhyzopertha dominica* – 2003), 4 of the Bruchidae family (*Bruchus pisorum*, *B. rufimanus*, *Acanthoscelides abtectus* – 1957, *A. pallidipennis* – 2006), 2 of the Chrysomelidae family (*Leptinotarsa decemlineata* – 1960, *Diabrotica virgifera* – 2014), 1 of the Coccinellidae family (*Harmonia axiridis* – 2011), 5 of the Curculionidae family (*Lignyodes bischoffi* – 1987, *Sitophilus granarius*, *S. oryzae*, *S. zeamais*, *Caulophilus latinasus* – 2003), 1 of the Dermestidae family (*Trogoderma granarium* – 2003), 1 of the Silvanidae family (*Oryzaephilus surinamensis*), 1 of the Staphylinidae family (*Lithocharis nigriceps* – 1984), 6 of the Tenebrionidae family (*Gnathocerus cornutus* – 2003, *Alphitobius diaperinus*, *Alphitophagus bifasciatus*, *Tribolium castaneum*, *T. destructor* – 2005, *Tenebrio molitor* – 2005), 1 of the Trogossilidae family (*Tenebrioides mauritanicus* – 2003). The other 45 species require research and publication of results in scientific articles of European value, because most of these species are found in one of the countries of interest.

Table 2. The invazive entomofauna from the Holometabola grupa, Coleopteroidea supraorder, Coleoptera order

| Family, genus, species / Order, suborder, superfamily, Infraorder | 1780-1789 | 1790-1799 | 1800-1809 | 1810-1819 | 1820-1829 | 1830-1839 | 1840-1849 | 1850-1859 | 1860-1869 | 1870-1879 | 1880-1889 | 1890-1899 | 1900-1909 | 1910-1919 | 1920-1929 | 1930-1939 | 1940-1949 | 1950-1959 | 1960-1969 | 1970-1979 | 1980-1989 | 1990-1999 | 2000-2009 | 2010-2014 | |
|---|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----|
| Carabidae | suborder Adephaga, superfamily Caraboidea | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. <i>Amara majuscula</i> , 1850 | | | | | | | | | | | | | | | Po | | | | | | | | | | |
| 2. <i>Trechicus nigriceps</i> , 1831 | | | | | | | | | | | | | | | Po | | | | | | | | | | |
| 3. <i>Pterostichus caspius</i> , 1832 | | | | | | | | | | | | | | | | | | | | | Bg | | | | |
| Anobiidae | suborder Polyphaga, superfamily Bostrichoidea, Infraorder Bostrichiformia | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. <i>Lasioderma serricorne</i> , 1792 | | | | | Po | | | | | | | | | | | | | | | | | | | | |
| 5. <i>Stegobium paniceum</i> , 1758 | | Po | | | | | | | | | | | | | | | | | | | | | | | |
| 6. <i>Epauloecus unicolor</i> , 1783 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 7. <i>Gibbium psylloides</i> , 1778 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 8. <i>Niptus hololeucus</i> , 1835 | | | | | | | | | | | | | | | | | | | | | | | | Md | |
| 9. <i>Ptinus bicinctus</i> , 1837 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 10. <i>P. fur</i> , 1758 | | | | | | | | | | | | | | | | Bg | | | | | | | | | |
| 11. <i>P. latro</i> , 1775 | | | | | | | | | | | | | | | | | | Bg | | | | | | | |
| 12. <i>P. tectus</i> , 1856 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| Dermestidae | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. <i>Attagenus smirnovi</i> , 1973 | | | | | | | | | | | | | | | | | | | | | | | | Po | |
| 14. <i>A. fasciatus</i> , 1795 | | | | | | | | | | | | | | | | | | | | Bg | | | | | |
| 15. <i>A. unicolor</i> , 1791 | | | | | | | | | | | | | Bg | | | | | | | | | | | | |
| 16. <i>Dermestinus frischi</i> , 1792 | | | | | | | | | | | | Bg | | | | | | | | | | | | | |
| 17. <i>D. maculatus</i> , 1774 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 18. <i>D. lardarius</i> , 1758 | | | | | | | | | | | | Bg | | | | | | | | | | | | | |
| 19. <i>Sefrania bleusei</i> , 1899 | | | | | | | | | | | | | | | | | | | | | | | Po | | |
| 20. <i>Trogoderma granarium</i> , 1898 | | | | | | | | | | | | | | | | | | | Po | | | | | | |
| 21. <i>T. glabrum</i> , 1783 | | | | | | | | | | | | | Bg | | | | | | | | | | | | |
| Bostrichidae | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22. <i>Rhyzopertha dominica</i> , 1792 | | | | | | | | Po | | | | | | | | | | | | | | | | | |
| Coccinellidae | Suborder Polyphaga, superfamily Cucujoidea, Infraorder Cucujiformia | | | | | | | | | | | | | | | | | | | | | | | | |
| 23. <i>Harmonia axyridis</i> , 1773 | | | | | | | | | | | | | | | | | | | | | | | | Po | |
| Cryptophagidae | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24. <i>Caenoscelis subdeplanata</i> , 1882 | | | | | | | | | | | | | | | | | | | | | | | | | Ma |
| 25. <i>Cryptophagus laticollis</i> , 1846 | | | | | | | | | | | | | | | | | | | | Bg | | | | | |
| 26. <i>C. acutangulus</i> , 1828 | | | | | | | | | | | | | | | | | | | Bg | | | | | | |
| 27. <i>C. cellaris</i> , 1763 | | | | | | | | | | | | | | | | | | | Bg | | | | | | |
| 28. <i>C. fallax</i> , 1953 | | | | | | | | | | | | | | | | | | | | Bg | | | | | |
| 29. <i>C. pilosus</i> , 1827 | | | | | | | | | | | | | | | | | | | | Bg | | | | | |
| 30. <i>C. subfumatus</i> , 1856 | | | | | | | | | | | | | | | | | | | | Bg | | | | | |
| Endomychidae | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31. <i>Holoparamesus caularum</i> , 1843 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| Latridiidae | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32. <i>Cartodere nodifer</i> , 1839 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 33. <i>Corticaria elongata</i> , 1827 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 34. <i>C. ferruginea</i> 1802 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 35. <i>C. fulva</i> , 1837 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |
| 36. <i>C. serrata</i> , 1798 | | | | | | | | | | | | | | | | | | | | | | | | Bg | |

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|-----|---|---|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|----|----|
| 37. | <i>Dienerella filum</i> , 1850 | | | | | | | | | | | | | | | | | | Bg |
| 38. | <i>Latridius minutus</i> , 1767 | | | | | | | | | | | | | | | | | | Bg |
| | Silvanidae | | | | | | | | | | | | | | | | | | |
| 39. | <i>Ahasverus advena</i> , 1834 | | | | | | | Po | | | | | | | | | | | |
| 40. | <i>Nausibius clavicornis</i> , 1794 | Po | | | | | | | | | | | | | | | | | |
| 41. | <i>Oryzaephilus mercator</i> , 1889 | | | | | | | | | | | | | | | | | Po | |
| 42. | <i>C. surinamensis</i> , 1758 | | | | | | | Po | | | | | | | | | | | |
| | Nitidulidae | | | | | | | | | | | | | | | | | | |
| 43. | <i>Carpophilus nepos</i> , 1864 | | | | | | | | | | | | | | | | | | Bg |
| 44. | <i>C. marginellus</i> , 1858 | | | | | | | | | | | | | | | | | Po | |
| 45. | <i>C. hemipterus</i> , 1758 | | | | | | | Po | | | | | | | | | | | |
| 46. | <i>C. dimidiatus</i> , 1792 | | | | | | | | | | | | | | | | | | Bg |
| 47. | <i>C. mutilatus</i> , 1843 | | | | | | | | | | | | | | | | | | Bg |
| 48. | <i>C. tersus</i> , 1865 | | | | | | | | | | | | | | | | | | Bg |
| 49. | <i>Glischrochilus quadrisignatus</i> , 1835 | | | | | | | | | | | | | | | | | Po | |
| 50. | <i>Epuraea luteola</i> , 1843 | | | | | | | | | | | | | | | | | | Bg |
| 51. | <i>Urophorus humeralis</i> , 1798 | | | | | | | | | | | | | | | | | | Bg |
| | Anthicidae | Suborder Polyphaga, superfamily Tenebrionoidea, Infraorder Cucujiformia | | | | | | | | | | | | | | | | | |
| 52. | <i>Omonadus floralis</i> , 1758 | | | | | | | | | | | | | | | | | | Bg |
| | Ciidae | | | | | | | | | | | | | | | | | | |
| 53. | <i>Xylographus bostrychoides</i> , 1843 | | | | | | | | | | | | | | | | | | Bg |
| | Mycetophagidae | | | | | | | | | | | | | | | | | | |
| 54. | <i>Litargus balteatus</i> , 1856 | | | | | | | | | | | | | | | | | | Po |
| 55. | <i>Typhaea stercorea</i> , 1758 | | | | | | | | | | | | | | | | | | Bg |
| | Oedemeridae | | | | | | | | | | | | | | | | | | |
| 56. | <i>Nacertes melanura.</i> , 1758 | | | | | | | | | | | | | | | | | | Po |
| | Tenebrionidae | | | | | | | | | | | | | | | | | | |
| 57. | <i>Alphitobius diaperinus</i> , 1797 | | | | | | | | | | | | | | | | | Po | |
| 58. | <i>A. laevigatus</i> , 1781 | | | | | | | | | | | | | | | | | | Po |
| 59. | <i>Alphitophagus bifasciatus</i> , 1824 | | | | | | | | | | | | | | | | | | Bg |
| 60. | <i>Gnathocerus cornutus</i> , 1798 | | | | | | | | | | | | | | | | | Po | |
| 61. | <i>Latheticus oryzae</i> , 1880 | | | | | | | | | | | | | | | | | | Bg |
| 62. | <i>Palorus subdepressus</i> , 1864 | | | | | | | | | | | | | | | | | | Bg |
| 63. | <i>Tribolium castaneum</i> , 1797 | | | | | | | | | | | | | | | | | | Po |
| 64. | <i>T. confusum</i> , 1862 | | | | | | | | | | | | | | | | | | Po |
| 65. | <i>T. destructor</i> , 1933 | | | | | | | | | | | | | | | | | | Po |
| 66. | <i>Tenebrio molitor</i> , 1758 | | | | | | | | | | | | | | | | | | Bg |
| | Cerambycidae | Suborder Polyphaga, superfamily Chrysomeloidea, Infraorder Cucujiformia | | | | | | | | | | | | | | | | | |
| 67. | <i>Anoplophora glabripennis</i> , 1853 | | | | | | | | | | | | | | | | | | Po |
| | Chrysomelidae | | | | | | | | | | | | | | | | | | |
| 68. | <i>Diabrotica virgifera</i> , 1868 | | | | | | | | | | | | | | | | | | Bg |
| 69. | <i>Leptinotarsa decemlineata</i> , 1824 | | | | | | | | | | | | | | | | | | Po |
| 70. | <i>Epitrix hirtipennis</i> , 1847 | | | | | | | | | | | | | | | | | | Bg |
| | Bruchinae | | | | | | | | | | | | | | | | | | |
| 71. | <i>Acanthoscelides obtectus</i> , 1831 | | | | | | | | | | | | | | | | | | Ro |

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|------------------------------------|--|---|--|----|--|----|--|--|--|--|--|--|--|--|--|--|--|--|----|----|----|----|
| 72. | <i>A. pallidipennis</i> , 1873 | | | | | | | | | | | | | | | | | | Bg | | | |
| 73. | <i>Bruchus pisorum</i> , 1758 | | | Po | | | | | | | | | | | | | | | | | | |
| 74. | <i>B. rufimanus</i> , 1833 | | | | | Po | | | | | | | | | | | | | | | | |
| 75. | <i>Callosobruchus maculatus</i> , 1775 | | | | | | | | | | | | | | | | | | Bg | | | |
| 76. | <i>C. chinensis</i> , 1758 | | | | | | | | | | | | | | | | | | | Bg | | |
| 77. | <i>Zabrotes subfasciatus</i> , 1833 | | | | | | | | | | | | | | | | | | Po | | | |
| Anthribidae | | Suborder Polyphaga, superfamily Curculionoidea, Infraorder Cucujiformia | | | | | | | | | | | | | | | | | | | | |
| 78. | <i>Araecerus coffeae</i> , 1801 | | | | | | | | | | | | | | | | | | | | Bg | |
| Curculionidae | | | | | | | | | | | | | | | | | | | | | | |
| 79. | <i>Anthonomus brunnipennis</i> , 1840 | | | | | | | | | | | | | | | | | | | | Po | |
| 80. | <i>Lignyodes bischoffi</i> , 1916 | | | | | | | | | | | | | | | | | | | | | Md |
| 81. | <i>Sitophilus granarius</i> , 1758 | | | | | | | | | | | | | | | | | | Bg | | | |
| 82. | <i>S. oryzae</i> , 1763 | | | | | | | | | | | | | | | | | | | Po | | |
| 83. | <i>S. zeamais</i> , 1855 | | | | | | | | | | | | | | | | | | | | Po | |
| 84. | <i>Caulophilus latinasus</i> , 1838 | | | | | | | | | | | | | | | | | | | | | Md |
| 85. | <i>Gronops inaequalis</i> , 1842 | | | | | | | | | | | | | | | | | | | | Po | |
| Brentidae (Apioninae) | | | | | | | | | | | | | | | | | | | | | | |
| 86. | <i>Alocentron curvirostre</i> , 1833 | | | | | | | | | | | | | | | | | | | | Bg | |
| 87. | <i>Aspidapion validum</i> , 1817 | | | | | | | | | | | | | | | | | | | | | Bg |
| 88. | <i>Rhopalapion longirostre</i> , 1807 | | | | | | | | | | | | | | | | | | | | Bg | |
| Trogossitidae (Ostomatidae) | | Suborder Polyphaga, superfamily Cleroidea, Infraorder Cucujiformia | | | | | | | | | | | | | | | | | | | | |
| 89. | <i>Tenebrioides mauritanicus</i> , 1758 | | | | | | | | | | | | | | | | | | | | Bg | |
| Staphylinidae | | suborder Polyphaga, superfamily Staphylinoidea, Infraorder Staphyliniformia | | | | | | | | | | | | | | | | | | | | |
| 90. | <i>Oxytelus migrator</i> , 1904 | | | | | | | | | | | | | | | | | | | | | Po |
| 91. | <i>Lithocharis nigriceps</i> , 1859 | | | | | | | | | | | | | | | | | | | | | Ro |
| 92. | <i>Bisnius parvus</i> , 1874 | | | | | | | | | | | | | | | | | | | | | Ro |
| 93. | <i>Philonthus rectangulus</i> , 1874 | | | | | | | | | | | | | | | | | | | | Po | |
| 94. | <i>Ph. spinipes</i> , 1874 | | | | | | | | | | | | | | | | | | | | | Po |
| Bathysciidae | | | | | | | | | | | | | | | | | | | | | | |
| 95. | <i>Speonomus normandi hydrophilus</i> , 1907 | | | | | | | | | | | | | | | | | | | | | Po |
| Histeridae | | suborder Polyphaga, superfamily Histeroidea, Infraorder Staphyliniformia | | | | | | | | | | | | | | | | | | | | |
| 96. | <i>Carcinops pumilio</i> , 1834 | | | | | | | | | | | | | | | | | | | | | Bg |
| 97. | <i>Cryptolestes pusillus</i> , 1817 | | | | | | | | | | | | | | | | | | | | | Bg |
| 98. | <i>C. ferrugineus</i> , 1831 | | | | | | | | | | | | | | | | | | | | | Bg |
| Hydrophilidae | | Suborder Polyphaga, superfamily Hydrophiloidea, Infraorder Staphyliniformia | | | | | | | | | | | | | | | | | | | | |
| 99. | <i>Cercyon laminatus</i> , 1873 | | | | | | | | | | | | | | | | | | | | | Po |
| 100. | <i>Cryptopleurum subtile</i> , 1884 | | | | | | | | | | | | | | | | | | | | | Po |

4. CONCLUSIONS

The invazive coleopterofauna from Republic of Moldova consists of the 100 species or 33,4% the entire database and they are part of 67 of genus, 26 of family, 10 superfamily, 3 infraorder and 2 suborder. At the level families dominate Tenebrionidae family with 10 species, Anobiidae,

Dermestridae and Nitidulidae family each with 9 species, and the other to a variable number of from 1 to 7 species.

The chronological registration the invazive coleopterofauna began in the XVIII century with species *Stegobium paniceum* – 1972); *Nausibius clavicornis*, *Alphitobius diaperinus* – 1794; *Bruchus pisorum* – 1832; *Sitophilus oryzae* – 1806; *Lasioderma serricorne* – 1832; *Bruchus rufimanus*, *Tribolium castaneum* – 1848; *Rhyzopertha dominica* – 1852; etc.; in the XIX century 16 of species, in the XX century 53 of species and in the XXI century 29 of species.

The phytophagous beetles were found in various the stored plant products and the destructors – saprophagous, pantophagous, coprophagous and decomposing organic matter.

After collating the coleopterofauna invazive with database of the Fauna Europaea was determined that for 69 species referred to "absent" and "no data", but meanwhile the 24 species were recorded in our country: *Acanthoscelides abtectus*, *Bruchus pisorum*, *B. rufimanus*, *Oryzaephilus surinamensis* – 1957; *Leptinotarsa decemlineata* – 1960; *Lithocharis nigriceps* – 1984; *Lignyodes bischoffi* – 1987; *Caulophilus latinasus*, *Gnathocerus cornutus*, *Lasioderma serricorne*, *Rhyzopertha dominica* *Sitophilus granarius*, *S. oryzae*, *S. zeamais*, *Trogoderma granarium*, *Tenebrioides mauritanicus* – 2003; *Alphitobius diaperinus*, *Alphitophagus bifasciatus*, *Tribolium castaneum*, *T. destructor*, *Tenebrio molitor* – 2005; *Acanthoscelides pallidipennis* – 2006; *Harmonia axiridis* – 2011; *Diabrotica virgifera* – 2014.

The registration invasive insects in countries of interest for our country, these species are recorded as follows: in the Bulgaria – 54 species, in the Poland – 39, in the Romania – 3 and in other countries – 4.

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