

LEAF BEETLES (CHRYSOMELIDAE, COLEOPTERA) OF TINCA AREA (BIHOR COUNTY, ROMANIA)

Aurelian Leonardo Ilie ^{1,*}, Mariana Marinescu ², Lorena Cosma Ilie ³

¹ "Nicolae Jiga" High School, Republicii Str. No. 36A, Tinca, Bihor, Romania

² Teacher Training Department, University of Oradea, University Str. No. 1, Oradea, Bihor, Romania

³ Gymnasium School No. 1, Principal Str. No. 18, Batar, Bihor, Romania

Abstract

In this work are presented data about the fauna of leaf beetles (Chrysomelidae) from Tinca area, Bihor county, the researches being, recorded during 2002-2018. There were identified 165 species belonging to 11 subfamilies, 46 genera, 6 subspecies and 41 chromatic varieties. Two species: *Dibolia russica* Wse and *Phyllotreta scheuchi* Hktr. are mentioned for the first time in Romania in 2017, some species are relatively rare in Romania: *Cassida seladonia* Gyll, *Cassida margaritacea* Schall, *Chrysolina aurichalcea* Mann., *Galeruca melanocephala* Ponz, *Longitarsus pinguis* Wse, *Longitarsus pallidicornis* Kutch, *Longitarsus ochroleucus* Marsh, *Longitarsus fuscoaeneus* Redt, *Chaetocnema orientalis* Baud, *Chaetocnema compressa* Letzn, *Longitarsus gracilis* Kutch.

Keywords Chrysomelidae, leaf beetles, Tinca area

1. INTRODUCTION

Tinca area is located in the south -western part of Bihor County, belonging to the historical province of Crişana, in the north-western part of Romania, with a surface of 454 km², at the confluence of the Miersigului Plain and the Holodului Depression. The average altitude is 110m, the climate is temperate-continental moderate, the drainage is represented by Crişul Negru river.

The vegetation belongs to the oak stage (Berindei and Pop, 1972). Data about the fauna of leaf beetles from Tinca area were published by Ilie (2003, 2005, 2006 a, b, c, 2017), Ilie and Marinescu (2018), Ilie (2010, 2014, 2017 a, b).

Tinca village includes: Tinca, Gurbediu, Râpa, Belfir and Girişu-Negru villages.

The Chrysomelidae family (known as leaf beetles) is according to the number of species, the second family of coleopterans, after Curculionidae family, in the world (about 40.000 species).

This paper is a synthesis of data regarding the leaf beetles from Tinca area during 2002-2018, the results contributing to the completion of the information on leaf beetle diversity and distribution in the Romanian fauna.

2. MATERIALS AND METHODS

The leaf beetles were collected with hands and the entomological net. For the identification of the species were used different sources (Kaszab, 1962; Warchalowski, 2003). The classification and the nomenclature are based on the monograph of Warchalowski (2003).

3. RESULTS AND DISCUSSIONS

During the analyzed period in Tinca area there were identified the following species:

Chrysomelidae – Tinca

Subfamily Donaciinae Kirby, 1837

Donacia simplex Fabricius, 1775 – ab. *aurichalcea* Westhoff, 1882 (Girişu-Negru)

Subfamily Orsodacninae Thomson, 1866

Orsodacne cerasi Linnaeus, 1758 (Tinca)

Subfamily Criocerinae Latreille, 1807

Liliocerus lilii Scopoli, 1763 (Tinca)

Liliocerus merdigera Linnaeus, 1758 (Râpa and Tinca forest)

Crioceris aspagi aspagi Linnaeus, 1758 (Tinca)

Crioceris duodecimpunctata Linnaeus, 1758 (Tinca)

Oulema gallaeciana Heyden, 1870 (Tinca)

Oulema melanopus Linnaeus, 1758 (all the area)

Oulema erichsonii Suffrian, 1841 (Tinca forest)

Lema cyanella Linnaeus, 1758 (Tinca)

Subfamily Clytrinae Kirby, 1837

Labidostomus longimana Linnaeus, 1761 (all the area)

Labidostomis humeralis Schneider, 1792 (Tinca)

Labidostomis tridentata Linnaeus, 1758 (Tinca)

Lachnaia sexpunctatata Scopoli, 1763 (Tinca, Tinca forest)

Clytra laeviuscula Ratzeburg, 1837 (all the area)

Smaragdina salicina Scopoli, 1763 (Tinca, Râpa, Gurbediu)

Smaragdina aurita Linnaeus, 1767 (Tinca, Râpa, Gurbediu)

Smaragdina xanthaspis Germar, 1824 (Tinca forest, Râpa forest)

Smaragdina affinis Illiger, 1794 (Tinca)

Coptocephala unifasciata Scopoli 1763 (Râpa)

Subfamily Cryptocephalinae Gyllenhal, 1813

Pachybrachis hieroglyphicus Laicharting, 1781 (Tinca, Râpa) and ab. *ictericus* Weise, 1882

Pachybrachis sinuatus Mulsant, 1859 (Râpa, Belfir)

Cryptocephalus moraei Linnaeus, 1758 (all the area) and :

- ab. *nigellus* Burlini, 1955

- ab. *bivittatus* Gyllenhal, 1827

Cryptocephalus janthinus Germar, 1824 (Tinca forest)

Cryptocephalus bipunctatus Linnaeus, 1758 (Tinca, Râpa)

Cryptocephalus violaceus Laicharting, 1781 (Râpa)

Cryptocephalus flavipes Fabricius, 1781 (Tinca)

Cryptocephalus querceti Suffrian 1848 (Tinca and Râpa forest)

Cryptocephalus sericeus Linnaeus, 1758 (Râpa, Tinca)

Cryptocephalus vittatus Fabricius, 1775 (Tinca)

Cryptocephalus ocellatus Drapiez, 1819 (Belfir)

Cryptocephalus hypochoeridis Linnaeus, 1758 (Tinca, Râpa)

Cryptocephalus bilineatus Linnaeus, 1767 (Tinca, Râpa) and

- ab. *armeniacus* Faldermann, 1837

- ab. *gesztelensis* Csiki, 1953

- ab.ujhelyi Csiki, 1953.
- Cryptocephalus octacosnus* Bedel, 1891 (Tinca, Râpa)
- Cryptocephalus signatifrons* Suffrian, 1847 (Tinca)
- Cryptocephalus aureolus* ssp. *illyricus* Franz, 1949 (Tinca)
- Cryptocephalus frenatus* Laicharting, 1781 (Tinca, Râpa) and
 - ab. *callifer* Suffrian, 1847
 - ab. *binotatipennis* Pic, 1904.
- Cryptocephalus apicalis* Gebler, 1830 (Tinca) and ab. *delicatissimus* Roubal, 1825
- Cryptocephalus sexpunctatus* Linnaeus, 1758 (Râpa).
 - Subfamily Eumolpinae Thomson, 1859
- Eumolpus asclepiadeus* Pallas, 1776 (Tinca forest)
 - Subfamily Chrysomelinae Latreille, 1802
- Leptinotarsa decemlineata* Say, 1824 (in all the area) and:
 - ab. *mediosignata* Pic, 1945 (Tinca),
 - ab. *basijuncta* Pic, 1945 (Tinca).
 - one hybrid belonging to ab. *paulojuncta* Pic, 1945 x ab. *bijuncta* Pic, 1945 (Tinca)
- Chrysolina fastuosa* Scopoli, 1763 (in all the area) and
 - ab. *galeopsidis* Schrank, 1798
 - ab. *jodasi* Bechyne, 1950, ab. *callichloris* Bechyne, 1950.
- Chrysolina herbacea* Duftschmid, 1825 (Tinca) and
 - ab. *solistima* Bechyne, 1950,
 - ab. *durabilis* Bechyne, 1950
 - ab. *cupreopurpurea* Costa, 1838.
- Chrysolina varians* Schaller, 1783 (Tinca, Tinca forest) and ab. *pratensis* Weise, 1916
- Chrysolina oricalcia* Muller, 1776 (Râpa, Tinca)
- Chrysolina marginata* Linnaeus, 1758 (Tinca)
- Chrysolina sturmi* Westhoff, 1882 (in all the area)
- Chrysolina cerealis* Linnaeus, 1767 (Tinca forest) – ab. *luxurians* Olivier, 1807
- Chrysolina polita* Linnaeus, 1758 (Tinca)
- Chrysolina haemoptera* Linnaeus, 1758 (Tinca, Râpa)
- Chrysolina gypsophilae* Kuster, 1845 (Tinca)
- Chrysolina sanguinolenta* Linnaeus, 1758 (Tinca)
- Chrysolina limbata* Fabricius, 1775 (Tinca) – ab. *Kavani* Bechyne, 1950
- Chrysolina aurechalcea* subsp. *Bohemica* Muller, 1948 (Tinca)
- Colaphus sophiae* Schaller, 1783 (Tinca) and subsp. *transsylvanicus* Mackatsch, 1954
- Gastrophysa polygony* Linnaeus, 1758 (Tinca)
- Gastrophysa viridula* Degeer, 1775 (Râpa)
- Entomoscelis adonidis* Pallas, 1771 (Tinca)
- Phaedon cochleariae* Fabricius, 1792 (Tinca) and ab. *neglectus* Sahlberg, 1838
- Phaedon laevigatus* Duftschmid, 1825 (Tinca)
- Plagioderma versicolora* Laicharting, 1781 (in all the area)
- Chrysomela lapponica* Linnaeus, 1758 (Tinca forest)
 - ab. *bulgharensis* Fabricius, 1798
- Chrysomela populi* Linnaeus, 1758 (in all the area)
- Chrysomela vigintipunctata* Scopoli, 1763 (in all the area)
- Chrysomela saliceti* Suffrian, 1849 (Râpa)

- Gonioctena fornicata* Bruggemann, 1873 (in all the area)
Gonioctena linnaeana Schrank, 1781 (Girişu-Negru)
Phratora vitellinae Linnaeus, 1758 (Tinca)
 Subfamily Galerucinae Latreille, 1802
Galeruca tanacetii Linnaeus, 1758 (in all the area)
Galeruca pomonae Scopoli, 1763 (Râpa, Tinca, Tinca forest)
Galeruca melanocephala Ponza, 1805 (Tinca)
Galeruca rufa Germar, 1824 (Tinca)
Xanthogaleruca luteola Muller, 1766 (Tinca forest, Râpa forest)
Galerucella lineola Fabricius, 1781 (Tinca forest)
Galerucella californiensis Linnaeus, 1767 (Tinca, Râpa) and ab.lythri Gyllenhal, 1813
Diabrotica virgifera virgifera Le Conte, 1898 (in all the area)
Galerucella pusilla Duftschid, 1825 (Tinca)
Pyrrhalta viburni Paykull, 1799 (Tinca frorest, Râpa forest, Gurbediu forest)
Agelastica alni Linnaeus, 1758 (Râpa forest)
Luperus xanthopoda Schrank, 1781 (Tinca)
 Subfamily Alticinae Kutchera, 1859
Phyllotreta nemorum Linnaeus, 1758 (in all the area)
Phyllotreta vittula Redtenbacher, 1849 (Tinca)
Phyllotreta cruciferae Goeze, 1777 (Tinca)
Phyllotreta striolata Fabricius, 1803 (Tinca) – ab. discendens Weise, 1888
Phyllotreta armoraciae Koch, 1803 (Tinca, Râpa)
Phyllotreta tetrastigma Comolli, 1837 (Tinca)
Phyllotreta diademata Foudras, 1860 (Tinca)
Phyllotreta nigripes Fabricius, 1775 (in all the area)
Phyllotreta scheuchii Heikertinger, 1941 (Tinca forest)
Phyllotreta ochripes Curtis, 1837 (Tinca) – ab. cruciata Weise, 1888
Phyllotreta procera Redtenbacher, 1849 (Tinca)
Aphthona venustula Kutchera, 1861 (Tinca, Tinca forest)
Aphthona cyparissiae Koch, 1803 (Tinca forest)
Aphthona pallida Bach, 1856 (Tinca)
Aphthona nonstriata Goeze, 1777 (Gurbediu)
Aphthona semicyanea Allard, 1859 (Tinca) – ab. picipes Weise, 1888
Longitarsus lycopi Foudrasi, 1860 (Tinca)
Longitarsus tabidus Fabricius, 1775 (Tinca spa)
Longitarsus rubiginosus Foudras, 1860 (Tinca, Râpa)
Longitarsus ballotae Marsham, 1802 (Tinca, Tinca forest)
Longitarsus melanocephalus De Geer, 1775 (Râpa forest)
Longitarsus symphyti Heikertinger, 1912 (Tinca)
Longitarsus nigrofasciatus Goeze, 1777 (Tinca) and ab.domesticus Weise, 1893, ab. patruelis Allard, 1866
Longitarsus aeneicollis Foldermann, 1837 (Tinca)
Longitarsus melanocephalus De Geer, 1775 (Tinca, Tinca forest)
Longitarsus jacobaeae Waterhouse, 1861 (Tinca)
Longitarsus curtus Allard, 1860 (Tinca)
Longitarsus exoletus Linnaeus, 1758 and ssp. Rufus Foudras, 1860 (Tinca)

- Longitarsus pratensis* Panzer, 1784 (Tinca)
Longitarsus suturellus Duftschmid, 1825 (Tinca) and ab. testis Kolbe, 1920
Longitarsus nasturtii Fabricius, 1792 (Tinca)
Longitarsus brunneus Duftschmid, 1825 (Tinca)
Longitarsus luridus Scopoli, 1763 (Tinca)
Longitarsus parvulus Paykull, 1799 (Tinca)
Longitarsus pinguis Weise, 1888 (Tinca)
Longitarsus quadriguttatus Pontoppidan, 1763 (Tinca)
Longitarsus pallidicornis Kutchera, 1863 (Tinca)
Longitarsus ochroleucus Marsham, 1802 (Tinca)
Longitarsus minusculus Foudras, 1860 (Tinca)
Longitarsus holsaticus Linnaeus, 1758 (Tinca)
Longitarsus atricillus Linnaeus, 1761 (Tinca)
Longitarsus linnaei Duftschmid, 1825 – ab. amoenus Weise, 1888 (Girişu-Negru)
Longitarsus longipennis Kutchera, 1863 (Tinca, Râpa)
Longitarsus fuscoaeneus Redtenbacher, 1849 (Tinca)
Longitarsus ganglbaueri Heikertinger, 1912 (Tinca)
Longitarsus echii Koch, 1803 (Tinca spa, Tinca forest)
Longitarsus brisouti Heikertinger, 1912 (Tinca, Râpa forest)
Longitarsus gracilis Kutchera, 1864 (Tinca) and ab. nigrithorax Heikertinger, 1912
Longitarsus minimus Foudras, 1860 (Râpa) and ssp. saliceti Weise 1888 (Tinca)
Altica oleracea Linnaeus, 1758 (in all the area) and ssp. breddini Mohr, 1958, ab. lugubris Weise 1888
Altica impresicollis Reiche, 1862 (Tinca)
Chaetocnema tibialis Illiger, 1807 (Tinca, Râpa, Gurbediu)
Chaetocnema concinna Marsham, 1802 (Tinca, Râpa forest)
Chaetocnema orientalis Bauduer, 1874 (Tinca forest, Râpa forest)
Chaetocnema clorophana Duftschmid, 1825 (Tinca)
Chaetocnema compressa Letzner, 1847 (Tinca)
Chaetocnema hortensis Geoffroy, 1785 (Tinca)
Dibolia timida Illiger, 1807 (Tinca)
Dibolia russica Weise, 1893 (Râpa forest)
Neocrepidodera transsilvanica Fuss, 1864 (Tinca) – ab. rufipennis Daniel, 1904
Neocrepidodera transversa Marsham, 1802 (Râpa)
Neocrepidodera impressa subsp. obtusangula Daniel, 1904 (Tinca)
Crepidodera plutus Latreille, 1804 (Tinca)
Crepidodera aurea Geoffroy, 1785 (Tinca, Râpa, Tinca forest, Râpa forest) – ab. laeta Weise, 1886, ab. purpurascens Pic, 1918
Crepidodera aurata Merham, 1802 (Tinca)
Crepidodera lamina Bedel, 1901 (Tinca, Râpa) – ab. cuprea Weise, 1886, ab. sapphirina Weise, 1886
Epitrix atropae Foudras, 1860 (Tinca) and ab. quadrimaculata Weise, 1886
Podagrica malvae Illiger, 1807 (Tinca) and ab. picicollis Heikertinger, 1912
Podagrica menetriesii Faldermann, 1837 (Tinca, Râpa)
Podagrica fuscicornis Linnaeus, 1766 (Tinca)
Sphaeroderma testaceum Fabricius, 1775 (Tinca)

Sphaeroderma rubidum Graells, 1858 (Tinca forest)
Psylliodes chrysocephalus Linnaeus, 1758 (Tinca) and ab. *erythrocephalus* Linnaeus, 1758
Psylliodes affinis Paykull, 1799 (Tinca)
Psylliodes hyoscyami Linnaeus, 1758 (Tinca)
Subfamily Hispinae Gyllenhal, 1813
Hispa atra Linnaeus, 1767 (Tinca, Tinca forest)
Subfamily Cassidinae Gyllenhal, 1813
Hypocassida subferruginea Schrank, 1776 (in all the area) and ab. *sobrigna* Weise, 1893
Cassida sanguinolenta Muller, 1776 (Tinca)
Cassida viridis Linnaeus, 1758 (in all the area)
Cassida nobilis Linnaeus, 1758 (Tinca)
Cassida vibex Linnaeus, 1767 (Tinca)
Cassida seladonia Gyllenhal, 1827 (Tinca)
Cassida margaritacea Schaller, 1783 (Tinca).

There were identified 164 species belonging to 11 subfamilies, 46 genera, 5 subspecies and 41 chromatic varieties. The number of the recorded species (164) represents 28.62 % of the total species from Romania (573=571 – Maican, 2005; 2 – Ilie, 2017).

Two species: *Dibolia russica* Wse. and *Phyllotreta scheuchi* Hktr. are mentioned for the first time in Romania in 2017 (Ilie, 2017).

Most of the identified species are common in Romanian fauna but some species are rare: *Cassida seladonia* Gyll., *Cassida margaritacea* Schall., *Chrysolina aurichalcea*, the subspecies *bohemica* Mull. Being mentioned for the first time in Romania, *Galeruca melanocephala* Ponza, *Longitarsus pinguis* Wse., *Longitarsus pallificornis* Kutch., *Longitarsus ochroleucus* Marsh., *Longitarsus minusculus* Foudr., *Altica impresicollis* Reiche, *Longitarsus holsaticus* L., *Longitarsus fuscoaeneus* Redt., *Chaetocnema orientalis* Baud., *Chaetocnema compressa* Letzn., *Longitarsus gracilis* Kutch.

The most represented subfamily is Alticinae – 76 species (46.34 %), followed by Chrysomelinae – 28 species (17.07 %), Cryptocephalinae – 19 species (11.58), Galerucinae – 12 species (7.31 %), Clytrinae – 10 species (6.09%), Criocerinae – 8 species (4.87 %), Cassidinae – 7 species (4.26 %), Donaciinae – 1 species (0.60 %), Orsodacninae - 1 species (0.60 %), Eumolpinae -1 species (0.60 %), Hispinae - 1 species (0.60 %).

4. CONCLUSIONS

During 2002 – 2018, in Tinca area there were identified 165 species of Chrysomelidae, two species are mentioned for the first time in Romania in 2017, one subspecies is mentioned for the first time in Romania in 2018 and 14 species are rare in Romanian fauna.

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