

RESARCHES REGARDING THE ENTOMOFAUNA OF CETATE AREA-
DOLJ COUNTY

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ABSTRACT

From our observation regarding the entomofauna of Cetate area, during the research, 127 species of Arthropods were identified (belonging to the orders: Acari, Orthoptera, Dermaptera, Thysanoptera, Homoptera, Hymenoptera, Neuroptera, Odonata, Coleoptera, Lepidoptera, Diptera).

INTRODUCTION

Cetate is located in the southwestern extremity of Dolj County, having as its border the Danube river. The total surface of the commune is 8324 ha, of which agricultural 1364 ha (wheat, corn, sunflower, vegetable crops, fruit trees, vines, grassy pastures) and 830 ha forest land. (<https://www.primariacetate.ro>)

The entomofauna is represented both by harmful species specific to the crops in the area, as well as by useful antagonistic species formed by parasites and predators, as well as indifferent species present in the area of ponds or forest curtains to protect the Danube bank.

A series of specific antagonistic relationships are established between harmful and useful species, which under human influence, in the case of agricultural ecosystems, determine the structure of the entomofauna at a certain moment.

MATERIAL AND METHODS

Observations were conducted during 2024-2025 in the Cetate – Dolj area.

To determine the structure of the entomofauna were made collection of material using various means and methods: directly by hand from plants or soil, frame metric, soil surveys and soil surface collected, visual inspection, collection with sticky traps for flying insects, light traps, analyzing samples with binocular magnifier glass directly in the field or laboratory.

After collecting of biological material was made the material collected was analyzed and determined with the binocular magnifier glass using the Identification Manual (Chatenedu Gaetan 1990, Chinery M. 1998, Godeanu S.P. 2002, Dreyer Eva-Maria 2024, Roland Gerstmeier 2025).

For as little impact on the ecosystem we have preferred to capture images with the camera than to capture live specimens were subsequently removed from their natural environment.

RESULTS AND DISCUSSIONS

During the research, 127 species of Arthropods were collected and identified (belonging to the orders: Acari, Orthoptera, Dermaptera, Thysanoptera, Homoptera, Hymenoptera, Neuroptera, Odonata, Coleoptera, Lepidoptera, Diptera).

The most numerous order was Coleoptera with 47 species collected, followed by the order Lepidoptera with 24 species collected, the order Heteroptera with 12 species collected, the order Hymenoptera with 10 species collected, the order Orthoptera with 9 species collected, the order Acari with 4 species, the order Diptera with 7 species collected, the order Homoptera, the orders Neuroptera, Odonata and Thysanoptera with 2 species collected, the order Dermaptera with only one species collected.

Table nr.1

Entomofauna from Cetate-Dolj area

1. 2. 3. 4.	Order ACARI (4 species)	<i>Panonychus ulmi</i> Koch <i>Tetranychus urticae</i> Koch <i>Typhlodromus</i> spp. <i>Amblyseius</i> spp.
1. 2. 3. 4. 5. 6. 7. 8. 9.	Order ORTHOPTERA (9 species)	<i>Gryllotalpa gryllotalpa</i> L. <i>Gryllus campestris</i> L. <i>Gryllus desertus</i> L. <i>Ephippiger ephippiger</i> Fieb. <i>Caliptamus italicus</i> L. <i>Locusta migratoria</i> L. <i>Dociostaurus maroccanus</i> Thunb. <i>Mantis religiosa</i> L. <i>Hierodula tenuidentata</i> Sauss.
1.	Order DERMAPTERA (1 specie)	<i>Forficula auricularia</i>
1. 2. 3. 4 5 6. 7.	Order HOMOPTERA (7 species)	<i>Aphis pomi</i> De Geer. <i>Dysaphis devector</i> Wal. <i>Hyalopterus pruni</i> Geoff. <i>Myzus cerasi</i> Fabr. <i>Myzus persicae</i> Sulz. <i>Macrosiphum rosae</i> L. <i>Aphis fabae</i> Scop.
1. 2.	Order Thysanoptera (2 species)	Harmful species <i>Haplothrips tritici</i> Hal. <i>Thrips tabaci</i> Lind.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11 12.	Order HETEROPTERA (12 species)	<i>Lygus pratensis</i> L. <i>Dolycoris baccarum</i> L. <i>Eurygaster maura</i> L. <i>Eurygaster austriaca</i> schr. <i>Aelia acuminata</i> L. <i>Aelia rostrata</i> Boh. <i>Eurygaster integriceps</i> L. <i>Pirocorys apterus</i> L. <i>Eurydema oleracea</i> L. <i>Eurydema ornata</i> L. <i>Graphosoma lineatum</i> L. <i>Nezara viridula</i> L.
1. 2. 3. 4. 5. 6. 7.	Order HYMENOPTERA (10 species)	<i>Vespa vulgaris</i> L. <i>Vespa germanica</i> L. <i>Vespa crabro</i> L. <i>Scolia flavifrons</i> F. <i>Bombus terrestris</i> L. <i>Syrphoctonus violaceus</i> F. <i>Apis mellifera</i> L.

8		<i>Formica rufa</i> L.
9.		<i>Formica polyctena</i> Fors.
10.		<i>Formica pratensis</i> Retz.
1.	Order	<i>Chrysopa carnea</i> Steph.
2.	NEUROPTERA (2 species)	<i>Chrysopa perla</i> Steph.
1.	Order	<i>Orthetrum</i> spp. New.
2.	ODONATA (2 species)	<i>Libellula depressa</i> L.
1.	Order COLEOPTERA (47 species)	<i>Oryctes nasicornis</i> L.
2.		<i>Melolontha melolontha</i> L.
3.		<i>Amphimallon solstitialis</i> L.
4.		<i>Rhizothrogus aequinoctialis</i> Herb.
5.		<i>Polyphila fullo</i> F.
6.		<i>Anoxia orientalis</i> L.
7.		<i>Anomala solida</i> Er.
8.		<i>Lethrus apterus</i> L.
9.		<i>Phylopertha horticola</i> L.
10.		<i>Agriotes obscurus</i> L.
11.		<i>Agriotes ustulatus</i> Schall
12.		<i>Agriotes lineatus</i> L.
13.		<i>Byctiscus betulae</i> L.
14.		<i>Otiorrhynchus ligustici</i> L.
15.		<i>Epicometis hirta</i> Poda.
16.		<i>Cetonia aurata</i> L.
17.		<i>Oxythyrea funesta</i> Poda.
18.		<i>Anisoplia segetum</i> Herb.
19.		<i>Anisoplia austica</i> Herb.
20.		<i>Anisoplia agricola</i> Poda.
21.		<i>Zabrus tenebricoides</i> Goeze.
22.		<i>Melasma populi</i> L.
23.		<i>Leptinotarsa decemlineata</i> Say.
24.		<i>Sitona lineatus</i> L.
25.		<i>Chrysomela cuprea</i> F.
26.		<i>Opatrum sabulosum</i> L.
27.		<i>Subcoccinella 24 punctata</i> L.
28.		<i>Phytodecta furnicata</i> L.
29.		<i>Ruguloscolytus rugulosus</i> Ratg.
30.		<i>Scolytus scolytus</i> Ratg.
31.		<i>Pentodon idiota</i> Herbst.
32.		<i>Cryptorrhynchus lapathi</i> L.
33.		<i>Saperda carcharis</i> L.
34.		<i>Saperda populnea</i> L.
35.		<i>Cantharis rustica</i> Fall.
36.		<i>Dicerca alni</i> Fisch.
37.		<i>Capnodis tenebrionis</i> L.
38.		<i>Pentodon idiota</i> Herbst
39.		<i>Meloe proscarabaeus</i> L.
40.		<i>Adalia decimpunctata</i> L.
41.		<i>Adalia bipunctata</i> L.
42.		<i>Coccinella 7 punctata</i> L.
43.		<i>Carabus ulrichi</i> L.
44.		<i>Carabus violaceus</i> L.
45.		<i>Carabus cancelatus</i> L.
46.		<i>Calosoma sycophanta</i> L.
47.		<i>Carabus coriaceus</i> L.
1.	Order LEPIDOPTERA (24 species)	<i>Lobesia botrana</i> Den et Schif
2.		<i>Sparganotis pilleriana</i> Den et Schif.
3.		<i>Clysia ambiguella</i> Hb.
4.		<i>Hyphantria cunea</i> Drury
5.		<i>Agrotis segetum</i> schiff.
6.		<i>Plusia gamma</i> L.
7.		<i>Mamestra brassicae</i> L.

8.		<i>Zeuzera pyrina</i> L.
9.		<i>Pieris brassicae</i> L.
10.		<i>Pieris rapae</i> L.
11.		<i>Aporia crataegi</i> L.
12.		<i>Pieris napi</i> L.
13.		<i>Vanessa cardui</i> L.
14.		<i>Ipheclides podalirius</i> L.
15.		<i>Tortrix viridana</i> L.
16.		<i>Leucoma salicis</i> L.
17.		<i>Euproctis chrysorrhoea</i> L.
18.		<i>Malacosoma neustria</i> L.
19.		<i>Operophtera brumata</i> L.
20.		<i>Erannis defoliaria</i> Cerk.
21.		<i>Argynnis paphia</i> L.
22.		<i>Lycaena dispar</i> L.
23.		<i>Zygaena purpuralis</i> Brunn.
24.		<i>Macroglossum stellatarum</i> L.
1.	Order DYPTERA (7 species)	<i>Rhagoletis cerasi</i> L.
2.		<i>Delia antiqua</i> Mei.
3.		<i>Delia brassicae</i> L.
4.		<i>Musca domestica</i> L.
5.		<i>Sarcophaga carnaria</i> L.
6.		<i>Syrphus ribesii</i> L.
7.		<i>Syrphus torvus</i> L.

CONCLUSIONS

The entomofauna identified in the Cetate area corresponds to the agricultural or natural ecosystems in the area.

Along with the useful entomofauna in the studied area, there is a rich avifauna, mammal species, reptiles and amphibians that also contributes to the regulation of harmful insect populations. All these species contribute to the regulation of harmful populations, but the greatest contribution has man especially in the arable area (crops, vegetables, orchards, etc.) where it intervenes on harmful species when the economic threshold is exceeded of damage.

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