Current Trends in Natural Sciences
Vol. 14, Issue 27, pp. 36-45, 2025
https://doi.org/10.47068/ctns.2025.v14i27.005
Current Trends in Natural Sciences (on-line)
ISSN: 2284-953X
ISSN-L: 2284-9521
Current Trends in Natural Sciences (CD-Rom)
ISSN: 2284-9521
ISSN-L: 2284-9521

OBSERVATIONS ON THE STRUCTURE AND DYNAMICS OF ARTHROPOD SPECIES COLLECTED FROM PEA CROPS

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Abstract
In 2023, 10 arthropod harvests were carried out in the pea crop, collecting 77 taxa and 1962 specimens. The most abundant species were Dermestes laniarius (277 specimens), ants (274 specimens) and Coccinella septempunctata (265 specimens). The largest harvest was achieved at the first harvest, with 447 specimens, dominated by Coccinella septempunctata (128 specimens). Regarding the classes, Insecta was the best represented, with 1801 specimens (91.79%), followed by Arachnida (157 specimens, 8%) and Diplopoda (4 specimens, 0.2%). The insect orders included Coleoptera (1109 specimens), Hymenoptera (365), Orthoptera (117), Lepidoptera (80), Heteroptera (74), Diptera (55) and Neuroptera (1). Among arachnids, Opiliones (152) and Acari (7) were encountered, and among diplopods only the order Julida (4) was encountered.
In 2024, 6 harvests were carried out, collecting 70 taxa and 2041 specimens. The largest groups were Diptera (447 specimens), Coccinella septempunctata (268) and Opatrum sabulosum (176). The richest harvest was the first, with 575 specimens, dominated by Opatrum sabulosum (172). The classes had a similar distribution to the previous year: Insecta (1865 specimens, 91.38%), Arachnida (169, 8.28%) and Diplopoda (7, 0.34%). The collected insect orders were Coleoptera (1039 specimens), Hymenoptera (180), Orthoptera (143), Lepidoptera (4), Heteroptera (48), Diptera (447) and Homoptera (2). Among arachnids, Opiliones (162) and Acari (7) were identified, and among diplopods, Julida (7 specimens).
Thus, both seasons demonstrated a significant biodiversity, with the predominance of insects, especially Coleoptera and Diptera, highlighting the ecological structure of the pea agroecosystem.

Keywords: *arthropods, significant biodiversity, peas.*

1. INTRODUCTION

In the context of modern agriculture and the need to develop sustainable practices, monitoring the biodiversity of entomofauna in agroecosystems has become increasingly important. Arthropods, through their ecological and functional diversity, play an essential role in the natural balance of agricultural crops. They can act either as pests that affect production or as biological control factors, contributing to the natural regulation of pest populations.

Pea (*Pisum sativum* L.) is a valuable legume species from an agronomic and food point of view, being frequently cultivated in various regions of the country for grains and fodder. Due to its morphological and biochemical characteristics, pea creates a favorable microhabitat for a wide

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range of arthropods, which makes it an ideal model system for studies on the structure and dynamics of these communities.

The present paper aims to analyze the specific composition, frequency and abundance of arthropods collected from a pea crop located in Răducăneni commune, Iași county, during two consecutive years, 2023 and 2024. The study was carried out using standardized collection methods, using Barber traps – an efficient and frequently applied passive method in ecological studies on terrestrial fauna, especially on *Coleoptera* (Gâdei & Popescu, 2012). The traps were checked periodically, at intervals of 12–16 days, and each sample was labeled with information regarding the harvest date and trap number.

For the capture and preservation of the captured specimens, a sodium chloride (NaCl) solution with a concentration of 2.5% was used, which allows the safe manipulation of the insects without affecting the morphology of the exoskeleton – an essential aspect for subsequent taxonomic identification. (Perju, 2021). In the field, the entomological material was preserved in a 40% ethyl alcohol solution, an appropriate method for preserving the integrity of the specimens, especially of coleopterans, under variable temperature conditions (Gâdei & Dragomir, 2025).

Taxonomic determinations were subsequently made in the laboratory, with the help of specialized works and online sources, which provide detailed identification keys for the coleopteran fauna of Romania. These data are essential not only for the knowledge of local biodiversity, but also for the formulation of integrated plant protection strategies that capitalize on the presence of beneficial arthropods and limit the use of chemical pesticides.

2. MATERIALS AND METHODS

The entomological material was collected using Barber traps, an efficient passive method for monitoring terrestrial fauna, frequently used in ecological studies on *Coleoptera* (Gâdei & Popescu, 2012). A 2.5% sodium chloride (NaCl) solution was used to euthanize the captured insects, which allows for safe handling of the specimens without damaging the morphology of the exoskeleton, essential for subsequent identification.(Butnarasu, 2023, Talmaciu, 2020)

Observations were conducted over two years, 2023 and 2024, in a pea crop located in Răducăneni commune, Iași county. Collections were carried out periodically, at intervals of 12–16 days. Each sample was appropriately labeled, mentioning the date of collection and the trap number.

In the field, the collected material was preserved in a 40% ethyl alcohol solution, a recommended method for preserving the integrity of coleopteran specimens, especially under variable temperature conditions (Gâdei & Dragomir, 2025).

Taxonomic determinations were subsequently made, with the help of online sources and specialized works, which provide detailed identification keys for the coleopteran fauna of Romania:

- Gâdei P., Dragomir I.M. (2025) – Coleopterele României. *Caraboidea–Carabidae*, Aldus Publishing House, Brașov, a reference work for the identification of species in the Carabidae family, recognized for its complexity and ecological importance;
- Gâdei P., Popescu I. (2012) – Guide to Coleopterelor din România, vol. 1, Pim Publishing House, Iași, which provides detailed descriptions of the families and species common in agricultural ecosystems;
- Gâdei P., Popescu I. (2014) – Guide to Coleopterelor din România, Pim Publishing House, Iași, completing information on the ecology and distribution of species.

The identification of the material was carried out to the family level or, where possible, to the species level, according to the morphological criteria described in the mentioned works.

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In total, 12 traps were used, placed in two rows of 6 traps each, representatively covering the cultivated area.
In 2023, a number of 10 harvests were made on the following dates: 29.05.2023, 09.06.2023, 19.06.2023, 05.07.2023, 12.07.2023, 20.07.2023, 26.07.2023, 09.08.2023, 17.08.2023, 20.09.2023.
In 2024, a total of 6 harvests were made on the following dates: 16.05.2024, 12.06.2024, 27.06.2024, 05.07.2024, 17.07.2024, 29.07.2024.
The analysis of the entomological material will highlight a diversity of the coleopteran fauna in the pea crop, confirming previous observations regarding the role of agroecosystems as temporary habitats for numerous species (Gâdei & Popescu, 2012, Talmaciu, 2024).
The activity of the entomofauna varies depending on the season, with maximum abundance in the months of May–September, a period in which climatic conditions (high temperature and humidity) are favorable for the development of insect populations, according to ecological data described by Gâdei and Dragomir (2025).
The presence of predatory species indicates an important potential for biological control of pests in agricultural crops, in accordance with observations in the specialized literature (Gâdei & Popescu, 2014).

3. RESULTS AND DISCUSSIONS

In 2023, a total of 10 arthropod harvests were made, collecting a total of 77 taxa, a total of 1962 specimens (table 1).
During the first harvest a total of 447 specimens were collected. The most abundant species is *Coccinella septempunctata* with 128 specimens.
During the second harvest, a total of 326 specimens were collected. The most abundant species is *Dermestes laniarius* with 104 specimens.
During the third harvest, a total of 233 specimens were collected. The most abundant species is *Dermestes laniarius* with 45 specimens.
During the fourth harvest, 99 specimens were collected. The most abundant species is *Coccinella septempunctata* with 33 specimens.
During the fifth harvest, 98 specimens were collected. Here, the greatest abundance is given by ants with 52 specimens.
During the sixth harvest, a total of 214 specimens were collected. Here, the greatest abundance is given by ants with 145 specimens.
During the seventh harvest, 78 specimens were collected. Here, the greatest abundance is given by ants with 20 specimens.
During the eighth harvest, 112 specimens were collected. The most abundant species is *Dermestes laniarius* with 34 specimens.
During the ninth harvest, a total of 141 specimens were collected. Here, the greatest abundance is given by *Lepidoptera* with 80 specimens.
During the tenth harvest, a total of 214 specimens were collected. The most abundant species is *Pseudophonus pubescens* with 122 specimens.
The most abundant species is *Dermestes laniarius* with 277 specimens, followed by ants with 274 specimens and *Coccinella septempunctata* with 265 specimens.

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Table 1. Structure, dynamics and abundance of arthropod species collected in harvests in 2023

No.	Species name	Harvest										
		I	II	III	IV	V	VI	VII	VIII	IX	X	Total
1.	*Mites*	-	-	-	-	2	3	-	-	-	-	5
2.	*Acupalpus elegans*	-	1	-	-	-	-	-	-	-	-	1
3.	*Aglenus brunneus*	-	1	-	-	-	-	-	-	-	-	1
4.	*Amara aenea*	2	-	-	-	-	-	-	-	-	-	2
5.	*Amara apricaria*	2	-	-	-	-	-	-	-	-	-	2
6.	*Amara crenata*	-	-	-	-	-	-	-	-	-	2	2
7.	*Anisodactylus binotatus*	4	2	-	-	-	-	-	-	-	-	6
8.	*Anisodactylus signatus*	2	-	-	-	-	-	-	-	-	-	2
9.	*Anthicus floralis*	-	-	20	-	-	-	-	-	-	-	20
10.	*Anthicus humeralis*	-	-	10	-	-	-	-	-	-	-	10
11.	*Aphodius granarius*	-	1	-	-	-	-	-	-	-	-	1
12.	*Aphthona euphorbiae*	-	-	4	-	-	-	2	-	1	-	7
13.	*Baris artemisiae*	-	-	-	-	-	1	-	-	-	-	1
14.	*Bothynoderes punctiventris*	15	-	-	-	-	-	-	-	-	-	15
15.	*Brachynus crepitans*	3	-	-	-	-	-	-	-	-	-	3
16.	*Bruchus pisorum*	-	1	-	-	-	-	-	1	-	-	2
17.	*Calathus fuscipes*	1	-	-	-	-	-	-	-	-	3	4
18.	*Cantharis fusca*	-	-	-	1	-	-	-	-	-	-	1
19.	*Cantharis nigricans*	-	1	-	-	-	-	-	-	-	-	1
20.	*Carabus coriaceus*	-	-	-	-	1	-	-	-	-	-	1
21.	*Cassida nebulosa*	8	-	-	-	1	2	-	1	-	-	12
22.	*Ceutorhynchus macula alba*	-	1	-	-	1	-	-	-	-	-	2
23.	*Chromatoiulus unilineatus*	1	-	1	-	-	1	-	-	1	-	4
24.	*Coccinella 11-punctata*	14	-	-	-	-	-	-	-	-	-	14
25.	*Coccinella septempunctata*	128	74	29	33	-	-	-	-	1	-	265
26.	*Crypticus quisquilius*	-	-	-	-	-	1	-	-	-	-	1
27.	*Dermestes laniarius*	55	104	45	17	2	8	6	34	2	4	277
28.	*Dermestes lardarius*	22	20	18	-	-	-	-	-	-	-	60
29.	*Dipters*	7	3	5	2	-	-	5	2	23	8	55
30.	*Elater nigerrimus*	1	-	-	1	1	-	-	-	-	-	3
31.	*Eremotes punctatus*	4	-	-	-	-	-	-	-	-	-	4
32.	*Formicomus pedestris*	4	8	-	-	2	-	3	-	-	-	17
33.	*Ants*	10	2	9	-	52	145	20	21	5	10	274
34.	*Harpalus calceatus*	3	1	-	-	1	-	-	-	-	-	5
35.	*Harpalus distinguendus*	14	1	-	3	2	-	-	-	-	-	20
36.	*Harpalus tardus*	6	2	-	-	-	1	-	-	-	-	9
37.	*Heteropters*	14	3	3	4	2	1	4	11	6	26	74
38.	*Himenopters*	3	2	10	9	5	13	15	7	13	14	91
39.	*Hippodamia variegeta*	4	15	-	1	1	-	-	-	-	-	21
40.	*Leistus ferrugineus*	-	-	-	-	1	-	-	-	-	-	1
41.	*Leistus fulvibarbis*	-	-	-	-	-	-	1	-	-	-	1
42.	*Lepidopters*	-	-	-	-	-	-	-	-	80	-	80
43.	*Leptinotarsa decemlineata*	-	-	-	-	-	-	-	-	1	-	1
44.	*Lixus cardui*	-	-	1	-	-	-	-	-	-	-	1

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45.	*Longitarsus suturalis*	-	-	-	-	-	-	-	-	1	-	1
46.	*Malachius bipustulatus*	-	1	-	-	-	-	-	-	-	-	1
47.	*Meligethes aeneus*	1	-	-	-	-	-	-	-	-	-	1
48.	*Metabletus truncatellus*	1	-	-	-	-	-	1	-	-	-	2
49.	*Nebria jockischii*	-	-	1	-	-	-	-	-	-	-	1
50.	*Neuropters*	-	-	-	-	-	-	-	-	1	-	1
51.	*Notaris maerkeli*	-	-	1	-	-	-	-	-	-	-	1
52.	*Opatrum sabulosum*	21	27	11	-	-	-	-	-	-	1	60
53.	*Ophonus azureus*	1	-	-	-	-	1	1	-	-	-	3
54.	*Ophonus rupicola*	-	-	1	-	-	-	-	-	-	-	1
55.	*Ortopters*	6	16	15	9	11	14	7	15	3	21	117
56.	*Otiorhynchus ovatus*	-	-	-	1	-	-	-	-	-	-	1
57.	*Otiorhynchus pinastri*	-	-	1	-	-	-	-	-	-	-	1
58.	*Otiorhynchus raucus*	2	-	-	-	2	1	-	-	-	-	5
59.	*Oxytelus inustus*	3	-	-	-	-	-	-	-	-	-	3
60.	*Oxythyrea funesta*	10	-	-	-	-	-	-	-	-	-	10
61.	*Pedinus femoralis*	-	4	-	-	-	-	-	-	-	-	4
62.	*Pentodon idiota*	1	-	-	-	-	-	-	-	-	-	1
63.	*Phalangium opilio*	46	15	36	17	3	10	7	15	1	2	152
64.	*Phyllobius piri*	-	-	5	-	-	-	-	-	-	-	5
65.	*Phyllotreta atra*	-	1	-	-	-	-	-	-	1	-	2
66.	*Phyllotreta nemorum*	-	-	-	-	-	-	2	-	-	-	2
67.	*Platynaspis luteorubra*	1	-	-	-	-	-	-	-	-	-	1
68.	*Pleurophorus caesus*	1	-	-	-	-	-	-	-	-	-	1
69.	*Podagrica malvae*	1	1	5	1	-	-	-	-	-	-	8
70.	*Polydrosus amoenus*	-	18	-	-	-	-	-	-	-	-	18
71.	*Pseudophonus griseus*	-	-	-	-	2	9	-	-	-	1	12
72.	*Pseudophonus pubescens*	4	-	-	-	6	3	3	5	1	122	144
73.	*Pterostichus vernalis*	1	-	-	-	-	-	-	-	-	-	1
74.	*Rhinomias forticornis*	-	-	1	-	-	-	-	-	-	-	1
75.	*Rhizophagus picipes*	-	-	-	-	-	-	1	-	-	-	1
76.	*Sitona lineatus*	20	-	-	-	-	-	-	-	-	-	20
77.	*Stenopterus rufus*	-	-	1	-	-	-	-	-	-	-	1
	Total harvests	447	326	233	99	98	214	78	112	141	214	1962

In 2024, a total of 6 arthropod harvests were carried out, collecting a total of 70 taxa, a total of 2041 specimens (table 2).
During the first harvest a total of 575 specimens were collected. The most abundant species is *Opatrum sabulosum* with 172 specimens.
During the second harvest, 460 specimens were collected. Here, the greatest abundance is given by *Diptera* with 182 specimens.
During the third harvest, a total of 580 specimens were collected. Here, the greatest abundance is given by *Diptera* with 218 specimens.
During the fourth harvest, 121 specimens were collected. Here, the greatest abundance is given by ants with 32 specimens.
During the 5th harvest, 167 specimens were collected. Here, the greatest abundance is given by ants with 53 specimens.

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During the 6th harvest, 138 specimens were collected. Here, the highest abundance is given by the species *Pseudophonus pubescens* with 85 specimens.
The highest abundance is given by diptera with 447 specimens, the species *Coccinella septempunctata* with 268 specimens and *Opatrum sabulosum* with 176 specimens.
The largest abundance is given by Diptera with 447 specimens, the species *Coccinella septempunctata* with 268 specimens and *Opatrum sabulosum* with 176 specimens.

Table 2. Structure, dynamics and abundance of arthropod species collected in harvests in 2024

No.	Name of species	Harvested						
		I	II	III	IV	V	VI	Total
1.	*Mites*	7	-	-	-	-	-	7
2.	*Adalia bipunctata*	-	-	4	-	-	-	4
3.	*Aphids*	2	-	-	-	-	-	2
4.	*Agriotes lineatus*	-	-	1	-	-	-	1
5.	*Agriotes ustulatus*	-	-	-	1	-	-	1
6.	*Aleochara laevigata*	1	-	-	-	-	-	1
7.	*Aleochara moereus*	1	-	-	-	-	-	1
8.	*Amara aenea*	-	-	-	1	-	1	2
9.	*Amara crenata*	-	-	-	-	1	-	1
10.	*Amara familiaris*	-	1	-	-	-	-	1
11.	*Anisodactylus binotatus*	-	1	5	-	-	-	6
12.	*Anthicus floralis*	2	-	-	-	2	-	4
13.	*Bothynoderes punctiventris*	-	2	-	1	-	-	3
14.	*Bruchus pisorum*	-	1	-	-	-	-	1
15.	*Calathus fuscipes*	1	-	-	-	-	-	1
16.	*Cantharis fusca*	1	-	-	-	-	-	1
17.	*Chromatoiulus unilineatus*	-	5	-	1	-	1	7
18.	*Chrysomela menthastri*	-	-	1	-	-	-	1
19.	*Cicads*	-	-	-	1	-	-	1
20.	*Cleonus punctiger*	-	-	21	-	-	-	21
21.	*Coccidula scutellata*	-	-	-	1	-	-	1
22.	*Coccinella septempunctata*	161	41	65	1	-	-	268
23.	*Corymbites affinis*	-	-	2	-	-	-	2
24.	*Crepidodera transversa*	-	1	-	-	-	-	1
25.	*Crypticus quisquilius*	18	6	-	-	-	-	24
26.	*Dermestes laniarius*	10	77	47	3	5	2	144
27.	*Dipters*	7	182	218	26	12	2	447
28.	*Elater elongatulus*	-	-	-	1	-	-	1
29.	*Elater erythrogonus*	-	-	-	1	-	-	1
30.	*Formicomus gracillis*	1	-	-	-	-	-	1
31.	*Formicomus pedestris*	9	-	-	1	2	-	12
32.	*Ants*	11	1	40	32	53	1	138
33.	*Harpalus calceatus*	-	-	1	-	-	-	1
34.	*Harpalus distinguendus*	1	-	5	-	-	1	7
35.	*Harpalus tardus*	1	1	-	-	1	1	4
36.	*Heteropters*	2	8	12	7	8	11	48
37.	*Hymenopters*	4	13	4	7	5	9	42

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38.	*Hippodamia variegata*	38	11	23	-	-	-	72
39.	*Hister purpurascens*	-	1	2	1	-	-	4
40.	*Hister sepulchralis*	1	-	-	-	-	-	1
41.	*Lepidopters*	1	1	-	-	-	3	5
42.	*Longitarsus anchusae*	-	-	-	1	1	-	2
43.	*Mecinus janthinus*	-	-	-	-	1	-	1
44.	*Metabletus foveatus*	1	-	-	-	-	-	1
45.	*Microlestes maurus*	-	-	-	-	1	-	1
46.	*Necrophorus vespillo*	-	-	1	-	-	-	1
47.	*Oedemera virescens*	-	1	-	-	-	-	1
48.	*Opatrum sabulosum*	172	3	1	-	-	-	176
49.	*Ophonus azureus*	-	1	1	-	-	-	2
50.	*Ophonus puncticollis*	-	1	-	-	-	-	1
51.	*Orthopters*	48	54	23	7	5	6	143
52.	*Otiorhynchus sulcatus*	6	-	-	-	-	-	6
53.	*Pedinus femoralis*	8	10	9	-	-	-	27
54.	*Pentodon idiota*	-	-	3	-	-	-	3
55.	*Pesudophonus pubescens*	-	-	1	-	-	-	1
56.	*Phalangium opilio*	29	33	66	12	16	6	162
57.	*Phyllobius pyri*	1	-	-	-	-	-	1
58.	*Podagrica malvae*	-	2	1	2	6	3	14
59.	*Podonta nigrita*	-	-	14	1	-	-	15
60.	*Polydrusus confluens*	-	-	1	-	-	-	1
61.	*Procraerus tibialis*	-	-	-	-	-	1	1
62.	*Pseudophonus griseus*	-	-	-	-	-	5	5
63.	*Pseudophonus pubescens*	1	-	7	11	47	85	151
64.	*Ptreyngium crenatum*	-	-	-	1	-	-	1
65.	*Sitona lineatus*	26	-	-	-	-	-	26
66.	*Soronia punctatissima*	-	-	-	-	1	-	1
67.	*Tanymecus dilaticolis*	1	-	-	-	-	-	1
68.	*Tanymecus palliatus*	1	1	1	-	-	-	3
69.	*Tenebroides mauritanicus*	-	1	-	-	-	-	1
70.	*Valgus hemipterus*	1	-	-	-	-	-	1
Total harvested		575	460	580	121	167	138	2041

In 2023, a number of 1962 arthropod specimens belonging to 3 arthropod classes were collected in the pea crop, namely: Class *Insecta* with 1801 specimens representing 91.79% of the total, Class *Diplopoda*, with 4 specimens, representing 020% of the total and Class *Arachnida* with 157 specimens representing 8.00% of the total.

Regarding the orders to which the collected arthropods belong, the situation is as follows (table 3):

- Class *Insecta* was best represented, comprising a number of 7 orders, namely, the *Coleoptera* order, with 1109 specimens, *Hymenoptera*, with 365 specimens, *Orthoptera*, with 117 specimens, *Lepidoptera*, 80 specimens, *Heteroptera*, with 74 specimens, *Diptera,* with 55 specimens and *Neuroptera*, with a single specimen;
- Class *Arachnida*, with two orders, the order *Opiliones,* with 152 specimens and the order *Acari*, with 7 specimens;
- Class *Diplopoda*, with the order *Julida*, having a number of 4 specimens.

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Current Trends in Natural Sciences
Vol. 14, Issue 27, pp. 36-45, 2025
https://doi.org/10.47068/ctns.2025.v14i27.005
Current Trends in Natural Sciences (on-line)
ISSN: 2284-953X
ISSN-L: 2284-9521
Current Trends in Natural Sciences (CD-Rom)
ISSN: 2284-9521
ISSN-L: 2284-9521

Table 3. Structure of arthropods collected in 2023 in peas

No.	Class	Order	No. of samples	Total	% of total
1	*Insecta*	*Coleoptera*	1109	1801	91,79
		Diptera	55		
		Heteroptera	74		
		Hymenoptera	365		
		Lepidoptera	80		
		Neuroptera	1		
		Orthoptera	117		
2	*Diplopoda*	*Julida*	4	4	0,20
3	*Arachnida*	*Opiliones*	152	157	8,00
		Acari	5		
Total 3 classes			1962	1962	100,00

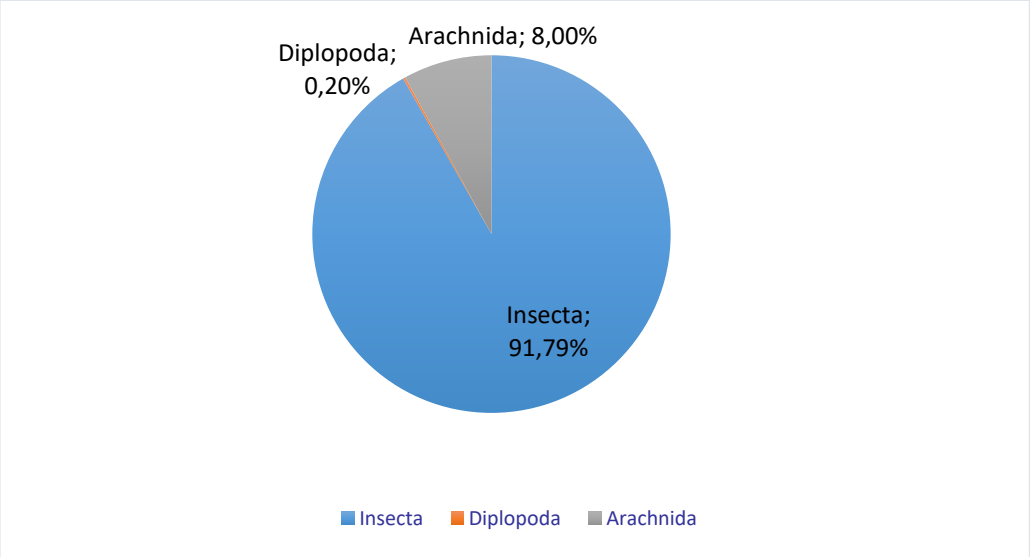

Figure 1. Structure of arthropod species collected in 2023

In 2024, a number of 2041 arthropod specimens belonging to 3 arthropod classes were collected in the pea crop, namely: Class *Insecta* with 1865 specimens representing 91.38% of the total, Class *Diplopoda*, with 7 specimens, representing 034% of the total and Class *Arachnida* with 169 specimens representing 8.28% of the total.

Regarding the orders to which the collected arthropods belong, the situation is as follows (table 4):

- The *Insecta* class was best represented, comprising a number of 7 orders, namely the *Coleoptera* order, with 1039 specimens, *Hymenoptera*, with 180 specimens, *Orthoptera,* with 143 specimens, *Lepidoptera,* 4 specimens, *Heteroptera*, with 48 specimens, *Diptera*, with 447 specimens and *Homoptera*, with 2 specimens;
- Class *Arachnida*, with two orders, the order *Opiliones*, with 162 specimens and the order *Acari*, with 7 specimens;
- Class *Diplopoda*, with the order *Julida,* having a number of 7 specimens.

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Current Trends in Natural Sciences (CD-Rom)
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ISSN-L: 2284-9521

Table 4. Structure of arthropods collected in 2024 in peas

Nr. crt	Clasa	Ordinul	Nr. exemplare	Total	% din total
1	*Insecta*	*Coleoptera*	1039	1865	91,38
		Diptera	447		
		Heteroptera	48		
		Homoptera	3		
		Hymenoptera	180		
		Lepidoptera	5		
		Orthoptera	143		
2	*Diplopoda*	*Julida*	7	7	0,34
3	*Arachnida*	*Opiliones*	162	169	8,28
		Acari	7		
Total 3 clase		10 ordine	2041	2041	100,00

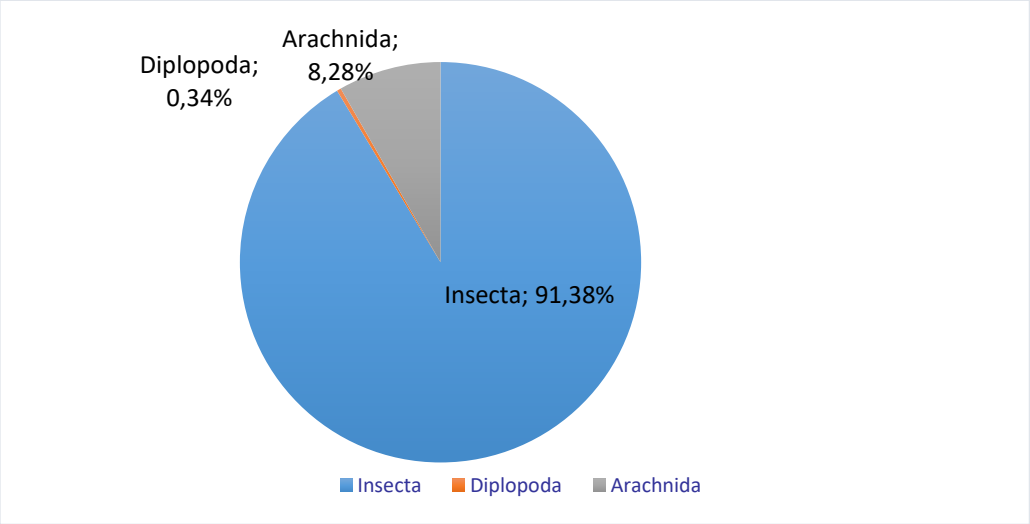

Figure 2. Structure of arthropod species collected in 2024

4. CONCLUSIONS

Observations were made in a pea crop using Barber soil traps, over a period of 2 years, 2023 and 2024.

From the collected material, arthropod species were selected that were determined to the order or species level.

The arthropod species collected in 2023 were 1962 belonging to 77 taxa and in 2024, 2041 arthropods belonging to 70 taxa were collected.

Among arthropods, the most numerous belong to the class Insecta, and from this class, the most numerous were the species of Coleoptera.

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