

COMPOSITION OF USEFUL AND HARMFUL MOBILE FAUNA OF CORN CROP FROM THE SURFACE VLĂSIEI PLAIN

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ABSTRACT

Interest invertebrate fauna of maize crop in the area Clinceni, Ilfov county, was due to less research on the structure and biology of entomofauna phytophagous and entomofagous. Results from our analysis of faunal material, collected in March and May 2007, is the subject to this work.

Useful fauna has 303 copies, of which 129 specimens collected in March and 174 copies in May. Harmful fauna includes 158 specimens collected from the 68 March and 98 May.

KEYWORDS corn, useful fauna, harmful fauna, abundance, Vlăsiei Plain.

INTRODUCTION

In Romania, the corn is one of the most important crop plants. Many studies were made on useful and harmful fauna of maize crop in different areas of the country.

Less has been researched and published on the fauna found in Vlăsiei Plain. Research study were related to harmful and useful fauna from culture of maize of Bucharest and the surrounding area in 2007.

MATERIAL AND METHOD

Collecting of useful and harmful fauna on surface of the earth was made in March and May 2007 in Clinceni village, Ilfov county.

The locality are situated in south-east area of Bucharest City, to 7km far away from this. There are in Romania Plain, subsegment Vlăsiei Plain. Soil type from Clinceni village are brown hectic and from morphology point of view has a profile type $A_0-A/B-B_1-C$.

Barber traps was mounted using aldoform. Were allowed two days, after which samples were collected and were reserved in surgical spirit with 70% concentration. For keeping the color was adding 5% glycerin.

Numeric abundance relative and frequency invertebrate harmful fauna, mobile on the soil in the corn culture from Clinceni 2007

No.	GROUP AND GENUS	27.03.2007 - 29.03.2007		17.05.2007 - 22.05.2007	
		Nr.	Ab. (%)	Nr.	Ab. (%)
CLASS INSECTA					
Ord. ORTOPTERA					
Fam. GRYLLIDAE					
1	<i>Gryllus desertus</i> Pall.	0	0,00	3	3,23
Ord. COLEOPTERA					
Fam. CARABIDAE					
2	<i>Zabrus tenebrioides</i> Goeze.	1	1,54	1	1,08
3	<i>Harpalus distinguendus</i> Duft.	3	4,62	1	1,08
4	<i>Harpalus pubescens</i> Mull.	9	13,85	4	4,30
5	<i>Anysodactylus signatus</i> L.	1	1,54	2	2,15
6	<i>Bembidion properans</i> Steph.	4	6,15	1	1,08
Fam. ELATERIDAE					
7	<i>Agriotes sputator</i> L.	3	4,62	1	1,08
8	<i>Agriotes pilosus</i> Panz.	1	1,54	2	2,15
Fam. TENEBRIOIDAE					
9	<i>Opatrum sabulosum</i> L.	1	1,54	2	2,15



Fam. SCARABAEIDAE					
10	<i>Pentodon idiota</i> Ross.	1	1,54	1	1,08
Fam. CHRYSOMELIDAE					
11	<i>Phyllotreta nemorum</i> L.	0	0,00	29	31,18
12	<i>Chaectonema tibialis</i> Illi.	2	3,08	0	0,00
Fam. CURCULIONIDAE					
13	<i>Tanymecus dillaticollis</i> Gyll.	1	1,54	1	1,08
Fam. ANTHICIDAE					
14	<i>Anthicus hispidus</i> Ross.	30	46,15	44	47,31
15	<i>Anthicus antherinus</i> L.	7	10,77	1	1,08
Ord. DIPTERA					
16	<i>Bibio hortulanus</i> L.	1	1,54	0	0,00
HARMFUL FAUNA		65	100,00	93	100,00

No.	GROUP AND GENUS	21.03.2007-23.03.2007		17.05.2007-22.05.2007	
		Nr.	Ab. (%)	Nr.	Ab. (%)
CLASA INSECTA					
1	Ord. COLLEMBOLA	0	0,00	85	48,85
Ord. HETEROPTERA					
Fam. NABIDAE					
2	<i>Nabis ferus</i> L.	1	0,78	2	1,15
Ord. HYMENOPTERA					
3	Fam. FORMICIDAE	22	17,05	43	24,71
Ord. COLEOPTERA					
Fam. CARABIDAE					
4	<i>Pterostichus cupreus</i> L.	3	2,33	1	0,57
5	<i>Pterostichus niger</i> Schall.	5	3,88	1	0,57
Fam. SCARABEIDAE					
6	<i>Aphodius luridus</i> Fabricius	3	2,33	1	0,57
7	<i>Pleurophorus caesus</i> Panz.	4	3,10	4	2,30
8	Fam. STAPHYLINIDAE	5	3,88	3	1,72
Ord. DIPTERA					
9	Fam. SCIARIDAE	4	3,10	1	0,57
10	Fam. CHIRONOMIDAE	82	63,57	33	18,97
USEFUL FAUNA		129	100,00	174	100,00

RESULTS

The material was analysed and was determined groups of useful and harmful fauna.

From table 1. are observed that from total of 461 exemplars, 158 are phytophagous and 303 are useful exemplars.

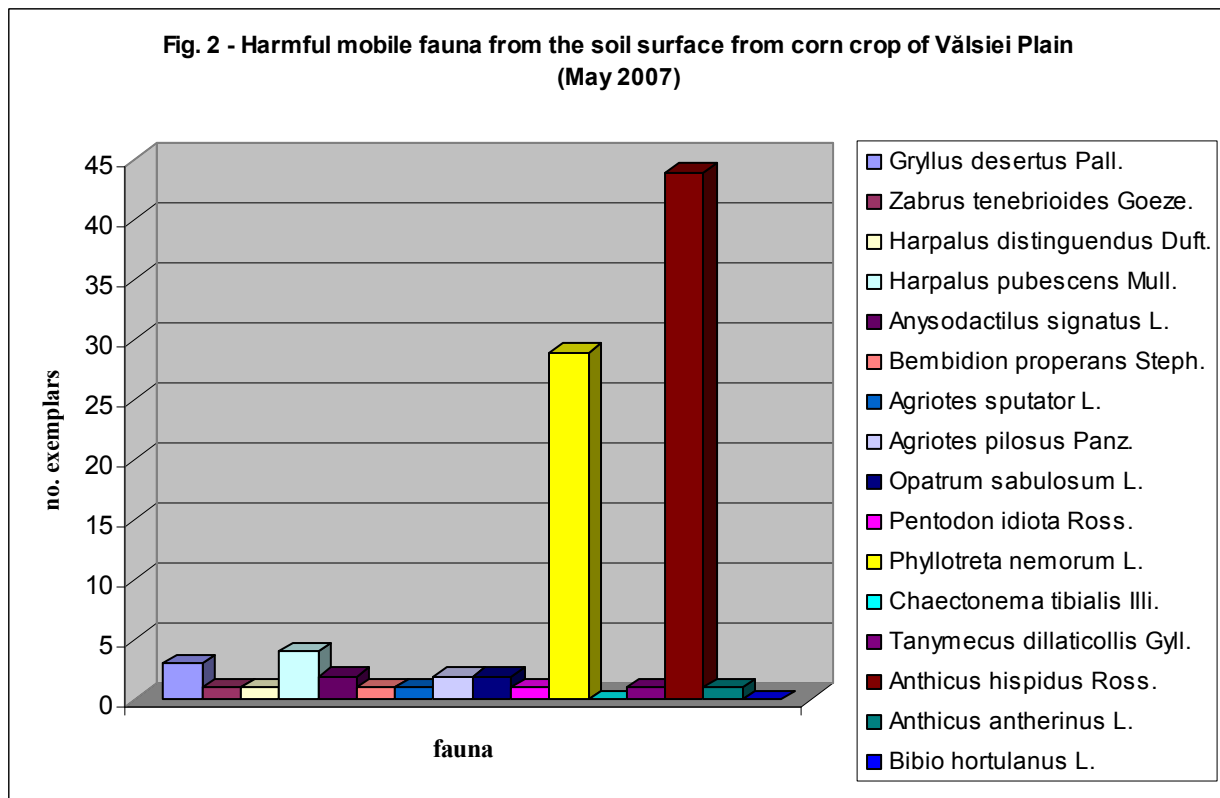
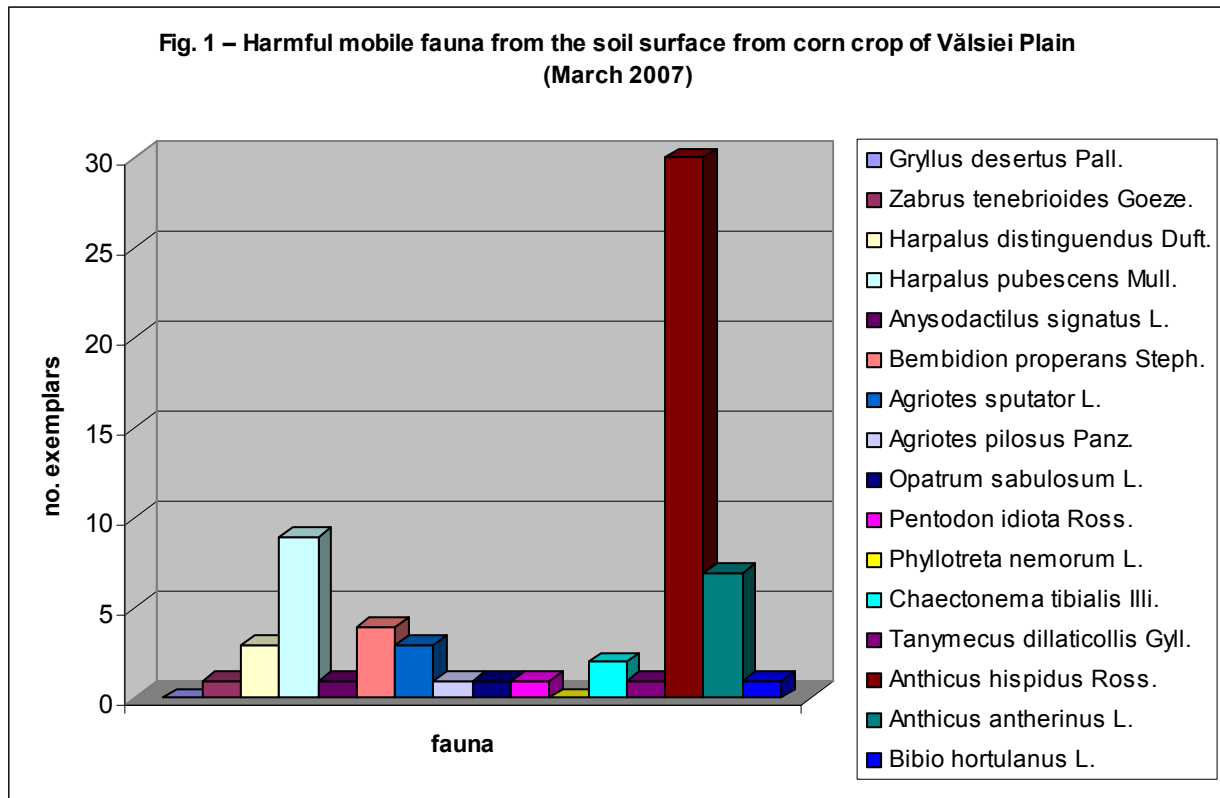
Harmful fauna.

In March observ the advent of high number of *Harpalus pubescens* (the abundance 14,29%). *Anthicus*

hispidus have an abundance of 47% and a frequency of 60% and finally *Agriotes sputator* have an abundance of 4,76% and a frequency of 12%.

In May observ the advent of *Gryllus desertus* with a frequency of 12% and a *Phyllotreti nemorum* with a frequency of 56%.

We can observ increasing the number of *Anthicus hispidus* with abundance of 50,57% and frequency of 46,80%.



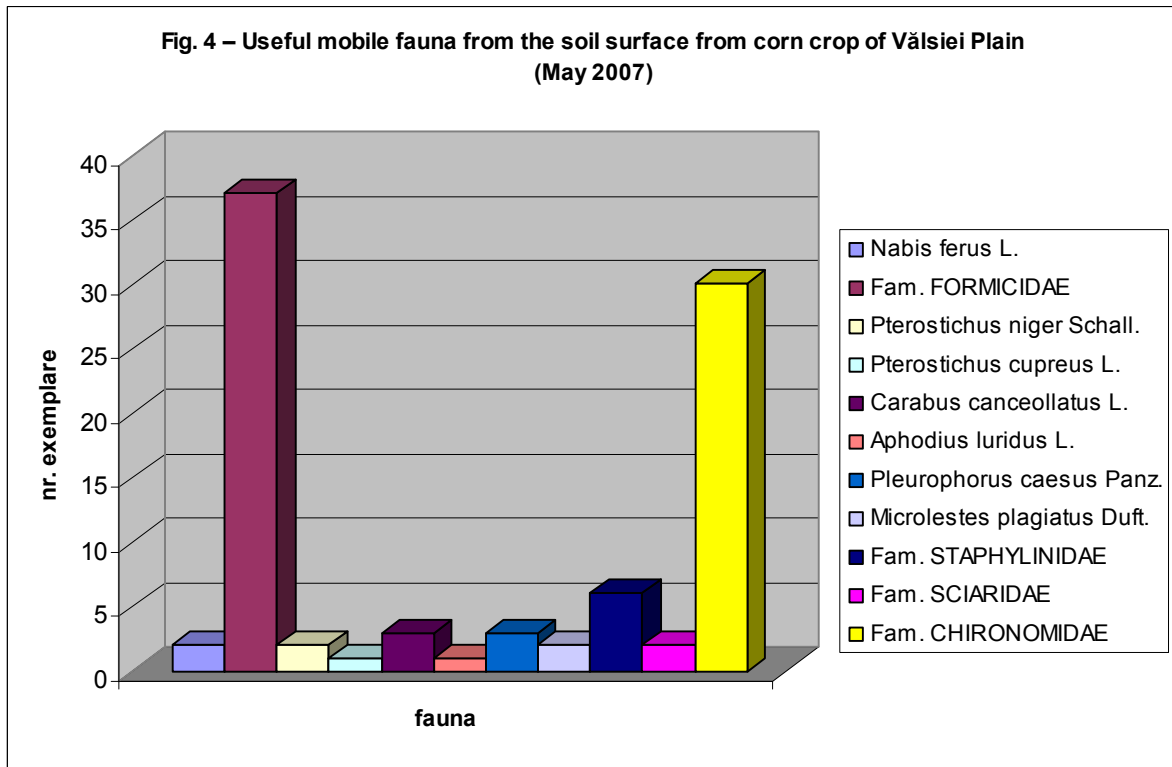
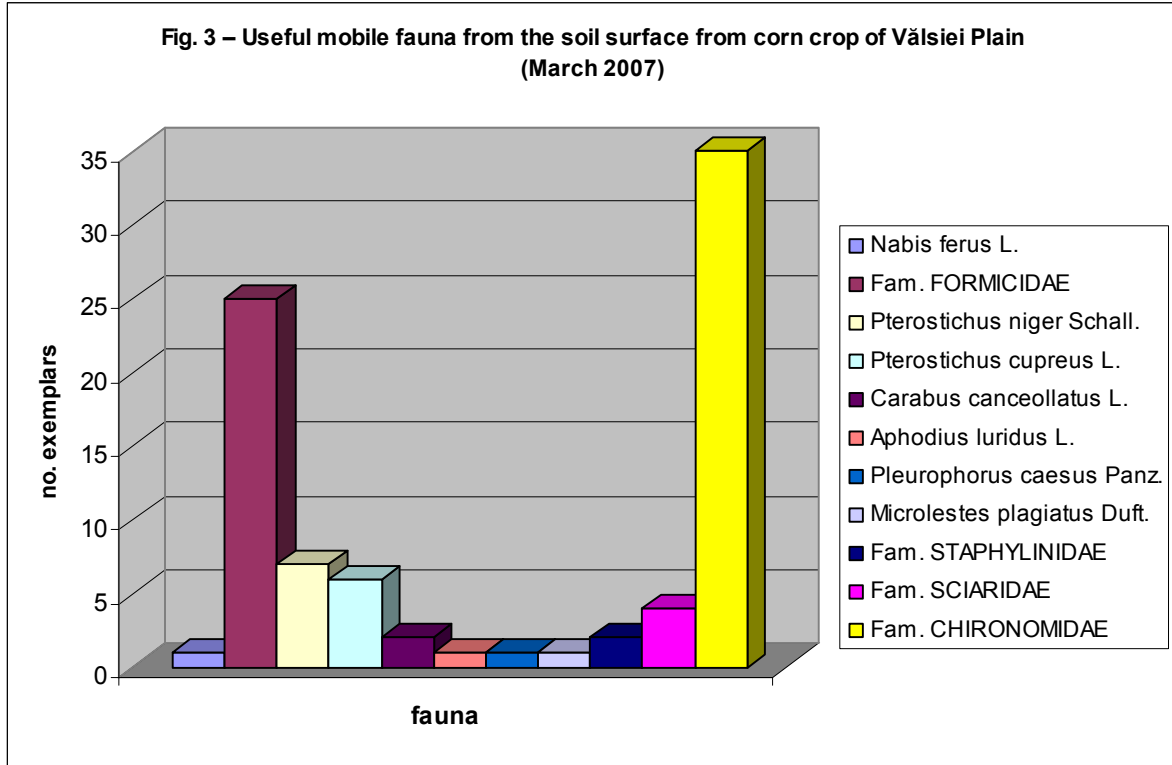


Useful fauna

Are represented by:

- *araneae*, with abundance of 6% in March and 16,95% in May;
- *miriapodae*, with abundance of 2,32% and frequency of 24%;

- *formicidae* with abundance of 3,86% in March and 62.71% in May;
- *chironomide* with abundance of 66%.



CONCLUSIONS

The research was deployed in Clinceni area, in March and May 2007, obtaining the data about useful and harmful fauna by Barber traps method.

In the useful fauna structure, in March, we can observe the advent of *araneae*, *coleopterae*, *chronomidae* and in the May observe advent *miriapodae*, *formicidae*, *chironomidae*.

In the structure of useful fauna, in March the climate is suitable Chironomidae's family, these having an abundance of 82 specimens and in May the climate is favorable to Formicidae's family, which had an abundant number of 43 copies.

In the harmful fauna structure, in March we can observe the advent of genus as: *Gryllus desertus*, *Harpalus pubescens* and *Agriotes sputator* and in May observe the advent of *Anthicus hispidus*, *Harpalus pubescens*, *Phyllotreta nemorum*.

In March the climate is suitable *Phyllotreta nemorum* L species, which has an abundant number of 29 specimens and *Harpalus pubescens* Mull. species with 44 copies, and in May the climate is favorable for the species *Anthicus hispidus* Ross. with 9 copies.

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