

RESEARCHES ABOUT THE RODENTS FROM A MAIZE CROP IN TINCA AREA (BIHOR COUNTY, ROMANIA)

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Abstract

The work presents some notes about the fauna of rodents from maize crop in Tinca area, during 2011-2013.

We captured 56 individuals belonging to 2 families (Arvicolidae and Muridae), 3 genera and 4 species, Rodentia order. The species dominant is Apodemus agrarius Pallas, 1771, followed by Mus spicilegus Petenyi, 1882.

Key words: rodents, maize crop, Tinca area.

INTRODUCTION

Tinca area is situated in the south-western part of Bihor county, at the confluence of the Miersig plain and Holod depression.

The average altitude is 110 m, the climate is temperate-continental, the vegetation belongs to the oak stage. The drainage is represented by Crisul Negru river and the vegetation belongs to the oak stage.

MATERIAL AND METHOD

The researches about the dynamics aspect of the rodents fauna in Tinca area were effected in one agricultural maize crop, personal property of Aurelian Leonardo Ilie, having a surface 1 hectare, during 2011-2013, from July until November.

Were used 30 live traps placed in the form of a web on the ground, at 10 m distance of each other, 3 days per month. For every year 5 samples were analyzed.

Were captured 56 individuals: 10 in 2011, 26 in 2012, 20 in 2013. The species were determined using the specialized literature (Popescu & Murariu, 2011)

RESULTS AND DISCUSSIONS

During 2011-2013 were captured 56 rodents, including in 2 families: *Muridae*, *Arvicolidae*, 3 genera and 4 species: *Microtus arvalis* Pallas 1779,

Mus spicilegus Nordmann 1840, *Mus musculus* Linnaeus 1758, *Apodemus agrarius* Pallas 1778 (table 1).

Table 1

Species of rodents identified in maize crop Tinca area (original)					
Family	Species	No of individuals			Total
		2011	2012	2013	
<i>Arvicolidae</i>	<i>Microtus arvalis</i>	2	2	2	6
<i>Muridae</i>	<i>Mus musculus</i>	1	1	2	4
	<i>Mus spicilegus</i>	3	10	7	20
	<i>Apodemus agrarius</i>	4	13	9	26
TOTAL		10	26	20	56

In the period 2011-2013, the species *Apodemus agrarius* Pall was the dominant species – 4 individuals captured in 2011, 13 in 2012, 9 in 2013, followed by *Mus spicilegus* Nordm. with 3 individuals captured in 2011, 10 in 2012, 7 in 2013 (table 1).

In more little number of individuals were registered in 2011, the more big number of individuals were registered in 2012.

From the point of view of the monthly dynamics we observed a numerical increase of captures, from summer to autumn because the agricultural works stopped, the formation of maize stem bundles, providing on ideal shelter and a rich food source for rodents (fig. 2, 3, 4).

The structure on age and sex reveals the followings: in 2011 of the 10 individuals, 6 were males and 4 females (fig.5).

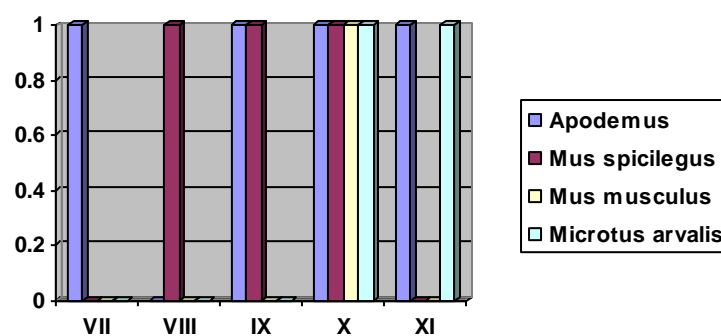


Fig. 2 The monthly dynamics of rodent species identified in the maize crop in Tinca area in 2011(original)

In 2012 of the 26 individuals, 15 were males and 11 females (fig.6). In 2013, of the 20 individuals, 13 were males and 7 females. We observed too a slight rejuvenation of populations during autumn: 6 juveniles in 2011, 14 preadults and juveniles in 2012 and 15 preadults in 2013.

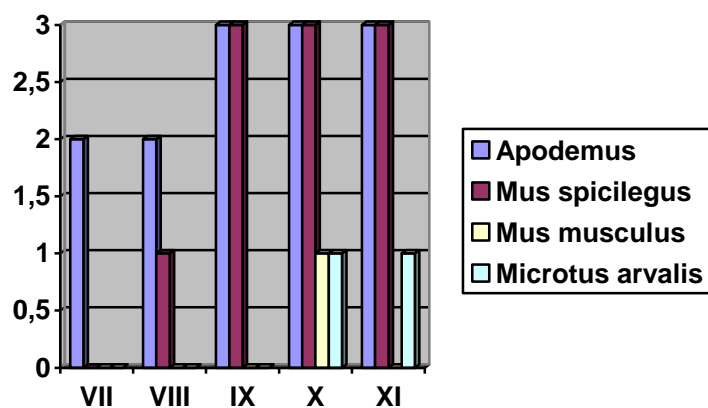


Fig. 3. The monthly dynamics of rodent species identified in the maize crop in Tinca area, in 2012 (original).

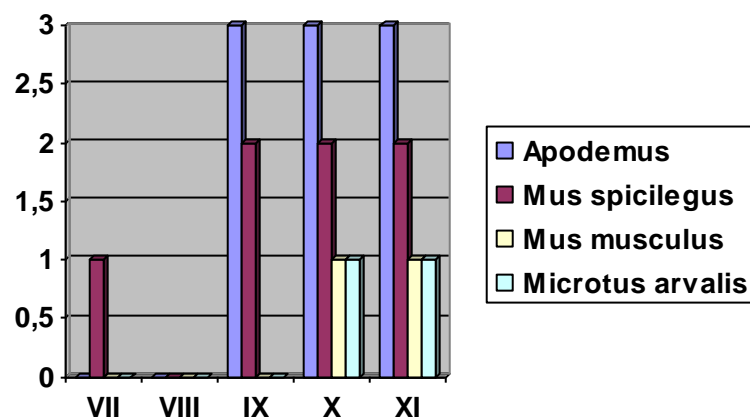


Fig. 4 The monthly dynamics of rodent species identified in the maize crop in Tinca area, in 2013 (original)

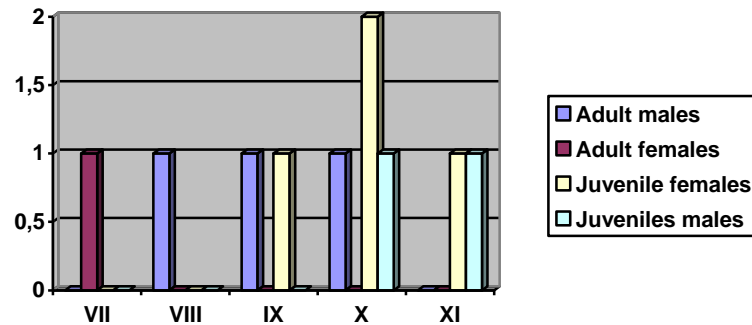


Fig.5.Age and sex structure of the rodent species collected in the maize crop, in Tinca area, in 2011 (original)

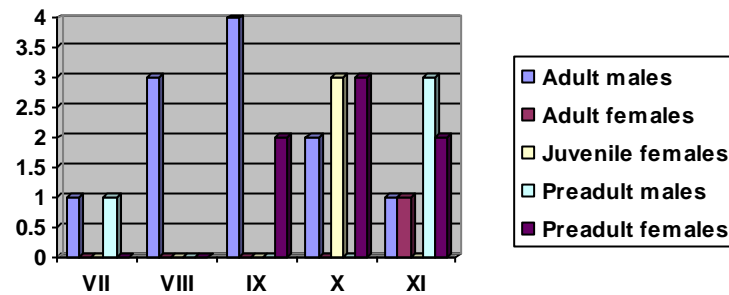


Fig.6 Age and sex structure of the rodent species collected in the maize crop, in Tinca area, in 2012 (original)

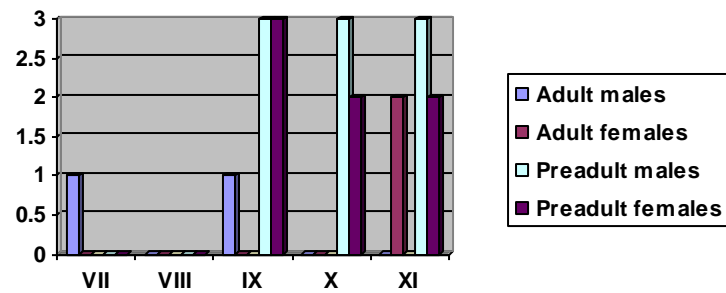


Fig. 7 Age and sex structure of the rodent species collected in the maize crop, in Tinca area, in 2013 (original)

CONCLUSIONS

During 2011-2013, were identified 56 rodent individuals belonging to 2 families, 3 genera and 4 species.

The species dominant is *Apodemus agrarius*, with 26 individuals.

Were observed a slight rejuvenation of populations during autumn.

In autumn were observed a numerical increase of captures.

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