

**RESEARCHES ON THE CRYPTOCEPHALINAE AND
CASSIDINAE (COLEOPTERA, CHRYSOMELIDAE)
SUBFAMILIES FROM BIHOR COUNTY, FROM THE POINT OF
VIEW OF THEIR NUTRITIONAL CHARACTERISTICS**

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Abstract

Bihor county presents a big variety of leaf beetles species. The majority of species are herbaceous, the forest species being less represented. The spread of leaf-beetles is influenced by the presence or absence of host plants. This paper presents the nutritional characteristics of Chrytocephalinae and Cassidinae subfamilies from Bihor county identified during the period 2010 – 2013. Were identified 19 species belonging to the Chrytocephalinae subfamily and 6 species belonging to the Cassidinae subfamily. The nutritive spectrum includes 13 oligophagous species (52 %), 10 polyphagous species (40%) and 2 monophagous species (8%). The host-plants of the subfamilies analysed belongs to the class Dicotyledonatae and one species to the class Monocotyledonatae.

Key words: Cryptocephalinae, Cassidinae, Bihor county, nutritional characteristics.

INTRODUCTION

The Cryptocephalinae family includes species approximately exclusively phytophagous. The present work comprises data about the nutritional characteristics of Cryptocephalinae and Cassidinae subfamilies identified at Bihor county level. Data about host-plants of the leaf-beetles from some provinces of Romania were published by Ilie(2000). The majority of the host-plants of the European leaf-beetles belongs to the class Dicotyledonatae and a few belongs to the class Monocotyledonatae, explainable fact by the big number of species of the class Dicotyledonatae.

MATERIAL AND METHOD

The researches were made during the period 2010-2013 in the different locations of Bihor county, from April to September.

The collection was realised with the entomological net, being completed with manual collection and direct observations in various habitats (forests, meadows, pastures, isolated trees).

The identification of species was realised with a binocular magnifier and the works of the authors mentioned in the references.

RESULTS AND DISCUSSIONS

There were identified a total of 19 Cryptocephalinae subfamily species, belonging to 2 genera: Cryptocephalus and Pachybrachis.

The Cryptocephalus genus is represented by 17 species and Pachybrachis genus by 2 species (table 1).

Table 1

Distribution of the Cryptocephaline subfamily species in Bihor county (original)

Genus	No. of species	No. of Forest species	% of the total	No. of Grassland species	% of the total
Cryptocephalus	17	3	89,47	14	73,68
Pachybrachis	2	2	10,52	-	-
Total	19	5		14	

Table 1 indicates that the majority of species is in the category of herbaceous, the forest species are less represented.

Depending on the nutritive spectrum the species fall into the monophagous, oligophagous and polyphagous categories.

From the total of the species, 11 species (57,89%) are oligophagous and 8 species (42,10%) are polyphagous. The monophagous species were not founded.

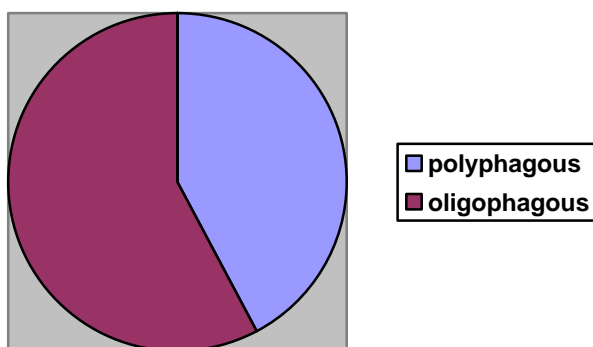


Fig.1. The nutritive spectrum of the Cryptocephaline subfamily species from Bihor county (original)

Only the existence of the oligophagous and polyphagous species proves the existence of some species till at high altitudes (1350 – 1400 m).

The Cassidinae subfamily includes 2 genera with 6 species. The Cassida genus is represented by 5 species and Hypocassida genus by 1 species (table 2).

Table 2

Distribution of the Cassidinae subfamily species in Bihor county (original)

Genus	No. of species	No. of Forest species	% of the total	No. of Grassland species	% of the total
Cassida	5	2	33,33	5	83,33
Hypocassida	1	1	16,66	1	16,66
Total	6	3		6	

Table 2 indicates that half of the Cassidinae subfamily species from Bihor county is forestry but it can also be found in grassland.

The nutritive spectrum includes 2 monophagous species (33,33%), 2 oligophagous species (33,33%) and 2 polyphagous species (33,33%).

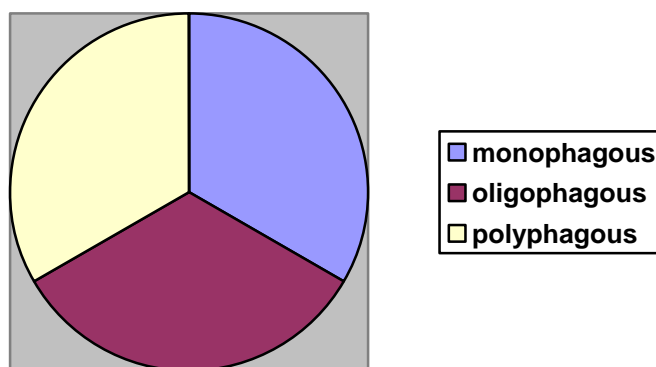


Fig. 2 The nutritive spectrum of the Cassidinae subfamily species from Bihor (original)

Aproximately all the plants of the subfamilies analized belong to the Phylum Spermatophyta, class Dicotyledonatae (99% species) and only one species of the Cryptocephalinae subfamily feed with one plant belongs to class Monocotyledonatae.

CONCLUSIONS

During the period 2010 – 2013 in Bihor county were identified 25 species belongs

to Cryptocephalinae and Cassidinae subfamilies. Those species belongs to 4 genera: Cryptocephalus, Pachybrachis, Cassida and Hypocassida.

The majority of the species are grassland species (20 – 80%) and 8 are forest species (32 %). From the nutritive spectrum, 11 species of

Cryptocephalinae subfamily (57,89%) are oligophagous and 8 species (42,10 %) are polyphagous.

2 species (33,33%) of Cassidinae subfamily are monophagous, 2 species (33,33%) are oligophagous and 2 species (33,33%) are polyphagous.

Totally, 2 species (8%) are monophagous, 13 species (52 %) are oligophagous and 10 species (40%) are polyphagous.

The majority of the host-plants of the subfamilies analysed belongs to the class Dicotyledonatae and one species to the class Monocotyledonatae.

Some species were identified till at high altitudes (1350-1400 m).

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