

## INVESTIGATIONS OF DIPLURAS ON SOUTH-EAST PART OF RUDNIK MOUNTAIN

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**ABSTRACT.** The Diplura (Insecta) were studied on mountain Rudnik (about 100km South from Belgrade). The terrestrial material was taken from different ecosystems and consisted of 79 individuals, which belong to five species (four Campodeidae and one Japygidae). The numbers of individuals and species collected in litter of ecosystem of mixed deciduous trees (oak, beech, elm and black locust) and in the meadows' soil were different. The number of individuals varied from 1.27-16.46%. The greatest number of individuals was collected in the litter of trees (75.95%), while in the meadows' soil it was much less (24.05%). The most numerous species was *Campodea (Dicampa) campestre* Ionescu, 1955 (54.43%), while the other species were less numerous: *Campodea (Campodea) silvestrii* Bagnall, 1918 and *Podocampa serbica* Karaman & Blesić, 1983 with 12.66%; *Campodea (Dicampa) frenata* Silvestri, 1931 and *Catajapyx confusus* Silvestri, 1929 with 10.13%.

### INTRODUCTION

This article gives a new data about presence of Dipluras' species on South-East part of Rudnik Mountain (about 100km south from Belgrade) on eight localities (Vinča, Božurnja, Donja Šatornja, Gornja Šatornja, Jarmenovci, Donja Trešnjevica, Gornja Trešnjevica, Lipovac and Oplenac. Investigations were made in different ecosystems, mostly in the mixed forests of deciduous trees (oak, beech, elm and black locust), as well as in meadows, in May and June. Also, it was investigated how the number of species differs in different ecosystems. The species never were found in mass.

## MATERIAL AND METHODS

From the collected entomological material eighty-one (81) individuals of *Diplura* (Insecta, Apterygota) were collected and separated from 66 samples on usual way. They belong into two families and five species. They were determined by usual method. The material was determined by usual method on the basis of classification given by P a c l t, (1957).

## RESULTS AND DISCUSSION

The terrestrial materials were taken from the litter of different ecosystems and were consisted of 79 individuals, which belong to five species (four of *Campodeidae* and one of *Japygidae*). The numbers of individuals and species differs in litters in ecosystems of mixed deciduous trees (oak, beech, elm and black locust) and meadows soil. The number of individuals varied from 1.27-16.46%. The greatest number of individuals was collected in the litter of trees (75.95%), while in the meadows soil it was much less (24.05%). The most numerous species was *Campodea (Dicampa) campestre* Ionescu, 1955 (54.43%), while the other species were a lot less numerous: *Campodea (Campodea) silvestrii* Bagnall, 1918 and *Podocampa serbica* Karaman & Blesić, 1983 with 12.66%; *Campodea (Dicampa) frenata* Silvestri, 1931 and *Catajapyx confusus* Silvestri, 1929 with 10.13%. (Blesić, 2002, 2004; Karaman & Blesić 1984; www.fauna europeana.com)

The investigated ordo **Diplura** was represented with two following families:

- Family *Campodeidae* is represented with four species:
  1. *Campodea (Campodea) silvestrii*, Bagnall, 1918 was found on two localities (Gornja Trešnjevica and Lipovac) in litter of oak trees and in meadow soil, with 10 individuals. Only adult individuals were found.
  2. *Campodea (Dicampa) campestre* Ionescu, 1955 was found on five localities (Donja Trešnjevica, Gornja Šatornja, Jarmenovci, Vinča and Božurnja) in the litter of trees as beech, black locust and mixture of deciduous trees, than in meadow soil, with 43 individuals. Larvae were found only in meadow soil.
  3. *Campodea (Dicampa) frenata* Silvestri, 1931 was found on four localities (Vinča, Božurnja, Donja Šatornja and Jarmenovci) in litter of trees as: oak, elm, beech and in mixture of deciduous trees, with eight individuals. Only adults were found.
  4. *Podocampa serbica* Karaman & Blesić, 1983 was found on four localities (Gornja Trešnjevica, Božurnja, Gornja Šatornja, Oplenac and Vinča) in litter oak and mixture deciduous trees, than in meadow soil, with 10 individuals. Only three larvae were found in litter of mixture deciduous trees.
- Family *Japygidae* is represented with one species:
  5. *Catajapyx confusus* Silvestri, 1929 was found on two localities (Oplenac and Jarmenovci) in litters of mixture of deciduous tree and beech trees, with 10 individuals. The halves of them were young.

Table 1: Presence of Dipluras' species in different ecosystems

TREES SPECIES*	A	B	C	D	E	F
[1]	+	-	-	-	-	+
[2]	-	+	+	-	+	-
[3]	+	+	-	+	+	-
[4]	+	-	-	-	+	+
[5]	-	-	-	-	+	-

\* number of species is the same as in the text

**A** – oak, **B** – beech, **C** – black locust, **D** – elm, **E** - mixture of different deciduous trees and **F** - meadow soil

From Table 1 it can be seen that different numbers of species were in the different trees' litters: in oak's come three species, in beech's two, in black locust's one and in elm one too, while in the litter of mixture of deciduous trees were four and in meadow soil two Dipluras' species. The most often tree in this region of Balkans is oak.

It could be expected, knowing that Diplura mostly are omnivores.

## CONCLUSION

*Diplura* are represented in this article with two family *Campodeida* (two genera, four species) and *Japygidae* (one genus, one species).

The most numerous species among *Campodeidae* was *Campodea (Dicampa) campestre* with 43 individuals or 59.03%.

The feeding plays high roll in distribution of *Campodeidae (Diplura)*.

## ACKNOWLEDGEMENTS

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**Internet source**

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