

INVESTIGATIONS OF DIPLURAS DISTRIBUTION

B. BLESIC

Faculty of Science, Kragujevac University, P.O. Box 60, SCG-34000 Kragujevac

E-mail: bela@knez.uis.kg.ac.yu

The investigations of *Diplura* (*Insecta*) were done in surroundings of Niš (250km SI from Belgrade). The terrestrial material were taken in different litter ecosystems and consisted of 181 individuals, 11 species (8 *Campodeidae* and 3 *Japygidae*). The numbers of individuals and species differs in ecosystem litters (of mixed deciduous trees, oak, beech, elm, acacia and orchard). Number of individuals was verified from 0.55-24.30%. In the litter of beech trees were collected the most number of individuals, but the most number of species in oak litter (8). The collected species were: *Campodea* (*Campodea*) *colladoi*, *Campodea* (*C*) *wallacei*, *Campodea* (*Dicampa*) *campestre*, *Campodea* (*D*) *frenata*, *Campodea* (*D*) *malpighii*, *Campodea* (*Paurocampa*) *rocasolanoi*, *Campodea* (*P*) *spelaea*, *Campodea* (*P*) *suensoni*; and from another family were: *Catajapyx confusus*, *Japyx solifugus* and *Metajapyx gojkovići*.

The most common in different ecosystems litters were *Campodea* (*C*) *colladoi* and, *C* (*P*) *spelaea*.

The species *Campodea* (*Paurocampa*) *rocasolanoi* was the first time founded in fauna of Serbia, and that is her Northeast distribution. It was known from South of Greek, from Republic of Macedonia and Montenegro. It can say that species *Campodea* (*Paurocampa*) *rocasolanoi* may be the species of Balkan.

KEY WORDS: Diplura, ecosystem, insect, investigation

INTRODUCTION

This article is given a new data about dipluras species. They were investigated in different ecosystems mostly in litters of forest trees (deciduous tree) and meadow, soil and how differ the species distribution. The numbers of species differs. Never found them in mass.

MATERIAL AND METHODS

The material of investigation was collected in 10 localities on region of SE-Serbia (mostly Niš area). Hundred and eighty one individuals were separated from samples on usual way. They are belonging to two families and eleven species. On usually way them were collected and determinate.

RESULTS AND DISCUSSION

The numbers of individuals and species differs in ecosystem litters (of mixed deciduous trees, oak, beech, elm, acacia and orchard). Number of individuals was varied from 0.55-24.30%. In the litter of beech trees were collected the most number of individuals, but number of species in oak litter (8).

From collected material 79.56% individuals belong to family *Campodeidae*.

Family **Campodeidae** are represented with eight species and there are:

1. *Campodea (Campodea) colladoi* Silvestri, 1939 was founded on 5 localities (Kamenicki Vis, Ostrovica, Gadzin Han, Niska Banja and Leskovik) in litter of: mixture of deciduous trees, oak, beech and acacia with 26 individuals.
2. *Campodea (Campodea) wallacei* Bagnall, 1918 was founded on 1 locality (Kamenicki Vis) in litter of beech trees with 6 individuals.
3. *Campodea (Dicampa) campestre* Ionescu, 1955 was founded on 7 localities (Leskovik, Dusnik, Resnik, Niska Banja, Sovariste, Lazarevo selo and Crnce) in litter of: mixture of deciduous tree, oak and orchard trees with 28 individuals.
4. *Campodea (Dicampa) frenata* Silvestri, 1931 was founded on 3 localities (Lazarevo selo, Kamenicki vis and Leskovik) in litter of: oak, beech and orchard trees with 4 individuals.
5. *Campodea (Dicampa) malpighii* Silvestri, 1912 was founded on 4 localities (Dusnik, Gadzin Han, Ostrovica and Niska Banja) in litter of: mixture of deciduous trees, oak and acacia with 20 individuals.
6. *Campodea (Paurocampa) rocasolanoi* Silvestri, 1932 was founded on 1 locality (Ostrovica) in litter of acacia trees with 1 individual. The first finding and her description is from South of Greek, later also is known from Macedonia and Montenegro. So this finding is her Northeast distribution. We can say that this species is the species of Balkan.
7. *Campodea (Paurocampa) speleae* Ionescu, 1955 was founded on 1 locality (Kamenicki vis) in litter of beech trees with 10 individuals.

8. *Campodea (Paurocampa) suenisoni* Tuxen, 1930 was founded on 4 localities (Resnik, Kamenicki vis, Ostrovica, Gadzin Han) in litter of mixture of deciduous trees, oak, beech and acacia with 49 individuals.

On family Japygidae are belonging 20.44% of dipluras individuals.

Family **Japygidae** are represented with three species and there are:

9. *Catajapyx confuses* Silvestri, 1929 was founded on 5 localities (Sovariste, Crnce, Lazarevo selo, Leskovik and Niska Banja) in litters of mixture of deciduous trees, oak and orchard trees with 30 individuals

10. *Japyx solifugus* Silvestri, 1933 was founded on 1 locality, in litter of oak trees, with 1 individual.

11. *Metajapyx gojkovići* Page, 1953 was founded on 1 locality, in litter of beech trees, with 1 individual.

For species *Campodea (Paurocampa) rocasolanoi* Silvestri, 1932 now this nordest finding in it is distribution. It was known from Greece, Macedonia and Montenegro (CONDE, 1984; BLESIC, 1998b, 2001).

CONCLUSION

Most common in different ecosystems litters were *Campodea (C) colladoi* and, *C (P) spelaea*. The species *Campodea (Paurocampa) rocasolanoi* was the first time found in fauna of Serbia, and that is her nordest distribution. It was known from South of Greek, from Republic of Macedonia and Montenegro. It can say that it is the species of Balkan.

ACKNOWLEDGEMENTS

The investigations were partly financially support by a grant N 1563 from the Serbian Ministry of Science and Technologies.

REFERENCES

- BLESIC, B. 1995. Poznavanje faune Japygidae (Insecta: Diplura) Srbije. Zbornik rezimea XXII Skupa Entomologa Jugoslavije, Palic 5-8. septembra, : 9.
- BLESIC, B. 1998a. Investigation of Protura and Diplura of South Serbia. . Proceedings for Natural Sciences, Matica Srpska, Novi sad, 94: 87-90.
- BLESIC, B. 1998b. Knowledge of Protura and Diplura of Montenegro. The Montenegrin Academy of Sciences and Arts – Glasnik of the section of Natural Sciences, Podgorica 12: 63-70.

- BLESIC, B. 2000. Investigation of Diplura and Protura in Western Serbia. Proceedings for Natural Sciences, Matica Srpska, Novi sad, 99: 69-79.
- BLESIC, B. 2001. Protura and Diplura (Insecta: Apterygota) of the Republic of Macedonia. 75years Macedonian Museum of Natural History, Skopje, :157-162.
- CONDE, B.1884. Diploures Campodeides (Insectes) de Greece (1 note). Revue Suisse Zoology, t91, f1:173-201.

ИСТРАЖИВАЊЕ ДИСТРИБУЦИЈЕ DIPLURA

Б. БЛЕСИЋ

И з в о д

Истраживања Diplura (Insecta) су вршена у околини Ниша (250км југоисточно од Београда) на 11 локалитета 1999 године. Број јединки и врста саразликује у стељама испитиваних екосистема (мешовите листопадне шуме, храста, букве, граба, багрема и воћњака). Из прикупљеног ентомолошког материјала, уобичајеним путем, издвојена је 181 јединка. Број јединки је варирао од 0.55-24.30%. Док је највећи број јединки у стељи букових шума, дотле је број врста највећи (8) у храстовој стељи. Прикупљено је 11 врста, у фамилију Campodeidae спадају: *Campodea* (*Campodea*) *colladoi*, *Campodea* (*C*) *wallacei*, *Campodea* (*Dicampa*) *campestre*, *Campodea* (*D.*) *frenata*, *Campodea* (*D.*) *malpighii*, *Campodea* (*Paurocampra*) *rocasolanoi*, *Campodea* (*P*) *spelaea* и *Campodea* (*P.*) *suensoni*; а у фамилију Japygidae: *Catajapyx confusus*, *Japyx solifugus* и *Metajapyx gojkovići*.

Први пут је констатована врста *Campodea* (*Paurocampra*) *rocasolanoi* у фауни Србије. Констатована је у Македонији и Црној гори (спомиње се са југа Грчке) и за сада је ово њено најсеверније распрострањење.

Најчешћа врста у различитим екосистемима стеља су: *Campodea* (*Campodea*) *colladoi* и *Campodea* (*Paurocampra*) *spelaea*.

Поред других елемената фауне значајних у биологији земљишта истраживана група се јавља у мањем броју.

Received April 19, 2004

Accepted June 20, 2004