

**SPECIES OF THE GENUS *SERICOTHRIPS* AND
NEOHYDATOTHRIPS (THYSANOPTERA: THRIPIDAE)
IN THE COLLECTION OF THE NATURAL HISTORY
MUSEUM IN BELGRADE**

LJILJANA ANDJUS¹, STANISLAV TRDAN², MILOŠ JOVIĆ¹

¹ Natural History Museum, Njegoševa 51, 11000 Belgrade, Serbia,
E-mail: ljiljaan@nhmbeo.rs; milos_jovic@nhmbeo.rs

² University of Ljubljana, Biotechnical Faculty, Dept. of Agronomy, Jamnikarjeva
101, SI-1111 Ljubljana, Slovenia, E-mail: stanislav.trdan@bf.uni-lj.si

This paper presents the data on specimens of genera *Sericothrips* and *Neohydatothrips* in the collection of the Natural History Museum in Belgrade. Most of these specimens were collected at several localities in Serbia. The paper quotes all relevant data on all collected specimens. Four species belonging to these genera were established in Central Europe, namely: *Sericothrips bicornis*, *Sericothrips staphylinus*, *Neohydatothrips gracilicornis* and *Neohydatothrips abnormis*. Two of them, *S. bicornis* and *Neohydatothrips gracilicornis*, were recorded previously in Serbia. Specimens of species *Sericothrips staphylinus* in the collection of Natural History Museum in Belgrade are the first records of this species in Serbia and the neighboring countries that used to be republics in the former Yugoslavia.

Key words: Thysanoptera, *Sericothrips*, *Neohydatothrips*, fauna, Serbia

INTRODUCTION

The collection of Thysanoptera is one part of the rich Entomological Collection of the Natural History Museum in Belgrade. Its taxonomic analysis has yielded data on the composition of thrips fauna in Serbia and the neighboring regions (Andjus 1997; Trdan *et al.* 2003).

Species belonging to genera *Sericothrips* and *Neohydatothrips* are represented in the Collection by more than 500 specimens. In the classic older literature (Priesner 1964), the four European species were included in the genus *Sericothrips*: *S. circumfusus* Priesner, *S. staphylinus* Haliday, *S. abnormis* Karny and *S. gracilicornis* (Williams). Today some of them are placed in the genus *Neohydatothrips*. According to the excellent book “Die terebrantien Thysanopteren Europas” by zur Strassen (2003), the genus *Sericothrips* contains *S. staphylinus* Haliday and *S. bicornis* (Karny), while *S. gracilicornis* (Williams) and *S. abnormis* (*circumfusus*) (Karny) were placed in the genus *Neohydatothrips* with a few other species from Spain.

In Serbia and in the region of former Yugoslavia, the species from this thrips groups are poorly studied, as is the whole order Thysanoptera. The first data for the territory of Serbia were provided by Kazakov (1927) who reported a record of species *Sericothrips bicornis*, while Morison & Tanasijević (1966) later recorded the species *Sericothrips abnormis* and *S. gracilicornis*. Zur Strassen (1981 & 1984) provided proof for the records of these species in Serbia. The two cited papers by zur Strassen also provide some very important data on fauna of these insects in the territories of the former Yugoslav republics (countries).

MATERIAL AND METHODS

The Collection of Thysanoptera at the Natural History Museum in Belgrade includes 587 specimens from genera *Sericothrips* and *Neohydatothrips*. Thrips material was collected by the usual entomological methods, primarily by checking and shaking the plants, as well as by the “mowing” or sweeping method. It is important to note that a majority of the material was collected with a sweeping net, proven in this study to be a very efficient method.

We have recorded thrips specimens on the plants from family Fabaceae, belonging to genera *Vicia* sp., *Lathyrus* sp., *Genista* sp. and *Coronilla* sp. There were also several specimens recorded on the plants that do not belong to the Fabaceae family, for example *Echium* sp. and *Galium* sp. This confirmed the well-known fact that thrips visit many different plants, but they feed and reproduce only on certain plant species from certain family.



Fig. 1. - Distribution map of records of *N. gracilicornis* (black dots), *S. staphylinus* (white squares) and *S. bicornis* (gray triangles) from the collections of the Natural History Museum in Belgrade.

With the exception of several specimens collected beforehand, this material was collected during the period 1997-2006. The material originated mostly from various localities in Serbia, while 2 specimens are from Croatia and one is from Hungary.

List of examined localities with UTM marks (10×10 km) (Fig. 1):

DQ 35 Boljevci	DQ 64 Vrčin
DQ 44 Mala Moštanica	DQ 65 Ritopek
DQ 49 Slankamen	DQ 65 Beograd, Stepin Gaj
DQ 49 Surduk	DQ 65 Vinča
DQ 53 Baćevac	DQ 66 Veliko Selo
DQ 53 Barajevo	DQ 74 Dražanj
DQ 54 Pinosava	DQ 98 Deliblatska Peščara, D. Bunar
DQ 55 Resnik	EQ 82 Djerdap
DQ 59 Sakule	WL 90 Zrinjska Gora (Croatia)
DQ 62 Kosmaj	XL 35 Moslovačka Gora (Croatia)
DQ 63 Popović	CT 93 Budapest, Nagy Kenej (Hungary)
DQ 64 Avala	

RESULTS AND DISCUSSION

Three species were identified in the studied material: *Neohydatothrips gracilicornis*, *Sericothrips bicornis* and *Sericothrips staphylinus*.

Neohydatothrips gracilicornis is a species of Palearctic distribution. Its presence in Serbia was first recorded by Morison & Tanasijević (1966) who collected the specimens near Kragujevac and Prokuplje on the plant *Trifolium pratense*. This species is also present in faunas of Slovenia, Croatia and Macedonia (zur Strassen 1981; 1984). This is a herbicolous species associated with plants from family Fabaceae, especially with genus *Vicia* and species *Vicia cracca*.

The collection at the Museum includes 72 males and 494 females of this species (Tab. 1.).

Tab. 1. - Specimens of the *Neohydatothrips gracilicornis* in the Natural History Museum collection.

Specimens	Locality	Date	Metod / Plant
1♀	Budimpešta, Nagy Kenej	24.9.1965.	Sweeping net
2♀	Beograd, Stepin Gaj	4.7.1997.	Sweeping net
5♀	Resnik	16.6.1997.	Sweeping net
14♀	Resnik	13.8.1997.	Sweeping net

Specimens	Locality	Date	Metod / Plant
3♀	Kosmaj	26.8.1997.	Sweeping net
23 ♀	Vinča	10.5.1997.	Sweeping net
7♂, 20♀	Pinosava	24.5.1998.	<i>Vicia cracca</i>
9♀	Resnik	16.5.1998.	Sweeping net
3♀	Pinosava	24.5.1998.	Sweeping net
6♀	Kosmaj	6.6.1998.	Sweeping net
3♀	Ritopek	20.6.1998.	Sweeping net
1♂, 1♀	Djerdap	30.7.1998.	Fam. Poaceae
3♀	Lepenski Vir	1.8.1998.	Fam. Poaceae
51♀	Mala Moštanica	25.7.1998.	Sweeping net
2♀	Popović	8.8.1998.	Sweeping net
9♀	Kosmaj	15.8.1998.	Sweeping net
14♂	Vinča	17.7.1999.	<i>Lathyrus tuberosus</i>
13♂, 30♀	Vinča	17.7.1999.	Sweeping net
16♀	Beograd, Stepin Gaj	15.8.1999.	Sweeping net
1♂, 6♀	Surduk	21.8.1999.	<i>Lathyrus tuberosus</i>
1♂, 7♀	Surduk	21.8.1999.	Sweeping net
8♀	Slankamen	6.5.2000.	Sweeping net
1♂, 16♀	Kosmaj	27.5.2000.	Sweeping net
3♂, 70♀	Kosmaj	27.5.2000.	<i>Lathyrus pratensis</i>
2♂, 10♀	Kosmaj	27.5.2000.	<i>Lathyrus tuberosus</i>
1♀	Mala Moštanica	10.6.2000.	<i>Echium vulgare</i>
1♀	Sakule	3.6.2000.	Sweeping net
1♀	Vinča	25.6.2000.	<i>Galium verum</i>
13♂, 49♀	Boljevci	22.7.2000.	<i>Lathyrus megalanthus</i>
1♀	Barajevo	1.6.2002.	Sweeping net
1♀	Kosmaj	5.6.2002.	<i>Lathyrus palustris</i>
1♀	Kosmaj	5.6.2002.	<i>Vicia cracca</i>
1♀	Kosmaj	5.6.2002.	<i>Genista tinctoria</i>
5♂, 5♀	Kosmaj	5.6.2002.	Fam. Poaceae
2♂, 2♀	Kosmaj	5.6.2002.	<i>Coronilla varia</i>
1♀	Grocka, Dražanj	15.6.2002.	Sweeping net
5♀	Mala Moštanica	22.6.2002.	Sweeping net
9♀	Resnik	6.7.2002.	Sweeping net
2♀	Avala, Čarapićev Brest	3.6.2003.	<i>Vicia cracca</i>
1♂, 6♀	Stari Slankamen	28.6.2003.	Sweeping net
1♀	Grocka, Vrčin	12.6.2004.	Sweeping net

Specimens	Locality	Date	Metod / Plant
5♂, 14♀	Bačevac	12.7.2004.	<i>Vicia</i> sp.
44♀	Resnik	24.7.2004.	Sweeping net
8♀	Mala Moštanica	7.8.2004.	Sweeping net
1♀	Deliblatska Peščara, D. Bunar	28.5.2005.	Sweeping net
3♂, 6♀	Kosmaj	18.6.2005.	Sweeping net
12♀	Veliko Selo	8.7.2006.	Sweeping net
4♀	Grocka, Vrčin	29.7.2006.	Sweeping net

Sericothrips bicornis is distributed throughout Europe. It was recorded for the first time in Serbia in 1927, when Kazakov collected some specimens at Avala (central Serbia) by using the “mowing” method (with a sweeping net). Later, Morison & Tanasijević (1966) also collected the species, than on *Trifolium* sp. in Prokuplje (South Serbia). This species was also recorded in Slovenia, Croatia, Bosnia-Herzegovina and Macedonia (Kovačević 1964; zur Strassen 1984; Andjus 1988/1989). This is the Euro-Siberian herbicolous species, associated with plants from the Fabaceae family, especially with *Lotus corniculatus* and *Trifolium repens*.

In the collection of the Natural History Museum the species *Sericothrips bicornis* is represented by 16 females (Tab. 2.).

Tab. 2. Specimens of the *Sericothrips bicornis* in the Natural History Museum collection.

Specimens	Locality	Date	Metod / Plant
1♀	Zrinjska Gora	1.10.1987.	Sweeping net
1♀	Moslovačka Gora	25.8.1987.	Sweeping net
1♀	Kosmaj	6.6.1998.	Sweeping net
12♀	Vinča	24.6.2000.	Sweeping net
1♀	Stari Slankamen	28.6.2003.	Sweeping net

Sericothrips staphylinus: Its native distribution is in Western Europe, originally England, France and Portugal. It was not previously recorded either in the territory of Serbia or in the broader region of former Yugoslav countries. This is a floricolous species, and the plant hosts are *Ulex* sp., especially *U. europaeus*.

Five females of the species *Sericothrips staphylinus* in the Museum collection (Tab. 3.) represent the first records of this species in Serbia and other countries that were once republics in the former Yugoslavia.

Tab. 3. Specimens of the *Sericothrips staphylinus* in the Natural History Museum collection.

Specimens	Locality	Date	Metod / Plant
1♀	Ritopek	20.6.1998.	Sweeping net
1♀	Popović	8.8.1998.	Sweeping net
3♀	Deliblatska Peščara, D. Bunar	19.6.2004.	Sweeping net

Three species belonging to genera *Sericothrips* and *Neohydatothrips* are represented in the Thysanoptera Collection of the Natural History Museum in Belgrade.

Two of them, *S. bicornis* and *N. gracilicornis*, were recorded previously in Serbia. Specimens of species *S. staphylinus* are the first records of this species in Serbia and the neighboring countries that used to be republics in former Yugoslavia.

REFERENCES

- Andjus, Lj. (1988/1989): Contribution to knowledge on Thysanoptera of Croatia. Bulletin of Natural History Museum in Belgrade, B **43/44**: 121-125.
- Andjus, Lj. (1997): Check - list of Thysanoptera in the former Yugoslavia. Acta entomologica serbica **2**(1/2): 117-136.
- Kazakov, V. (1927): Contribution to knowledge on Thysanoptera in Serbia. Bulletin of the Entomological Society of Kingdom of Serbs, Croats and Slovenes **2**(1): 11-18.
- Kovačević, Ž. (1964): Movements, abundance and representation of certain insect orders at alfalfa and clover beds and meadows. Protection of plants **82**(15): 667-685.
- Morison, G., Tanasijević, N. (1966): The frequency of Thysanoptera on some crop plants of Yugoslavia. Entomologist, London **99**: 28-43.
- Priesner, H (1964): Ordnung Thysanoptera (Fransenflüger, Tripse). In Bestimmungsbücher zur Bodenfauna Europas 2: 242.
- Trdan, S., Andjus, Lj., zur Strassen, R. (2003): Chronology of thripsological activities and comparison of check-lists on Thysanoptera in Slovenia and FR Yugoslavia. Acta Entomologica Slovenica **11**(1): 61-70.

- zur Strassen, R. (1981): Erste Daten zur Thysanopteren Fauna des Nordwestlichen Istrien (Yugoslawien). *Acta entomologica Jugoslavica* **17**(1-2): 143-151.
- zur Strassen, R. (1984): Zur Thysanopteren-faunistik des Alpen-vorlandes von Slowenien, nebst einer chek-list der Fransenflugler-Arten von Jugoslawien. *Acta entomologica Jugoslavica*, Zagreb **20**(1-2): 31-51.
- zur Strassen R. (2003): Die terebranten Thysanopteren Europas und des Mittelmeer-Gebietes. - Verlag Goecke & Evers, Kelttern: 1-277.

ВРСТЕ РОДОВА
SERICOTHRIPS* И *NEOHYDATOTHRIPS
(THYSANOPTERA: THRIPIDAE) У ЗБИРЦИ
ПРИРОДЊАЧКОГ МУЗЕЈА У БЕОГРАДУ

ЉИЉАНА АНЂУС, СТАНИСЛАВ ТРДАН, МИЛОШ ЈОВИЋ

РЕЗИМЕ

У раду је представљен материјал трипса родова *Sericothrips* и *Neohydatothrips* у збирци Природњачког музеја у Београду. Више од 500 примерака врста *Sericothrips bicornis*, *Sericothrips staphylinus* и *Neohydatothrips gracilicornis* сакупљено је углавном на разним локалитетима у Србији. Наведени су подаци о локалитету, датуму и начину сакупљања за све обрађене примерке. Врсте *Sericothrips bicornis* и *Neohydatothrips gracilicornis* биле су и раније констатоване у Србији. Примерци врсте *Sericothrips staphylinus* у музејској збирци представљају прве налазе ове врсте у Србији и околним земљама насталим од бивших југословенских република.

Познато је да су четири врсте ових родова констатоване у централној Европи, и то *Sericothrips bicornis*, *Sericothrips staphylinus*, *Neohydatothrips gracilicornis* и *Neohydatothrips abnormis*.