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FIRST RECORD OF THE SPIDER *Segestria florentina* (Rossi, 1790) (Araneae, Segestriidae) IN SERBIA

Abstract: An adult female and a male of *Segestria florentina* (Rossi, 1790) (Segestriidae) were found in the centre of the city of Belgrade, Serbia, during July, 2007. This is the first record of this species in Serbia and also the first record outside the Adriatic coast region in the Balkan Peninsula. The distribution of the species is briefly discussed. The description of the spider and the type and effects of its venom are given.

Key words: Araneae, Segestriidae, *Segestria florentina*, new record, Serbia

INTRODUCTION

The spider genus *Segestria* Latreille, 1804 currently includes 21 species which occur mainly in Euroasia, but some species can be found in North Africa, Madagascar, New Zealand, Japan, North and South America. In the Balkan Peninsula this genus is represented by four species: *S. bavarica* C. L. Koch, 1843, *S. croatica* Doleschall, 1852, *S. florentina* (Rossi, 1790) and *S. senoculata* (Linnaeus, 1758) (Platnick, 2007). Until now only *S. bavarica* and *S. senoculata* were recorded from Serbia (Nikolić & Polenec, 1981). From the former Yugoslavia *S. florentina* has been recorded in Slovenia (Kuntner & Kostanjšek 2000; Nikolić & Polenec 1981), Croatia (Nikolić & Polenec, 1981), and Montenegro (Damin 1896) (**Fig. 1**). It was mentioned by Blagoev (2002) for Macedonia but this record is based on incorrect country affiliation. He cited Drensky (1936), who himself cited the species from Fage (1921). The locality presented for this species is "Woden", which is on the territory of Greece. For that reason *S. florentina* is excluded from the list of Macedonian spiders.

The main aim of this short paper is to provide new faunistic data about this interesting species.

The specimens are deposited in the private collection of the first author.

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Fig. 1. Documented distribution of *Segestria florentina* in the former Yugoslavia
 Сл. 1. Позната налазишта врсте *Segestria florentina* на подручју претходне Југославије.

RESULTS AND DISCUSSION

In July 2007, a few citizens of Belgrade contacted the Institute for Nature Conservation of Serbia, asking in fear about the “big black hairy spider” that they have found and killed in their apartments. Only Mrs. Suzana Jovanović, from Gavrića Principa Street, upon our request and being inquisitive to find out what this species is, brought to us a male specimen that she has killed, without much damage to its body.

The second author of this paper (D.P.), has caught a large female spider specimen (Fig. 2) on July 28, 2007 in his apartment in Krunska Street, in the moment when the spider had just caught its prey — a large noctuid moth.

The first author of this paper (M.K.), on the occasion of his visit to Belgrade in August 2007, identified both specimens as *Segestria florentina*.

Of all the species of this genus in the Balkans, only *S. florentina* can penetrate the human skin with its chelicerae and produce a painful bite. The most recent case of its bite is recorded in Salento, Italy. The symptoms were described as: “At a local level, the bite provoked a keen and persistent pain and oedema of the part affected, followed by paresy of the left hand lasting some hours. The consequent symptomatology, both local and systemic, disappeared in about a week” (Pepe & Caione, 2006).



Fig. 2. *Segestria florentina*, female (photo: M. Komnenov)
Сл. 2. *Segestria florentina*, женка (фото: М. Комненов)

Two neurotoxins and one insecticide were found in the venom. The venom reduces the rate and amount of sodium inactivation. This effect is probably responsible for the prolongation of the action potential (Usmanov et al. 1985).

The female of *S. florentina* vary in size from 7 to 23 mm, and males from 10 to 16 mm. They are fairly thin and long and much darker than other species of the same genus. Adults are of uniformly black or dark brown coloration with some paler markings on the abdomen. They have large iridescent green chelicerae with long fangs that reflect light when illuminated by a torch. The six eyes are arranged in a semicircle in three groups of two. The legs are long and hairy, the first three pairs of legs are directed forward and the fourth pair is directed backwards. This leg structure appears to be an adaptation for living in silken tubes.

Segestria florentina is a nocturnal species and lives in a silken tube made in holes in old walls, in cracks under window ledges, and other similar micro habitats. At the opening of the tube there are six or more silk lines radiating outwards. During the night the spider sits with its six legs touching the

lines of silk to detect the vibrations of a passing insect. When it feels movement it attacks very fast in the direction of the line that was vibrating and tries to catch the insect. If it is successful, it quickly brings the prey back into the tube, to be eaten in safety.

The female lays eggs inside her tube web and stays until the young have hatched and dispersed. Occasionally, if the female dies before her young leave, they will eat her before moving on. Adults occur from June to November.

CONCLUSIONS

Within the territory of the former Yugoslavia *S. florentina* has been recorded in Slovenia, Croatia and Montenegro, and all finds are from the region of Adriatic coast. Our find is the first record of this species in Serbia and also the first record in the continental part of the Balkan Peninsula, far outside the Adriatic region.

The new records of this species have widened our information concerning its distribution in Europe. *S. florentina* is a species which in colder climates prefers to become synanthropic. It is unknown how and when this Mediterranean spider was introduced to the city of Belgrade, but it seems most likely that it happened by means of human transportation. It is possible that its acclimatisation in the continental areas was facilitated by the recent climatic changes (global warming). At the moment, we can not evaluate its overwintering success and population trends in Belgrade area. The further studies on the synanthropic spiders, those living in houses and other buildings are necessary, since it is very important now to establish the status of establishment of *S. florentina* and its potential influence on the indigenous fauna, as well as on human health.

If this venomous spider becomes fully established, the general public should be well-informed about how to behave in case of bite and anti-venom kits should be made available. Although bites of this spider are not considered as dangerous for humans yet, it is advisable to seek for the medical attention and to catch the spider for the identification.

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МАРЈАН КОМНЕНОВ, ДРАГАН ПАВИЋЕВИЋ

PRVI NALAZ PAUKA *Segestria florentina* (Rossi, 1790) (Araneae, Segestriidae) U SRBIJI

Сажетак

Мужјак и женка медитеранског паука *Segestria florentina* пронађени су јула месеца на два различита места у ужем центру Београда.

То је први налаз ове врсте ван њеног познатог ареала на простору претходне Југославије који је обухватао шест локалитета дуж јадранске обале, од Словеније преко Хрватске до Црне Горе.

Врло је вероватно да је врста интродукована у Београд где живи синантропно јер су оба примерка ухваћена у становима. И поред чињенице да се ради о крупном пауку није раније пронађен у Београду јер, с обзиром на своју величину, прави релативно мали паучинасти тубус који је скривен у пукотинама зидова, у гарнишима и на сличним местима. Преко дана крије се у тубусу а тек током ноћи постаје активан и лови плен те тако лако остаје непримећен.

На Балканском полуострву, род *Segestria* Latreille, заступљен је са четири врсте од којих су две регистроване за Србију, *Segestria bavarica* и *Segestria senoculata*.

Једино *Segestria florentina*, као најкрупнији представник рода, може хелицерама пробити људску кожу и произвести јак бол. Отров ове врсте се састоји од два неуротоксина и једног инсектицида. На месту уједа настаје велики едем који може произвести различите компликације, па је препоручљиво одмах затражити интервенцију лекара.

С обзиром да се ова врста по свој прилици одомаћила у Београду са очекиваном тенденцијом ширења не само у граду већ и шире у Србији, требало би упозорити јавност на све опасности које ујед ове врсте носи.

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