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## JUMPING SPIDERS NEW TO SLOVENIA (ARACHNIDA: ARANEAE: SALTICIDAE)

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**Abstract** - Seven jumping spider species (Salticidae) new for the Slovenian fauna are discussed: *Carrhotus xanthogramma* (Latreille, 1819), *Dendryphantès rudis* (Sundevall, 1832), *Eris nidicolens* (Walckenaer, 1802), *Evarcha jucunda* (Lucas, 1846), *Heliophanus cupreus* (Walckenaer, 1802), *Marpissa nivoyi* (Lucas, 1846), and *Menemerus semilimbatus* (Hahn, 1829).

**Izveček** - ZA SLOVENIJO NOVI PAJKI SKAKAČI (ARACHNIDA: ARANEAE: SALTICIDAE)

Sedem vrst pajkov skakačev (Salticidae) je za favno Slovenije novih: *Carrhotus xanthogramma* (Latreille, 1819), *Dendryphantès rudis* (Sundevall, 1832), *Eris nidicolens* (Walckenaer, 1802), *Evarcha jucunda* (Lucas, 1846), *Heliophanus cupreus* (Walckenaer, 1802), *Marpissa nivoyi* (Lucas, 1846) in *Menemerus semilimbatus* (Hahn, 1829).

### Introduction

Jumping spiders (Salticidae) represent the most diverse spider family with 4400 described species (Foelix, 1992). They are mostly diurnal hunters. Because of their characteristic pair of enlarged median eyes, their mainly colourful appearance and fascinating behaviour, they are amongst the most popular of all the spider groups. However, the salticid fauna of Slovenia was poorly studied in the past due to the fact that most of the araneological effort was devoted to the study of the epigeic fauna, to which the majority of jumping spiders do not belong. Thus at present there are faunis-

tic data for only 24 salticid species in Slovenia (Nikolić & Polenec, 1981; Polenec, 1989, 1992; Kuntner, 1997a) compared to 34 species in Britain (Roberts, 1993), 43 in the Austrian region of Styria (Kropf & Horak, 1996), 56 in the Czech Republic (Buchar et al., 1995), 71 in Germany (Platen et al., 1995), 73 in Switzerland (Maurer & Hänggi, 1990), 81 in Croatia (Nikolić & Polenec, 1981), and 136 in Italy (Pesarini, 1994).

According to the existing checklists and new findings for Slovenia cited above, seven species of jumping spiders were established to be new for the fauna of Slovenia and are discussed here. The systematics and nomenclature follow Platnick (1993), with important synonymies added. For each species the collected material, description of localities (with UTM co-ordinates and elevation in metres), distribution in the neighbouring countries, as well as some other European countries and beyond, possible endangered status in Europe and comments on the findings are given. This is just a small contribution to the complete picture of how many salticid species really exist in Slovenia and many more species are expected to be recorded.

### Species new to Slovenia

#### *Carrhotus xanthogramma* (Latreille, 1819)

**Material:** 1 female, SLO: Brkini, Zajelšje, 540 m, UTM VL34, 25.7.1996. Forest edge. Leg. I. Šereg, det., coll. M. Kuntner.

**Distribution:** Palearctic (Platnick, 1993); recorded in Croatia (Nikolić & Polenec, 1981), Austrian Styria (Kropf & Horak, 1996) as well as in other parts of Austria (K. Thaler, pers. comm.), Italy (in Pesarini, 1994: *C. bicolor*), Hungary (F. Samu, pers. comm.), Germany (Platen et al., 1995) where it is rare (Platen et al., 1996), Switzerland (Maurer & Hänggi, 1990), Czech Republic (Buchar et al., 1995).

**Comments:** The finding of the specimen was mentioned but not discussed by Kuntner (1997b). The species is the first representative of the genus *Carrhotus* Thorell, 1891 in Slovenia.

#### *Dendryphantes rudis* (Sundevall, 1832)

**Material:** 2 females, SLO: Preserje pri Lukovici, Veliki hrib at Drtijiščica stream, 350-390 m, UTM VM71, 11.9.1996. Forest. Leg., det., coll. M. Kuntner.

**Distribution:** Palearctic (Platnick, 1993); recorded in Austrian Styria (Kropf & Horak, 1996) as well as in other parts of Austria (K. Thaler, pers. comm.), Italy (Pesarini, 1994), Hungary (F. Samu, pers. comm.), Germany (Platen et al., 1995), Switzerland (Maurer & Hänggi, 1990), Czech Republic (Buchar et al., 1995), and widespread in northern Europe (Roberts, 1995).

**Comments:** Nikolić & Polenec (1981) synonymized the species with *D. hastatus* (Clerck, 1757), which was recorded in Slovenia and Croatia. According to Platnick (1989, 1993), Heimer & Nentwig (1991) and the authors cited above both forms are valid species.

*Eris nidicolens* (Walckenaer, 1802)

**Material:** 1 female, SLO: Podgorje, southwestern slope of Mt. Slavnik, 520-600 m, UTM VL14, 26.7.1996. Forest. Leg., det., coll. M. Kuntner.

**Distribution:** Mediterranean (Platnick, 1993); S, SE Europe: Austria, Algeria, Syria, Crimea (Prószyński, 1990); recorded in Croatia (Nikolić & Polenec, 1981), Austrian Styria (Kropf & Horak, 1996) as well as in some other parts of Austria (K. Thaler, pers. comm.), Italy (Pesarini, 1994), Hungary (F. Samu, pers. comm.), and Germany (Platen et al., 1995: *Macaroeris nidicolens*).

**Comments:** The finding of the specimen was mentioned but not discussed by Kuntner (1997b). The new locality is in submediterranean Slovenia on the southern limestone slope of the Slavnik mountain, which harbours many interesting thermophile spider species, normally encountered in the Mediterranean (cf. also Polenec, 1978; and Kuntner, 1997b). The species is the first representative of the genus *Eris* C. L. Koch, 1846 in Slovenia and the only one in Europe. Most other species of this genus are neotropical.

*Evarcha jucunda* (Lucas, 1846)

**Material:** 1 female, SLO: Osp, 80 m, UTM VL14, 28.7.1996, on the limestone cliff. Leg., coll. M. Kuntner, det. H. Metzner.

**Distribution:** Mediterranean (Platnick, 1989); Mediterranean, Karakorum?, Ethiopia? (Prószyński, 1990); recorded in Croatia - Dalmatia (Nikolić & Polenec, 1981), Italy (Pesarini, 1994). An old record in Hungary is unreliable (F. Samu, pers. comm.).

**Comments:** The locality is one of the most interesting in Slovenia. The so-called Karst Edge of south-western submediterranean Slovenia is an extensive limestone cliff, where the Karst plateau ends and the coastal alluvial plain begins. At the village Osp, the cliff is about 220 metres high. This is one of the few places in Slovenia where the warm limestone harbours true Mediterranean flora and fauna. Many other Mediterranean species of spiders have been observed and collected there (Kuntner, 1997b and unpublished data; see also the species *Menemerus semilimbatus* later in the text). It is presumed that many more new records of spiders for Slovenia are to be expected from this region.

*Heliophanus cupreus* (Walckenaer, 1802)

**Material:** 1 female, SLO: Brkini, Zajelšje, 540 m, UTM VL34, 25.7.1996. Forest edge. Leg. I. Šereg, det. H. Metzner, coll. M. Kuntner; 1 male, SLO: Brkini, Javorje, 600 m, UTM VL24, 25.7.1996. Forest. Leg., det., coll. M. Kuntner; 1 female, SLO: Podgorje, south-western slope of Mt. Slavnik, 520-600 m, UTM VL14, 26.7.1996. Forest. Leg. R. Kostanjšek, det., coll. M. Kuntner.

**Distribution:** Palearctic (Platnick, 1993); recorded in Croatia (Nikolić & Polenec, 1981), Austrian Styria (Kropf & Horak, 1996) as well as in other parts of Austria (K. Thaler, pers. comm.), Italy (Pesarini, 1994), Hungary (F. Samu, pers. comm.),

Germany (Platen et al., 1995), Switzerland (Maurer & Hänggi, 1990), Czech Republic (Buchar et al., 1995), and widespread in Britain and northern Europe (Roberts, 1995).

**Comments:** The finding of the common European species at the second and third given localities was mentioned but not discussed by Kuntner (1997b).

#### *Marpissa nivoyi* (Lucas, 1846)

**Material:** 1 juvenile, SLO: Podgorje, southwestern slope of Mt. Slavnik, 520-600 m, UTM VL14, 26.7.1996. Forest. Leg. T. Lokovšek, det. H. Metzner, coll. M. Kuntner.

**Distribution:** Europe, North Africa (Platnick, 1993); recorded in Austria (K. Thaler, pers. comm.), Italy (Pesarini, 1994), Hungary (F. Samu, pers. comm.), Germany (Platen et al., 1995), where it is threatened with extinction (Platen et al., 1996), Switzerland (Maurer & Hänggi, 1990), Czech Republic (Buchar et al., 1995), rare in northern Europe (Roberts, 1995).

**Comments:** The species is not listed by Nikolić & Polenec (1981). Due to the fact that no accurate faunistic data for Slovenia are available (just the locality reading "Strunjan" by Polenec (1992), where the species is listed as vulnerable), the species is considered to be new for the Slovenian fauna. The new locality given is the same as described for the species *Eris nidicolens* above.

#### *Menemerus semulimbatus* (Hahn, 1829)

**Material:** 1 female, SLO: Osp, 80 m, UTM VL14, 28.7.1996, on the limestone cliff. Leg., coll. M. Kuntner, det. H. Metzner.

**Distribution:** Canary Islands to former USSR, Argentina (Platnick, 1989); Mediterranean, Canary Islands, Turkestan (Roewer, 1954); Mediterranean, Canary Islands, Madeira archipelago, Azores (Wunderlich, 1991); recorded in the Kvarner and Dalmatian regions of Croatia (Nikolić & Polenec, 1981), and in the north and south of Italy (Pesarini, 1994). The species has not been recorded in Austria (K. Thaler, pers. comm.), Hungary (F. Samu, pers. comm.), and further north in Europe.

**Comments:** According to the available data (see the Distribution above) the new locality (which is the same as that of *Evarcha jucunda* described above) might be on the northern limit of the species distribution. The species is the first representative of the genus *Menemerus* Simon, 1868 in Slovenia.

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