



***Theridion palmgreni* Marusik & Tsellarius, 1986: first record for Poland, new data from Finland, Russia and Estonia – with a review of distribution and ecology (Araneae, Theridiidae)**

Theo BLICK*, Stefan OTTO**, Niclas R. FRITZÉN*** and Andreas FLOREN****

*Heidloh 8, DE-95503 Hummeltal, Germany; e-mail: theo.blick@t-online.de

**GutsMuthsstr. 42, DE-04177 Leipzig, Germany; e-mail: s.otto_bio@gmx.net

***Department of Biological and Environmental Sciences, P.O. Box 65, FI-00014 University of Helsinki, Finland;
e-mail: niclas.fritzen@helsinki.fi

****University Wuerzburg, Biozentrum, Am Hubland, Department of Animal Ecology and Tropical Ecology, DE-97074 Wuerzburg, Germany; e-mail: floren@biozentrum.uni-wuerzburg.de

Abstract: For the first time the spider species *Theridion palmgreni* Marusik & Tsellarius, 1986 is recorded in Poland in the Białowieża Forest. Furthermore, previously unpublished data for the species from Finland, Russia and Estonia are included. The female is figured. History, distribution and phenology of this species with an Euro-Siberian boreal range is discussed and mapped for Europe and Asia. Poland, Estonia and Finland are at the western border of its known range. Presumably the species prefers branches of coniferous trees up until the canopy and this may result in the rarity of records. The need for a taxonomic revision of three similar species (*T. palmgreni*, *T. serpatosum*, *T. tigræ*) is stated.

Key words: spiders, faunistics, distribution, canopy, boreal zone, Europe, Asia

INTRODUCTION

In a study of the canopy spider fauna in eastern Poland (Otto 2004, Otto & Floren submitted) five females of a *Theridion* species were found in a young spruce forest. It was determined as *T. palmgreni* Marusik & Tsellarius, 1986; a species not previously known from Poland (Starega 2004). This was an inducement for us to collect all known information on the species and to correlate it with the new record for Poland and Central Europe.

Most of the data on this species are dispersed in many publication or they remain unpublished. The habitus was never published before and the genitalia were only figured once by Marusik & Tsellarius (1986). In particular the variety in the appearance of the female genitalia was poorly known. The records of the species were never summarised, therefore the distribution of the species is difficult to define. Furthermore, published data on habitat, ecology and phenology are very scattered.

We found also two different Latin spellings of the co-describer (*Целлариус*). Platnick (2006) writes '*Cellarius*'. In the original description of the species from 1986 both (!) alternatives were used: *Tsellarius* (in the description) and *Cellarius* (in the abstract). As in the majority of citations '*Tsellarius*' is preferred here.

METHODS

The sampling site is situated in the Białowieża Primeval Forest in eastern Poland (District Białystok, forest quadrant 305C, 52°44'42"N, 23°40'22"E, 160 m a.s.l.; Fig. 10, no. 5). Five females of the species have been recorded by canopy fogging (for details on the method see: Floren & Linsenmair 1997, Floren & Schmidl 2003) on 8th July 2001 from 10 eight year old spruce trees (*Picea abies*), which were planted 5 years before and had a height of about 3–4

meters. The specimens were collected by the 2nd author and identified by the 1st author. 1 ♀ coll. T. Blick, 3 ♀♀ coll. S. Otto, 1 ♀ coll. Museum Helsinki No. 51.112.

The most abundant spider taxa in the canopies at the site, where *T. palmgreni* was found in Poland, were the widespread species *Metellina segmentata* (Clerck, 1757) (36% of all adults and juveniles), *Keijia tinctoria* (Walckenaer, 1802) [= *Theridion tinctorum*] (13%) and *Gibbaranea omoeda* (Thorell, 1870) (8%). A total of 29 spider species (517 determinable individuals) were recorded from the ten spruce-canopies of this forest site (Table 1).

For unpublished records from Finland, Estonia and Russia see Table 2.

CHARACTERISTICS AND DETERMINATION

The male of *T. palmgreni* is characterised by a distinct medial depression on the cephalothorax and by the male palp (see Palmgren 1974, Marusik & Tselarijus 1986). As the habitus of the female has not been published until now and the female epigyne is not easy to recognise, we present here some additional figures (Figs 1–9). Furthermore the female epigyne differs with the age of the specimens, i.e. with the intensity of sclerotisation.

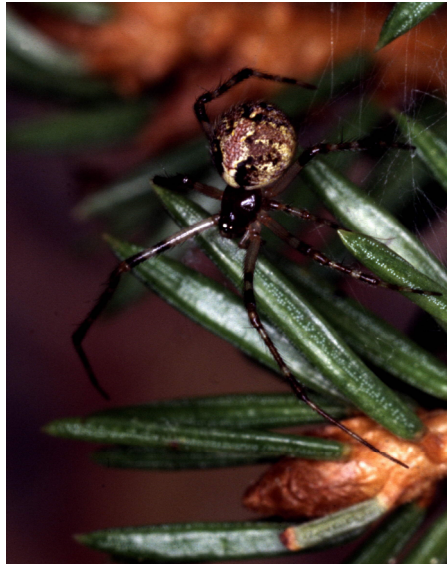
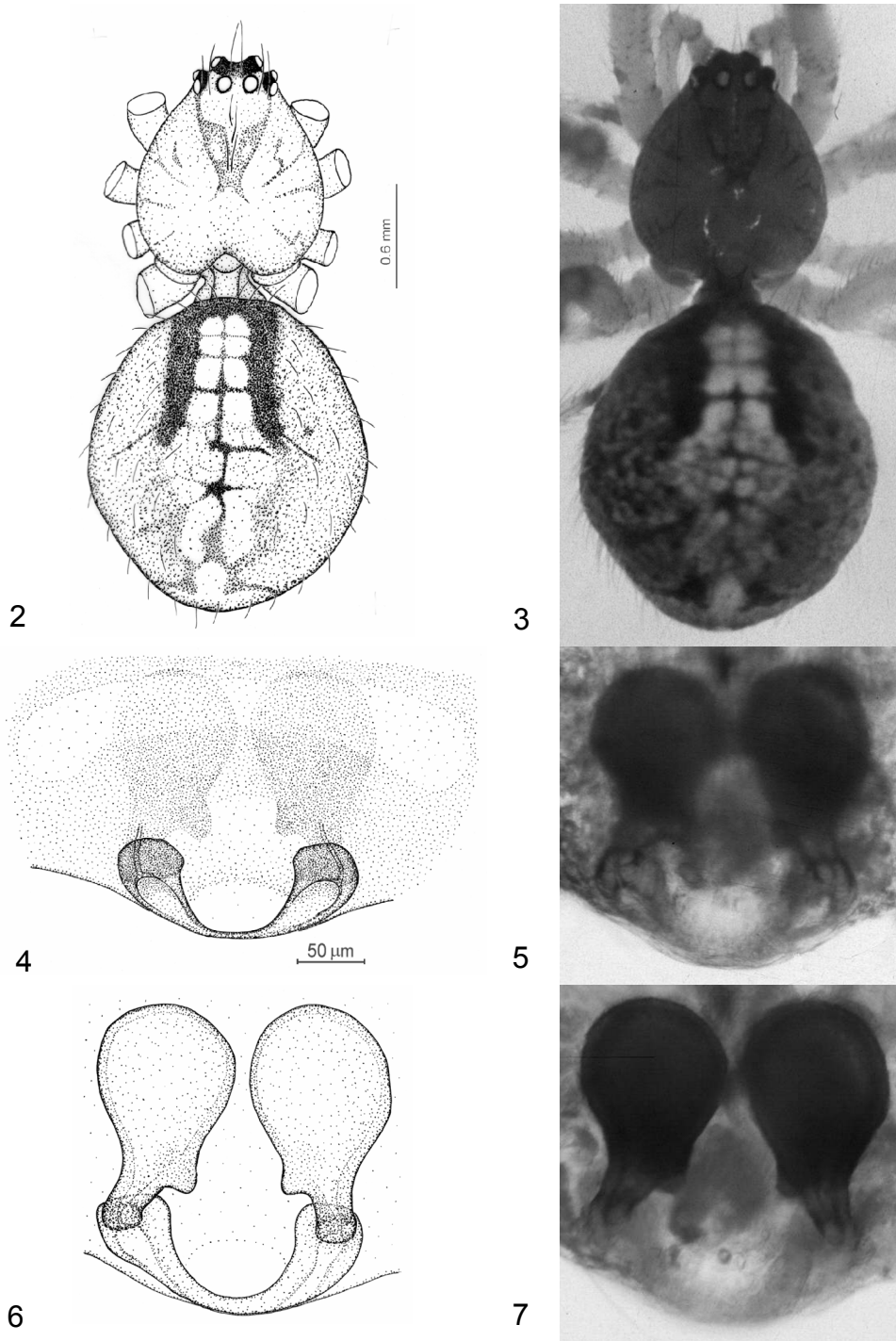


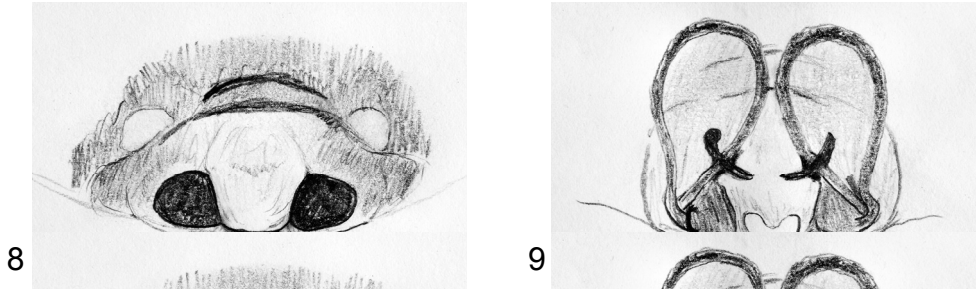
Fig. 1. Photo of living female of *T. palmgreni* from Finland (N.R. Fritzen)

TAXONOMIC HISTORY AND DISTRIBUTION

T. palmgreni was first figured in the male gender as *Theridion* sp. ign. [unknown species] – but not formally described with a new name – by Palmgren (1974: p. 28, Fig. 7. 4–8) from Tuusula/Finland (Fig. 10: no 1). Marusik & Tselarijus (1986) described and figured the new species in both sexes from Karelia (Suna river floodplain, near Kondopoga), which is situated in Russia near the Finnish border (Fig. 10: no 2). Furthermore they indicated the occurrence of the species in Estonia and Krasnoyarsk (see below). Vilbaste (1987: p.48, map no. 248; sub *Theridion* sp. ign. Palmgren, 1974 – Fig. 10: no 3) published the record of a male of *T. palmgreni* from south-western Estonia. After that, several new localities became known from Finland (nos. 9–14, 30 at Fig. 10 and in Table 2). The species is also listed in the Finnish spider checklist (Koponen 2006). Recently Fritzen found four new localities for the species in south-eastern Estonia (no. 29 at Fig. 10 and in Table 2).



Figs 2–7. *Theridion palmgreni*, female: 2 & 3 – habitus, 4 & 5 – epigyne, 6 & 7 – vulva.; drawings by S. Otto, photos by P. Otto & S. Otto.



Figs 8 & 9. *Theridion palmgreni*, female epigyne and vulva, drawings by N. R. Fritzen.

The new Polish record extends the known European range of the species into Central Europe (no. 5 in Fig. 10) – it was already mentioned by Starega (2004) once he knew about the record we publish here. Furthermore the unpublished records around Moscow fill the former geographical gap between the records from Finland, Estonia, Russian Karelia and St. Petersburg to the records from Urals (compare Fig. 10, Table 2).

Table 1. Spider species (det. S. Otto) fogged together with *T. palmgreni* from the 10 canopies of 8-year old spruce-trees in the Białowieża forest, Poland.

No.	Species	Individuals	%	Adult	Juvenile
1	<i>Metellina segmentata</i> (Clerck, 1757)	187	36,2		187
2	<i>Keijia tincta</i> (Walckenaer, 1802)	66	12,8	21	45
3	<i>Gibbaranea omoeda</i> (Thorell, 1870)	41	7,9		41
4	<i>Diaea dorsata</i> (Fabricius, 1777)	36	7,0		36
5	<i>Anyphaena accentuata</i> (Walckenaer, 1802)	30	5,8		30
6	<i>Cyclosa conica</i> (Pallas, 1772)	29	5,6	1	28
7	<i>Dictyna pusilla</i> Thorell, 1856	24	4,6	24	
8	<i>Entelecara congenera</i> (O. P.-Cambridge, 1879)	17	3,3	17	
9	<i>Moebelia penicillata</i> (Westring, 1851)	17	3,3	17	
10	<i>Meioneta innotabilis</i> (O. P.-Cambridge, 1863)	11	2,1	11	
11	<i>Enoplognatha ovata</i> (Clerck, 1757)	9	1,7	9	
12	<i>Araneus nordmanni</i> (Thorell, 1870)	5	1,0		5
13	<i>Gibbaranea bituberculata</i> (Walckenaer, 1802)	5	1,0		5
14	<i>Dendryphantes rudis</i> (Sundevall, 1833)	5	1,0	5	
15	<i>Pityohyphantes phrygianus</i> (C. L. Koch, 1836)	5	1,0	5	
16	<i>Tetragnatha obtusa</i> C. L. Koch, 1837	5	1,0	5	
17	<i>Theridion palmgreni</i> Marusik & Tsellarius, 1986	5	1,0	5	
18	<i>Hyptiotes paradoxus</i> (C. L. Koch, 1834)	3	0,6	1	2
19	<i>Neriene emphana</i> (Walckenaer, 1842)	3	0,6	3	
20	<i>Achaearanea simulans</i> (Thorell, 1875)	2	0,4	2	
21	<i>Obscuriphantes obscurus</i> (Blackwall, 1841)	2	0,4	2	
22	<i>Philodromus collinus</i> C. L. Koch, 1835	2	0,4	2	
23	<i>Theridion varians</i> Hahn, 1833	2	0,4	2	
24	<i>Achaearanea lunata</i> (Clerck, 1757)	1	0,2	1	
25	<i>Araneus diadematus</i> Clerck, 1757	1	0,2		1
26	<i>Araneus sturmi</i> (Hahn, 1831)	1	0,2	1	
27	<i>Entelecara acuminata</i> (Wider, 1834)	1	0,2	1	
28	<i>Neriene peltata</i> (Wider, 1834)	1	0,2	1	
29	<i>Theridion mystaceum</i> L. Koch, 1870	1	0,2	1	
	Total individuals	517		137	380
	Total species	29		22	10

Table 2. Detailed data of all known records of *T. palmgreni* (1-30), *T. serpatusum* (S) and *T. tigræ* (T1-T3).

Nos. in figs. 10 & 11	Males/ females (subadults) juveniles	Date of sampling	Region/ country	Locality/ coordinates	Method	Habitat	References
1	1/-	2.VI–1.VII.1969	Finland	Tuusula, 60.40°N/25.03°E			Palmgren (1974), Pajunen (pers. comm.)
2	3/4	1.VI.1984	Russian Karelia	Suna river floodplain, 20 km from Kondopoga, 62.2°N/34.3°E		dark closed comparatively dry spruce forests	Marusik & Tsellarius (1986), Tsellarius (1993), Uzenbaev (1986)
3	1/-	20.VI.1969	Estonia	Near Nigula peatbog, Nõmme, 58.1°N/25.0°E		mixed forest	Vilbaste (1987), Pajunen (pers. comm.)
4a	-/7, 1 juv.	24–25.VI.1996	European Russia	Vasil'evskii Isl., Sankt Petersburg, 59.95°N/30.45°E		fences	Gromov (1997, pers. comm.), Logunov (pers. comm.)
4b	-/1	7.VIII.2003	European Russia	Pavlovsk Park, SE of the city of Sankt Petersburg	hand sampling	bark of tree	Van Keer (pers. comm.)
5	-/5	8.VII.2001	Poland	Białowieża Forest	canopy fogging	forest, 8-year old spruce trees	Blick et al. (this study), Otto (2004: sub <i>T. melanurum</i>), Otto & Floren (submitted)
6	3/9	7–12.VI.1987-1988	Urals, Russia	Preduralie Res., Kishert Distr. [Ust-Kishert], Middle Urals, 56.3°N/58.4°E		different types of forests, i.e. birch, pine, mixed	Esyunin & Efimik (1995, 1996a), Pakhorukov et al. (1995), Esyunin (pers. comm.)
7	-/4	16–17.VIII.1994	Urals, Russia	Visim Res., Yekaterinburg/ Sverdlovskaya, Middle Urals, 57.6°N/59.5°E		different types of forests, i.e. birch, pine, mixed	Esyunin & Efimik (1995, 1996a), Ukhova & Esyunin (1996), Ukhova (2001), Esyunin (pers. comm.)
8			Urals, Russia	Ilmenski Reserve, Chelyabinsk area, near Miass, South Urals, 55.0°N/60.1°E			Polyanin & Pakhorukov (1988), Esyunin & Efimik (1995, 1996a), Esyunin (pers. comm.)
9	1/-	4–14.VI.1986	Finland	Lammi, 61.08°N/25.01°E	pitfall trap	primeval spruce forest	Pajunen (pers. comm.), see also Forstén et al. (1992)
10	1/1	4–14.VI.1986	Finland	Längelmäki, 61.74°N/24.80°E	pitfall trap	old spruce forest	Pajunen (pers. comm.), see also Forstén et al. (1992)
11	2/1	30.V–13.VI.1994	Finland	Ruokolahti, 61.29°N/28.83°E	window trap	primeval spruce forest	Pajunen (pers. comm.)
12a	(3)/(1)	18.VIII.2003	Finland	Kristinestad, 62.27°N/21.37°E, Högåsen	beating lower branches of spruce	mature spruce forest	Fritzén (this study)
	-/(1)	21.VIII.2003					
	-/(1)	21.III.2004					
	(1)/(3) & 1 juv.	12.II.2005					
	-/1 & -/(1)	25.III.2005			(ad. female from branch of 5 m of height)		
12b	1 juv.	15.V.2005	Finland	Kristinestad, Tjock	beating lower branches of spruce	old mixed spruce forest	Fritzén (this study)

Nos. in figs. 10 & 11	Males/ females (subadults) juveniles	Date of sampling	Region/ country	Locality/ coordinates	Method	Habitat	References
13a	1 juv.	29.VII.2005	Finland	Korsholm, 63.11°N/21.65°E, Iskmo ön	beating lower branches of spruce	old mixed spruce forest	Fritzén (this study)
	(1)/(1)	14.I.2006					
13b	(1)-	12.VIII.2005	Finland	Korsholm, Jungsund	picked from web on pine	managed pine forest	Fritzén (this study)
13c	-/1	31.XII.2004	Finland	Vaasa, 63.10°N/21.62°E, Risö	beating lower branches of spruce	old spruce forest	Fritzén (this study)
13d	-/1 & -(1)	26.IX.2004	Finland	Vaasa, Sundom, Öjen	beating lower branches of spruce	thinned spruce forest	Fritzén (this study)
14	1 juv.	6.V.2005	Finland	Lapua, Simpsiö, 62.97°N/23.05°E	beating lower branches of spruce	old mixed spruce forest	Fritzén (this study)
15/16	9/4	10.VII–22.VI.1987	Russian Far East	Khabarovsk Territory and District, Bolshe-Khekhtsir Nature Reserve, 150–400 m asl., ~48°N/135°E and ~49°N/137°E	sweeping in different strata (grass layer, tree trunks, canopy)	different types of forest habitats (<i>Quercus</i> to coniferous-broad leaf forests)	Kim & Kurenschikov (1995), Logunov (pers. comm.) – recently Marusik (pers. comm.) identified as <i>serpatusum</i> (see text)
17a	1/-	25.VI–1.VIII.1995	Russian Far East	Maritime Territory, 18 km SE of Ussuriisk Town, Gornotaeozhnoe Vill., ~44°N/132°E			Logunov (pers. comm.)
17b	1/1	7.VII.1976 (f), 16.VII.1976 (m)	Russian Far East	Maritime Territory, Khasan district, 'Kedrovaya Pad' Nature Reserve		steppe forest	Logunov (pers. comm.)
18	1/1	14–15.VI.1991	Chita Area, Russia	Kyra District, Sokhondo Nature Reserve, confluence of Buninda Brook and Agutsa River, 1100 m asl, 52°N/113°E	sweeping	forest	Logunov & Marusik (2004), Logunov (pers. comm.), Gromov (pers. comm.)
19	-/2	1983	Middle Siberia, Russia	Environment of Chunoyar Station 57°N/97°E, Krasnoyarsk Area			Marusik & Tsellarius (1986), Mikhailov (1997, 1998), Esyunin & Efimik (1996a)
20	1/-	9–12.VI.1992	Altai, Russia	Gomo-Altai Auton Area, Turochak Distr., Artybash Vill., 52°N/89°E			Logunov (pers. comm.), Gromov (pers. comm.)
21	1/-	27.VI.1989	Tuva, Russia	Tandinskii District, near Chagytai Lake, 1200–1300 m, Tuva, S-Siberian Mts, 51°N/95°E	sweeping	mixed taiga forest	Logunov et al. (1998), Marusik et al. (2000), Logunov (pers. comm.)
22	1/-	5.VIII.1981	Europ. Russia	Kostroma Area, Manturovo Distr., Shilovo env., 58.9°N/42.7°E		on <i>Deschampsia caespitosa</i>	Gromov (pers. comm.)
23	-/4, 1 cocoon	18.VII.1999	Europ. Russia	Moscow Area, Moscow, Sheremetiev-1 airport env., 53.1°N/43.1°E	hand collecting	fences	Gromov (pers. comm.)

Nos. in figs. 10 & 11	Males/ females (subadults) juveniles	Date of sampling	Region/ country	Locality/ coordinates	Method	Habitat	References
24	-/1	23.VII.2000	Europ. Russia	Moscow Area, Moscow, General Botanical Garden, 55.8°N/37.6°E	hand collecting	near hothouse, fence	Gromov (pers. comm.)
25	-/1	12.VI.1980	Europ. Russia	Moscow Area, Zvenigorod Biological Station of Moscow State University, 55.7°N/36.9°E		<i>Betula</i> forest	Gromov (pers. comm.)
26	-/1, 1cocoon	2.VIII.2000	W-Siberia, Russia	Novosibirsk, Berezovaya Roshcha Park, 55.05°N/82.95°E	hand collecting	wall	Gromov (pers. comm.)
27	-/1	13.VIII.1990	W-Siberia, Russia	Krasnoyarsk Territory, Minusinsk Distr, Krupskaya station env., 53.7°N/92.0°E		forest	Gromov (pers. comm.)
28	-/1	4.VII.1990	Lake Baikal, Russia	Irkutsk Area, Slyudyanka Distr., Marituy env., 600-700 m, 51.8°N/104.2°E		Pinus-small-leaved forest	Gromov (pers. comm.)
29	-(1)	1.VIII.2006	Estonia	Kapera, Meremäe, Võrumaa, 57°46'27"N/27°22'17"E	beating lower branches of spruce	mature mixed spruce/pine forest	Fritzén (this study)
	(2)-	2.VIII.2006		Suur Munamägi, Vastseliina, Võrumaa, 57°42'49"N/27°3'26"E		old mixed spruce forest.	
	-(3)	2.VIII.2006		Vällamägi, Vastseliina, Võrumaa, 57°43'54"N/27°3'46"E		old mixed spruce forest	
	-(1)	3.VIII.2006		Meremäe, Meremäe, Võrumaa, 57°44'28"N/27°26'14"E		mature mixed spruce forest.	
30a	-(2)	11.IX.2006	Finland	Kuhmo, Ulvinsalo Strict Nature Reserve, 63.99°N/30.37°E	beating lower branches of spruce	pristine mixed spruce forest	Fritzén (this study)
30b	(1)-	12.IX.2006	Finland	Kuhmo, Elimyssalo Nature Reserve, 64.21°N/30.28°E	beating lower branches of spruce	old spruce forest	Fritzén (this study)
S	1/-	V.1986	N-China	Qingyuan County, Liaoning, 42.1°N/124.9°E			Zhu et al. (1993), Zhu (1998)

Nos. in figs. 10 & 11	Males/ females (subadults) juveniles	Date of sampling	Region/ country	Locality/ coordinates	Method	Habitat	References
T1	1/-	16.V.1995	Urals, Russia	Spasskaya Gora, NW of Zarubino, Kungurskiy district, Middle Urals, 57.6°N/57.0°E		birch grove on slope in southern exposition	Esyunin & Efimik (1996a, 1996b), Esyunin (pers. comm.)
T2	-/1	16.VIII. 1994	Urals, Russia	Visim Res., Yekaterinburg/ Sverdlovskaya, Middle Urals, 57.6°N/59.5°E		grassy birch grove	Esyunin & Efimik (1996a, 1996b), Ukhova (2001), Esyunin & Ukhova (2001: sub <i>serpatusum</i>), Esyunin (pers. comm.)
T3	1/-	2.VI.1985	Urals, Russia	Shulgan-Tash Res., Burzyan Distr., Bashkiria, South Urals, 53.1°N/57.9°E		meadow, on road	Efimik & Gulyashchikh (1995: sub <i>T. spec.</i>), Esyunin & Efimik (1995: sub <i>T. palmgreni</i> , 1996a, 1996b), Esyunin (pers. comm.)
	-/5	6.VII–27.VIII. 1985–1989				broad-leaved and mixed forest, birch grove	

In the catalogue of the spiders of the former Soviet Union and the first two addenda of this catalogue (Mikhailov 1997: p. 41, 1998: p. 10, 1999: p.10) and in the catalogue of the spiders of the Urals (Esyunin & Efimik 1996a: p 28) the species is listed for numerous parts of Russia: Karelia as well as the Middle and South Urals in the European part, Middle Siberia (Krasnoyarsk Province), the mountains of South Siberia (Marusik et al. 2000) and the Continental Far East (Amur-Maritime Area: southern Khabarovsk territory, Kim & Kurenschikov 1995; note: the species is not mentioned from there by Marusik & Koponen 2000 or Oliger et al. 2002).

Thus the species has a wide range in the boreal zone in Russian Asia (Fig. 11), but the records are very scattered. In the Russian Far East records reach the Korean border as well as quite close to the Chinese border (Fig. 11). So the species can be expected in these countries too. Marusik et al. (2000: p. 110, 190: map 186) state an “Euro-Baikalian boreal range” for *T. palmgreni*, but they did not include the far eastern records from the Khabarovsk area. In fact the species seems not to reach the treeless tundra regions in the north and we want to characterise the distribution as an ‘Euro-Siberian boreal range’.

Zhu et al. (1993) published a new species – *Theridion serpatusum* Guan & Zhu, 1993 – which was attached by them and Zhu (1998) to Palmgren's “*Theridion* sp. ign.”. If this is true *T. serpatusum* would be a synonym of *T. palmgreni*. Regarding the figures of the males of both species (Marusik & Tsellarius 1986, Zhu et al. 1993, Zhu 1998) we have doubts about this. Furthermore Esyunin & Efimik (1996b) described the new species *Theridion tigræ* from the Urals and place also one record formerly determined as *T. palmgreni* to it: from Bashkiria, Burzian Distr. (Esyunin & Efimik 1995, 1996a, corrected by Esyunin pers. comm.). Additionally Esyunin (pers. comm.) treats *T. tigræ* as a synonym of *T. serpatusum*. Comparing the figures of the two species we would agree. Esyunin (pers. comm.) lists two species (*palmgreni* and *serpatusum*) for the Urals. In Platnick (2006) all three species are valid. Furthermore the Nearctic/East-Palaearctic species *Theridion lyricum* Walckenaer, 1842 is also close to them (advice of Marusik pers. comm.) and not closely related to the type-species of *Theridion* Walckenaer, 1805, i.e. *T. pictum* (Walckenaer, 1802). Yoshida (2001)

placed *T. lyricum* into the new genus *Takayus* Yoshida, 2001. A revision of material of the whole range of the relevant species (including the types) is needed. A revision by Gromov is in preparation (see Gromov 2005). Therefore we include the records of *T. serpatosum* and *T. tigrae* at Table 2 and Figs 10 & 11. Recently, Marusik (pers. comm.) checked specimens from the Khabarovsk area (nos. 15/16 at Fig. 11 and at Table 2) and identified them as *serpatosum* and does not support the synonymy of *serpatosum* with *palmgreni*.

HABITAT, ECOLOGY, PHENOLOGY

The material for the first description was collected in “dark closed comparatively dry [spruce] forests” by sweeping (Marusik & Tsellarius 1986: p. 1738). All specimens of *T. palmgreni* in this paper were caught by sweeping and none by pitfall trapping; in June 4 ♂♂ and 6 ♀♀ were collected by 100 sweepings (Marusik pers. comm.). Tsellarius (1993 – translation by Y. Marusik) notes: “In bilberry spruce forest it is a numerous species, in grassy spruce forest – common. (...) on grass and young growth (spur).” All records mentioned by Eshyulin & Efimik (1995) are from different types of forests, i.e. birch, pine, mixed forests and were collected by sweeping. Kim & Kurenschikov (1995) found it in different types of forest habitats (*Quercus* to coniferous-broad leaf forests) in different strata (grass layer, tree trunks, canopy), but without stating a main habitat or stratum. Van Keer (pers. comm.) collected it from bark in a park (Table 2) and Vilbaste (1987) in a mixed forest. The records by Pajunen (pers. comm.) were made by pitfall and window traps in spruce forests (Table 2). The 3rd author collected numerous specimens of the species by beating mainly lower branches of spruces in forests of the Finnish west coast (Table 2). A new and apparently host-specific ichneumonid species, belonging to the *Polysphincta* group of genera, has recently been reared from *T. palmgreni* in Finland (Fritzén, unpubl.). And Gromov (pers. comm.) notes: “I collected this species in synanthropic conditions (St. Petersburg, Moscow, Novosibirsk). It was very common on the fences and walls.”

In conclusion we can state, that *T. palmgreni* lives mainly in higher strata, mostly on trees (like some other *Theridion* and Theridiidae species do) and was only caught near or on the floor by chance (the research intensity is much higher there, and time-integrating methods like pitfall traps are used).

In Central Europe the knowledge on the spider fauna of canopies has increased in the last decades (see references in: Otto 2004, Floren & Schmidl in press). We suppose *T. palmgreni* will be found more regularly, if sampling on branches and in canopies is also carried out in Eastern Europe and the Asian boreal zone. The currently known distribution of *T. palmgreni* is restricted to forested zones (see above).

Until now males were mainly found in June (with few exceptions: see Table 2), females mainly from June to August (Table 2). Tsellarius (1993 – translation by Y. Marusik) also notes: “males occur in June only, females common in June and rare in July”. Fritzén (Table 2: nos. 12–14, 29, 30) collected juveniles and subadults in many months and also single adult females in September, December and March. So we suppose the development of the species is facultative annual or biannual. Females recorded in winter may take care of the eggs and probably of the first juvenile stages, as is ‘usual’ in many theridiids (Hirschberg 1969, Knoflach & Pfaller 2004). However, experimental results are from the laboratory and one does not really know what the theridiid females do in the winter.

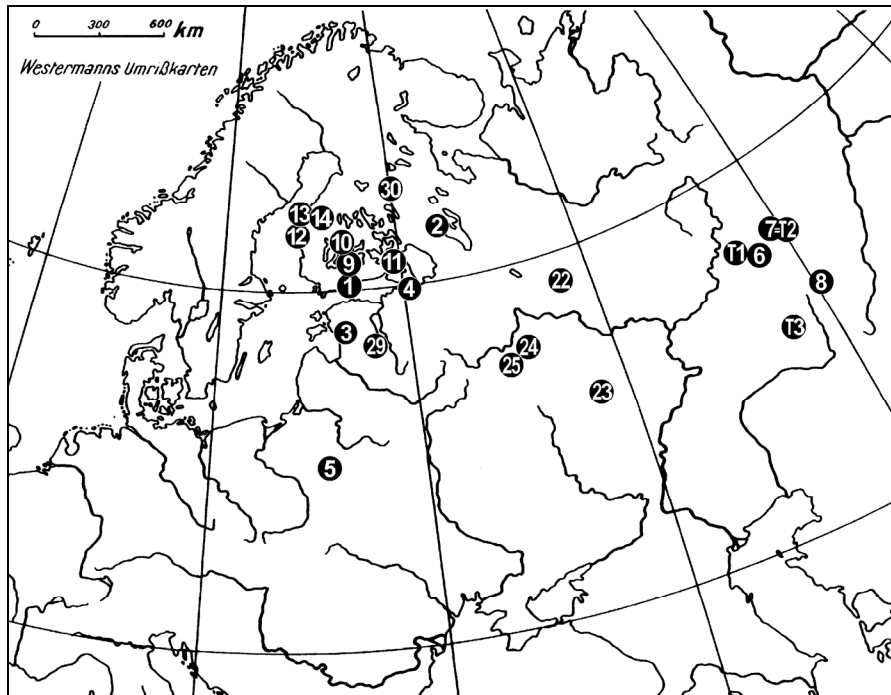


Fig. 10. Records of *T. palmgreni* and *T. tigræ* in Europe and the Urals (see Table 2).

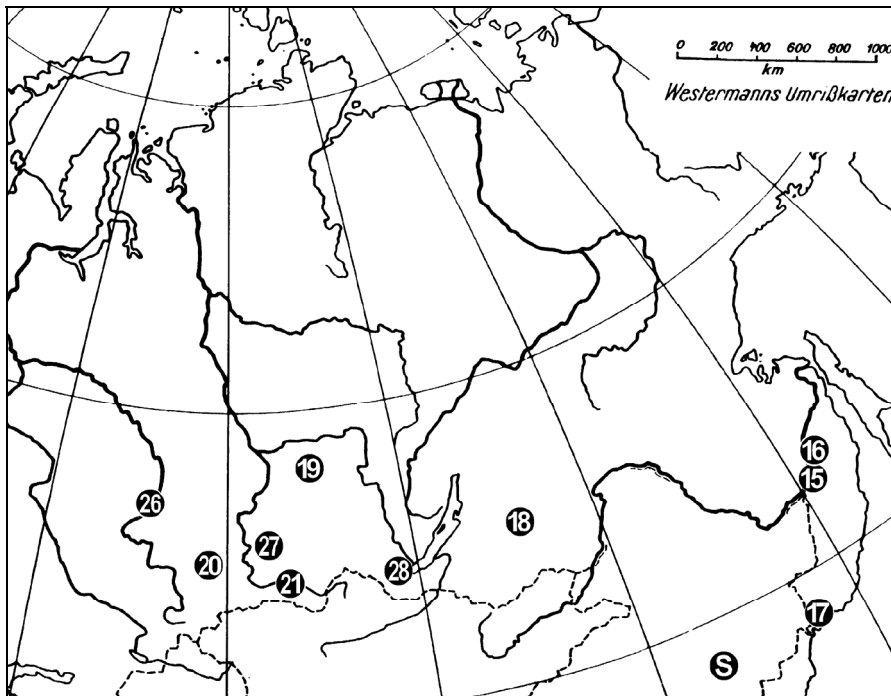


Fig. 11. Records of *T. palmgreni* in Russian Northern Asia and of *T. serpatusum* in China (see Table 2).

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STRESZCZENIE

[Pierwsze doniesienie o występowaniu w Polsce gatunku *Theridion palmgreni*, nowe dane o występowaniu w Finlandii i Rosji wraz z omówieniem jego rozmieszczenia i ekologii]

Gatunek pająka *Theridion palmgreni* z rodziny omatnikowatych Theridiidae został znaleziony po raz pierwszy w Polsce w koronach 8-letnich świerków w Puszczy Białowieskiej. Przedstawiono rysunki i zdjęcia pokroju ciała i organów kopulacyjnych mało znanych dotychczas samic. Podano publikowane i niepublikowane informacje o występowaniu gatunku od Estonii przez Finlandię, Rosję (Karelia, część europejska, Ural, Syberia, daleki wschód) wraz z informacjami o środowisku, metodach pozyskiwania materiału i piśmiennictwem. Załączono mapę jego rozmieszczenia w Europie i Azji razem z dwoma podobnymi gatunkami, które są prawdopodobnie synonimami. Rozmieszczenie *T. palmgreni* ma euro-syberyjski, borealny charakter z granicą zachodniego zasięgu w Finlandii i Polsce. Gatunek ten preferuje lasy iglaste, gdzie zasiedla pnie i gałęzie. Z tego powodu jest rzadziej spotykany w kolekcjach niż gatunki aktywne na dnie lasu. Dorosłe osobniki obu płci są spotykane od czerwca do sierpnia, a pojedyncze dorosłe samice także jesienią i zimą. Istnieje potrzeba rewizji trzech podobnych gatunków *T. palmgreni*, *T. serpatusum* Guan & Zhu, 1993, *T. tigræ* Esyunin & Efimik, 1996.