

On the distribution of *Hyptiotes paradoxus* (Araneae: Uloboridae) in Estonia and Finland

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In Estonia the spider *Hyptiotes paradoxus* has hitherto only been found in Saaremaa and no individuals have been found since 1934. In this paper several new findings in Saaremaa and the first finding on mainland Estonia is reported. The first finding of this species in Finland was on the Åland Islands in 2001. Four new localities on the Åland Island are reported on here.

Introduction

Hyptiotes paradoxus (C. L. Koch) (Araneae: Uloboridae) is a spider considered by most authors to be a relatively rare species in Northern Europe (Bristowe 1939, Locket & Millidge 1951, Roberts 1995). The number of individuals at the localities can, however, be surprisingly great (Nielsen 1931). *H. paradoxus* has hitherto been found in most of the northern European countries except Latvia and Lithuania (Vilkas 2006). Its northern limit is today along the lat 60° both in Norway and Sweden, as well as on the Åland Islands in Finland, where it was found for the first time in 2001 (Fritzén 2002). To date, there are no records from mainland Finland. In Estonia *H. paradoxus* was, according to Kauri (1934), a characteristic species for spruce forests in Saaremaa in the 1930s. No accurate notes on locations were given. However, the species has not been recorded elsewhere in Estonia nor in Saaremaa since then (Vilbaste 1987, Mart Meriste 2002, pers comm).

Material

During a field trip to Saaremaa 28–31 August 2005 together with Carina Järvinen one of our

goals was to find *Hyptiotes paradoxus*. The first place we checked was a spruce dominated grove-like forest close to the village of Leisi in Northern Saaremaa. After having searched spruces by beating branches for an hour, three juvenile *H. paradoxus* were found in some small green spruces. During this and the following two days we searched another five forests more or less evenly distributed over Saaremaa apart from the East and South-East parts. All were inhabited by *H. paradoxus*, and in some places, for example Neeme in Kihelkonna, *H. paradoxus* was the most abundant species on lower spruce branches. In Vidumäe LKA (national park), single individuals were found in their webs about 50 meters SW of the tower and 370 meters anticlockwise along the path from the park center.

During a field trip to Tuksi (Bergsby) in Noarootsi on 1 October 2005 Ika Österblad found the first *H. paradoxus* on mainland Estonia. A single juvenile was beaten from a small spruce. The specimen was not collected. She also found numerous *H. paradoxus* in three forests in Värmdö close to Stockholm in Sweden. These are apparently some of the populations nearest the ones on the Åland Islands in Finland.

In Finland the first population of *H. paradoxus* was found by me accidentally when walking



Fig. 1. *Hyptiotes paradoxus* hanging upside down on its thread with a newly wrapped prey (Jungfruskär 2003). Photo: N. R. Fritzén.

through a mature mixed spruce forest in Jomalö, Hammarland on the northwestern Åland Island (Fritzén 2002). Since that, I have checked the site every year including 2006 and the spider has always been relatively easy to find in small spruces and on lower branches of spruces, but also in junipers. In Britain, *H. paradoxus* is mainly found on yew (*Taxus baccata*) and box (*Buxus sempervirens*) (Locket & Millidge 1951, Roberts 1995).

For this particular reason, in 2003, I paid a visit to the largest stand of yew of the Baltic Sea, the small island of Jungfruskär in the Nåtö–Jungfruskär Nature Reserve, west of Nåtö biological station in Lemland on the Åland Islands. In a small damp ravine with a dense stand of yew on the northern parts of Jungfruskär, several *H. paradoxus* were soon found (Fig. 1). Not only on yew but also on spruces in the surrounding area have I found *H. paradoxus*. The presence of the species at this site was positively rechecked in 2004, 2005 and 2006. At the two sites mentioned above the species is relatively abundant and very easy to find. During 2002–2006 I have searched for *H. paradoxus* on the Åland Islands in a total of 12 forests of which I consider suitable habitats, and a few specimens have been found in three more places. Fig. 2 shows a map of all known sites in Estonia and Finland, and the site in Sweden mentioned above. In table 1 habitat data and coordinates are given for each of these locations.

Conclusions

As Kauri already stated in 1934, *H. paradoxus* still seems to be “typical of spruce forests” in Saaremaa. Apparently, it is also common and very numerous in suitable habitats. In Saaremaa I got the impression that it is hard to find a suitable habitat which is not inhabited. It is also very likely that it occurs on the island of Hiiumaa north of Saaremaa. However, on the Åland Islands *H. paradoxus*



Fig. 2. Distribution map of *Hyptiotes paradoxus* in Finland and Estonia, and a location in Sweden which apparently is one of the known populations nearest the ones on the Åland Islands. Numbers refer to table 1.

Table 1. A list of all known locations of *Hyptiotes paradoxus* in Finland and Estonia, and one from Sweden. Numbers refer to fig. 1. All coordinates except nr. 8, 9, 12 and 13 were taken by GPS.

Nr.	Site	Coord. °N, °E	Year(s) of finding	Habitat
1	FIN Hammarland, Jomalö	60.3084, 19.7532	2001–2006	Old mixed spruce forest
2	FIN Lemland, Nätö, Jungfruskär	60.0443, 19.9159	2003–2006	Old forest with yew and spruce
3	FIN Lemland, Nätö, Västerberget	60.0399, 19.9609	2006	Mature spruce forest
4	FIN Jomala, Möckelö	60.1102, 19.9095	2006	Dense spruce dominated grove
5	FIN Sund, Kulla	60.2411, 20.0729	2006	Wooded pasture with junipers, old pines and spruces
6	EST Leisi (village)	58.5687, 22.6702	2005	Old spruce dominated grove-like forest with birch
7	EST Kaarma, N of Kaubi	58.4357, 22.5332	2005	Mature spruce dominated grove-like forest (pasture) with pine and juniper
8	EST Viidumäe LKA (near the tower)	58.29, 22.10	2005	Mixed pine dominated grove with oak, hazel, maple, aspen and spruce
9	EST Viidumäe LKA (along the path)	58.29, 22.09	2005	A path between a pine forest and a spruce dominated grove
10	EST Kihelkonna, Neeme	58.4901, 21.9350	2005	Moist grove with pine, spruce and some hazel
11	EST Torgu, SW of Lõupõllu	58.0449, 22.1138	2005	Mature pine dominated grove-like forest with spruce and hazel
12	EST Nooarootsi, Tuksi (Bergsby)	59.18, 23.54	2005	Moist deciduous grove with some spruces
13	SWE Värmdö (three sites)	59.3, 18.5	2006	Moist spruce forest, spruce dominated grove and pine/spruce forest

still seems to be rather locally distributed but, still, locally quite numerous.

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