

First record of the salticid spider *Sibianor larae* (Araneae: Salticidae) in The Netherlands

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KEY WORDS

Faunistics, heathlands, jumping spiders, suction sampling

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In May 2008, *Sibianor larae* Logunov was recorded for the first time in two localities in The Netherlands. A single female was collected at the 'Dwingelderveld' heathland reserve, and a single male at the 'Strabrechtse heide' heathland reserve. Distinctive characters between *S. larae* and the closely related species *S. aurocinctus* are discussed. Both sites of encounter were in relatively open heather vegetation, one of them a wet heath (vegetation type *Ericetum tetralicis*), the other a dry heath (vegetation type *Genisto-Callunetum*). The status of European distribution of *Sibianor larae* is discussed. As its Dutch vernacular name, the Belgian proposal 'Roodkniepootspingpin' is adopted.

Introduction

In 2008-2009 an investigation of heathland entomofauna was carried out in two localities in The Netherlands: the 'Dwingelderveld' area in the province of Drenthe and the 'Strabrechtse Heide' area in the province of Noord-Brabant. The objectives were to identify the main factors predicting fauna diversity of heathlands, impact of adverse human activities such as increased nitrogen deposition, and effectiveness of management practices aimed at restoring a heathland to its former state. In this article, I report the encounter of *Sibianor larae* Logunov in both areas. Those are the first documented records for this species in The Netherlands.

Background

In 2008 I started to process samples collected from both localities by year-round pitfall trapping and additional suction sampling performed in May, using a Vortis insect suction sampler (Arnold 1994). In the suction samples I came across a female salticid spider difficult to identify, possibly *Sibianor aurocinctus* (Ohlert). Aart Noordam (personal communication) confirmed the specimen was most likely *Sibianor aurocinctus*, but also sent me an article by Logunov (2001). In this article, the genus *Bianor* (among others) is revised and a new genus *Sibianor* is established, in which the species formerly known as *Bianor aurocinctus* is placed. Logunov (2001) also describes several new species of *Sibianor*. My specimen turned out to be one of them: *Sibianor larae*. Soon after, I found another *Sibianor* specimen in a suction sample from the Strabrechtse Heide. This was a male specimen of the same species, providing the opportunity to report here both on male and female characteristics of *Sibianor larae*. These two individuals were the only specimens collected. None of the pitfall traps used in the same sampling scheme provided any *S. larae* specimens, leading to the conclusion that this species is either rare or rarely visits the ground surface.

Distinction between *S. larae* and *S. aurocinctus*

The description of *S. larae* by Logunov (2001) was based on specimens from museum collections formerly identified as *S. aurocinctus*. *Sibianor larae* closely resembles *S. aurocinctus* in both palpal and epigynal structures. However, in males the proportions of the tegula differ. In females the first loop of the insemination duct is usually bigger and thicker in *S. larae* (figure 2). Beside of this, *S. larae* can easily be separated by the red contrasting patella of leg I in both sexes.

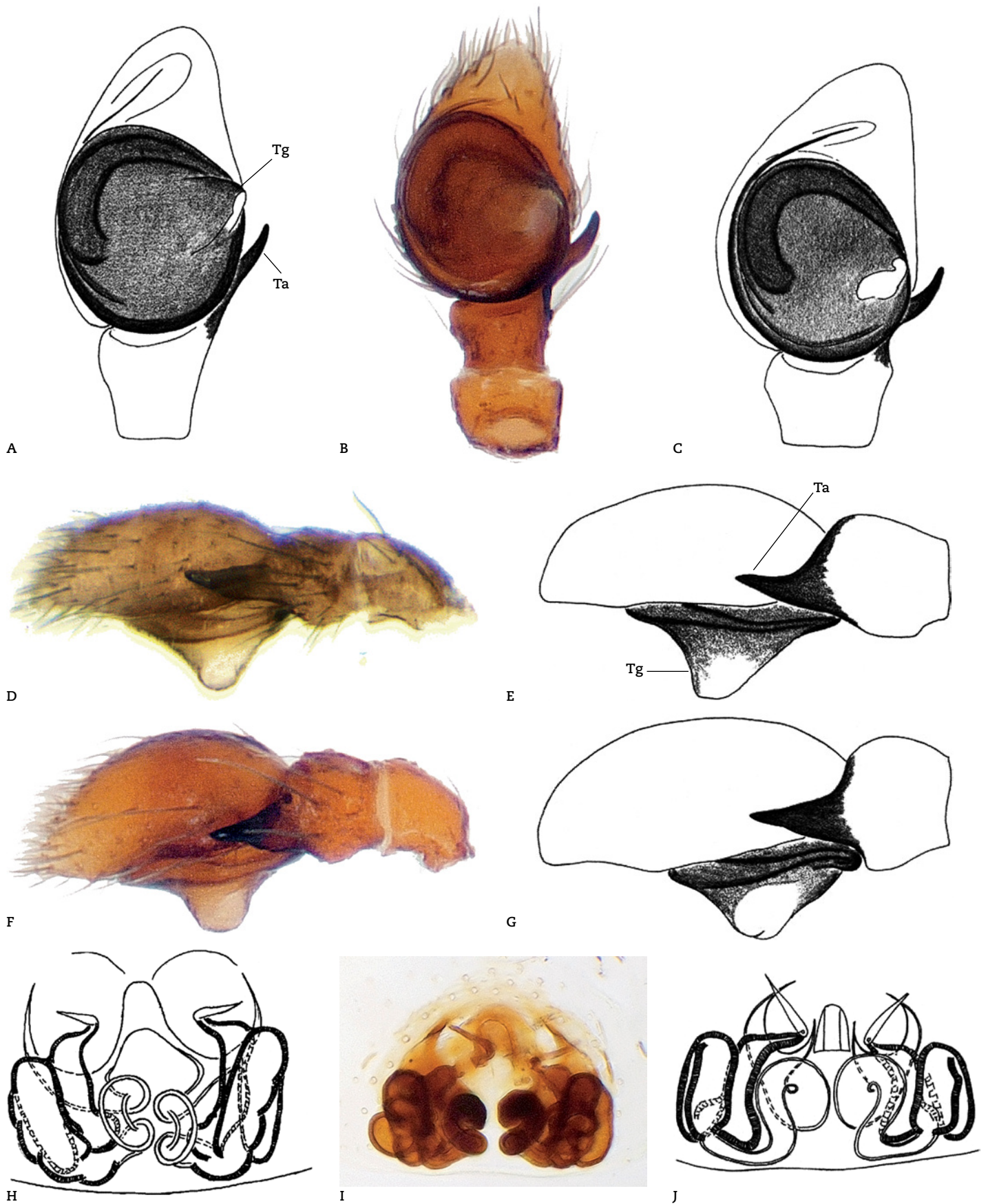
Description of specimens collected

Both the male and female collected match the description by Logunov (2001). Both specimens show the distinctive red coloration of patella I (figure 1). The pattern of coloration of the male tibia I is identical to the drawing by Logunov (2001). In contrast a photograph of leg I of a male *S. aurocinctus* (collection of P. Oger) is also shown (figure 1). Figure 2 shows the male and female copulatory organs of both species. The proportions of the male palp are in agreement with the drawing of *S. larae*. However, examination of the male palp of a specimen of *S. aurocinctus* from Belgium (collection of P. Oger) shows no clear distinctive differences in the proportions of the tegulum between both species (figure 2). There are however, slight differences in the shape of the tibial apophysis when viewed laterally, which is also in agreement with the drawings made by Logunov (2001). In *S. aurocinctus*, the tip of the tibial apophysis is slightly bent upwards, which is not the case in *S. larae*. The lack of additional specimens of both species made it not possible for the author to check whether these differences are consistent between individuals of both species, and therefore cannot be safely used for identification. The shape and size of the first loop of the insemination duct are somewhat intermediate between the drawings of the spermathecae of *S. larae* and *S. aurocinctus*. However, according to Dmitri Logunov (personal communication) *Sibianor* species are poorly distinguishable on the basis



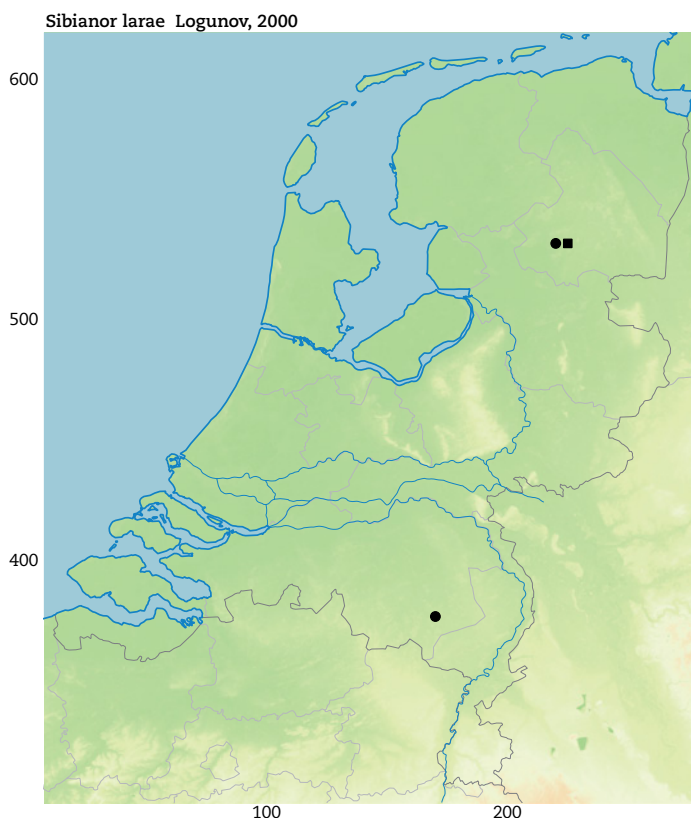
1. Figures from preserved specimens of *Sibianor laeae*. A: Female (dorsal view) from Dwingelderveld. B: Male (dorsal view) from Strabrechtse Heide. C: Belgian specimen of a male *Sibianor aurocinctus*. D: Male leg I of *Sibianor laeae*. E: Right male leg I, showing red coloration of patella I and proximal part of tibia I. F: male leg I of *Sibianor aurocinctus*. Drawing: D. Logunov; photos: P. Koomen (A,B,E) & P. Oger (C,F)

1. Foto's van geconserveerde exemplaren van *Sibianor laeae*. A: Vrouwtje (dorsale zijde) van het Dwingelderveld. B: Mannetje (dorsale zijde) van de Strabrechtse Heide. C: Belgisch mannelijk exemplaar van *Sibianor aurocinctus*. D: Poot I van het mannetje van *Sibianor laeae*. E: rechterpoot I van mannetje, waarbij de rode kleur van patella I en het proximale gedeelte van tibia I zichtbaar is. F: Poot I van *Sibianor aurocinctus*.



2. Comparison of copulatory organs of *Sibianor aurocinctus* and *Sibianor laeae*, and of the specimens collected. ABC: ventral view. DEFG: lateral view. HIJ: dorsal view. A: Male left palp of *S. aurocinctus*. B: Left palp of male specimen collected. C: Male left palp of *S. laeae*. D: Male left palp of *S. aurocinctus*. E: Male left palp of *S. aurocinctus*. F: Male left palp of *S. laeae*. G: Male left palp of *S. laeae*. H: Spermathecae of *S. aurocinctus*. I: Spermathecae of female specimen collected, showing the first loop of the insemination ducts in the centre. J: Spermathecae of *S. laeae*. Tg= tegulum; Ta= tibial apophysis. Drawings: D. Logunov; photos: P. Koomen (B,F,I) & P. Oger (D)

2. Vergelijkingen van copulatieorganen van *Sibianor aurocinctus* en *Sibianor laeae* met die van de verzamelde exemplaren. ABC: ventraal aanzicht. DEFG: lateraal aanzicht. HIJ: dorsaal aanzicht. A: tekening van mannelijke linkerpalp van *S. aurocinctus*. B: Mannelijke linkerpalp van verzameld mannetje. C: Mannelijke linkerpalp van *S. laeae*. D: Mannelijke linkerpalp van *S. aurocinctus*. E: Mannelijke linkerpalp van *S. aurocinctus*. F: Mannelijke linkerpalp van *S. laeae*. G: Mannelijke linkerpalp van *S. laeae*. H: Spermathecae van *S. aurocinctus*. I: Spermathecae van verzameld vrouwtje. J: Spermathecae van *S. laeae*, met de eerste bocht van het inseminatie kanaal in het centrum. Tg= tegulum; Ta= tibia apofyse.



3. Records of *Sibianor larae* in The Netherlands. Circles: Records of *Sibianor larae* by the author; square: older record of recently identified *S. larae* by P. Koomen.

3. Nederlandse vindplaatsen van *Sibianor larae*. Cirkels: vondsten van *Sibianor larae* door de auteur; vierkant: oudere vondst van recent als *S. larae* geïdentificeerd individu door P. Koomen

of females, due to a strong intraspecific variation of their spermathecae. Therefore, one should not pay much attention to the intermediate state of the first loop in the insemination duct of the female examined. As mentioned, the same seems to be true for the shape of the tegulum of the male palp. It can be concluded that the easiest way to distinguish both species is by the coloration of tibia I in both sexes.

Description of Dutch *S. larae* sites

Both areas where *S. larae* was found (figure 3) are large, open heathland reserves, managed by Natuurmonumenten (Dwingelderveld) and Staatsbosbeheer (Strabrechtse Heide). The female specimen was collected at the 29th of May 2008 in the Dwingelderveld (RD coordinates: 221.7-533.9): a recently sod-cut (20% bare soil), sheep-grazed wet heath (vegetation type *Ericetum tetralicis*), dominated by bog heather (*Erica tetralix*), but with a rather high coverage of common heather (*Calluna vulgaris*) as well. The male specimen was collected at the 27th of May 2008 in the Strabrechtse Heide (RD coordinates: 170.5-379.2): a dry heath (vegetation type *Genisto-Callunetum*), with a rather high coverage of purple moor grass (*Molinia caerulea*) and common heather, grazed rather intensively by herded sheep.

European status of *S. larae*

The European distribution of *S. larae* is still largely unclear. When described, the species was known from Finland, Sweden, Estonia, and (European) Russia (Logunov 2001). Recently, *S. larae* was reported as a new species for the Belgian fauna (Van Keer et al. 2010). Records of this species also exist from a handful of locations in Germany (Van Keer 2010, Staudt 2011). The occurrence of this species in The Netherlands fits well into its now known European distribution. Both in Belgium and Germany the total number of records are very limited. In both countries, this species is probably rare. This is presumably also true for the Dutch situation.

Possibly some of the Dutch *S. aurocinctus* specimens collected and identified before *S. larae* was described, in fact belong to the latter species. Already, one female specimen formerly identified as *S. aurocinctus*, collected by Peter Koomen (Koomen 1993) in the province of Drenthe has been re-identified as *S. larae* (Figure 3). I invite Dutch arachnologists to check their own and/or museum collections for earlier finds. *Sibianor aurocinctus* s.l. has been recorded in The Netherlands from the provinces of Drenthe, Gelderland, Utrecht, Noord-Holland, Noord-Brabant and Limburg (Van Helsdingen 2011).

Dutch vernacular name

Van Keer et al. (2010) propose 'Roodknedikpootspringspin' as its vernacular name in Belgium. In order to keep Dutch spider names in both countries consistent, I propose to use the same name in The Netherlands.

Acknowledgements

The research scheme in which *Sibianor larae* was found, was funded by the former Ministry of Agriculture, Nature Management and Food quality (LNV), currently part of the Ministry of Economy, Agriculture and Innovation (EL&I). Aart Noordam helped me in the initial identification of the specimens and provided me with the article in which the revision of *Bianor* was published. Without his help and suggestions, I would surely have missed that the specimens belongs to a species not yet recorded for The Netherlands. Therefore, his help and assistance are greatly appreciated. Peter Koomen reviewed an earlier version of this article and photographed the specimens and copulatory organs, his help was much appreciated. Pierre Oger kindly permitted the use of his photographs of Belgian collected specimens of *Sibianor aurocinctus*. I thank Dmitri Logunov, author of *Sibianor larae*, for his confirmation of the identification, and for his kind permission to use his drawings in figures 1 and 2.

References

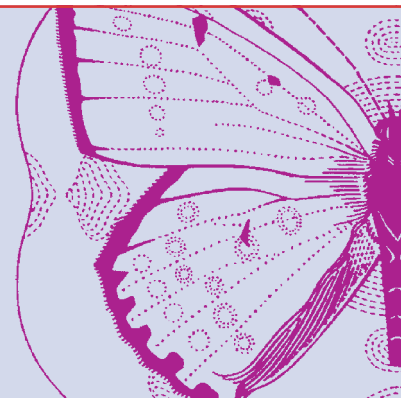
- Arnold AJ 1994. Insect suction sampling without nets, bags or filters. *Crop Protection* 13 (1): 73-76.
- Koomen P 1993. Verslag van de 147e zomervergadering van de Nederlandse Entomologische Vereniging, 12-14 juni 1992, te Ansen (Dr.). Araneida-spinnen, Opiliona-hoewagens, Ixodida-teken, en Myriapoda-duizend- en miljoenpoten. *Entomologische Berichten*, Amsterdam 53: xxxii-xxix.
- Logunov DV 2001. A redefinition of the genera *Bianor* Peckham & Peckham, 1885 and *Harmochirus* Simon, 1885, with the establishment of a new genus *Sibianor* gen.n. (Aranei: Salticidae). *Arthropoda Selecta* 9: 221-286.
- Staudt A 2011. Nachweiskarten der Spinnentiere Deutschlands (Arachnida: Araneae, Opiliones, Pseudoscorpiones). *Arachnologische Gesellschaft*. Available on: <http://www.spiderling.de/arages/index2.htm>. [Consulted on 09.10.2011]
- Van Helsdingen PJ 2011. Catalogus van de Nederlandse spinnen. Versie 2011.1. Available on: <http://science.naturalis.nl/media/301123/spinnencatalogus%202011.1.pdf>
- Van Keer K, Oger P & Maingot M 2010. First record of *Sibianor larae* Logunov 2001 (Araneae: Salticidae) for Belgium. *Nieuwsbrief Belgische Arachnologische Vereniging* 25(1): 46-49.

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Samenvatting

De springspin *Sibianor larae* (Araneae: Salticidae) nieuw voor Nederland

Sibianor larae Logunov, 2001 wordt voor het eerst gemeld voor de Nederlandse fauna. In mei 2008 werden twee exemplaren in Nederland aangetroffen: een vrouwtje in het heidegebied Dwingelderveld (Drenthe) en een mannetje in het heidegebied de Strabrechtse Heide (Noord-Brabant). Beide vangstlocaties bestonden uit een open heidevegetatie met zowel natte als droge heide. De huidige kennis over de Europese en Nederlandse verspreiding van de soort wordt besproken. De voorgestelde Nederlandse naam volgt een eerder Belgisch voorstel: Roodkniedikpootspringspin.



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