

The spiders of Robert Collett; a revision of the first Norwegian spider collection. Part I. Families Araneidae, Gnaphosidae, Sparassidae, Anyphaenidae, Thomisidae, Zoridae and Philodromidae

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The oldest extant Norwegian spider material published by Robert Collett in 1876–77 (families Araneidae, Gnaphosidae, Sparassidae, Anyphaenidae, Thomisidae, Zoridae and Philodromidae) has been reviewed. Valid and invalid records are listed. One new synonymy is established, *Gnaphosa pseudolapponica* Strand, 1904 = *Gnaphosa lapponum* (L. Koch, 1866). Even if a relatively large number of the records published by Collett must be invalidated due to the inclusion of juvenile/subadult material, the collection remains important for Norwegian araneofaunistics.

Keywords: Araneae, revision, Norwegian spiders material, Araneidae, Gnaphosidae, Anyphaenidae, Philodromidae

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Introduction

In addition to his many other zoological publications, Robert Collett (1842–1913) also published the first Norwegian checklists for spiders (Collett 1876, 1877). In these papers he described several new species, some of which are still valid (Platnick 2009). These papers are therefore of great importance to Norwegian araneology, more so since the known distribution of many species are based on his records, even today (Hauge 1989). Additionally, for several species Collett's records are the only ones known from Norway.

Collett dealt with the families Lycosidae, Sparassidae, Oxyopidae, Araneidae, Thomisidae, Philodromidae, Salticidae and Pisauridae in his two papers. His collection, consisting of material collected by Siebke, Hvoslef and other contemporary zoologists, as well as by Collett himself, also included representatives of most

other Norwegian families. These, however, were published by Strand (1904a,b) almost thirty years later. Strand described several new gnaphosids from this material, one of which, *Gnaphosa pseudolapponica* Strand, 1904, is still valid (Platnick 2009).

This material has long been in need of revision, especially in light of recent advances in taxonomy and systematics, but also because of its importance in understanding the distribution of spiders in Norway. The original labels on material from the Collett collection is in good condition, but, sadly, the localities given are usually only approximate and sorely lacking in detail. In some cases the localities are difficult to understand in a modern context, but the author's recent discovery of Collett's original handwritten locality notes goes some way in rectifying this situation, although not all localities were included in that list.

Material and methods

What remains of Collett's spider collection is deposited in the Natural History Museum in Oslo (NHMO). The collection appears to be largely intact, though a few of the more interesting species seem to have been lost (e.g. *Aculepeira ceropegia* Walckenaer, 1802 and *Oxyopes ramosus* (Martini & Goeze, 1778)). The material is in general very well preserved, most of the specimens still being in their original glass tubes. Parts of the collection have been revised at one time or another (see below) but with very few exceptions, these revisions have not been published. The revisions are as follows:

H. Tambs-Lyche revised the *Pardosa*-part of the collection in connection with his monograph on this genus in Norway (Tambs-Lyche 1940). Although this revision is helpful, its age means that the nomenclature is hopelessly out of date and there are doubtful identifications within the monticola-group that needs checking. Due to its size and the need to revise Tambs-Lyche's own *Pardosa*-collection (also at NHMO), the Lycosidae part of Collett's collection will be dealt with in a forthcoming paper. Tambs-Lyche has also revised the Thomisidae and Philodromidae, although this seems to be a cursory check only.

In the early 1940s, A. Tullgren of Sweden revised all gnaphosids and clubionids in NHMO, including those collected by both Strand and Collett, no doubt in connection with his works on these families (Tullgren 1942, 1944). Tullgren only reported on the various species described by Strand (see Tullgren 1942) and the revisions of Collett's material were not published. Å. Holm has also had a look at the collection, at least the Lycosidae part.

In the listing below, the revised and valid name is given first in bold, followed by the name Collett or Strand used in their respective publications. The section "Material" lists available records of adult determinable specimens as found in the collection according to the present author, while the section "Invalid Records" lists subadult and

juvenile specimens originally published under the heading name by Collett or Strand, but which are here regarded as indeterminable. The exception to this is where juveniles can readily be identified, as is the case for *Araneus nordmanni* (Thorell, 1870) and *Micrommata virescens* (Clerck, 1757).

Results

Each genus and species is presented in strict alphabetical order. Because the locality information is usually very basic, only the name provided by Collett has been given.

FAMILY ANYPHAENIDAE

***Anyphaena accentuata* (Walckenaer, 1802)**

Anyphaena accentuata (Walckenaer, 1802) (Strand 1904a)

Material: 1 male, Asker (1873).

Invalid records: The records from Drammen (1871) refer to a juvenile gnaphosid that cannot be determined to species level, while the record from Næsøen (1873) refers to 3 juveniles indeterminable to species or genus level.

FAMILY ARANEIDAE

***Araneus saevus* (L. Koh, 1872)**

Epeira sinistra (Thorell, 1873) (in Collett 1876)

Material: 1 male, Aaseth, Hedemarken, 1870; 1 male Drammen or Elverum, 1870; 1 male Ullensaker, 1871.

***Araneus nordmanni* (Thorell, 1870)**

Epeira nordmanni (Thorell, 1870) (in Collett 1876)

Material: 25 juveniles, Lillehammer, 1873; 6 juveniles, Faaberg, 1873; 2 juveniles, Aker, 1873–74; 1 juvenile (no locality), 1870; 3 juveniles, Valdres, 1871; 1 juvenile, Ullensaker, January 1872; 2 subadult males, Slidre & Bagn, 1871.

***Araneus angulatus* Clerck, 1757**

Epeira angulata (Clerck, 1757) (in Collett 1876)

Material: 10 juveniles, Lillehammer, 1873; 1 subadult male, Namdalen, 1871; 1 subadult, Hvaløerne, 1871, 1 juvenile "Hobrannes" (?), 1871.

***Araneus sturmi* (Hahn, 1831)**

Epeira sturmi (Hahn, 1831) (in Collett 1876)

Material: 1 male, Hvaler (?), 1871; 1 male, 4 females, 5 juveniles, Aker, 1873; 1 subadult male, 1 juvenile, Ullensaker, January 1873; 1 subadult male, 1 juvenile, Bagn 1871; 1 male, Christiania, 1856 (?).

Invalid records: 1 juvenile from Drammen (1873), 1 subadult male from Storelvdal (1870) and 2 juveniles from Nes Verk (1873) listed by Collett as *Epeira sturmi* which cannot be determined to species or even genus.

***Araneus marmoreus* Clerck, 1757**

Epeira marmorea Clerck, 1757 (in Collett 1876)

Material: 8 females, 2 juveniles, Bardodal, 1871; 1 male, 1 female, Elvenes, 1871; 4 males, 7 females, Bagn, 1871; 1 male, 1 female, Eidskog, 1871.

***Larinioides patagiatus* (Clerck, 1757)**

Epeira patagiata (Clerck, 1757) (in Collett 1876)

Material: 3 males, 12 females and 4 juveniles, Namdalen, 1873; 2 females, 2 juveniles, Kistrand, 1872; 3 females, 1 juvenile, no locality given; 1 male, 6 females, 9 juveniles, Skei (?), 1873; 1 male, 5 females, 3 juveniles, Bagn, 1871; 2 females, 2 juvenile, Hitra, 1871; 1 female, 1 juvenile, Drivdalen (?), 1871; 1 male, 1 female, 1 juvenile, Vossevang, 1871; 1 male, 7 females, 5 juveniles, Enebakk, 1871; 2 males, 3 females, 2 juveniles, Aaseth, Hedemarken, 1870; 9 males, Sandøen (?), 1972; 3 females, 1 juvenile, Hedmark, Romsdal (?), 1864; 4 juveniles, Drammen, 1871; 7 females, 3 juveniles, “Bolmak”?, 1871; 5 females, Elvenes, 1871; 1 female, Varanger, 1871.

FAMILY GNAPHOSIDAE

***Gnaphosa leporina* (L. Koch, 1866)**

Gnaphosa anglica (O.P.-Cambridge, 1871) (in Strand 1904a)

Material: 1 male and 1 female, Slidre, 1871 (?); 1 male, Fåberg, 1871-73; 1 male, Savanger, 1872; 1 female, Kristiansand N (?); 1 male, Dovre, 1864; 1 female, Filefjell, 1873; 1 female, Nystuen, 1861; 3 females, Tromsø, 1871.

Invalid records: 1 juvenile from Tromsø, 1871 and 1 subadult male and 2 juvenile *Gnaphosa* sp.

from Nystuen (1861) listed as *Gnaphosa anglica* by Strand, not determinable to species level.

***Gnaphosa muscorum* L. Koch, 1866**

Gnaphosa lapponum L. Koch, 1866 & *Gnaphosa muscorum* L. Koch, 1866 (in Strand 1904a)

Material: 1 male, Fåberg, 1871-73; 1 female, Slidre, 1871-73.

Invalid records: In addition 1 subadult male and 1 juvenile *Gnaphosa* sp. from Rendalen (14. July 1874) are listed as *Gnaphosa muscorum* by Strand and 1 subadult female and 1 juvenile *Gnaphosa* sp. from Dovre (1861) listed as *G. muscorum* & *G. lapponum* (both in the same tube), which are indeterminable to species level.

***Gnaphosa bicolor* (Hahn, 1833)**

Gnaphosa bicolor (Hahn, 1833) (in Strand 1904a)

Material: 1 male, Fåberg (no date).

***Gnaphosa montana* (L. Koch, 1866)**

Gnaphosa montana (L. Koch, 1866) (in Strand 1904a)

Material: 1 male, Målselvdal, 1872/74; 1 female, Land (by Mjøsa) (no date); 1 female, Asker, 1871; 1 female, Fåberg, 1871; 1 male and 1 female from Ostøen, 1871-73.

Invalid records: In addition there is 1 juvenile from Christiania (no date) and 10 subadults/ juveniles from Fåberg (1871-73) listed as *Gnaphosa montana* by Strand which cannot be determined to species level.

***Gnaphosa lucifuga* (Walckenaer, 1802)**

Gnaphosa lucifuga (Walckenaer, 1802) (in Strand 1904a)

Material: 2 females, Ostøen, 1871-73; 1 female, Ostøen, 14.05.1871.

Invalid records: 1 subadult female from Ullensaker (1875), 3 subadult females from Spirillen (1873) and 1 subadult male from Grundset (1870), all listed as *Gnaphosa lucifuga* by Strand, which are not determinable to species.

***Gnaphosa lapponum* (L. Koch, 1866)**

Gnaphosa pseudolapponica Strand, 1904a (in Strand 1904a, descr. female)

Material: 1 female (type), no locality or date provided. Although the specimen has been checked and revised by Tullgren this synonymy has not

been published (Platnick 2009) and is therefore established here; *Gnaphosa pseudolapponica* Strand, 1904 = *Gnaphosa lapponum* (L. Koch, 1866). New Synonymy.

Invalid records: There is also 1 subadult female from Bagn (1872) which Strand lists as *G. lapponum*, but this cannot be safely determined to species level.

***Micaria aenea* Thorell, 1871**

Micaria norvegica Strand, 1904 (in Strand 1904a, descr. female)

Material: 1 female, Dovre (1861)

***Micaria subopaca* Westring, 1861**

Micaria formicaria (Sundevall, 1832) (in Strand 1904a, misidentified)

Material: 1 female, Drammen (1872)

***Zelotes subterraneus* (C. L. Koch, 1833)**

Prothesima subterranea (C. L. Koch, 1833) & *P. petiverii* Thorell, 1873 (in Strand 1904a)

Material: 1 male, Gudbrandsdal (no date); 1 female, Lillesand (1872); 1 female, Faaberg (1871); 2 males, 1 female, Gudbrandsdal (187?); 1 female, Bjøberg (Hemsedalsfjell) (unreadable date); 1 male, Aker (1879); 2 females, Stavanger (1872); 1 male, Tromsø (1871)

Invalid records: 1 juvenile, Lillesand (1872); 1 juvenile, Tromsø (1871);

***Zelotes latreillei* (Simon, 1878)**

Prothesima serotina (L. Koch, 1866) (in Strand 1904a)

Material: 1 female, Vestre Aker (1871)

Other species - Invalid records: Strand's record of *Prothesima pusilla* (C. L. Kloch, 1833) (= *Drassyllus pusillus* (C. L. Koch, 1833)) from Fron (1871) refers to a juvenile gnaphosid that cannot be determined to species level.

FAMILY THOMISIDAE

***Xysticus cristatus* (Clerck, 1757)**

Xysticus pini C. L. Koch, 1850, *X. cristatus* (in Collett, 1876)

Material: 1 subadult male, 1 female, from Drammen (1874); 5 subadult males, 2 females

“Labro” (1873); 6 males & 4 females, bang (5. Aug. 1871); 1 female, Foldenford (1871); 3 females, Grundset (1870); 1 female Veblnæs (no date); 3 females, Vaage (1871); 1 male, “Are” (1871); 1 female, Strandebrarm (1874).

Invalid records: In addition to numerous juveniles among the adults in the above material there are 1 juvenile from Stappen, Nordkapp (1872); 1 subadult male from Fredrikshald 81871); 3 juveniles from Dovre (1861); and also 1 subadult male from Elvenes (1871) and 1 juvenile from Aker (1874) given as *X. pini*; which must all be considered invalid records.

***Xysticus audax* (Schrank, 1803)**

Xysticus cristatus (Clerck, 1757) (in Collett 1876)

Material: 1 male, Foldenfjorden (871); 1 female, Veblnæs (1864)

***Coriarachne depressa* (C. L. Koch, 1837)**

Coriarachne depressa (in Collett 1876)

Material: Only 1 juvenile from Asker (1871), but the appearance of this species is unmistakable.

***Ozyptila trux* (Blackwall, 1846)**

Xysticus lineatus (Westring, 1851) (in Collett 1876)

Material: 1 male, Foldenfjorden, Namdalen (1871)

FAMILY PHILODROMIDAE

***Philodromus dispar* Walckenaer, 1826**

Philodromus dispar (in Collett 1876)

Material: 1 male, Aker (1873)

***Philodromus emarginatus* (Schrank, 1803)**

Philodromus emarginatus (in Collett 1876)

Material: 4 females, Drammen (1873); 1 female Aker (1871); 3 females, Slidre (1871); 1 male, Jarlsberg (1865); 1 female, Foldenfjorden (1871)

Invalid records: 1 subadult female, 1 juvenile, Christiania (no date); 1 juvenile (Dovre, 1861); also 2 juveniles, Drammen (1871).

***Philodromus aureolus* (Clerck, 1757)**

Philodromus aureolus (in Collett 1876)

Material: 1 female, Lillehammer (1871); 1 female, Aker (no date); 1 male & 1 female, Karasjokk

(1873); 1 female, Løsset (1870); 1 female, Slidre (1871); 1 female, Kragerø (1873); 1 female, Bang (1871)

Invalid records: 1 juvenile, Hvaløerne (1871); 1 juvenile, Eidskog (1871); 2 juveniles, Lærdal (1871); 2 juveniles, Rennebo (1872); 24 juveniles, Aker (no date); 6 juveniles, Drammen (1871); 1 juvenile, Slidre (1871); 1 juvenile, Bang (1871)

Philodromus collinus C. L. Koch, 1835

Philodromus auro-nitens (in Collett 1876)

Material: 1 male, Foldenfjorden (1871)

Other species - Invalid records: Collett's *P. fusco-marginatus* is only represented by 1 juvenile from Fredrikshald (1871), whereas *P. margaritatus* is represented by 3 subadult males & 1 juvenile from Aker (no date); 2 juveniles from Lærdal (1873); 2 juveniles from Drammen (1873); 1 juvenile from Lærdal (1873); and 1 juvenile from Aker (20. March 1865); all of which must be invalidated.

FAMILY SPARASSIDAE

Micrommata virescens (Clerck, 1757)

Micrommata virescens (Clerck, 1757) (in Collett 1876)

Material: 1 male, 1 female, Lillesand (1872); 2 juveniles, Vestre Aker (1871); 1 juvenile, Fredrikshald (1871); 1 juvenile, Eidskog (1870); 1 juvenile, Aker (no date); 2 females, Stavanger (1871)

Invalid records: Collett's *M. ornata* from Asker (1873) is a juvenile *M. virescens*.

FAMILY ZORIDAE

Invalid records: The reference to *Zora maculata* (= *spinimana* (Sundevall, 1833)) was based on a juvenile *Zora* which cannot be determined to species level.

Discussion

As the above listings show a comparatively large proportion of Collett's original determinations was made on juvenile/subadult specimens. In a few cases this is a reliable method, e.g. for

Araneus nordmanni, but in most instances the determinations are clearly not acceptable and must be invalidated. Even so, Collett's collection is still important as a base of knowledge regarding the distribution of many species of spiders in Norway. The taxonomic and geographic range of the collection is substantial and his data will remain important for future studies and reference.

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