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Taxonomic notes on *Agroeca* (Araneae, Liocranidae)

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Abstract: *Agroeca gaunitzi* Tullgren, 1952 is stated here to be a **junior synonym** of *A. proxima* (O. P.-Cambridge, 1871). The illustrations of the male palp attributed to *A. proxima* in papers by Tullgren of 1946 and 1952 in fact show *A. inopina* O. P.-Cambridge, 1886. The record of *A. inopina* from Finland, quite outside its known distribution range, was based on a misidentification. It is argued that the type species of the genus *Agroeca* Westring, 1861 should be *A. proxima* (O. P.-Cambridge, 1871), not *A. brunnea* (Blackwall, 1833) as currently applied. *Protagroeca* Lohmander, 1944 is placed as an **objective synonym** of *Agroeca* Westring, 1861.

Key words: *Agroeca gaunitzi*, synonyms, type species

On the identity of *Agroeca gaunitzi* Tullgren, 1952

Agroeca gaunitzi was described based on a single male from the southern part of Swedish Lapland (TULLGREN 1952). No additional specimens have since been assigned to this nominal species and it was not mentioned in the most recent taxonomical revision of the genus (GRIMM 1986) nor in the latest treatment of the family in Sweden (ALMQUIST 2006).

According to the original description, *A. gaunitzi* should be closely related to *A. proxima* (O. P.-Cambridge, 1871), said to differ from the latter among other characteristics in the shape of the tibial apophysis of the male palp. TULLGREN (1952) provided illustrations of the male palp of *A. gaunitzi* as well as of the palp from a specimen considered to be *A. proxima*. The latter is, most plausibly, one that was sent to T. Thorell as a gift from O. P.-Cambridge. It is, together with a female, still present in the Collectio Thorell (No. 222/1323) housed in the Swedish Museum of Natural History, Stockholm (NHRS).

When TULLGREN (1946) treated the *Agroeca* species occurring in Sweden, he apparently illustrated the male palp (fig. 103), said to represent *A. proxima*, from the specimen mentioned above from England. The reason for this was probably that Tullgren at that time did not have access to any males of *A. proxima* from Sweden in the collection of NHRS.

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Because *Agroeca gaunitzi* still appears as a valid nominal species (HELSDINGEN 2009, PLATNICK 2009), a re-study of the holotype was undertaken in order to clarify its identity. As a result, the following conclusions were reached:

1. The holotype of *Agroeca gaunitzi* is a male of *Agroeca proxima*, thus making the former a junior synonym, **syn. n**.
2. The actual male from England in Collectio Thorell belongs to *Agroeca inopina* (O. P.-Cambridge, 1886). Thus, the illustrations in TULLGREN (1946: fig. 103 and 1952: fig. 5) in fact depict a British specimen of *A. inopina*; a species not found in Sweden.

Agroeca inopina was reported to occur as far north as SW Finland (GRIMM 1986, ROBERTS 1998), relying on the record of a single male in LEHTINEN (1964). However, it was later discovered that this record was due to a misidentification of *A. proxima* (Lehtinen pers. comm.). Thus, *A. inopina* seems to be absent from Fennoscandia, having a western and southwestern distribution in Europe, also being recorded from N Africa (Algeria: BOSMANS 1999) and Turkey (TOPÇU et al. 2007).

Males of *Agroeca inopina* and *A. proxima* are easily distinguished by the shape of the tibial apophysis (cf. Figs 1, 2 and 3, 4), which in *A. inopina* carries a small tooth at about half of its length in retrolateral view (arrow in Fig. 2; ROBERTS 1998: fig. on p. 138). The tibial apophysis also differs in shape in ventral view: slightly narrower at base in *A. inopina* (Fig. 5) compared with *A. proxima* (Fig. 6).

On the type species of the genus *Agroeca* Westring, 1861

The identification of the species in the genus *Agroeca* was far from clear during the second half of the 19th century. This becomes obvious when studying the material of *Agroeca* present in the Collectio Thorell in the NHRS. The results from a re-study of the wet material in jar no. 222 are given in Table 1.

In addition to the wet material, there are also two adult females of *Agroeca* in Thorell's dry collection in the NHRS. They are placed under the labels "Agroeca Westr." and "~~linotina (Koch)~~ Haglundi Thor.", both from "Hlm" (= Holmia, i.e. Stockholm). Both are conspecific with *A. brunnea* (Blackwall, 1833) (one of them now transferred to ethanol).

The reason why THORELL (1871: 162-163) described *A. haglundi* – later synonymized with *A. brunnea* – is clear once it becomes evident that he confused *A. brunnea* with *A. proxima* (O. P.-Cambridge, 1871). The male in vial 1323, *A. inopina*, is most probably the one mentioned by THORELL (1871: 163) as "a third, nearly allied, English species", later mentioned by him (THORELL 1873: 565) as *A. proxima*. Thus, *Agroeca brunnea* sensu THORELL (1871) is conspecific with *A. proxima* (O. P.-Cambridge, 1871), and not with *A. lusatica* (L. Koch, 1875) as erroneously given in TULLGREN (1946), following SIMON (1932), and repeated in GRIMM (1986).

The genus *Agroeca* was erected by WESTRING (1861) and comprised a single species, *A. linotina* sensu Westring. An examination of the two adult females (placed under the labels "Agroeca Westr.", "linotina Koch" and "A. brunnea (1833) Blackw.") which are present in Westring's dry collection in the NHRS reveals that they are conspecific with *A. proxima* (O. P.-Cambridge) (one of the females now transferred to ethanol). Thus, the type species of *Agroeca* cannot be *Agroeca brunnea* (Blackwall, 1833), because this species was not originally included. *Philoica linotina* C.L. Koch, 1843 is presently listed as a synonym of *A. brunnea* (PLATNICK 2009) though its identity has been questioned. THORELL (1871: 162) and SIMON (1932: 971) suspected *Philoica linotina* to encompass more than one species. Material of *P. linotina* C. L. Koch marked as syntypes are present in the Zoologisches Museum of the Humboldt Universität in Berlin (Germany). Among the dry and fragmentized remains are two male palps identifiable to species level. Digital photos of these were kindly sent to me and it is evident that the palps belong to *A. brunnea* (Blackwall, 1833). However, KOCH (1843: 108) described and illustrated the female of *Philoica linotina*, so the Berlin male material cannot be treated as syntypic.

Under these circumstances, *Agroeca proxima* (O. P.-Cambridge, 1871) should be the type species of the genus *Agroeca*. LOHMANDER (1944) emphasized the differences between what he called the *Agroeca proxima* group (*A. cuprea* Menge, 1873 and *A. proxima*; *A. inopina* may also belong here) and the *A. brunnea* group (*A. brunnea* and *A. lusatica*; *A. dentigera* may also belong here) in the female "receptacular apparatus". A similar grouping of the males may be achieved by comparing the con-

Tab. 1: Material of *Agroeca* preserved in ethanol in the Collectio Thorell of NHRS.

Vial no.	Name as handwritten by Thorell	Locality	Collector/ Donor	Material	Identification according to present concept (e. g., GRIMM 1986, ROBERTS 1998, ALMQUIST 2006)
1321a	*Agroeca brunnea* (Blackw.) ~~Cambr.~~	Germany (Danzig) [now Poland]	A. Menge	1♂ 1♀	♂ = *A. lusatica* ♀ = *A. proxima*
1321b	*Agroeca brunnea* (Blackw.)	Finland (Brändö)	A. v. Nordmann	1♂	*A. proxima*
1321c	*Agroeca brunnea* (Blackw.)	England	O. P.- Cambridge	1♂	*A. proxima*
1322a	*Agroeca Haglundi* Thor.	Austria	L. v. Kempelen	1♀	*A. brunnea*
1322b	*Agroeca Haglundi* Thor.	Germany (Danzig) [now Poland]	A. Menge	1♂ 1♀	*A. brunnea*
1323	*Agroeca proxima* Cambr.	England	O. P.-Cambridge	1♂ 1♀	♂ = *A. inopina* ♀ = *A. proxima*
1324	*Agroeca pullata* Thor.	Italy (Gennazano)	V. Bergsöe	1♀ (syntype)	*A. cuprea*

Figs. 1-4: Left male palp, retrolateral view. – **1**, **2**: *Agroeca inopina* (GB: Essex, Colne Point). Arrow in Fig. 2 points at tooth on tibial apophysis. – **3**, **4**: *A. proxima* (SE: Öland, Möckelmossen). Scale line 0.5 mm.

figuration of the palpal organ. Lohmander placed the *A. proxima* group in a separate subgenus, *Protagroeca*, with *A. proxima* as the type species, evidently accepting *A. brunnea* (Blackwall, 1833) as the type species of *Agroeca*. Consequently, the genus group name *Protagroeca* Lohmander, 1944 becomes an objective synonym of *Agroeca* Westring, 1861. If shown to be necessary on phylogenetic grounds, a genus group name for the *A. brunnea* group is thus wanting.

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Figs. 5, 6: Left male palp, ventral view. – **5**: *Agroeca inopina*. – **6**: *A. proxima*. Same palps as in Figs 1-4. Scale line 0.5 mm.

References

ALMQUIST S. (2006): Swedish Araneae, part 2 – families Dictynidae to Salticidae. – Insect Systematics & Evolution, Supplement 63: 285-603

BOSMANS R. (1999): The genera *Agroeca, Agraecina, Apostenus* and *Scotina* in the Mahgreb countries (Araneae: Liocranidae). – Bulletin de l'Institut Royal des Sciences Naturelles de Belgique (Entomologie) 69: 25-34

GRIMM U. (1986): Die Clubionidae Mitteleuropas: Corinninae und Liocraninae (Arachnida, Araneae). – Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg (NF) 27: 1-91

HELSDINGEN P.J. VAN (2009): Araneae. In: Fauna Europaea Database (Version 2009.1). – Internet: http://www.european-arachnology.org/reports/fauna.shtml

KOCH C.L. (1843): Die Arachniden 10. C.H. Zeh, Nürnberg. Pp. 37-142, Tab. 237-260. – Internet: http://www.archive.org/details/diearachnidenget10koch

LEHTINEN P.T. (1964): Additions to the spider fauna of Southern and Central Finland. – Annales Zoologici Fennici 1: 303-305

LOHMANDER H. (1944): Vorläufige Spinnennotizen. – Arkiv för Zoologi 35A (16): 1-21

PLATNICK N.I. (2009): The world spider catalog, version 9.5. American Museum of Natural History. – Internet: http://research.amnh.org/entomology/spiders/catalog/index.html

ROBERTS M.J. (1998): Spinnengids. Tirion, Baarn. 397 pp.

SIMON E. (1932): Les Arachnides de France 6(4). Roret, Paris. Pp. 773-978

THORELL T. (1871): Remarks on synonyms of European spiders 2. C.J. Lundström, Upsala. Pp. 97-228

THORELL T. (1873): Remarks on synonyms of European spiders 4. C.J. Lundström, Upsala. Pp. 375-645

TOPÇU A., H. DEMIR & O. SEYYAR (2007): Seven new records for the Turkish araneofauna (Arachnida: Araneae) with zoogeographical remarks. – Entomological News 118: 428-430

TULLGREN A. (1946): Svensk Spindelfauna. 3. Egentliga spindlar. Araneae. Fam. 5-7. Clubionidae, Zoridae och Gnaphosidae. Entomologiska föreningen, Stockholm. 138 pp.

TULLGREN A. (1952): Zur Kenntnis schwedischer Spinnen I. – Entomologisk Tidskrift 73: 151-177

WESTRING N. (1861): Araneae svecicae. – Göteborgs Kungliga Vetenskaps- och Vitterhets-Samhälles Handlingar (Ny Tidsföljd) 7: 1-615