

On the familial assignment of *Pherania* and *Tachusina* (Opiliones, Laniatores, Gonyleptoidea)

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Summary

Pherania Strand, 1942, a monotypic genus currently included in the Minuidae, is herein reassigned to the Gonyleptidae: Pachylinae. Its only species, *Pherania pygmaea* (Sørensen, 1932), is redescribed. *Tachusina* Strand, 1942, another monotypic genus, currently included in the Stygnopsidae, is reassigned to the Tricommatidae. Its only species, *Tachusina keyserlingii* (Sørensen, 1932), is also redescribed.

Introduction

When William Sørensen died in 1916, he left behind much unpublished information on new species of Opiliones: Laniatores, mainly from South America. Much of this work was included in the posthumous work edited by Henriksen (Sørensen, 1932). Many species described in that paper are hard to recognise owing to the lack of illustrations and of descriptions of many significant structures. The manuscript was already outdated when it was published and did not include information from the significant papers published by Roewer and Mello-Leitão after Sørensen's death.

The genus *Phera* was described for a southern Brazilian species and placed in the new family Minuidae Sørensen, a small taxon which also included a few genera from Venezuela. The Minuidae proper are most closely related to the Zalmoxidae (Kury, unpubl. data), while study of type material of *Phera* has led to its assignment to the Gonyleptidae: Pachylinae.

The genus *Tachus* was described for another small species of laniatorid from the same locality as *Phera pygmaea* Sørensen, and put in another of Sørensen's new families, Stygnopsidae. This family proper includes only Mexican species and is most closely related to the Oriental "Phalangodidae" Epedaninae (Kury, in prep.), whereas *Tachus* should be included in the Tricommatidae, as shown below.

Strand (1942) realised that both generic names used by Sørensen were preoccupied and proposed slightly altered new spellings, *Pherania* and *Tachusina*, to correct the homonymies.

Based on the study of type material, the species *Pherania pygmaea* and *Tachusina keyserlingii* are re-described below. The British Museum (Natural History), London is here abbreviated as BMNH. All measurements are in mm.

Family Gonyleptidae Sundevall, 1833

Subfamily Pachylinae Sørensen, 1884

Genus *Pherania* Strand, 1942

Phera Sørensen, 1932: 228 (non *Phera* Stål, 1864).
Pherania Strand, 1942: 399 (replacement name).

Type species: Phera pygmaea Sørensen, 1932 by monotypy.

Diagnosis: Pachylinae with all scutal areas and free tergites unarmed, eye mound armed with a median spine; pedipalpal femur distally unarmed; tarsal segments 3-4-5-5; distitarsus I bimerous. Ventral plate of penis rectangular, with deeply concave distal border, armed with 4+2 setae; stylus sigmoid, swollen at apex; without ventral or dorsal processes.

Remark: Using the monograph on Pachylinae by Soares & Soares (1954), *Pherania* is keyed as *Zalanodius*, although the diagnosis does not coincide entirely owing to the latter's tarsal segmentation (4-6-5-5), and area I is divided in *Pherania*. Furthermore, *Zalanodius* is a tricommatid (Kury, in prep.).

Pherania pygmaea (Sørensen, 1932) (Figs. 1–6)

Phera pygmaea Sørensen, 1932: 229.

Pherania pygmaea: Strand, 1942: 399.

Material examined: Male holotype (BMNH, Keyserling collection), Brazil, Santa Catarina, Blumenau.

Male holotype: Cephalothorax 0.77 long, 0.93 wide. Eye mound 0.33 wide. Abdominal scute 1.28 long, 1.70 wide. Posterior margin of scute 0.93 wide. Stigmatic area 1.12 wide, 0.97 long, distance between stigmata 0.80.

Body (Fig. 1): Scutal outline sinuous, widest at groove II. Eye mound separated from frontal margin of scute, armed with a small median spine. All scutal areas and free tergites unarmed, each with a transverse row of granules. *Mouth parts:* Chelicerae not swollen. Pedipalpal femur and patella unarmed. Tibia and tarsus with weak spines. Tibia with 3 (IIi) ectal and mesal spines. Tarsus with 3 mesal (IIIi) and 5 ectal (IIiIIi) spines (Fig. 2). *Legs:* Femur I with a row of ventral setiferous tubercles. Coxa IV with bifurcate dorso-apical apophysis, bifurcate ventro-apical apophysis, and many granules. Trochanter IV with well-developed square sclerite, a dorsal curved apophysis, one ventral stout apophysis and two lateral teeth. Femur IV short, curved, with three stout apical spines, and a row of spines on lateral and mesal sides (Fig. 3). Patella IV with stout mesal spine, and two ventro-apical spines. Tibia IV with two rows of blunt teeth. Tarsal segments: 3-4-5-5. Tarsal claws unpectinate, tarsal process absent (Fig. 4). Distitarsus I bimerous. Measurements of podomeres are not given owing to the poor state of legs II and III. *Colour:* Dorsum uniformly mahogany-brown, grooves lighter. Venter light brown, with faint darker reticulations. Appendages light brown. *Genitalia* (Figs. 5–6): Ventral plate of penis rectangular, with distal border concave, lateral borders armed with 4 distal and 2 basal setae. Glans without dorsal or ventral processes. Stylus curved, slightly swollen at apex.

Family Tricommatidae Roewer, 1912

Genus *Tachusina* Strand, 1942

Tachus Sørensen, 1932: 277 (non *Tachus* Jurine, 1807).

Tachusina Strand, 1942: 400 (replacement name).

Type species: Tachus keyserlingii Sørensen, 1932 by monotypy.

	Tr	Fe	Pa	Ti	Mt	Ta
Pedipalp	0.31	0.95	0.45	0.58	—	0.82
Leg I	0.45	1.61	0.66	1.15	1.44	1.01
Leg II	0.41	3.05	0.82	2.14	2.06	0.72
Leg III	0.45	2.23	0.70	1.40	2.31	1.13
Leg IV	0.49	2.78	0.99	2.64	3.01	1.07

Table 1: Appendage measurements of *Tachusina keyserlingii*, male holotype.

apical outer hump, and small ventro-apical inner apophysis (Fig. 9). Calcaneus/astragalus ratio (metatarsi I-IV): 0.2/0.1/0.2/0.1. Tarsal segments: 3-3/5-?/?-5/?-5. Distitarsus I bimerous. *Colour*: Body and appendages uniformly mahogany-brown, with slight black reticulation. *Genitalia* (Fig. 10): Apex of truncus swollen, without large spines. Lamina parva trapezoidal, with four long and two short spines, and many ventro-distal granules. Stylus short, apex not swollen, forming straight angle with process of glans. Ventral process of glans flabelliform.

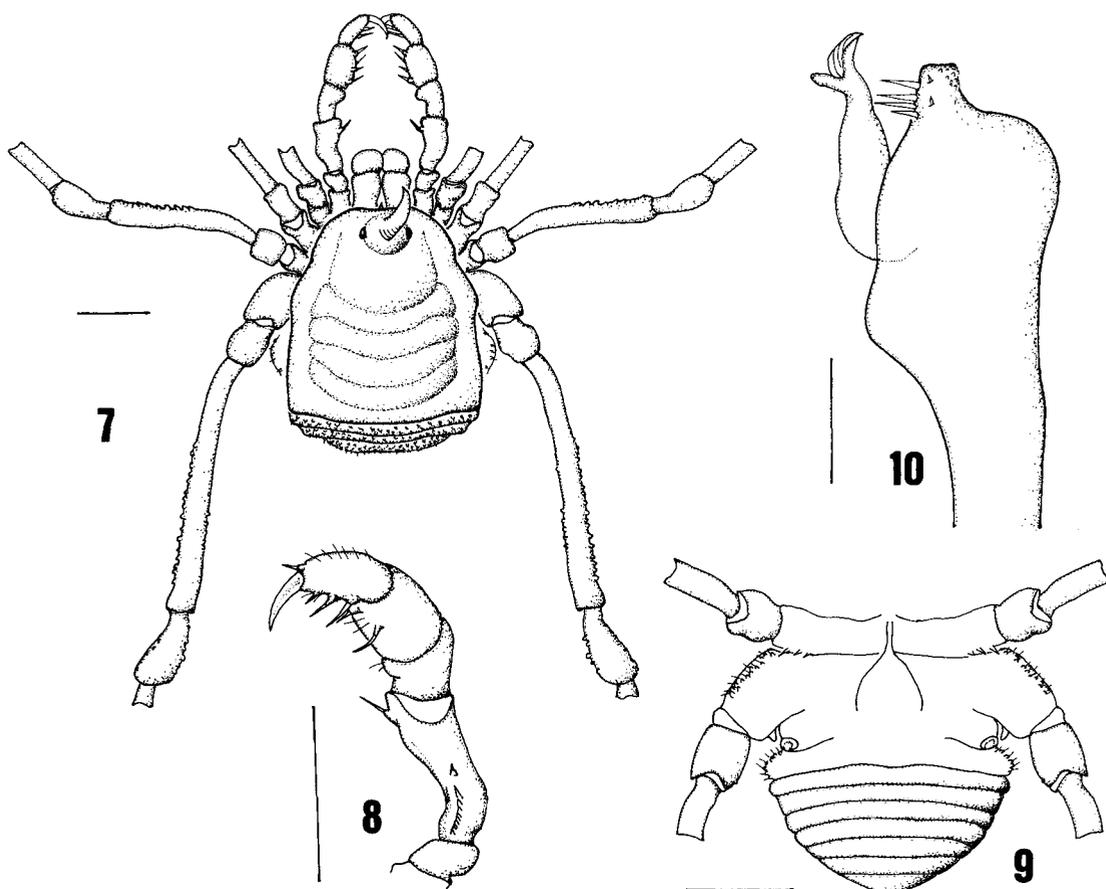
Discussion

Neither of the species treated herein has been cited again in the literature (except by Strand). It would not be surprising if there were junior synonyms of these taxa, in view of the almost useless original descriptions, and the carelessness of some authors who have studied the Brazilian fauna. It seems, however, not to be the case here.

Pherania pygmaea could have been described by Roewer or Mello-Leitão in the Phalangodinae, where it would constitute a new genus. There are only four genera of Phalangodinae which have area I divided, and none of them matches completely the characters of *Pherania* regarding armature of areas, position and armature of eye mound, and shape of the stigmata.

The main evidence supporting the assignment of *Pherania* to the Gonyleptidae lies in the genital structure, with a well-defined ventral plate, and the lack of a dorsal process on the glans. Also the divided area I, the armature of coxa IV and femur IV, and the shape of the pedipalps are typical of the Gonyleptidae. Sørensen noted the resemblance to the Gonyleptidae, but he was swayed on familial assignment by the lack of a tarsal process and the number of segments in "distitarsus II". *Pherania* is probably closest to genera like *Eusarcus* Perty, 1833, *Graphinotus* C.L. Koch, 1839 and *Metagraphinotus* Mello-Leitão, 1927, which are now included in the Pachylinae. In *Eusarcus*, the lamellar ventral process of the glans is also lacking (Kury, unpubl. data). The low number of tarsal segments and lack of a tarsal process in *Pherania* should be interpreted as secondary developments.

Tachusina keyserlingii could have been described by Roewer, Mello-Leitão or Soares as a phalangodid because of the lack of a tarsal process, and in the Phalangodinae according to tarsal segmentation. The genera described in the Phalangodinae which match *Tachusina*



Figs. 7-10: *Tachusina keyserlingii* (Sørensen, 1932), male holotype. **7** Habitus, dorsal view; **8** Left pedipalpus, ventral view; **9** Stigmatic area, sternites, coxae III-IV; **10** Distal part of penis, lateral view. Scale lines=1 mm (Figs. 7-9), 0.1 mm (Fig. 10).

in the armature and position of eye mound, armature of scutal areas, tergites and anal opercle, lack of longitudinal furrow in area I and stigmata evident are (tarsal segments in parentheses): *Actinobunus* Goodnight & Goodnight, 1942 (3-6-5-?), *Anamota* Šilhavý, 1979 (3-4-4-4), *Langodinus* Mello-Leitão, 1949 (4-7-5-5), *Neocynortina* Goodnight & Goodnight, 1983 (3-6-5-6), *Pachylicus* Roewer, 1923 (3-6-5-6), *Paraconomma* Roewer, 1915 (3-4-5-5), *Paramitraceras* F.O. Pickard-Cambridge, 1905 (3-4-5-5), *Tibangara* Mello-Leitão, 1940 (3-5-4-4), *Turquinia* Šilhavý, 1979 (3-4-4-4). As none of them matches exactly the tarsal counts, it surely would have been described as a new genus.

The most important evidence supporting the assignment of *Tachusina* to the Tricommatidae is the genital structure, with the unique tricommatid *lamina parva*, and the shape of the stylus and ventral process of the glans. Also the marginal eye mound, forming a hook, undivided area I, and the body outline are typical of the Tricommatidae. There are some Brazilian Tricommatidae which show secondary reduction of the tarsal

counts, e.g. *Tibangara*. The keeled pedipalpal femur occurs in presumably related genera such as *Pseudopachylus* Roewer, 1912.

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Larinia jeskovi Marusik, 1986, a spider species new to Europe (Araneae: Araneidae)

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Summary

Larinia jeskovi Marusik, 1986 (Araneidae), originally described from the East Palearctic region, is the first member of the genus *Larinia* recorded from Central Europe (Poland). Taxonomic drawings are provided of both sexes to corroborate its identity.

Introduction

The genus *Larinia* Simon has a worldwide distribution. The American species were described by Levi (1975) and Harrod *et al.* (1991). Grasshoff (1970a,b, 1971) revised the African, Asian and Australian species and divided the genus into eight different genera. Some species from south-eastern Europe and Asia were described by Marusik (1986) who regarded *Larinia* as a genus *sensu lato*. A similar approach was adopted by Levi (1975) and Harrod *et al.* (1991). Two species of *Larinia* were described from Japan by Tanikawa (1989) and a further nine species were described from China by Yin *et al.* (1990).

Hitherto, four species of *Larinia* have been recorded from Europe: *L. lineata* (Lucas) and *L. chloris* (Audouin) are known from the Mediterranean area (Grasshoff, 1970a; Levy, 1986), *L. bonneti* Spassky from

West Caucasus and *L. elegans* Spassky from the Azov Sea area (Marusik, 1986). A further East Palearctic species has recently been discovered in Poland, and is described here. All measurements are in mm.

Larinia jeskovi Marusik, 1986 (Figs. 1–13)

Larinia jeskovi Marusik, 1986: 253, figs. 30–34 (descr. ♂ ♀).
L. jeskovi: Platnick, 1989: 339; Tanikawa, 1989: 44, figs. 34–40.

Material: Adult females collected in Wodniczka Nature Reserve, Biebrza River National Park (north-eastern Poland) (53°22' N, 22°33' E) from April to November. Adult males from the same region in August and September. Two males and five females deposited in Museum and Institute of Zoology, Polish Academy of Science (Warsaw); 2♂ 2♀ deposited in British Museum (Natural History); 2♀ deposited in Zoologische Staatssammlung (Munich); 5♂ 21♀ in collection of Institute of Biology, Białystok. Compared with paratypes of *L. jeskovi* from Amur River Basin (Russia) in Zoologische Staatssammlung, Munich, because the holotype in Zoological Institute of the Russian Academy of Sciences, St. Petersburg, appeared unavailable.

Diagnosis: Abdomen dorsally with five orange longitudinal stripes. Median apophysis with two processes: exterior large and dark, falciform, interior small and lighter (Figs. 8, 12). Epigyne with a short v-shaped scape (Figs. 1, 2).

The large tegular apophysis and conductor which are adjacent although not fused allow this species to be placed in *Larinia sensu stricto* according to Grasshoff's (1970a) classification. This is further supported by the epigyne structure which is similar to that of *L. lineata*.

Diagnosis: Tricommatidae with all scutal areas and free tergites unarmed, eye mound marginal, with a stout hooked spine; pedipalpal femur ventrally keeled; tarsal segments 3-5-5-5; coxa IV unarmed dorsally and ventrally; femur IV of male moderately elongate and armed only with rows of small denticles. Ventral plate of penis only defined as a *lamina parva*, apex of truncus globose.

***Tachusina keyserlingii* (Sørensen, 1932) (Figs. 7-10)**

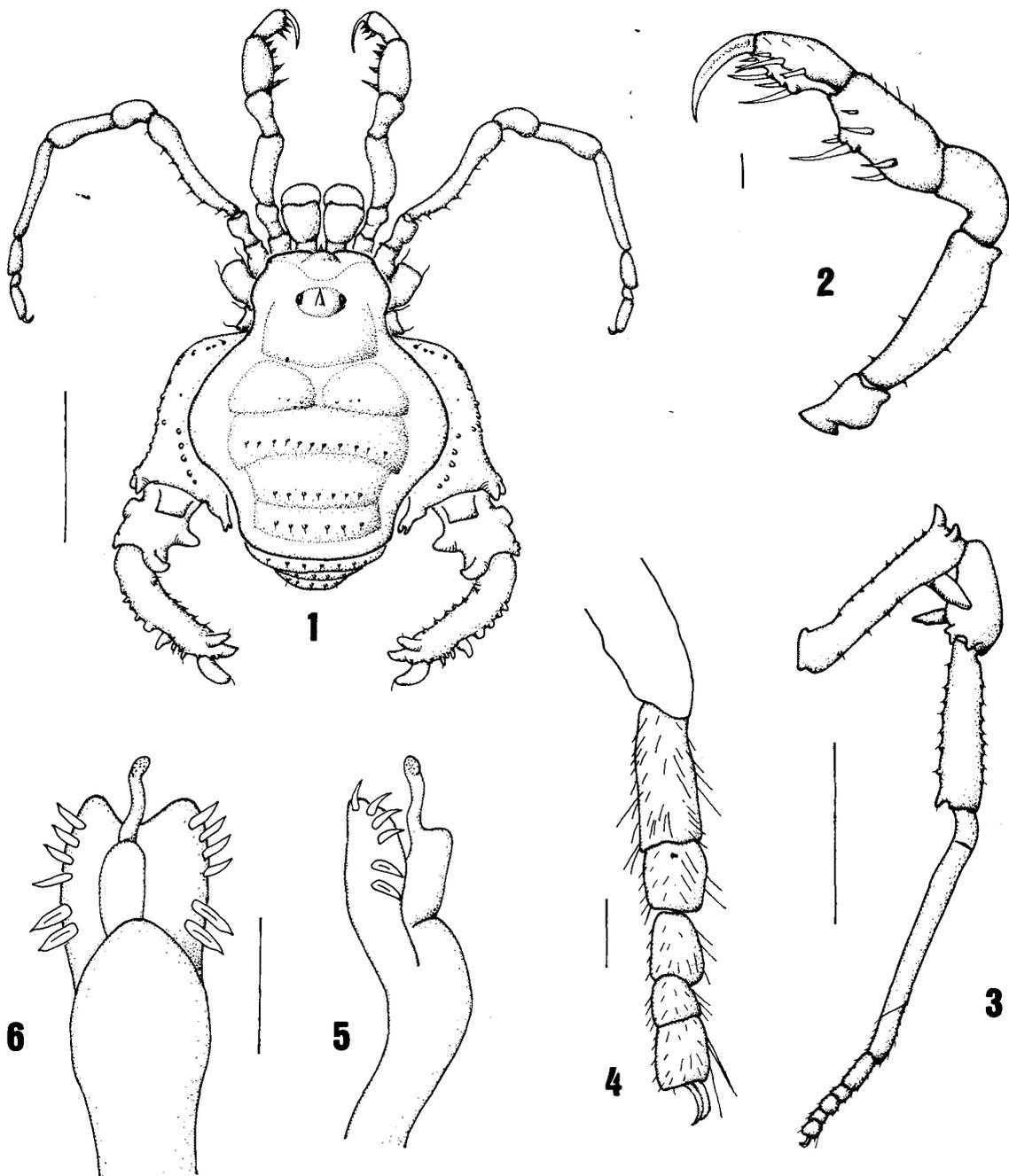
Tachus keyserlingii Sørensen, 1932: 278.

Tachusina keyserlingii: Strand, 1942: 400.

Material examined: Male (not female as stated by Sørensen) holotype (BMNH, Keyserling collection),

Brazil, Santa Catarina, Blumenau. Labeled (but not published) by Roewer (1934) "*Tachus keyserlingii*".

Male holotype: Cephalothorax 1.44 long, 1.75 wide. Eye mound 0.66 wide: Abdominal scute 1.40 long, 2.39 wide. Posterior margin of scute 2.06 wide. Stigmatic area 0.62 long, 2.06 wide, distance between stigmata 1.61. **Body** (Fig. 7): Frontal margin of carapace smooth and unarmed. Eye mound marginal, armed with a stout hooked spine. None of the areas linked by longitudinal grooves. All scutal areas and free tergites smooth and unarmed. **Mouth parts:** Chelicera not enlarged. Pedipalpal femur ventrally keeled, armed with an apical inner spine (Fig. 8). **Legs** (Table 1): Patella III short, rounded. Femora I-II straight, III-IV curved. Femur IV elongate, femora III-IV with rows of small teeth. Coxa IV with



Figs. 1-6: *Pherania pygmaea* (Sørensen, 1932), male holotype. **1** Habitus, dorsal view; **2** Right pedipalpus, mesal view; **3** Leg IV, ventral view; **4** Tarsus IV, lateral view; **5** Distal part of penis, lateral view; **6** Ditto, dorsal view. Scale lines=1 mm (Figs. 1, 3), 0.1 mm (Figs. 2, 4-6).