

Genus	Vol. 6(2): 181-190	Wrocław, 30 VI 1995
-------	--------------------	---------------------

Genus *Athamas* PICKARD-CAMBRIDGE, 1877, an unusual salticid from
the Pacific area
(*Araneae: Salticidae*)

BARBARA JENDRZEJEWSKA

Zakład Zoologii WSR-P, Prusa 12, 08-110 Siedlce, Poland

ABSTRACT. The genus *Athamas* PICKARD-CAMBRIDGE, 1877 is revised. Six species are diagnosed, described and illustrated. *A. nitida* and *A. guineensis* from New Guinea and *A. kochi* and *A. tahitensis* from Tahiti are described as new species.

Key words: Arachnology, *Araneae, Salticidae, Athamas*, Pacific Region, new species.

INTRODUCTION

The genus *Athamas* PICKARD-CAMBRIDGE, 1877 originally described from Samoa, is one of the most spectacular, both from the morphological and zoogeographical points of view. SIMON (1901) created for it a separate group *Athamae* on the basis of eye arrangement, labium and leg structure. PETRUNKEVITCH (1928) transferred the genus into the subfamily *Hasariinae*, together with 41 other genera, none of them closely related to *Athamas*. Its genital structure shows some similarities to *Euophryinae*, however, like in many salticid genera, this character seems of limited use in phylogenetic analyses. The eyes are arranged in four rows and can also be found in some *Spartaeinae* (WANLESS, 1984) and in most *Lyssomaninae* (WANLESS 1980), both being phylogenetically remote. Because of individual variability, the real number of species is difficult to precise (BEERY, BEATY & PRÓSZYŃSKI, pers. com.). Formally, only two species have been recorded and here four additional ones are described, all of them from the Pacific area (Fig. 24).

Abbreviations used:

AME = anterior median eyes, ALE = anterior lateral eyes, PME = posterior median eyes, PLE = posterior lateral eyes, CL = cephalothorax length, AL = abdomen length, CW = cephalothorax width, AW = abdomen width, EFL = eye field length, AEW = anterior eyes width, PEW = posterior eyes width, pl = posterior lobe, e = embolus, sd = seminal duct, ta = tibial apophysis, ag1 and ag2 = accessory glands.

Collections studied:

- CD - Dr Christa DEELEMAN, Ossendrecht, Holland;
 WIEN - Naturhistorisches Museum, Wien;
 MNHN - Museum National d'Histoire Naturelle, Paris;
 OXF - Hope Entomological Collection, University of Oxford;
 QM - Queensland Museum, Brisbane, Australia.

Genus *Athamas* PICKARD-CAMBRIDGE, 1877

Athamas PICKARD-CAMBRIDGE, 1877: 557-578; KOCH, 1879: 1076 - 1079; PECKHAM et al. 1888: 247-251; SIMON, 1901: 759-760; PETRUNKEVITCH, 1928: 188; BERLAND, 1938: 155-156; BERLAND, 1942: 7; PRÓSZYŃSKI, 1984: 4.

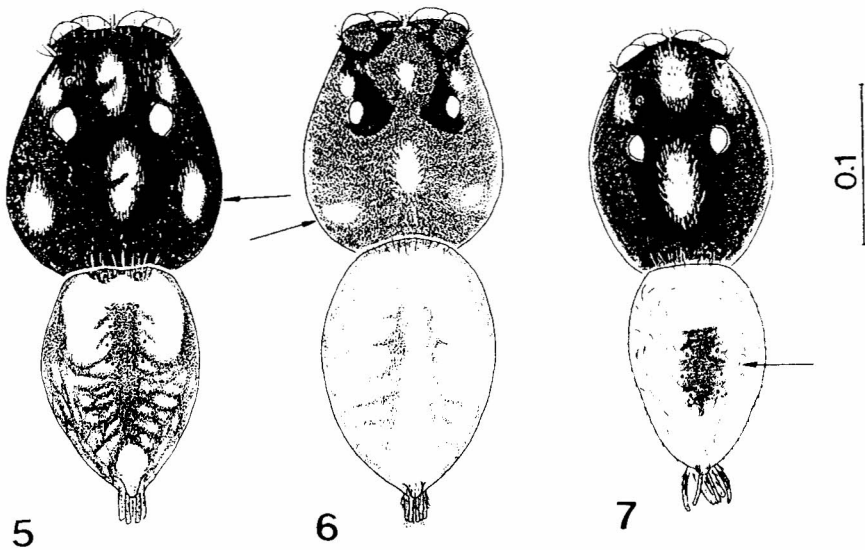
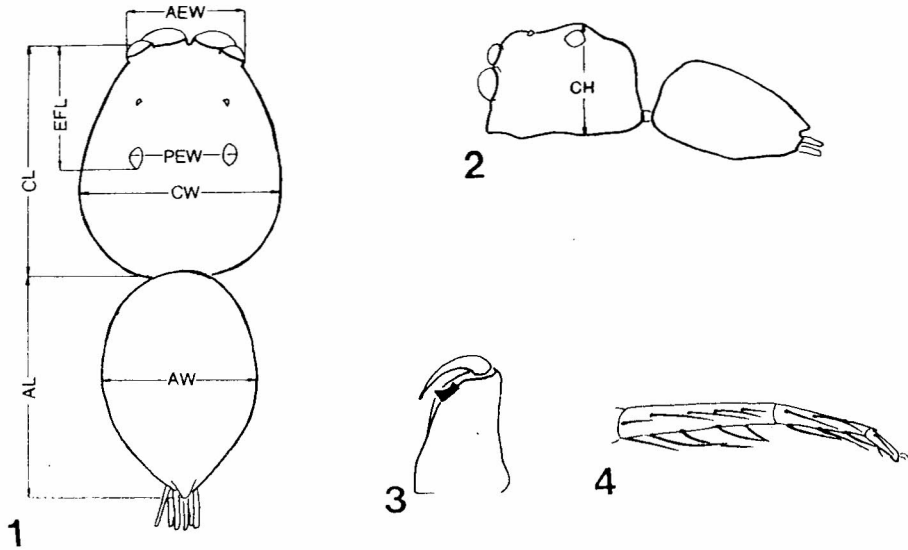
Type species: *Athamas whitmeei* PICKARD-CAMBRIDGE, 1877, by subsequent designation.

DIAGNOSIS

A small spider. Eyes arranged in four rows, cephalothorax high, with abrupt thoracic slope, genitalia simple, *Euophryinae*-like.

DESCRIPTION (FIGS. 1, 2).

Body length from 2.04 to 2.88 mm. Cephalothorax longer than wide, with eye field occupying about 55% of its total length. Clypeus narrower than the diameter of AME. Eyes arranged in four rows. Anterior medians of enormous size, anterior laterals slightly smaller, located directly above AME. PME very minute, c. one-third of PLE diameter, about halfway between ALE and PLE. PLE considerably smaller than ALE. Cephalothorax usually yellow-brown to black-brown, with patches of light hairs, ocular area darker. Posterior thoracic slope steep. Abdomen oval, without scutum, spinnerets normal. Chelicerae small, fident (Fig. 3). Males without promarginal teeth, females (Fig. 22) with two separate promarginal ones. Maxillae not distinctive, labium short and wide, sternum heart-shaped. Legs slender, sometimes with grey spots (especially in females). Leg formula: I-IV-III-II. Legs I (Fig. 4) with 5-7 pairs of tibial spines arranged in two rows. Male palpal organ simple, embolus thin, counter-clockwise coiled, weakly sclerotized. Tegulum rhomboid, with posterior lobe, seminal duct meandering. Tibial apophysis single,



1-7. General characters of *Athamas*: 1 - dorsal view, 2 - lateral view, 3 - cheliceral dentition of males, 4 - spinose of leg I, 5 - 7 male pattern: 5 - *Athamas guineensis*, 6 - *Athamas kochi*, 7 - *Athamas nitida*

short and narrow. Female epigyne weakly sclerotized, with double anterior depression. Internal structures translucent. Insemination ducts with loops, spermathecae bean-like. Accessory glands double, accompany the insemination ducts (ag1) and spermathecae (ag2). Legs slender, sometimes with grey spots (especially in females).

Athamas whitmeei PICKARD-CAMBRIDGE, 1877

Athamas whitmeei PICKARD-CAMBRIDGE, 1877: 575-578; KOCH, 1879: 1076; PECKHAM et al., 1888: 247-251; SIMON, 1901: 759; BERLAND, 1942: 7.

MATERIAL

2M, *Athamas whitmeei*, det. S. J. WHITMEE, Samoa Isl., 1877, OXF, B. 1784.

DIAGNOSIS

Embolus short, in comparison to other species its distal part oriented less anteriorly and tegular posterior lobe shorter.

DESCRIPTION

Male. The specimen in poor condition, its colors may only be reconstructed from the original description. Chelicerae with one retromarginal tooth, short, straight, vertical, and not very strong. Legs I with 5 pairs of tibial spines.

Palpal organ (Figs. 8, 12) as in other species but embolus relatively shorter.

Dimensions: CL 1.40, AL 1.24, CW 1.24, AW 0.88, EFL 0.68, AEW 0.80, PEW 0.68, CH 1.04.

Athamas kochi n. sp.

MATERIAL

1M (holotype) "*Athamas whitmeei*", det. KOCH, Tahiti, 1884, WIEN, 12.296.

1M (paratype) same data as holotype.

DIAGNOSIS

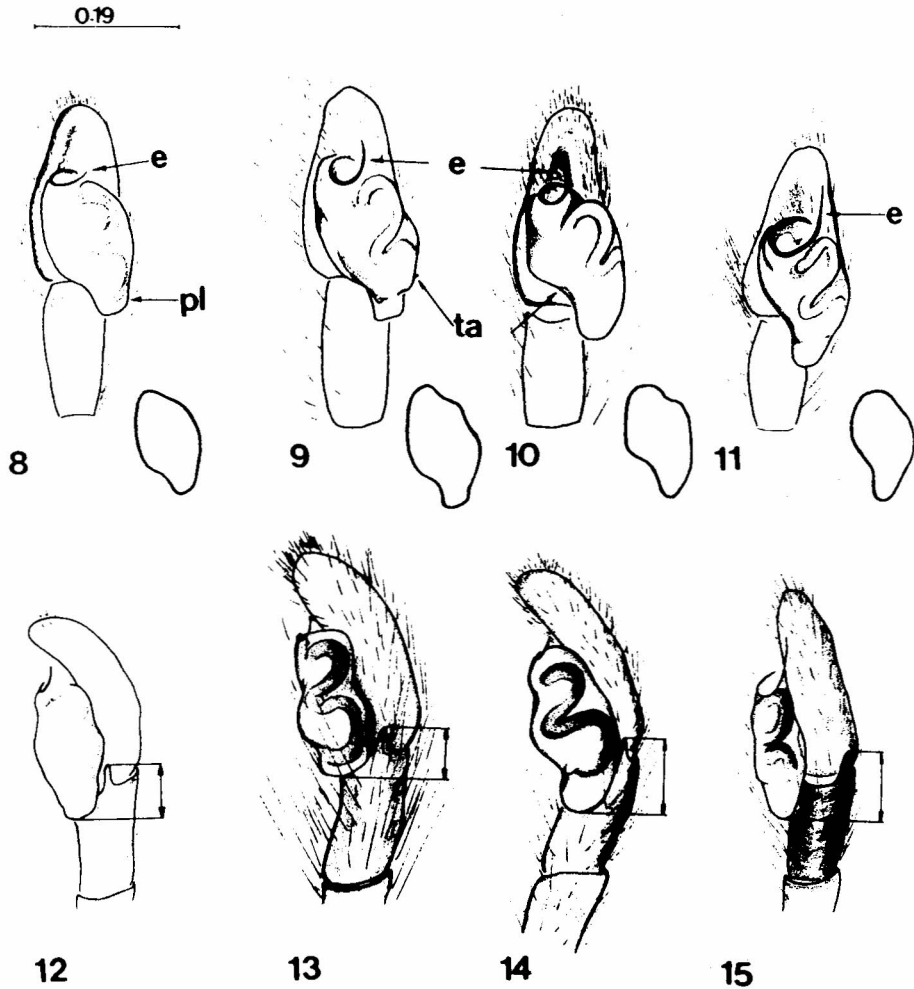
Distal part of embolus longer and posterior tegular lobe slightly larger than in the previous species.

DESCRIPTION

Male (Fig. 6). Cephalothorax yellow-brown. Thoracic sides with patches of white hairs. Similar patches between PME and PLE and in the middle of the eye field. Ocular area dark brown. Abdomen palish yellow, with two grey weakly contrasting dentate lines. Chelicerae with one retromarginal tooth. Legs I with five prolateral and six retrolateral spines. Maxillae and labium light brown.

Palpal organ (Figs. 10, 14) yellow. Posterior lobe more distinctive than in the previous species. Tibial apophysis as in *A. whitmeei*.

Dimensions: CL 1.44, AL 1.32, CW 1.24, AW 0.96, EFL 0.84, AEW 0.84, PEW 0.72, CH 1.04.



8-15. Palpal organ: 8, 12 - *Athamas whitmeei*, 9, 13 - *Athamas guineensis*, 10, 14 - *Athamas kochi*, 11, 15 - *Athamas nitida*

ETYMOLOGY

The name is proposed in honour of Ludwig KOCH, a German arachnologist.

Athamas nitida n. sp.

MATERIAL

1M (holotype), 28.09.1986, Papua New Guinea, Solomons Prov., Tautsina Is., Kieta, leg. D. J. COURT, QM.

DIAGNOSIS

Posterior white patches on cephalothorax missing. Abdomen with central metallic patches surrounded by white hairs. Embolus the longest and strongest of all the species described here. Posterior lobe elongated.

DESCRIPTION

Male (Fig. 7), in poor condition, legs missing. Cephalothorax dark brown, with white patches of hairs on each side of the PME. Eye field black. Abdomen with central metallic violet patch surrounded by white hairs. Spinnerets yellow with brownish spots. Chelicerae with one retromargin tooth. Maxillae and labium light brown, sternum yellow. Venter brown-grey.

Palpal organ yellow, its structure shown in Figs. 11 and 15.

Dimensions: CL 1.24, AL 1.20, CW 1.04, AW 0.76, EFL 0.68, AEW 0.76, PEW 0.68, CH 0.92.

ETYMOLOGY

The name is derived from the Latin word *nitidus* = shiny.

Athamas guineensis n. sp.

MATERIAL

1M (holotype), 16.07.1986, Papua New Guinea, Madang, leg. D. J. COURT, QM.
1M (paratype), 29.11.1986, Papua New Guinea, New Ireland Prov., sea level, leg. D. J. COURT, QM.

DIAGNOSIS

Cephalothorax wider than in the previous species, dark brown. Abdominal pattern contrasting. Posterior tegular lobe distinctive, tibial apophysis laterally bent.

DESCRIPTION

Male (Fig. 5). Cephalothorax relatively broad, dark brown, often strongly shiny metallic, with white hairs as in other species of *Athamas*. Ocular area black. AME and ALE surrounded by short, coppery hairs. Chelicerae brown, with one retromarginal tooth. Maxillae and labium brown, sternum light brown, venter

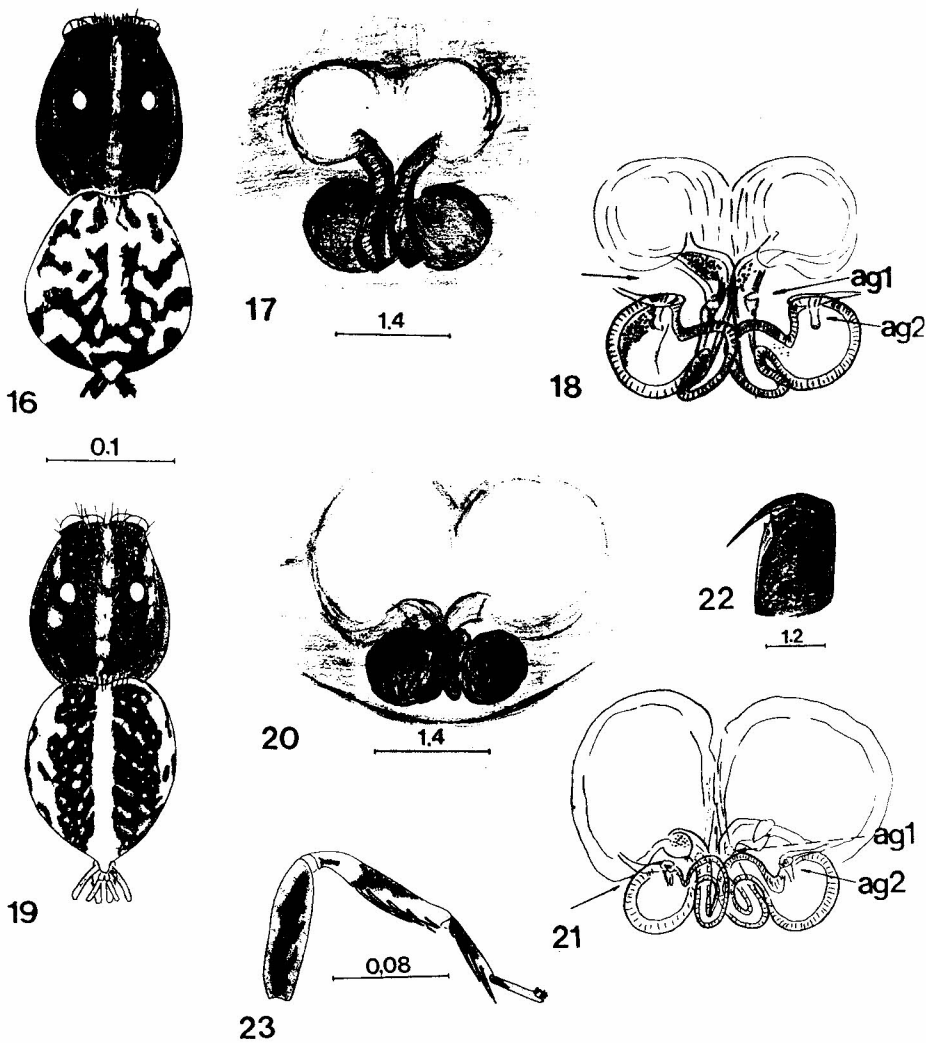
yellow-brown. Leg I with 6 pairs of tibial spines, femur shining with metallic polish.

Palpal organ (Figs. 9, 13) yellow, embolus like in *Athamas kochi*, posterior tegular lobe more separated, tibial apophysis ventrally visible.

Dimensions: CL 1.48, AL 1.40, CW 1.36, AW 1.08, EFL 0.92, AEW 0.84, PEW 0.84, CH 0.92.

ETYMOLOGY

The name is derived from locality.



16-23. Female: 16-18 - *Athamas tahitensis*: 16 - dorsal view, 17 - epigyne, 18 - internal structure; 19-23 - *Athamas univittata*: 19 - dorsal view, 20 - epigyne, 21 - internal structure; 22 - cheliceral dentation, 23 - leg pattern

Athamas tahitensis n. sp.

MATERIAL

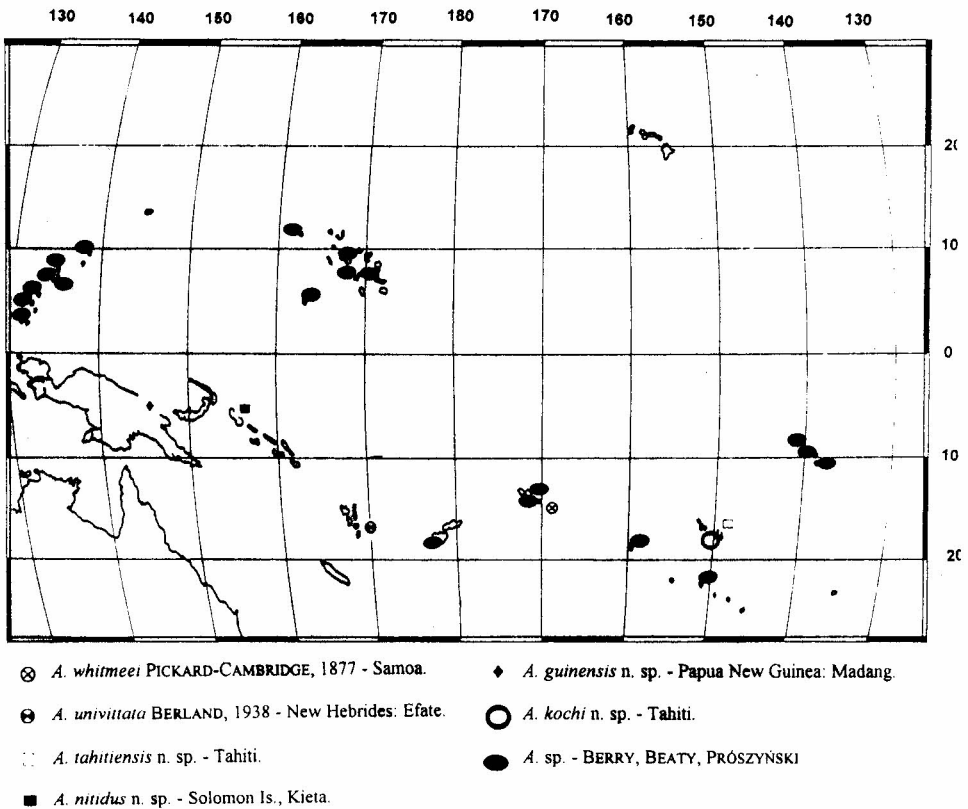
1F (holotype), 28.01.1981, Tahiti, Tarawaocote, 500m, Cittef, leg. C. DEELEMAN, det. G. PERRAULT, CD.

DIAGNOSIS

Cephalothorax without patches of white hairs.

DESCRIPTION

Female (Fig. 16). Cephalothorax yellow-brown with yellowish line in the middle and brown ones at the sides. AME surrounded by short white hairs. Eye field black. Whole abdomen with dorsal mosaic of whitish and large grey spots. Light central stripe only in anterior part. Chelicerae light brown with one retromarginal and two promarginal teeth. Maxillae yellow-brown, labium and sternum yellow-grey. Legs I with 5 pairs of tibial spines.



24. Distribution of *Athamas*

Epigyne (Figs 17, 18). Anterior depression small, insemination ducts long, making loops, spermatecae bean-like, in comparison to the next species ag1 more proximally. Legs whitish with grey spots. Legs I with 5 pairs of tibial spines.

Dimensions: CL 1.36, AL 1.56, CW 1.20, AW 1.36, EFL 0.80, AEW 0.80, PEW 0.72, CH 0.76.

ETYMOLOGY

The name is derived from the island on which the type locality is situated.

Athamas univittata BERLAND, 1938

A. univittata BERLAND, 1938: 155-156.

MATERIAL

1F (type), New Hebrides, Efate, 06.1933, Risbec, MNHN, B.2442.

DIAGNOSIS

White lateral patches of hairs present. In comparison to the previous species epigyne depression larger and more posteriorly and insemination ducts slightly shorter.

DESCRIPTION

Female (Fig. 19). Cephalothorax yellow-brown with white central stripe and patches of white hairs at the sides. AME and ALE surrounded by short white hairs. Eye field dark brown. Abdomen brown with light central line and light sides, the rest light brown with spots of white hairs. Venter yellow with some brown spots. Chelicerae light brown with one retromarginal and two promarginal teeth. Maxillae, labium and sternum whitish with grey patches. Legs I (Fig. 23) with 5 pairs of tibial spines.

Epigyne (Figs 20, 21). Copulatory openings close to the spermatecae. Proximal parts of the insemination ducts shorter than in *A. tahitensis*.

Dimensions: CL 1.36, AL 1.52, CW 1.16, AW 1.16, EFL 0.84, AEW 0.72, PEW 0.72, CH 0.84.

ACKNOWLEDGEMENTS

I wish to thank Drs C. DEELEMEN (Ossendrecht), D. J. COURT (Singapore), C. ROLLARD (Paris), J. HEURTAULT (Paris), J. GRUBER (Wien), M. ATKINSON (Oxford) for providing specimens for this study, and J. W. BERRY (Indianapolis) for the useful information about *Athamas*. I am also indebted to Prof. J. PRÓSZYŃSKI (Warsaw), Dr Marek ŻABKA (Siedlce) and two anonymous referees for critical review of the typescript.

REFERENCES

- BERLAND, L., 1938. Araignées des Nouvelles-Hebrides. Ann. Soc. ent. Fr., **107**: 121-190.
- BERLAND, L., 1942. Polynesian Spiders. Bull. Mus. Hist. Nat. Fr., **17**: 1-24.
- KOCH, L., 1879. Die Arachniden Australiens. Nürnberg, 1045-1156.
- PECKHAM et al. 1888. Spiders of the Sub-Family *Lyssomanae*. Trans. Wis. Acad., **14**: 247-251.
- PETRUNKEVITCH, A., 1928. Systema Araneorum. Trans. Conn. Acad. Arts Sci., **29**: 1-270.
- PICKARD-CAMBRIDGE, O., 1877. On some New Species of *Araneidea*, with Characters of two New Genera and some Remarks on the Families *Podophthalmides* and *Dinopides*. Proc. Zool. Soc., 557-578.
- PRÓSZYŃSKI, J., 1984. Atlas rysunków diagnostycznych mniej znanych *Salticidae* (Araneae). Zesz. Nauk. WSRP Siedlce pp. VII + 177.
- SIMON, E., 1901. Histoire Naturelle des Araignées. Par., **2** (3): 381-871.
- WANLESS, F., R., 1980. A revision of the spider genera *Asemonea* and *Pandisus* (Araneae: Salticidae). Bull. Br. Mus. nat. Hist., **39**: 213-257.
- WANLESS, F., R., 1984. A review of the spider subfamily *Spartaeinae* nom. n. (Araneae: Salticidae) with descriptions of six new genera. Bull. Br. Mus. nat. Hist., **46**: 135-205.