

Taxonomic remarks on the genera *Neaetha* SIMON, 1884 and
Cembalea WESOŁOWSKA, 1993
(*Araneae: Salticidae*)

DMITRI V. LOGUNOV

Zoological Museum, Institute for Systematics and Ecology of Animals, Frunze street 11, Novosibirsk
630091, Russia

ABSTRACT. An improved diagnosis of the genus *Neaetha* based on *N. membrosa* (type species) and *N. oculata* is proposed. *N. albibarbis*, is synonymized with *N. membrosa*. Two new combinations are proposed: *Bianor quadrimaculatus* comb.n. (ex *Neaetha*) and *Cembalea heteropogon* comb.n. (ex *Neaetha*). Female of the latter species is actually *Cembalea plumosa*. All the species are redescribed and figured. Affinities of the recently described genus *Cembalea* are briefly discussed.

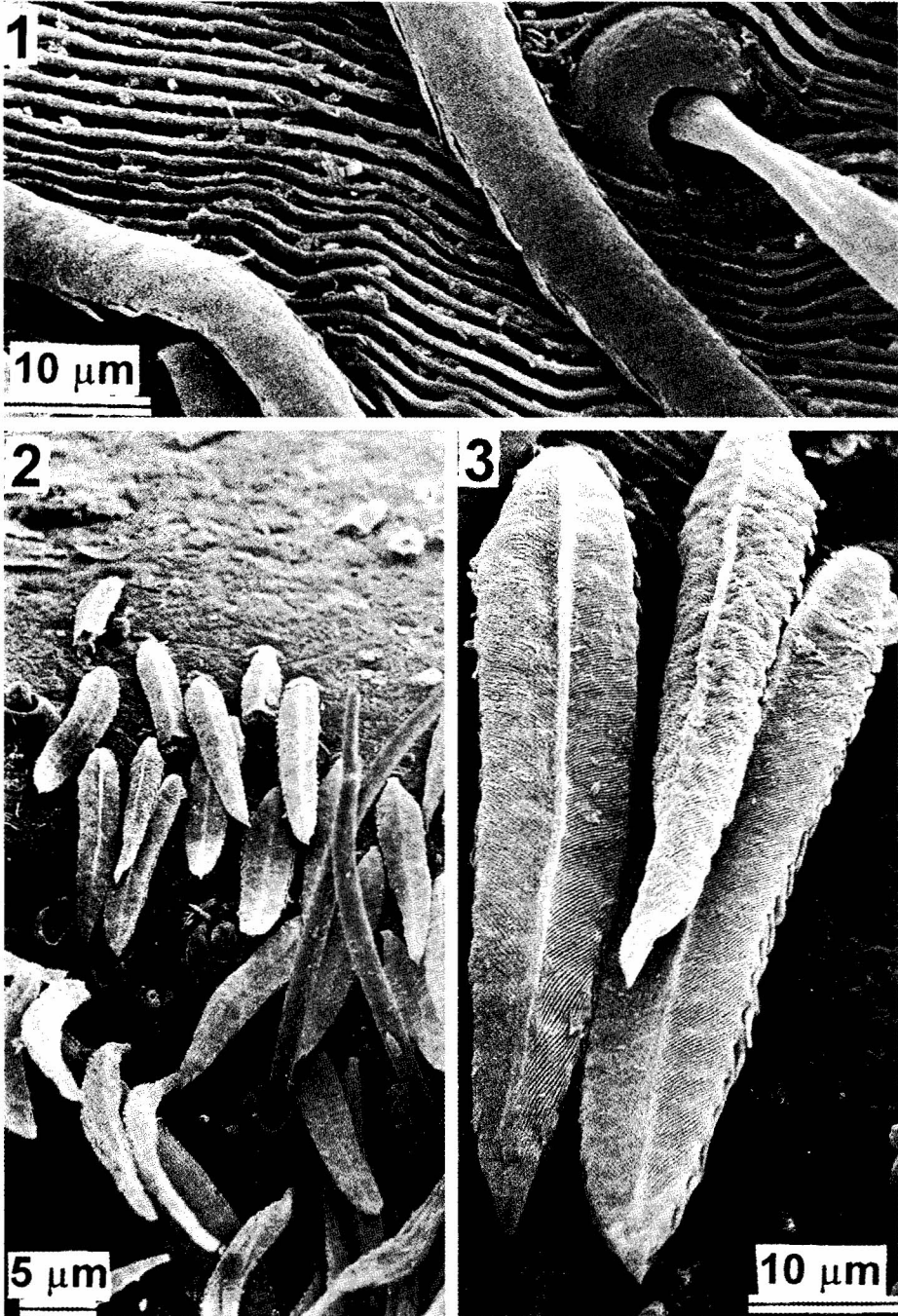
Key words: Arachnology, taxonomy, *Salticidae*, new synonyms, new combinations, redescription.

INTRODUCTION

A repeated study of several *Neaetha* species has induced me (1) to propose a new synonym and two new combinations; (2) to propose a more detailed diagnosis for the genus *Neaetha*; and (3) to outline briefly the relationships of the recently described genus *Cembalea*.

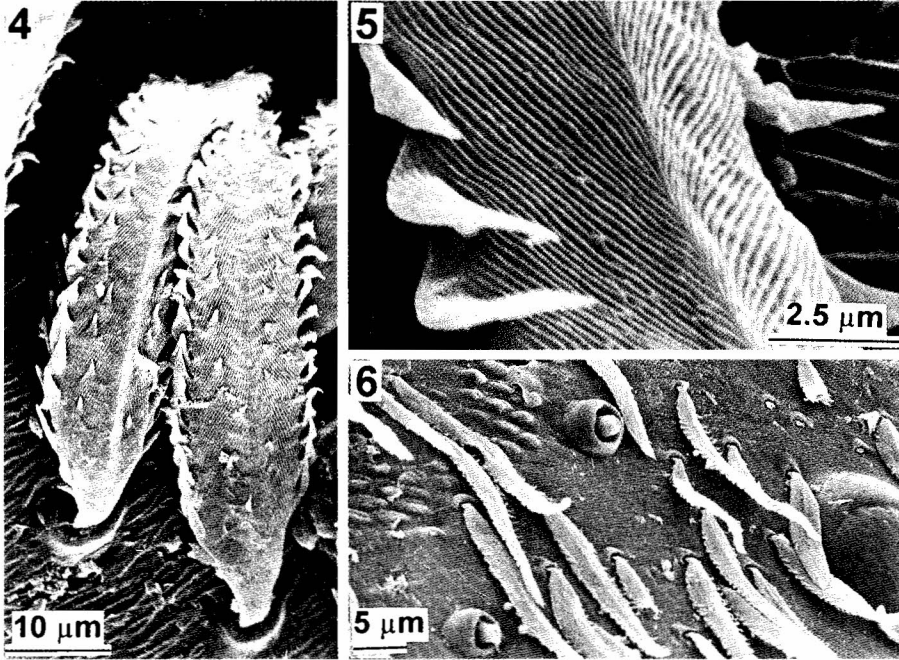
All specimens for this study have been borrowed from the following museums: MNHN- Museum National d'Histoire Naturelle, Paris, France, C. ROLLARD; SAM- South African Museum (N.H.), Cape Town, Rep. of South Africa, V.B. WHITEHEAD; ZMB- Zoologisches Museum, Humboldt Universität, Berlin, Germany, M. MORITZ.

Abbreviations used: AME - anterior medial eyes, PME- posterior medial eyes, PLE- posterior lateral eyes, d. - dorsally, v. - ventrally, pr. - prolaterally, rt. - retrolaterally, ap. - apically, Fm. - femur, Pt. - patella, Tb.- tibia, Mt.- metatarsus. The sequence of leg segments in measurement data is as follows: femur+ patella+



1-3. *Neaetha membroza*; 1- abdominal skin of female, 2,3- scales behind AME

tibia+metatarsus+tarsus. For leg spination, the system adopted is that used by ONO (1988).



4-6. *Neaetha membroza*; 4- scales below AME (clypeal scales), 5,6- scales below PME (side scales)

TAXONOMIC ACCOUNT

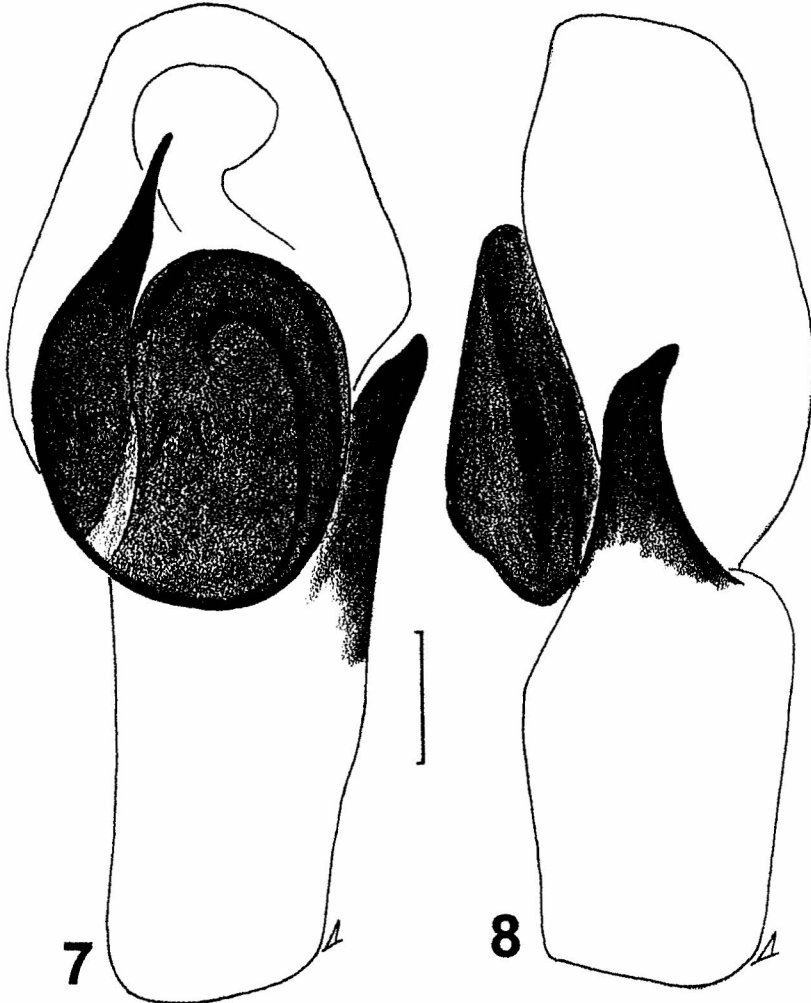
Neaetha SIMON

Neaetha SIMON, 1884: 316. Type species *N. membroza* SIMON, 1868: 617.

DIAGNOSIS AND AFFINITIES

Neaetha differs from the related genera (see below) by the following combination of characters: clypeal and side carapace scales possess strong lateral spines (Figs 4-6); abdominal skin heavily wrinkled (Fig 1); copulatory pores either exposed (Figs 9-10), or hidden in paired lateral atria (Figs 21, 22); a central depressed atrium (like in *Bianor*) absent; embolus rather thick and short, but never thread-shaped as in *Bianor* or *Harmochirus*; embolar base separated from the tegulum by a tranverse, well-visible furrow (Figs 7, 14, 16) which seems to represent remnants of the distal haematodocha.

I agree with ŽABKA's opinion (1991) that the genera *Bianor*, *Harmochirus*, *Modunda* and *Neaetha* are close and can be considered as a separate taxonomic group *Harmochireae* of the tribal or subfamilial level. The group includes those genera which share the following characters: (1) female genitalia have epigyne with a large, central blind-ending pocket, copulatory pores hidden beneath the lateral lips of paired depressed atria, spermathecae usually look like a pair of strongly coiled tubes; (2) male palp has a single, heavily sclerotized bulbus (flat or swollen), a simple unibranch embolus originated from the posterolateral side of the bulb and a tapering tibial apophysis with the apex usually directed toward venter of bulb.



7-8. *Neaetha membroza*: 7- male palp, ventral view, 8- ditto, lateral view; Scale 0.1 mm

Currently, it is unclear if *Habronattus* belongs to the same taxonomic group, since although it possesses the central pocket and the atrium in the female genitalia, the male bulb has a paired, strongly bifurcated tegular apophysis (embolus + tegular apophysis) (s. GRISWOLD 1987). So, the placement of *Habronattus* in the *Pelleninae* (sensu PRÓSZYŃSKI 1976) seems to be more justified.

***Neaetha membroza* (SIMON, 1868)**

(Figs 1-15)

= *N. albibarbis* SIMON, 1871 **syn. n.**

Attus membrozus SIMON, 1868: 617.

Neaetha membroza: PRÓSZYŃSKI, 1976: map 131a.

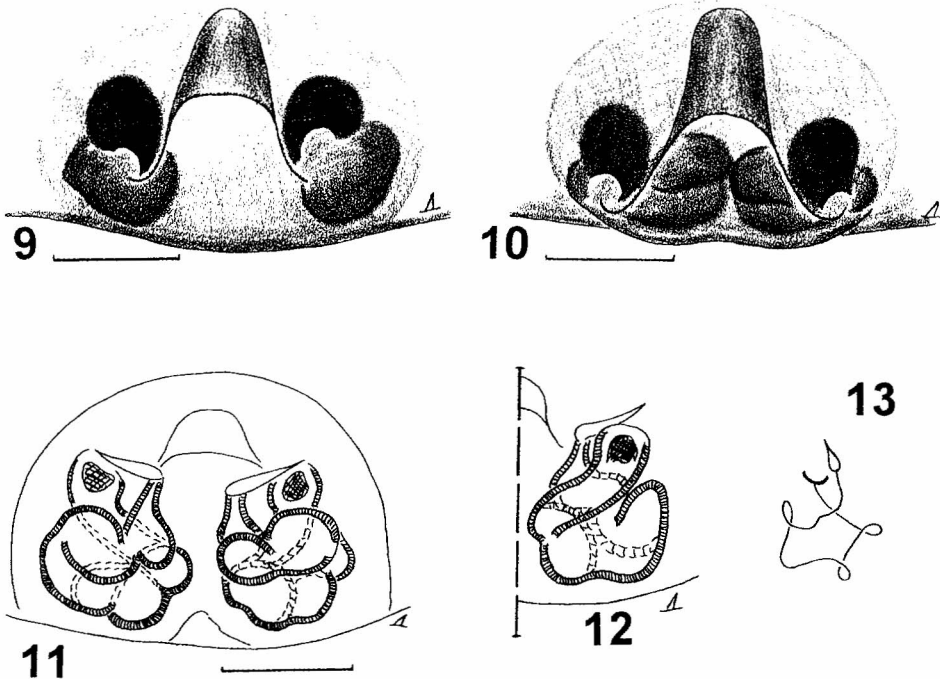
N. m.: CANTARELLA, 1982: 247, figs 20-22.

N. m.: PRÓSZYŃSKI, 1984: 91-92.

Attus albibarbis SIMON, 1871: 225.

MATERIAL

2 m#, 2 \$ (MNHN, 938), "Gallia"; 1 m# (typus, designated by E. GALIANO), 3 m#, 6 f\$ (MNHN, 19.852), "Pozuelo de Calatrava"; 1 m# (holotype of *N. albibarbis*) (MNHN, 945), "Maroc".



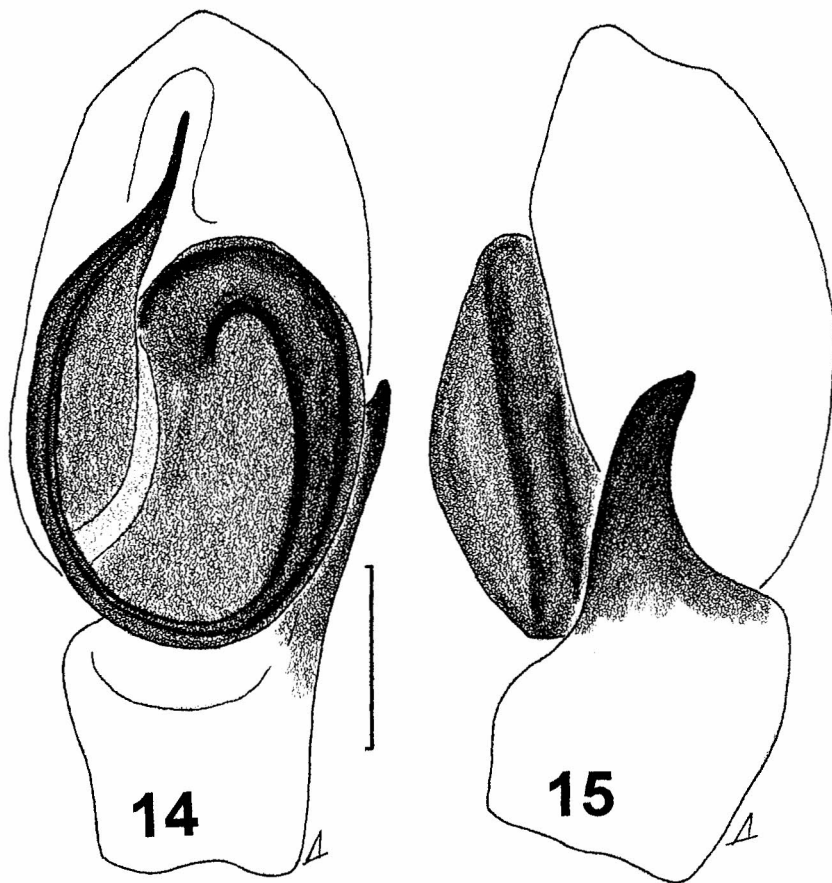
9-13. *Neaetha membroza*: 9,10- epigyne, 11,12- spermathecae, dorsal (11) and ventral (12) views, 13- diagrammatic course of seminal ducts; Scale 0.1 mm

DIAGNOSIS

N. membrosa can be easily separated from species known to me by the rather straight embolus and the apically curved tibial apophysis in males (Figs 7, 8, 14, 15), as well as by the structure of the epigyne in females (Figs 9, 10) [compare with Figs 18-22 for *N. oculeata*, and see also in PRÓSZYŃSKI (1984: 93) for *N. cerussata* and DENIS (1947: Figs 14-16) for *N. aegyptiaca*].

DISTRIBUTION

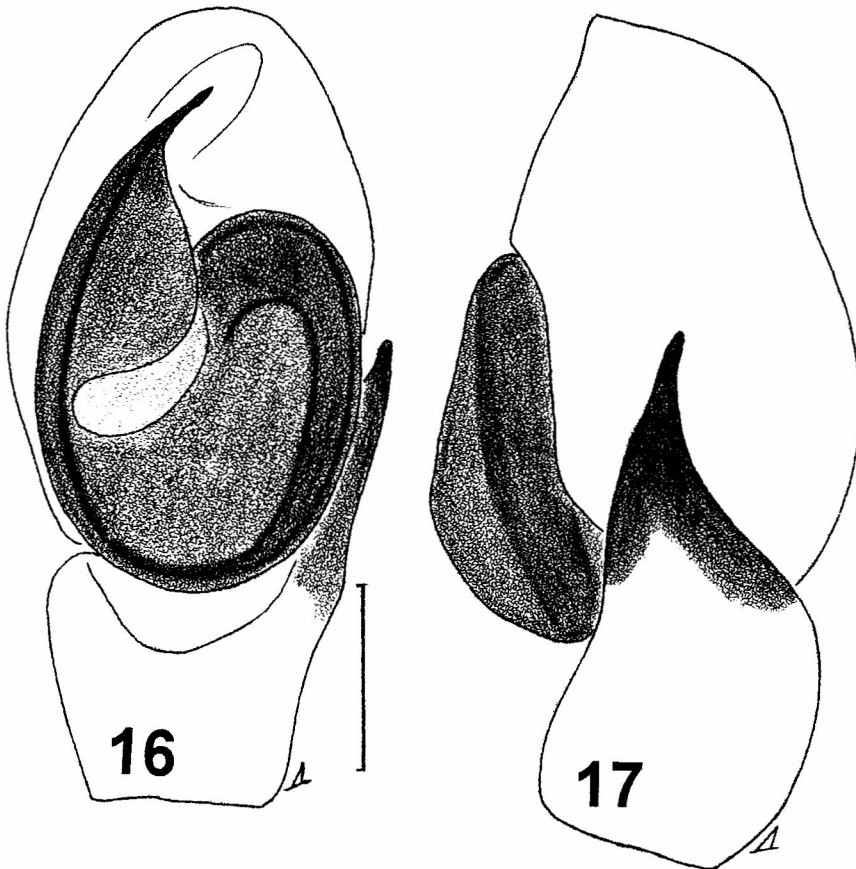
Mediterranean species recorded from France, Italy, Algeria (SIMON 1868; CANTARELLA 1982) and Marocco (SIMON 1871: as *N. albibarbis*).



14-15. *Neaetha membrosa* (holotype of *N. albibarbis*): male palp, ventral (14) and lateral (15) views; Scale 0.1 mm

DESCRIPTION

MALE. Measurements. Carapace 1.68-2.25 long, 1.35-1.80 wide, 0.83-1.18 high at PLE. Ocular area 0.98-1.20 long, 1.13-1.40 wide anteriorly and 1.28-1.60 wide posteriorly. Diameter of AME 0.35-0.50. Abdomen 1.63-2.00 long, 1.00-1.65 wide. Cheliceral length 0.50-0.88. Clypeal height 0.15-0.25. Length of leg segments: leg I- 1.10-1.78+0.68-1.05+0.83-1.50+0.53-1.00+0.40-0.60; leg II- 0.68-1.05+0.43-0.60+0.35-0.63+0.28-0.46+0.33-0.38; leg III- 1.33-1.85+0.65-0.93+0.60-1.00+0.55-0.70+0.40-0.55; leg IV- 0.80-1.13+0.40-0.54+0.40-0.63+0.40-0.63+0.38-0.48. Leg spination. Leg I: Fm. d. 1-1-3; Tb. v. 2-2-2ap.; Mt. v. 2-2ap. Leg II: Fm. d. 1-1-1 or 1-1-3; Pt. pr. 0-1-0; Tb. pr. 0-1, v. 1-1-2ap.; Mt. v. 2-2ap. Leg III: Fm. d. 0-0-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1, rt. 1-1 or 1-1-1, v. 2ap.; Mt. pr. and rt. 1-2ap., v. 2ap.



16-17. *Neaetha* sp.: male palp, ventral (16) and lateral (17) views; Scale 0.1 mm

Leg IV: Fm. without spines; Pt. rt. 0-1-0; Tb. pr. 1-1, v. 2ap.; Mt. pr., rt. and v. 2ap. Coloration. Carapace light brown, sparsely covered with white scales. Black around eyes. Clypeus yellow. Labium, maxillae and chelicerae brown, chelicerae anteriorly covered with white scales. Abdomen yellow, dorsum with a reticulate brownish colour marking. Book-lung and spinnerets yellow. Leg I brown with a ventral fringe of dark hairs. Remaining legs yellow with pale brownish rings. Palps: coxae, proximal parts of femora, tibiae, cymbium and bulbus brown; patellae and distal parts of femora yellow. Palpal structure as in Figs 7,8,14,15.

FEMALE. Measurements. Carapace 2.18 long, 1.75 wide, 1.05 high at PLE. Ocular area 1.13 long, 1.38 wide anteriorly and 1.68 wide posteriorly. Diameter of AME 0.45. Abdomen 2.50 long, 1.83 wide. Cheliceral length 0.38. Clypeal height 0.15. Length of leg segments: leg I- 1.13+0.75+0.73+0.55+0.45; leg II- 0.88+0.58+0.45+0.40+0.28; leg III- 1.55+0.85+0.88+0.65+0.45; leg IV- 1.03+0.45+0.58+0.58+0.35. Leg spination. Leg I: Fm. d. 0-0-2; Tb. v. 2-2-2ap.; Mt. 2-2ap. Leg II: Fm. d. d. 0-0-2; Pt. pr. 0-1-0; Tb. pr. 0-1, v. 1-1; Mt. v. 2-2ap. Leg III: Fm. d. 0-0-1-3; Pt. pr. and rt. 0-1-0; Tb. v. 1ap.; Mt. pr. 1-2ap., rt. 2-2ap., v. 2ap. Leg IV: Fm. without spines; Pt. rt. 0-1-0; Tb. rt. 0-1, v. 1 ap.; Mt. pr. and v. 2ap., rt. 1-2ap. Coloration as described for male, but a fringe on leg I absent. Epigyne and spermathecae as in Figs 9-13.

***Neaetha oculata* (O.P.-CAMBRIDGE, 1876)**

(Figs 18-23)

Attus oculatus O.P.-CAMBRIDGE, 1876: 616, t.20, fig 90.

Neaetha oculata: SIMON, 1890: 119, 123.

N. o.: PRÓSZYŃSKI, 1984: 92.

N. o.: PRÓSZYŃSKI, 1993: 39-43, figs 20-27.

N. o.: WESOŁOWSKA, 1994: 65.

MATERIAL

4 m#, 5 f\$, 3 juv. (MNHN, 18790), "Cb. Aden, Ch. o Mr."; 3 m#, 2 f\$, 1 juv. (MNHN, 12208), "Birkru (or Lirkru ?) huayer Hebili Fosser" -[label illegible, D.L.].

DIAGNOSIS AND NOTES

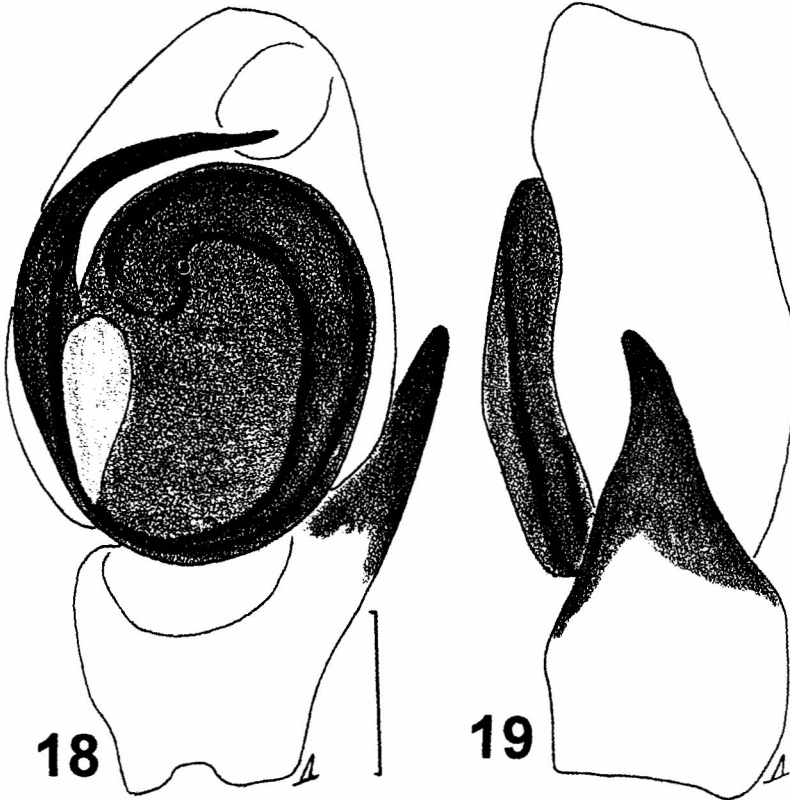
Beyond doubts, *N. oculata* is closely related to *N. cerussata*. However, based only on PRÓSZYŃSKI's figures (1984: 93) a type series of *N. cerussata* turns out to contain specimens of two species, female belonging to *Bianor*. Moreover, male of *N. oculata* (Figs 18,19) practically does not differ from that of *N. cerussata* (PRÓSZYŃSKI 1984: 93), the latter being a likely senior synonym of *N. oculata*. Unfortunately, it was not possible to check the proposal, since type specimens of *N. cerussata* have not been found in the collection of the MNHN (C. ROLLARD, personal comm.). So, the problem calls for a special attention in the future.

DISTRIBUTION

East Mediterranean species, occurring in Egypt, Saudi Arabia and Yemen (PRÓSZYŃSKI 1993; WESOŁOWSKA 1994).

DESCRIPTION

MALE. Measurements. Carapace 1.40-1.78 long, 1.23-1.43 wide, 0.80-0.90 high at PLE. Ocular area 0.90-0.98 long, 1.08-1.25 wide anteriorly and 1.20-1.45 wide posteriorly. Diameter of AME 0.35-0.38. Abdomen 1.18-1.40 long, 0.90-1.00 wide. Chelicer length 0.30-0.38. Clypeal height 0.15-0.25. Length of leg segments: leg I- 0.85-1.08+0.45-0.60+0.60-0.80+0.40-0.53+0.33-0.35; leg II- 0.58-0.70+0.30-0.39+0.31-0.38+0.23-0.30+0.25-0.30; leg III- 1.30-1.55+0.55-0.63+0.75-0.88+0.48-0.50+0.33-0.43; leg IV- 0.63-0.7+0.28-0.38+0.32-0.43+0.32-0.43+0.30-0.33. Leg spination. Leg I: Fm. d. 0-1-1-3; Tb. v. 2-2-2ap.; Mt. 2-2ap. Leg II: Fm. d. 0-0-1-4; Pt. 0-1-0; Tb. pr. 1-1, v. 1-2ap.; Mt. v. 2-2ap. Leg III: Fm. d. 0-0-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1-1, v. 2ap.; Mt. pr. 1-2ap., rt. 2-2ap., v. 2ap. Leg IV: Fm. without spines or d. 1 ap.; Pt. rt. 0-1-0; Tb. rt. 0-1, v. 2ap.; Mt. pr. and v. 2ap., rt.

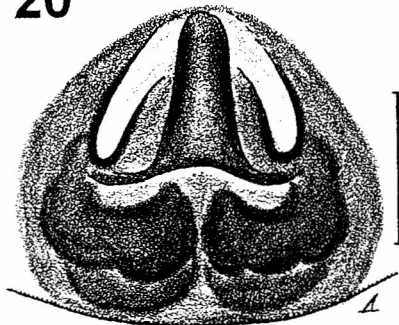


18-19. *Neaetha oculata*, 18- male palp, ventral view, 19- ditto, lateral view, Scale 0.1 mm

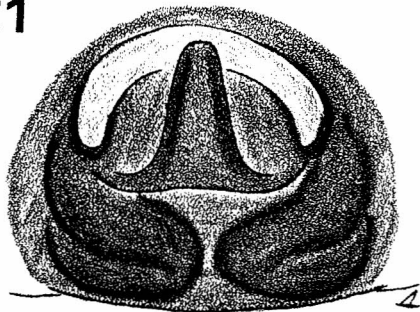
1-1-2ap. Coloration. Carapace yellowish-brownish, sparsely covered with white hairs and scales. Black around eyes. Clypeus and borders of carapace covered with white band of vertical scales. Sternum brown-yellowish. Maxillae, labium and chelicerae brownish, chelicerae anteriorly covered with white sparse scales. Abdomen yellow, tinged with grey. Dorsum with a reticulate grey colour marking. Book-lung covers and spinnerets grey-yellow. Leg I: tibia and proximal part of femur yellow, remaining segments brown with ventral and dorsal rows of brown fringe. Remaining legs yellow with pale brownish rings. Palp brownish-yellow, its structure as in Figs 18,19.

FEMALE. Measurements. Carapace 1.93 long, 1.60 wide, 0.93 high at PLE. Ocular area 1.10 long, 1.30 wide anteriorly and 1.60 wide posteriorly. Diameter of AME 0.40. Abdomen 2.13 long, 1.55 wide. Cheliceral length 0.40. Clypeal height 0.20. Length of leg segments: leg I- 0.98+0.58+0.63+0.48+0.33; leg II- 0.75+0.45+0.43+0.35+0.30; leg III- 1.73+0.73+0.95+0.63+0.48; leg IV- 0.88+0.40+0.50+0.50+0.36. Leg spination. Leg I: Fm. d. 0-0-3; Tb. v. 2-2-2ap.; Mt. v. 2-2ap. Leg II: Fm. d. 0-0-3; Pt. pr. 0-1-0; Tb. pr. 0-1, v. 1-0 or 1-1; Mt. v. 2-2ap. Leg III: Fm. d. 0-0-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1 or 1-1-1, v. 2ap.; Mt.

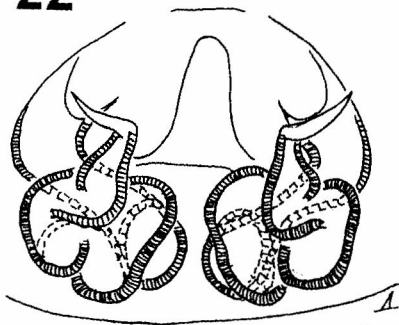
20



21



22



23



20-23. *Neaetha oculata*: 20,21- epigyne, 22- spermathecae, 23- diagrammatic course of seminal ducts; Scale 0.1 mm

pr. 1-2ap., rt. 2-2ap., v. 2ap. Leg IV: Fm. without spines; Pt. rt. 0-1-0 or without spines; Tb. rt. 0-1, v. 2ap.; Mt. pr. and v. 2ap., rt. 1-2ap. Coloration as described for male except as follows: clypeus lacks a band of white vertical scales and leg I yellow. Epigyne and spermathecae as in Figs 20-23.

Neaetha sp.

(Figs 16,17)

MATERIAL

Holotype: 1 m# (MNHN, 22508), "Nefrana (VIBERT)".

DIAGNOSIS AND NOTES

This species is closely related to *N. membrosa* but differs in a wider base of the embolus and the sharpened tibial apophysis (cf. Figs 16, 17 and 7, 8). It is very likely that *Neaetha* sp. represents a new species. However, since there are a number of poorly known *Neaetha* species described based on single males from E- or W-Africa (e.g. *N. alborufula* CAPORIAMCO, 1949, *N. catula* SIMON, 1885 or *N. catulina* BERLAND & MILLOT, 1941), types of which either were not found (e.g. *N. catula*, C. ROLLARD, personal comm.) or were inaccessible to me, I postpone a description of a new species until mentioned species are revised. Below, a description and illustrations (Figs 16, 17) of *Neaetha* sp. are given for comparative purposes.

DESCRIPTION

MALE. Measurements. Carapace 1.50 long, 1.23 wide, 0.78 high at PLE. Ocular area 0.83 long, 1.00 wide anteriorly and 1.13 wide posteriorly. Diameter of AME 0.35. Abdomen 1.38 long, 1.05 wide. Cheliceral length 0.40. Clypeal height 0.15. Length of leg segments: leg I- 0.90+0.53+0.63+0.45+0.35; leg II- 0.60+0.40+0.35+0.28+0.25; leg III- 1.23+0.55+0.55+0.48+0.35; leg IV- 0.70+0.30+0.38+0.43+0.33. Leg spination. Leg I: Fm. d. 0-1-1-2; Tb. v. 2-2-2ap.; Mt. v. 2-2ap. Leg II: Fm. d. 0 1-1-3; Pt. pr. 0-1-0; Tb. pr. 0-1, v. 1-1 or 1-0; Mt. pr. 1ap., 2-2ap. Leg III: Fm. d. 0-0-1-2; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1, v. 2ap.; Mt. pr. 1-2ap., rt. 2-2ap., v. 2ap. Leg IV: Fm. without spines; Tib. pr. 0-1; Mt. pr. and v. 2ap.; rt. 1-2ap. Coloration. Carapace brown-yellow, sparsely covered with white scales. Black around eyes. Clypeus densely covered with white scales and hairs. Sternum yellow, tinged with brownish. Labium brown. Maxillae and chelicerae yellow, chelicerae anteriorly covered with white scales. Abdomen yellow with brownish reticulate colour marking. Book-lung covers and spinnerets yellow. Leg I brown-yellow with dorsal and ventral fringes of white hairs on segments. Remaining segments yellow with pale rings. Palp yellow with brown bulbus. Palpal structure as in Figs 16,17.

FEMALE unknown.

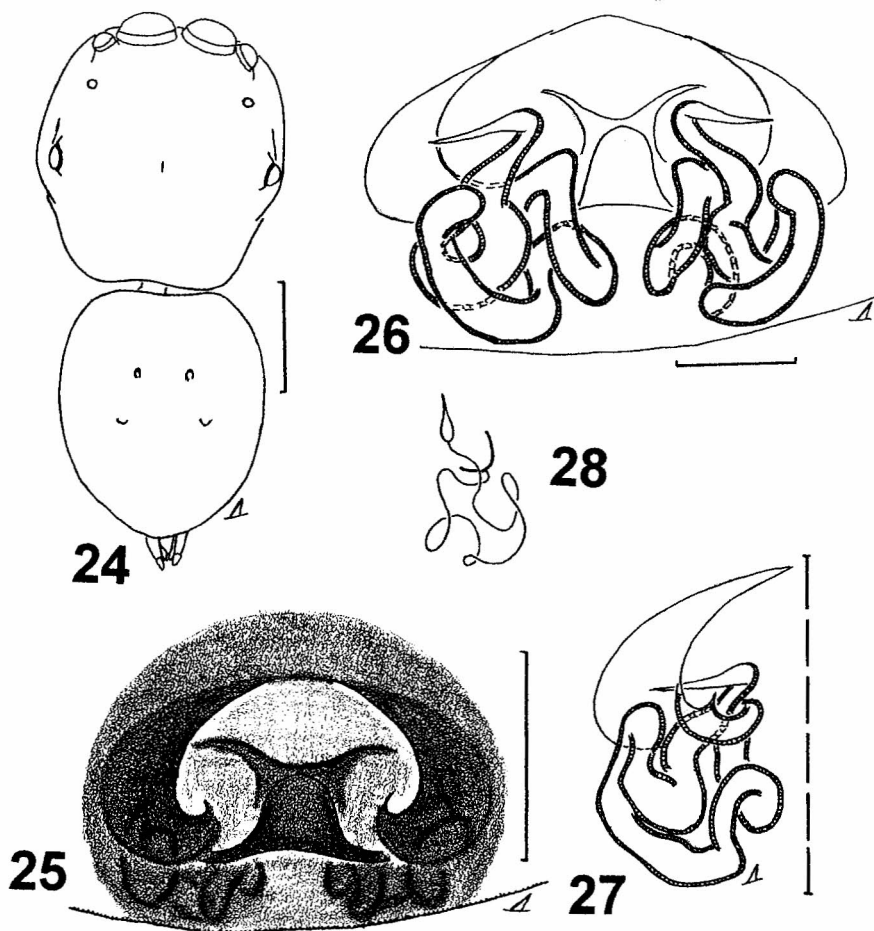
***Bianor quadrimaculatus* (LAWRENCE, 1928) comb.n.**

(Figs 24-27)

Neaetha quadrimaculata LAWRENCE, 1928: 61 T. 2 F. 48.

MATERIAL

1 ♂ (holotype)(SAM, No.B6150), South West Africa, Kunene R., Erikson's Drift c 1714 BC (now in Angola), March 1923 (R.F. LAWRENCE).



24-27. *Bianor quadrimaculatus*; 24- general appearance of female, 25- epigyne, 26,27- spermathecae, dorsal and ventral views, 28- diagrammatic course of seminal ducts; Scales 24- 1 mm, 25- 0.25 mm, 26,27- 0.1 mm

DIAGNOSIS

B. quadrimaculatus is related to *B. albobimaculatus* (LUCAS, 1846) from the Near East and Central Asia and to *B. rusticulus* PECKHAM & PECKHAM, 1903 from S Africa, but differs in shape of the first loop of the spermathecae and the narrower receptacle. It should be noted that in the genus *Bianor* both diagnosis and description based only on females are not always adequate because of a strong variability of the female genitalia. So, only males make it possible to identify *B. quadrimaculatus* unequivocally.

DISTRIBUTION

Type locality only.

DESCRIPTION

FEMALE. Measurements. Carapace 2.55 long, 2.30 wide, 1.30 high at PLE. Ocular area 1.50 long, 1.53 wide anteriorly and 2.20 wide posteriorly. Diameter of AME 0.53. Abdomen 2.50 long, 1.88 wide. Cheliceral length 1.00. Clypeal height 0.20. Length of leg segments: leg I- 1.60+1.10+1.10+0.85+0.50; leg II- 1.08+0.65+0.68+0.65+0.45; leg III- 1.60+0.83+0.78+0.90+0.50; leg IV- 1.68+0.83+1.05+1.05+0.55. Leg spination (incomplete pattern because the specimen is in poor condition). Leg I: Fm. d. 0-1-1; Tb. v. 2-2-2ap.; Mt. v. 2-2ap. Leg II: Fm. d. 0-1-2; Tb. pr. 0-1, v. 2-2ap. Leg III: Fm. d. 2 ap.; Tb. pr. and rt. 0-1, v. 0-1ap., Mt. pr. and rt. 1 ap., v. 1-0-2ap. Leg IV: Mt. pr. and rt. 1ap. Coloration. Carapace red-brown, sparsely covered with white hairs. Clypeus brown, densely white haired. Sternum yellowish tinged with grey. Maxillae and labium brownish. Chelicerae dark brown. Abdomen grey on dorsum and sides, and yellowish on venter. Colour marking indistinguishable, since the abdomen strongly wrinkled (poor condition). Book-lung and spinnerets yellowish. Leg I: femur dark brown; patella+metatarsus yellow; patella+tibia yellowish-brown. Remaining legs: femora brown, other segments yellow. Epigyne and spermathecae as in Figs 25-27.

Cembalea WESOŁOWSKA

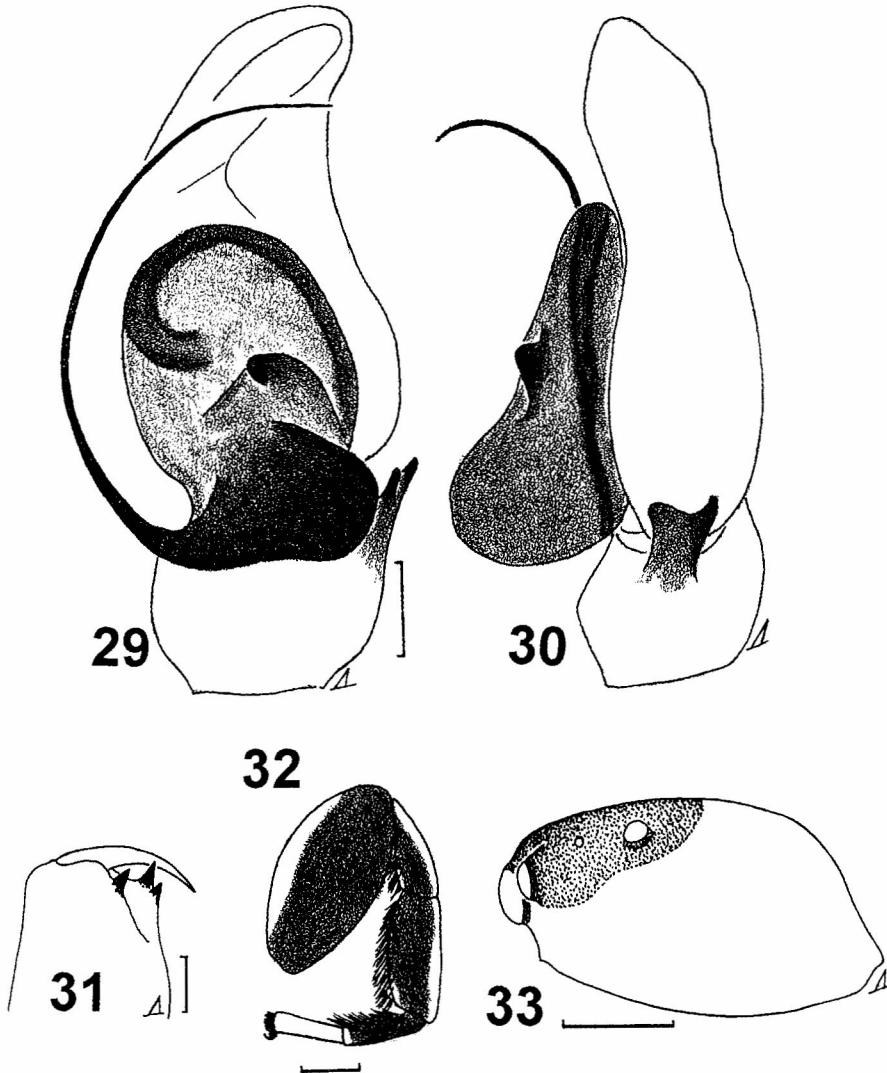
Cembalea WESOŁOWSKA, 1993: 37. Type species *Tularosa plumosa* LESSERT, 1925: 519-523, Figs 105-108. WESOŁOWSKA, 1993: 37-40, Figs 11-20.

DIAGNOSIS AND AFFINITIES

A monotypic genus *Cembalea* was recently erected for "*Tularosa*" *plumosa* by WESOŁOWSKA (1993). The discovery of a second species, *C. heteropogon*, allows me to consider the relationships of *Cembalea* and to precise its diagnosis.

On the basis of genital characters [e.g the presence of the long thread-like embolus, a pronounced tegular apophysis (seen in *C. heteropogon*), cymbium usually curved apically, sperm duct simple; structure of the spermathecae having long ducts and large swollen receptacles, etc.] it can be suggested that *Cembalea* may belong in

the *Mogrus-Pseudicius* complex proposed by LOGUNOV (1995), who pooled together the following genera: *Mogrus*, *Plexippoides*, *Epeus*, *Afraflacilla* and *Pseudicius*. From the other congeners of the group *Cembalea* can be readily separated by the ventral fringe of dark hairs on the first leg (Fig 32; WESOŁOWSKA, 1993: Fig 13); moderately high carapace (Figs 33,39); position of PME which lie on halfway between ALE and PLE or closer to PLE; the paired epigynal pocket (Fig 35); and a remarkable structure of the seminal ducts (Fig 35) forming a pair of fused loops directed towards each other.



29-33. *Cembalea heteropogon* (male); 29- palp, ventral view, 30- ditto, lateral view, 31- chelicera, rear view, 32- Leg I, 33- carapace; Scales 29,31- 0.1mm, 32- 0.25 mm, 33- 0.5 mm

***Cembalea heteropogon* (SIMON, 1910) comb.n.**

(Figs 29-33)

Neaetha heteropogon SIMON, 1910: 217 (m# only);*Naetha* (?) *h.* (lapsus !): PRÓCHNIEWICZ 1989: 217-218, figs 28-31 (m# only);

MATERIAL

1 m# (lectotype, present designation)(ZMB, Nr. 18904), "Südafrika, sine patrier (?), leg SOHNEBE, det. SIMON, 1910".

DIAGNOSIS

This species differs from *C. plumosa* (cf. WESOŁOWSKA, 1993) by the bifurcated apex of the tibial apophysis (Fig 30), coloration of the first leg (Fig 32) and body coloration (s. PRÓCHNIEWICZ, 1989: Fig 28).

NOTES

The type series of *C. heteropogon* turned out to be heterogeneous, female doubtless belonging to *C. plumosa* (its redescription is given below) (cf. WESOŁOWSKA 1993). See also comments of PRÓCHNIEWICZ (1989: 217-218).

DESCRIPTION

MALE. Measurements. Carapace 1.80 long, 1.35 wide, 0.93 high at PLE. Ocular area 0.90 long, 1.21 wide anteriorly and 1.29 wide posteriorly. Diameter of AME 0.31. Abdomen 1.58 long, 1.18 wide. Cheliceral length 0.55. Clypeal height 0.13. Length of leg segments: leg I- 0.93+0.50+0.58+0.45+0.33; leg II- 0.90+0.53+0.50+0.43+0.31; leg III- 1.60+0.78+0.80+0.50+0.45; leg IV- 0.95+0.43+0.56+0.58+0.43. Leg spination. Leg I: Fm. d. 1-1-3; Pt. pr. 0-1-0; Tb. pr. 1-1, v. 2-1-2ap.; Mt. v. 2-2ap. Leg II: Fm. d. 1-1-3; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1-1, rt. 1-0 or 1-1, v. 2-1ap.; Mt. pr. 1-1ap., v. 2-2ap. Leg III: Fm. d. 1-0-3-2, pr. 0-1-1; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1-1, v. 2ap.; Mt. d. 1-0, pr. and rt. 1-2ap., v. 2-2ap. Leg IV: Fm. d. 1-1-2; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1-1, v. 1-2ap.; Mt. pr. and rt. 1-2ap., v. 2-2ap. Coloration. Carapace yellowish-brown. Black around eyes. Clypeus narrow, densely covered with white hairs. Sternum yellow tinged with brown and edged by a black line. Maxillae, labium and chelicerae yellow. Abdomen yellow, dorsum with a wide longitudinal brown band (cf. PRÓCHNIEWICZ 1989: Fig 28). Book-lung covers and spinnerets yellow. Legs I and II: coxae and tarsi yellow, remaining segments yellow with dark brown sides. Patellae, tibia and metatarsi of leg I bear a ventral fringe of light bristles (Fig 32). Legs III and IV yellow with brownish rings. Palp yellow, its patella and tibia densely white haired. Palpal structure as in Figs 29,30.

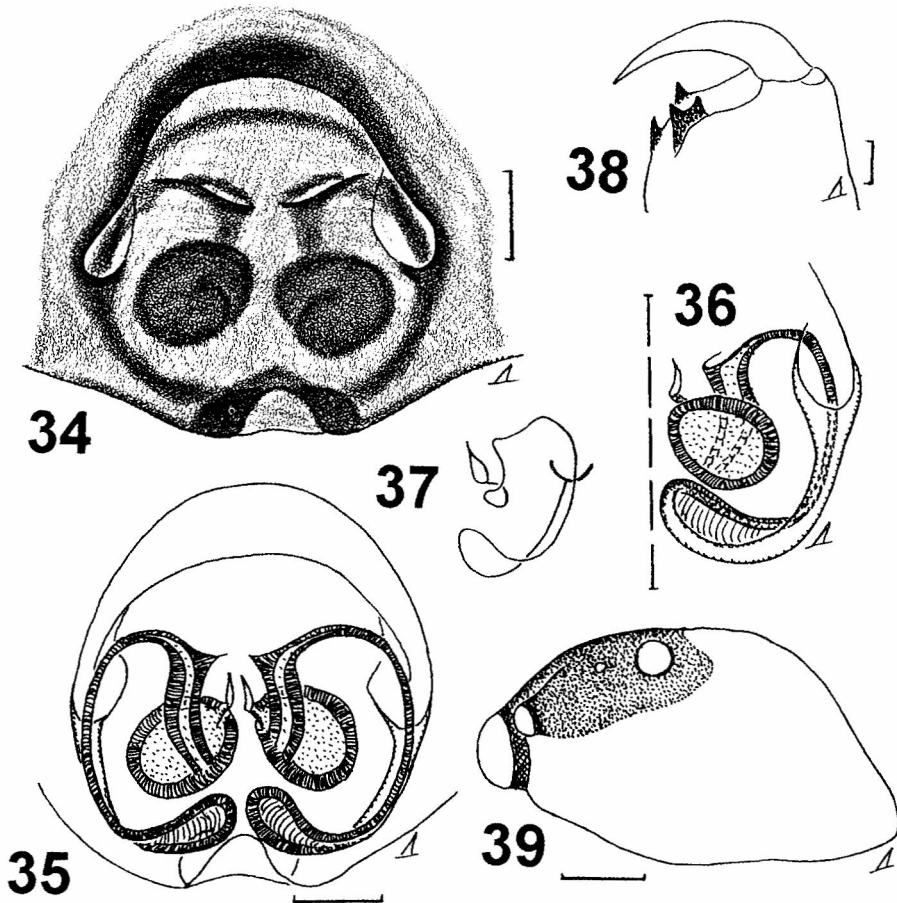
Cembalea plumosa (LESSERT, 1925)

(Figs 34-39)

Tularosa ? *plumosa* LESSERT, 1925: 519-523, figs 105-108.*Tularosa* p.: PRÓSZYŃSKI 1984: 141.*Neaetha heteropogon* SIMON, 1910: 217(f♂ only).*Cembalea pulmosa* (lapsus !); WESOŁOWSKA 1993: 37-40, figs 11-20.

MATERIAL

1 f♂ (together with the lectotype of *C. heteropogon*) (ZMB, Nr. 18904), "Südafrika, sine patrie (?), leg SOHNEBE, det. SIMON, 1910".



34-39. *Cembalea plumosa* (female); 34- epigyne, 35,36- spermathecae, dorsal and ventral views, 37- diagrammatic course of seminal ducts, 38- chelicera, rear view, 39- carapace; Scales 34-38- 0.1 mm, 39- 0.5 mm

DIAGNOSIS

See comments under "Diagnosis" for *C. heteropogon*.

DESCRIPTION

FEMALE. Measurements. Carapace 2.33 long, 1.70 wide, 1.25 high at PLE. Ocular area 1.23 long, 1.60 wide anteriorly and 1.56 wide posteriorly. Diameter of AME 0.50. Abdomen 2.25 long, 1.58 wide. Cheliceral length 0.75. Clypeal height 0.10. Length of leg segments: leg I- 1.36+0.78+0.95+0.73+0.43; leg II- 1.09+0.65+0.66+0.65+0.38; leg III-1.65+0.78+0.95+1.08+0.43; leg IV- 1.48+0.56+0.88+1.18+0.50. Leg spination. Leg I: Fm. d. 1-1-3; Tb. v. 2-2-2-2ap.; Mt. v. 2-2ap. Leg II: Fm. d. 1-1-4; Pt. pr. and rt. 0-1-0; Tb. pr. 1-1, rt. 1-1 or 0, v. 2-2-2-2ap.; Mt. v. 2-2ap. Leg III: Fm. d. 1-1-4; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1, v. 1-2ap.; Mt. d. 1-0, pr. and rt. 1-2ap., v. 2-2ap. Leg IV: Fm. d. 1-1-2; Pt. pr. and rt. 0-1-0; Tb. pr. and rt. 1-1, v. 1-1ap.; Mt. pr. and rt. 1-1-2ap., v. 2-2ap. Coloration. Carapace yellowish-brownish, with a rounded yellow spot in the center. Black around eyes. Sternum yellow. Maxillae, labium and chelicerae yellowish-brownish. Abdomen yellow with dorsum as described by WESOŁOWSKA (1993: fig 11). Book-lung covers and spinnerets yellow. Legs yellow, but tibiae and metatarsi I, II brownish and legs III, IV with pale brownish rings. Palps yellow, but ventro-lateral sides of all segments except for tarsi dark brown, almost black. Epigyne and spermathecae as in Figs 34-37.

ACKNOWLEDGEMENTS

I wish to express my warmest thanks to the following curators: Drs. C. ROLLARD, of the MNHN, M. MORITZ, of the ZMB, and V.B. WHITEHEAD, of the SAM, for the opportunity to study some materials from their museums. The work has been partially supported by the grant RA6000 from the Soros' International Science Foundation.

REFERENCES

- CAMBRIDGE, O. P., 1876. Catalogue of a collection of spiders made in Egypt with descriptions of new species and characters of a new genus. Proc. zool. Soc., London, 1876: 541-630.
- CANTARELLA, T., 1982. *Salticidae (Araneae)* delle isole Maltesi. *Animalia*, 9(1/3): 239-252.
- DENIS, J., 1947. Results of the Armstrong College expedition to Siwa oasis (Libian Desert), 1935. *Bull. Soc. Fouad I d'Entom., le Caire*, 31: 17-104.
- GRISWOLD, C.E., 1987. A revision of the jumping spider genus *Habronattus* F.O.P.-Cambridge (*Araneae: Salticidae*), with phenetic and cladistic analyses. University of California Press, Berkeley, Los Angeles, London, 344 pp.
- LAWRENCE, R.F., 1928. Contributions to a knowledge of the fauna of South-West Africa. V. *Arachnida*. *Ann. S. Afr. Mus.*, 25(1): 1-75.
- LESSERT, R., de, 1925. Araign(es du Kilimandjaro et du M(rou. *Rev. Suisse Zool.*, 31(13): 429-528.
- LOGUNOV, D.V., 1995. *Salticidae* of Middle Asia. 2. The genus *Mogrus* SIMON, 1882 (*Araneae, Salticidae*). *European Journal of Entomology*, in press.
- ONO, H., 1988. A revisional study of the spider family *Thomisidae (Arachnida, Araneae)* of Japan. *National Science Museum, Tokyo*, 252 pp.

- PROCHNIEWICZ, M., 1989. (ber die Typen von Arten der *Salticidae* (*Araneae*) aus der Äethiopischen Region im Zoologischen Museum Berlin. Mitt. Zool. Mus. Berl., **65**(2): 207-228.
- PRÓSZYŃSKI, J., 1976. Studium systematyczno-zoogeograficzne nad rodziną *Salticidae* (*Aranei*) Regionów Palearktycznego i Nearktycznego. Rozprawa Naukowa, WSRP, Siedlce, 260 pp.
- PRÓSZYŃSKI, J., 1984. Atlas rysunków diagnostycznych mniej znanych *Salticidae*. Zeszyty Naukowe WSRP, Siedlce, 177 pp.
- PRÓSZYŃSKI, J., 1993. *Salticidae* (*Araneae*) of Saudi Arabia II. Fauna of Saudi Arabia, **13**: 27-54.
- SIMON, E., 1868. Monographie des especes europeennes de la famille des Attides (*Attidae* SUNDEWALL-*Saltigradae* LATREILLE). Ann. Soc. ent. Fr., (4) **8**: 11-72, 529-726.
- SIMON, E., 1871. Revision des *Attidae* europeens. Supplement a la monographie des Attides (*Attidae* SUND.). Ann. Soc. ent. Fr., (5) **1**: 125-230, 329-360.
- SIMON, E., 1884. Les Arachnides de France, V (2 et 3), 1884: 180-808.
- SIMON, E., 1890. Étude sur les Arachnides de l'Yemen. Ann. Soc. ent. Fr. (6) **10**: 77-124.
- SIMON, E., 1910. (in L. SCHULTZE), Zoologische und anthropologische Ergebnisse einer Forschungsreise im westlichen und zentralen Südafrika ausgef(hrt in den Jahren 1903 bis 1905. Denkschr. med.-naturw. Ges. Jena, **16**: 175-218.
- WESOŁOWSKA, W., 1993. On the genus *Tularosa* PECKHAM et PECKHAM, 1903 (*Araneae*, *Salticidae*). Genus, **4**(1): 33-40.
- WESOŁOWSKA, W., 1994. The jumping spiders of Yemen. Yemeni-German Plant Protection Project, Horizons Printing and Publishing, 86 pp.
- ŻABKA, M., 1991. Studium taksonomiczno-zoogeograficzne nad *Salticidae* (*Arachnoda*: *Araneae*) Australii. WSRP, Siedlce, 110 pp.