

The coloured photos

The photos are arranged as follows:

(A) In a general part which includes healing events in extant spiders (the first 8 photos, see the paper no. 11); amputations, healing events and regenerations of legs in fossil spiders, fakes and imitations of fossil amber spiders; decomposition, preservation, an egg sac, parasitism (see also photo 359, 366), cannibalism, phoresy, prey, threads of capture webs (part.), and draglines (all in fossil spiders): photos 9-46; see also nos. 52-60.

See few further photos on these matters below, e. g. the hiding/moultling building of an extant member of the family Zodariidae (photo no. 356), the white emulsion on fossil theridiid spiders (e. g. nos. 291 and 293), injuries of the body (no. 339), preservation of fossil spiders (nos. 263, 282-283, 299, 326-327), the result of the use of clarite and of heating the amber to the preservation of spider inclusions (e. g. nos. 376, 287; see also the Cretaceous spiders), leg autotomy (e.g. no. 278), leg regeneration (nos. 330-331), and the preservation of remains of blood (nos. 278 and 300).

(B) In a special part:

(1) Cretaceous spiders of various families: photos nos. 47-127;

Most of the remaining photos show fossil spiders in Baltic amber, only very few show extant spiders:

(2) fossils of the superfamily Dysderoidea (nos. 128-138), and Spatiatoriidae (no. 139) in Baltic amber;

(3) spiders of the superfamily Araneoidea excl. Theridiidae: nos. 140-160;

(4) spiders of the family Theridiidae: nos. 161-351;

(5) spiders of the branch “RTA-clade”: nos. 352-383;

(6) extant European members of the family Salticidae (Jumping Spiders nos. 384-390).



1

1-7: "Healing events" of injured extant spiders of four families from China. The photos were taken by ZHEN GUO (spiders below alcohol), and thanks the help of LI SHUQIANG in Beijing, Zool. Inst., where the material is kept (coll. GUO):



2

1-2: „Healed“ leg of a juvenile member of the family Sparassidae indet. The prosomal length of the spider is 4.2 mm. The left metatarsus II is "cut through" (cross), the wound has been closed probably by - darkened - blood.



3

3) Two injuries of a juvenile member of the Linyphiidae: Erigoninae indet., body length 1.4 mm: (a) an autotomy between a patella and a tibia, and (b) a cut through the left femur III with darkened parts inside, and empty. The spider apparently survived these injuries.

4) A ♀ of the family Clubionidae, body length 1 cm shows an oblique fissure on the left coxa II which is dark brown, and apparently is closed/healed.



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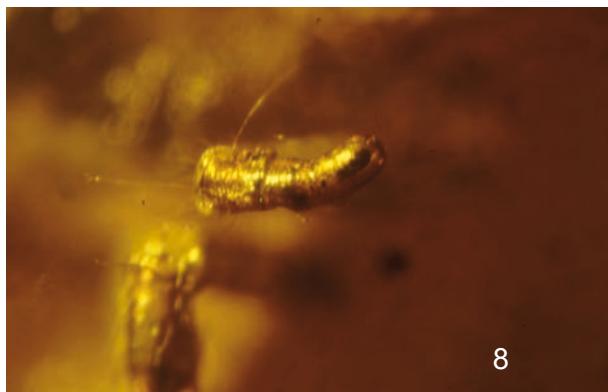
5-7: An indet. ♀ of the family Zodariidae, body length about 6mm, ventral aspect. Three injuries/cuts of the legs are apparently healed (the spider was captured alive!): (a) through the right metatarsus I (photo 5), (b) through the left patella I near the end (photo 6), and (c) through the left metatarsus III (darkened) (photo 7).



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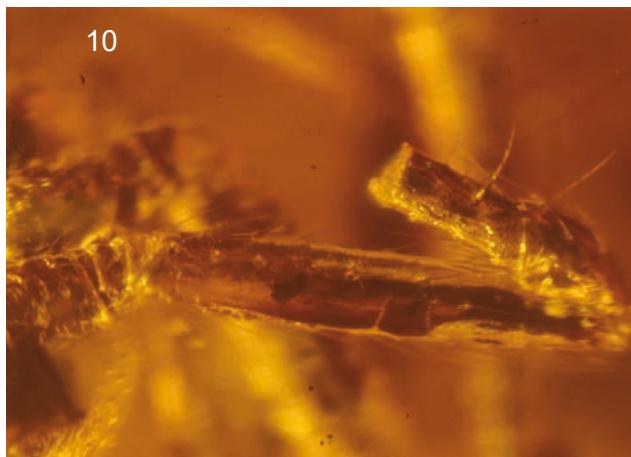
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8) Dorsal aspect of the regenerated left patella and tibia IV (in the centre of the photo), 0.27 mm long, of a ♂ of *Clya ?tricurvata* n. sp. (Theridiidae in Baltic amber, Mus. of Nat. Hist. Stuttgart, prov. no. Do-886-K). Note the blunt stump and the part of a dragline left of the patella.

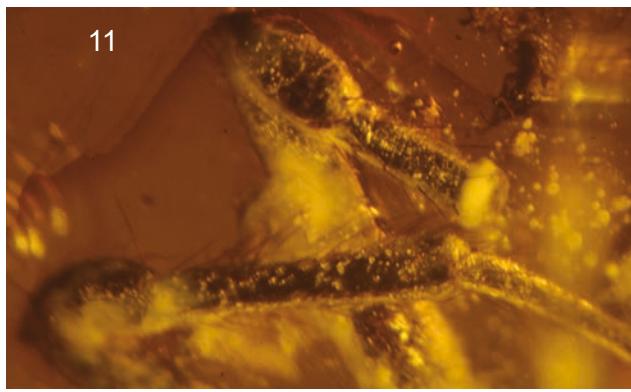
9) Left leg I of a ♂ of *Lasaeola dunbari* (PETRUNKEVITCH 1942) (Theridiidae in Baltic amber, F1515/CJW), which has been amputated beyond the metatarsus, and apparently has been healed. Apical diameter of the leg article 0.09 mm. See WUNDERLICH (2004: Photo 351). The spiders shown at the photos 9-11 were ant eaters, and



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11

their amputations were most probably caused by ants.

10) Left leg III of a ♂ of *Clya lugubris* KOCH & BERENDT 1854 (Theridiidae in Baltic amber, F1709/CJW), amputation through the left tibia III (0.28 mm long) which apparently has been healed. See also the photos 223 and 348).

11) Amputation through the left tibia I (0.5 mm long) of a ♂ of *Eomysmena* sp. indet. (Theridiidae in Baltic amber, F1707/CJW). The stump is partly covered with a white emulsion and may be healed.

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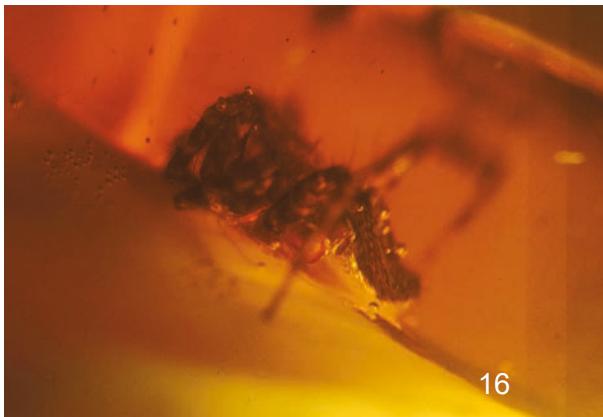
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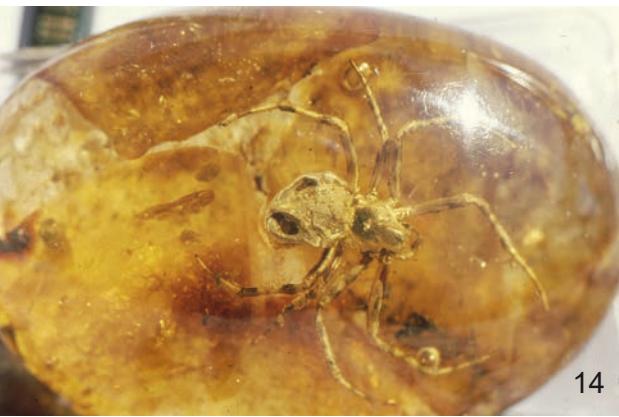


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12-13: *Argyrodes* sp. indet., (Theridiidae: Argyrodinae, Zool. Mus. Kopenhagen, coll. MORTENSEN I-II (1964)), ♀, dorsal aspect (the anterior parts are cut off), length of the opisthosoma 2 mm, deposited under Baltic amber but most probably a fake, and really heated copal from Madagascar. Members of the subfamily Argyrodinae have never been reported from Eocene European ambers.

Lithunia; bought by the present author on Mallorca in 2006. Note the deformed opisthosoma, and several pieces of Baltic amber within the artificial resin which give the piece a fairly yellow colour similar to amber.



14

14) *Araneus ?diadematus* CLERCK 1757 (Araneidae, FF1840/CJW), ?ad. ♀, dorsal aspect of the body which is 10.5 mm long. Fake, enclosed in artificial resin, probably produced in Poland or

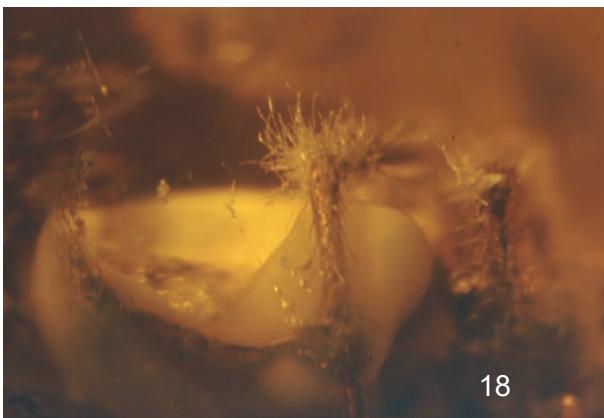
15-16: Dorsal and lateral aspect of a juvenile female Wolf Spider (Lycosidae, *Alopecosa* sp. indet., coll. ERNST in Skagen, Denmark), body length 6 mm, an imitation. This piece is a chimera: Beyond a part of artificial resin – which encloses the spider and small bubbles – a part of Baltic amber is attached which gives the piece a yellow colour like amber. Wolf Spiders have never been reported from Eocene ambers. Stellate hairs exist within the amber but not in the artificial resin.

17) Questionable remains of muscles (recognizable as dark stripes) within the leg articles of a male fossil Combfooted Spider (Theridiidae) in Baltic amber, F1676/ CJW, dorsal aspect.

18) Decomposition by a fungus of a ♂ of *Eomysmena* sp. indet. (Theridiidae) in Baltic amber, F1710/CJW. Note the deformed opisthosoma which is covered with a white emulsion, and the hyphae growing on the right tibia and metatarsus IV (the latter is 1.35 mm long) as well as some spider's threads left of the metatarsus.

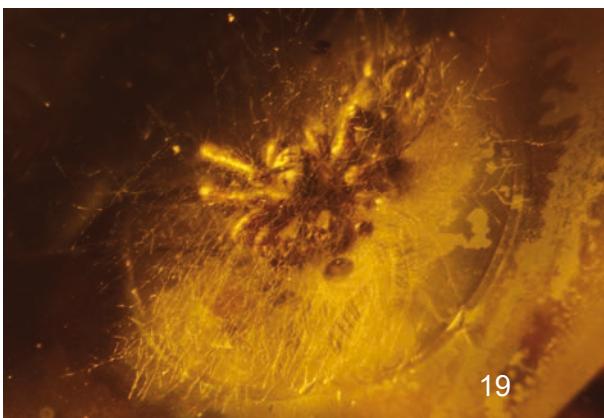


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19) Decomposition of a juvenile spider indet. of the superfamily Araneoidea (Baltic amber from the Bitterfeld deposit), F1690/CJW, by a fungus. Body length of the spider: 0.8 mm. Note the numerous hyphae on the spider's body, which are growing in different directions probably still within the sticky resin.

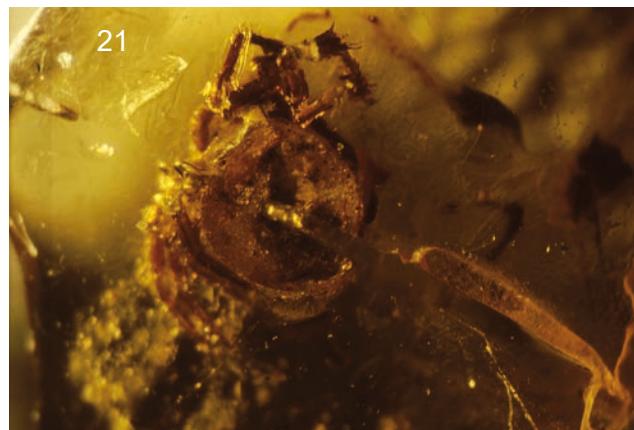


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20) Decomposition: dorsal aspect of a juvenile spider of the genus Segestria (Segestriidae) in Baltic amber from the Bittefeld deposit, F1689/CJW, body length ca. 5 mm. The spider is covered with hyphae and bacteria.



21) Juvenile male of the family Theridiidae in Baltic amber, F1683/CJW, dorsal aspect, body length ca. 2.4 mm. The "open" opisthosoma in the photo's center is filled with fossil resin and products of decomposition. A fissure which is filled with the fossil resin runs from the left above to the right below through the piece of amber.



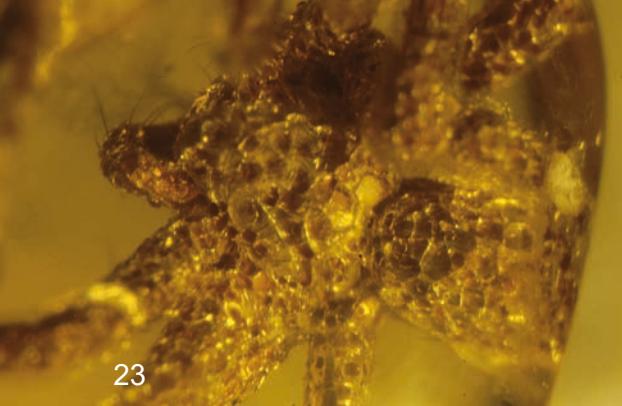
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22-23: The result of oxidation of an Araneae indet. in Baltic amber, juv. ♀, F1602/CJW, body length 2.7 mm, dorsal aspect. Most parts of the body and the legs are destroyed forever, only the outline of body and legs and some leg bristles

23



are preserved. Such inclusions are occasionally found. Certain parts of the body and/or the legs were in contact with the surface of the piece of amber for millions of years in the earth. – Unfortunately numerous pieces of type material are more or less destroyed by incompetent preservation because polished material can be destroyed in few decades! Embedding in artificial resin may be the best method of a preservation, and the curators of numerous institutions are responsible for the material.

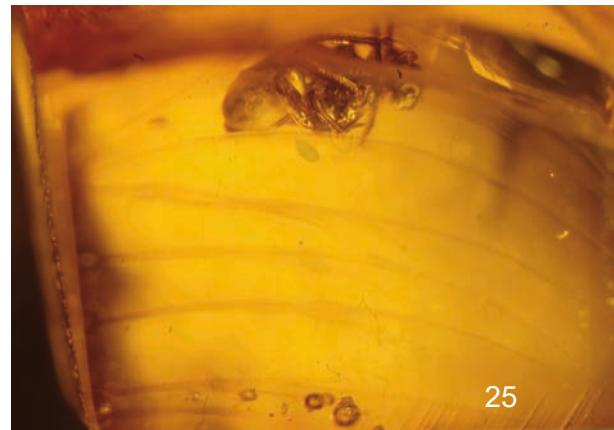
24) *Spinitharus* sp. indet. c) (Theridiidae) in Baltic amber, ♂, F1424/CJW, body length 2.2 mm, dorsal aspect. The spider was originally thickly covered with a white emulsion and was cleared chemically – in a complicated procedure – by Dr. STENZEL in the Palaeont. Inst. of the Humboldt University in Berlin.

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25) *Clya granulata* KOCH & BERENDT 1854 (Theridiidae) in Baltic amber, ♂, F1632/ CJW, body length 2.1 mm, lateral aspect. The spider is embeded within two layers out of ca. 15 layers. Its ventral side is directed to an older flood of the resin (and most probably to the bark of the resin-producing needle tree) on which it has been captured like on a fly catcher. The younger floods are situated above the spiders body (the margin of the piece of the amber is recognizable

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at the right corner above). Most spiders arrived the sticky resin in this position, moving to or on the resin, and touching it with their tarsi. Therefore usually the dorsal side of fossil spiders in Baltic amber is cleared by the sun in contrast to the remaining white emulsion of the ventral side – see e. g. the photo 37 – which was lying in the shadow of the spider's body.

26



26) A parasitizing mite sucking on the prosoma of a Combfooted spider (below the centre), a subadult ♂ of *Spinitharinus* sp. indet. (Theridiidae) in Baltic amber, F1659/ CJW. The body length of the spider is 1.8 mm, the mite is not well preserved and covered with a white emulsion. Note the large bubble-shaped apical article of the pedipalpus below the left anterior leg. – See also the parasite with a male of *Lasaeola bitterfeldensis*, paper no. 3, and the photo 359.

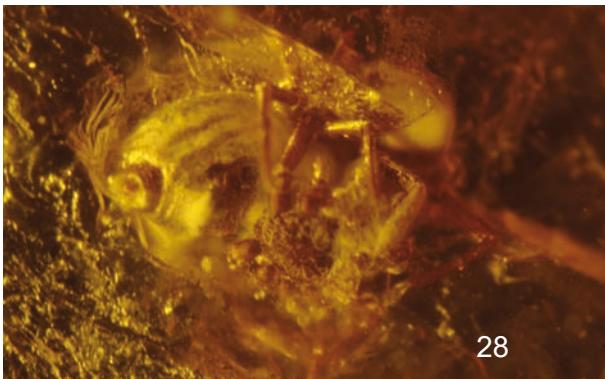
27-28: A mite probably of the family Labidognathidae (position right below in fig. 27) attacking an armoured Combfooted spider (Theridiidae), ?*Rugapholcomma* sp. indet., ♀, body length 1.3 mm in Baltic amber, F16/CJW. The dorsal scutum of the spider is observable in fig. 27) above, the ventral side of the spider is shown in fig. 28).



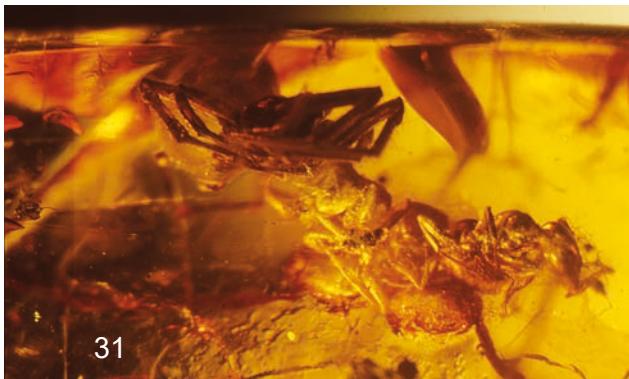
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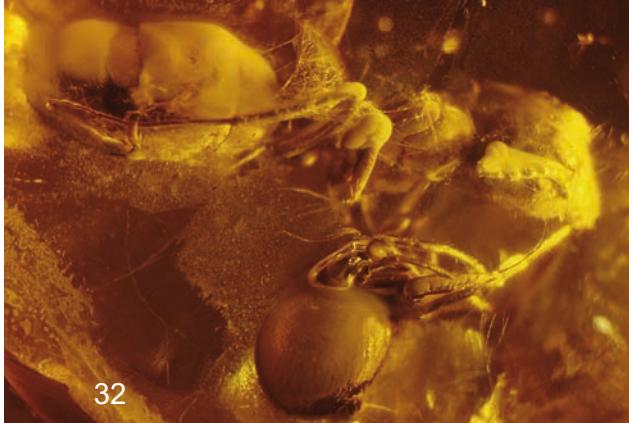


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29-30 A case of questionable cannibalism (enlarged in photo 30): A ♂ of the Combfooted spider *Clya obscura* KOCH & BERENDT 1854 (Theridiidae) in Baltic amber, F1600/CJW, body length ca. 2 mm, spun in in spider's threads which are indistinctly recognizable. The spider is apparently sucked out according to the crumpled opisthosoma (on the left) which is covered with a white emulsion. Probably another than a conspecific spider was peying on this specimen. See also photo 36).



32

31) Three ants (below) – loosely spun in in spider's threads – were apparently the prey of a female Combfooted Spider (Theridiidae), *Lasaeola* sp. indet. (above), body length ca. 2.3 mm, F1677/CJW. Extant spiders of this genus feed on ants.

32) A large ant as the possible prey of a spider, body length 1 cm (the largest known ant as a prey of a fossil spider), strongly spun in in spider's threads probably by the spider below, a subadult male Combfooted spider (Theridiidae indet.), body length 3.3 mm. Coll. ALEX BEIGEL no. BB 49.

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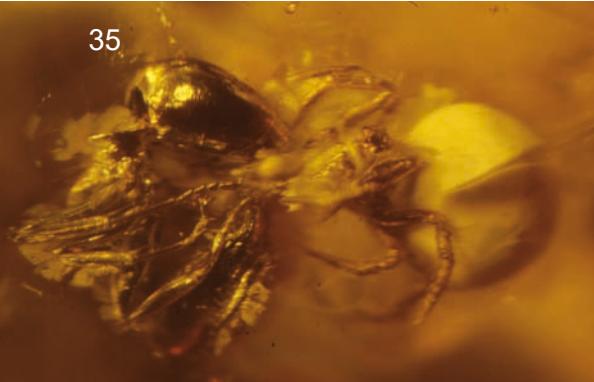


33) Crumpled remains of a small Diptera (at the right side below) as a prey of a subadult male spider, (Linyphiidae indet.) in Baltic amber, body length 1.8 mm, F1699/CJW, ventral aspect. The prey has drifted away from the spider to the right side within the amber.

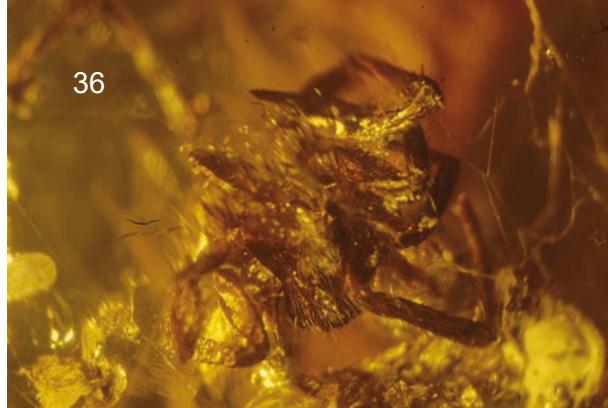


34) A fly as a prey in front of a female spider of the genus *Episinus* (Theridiidae) in Baltic amber, body length 3 mm, left aspect. The large and strongly deformed left eye of the fly is situated below the connection of the Combfooted spider's left tibia and metatarsus.

35) Lateral aspect of an ant as the prey of a female fossil Combfooted spider (Theridiidae indet.) (on the right), body length 1 mm) in Baltic amber, F657/CJW. Note the large head of the ant.



36



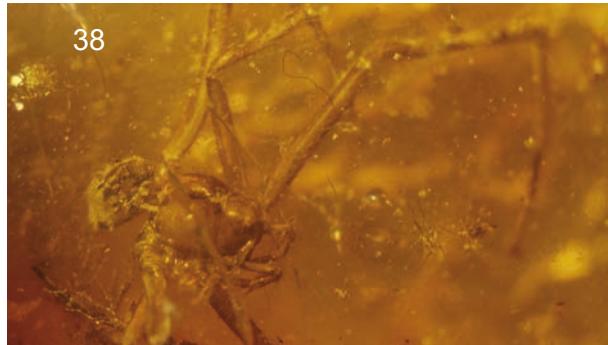
36) Remains of the prosoma and some legs of a spider, *Eomatachia* sp. indet. (Zoropsidae), body length 2 mm, F2009/CJW, hanging – loosely spun in – as a prey in a part of a three-dimensional web of a – conspecific? – spider in Baltic amber.

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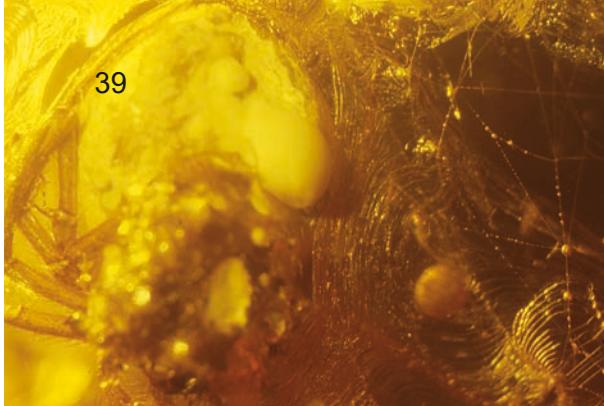
37) Ventral aspect of the male Combfooted Spider *Eomysmena* sp. indet., (Theridiidae) in Baltic amber, F1715/CJW, body length 3.4 mm; its sternum is covered with a white emulsion. The ant on the left has probably been a prey of the spider; both animals are in contact.

38

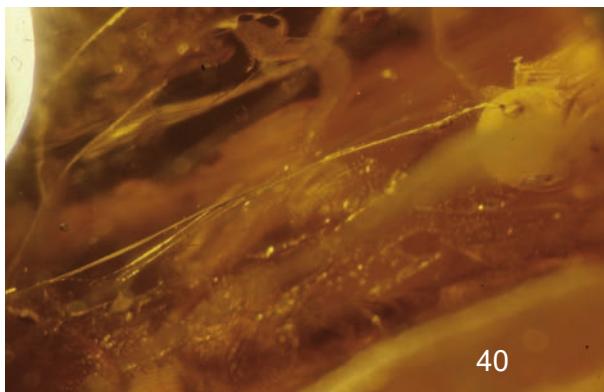


38) Dorsal aspect of the female of a Combfooted spider (Theridiidae), *Episinus* sp. indet. in Baltic amber, F1527/CJW, prosomal length 1.4 mm. According to the distinctly deformed opisthosoma (on the left) the spider has been the prey of an animal; the kind of the predator is unknown.

39



39) Male of a Combfooted spider (Theridiidae) of *Eomysmena* indet. in Baltic amber, F1698/CJW, body length 3.5 mm, ventral aspect (its opisthosoma is covered with bubbles and a white emulsion), with a part of its capture web. Note the gumfooted lines which bear sticky droplets.



40



41

40-41: Female of a Combfooted spider (Theridiidae indet.), in Baltic amber, F1819/ CJW, body length 2.4 mm, ventral-posterior aspect. Capture threads – 1.1 mm are preserved – are originating on the POSTERIOR spinnerets (enlarged in photo 42).

42



42) A probably phoretic Nematoda: Rhabditida in Baltic amber, body length ca. 1 mm, CJW. The Nematoda is preserved just below the left tibia I of a Combfooted spider (Theridiidae), the male holotype of *Caudasinus regeneratus* n. sp.

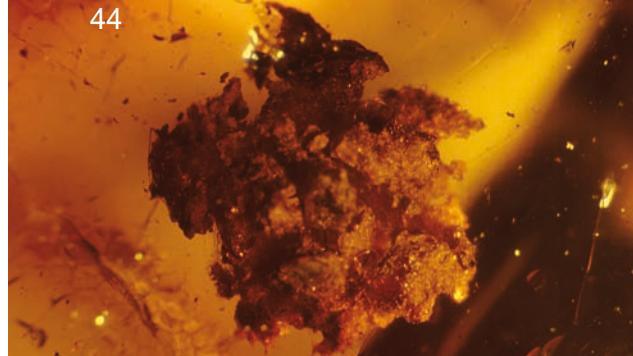


43

43) Several Nematoda: Rhabditida near the male Combfooted spider (Theridiidae) *Lasaeola ?latisulci* n. sp. in Baltic amber, F169/CJW, lateral aspect (the opisthosoma is covered with a white emulsion), body length 2.2 mm.

44) The egg sac of an unknown spider in Baltic amber from the Bitterfeld deposit, F1687/CJW. The egg sac is empty, up to 3 mm in diameter, hold by several threads (well observable on the left), and camouflaged mainly by tiny splinters of amber (!).

44





45

45) Posterior aspect of a male Comfooted spider (Theridiidae) *Clya lugubris* KOCH & BERENDT 1854 in Baltic amber, F1575/CJW, body length ca. 1.8 mm, with a long and partly double dragline.

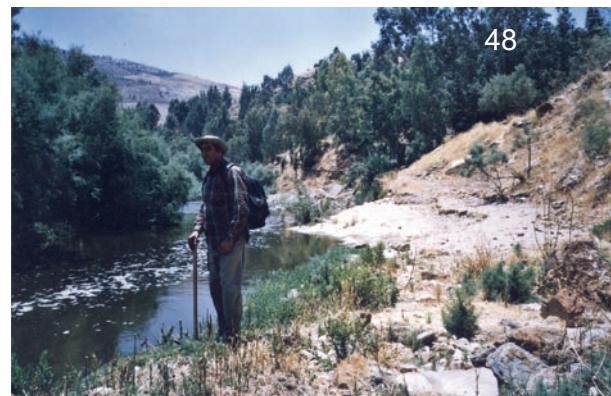


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46) Female *Hyptiotes* sp. indet. (Uloboridae) in Baltic amber, coll. F. EICHMANN, ventral aspect. Note the wide cribellum on the left (ca. 0.5 mm wide), and the long converging anterior spinnerets on which a long dragline originates which is a screw-shaped at its beginning (arrows).

47-51: A deposit of Cretaceous amber in Jordan near Amman at the Zarqa river (photos taken in the summer of 2007), age ca. 135 million years. 47) view from the road to the river's valley above the amber deposit, with the present author on the right; 48) the amber collector and author of a book on Cretaceous Jordanian amber, HANI KADDUMI, placed on the Jurassic bank of the Zarqa river. On the right – outside the photo – exist the Cretaceous amber deposits, see the next photos; 49) HANI KADDUMI staying on a small trail at the exposure, trying to get out pieces of amber from the hard deposit at the wall on the right, see the next photo; 50) deposit of the Lowest Cretaceous at the wall, including at

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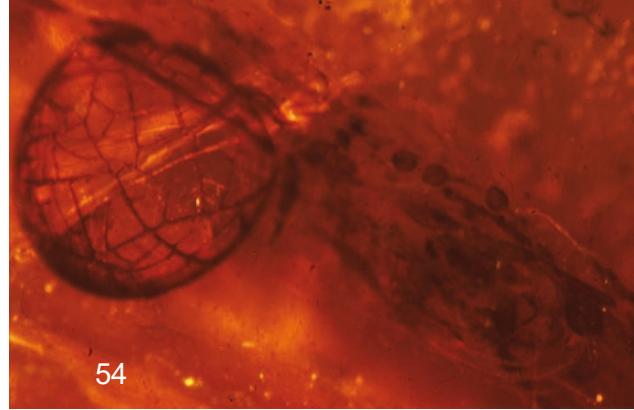




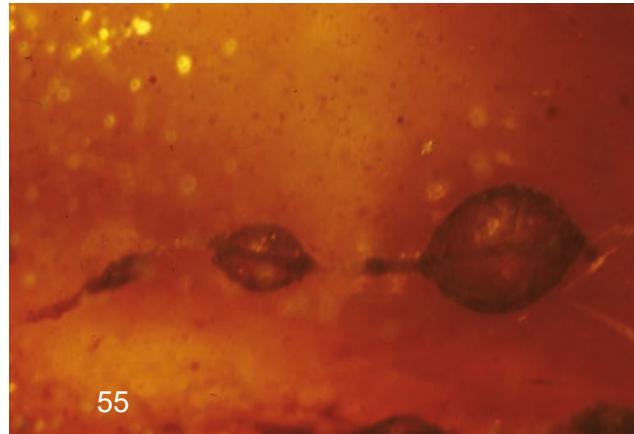
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least three bands of amber bearing material. The bands may be few million different in their age. Several – larger and smaller – peaces of amber are recognizable; 51) two pieces of Jordanian amber, diameter few centimeters; the left one shows the original crust which is oxidated, the right one has been partly cut off and shows the cracks inside which are frequent in this kind of amber.

52-55: Spider's threads from a capture web in Burmese amber, ca. 100 million years old, together with juv. Araneae indet., F1921/CJW. Note the sticky droplets which partly apparently

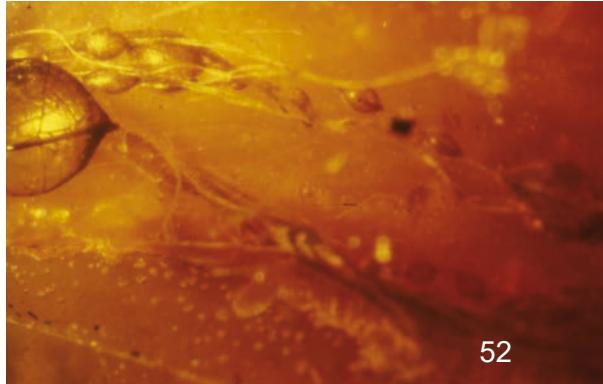


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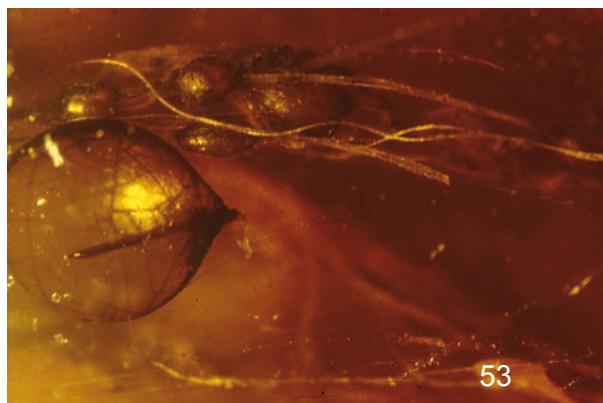
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are enlarged/swollen within the fossil resin. The diameter of the largest drop in photo 52) is 0.9 mm.

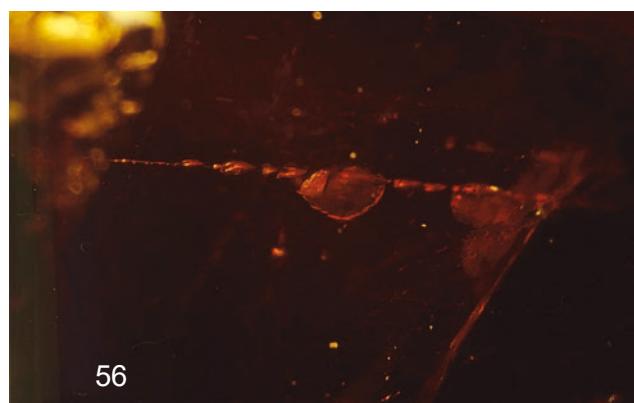


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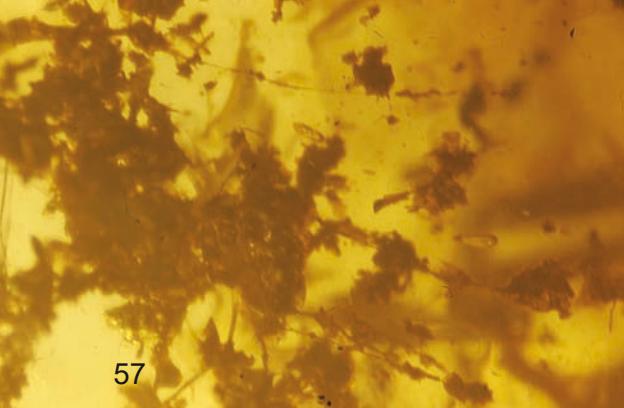
56) Spider's threads with disc-shaped remains of questionable sticky droplets (which probably were dried out) in Cretaceous Jordanian amber, ca. 135 million years old, F2004/CJW. The transverse diameter of the photo is 3.5 mm.



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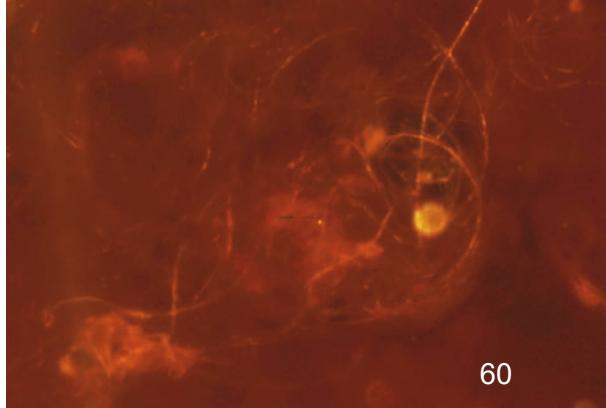


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57

57) Particles of detritus on the threads of a capture web with the male holotype of *Salticoididus kaddumiiorum* n. sp. (Salticoididae) in Cretaceous Jordanian amber. Transverse width of the photo ca. 3 mm.



60

60) Threads of a questionable cover of an egg sac near spiderlings of an unsure spider family (Araneidae? Dictynidae?) near the holotype of *Pholcyrocer guttulaeque* n. gen. n. sp. (Praeterleptonetidae) in Burmese amber.



58

58) A midge (it is darkened by natural heating and pressure) as the prey in a spider's capture web in Cretaceous Burmese amber. The midge, probably a member of the family Psychodidae, is 0.8 mm long. Remains of a sticky droplet are preserved just in front of the midge. Coll. S. ANDERSON in the USA.

59) Dorsal aspect of a midge (body length 1.3 mm), prey in a spider's web, sucked out, partly cut off, with white hyphae at its margin, Burmese amber. F2012/CJW.



61

61) Remains of a mygalomorph spider in Cretaceous Burmese amber (Mygalomorpha indet.), legs, chelicerae and a pedipalpus (femur 2 mm long) of an exuvia, OSU, coll. G. POINAR jr. B-A-1-6.

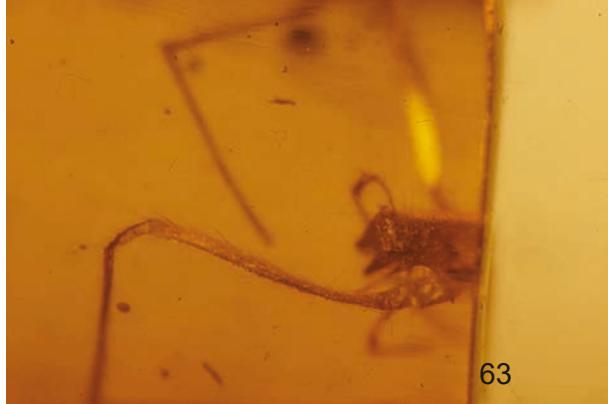
62) Dorsal-lateral aspect of the male holotype of *Lebansegestria azari* n. gen. n. sp. (Segestriidae), in Cretaceous Lebanese amber, body length 1.7 mm.



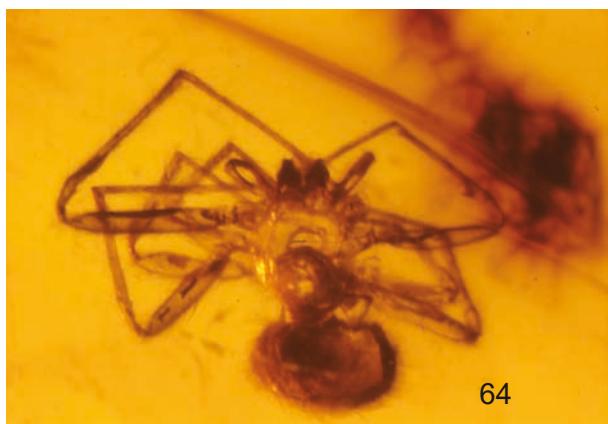
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62



63) Dorsal-lateral aspect of a probably adult female of the superfamily Dysderoidea s.l., fam. indet. 1, prosomal length ca. 0.5 mm, in Burmese amber, OSU, coll. G. POINAR jr. B-A-1-14.

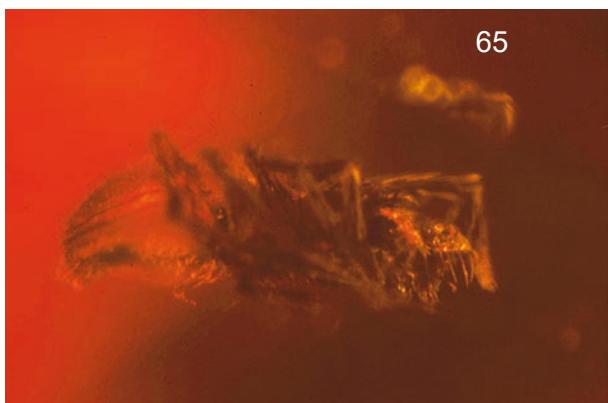
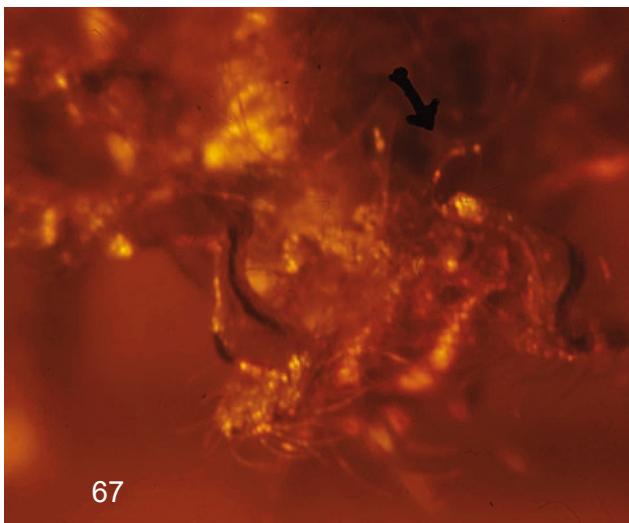


64) Dorsal and slightly anterior aspect of a probably juvenile female of the superfamily (?) Dysderoidea (indet. 2) in Burmese amber, body length 2 mm. Note the strongly depressed opisthosoma; the prosoma is dorsally partly cut off. OSU, coll. G. POINAR jr. B-A-1-9.

65) Lateral aspect of the male holotype of *Eogamasomorpha nubilus* n. gen. n. sp. (Oonopidae) in Burmese amber, body length 0.9 mm.



66-69: *Burmorchestina pulcher* n. gen. n. sp. (Oonopidae: Orchestininae), ♂ in Burmese amber; 66) dorsal aspect of the holotype, body length 0.95 mm, with a small Diptera as a questionable prey nearby; 67) ventral aspect of the holotype; the arrow points to the embolus of the right pedipalpus; 68) ventral aspect of the paratype BMNH no. 20210, body length 1 mm;

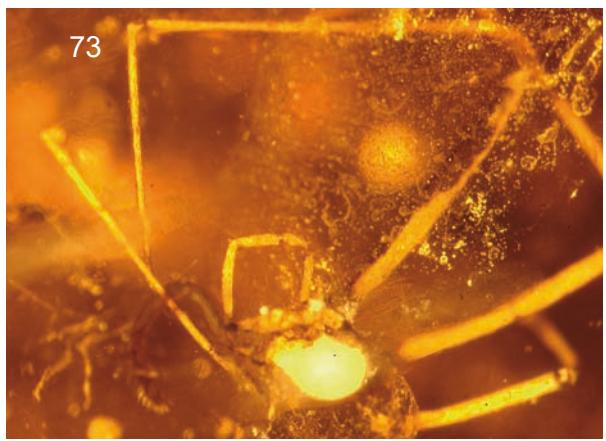




69) dorsal aspect of the paratype F1880/CJW, body length 1 mm. Note the two bubbles in the translucent opisthosoma.

70) Dorsal aspect of a male of *Burmorchestina ?pulcher* n. gen. n. sp. (Oonopidae: Orchestininae) in Burmese amber, body length 1 mm, F1909/CJW.

71) Lateral aspect of the male holotype of *Eopsiloderces loxosceloides* n. gen. n. sp. (Eopsiloderidae n. fam.) in Burmese amber, body length 1.8 mm. Note the two large fissures within the amber.

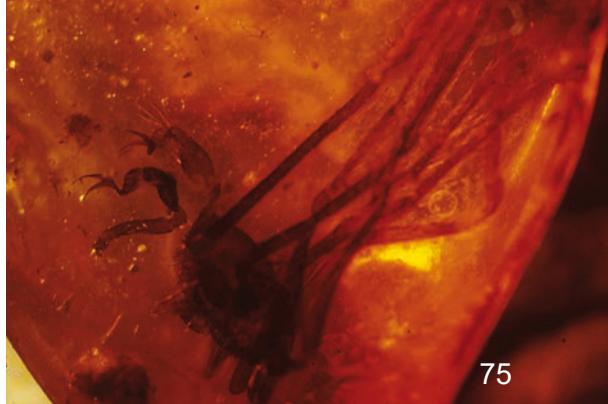


72) ?Eopsiloderidae indet., sp. 2, juv. ♀ in Burmese amber, body length 1.05 mm, dorsal-lateral aspect, F1915/CJW.

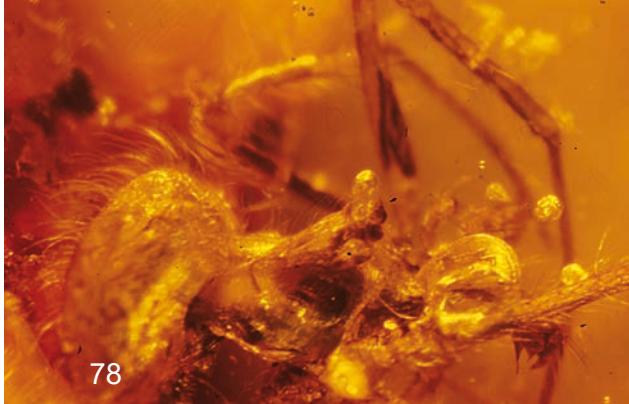
73) ?Eopsiloderidae indet. sp. 3, 1/2 ?ad. ♀ in Burmese amber, left aspect; the prosoma (white) is partly cut off. Note the long legs; femur I is 1.4 mm long. The long right pedipalpus is situated below the centre. NHML 20152.

74) ?Eopsiloderidae indet., sp. 1, dorsal aspect of an incomplete, probably adult female in Burmese amber, body length ca. 2 mm, OSU, coll. G. POINAR jr., B-A-1-12.

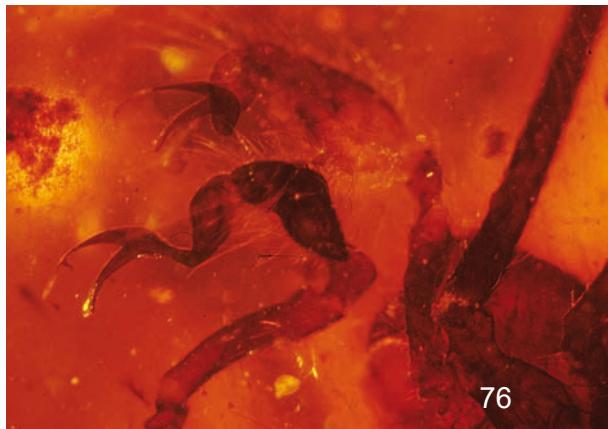




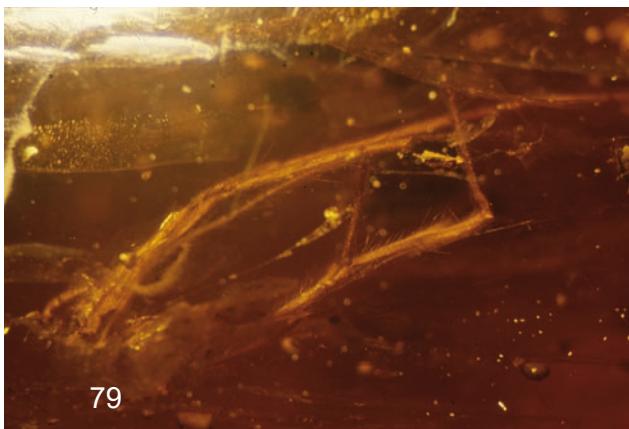
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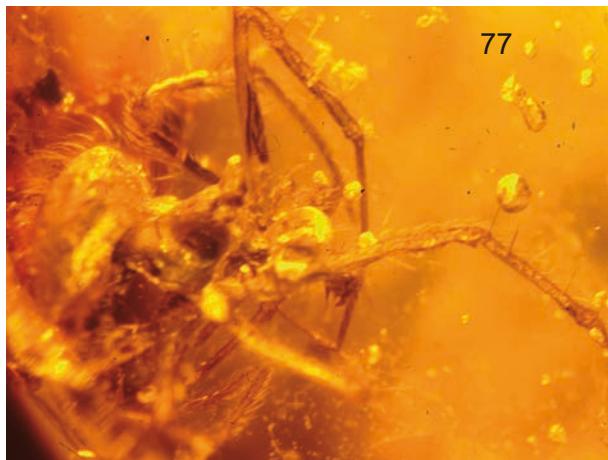
79

75-76 (enlarged): Male holotype of *Furcembolus andersoni* n. gen. n. sp. (Eopsilodercidae n. fam.) in Burmese amber, darkened by natural heating and pressure; 75) left aspect of the prosoma which is 1.5 mm long (the opisthosoma is lacking); 76) loose pedipalpi in front of the prosoma, its femur is 0.7 mm long.

77-78: *Praeterleptoneta spinipes* n. gen. n. sp. (Praeterleptonetidae n. fam.), male holotype in Burmese amber, body length 1 mm, lateral aspect, enlarged in photo 78). Note the gas bubbles on the eye lenses and a large bubble above the right anterior femur.

79) Female exuvia of a questionable member of the family Praeterleptonetidae n. fam. in Burmese amber, NHMLP no. 20152. A pedipalpus and the peltidium are situated below near the left corner, a spider's thread in the centre.

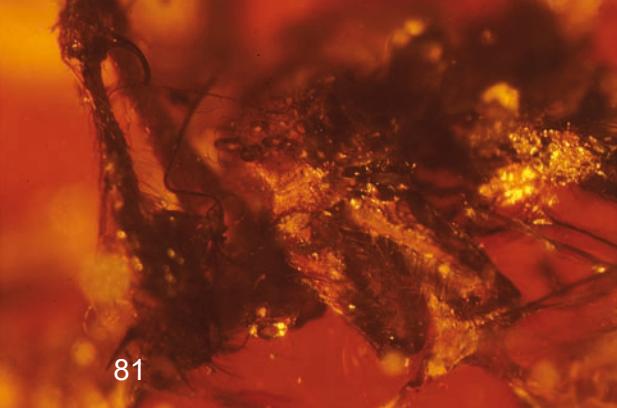
80-83: *Palaeohydropoda myanmarensis* PENNEY 2004 (Dysderoidea s.l.: Praeterleptonetidae n. fam.) (published as Pisauridae!), male holotype which is deformed and darkened by natural heating and pressing, in Burmese amber, body length ca. 4 mm; 80) anterior aspect of the spider with the right pedipalpus and "caput" with the chelicerae in the centre, see the next photo;



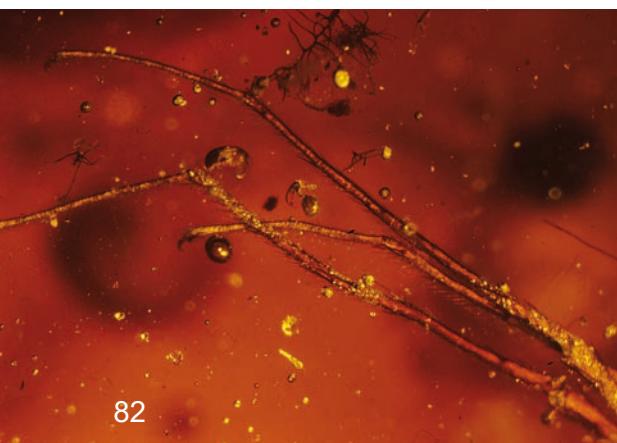
77



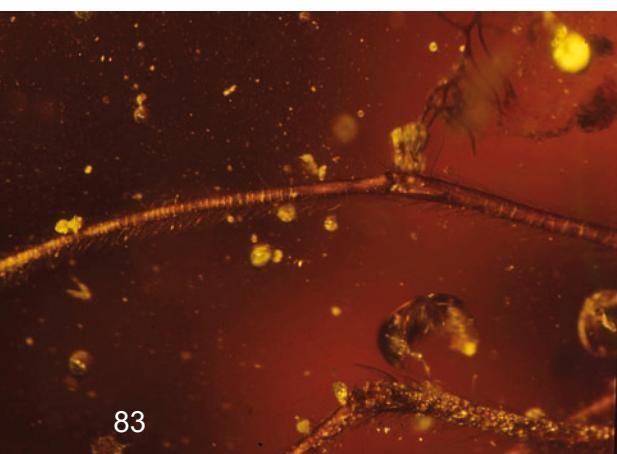
80



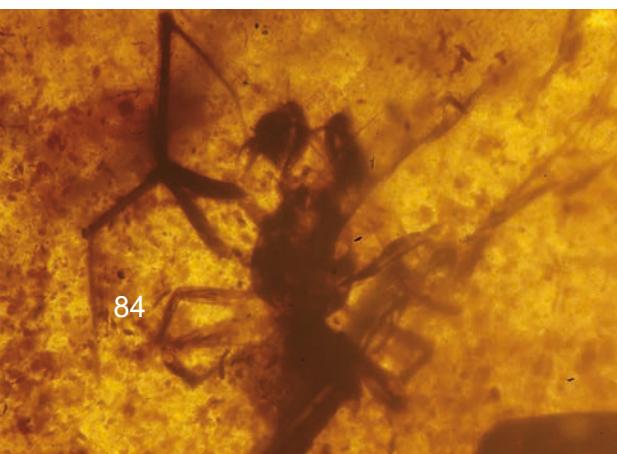
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84



85

81) anterior aspect of the right pedipalpus and the prosoma; note the deformed eye lenses; 82) prolateral aspect of the right legs I-III (the longest tarsus is 2 mm long), 83) enlarged aspect of the tarsus and the distal part of metatarsus I.

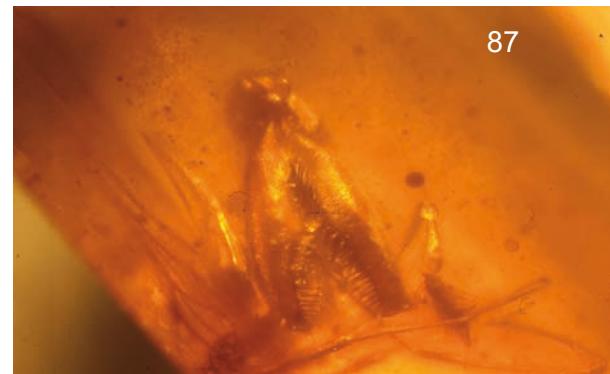
84) Dorsal aspect of the male holotype of *Pholcyrocer guttulaeque* n. gen. n. sp. (Palaeoleptonetidae n. fam.), darkened, body length ca. 3.3 mm. The muddy structures are the result of natural heating and pressing of the fossil resin.

85) Lateral aspect of the holotype of *Plumorsolus gondwanensis* n. gen. n. sp. (Plumorsolidae n. fam.), female (probably juvenile), body length 1.9 mm, in Cretaceous Lebanese amber. Note the fissure in the amber crossover.

86-87: Male holotype of *Lacunauchenius speciosus* n. gen. n. sp. (Archaeidae: Lacunauchenii-



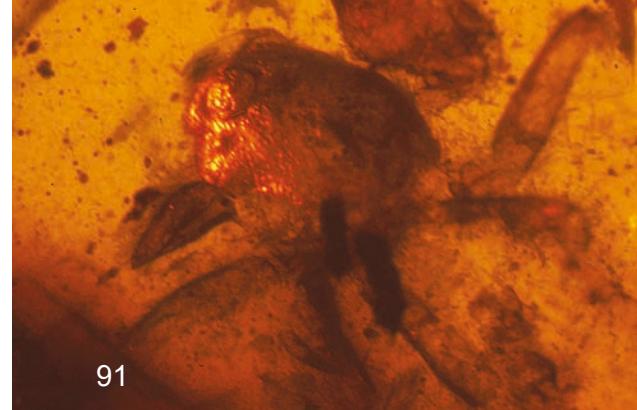
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87



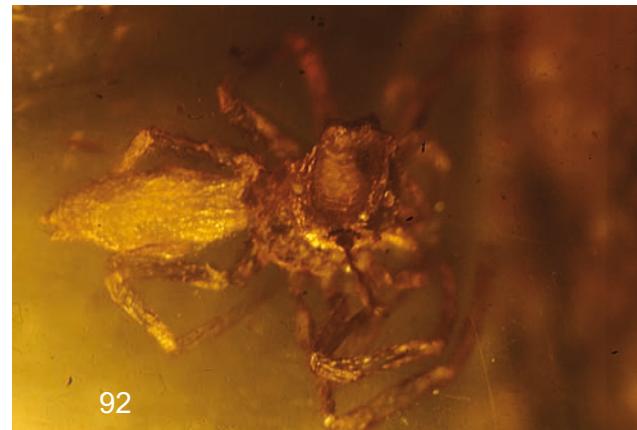
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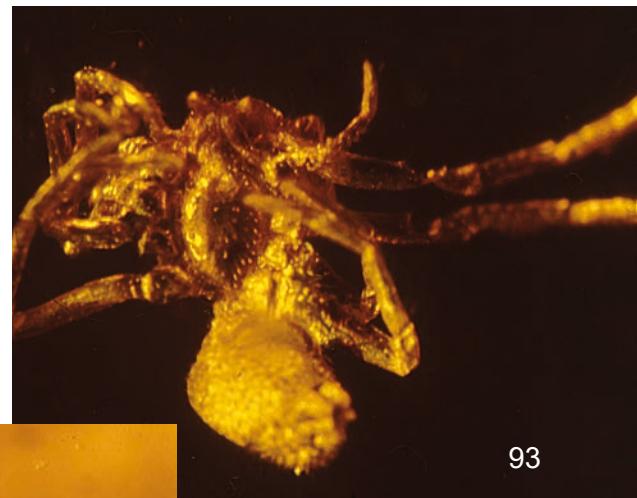


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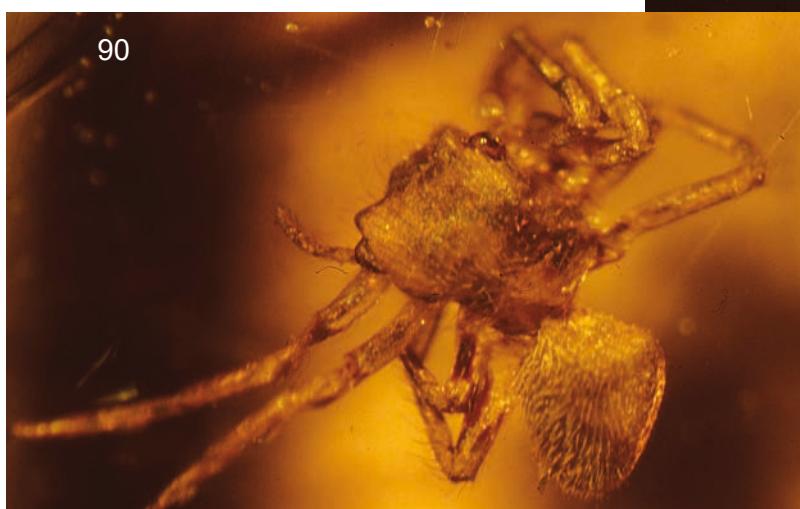
nae n. subfam.), well preserved in muddy Burmese amber; 86) lateral aspect of the body which is 1.9 mm long (the arrow poits to the foramen); 87) anterior aspect of the prosoma. Note the numerous long "peg teeth" on the powerful basal cheliceral articles which are 0.9 mm long.

88-89: Right and left aspect of the probably adult female holotype of *Eomysmauchenius septentrionalis* n. gen. n. sp. (Archaeidae: Lacunaucheninae), in Cretaceous Burmese amber, body length 1.15 mm.

90-93: *Burlagonomegops* ?eskovi PENNEY 2005 (Lagonomegopidae) in Burmese amber. Note the large



93



90

posterior eyes in a lateral position; 90) dorsal aspect of a juvenile female, body length 1.2 mm, F2017/CJW;

91) left aspect of remains of a dissected female, prosomal length 1.35 mm, OSU, G. POINAR coll. no. B-A-1-2; 92) dorsal aspect of a distinctly deformed body of a juvenile, body length 1.4 mm, F1918/CJW; 93) ventral aspect of a juvenile female, body length 1.2 mm, F2017/CJW.



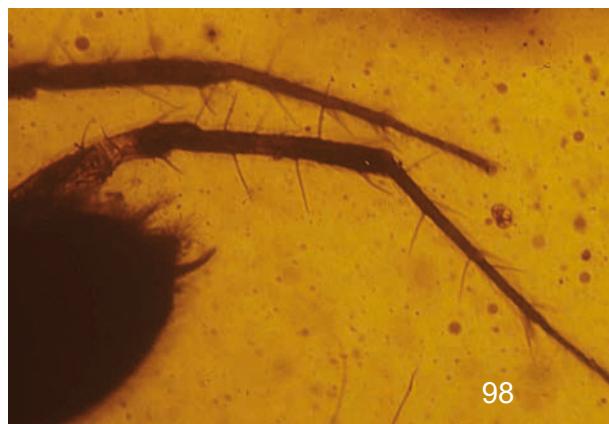
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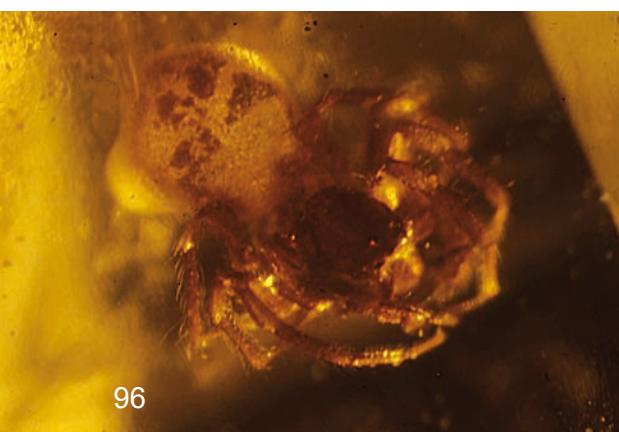
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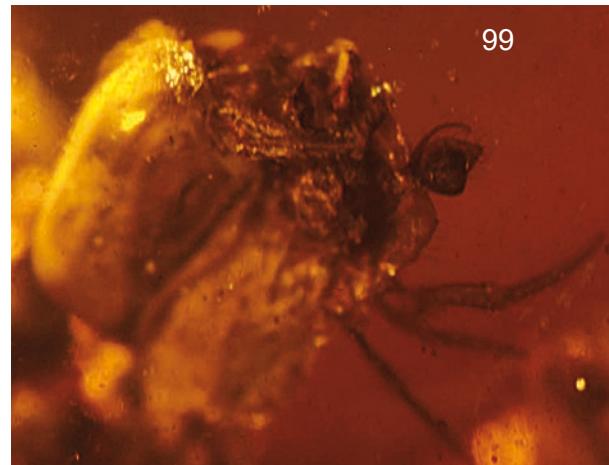
96

spider; 98) dorsal aspect of the distal part of the opisthosoma and the right legs III and IV, tibia IV is 0.8 mm long. Note the fringed hairs on the anal tubercle between a pair of long spinnerets.

99-103: *Burmascutum aenigma* n. gen. n. sp. (Burmascutidae n. fam.) in Cretaceous Burmese amber; 99) dorsal aspect of the male holotype, length of the deformed body 1.2 mm. Note the large bubble left of the body and the pedipalpus right in front of the prosoma; 100-103: female paratype, length of the strongly deformed body 1.3 mm; 100) dorsal aspect; 101) ventral aspect; note the well preserved anterior spinnerets; 102) dorsal-lateral aspect; 103) left aspect; note the scutate opisthosomal furrows.

94-96: Male holotype of *Micropalpimanus poinari* n. gen. n. sp. (Micropalpimanidae n. fam.) in Cretaceous Burmese amber, body length 1.5 mm; 94) ventral aspect; 95-96: dorsal aspect. Note the prolateral spatulate hairs of the right metatarsus II in the photo 95) and the opisthosomal markings in photo the 96).

97-98: Male holotypus of *Zamilia antecessor* n. gen. n. sp. (Oecobiidae: Mizaliinae) in Cretaceous Burmese amber, body length 2.5 mm. Body and legs are strongly darkened by natural heating and pressing; 97) dorsal aspect of the



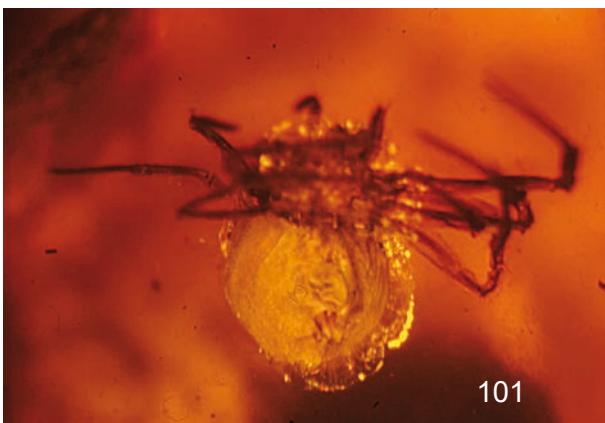
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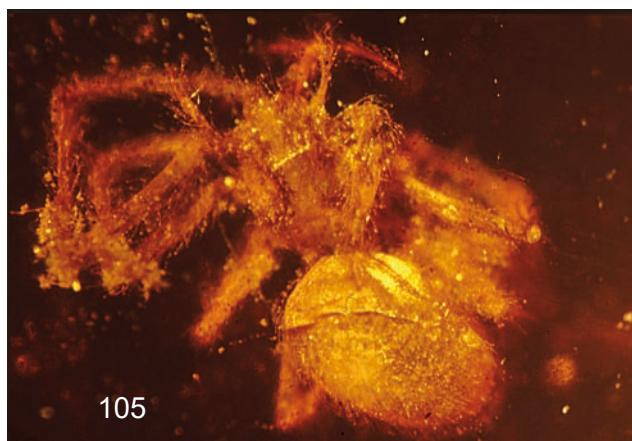
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105



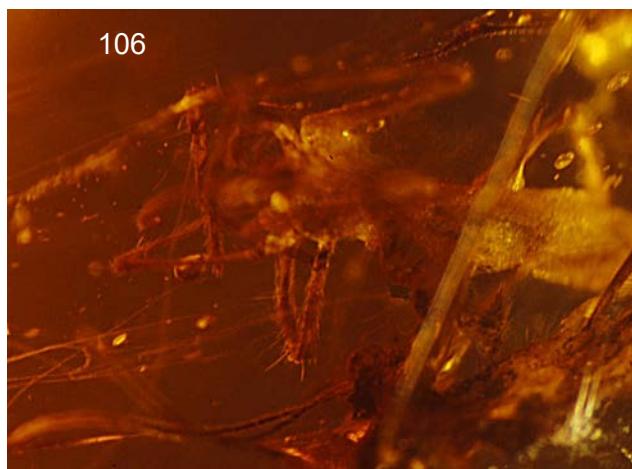
102

104) *Salticoididus kaddumiorum* n. gen. n. sp. (Salticoididae n. fam.), dorsal aspect of the strongly darkened and deformed male holotype, body length ca. 2.6 mm.

105) *Burmloborus parvus* n. gen. n. sp. (Uloboridae), dorsal aspect of the female holotype in Cretaceous Burmese amber, body length 1.8 mm.



103



106



107

the right below; 107) dorsal-right aspect of the – probably juvenile – female paratype, OSU G. POINAR jr. coll. no. B-A-1-18. The opisthosoma is partly cut off and bears a large bubble.



108

108) *Paramiagrammopes cretaceus* n. gen. n. sp. (Uloboridae), dorsal aspect of the male holotype, body length 1.2 mm.



109

109-110: ?*Paramiagrammopes* sp. indet. (Uloboridae) in Burmese amber, lateral and dorsal aspect of a subadult male, body length 1 mm. A dragline is also preserved. F1920CJW.



110



111

111) ?Deinopidae indet., dorsal-lateral aspect of a juvenile male in Burmese amber, body length 1 mm. Note the depressed opisthosoma.



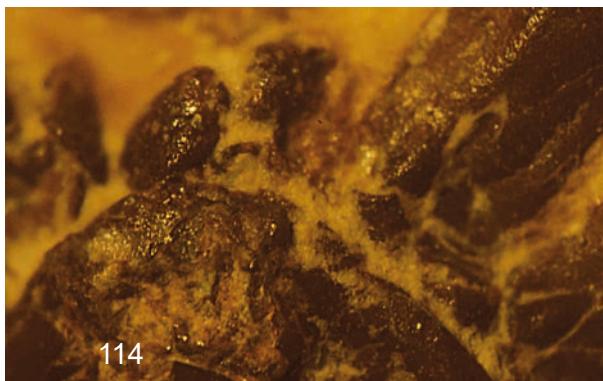
112

112) ?Zygiellidae indet. (published as "Linyphiidae" by PENNEY, female in Cretaceous Lebanese amber, body length 1.8 mm, almost ventral aspect. Note the sclerotized epigyne.

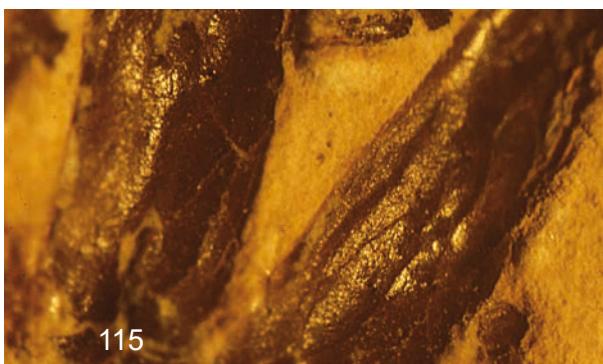
113-115: ?Zygiellidae indet., ♂, preserved in Cretaceous sandstone sediment of Santana (Brazil), body length 5.9 mm, F1887/CJW; 113) dorsal aspect of the male; 114) dorsal aspect of the anterior part of the prosoma (the eye lenses are deformed), the pedipalpi and the base of the right anterior femur; 115) dorsal aspect of the



113



114



115

right femora I-II. Note the scaly structure of the cuticula in the photos 114-115.

116) *Zarqaraneus hudeae* n. gen. n. sp. (Protheridiidae), ventral-left aspect of the male holotype in Cretaceous Jordanian amber, body length ca. 3 mm.

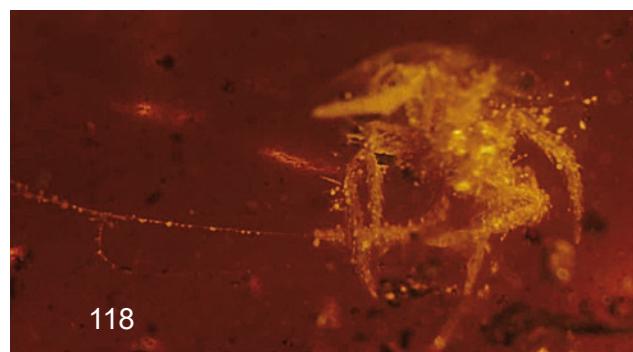


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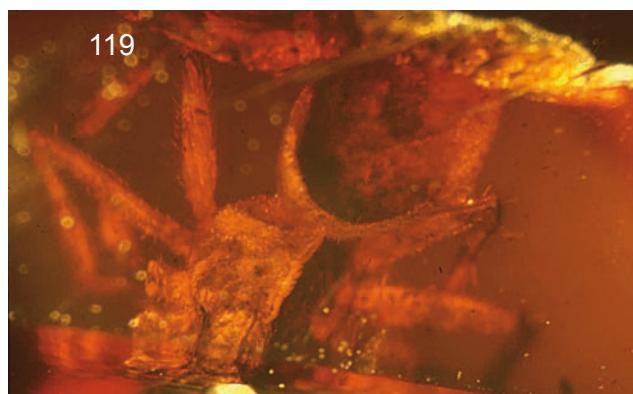
117) Araneae (Araneoidea?) indet., anterior aspect of the loose ♀-chelicerae (0.5 mm long) in Cretaceous Burmese amber, OSU, coll. G. POINAR jr., no.B-A-1-16.



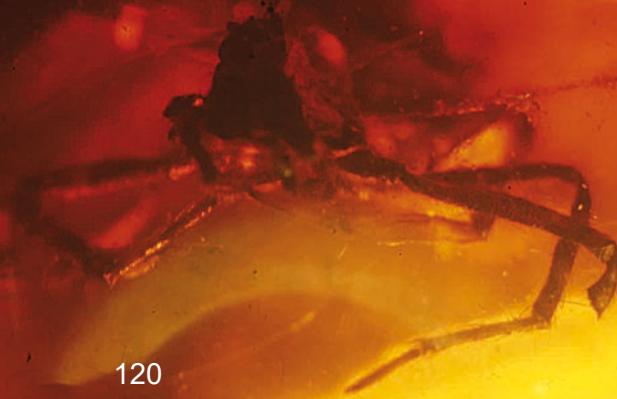
118

118) Juvenile of a family indet. probably a member of the superfamily Araneoidea in Burmese amber, length of the anterior tibia I ca. 0.3 mm, with spider's threads – of its capture web? –, OSU, coll. G. POINAR jr. no. B-A-1-10.

119-121: Holotype (a probably adult female) of *Burmadictyna pecten* n. gen. n. sp. (Dictynidae?) in Burmese amber; 119) dorsal aspect, body length 3.6 mm; the prosoma is anteriorly incomplete; note the strongly depressed opisthosoma; 120) anterior aspect. The left chelicera is broken off, the left leg II is lost beyond the patella probably by autotomy; 121) left legs II and III, length of metatarsus III 1 mm.

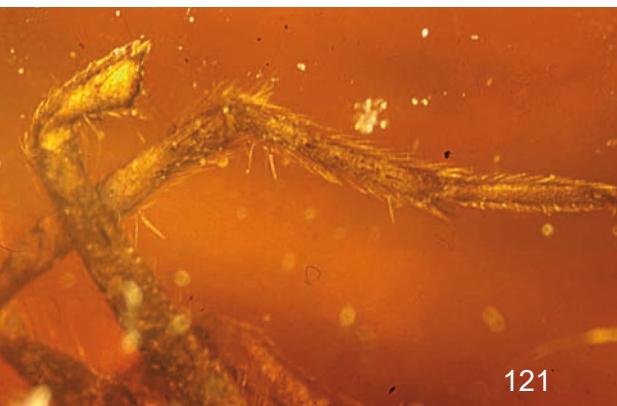


119

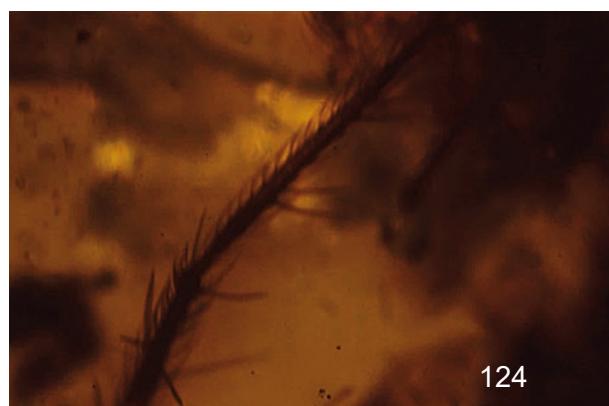


120

122) ?Dictynidae indet. 2), a probably adult and deformed female in Burmese amber, body length 0.6 mm, frontal-lateral aspect. Note the 8 eyes; 3 left legs are cut off. The spider is preserved in the same piece of amber as *Pholcochyrocer guttulaeque* n. gen. n. sp., F1913/CJW.



121



124

124) ?Dictynidae indet. 4), a questionable adult female in Burmese amber, prolateral aspect of the left metatarsus IV (0.6 mm long) with the calamistrum, F2015/CJW.



122

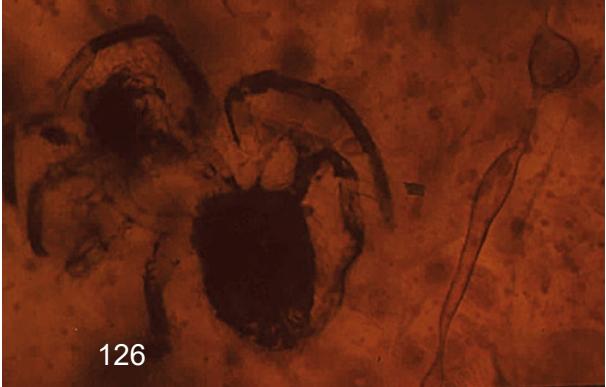


123



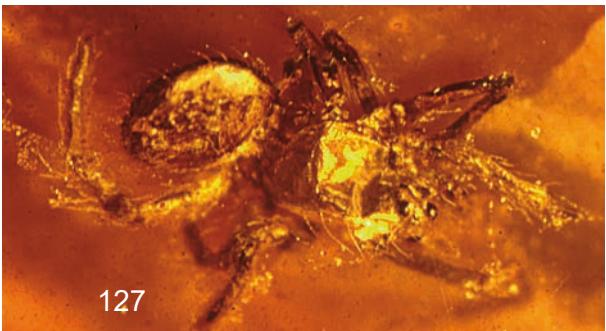
125

125) ?Dictynidae indet. 5), a questionable adult female in Burmese amber, retrolateral aspect of the right calamistrum (0.5 mm long), F2016/CJW.



126

126) Dorsal aspect of a darkened and deformed spiderling of a questionable family (Araneidae? Dictynidae?) in Burmese amber, body length ca. 1.2 mm, and spider's threads, in the same piece of amber as the holotype of *Pholcochyrocer gutulaeque* n. gen. n. sp., F1913CJW.



127

127) Araneae: "Trionycha" indet., a probably juvenile female in Burmese amber, body length 1.2 mm, dorsal aspect of the body; the prosoma is deformed, the opisthosoma is slightly cut off, F1921/CJW.



128

128) Dorsal aspect of the male holotype of *Ariadna copalis* n. sp. in copal from Madagascar, body length 2.6 mm, one of the smallest members of the Segestriidae.



129

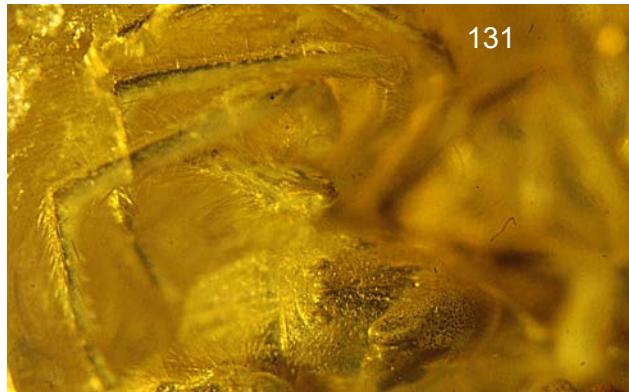
129) Lateral aspect of the male holotype of *Ariadna ovalis* n. sp. (Segestriidae) in Eocene Baltic amber, body length 5 mm.



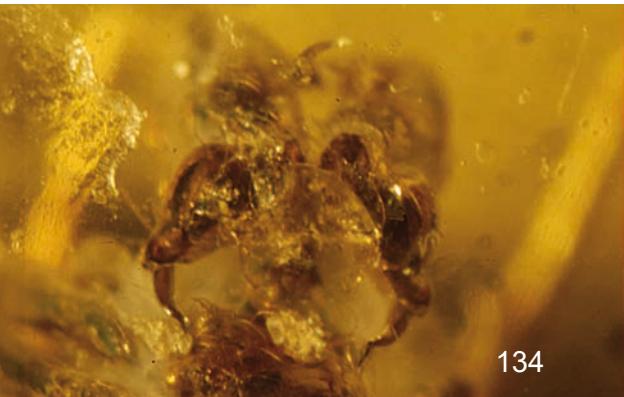
130

130) Dorsal aspect of the male holotype of *Ariadna parva* n. sp. (Segestriidae) in Baltic amber, body length 2.4 mm; the smallest known member of the family Segestriidae. As typical in all members of this family the anterior THREE pairs of legs are directed forward.

131) Female of *Ariadna* sp. indet. (Segestriidae) in Baltic amber, dorsal aspect of the prosoma, the pedipalpi and the right legs, body length 4.7 mm.

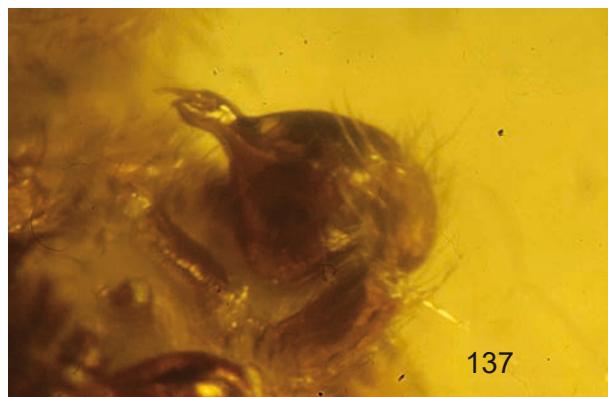


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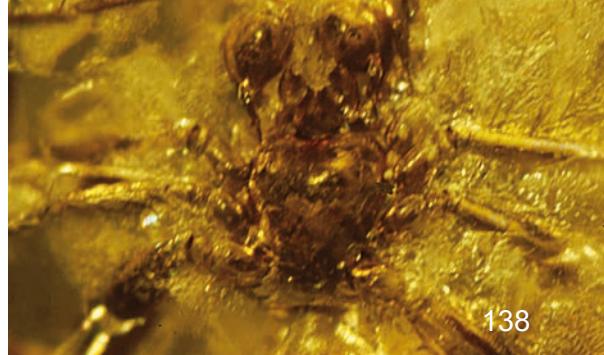


132-134: *Orchestina (Baltorchestina n. subgen.) perfecta n. sp.* (Oonopidae: Orchestininae), male holotype in Baltic amber, body length 1.35 mm; 132) dorsal aspect of the spider; 133) anterior aspect of prosoma and pedipalpi; note the numerous long prosomal hairs; 134) anterior aspect of the pedipalpi.

135): *Orchestina (Baltorchestina n. subgen.) brevis n. sp.* (Oonopidae: Orchestininae), male holotype in Baltic amber, body length 1.5 mm, dorsal aspect.



136-137: *Orchestina (Baltorchestina n. subgen.) ?furca* WUNDERLICH 1981 (Oonopidae: Orchestininae), probably conspecific male in Baltic amber, F1871/BB/CJW; 136) ventral aspect of the body which is 1.1 mm long; 137) prolateral aspect of the right pedipalpus, length of the embolus 0.1 mm.



138

138) *Orchestina (Baltorchestina n. subgen.) sternalis n. sp.*, ventral aspect of the male holotype in Baltic amber, length of the sternum 0.4 mm. Note the right embolus which is well observable.



139

139) Dorsal-lateral aspect of the male holotype of *Spatiator martensi* WUNDERLICH 2007 (Spatiatoridae) in Baltic amber, body length 4.3 mm.



141



142

141-142: *Meta* (subgen. *Praetermeta* n. stat.) *maculosa* n. sp. (Tetragnathidae), male holotype in Baltic amber, body length 5.8 mm; 141) dorsal aspect of the spider; 142) dorsal aspect of the left pedipalpus.



140

140) *Meta (Merianmeta n. subgen.) meriana* (SCOPOLI 1763) (Tetragnathidae), extant, right ♂-pedipalpus, dorsal aspect of the retrodorsal part of the paracymbium. Note the field of the ?stridulatory files.



143

143) *Eometa longipes* PETRUNKEVITCH 1958 (Tetragnathidae), dorsal aspect of the holotype in Baltic amber, body length 2.4 mm. Note the darkened body and the translucent opisthosoma.



144

144) Dorsal aspect of the male holotype of *Anameta distenda* WUNDERLICH 2004 (Tetragnathidae), in Baltic amber, body length 4 mm. Parts of the right patella I are cut off.



147

147) Anterior aspect of the holotype of *Priscometta tenuipes* PETRUNKEVITCH 1958 (Tetragnathidae) in Baltic amber, body length 3.5 mm. The holotype has been darkened after the incompetent preservation.



145



146

145-146: Male holotype of *Anameta kuntneri* n. sp. (Tetragnathidae) in Baltic amber; 145) left aspect of the body which is 3.5 mm long; 146) retrolateral aspect of the left pedipalpus. Length of the bulbus incl. embolus 0.6 mm. Note the long ventral metatarsal ?sensory tibial hairs above the pedipalpus.



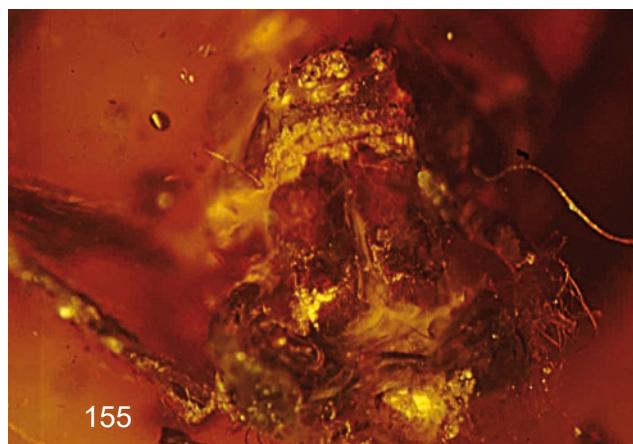
148

148) Dorsal-left aspect of the male holotype of *Balleucauge gillespiae* n. sp. (Tetragnathidae) in Baltic amber, body length 4 mm. The body is covered with a white emulsion.



149

149-153: *Eochorizopes szeklinskiae* n. sp. (Araeidae) in Baltic amber; 149-152: holotype juv. male, body length 3.2 mm; 149) anterior aspect of the spider; note the wide eye field and the strong



154) Lateral aspect of the juvenile holotype of *Cyclosoma succini* PETRUNKEVITCH 1958 (probably Araneidae) in Baltic amber, body length almost 2 mm. Note the elongated opisthosoma

155) Anterior aspect of the male holotype of *Chelicerinus abnormis* n. gen. n. sp. (probably Synotaxidae) in Baltic amber; length of the bulging chelicerae almost 1 mm.

156-158: *Pumiliopimoa parma* n. gen. n. sp. (Pumiliopimoidae n. fam.) in Baltic amber; 156) dorsal aspect of the male holotype, body length 1.9 m. Note the spider's thread which is running from the right posterior leg; 157) dorsal aspect of the darkened male paratype F1090/CJW. Note the opisthosomal scutum in the anterior position; 158) retrolateral aspect of the right pedipalpus of

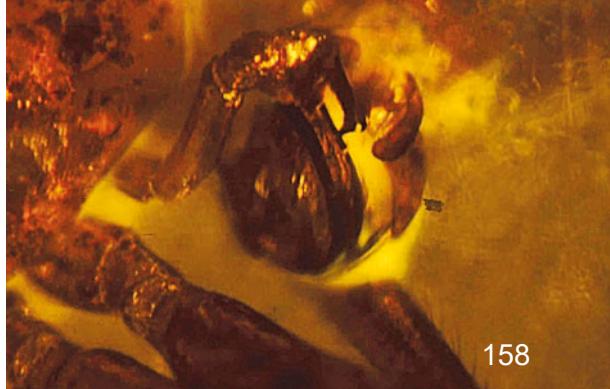


the paratype F2025/CJW; length of the bulbus 0.28 mm.

159) Dorsal-lateral aspect of the male holotype of *Pimoa obruens* n. sp. (Pimoideae) in Baltic amber, body length 2.7 mm.

160) Lateral aspect of the female holotype of *Pimoa longiscapus* n. sp. (Pimoideae) in Baltic amber, body length 3 mm. Note the very long scape (arrow).





158



162



160

164-165: *Clya obscura* (KOCH & BERENDT 1754) (Theridiidae: Asageninae), ♂ in Baltic amber; 164) lateral aspect of the spider F1593/CJW, body length 2 mm. Two legs of a Diptera are preserved posteriorly; 165) ♂ F1596/CJW, retrolateral aspect of the right pedipalpus. The largest diameter of the embolic loops is 0.4 mm.

161-163: *Clya calefacta* n. sp. (Theridiidae: Asageninae) ♂ in Eocene Baltic amber; 161) dorsal-frontal aspect of the holotype, body length 2.1 mm; 162) holotype, ventral-lateral aspect of the right pedipalpus; 163) dorsal aspect of the paratype F1583/CJW, body length 2.7 mm. Note the prosomal wrinkles and the opisthosomal sigillae. — **REMARK:** THE FAMILY THERIDIIDAE IS ONE OF THE MOST DIVERSE FAMILIES OF THE ARTHROPODA WHICH ARE PRESERVED IN BALTIC AMBER.



164



161

166-167: *Clya gracilis* (PETRUNKEVITCH 1958) (Theridiidae: Asageninae), dorsal aspect of the male holotype in Baltic amber, enlarged in fig. 167), body length 2.2 mm. Body and legs are strongly darkened and partly destroyed by aging.

168) *Clya granulata*
(KOCH & BERENDT 1854)
(Theridiidae: Asageninae),
♂ F1604/CJW in Baltic
amber, ventral aspect of
the left pedipalpus. Note
the white emulsion which
covers parts of the bulbus.
Diameter of the largest
embolic loop 0.4 mm.

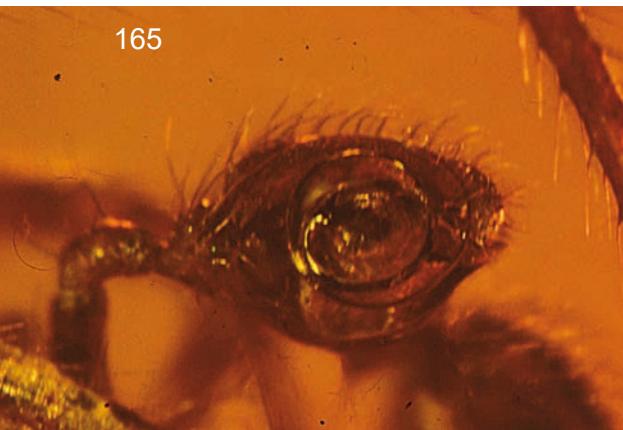


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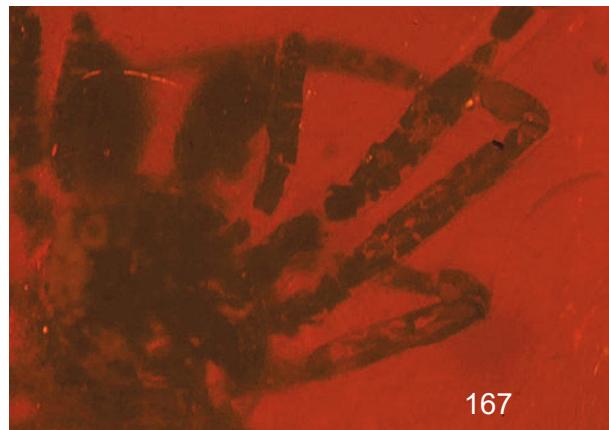
169-172: *Clya lugubris*
KOCHE & BERENDT 1854
(Theridiidae: Asageninae)
in Baltic amber; 169) ven-
tral aspect of the darkened
male holotype, body length
2 mm; 170) ♂ F1570/CJW,
retroventral aspect of the left pedipalpus. Diam-
eter of the loop crossover 0.35 mm; 171) ♂ of the
coll. F. EICHMANN, ventral aspect of the left pe-

dipalpus; 172) ♂ F1673/CJW, retroventral aspect
of the left pedipalpus.

165

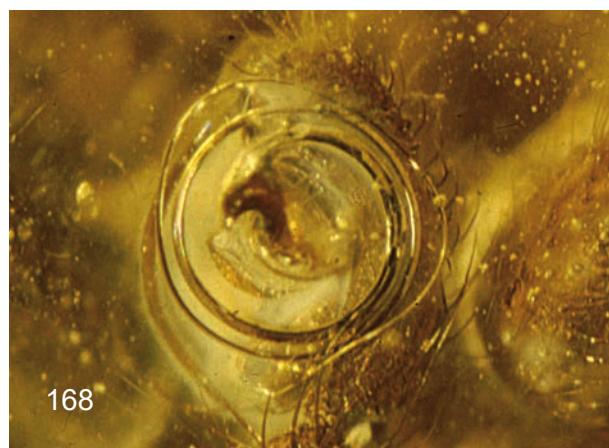


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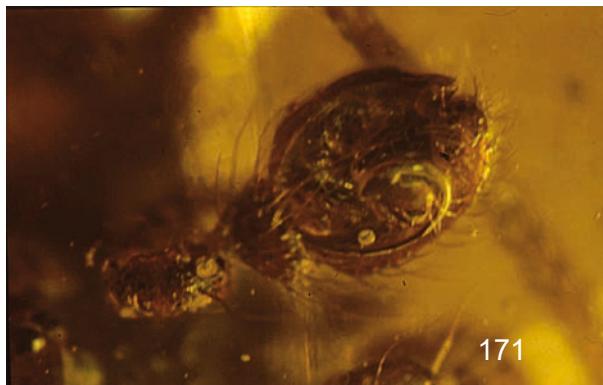
173



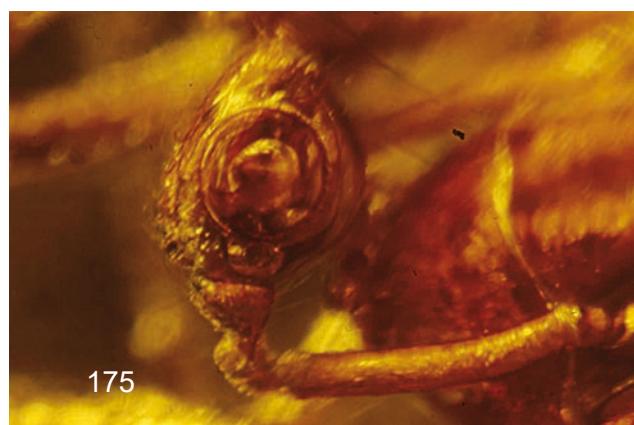
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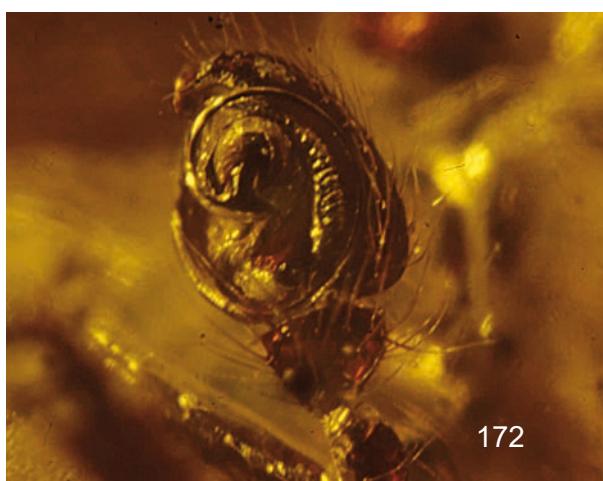
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171

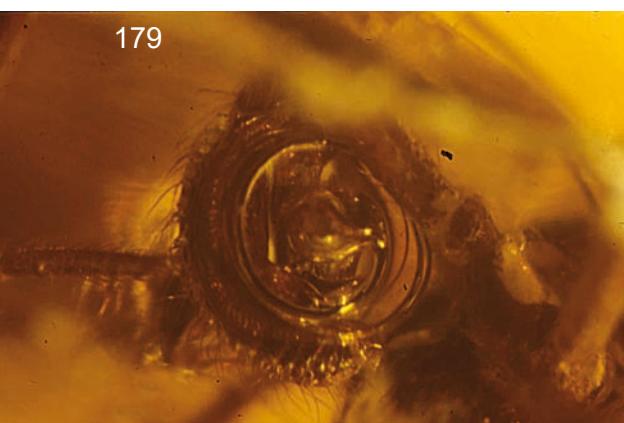
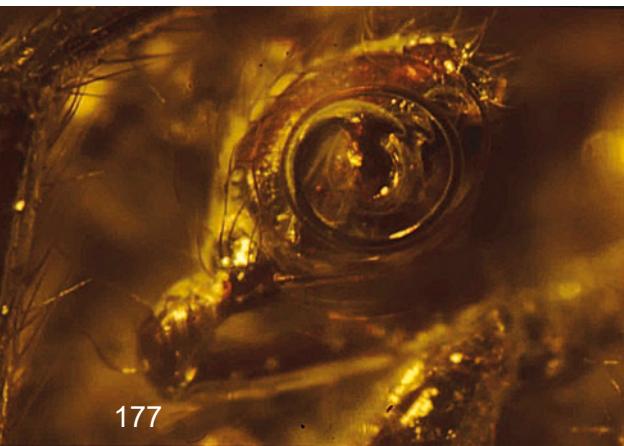


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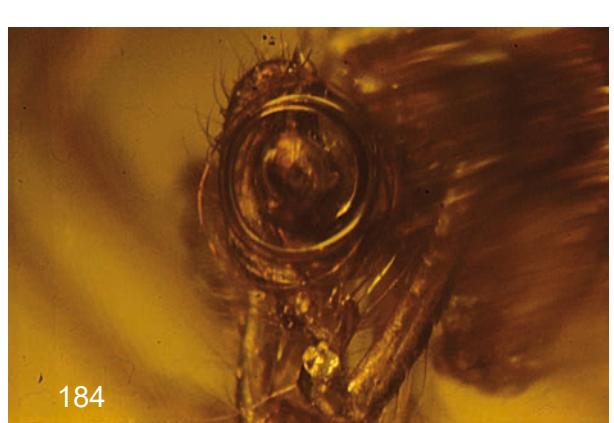


172

173-177: *Clya obscura* (KOCH & BERENDT 1854) (Theridiidae: Asageninae) in Baltic amber; 173) ♂ F1619/CJW, anterior-lateral aspect; femur I is 1.2 mm long; 174) ♂ F1600/CJW, dorsal aspect of the prosoma (it is 1.2 mm long) and some basal leg articles. Note the distinct wrinkles on the prosoma and on the leg articles; 175-177: ventral aspect of the right pedipalpus of the males F1619, 1587 and 1916/CJW. Diameter of the embolic loops: 0.3, 0.45 and 0.45 mm.



178-180: *Clya rotata* n. sp. (Theridiidae: Asageninae), male holotype in Baltic amber; 178) apical aspect of both pedipalpi; 179) ventral aspect of the left pedipalpus. Diameter of the embolic loop 0.5 mm; 180) distal aspect of the the right (above) and the left pedipalpus. Note the three-dimensional structure of the embolus in the centre of the photo which is well observable.





181

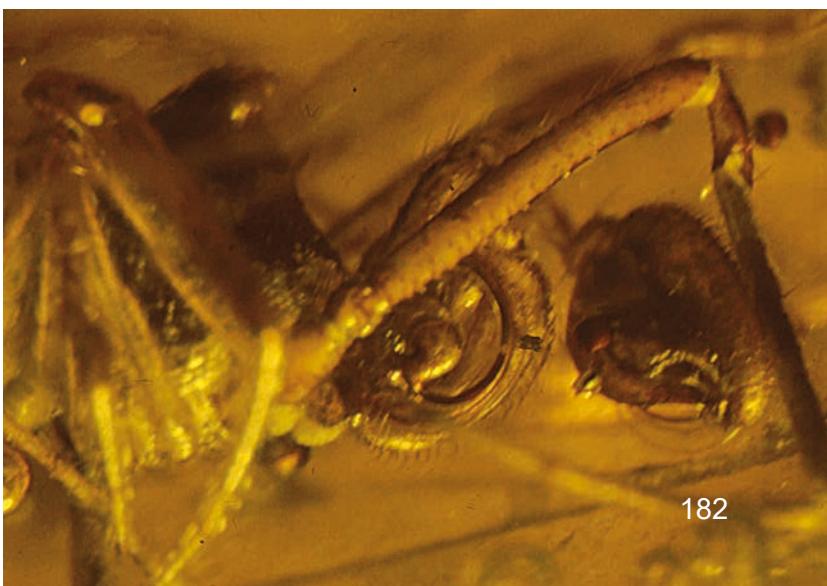
184) *Clya tricurvata n. sp.* (Theridiidae: Asageninae), ventral aspect of the right pedipalpus of the male holotype in Baltic amber. Diameter of the embolic loops: 0.4 mm.



185

181) *Clya supercalefacta n. sp.* (Theridiidae: Asageninae), right aspect of the male paratype of the coll. M. KUTSCHER in Baltic amber from Bitterfeld. Note the white emulsion which covers parts of the opisthosoma and a large bubble above the right pedipalpus.

182-183: *Clya superspiralis n. sp.* (Theridiidae: Asageninae), male holotype in Baltic amber; 182) anterior-right aspect of the spider; the anterior femur is 1.7 mm long; 183) ventral aspect of the right pedipalpus which is partly hidden by the right anterior femur. The diameter of the embolic loop is ca. 0.7 mm.



182

185) *Clya ?tricurvata n. sp.* (Theridiidae: Asageninae), probably conspecific male in Baltic amber, Mus. Stuttgart, prov. no. Do-886-K, retrolateral aspect of the left pedipalpus. The embolus lies in an unnatural position, the loop has a diameter of 0.4 mm.



186



189



187

189) *Eomysmena moritura* PETRUNKEVITCH 1942 (Theridiidae: Asageninae), ventral-lateral aspect of the male holotype in Baltic amber, body length 3.7 mm. The piece of amber has been embedded in clarite about 50 years ago, the spider is strongly darkened, its structures are partly destroyed.

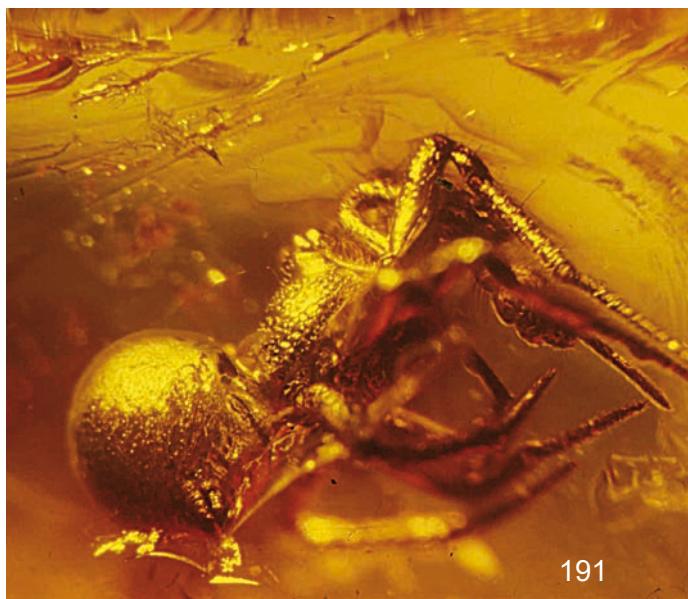
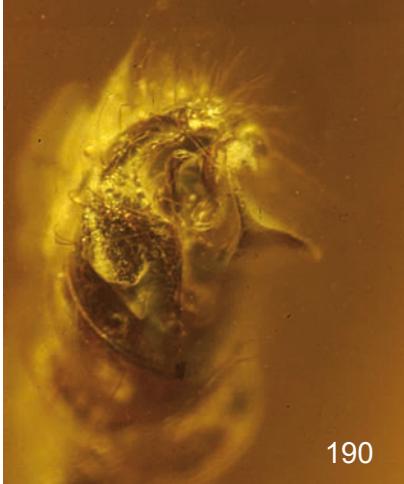
190) *Eomysmena crassa* PETRUNKEVITCH 1958 (Theridiidae: Asageninae), ♂ in Baltic amber, coll. H. FLEISSNER no. BB 561, ventral aspect of the left pedipalpus. Diameter of the bulbus 0.5 mm.

186) ?*Clya* sp. indet. (Theridiidae: Asageninae?), subad. ♂, F572/CJW, lateral aspect of the spider, body length 1.6 mm. Note the very large, bubble- and pear-shaped pedipalpal tarsus in front of the prosoma, in which structures are absent like in the pedipalpi of other subadult males. A dragline runs backwards from the spinnerets.

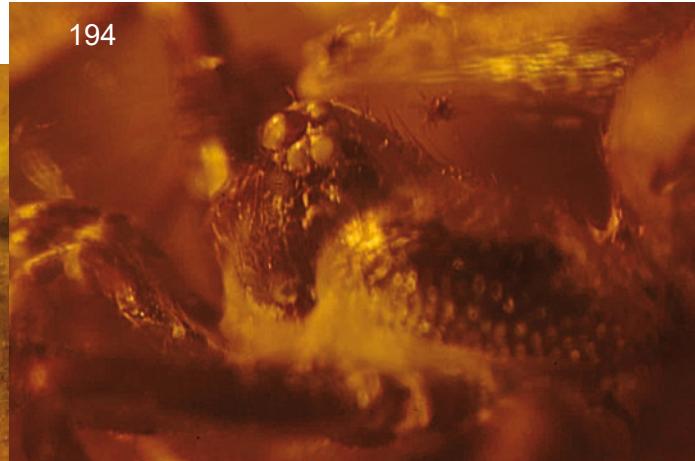
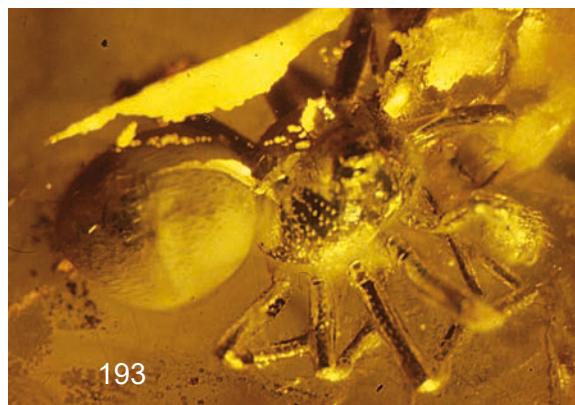
187-188: *Eoasagena scutata* n. gen. n. sp. (Theridiidae: Asageninae), dorsal and lateral aspect of the male holotype in Baltic amber, body length ca. 1.8 mm. Note the rugose prosoma and the opisthosomal scutum as well a dark brown marking within the piece of amber which is caused by artificial heating.



188



191) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♂ F1700/CJW in Baltic amber, lateral aspect of the body which is 3 mm long.
Note the raised cephalic part.



192) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♂ F1708/CJW in Baltic amber, dorsal aspect of the body which is 3.3 mm long.

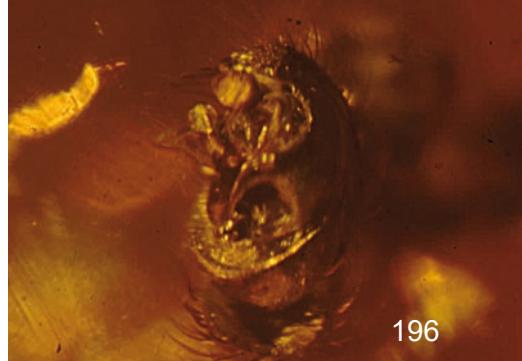
193) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♂ F1711/CJW in Baltic amber, dorsal aspect of the body which is 3.3 mm long.

194) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♂ F1705/CJW in Baltic amber, left aspect of the prosoma which is 1.8 mm long.

195



196



195) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♂ F1702/CJW in Baltic amber, anterior aspect of the prosoma which is 1.3 mm high. Note the dense clypeal hairs and the medial inclination of the clypeal margin.

197

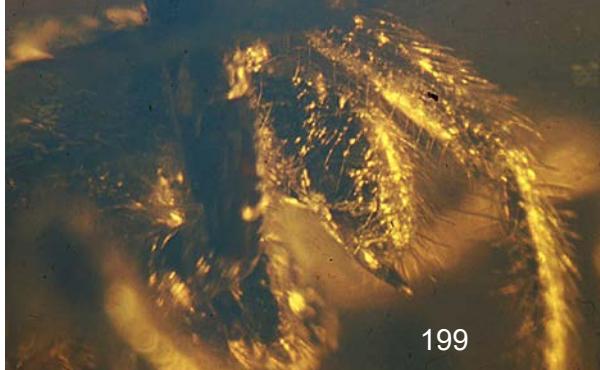


196) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♂ (GPIUH) in Baltic amber, proventral and slightly apical aspect of the right pedipalpus; diameter of the bulbus 0.4 mm.

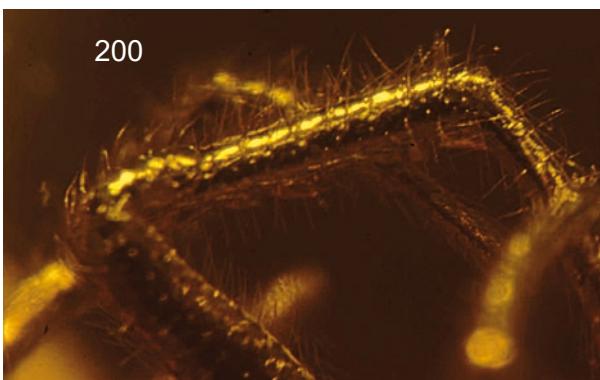
197) *Eomysmena* sp. indet. (Theridiidae: Asageninae), ♀ F1701/CJW in Baltic amber, ventral aspect of the spider which body length is 3.2 mm. Note the rugose sternum and the fairly free epigyne.

198

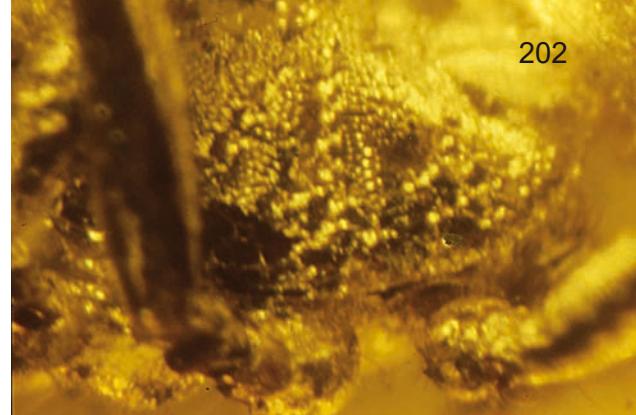




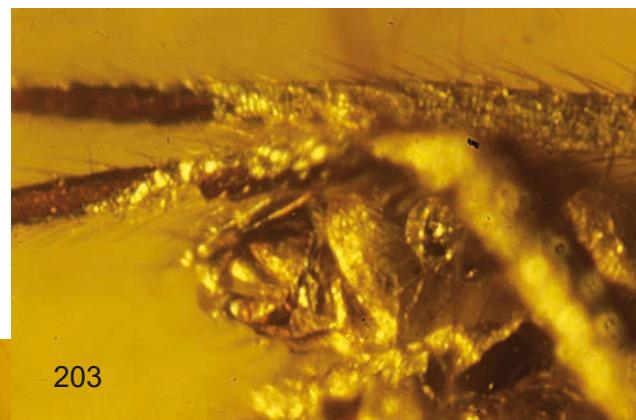
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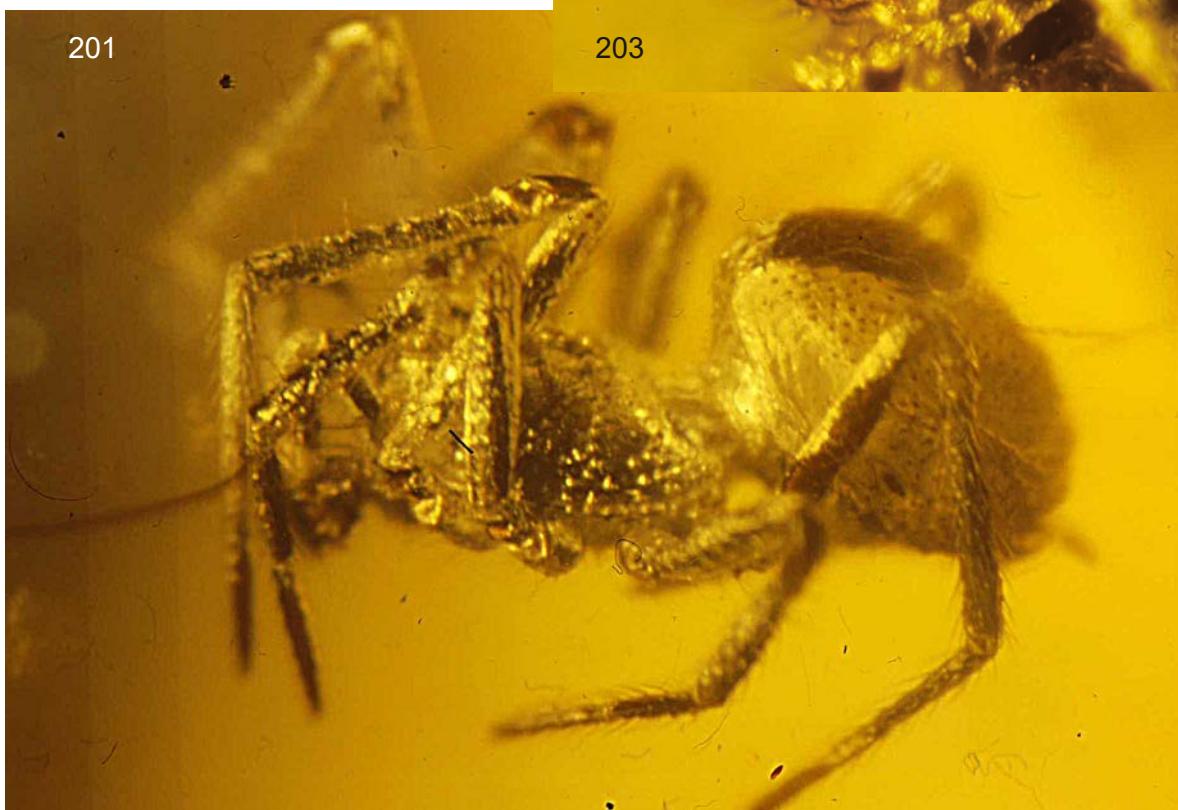
201-203: *Nanosteatoda breviscutum* n. gen. n. sp. (Theridiidae: Asageninae), ♂ holotype in Baltic amber; 201) lateral aspect of the body which is 1.4 mm long. Note the prosomal wrinkles and the short dorsal opisthosomal scutum; 202) left aspect of the prosoma. Note the large and small wrinkles; 203) retrolateral aspect of the left pedipalpus;

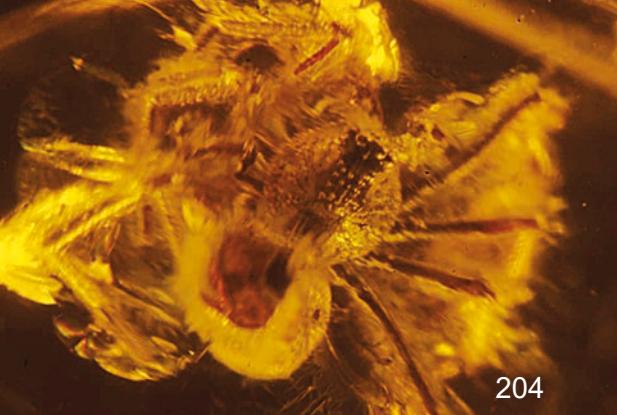


203

199-200: *Eoteutana hirsuta* n. gen. n. sp. (Theridiidae: Asageninae), ♂ holotype in Baltic amber; 199) retrolateral aspect of the right anterior leg and the right pedipalpus, length of the cymbium 0.5 mm; 200) prolateral aspect of the left anterior leg, tibial length 0.75 mm. Note the hairy leg and the ventral femoral cusps.

201





204



205

204-205: *Nanosteatoda trisetae* n. gen. n. sp. (Theridiidae: Asageninae), ♂ holotype in Baltic amber; 204) dorsal aspect of the spider which body is 1.4 mm long. Note the prosomal wrinkles and the opisthosomal scutum; 205) retrolateral aspect of the left pedipalpus, cymbial length 0.33 mm.

206-207: *Protosteatoda gutta* n. gen. n. sp. (Theridiidae: Asageninae), ♂ holotype in Baltic amber; 206) lateral aspect of the body which is 2.3 mm long; 207) retro-lateral aspect of the left anterior leg and left pedipalpus; the femur is 0.75 mm long.

208-210: *Pseudoteutana stigmatosa* (KOCH & BERENDT 1854) (n. gen). (Theridiidae: Asageni-

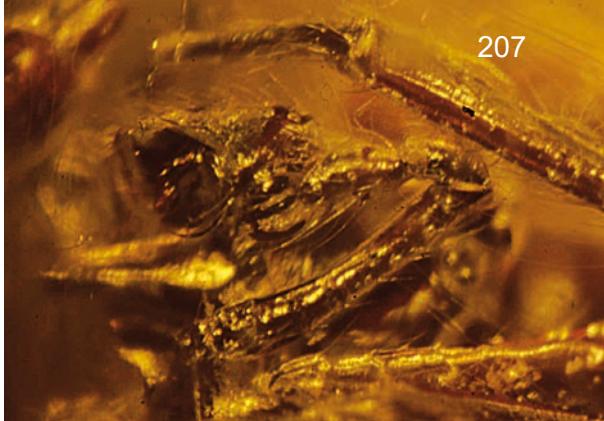


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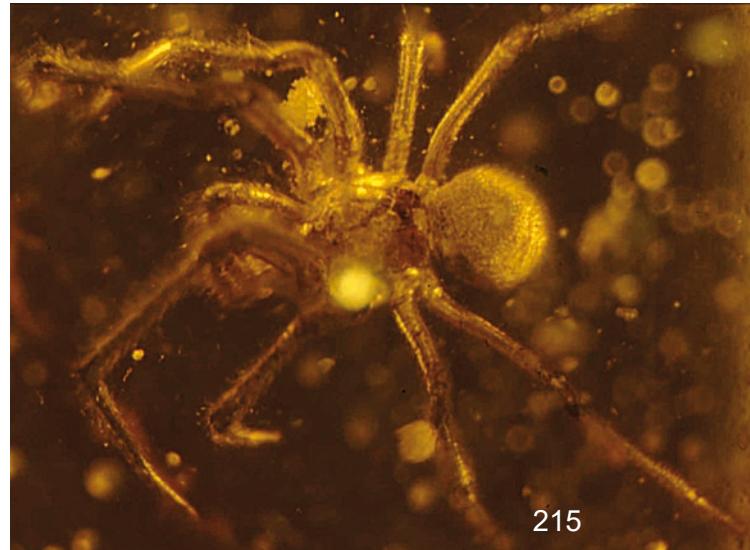
nae), ♂ in Baltic amber; 208) ♂ F1718/CJW, lateral aspect of the spider which body is 2.4 mm long; 209) ♂ F1719/CJW, anterior-right aspect of the spider which anterior tibia is 1.5 mm long. Note the leg annulation; 210) ♂ F1722/CJW, retrolateral aspect of the right pedipalpus (its tibia is 0.33 mm long).

211-214: *Unispinatoda aculeata* n. gen. n. sp. (Theridiidae: Asageninae), ♂ in Baltic amber; 211) ♂ paratype F1739/CJW, dorsal aspect of the spider which body is 2 mm long and which

opisthosoma is thickly covered with a white emulsion. Note the leg annulations; 212) ♂ paratype F1736/CJW; dorsal aspect of the spider which body is 2 mm long. Note the opisthosomal siliigae; 213) ♂ paratype F1735/CJW, retrolateral aspect of the left pedipalpus and some basal leg articles. Note the single pedipalpal tibial hair and the ventral femoral cusps; 214) ♂ holotype, ventral aspect of the left pedipalpus; the cymbium is 0.4 mm long. Photographed under paraffin.



214



215

215-216: *Eolirifer longitibialis* n. gen. n. sp. (Theridiidae: Enoplognathinae), ♂ holotype in Baltic amber, body length 1.8 mm; 215) dorsal aspect of the spider which body is 1.8 mm long; 216) lateral aspect of the spider. Note the long and hairy pedipalpal tibia.

217-221: *Hirsutipalpus varipes* n. gen. n. sp. (Theridiidae: Enoplognathinae), ♂ in Baltic amber; 217) ♂ paratype F1782/CJW, dorsal aspect of the spider which body is 2.2 mm long. The opisthosoma is covered with a white emulsion, a midge is preserved right of the spider; 218) ♂ paratype F1783/CJW, dorsal aspect of the spider which prosoma is 1.1 mm long. Note the shrunk opisthosoma; the spider has probably been the prey of another spider – a case of cannibalism? 219) ♂ paratype



217

216



F1784/CJW, dorsal aspect of the spider which body is 2.3 mm long. Note the dark cuticula of the opisthosomal scutum which is partly visible between a white emulsion; 220) ♂ holotype, lateral aspect, body length 1.7 mm; 221) ♂ paratype F1787/CJW, anterior aspect of the spider which basal cheliceral articles are 0.6 mm long. Note the large cheliceral teeth.

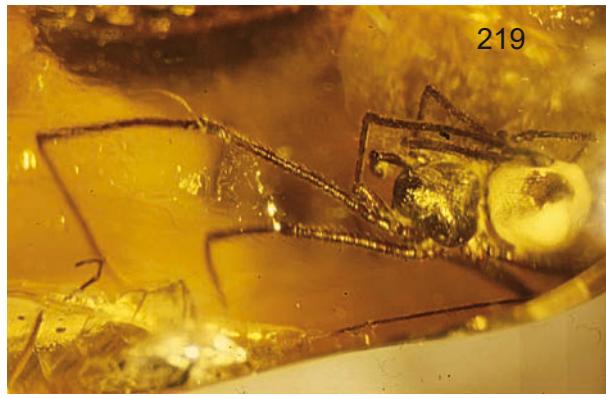
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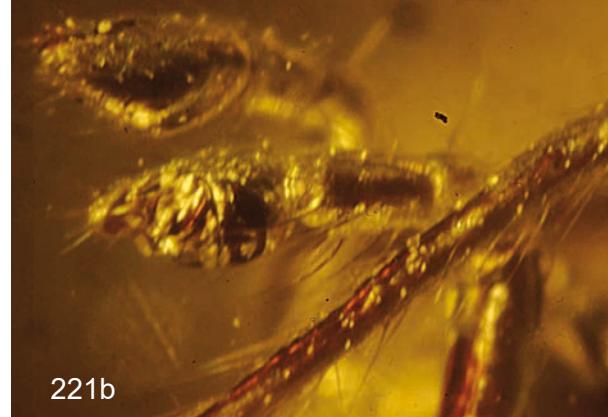


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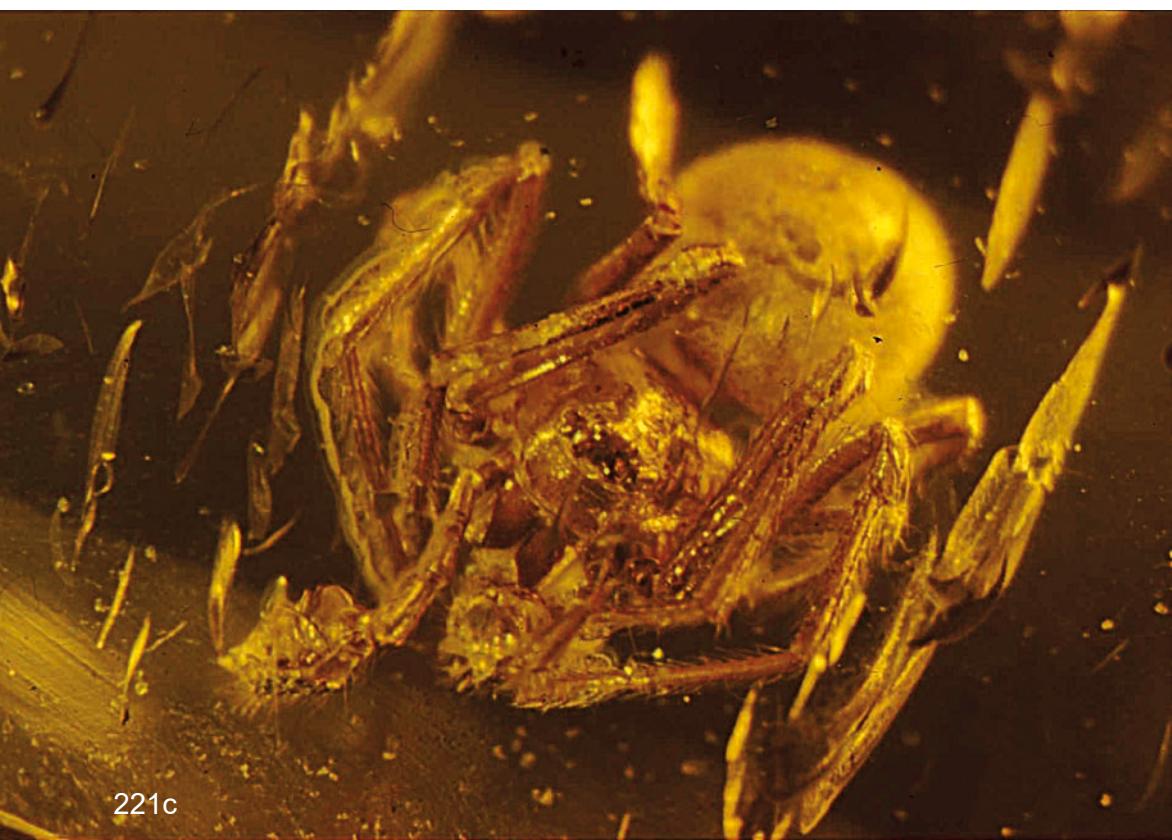




221a



221b



221c

221a-221b: *Hirsutipalpus varipes* n. gen. n. sp. (Theridiidae: Enoplognathinae), ♂ in Baltic amber; 221a) ♂ F1776/CJW, ventral aspect, the sternum is 0.4 mm long; 221b) ♂ holotype, lateral aspect of the pedipalp which cymbium is 0.27 mm long.

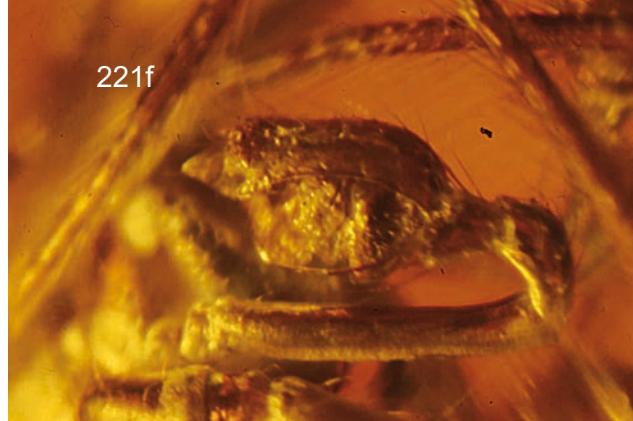
221c-221f: *Succinobertus adjacens* n. gen. n. sp. (Theridiidae: Enoplognathinae), ♂ in Baltic amber; 221c) ♂ paratype F1765/CJW, anterior-dorsal aspect of the spider which body is 1.6 mm long; 221d) ♂ holotype, body length 1.7 mm, lateral aspect of the spider; 221e) ♂ paratype F1766/



221d



221e



221f



222



223

CJW, body length 1.5 mm, lateral aspect; 221f) ♂ holotype, retrolateral aspect of the left pedipalpus; length of the cymbium 0.4 mm.

222) *Balticpholcomma scutatum* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber, lateral aspect of the spider which body is 1.1 mm long.

223) *Cymbiopholcomma spiculum* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber, dorsal aspect of the spider which body is 1.35 mm long. Note the questionable amputation or autotomy beyond the right anterior patella.



224



226



227

224-226: *Globulidion cochlea* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber, body length 1.4 mm. Note the cephalic lobe and the large dorsal opisthosomal shield (scutum); 224) dorsal-posterior aspect of the spider; 225) anterior aspect. 226) lateral aspect. Note the embolic spiral, and the artificial fissures of the prosoma.

227-228: *Obscurpholcomma tegens* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber, body length 1.2 mm, dorsal and lateral aspect of the spider.

229) *Rugapholcomma patellaris* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber, body length 1.8 mm, lateral-dorsal aspect of the spider.

230-232: *Succinura fuscocuber* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber; 230-231: Dorsal and lateral aspect of the spider which body is 1.25 mm long; 232) anterior part of body, legs and both pedipalpi.

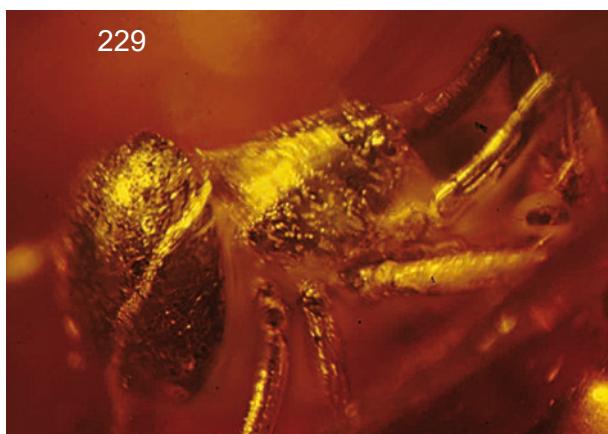
233-235: *Succinura bellavista* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ in Baltic amber, body length 1.25 mm; 233) holotype, lateral aspect of the spider; 234) paratype F1825/CJW, dorsal and slightly lateral aspect of the spider; 235) paratype F1825/CJW, lateral aspect of the spider. Note the opisthosomal shield (scutum).



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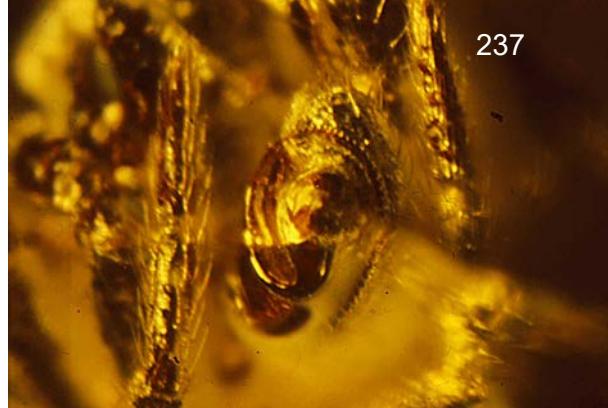
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236-237: *Succinura dubia* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ holotype in Baltic amber; 236) ventral aspect of the spider which body is 1.2 mm long. Note the scuta and the fissure within the amber on the right side of the spider and behind it; 237) ventral aspect of the left pedipalpus which cymbium is 0.4 mm long.

239-240: *Viciphilcomma spiralis* n. gen. n. sp. (Theridiidae: Pholcommatinae), ♂ in Baltic amber, dorsal aspect of the holotype and the paratype, body length 1.25 and 1.5 mm.

238



238) *Succinura* sp. indet. (Theridiidae: Pholcommatinae), ♂ F1828/CJW in Baltic amber, left aspect of the spider which body is 1.1 mm long. The spider is placed on the surface between two layers of the fossil resin. Note the reddish colour of body and legs which may be the original colour.

241-244: *Magnopholcomma globulus* n. gen. n. sp. (Theridiidae: ?Pholcommatinae), extant, Australia, ♂ holotype in alcohol (with a loose right pedipalpus); 241-242: Dorsal and dorsal-lateral aspect of the spider which body is 3.7 mm long. Note the globular outgrowth of the clypeus; 243) dorsal-lateral aspect of the prosoma and the left pedipalpus; 244) ventral aspect of the right pedipalpus.



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245-250: *Ulesanis antecessor* n. sp. (Theridiidae: Phoroncidiinae), ♂ in Baltic amber; 245) (paratype of the coll. F. KERNEGGER), body length 1.5 mm, lateral aspect. Note the short part of a dragline which runs backward from the spinnerets, and the injured opisthosoma below a bubble of gas; 246) oblique anterior aspect of the paratype near the holotype, body length 1.6 mm; 247) dorsal aspect (slightly from the left) of the paratype (coll. C. GRÖHN no. 2957 GPIUH), body length 1.8 mm; 248) paratype F1802/CJW,

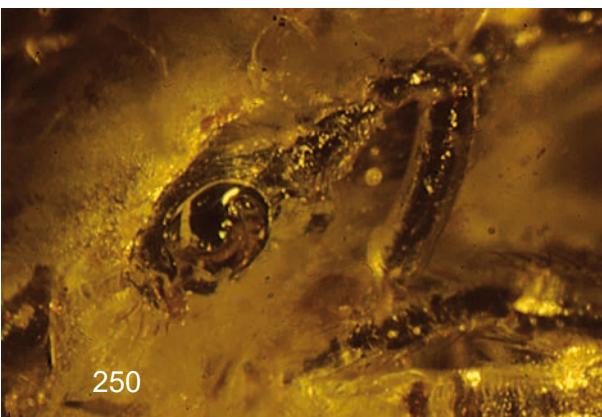
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dorsal aspect, body length 1.6mm. Note the injured/depressed opisthosoma; 249) anterior-left aspect of the paratype F1800/CJW, body length 1.15 mm. Note the protruding eye region which is overhanging the long clypeus; 250) ventral aspect of the left pedipalpus of paratype 1800/CJW; length of the cymbium 0.3 mm. Note the long embolus in an almost circular position.

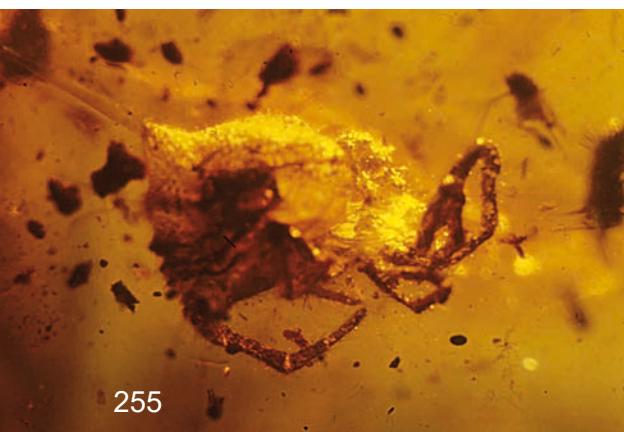
251) *Ulesanis ?antecessor n. sp.* (Theridiidae: Phoroncidiinae), ♂ (coll. F. KERNEGGER no. 320/94) in Baltic amber, body length 1.7 mm, dorsal-left aspect. Note the protruding eye region.

252) *Ulesanis ?antecessor n. sp.* (Theridiidae: Phoroncidiinae), (coll. SCHEELE, GPIUH) in Baltic amber, ♂ (above, dorsal aspect, body length 1.6 mm) and ♀ which is covered by an emulsion.

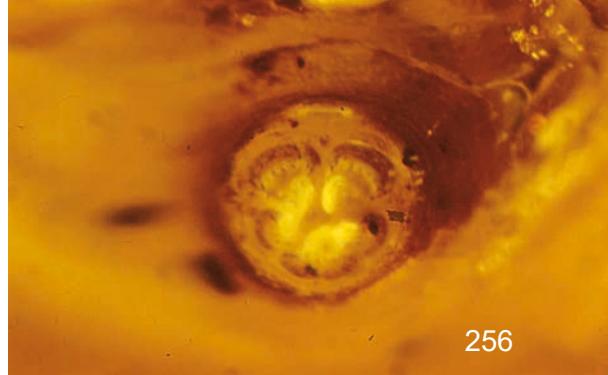
253) *Ulesanis frontprocera n. sp.* (Theridiidae: Phoroncidiinae), ♀ holotype in Baltic amber, lateral aspect of the spider which body is 1.7 mm long. Note the strongly domed opisthosoma.

253





254-256: *Ulesanis longicymbium* n. sp. (Theridiidae: Phoroncidiinae) in Baltic amber; 254-255: lateral aspects from the left and from the right side of the ♀ paratype, body length 2.2 mm. The darkenings are caused by artificial heating and pressure; 256) ♂ holotype, ventral aspect of the spinnerets and the tiny colulus which is only 0.02 mm long but clearly observable.



257-258: *Ulesanis ovalis* n. sp. (Theridiidae: Phoroncidiinae), ♂ in Baltic amber; 257) paratype (coll. F. KERNEGGER), body length 1.4 mm, lateral aspect of the spider; 258) holotype, ventral aspect of the left pedipalpus which cymbium is 0.33 mm long.



259) *Lasaeola bitterfeldensis* n. sp. (Theridiidae: Hadrotarsinae), ♂ holotype in Baltic amber, body length 1.45 mm, lateral aspect of the spider. The prosoma is anteriorly deformed, most parts of a larger parasitic mite on the left side anteriorly are covered with a white emulsion.



259



260

260-262: *Lasaeola communis* n. sp. (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 260) paratype F1489/CJW, body length 1.8 mm, lateral aspect of the spider (prosoma slightly laterally); 261) paratype from the Museum Copenhagen, body length 1.9 mm, lateral aspect. Note the high prosoma and the long and vertical clypeus; 262) paratype F1480/CJW, retrolateral aspect of the left pedipalpus, length of cymbium and tibia 0.5 mm.

263-265: *Lasaeola dunbari* (PETRUNKEVITCH 1942) (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 263) dorsal aspect of the holotype. The spider is embedded in clarite since more than 50 years; body and legs are darkened redbrown, and the amber is darkened, too; 264) ♂ F1897/CJW, body length 2 mm, lateral aspect of the spider; 265) dorsal aspect of the ♂ F1518/CJW, which body is 2.1 mm long. Note the dorsal furrows of the prosoma and the two pairs of opisthosomal sigillae.



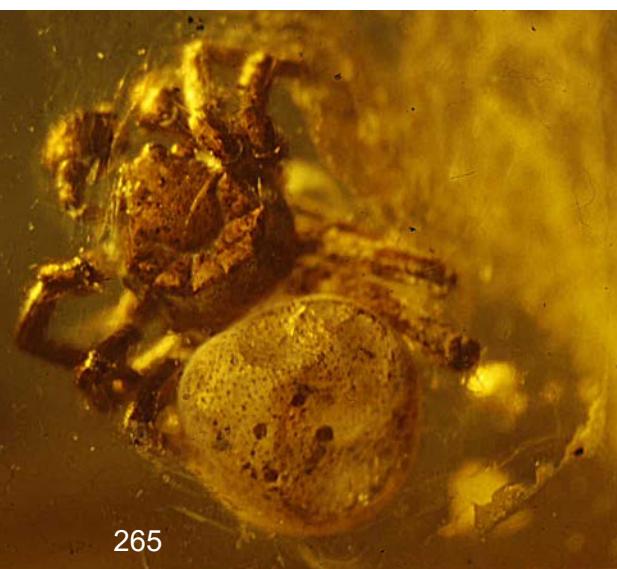
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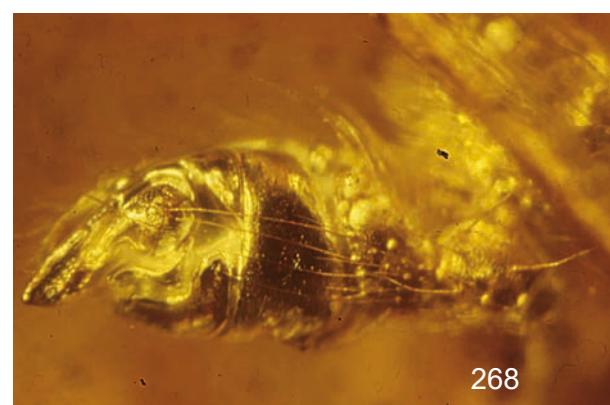
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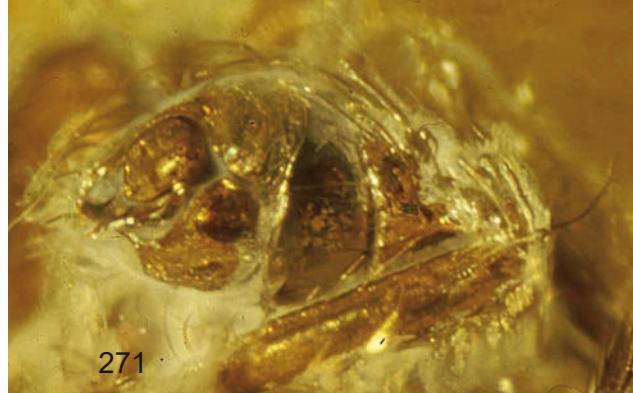


266) ?*Lasaeola furca* n. sp. (Theridiidae: Hadrotarsinae), ♂ holotype in Baltic amber, body length 1.15 mm, dorsal aspect.



267-268: *Lasaeola germanica* (PETRUNKEVITCH 1958) (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 267) ♂ F1566/CJW, dorsal aspect of the spider, body length 2.2 mm; 268) ♂ F1470/CJW, retrolateral aspect of the left pedipalpus which bulbus is 0.8 mm long.





269-272: *Lasaeola infulata* (KOCH & BERENDT 1854 (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 269) ♂ F1528/CJW, lateral aspect of the spider, body length 1.4 mm; 270) ♂ F1532/CJW, retroventral aspect of the left pedipalpus (in the centre); 271) ♂ F1529/CJW, retroventral aspect of the left pedipalpus which bulbus is 0.33 mm long; 272) ♂ F1814/CJW, retroventral aspect of the right pedipalpus; cymbial length 0.35mm.



273-274: *Lasaeola larvaque* n. sp. (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 273) paratype F1552/CJW, prosomal hight 0.4 mm, anterior-left aspect of the spider; 274) holotype, dorsal aspect of the spider, body length ca. 1.5 mm.



275

275-276: *Lasaeola latisulci* n. sp. (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 275) paratype F1534/CJW; body length 2.8 mm, dorsal aspect of the spider. Note the deep prosomal furrows; 276) paratype F1496/CJW, ventral aspect of the left pedipalpus which cymbium is ca. 0.65 mm long.



277

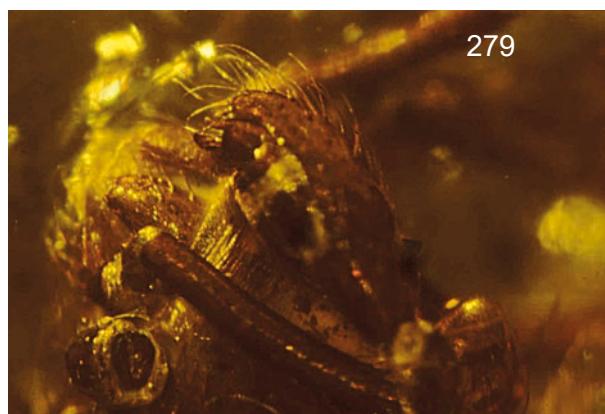


276

277-279: *Lasaeola sexsetosa* n. sp. (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 277) holotype, body length 1.6 mm, dorsal-lateral aspect of the spider; 278) paratype F1544/CJW, body length 1.5 mm, ventral aspect of the spider. Note the cases of autotomy and the remains of blood at the sites of rupture; 279) paratype F1697/CJW, parts of the prosoma, few leg articles and the left pedipalpus in the retrolateral aspect. Note the short basal cheliceral articles (this is a typic character of the Hadrotarsinae), and the large anterior median eyes above the pedipalpal patella.



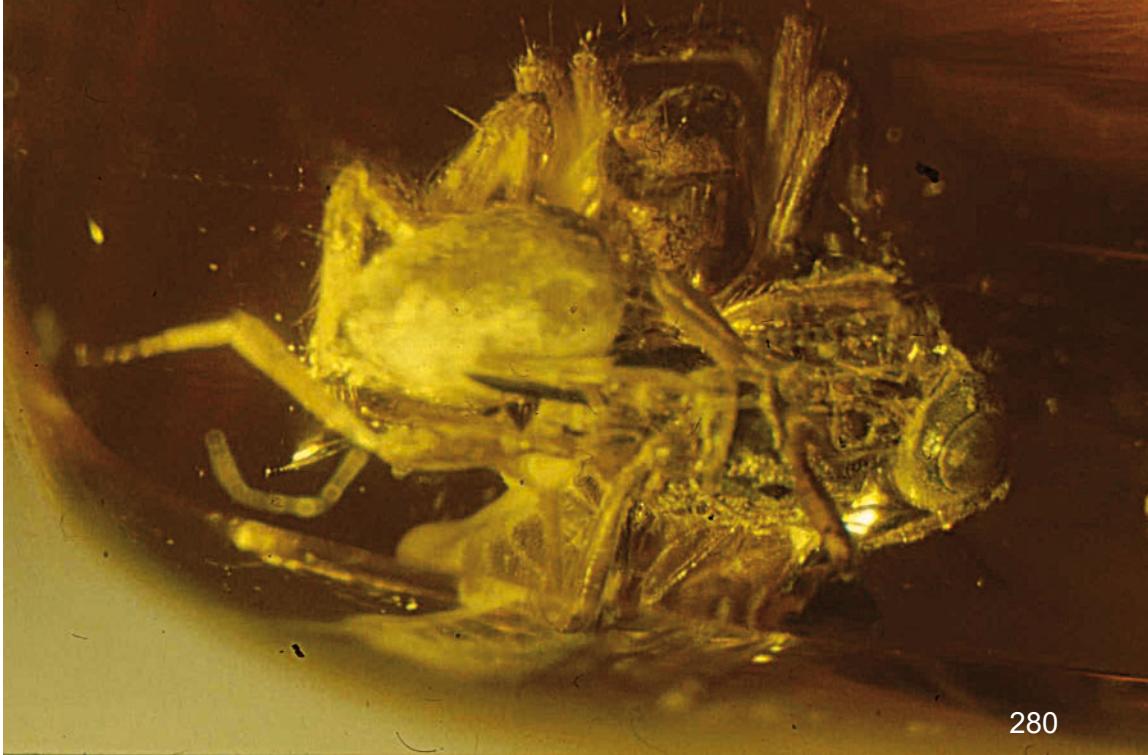
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279

280) *Lasaeola* sp. indet. (Theridiidae: Hadrotarsinae), ♂ F1527/CJW in Baltic amber, body length 2.4 mm, dorsal aspect, with a wasp (Hymenoptera: Braconidae) directly below at the right side of its body.

281) ?*Lasaeola* sp. indet. (Theridiidae: Hadrotarsinae), ♂ F83/CJW in Baltic amber, body length 1.5 mm, dorsal-right aspect. Most parts of the prosoma are covered with a white emulsion, most parts of the right pedipalpus are observable below the first metatarsus. In the same piece of amber a member of the genus *Hyptiotes* (Uloboridae) is preserved. Spiders of this genus prefer needle trees, at least in Europe today.

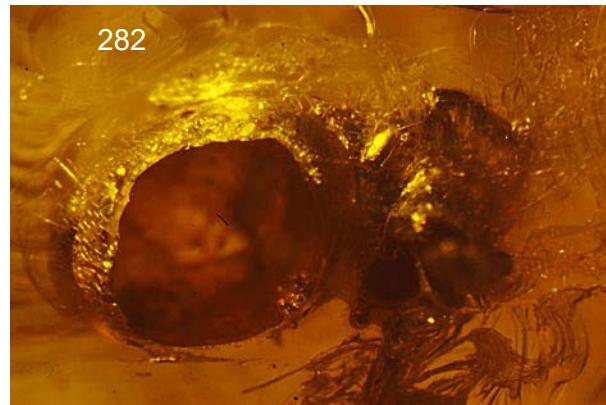


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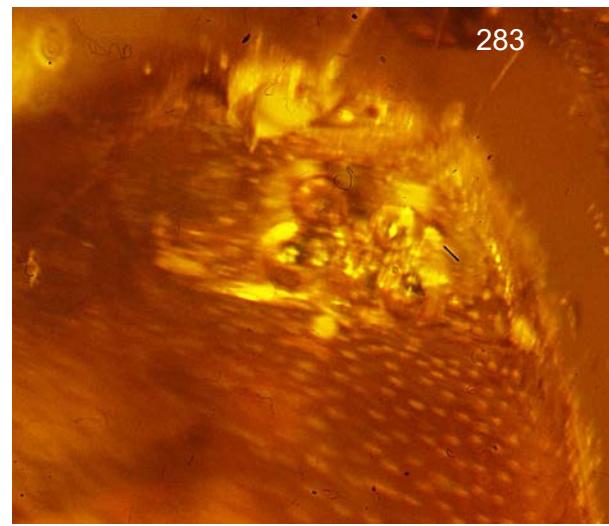


281

282-283: *Lasaeola* sp. indet. (Theridiidae: Hadrotarsinae), ♀ F1675/CJW in Baltic amber, body length 2.3 mm. The opisthosoma is open at the right side within the amber and filled with fossil resin. Note the structures of the vulva and the excellent preservation of the TWO pairs of receptacula – enlarged and shown more ventrally in the fig. 283 – which are typical of the subfamily Hadrotarsinae. See also the photos 285-287.



282



283

284) ?*Lasaeola* sp. indet.
(Theridiidae: Hadrotarsinae),
♀ in Baltic amber from the Bit-
terfeld deposit (coll. H. GRA-
BENHORST), body length
1.5 mm, dorsal aspect. Note
the two pairs of opisthosomal
sigillae.

285-286: *Lasaeola* sp. indet.
(Theridiidae: Hadrotarsinae),
♀ F1898/CJW in Baltic am-
ber, body length 1.35 mm;
285) lateral aspect of the spi-



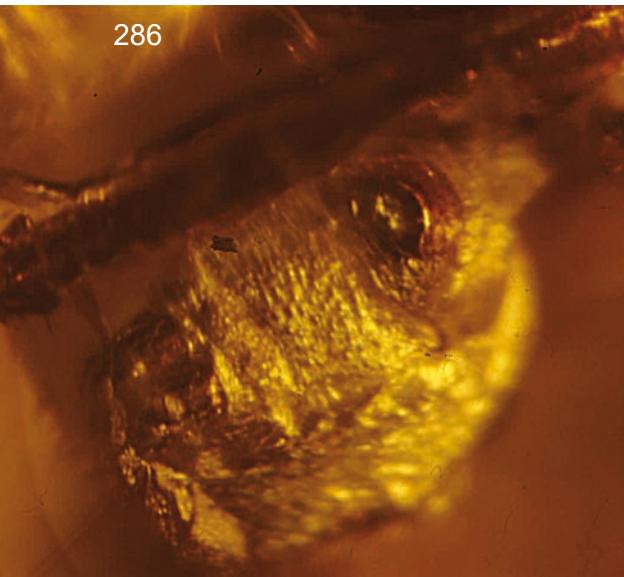
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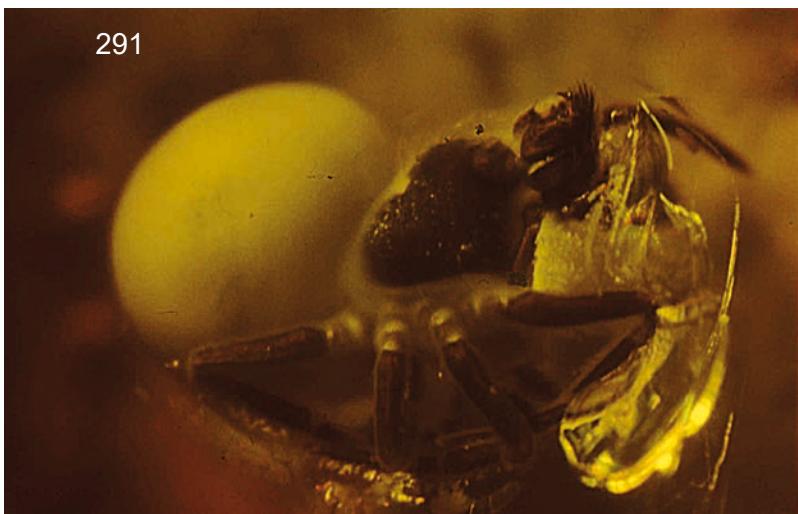
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291



der. Note the brown markings around the spider which result from artificial heating; 286) ventral aspect of the opisthosoma. Note the strongly sclerotized epigyne which probably bears a plug (in German: "Begattungszeichen").

287) *Lasaeola* sp. indet. (Theridiidae: Hadrotarsinae), ♀ from the coll. C. GRÖHN in Baltic amber, body length 2.5 mm, ventral aspect of the spider which is darkened by artificial heating. Note the well observable epigyne which is strongly sclerotized. Remark: The ventral side of the opisthosoma of spiders in Baltic amber is usually covered with a white emulsion which hide the epigyne. See photo 361).

288-290: *Euryopis bitterfeldensis* n. sp. (Theridiidae: Hadrotarsinae), ♂ in Baltic amber from the Bitterfeld deposit; 288-289: Holotype, body length 1.1 mm; 288) dorsal aspect of the body; 289) retrolateral aspect of the right pedipalpus; 290) paratype from the coll. H. GRABENHORST (no. AR-165), retrolateral aspect of the right pedipalpus.

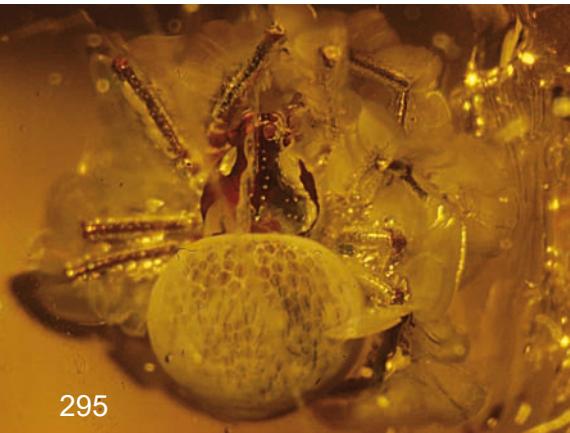
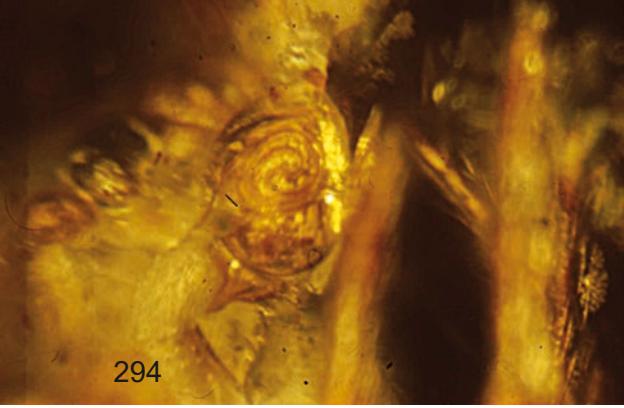
291) *Euryopis streyi* n. sp. (Theridiidae: Hadrotarsinae), ♂ holotype in Baltic amber from the Bitterfeld deposit, body length 1.4 mm, lateral aspect. The opisthosoma is thickly covered with a white emulsion.

292) ?*Euryopis araneoides* n. sp. (Theridiidae: Hadrotarsinae), ♂ holotype in Baltic amber, body length 1.7 mm, dorsal aspect of the body. Note the wide eye field which is similar to most members of the family Araneidae.

293-294: *Euryopis nexus* n. sp. (Theridiidae: Hadrotarsinae), ♂ holotype in Baltic amber, body

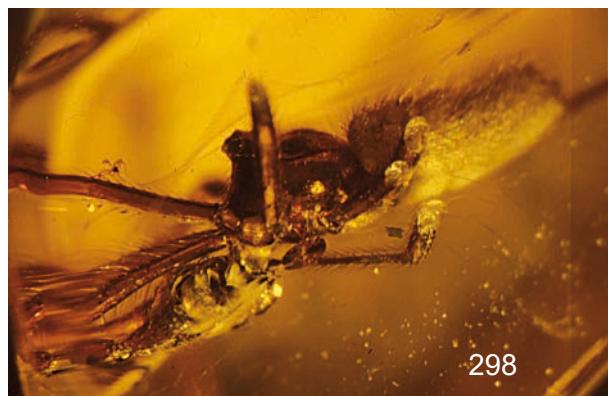


293



length 2 mm; 293) dorsal aspect of the spider which body is thickly covered with a white emulsion; 294) retroventral aspect of the left pedipalpus which bulbus is 0.4 mm long. Note the very long and coiled sperm duct.

295-297: *Praetereuryopis phoroncidoides* n. gen. n. sp. (Theridiidae: Hadrotarsinae), ♂ in Baltic amber; 295) paratype F1792/CJW, body length 1.8 mm, dorsal aspect of the spider. Note the wide opisthosoma which bears tiny shields (scuta); 296-297: paratype from the coll. J. VEL-TEN; body length 1.5 mm, dorsal and lateral aspect.



298-301: *Episinus balticus* MARUSIK & PENNEY 2005 (Theridiidae: Episinae), ♂ in Baltic amber; ♂ F1457/CJW, length of the prosoma 1.2 mm, lateral aspect; 299) ♂ F1460/CJW, body length ca. 3.3 mm, lateral and slightly ventral aspect of the spider. Note the oxidized structures of the body which are caused by the spider's contact with the surface of the fossil resin for million of years; 300) ♂ F1457/CJW, dorsal aspect of the spider, length of the prosoma 1.5 mm. Note the droplet of blood which has been excreted from the right anterior coxa after the autotomy of the first leg within the fossil resin; 301) dorsal aspect of the ♂ F1877/CJW, body length 3.5 mm.



301

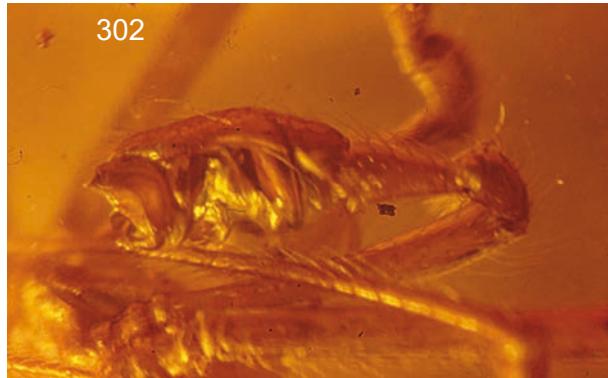


300



302) *Episinus ?balticus* MARUSIK & PENNEY 2005 (Theridiidae: Episinae), probably conspecific ♂ of the GPIUH (no. 1186) in Baltic amber, retrolateral aspect of the left pedipalpus which cymbium is 1 mm long.

302



303-304: *Episinus clunis* n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber, body length 3 mm, dorsal and lateral aspect of the spider, with a large leg of an insect crossover in fig. 304).

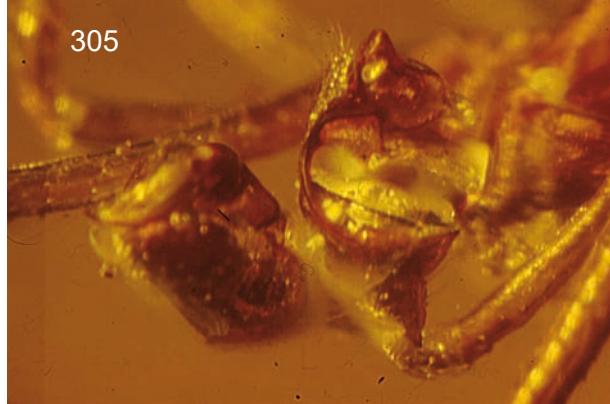
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304



305



305) *Episinus latus* n. sp. (Theridiidae: Hadrotarsinae), ♂ paratype in Baltic amber, ventral aspect of the right pedipalpus (and the left pedipal-

pus on the left side), the diameter of the bulb is 0.5 mm.

306



307

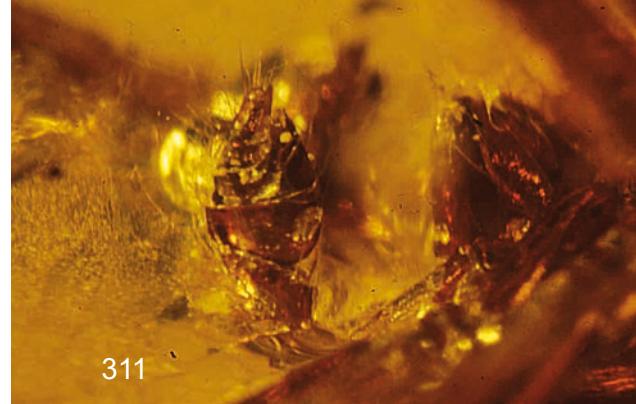




306-309: *Episinus longimanus* (KOCH & BARENRT 1854) (Theridiidae: Episinae), ♂ in Baltic amber, 306-308: "Hypotype" of *Flegia longimana* sensu PETRUNKEVITCH 1946; 306-307: lateral aspect of the spider, body length 2.5 mm; 308) retroventral aspect of the left pedipalpus which tibia is 0.6 mm long; 309) ♂ F1429/CJW, retroventral aspect of the left pedipalpus; tibia + bulbous are 1.15 mm long.

310) *Episinus transversus* n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber, ventral aspect of the left pedipalpus which bulbous is partly covered with a white emulsion, 0.65 mm long.

311) *Episinus nasuticymbium* n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber, ventral aspect of the right pedipalpus which bulbous is 0.4 mm long.

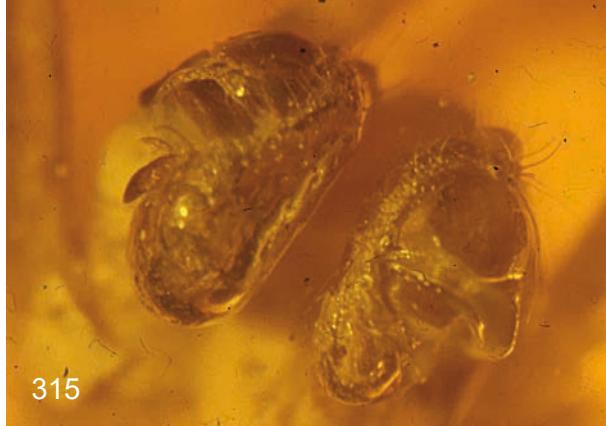


312) ?*Episinus* sp. indet. (Theridiidae: Episinae), subad. ♂ F1447/CJW in Baltic amber, left aspect of the pedipalpi, length of the tarsus 1 mm. Note the fused pedipalpal tibia and tarsus (the cymbium); this fusion is typical in subadult males.

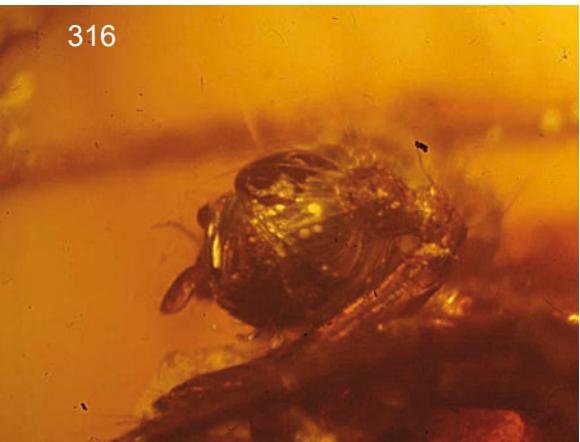
313) *Episinus* sp. indet. (Theridiidae: Episinae), ♀ F1524/CJW in Baltic amber, body length 3.5 mm, anterior-left aspect. Note the annulations of the legs and the autotomy of the left anterior leg beyond the coxa which has a white surface of its stump (below the centre).



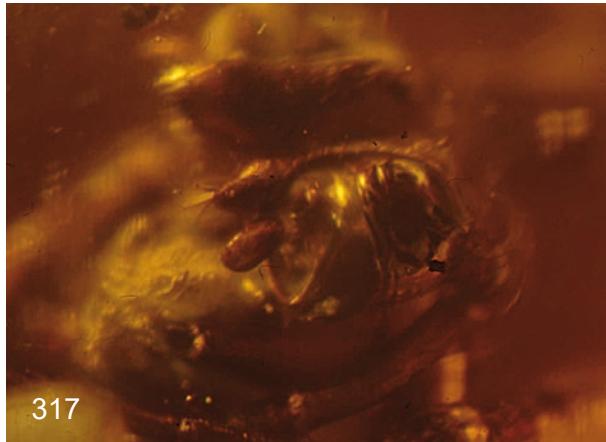
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317

314-317: *Spinitharinus cheliceratus* n. gen. n. sp. (Theridiidae: Episinae), ♂ in Baltic amber; 314) holotype, left and slightly ventral aspect of the prosoma and the left pedipalpus. Note the basal humps of the chelicerae and the remains of a digestive excretion below a bubble under the sternum; 315) holotype, anterior aspect of both pedipalpi; length of the cymbium 0.5 mm; 316-317: ♂ paratype F1746/CJW, retrolateral and retrofrontal aspects of the left pedipalpus.



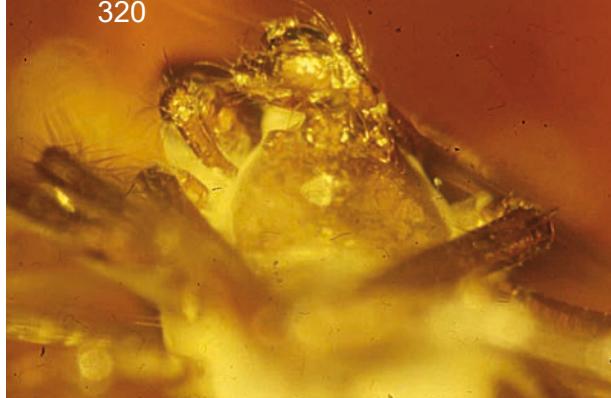
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319

318-319: *Spinitharinus curvatus* n. gen. n. sp. (Theridiidae: Episinae), ♂ paratypes F1461/CJW and F1556/CJW in Baltic amber, dorsal aspects of the spiders, body length 2.5 mm. Note the almost laterigrade "catching position" of the anterior pair of legs in fig. 318 ("sit-and wait-position").

320

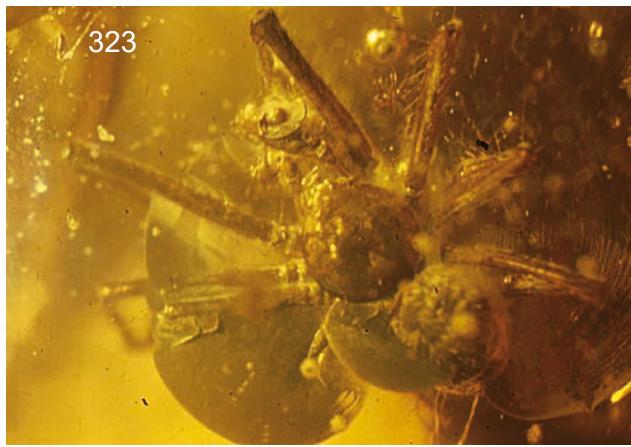


321



320-321: *Spinitharinus cymbioseta* n. gen. n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber; 320) dorsal aspect of the prosoma and the pedipalpi; prosomal length 1 mm; 321) retrodistal aspect of the right pedipalpus; length of the cymbium 0.5 mm.

323



324



322) *Spinitharinus* sp. indet. (Theridiidae: Episinae), ♂ F1423/CJW in Baltic amber, dorsal aspect of the spider, body length 2.1 mm. Note the very long anterior legs. (Most Episinae possesses very long anterior legs).

323-324: *Spinitharinus parvioculi* n. gen. n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber; 323) dorsal aspect of the spider, body length 1.7 mm; 324) retrolateral aspect of the right anterior leg. The tibia is 1.2 mm long. Note its strong proapical bristle which is typical in members of the tribus Spinitharini; see also the fig. 329.

322

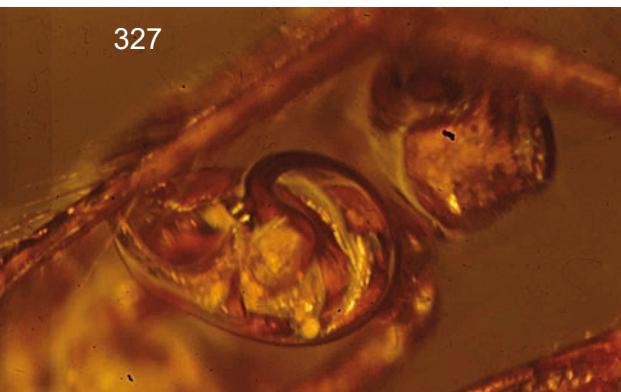




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325-327: *Spinisinus splendens* n. gen. n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber; 325) dorsal aspect of the spider, body length 1.9 mm; 326-327: Retroventral and ventral aspects of the left pedipalpus. Note the excellently preserved structures of the bulbus.

328-332: *Caudasinus regeneratus* n. gen. n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber, body length 2.5 mm; 328-329: lateral aspect of the body (enlarged in fig. 329). Note the strong (bristle-shaped) prolateral/dorsal tibial hairs; 330-331: Lateral aspect of the spider with the regeneration of the left leg III (enlarged in fig. 331). The length of the regenerated patella is 0.35 mm; 332) ventral aspect of the left pedipalpus which bulbus is 0.35 mm wide.



328



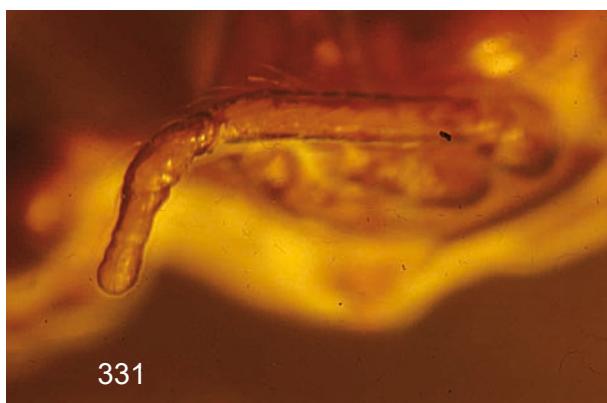
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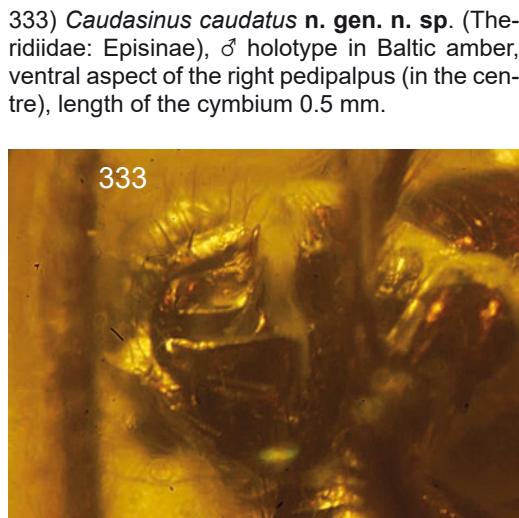
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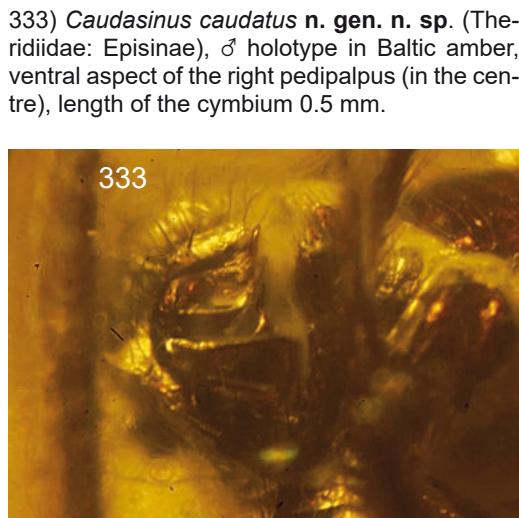
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333



333) *Caudasinus caudatus* n. gen. n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber, ventral aspect of the right pedipalpus (in the centre), length of the cymbium 0.5 mm.



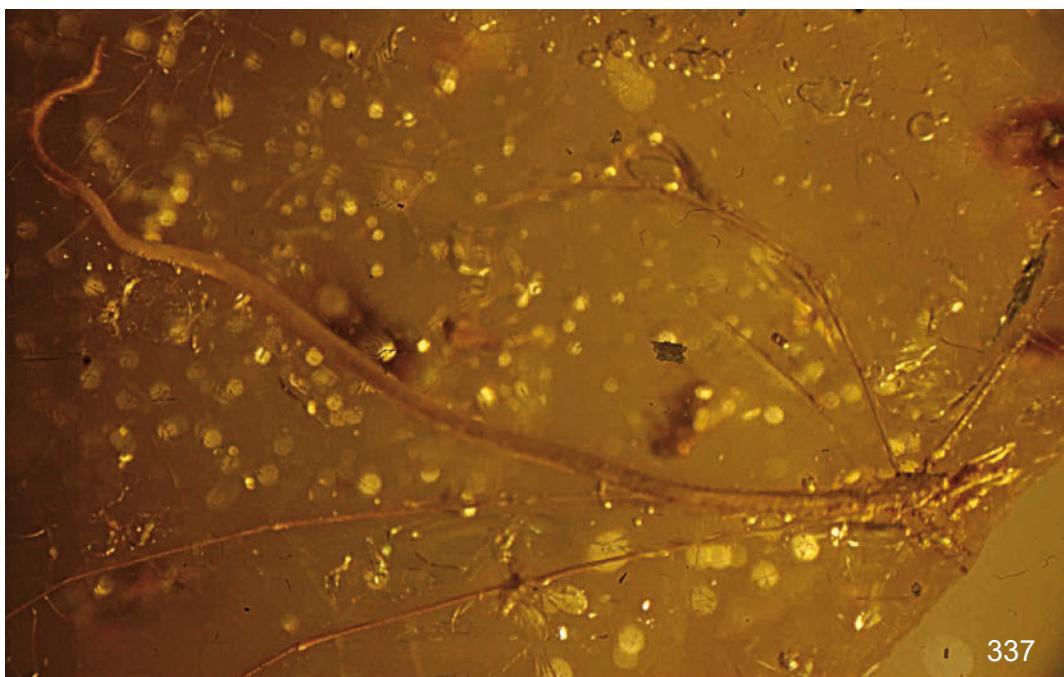
334) *Caudasinus* sp. indet. (Theridiidae: Episinae), ♂ F1423/CJW in Baltic amber, body length 2.5 mm, lateral aspect. The spider is situated on the surface of a layer in the fossil resin; its ventral side – the sternum even thickly – is covered with a white emulsion.

335-336: *Mimetidion furca* n. gen. n. sp. (Theridiidae: Episinae), ♂ holotype in Baltic amber, right pedipalpus, slightly different ventral aspects.

337-338: *Argyrodes (Ariamnes) copalis* n. sp. (Theridiidae: Argyrodinae), ♂ holotype, subrecent, in copal from Columbia, body length 18 mm; 337) dorsal-lateral aspect of the spider. Note the extremely long – vermicular – shape

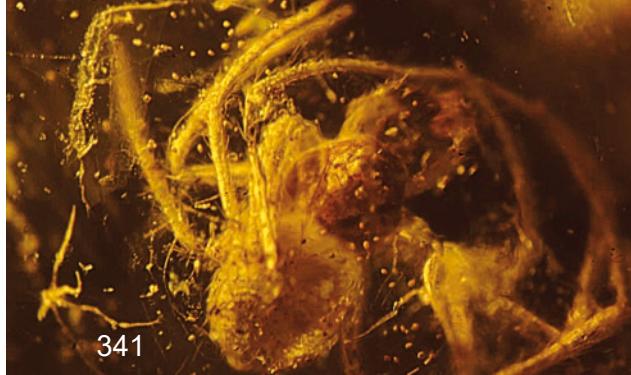


of the opisthosoma as well as the very long and thin legs; 338) prosoma, basal leg articles and pedipalpi, enlarged from photo 337).





338



341



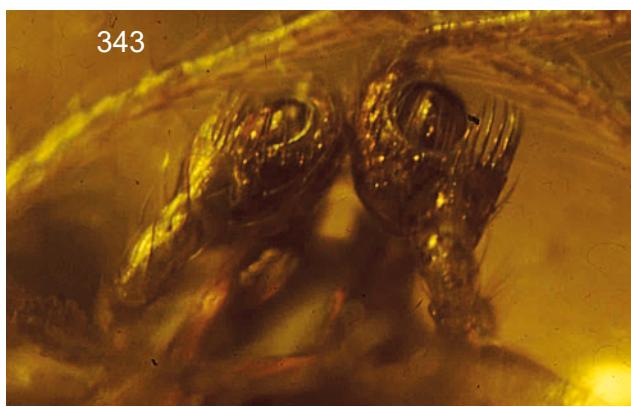
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343

339-344: *Kochiuridion pecten* n. gen. n. sp. (Theridiidae: Anelosiminae), ♂ in Baltic amber, body length 1.3 mm; 339-340: Dorsal aspect of the holotype. Note the dorsally injured (impressed) opisthosoma and the numerous tiny coffee-bean shaped pollen grains which most probably originate from Fagaceae and are better visible in photo 339;

341-344: 341-342) Dorsal and ventral aspect of the paratype F1821/CJW. Note the numerous coffee-pear shaped pollen grains around the spider in the same layer of the fossil resin which probably were transported by a storm together with the spider from an oak (Fagaceae do not produce resin) to a needle tree (probably *Pinus*); 343) paratype F1821/CJW, dorsal aspect of the pedipalpus, length of the cymbium 0.3 mm; 344) paratype F182/CJW, lateral aspect of the body.



344

345) *Balticordion dubium*
n. gen. n. sp. (Theridiidae:
?Theridiinae), ♂ holotype in
Baltic amber, body length
1.4 mm, dorsal-lateral aspect
of the spider.

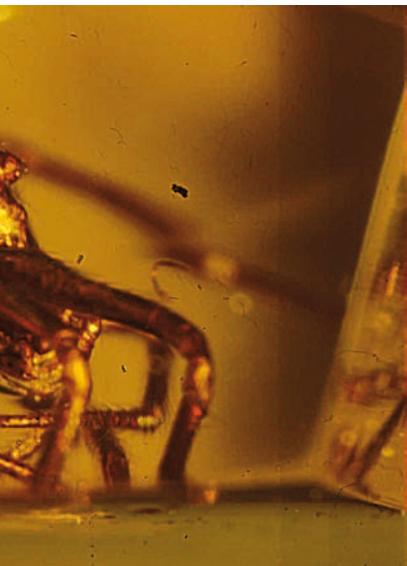
346) *Clavibertus parvus* n.
gen. n. sp. (Theridiidae: ?The-
ridiinae), ♂ holotype in Baltic
amber, body length 1.8 mm,
lateral aspect of the spider.

347-349: *Clavibertus promi-
nens* n. gen. n. sp. (Theridiidae:
?Theridiinae), ♂ in
Baltic amber; 347) holotype,
body length 1.6 mm, lateral
and slightly anterior aspect
of the spider; 348) paratype



345

346



F1773/CJW, body length
1.5 mm, dorsal aspect of
the spider. Note the loose
(autotomized) left anterior
leg in front of the spider and
the left leg II which has been
amputated near the base of
the metatarsus; 349) para-
type F1771/ CJW, retroven-
tral aspect of the left pedi-
palpus, length of the bulbus
0.5 mm. Note the long and
thin embolus.

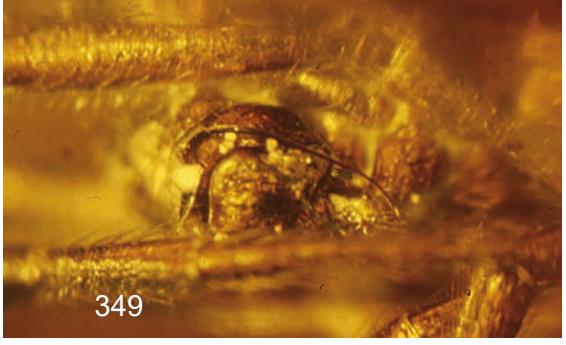
350) *Coscinida asiatica* ZHU
& ZHANG 1992 (Theridii-
dae: Hadrotarsinae), extant
(SE-Asia), ♂, body length
1.8 mm, lateral aspect of the
spider (in alcohol).



347



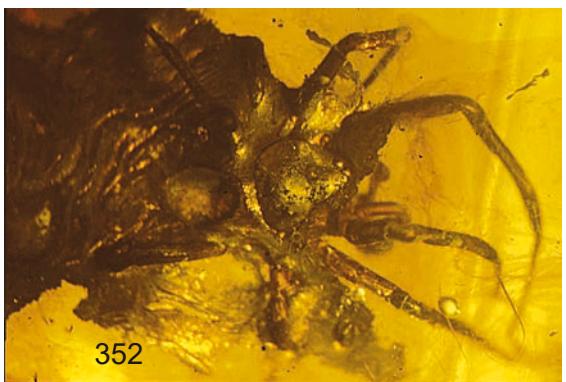
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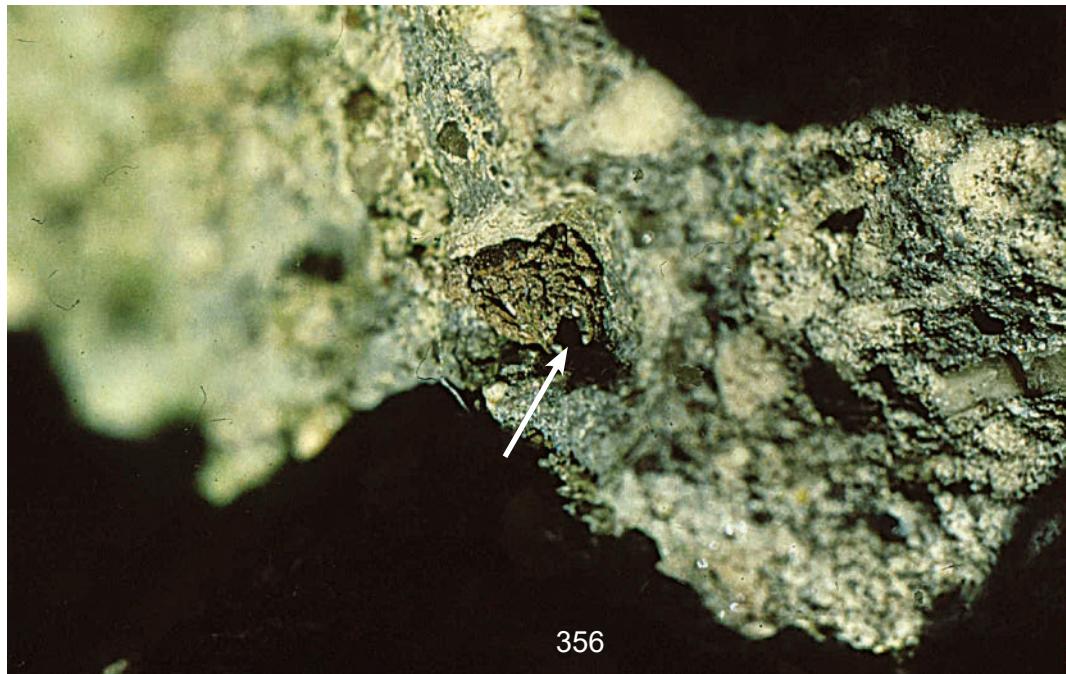
351) *Anatolidion osmani* n. gen. n. sp. (Theridiidae: Theridiinae), extant (Turkey), ♂ holotype, body length 2 mm, dorsal aspect of the spider (in alcohol).

352-353: *Eohalinobius scutatus* n. gen. n. sp. (Lycosoidea), ♂ holotype in Eocene Baltic amber, body length 3.5 mm; 352) dorsal aspect of the spider; the opisthosoma is depressed; 353) ventral aspect of the spider; parts are covered with a white emulsion. Note the bent tibia of the anterior leg.



354-355: *Adorator pala* n. sp. (Zodariidae), ♂ holotype in Baltic amber, body length 4.5 mm; 354) dorsal aspect; 355) ventral aspect.

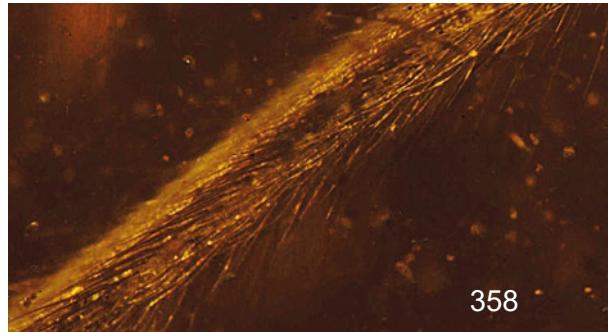




356) Hiding case of a juvenile spider of *Zodarion italicum* (CANESTRINI 1868) (Zodariidae), extant (S-Germany), at the shadowish side of a stone (in the centre of the photo), diameter ca. 3 mm, consisting of tiny stones, and with a small opening. – A fossil hiding case of a zodariid spider in amber has not been recognized up to now but see photo 524) in the book of WUNDERLICH (2004).



357-358: *Eopyrychia* sp. indet. (Zoropsidae s. l.), ♂ F1655/CJW in Baltic amber; 357) dorsal aspect of the spider, body length 10 mm. Some leg articles and parts of both pedipalpi are cut off; note the slender opisthosoma. Most spiders in



amber are distinctly smaller; 358) basal half of the posterior metatarsus with the dense FIELD of its calamistrum.



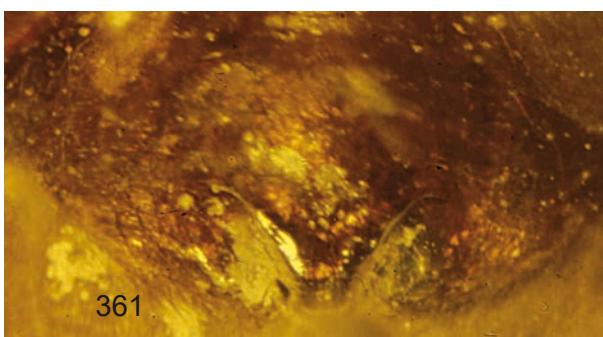
359



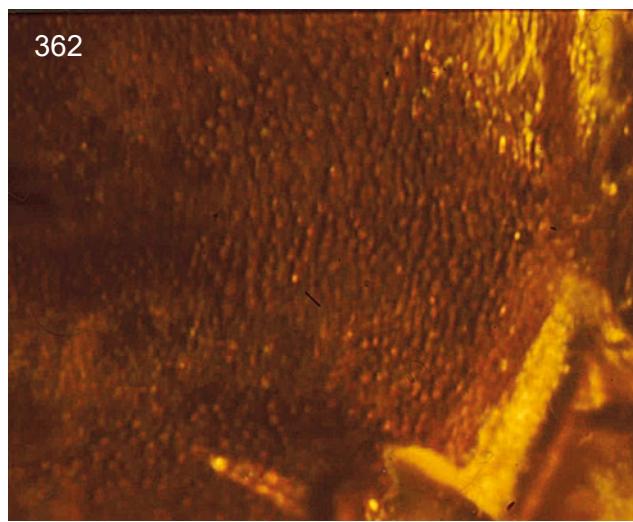
359) *Ablator* sp. indet. (Corinnidae), ♂ F2047/CJW in Baltic amber, body length 3.8 mm, dorsal aspect of the spider, with a tiny (parasitic?) wasp (Hymenoptera: Scelionidae) left of the spider which body length is 0.75 mm. Scelionidae are parasites usually of eggs of insects and spiders.

360-361: *Ablator* sp. indet. (Corinnidae), ♀ F1839/CJW in Baltic amber, body length 4.6 mm; 360) dorsal aspect of the spider, the opisthosoma is dorsally depressed; 361) epigyne. Note the sclerotized and almost v-shaped middle part which posterior part is slightly hidden by a bubble of gas.

361



362



362) *Ablator in evolvens* n. sp. (Corinnidae), ♂ holotype in Baltic amber; granular area of the cuticula of the anterior right prosomal margin at a hair-free area. The vertical diameter of the photo shows 0.6 mm of the prosoma.



363



364



365

363-365: *Liocranum variabile* n. sp. (Zoridæ) (extant, Spain), ♂ in alcohol; 363) dorsal aspect of the holotype. Note the 2.8 mm long and slender chelicerae and the long fangs which longitudinal position is similar to mygalomorph spiders in the resting position; 364) ventral aspect of the chelicerae of the holotype which fangs are 1.8 mm long; 365) retrolateral aspect of the right pedipalpus of the holotype (below) and the paratype. The length of the tibia is 1.8 and 0.9 mm.



366



367



368

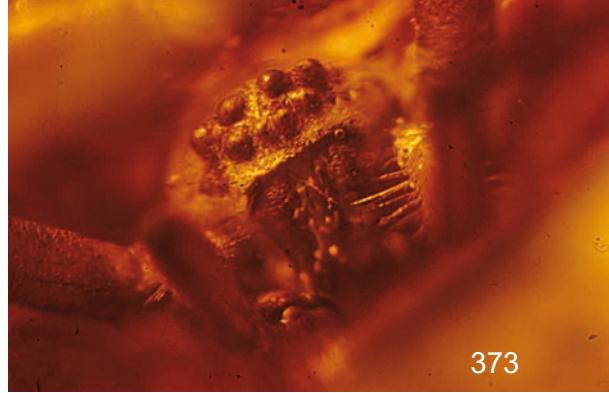
366) *Apostenus* sp. indet. (Zoridae), ♀ F2037/CJW in Baltic amber, body length 4.2 mm, dorsal aspect of the spider with a (parasitic?) wasp (Hymenoptera indet.) between some right tarsi, body length 1.2 mm.

367-371: *Zorapostenus raveni* n. gen. n. sp. (Zoridae), ♂ holotype and paratype (fig. 371) in Eocene Baltic amber, body length 3 mm; 367-368: Dorsal aspect of the spider. Note the lost left legs I, III and IV which are autotomized beyond their coxa, and the questionable bite mark at the

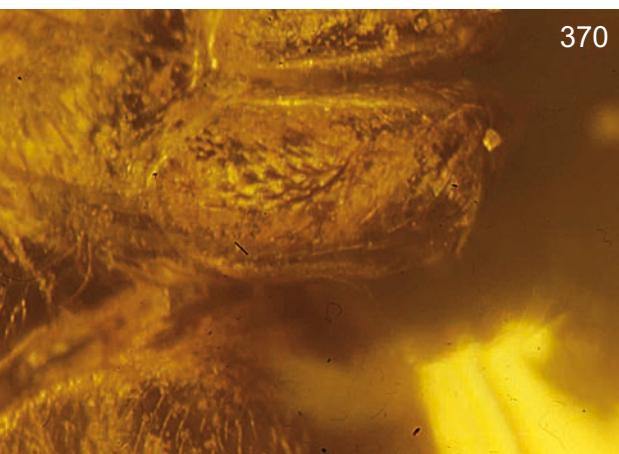
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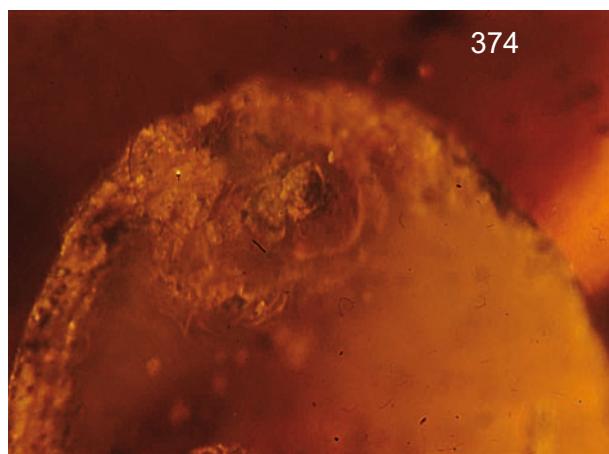
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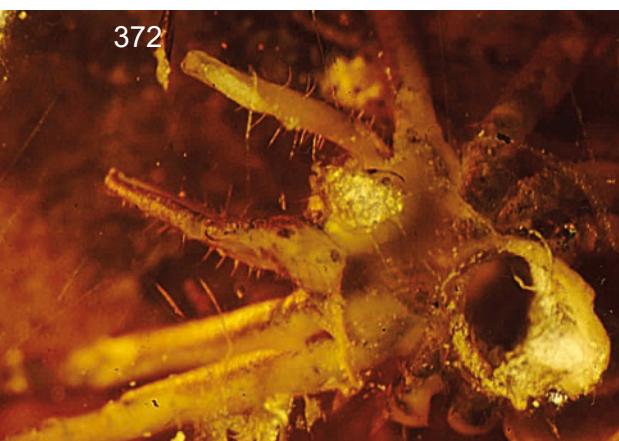
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376



372



right end of the beetle larva on the left in the photo 367); 369) position of the eyes; 370) left posterior gnathocoxa (in the centre) which bears questionable stridulatory bristles in two groups; 371) retrolateral aspect of the right pedipalpus and some leg articles; the cymbium is 0.47 mm long.

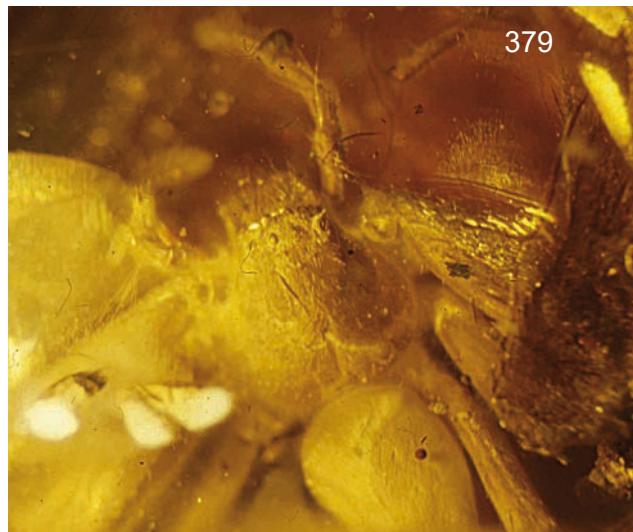
372-375: *Succinomus duomammillae* n. gen. n. sp. (Zoridae), ♂ holotype in Baltic amber, body length 2.9 mm, parts are cut off; 372) ventral aspect of the spider. A longer hole with a white margin goes into the prosoma; 373) anterior aspect of the prosoma; 374) ventral aspect of the posterior part of the opisthosoma with the anterior spinnerets which are 0.12 mm in diameter; 375) dorsal aspect of the pedipalpi. Most parts of the left pedipalpus are cut off.



377-378: Sparassidae indet. sp.1, juv. ♂ F2103/BB/CJW in Baltic amber, body length 9.3 mm, anterior aspect of the spider (enlarged in photo 378).



376) *Zachria restincta* PETRUNKEVITCH 1958 (RTA-clade, "Dionycha", unknown family), juvenile ♀ holotype in Baltic amber, body length 2.3 mm, dorsal aspect of the spider. The tarsal trichobothria have an irregular (partly paired) position. Originally the spider was well preserved and intransparent but filling parts of the spiders body (after drilling) with clarite made it transparent – see PETRUNKEVITCH (1958: 276), and destroyed parts forever.



379) Sparassidae indet. sp.2, juv. ♀ F1883CJW in Baltic amber, body length 7.2 mm, dorsal aspect. Most leg articles are hidden.



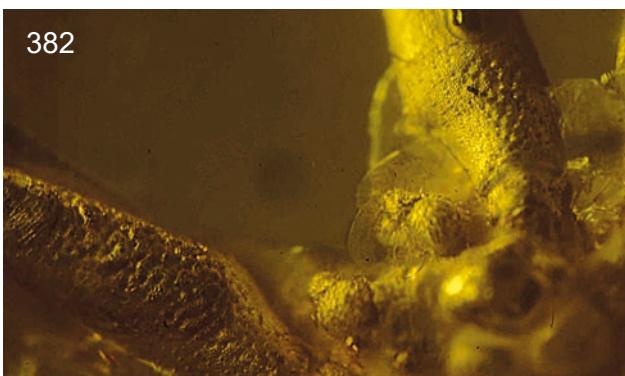
380

380-382: *Succiniraptor radiatus* (KOCH & BERENDT 1854) (Borboropactidae), ♂ F1654/CJW in Baltic amber, body length 3.5 mm. Note the very large anterior legs with the thick femora and the unusually small pedipalpi; 380) dorsal aspect of the spider with the capturing position of the

powerful anterior legs; 381) dorsal aspect of the prosoma and some leg articles. Note the granular structure of the cuticula; 382) ventral aspect of the anterior part of the spider with the small pedipalpi between the powerful anterior femora.



381



382

383) *Hyptiotes exuviarum* n. sp. (Uloboridae), extant (France), dorsal aspect of the ♂ holotype at the right side, body length 2.7 mm (note the large left pedipalpus; the right pedipalpus has been dissected), and the subadult ♀ paratype, lateral aspect, in alcohol.

383





384



388



385



389



386



390



387

384-390: Extant European members of the family Salticidae (Jumping Spiders).

The body length of most spiders is about 3-4mm, members of *Marpissa*, *Menemerus* and *Pellenes* are larger:

- 384) *Marpissa muscosa* (CLERCK 1757), ♀;
- 385) *Heliophanus cupreus* (WALCKENAER 1802), ♀;
- 386) *Heliophanus* cf. *apiatus* SIMON 1868, ♂,
- 387) *Pellenes ostrinus* (SIMON 1868), ♂,
- 388) *Menemerus semilimbatus* (HAHN 1829), ♂,
- 389) *Pseudeuophrys lanigera* (SIMON 1871), ♀;
- 390) *Macaroeris nidicolens* (WALCKENAER 1802), ♀.

Appendix

New suprageneric spider taxa which are described in this volume for the first time.

Names in alphabetic order. The numbers in brackets refer to the number of the paper in which they are dealt with. Extinct taxa are underlined. Apostenini and Pumiliopimoidae are known from extinct AND extant taxa as well. – See Beitr. Araneol., 3 (2004: 1907, appendix); note: in that list the Comarominae (Anapidae s. l.) is erroneously listed as Balticorominae (nomen nudum).

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FOSSIL AND EXTANT SPIDERS

FOSSILE UND HEUTIGE SPINNEN

Joerg Wunderlich

In this book mainly fossil spiders (Araneae) are treated but also numerous extant taxa, including the first descriptions of some families, a large paper on the strange spiders in Cretaceous ambers, a voluminous paper on fossil and extant Combfooted Spiders (family Theridiidae), others e. g. on the European Jumping Spiders (Salticidae), on the Zoridae/Liocranidae, and on subtaxa in spiders. Fossil resins and their organic inclusions are like "windows to the past": The "footprints" of spiders evolution can be traced back until the dinosaurs era, 140 million years ago. More than one thousand drawings and about four hundred of coloured photos demonstrate the diversity of fossil spiders which are preserved in Cretaceous and Tertiary ambers. Parts of the – in the geological sense – oldest capture webs of spiders and their prey are described and figured. Especially Cretaceous spiders provide surprising findings on the evolution of spiders. Conclusions are drawn on the camouflage and the mating behaviour of fossil spiders, based on peculiar structures.

In diesem Buch werden hauptsächlich fossile Spinnen behandelt, aber auch zahlreiche heutige Gruppen, einschließlich der Beschreibung einiger bisher unbekannter Familien, einer ausführlichen Arbeit über die fremdartigen Spinnen der Kreidezeit, einer umfangreichen Arbeit über fossile und heutige Kugelspinnen (Familie Theridiidae) (die häufigsten Spinnen in Baltischem Bernstein und in nahezu jeder Sammlung vertreten!), weitere z. B. über europäische Springspinnen (Familie Salticidae), Feldspinnen (Familie Zoridae/Liocranidae) und die Unterteilung von Spinnengruppen. Fossile Harze mit ihren organischen Einschlüssen sind wie „Fenster in die Vergangenheit“: Die Spuren der Evolution der Spinnen können bis in das Zeitalter der Dinosaurier vor 140 Millionen Jahren zurückverfolgt werden. Mehr als eintausend Zeichnungen und annähernd vierhundert Farbfotos belegen die Vielfalt fossiler Spinnen, die in kreidezeitlichen und tertiären Bernsteinen konserviert sind. Teile der geologisch ältesten Fangnetze von Spinnen und ihre Beutetiere werden beschrieben und abgebildet. Insbesondere kreidezeitliche Spinnen erlauben Rückschlüsse auf die Evolution der Spinnen. Spezielle körperliche Strukturen erlauben Rückschlüsse auf das Tarnverhalten sowie auf das Balz- und Paarungsverhalten ausgestorbener Spinnen.



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