

Amber Arthropod Key

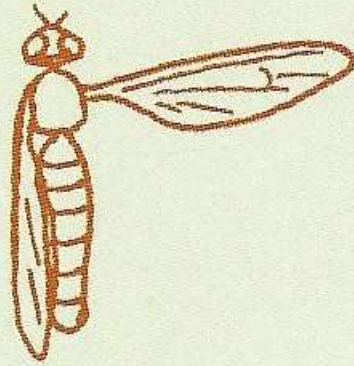
For most arthropods found in Baltic and Dominican Ambers and some others.

Keys to identification The keys in this book are designed to identify most of the arthropod inclusions that have been found in amber, and not living arthropods. They use the most obvious characteristics and are easy to follow. Many amber inclusions can only be examined from one side and parts of them are often obscured by cracks and bubbles. Pieces of amber may also be rounded, which can make the inclusion difficult to see due to distortion. If this is the case, you may need to look at the photographs and descriptions to aid identification.

The rarity of an animal is indicated after its name by: VC very common, C common, R rare, VR very rare, (—) not recorded. Where this is given twice and separated by a slash, this indicates rarity in Baltic and then Dominican amber. For example, C/VR means common in Baltic amber but very rare in Dominican amber.

1

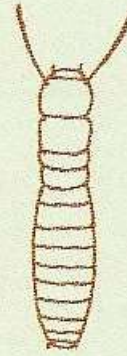
Does it have wings or wing cases?



YES

Insecta: Pterygota

→ go to 28 (p.77)



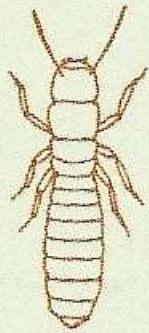
NO

▶ go to 2



2

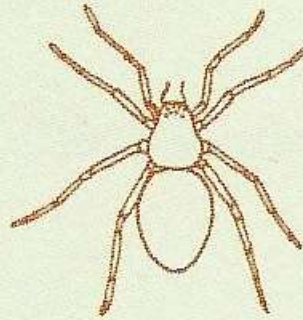
How many legs does it have?
(It's possible that legs have broken off)



6

Hexapoda

→ go to 14
(p.70)

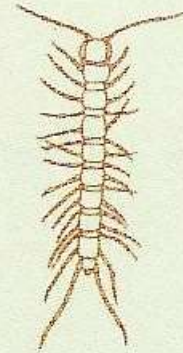


8

(+ fangs and/
or pedipalps)

Arachnida

→ go to 3



MORE
THAN 8

→ go to 10



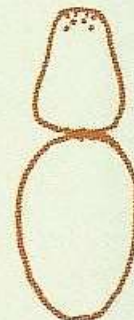
3

Does it have a segmented abdomen?



YES

▶ go to 6



NO

▶ go to 4





Figure 108. Baltic amber pendant containing a spider (Araneae) and harvestman (Opiliones).

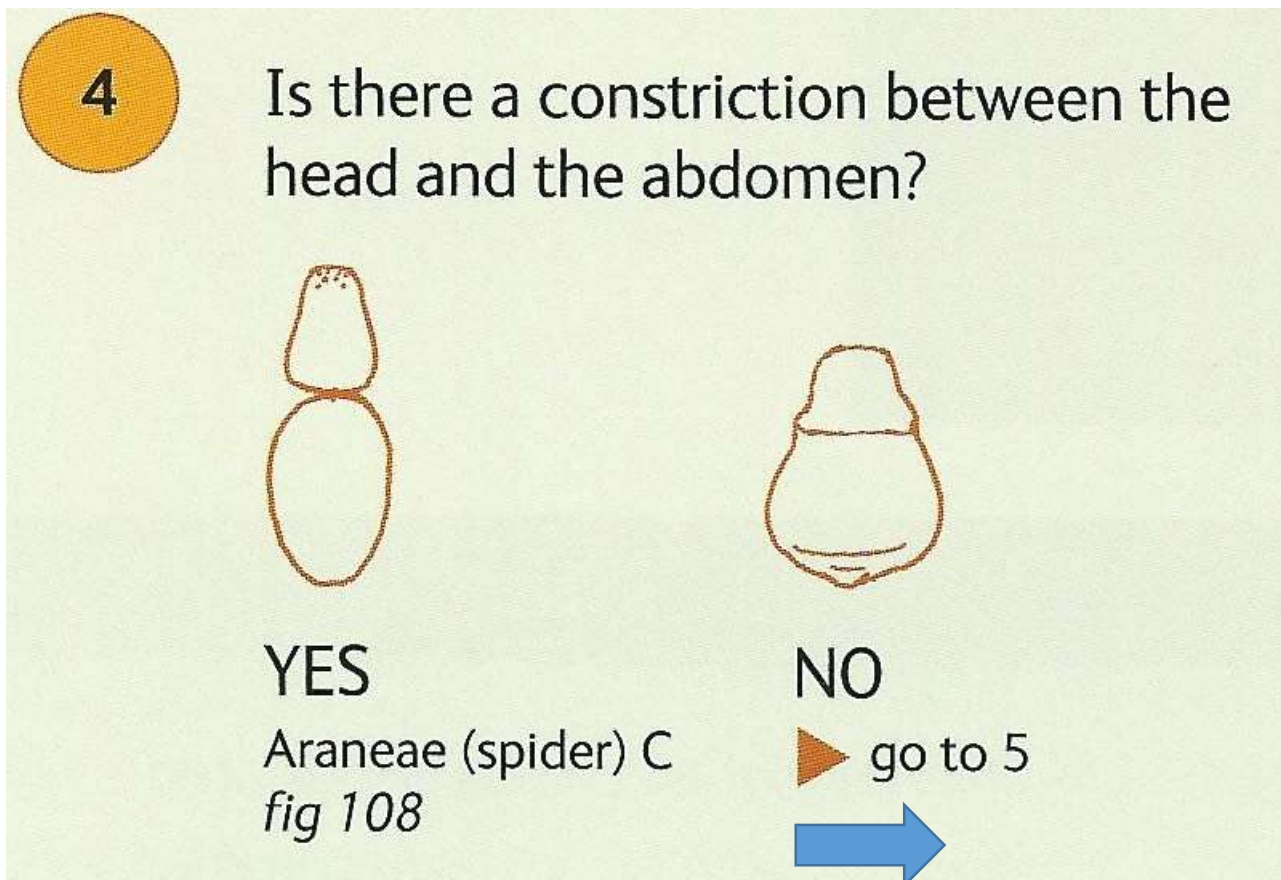
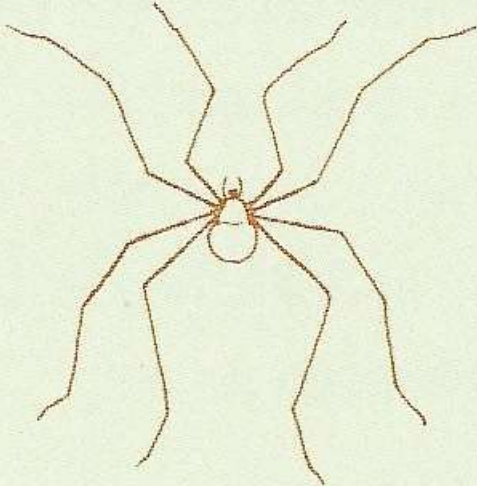


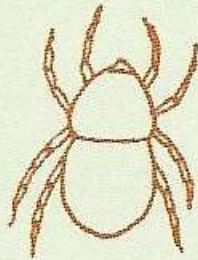


Figure 108. Harvestman (daddy-long-legs) is at the top.

5 How long are the legs?



VERY LONG
Opiliones
(harvestman) VR
fig 108



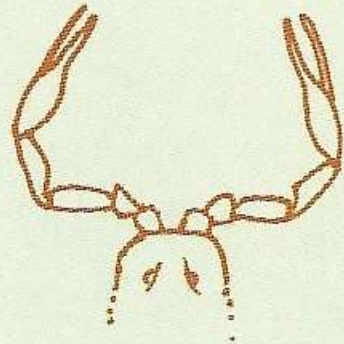
SHORT
Acari (mite) C/R
fig 110



Figure 110. Mite (Arachnida: Acari) in Baltic amber.

6

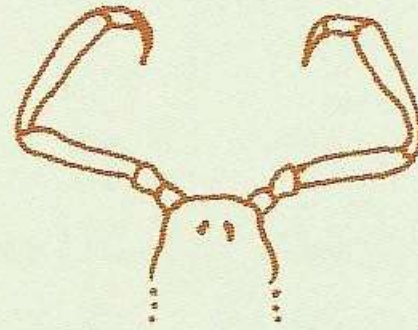
Does it have pincers?



YES



go to 7



NO



go to 8

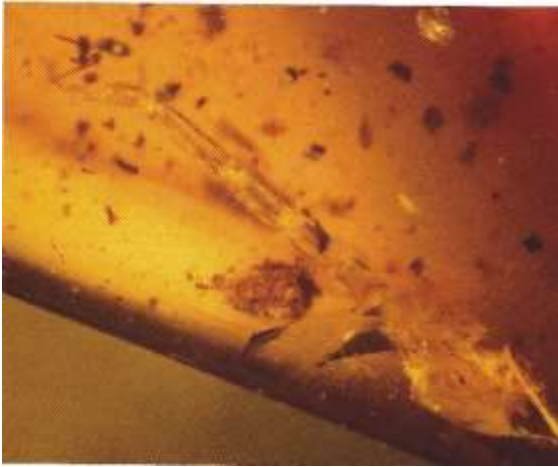
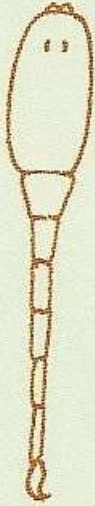


Figure 111. Scorpion
(Arachnida: Scorpiones)
tail in Burmese amber.


7

Does it have a tail?



YES

Scorpiones
(scorpion) VR
fig 111



NO

Pseudoscorpionida
(pseudoscorpion) VR
fig 112



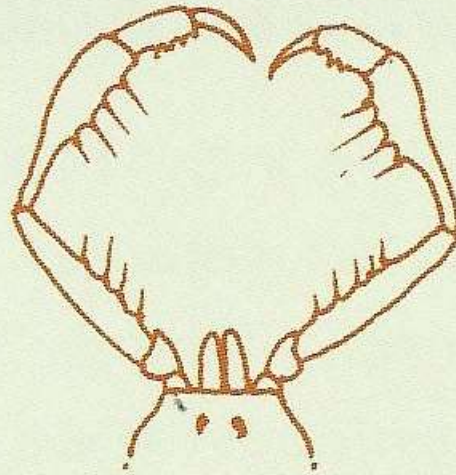
Figure 112. Pseudoscorpion
(Arachnida:
Pseudoscorpionida) in
Baltic amber.



Fig. 206. Pseudoscorpion (Arachnida:
Pseudoscorpionida) in Baltic amber.

8

Does it have spiny pedipalps?



YES

Amblypygi (tail-less
whip scorpion) VR

NO

▶ go to 9

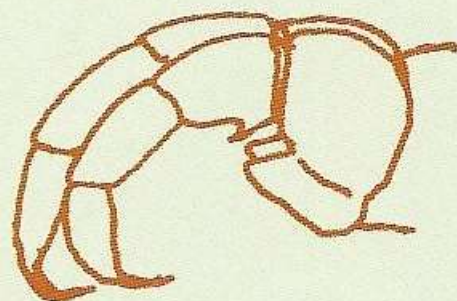




Fig. 113. Schizomid
(Arachnida: Schizomida) in
Dominican amber.

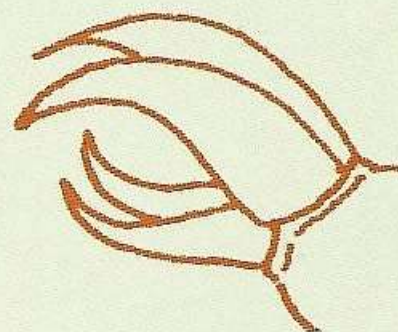
9

How many fangs (chelicerae) has it got?



2

Schizomida
(schizomid) –/VR
fig 113

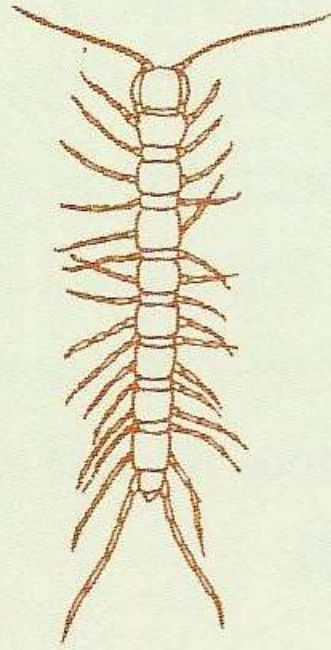


4

Solpugida
(wind spider) –/VR

10

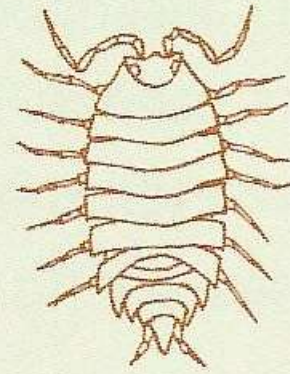
Does it have a long thin body?



YES

Myriapoda

→ go to 11



NO

Crustacea

→ go to 13

11

How many legs on each body segment?



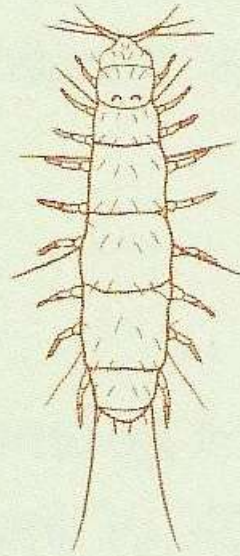
4
→ go to 11A



2
→ go to 12

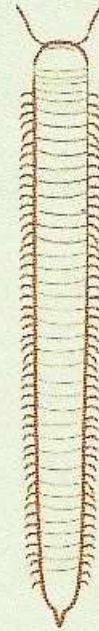
11A

How many pairs of legs does it have?



LESS
THAN 12

Pauropoda
(pauropod)
VR/—



MORE
THAN 11

Diplopoda
(millipede) VR
fig 116



Fig. 115. A very hairy millipede (Diplopoda: Polyxenida) in Baltic amber.



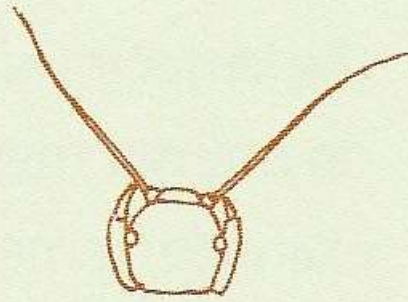
Fig. 116. Millipede (Myriapoda: Diplopoda) in Dominican amber.



Fig. 114. Centipede
(Myriapoda: Chilopoda) in
Baltic amber.

12

Does it have fangs?

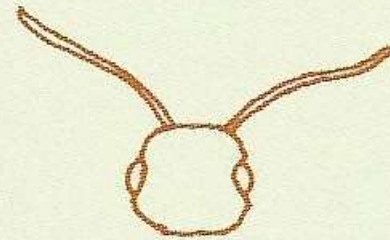


YES

Chilopoda
(centipede)

VR

fig 114



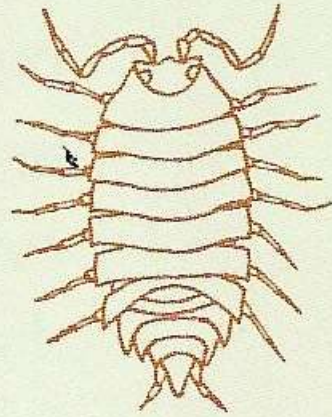
NO

Symphyla
(symphylan)

VR

13

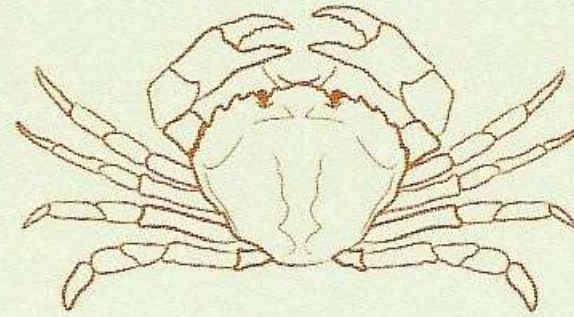
Is the body segmented?



YES



go to 13A



NO

Decapoda: Brachyura
(crab)

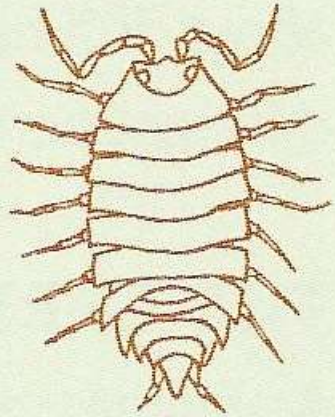
-/VR



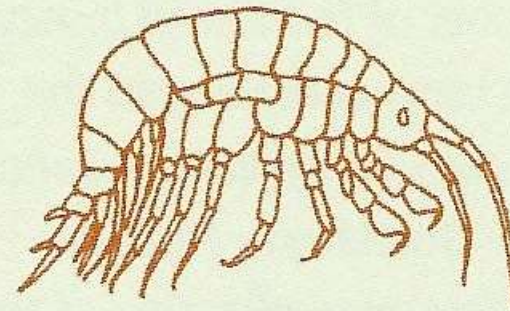
Fig. 109. Woodlouse
(Crustacea: Isopoda) in
Dominican amber.

13A

In which way is it flattened?



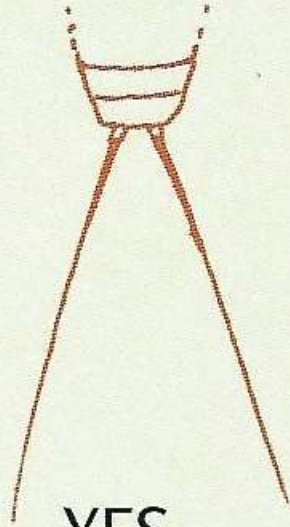
**DORSO-
VENTRALLY**
(TOP TO BOTTOM)
Isopoda
(woodlouse) VR
fig 109



LATERALLY
(SIDE TO SIDE)
Amphipoda
(sandhopper) VR

14

Does it have at least two appendages projecting from the tip of the abdomen?



YES

→ go to 15



NO

→ go to 24

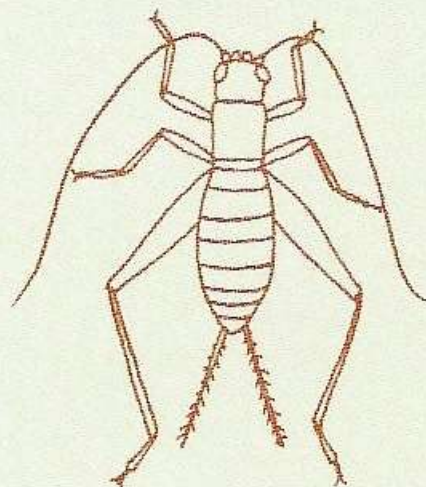


Fig. 128. Cricket
(Orthoptera: Grylloidea) in
Dominican amber.



15

Does it have long hind legs with
wide femurs?



YES

Orthoptera
(grasshopper or
cricket) VR/R *fig 128*



NO

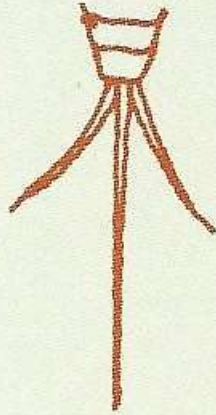
▼ go to 16



Fig. 205. Cricket
(Orthoptera: Ensifera) in
Baltic amber.

16

How many abdominal appendages does it have?



3 OR MORE



go to 17



2



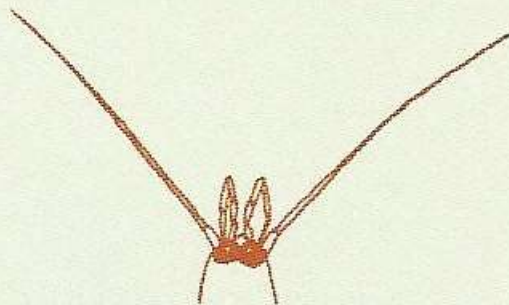
go to 18



Fig. 120. Bristletail
(Archaeognatha) in Baltic
amber.

17

Does it have large eyes?



YES

Archaeognatha
(bristletail) R
fig 120



NO

Zygentoma
(silverfish) R
fig 121



Fig. 121. Silverfish
(Zygentoma) in Baltic
amber.




Fig. 215. Bristletail
(Archaeognatha:
Machilidae) in Dominican
amber.




Fig. 129. Earwig
(Dermaptera) in Dominican
amber.

18 Does it have pincers?



YES
Dermaptera (earwig)
VR
fig 129



NO
▼ go to 19
➡



Fig. 214. Earwig
(Dermaptera) in Dominican
amber.

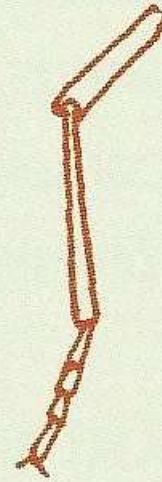
19

Are any of its legs spiny?



YES

→ go to 20

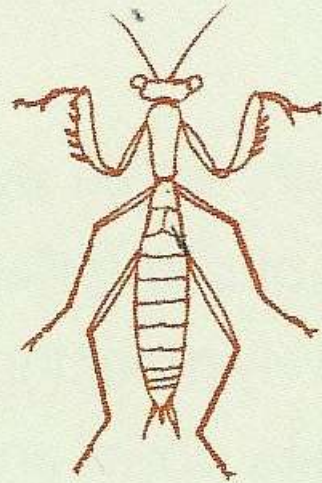


NO

→ go to 21

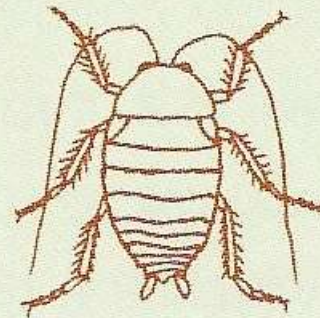
20

How many of its legs are spiny?



FRONT TWO

→ go to 20A



ALL 6

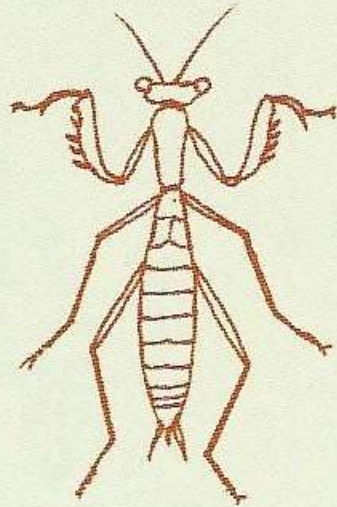
Blattodea (cockroach) R
fig 126



Fig. 126. Cockroach nymph (Blattodea) in Baltic amber.

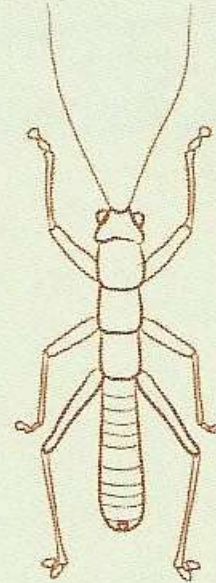
20A

How long is the first thoracic segment?



LONG

Mantodea (praying
mantis) VR



SHORT

Mantophasmatodea
VR/—



Fig. 202. Rockcrawler
(Mantophasmatodea) in
Baltic amber.



Fig. 130. Web spinner
(Embiopoda) in Colombian
copal.

21 Are the tips of its forelegs enlarged?

YES
Embiopoda
(web spinner)
VR fig 130

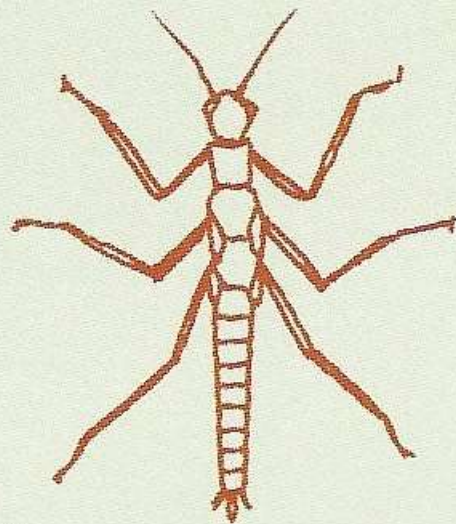
NO
▶ go to 22
➡



Fig. 132. Stick insect
(Phasmatodea) in Baltic
amber.

22

Does it have a long thin body with
elongated thorax?

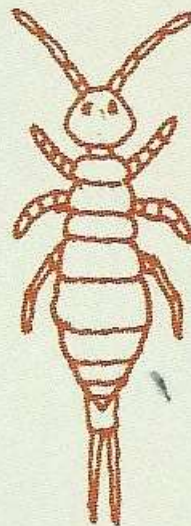


YES

Phasmatodea
(stick insect)

VR

fig 132



NO

▼ go to 23

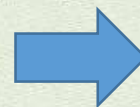
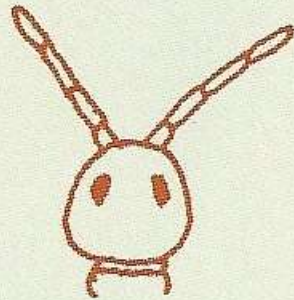




Fig. 118. Springtail
(Collembola) in Dominican
amber.

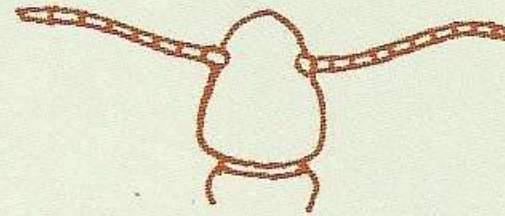
23

Does it have eyes?



YES

Collembola
(springtail) R
fig 118



NO

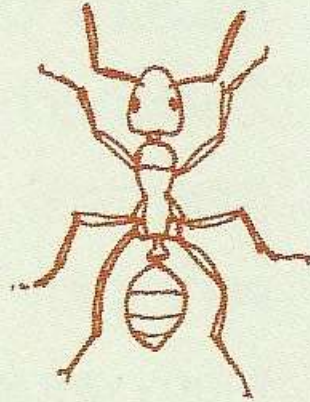
Diplura
(two-tailed
bristletail) VR



Fig. 166. Ant (Aculeata: Formicidae) in Baltic amber.

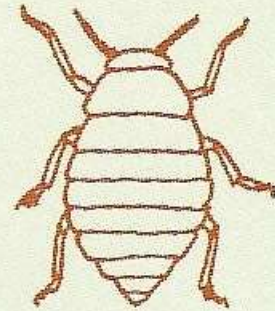
24

Is there a strong constriction between the thorax and abdomen?



YES

Hymenoptera:
Formicidae (ant)
CNC fig 166



NO

▶ go to 25

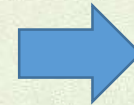
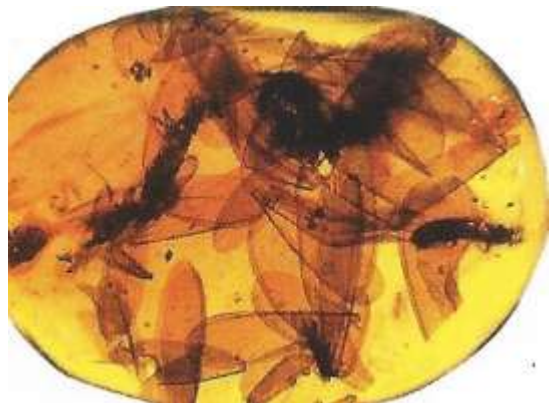


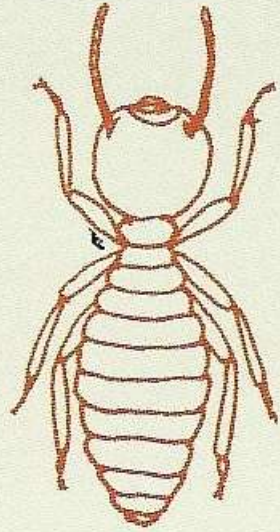


Fig. 127. Soldier termite (Isoptera) in Dominican amber.



25

Does it have a narrow thorax?



YES

Probably Isoptera (termite) R/C
fig 127

NO

▼ go to 26

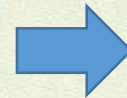
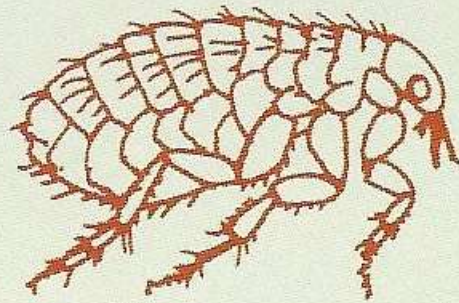


Fig. 212. Termites (Isoptera) with wings, swarming, in Dominican amber.

26

Is the body laterally compressed
(flattened from side to side)?



YES

Siphonaptera (flea) VR

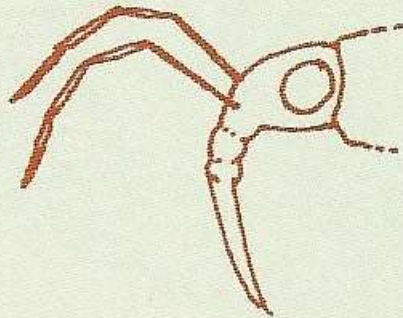
NO

▼ go to 27



27

Does it have a proboscis?



YES

Hemiptera (bug)

→ go to 52 (p.83)

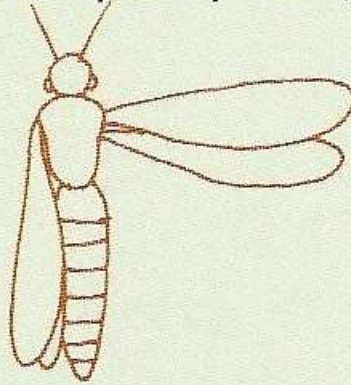
NO

Probably another wingless
insect (adult, nymph or larva)

28

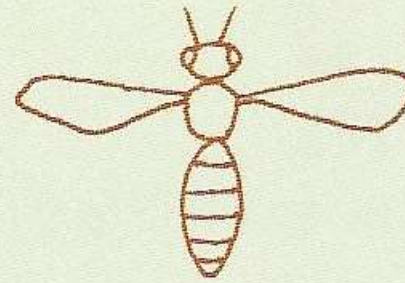
How many wings does it have?

(If you are not sure perhaps due to the wings being folded back, then try to answer and compare your specimen with the photos)



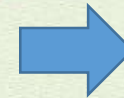
4 (INCLUDING
WING CASES
AND TEGMINA)

➡ go to 29



2

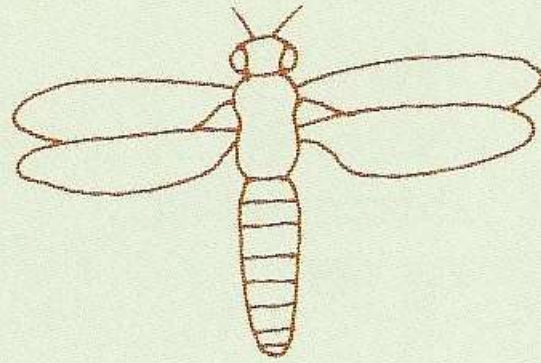
➡ go to 48 (p.79)



29

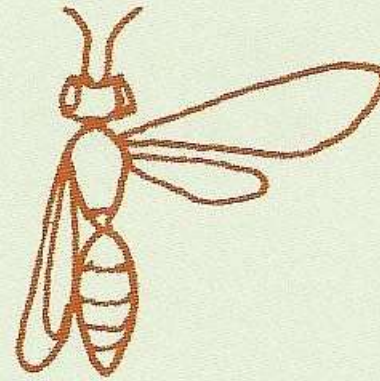
Do all four wings look the same?

(If you are not sure then try both answers)



YES

→ go to 30

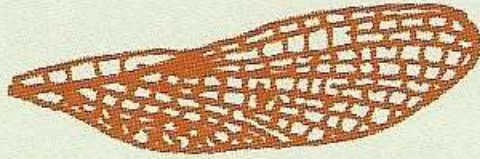


NO (INCLUDING ALL
INSECTS WITH WING
CASES AND TEGMINA)

→ go to 36

30

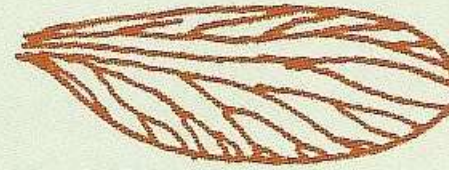
Do the wings have a lot of cross-veins?



YES



go to 31



NO



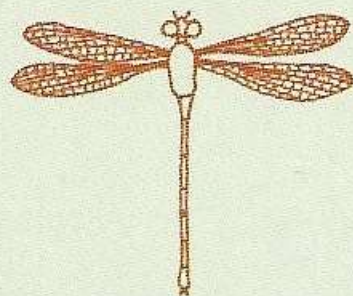
go to 33



Fig. 122. A pair of overlapping damselfly (Odonata: Zygoptera) wings in Baltic amber.

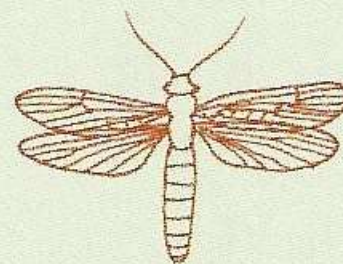
31

Does it have short antennae and a long thin body?



YES

Odonata: (dragonfly or damselfly) VR
fig 122



NO

▶ go to 32

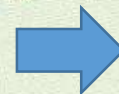




Fig. 131. Stonefly
(Plecoptera: Leuctridae)
in Baltic amber.

32

Do the cross-veins form a ladder-like pattern towards the posterior?

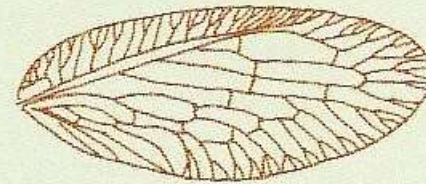


YES

Plecoptera (stonefly)

VR

fig 131



NO

▶ go to 61 (p.88)





Fig. 207. Moth
(Lepidoptera) in Baltic
amber.

33 Are the wings scaly, hairy or neither?

SCALY
Lepidoptera (moth) R *fig 144*

HAIRY
→ go to 34

NEITHER
→ go to 35

Three diagrams of moth wings are shown vertically. The top wing is covered in small, overlapping scales. The middle wing is covered in long, fine hairs. The bottom wing is smooth with visible veins.

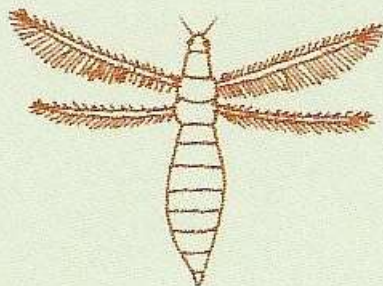
Fig. 144. Moth
(Lepidoptera) in Baltic
amber.



Fig. 134. Thrip
(Thysanoptera) in
Dominican amber.

34

Is it small (body length less than
2 mm, or 1/16 in)?

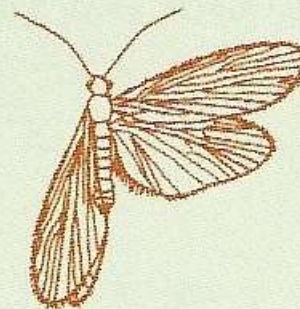


YES

Thysanoptera (thrip)

R

fig 134



NO

Trichoptera (caddis-fly)

C/R

fig 146

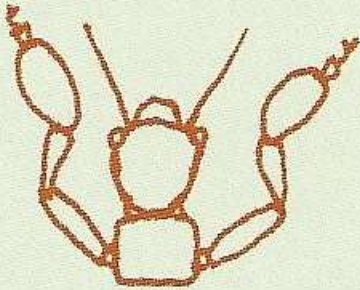


Fig. 146. Caddis-fly
(Trichoptera) in Baltic
amber.




Fig. 130. Web spinner (Embioptera) in Colombian copal.

35 Are the ends of its forelegs enlarged?



YES
Embioptera (web spinner) VR fig 130



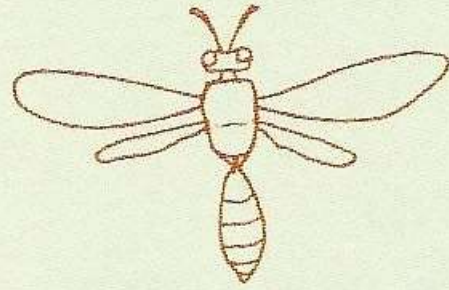
NO
Isoptera (termite) R/C fig 107



Fig. 107. Large termite (Isoptera) (genus: Mastotermes) in Dominican amber.

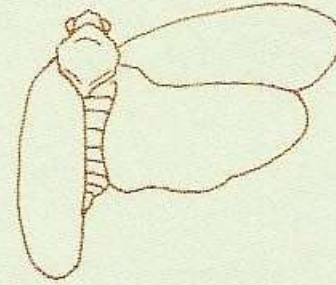
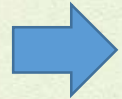
36

Are the hindwings smaller than the forewings? (If you are not sure then try both answers)



YES

▶ go to 37



NO

(including all insects with wing cases and tegmina)

➡ go to 43

37

Does it have a constriction between the thorax and abdomen?



YES

Hymenoptera:

Apocrita

→ go to 83 (p.101)



NO

▼ go to 38

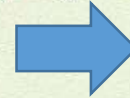
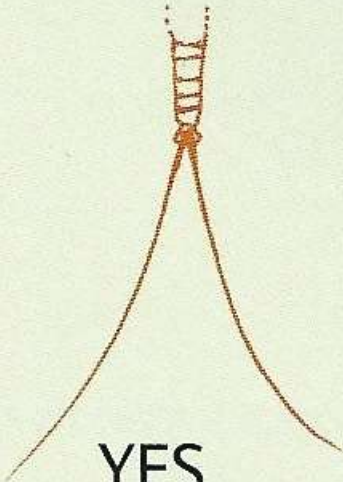





Fig. 123. Mayfly
(Ephemeroptera) in Baltic
amber.

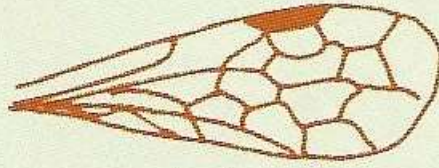
38 Does it have at least two long tails
(caudal filaments)?


YES
Ephemeroptera
(mayfly) R
fig 123


NO
▼ go to 39
➡

39

Does it have lots of cells in the wing?



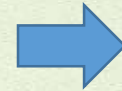
YES

Hymenoptera:
Symphyta
(sawfly) VR



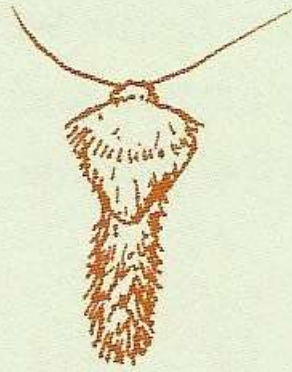
NO

▼ go to 40



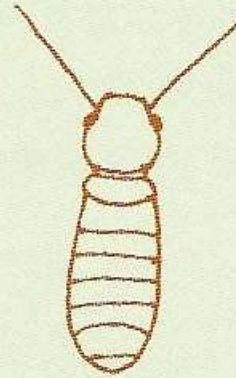
40

Is the body hairy?



YES

→ go to 65 (p.88)



NO

→ go to 41

41

Does only one vein originate from the base of the wing?



YES

▶ go to 42



NO

Psocoptera
(barklouse) R/C
fig 133



Fig. 133. Barklouse
(Psocoptera) in
Dominican amber.



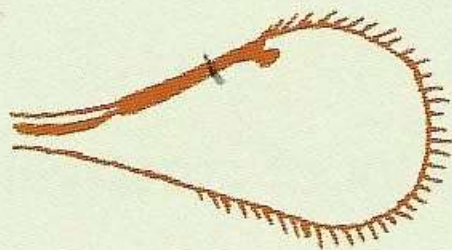
Fig. 217. Bark louse
(Psocoptera: Psocidae) in
Dominican amber.



Fig. 171. Chalcid wasp
(Parasitica:
Chalcidoidea) in Baltic
amber.

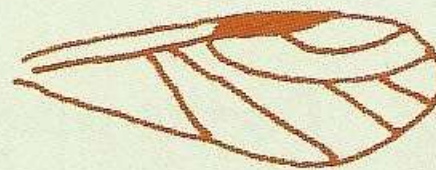
42

Is the vein unbranched?



YES

Hymenoptera:
Chalcidoidea
(chalcid wasp) VR
fig 171



NO

Hemiptera: Homoptera

▶ go to 54 (p.84)

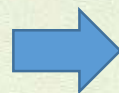





Fig. 129. Earwig
(Dermaptera) in Dominican
amber.

43 Does it have pincers?



YES
Dermaptera (earwig)
VR
fig 129



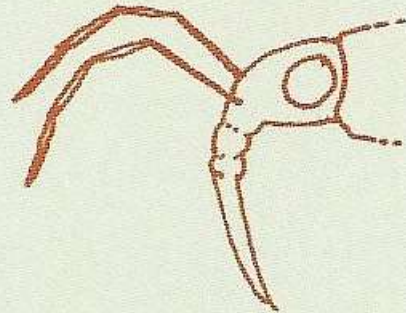
NO
▼ go to 44
➡



Fig. 214. Earwig
(Dermaptera) in Dominican
amber.

44

Does it have a proboscis?



YES

Hemiptera (bug)

→ go to 56 (p.84)

NO

→ go to 45

45

Does it have wing cases that meet down the middle of the body?



YES

Coleoptera (beetle)

→ go to 92 (p.106)

NO

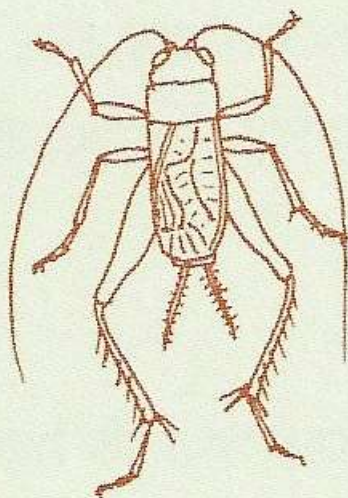
→ go to 46



Fig. 205. Cricket (Orthoptera: Ensifera) in Baltic amber.

46

Does it have long hind legs with wide femurs?



YES

Orthoptera (grasshopper or cricket) VR/R fig 128

NO

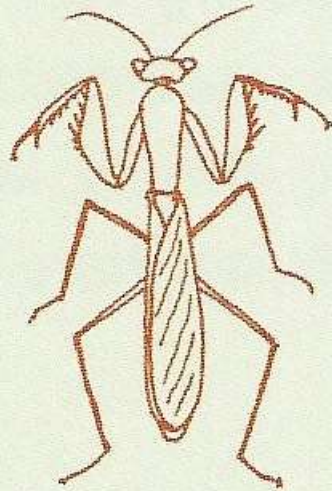
→ go to 47



Fig. 128. Cricket (Orthoptera: Grylloidea) in Dominican amber.

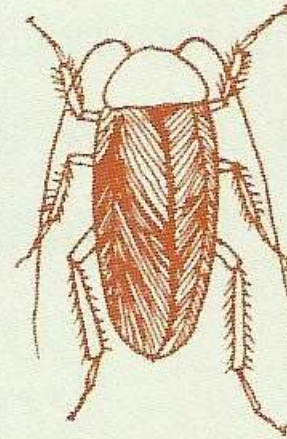
47

Which of the legs are spiny?



FRONT 2 ONLY

Mantodea
(praying mantis)
VR



ALL 6

Blattodea (cockroach) R
fig 125



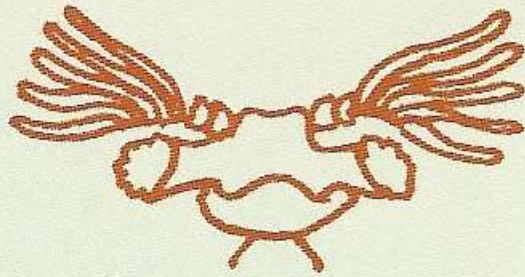
Fig. 125. Neopteran:
cockroach (Blattodea) in
Baltic amber.



Fig. 151. Stylopid
(Strepsiptera) in
Dominican amber.

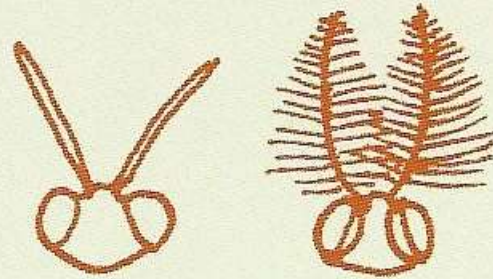
48

Does it have branching antennae,
like antlers?



YES

Strepsiptera
(stylopid) VR
fig 151

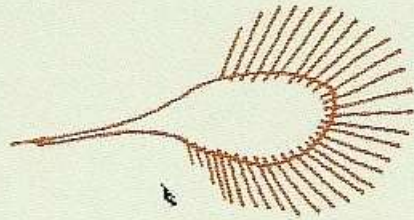


NO

→ go to 49

49

Do the wings have no veins and a fringe of hairs?



YES

Hymenoptera: Mymarommatidae
(fairy fly) VR fig 172



NO

→ go to 50



Fig. 172. Fairy fly
(Parasitica:
Mymarommatidae) in
Baltic amber.

50

Does the wing have only two unbranched veins?



YES

Hemiptera: Coccoidea (scale insect) VR
fig 142



NO

Diptera (fly)

→ go to 66 (p.94)



Fig. 142. Scale insect
(Homoptera: Coccoidea) in
Baltic amber



Fig. 142. Scale insect
(Homoptera: Coccoidea)
in Baltic amber.

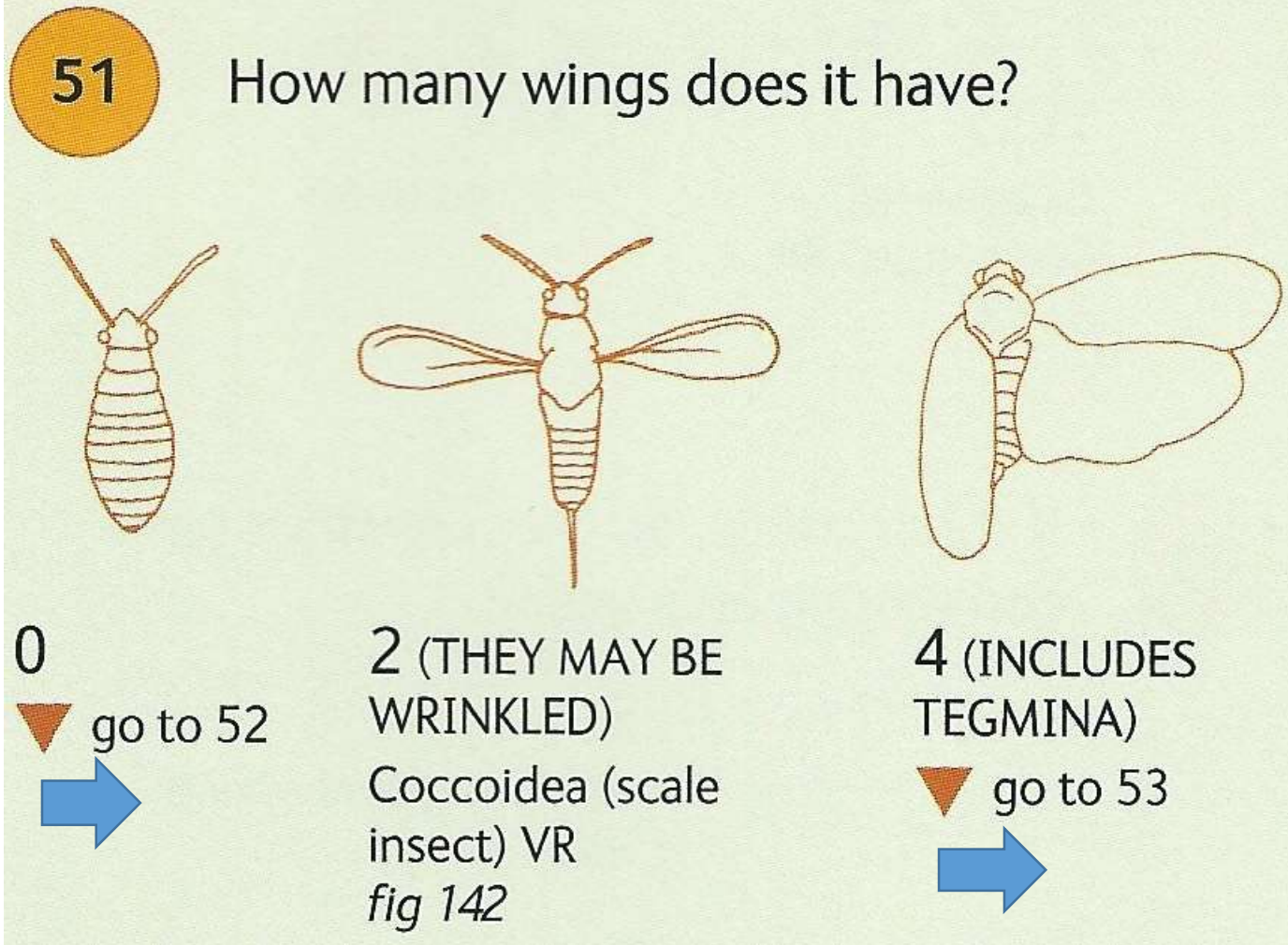
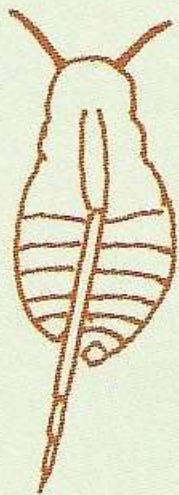




Fig. 141. Aphid (Homoptera:
Aphidoidea) in Baltic amber.

52

Is its proboscis longer than its body?



YES

Aphidoidea
(greenfly) C/VR
fig 141



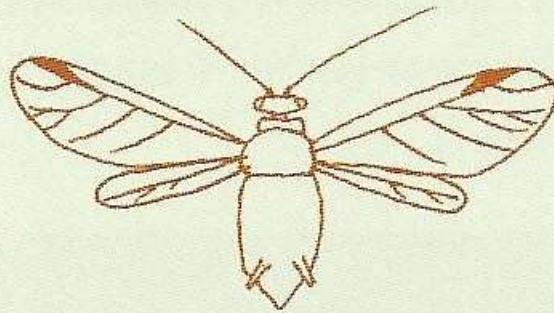
NO

▶ go to 56



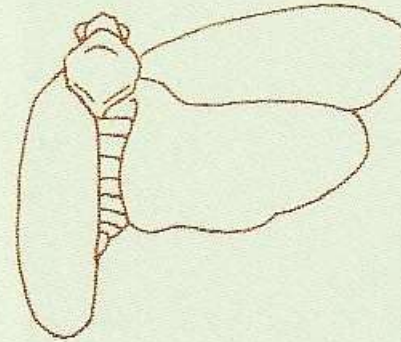
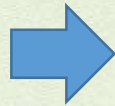
53

Are the hindwings smaller than the forewings?



YES

▼ go to 54



NO (INCLUDES
ALL BUGS WITH
TEGMINA)

➡ go to 56



Fig. 140. Winged aphid
(Homoptera: Aphidoidea)
in Baltic amber.

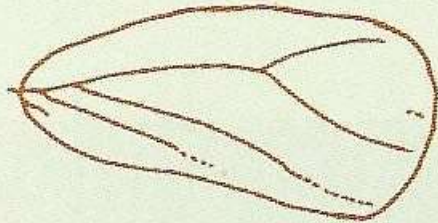
54 Does the forewing have a pterostigma?

YES
Aphidoidea (greenfly) C/VR
fig 140

NO
→ go to 55

55

Does the main vein branch once near the centre of the wing?



YES

Aleyrodoidea (whitefly) VR *fig 143*



NO

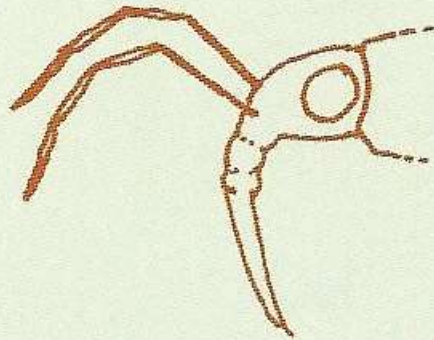
Psylloidea (jumping plant louse) VR



Fig. 143. Whitefly
(Homoptera:
Aleyrodoidea) in
Burmese amber.

56

Does its proboscis originate at the front or back of the head?



FRONT

Heteroptera

→ go to 57



BACK

Homoptera

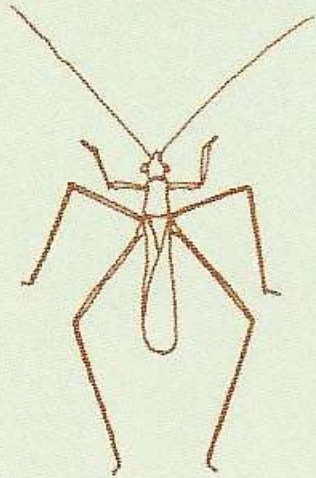
→ go to 58



Fig. 136. Emesine assassin bug (Heteroptera: Reduviidae: Emesinae) in Dominican amber.

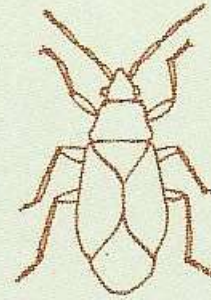
57

Does it have very long legs?



YES

Reduviidae:
Emesinae (assassin
bug) VR fig 136



NO

Another
heteropteran bug R
fig 135

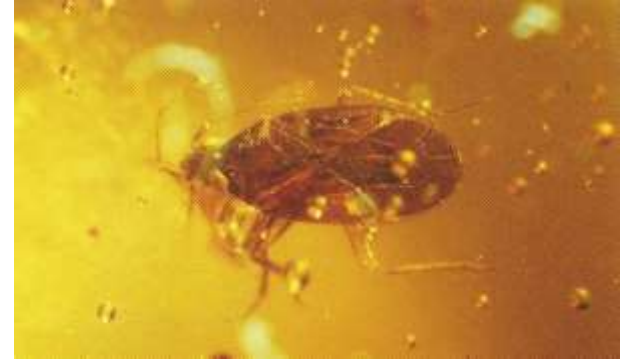
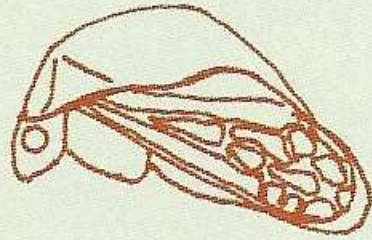


Fig. 135. Bug (Hemiptera: Heteroptera) in Dominican amber.

58

Does it have a greatly enlarged head-shield?



YES

Membracidae
(treehopper)
-/VR



NO

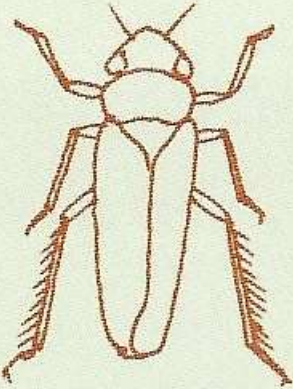
▼ go to 59



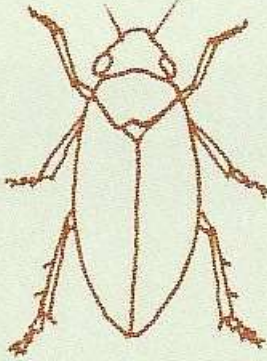


Fig. 137. Leafhopper
(Homoptera: Cicadellidae) in
Dominican amber.

59 Does it have very spiny hind legs?



YES
Cicadellidae
(leafhopper) R/C
fig 137



NO
▼ go to 60
➡

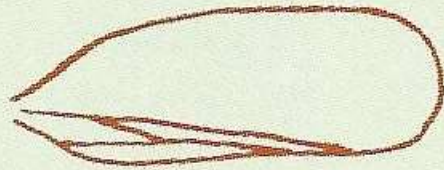


Fig. 138. Planthopper
(Homoptera: Fulgoroidea)
in Baltic amber.



60

If it has wings, do the forewings have
converging anal veins?



YES

Fulgoroidea (planthopper) R
fig 138



NO

Cercopoidea (froghopper) VR
fig 139

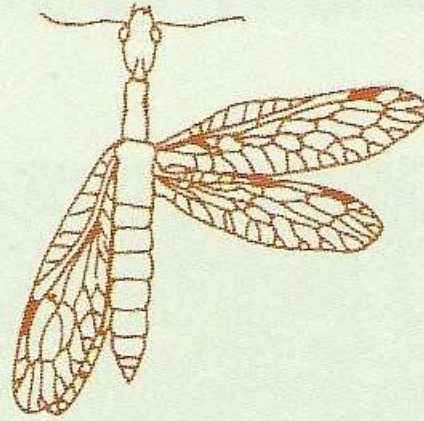
Fig. 218. Planthopper
(Homoptera: Fulgoroidea:
Cixiidae) in Dominican amber.



Fig. 139. Froghopper
(Homoptera: Cercopoidea)
in Baltic amber.

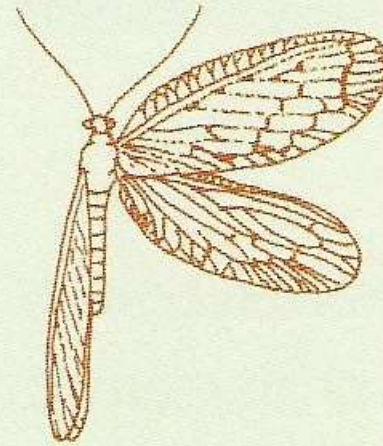
61

Does it have an elongated thorax?



YES

→ go to 62



NO

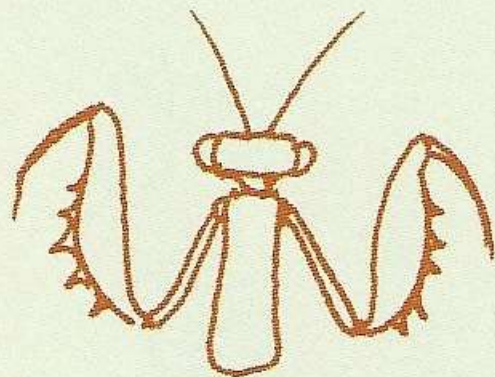
→ go to 63



Fig. 149. Mantis fly
(Neuroptera:
Mantispidae) in English
(Baltic) amber.

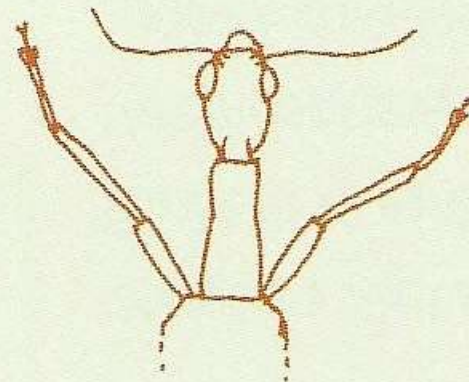
62

Are the front legs spiny and do they originate near the head?



YES

Neuroptera:
Mantispidae
(mantis fly) VR
fig 149



NO

Raphidioptera (snake
fly) VR/—



Fig. 147. Scorpion fly
(Mecoptera) in Baltic
amber.

63 Does it have a rostrum that points downwards?

YES
Mecoptera
(scorpion fly) VR/—
fig 147

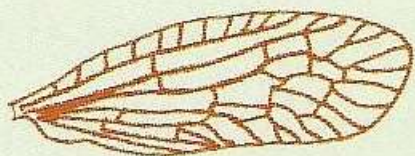
NO
▼ go to 64
➡



Fig. 69. Alder fly
(Megaloptera) in Baltic
amber.

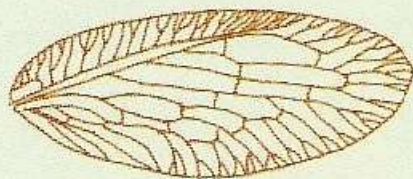
64

Do its wings have thick, black veins?



YES

Megaloptera (alder fly) VR/– fig 69



NO

Neuroptera (lacewing) VR fig 148



Fig. 148. Lacewing
(Neuroptera) in Baltic
amber.



Fig. 144. Moth
(Lepidoptera) in Baltic
amber.

65 Does it have scaly or hairy wings?

 **SCALY**
Lepidoptera (moth) R *fig 144*

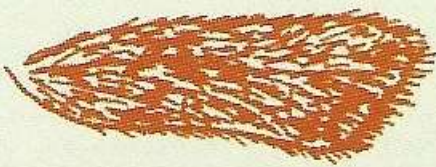
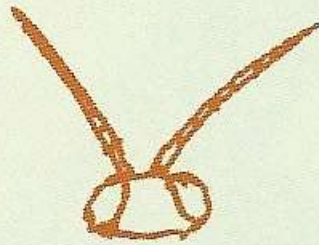
 **HAIRY**
Trichoptera (caddis-fly) C/R *fig 146*



Fig. 146. Caddis-fly
(Trichoptera) in Baltic
amber.

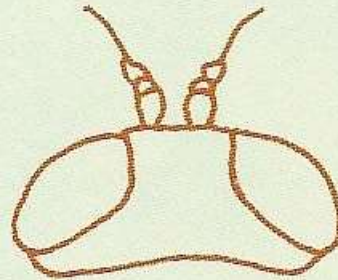
66

Are the antennae much longer than the length of the head?



YES

→ go to 67



NO

→ go to 75

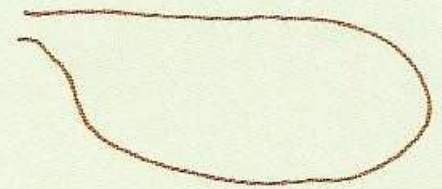
67

Does it have slender or rounded wings?



SLENDER

➡ go to 68



ROUNDED

➡ go to 70

68

Does it have a cell in the wing?



YES

Probably Tipuloidea (crane-fly) R
fig. 71



NO


 go to 69



Fig. 71. Crane-fly
(Tipuloidea) in Baltic
amber, which has broken
off its legs in an effort to
escape.



Fig. 201. Mosquito (Diptera: Culicidae) in East African copal. Very rare.

69

Does it have a long proboscis and scaly wings?



YES

Culicidae (mosquito)
VR/R fig. 201



NO

Probably
Chironomidae
(midge) VC/R fig. 154



Fig. 154. Pair of mating midges (Nematocera: Chironomidae) in Baltic amber with two air bubbles.



Fig. 156. Moth fly
(Nematocera: Psychodidae)
in Baltic amber.

70

Does the wing have many equally spaced, parallel veins?



YES

Psychodidae (moth fly) R/C
fig. 156




NO

→ go to 71

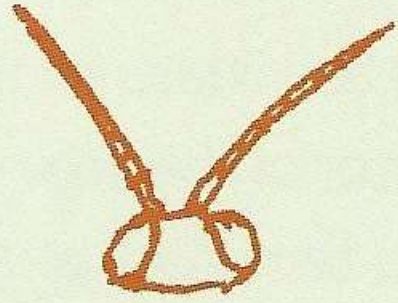


Fig. 155. Gall midge
(Nematocera:
Cecidomyiidae) in Baltic
amber.

71 Does it have long, beaded antennae?



YES
Cecidomyiidae
(gall midge) R/C
fig. 155



NO
▼ go to 72
→

72

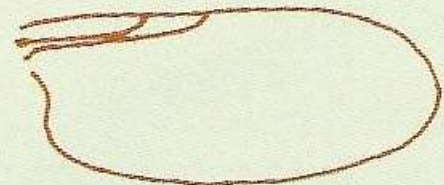
Does the radial sector reach the wing tip?



YES



go to 73



NO



go to 74



Fig. 152. Fungus gnat (Nematocera: Mycetophiloidea) in Baltic amber. Male—shown by external genitalia.

73 Do the cubitus or radial sector branch?

YES
Probably Mycetophiloidea (fungus gnat) C
fig. 152

NO
Probably Sciaridae (fungus gnat) VC/R
fig. 153



Fig. 153. Fungus gnat (Nematocera: Sciaridae) in Baltic amber. Female—shown by tapered abdomen.



Mating pair of biting midges (Nematocera: Ceratomydidae) in Baltic amber.

74

Does the cubitus branch?



YES

Ceratomydidae
(biting midge) C
fig. 103



NO

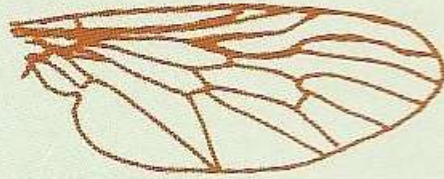
Scatopsidae (scavenger fly)
VR/C
fig. 72



Fig. 72. A pair of mating scavenger flies (Scatopsidae) caught in the act, in Dominican amber.

75

Does the wing have any cells?



YES

→ go to 76

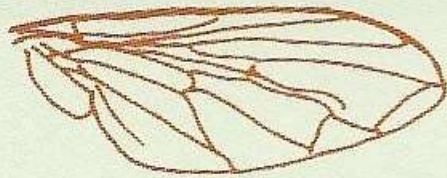


NO

→ go to 78

76

Does it have veins running close to the posterior margin?



YES

Probably Syrphidae (hoverfly)

R/VR

fig. 162

NO

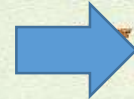
 go to 77



Fig. 162. Hoverfly
(Cyclorhapha: Syrphidae) in
Baltic amber.



Fig. 85. Snipe fly (Rhagionidae) in Baltic amber with a pseudoscorpion hanging on to its legs.



Fig. 157. Snipe flies (Brachycera: Rhagionidae) in Baltic amber.

77

Does the cubitus converge with the anal vein?

YES

Probably Rhagionidae (snipe fly) R/VR

fig. 157

NO

Empididae (dance fly) R

fig. 158



Fig. 158. Dance fly (Brachycera: Empididae) in Baltic amber.



Fig. 203. Dance fly (Brachycera: Empididae) in Baltic amber. Long flat spines on legs.



Fig. 209. Long-legged fly
(Brachycera:
Dolichopodidae) in Baltic
amber.

78

How many cross-veins does it have?



0
→ go to 79



1
Probably Dolichopodidae
(long-legged fly) VC/R
fig. 159



2 OR 3
→ go to 80



Fig. 159. Long-legged fly
(Brachycera:
Dolichopodidae) in Baltic
amber.



Fig. 105. Black-fly
(Nematocera: Simuliidae)
in Baltic amber. Subgenus:
Morops found today only
in Southeast Asia.

79 Does the radial sector reach the tip of the wing?

YES
Simuliidae (black-fly) VR/—fig. 105

NO
Phoridae (scuttle fly) R fig. 161



Fig. 161. Scuttle fly
(Cyclorhapha: Phoridae)
in Dominican amber.



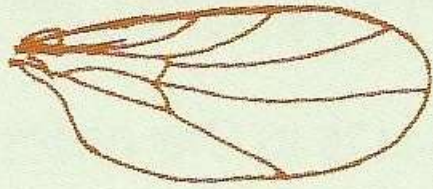
Fig. 91. Close-up of flightless
scuttle fly (Cyclorhapha:
Phoridae) in Dominican
amber.



Fig. 158. Dance fly
(Brachycera: Empidadae)
in Baltic amber.

80

Are the cross-veins together near
the centre of the wing?



YES

Empididae: Tachydromiinae
(dance fly) R



NO

Probably Cyclorrapha (fly) R
fig. 160



Fig. 160. Advanced fly
(Cyclorrapha) in Baltic
amber.



Fig. 166. Ant (Aculeata: Formicidae) in Baltic amber.

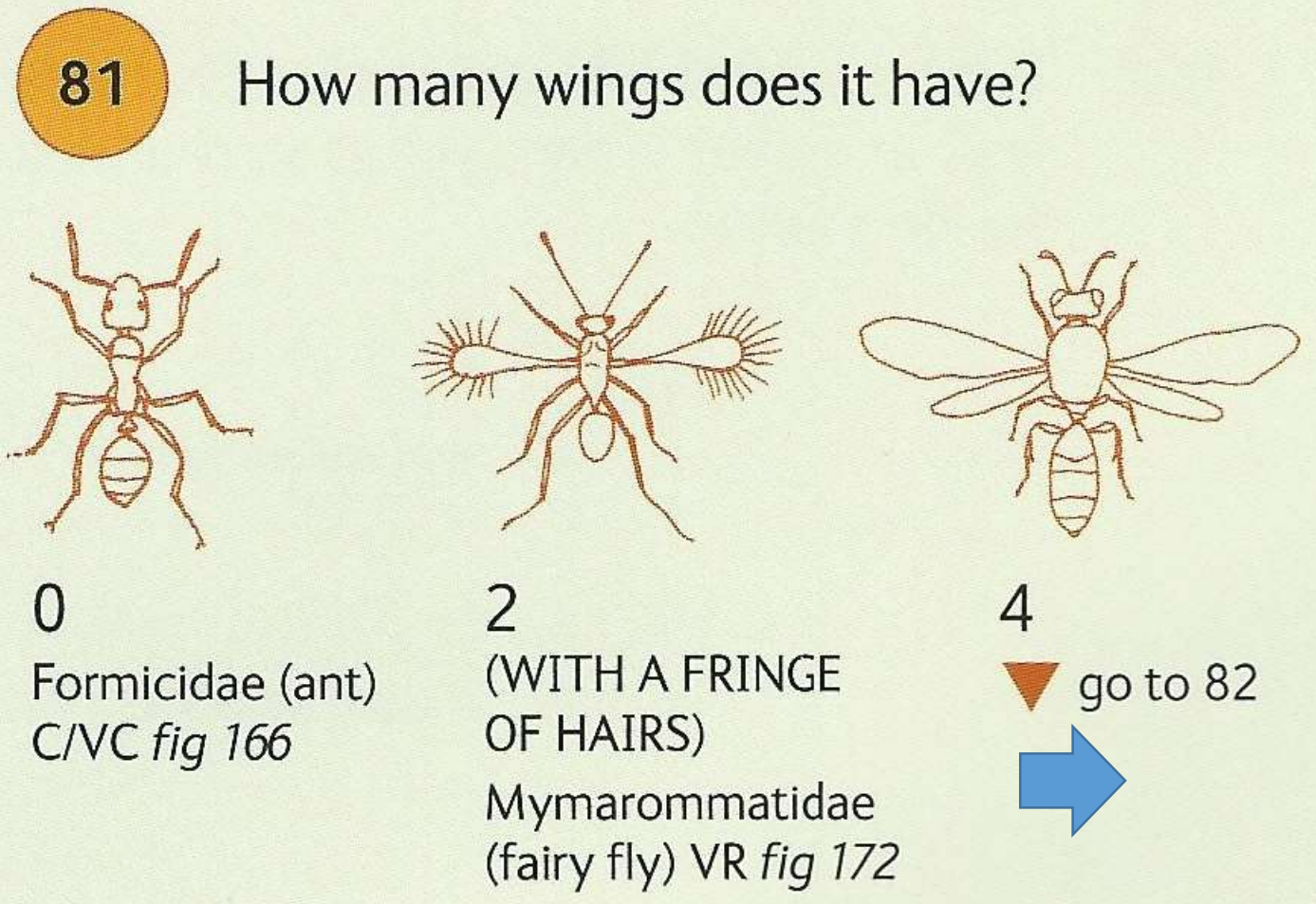


Fig. 170. Fairy fly (Parasitica: Mymarommatidae) in Dominican amber.



Fig. 172. Fairy fly (Parasitica: Mymarommatidae) in Baltic amber.

82

Does it have a constriction between thorax and abdomen?



YES

Apocrita

→ go to 83



NO

→ go to 91



Fig. 165. Social wasp
(Aculeata: Vespidae) in
Dominican amber.

83 Are its wings folded in half longitudinally?

YES
Vespidae (social wasp) VR fig 165

NO
→ go to 84



Fig. 167. Flying ant
(Aculeata: Formicidae) in
Baltic amber.

84

Does its forewing have a square cell
and/or a cross?



YES

Formicidae (ant) C/VC fig 167

NO



go to 85



Fig. 211. Flying ant
(Aculeata: Formicidae)
carrying a scale insect that
it uses to feed on plants, in
Dominican amber.

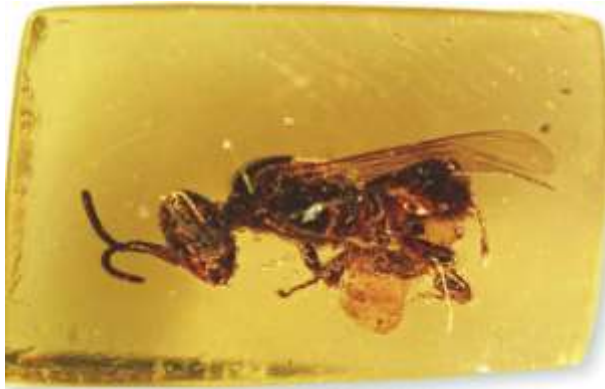
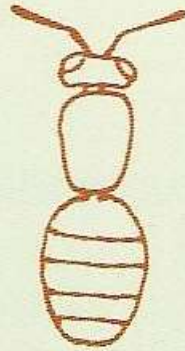


Fig. 100. Bee (Aculeata: Apoidea) in Dominican amber, of the species *Proplebeia dominicana*.

85

Is its body short and fat?



YES (IT MAY
ALSO BE HAIRY)
Apoidea (bee)
VR/C fig 100



NO

▶ go to 86



86

Does it have four veins originating from the base of the forewing?



YES

Probably Aculeata

→ go to 87

NO

Parasitica

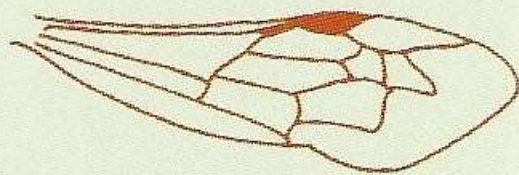
→ go to 88



Fig. 164. Digger wasp
(Aculeata: Sphecidae) in
Baltic amber.

87

Does it have two small cells near the tip
of the wing?



YES

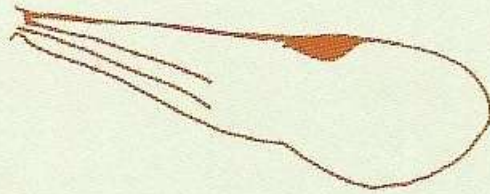
Probably Sphecidae
(digger wasp) VR
fig 164

NO

Probably another aculeate
wasp VR

88

Does it have three veins projecting from the base of the forewing?



YES

Probably Ichneumonoidea

→ go to 89


NO

→ go to 90

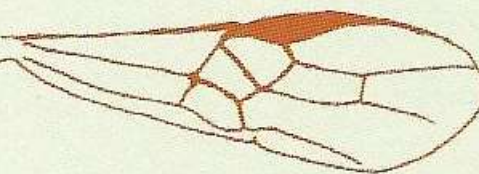


Fig. 168. Ichneumon wasp (Parasitica: Ichneumonidae) in Baltic amber.

89 Does it have a large curved cell in the centre of the wing?



YES
Ichneumonidae (ichneumon wasp) R
fig 168



NO
Probably Braconidae (braconid wasp) R
fig 169



Fig. 169. Braconid wasp (Parasitica: Braconidae) in Baltic amber.



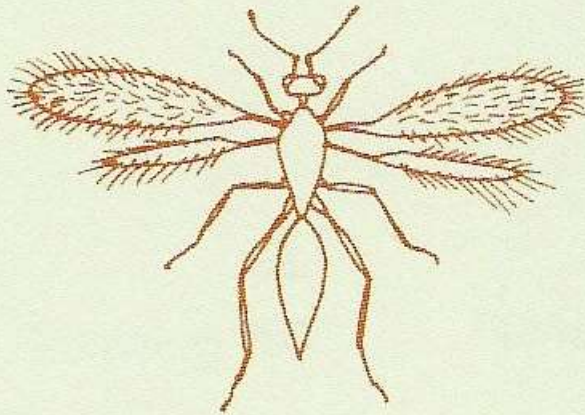
Fig. 219. Braconid wasp (Parasitica: Braconidae) in Dominican amber.



Fig. 170. Fairy fly
(Parasitica: Mymaridae)
in Dominican amber.

90

Is it very small (about 1 mm, or $\frac{1}{32}$ in, or less) and does it have wings surrounded by long hairs?



YES

Probably Mymaridae (fairy fly) VR
fig 170

NO

another parasitic wasp R/C



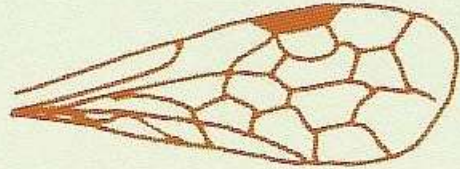
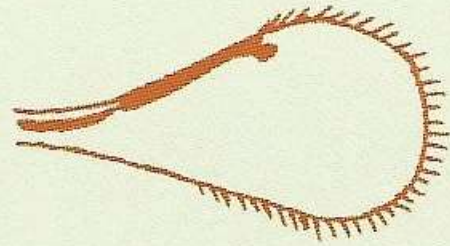
Fig. 213. Bethylid wasp
(Hymenoptera:
Parasitica: Bethylidae)
in Dominican amber.



Fig. 171. Chalcid wasp
(Parasitica: Chalcidoidea)
in Baltic amber.

91

Does the wing only have a single
unbranched vein?



YES

Chalcidoidea (chalcid wasp) R/C
fig 171

NO

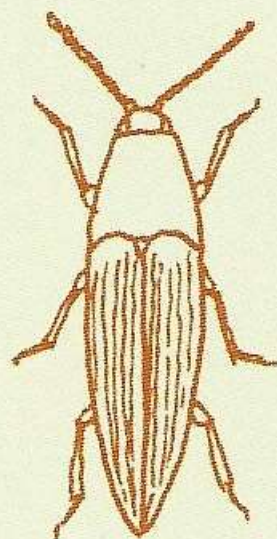
Probably Symphyta (sawfly) VR



Fig. 178. Large beetle
(Coleoptera: Elateroidea) in
Burmese amber.

92

Does it have elongate elytra and
pointed corners of the thorax?



YES

Elateroidea (probably a click
beetle) C/R
fig 173

NO

➡ go to 93



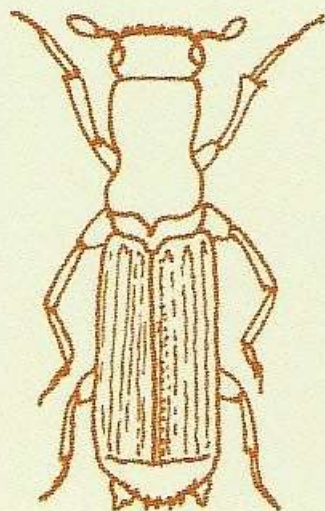
Fig. 173. Click beetle
(Coleoptera: Elateroidea)
in Baltic amber.



Fig. 175. Flat-footed beetle (Coleoptera: Platypodidae) in Dominican amber.

93

Does it have a cylindrical body with an elongate thorax?



YES

Platypodidae (flat-footed beetle)

VR/C

fig 175

NO

➡ go to 94



Fig. 174. Rove beetle
(Coleoptera: Staphylinidae) in
Baltic amber.



Fig. 90. Close up of a Rove
beetle (Coleoptera:
Staphylinidae) in Dominican
amber.

94 Does it have short elytra?

YES
Probably Staphylinidae
(rove beetle) R
fig 174

NO
→ go to 95

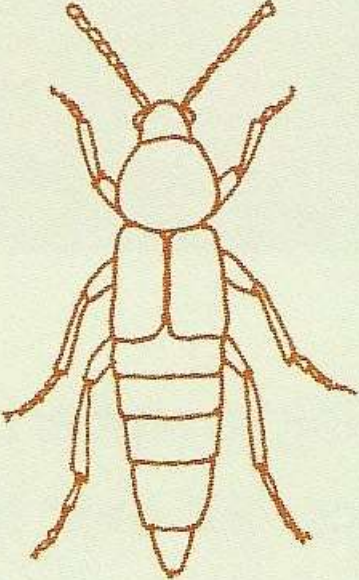


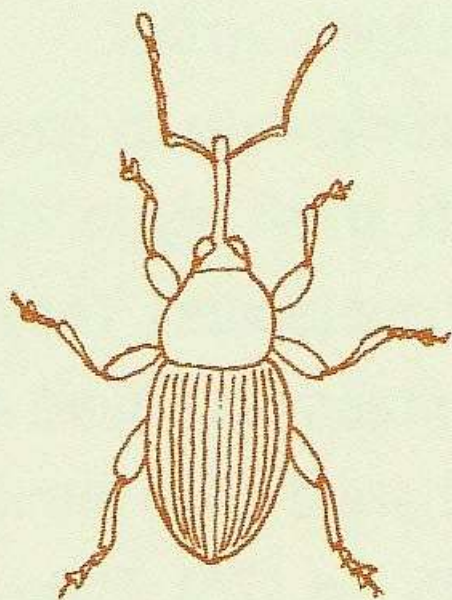

Fig. 176. Rove beetle
(Staphylinidae) in
Dominican amber.



Fig. 177. Weevil (Coleoptera: Curculionoidea) in Dominican amber.

95

Does it have a long snout?



YES

Curculionoidea (weevil) R
fig 177

NO

Another type of beetle



Fig. 204. Tumbling flower beetle (Coleoptera: Mordellidae) in Baltic amber.



Fig. 208. Cupidid beetle (Coleoptera: Cupedidae) in Baltic amber.

Arthropods found in Amber: (Common Classes, Orders, and Families)

Crustacea (Crabs and relatives)

Chelicerata (Spiders and relatives)

- Araneae (Spiders with fangs)

- Opiliones (Daddy long-legs)

- Acari (Mites and ticks)

- Scorpiones (Scorpions)

- Pseudoscorpionida (Pseudoscorpions)

- Amblypygi (Whip scorpions)

- Solpugida (Wind spiders)

- Schizomida (Blind arachnids)

Myriapoda (Centipedes and Millipedes)

- Chilopoda (Centipedes)

- Diplopoda (Millipedes)

- Pauropoda (Small, 12 legged)

Hexapoda (Insects)

Collembola (Springtails)

Diplura (Two-tailed bristletails)

Insecta (True insects—many orders)

Sub orders:

Apterygota (Wingless primitive insects)

Archaeognatha (Bristletails)

Zygentoma (Silverfish)

Pterygota (Winged insects)

Paleoptera (Outstretched wings—sub-class)

Odonata (Dragonflies-Anisoptera and damselflies-Zygoptera)

Ephemeroptera (Mayflies)

Neoptera (Folded wings—sub-class—MOST insects)

Blattodea (Cockroaches)

Isoptera (Termites)

Orthoptera (Grasshoppers, crickets, and locusts)

Dermaptera (Earwigs)

Embioptera (Web spinners)

Mantodea (Praying mantises)

Phasmatodea (Stick or leaf insects)

Mantophasmatodea (Rock crawlers and gladiators)

Plecoptera (Stoneflies)

Leuctridae

Psocoptera (Bark lice and book lice)

Thysanoptera (Thrips)

Zoraptera (Hairy elongates)

Phthiraptera (Lice)

Hemiptera (Bugs)

Heteroptera (Assassin bugs and relatives)

Homoptera (Planthoppers and Leafhoppers)

Fulgoroidea (Planthoppers)

Cicadelloidea (Treehoppers and leafhoppers)

Cercopoidea (Froghoppers and spittlebugs)

Aphidoidea (Aphids and greenflies)

Psylloidea (Jumping plant lice)

Coccoidea (Scale insects)

Lepidoptera (Moths and Butterflies)

Trichoptera (Caddis-flies)

Mecoptera (Scorpion flies)

Neuroptera (Lacewings and Ant-lions)

Megaloptera (Alder flies)

Raphidioptera (Snake flies)

Siphonaptera (Fleas)

Strepsiptera (Stylopids)

Diptera (True flies)

 Nematocera (Long antennae flies, sub-order)

 Tipuloidea (Crane flies)

 Mycetophiloidea (Fungus gnats)

 Scatopsidae (Scavenger flies)

 Chironomidae (Non-biting midges)

 Ceratopogonidae (Biting midges)

 Cecidomyiids (Gall midges)

 Psychodidae (Moth flies, owl midges, sand flies)

 Culicidae (Mosquitoes)

 Simuliidae (Black flies)

Brachycera (Slender, short antennae flies, sub-order)

Rhagionidae (Snipe flies)

Empididae (Dance flies)

Dolichopodidae (Long-legged flies)

Cyclorrhapha (Advanced flies, blob-like antennae)

Drosophilidae (Fruit flies)

Phoridae (Scuttle flies)

Syrphidae (Hoverflies)

Hymenoptera (Wasps, Bees, Ants, and Sawflies)

Symphyta (Sawflies)

Apocrita (Wasps, Bees, Ants)

Aculeata (Straight veined wings)

Apoidea (Bees)

Proplebeia dominicana (Stingless)

Sphecidae (Digger wasps)

Vespidae (Social wasps)

Formicidae (Ants)

Parasitica (Parasitic wasps—small)

Ichneumonoidea (Ichneumon wasps)

Braconidae (Braconid wasps)

Chalcidoidea (Fairy flies)

Mymaridae (Four-winged fairy flies)

Mymarommatids (Two-winged fairy flies)

Coleoptera (Beetles—largest group)

Polyphaga (Diverse feeding beetles)

Elateroidea (Click beetles)

Platypodidae (Flat-footed beetles)

Staphylinidae (Rove beetles)

Curculionoidea (Weevils—plant eating beetles)