# Electronic Supplement 2. Characters of adults, see Beutel et al. (2008) for a detailed character discussion.

1. (1 in Beutel et al. 2008) Externally visible membranes: (0) present; (1) absent.
2. Tubercles: (0) absent or very indistinct; (1) present.
3. Scale-like setae: (0) absent; (1) present.
4. Ocelli: (0) three; (1) absent.
5. Constricted neck and postocular extensions: (0) absent or indistinct; (1) present.
6. Supraantennal protuberance (P1): (0) absent; (1) present as moderately distinct bulge; (2) present as strongly pronounced protuberance.
7. Supraocular protuberance (P2): (0) absent; (1) present as moderately distinct bulge; (2) present as strongly pronounced protuberance.
8. Posteromesal protuberance (P3): (0) absent; (1) present, moderately convex; (2) conspicuous, strongly convex.
9. Posterolateral protuberance (P4): (0) absent; (1) present.
10. Antennal groove on head; (0) absent; (1) below compound eye; (2) above compound eyey.
11. Gular sutures: (0) complete, reaching hind margin of head capsule; (1) incomplete, not reaching hind margin of head capsule; (2) absent.
12. Shape of gula: (0) not converging posteriorly; (1) converging posteriorly.
13. Tentorial bridge: (0) present; (1) absent.
14. Posterior tentorial grooves: (0) externally visible; (1) not visible externally.
15. Anterior tentorial arms: (0) well developed; (1) strongly reduced or absent, not connected with posterior tentorium.
16. Frontoclypeal suture: (0) present; (1) absent.
17. Labrum: (0) free, connected with clypeus by membrane; (1) indistinctly separated from clypeus, largely or completely immobilised; (2) fused with head capsule.
18. M. labroepipharyngalis (M.7): (0) present; (1) absent.
19. M. frontolabralis (M.8): (0) present; (1) absent.
20. M. frontoepipharyngalis (M.9): (0) present; (1) absent.
21. Length of antenna: (0) not reaching mesothorax posteriorly; (1) strongly elongated, reaching middle region of body.
22. Number of antennomeres: (0) 13 or more; (1) 11 or less.
23. Location of antennal insertion on head capsule: (0) laterally; (1) dorsally.
24. Extrinsic antennal muscles: (0) four; (1) three; (2) two.
25. Shape of mandible: (0) short or moderately long, largely covered by labrum in repose, (1) strongly elongated and protruding in resting position, (3) vestigial.
26. Ventromesal margin of sculptured mandibular surface: (0) not reaching position of mandibular condyle; (1) reaching mandibular condyle.
27. Cutting edge of mandible: (0) horizontal, (1) with three vertically arranged teeth.
28. Separate areas with different surfaces on ventral side of mandible: (0) absent: (1) present.
29. Deep pit in cranio-lateral area of ventral surface of mandible: (0) absent; (1) present.
30. Galea: (0) not with globular distal galeomere and slender basal galeomere; (1) stalk-like basal galeomere and golubular distal galeomere; (2) absent.
31. Lacinia: (0) present; (1) absent.
32. Apical segment of maxillary palp: (0) with only one apical field of sensilla (campaniform sensilla), (1) with an apical and a dorsolateral field of sensilla.
33. Digitiform sensilla on apical maxillary palpomere: (0) absent, (1) present.
34. Pit containing sensilla of dorsolateral field of apical maxillary palpomere: (0) absent; (1) present.
35. Deep basal cavity of prementum: (0) absent, (1) present.
36. Lid-like ventral premental plate: (0) absent, (1) present.
37. Transverse ridge of prementum: (0) absent; (1) present.
38. Anterior appendages of prementum: (0) paired ligula; (1) ligula subdivided into many digitiform appendages; (2) absent.
39. Mentum: (0) distinctly developed; (1) vestigial but recognisable as a transverse sclerite between the submentum and the premental plate; (2) absent.
40. M. tentoriopharyngalis posterior (M.52): (0) moderately sized, not distinctly subdivided into individual bundles; (1) complex, composed of series of bundles, origin from the gular ridges or lateral gular region.
41. Propleural suture (0) present; (1) absent.
42. Exposure of propleura: (0) fully exposed, propleura reaches anterior margin of prothorax; (1) exposed, not reaching anterior margin of prothorax; (2) internalized.
43. Fusion of propleura and protrochantinus: (0) absent; (1) present.
44. Prosternal grooves for tarsomeres: (0) absent; (1) present.
45. Length of prosternal process: (0) not reaching beyond hind margin of procoxae, very short or absent; (1) reaching hind margin of procoxae.
46. Shape of prosternal process: (0) not broadened apically; (1) apically broadened and truncate.
47. Broad prothoracic postcoxal bridge: (0) absent; (1) present.
48. Mesocoxal cavities: (0) not bordered by metanepisterum; (1) bordered by metanepisternum.
49. Anteromedian pit of mesoventrite for reception of prosternal process: (0) absent or only very shallow concavity; (1) distinct, rounded groove; (2) large hexagonal groove.
50. Propleuro-mesepisternal locking mechanism: (0) absent; (1) propleural condyle and mesepisternal socket; (2) mesepisternal condyle and propleural socket.
51. Connection of meso- and metaventrite: (0) sclerites distinctly separated, connected by a membrane; (1) articulated but not firmly connected; (2) firmly connected between and within mesocoxal cavities.
52. Transverse suture of mesoventrite: (0) present; (1) absent.
53. Mesal coxal joints of mesoventrite: (0) present; (1) absent.
54. Shape of mesocoxae: (0) globular or conical; (1) with deep lateral excavation and triangular lateral extension.
55. Exposed metatrochantin: (0) present, distinctly developed; (1) indistinct or absent.
56. Shape of penultimate tarsomere: (0) not distinctly bilobed; (1) distinctly bilobed.
57. Fore wings: (0) membranous; (1) transformed into sclerotized elytra.
58. Venation of fore wings: (0) not arranged in parallel rows; (1) parallel arrangement of longitudinal veins; (2) longitudinal veins absent.
59. Elytral sclerotization pattern: (0) with a pattern of unsclerotized window punctures; (1) entirely sclerotized.
60. Elytral apex: (0) distinctly reaching beyond abdominal apex posteriorly; (1) slightly reaching beyond abdominal apex posteriorly; (2) reaching abdominal apex or shorter.
61. Transverse folding mechanism of hind wings: (0) absent; (1) present.
62. Oblongum cell of hind wing: (0) closed cell not differentiated as oblongum cell; (1) oblongum present; (2) open or absent.
63. Abdominal sternite I: exposed; (1) concealed under metacoxae, largely or completely reduced.
64. Median ridge on ventrite 1: (0) absent; (1) present.
65. Number of exposed abdominal ventrites (excluding sternite I): (0) > 6; (1) 6; (2) 5.
66. Arrangement of abdominal sterna: (0) abutting, not overlapping; (1) tegular or overlapping.