

Figure 1. Map of the study area, the lower Athabasca River and its tributaries.

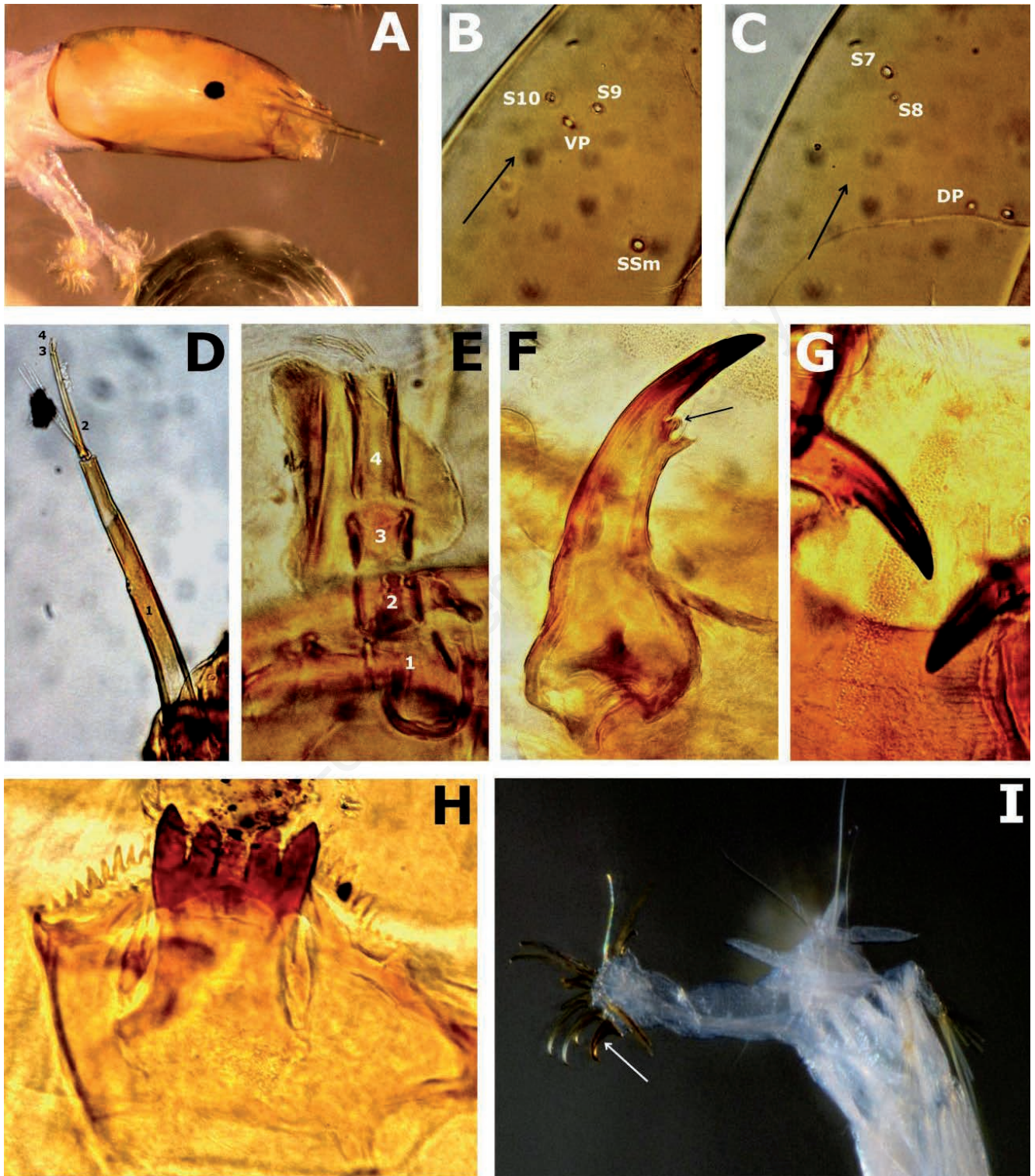


Figure 2. *Ablabesmyia (Ablabesmyia)* sp., larva (A-I). A) Anterior portion of larva, head and anterior parapods. B) Ventral cephalic setae of head, arrow indicates the head direction. C) Dorsal cephalic setae of head, arrow indicates the head direction. D) Antenna. E) Maxillary Palp. F) Mandible, arrow indicates the inner tooth. G) Pseudoradula. H) Ligula, paraligulas and pecten hypopharyngis. I) Posterior portion of larva, arrow indicates the small dark claw of posterior parapod.

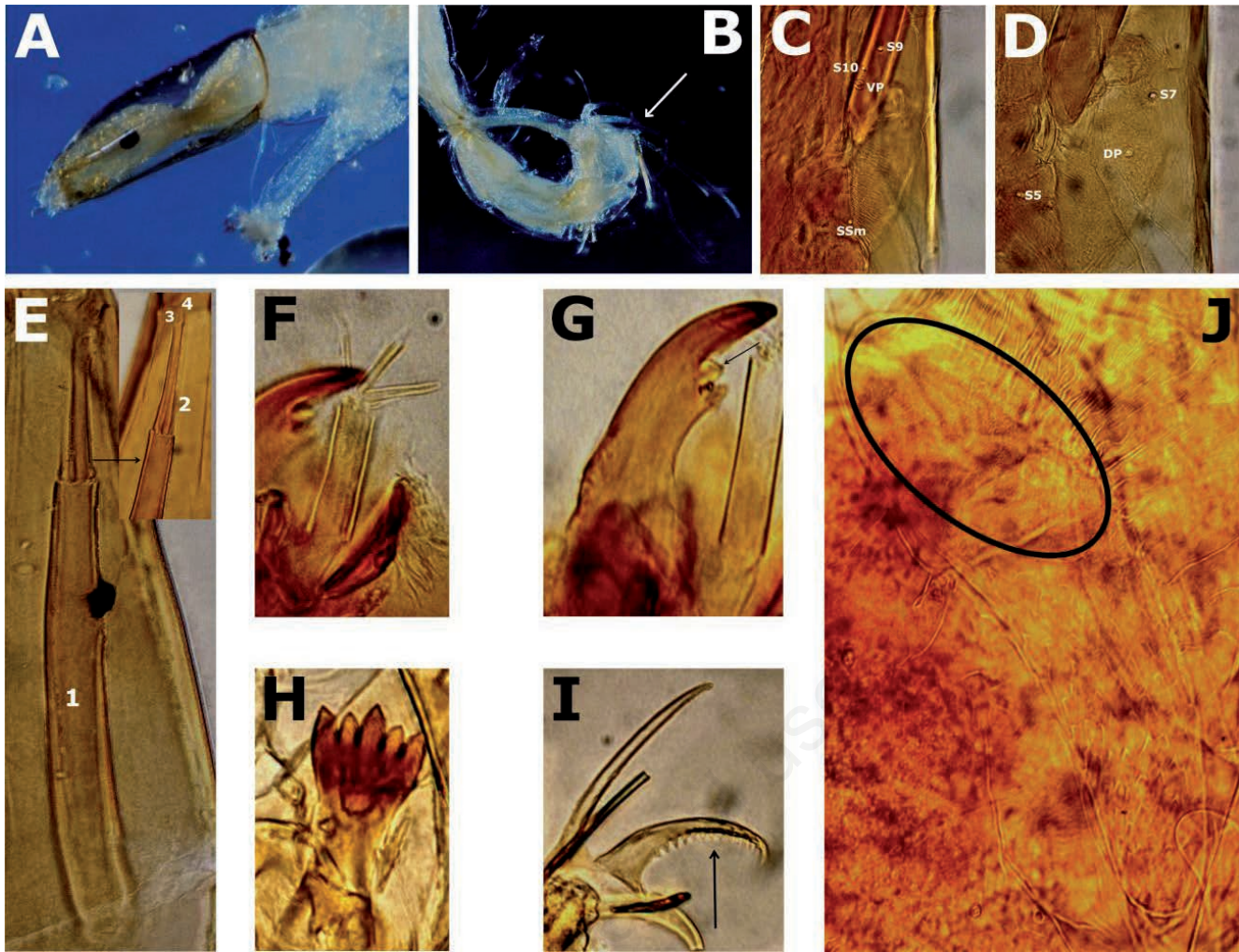


Figure 3. *Nilotanytus fimbriatus* (Walker, 1828), larva (A-I), pupa (J). A) Anterior portion of larva, head and anterior parapods. B) Posterior portion of the larva, arrow indicates the anal tubules. C) Ventral cephalic setae of head. D) Dorsal cephalic setae of head. E) Antenna. F) Maxillary palp. G) Mandible, arrow indicates the inner tooth. H) Ligula and paraligulas. I) Claws of posterior parapod, arrow indicates the serrated claw. J) Thoracic horn.

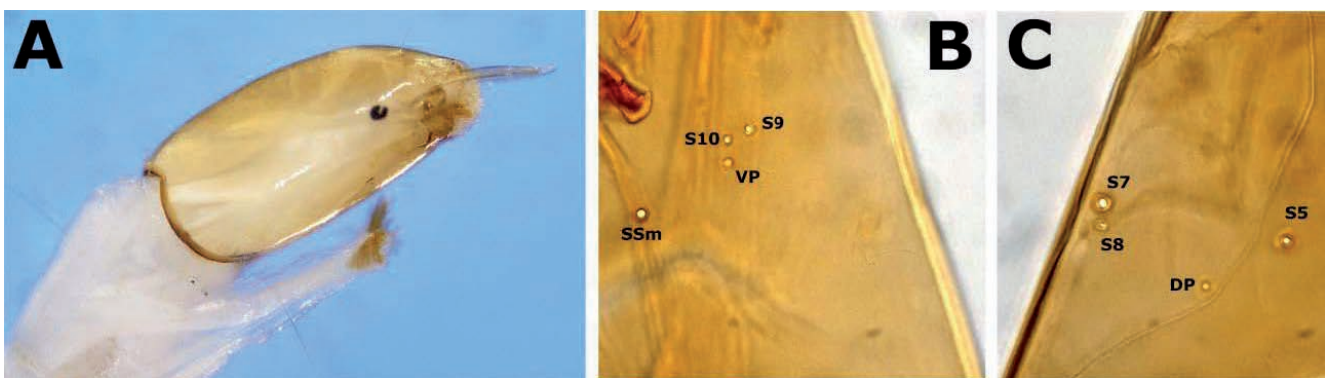


Figure 4. *Meropelopia* Roback, 1981, larva (A-C). A) Anterior portion of larva, head and anterior parapods. B) Ventral cephalic setae of head. C) Dorsal cephalic setae of head.

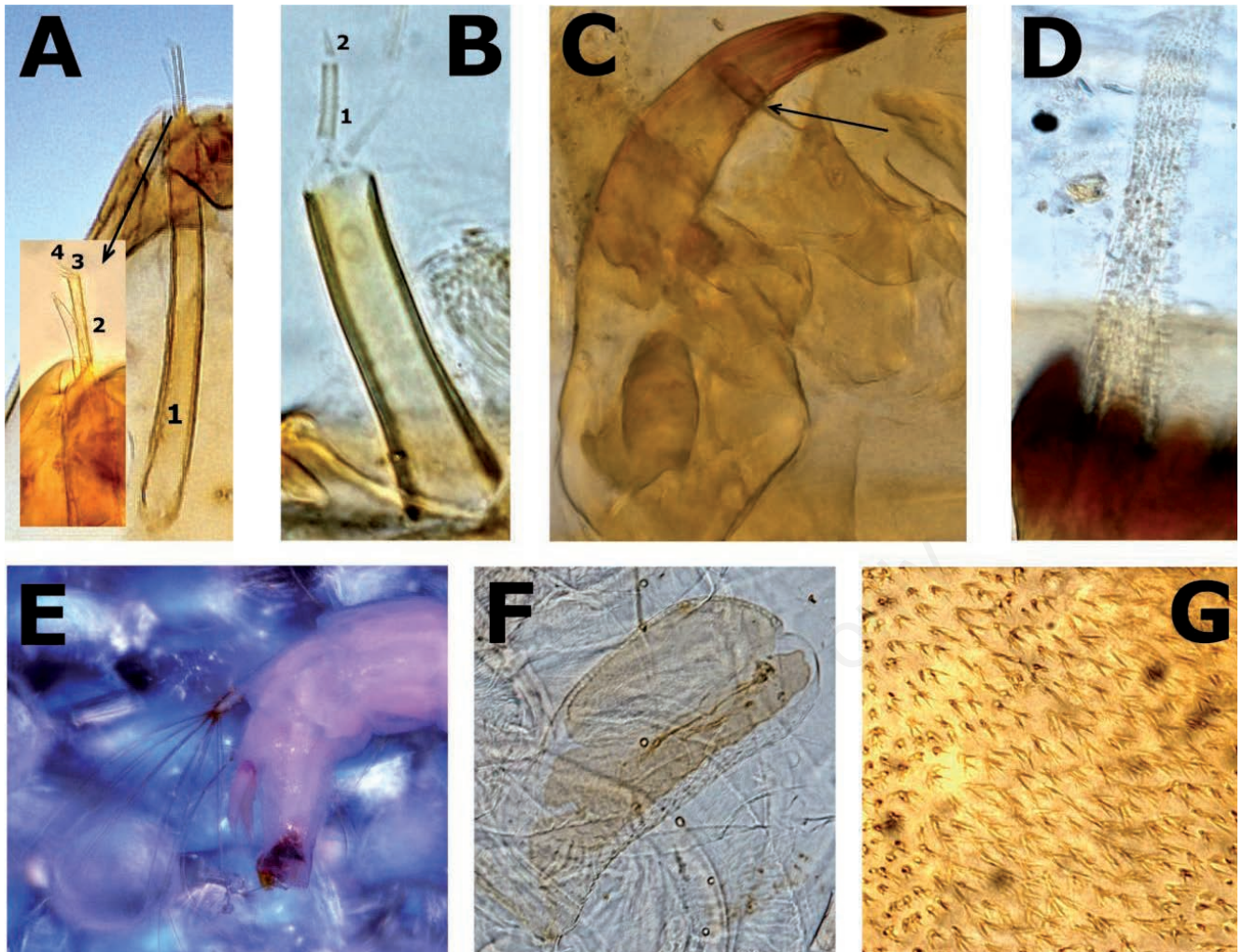


Figure 5. *Meropelopia americana* (Fittkau, 1957), larva (A-E), pupa (F-G). A) Antenna. B) Maxillary palp. C) Mandible, arrow indicates the inner tooth. D) Pseudoradula. E) Posterior portion of larva. F) Thoracic horn. G) Shagreen.

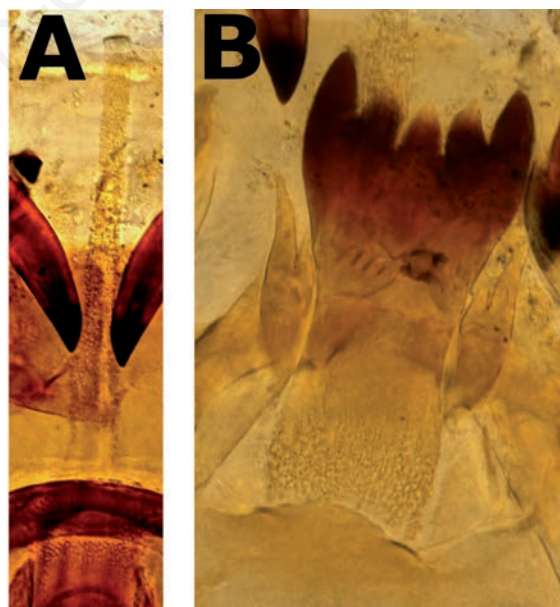


Figure 6. *Meropelopia flavifrons* (Johannsen, 1905), larva (A-B). A) Pseudoradula. B) Ligula and paraligulas.

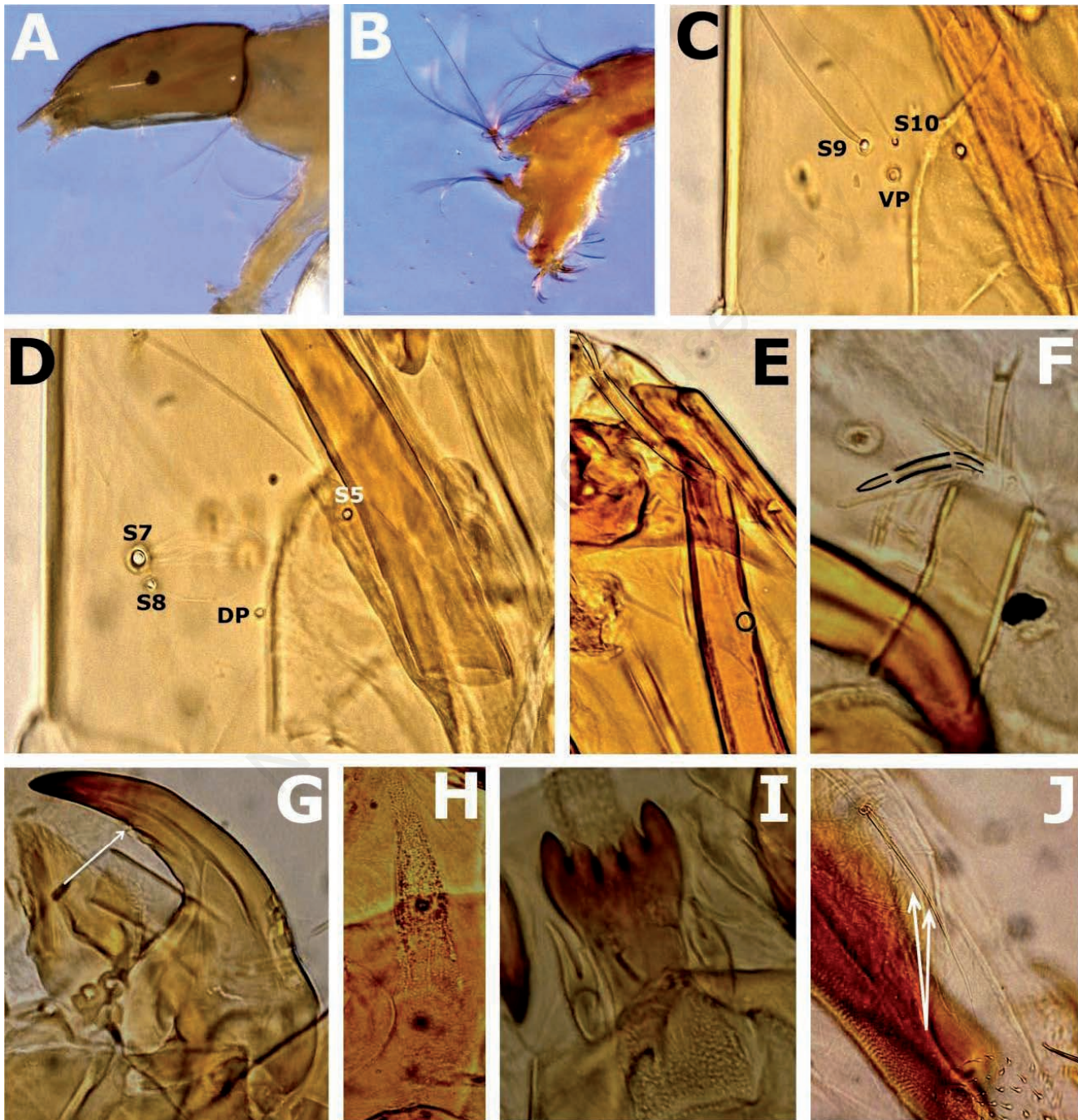


Figure 7. *Rheopelopia acra* group, larva (A-J), A) Anterior portion of larva, head and anterior parapod. B) Posterior portion of larva. C) Ventral cephalic setae of head. D) Dorsal cephalic setae of head. E) Antenna. F) Maxillary palp. G) Mandible, arrow indicates the inner tooth. H) Pseudoradula. I) Ligula and paraligulas. J) Sub-basal seta of posterior parapod.

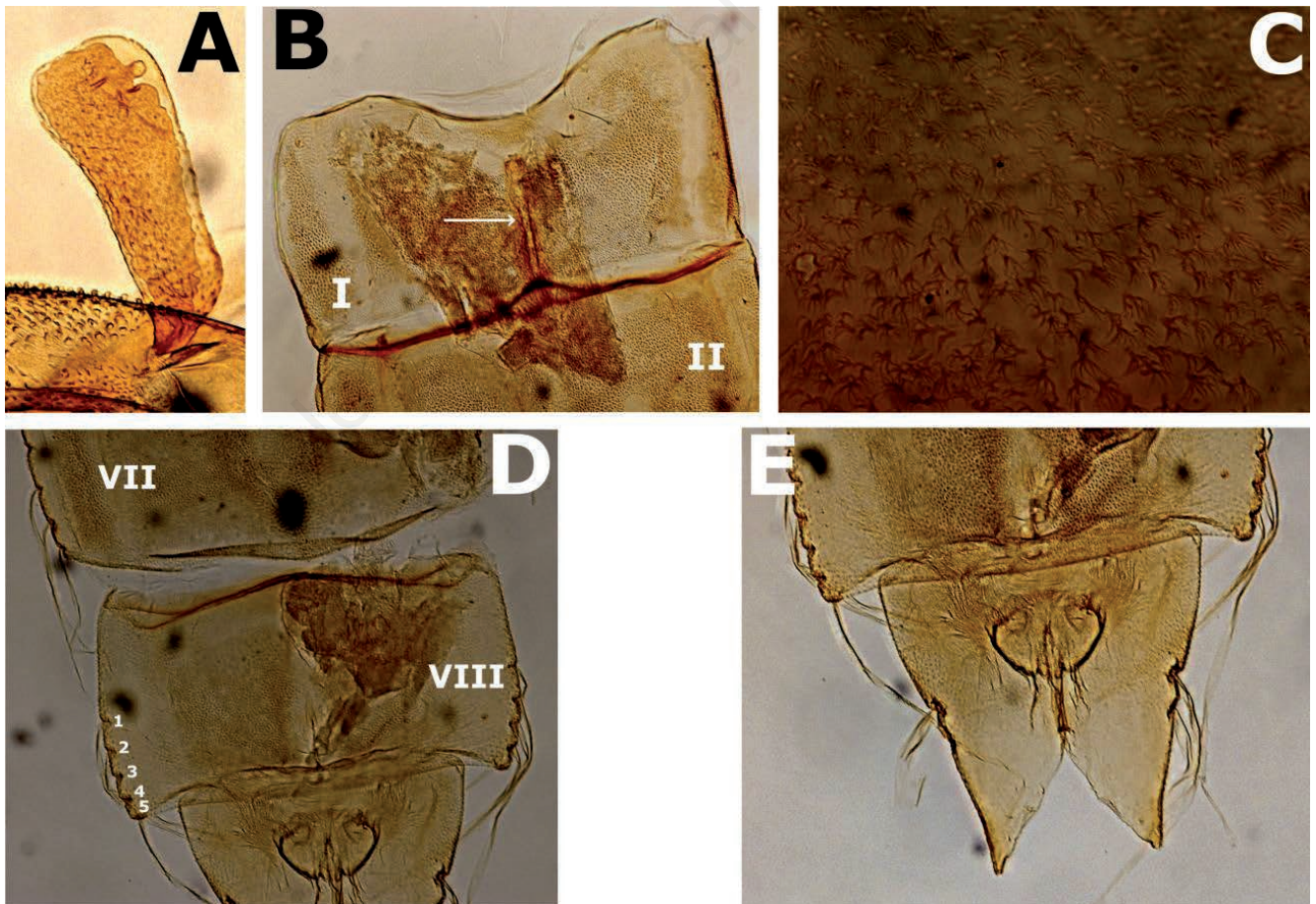


Figure 8. *Thienemannimyia senata* (Walley, 1925), pupa (A-E). A) Thoracic horn. B) Scar of segment I (arrow). C) Shagreened surface. D) Segments VII-VIII. E) Anal lobes and genital sacs.

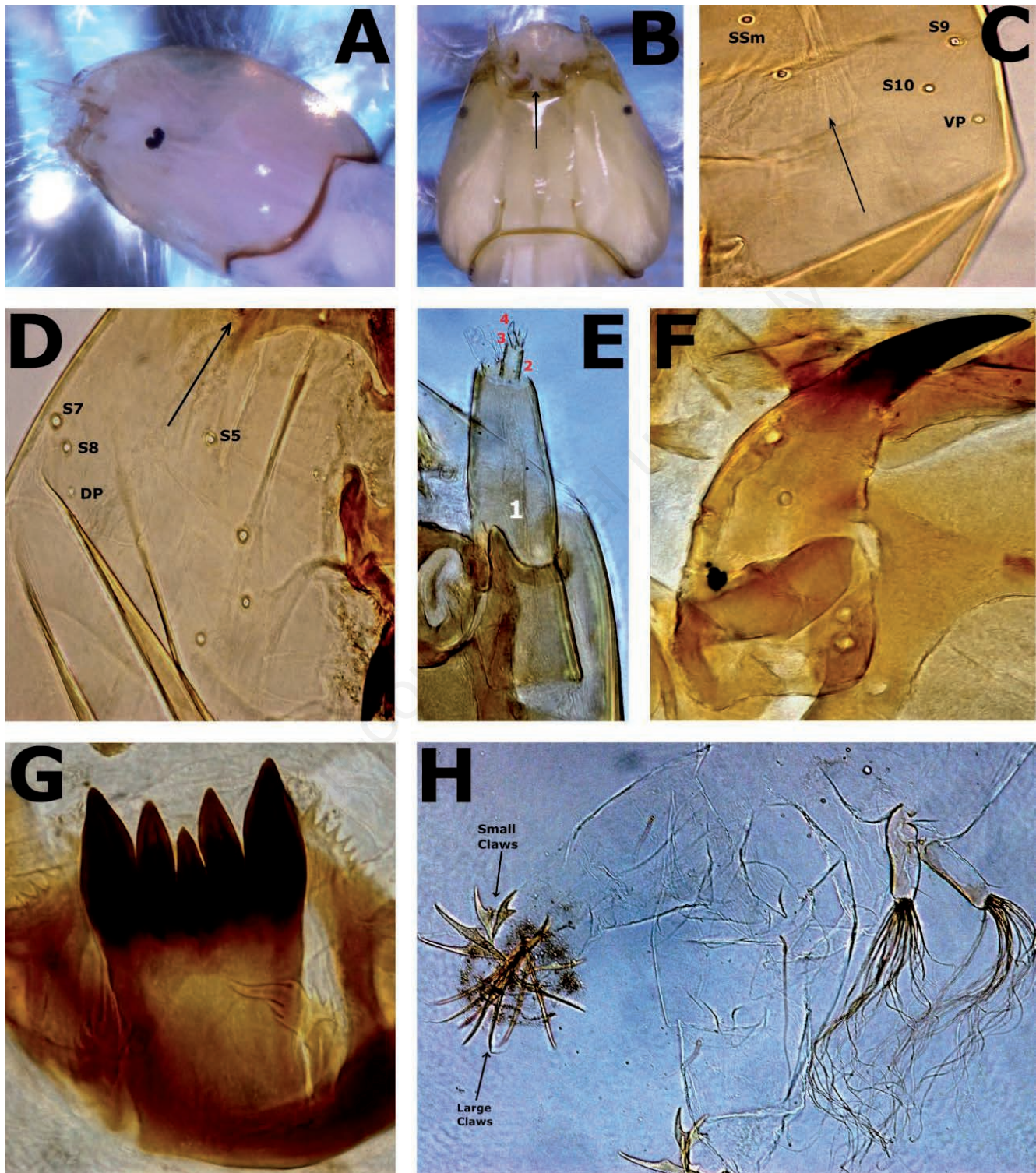


Figure 9. *Procladius (Holotanypus)* sp., larva (A-H). A) Head lateral view. B) Head ventral view, arrow indicates the dorsomesal teeth. C) Ventral cephalic setae of head, arrow indicates the head direction. D) Dorsal cephalic setae of head, arrow indicates the head direction. E) Antenna. F) Mandible. G) Ligula and paralingulae. H) Posterior portion of larva.

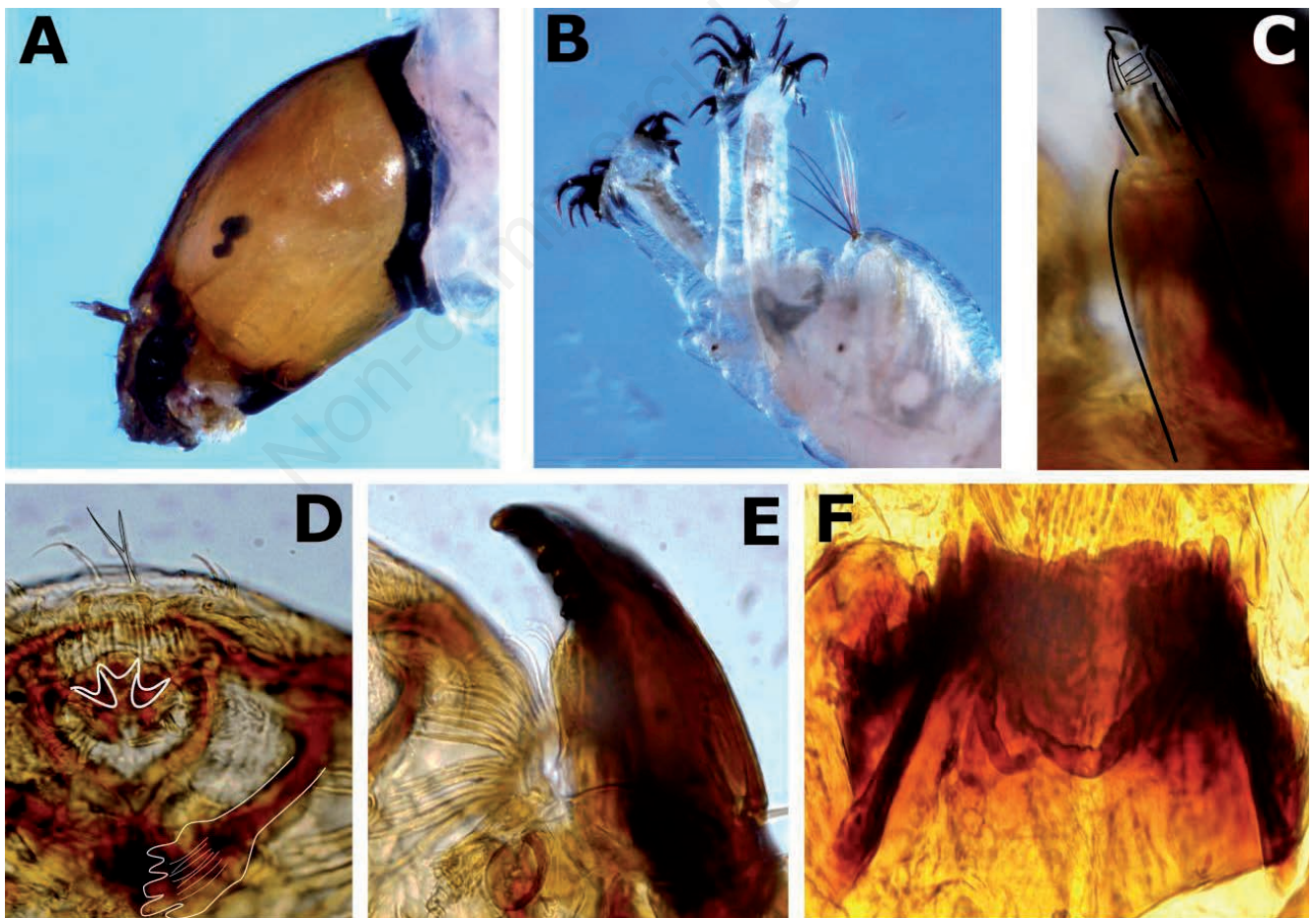


Figure 10. *Diamesa* sp., larva (A-F). A) Head. B) Posterior portion of larva. C) Antenna. D) Labrum-epipharynx. E) Mandible. F) Mentum.

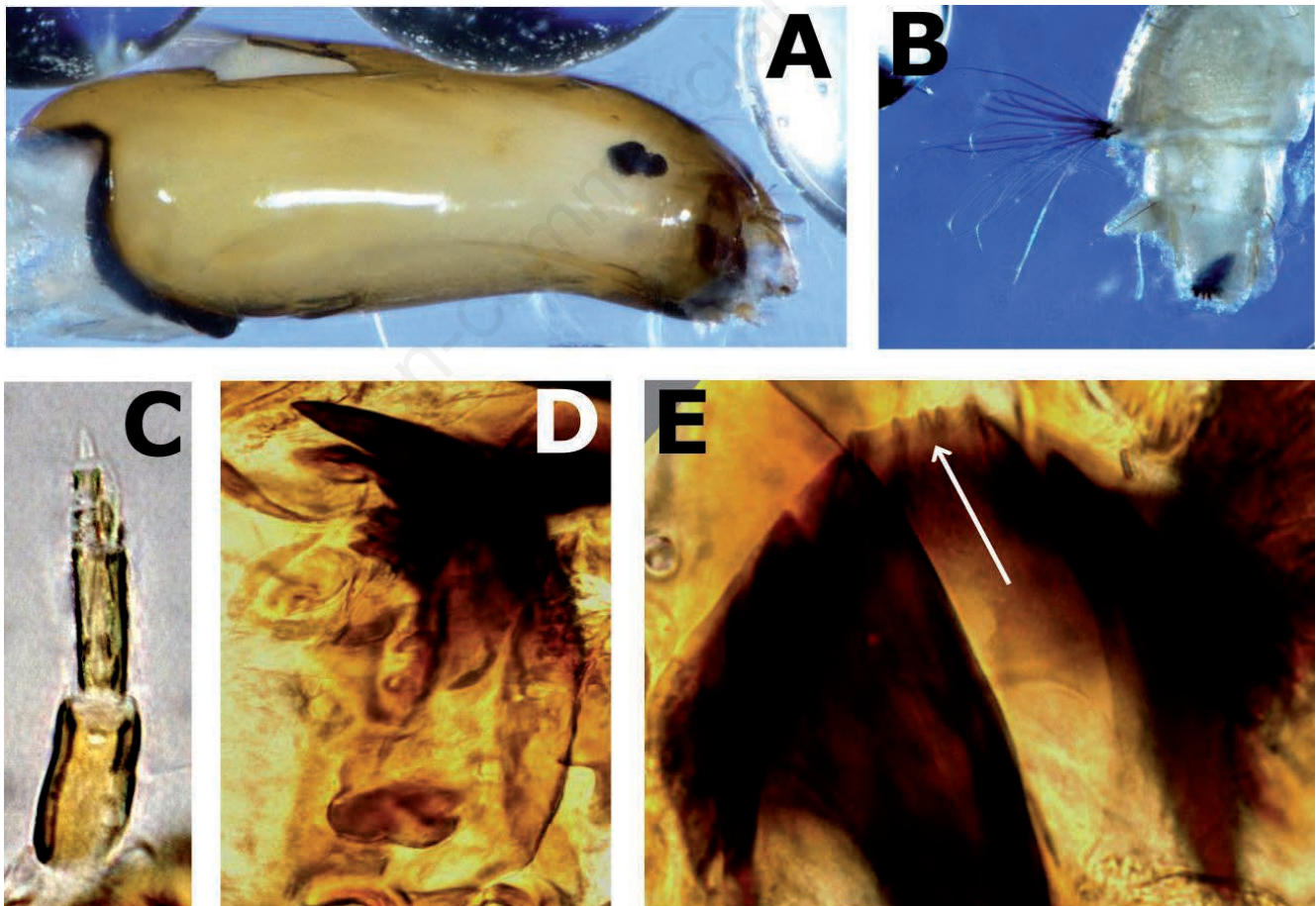


Figure 11. *Pagastia orthogonia* Oliver, 1959, larva (A-E). A) Head. B) Posterior portion of larva. C) Antenna. D) Mandible. E) Mentum, arrow indicates the projections.

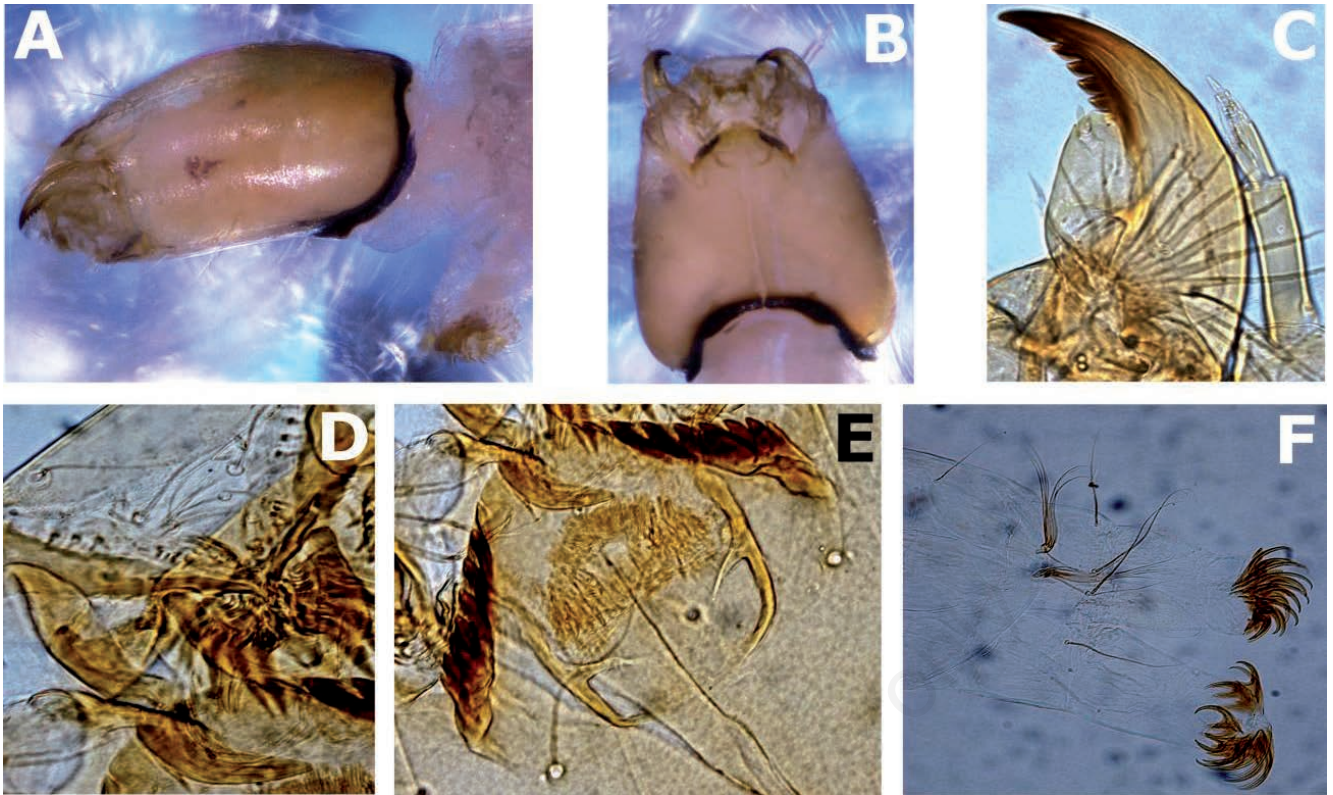


Figure 12. *Potthastia gaedii* group, larva (A-F). A) Head lateral view. B) Head ventral view, mentum. C) Antenna and mandible. D) Labrum, SI-SII and premandible. E) Mentum. F) Posterior portion of larva.

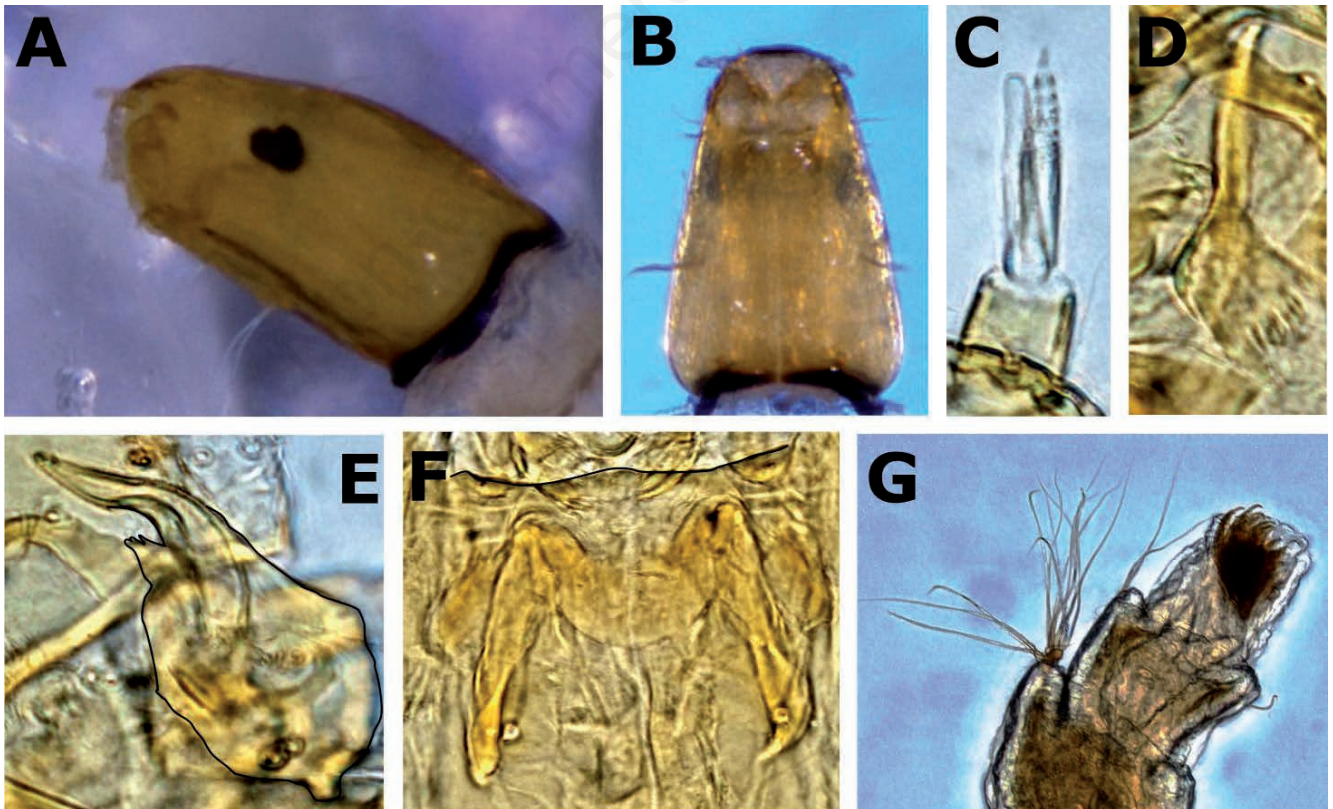


Figure 13. *Potthastia longimanus* group, larva (A-G). A) Head lateral view. B) Head ventral view. C) Antenna. D) Premandible. E) Mandible. F) Mentum. G) Posterior portion of larva.

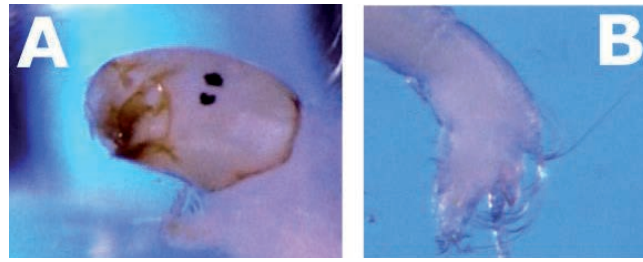


Figure 14. *Monodiamesa*, larva (A-B). A) Head lateral view. B) Posterior portion of larva.

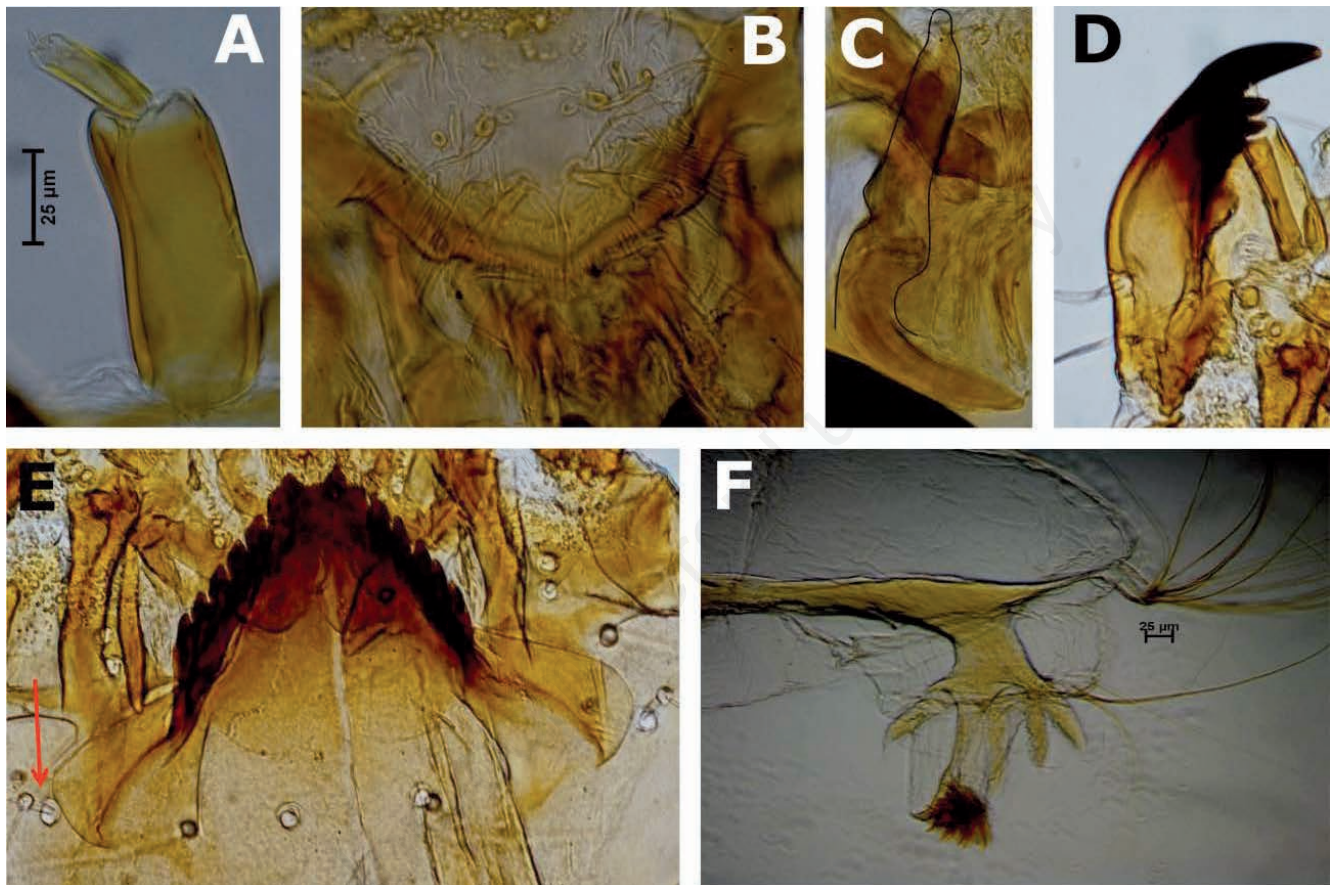


Figure 15. *Monodiamesa* sp. 1, larva (A-F). A) Antenna. B) Labrum. C) Premandible. D) Mandible. E) Mentum, arrow indicates the position of genal setae in relation to VmP. F) Posterior portion of larva.

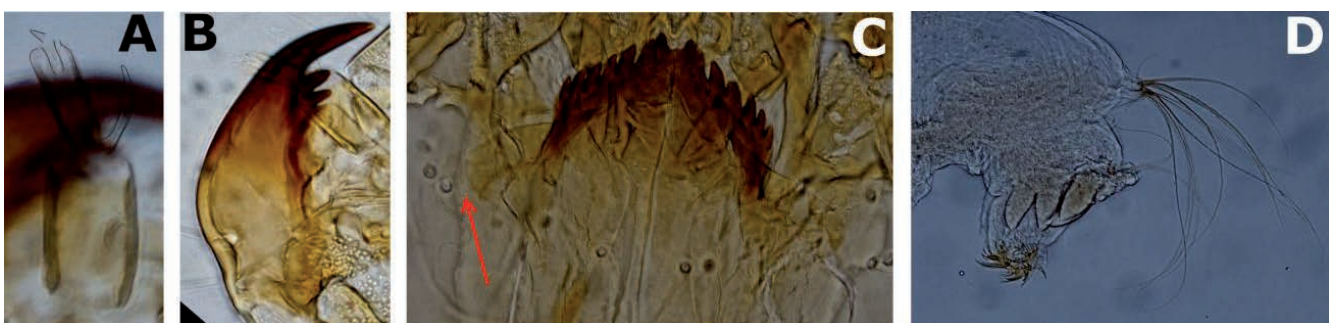


Figure 16. *Monodiamesa* sp. 2, larva (A-D). A) Antenna. B) Mandible. C) Mentum, arrow indicates the position of genal setae in relation to VmP. D) Posterior portion of larva.

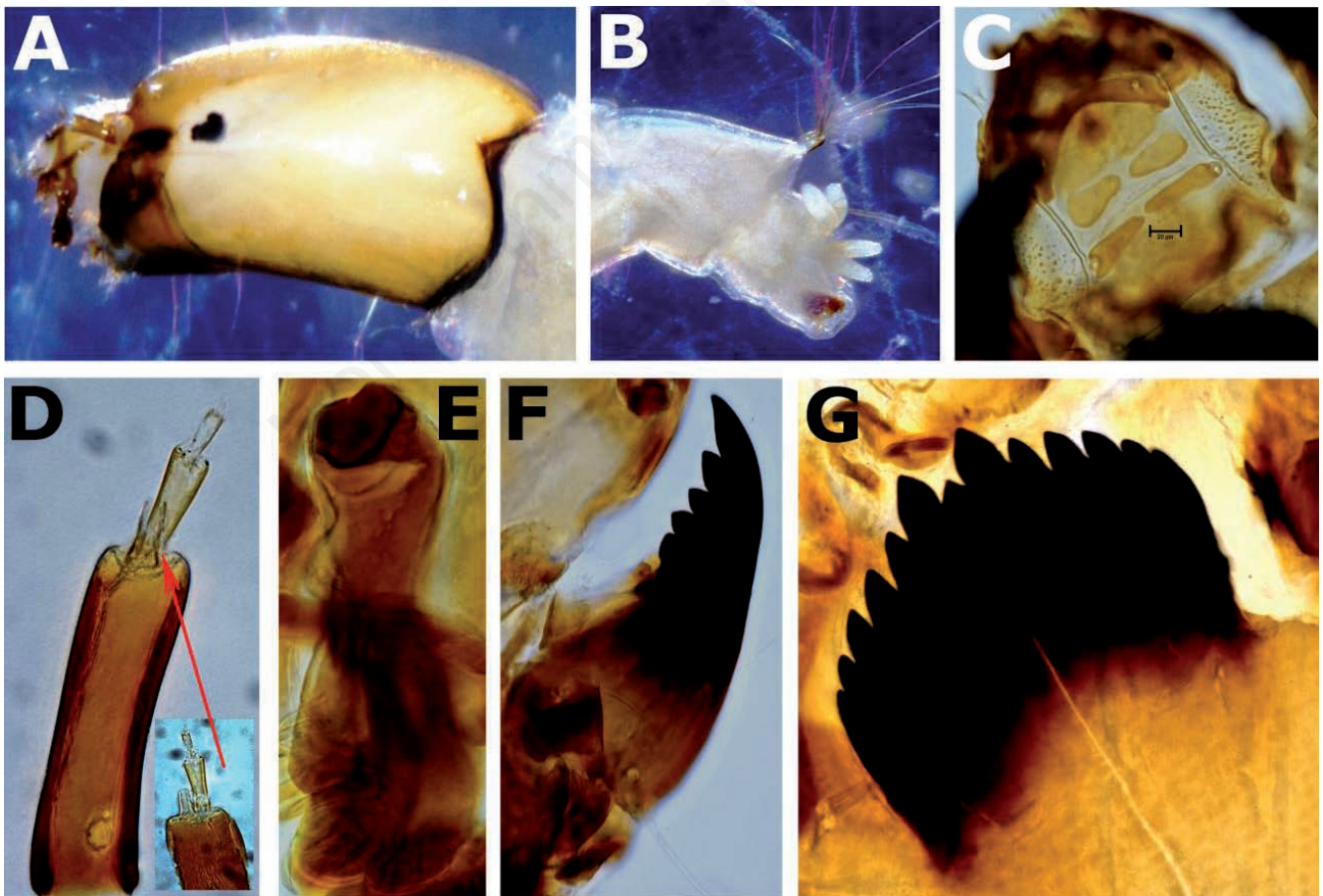


Figure 17. *Brillia flavifrons* (Johannsen, 1905), larva (A-G). A) Head lateral view. B) Posterior portion of larva. C) Dorsal head sclerites. D) Antenna. E) Premandible. F) Mandible. G) Mentum.

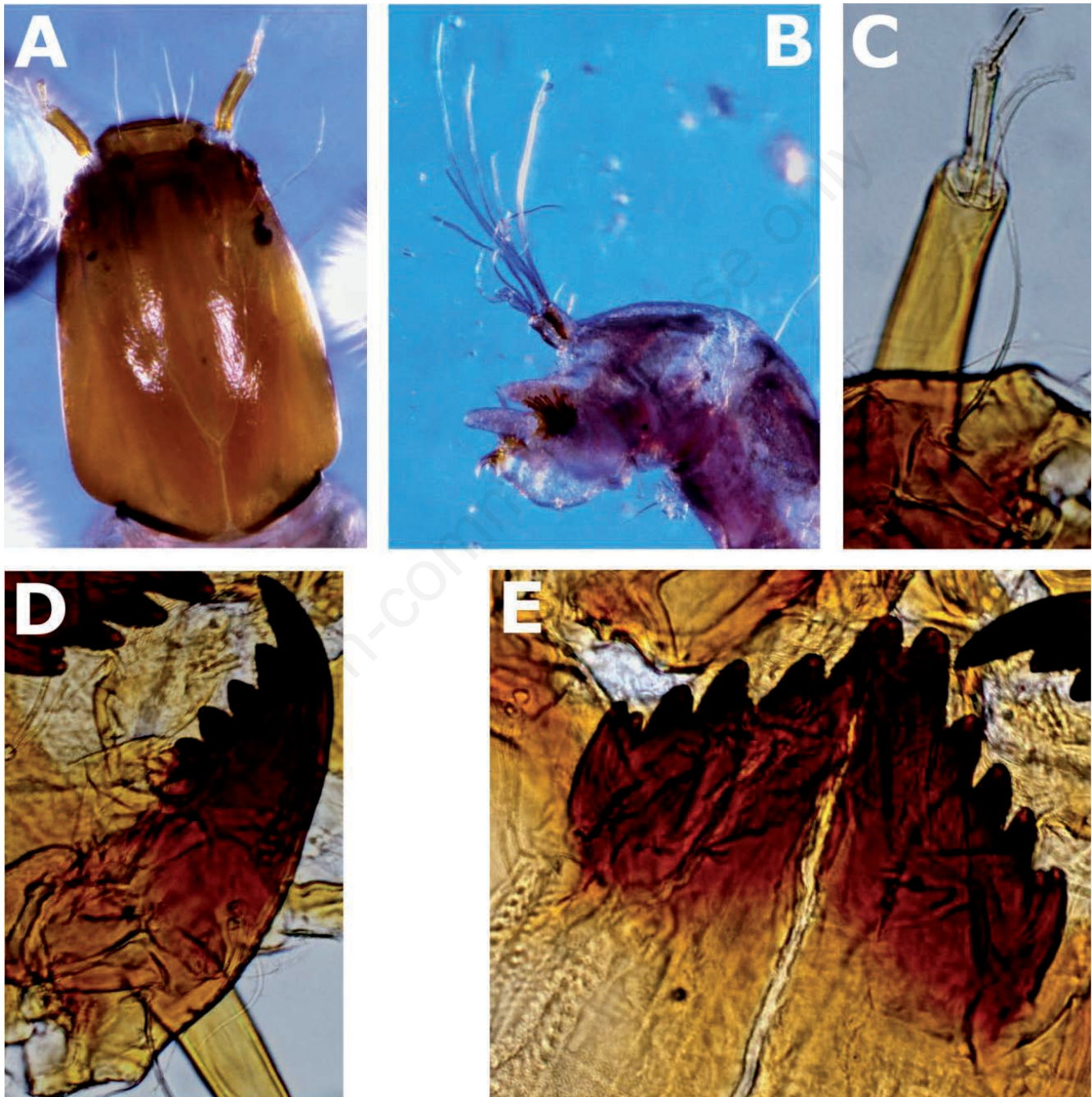


Figure 18. *Brillia parva* Johannsen, 1934, larva (A-E). A) Head dorsal view. B) Posterior portion of larva. C) Antenna. D) Mandible. E) Mentum.

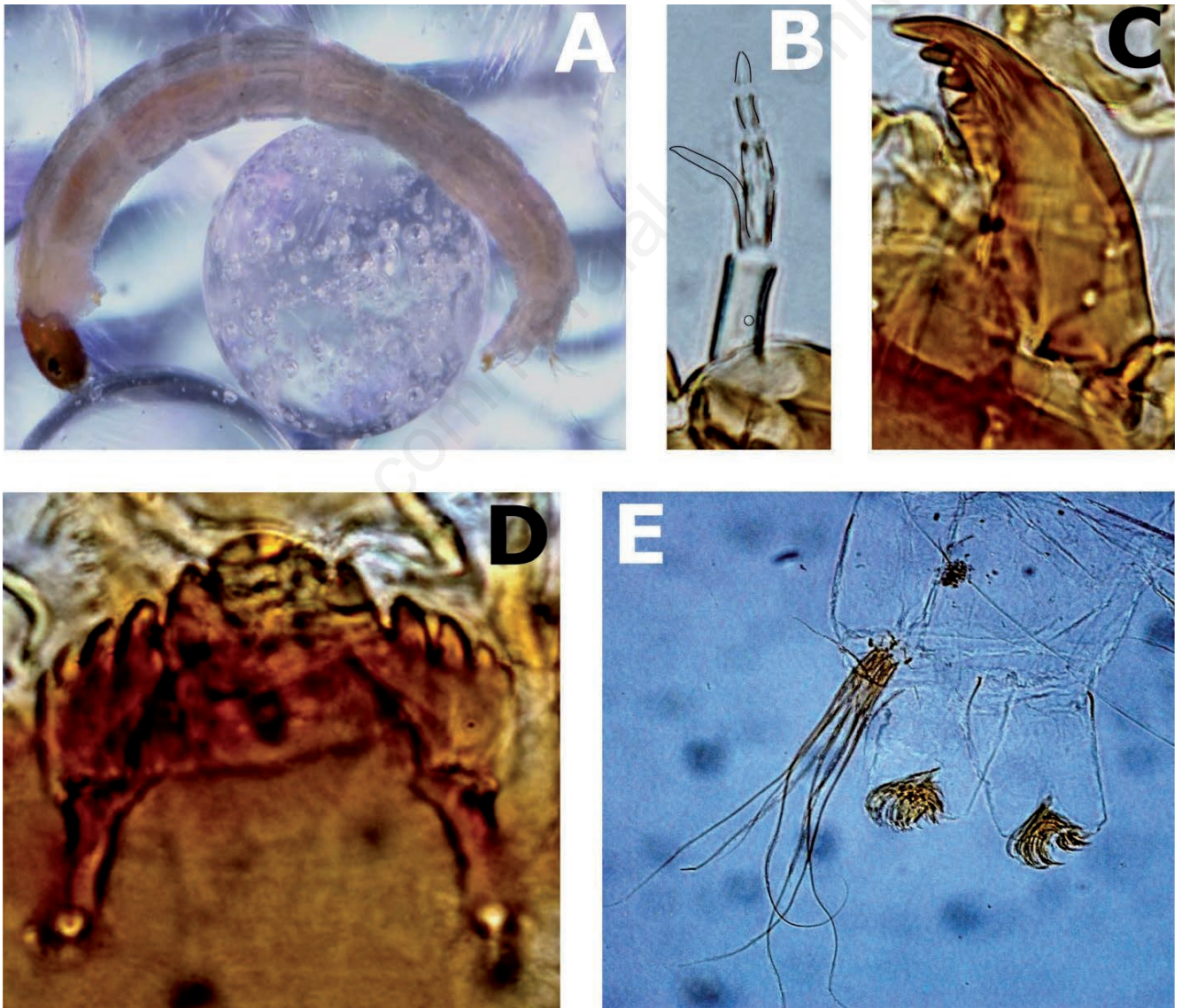


Figure 19. *Cardiocladius cf. albiplumus* Sæther, 1969, larva (A-E). A) Larva lateral view. B) Antenna. C) Mandible. D) Mentum. E) Posterior portion of larva.

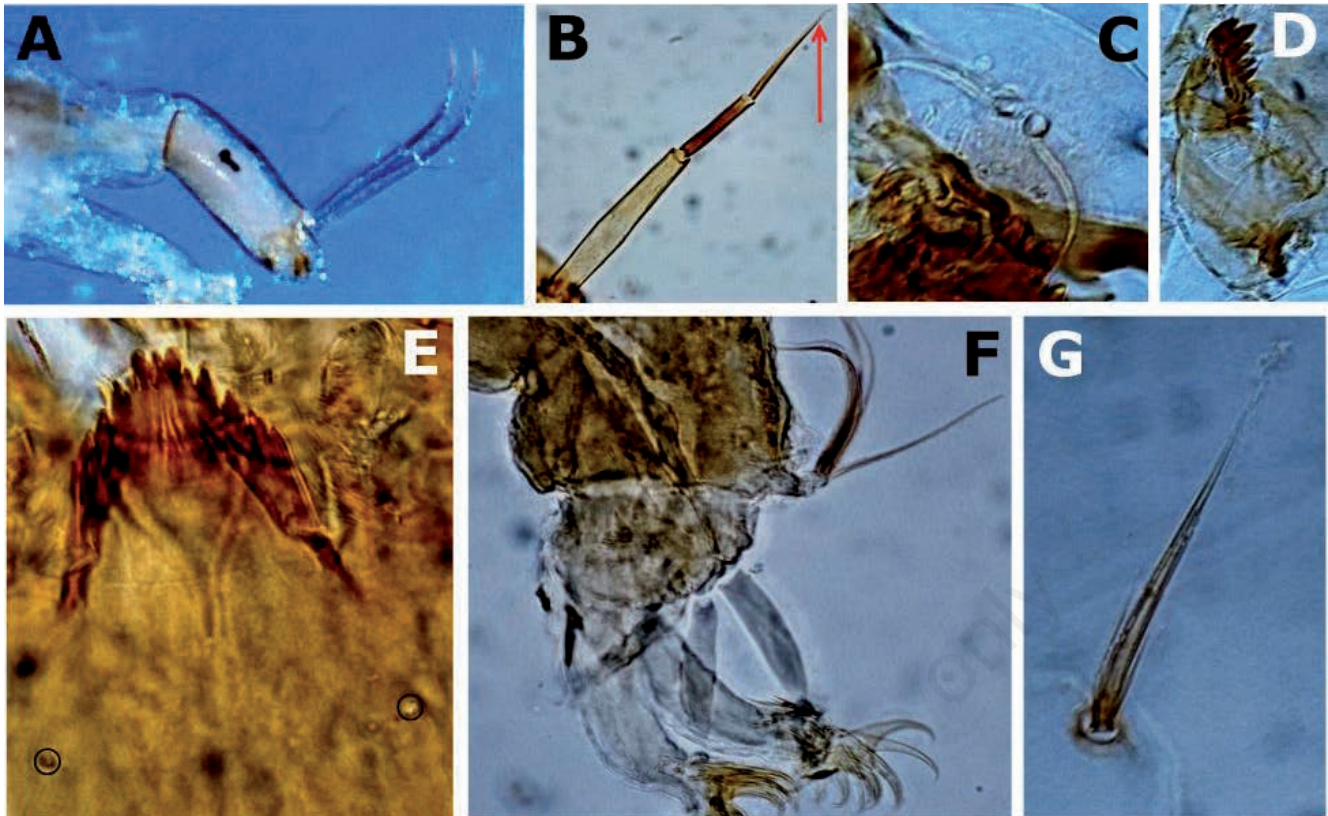


Figure 20. *Corynoneura* sp. 1, larva (A-G). A) Anterior portion of larva, head and anterior parapod. B) Antenna. C) Labrum. D) Mandible. E) Mentum. F) Posterior portion of larva. G) Subbasal seta of posterior parapod.

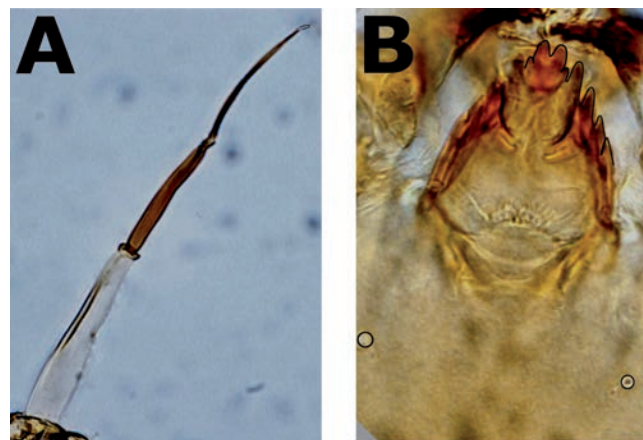


Figure 21. *Corynoneura* sp. 2, larva (A-B). A) Antenna. B) Mentum.

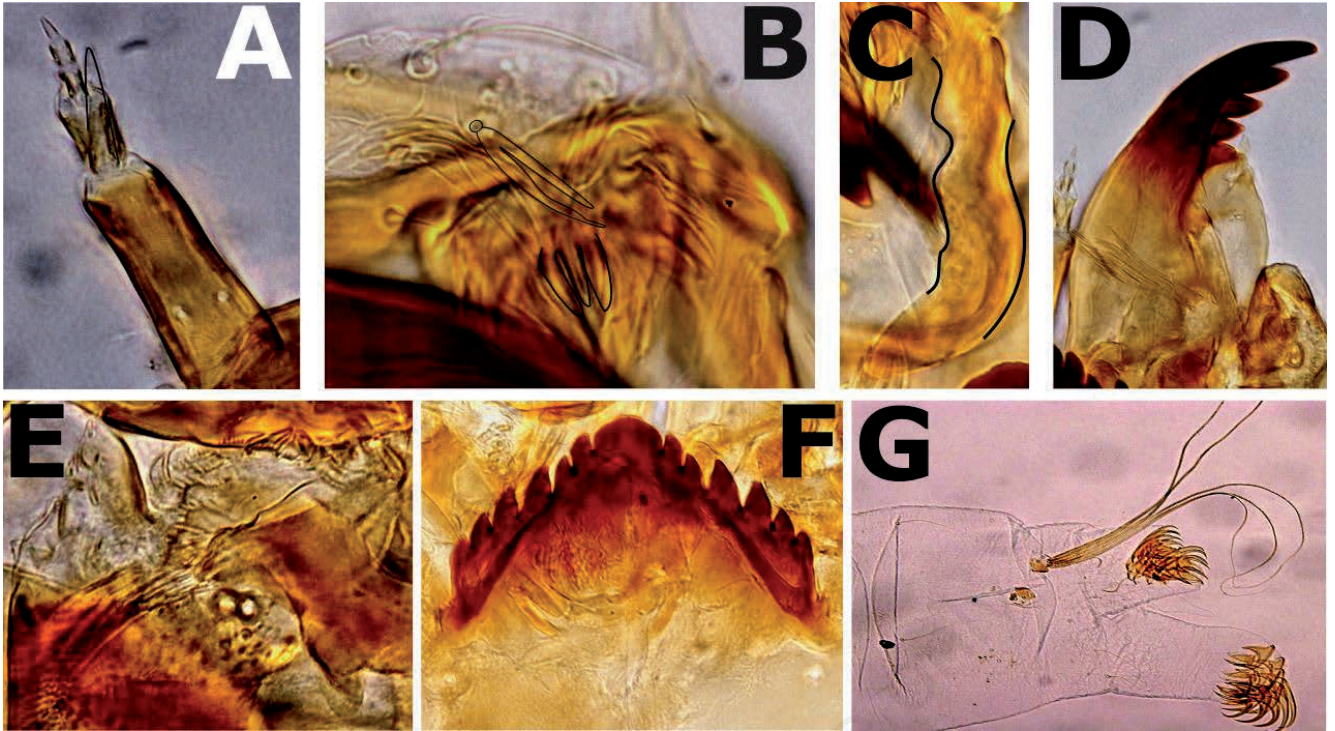


Figure 22. *Cricotopus (Cricotopus) cf. albiforceps* (Kieffer, 1916), larva (A-G). A) Antenna. B) Labrum. C) Premandible. D) Mandible. E) Maxilla. F) Mentum. G) Posterior portion of larva.

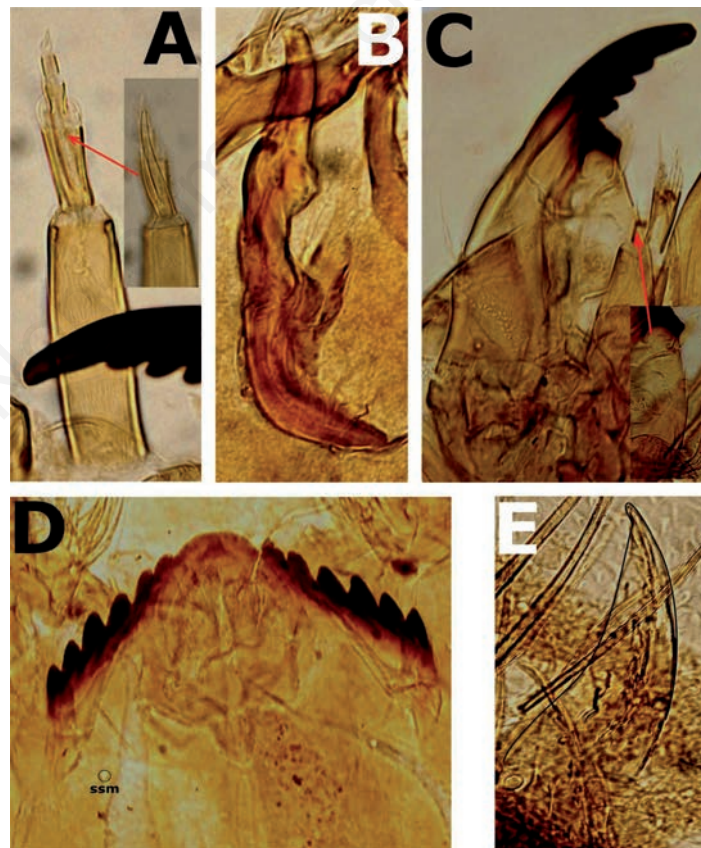


Figure 23. *Cricotopus (Cricotopus) mackenziensis* Oliver, 1977, larva (A-D), pupa (E). A) Antenna. B) Premandible. C) Mandible. D) Mentum. E) Thoracic horn.

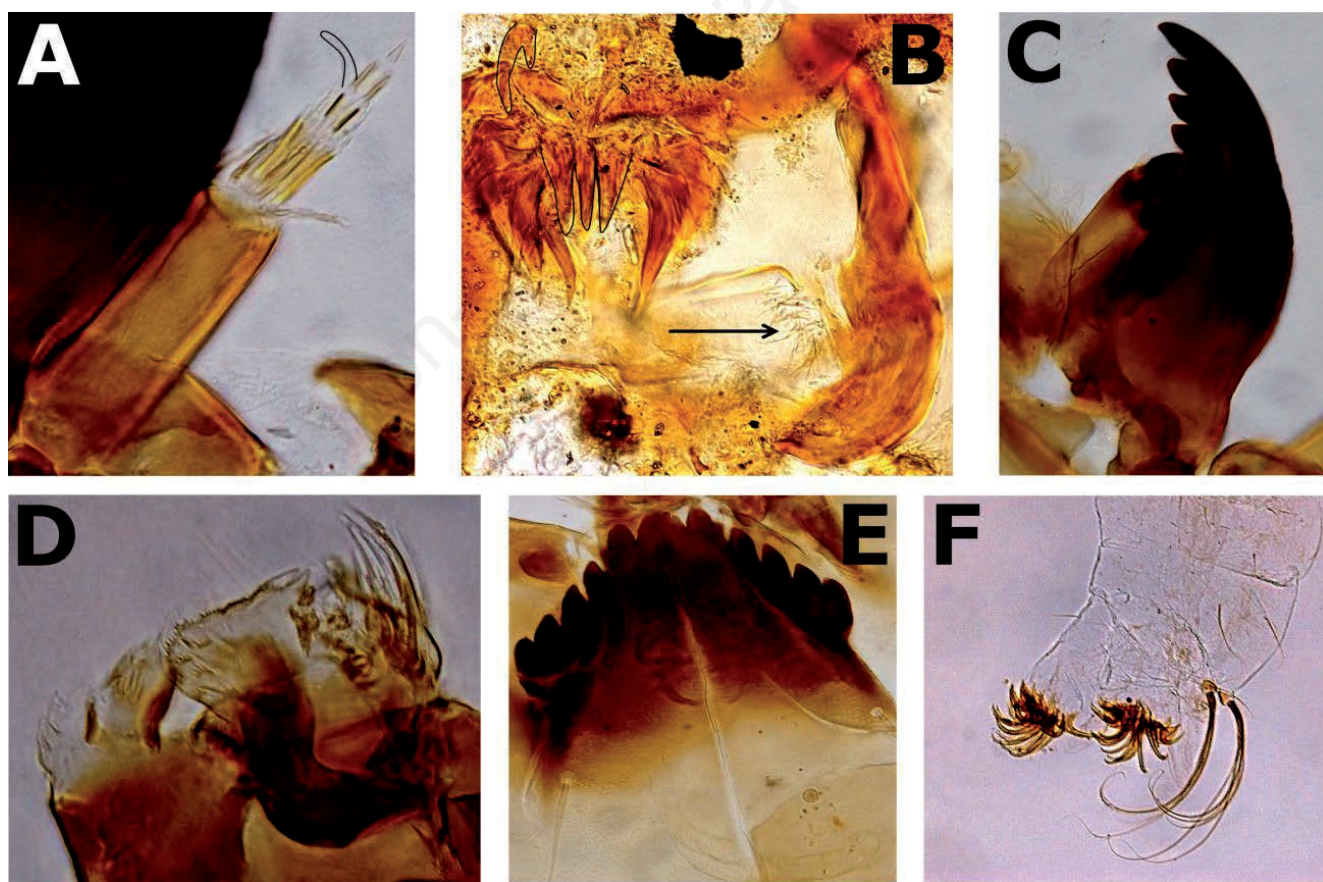


Figure 24. *Cricotopus (Cricotopus) tremulus* group, larva (A-F). A) Antenna. B) Labrum, arrow indicates the premandible brush. C) Mandible. D) Maxilla. E) Mentum. F) Posterior portion of larva.

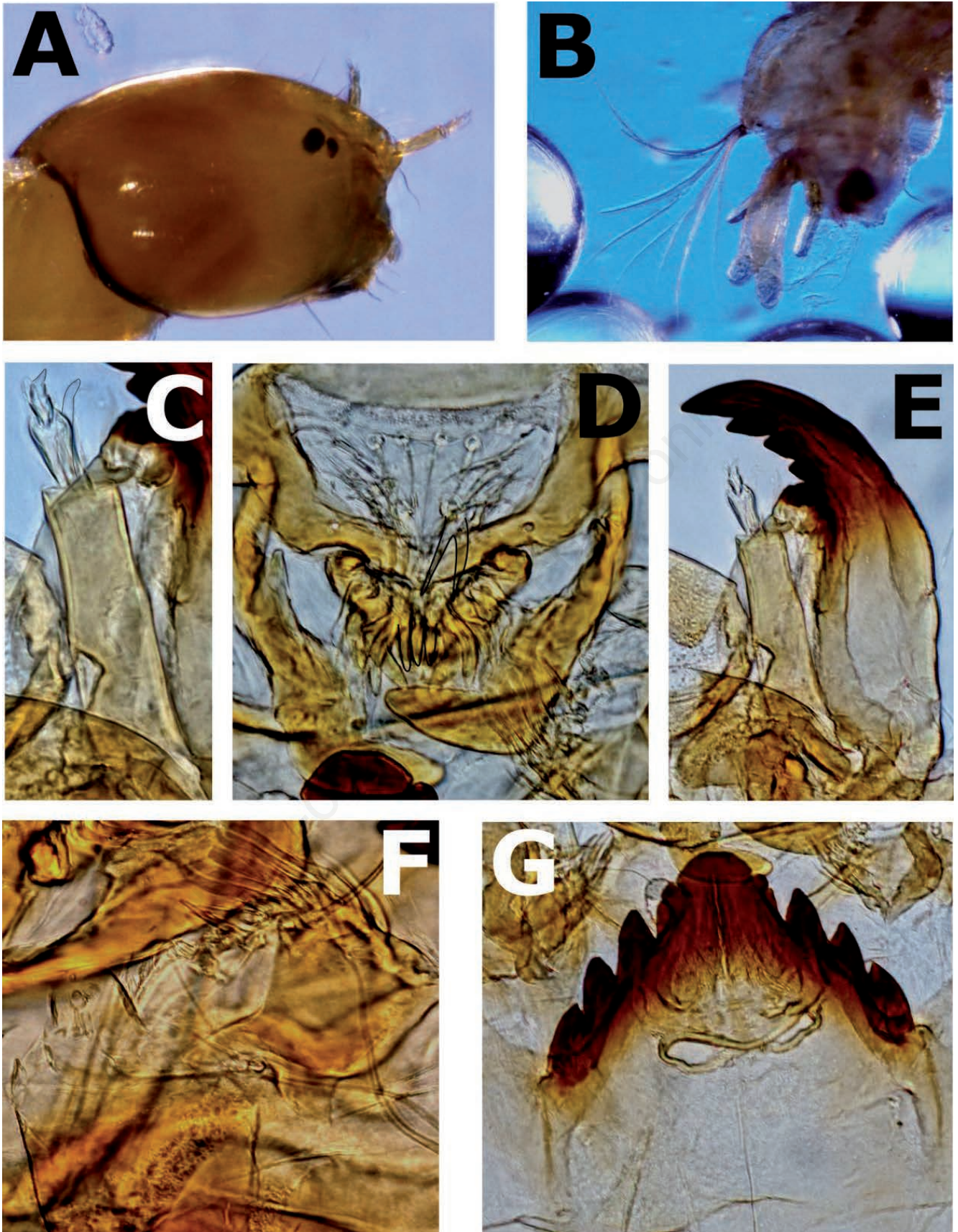


Figure 25. *Cricotopus (Cricotopus) trifascia* Edwards, 1929, larva (A-G). A) Head lateral view. B) Posterior portion of larva. C) Antenna. D) Labrum. E) Mandible. F) Maxilla. G) Mentum.

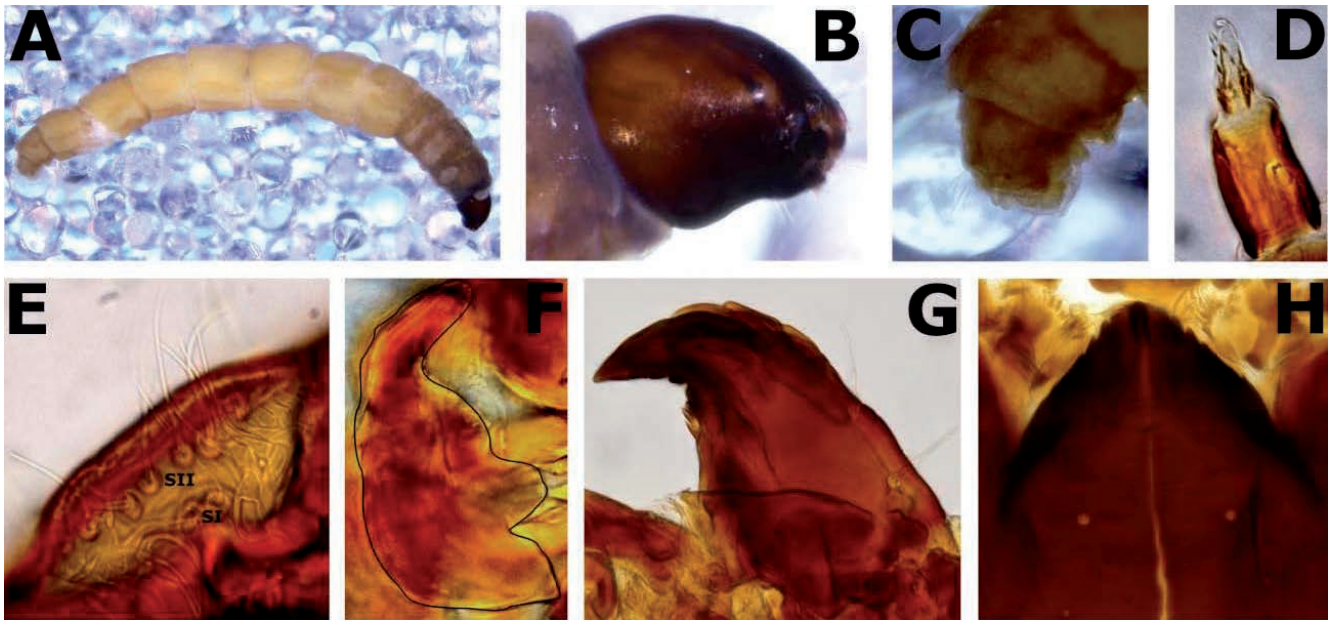


Figure 26. *Cricotopus (Nostocladus) nostocicola* Wirth, 1957, larva (A-H). A) Lateral view of larva. B) Head lateral view. C) Posterior portion of larva. D) Antenna. E) Labrum. F) Premandible. G) Mandible. H) Mentum.

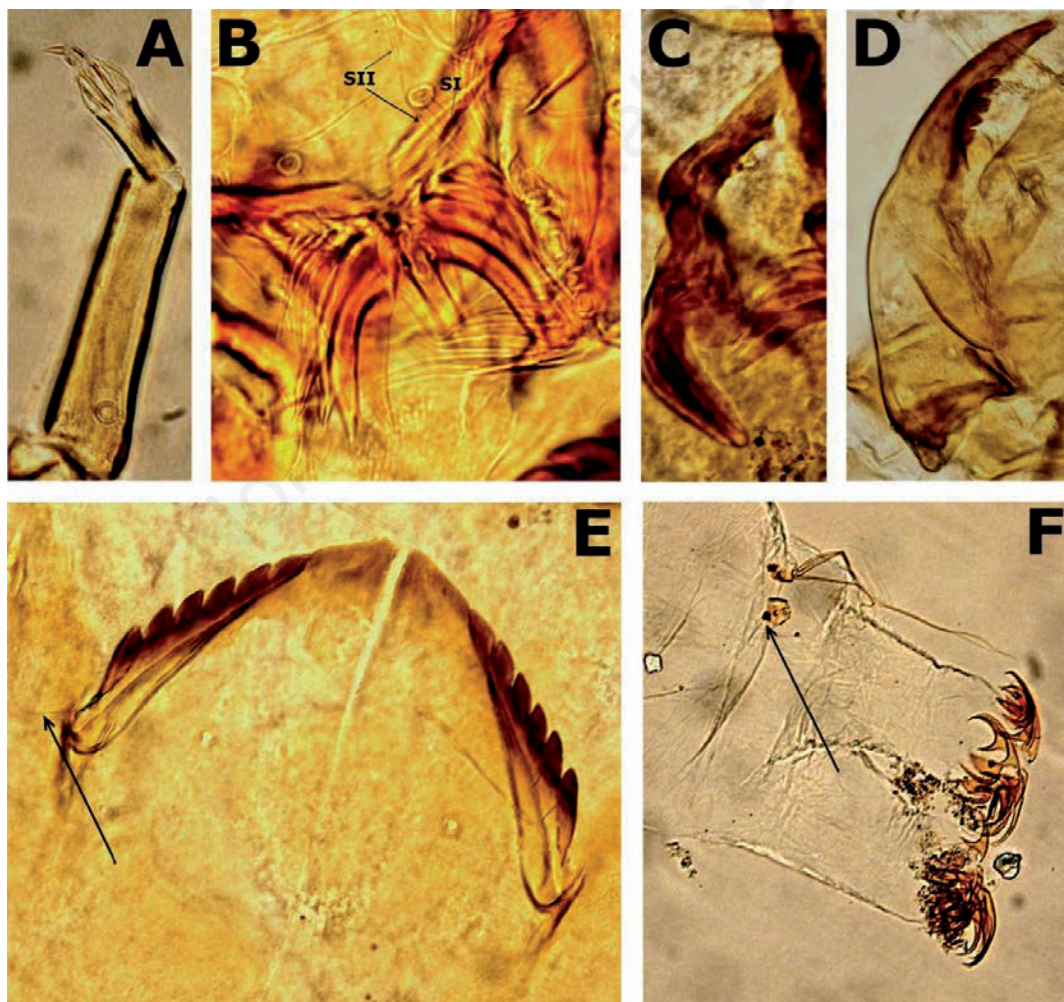


Figure 27. *Doncricotopus* sp., larva (A-F). A) Antenna. B) Labrum. C) Premandible. D) Mandible. E) Mentum, arrow indicates the cardinal beard. F) Posterior parapods, arrow indicates the small spurs.

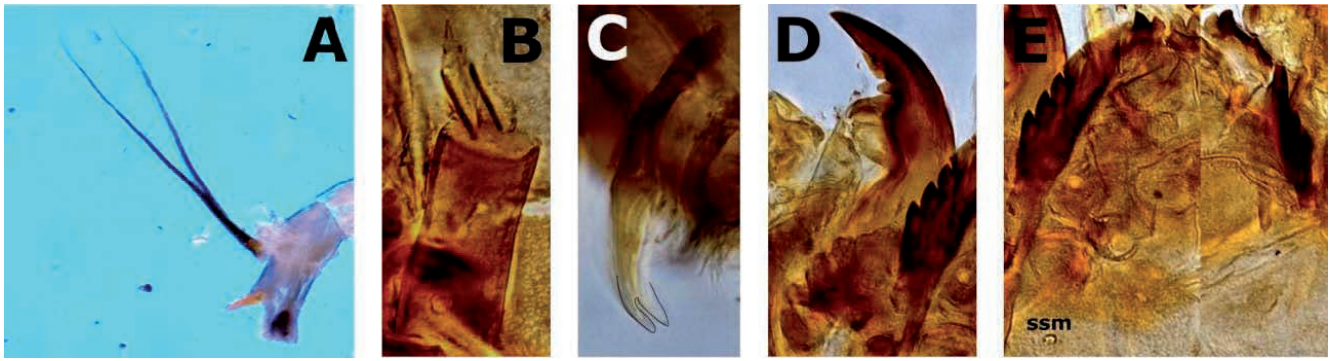


Figure 28. *Epioccladius* sp. #3 Jacobsen, 1992, larva (A-E). A) Posterior portion of larva. B) Antenna. C) Premandible. D) Mandible. E) Mentum.

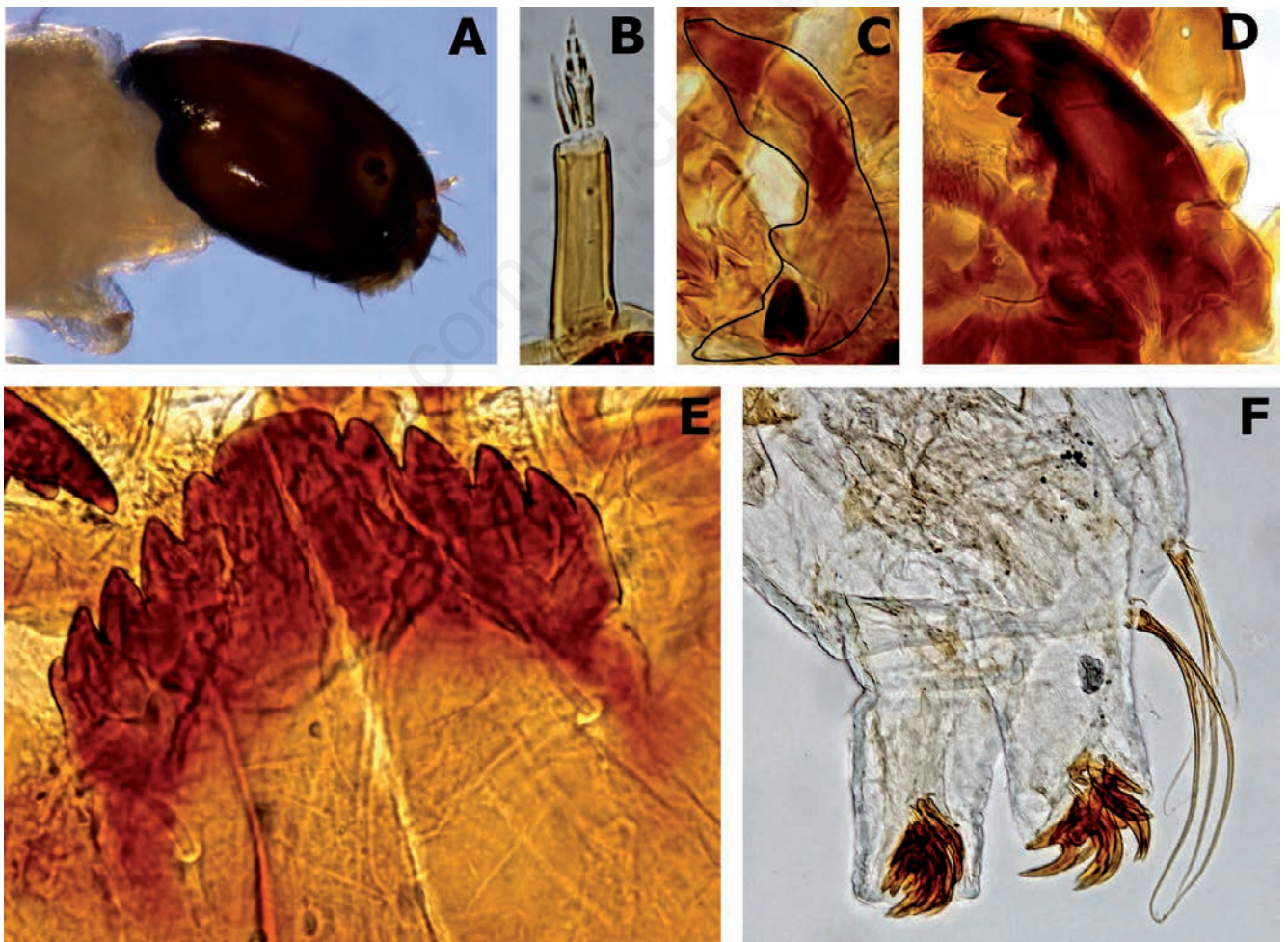


Figure 29. *Eukiefferiella gracei* group, larva (A-F). A) Anterior portion of larva, head and anterior parapod. B) Antenna. C) Premandible. D) Mandible. E) Mentum. F) Posterior portion of larva.

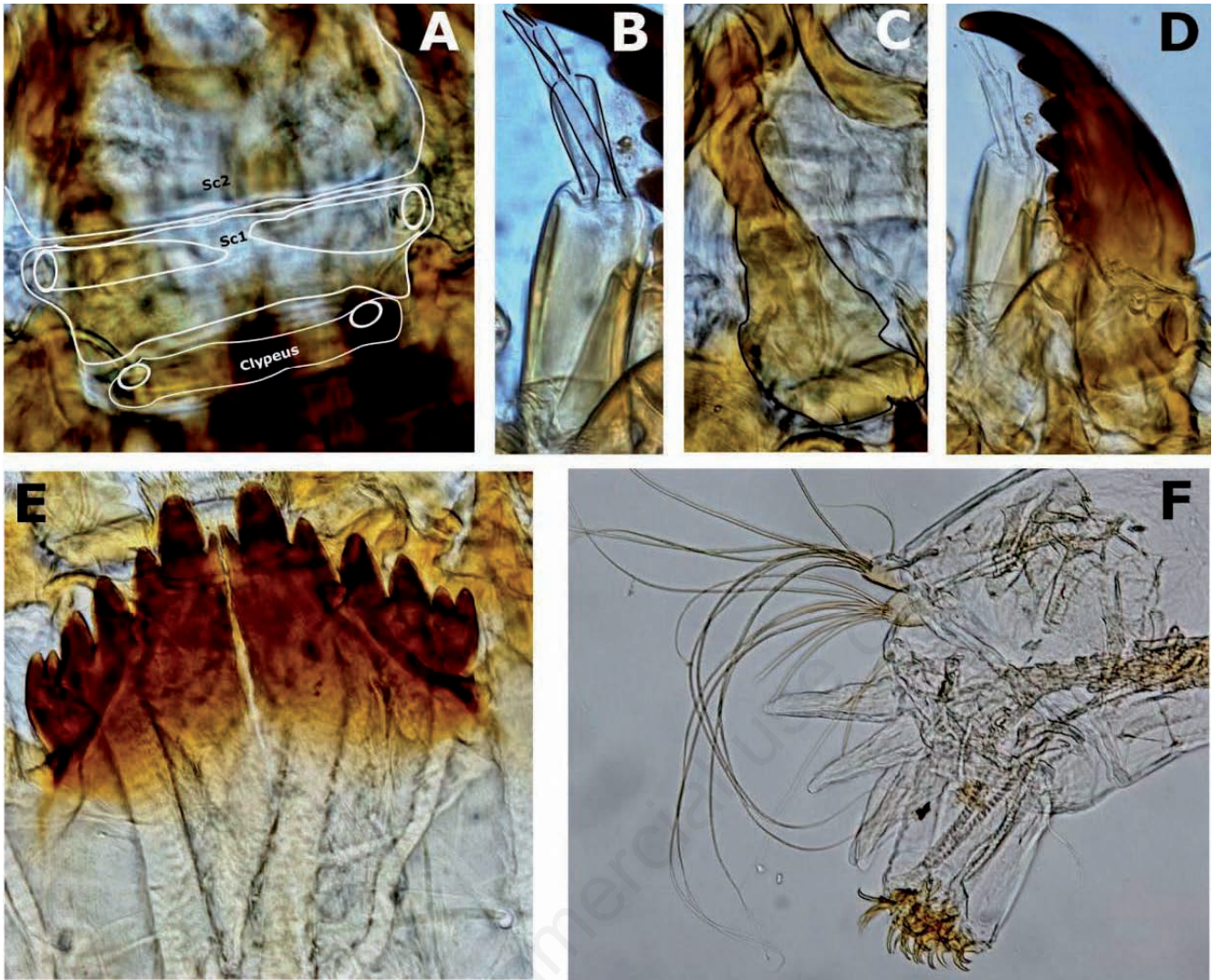


Figure 30. *Eurybapsis cilium* Oliver, 1981, larva (A-F). A) Dorsal head sclerites. B) Antenna. C) Premandible. D) Mandible. E) Mentum. F) Posterior portion of larva.

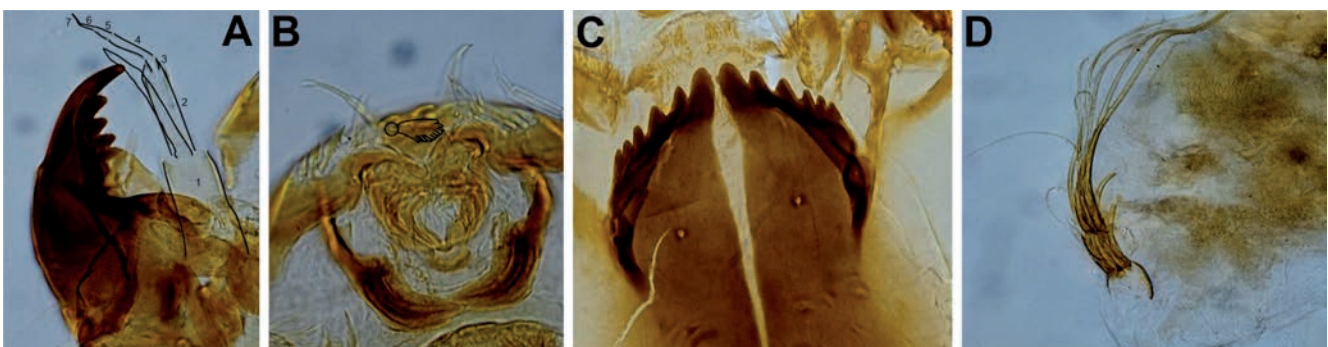


Figure 31. *Heterotrissoladius marcidus* group, larva (A-D). A) Antenna and mandible. B) Labrum. C) Mentum. D) Procercus.

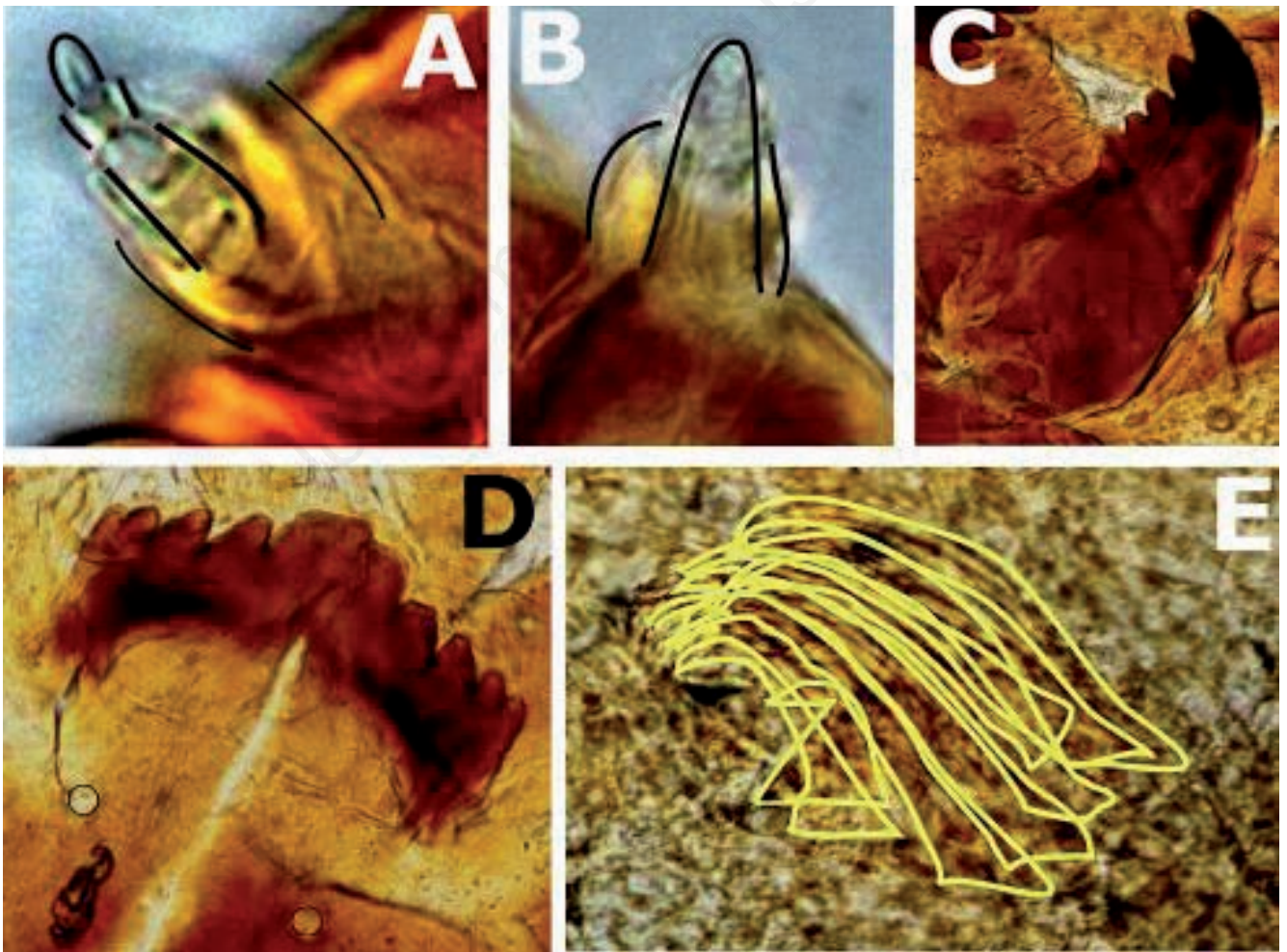


Figure 32. *Hydrosmittia* sp., larva (A-E). A) Antenna. B) Antennal blade. C) Mandible. D) Mentum. E) Claws of posterior parapod.

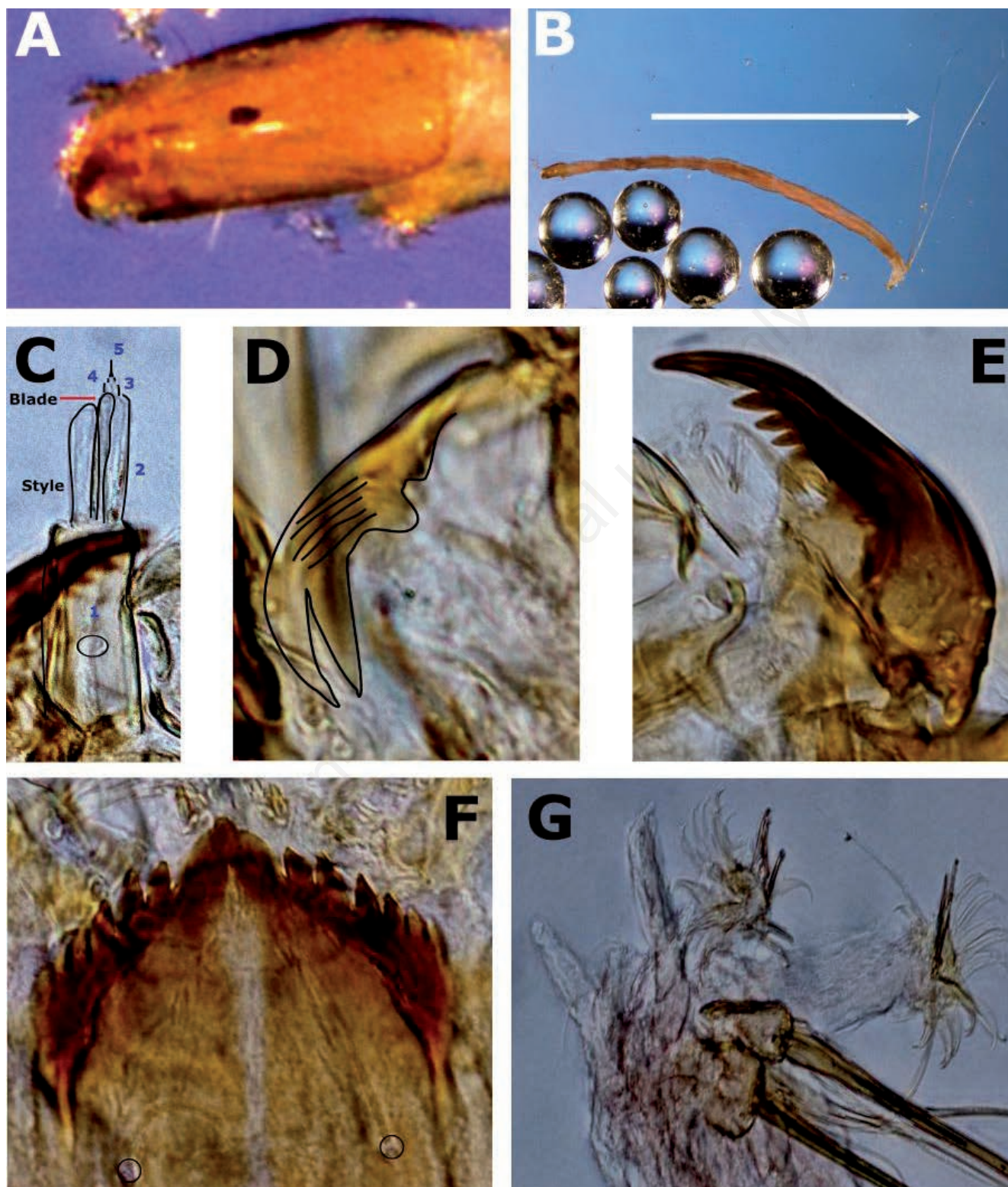


Figure 33. *Krenosmittia* sp., larva (A-G). A) Head lateral view. B) Larva lateral view, arrow indicates the long apical setae. C) Antenna. D) Premandible. E) Mandible. F) Mentum. G) Posterior portion of larva.

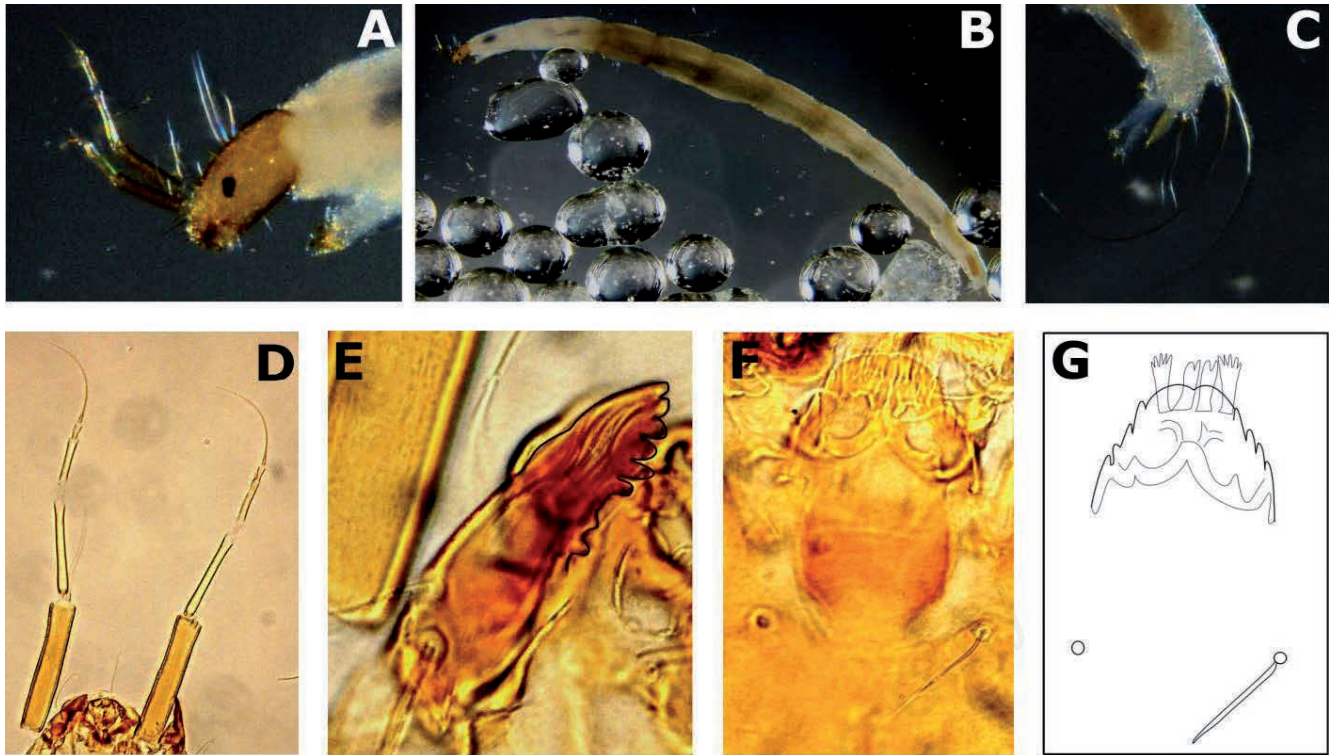


Figure 34. *Lopescladius (Cordiella) cf. hyporheicus* Coffman *et* Roback, 1984, larva (A-G). A) Anterior portion of larva, head and anterior parapod. B) lateral view of larva. C) Posterior portion of larva. D) Antenna. E) Mandible. F) Mentum. G) Reconstructed mentum.

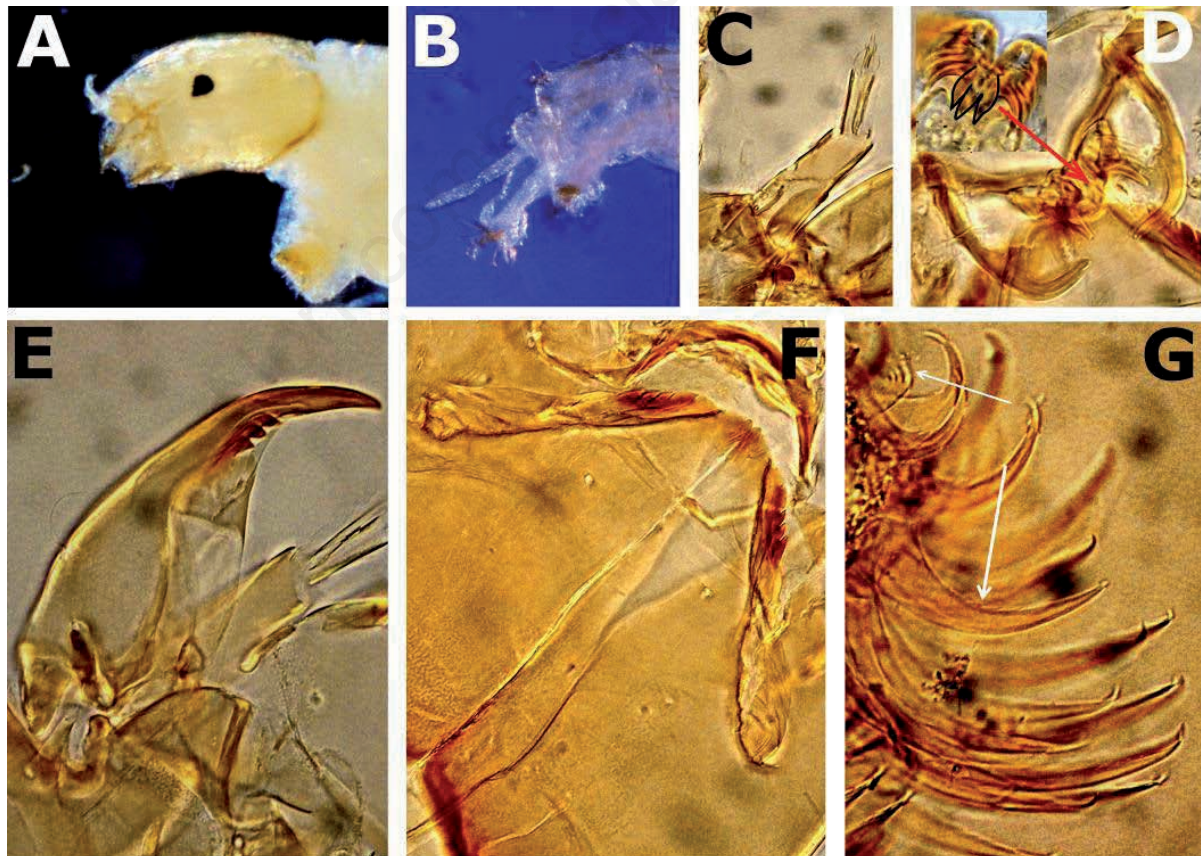


Figure 35. *Nanocladius (Nanocladius) dichromus* group, larva (A-G). A) Anterior portion of larva, head and anterior parapod. B) Posterior portion of larva. C) Antenna. D) Labrum. E) Mandible. F) Mentum. G) Claws of posterior parapod, arrows indicate the inner spines.

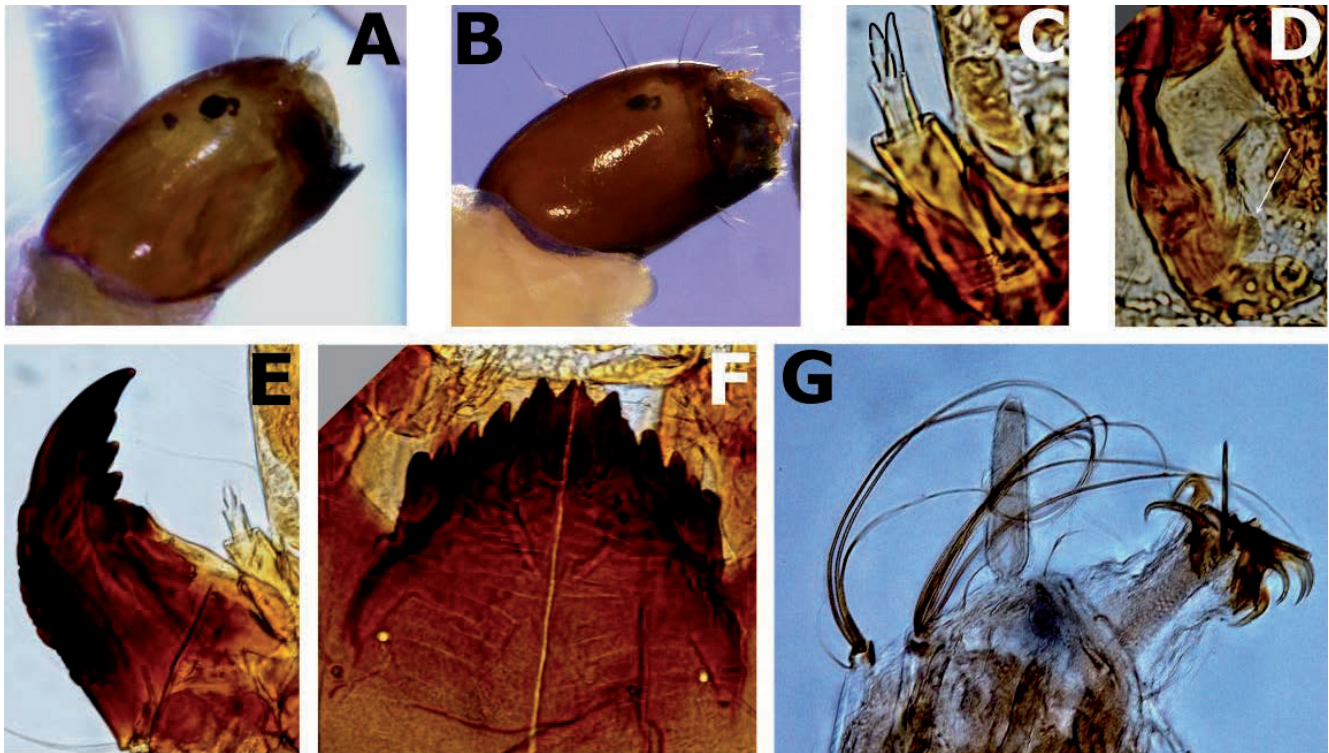


Figure 36. *Orthocladus (Eudactylocladius) dubitatus* Johannsen, 1942, larva (A-G). A) Earlier instar head, lateral view. B) 4th instar larva head, lateral view. C) Antenna. D) Premandible, arrow indicates the accessory tooth. E) Mandible. F) Mentum. G) Posterior portion of larva.

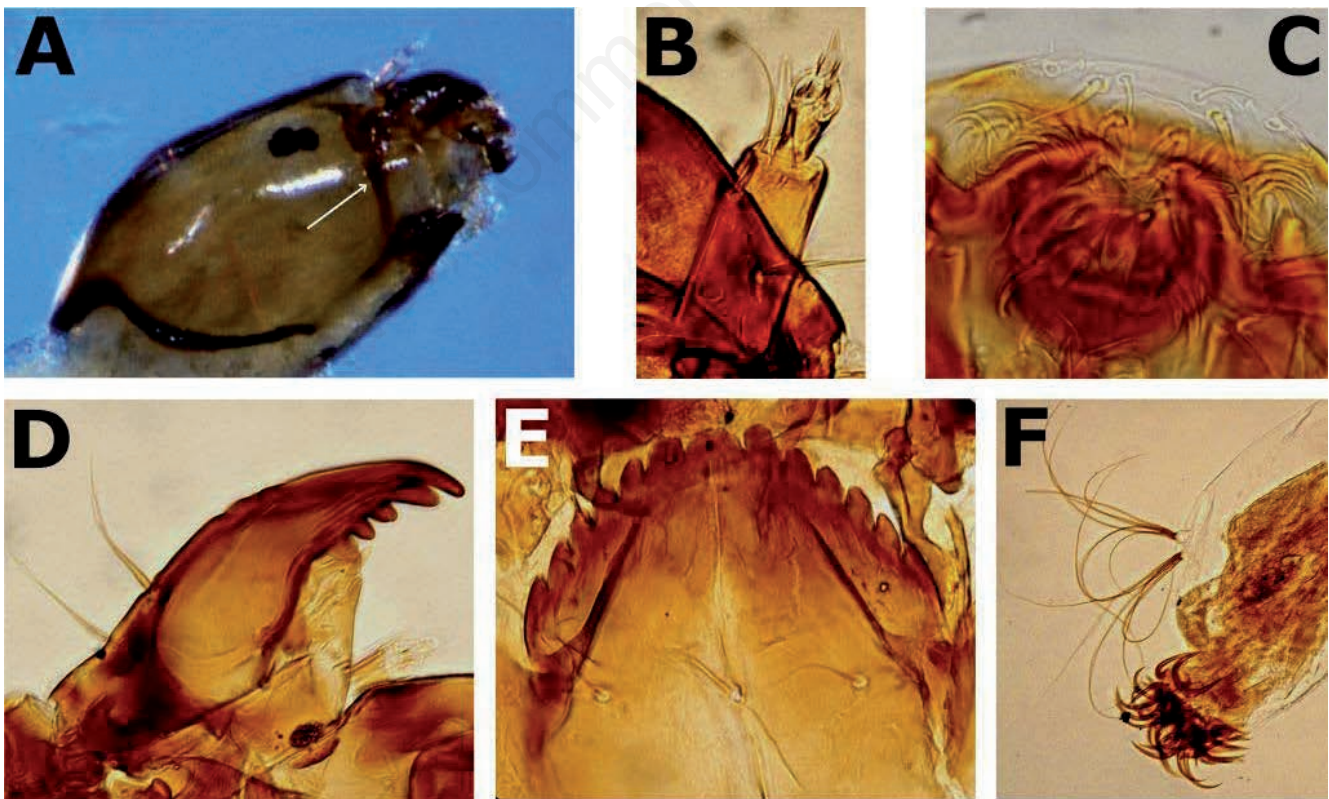


Figure 37. *Orthocladus (Euorthocladus) rivicola* Kieffer, 1921, larva (A-F). A) Head lateral view, arrow indicates the sclerite band. B) Antenna. C) Labrum. D) Mandible. E) Mentum. F) Posterior portion of larva.

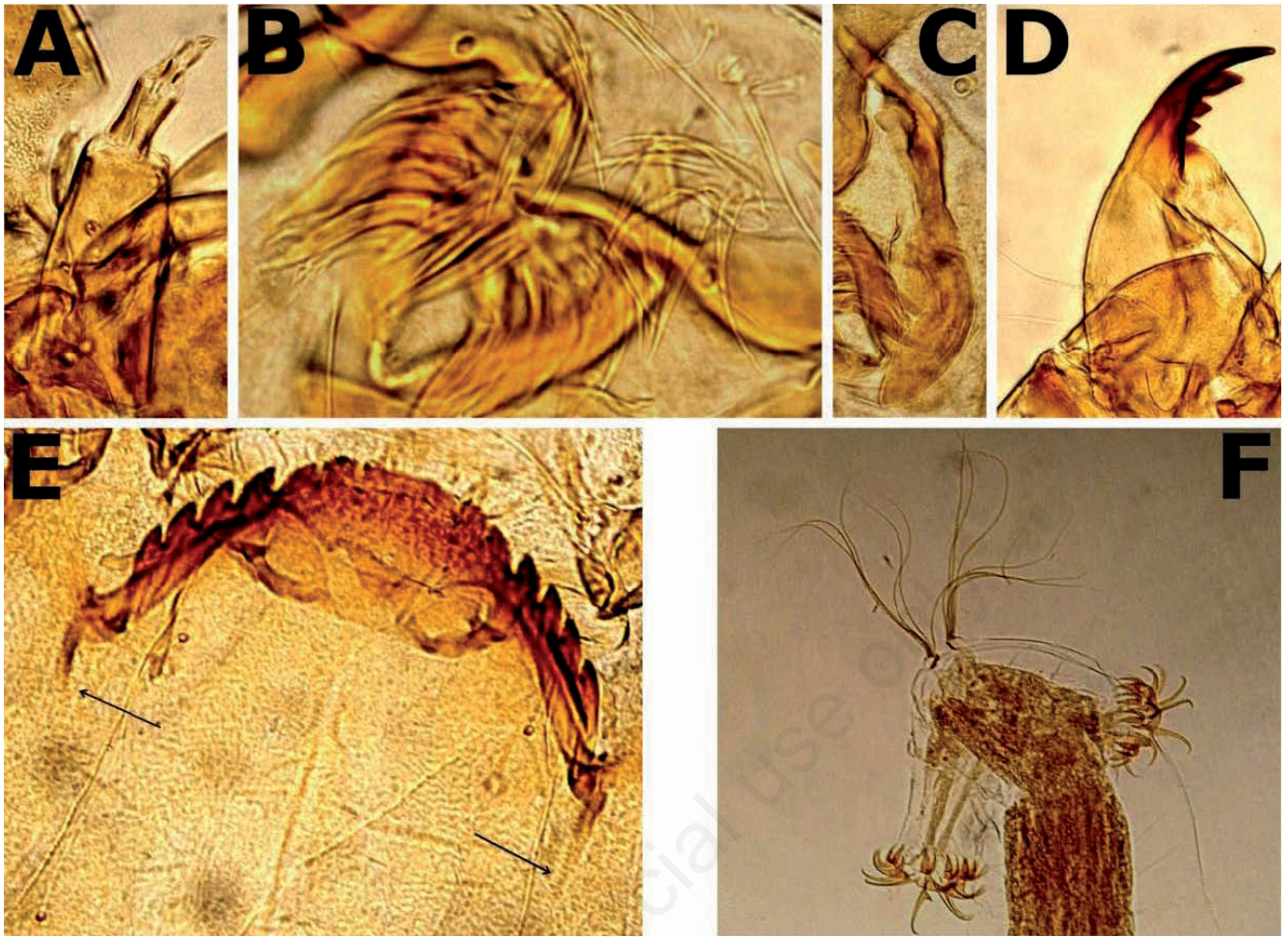


Figure 38. *Orthocladius (Orthocladius) cf. clarkei* Sponis, 1977, larva (A-F). A) Antenna. B) Labrum. C) Premandible. D) Mandible. E) Mentum, arrows indicate the VmPs extensions. F) Posterior portion of larva.

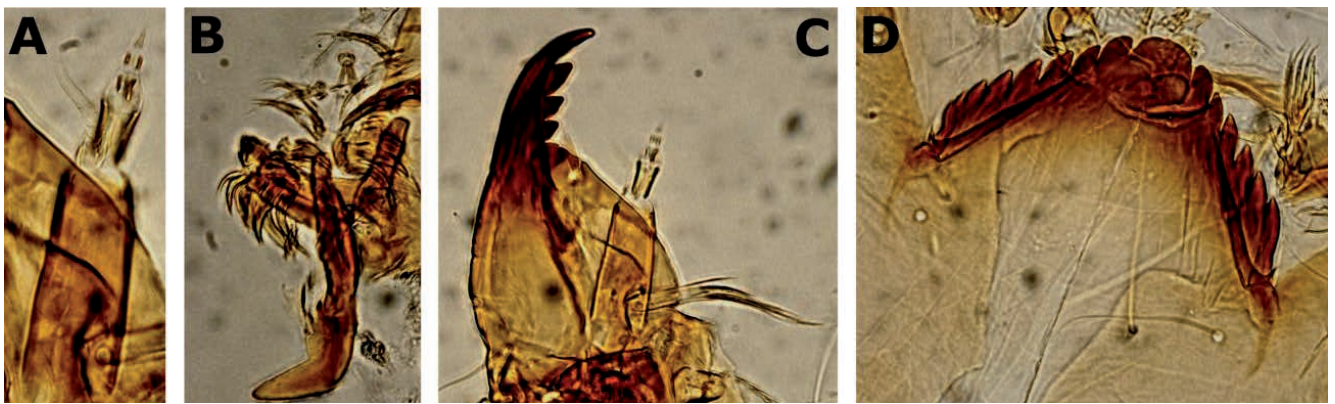


Figure 39. *Orthocladius (Orthocladius) obumbratus* Johannsen, 1905, larva (A-D). A) Antenna. B) Labrum, premandible. C) Mandible. D) Mentum.

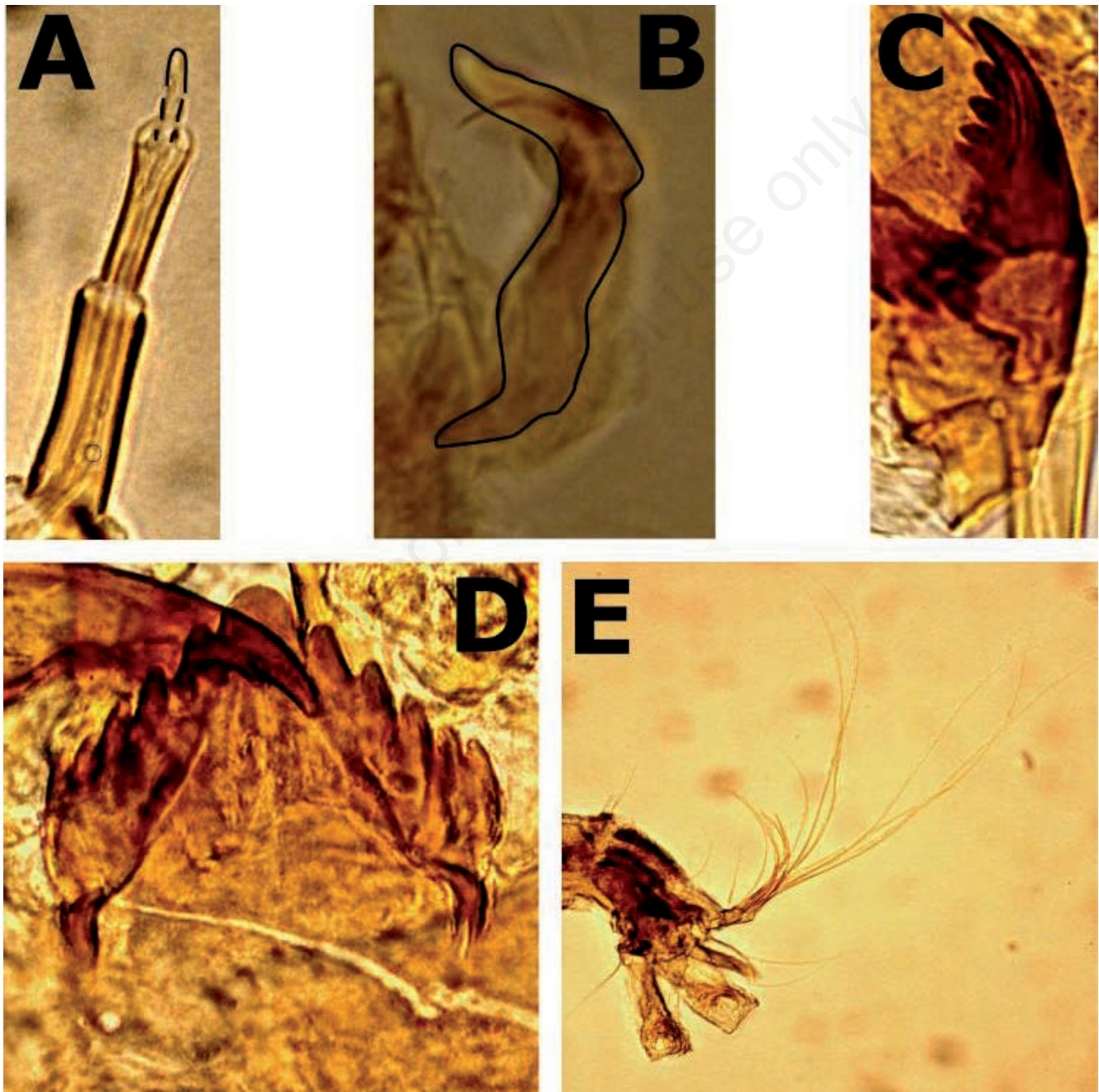


Figure 40. *Paracricotopus* sp., larva (A-E). A) Antenna. B) Premandible. C) Mandible. D) Mentum. E) Posterior portion of larva.

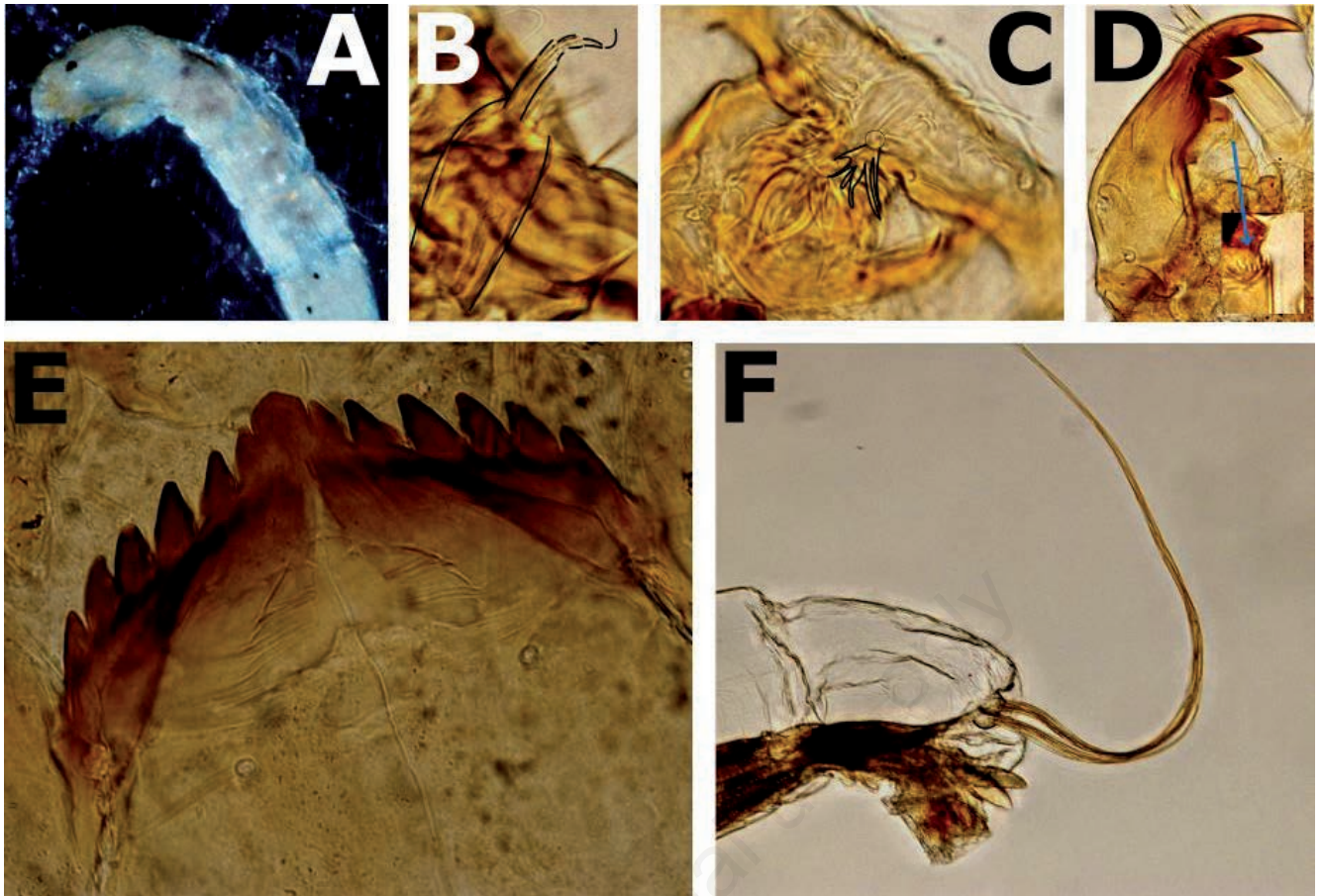


Figure 41. *Parakiefferiella* sp. 1, larva (A-F). A) Anterior portion of larva, head and anterior parapod. B) Antenna. C) Labrum. D) Mandible. E) Mentum. F) Posterior portion of larva.

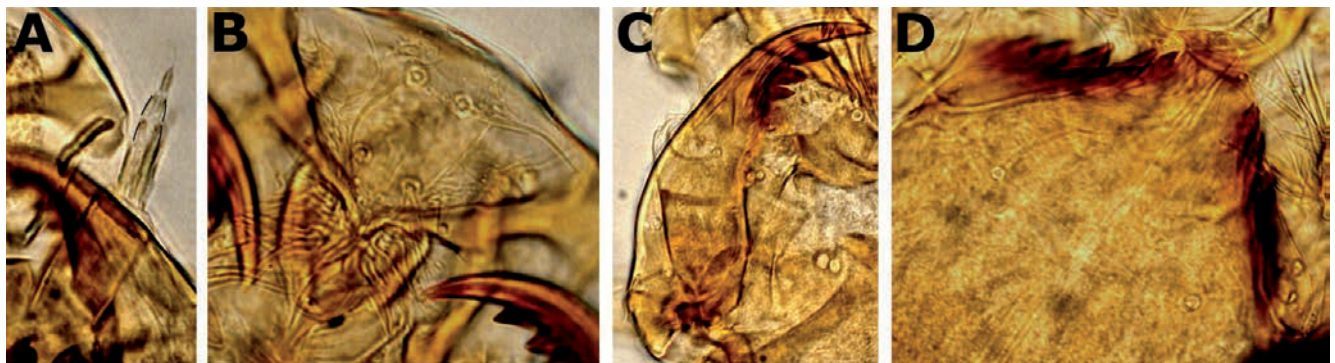


Figure 42. *Parakiefferiella* sp. 2, larva (A-D). A) Antenna. B) Labrum. C) Mandible. D) Mentum.