

KEY TO THE LARVAE OF THE GENERA
OF THE SUB-FAMILY ORTHOCLADIINAE

from PANKRATOVA, V. Ya. (1970) Larvae and pupae of midges of the
subfamily Orthocladinae of the fauna of the U.S.S.R.

Leningrad. 'Nauka'. pp 51 - 55

- 1 (2). In the middle of the labrum (are combs arranged in a
transverse row, numerous, overlapping one another, from
the centre to the edge gradually becoming smaller in
size, their distal ends finely serrated.
..... 1. Protanypus Kieff. (p. 59)
2. (1). Combs of the labrum, if present, arranged directly over
the epipharynx, few in number, the distal part pectinate.
- 3 (12) Third segment of the antenna annulate.
- 4 (5) On the genal sclerite over the eyes is a process; on
the abdominal segments dorsally, are spinules, forming a
specific pattern; ends of the anal pseudopods * in a kind
of sucker.
..... 2. Heptagia (Philippi) Edw. (p.63)
- 5 (6) Processes of the genal sclerites and spinules of the
abdomen absent; ends of the anal pseudopods not forming
suckers.
- 6 (7) Brush pedestals sturdy, strongly sclerotised, distally with
a spine.
..... 3. Syndiamesa Kieff. (p. 68)
- 7 (6) Brush pedestals small, weakly sclerotised or reduced.
- 8 (9) Labrum with transverse row of spines.
..... 4. Diamesa Mg. (p. 76)
- 9 (8) Labrum without transverse row of spines.
- 10 (11) Anterior central setae of labrum very weakly
developed.
5. Potthastia (Kieff). Pagast. (p. 103)

* podtalkivatel' - lit, "plungers".

- 11 (12) Anterior central setae of labrum sturdy, spine-like.
6. Sympothastia Pagst. (p. 106)
- 12 (3) 3rd antennal segment not annulate.
- 13 (14) On the outer side of the mandible 2 thick tufts of setae, the inner seta strong, fan shaped, the mandible irregularly round.
8. Odontomesa Pagast. (p. 112)
- 14 (13) On the outer side of the triangular mandible only simple setae.
- 15 (16) Submental plates developed more or less well; 1st segment of the antenna big, 2nd considerably narrower and shorter than 1st, the rest very small or discerned with difficulty, setae of the antenna sturdy, going far beyond its end.
7. Prodiamesa Kieff. (p. 107)
- 16 (15) Submental plates absent or weakly developed; antenna constructed otherwise.
- 17 (18) 2nd segment of antenna divided into 2 parts, of which the distal is the longer; 1st segment of antenna curved.
16. Brillia Kieff. (p. 129)
- 18 (17) 2nd segment of antenna not divided into 2 parts; 1st segment of antenna almost always straight.
- 19 (20) Thoracic segments with unusual, dark, split setae; antennae brown, on tall cylindrical bases which are distally armed with big spines; Lauterborn organs alternate; setae at the base of the submentum distally split.
15. Abiskomyia Edw. (p. 127)
- 20 (19) Thoracic segments without unusual setae; antennae not on tall bases, Lauterborn organs opposite; setae at base of submentum simple.
- 21 (22) Sides of black submentum without teeth, almost parallel to one another.
14. Cardiocladius Kieff. (p. 124)
- 22 (2) Sides of brown submentum always not parallel to one another, in most cases toothed.

- 23 (24) Middle teeth of sumentum low, broad, more often light, 6 pairs of lateral teeth dark; anterior central setae of labrum distally widened and delicately split into many parts; 3rd and 4th segments of antenna merged; brush pedestals approximately equal in height and width, distally usually with a spine.
9. Propillocerus Kieff. (p. 115)
- 24 (23) These feature present in other combinations.
- 25 (78) Brush pedestals present (freshwater forms)
- 26 (39) Along the sides of the submentum are dense tufts or sparsely set hairs.
- 27 (28) On 1st.- 8th segments of the abdomen are sparsely set, strong, simple setae, equal approximately to half the length of the segment; setae of the preanal brushes 4 - 5 times longer than the last segment of the body.
37. Epicoccladius Zavattà (p. 267)
- 28 (27) Setae of the abdominal segments either weakly developed, or simple alternating with split; setae of preanal brushes not more than twice the length of the last segment of the body.
- 29 (30) Along the sides of the submentum are dense tufts in a kind of irregular row of long hairs; antenna 4 - segmented.
17. Diplocladius Kieff. (p. 133)
- 30 (29) Along the sides of the submentum only sparsely set hairs, arranged in a kind of row radially; antenna 5 - segmented.
- 31 (34) At the base of the submentum there are long, radially arranged hairs.
- 32 (33) Anterior pseudopods, anal pseudopods and setae of the body appreciably reduced.
42. Pseudorthocladus Goetgh. (p. 276)
- 33 (32) Anterior pseudopods and anal pseudopods developed normally; on each of 7 segments of the abdomen laterally two simple setae alternating with two long split ones; submentum tall, narrow.
22. Synorthocladus Thien. (p. 169)
- 34 (31) At the base of the submentum no long sparse hairs.

- 35 (36) Tall slightly conical brush pedestals, ano-dorsally with a protuberance, carrying sclerotised spines; anterior central setae of the labrum deeply split into 4 - 8 lobes.
27. Psectrocladius Kieff. (p. 210)
- 36 (35) Brush pedestals without ano-dorsal protuberance, sometimes with a spine in the middle.
- 37 (38) Anterior central setae of the labrum split into 3 lobes, the outer of which is two-pointed.
26. Acricotopus Thien. (p. 207)
- 38 (37) Anterior central setae of the labrum bifid.
28. Rheocricotopus Thien. et Harn. (p. 225)
- 39 (26) Hairs on the sides of the submentum almost always absent.
- 40 (41) In the ano-lateral corners of the abdominal segments there are tufts of setae (reduced in marine forms); outer edge of the mandible with more or less distinct notches.
24. Cricotopus v. d. Wulp. (p. 187)
- 41 (40) In the ano-lateral corners of the abdominal segments no tufts of setae; outer edge of mandible without notches.
- 42 (43) Lower lateral seta of the brush pedestals considerably stronger and darker than upper lateral; body slender with sparsely set simple paired setae.
21. Eukiefferiella Thien. (p. 150)
- 43 (42) Lateral setae of the brush pedestals developed approximately equally weakly or absent.
- 44 (47) 2nd and 3rd segments of thorax fused.
- 45 (46) Antenna 4 - segmented.
51. Corynoneura Winn. (p. 314)
- 46 (45) Antenna 5 - segmented.
52. Thienemanniella Kieff. (p. 316)
- 47 (44) 2nd and 3rd segments of thorax clearly divided.
- 48 (51) Middle of submentum broad, light, transparent.
- 49 (50) Middle of submentum tall, with two teeth on the apex; setae of the body not developed.
29. Microcricotopus Thien, et Harn. (p. 228)

- 50 (49) Middle of submentum broad, low or tall, triangular, always without teeth on the apex; setae of the body weakly developed.
25. Paratrichocladius Thien.(p. 204)
- 51 (48) Middle of submentum with dark chitinized teeth.
- 52 (53) Setae of the preanal brushes equal to half the length of the body.
46. Krenosmittia Thien.(p. 299)
- 53 (52) Setae of the preanal brushes not exceeding the length of the last two segments of the body.
- 54 (55) Lauterborn organs alternate.
20. Heterotanytarsus Spärok. (p. 149)
- 55 (54) Lauterborn organs opposite.
- 56 (65) Submentum with one middle tooth.
- 57 (58) Anterior central setae of the labrum simple; middle tooth of submentum considerably taller and 5 times broader than the 1st lateral tooth, 10 pairs of lateral teeth, narrow, long, the outer 7 pairs almost owl-shaped.
47. Lapposmittia Thien.(p. 301)
- 58 (57) Anterior central setae of the labrum dissected; middle tooth of submentum not or only slightly taller than the 1st lateral tooth, lateral teeth less than 10 pairs, more often 5 - 6, broadly triangular or rounded distally.
- 59 (60) Anterior central setae of labrum (S) bifid.
23. Orthocladius Kieff.(p. 173)
- 60 (59) Anterior central setae of labrum dissected into more than two lobes.
- 61 (62) Anterior central setae of labrum developed weakly, distally broadened, with a straight anterior edge, provided with 4 - 5 long pointed lobes.
44. Parakiefferiella Thien.(p. 291)
- 62 (61) Anterior central setae developed strongly, distally and along the side split into many (10 - 15) lobes.
- 63 (64) Lobes of the anterior central setae short, in the form of spines.
45. Paraphaenocladius Thien.(p. 294)

- 64 (63) Anterior central setae either with long awl-like lobes, or finely pubescent.
33. Metriocnemus v. d. Wulp (p. 249)
- 65 (56) Submentum with two middle teeth.
- 66 (67) Lateral setae of brush pedestals equal in length to setae of brushes; anterior central setae of labrum distally broadened and finely pubescent.
18. Trissocladus Kieff. (p. 134)
- 67 (66) Lateral setae of brush pedestals considerably shorter than setae of brushes; anterior central setae of labrum with more or less long lobes.
- 68 (71) Middle teeth of submentum divided approximately to the middle of their height.
- 69 (70) Labrum all smooth.
19. Heterotrissocladus Spärock. (p. 145)
- 70 (69) Labrum all or partly granular.
32. Limnophyes Eaton (p. 243)
- 71 (68) Middle teeth of submentum divided to the base.
- 72 (73) Middle teeth considerably narrower than first lateral.,
34. Thienemannia Kieff. (p. 261)
- 73 (72) Middle teeth of equal width to or wider than first lateral.
- 74 (75) S_{II} and S_{III} of labrum distally dissected and toothed.
30. Chaetocladus Kieff. (p. 230)
- 75 (74) S_{II} and S_{III} simple.
- 76 (77) Brush pedestals small, with 5 unequal terminal setae.
40. Heleniella Gowin. (p. 273)
- 77 (76) Brush pedestals large, with a spur and 5 equal terminal setae.
35. Parametriocnemus Goetgh. (p. 305)
- 78 (25) Brush pedestals absent (semi-terrestrial and marine forms).
- 79 (96) Living on a damp substrate or in fresh waters near the water's edge.
- 80 (81) Anal papillae unusually long (to 9 times the length of the anal pseudopods), tapered at the end, with numerous (30 - 50) constrictions along their length.
49. Georthocladus Goetgh. (p. 305)

- 81 (80) Anal papillae shorter than the anal pseudopods or reduced, more often without constrictions, sometimes with 2 or 3 constrictions.
- 82 (85) Anterior central setae of labrum developed weakly.
- 83 (84) Preanal brushes composed of 6 short setae.
38. Symbiocladius Kieff. (p. 269)
- 84 (83) In place of the brushes is a single weak seta.
41. Gymnometriocnemus Goetgh. (p. 278)
- 85 (82) Anterior central setae of the labrum developed strongly.
- 86 (87) Anterior central setae of labrum simple.
31. Bryophaenocladius Thien. (p. 278)
- 87 (86) Anterior central setae of labrum split.
- 88 (89) S_I and S_{II} bifid, developed equally strongly.
43. Pseudosmittia Goetgh. (p. 278)
- 89 (88) S_{II} always simple.
- 90 (91) Anterior pseudopods fused in such a way that distally there remain 2 protuberances with groups of hooks.
50. Smittia (Holmgr.) (p. 306).
- 91 (90) Anterior pseudopods forming a single protuberance.
- 92 (93) Anal pseudopods developed normally.
36. Thalassosmittia Str. et Remmert. (p. 271)
- 93 (92) Anal pseudopods absent, hooks seated on the body.
- 94 (95) Protuberance of the anterior pseudopods covered with fine spinules, and on the top of it are two groups of 5 weak, slightly curved hooks.
39. Parasmittia Str. (p. 271)
- 95 (94) Hooks on anterior pseudopods absent, only the fine spinules present.
48. Camptocladius v. d. Wulp. (p. 303)
- 96 (79) Living in sea water.
- 97 (98) Antenna 5-segmented; premandibulae with lateral teeth; palp of the maxilla segmented; setae present at base of submentum; eyes 2 pairs.
10. Clunio Hal. (p. 117)
- 98 (97) Antenna 4-segmented; premandibulae with distal teeth or not toothed; palp of maxilla not segmented; no setae at base of submentum; eyes 1 or 2 pairs.
- 99 (102) Frontocypeal suture present; premandibulae with 3 blunt teeth.
- 100 (101) Anterior pseudopods feebly divided.
13. Paraclunio Kieff. (p. 123)

- 101 (100) Anterior pseudopods united completely.
12. Telmatogeton Schiner (p. 121)
- 102 (99) No frontoclypeal suture; distal end of premandibula
without teeth.
11. Thalassomyia Schiner (p. 120)

Key to the sub-families of the larvae of the family Chironomidae.
Pankratova (1970), p.49.

- 1 (2) Antennae can be retracted into channels located within
the head
..... Tanypodinae.
- 2 (1) Antennae not retracted.
- 3 (4) Brush pedestals 5-10 times longer than their width;
premandibles absent
..... Podonominae.
- 4 (3) Brush pedestals not longer than three times their width;
premandibles present.
- 5 (6) Along the sides of the submentum are well-developed
striated plates
..... Chironominae.
- 6 (5) Submental plates either absent, or more or less feebly
developed, always not striated
..... Orthocladiinae.

Notice

Please note that these translations were produced to assist the scientific staff of the FBA (Freshwater Biological Association) in their research. These translations were done by scientific staff with relevant language skills and not by professional translators.