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A PRELIMINARY CHIRONOMID LIST (DIPTERA, CHIRONOMIDAE) OF THE KAMCHATKA PENINSULA AND BORDERING TERRITORIES

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The one hundred forty six species of Chironomidae (Diptera) from Kamchatka Peninsula and bordering territories are listed. Of them 57 species from Kurilskoe Lake basin, 32 - from Karymaiskii Brook basin, 63 - from Dalnee Lake basin, 14 - from Kirpichnaya River, 28 - from north-west coast, 35 - from Kamchatka River basin and 48 species from north-east spurs of Koryak mountain country are recorded. Most species with wide Palaearctic distribution and only 12 species occur in Holarctic.

KEY WORDS: Diptera, Chironomidae, faunistics, Kamchatka.

М.А. Макаренко¹⁾, Е.А. Макаренко¹⁾, Т.Л. Введенская²⁾. Предварительный список хирономид (Diptera, Chironomidae) полуострова Камчатка и сопредельных территорий // Дальневосточный энтомолог. 1997. N 40. С. 1-7.

Приведен список из 146 видов хирономид для полуострова Камчатка и сопредельных территорий. Из них 57 видов зарегистрировано в бассейне оз. Курильское, 32 - бассейне ключа Карымайский, 63- бассейне оз. Дальнее, 14 - р. Кирпичная, 28 - бассейне северо-западного побережья Охотского моря, 35 - бассейне р. Камчатка и 48 - в водотоках и водоемах северо-восточных отрогов

Корякского нагорья. Большинство обнаруженных видов широко распространены в Палеарктике и лишь 12 видов с голарктическими ареалами.

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INTRODUCTION

The first record on chironomid fauna of Kamchatka was published by Edwards (1928) who identified 11 species from entomological samples of the Swedish Kamchatka expedition 1920-1922. Later, Kurenkov (1967) has been added in chironomid list of this region 42 species and noted that most of them were determined by larvae. After this information nobody published of chironomid check list of Kamchatka Peninsula and bordering territories. However, in some of hydrobiological and entomological papers data about finding of new for this region species and larval forms were recorded (Levanidov et al., 1978; Chebanova & Nikolaeva, 1981; Chebanova, 1982; Makarchenko, 1985 and other).

In present report we decided to compile all information about chironomid fauna of Kamchatka Peninsula and Koryak mountain ridge which was known up to the 1996 in literature and which was obtained by us after study of original chironomid specimens.

The material used for this purpose was collected by authors and I.M. Levanidova, V.Ya. Levanidov, E.A. Nikolaeva, A.Yu. Semchenko, T.S. Vshivkova (Institute of Biology and Pedology FEB RAS), V.V. Chebanova, V.P. Luferov, E.T. Nikolaeva, A.N. Smetanin and T.N. Travina (KamchatNIRO, Petropavlovsk-Kamchatskii). Some species were checked in collection of Zoological Institute RAS (St-Petersburg).

The following abbreviations is used throughout the list of species:

I – Kurilskoe Lake basin; II – Karymaiskii Brook basin; III – Dalnee Lake basin; IV – Kirpichnaya River; V – north-west coast; VI – Kamchatka River basin; VII – north-east part of Koryak mountain ridge (Khatyrka and Veli-kaya Rivers basin); gr. – group of species; + – species is presented; - – species is not found; ? - doubt identification.

LIST OF THE CHIRONOMIDAE OF THE KAMCHATKA

Taxa	Lakes and Rivers						
	I	II	III	IV	V	VI	VII
1	2	3	4	5	6	7	8

Subfamily Podonominae

1. <i>Trichotanypus arctoalpinus</i> Makar.	-	-	-	-	-	-	+
2. <i>T. posticalis</i> (Lundb.)	-	-	-	-	-	-	+

1	2	3	4	5	6	7	8
Subfamily Tanypodinae							
3. <i>Ablabesmyia</i> gr. <i>lentiginosa</i>	-	+	-	+	-	+	-
4. <i>Procladius ferrugineus</i> K.	-	-	+	-	-	+	+
5. <i>Rheopelopia</i> sp.	-	-	-	-	+	-	-
6. <i>Thienemannimyia geijstesi</i> G.	-	-	+	-	-	-	-
Subfamily Diamesinae							
7. <i>Diamesa alpina</i> Tok.	+	-	+	+	-	+	+
8. <i>D. amplexivirilia</i> Hansen	-	-	-	-	-	-	+
9. <i>D. davisii</i> Edw.	?	-	-	-	-	-	+
10. <i>D. gregsoni</i> Edw.	+	-	-	-	+	+	+
11. <i>D. insignipes</i> K.	+	-	-	-	-	-	-
12. <i>D. leona</i> Rob.	+	-	+	-	-	+	+
13. <i>D. steinboeki</i> G.	-	-	-	-	-	-	+
14. <i>D. tsutsuii</i> Tok.	+	+	+	+	+	+	+
15. <i>D. zernyi</i> Edw.	-	+	+	-	-	+	+
16. <i>Pagastia orientalis</i> (Tshern.)	+	+	+	+	+	+	+
17. <i>Pothastia gaedii</i> (Mg.)	-	-	+	-	-	-	+
18. <i>P. longimana</i> Edw.	+	+	+	-	+	-	-
19. <i>Protanypus caudatus</i> Edw.	-	+	-	-	-	-	-
20. <i>Protanypus</i> sp.	-	-	+	-	-	-	-
21. <i>Pseudodiamesa</i> ? <i>branickii</i> (Now.)	+	-	-	-	-	+	+
22. <i>Pseudodiamesa</i> gr. <i>nivosa</i>	+	+	+	-	+	+	-
23. <i>Pseudokiefferiella parva</i> Edw.	-	-	-	-	-	-	+
24. <i>Pseudokiefferiella</i> sp.	-	-	-	-	-	-	+
Subfamily Prodiamesinae							
25. <i>Monodiamesa</i> gr. <i>bathyphila</i>	-	-	-	-	+	-	-
26. <i>Prodiamesa olivacea</i> Mg.	+	-	-	-	-	-	+
27. <i>Odontomesa fulva</i> K.	+	+	-	-	-	-	-
Subfamily Orthocladiinae							
28. <i>Abiskomyia virgo</i> Edw.	-	+	-	-	-	-	+
29. <i>Brillia flavifrons</i> Joh.	-	-	+	-	-	+	+
30. <i>B. pallida</i> Sparck	-	+	+	-	-	-	-
31. <i>Chaetocladius piger</i> G.	-	-	+	-	-	-	-
32. <i>Chaetocladius</i> sp.	+	-	-	-	-	+	-
33. <i>Chaetocladius</i> sp.1	-	-	-	-	-	-	+
34. <i>Chaetocladius</i> sp.2	-	-	-	-	-	-	+
35. <i>Cricotopus</i> gr. <i>algarum</i>	+	+	+	-	-	-	-
36. <i>C. biformis</i> Edw.	-	-	+	-	-	-	-
37. <i>C. maritimus</i> Tshern.	-	-	+	-	-	-	-
38. <i>C. sylvestris</i> F.	-	+	+	+	-	-	+
39. <i>Cricotopus</i> sp.	-	-	+	-	-	-	-
40. <i>C. trifascia</i> Edw.	-	-	+	-	-	-	-
41. <i>Cricotopus</i> (<i>Nostococcladius</i>) sp.	+	-	-	-	+	-	-
42. <i>Corynoneura</i> gr. <i>scutellata</i>	+	-	-	-	-	+	-

1	2	3	4	5	6	7	8
43. <i>Corynoneura</i> sp.	-	-	-	+	-	-	+
45. <i>Eukiefferiella</i> gr. <i>brehmi</i>	+	-	-	-	-	-	+
46. <i>Eukiefferiella</i> gr. <i>claripennis</i>	+	-	-	-	+	-	+
47. <i>Eukiefferiella</i> gr. <i>cyanea</i>	-	-	-	-	+	-	-
48. <i>Eukiefferiella</i> gr. <i>gracei</i>	+	-	-	-	+	-	-
49. <i>Eukiefferiella</i> sp.	+	+	+	-	-	+	-
50. <i>Heterotrissocladius</i> gr. <i>marcidus</i>	+	+	-	-	-	+	+
51. <i>Hydrobaenus</i> gr. ? <i>lapponicus</i>	+	-	-	-	-	-	+
52. <i>Hydrobaenus</i> gr. <i>pilipes</i>	-	-	-	-	-	-	+
53. <i>Limnophyes</i> sp.	+	+	-	+	-	-	-
54. <i>Nanocladius</i> <i>bicolor</i> (Edw.)	-	+	+	-	-	-	-
55. <i>Oliveridia</i> sp.	-	-	-	-	-	-	+
56. <i>Orthocladius</i> <i>rivicola</i> K.	+	-	-	-	-	-	-
57. <i>O. saxicola</i> K.	+	-	+	-	-	+	-
58. <i>O. olivaceus</i> Edw.	-	-	+	+	-	-	-
59. <i>O. rivulorum</i> K.	-	-	-	+	-	-	-
60. <i>Orthocladius</i> aff. <i>thienemanni</i>	+	-	-	-	-	-	-
61. <i>Orthocladius</i> (<i>Eudactylocladius</i>) sp.	+	-	-	-	-	-	-
62. <i>Orthocladius</i> (<i>Eudactylocladius</i>) sp.2	-	-	-	-	-	-	+
63. <i>Orthocladius</i> (<i>Euorthocladius</i>) sp.1	+	-	-	-	+	-	+
64. <i>Orthocladius</i> (<i>Euorthocladius</i>) sp.3	-	-	-	-	+	-	-
65. <i>Orthocladius</i> (<i>Euorthocladius</i>) sp.5	+	-	-	-	-	-	-
66. <i>Orthocladius</i> (<i>Euorthocladius</i>) sp.6	-	-	-	-	-	-	+
67. <i>O. (E.) saxosus</i> (Tok.)	-	+	-	-	+	+	+
68. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.1	+	-	-	-	-	-	-
69. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.2	+	-	-	-	-	-	-
70. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.3	+	-	-	-	+	-	-
71. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.4	+	-	-	-	+	-	-
72. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.5	-	-	-	-	-	-	+
73. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.6	-	-	-	-	+	-	+
74. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.7	-	-	-	-	+	-	+
75. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.8	-	-	-	-	-	-	+
76. <i>Orthocladius</i> (<i>Orthocladius</i>) sp.9	-	-	-	-	+	-	-
77. <i>O. (Pogonocladius) consobrinus</i> (H.)	-	-	-	-	-	-	+
78. <i>Paracladius</i> gr. <i>conversus</i>	+	-	-	-	-	-	-
79. ? <i>Parakiefferiella</i> sp.	+	-	-	-	-	-	-
80. <i>Paraphenocladius</i> sp.	+	-	-	-	-	-	-
81. <i>Paratrichocladius</i> sp.	+	-	-	-	-	-	-
82. <i>P. inaequalis</i> K.	-	-	+	-	-	-	-
83. <i>Parorthocladius</i> sp.	+	-	-	-	-	-	+
84. <i>Psectrocladius</i> gr. <i>dilatatus</i>	-	-	+	-	-	+	-
85. <i>P. ischimicus</i> Tshern.	-	-	+	-	-	-	-
86. <i>Psectrocladius</i> gr. <i>psilopterus</i>	+	-	+	+	-	+	-
87. <i>P. simulans</i> Joh.	-	+	-	+	-	-	-

1	2	3	4	5	6	7	8
88. <i>Pseudosmittia</i> aff. <i>gracilis</i>	+	-	-	-	-	-	-
90. <i>Rheocricotopus</i> . sp.	+	-	-	-	+	+	-
91. <i>Rheosmittia</i> sp.	+	-	-	-	-	-	-
92. <i>Smittia</i> gr. <i>aquatilis</i>	+	-	-	-	-	-	-
93. <i>Stilocladius</i> sp.	+	-	-	-	-	-	-
94. <i>Symposiocladius lignicola</i> (K.)	-	+	-	-	-	-	-
95. <i>Synorthocladius semivirens</i> K.	-	+	-	-	-	+	-
96. <i>Thienemanniella</i> sp.	+	-	-	-	-	-	-
97. <i>Thienemanniella</i> gr. <i>clavicornis</i>	-	+	-	-	+	+	+
98. <i>Trissocladius</i> aff. <i>brevipalpis</i>	+	-	-	-	-	-	-
99. <i>Trissocladius</i> aff. <i>griseipennis</i>	+	-	+	-	-	-	-
100. <i>Trissocladius</i> aff. <i>potamophilus</i>	+	+	+	-	-	-	-
101. <i>Tvetenia</i> gr. <i>discoloripes</i>	-	-	-	-	+	-	-
102. <i>Tvetenia</i> gr. <i>bavarica</i>	+	-	-	-	+	-	+
103. <i>Zalutschia paratatica</i> (Tshern.)	-	-	+	-	-	-	-
104. <i>Z. tatica</i> (Pag.)	-	-	+	-	-	-	-
105. <i>Z. zalutschicola</i> (Lipina)	-	+	-	-	-	-	-
Subfamily Chironominae							
Tribe Tanytarsini							
106. <i>Cladotanytarsus</i> sp.	-	-	+	-	-	-	-
107. <i>Corynocera ambigua</i> Zett.	-	-	+	-	-	-	-
108. <i>Lauterbornia</i> sp.	-	+	-	-	-	+	-
109. <i>Micropsectra</i> gr. <i>praecox</i>	+	+	+	+	-	+	+
110. <i>Neozavrelia</i> sp.	+	-	-	-	-	-	-
111. <i>Paratanytarsus lauterborni</i> (K.)	-	-	+	-	-	-	-
112. <i>P. ? baicalensis</i> (Tshern.)	-	-	+	-	-	-	-
113. <i>Paratanytarsus</i> sp.	-	-	+	-	-	-	+
114. <i>Rheotanytarsus</i> sp.	-	-	-	-	+	-	+
115. <i>Tanytarsus arduennensis</i> G.	-	-	+	-	-	-	-
116. <i>Tanytarsus</i> gr. <i>gregarius</i>	+	-	-	-	-	-	-
117. <i>T. holochlorus</i> Edw.	-	-	+	-	-	-	-
118. <i>T. pallidicornis</i> (Walk.)	-	-	+	-	-	-	-
119. <i>T. verralli</i> G.	-	-	+	-	-	?	-
120. <i>Tanytarsus</i> sp.	+	+	+	-	-	+	+
121. <i>Zavrelia pentatoma</i> K.	-	-	+	-	-	-	-
Tribe Chironomini							
122. <i>Camptochironomus</i> sp.	-	-	+	-	-	-	-
123. <i>Chironomus annularius</i> Mg.	-	-	+	-	-	-	-
124. <i>Chironomus</i> gr. <i>plumosus</i>	-	+	-	-	-	+	-
125. <i>Ch. solitus</i> (Linev.)	-	-	+	+	-	-	-
126. <i>Chironomus</i> sp.	-	-	+	-	-	+	+
127. <i>Cryptochironomus</i> gr. <i>defectus</i>	-	-	+	-	-	+	-
128. <i>Cryptochironomus</i> sp.	-	+	+	-	-	-	-
129. <i>Demicryptochironomus vulneratus</i> (Z.)	-	-	-	-	+	-	-

1	2	3	4	5	6	7	8
130. <i>Dicrotendipes modestus</i> (Say)	-	-	+	-	-	-	-
132. <i>D. tritomus</i> (K.)	-	-	+	-	-	-	-
133. <i>Endochironomus albipennis</i> (Mg.)	-	-	+	-	-	-	-
134. <i>E. tendens</i> (F.)	-	-	+	-	-	-	-
135. <i>Kiefferulus tendipediformis</i> G.	-	-	+	-	-	-	-
136. <i>Parachironomus arcuatus</i> G.	-	-	+	-	-	-	-
137. <i>Parachironomus</i> sp.	-	-	+	-	-	-	-
138. <i>Paracladopelma camptolabis</i> (K.)	-	-	-	-	+	-	-
139. <i>Polypedilum</i> gr. <i>convictum</i>	+	+	+	-	-	+	-
140. <i>P. scalaenum</i> (Schrank)	-	-	-	-	+	-	-
141. <i>P. pedestre</i> (Mg.)	-	-	+	-	-	+	-
142. <i>Polypedilum</i> sp.	-	+	+	-	-	+	-
143. <i>Sergentia</i> gr. <i>coracina</i>	+	-	+	-	-	-	-
144. <i>Sergentia</i> gr. <i>longiventris</i>	-	+	-	-	-	-	-
145. <i>Stictochironomus crassiforceps</i> (K.)	-	-	+	-	-	-	-
146. <i>Stictochironomus</i> sp.	+	-	-	-	+	+	-
Number of species	57	32	63	14	28	35	48

CONCLUSION

The preliminary list of the chironomids of Kamchatka Peninsula and bordering territories accounts 146 taxa of adult and larval forms belonging to 65 genera from 6 subfamilies.

The most species are widely distributed in Palaearctic and only 12 species (*Diamesa amplexivirilia*, *D. davisi*, *D. gregsoni*, *D. insignipes*, *D. leona*, *Potthastia gaedii*, *P. longimana*, *Protanypus caudatus*, *Pseudodiamesa branickii*, *Pseudokiefferiella parva*, *Abiskomyia virgo* and *Brillia flavifrons*) occur in Holarctic.

Several species appear to have restricted distribution. *Trichotanypus arctoalpinus* is known from Vrangel Island, Chukotskii Peninsula and upper part of Kolyma River. Likewise, *Diamesa alpina* is known from Japan and Kurile Islands only (Makarchenko, 1985). Lake's species *Corynocera ambigua* is recorded from European and Siberian parts of Russia and has some subspecies. We believe that in Kamchatka a new subspecies of *C. ambigua* will be described too.

Some years ago we published the preliminary chironomid list of the Sakhalin and Kunashir islands which included 125 species (Makarchenko & Makarchenko, 1994). Somebody can see, that both faunas are similar in species composition, but chironomid fauna of Kamchatka does not include of endemic, new or rare taxa which is known from Sakhalin and Kunashir. Thus, *Kaluginia lebetiformis* Makar. was described from Sakhalin and *Syndiamesa mira* (Makar.) from Kunashir. *Sympotthastia gemmaformis* Makar. is known from Sakhalin and Hokkaido only.

Certainly, we are publishing the preliminary list and, unfortunately, many records of chironomid taxa from Kamchatka are still based on larvae which have not been yet associated with imagines of known species. The conclusions that can be drawn from distributional patterns are therefore limited and more efforts are needed for identification of species.

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