

Preliminary data on the chironomid fauna of the Middle Volga region within the Republic of Tatarstan (Russia) based on hydrobiological monitoring studies

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The chironomid fauna of Middle Volga within the Republic of Tatarstan, Russia, has never been a subject of a special taxonomic investigation and only larval stages of chironomids have been studied from hydrobiological samples. Taxonomic chironomid lists are known only for some water bodies of the region: Zainsk water reservoir ($55^{\circ}18'N$ $52^{\circ}01'E$, Nazarova, 1999), Cheboksar reservoir ($56^{\circ}09'N$ $47^{\circ}14'E$, Nazarova et al., 2004), as well as several small rivers (Yakovlev 2003; Torsuev et al. 2005; Kondrateva, Nazarova, 2011; Mingazova 2012).

Here we provide a new list of chironomid taxa from the middle section of the River Volga (within the Republic of Tatarstan, Fig.1) and its tributaries (Mesha, Kazanka, Svijaga, Steppe Zai, Vyatka, Big Cheremshan, Tojma, Avlashka, Jurashka, and small inundated reservoir of Kazan, Fig. 1). Chironomids were investigated from hydrobiological collections of zoobenthos completed by the Meteorological service of Russia (FPBI "Management of hydrometeorology and environmental monitoring of the Republic of Tatarstan"). Samples were collected between 1991 and 2014 using standard hydrobiological methods (Abakumov 1983). On large rivers (Volga, Vyatka, Big Cheremshan) samples were collected using a Petersen dredge. Small rivers were sampled using a rod dredge and hydrobiological net. The comprehensive list of chironomids collected includes 131 species from 5 subfamilies. Names of the genera and species are listed according to the Fauna Europaea catalogue: <http://www.faunaeur.org/index.php>.

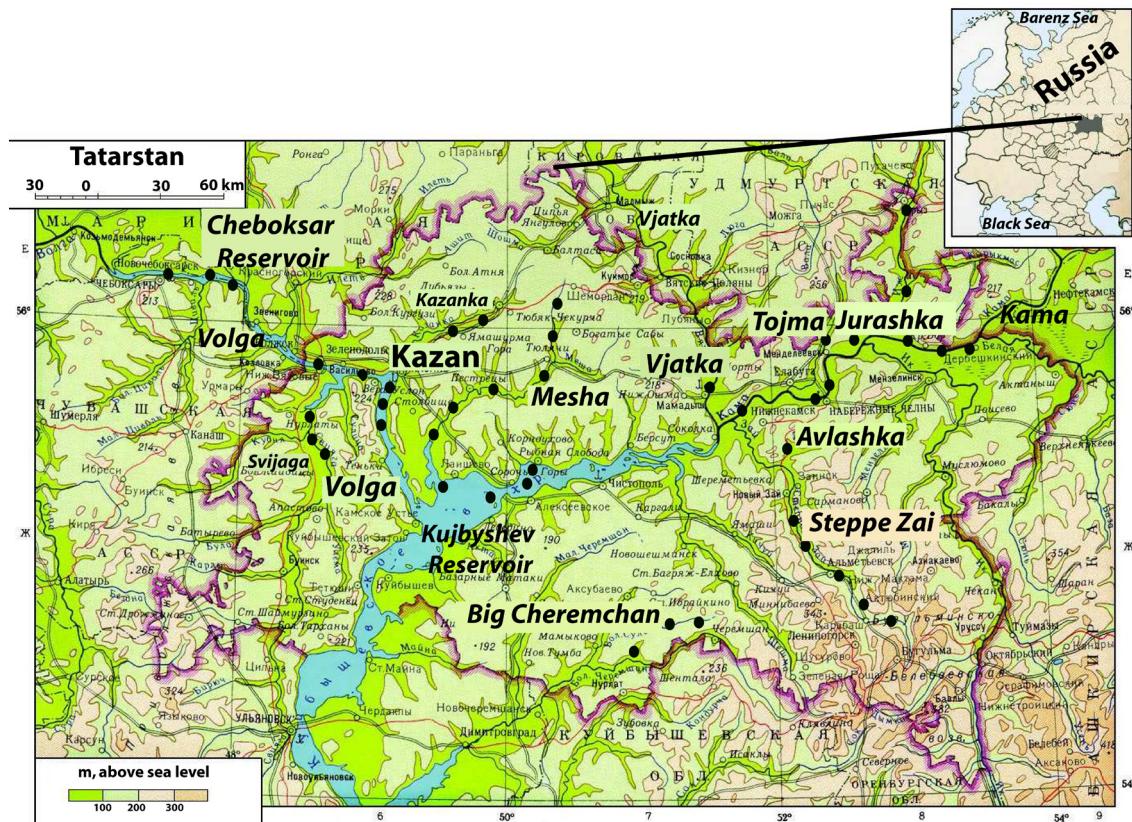


Figure 1. Map of the region. Sampling sites are given in black circles.

Table 1. List of chironomid taxa collected from the middle stream of the River Volga (within the Republic of Tatarstan, Fig. 1) and its tributaries. Abbreviations: M - Mesha, K - Kazanka, S -Svijaga, SZ - Steppe Zai, Vj - Vjatka, BC - Big Cheremshan, T - Tojma, A - Avlashka, J - Jurashka, V - Volga, VS - small inundated reservoir of Kazan.

Chironomidae collected	Rivers									
	M	K	S	SZ	Vj	BC	T	A	J	V
Tanypodinae										
<i>Ablabesmyia (Ablabesmyia) monilis</i>	+	+	+	+						
<i>A. (Ablab.) phatta</i>			+							
<i>Ablabesmia</i> sp.	+	+	+							
<i>Apsectrotanytus trifascipennis</i>	+			+			+			
<i>Arctopelopia</i> sp.					+			+		
<i>Clinotanytus pinguis</i>										+
<i>C. nervosus</i>										+
<i>Coelotanytus concinnus</i>										+
<i>Conchapelopia melanops</i>										+
<i>Conchapelopia</i> sp.	+									
<i>Guttipelopia guttipennis</i>			+							
<i>Macropelopia nebulosa</i>					+					
<i>Monopelopia tenuicalcar</i>										+
<i>Psectrotanytus varius</i>										+
<i>Procladius (Holotanytus) choreus</i>	+				+					+
<i>P. (Holotanytus) ferrugineus</i>	+	+	+	+	+	+	+	+	+	+
<i>Procladius (Holotanytus)</i> sp.				+						+
<i>Procladius (Psilotanytus) imicola</i>	+									
<i>Rheopelopia ornata</i>					+					
<i>Rheopelopia</i> sp.					+		+			+
<i>Telopelopia okoboji</i>					+					
<i>Tanypus (Tanypus) kraatzii</i>										+
Diamesinae										
<i>Diamesa steinboecki</i>						+				
<i>Pothastia longimanus</i>								+	+	+
<i>P. gaedii</i>					+					+
<i>Protanytus caudatus</i>					+					
<i>Protanytus</i> sp.										
<i>Pseudodiamesa (Pseudodiamesa) nivosa</i>					+					
Prodiamesinae										
<i>Monodiamesa bathyphila</i>	+	+			+		+			
<i>Odontomesa fulva</i>					+					+
<i>Prodiamesa olivacea</i>	+	+	+	+			+	+	+	
<i>Prodiamesa</i> sp.										+
Orthocladiinae										
<i>Brillia bifida</i>						+				
<i>Chaetocladius</i> sp.						+				
<i>Corynoneura scutellata</i>						+				
<i>Corynoneura carriana</i>				+						
<i>Cricotopus (Cricotopus) algarum</i>	+	+	+							
<i>C. (Cricotopus) bicinctus</i>					+	+		+		+
<i>C. (Cricotopus) cylindraceus</i>					+	+				+
<i>C. (Isocladius) sylvestris</i>	+	+			+	+	+	+	+	+
<i>C. (Cricotopus) trifascia</i>					+	+	+		+	+
<i>Eukiefferiella coerulescens</i>									+	
<i>Eukiefferiella claripennis</i>						+				
<i>Eukiefferiella</i> sp.					+					+
<i>Euryhapsis subviridis</i>										+
<i>Orthocladius (Orthocladius) clarki</i>					+			+	+	+
<i>Orthocladius (Pogonocladius) consobrinus</i>					+					

Chironomidae collected	Rivers										
	M	K	S	SZ	Vj	BC	T	A	J	V	VS
<i>Paratrissocladius excerptus</i>					+			+			
<i>Pseudorthocladius (Pseudorthocladius) curtistylus</i>										+	
<i>Psectrocladius (Allopsectrocladius) obvius</i>						+			+		
<i>P. (Allopsectrocladius) gr. dilatatus</i>	+										
<i>P. (Psectrocladius) bisetus</i>										+	
<i>P. (Psectrocladius) pancratovae</i>						+					
<i>P. (Psectrocladius) psilopterus</i>	+			+							
<i>P. (Psectrocladius) sordidellus</i>						+				+	+
<i>P. (Psectrocladius) simulans</i>						+					
<i>P. (PPsectrocladius) sokolovae</i>						+					
<i>Psectrocladius</i> sp.						+		+	+		
<i>Rheocricotopus robacki</i>						+					
<i>Rheocricotopus</i> sp.						+					
Chironominae											
Tanytarsini											
<i>Cladotanytarsus (Cladotanytarsus) mancus</i>	+	+			+	+	+	+	+	+	+
<i>Micropsectra</i> sp.					+						
<i>Paratanytarsus austriacus</i>									+		+
<i>Paratanytarsus</i> sp.	+	+	+								
<i>Rheotanytarsus curtistylus</i>						+			+		
<i>Rheotanytarsus</i> sp.					+						
<i>Stempellinella edwardsi</i>										+	
<i>Stempellinella minor</i> Edwards						+				+	
<i>Stempellina subglabripennis</i>										+	
<i>Tanytarsus bathophilus</i>						+	+				+
<i>Tanytarsus pallidicornis</i>						+					+
<i>Tanytarsus excavatus</i>						+	+	+		+	
<i>Tanytarsus</i> sp.											+
Chironomini											
<i>Beckidia zabolotzkyi</i>				+							
<i>Chironomus (Chironomus) balatonicus</i>	+	+								+	
<i>C. (Chironomus) plumosus</i>	+	+	+	+	+	+				+	
<i>C. (Chironomus) pallidivittatus</i>	+	+									
<i>C. (Chironomus) riparius</i>	+										
<i>Chironomus (Chironomus)</i> sp.	+	+	+	+	+	+	+	+	+	+	+
<i>Cladopelma lateralis</i>											
<i>Cladopelma viridulum</i>	+			+							
<i>Cryptochironomus (Cryptochironomus) psittacinus</i>							+				
<i>C. (Cryptochironomus) defectus</i>	+	+	+	+						+	+
<i>C. (Cryptochironomus) obreptans</i>						+				+	+
<i>C. (Cryptochironomus) albofasciatus</i>					+						
<i>C. (Cryptochironomus) psittacinus</i>					+						
<i>C. (Cryptochironomus) ussouriensis</i>	+										
<i>Cryptotendipes holsatus</i>							+				
<i>Cryptotendipes nigroritens</i>	+										
<i>Cryptotendipes</i> sp.	+	+	+								
<i>Dicotendipes modestus</i>						+		+		+	+
<i>Dicotendipes nervosus</i>						+			+		+
<i>Dicotendipes notatus</i>	+	+	+			+					+
<i>Demicyptochironomus</i>											
<i>(Demicyptochironomus) vulneratus</i>								+		+	
<i>Einfeldia pagana</i>											+

Chironomidae collected	Rivers										
	M	K	S	SZ	Vj	BC	T	A	J	V	VS
<i>Endochironomus albipennis</i>	+	+	+	+		+	+		+	+	+
<i>E. tendens</i>						+					+
<i>Endochironomus</i> sp.					+						
<i>Glyptotendipes (Glyptotendipes) glaucus</i>	+	+	+	+	+	+			+	+	
<i>G. (Glyptotendipes) cauliginellus</i>	+	+	+				+		+	+	
<i>G. (Glyptotendipes) barbipes</i>											+
<i>G. (Glyptotendipes) paripes</i>	+	+	+								+
<i>Glyptotendipes</i> sp.	+	+	+								+
<i>Harnischia curtilamellata</i>						+					
<i>Harnischia</i> sp.						+					+
<i>Lipiniella araenicola</i>	+										
<i>Lipiniella moderata</i>						+					
<i>Microchironomus tener</i>	+	+	+								+
<i>Microtendipes pedellus</i>						+		+			+
<i>Parachironomus gracilior</i>	+										
<i>Parachironomus varus</i>											
<i>Parachironomus parostratus</i>				+							
<i>Paracladopelma camptolabis</i>	+				+						
<i>Paralauterborniella nigrohalteralis</i>						+					
<i>Paratendipes albimanus</i>	+	+	+	+				+	+		
<i>Paratendipes nudisquama</i>					+						
<i>Paratendipes</i> sp.	+										
<i>Polypedilum (Tripodura) birenatum</i>					+	+		+		+	+
<i>P. (Uresipedilum) convictum</i>	+	+	+	+	+	+		+		+	
<i>P. (Pentapedilum) exsectum</i>					+						
<i>P. (Polypedilum) nubeculosum</i>	+	+	+	+	+	+				+	+
<i>P. (Polypedilum) nubifer</i>											+
<i>P. (Tripodura) scalaenum</i>	+	+	+	+	+	+			+	+	
<i>P. (Pentapedilum) sordens</i>											
<i>Polypedilum (Tripodura) tetracrenatum</i>	+										
<i>Polypedilum</i> sp.	+			+							
<i>Stictochironomus crassiforceps</i>						+					
<i>S. rosensoeldi</i>						+					+
<i>Stictochironomus</i> sp.	+					+					+
<i>Synendotendipes dispar</i>	+	+	+								
<i>S. impar</i>	+	+	+	+	+				+	+	

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