



## A preliminary checklist of Chironomidae (Diptera) from Albania with first records for the Balkan Peninsula

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### Abstract

The Chironomidae of Albania have so far received limited attention and only 39 species have been recorded prior to the present study. Here we bring the results of random and non-intensive samplings of chironomid pupal exuviae and adults, at five localities in 2012, that provided 55 species and 5 additional taxa, with 51 being new for the Albanian fauna, out of which 7 were new for the Balkan Peninsula. In addition to that, we present a preliminary checklist of Chironomidae based on the data from Fauna Europaea complemented by the results of the recent investigation. The catalogued fauna now contains 85 species in 44 genera and 6 sub-families.

**Key words:** Non-biting midges, flowing waters, Lake Ohrid, adults, exuviae, Hellenic West Balkan

### Introduction

The Chironomidae family is the most ubiquitous insect group known from all zoogeographic regions and all climatic zones from the tropics to the Polar Regions.

From the estimated more than 10,000 species worldwide (Cranston 1995), nearly 1300 species have been recorded in Europe (Spies & Sæther 2013), however the knowledge on the chironomid fauna in different European countries varies considerably. Generally, chironomids from the Balkan Peninsula are still poorly studied. Plóciennik & Pešič (2012) reported species lists of some Balkan countries based on previous version of Fauna Europaea (Sæther and Spies 2012) and published works. For example, combined chironomid fauna of Serbia and Montenegro was represented by 89 species, the species list of Bosnia and Herzegovina included 24, and that of Croatia consisted of 56 species.

Even though in the last two decades chironomids have been frequently used in the biological assessment of water quality of some Albanian rivers (e.g., Beqiraj *et al.* 2008; Chatzinikolaou *et al.* 2008; Pepa *et al.* 2012), the taxonomic resolution in the studies remained very low, usually using family and subfamily level, exceptionally identifying genera. Although this approach can be acceptable for that type of research, it has obviously not contributed to the discovery of the real species richness and distribution of chironomid species in this country. Lately, Plóciennik (2008) has provided information on 10 chironomid genera and three species firstly recorded in Albania. At present, only 39 species from 20 genera and 5 subfamilies are included in the Fauna Europaea (Spies & Sæther 2013). The list has not yet comprised *Buchonomyia thienemanni* reported recently from Albania by Bitušík & Trnková (2016).

In the summer 2012, chironomid pupal exuviae and adults were collected in a stream, three rivers and a lake to extend the knowledge on chironomid diversity in Albania. Here we report additional species, previously unrecorded. In addition, we append the first check-list of Chironomidae of the country.

### Material and methods

The material was collected from five sampling sites (Fig. 1). Floating chironomid pupal exuviae and drowned

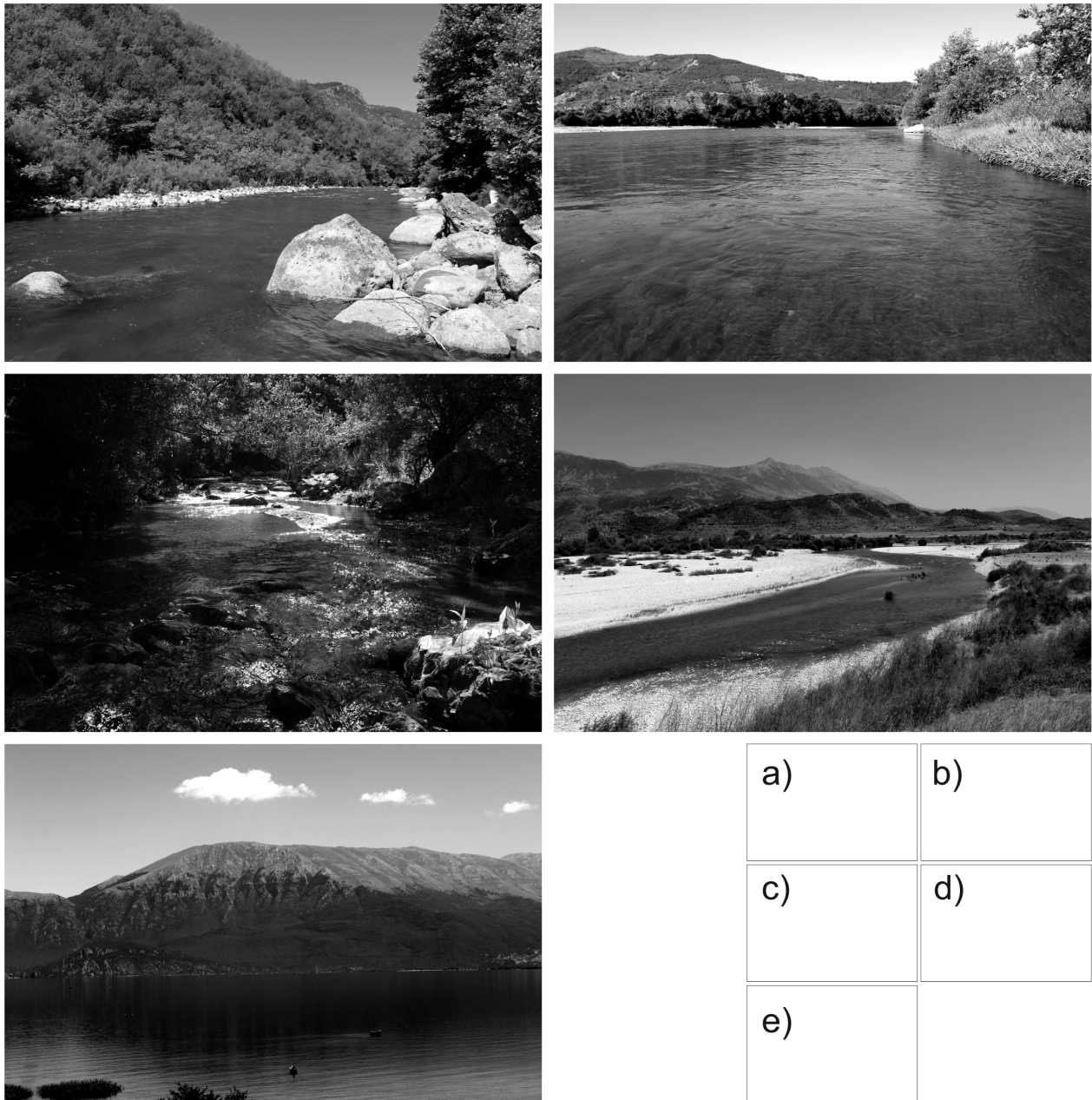
adults were sampled along the shores of stream, rivers and a lake by skimming the water surface with a hand net with telescopic handle (mesh size 250  $\mu\text{m}$ , frame diameter 25 cm). The collected material, consisting of 767 pupal exuviae and 75 adults—24 males and 51 females, was placed into labelled plastic bottles and preserved *in situ* with formalin to a final concentration of 4%. Sorted exuviae and adult males were mounted to microscopic slides and identified using Langton & Visser (2003), Langton *et al.* (2013) for pupal exuviae and Langton & Pinder (2007) for adults. The nomenclature and distribution for the species are consistent with Fauna Europaea (Spies & Sæther 2013).

In the present paper, the Balkan Peninsula is defined in accordance with Djordjevic (2014), i.e. the northern boundaries are delineated by the rivers Socha, Krka and Sava, and the Danube. The Hellenic West Balkan as the European bioregion is defined *sensu* Illies (1978). Its northern boundary separating it from the Dinaric West Balkans was demarcated along the political boundaries of the former Yugoslavia with Albania (without Skadar Lake), and then follows a line between towns Plav and Niš at river Morava. The eastern boundary is defined by „Vardar-Line“ following the courses of rivers Morava, Ptschinja and Vardar to south until to the Thermaic Gulf. The area includes Albania, south part of Serbia, western Macedonia, part of Greece west of the Chalkidiki Peninsula, the Peloponnese, Crete and Cyclades, and other islands in the area, as well.

All specimens were collected and identified by the authors, and the material is deposited in the collections open to public, of either permanent slides or 75% ethanol preserved samples, in the Department of Biology and Ecology, Faculty of Natural Sciences, Matej Bel University in Banská Bystrica, Slovakia.



**FIGURE 1.** Map of Albania with marked sampling sites (see Fig. 2).



**FIGURE 2.** Sampling sites: a) Site 1—Shkumbini River, downstream of Qukës, b) Site 2—Shkumbini River, below Papër village, c) Site 3—Bistricë brook, below a hydropower station in Bistricë, d) Site 4—Dhrinos River, downstream of Gjirokastër, e) Site 5—Lake Ohrid, east shore, south of village Piskupat.

Sampling sites:

**Site 1:** Shkumbini River 1, 13 July 2012, 413 m a. s. l.; 41°05'17'' N, 20°26' 49'' E; upper stretch of the river, ca 1.8 km downstream of Qukës.

The sampling site is characterised by swift turbulent flow, and stony bottom consisting of cobbles and boulders overgrown with considerable proportion of filamentous algae. The width of the river was on average 15 m and maximum water depth reached 70 cm during time of the sampling (Fig. 2a).

**Site 2:** Shkumbini River 2, 13 July 2012, 63 m a. s. l.; 41°04'18'' N, 19°55'03'' E; lower stretch of the river, ca 4 km bellow Papër village.

At this site, the river reached a width of up to 30 m, with maximum depth ca 100 cm; it flows with medium velocity above uniform bottom substrate consisting of pebbles covered with a dense growth of filamentous algae (Fig. 2b).

**Site 3:** Bistricë, 16 July 2012, 60 m a. s. l.; 39°55'00'' N, 20°08'08'' E; stretch of the brook below a hydropower station in Bistricë.

At the sampling site, the width of the brook was 5 m on average and depth maximum ca 30 cm; the bottom consisted of various substrata, namely gravel, pebbles and exposed boulders with sparse bryophytes; the flow was swift and turbulent (Fig. 2c).

**Site 4:** Dhrinos River, 16 July 2012, 185 m a. s. l., 40°06'27'' N, 20°07'24'' E; stretch downstream of Gjirokaštër, above a mouth of a small left tributary from Viroit.

The river flows in a wide valley filled with deposits of its sediment; width of the river was on average 20 m, maximum water depth around 100 cm; pebbles and cobbles were dominant components of the bottom (Fig. 2d).

**Site 5:** Lake Ohrid, 14 July 2012, 700 m a.s.l., 41°00'02'' N, 20°38' 05'' E, east shore, ca 3.5 km south of village Piskupat (near Shen Naumi Hotel).

Stony littoral, covered by pebbles and cobbles with a film of algae and detritus (Fig. 2e).

## Results

The pupal exuviae and the chironomid males were identified at species level, except for five taxa. Pupal exuviae characteristics allowed identification to species group level only for the following taxa: *Limnophyes* Pe1, *Thienemanniella* Pe2b, *Thienemanniella* Pe4, *Neozavrelia* Pe1 and *Virgatanytarsus* Pe1. The chironomid list (Tab. 1) consists of 55 species and 5 taxa, belonging to 36 genera and 5 subfamilies: Buchonomyiinae (1 species), Tanypodinae (9), Diamesinae (1), Orthoclaadiinae (24 species/taxa) and Chironominae (25 species/taxa). The vast majority of them, i.e. 51 species/taxa were recorded for the first time in Albania. At the same time, 7 species are new for the Balkan Peninsula, and 16 species can be considered a new faunistic element for the Hellenic West Balkans. The presence of *Cricotopus curtus* considered as “doubtfully present” by Spies & Sæther (2013) is finally confirmed in Albania.

From a zoogeographical point of view, among the first recorded species, the Palaearctic component is the most numerous, i.e. 23 species (50 %), and nine of them were recently recorded in the western part of the Palaearctic Region. The Holarctic component is represented by 11 species (23.9 %). Twelve species (26.1 %) were recorded, except for the Palaearctic and Holarctic Regions, in the Oriental and Afro-tropical Regions, respectively (Tab. 1). The updated checklist of the Chironomidae of Albania consists of 85 species belonging to 44 genera and 6 subfamilies.

## Chironomid check-list of Albania

### Buchonomyiinae

*Buchonomyia* Fittkau, 1955

1. *Buchonomyia thienemanni* Fittkau, 1955

### Tanypodinae

#### Coelotanypodini

*Clinotanypus* Kieffer, 1913

2. *Clinotanypus nervosus* (Meigen, 1818)

#### Tanypodini

*Tanypus* Meigen, 1803

subgen. *Tanypus* Meigen, 1803

3. *Tanypus (Tanypus) punctipennis* Meigen, 1818

#### Procladiini

*Procladius* Skuse, 1889

subgen. *Holotanypus* Roback, 1982

4. *Procladius (Holotanypus) choreus* (Meigen, 1804)

#### Anatopyniini

*Anatopynia* Johannsen, 1905

5. *Anatopynia plumipes* (Fries, 1823)

#### Pentaneurini

*Ablabesmyia* Johannsen, 1905

subgen. *Ablabesmyia* Johannsen, 1905

6. *Ablabesmyia (Ablabesmyia) monilis* (Linnaeus, 1758)

7. *Ablabesmyia (Ablabesmyia) longistyla* Fittkau, 1962

*Conchapelopia* Fittkau, 1957

8. *Conchapelopia hittmairorum* Michiels & Spies, 2002

9. *Conchapelopia pallidula* (Meigen, 1818)

*Nilotanypus* Kieffer, 1923

10. *Nilotanypus dubius* (Meigen, 1804)

*Rheopelopia* Fittkau, 1962

11. *Rheopelopia maculipennis* (Zetterstedt, 1838)

12. *Rheopelopia ornata* (Meigen, 1838)

*Telopelopia* Roback, 1971

13. *Telopelopia fascigera* (Verneaux, 1970)

*Thienemannimyia* Fittkau, 1957

14. *Thienemannimyia laeta* (Meigen, 1818)

#### Diamesinae

##### Diamesini

*Diamesa* Meigen, 1835

subgen. *Diamesa* Meigen, 1835

15. *Diamesa (Diamesa) insignipes* Kieffer, 1908

16. *Diamesa (Diamesa) zernyi* Edwards, 1933

*Potthastia* Kieffer, 1922

17. *Potthastia gaedii* (Meigen, 1838)

##### Prodiamesinae

*Monodiamesa* Kieffer, 1922

18. *Monodiamesa bathyphila* (Kieffer, 1918)

*Prodiamesa* Kieffer, 1906

19. *Prodiamesa olivacea* (Meigen, 1818)

##### Orthocladiinae

*Brillia* Kieffer, 1913

20. *Brillia bifida* (Kieffer, 1909)

*Cardiocladius* Kieffer, 1912

21. *Cardiocladius fuscus* Kieffer, 1924

*Cricotopus* van der Wulp, 1874

subgen. *Cricotopus* van der Wulp, 1874

22. *Cricotopus (Cricotopus) annulator* Goetghebuer, 1927

23. *Cricotopus (Cricotopus) bicinctus* (Meigen, 1818)

24. *Cricotopus (Cricotopus) curtus* Hirvenoja, 1973

25. *Cricotopus (Cricotopus) similis* Goetghebuer, 1921

26. *Cricotopus (Cricotopus) triannulatus* (Macquart, 1826)

27. *Cricotopus (Cricotopus) trifascia* Edwards, 1929

28. *Cricotopus (Cricotopus) vierriensis* Goetghebuer, 1935

subgen. *Isocladius* Kieffer, 1909

29. *Cricotopus (Isocladius) sylvestris* (Fabricius, 1794)

30. *Cricotopus (Isocladius) trifasciatus* (Meigen, 1810)

*Eukiefferiella* Thienemann, 1926

31. *Eukiefferiella coerulescens* (Kieffer, 1926)

32. *Eukiefferiella gracei* (Edwards, 1929)

33. *Eukiefferiella ilkleyensis* (Edwards, 1929)

34. *Eukiefferiella lobifera* Goetghebuer, 1934

*Nanocladius* Kieffer, 1913

subgen. *Nanocladius* Kieffer, 1913

35. *Nanocladius (Nanocladius) rectinervis* (Kieffer, 1911)

*Orthocladius* van der Wulp, 1874

subgen. *Orthocladius* van der Wulp, 1874

36. *Orthocladius (Orthocladius) oblidens* (Walker, 1856)

37. *Orthocladius (Orthocladius) rubicundus* (Meigen, 1818)

subgen. *Eudactylocladius* Thienemann, 1935

38. *Orthocladius (Eudactylocladius) olivaceus* (Kieffer, 1911)

*Parametriocnemus* Goetghebuer, 1932

39. *Parametriocnemus stylatus* (Spaerck, 1923)

*Paratrichocladius* Santos Abreu, 1918

40. *Paratrichocladius rufiventris* (Meigen, 1830)

*Paratrissocladius* Zavrel, 1937

41. *Paratrissocladius excerptus* (Walker, 1856)

*Rheocricotopus* Brundin, 1956

subgen. *Psilocricotopus* Saether, 1986

42. *Rheocricotopus (Psilocricotopus) chalybeatus* (Edwards, 1929)

*Synorthocladius* Thienemann, 1935

43. *Synorthocladius semivirens* (Kieffer, 1909)

*Tvetenia* Kieffer, 1922

44. *Tvetenia calvescens* (Edwards, 1929)

Chironominae

Chironomini

*Chironomus* Meigen, 1803

subgen. *Chironomus* Meigen, 1803

45. *Chironomus (Chironomus) cingulatus* Meigen, 1830

46. *Chironomus (Chironomus) annularius* Meigen, 1818

47. *Chironomus (Chironomus) plumosus* (Linnaeus, 1758)

48. *Chironomus (Chironomus) alpestris* Goetghebuer, 1934

*Cryptochironomus* Kieffer, 1918

subgen. *Cryptochironomus* Kieffer, 1918

49. *Cryptochironomus (Cryptochironomus) defectus* (Kieffer, 1913)

50. *Cryptochironomus (Cryptochironomus) rostratus* Kieffer, 1921

*Cryptotendipes* Beck & Beck, 1969

51. *Cryptotendipes holsatus* Lenz, 1959

*Dicrotendipes* Kieffer, 1913

52. *Dicrotendipes nervosus* (Staeger, 1839)

*Harnischia* Kieffer, 1921

53. *Harnischia fuscimanus* Kieffer, 1921

*Microchironomus* Kieffer, 1913

54. *Microchironomus tener* (Kieffer, 1918)

*Microtendipes* Kieffer, 1915

55. *Microtendipes chloris* (Meigen, 1818)

*Paratendipes* Kieffer, 1911

56. *Paratendipes albimanus* (Meigen, 1818)

*Phaenopsectra* Kieffer, 1921

57. *Phaenopsectra flavipes* (Meigen, 1818)

*Polypedilum* Kieffer, 1912

subgen. *Polypedilum* Kieffer, 1912

58. *Polypedilum (Polypedilum) laetum* (Meigen, 1818)

59. *Polypedilum (Polypedilum) nubeculosum* (Meigen, 1804)

60. *Polypedilum (Polypedilum) octopunctatum* (Thunberg, 1784)

61. *Polypedilum (Polypedilum) pedestre* (Meigen, 1830)

subgen. *Pentapedilum* Kieffer, 1913

62. *Polypedilum (Pentapedilum) exsectum* (Kieffer, 1916)

63. *Polypedilum (Pentapedilum) nubens* (Edwards, 1929)

subgen. *Tripodura* Townes, 1945

64. *Polypedilum (Tripodura) aegyptium* Kieffer, 1925

65. *Polypedilum (Tripodura) bicrenatum* Kieffer, 1921

66. *Polypedilum (Tripodura) quadriguttatum* Kieffer, 1921

67. *Polypedilum (Tripodura) scalaenum* (Schrank, 1803)

subgen. *Uresipedilum* Oyewo & Saether, 1998

68. *Polypedilum (Uresipedilum) convictum* (Walker, 1856)

69. *Polypedilum (Uresipedilum) cultellatum* Goetghebuer, 1931

*Stictochironomus* Kieffer, 1919

70. *Stictochironomus maculipennis* (Meigen, 1818)

71. *Stictochironomus sticticus* (Fabricius, 1781)

*Zavreliella* Kieffer, 1920

72. *Zavreliella marmorata* (van der Wulp, 1859)

Tanytarsini

*Cladotanytarsus* Kieffer, 1921

subgen *Cladotanytarsus* Kieffer, 1921

73. *Cladotanytarsus* (*Cladotanytarsus*) *mancus* (Walker, 1856)

74. *Cladotanytarsus* (*Cladotanytarsus*) *pallidus* Kieffer, 1922

*Micropsectra* Kieffer, 1908

75. *Micropsectra junci* (Meigen, 1818)

*Paratanytarsus* Thienemann & Bause, 1913

76. *Paratanytarsus bituberculatus* (Edwards, 1929)

77. *Paratanytarsus dissimilis* (Johannsen, 1905)

*Rheotanytarsus* Thienemann & Bause, 1913

78. *Rheotanytarsus reissi* Lehmann, 1970

79. *Rheotanytarsus rhenanus* Klink, 1983

*Tanytarsus* van der Wulp, 1874

80. *Tanytarsus ejuncidus* (Walker, 1856)

81. *Tanytarsus gregarius* Kieffer, 1909

82. *Tanytarsus heusdensis* Goetghebuer, 1923

83. *Tanytarsus medius* Reiss & Fittkau, 1971

84. *Tanytarsus mendax* Kieffer, 1925

85. *Tanytarsus pallidicornis* (Walker, 1856)

## Discussion

Our survey has doubled the number of chironomid species recorded in Albania. Pupal exuviae morphotypes are not listed in the checklist, nevertheless they indicate the first evidence of the presence of species from genera *Limnophyes*, *Thienemanniella*, *Neozavreliella* and *Virgatanytarsus* in the country.

The species firstly recorded in our study fill an important gap in the map of chironomid distribution in Europe.

Seven collected species, *Buchonomyia thienemanni*, *Conchapelopia hittmairorum*, *Rheopelopia maculipennis*, *Thienemannimyia laeta*, *Cladotanytarsus pallidus*, *Rheotanytarsus reissi* and *Tanytarsus ejuncidus* are new for the fauna of the Balkan Peninsula.

On the other hand, records of *Cardiocladius fuscus*, *Cricotopus annulator*, *C. vierriensis*, *C. similis*, *Eukiefferiella coerulea*, *E. ilkleyensis*, *Parametricnemus stylatus*, *Paratrissocladius excerptus*, *Nanocladius rectinervis*, *Rheocricotopus chalybeatus*, *Tvetenia calvescens*, *Microchironomus tener*, *Polypedilum pedestre*, *Paratanytarsus dissimilis*, *Tanytarsus medius* and *T. mendax* contribute to the knowledge of their distribution in the region of the Hellenic West Balkans.

Most of the newly recorded species are common chironomids widespread throughout most of Europe with smaller or larger distribution gaps. Some species, however, currently occur in few European countries only, and seem to be rare, e.g. *Conchapelopia hittmairorum*, *Cryptotendipes holsatus*, *Polypedilum quadriguttatum*, *Cladotanytarsus pallidus*, *Paratanytarsus bituberculatus*, *Rheotanytarsus reissi*, *R. rhenanus* (Spies & Sæther 2013) although it could be due to the insufficient recent knowledge of their distribution.



**TABLE 1.** List of the recorded chironomid taxa. Species new to Albania are marked with an asterisk (\*), species new to the Balkan Peninsula are marked with double asterisk (\*\*). Numbers refer to the absolute abundance of pupal exuviae, unless stated otherwise. Abbreviations: PAL: Palaearctic region, WPAL: Western Palaearctic Region, NEA: Nearctic Region; HOL: Holarctic Region, AFR: Afrotropical Region; ORI: Oriental Region; AUS: Australian Region

Species/taxa	Shkumbini River 1	Shkumbini River 2	Bistricë	Dhinos River	Lake Ohrid	Distribution
** <i>Buchonomyia thienemanni</i> Fittkau, 1955	2	-	-	-	-	Pal
* <i>Procladius choreus</i> (Meigen, 1804)	-	3	-	-	-	Hol, Ori
* <i>Ablabesmyia longistyla</i> Fittkau, 1962	-	2	-	3	2♂♂	Pal
** <i>Conchapelopia hittmairorum</i> Michiels & Spies,	-	1	4	4	-	WPAL
* <i>Conchapelopia pallidula</i> (Meigen, 1818)	-	-	2	-	-	Pal
* <i>Nilotanypus dubius</i> (Meigen, 1804)	2	-	24	-	-	Pal, Ori
** <i>Rheopelopia maculipennis</i> (Zetterstedt, 1838)	-	4	-	1	-	Pal
* <i>Rheopelopia ornata</i> (Meigen, 1838)	-	4	-	-	-	Pal
* <i>Telopelopia fascigera</i> (Verneaux, 1970)	-	1	-	-	-	WPAL
** <i>Thienemannimyia laeta</i> (Meigen, 1818)	-	-	2	-	-	Pal, Ori
* <i>Pothastia gaedii</i> (Meigen, 1838)	-	-	7	-	-	Pal
* <i>Cardiocladius fuscus</i> Kieffer, 1924	-	4	-	1	-	Pal
* <i>Cricotopus annulator</i> Goetghebuer, 1927	-	-	-	19, 2♂♂	-	Pal
<i>Cricotopus bicinctus</i> (Meigen, 1818)	2	26, 2♂♂	-	4	6	HOL, AFR, ORI, AUS
<i>Cricotopus curtus</i> Hirvenoja, 1973	-	-	-	1	-	HOL
* <i>Cricotopus similis</i> Goetghebuer, 1921	1	3	2	-	-	Hol, Ori
<i>Cricotopus triannulatus</i> (Macquart, 1826)	-	9, 1♂	-	4	1	HOL
<i>Cricotopus trifascia</i> Edwards, 1929	3	48	3	-	1	HOL, ORI
* <i>Cricotopus vierriensis</i> Goetghebuer, 1935	1	24, 6♂♂	-	13	3	Hol
* <i>Eukiefferiella coerulescens</i> (Kieffer, 1926)	2	-	-	-	-	Hol
* <i>Eukiefferiella gracei</i> (Edwards, 1929)	-	1	-	-	-	Pal
* <i>Eukiefferiella ilkleyensis</i> (Edwards, 1929)	10	24	3	2	-	Hol
* <i>Eukiefferiella lobifera</i> Goetghebuer, 1934	-	-	-	-	1	WPAL
* <i>Limnophyes</i> Pe1 Langton, 1991	-	-	-	-	1	-
* <i>Nanocladius rectinervis</i> (Kieffer, 1911)	-	12	-	25	-	Hol
* <i>Orthocladius oblidens</i> (Walker, 1856)	-	1	-	-	-	Hol
* <i>Orthocladius rubicundus</i> (Meigen, 1818)	1	-	-	1	-	Hol
* <i>Parametriocnemus stylatus</i> (Spaerck, 1923)	-	-	8	36	-	Hol, Ori
* <i>Paratrichocladius rufiventris</i> (Meigen, 1830)	1	-	-	28	16	Hol, Ori
* <i>Paratrisocladius excerptus</i> (Walker, 1856)	-	-	1	-	-	Hol, Ori, Afr
* <i>Rheocricotopus chalybeatus</i> (Edwards, 1929)	2	23	40	3	2	Hol
* <i>Synorthocladius semivirens</i> (Kieffer, 1909)	-	-	17	10	-	Hol
* <i>Thienemanniella</i> Pe4 Langton & Visser, 2003	2	-	-	6	1	-
* <i>Thienemanniella</i> Pe2b Langton, 1991	-	32	2	-	6	-
* <i>Tvetenia calvescens</i> (Edwards, 1929)	2	2	-	-	-	Hol
* <i>Cryptochironomus rostratus</i> Kieffer, 1921	-	5, 1♂	-	-	-	Pal, Ori

Species/taxa	Shkumbini River 1	Shkumbini River 2	Bistricë	Dhrrinos River	Lake Ohrid	Distribution
* <i>Cryptotendipes holsatus</i> Lenz, 1959	-	1♂	-	-	2♂♂	WPal
<i>Dicrotendipes nervosus</i> (Staeger, 1839)	-	-	-	-	1, 1♂	HOL, ORI
<i>Harnischia fuscimanus</i> Kieffer, 1921	-	3	-	-	-	pAL
* <i>Microchironomus tener</i> (Kieffer, 1918)	-	-	-	-	1♂	Pal, Ori, Afr
<i>Microtendipes chloris</i> (Meigen, 1818)	-	-	-	-	2, 2♂♂	PAL, ORI
<i>Paratendipes albimanus</i> (Meigen, 1818)	-	-	-	-	1	HOL, ORI
* <i>Polypedilum aegyptium</i> Kieffer, 1925	-	10	-	-	-	Wpal, Ori, Afr
* <i>Polypedilum bicrenatum</i> Kieffer, 1921	-	5	-	-	-	Pal
<i>Polypedilum convictum</i> (Walker, 1856)	-	6	5	-	-	HOL, ORI
* <i>Polypedilum cultellatum</i> Goetghebuer, 1931	3	1	-	-	13	Pal
* <i>Polypedilum pedestre</i> (Meigen, 1830)	-	-	1	-	-	Pal
* <i>Polypedilum quadriguttatum</i> Kieffer, 1921	-	5, 1♂	-	-	-	WPal
* <i>Polypedilum nubens</i> (Edwards, 1929)	-	-	-	-	1	Pal
** <i>Cladotanytarsus pallidus</i> Kieffer, 1922	-	-	-	-	1♂	WPal
* <i>Neozavrelia</i> Pe1 Langton, 1991	-	-	-	-	1	-
* <i>Paratanytarsus bituberculatus</i> (Edwards, 1929)	-	-	2	-	2	Pal
* <i>Paratanytarsus dissimilis</i> (Johannsen, 1905)	-	14	-	-	-	Hol
** <i>Rheotanytarsus reissi</i> Lehmann, 1970	-	-	12	-	-	Wpal, Ori
* <i>Rheotanytarsus rhenanus</i> Klink, 1983	-	13, 1♂	-	18	-	WPal
** <i>Tanytarsus ejuncidus</i> (Walker, 1856)	-	-	23	-	-	Pal, Ori
* <i>Tanytarsus heusdensis</i> Goetghebuer, 1923	-	-	11	-	-	Pal
* <i>Tanytarsus medius</i> Reiss & Fittkau, 1971	-	-	-	-	1	WPal
* <i>Tanytarsus mendax</i> Kieffer, 1925	-	1	-	-	-	Hol
* <i>Virgatanytarsus</i> Pe1 Langton, 1991	-	17	7	18	-	-

We are aware of the fact that the “snap-shot” survey could collect only a fraction of the total chironomid species richness in Albania. For example, Smiljkov (2002) collected 48 species only from the Macedonian side of Lake Ohrid. The number of recorded species is affected by the low number of the investigated localities; moreover, both sampling sites at Shkumbini River were obviously strongly organically polluted. Consequently, some limnophilic species with lower oxygen demand were found there, e.g. *Procladius choreus*, *Ablabesmyia longistyla*, *Cryptochironomus rostratus*, *Cryptotendipes holsatus*, *Harnischia fuscimanus*. On the other hand, marked proportion of rheophilic species (*Cricotopus* spp., *Paratrichocladius rufiventris*, *Rheocricotopus chalybeatus*, *Synorthocladius semivirens*) recorded from Lake Ohrid could be the result of stony littoral with well oxygenated water.

Considering the broad variety of standing and flowing waters in Albania, scheduled and designed sampling campaign focusing on adult males and pupal exuviae, would allow a more realistic estimation of true species richness. However, sampling watercourses with different substrates and water velocity and including a lake in our research, did provide habitat heterogeneity resulting in important Chironomidae diversity and distribution findings.

We hope that this paper will encourage future chironomid research on the distribution and ecology of chironomids, the results of which could be ultimately used for monitoring and assessment of freshwaters (e.g. Chironomid Pupal Exuviae Technique, Wilson & Ruse 2005) in Albania.

As the Mediterranean region constitutes a link between the Palaearctic and Afrotropical Regions, and maybe even the Oriental Region (Laville & Reiss 1992), the chironomid investigation in Albania could be interesting from biogeographical point of view as well.

## Acknowledgements

We are very grateful to L. Hamerlík (Faculty of Natural Sciences, Matej Bel University, Banska Bystrica, Slovakia) for comments and checking the English. We thank both reviewers and the editor for useful corrections and valuable suggestions. This work was funded by project ITMS, "Renewal and development of infrastructure for ecological and environmental research at UMB"(grant number 26210120024).

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