

The water beetles (Insecta, Coleoptera) of North Ossetia. I. Dytiscidae, Noteridae, Haliplidae, Gyrinidae, Hydrophilidae, Hydrochidae, Spercheidae

Водные жесткокрылые (Insecta, Coleoptera) Северной Осетии. I. Dytiscidae, Noteridae, Haliplidae, Gyrinidae, Hydrophilidae, Hydrochidae, Spercheidae

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KEY WORDS: fauna, new records, North Ossetia, Caucasus, Dytiscidae, Noteridae, Haliplidae, Gyrinidae, Hydrophilidae, Hydrochidae, Spercheidae.

КЛЮЧЕВЫЕ СЛОВА: фауна, новые находки, Северная Осетия, Кавказ, Dytiscidae, Noteridae, Haliplidae, Gyrinidae, Hydrophilidae, Hydrochidae, Spercheidae.

ABSTRACT. An annotated species list of water beetles on the territory of North Ossetia is provided (65 species of seven families): Dytiscidae (31 species), Noteridae (2), Gyrinidae (5), Haliplidae (8), Hydrophilidae (17), Hydrochidae (1) and Spercheidae (1). New sampling sites are given for 55 species. A total of 30 species are recorded for the first time in North Ossetia.

РЕЗЮМЕ. Приведён аннотированный список водных жесткокрылых, выявленных на территории Северной Осетии — 65 видов из 7 семейств: Dytiscidae (31 вид), Noteridae (2), Gyrinidae (5), Haliplidae (8), Hydrophilidae (17), Hydrochidae (1) и Spercheidae по 1 виду. Приводятся новые пункты сборов для 55 видов. 30 видов впервые указываются для фауны Северной Осетии.

Introduction

The level of knowledge on water beetles of the suborders Adephaga and Polyphaga varies between regions of the North Caucasus. At present, species lists of water beetles have been published for Krasnodar Krai and Adygea [Shapovalov, 2007, 2010a, b, 2011; Shapovalov, Shokhin, 2007; Shapovalov, Hiryanov, 2014], Kabardino-Balkaria [Shapovalov et al., 2012; Kornoukhova, L'vov,

2013] and Dagestan [Brekhov et al., 2013; Brekhov, Plyina, 2016]. The fauna of Karachay-Cherkessia has also been studied [Brekhov, 2009]. Studies on the fauna of water beetles of such regions as Stavropol Krai and North Ossetia have not been published yet. Moreover, there are only scattered records of species in Chechnya and Ingushetia. This shows the importance of the current study.

Several papers present insufficient data on the fauna of the water beetles of North Ossetia [Zaitsev, 1927, 1928; Shatrovsky, 1984; Fery, 2009]. Tarnogradsky and Popov [1932–1933], as a result of their expedition (9.VIII–9.X.1930), studied the fauna of the waterbodies of Ossetia, Ingushetia and Georgia as a potential habitat of *Lymnaea truncatula* Müll., the intermediate host of *Fasciola hepatica* L., 1958. They provided detailed lists of hydrobionts (diatoms, green algae, protists, rotifers, mollusks, crustaceans, aquatic and semiaquatic insects) for 33 types of waterbodies of montane and submontane regions. However, only orders of aquatic and semiaquatic insects were given for specific localities (except Diptera, which were identified to genus). Thus, the mentioned paper records 24 species of water beetles of North Ossetia without specified localities.

North Ossetia is located on the northern slopes of the Central Caucasus Mountain and adjacent plains. Despite the small area, the territory of North Ossetia has a variety

of relief features and a significant difference between minimum and maximum elevations, almost 4900 m. The south of the republic has mountains with individual peaks higher than the snow line. The mountainous region has three altitudinal zones: the low-mountain relief (500–1000 m), middle mountains (100–2000 m) and high mountains (above 2000 m). Plains dominate the middle and northern parts (51.7% of the landscape). The fluvial network consists mostly of montane rivers and belongs to the basin of the Terek River. Due to the variety of reliefs, the Terek has an asymmetrical basin with all tributaries left-bank.

The largest tributaries are the Ardon, Uruk, Fiagdon, Ursdon and Giseldon rivers. They flow rapidly through narrow montane ravines in the Upper Terek, but their velocity declines in the submontane plain [Budun, 1989].

Material and methods

We collected water beetles from the territory of North Ossetia in the years from 2015 to 2017. The material was sampled at 48 localities (Fig. 1) in different terrestrial

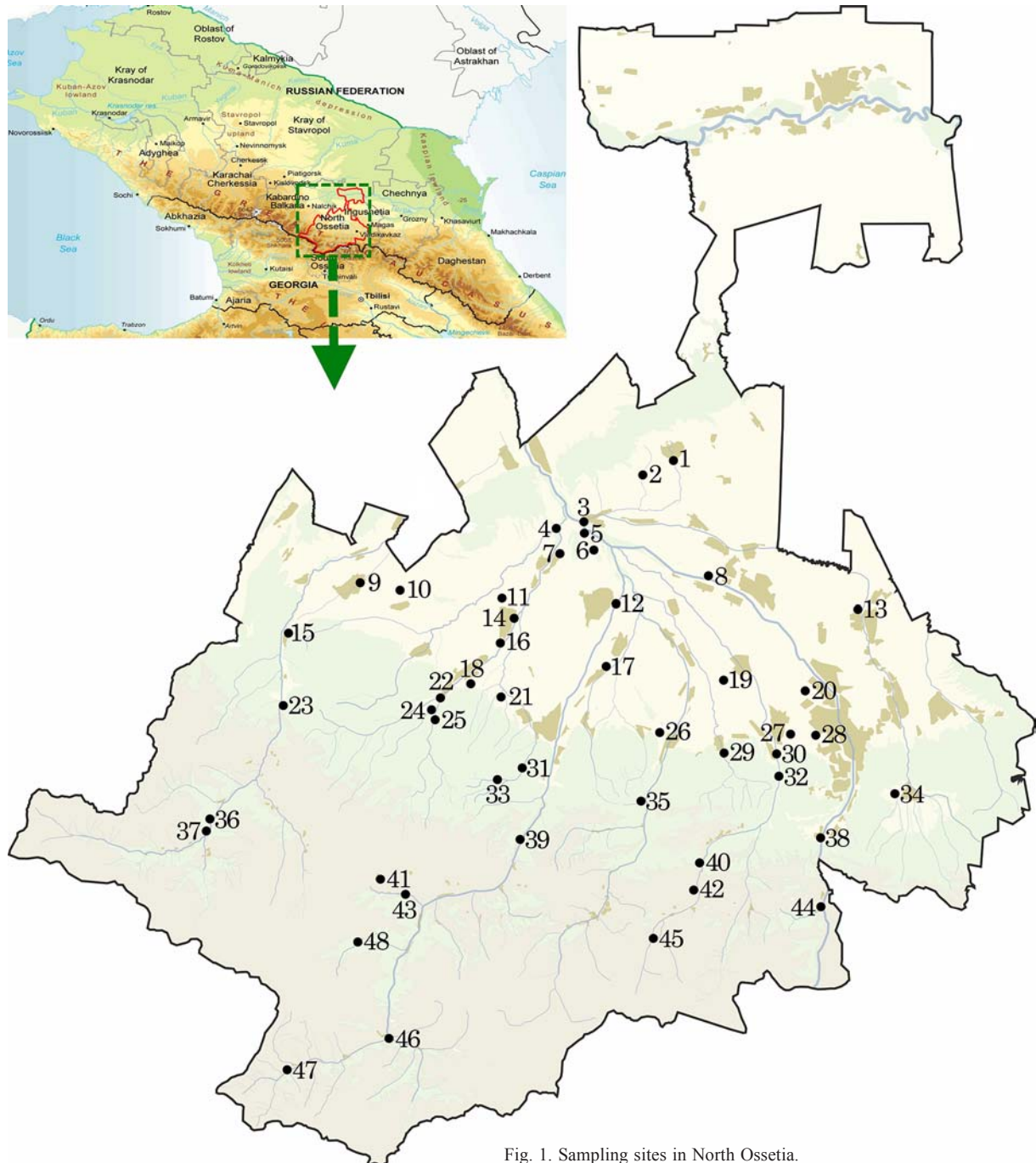


Fig. 1. Sampling sites in North Ossetia.

Рис. 1. Пункты сборов материала на территории Северной Осетии.

ecosystems: 27 localities of the submontane plains, 11 of the low-mountain relief, eight of middle mountains and two of high mountains. The sampling territory included eight administrative districts of the republic. The transliteration of Russian names of the localities is based on recommendations of Yermolovich [2001].

The following list with examined localities includes number, coordinates, meters above sea level and habitat of water beetles species:

PRAVOBEREZHZHNY DISTRICT:

1. Zamankul village, 43°20'03.87''N 44°24'56.83''E, 480 m a.s.l., pond;

13. Olginskoye village, 43°10'16.82''N 44°41'38.71''E, 549 m a.s.l., Alkhanchurtsky Canal.

ARDONSKY DISTRICT:

8. Kosta village, 43°12'22.00''N 44°27'03.30''E, 434 m a.s.l., overgrowing shallowing pond;

12. Ardon City, 43°10'44.14''N 44°19'27.94''E, 409 m a.s.l., Ardon River.

KIROVSKY DISTRICT:

2. Darg-Kokh village, 43°18'14.28''N 44°21'56.76''E, 424 m a.s.l., pond;

3. Bekan village, 43°16'04.67''N 44°16'10.45''E, 354 m a.s.l., pond;

5 (5A). Bekan village. 43°15'40.89''N 44°16'18.93''E, 346 m a.s.l., pond;

5 (5B). environs of Bekan village. 43°15'34.80''N 44°16'15.76''E, 345 m a.s.l., pond "ozero Bekan";

6. Bekan village, 43°14'34.58''N 44°16'43.39''E, 359 m a.s.l., brook.

DIGORSKY DISTRICT:

4. Nikolayevskaya stanitsa (village), 43°15'26.32''N 44°13'45.17''E, 362 m a.s.l., wetland in depression;

7 (7A). Krasnogor village, 43°13'25.25''N 44°14'19.02''E, 374 m a.s.l., pond;

7 (7B). Krasnogor village, 43°14'02.63''N 44°13'54.45''E, 370 m a.s.l., pond;

11. Digora City, 43°10'59.84''N 44°09'23.65''E, 427 m a.s.l., Canal;

14. Digora City, 43°09'38.13''N 44°10'07.87''E, 444 m a.s.l., pond;

16. Digora City, 43°09'38.13''N 44°10'07.87''E, 444 m a.s.l., pond;

18. Kora-Ursdon village, 43°05'02.12''N 44°05'57.06''E, 578 m a.s.l., brook;

22 (22A). Kora-Ursdon village, 43°04'22.94''N 44°03'24.59''E, 596 m a.s.l., oxbow lake of Skummidon River, overgrown;

22 (22B). Kora-Ursdon village, 43°04'26.86''N 44°03'38.64''E, 593 m a.s.l., wetland fed by springs;

24. Kora-Ursdon village, 43°03'23.63''N 44°02'19.20''E, 651 m a.s.l., Mastadon River;

25. Kora-Ursdon village, 43°02'44.39''N 44°02'43.97''E, 641 m a.s.l., Sauardon River.

ALAGIRSKY DISTRICT:

17. Nogkau village, 43°06'24.49''N 44°18'32.03''E, 487 m a.s.l., seasonal waterbody with terrestrial vegetation;

21 (21A). Tsrau village, 43°04'31.86''N 44°08'39.88''E, 539 m a.s.l., Kabbagautdon River;

21 (21B). Tsrau village, 43°04'25.52''N 44°09'04.49''E, 534 m a.s.l., Zmisdzhindon River;

29. Mairamadag village, 43°00'36.79''N 44°29'08.52''E, 625 m a.s.l., pond;

31. Tsrau village, 42°59'59.34''N 44°11'01.18''E, 712 m a.s.l., puddle;

33. Tsrau village, 42°58'46.13''N 44°08'24.26''E, 815 m a.s.l., Mastidon River;

35. Tagardon village, 42°57'29.76''N 44°21'58.54''E, 832 m a.s.l., Tagardon River;

39. Biz village, 42°54'26.73''N 44°10'26.05''E, 810 m a.s.l., seasonal waterbody;

41. Zgid village, 42°52'02.96''N 43°57'41.17''E, 2046 m a.s.l., brook flowing out of peaty wetland;

43. village Galon, 42°51'10.22''N 43°58'45.22''E, 1417 m a.s.l., puddle;

46. Zaramag village, 42°41'42.05''N 43°58'34.53''E, 1700 m a.s.l., reservoir;

47. Zgid village, 42°39'12.98''N 43°49'11.66''E, 2050 m a.s.l., spring with hydrogen sulfide;

48. Verkhny Tsey village, 42°48'03.13''N 43°55'52.84''E, 1755 m a.s.l., brook.

IRAFSKY DISTRICT:

9. Chikola village, 43°11'46.53''N 43°55'43.22''E, 656 m a.s.l., Chikolinka River;

10. Surkh-Digora village, 43°11'28.47''N 44°00'03.08''E, 629 m a.s.l., puddle;

15. Akhsarizar village, 43°08'29.11''N 43°49'40.65''E, 836 m a.s.l., seasonal waterbody;

23. Kaluh village, 43°03'35.55''N 43°48'52.22''E, 965 m a.s.l., brook;

36. Germanovo settlement (village), 42°55'59.85''N 43°42'12.90''E, 1430 m a.s.l., brook;

37. Moska village, 42°55'21.76''N 43°42'00.94''E, 1389 m a.s.l., puddle.

PRIGORODNY DISTRICT:

19. Arkhonskaya village, 43°04'59.46''N 44°28'59.46''E, 538 m a.s.l., Canal;

26. Dzuarikau village, 43°01'59.60''N 44°23'52.70''E, 659 m a.s.l., seasonal waterbody;

27. Gizel village, 43°01'43.97''N 44°35'35.83''E, 650 m a.s.l., brook;

30. Verkhnyaya Saniba village, 42°00'29.87''N 44°34'10.21''E, 703 m a.s.l., puddle;

32 (32A). Verkhnyaya Saniba village, 42°59'06.98''N 44°34'19.19''E, 754 m a.s.l., lake;

32 (32B). Verkhnyaya Saniba village, 42°59'15.22''N 44°34'25.09''E, 770 m a.s.l., brook;

32 (32C). Verkhnyaya Saniba village, 42°57'38.51''N 44°33'57.75''E, 811 m a.s.l., back-water;

34 (34A). Tarskoye village, 42°57'54.85''N 44°44'14.05''E, 809 m a.s.l.,

34 (34B). Tarskoye village, 42°57'50.20''N 44°44'31.10''E, 805 m a.s.l., waterbody (former wetland);

34 (34C). Tarskoye village, 42°57'47.20''N 44°43'46.40''E, 808 m a.s.l., lake;

40. Koban village, 42°54'28.16''N 44°27'52.05''E, 1064 m a.s.l., Sagtydon River;

42. Dargavs village, 42°51'28.67''N 44°26'43.79''E, 1385 m a.s.l., pond;

45. Dzhimara village, 42°47'57.48''N 44°22'29.37''E, 1757 m a.s.l., pond.

VLADIKAVKAZ URBAN OKRUG:

20. Vladikavkaz City, 43°04'59.05''N 44°35'24.51''E, 598 m a.s.l., seasonal waterbody;

28. Vladikavkaz City, 43°01'30.56''N 44°37'39.19''E, 682 m a.s.l., wetland;

38. Balta village, 42°54'57.89''N 44°38'07.05''E, 824 m a.s.l., puddle;

44. Chmi village, 42°50'33.59''N 44°38'14.05''E, 947 m a.s.l., puddle.

For sampling we used an aquatic hand net (the basket was made of gauze with mesh size 1 mm², hoop diameter 30 cm and basket depth 50 cm), funnel traps and hand sampling. We used the suspension method [Golub et al., 2012] for sampling in seasonal and ephemeral water bodies.

The samples were fixed in 96% ethanol and labeled. Identification was performed in laboratory using a Micromed MC-3 ZOOM Led stereo microscope. The mounting of the collection and dissection of genitalia were performed using the standard technique [Ryndevich, 2004; Golub et al., 2012]. Coordinates of localities were determined in the field using GPS.

The material is deposited in the Laboratory of Bio-Ecological monitoring of Invertebrate Animals of the Adyghe Republic, Research Institute of Complex Problems, Adyghe State University, Maikop, Russia, and the Department of Zoology and Bioecology, Khetagurov North Ossetian State University, Vladikavkaz, Russia.

Results

For each species, the checklist list contains references to published records in the region (if any), number of the locality, date, and number of collected individuals. Species recorded for the first time in North Ossetia are marked with an asterisk (*).

ANNOTATED CHECKLIST OF NORTH OSSETIAN WATER BEETLES

(Dytiscidae, Noteridae, Haliplidae, Gyridae, Hydrophilidae, Hydrochidae and Spercheidae)

Family Dytiscidae Leach, 1815

1. *Agabus (Acatodes) amoenus amoenus* Solsky, 187
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **5B**, 11–18.VIII.2015 (1).
2. *Agabus (Acatodes) congener* (Thunberg, 1794) *
MATERIAL. **47**, 1.VII.16 (4).
3. *Agabus (Gaurodytes) biguttatus* (Oliver, 1795)
Zaitsev, 1927: as *Agabus nitidus*, Vladikavkaz; Tarnogradsky, Popov, 1932–1933: North Ossetia.
4. *Agabus (Gaurodytes) bipustulatus* (Linnaeus, 1767)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **47**, 1.VII.16 (4); **10**, 25.VI.2017 (1).
5. *Agabus (Gaurodytes) conspersus* (Marshall, 1802)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **39**, 30.VI.16 (1); **47**, 1.VII.16 (2); **29**, 4.VIII.2016 (1); **37**, 27.VIII.2016 (1); **45**, 29.VI.2017 (1).
6. *Agabus (Gaurodytes) glacialis* Hochhuth, 1846 *
MATERIAL. **48**, 30.VI.2016 (1).
7. *Agabus (Gaurodytes) nebulosus* (Forster, 1771)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
8. *Ilybius fuliginosus fuliginosus* (Fabricius, 1792)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **42**, 29.VI.2016 (2); **39**, 30.VI.16 (6); **1**, 5.VII.2016 (1); **4**, 14.VII.2016 (1); **10**, 25.VI.2017 (1); **45**, 29.VI.2017 (5).
9. *Ilybius subaeneus* (Erichson, 1837)
Zaitsev, 1927: Vladikavkaz.
10. *Platambus lunulatus* (Fischer von Waldheim, 1829) *
MATERIAL. **35**, 6.VII.2016 (1).
11. *Platambus maculatus* (Linnaeus, 1758) *
MATERIAL. **27**, 4.VIII.2016 (2).
12. *Rhantus (Rhantus) suturalis* (MacLeay, 1825) *
MATERIAL. **34A**, 3.X.2016 (1); **10**, 25.VI.2017 (2).
13. *Cybister lateralimarginalis lateralimarginalis* (De Geer, 1774) *
MATERIAL. **3**, 5.IX.2015 (1).
14. *Acilius sulcatus* (Linnaeus, 1758)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **31**, 17.IX.2016 (5).
15. *Graphoderus cinereus* (Linnaeus, 1758) *
MATERIAL. **29**, 4.VIII.2016 (1).
16. *Dytiscus marginalis marginalis* Linnaeus, 1758
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **21B**, 6.X.2015 (4); **39**, 30.VI.2016 (1); **15**, 27.VIII.2016 (1); **31**, 17.IX.2016 (1); **9**, 11.X.2016 (1).
17. *Hydaticus (Prodaticus) grammicus* (Germar, 1827) *
MATERIAL. **20**, 15.IX.2016 (2).
18. *Hydroglyphus geminus* (Fabricius, 1792)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **5A**, 5.IX.2015 (2); **22A**, 30.IX.2015 (7); **22B**, 30.IX.2015 (3); **32A**, 22.VII.2016 (1); **28**, 4.VIII.2016 (15); **15**, 27.VIII.2016 (4); **17**, 24.VI.2017 (11); **10**, 25.VI.2017 (9).
19. *Nebrioporus airumulus* (Kolenati, 1845)
Zaitsev, 1927: as *Deronectes airumulus* Kolen., Vladikavkaz.
MATERIAL. **43**, 12.VII.16 (1); **39**, 30.VI.16 (1); **32A**, 22.VII.2016 (2); **8**, 27.V.2017 (1); **19**, 15.IX.2017 (1).
20. *Hydroporus jacobsoni* Zaitsev, 1927
Zaitsev, 1927: Adaj-choch; Tarnogradsky & Popov, 1932–1933: North Ossetia; Fery, 2009: Mamison Pass.
MATERIAL. **41**, 12.VII.2016 (8).
21. *Hydroporus marginatus* (Duftschmidt, 1805)
Zaitsev, 1927: Vladikavkaz.
22. *Hydroporus palustris* (Linnaeus, 1761)
Zaitsev, 1927: Vladikavkaz.
MATERIAL. **22**, 30.IX.2015 (1); **15**, 27.VIII.2016 (1).
23. *Hydroporus planus* (Fabricius, 1781)
Zaitsev, 1927: Vladikavkaz.
MATERIAL. **42**, 29.VI.2016 (1); **35**, 6.VII.2016 (1).
24. *Hydroporus tessellatus* (Drapiez, 1819)
Zaitsev, 1927: Vladikavkaz.
MATERIAL. **42**, 29.VI.2016 (5).
25. *Hydroporus transgrediens* (Gschwendtner, 1923)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
26. *Hydrovatus cuspidatus* (Kunze, 1818) *
MATERIAL. **34C**, 29.V.2017 (1).
27. *Hygrotus (Hygrotus) inaequalis* (Fabricius, 1777)*
MATERIAL. **22A**, 30.IX.2015 (34); **34A**, 3.X.2016 (1).
28. *Hyphydrus ovatus* (Linnaeus, 1760)*
MATERIAL. **5A**, 5.IX.2015 (1); **8**, 27.V.2017 (6); **34B**, 29.V.2017 (1).
29. *Laccophilus hyalinus* (De Geer, 1774)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **21B**, 6.X.2015 (6).
30. *Laccophilus minutus* (Linnaeus, 1758)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **14**, 29.VIII.2015 (7); **11**, 16.IX.2015 (1); **29**, 4.VIII.2016 (3); **15**, 27.VIII.2016 (3); **1**, 5.VII.2016 (1).
31. *Laccophilus poecilus* Klug, 1834
Zaitsev, 1946, 1953: as *Laccophilus variegatus*, Ordzhonikidze.
MATERIAL. **14**, 29.VIII.2015 (2); **22A**, 30.IX.2015 (3); **22B**, 30.IX.2015 (1); **8**, 27.V.2017 (5); **17**, 24.VI.2017 (2).

Family **Noteridae** Thomson, 1860

32. *Noterus clavicornis* (De Geer, 1774) *
MATERIAL. **14**, 29.VIII.2015 (8); **1**, 5.VII.2016 (3); **4**,
14.VII.2016 (3); **29**, 4.VIII.2016 (1); **15**, 27.VIII.2016 (7); **17**,
24.VI.2017 (1).
33. *Noterus crassicornis* (Müller, 1776)
Zaitsev, 1927: Mozdok.
MATERIAL. **22A**, 30.IX.2015 (12).

Family **Gyrinidae** Latreille, 1810

34. *Aulonogyrus (Aulonogyrus) concinnus* (Klug, 1834)
Zaitsev, 1928: Vladikavkaz.
35. *Gyrinus (Gyrinus) colymbus* Erichson, 1837
Tarnogradsky, Popov, 1932–1933: North Ossetia.
36. *Gyrinus (Gyrinus) distinctus* Aubé, 1864 *
MATERIAL. **13**, 13.IX.2015 (45), **24**, 27.IX.2015 (75), **25**,
27.IX.2015 (70), **18**, 30.IX.2015 (10); **21A**, 6.X.2015 (4); **21B**,
6.X.2015 (15); **42**, 29.VI.2016 (2); **4**, 14.VII.2016 (26); **40**, 22.VII.2016
(31); **32B**, 22.VII.2016 (8); **32C**, 27.VI.17 (1); **35**, 6.VII.2016 (14);
29, 4.VIII.2016 (1); **7A**, 15.VIII.2016 (5); **7B**, 15.VIII.2016 (1); **12**,
8.VIII.2016 (5); **33**, 18.IX.2016 (9); **17**, 24.VI.2017 (3); **10**, 25.VI.2017
(3); **30**, 27.VI.2017 (11); **44**, 30.VI.2017 (1); **36**, 27.VIII.2017 (3);
23, 27.VIII.2017 (3); **46**, 15.VIII.2017 (3).
37. *Gyrinus (Gyrinus) substriatus* Stephens, 1828 *
MATERIAL. **16**, 30.IX.2015 (8); **42**, 29.VI.2016 (2); **39**,
30.VI.16 (3); **4**, 14.VII.2016 (1); **38**, 18.VII.2016 (1); **32A**,
22.VII.2016 (3); **6**, 15.VIII.2016 (2); **34A**, 3.X.2016 (4); **30**,
27.VIII.2017 (1); **44**, 30.VI.2017 (1); **36**, 27.VIII.2017 (1).
38. *Orectochilus (Orectochilus) villosus villosus* (Müller,
1776) *
MATERIAL. **6**, 15.VIII.2016 (8).

Family **Halplidae** Aubé 1836

39. *Haliplus (Haliplidius) obliquus* (Fabricius, 1787)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **8**, 27.V.2017 (1).
40. *Haliplus (Haliplus) fluviatilis* Aubé, 1836
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **8**, 27.V.2017 (1).
41. *Haliplus (Haliplus) heydeni* Wehncke, 1875
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **14**, 29.VIII.2015 (2); **5A**, 5.IX.2015 (4); **15**,
27.VIII.2016 (3); **22A**, 30.IX.2015 (39); **22B**, 30.IX.2015 (18); **27**,
4.VIII.2016 (1); **29**, 4.VIII.2016 (3); **15**, 27.VIII.2016 (4); **34A**,
3.X.2016 (14), **34B**, 29.V.2017 (9); 29.V.2017 (9); **45**, 29.VI.2017
(6); **19**, 15.IX.2017 (12).
42. *Haliplus (Haliplus) ruficollis* (De Geer, 1774) *
MATERIAL. **5A**, 5.IX.2015 (2); **34A**, 3.X.2016 (3).
NOTE. The species was recorded in the North Caucasus,
Kabardino-Balkaria [Kornoukhova, L'vov, 2013].
43. *Haliplus (Liaphlus) flavicollis* Sturm, 1834 *
MATERIAL. **29**, 4.VIII.2016 (8); **8**, 27.V.2017 (4).
44. *Haliplus (Liaphlus) fulvus* (Fabricius, 1801) *
MATERIAL. **8**, 27.V.2017 (1).
45. *Haliplus (Neohaliphus) lineatocollis* (Marshall, 1802)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **21B**, 6.X.2015 (2); **39**, 30.VI.16 (1); **47**, 1.VII.2016
(3); **1**, 5.VII.2016 (5); **32A**, 22.VII.2016 (14).
46. *Peltodites caesus* (Duftschmid, 1805) *
MATERIAL. **14**, 29.VIII.2015 (3); **22A**, 30.IX.2015 (4); **42**,
29.VI.2016 (1); **1**, 5.VII.2016 (2); **4**, 14.VII.2016 (1).

Family **Hydrophilidae** Latreille, 1802

47. *Berosus (Berosus) luridus* (Linnaeus, 1760) *
MATERIAL. **32A**, 22.VII.2016 (1).

48. *Berosus (Berosus) signaticollis* (Charpentier, 1825) *
MATERIAL. **30**, 27.VI.2017 (1).
49. *Laccobius (Dimorpholaccobius) bipunctatus* (Fabricius,
1775)
Shatrovsky, 1984: Vladikavkaz.
50. *Laccobius (Dimorpholaccobius) simulatrix*
d'Orchymont, 1932
Shatrovsky, 1984: Vladikavkaz (Ordzhonikidze).
51. *Laccobius (Dimorpholaccobius) striatulus* (Fabricius,
1801)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **22B**, 30.IX.2015 (2); **21B**, 6.X.2015 (6).
52. *Laccobius (Dimorpholaccobius) syriacus* Guillebeau,
1896
Tarnogradsky, Popov, 1932–1933: North Ossetia.
53. *Laccobius (Microlaccobius) gracilis gracilis*
(Motschulsky, 1855) *
MATERIAL. **21B**, 6.X.2015 (4); **10**, 25.VI.2017 (5).
54. *Hydrobius fuscipes* (Linnaeus, 1758)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **15**, 27.VIII.2016 (2); **17**, 24.VI.2017 (10); **10**,
25.VI.2017 (4/)
55. *Hydrochara dichroma* (Fairmaire, 1892) *
MATERIAL. **20**, 15.IX.2016 (1); **26**, 28.VIII.2017 (5).
56. *Anacaena limbata* (Fabricius, 1792)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **22A**, 30.IX.2015 (2); **27**, 4.VIII.2016 (1); **19**,
15.IX.2017 (2).
57. *Anacaena lutescens* (Stephens, 1829) *
MATERIAL. **21B**, 6.X.2015 (2); **28**, 4.VIII.2016 (1); **37**,
27.VIII.2016 (13); **34A**, 3.X.2016 (12).
58. *Enochrus (Enochrus) melanocephalus* (Olivier, 1793) *
MATERIAL. **22A**, 30.IX.2015 (9); **1**, 5.VII.2016 (1).
59. *Enochrus (Lumetus) fuscipennis* (Thomson, 1884) *
MATERIAL. **11**, 16.IX.2015 (3); **47**, 1.VII.2016 (2); **1**,
5.VII.2016 (1); **4**, 14.VII.2016 (4); **29**, 4.VIII.2016 (1).
60. *Enochrus (Methydrus) coarctatus* (Gredler, 1863) *
MATERIAL. **34B**, 29.V.2017 (1).
61. *Enochrus (Methydrus) nigratus* Sharp, 1873 *
MATERIAL. **7A**, 15.VIII.2016 (1); **19**, 15.IX.2017 (1).
62. *Helochares obscurus* (Müller, 1776) *
MATERIAL. **14**, 29.VIII.2015 (2); **22A**, 30.IX.2015 (1); **28**,
4.VIII.2016 (2); **7A**, 15.VIII.2016 (3); **15**, 27.VIII.2016 (14).
63. *Coelostoma orbiculare* (Fabricius, 1775)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **5A**, 5.IX.2015 (1); **4**, 14.VII.2016 (2).

Family **Hydrochidae** Thomson, 1859

64. *Hydrochus ignicollis* Motschulsky, 1860 *
MATERIAL. **34A**, 3.X.2016 (1); **34B**, 29.V.2017 (1).

Family **Spercheidae** Erichson, 1837

65. *Spercheus emarginatus* (Schaller, 1783)
Tarnogradsky, Popov, 1932–1933: North Ossetia.
MATERIAL. **11**, 16.IX.2015 (1); **2**, 15.VII.2016 (11); **28**,
4.VIII.2016 (3); **8**, 27.V.2017 (1); **17**, 24.VI.2017 (1).

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