**Supplementary materials for Andreeva et al. ‘A new species of the family Bithyniidae (Gastropoda: Littorinimorpha) from Russia, with remarks on some genera of this family’**

**Supplementary Table S1.** List of localities of *Opisthorchophorus confusus* **sp. n**., known to date (N indicates the number of specimens in a given museum lot)

|  |  |  |
| --- | --- | --- |
| No | Museum label (in brackets – the collector’s name) | *N* |
|  | European Russia |  |
| 1 | Bryansk Region, vicinities of Surazh Town, an oxbow of the Iput’ River, 25.05.2009 (M.V. Vinarski) | 7 |
| 2 | Moscow region, the Konobeevo floodplain, a temporary waterbody at the mouth of Nerskaya River, 25.06.2009 (D.M. Palatov) | 1 |
| 3 | Moscow region, Lyubozhikha River below the water reservoir, at the bridge of the highway to Pushchino, 27.09.2017 (D.M. Palatov) | 5 |
| 4 | Moscow region, vicinity of Yurovo village, water reservoir on Treshnya River, 03.10.2017 (D.M. Palatov) | 3 |
| 5 | Moscow region, water reservoir on the Solovka River near the village of Pokrovskoye, 03.10.2017 (D.M. Palatov) | 2 |
| 6 | Moscow region, vicinity of the village of Bogoyavlenie, water reservoir on the Lopasnya River, 04.10.2017 (D.M. Palatov) | 5 |
| 7 | Moscow Region, a pond in Sharapova Okhota settlement, 22.08.2016. (M.V. Vinarski, D.M. Palatov)  | 3 |
| 8 | Moscow region, water reservoir on the Lubaynka River, 03.10.2017 (D.M. Palatov) | 4 |
| 9 | Yaroslavl Region, Sunoga River, unknown date (S.N. Perova) | 14 |
| 10 | Yaroslavl Region, Shumarovka River, 2014 (S.N. Perova) | 2 |
| 11 | Perm Region, vicinity of Sasykovo village, right bank of Sylva River, near the mouth of Istekaevka River, bank deposits, 23.09.2017 (M.E. Grebennikov) | 2 |
|  | The Urals |  |
| 12 | Sverdlovsk Region, vicinity of Krasnoufimsk Town, an Ufa River oxbow, 10.08.1887 (S.I. Korzhinskiy) | 4 |
| 13 | Sverdlovsk Region, vicinity of Tavda Town, a swamped oxbow, 16.07.1982 (I.M. Khokhutkin) | 4 |
| 14 | Sverdlovsk region, Verkhnyaya Sysert settlement, left bank of the pond, 0.8 km above the dam, 04.05.2006 (N.G. Erokhin) | 7 |
| 15 | Sverdlovsk Region, mouth of Bolshaya Kushva River, 03.09.2009 (D.A. Akilov) | 3 |
| 16 | Sverdlovsk Region, Bolshaya Kushva River, 03.09.2009 (М.А. Dyakova) | 2 |
| 17 | Sverdlovsk region, vicinity of Novaya Yelnya settlement, Serga River, 05.2014 (M.E. Grebennikov) | 1 |
| 18 | Sverdlovsk region, vicinity of Russky Ust-Mash village, stream mouth, 04.08.2015 (N.G. Erokhin)  | 2 |
| 19 | Orenburg Region, Malaya Urtazymka River, 1 km above the mouth, 03.07.2009 (N.G. Erokhin) | 2 |
| 20 | Orenburg region, vicinity of Tamar-Utkul village, left bank of the dam on the brook flowing into Ilek River, 18.05.2010 (M.E. Grebennikov)  | 15 |
| 21 | Orenburg Region, Ushkota River, below the dam of Ushkotinskoye water reservoir, river deposits, 15.05.2012 (M.E. Grebennikov)  | 1 |
| 22 | Chelyabinsk Oblast, south-eastern shore of the Yuzhnoural’skoye water reservoir, coastal deposits, 17.07.2009, 15.05.2012 (M.E. Grebennikov)  | 6 |
| 23 | Chelyabinsk Region, bank deposits of the Urlyada River, 15.05.2007 (M.E. Grebennikov). | 7 |
| 24 | Chelyabinsk region, vicinity of Astafievskiy settlement, left bank of Kyzyl-Chilik River, 03.08.2005 (N.G. Erokhin) | 5 |
| 25 | Chelyabinsk region, 3 km south-west of the village of Kichigino, Uvelka River, bank deposits, 28.05.2007 (M.E. Grebennikov) | 2 |
| 26 | Chelyabinsk region, 10 km to the east of Varshavka settlement, Karagailyayat, bank deposits, 05.08.2008 (N.G. Erokhin) | 5 |
| 27 | Chelyabinsk Region, vicinity of the Arkaim reserve, left bank of Bolshaya Karaganka River, 20.05.2010 (M.E. Grebennikov)  | 2 |
| 28 | Chelyabinsk Region, the Yalshanka River pond, shore deposits, 06.2014 (A.V. Lugas’kov)  | 6 |
|  | Northern and Central Kazakhstan |  |
| 29 | Aktobe Region, bank deposits of the Irgiz River, 1 km downstream from bridge on Aralsk-Aktobe road, 24.05.2015 (M.E. Grebennikov) | 6 |
| 30 | Akmola Region, Korgalzhyn Nature Reserve, the shore deposits of the Kara-Koga Lake, 18.08.2013 (N.I. Andreev, M.V. Vinarski) | 7 |
|  | Western Siberia |  |
| 31 | Kurgan Region, the SE shore of the Kurtan Lake, from lake deposits, 07.05.2013 (M.E. Grebennikov)  | 1 |
| 32 | Kurgan Region, vicinity of Ozerny Settlement, Lake Sashkino, 18.10.2002 (M.E. Grebennikov) | 2 |
| 33 | Tyumen Region, vicinity of Gayevo settlement, Iryum River, 15.06.2012, 02.07.2015 (R.G. Fattakhov) | 41 |
| 34 | Tyumen Region, an unnamed lake, 3.5 km from Abatskoye settlement, 08.2004 (A.V. Karimov) | 8 |
| 35 | Tyumen Region, floodplain waterbodies of Bolshoy Balyk River, 20.08.2014, 02.06.2019 (T.V. Sharafutdinova)  | 49 |
| 36 | Tyumen Region, a dam on the Panovka River, 14.10.2021. 11.10.2022 (I.M. Uslanina) | 11 |
| 37 | Omsk Region, vicinity of Druzhino village, dam on Kamyshlovka River, 23.05.2003, 01.07.2012 (N.I. Andreev, S.I. Andreeva, A.V. Karimov) | 17 |
| 38 | Omsk region, a floodplain waterbody of the Irtysh Irtysh near Omsk bus station, 12.06.2005 (A.V. Karimov) | 8 |
| 39 | Omsk Region, an impoundment on the Maly Uchug River (Lake Shatalovskoye), 05.07.2012, 21.08.2017, 17.06.2022, 07.07.2023, 28.08.2024 (A.V. Karimov)  | 44 |
| 40 | Omsk Region, Atachka River, 17.06.2022 (A.V. Karimov) | 3 |
| 41 | Omsk Region, vicinity of Chashchino village, the Tyukalka River, 13.07.2023 (A.V. Sverdlova)  | 2 |
| 42 | Novosibirsk Region, the Kargat River mouth, 09.06.2012, 10.06.2012, 16.06.2012, 20.06.2012 (Е.А. Serbina) | 23 |
| 43 | Novosibirsk Region, Lake Chany, Chernenkiy Cape, 18.06.2012 (Е.А. Serbina) | 1 |
| 44 | Novosibirsk Region, River Tarka near Ust’-Tarka settlement, 20.07.2022 (A.V. Sverdlova) | 3 |
| 45 | Tomsk Region, vicinity of Tomsk City, a floodplain waterbody of the Tom River, 06.06.1953 (M.P. Miroshnivhenko). **The type locality.** | 11 |
| 46 | Tomsk Region, Lake Mochishche, 09.08.2006 (N.I. Andreev, M.V. Vinarski, A.V. Karimov) | 4 |
| 47 | Tomsk Region, River Yaya, 10.08.2006 (N.I. Andreev, M.V. Vinarski, A.V. Karimov) | 3 |
| 48 | Tomsk Region, vicinity of Tegul’det settlement, an oxbow of Tom’ River, 11.08.2006 (N.I. Andreev, M.V. Vinarski, A.V. Karimov) | 6 |
| 49 | Tomsk region, vicinity of Novoshumilovo village, a waterbody in the Chulym River, 13.08.2006 (N.I. Andreev, M.V. Vinarski, A.V. Karimov) | 9 |
| 50 | Tomsk Region, vicinity of Tomsk City, Lake Toyanovo, 16.08.2006 (N.I. Andreev, M.V. Vinarski, A.V. Karimov) | 12 |
| 51 | Tomsk Region, a channel of the Tom’ River upstreams of Kolarovo settlement, 18.08.2006 (N.I. Andreev, M.V. Vinarski, A.V. Karimov) | 26 |

**Supplementary Table S2.** List of *COI* sequences of Bithyniidae speciesused in this study. Newly obtained sequences are given in red

| **Genus** | **Current name of the species** | ***COI* GenBank** **acc. no.** | **Country** | **Reference** |
| --- | --- | --- | --- | --- |
| *Wattebledia* Crosse, 1886 | *Wattebledia crosseana* | KY118792 | Thailand | Kulsantiwong et al. (2013) |
| *W. crosseana* | KY118781 | Thailand | Kulsantiwong et al. (2013) |
| *W. crosseana* | KY118773 | Thailand | Kulsantiwong et al. (2013) |
| *W. crosseana* | KY118786 | Thailand | Kulsantiwong et al. (2013) |
| *W. crosseana* | KY118776 | Thailand | Kulsantiwong et al. (2013) |
| *W. siamensis* | KY118804 | Thailand | Kulsantiwong et al. (2013) |
| *W. siamensis* | KY118799 | Thailand | Kulsantiwong et al. (2013) |
| *W. baschi* | KY118769 | Thailand | Kulsantiwong et al. (2013) |
| *W. baschi* | KY118771 | Thailand | Kulsantiwong et al. (2013) |
| *Digoniostoma* Annandale, 1920 | *Bithynia siamensis* | KY118652 | Thailand | Kulsantiwong et al. (2013) |
| *B. siamensis* | KY118659 | Thailand | Kulsantiwong et al. (2013) |
| *B. siamensis* | KY118658 | Thailand | Kulsantiwong et al. (2013) |
| *B. funiculata* | KY118590 | Thailand | Kulsantiwong et al. (2013) |
| *B. funiculata* | KY118596 | Thailand | Kulsantiwong et al. (2013) |
| *B. funiculata* | MT379922 | Thailand: Phayao Province | Bunchom et al. (2020) |
| *B. funiculata* | MT379921 | Thailand: Phayao Province | Bunchom et al. (2020) |
| *Gabbia*Tryon, 1865 | *Gabbia wykoffi* | KY118740 | Thailand | Kulsantiwong et al. (2013) |
| *G. wykoffi* | KY118738 | Thailand | Kulsantiwong et al. (2013) |
| *G. wykoffi* | KY118736 | Thailand | Kulsantiwong et al. (2013) |
| *G. pygmaea* | KY118683 | Thailand | Kulsantiwong et al. (2013) |
| *Boreoelona* Starobogatov & Streletzkaja, 1967 | *Boreoelona contortrix* | MW138427 | Russia: Buryatia Republic | NCBI GenBank |
| *B. contortrix* | **PV037655** | Russia: Republic of Sakha (Yakutia) | This study |
| *Bithynia misella* | KF966538 | South Korea | NCBI GenBank |
| *Gabbia kiusiuensis* | LC779814 | Japan: Aichi | NCBI GenBank |
| *Codiella* Locard, 1894 | *Bithynia leachii* | MT410857 | Denmark | NCBI GenBank |
| *B. leachii* | MW138414 | Russia: Leningrad Oblast | NCBI GenBank |
| *B. leachii* | MW138418 | Italy: Province of Viterbo | NCBI GenBank |
| *B. leachii* | MW138419 | Italy: Province of Viterbo  | NCBI GenBank |
| *Pseudobithynia panetolis* | OP339800 | Greece | Wilke et al. (2023) |
| *P. trichonis* | OP339802 | Greece | Wilke et al. (2023) |
| *Opisthorchophorus* Beriozkina & Starobogatov, 1995 | *G. cubensis* | OP339801 | Turkey | Wilke et al. (2023) |
| *Bithynia transsilvanica* | OP339799 | Germany | Wilke et al. (2023) |
| *B. troschelii* | MW138411 | Russia: Komi Republic | NCBI GenBank |
| *B. troschelii* | MW138409 | Russia: Ryazan Oblast | NCBI GenBank |
| *B. troschelii* | MW138405 | Russia: Ryazan Oblast | NCBI GenBank |
| *B. troschelii* | MW138394 | Russia: Bashkortostan Republic | NCBI GenBank |
| *Opisthorchophorus confusus* | **PV037647** | Russia: Krasnodar Krai | This study |
| *O. confusus* | **PV037648** | Russia: Omsk Oblast | This study |
| *O.* ***confusus*** | **PV037651** | Russia: Omsk Oblast | This study |
| *O.* ***confusus*** | **PV037652** | Russia: Tyumen Oblast | This study |
| *O.* ***confusus*** | **PV037653** | Russia: Tyumen Oblast | This study |
| *O.* ***confusus*** | **PV037654** | Russia: Tyumen Oblast | This study |
| *Parafossarulus* Annandale, 1924 | *Boreoelona ussuriensis* | OR990564 | China: Inner Mongolia Autonomous Region | Hu et al. (2024) |
| *Parafossarulus* sp. | HQ623174 | China: Anhui Province | Wilke et al. (2013) |
| *P. manchouricus* | OP339803 | Japan | Wilke et al. (2023) |
| *Bithynia* s. str. | *Bithynia tentaculata* | OP339798 | Croatia | Wilke et al. (2023) |
| *B. tentaculata* | AF367643 | Croatia | Wilke et al. (2001) |
| *B. tentaculata* | MK308073 | USA: District of Columbia | NCBI GenBank |
| *B. tentaculata* | JX970605 | USA: New York | Wilke et al. (2013) |
| *B. tentaculata* | MK308052 | USA: District of Columbia | NCBI GenBank |
| *B. tentaculata* | MW139681 | Romania | NCBI GenBank |
| *B. tentaculata* | **PV037649** | Russia: Omsk Oblast | This study |
| *B. tentaculata* | **PV037650** | Russia: Omsk Oblast | This study |
| Hydrobiidae*Bythiospeum*Bourguignat, 1882 | *Bythiospeum acicula\** | KX374151 | Germany: Bavaria | Richling et al. (2017) |
| Amnicolidae *Colligyrus*Hershler, 1999 | *Colligyrus* sp.\* | KT248029 | USA: Washington | Liu et al. (2015) |

\* - these species were used as outgroups for Maximum likelihood analysis.

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**Supplementary Table S3.** Coexisting of *Opistorchophorus* ***confusus***sp. nov. with other species of the family Bithyniidae in selected waterbodies of European Russia and Western Siberia

|  |  |  |
| --- | --- | --- |
| Bithyniid species | European Russia | Western Siberia |
| Small streams | Impoundments | Small streams | Impoundments |
| Moscow region, River Lubozhikha | Yaroslavl Region, River Shumarovka | Moscow Region, on River Lopasnya | Moscow River, on River Lubyanka | Novosibirsk Region, River Tarka  | Tyumen Region, River Iryum | Omsk region, On River Malyi Ichug  | Tuymen Region, on River Panovka  |
| *Bithynia tentaculata* s. lato |  | + | + | + |  | + | + |  |
| *Boreoelona contortrix* |  |  |  |  | + |  | + |  |
| *Boeroelona sibirica* |  |  |  |  |  | + | + |  |
| *Digyrcidum bourguignati\** |  |  |  | + |  |  |  |  |
| *D. starobogatovi\** |  |  | + |  |  | + |  | + |
| *Opisthorchophorus troschelii* (including *O. baudonianus* sensu Starobogatov) | + | + | + | + | + | + |  | + |

\* The generic status of the genus *Digyrcidum* as well as the identity of the two species included to it raise some doubts; possibly, this genus is a full synonym of *Bithynia* s. str. (See the main text of our article).