

**Table S1.** List of protist species and infraspecies taxa found in the Lake Kislo-Sladkoe via microscopy. Designations: «+» - active diversity, «\*» – hidden diversity.

№	Taxa	Figures	Year, depths (m)												Year, depths (m)											
			2018												2021											
			0	0.5	1	1.5	2	2.5	3	3.1	3.5	4	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5				
AMORPHEA Adl et al., 2012																										
Amoebozoa Luhe 1913, sensu Cavalier-Smith 1998																										
* Discosea Cavalier-Smith et al. 2004, sensu Smirnov et al. 2011																										
**Centramoebia Cavalier-Smith et al. 2016																										
***Himatismenida Page 1987																										
1	<i>Cochliopodium</i> sp.		*	*										*												
2	Unidentified Amoebozoa				+	+	+	+					*	*		*			*		*	*				
Obazoa Brown et al., 2013																										
*Apusomonadida Karpov & Mylnikov 1989																										
3	<i>Amastigomonas caudata</i> Zhukov 1975	2a												*												
4	<i>Amastigomonas</i> cf. <i>mutabilis</i> (Griessmann, 1913) Molina et Nerad 1991	2b	+				*	*			*															
Opisthokonta Cavalier-Smith 1987, emend. Adl et al. 2005																										
*Holozoa Lang et al. 2002																										
**Choanoflagellata Kent 1880–1882																										
***Acanthoecida Cavalier-Smith 1997, emend. Nitsche et al. 2011																										
****Acanthoecidae Norris 1965, emend. sensu Nitsche et al. 2011																										
5	<i>Savillea parva</i> (Ellis, 1929) Loeblich, 1967	2f																		*						
****Stephanoecidae Leadbeater 2011																										
6	<i>Diaphanoeca grandis</i> Ellis 1930	2j-l														*		*			*					
7	<i>Stephanoeca</i> sp. 1	2g, h										*	*	*	*	*	*	*		*						
8	<i>Stephanoeca</i> sp.2	2i											*													
***Craspedida Cavalier-Smith 1997, emend. Nitsche et al. 2011																										
****Salpingoecidae Kent 1880–1882, emend. sensu Nitsche et al. 2011																										
9	<i>Monosiga ovata</i> Kent 1881	2d	*	*	*	*	*	+					*			*										
10	<i>Salpingoeca</i> sp.	2e									*		*													
**Filasterea Shalchian-Tabrizi et al. 2008																										
11	<i>Ministeria</i> sp.	2c	*	*								*		*												
DIAPHORETICKES Adl et al., 2012																										
Archaeplastida Adl et al. 2005																										
*Chloroplastida Adl et al. 2005																										
**Chlorophyta Pascher 1914, emend. Lewis & McCourt 2004																										
12	Unidentified Chlorophyta 1					+	+																			
13	Unidentified Chlorophyta 2	9h														*										
SAR Burki et al. 2008, emend. Adl et al. 2012																										
*Stramenopiles Patterson 1989, emend. Adl et al. 2005																										

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			2018												2021											
			0	0.5	1	1.5	2	2.5	3	3.1	3.5	4	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5				
**Bigyra Cavalier-Smith 1998, emend. 2006																										
***Opalozoa Cavalier Smith 1991, emend. 2006																										
****Bicosoecida Grasse 1926, emend. Karpov 1998																										
14	<i>Caecitellus parvulus</i> (Griessmann 1913) Patterson et al. 1998	3c															*	*			*					
15	<i>Pseudobodo tremulans</i> Griessmann 1913							+																		
16	<i>Cafeteria</i> sp.								+																	
17	<i>Bicosoeca</i> cf. <i>maris</i> Picken 1841	3d							*																	
**Gyrista Cavalier-Smith, 1998																										
***Developea Karpov et Aleoshin 2016																										
18	<i>Developayella</i> cf. <i>elegans</i> Tong 1995															*	*					*				
***Ochrophyta Cavalier-Smith 1986, emend. Cavalier-Smith & Chao 1996																										
****Chrysista Cavalier-Smith 1986																										
*****Chrysophyceae Pascher 1914																										
19	Unidentified Chrysophyceae		+	+	+	+	+	+	+	+		+														
*****Chromulinales Pascher 1910																										
20	<i>Kephyrion</i> sp.	9i				+																				
*****Ochromonadales Pascher 1910																										
21	<i>Spumella</i> -like flagellates		+	+	+	+	+			+	+		*	*	*	*	*	*		*	*	*				
*****Paraphysomonadida Scoble & Cavalier-Smith 2014																										
22	<i>Clathromonas butcheri</i> (Pennick and Clarke 1972) Scoble and Cavalier-Smith 2014	4d,e													+	+		+								
23	<i>Paraphysomonas cyllicophora</i> Leadbeater 1972	4f											+		+	+		+								
24	<i>Paraphysomonas foraminifera</i> Lucas 1967	4c													+	+										
25	<i>Paraphysomonas vestita</i> (Stokes 1885) De Saedeleer (1929)	4b												+	+	+		+								
26	<i>Paraphysomonas</i> sp.	4a	+	+	+	+	+	+	+	+	+	+														
****Diatomista Derelle et al., 2016																										
*****Diatomeae Dumortier 1821																										
27	<i>Melosira nummuloides</i> C.Agardh 1824	7g-j															*									
28	<i>Paralia</i> sp.	8k										+														
29	<i>Podosira stelligera</i> (Bailey) A.Mann 1907	7k				*	*																			
30	<i>Chaetoceros</i> sp.1	7d,e													+	+	*									
31	<i>Chaetoceros</i> sp.2	7f					+					+														
32	<i>Cyclotella choctawhatcheeana</i> Prasad 1990	7a,b	+	+	+	+	+					+			+	+		+	+		+					
33	<i>Cyclotella meneghiniana</i> Kützing 1844	7c															*									
34	<i>Amphora micrometra</i> M.H.Giffen 1967	8s,t	*	*								*					*									

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			2018										2021									
			0	0.5	1	1.5	2	2.5	3	3.1	3.5	4	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5
35	<i>Cocconeis placentula</i> Ehrenberg 1838	8r										+										
36	<i>Cocconeis placentula</i> var. <i>euglypta</i> (Ehrenberg) Cleve 1895	8q										+				+						
37	<i>Entomoneis paludosa</i> var. <i>subsalina</i> (Cleve) Krammer 1987	8o											*	*	+	+		+	+			
38	<i>Gomphonema parvulum</i> (Kützing) Kützing 1849	8p	*	*																		
39	<i>Martyana atomus</i> (Hustedt) Snoeijs 1991	8a										+					*					
40	<i>Nanofrustulum trainorii</i> (E.Morales) E.Morales 2019	8b	+	+	+	+	+					+			+						+	
41	<i>Navicula antonii</i> Lange-Bertalot 2000	9a										+			+							
42	<i>Navicula gregaria</i> Donkin 1861	9b										+										
43	<i>Navicula</i> sp.	9c	+	+																		
44	<i>Nitzschia microcephala</i> Grunow 1880	8l															*					
45	<i>Nitzschia paleacea</i> (Grunow) Grunow 1881	8h					*	*														
46	<i>Nitzschia sigma</i> (Kützing) W.Smith 1853	8f,g										+										
47	<i>Planothidium</i> sp.	8i,j,m,n										+					*					
48	<i>Pseudostaurosira</i> cf. <i>elliptica</i> (Schumann) Edlund et al. 2006	8c,d										+					*					
49	<i>Staurosirella pinnata</i> (Ehrenberg) D.M.Williams et Round 1988	8e										+										
50	<i>Gyrosigma</i> sp.	9g										+									+	
51	<i>Cylindrotheca closterium</i> (Ehrenberg) Reimann & J.C.Lewin 1964	9f										+										
52	<i>Surirella striata</i> Leuduger-Fortmorel 1879	9d										+										
****Dictyochophyceae Silva 1980																						
*****Pedinellales Zimmermann et al. 1984																						
53	<i>Actinomonas mirabilis</i> Kent 1880	3b	+	+	+	+	+										*					
54	<i>Pteridomonas danica</i> Patterson and Fenchel 1985	3a											*	*		*	*	*	*	*	*	
*Alveolata Cavalier-Smith 1991																						
**Ciliophora Doflein 1901																						
***Intramacronucleata Lynn 1996																						
****CONTHREEP Lynn in Adl et al. 2012																						
*****Oligohymenophorea de Puytorac et al. 1974																						
55	<i>Cyclidium</i> sp.	6e												*			+	+	+	*	+	+
56	<i>Uronema</i> sp.	6c																			+	
57	<i>Vorticella</i> sp.													*								

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			0	0.5	1	1.5	2	2.5	3	3.1	3.5	4	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5				
****Prostomatea Schewiakoff 1896																										
58	<i>Prorodon</i> sp.	6f						+	+	*	*	*														
****Plagiopylea Small & Lynn 1985																										
59	<i>Plagiopyla</i> sp.	6b							*	*	*	*														
****SAL Gentekaki et al. 2014																										
****Spirotrichea Butschli 1889																										
60	<i>Oxytricha</i> sp.	6h												*												
61	<i>Euplotes</i> sp.	6g														+				+	*					
****Lamellicorticata Vd’áčný et al. 2010																										
*****Armophorea Lynn 2004																										
62	<i>Metopus</i> sp.	6a										*														
Incertae sedis SAL: Mesodiniidae Jankowski, 1980																										
63	<i>Mesodinium</i> sp.	6d												+	*		+		*	*						
**Colponemida Cavalier-Smith 1993 emend. Adl et al. 2019																										
***Oxyrrhis Dujardin 1841																										
64	<i>Oxyrrhis marina</i> Dujardin 1841	5d, e										*	*			+	+	+	+	+	+	+				
**Dinoflagellata Butschli 1885, emend. Fensome et al. 1993, emend. Adl et al. 2005																										
***Dinophyceae Pascher 1914																										
65	<i>Gymnodinium</i> sp.	5c							+	+	+				+	+	*									
66	<i>Amphidinium crassum</i>	5b																	*							
67	<i>Prorocentrum</i> sp.	5a										+														
68	<i>Scrippsiella trochoidea</i>	5f, g						+	+	+	+			+	+											
*Rhizaria Cavalier-Smith 2002																										
**Cercozoa Cavalier-Smith 1998, emend. Adl et al. 2005; emend. Cavalier-Smith 2018																										
***Glissomonadida Howe & Cavalier-Smith 2009																										
****Bodomorphidae Hollande 1952, emend. Cavalier-Smith in Howe et al. 2009																										
69	<i>Bodomorpha reniformis</i> (Zhukov, Mylnikov & Moiseyev) Mylnikov & Karpov 2004																	*								
***Imbricatea Cavalier-Smith 2011																										
****Silicofilosea Adl et al. 2005, emend. Adl et al. 2012																										
*****Euglyphida Copeland 1956, emend. Cavalier-Smith 1997																										
*****Cyphoderiidae de Saedeleer 1934																										
70	<i>Cyphoderia</i> aff. <i>littoralis</i> Golemansky 1973	4g-i														*										
***Thecofilosea Cavalier-Smith 2003, emend. Cavalier-Smith 2011																										
****Ebriacea Lemmermann 1901																										
71	<i>Ebria tripartita</i> (Shumann) Lemmermann 1899	3f	+	+	+	+	+		*		*	*	+	+	*	+	*									

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			0	0.5	1	1.5	2	2.5	3	3.1	3.5	4	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5				
Incertae sedis Cercozoa: Discocelia Cavalier-Smith 2013																										
72	<i>Discocelis saleuta</i> Vørs 1988	3e													*			*								
*Cryptista Adl et al. 2019																										
**Cryptophyceae Pascher 1913, emend. Schoenichen 1925, emend. Adl et al. 2012																										
73	Unidentified Cryptophyceae														+		+									
***Cryptomonadales Pascher 1913																										
74	<i>Rhodomonas cf. baltica</i> Karsten 1898	5h, i, j						+	+	+																
***Cyathomonadacea Pringsheim 1944																										
75	<i>Goniomonas amphinema</i> Larsen et Patterson 1990															*			+							
76	<i>Goniomonas truncata</i> (Fresenius, 1858) Stein 1878												*	*		*	*									
*Haptista Cavalier-Smith 2003																										
**Centroplasthelida Febvre-Chevalier & Febvre 1984																										
77	<i>Heterophrys</i> -like organism	4j-k													*	*										
**Haptophyta Hibberd 1976, ex. Edvardsen & Eikrem 2000																										
78	Unidentified Haptophyta	9j	+	+	+	+	+						+	+												
Incertae sedis Diaphoretickes																										
Telonemia Shalchian-Tabrizi 2006																										
79	<i>Telonema</i> sp.	3g															*									
Incertae sedis EUKARYA: EXCAVATES																										
*Discoba Simpson in Hampl et al. 2009																										
**Euglenozoa Cavalier-Smith 1981, emend. Simpson 1997																										
80	Unidentified Euglenozoa	9l									+															
***Euglenida Butschli 1884, emend. Simpson 1997																										
****Heteronematina Leedale 1967																										
81	<i>Neometanema exaratum</i> (Larsen and Patterson 1990) Lee and Simpson comb. nov. 2014	3q																	+							
82	<i>Petalomonas poosilla</i> (Skuja 1948) Larsen and Patterson 1990	3p									*	*	*		*											
****Euglenophyceae Schoenichen 1925, emend. Marin & Melkonian 2003																										
*****Euglenales Leedale 1967, emend. Marin & Melkonian 2003																										
*****Euglenaceae Dujardin 1841, emend. Kim et al. 2010.																										
83	<i>Trachelomonas intermedia</i> var. <i>minor</i> Tell	9e															*									
***Kinetoplastea Honigberg 1963																										
****Metakinetoplastina Vickerman in Moreira et al. 2004																										
*****Neobodonida Vickerman in Moreira et al. 2004																										

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