

		#seq	#OTUs	Schao1	Anterne Shannon	Coverage	#seq	#OTUs	Schao1	Aydat Shannon	Coverage	#seq	#OTUs	Schao1	Bourget Shannon	Coverage	#seq	#OTUs	Schao1	Godivelle Shannon	Coverage
Alveolata		32	13	28.00	2.39	81.25	498	35	50.00	2.72	97.99	564	26	39.00	0.81	97.52	2450	50	69.12	1.92	99.27
	Apicomplexa	0	0				38	2				42	3				12	5			
	Ciliophora	29	12				245	20				14	9				2278	33			
	Dinophyceae	3	1				183	11				27	11				149	10			
	Perkinsea	0	0				32	2				481	3				11	2			
Amoebozoa		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Centramoebida	0	0				0	0				0	0				0	0			
	Tubulinea	0	0				0	0				0	0				0	0			
	unclassified Amoebozoa	0	0				0	0				0	0				0	0			
Choanoflagellida		0	0				2	1	1.00	0.00	100.00	0	0	0	0	0	0	0	0	0	0
	unclassified Choanoflagellida	0	0				2	1				0	0				0	0			
Cryptophyta		9	3	3.00	1.00	100.00	210	13	23.00	1.23	97.62	108	7	13.00	0.94	96.30	389	15	17.00	1.51	98.97
	Cryptomonadaceae	2	1				11	2				11	1				207	4			
	Cryptophyta nucleomorph	0	0				4	2				1	1				21	4			
	Cryptophyta_2	5	1				5	1				0	0				10	3			
	Cryptophyta_3	2	1				42	4				95	4				54	3			
	Cryptophyta_4	0	0				148	4				1	1				97	1			
Diplomonadida		1	1	1.00	0.00	0.00	2	2	3.00	0.69	0.00	14	5	5.00	1.51	92.86	0	0	0	0	0
	Hexamitidae	1	1				2	2				14	5				0	0			
Euglenozoa		6	5	8.00	1.56	33.33	24	14	18.20	2.54	70.83	85	28	35.86	2.97	87.06	2	2	3.00	0.69	0.00
	Euglenida	6	5				24	14				85	28				2	2			
Fungi		16946	75	109.36	1.65	99.83	5604	49	68.12	0.70	99.68	613	69	115.87	2.06	93.80	704	63	84.08	2.34	96.73
	Chytridiomycota	0	0				11	2				3	2				6	4			
	Dikarya	10	8				27	14				80	32				80	22			
	Glomeromycota	0	0				0	0				0	0				2	1			
	LKM11	16893	56				5411	20				20	2				27	5			
	Microsporidia	0	0				0	0				0	0				2	1			
	Rhizophyidium clade	1	1				1	1				0	0				19	4			
	Rozella clade	0	0				32	1				0	0				8	3			
	Zygomycota_1 et rel.	0	0				12	1				0	0				3	1			
	unclassified Fungi	42	10				110	10				510	33				557	22			
Haptophyceae		0	0	0	0	0	23	1	1.00	0.00	100.00	24	1	1.00	0.00	100.00	3	2	2.00	0.64	66.67
	Pavlovales	0	0				0	0				0	0				1	1			
	unclassified Haptophyceae	0	0				23	1				24	1				2	1			
Heterolobosea		2	1	1.00	0.00	100.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Schizopyrenida	2	1				0	0				0	0				0	0			
Ichthyosporia		0	0	0	0	0	0	0	0	0	0	18	2	2.00	0.45	100.00	2	1	1.00	0.00	100.00
	unclassified Ichthyosporia	0	0				0	0				18	2				2	1			
Parabasalida		8	4	7.00	1.07	62.50	0	0	0	0	0	53	9	11.00	1.35	92.45	0	0	0	0	0
	Trichomonada	8	4				0	0				53	9				0	0			
Rhizaria		9	6	9.00	1.68	55.56	183	13	13.33	1.62	98.91	204	22	31.00	1.69	95.10	202	15	25.50	1.62	96.53
	Cercozoa	4	2				173	10				168	6				201	14			
	Foraminifera	5	4				10	3				36	16				1	1			
Rhodophyta		1	1	1.00	0	0	1	1	1.00	0.00	0.00	23	7	10.00	1.57	87.00	0	0	0	0	0
	Florideophyceae	0	0				1	1				0	0				0	0			
	Bangiophyceae	1	1				0	0				23	7				0	0			
Viridiplantae		4	4	7.00	1.10	0.00	260	16	18.00	1.80	98.46	1	1	1.00	0.00	0.00	235	12	14.00	1.56	98.71
	Chlorophyta	3	3				259	15				1	1				233	10			
	Streptophyta	1	1				1	1				0	0				2	2			
stramenopiles		21	12	30.00	2.17	57.14	785	39	50.00	2.42	98.60	930	42	53.00	2.84	98.71	2700	83	86.93	3.36	99.59
	Bacillariophyta	7	1				14	2				0	0				14	5			
	Bicosoecida	1	1				1	1				187	16				364	21			
	Chrysophyceae	9	6				221	16				489	12				1908	37			
	Dictyochophyceae	1	1				32	6				17	3				280	9			
	Eustigmatophyceae	2	2				270	2				0	0				0	0			
	Labyrinthulida	0	0				15	3				32	3				55	4			
	Oomycetes	0	0				91	3				65	3				3	1			
	unclassified stramenopiles	1	1				141	6				140	5				76	6			

Tab. S3 : Main taxonomic groups with richness and diversity indices in the different lakes studied

		#seq	#OTUs	Schao1	Anterne Shannon	Coverage	#seq	#OTUs	Schao1	Aydat Shannon	Coverage	#seq	#OTUs	Schao1	Bourget Shannon	Coverage	#seq	#OTUs	Schao1	Godivelle Shannon	Coverage
Alveolata		32	13	28.00	2.39	81.25	498	35	50.00	2.72	97.99	564	26	39.00	0.81	97.52	2450	50	69.12	1.92	99.27
	Apicomplexa	0	0				38	2				42	3				12	5			
	Ciliophora	29	12				245	20				14	9				2278	33			
	Dinophyceae	3	1				183	11				27	11				149	10			
	Perkinsea	0	0				32	2				481	3				11	2			
Amoebozoa		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Centramoebida	0	0				0	0				0	0				0	0			
	Tubulinea	0	0				0	0				0	0				0	0			
	unclassified Amoebozoa	0	0				0	0				0	0				0	0			
Choanoflagellida		0	0				2	1	1.00	0.00	100.00	0	0	0	0	0	0	0	0	0	0
	unclassified Choanoflagellida	0	0				2	1				0	0				0	0			
Cryptophyta		9	3	3.00	1.00	100.00	210	13	23.00	1.23	97.62	108	7	13.00	0.94	96.30	389	15	17.00	1.51	98.97
	Cryptomonadaceae	2	1				11	2				11	1				207	4			
	Cryptophyta nucleomorph	0	0				4	2				1	1				21	4			
	Cryptophyta_2	5	1				5	1				0	0				10	3			
	Cryptophyta_3	2	1				42	4				95	4				54	3			
	Cryptophyta_4	0	0				148	4				1	1				97	1			
Diplomonadida		1	1	1.00	0.00	0.00	2	2	3.00	0.69	0.00	14	5	5.00	1.51	92.86	0	0	0	0	0
	Hexamitidae	1	1				2	2				14	5				0	0			
Euglenozoa		6	5	8.00	1.56	33.33	24	14	18.20	2.54	70.83	85	28	35.86	2.97	87.06	2	2	3.00	0.69	0.00
	Euglenida	6	5				24	14				85	28				2	2			
Fungi		16946	75	109.36	1.65	99.83	5604	49	68.12	0.70	99.68	613	69	115.87	2.06	93.80	704	63	84.08	2.34	96.73
	Chytridiomycota	0	0				11	2				3	2				6	4			
	Dikarya	10	8				27	14				80	32				80	22			
	Glomeromycota	0	0				0	0				0	0				2	1			
	LKM11	16893	56				5411	20				20	2				27	5			
	Microsporidia	0	0				0	0				0	0				2	1			
	Rhizophyidium clade	1	1				1	1				0	0				19	4			
	Rozella clade	0	0				32	1				0	0				8	3			
	Zygomycota_1 et rel.	0	0				12	1				0	0				3	1			
	unclassified Fungi	42	10				110	10				510	33				557	22			
Haptophyceae		0	0	0	0	0	23	1	1.00	0.00	100.00	24	1	1.00	0.00	100.00	3	2	2.00	0.64	66.67
	Pavlovales	0	0				0	0				0	0				1	1			
	unclassified Haptophyceae	0	0				23	1				24	1				2	1			
Heterolobosea		2	1	1.00	0.00	100.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Schizopyrenida	2	1				0	0				0	0				0	0			
Ichthyosporia		0	0	0	0	0	0	0	0	0	0	18	2	2.00	0.45	100.00	2	1	1.00	0.00	100.00
	unclassified Ichthyosporia	0	0				0	0				18	2				2	1			
Parabasalida		8	4	7.00	1.07	62.50	0	0	0	0	0	53	9	11.00	1.35	92.45	0	0	0	0	0
	Trichomonada	8	4				0	0				53	9				0	0			
Rhizaria		9	6	9.00	1.68	55.56	183	13	13.33	1.62	98.91	204	22	31.00	1.69	95.10	202	15	25.50	1.62	96.53
	Cercozoa	4	2				173	10				168	6				201	14			
	Foraminifera	5	4				10	3				36	16				1	1			
Rhodophyta		1	1	1.00	0	0	1	1	1.00	0.00	0.00	23	7	10.00	1.57	87.00	0	0	0	0	0
	Florideophyceae	0	0				1	1				0	0				0	0			
	Bangiophyceae	1	1				0	0				23	7				0	0			
Viridiplantae		4	4	7.00	1.10	0.00	260	16	18.00	1.80	98.46	1	1	1.00	0.00	0.00	235	12	14.00	1.56	98.71
	Chlorophyta	3	3				259	15				1	1				233	10			
	Streptophyta	1	1				1	1				0	0				2	2			
stramenopiles		21	12	30.00	2.17	57.14	785	39	50.00	2.42	98.60	930	42	53.00	2.84	98.71	2700	83	86.93	3.36	99.59
	Bacillariophyta	7	1				14	2				0	0				14	5			
	Bicosoecida	1	1				1	1				187	16				364	21			
	Chrysophyceae	9	6				221	16				489	12				1908	37			
	Dictyochophyceae	1	1				32	6				17	3				280	9			
	Eustigmatophyceae	2	2				270	2				0	0				0	0			
	Labyrinthulida	0	0				15	3				32	3				55	4			
	Oomycetes	0	0				91	3				65	3				3	1			
	unclassified stramenopiles	1	1				141	6				140	5				76	6			

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