**TABLE S1.** Geographical and morphometric lake characteristics of the 15 lakes sampled.

Watershed <sup>1</sup>	Latitude <sup>2</sup>	Longitude <sup>2</sup>	Area (km²)²	Maximum depth (m) <sup>2</sup>	Mean depth (m) <sup>2</sup>	Residence time (year) <sup>2</sup>	Drainage area (km²)²	Elevation (m) <sup>2</sup>	Perimeter (m) <sup>3</sup>	Distance to nearest lake (m) <sup>3,4</sup>
Achigan	45°56'34" N	73°58'41" W	5.320	26.5	12.3	1.18	97.060	209.0	22834.0	1459.406
Achigan	45°55'30" N	74°03'50" W	0.037	6.2	2.0	0.85	0.151	360.0	924.0	272.174
Coeur	45°58'06" N	74°00'36" W	0.437	7.6	3.1	1.30	1.736	349.0	7359.4	999.039
Cornu	45°52'53" N	74°00'02" W	0.218	15.3	6.3	2.30	1.059	236.8	3533.0	845.637
Achigan	45°58'38" N	74°00'03" W	0.057	14.4	6.8	0.06	11.230	324.5	1332.1	959.488
Achigan	45°59'34" N	74°00'34" W	0.179	11.4	4.7	1.40	1.072	358.7	4550.9	452.447
Achigan	45°59'21" N	73°59'55" W	0.102	9.8	3.5	0.08	8.136	336.8	1916.9	785.556
Echo	45°53'14" N	74°01'24" W	1.600	9.0	1.8	0.43	12.020	233.0	12151.0	809.508
Connelly	45°54'53" N	74°02'28" W	0.189	8.4	2.9	0.22	4.390	279.6	3082.2	785.674
Achigan	45°55'20" N	74°04'23" W	0.166	32.6	13.7	7.80	0.508	350.0	2359.6	514.664
Morency	45°55'40" N	74°02'09" W	0.256	20.3	8.8	0.60	2.380	271.0	2934.6	1131.794
Achigan	45°57'39" N	74°02'28" W	0.152	14.0	4.9	0.17	7.560	322.0	2181.6	511.121
Connelly	45°54'52" N	73°57'44" W	0.014	3.5	1.8	0.05	0.875	216.7	492.1	1580.956
Achigan	45°55'38" N	74°03'57" W	0.083	24.5	8.2	1.40	0.881	345.2	1291.5	272.174
Achigan	45°59'16" N	74°00'29" W	0.017	4.3	2.5	0.46	0.163	364.0	680.0	452.447
	Achigan Achigan Coeur Cornu Achigan Achigan Achigan Echo Connelly Achigan Morency Achigan Connelly Achigan	Achigan 45°56'34" N  Achigan 45°55'30" N  Coeur 45°58'06" N  Cornu 45°52'53" N  Achigan 45°59'34" N  Achigan 45°59'34" N  Echo 45°59'21" N  Connelly 45°54'53" N  Achigan 45°55'20" N  Morency 45°55'40" N  Achigan 45°57'39" N  Connelly 45°54'52" N  Achigan 45°55'38" N	Achigan 45°56'34" N 73°58'41" W  Achigan 45°55'30" N 74°03'50" W  Coeur 45°58'06" N 74°00'36" W  Cornu 45°52'53" N 74°00'02" W  Achigan 45°58'38" N 74°00'03" W  Achigan 45°59'34" N 74°00'34" W  Achigan 45°59'21" N 73°59'55" W  Echo 45°53'14" N 74°01'24" W  Connelly 45°54'53" N 74°02'28" W  Achigan 45°55'40" N 74°02'28" W  Achigan 45°57'39" N 74°02'28" W  Connelly 45°54'52" N 73°57'44" W  Achigan 45°55'38" N 74°03'57" W	Achigan       45°56'34" N       73°58'41" W       5.320         Achigan       45°55'30" N       74°03'50" W       0.037         Coeur       45°58'06" N       74°00'36" W       0.437         Cornu       45°52'53" N       74°00'02" W       0.218         Achigan       45°58'38" N       74°00'03" W       0.057         Achigan       45°59'34" N       74°00'34" W       0.179         Achigan       45°59'21" N       73°59'55" W       0.102         Echo       45°53'14" N       74°01'24" W       1.600         Connelly       45°54'53" N       74°02'28" W       0.189         Achigan       45°55'30" N       74°04'23" W       0.166         Morency       45°55'40" N       74°02'09" W       0.256         Achigan       45°57'39" N       74°02'28" W       0.152         Connelly       45°54'52" N       73°57'44" W       0.014         Achigan       45°55'38" N       74°03'57" W       0.083	Watershed¹         Latitude²         Longitude²         Area (km²)²         depth (m)²           Achigan         45°56'34" N         73°58'41" W         5.320         26.5           Achigan         45°55'30" N         74°03'50" W         0.037         6.2           Coeur         45°58'06" N         74°00'36" W         0.437         7.6           Cornu         45°52'53" N         74°00'02" W         0.218         15.3           Achigan         45°58'38" N         74°00'03" W         0.057         14.4           Achigan         45°59'34" N         74°00'34" W         0.179         11.4           Achigan         45°59'21" N         73°59'55" W         0.102         9.8           Echo         45°53'14" N         74°01'24" W         1.600         9.0           Connelly         45°53'14" N         74°02'28" W         0.189         8.4           Achigan         45°55'30" N         74°02'28" W         0.166         32.6           Morency         45°55'40" N         74°02'09" W         0.256         20.3           Achigan         45°57'39" N         74°02'09" W         0.152         14.0           Connelly         45°54'52" N         73°57'44" W         0.003         24.5	Watershed         Latitude         Longitude         Area (km²)*         depth (m)²         (m)²           Achigan         45°56'34" N         73°58'41" W         5.320         26.5         12.3           Achigan         45°55'30" N         74°03'50" W         0.037         6.2         2.0           Coeur         45°58'06" N         74°00'36" W         0.437         7.6         3.1           Cornu         45°52'53" N         74°00'02" W         0.218         15.3         6.3           Achigan         45°58'38" N         74°00'03" W         0.057         14.4         6.8           Achigan         45°59'34" N         74°00'34" W         0.179         11.4         4.7           Achigan         45°59'21" N         73°59'55" W         0.102         9.8         3.5           Echo         45°53'14" N         74°01'24" W         1.600         9.0         1.8           Connelly         45°54'53" N         74°02'28" W         0.189         8.4         2.9           Achigan         45°55'40" N         74°02'28" W         0.166         32.6         13.7           Morency         45°55'30" N         74°02'28" W         0.152         14.0         4.9           Connel	Watershed*         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²           Achigan         45°56'34" N         73°58'41" W         5.320         26.5         12.3         1.18           Achigan         45°55'30" N         74°00'36" W         0.037         6.2         2.0         0.85           Coeur         45°58'06" N         74°00'36" W         0.437         7.6         3.1         1.30           Cornu         45°52'53" N         74°00'02" W         0.218         15.3         6.3         2.30           Achigan         45°58'38" N         74°00'03" W         0.057         14.4         6.8         0.06           Achigan         45°59'34" N         74°00'34" W         0.179         11.4         4.7         1.40           Achigan         45°59'21" N         73°59'55" W         0.102         9.8         3.5         0.08           Echo         45°53'14" N         74°01'24" W         1.600         9.0         1.8         0.43           Connelly         45°54'53" N         74°02'28" W         0.189         8.4         2.9         0.22           Achigan         45°55'40" N         74°02'28" W         0.166         32.6 </td <td>Watershed*         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²         area (km²)²           Achigan         45°56′34″ N         73°58′41″ W         5.320         26.5         12.3         1.18         97.060           Achigan         45°55′30″ N         74°03′50″ W         0.037         6.2         2.0         0.85         0.151           Coeur         45°58′36″ N         74°00′36″ W         0.437         7.6         3.1         1.30         1.736           Cornu         45°52′53″ N         74°00′32″ W         0.218         15.3         6.3         2.30         1.059           Achigan         45°58′38″ N         74°00′03″ W         0.057         14.4         6.8         0.06         11.230           Achigan         45°59′34″ N         74°00′03″ W         0.179         11.4         4.7         1.40         1.072           Achigan         45°59′21″ N         73°59′55″ W         0.102         9.8         3.5         0.08         8.136           Echo         45°53′14″ N         74°01′24″ W         1.600         9.0         1.8         0.43         12.020           Connelly         45°55′23″ N         74°02′28″ W         0.</td> <td>Watershed*         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²         area (km²)²         (m)²           Achigan         45°56'34" N         73°58'41" W         5.320         26.5         12.3         1.18         97.060         209.0           Achigan         45°55'30" N         74°00'36" W         0.037         6.2         2.0         0.85         0.151         360.0           Coru         45°58'06" N         74°00'36" W         0.437         7.6         3.1         1.30         1.736         349.0           Cornu         45°58'38" N         74°00'02" W         0.218         15.3         6.3         2.30         1.059         236.8           Achigan         45°58'38" N         74°00'03" W         0.057         14.4         6.8         0.06         11.230         324.5           Achigan         45°59'34" N         74°00'34" W         0.179         11.4         4.7         1.40         1.072         358.7           Achigan         45°59'21" N         73°59'55" W         0.102         9.8         3.5         0.08         8.136         336.8           Echo         45°53'14" N         74°01'24" W         1.600         9.0</td> <td>Watershed         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²         area (km²)²         (m)²         (m)³           Achigan         45°56′34″ N         73°58′41″ W         5.320         26.5         12.3         1.18         97.060         209.0         22834.0           Achigan         45°55′30″ N         74°03′50″ W         0.037         6.2         2.0         0.85         0.151         360.0         924.0           Coeur         45°58′06″ N         74°00′36″ W         0.437         7.6         3.1         1.30         1.736         349.0         7359.4           Cornu         45°58′38″ N         74°00′02″ W         0.218         15.3         6.3         2.30         1.059         236.8         3533.0           Achigan         45°58′38″ N         74°00′33″ W         0.057         14.4         6.8         0.06         11.230         324.5         1332.1           Achigan         45°59′34″ N         74°00′34″ W         0.179         11.4         4.7         1.40         1.072         358.7         4550.9           Achigan         45°59′21″ N         74°01′24″ W         1.600         9.0         1.8         0.43         12.020</td>	Watershed*         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²         area (km²)²           Achigan         45°56′34″ N         73°58′41″ W         5.320         26.5         12.3         1.18         97.060           Achigan         45°55′30″ N         74°03′50″ W         0.037         6.2         2.0         0.85         0.151           Coeur         45°58′36″ N         74°00′36″ W         0.437         7.6         3.1         1.30         1.736           Cornu         45°52′53″ N         74°00′32″ W         0.218         15.3         6.3         2.30         1.059           Achigan         45°58′38″ N         74°00′03″ W         0.057         14.4         6.8         0.06         11.230           Achigan         45°59′34″ N         74°00′03″ W         0.179         11.4         4.7         1.40         1.072           Achigan         45°59′21″ N         73°59′55″ W         0.102         9.8         3.5         0.08         8.136           Echo         45°53′14″ N         74°01′24″ W         1.600         9.0         1.8         0.43         12.020           Connelly         45°55′23″ N         74°02′28″ W         0.	Watershed*         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²         area (km²)²         (m)²           Achigan         45°56'34" N         73°58'41" W         5.320         26.5         12.3         1.18         97.060         209.0           Achigan         45°55'30" N         74°00'36" W         0.037         6.2         2.0         0.85         0.151         360.0           Coru         45°58'06" N         74°00'36" W         0.437         7.6         3.1         1.30         1.736         349.0           Cornu         45°58'38" N         74°00'02" W         0.218         15.3         6.3         2.30         1.059         236.8           Achigan         45°58'38" N         74°00'03" W         0.057         14.4         6.8         0.06         11.230         324.5           Achigan         45°59'34" N         74°00'34" W         0.179         11.4         4.7         1.40         1.072         358.7           Achigan         45°59'21" N         73°59'55" W         0.102         9.8         3.5         0.08         8.136         336.8           Echo         45°53'14" N         74°01'24" W         1.600         9.0	Watershed         Latitude*         Longitude*         Area (km²)*         depth (m)²         (m)²         time (year)²         area (km²)²         (m)²         (m)³           Achigan         45°56′34″ N         73°58′41″ W         5.320         26.5         12.3         1.18         97.060         209.0         22834.0           Achigan         45°55′30″ N         74°03′50″ W         0.037         6.2         2.0         0.85         0.151         360.0         924.0           Coeur         45°58′06″ N         74°00′36″ W         0.437         7.6         3.1         1.30         1.736         349.0         7359.4           Cornu         45°58′38″ N         74°00′02″ W         0.218         15.3         6.3         2.30         1.059         236.8         3533.0           Achigan         45°58′38″ N         74°00′33″ W         0.057         14.4         6.8         0.06         11.230         324.5         1332.1           Achigan         45°59′34″ N         74°00′34″ W         0.179         11.4         4.7         1.40         1.072         358.7         4550.9           Achigan         45°59′21″ N         74°01′24″ W         1.600         9.0         1.8         0.43         12.020

<sup>&</sup>lt;sup>1</sup> The data was extracted from the government of Québec documentation (Atlas de l'eau).

<sup>&</sup>lt;sup>2</sup> The data was extracted from the bathymetric maps available on https://crelaurentides.org/atlas-des-lacs/.

<sup>&</sup>lt;sup>3</sup> The estimations were computed on QGIS.

<sup>&</sup>lt;sup>4</sup> The measurement was made from centroid to centroid.