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Variation pattern of particulate organic carbon and nitrogen in oceans and inland waters

Changchun Huang et al.

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Supporting information introduction: Supporting information includes seven tables (Table S1 – S7) and six figures (Figure S1 – S6).

Table S1 Data information and sources for POC, PON and corresponding dissolved organic carbon (DOC), dissolved organic nitrogen (DON), chlorophyll-a and total suspended matter.

Ocean Database

Ocean datasets	location	Data link and description
Marine POM	Global Ocean	http://dx.doi.org/10.5061/dryad.d702p/3
Cruise NBP1302	Rose Sea	http://www.bco-dmo.org/dataset/658394
Cruise VDT0410	South East of New Zealand	http://www.bco-dmo.org/dataset/3329
Cruise KN199-04	N. Atlantic Ocean	http://www.bco-dmo.org/dataset/3851
Cruises LMG 0414- 0602	Southern Ocean	http://www.bco-dmo.org/dataset/3035
Cruise IronEx II	Pacific Ocean	http://www.bco-dmo.org/dataset/3152
Cruise RB-08-02	Southwest Atlantic	http://www.bco-dmo.org/dataset/3304
Cruise MV1008	Eastern Tropical Pacific Ocean	http://www.bco-dmo.org/dataset/516495
Cruises KY0103-01-02	Sub-Arctic Pacific Ocean	http://www.bco-dmo.org/dataset/2907
Cruise NH1008	Monterey Bay	http://www.bco-dmo.org/dataset/3725
Cruise 61TG_3052	Southern Ocean	http://www.bco-dmo.org/dataset/2866
Cruise M80/2	North Atlantic Ocean	https://doi.pangaea.de/10.1594/PANGAEA.843427
Cruise PS79	Atlantic Ocean	https://doi.pangaea.de/10.1594/PANGAEA.848818
Dünweber, 2010	Arctic Ocean	https://doi.pangaea.de/10.1594/PANGAEA.809471
Cruise PS69/001	Pacific and Atlantic Oceans	https://doi.pangaea.de/10.1594/PANGAEA.759667
Cruise SS2010v09	Pacific Oceans	https://doi.pangaea.de/10.1594/PANGAEA.843554
Cruise M97	Atlantic Ocean	https://doi.pangaea.de/10.1594/PANGAEA.863119
SBC LTER	Santa Barbara Coastal	https://pasta.lternet.edu/package/metadata/eml/knb-lter-sbc/10/21
Palmer Station Antarctica LTER	West Antarctica	https://pasta.lternet.edu/package/metadata/eml/knb-lter-sbc/215/01
Cruise CalCOFI	North Atlantic Ocean	https://pasta.lternet.edu/package/metadata/eml/knb-lter-cce/54/1
Cruise CCE Process	North Atlantic Ocean	https://pasta.lternet.edu/package/metadata/eml/knb-lter-cce/104/1
MCR LTER	North Atlantic Ocean	https://pasta.lternet.edu/package/metadata/eml/knb-lter-mcr/104/1
Cruise NBP01-02	Pacific and Atlantic Oceans	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0060/0112164/
Cruise OC404	Atlantic Ocean	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0037/0078011/
Cruise WB0508	Atlantic Ocean	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0042/0086459/
Cruise WB0506	Atlantic Ocean	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0042/0086459/
Cruise WB0409	Atlantic Ocean	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0042/0086459/
Cruise WB0413	Atlantic Ocean	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0042/0086459/

Cruise WCOA11	North Atlantic Ocean	ftp://ftp.nodc.noaa.gov/nodc/archive/arc0072/0123607/
Cruise WCOA2011	Pacific Ocean	https://www.nodc.noaa.gov/archive/arc0093/0155173/1.1/data/0-data/
Lecture data	Ocean and Coastal	Sterner et al., 2008
Lecture data	China sea	Cai, P.H. et al., 2015
Lecture data	northern Adriatic Sea	Salvi et al., 1998
Lecture data	Columbia River Estuary	Small and Prahl, 2004

Lake Database

Lake datasets	**location**	**Data link and description**
Lacustrine Communities	Lacustrine Central Group	https://pasta.lternet.edu/package/metadata/eml/knb-lter-cdr/579/5
NWT LTER	Green Lake	https://pasta.lternet.edu/package/metadata/eml/knb-lter-nwt/107/8
MCML LTER	McMurdo Dry Valleys Lakes	https://pasta.lternet.edu/package/metadata/eml/knb-lter-mcm/57/9
NTL LTER	Great Lakes Group	https://pasta.lternet.edu/package/metadata/eml/knb-lter-ntl/278/6
Arctic LTER	Alaskan Lakes	https://pasta.lternet.edu/package/metadata/eml/knb-lter-arc/10090/3
Water/Soil Environment	Lake Kasumigaura	http://www.nies.go.jp/db/index-e.html
Lecture data	Northern American Lakes	Sterner et al., 2008
Lecture data	Norwegian Lakes	Sterner et al., 2008
Lecture data	Hokkaido Lakes	Sterner et al., 2008
Lecture data	Biwa Lake	Sterner et al., 2008
Lecture data	Hovsgol Lake	Sterner et al., 2008
Lecture data	Baikal Lake	Sterner et al., 2008
Lecture data	Taihu Lake	This study
WPlum Island LTER	Ipawich and Parker river (USA)	https://pasta.lternet.edu/package/metadata/eml/knb-lter-sbc/108/6
Lecture data	Skidaway River (USA)	Verity, 2002
Lecture data	Yukon River (USA)	Dornblaser and Striegl, 2007
Lecture data	Mississippi River (USA)	Trefry et al., 1994; Bianchi. et al., 2007
Lecture data	Union and Skokomish River (USA)	Ward et al., 2012
Lecture data	Yanagtze River (China)	Zhang et al., 2007; Wu et al., 2007;2007; Yu et al., 2011
Lecture data	Pearl River (China)	He et al., 2010; Guo et al., 2015
Lecture data	Paraiba do sul River (Brazil)	Suzuki et al., 2015
Lecture data	Amazon River (Brazil)	Suzuki et al., 2015; Ward et al., 2015; Rosengard, 2011
Lecture data	Fraser, Robson, Bowron, et al., 14 Rivers (Canada)	Voss, 2009
Lecture data	Mandovi River (India)	Fernandes, 2011; Khodse and Bhosle, 2013
Lecture data	Ping River (Thailand)	Ziegler et al., 2016
Lecture data	Russian Rivers (Russian)	Lobbes et al., 2000

Lecture data	Orinoco River (Venezuela)	Paolini, 1995
Lecture data	Fly River (Papua New Guinea)	Goni et al., 2006

Table S2 Relationship between PON and POC for each latitudinal range. Three mathematical functions $POC=A_0 \times PON+C_0$, $POC=A_1 \times PON$ and $POC=A_2 \times PON^{B2}$ were used to fit the relationship between PON and POC. The parameters and determined coefficients of each function are listed in the table. The R^2 with * marked is the best regression function for the POC and PON.

Items	$POC=A_0 \times PON+C_0$			$POC=A_1 \times PON$		$POC=A_2 \times PON^{B2}$			POC/PON	N
	A_0	C_0	R^2	A_1	R^2	A_2	B_2	R^2		
80-90N	8.828	0.080	0.772	9.294	0.767	6.211	0.835	0.832*	12.2±7.5	958
70-80N	7.081	0.221	0.932*	7.149	0.931	6.573	0.866	0.896	9.4±6.4	2321
60-70N	11.961	6.833	0.915	11.436	0.907	7.131	1.105	0.961*	7.6±2.7	211
50-60N	8.289	-0.142	0.835	8.262	0.835	7.547	1.016	0.937*	8.3±5.0	776
40-50N	5.929	1.486	0.850	6.401	0.836	7.547	0.872	0.875*	8.7±4.5	4913
30-40N	6.800	-1.126	0.881	6.582	0.879	6.399	0.948	0.911*	6.7±2.7	23441
20-30N	5.197	0.340	0.959*	5.336	0.956	5.528	0.903	0.870	6.6±2.8	2776
10-20N	6.920	2.496	0.876	7.038	0.876	7.488	0.974	0.953*	7.9±4.0	4335
0-10N	5.900	0.460	0.905*	6.448	0.890	6.379	0.897	0.853	7.5±2.6	1004
0-10S	7.607	0.345	0.836*	8.100	0.831	7.617	0.905	0.792	8.7±3.0	898
10-20S	6.190	0.961	0.895*	7.016	0.869	7.216	0.826	0.864	8.5±3.2	749
20-30S	5.521	1.120	0.896	5.994	0.883	6.823	0.830	0.936*	7.4±2.2	494
30-40S	6.621	0.362	0.951*	6.834	0.948	6.610	0.749	0.887	8.7±4.1	283
40-50S	14.909	-5.115	0.881	13.967	0.860	7.646	0.918	0.941*	8.7±3.6	1191
50-60S	6.133	0.577	0.898	6.585	0.888	6.945	0.910	0.965*	8.3±3.5	973
60-70S	5.984	1.424	0.930	6.025	0.930	7.349	0.889	0.939*	7.6±3.9	16002
70-80S	8.395	-5.181	0.928	7.849	0.917	7.961	0.868	0.973*	8.0±3.4	1858
mean	7.545	0.302	0.891	7.666	0.882	6.998	0.901	0.905		
STDEV	**2.498**	**2.658**	**0.047**	**2.169**	**0.048**	**0.645**	**0.081**	**0.052**		

Table S3 Relationship between PON and POC for each depth interval in the southern and northern hemispheres. Three mathematical functions $POC=A_0 \times PON+C_0$, $POC=A_1 \times PON$ and $POC=A_2 \times PON^{B2}$ were used to fit the relationship between PON and POC. The parameters and determined coefficients of each function are listed in the table.

Northern	$POC=A_0 \times PON+C_0$			$POC=A_1 \times PON$		$POC=A_2 \times PON^{B2}$			POC/PON	N
	A_0	C_0	R^2	A_1	R^2	A_2	B_2	R^2		
0-5m	5.534	3.078	0.898	5.867	0.889	7.493	0.897	0.941*	6.9±2.3	6476
5-10m	5.762	3.276	0.884*	6.268	0.871	8.664	0.801	0.868	6.7±2.1	3689

10-20m	6.347	0.438	0.936	6.411	0.935	7.208	0.878	0.948*	7.0±2.8	3754
20-80m	8.003	-3.386	0.914	7.650	0.908	7.602	0.902	0.959*	7.1±3.4	11511
>80m	7.173	-0.610	0.967	7.086	0.966	7.690	0.856	0.969*	8.4±6.5	15384
mean	7.110	0.646	0.898	7.002	0.897	6.675	0.956	0.934		
STDEV	**0.358**	**0.986**	**0.020**	**0.293**	**0.021**	**0.106**	**0.035**	**0.011**		

Southern	**POC=A$_0$×PON+C$_0$**			**POC=A$_1$×PON**		**POC=A$_2$×PON^{B2}**			**POC/PON**	**N**
	A$_0$	C$_0$	R^2	A$_1$	R^2	A$_2$	B$_2$	R^2		
0-5m	7.027	0.681	0.877	6.966	0.876	7.533	0.883	0.944*	7.9±4.4	5274
5-10m	6.410	0.377	0.903	6.440	0.902	7.482	0.877	0.938*	7.8±4.5	2329
10-20m	5.516	3.142	0.865	5.670	0.861	7.560	0.882	0.942*	7.9±5.0	3198
20-80m	6.366	0.480	0.953*	6.379	0.953	7.356	0.888	0.945	7.8±4.4	6758
>80m	5.274	2.534	0.909	5.335	0.907	7.200	0.891	0.947*	8.1±4.9	4940
mean	6.119	1.443	0.901	6.158	0.900	7.426	0.884	0.943		
STDEV	**0.716**	**1.296**	**0.034**	**0.651**	**0.035**	**0.149**	**0.005**	**0.004**		

Table S4 Relationship between PON and POC and offshore distance in the southern and northern hemispheres. Three mathematical functions POC=A$_0$×PON+C$_0$, POC=A$_1$×PON and POC=A$_2$×PON^{B2} were used to fit the relationship between PON and POC. The parameters and determined coefficients of each function are listed in the table.

Northern	**POC=A$_0$×PON+C$_0$**			**POC=A$_1$×PON**		**POC=A$_2$×PON^{B2}**			**POC/PON**	**N**
	A$_0$	C$_0$	R^2	A$_1$	R^2	A$_2$	B$_2$	R^2		
5 km	7.059	-1.326	0.937	6.852	0.935	6.471	1.003	0.957*	6.6±1.4	3131
5-10 km	8.059	2.586	0.887	7.750	0.883	6.684	0.979	0.958*	6.8±2.0	1385
10-15 km	8.424	-5.191	0.926	7.815	0.914	7.056	0.955	0.962*	7.0±2.1	1093
15-20 km	6.839	-0.701	0.942	6.696	0.941	6.658	0.951	0.945*	6.7±2.0	1146
20-30 km	6.866	-0.772	0.932	6.723	0.931	6.993	0.879	0.934*	7.3±3.2	2480
30-40 km	6.594	-0.182	0.932*	6.555	0.932	6.796	0.903	0.924	6.9±2.9	1880
40-50 km	7.096	0.915	0.882	7.143	0.882	7.358	0.963	0.953*	7.7±3.8	3766
50-75 km	8.520	-1.832	0.820	8.127	0.813	6.994	0.874	0.944*	8.6±5.1	1610
75-100 km	6.275	0.333	0.846	6.357	0.845	6.592	0.928	0.941*	7.4±3.7	1020
100-125 km	6.530	0.005	0.935	6.530	0.935	6.695	0.864	0.936*	8.1±4.4	966
125-150 km	6.189	0.762	0.931*	6.395	0.927	6.967	0.935	0.930	7.9±4.6	582
150-200 km	8.367	2.994	0.966*	8.146	0.962	6.535	0.939	0.936	7.1±3.2	1001
200-300 km	6.280	0.067	0.933*	6.271	0.933	6.451	0.893	0.919	7.5±4.4	1776
300-500 km	7.869	0.574	0.821	7.784	0.821	7.068	0.893	0.898*	8.7±5.6	3317
500-800 km	7.454	0.741	0.841	7.522	0.841	7.760	0.924	0.939*	8.9±4.9	2112

800-1100 km	6.220	1.857	0.908	6.326	0.906	7.183	0.998	0.945*	7.7±3.3	857
>1100 km	5.826	0.493	0.855	5.918	0.854	6.243	0.929	0.900*	6.9±3.6	13184
North	7.103	0.881	0.893	7.004	0.892	6.656	0.955	0.932*	7.5±4.6	41297
mean	7.086	0.078	0.900	6.995	0.897	6.853	0.930	0.937		
STDEV	**0.877**	**1.851**	**0.047**	**0.719**	**0.047**	**0.376**	**0.042**	**0.018**		

Southern	$POC=A_0\times PON+C_0$			$POC=A_1\times PON$		$POC=A_2\times PON^{B2}$			POC/PON	N
	A_0	C_0	R^2	A_1	R^2	A_2	B_2	R^2		
5 km	5.534	3.078	0.898	5.867	0.889	7.493	0.897	0.941*	8.3±10.1	4536
5-10 km	5.762	3.276	0.884*	6.268	0.871	8.664	0.801	0.868	7.6±3.1	598
10-15 km	5.634	2.570	0.952*	5.912	0.945	7.485	0.878	0.928	7.6±3.8	1196
15-20 km	5.156	4.301	0.853	5.530	0.838	7.699	0.854	0.912*	8.2±5.5	1378
20-30 km	7.687	-2.723	0.965*	7.645	0.965	7.165	0.875	0.945	7.6±4.0	1794
30-40 km	6.721	0.793	0.825	6.686	0.825	7.261	0.878	0.939*	7.5±3.5	1222
40-50 km	6.772	2.072	0.969*	6.756	0.969	7.501	0.870	0.951	8.3±4.8	733
50-75 km	6.200	0.915	0.919	6.323	0.918	7.409	0.853	0.932*	8.0±4.4	814
75-100 km	3.614	8.133	0.701	4.027	0.648	7.479	0.877	0.946*	7.9±4.3	910
100-125 km	5.471	2.559	0.948*	5.488	0.947	7.018	0.896	0.937	7.7±4.9	726
125-150 km	5.665	1.567	0.975*	5.698	0.975	6.957	0.899	0.947	7.4±3.6	511
150-200 km	4.416	4.793	0.918	4.609	0.903	6.996	0.890	0.964*	7.7±4.2	316
200-300 km	6.062	1.003	0.903	6.195	0.902	7.065	0.889	0.925*	7.4±4.2	541
300-500 km	6.347	0.438	0.936	6.411	0.935	7.208	0.878	0.948*	7.4±3.8	280
500-800 km	8.003	-3.386	0.914	7.650	0.908	7.602	0.902	0.959*	7.9±3.8	2207
800-1100 km	7.173	-0.610	0.967	7.086	0.966	7.690	0.856	0.969*	8.6±3.7	3985
>1100 km	5.719	1.092	0.840	6.010	0.831	7.142	0.895	0.939*	8.2±3.5	164
South	5.974	1.528	0.913	6.033	0.912	7.373	0.890	0.948*	7.8±3.8	21911
mean	5.996	1.757	0.904	6.127	0.896	7.402	0.876	0.938		
STDEV	**1.098**	**2.720**	**0.070**	**0.942**	**0.080**	**0.406**	**0.025**	**0.023**		

Table S5 Relationship between PON and POC for different lakes. Three mathematical functions $POC=A_0\times PON+C_0$, $POC=A_1\times PON$ and $POC=A_2\times PON^{B2}$ were used to fit the relationship between PON and POC. The parameters and determined coefficients of each function are listed in the table. Table S5 list the lake names and their abbreviations.

Items	$POC=A_0\times PON+C_0$			$POC=A_1\times PON$		$POC=A_2\times PON^{B2}$			POC/PON	N
	A_0	C_0	R^2	A_1	R^2	A_2	B_2	R^2		
MDV	7.689	9.426	0.717*	9.686	0.623	16.217	0.599	0.611	14.7±10.1	3024
ALa	8.418	4.139	0.766	9.157	0.755	11.490	0.858	0.921*	11.6±6.8	2037

NL	7.345	15.668	0.940*	7.913	0.924	13.340	0.842	0.935	10.4±2.8	119
BkL	7.912	-0.412	0.963*	7.765	0.963	7.812	0.979	0.954	7.8±0.9	64
HL	10.101	-0.468	0.797*	9.691	0.796	9.448	0.843	0.731	9.7±2.2	28
GLG	1.606	3.994	0.190	2.612	0.066	4.615	0.247	0.089	5.1±7.7	163
LCG	12.869	-1.856	0.946*	12.826	0.946*	13.473	0.971	0.920	12.8±3.1	93
NA	7.700	18.412	0.925	7.966	0.921	12.963	0.871	0.926*	10.0±2.9	133
HkL	7.499	3.009	0.941*	7.566	0.941*	8.384	0.966	0.925	8.6±3.9	21
GL	7.800	11.132	0.933	7.967	0.931	10.745	0.932	0.949*	9.6±2.7	175
KkL	6.435	24.082	0.889	6.818	0.884	9.582	0.916	0.917*	7.1±1.5	4678
BwL	7.048	7.449	0.868*	8.202	0.839	11.606	0.811	0.844	8.8±1.6	79
ThL	7.274	-103.900	0.805*	5.757	0.742	1.278	1.220	0.492	4.0±4.0	82
Mean	7.531	6.738	0.796*	7.929	0.756	11.601	0.850	0.772		
STDEV	**2.328**	**40.756**	**0.221**	**2.181**	**0.280**	**7.393**	**0.215**	**0.247**		

Table S6 Relationship between PON and POC for different rivers. Three mathematical functions $POC=A_0\times PON+C_0$, $POC=A_1\times PON$ and $POC=A_2\times PON^{B2}$ were used to fit the relationship between PON and POC. The parameters and determined coefficients of each function are listed in the table. PR is Pearl River (China), YZR is Yanagtze River (China), PDSR is paraiba do sul River (Brazil), AMR is Amazon River (Brazil), FLR is Fly River (Papua New Guinea), FRR is Fraser River (Canada), YKR isYukon River (USA), MISR is Mississippi River (USA), RUR is Russian rivers (Russian), PIR is Ping River (Thailand), USR is Union and Skokomish River (USA), ORR is Orinoco river(Venezuela), DMR is Mandovi river (India), SkR is Skidaway River (USA), IPPR is Ipswich and Parker rivers (USA).

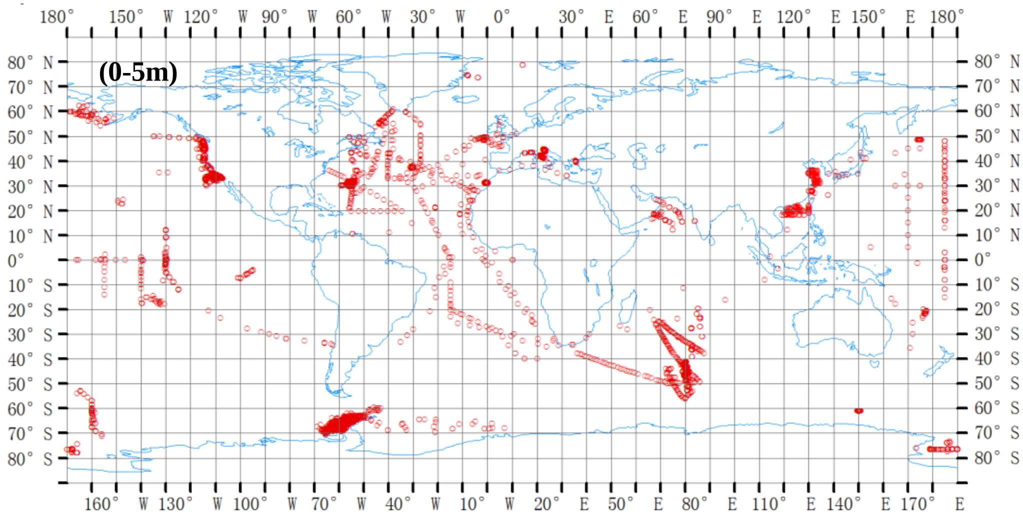
Items	$POC=A_0\times PON+C_0$			$POC=A_1\times PON$		$POC=A_2\times PON^{B2}$			POC/PON	N
	A_0	C_0	R^2	A_1	R^2	A_2	B_2	R^2		
PR	5.496	1.589	0.816*	5.577	0.816*	10.153	0.759	0.718	6.0±1.9	54
YZR	15.957	-483.79	0.858	14.730	0.851	20.498	0.931	0.905*	14.4±3.0	23
PDSR	3.866	88.846	0.781	6.021	0.493	25.179	0.619	0.833*	9.0±5.8	20
AMR	12.506	-127.73	0.780	11.705	0.775	8.483	1.047	0.920*	10.8±3.3	36
FLR	18.557	40.388	0.937*	19.560	0.931	20.137	1.004	0.933	21.5±8.5	19
FRR	12.487	-7.112	0.966*	11.663	0.957	8.702	1.068	0.935	9.7±2.5	55
YKR	16.877	2.177	0.992*	16.973	0.992	16.540	1.001	0.986	16.9±3.8	26
MISR	10.251	-6.326	0.966	9.871	0.964	8.044	1.072	0.977*	9.7±0.7	29
RUR	8.669	15.902	0.948	9.543	9.332	13.971	0.876	0.967*	10.9±1.8	21
PIR	14.249	-35.624	0.928	13.482	0.923	9.703	1.072	0.960*	12.3±2.8	15
USR	14.225	-8.2007	0.970*	14.203	0.969	17.531	0.884	0.884	14.8±4.7	57
ORR	7.105	10.048	0.957	7.525	0.952	10.144	0.905	0.960*	7.9±1.2	35

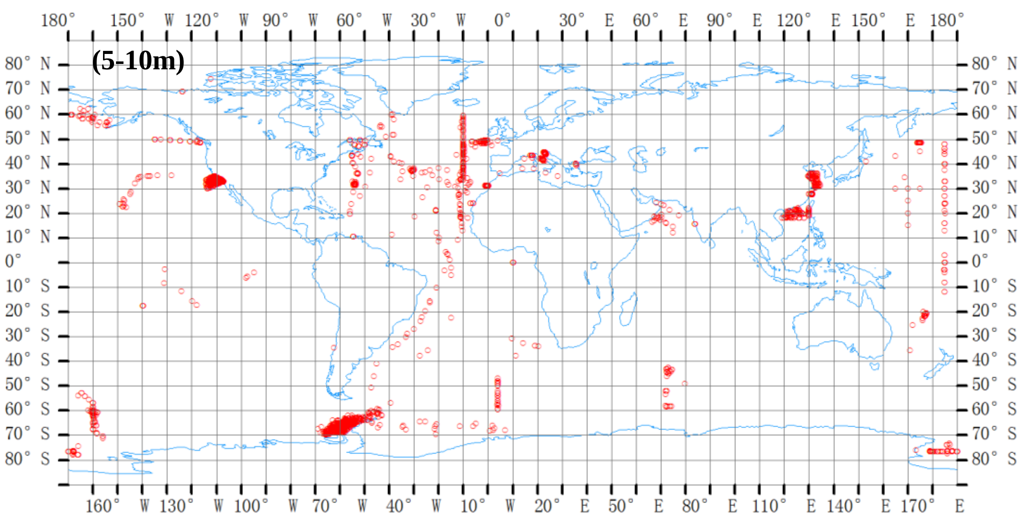
DMR	4.332	11.933	0.912*	5.343	0.847	14.889	0.620	0.653	7.8±4.4	17
SkR	7.498	2.433	0.863*	7.700	0.863*	8.326	0.967	0.855	7.7±0.7	956
IPPR	5.773	107.960	0.391	7.310	0.151	34.735	0.731	0.518*	28.7±18.6	223
Mean	10.523	-25.834	0.871	10.747	0.828	15.136	0.904	0.867		
STDEV	**4.815**	**137.184**	**0.150**	**4.354**	**0.224**	**7.604**	**0.156**	**0.136**		

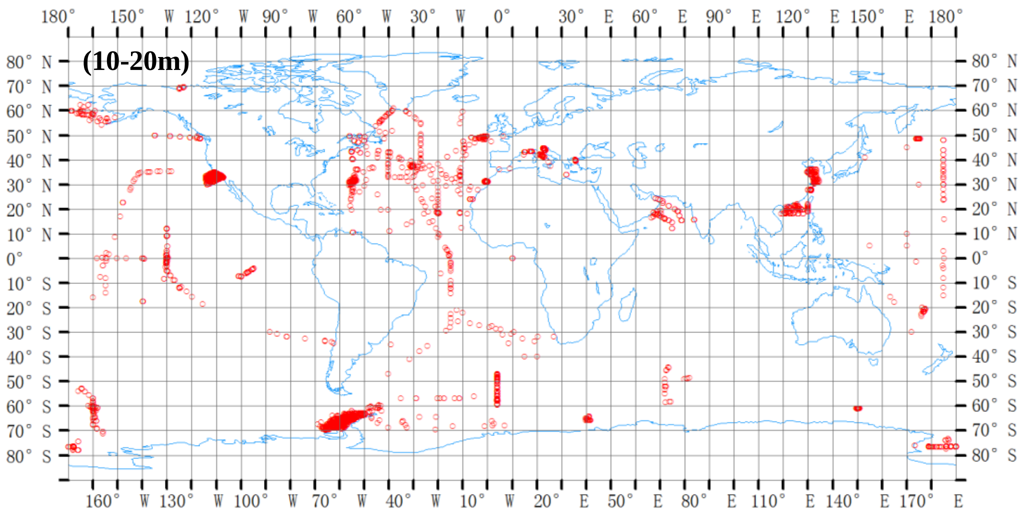
Table S7 Parallel table of lake names and their abbreviations.

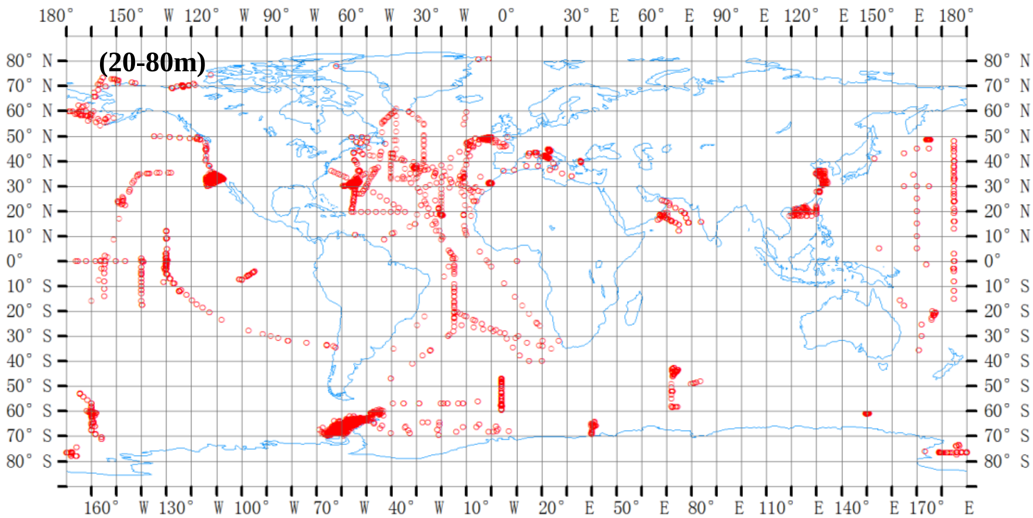
Name	**Full name**	**Nation**	**Latitude**
MDV	McMurdo Dry Valleys Lakes	Antarctica	-77.09
ALa	Alaskan Lakes	USA	68.59
NL	Norwegian Lakes	Norway	60.69
BkL	Lake Baikal	Russia	53.99
HL	Lake Hovsgol	Mongolia	51.12
GLG	Great Lakes Group	USA	45.52
LCG	Lacustrine Central Group	USA	45.42
NA	Northern American Lakes	USA	43.81
HkL	Hokkaido Lakes	Japan	43.54
GL	Green Lake	Canada	39.99
KkL	Lake Kasumigaura	Japan	36.15
BwL	Lake Biwa	Japan	35.33
ThL	Lake Taihu	China	31.18

Figure S1 Global distribution of paired samples of POC and PON for each depth interval, the original map data of world vector downloaded from http://www.naturalearthdata.com/.


(0-5m)


(5-10m)


(10-20m)


(20-80m)

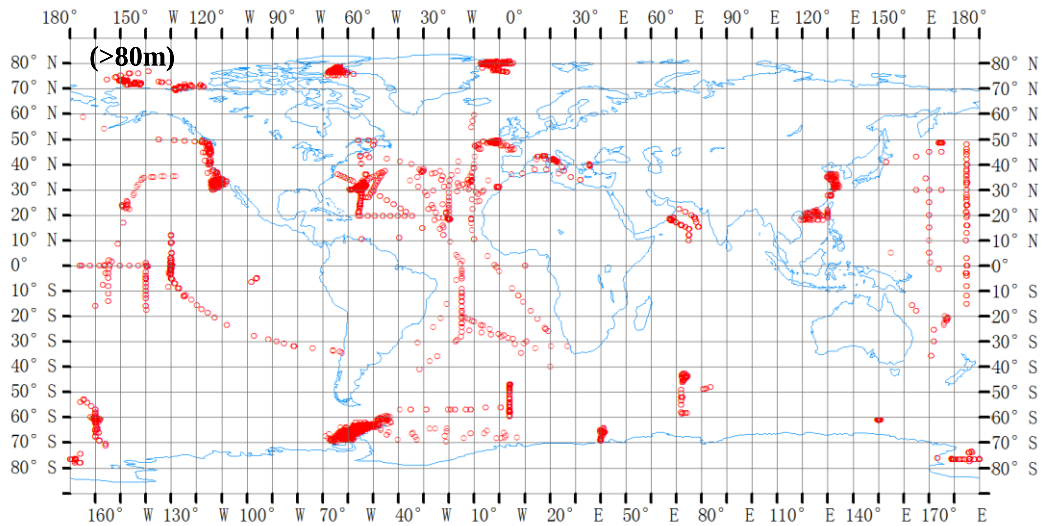


Figure S2 the establishment of buffers for different distance from offshore implemented by Arcgis 10 (Esri). the original map data of world vector downloaded from http://www.naturalearthdata.com/.

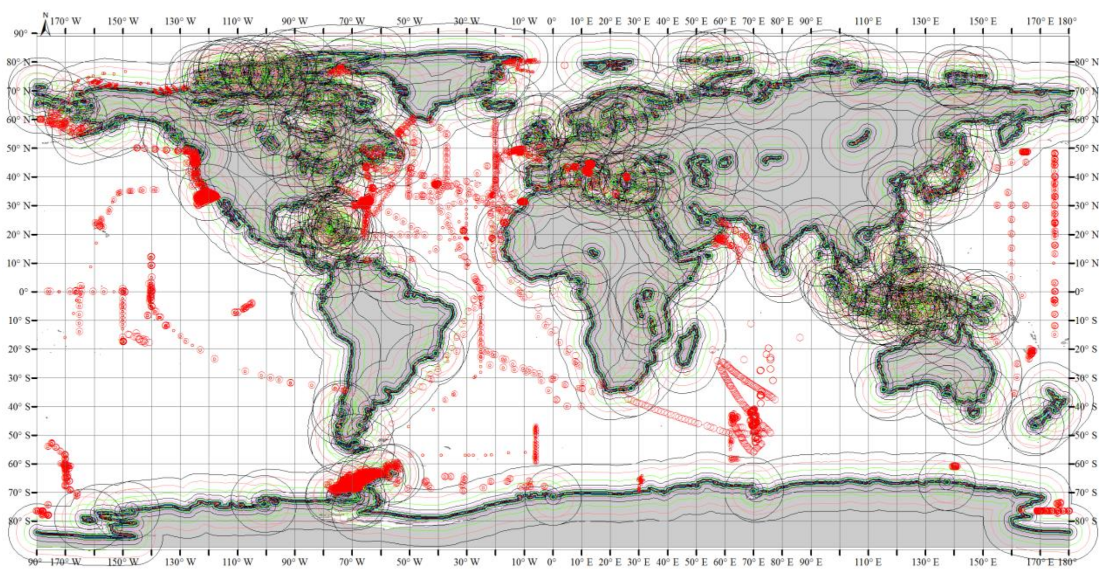


Figure S3 scatter plot of POC and PON for each depth range. The relationships between POC and PON were listed in Table S3.

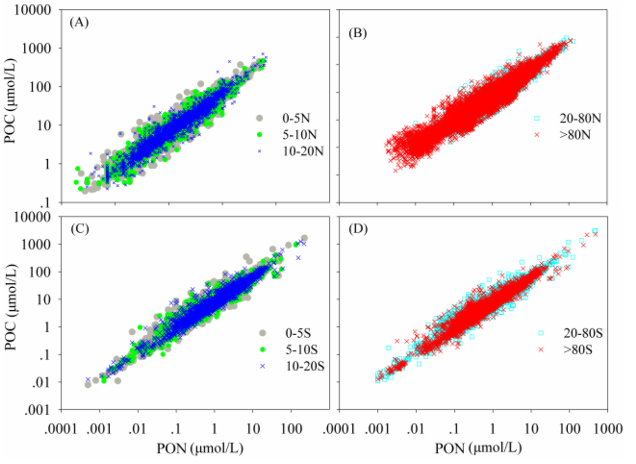


Figure S4 scatter plot of POC and PON for different distance from offshore. The relationships between POC and PON were listed in Table S4.

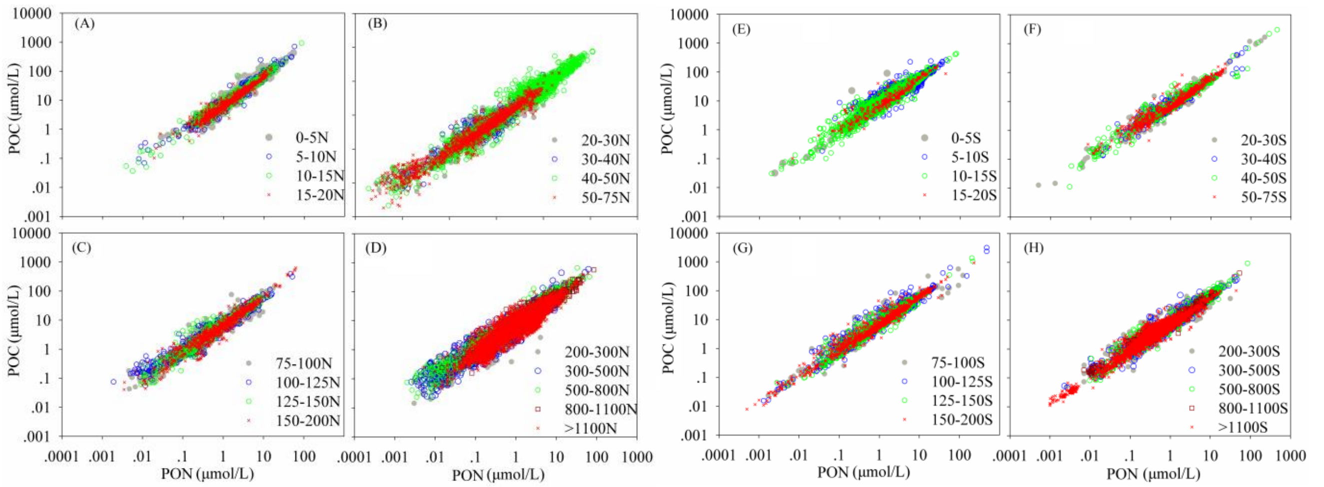


Figure S5 scatter plot of POC and PON for each lake. The relationships between POC and PON were listed in Table S5.

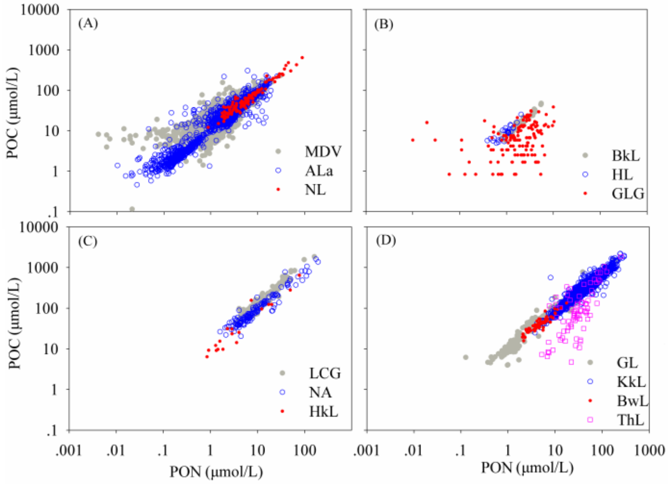
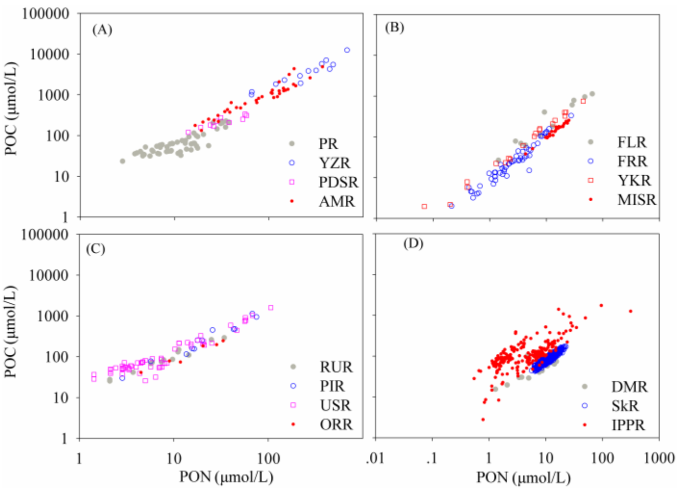


Figure S6 scatter plot of POC and PON for each river. The relationships between POC and PON were listed in Table S6.



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