

Yves Prairie

List of Publications by Year in descending order

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Version: 2024-02-01

127
papers

15,609
citations

34016

52
h-index

18075

120
g-index

132
all docs

132
docs citations

132
times ranked

11477
citing authors

#	ARTICLE	IF	CITATIONS
1	Plumbing the Global Carbon Cycle: Integrating Inland Waters into the Terrestrial Carbon Budget. <i>Ecosystems</i> , 2007, 10, 172-185.	1.6	2,836
2	Lakes and reservoirs as regulators of carbon cycling and climate. <i>Limnology and Oceanography</i> , 2009, 54, 2298-2314.	1.6	1,977
3	The global abundance and size distribution of lakes, ponds, and impoundments. <i>Limnology and Oceanography</i> , 2006, 51, 2388-2397.	1.6	1,426
4	Carbon emission from hydroelectric reservoirs linked to reservoir age and latitude. <i>Nature Geoscience</i> , 2011, 4, 593-596.	5.4	600
5	Sediment organic carbon burial in agriculturally eutrophic impoundments over the last century. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	1.9	399
6	Patterns and regulation of dissolved organic carbon: An analysis of 7,500 widely distributed lakes. <i>Limnology and Oceanography</i> , 2007, 52, 1208-1219.	1.6	391
7	Flow cytometric determination of bacterial abundance in lake plankton with the green nucleic acid stain SYTO 13. <i>Limnology and Oceanography</i> , 1996, 41, 783-789.	1.6	326
8	Prevalence of Heterotrophy and Atmospheric CO ₂ Emissions from Aquatic Ecosystems. <i>Ecosystems</i> , 2005, 8, 862-870.	1.6	307
9	Whatâ€™s in an EEM? Molecular Signatures Associated with Dissolved Organic Fluorescence in Boreal Canada. <i>Environmental Science & Technology</i> , 2014, 48, 10598-10606.	4.6	292
10	Global abundance and size distribution of streams and rivers. <i>Inland Waters</i> , 2012, 2, 229-236.	1.1	257
11	Change of fire frequency in the eastern Canadian boreal forests during the Holocene: does vegetation composition or climate trigger the fire regime?. <i>Journal of Ecology</i> , 2001, 89, 930-946.	1.9	232
12	Oxic water column methanogenesis as a major component of aquatic CH ₄ fluxes. <i>Nature Communications</i> , 2014, 5, 5350.	5.8	222
13	The relationship between nearâ€‘surface turbulence and gas transfer velocity in freshwater systems and its implications for floating chamber measurements of gas exchange. <i>Limnology and Oceanography</i> , 2010, 55, 1723-1732.	1.6	203
14	Methane ebullition and diffusion from northern ponds and lakes regulated by the interaction between temperature and system productivity. <i>Limnology and Oceanography</i> , 2016, 61, S62.	1.6	188
15	The summer metabolic balance in the epilimnion of southeastern Quebec lakes. <i>Limnology and Oceanography</i> , 2002, 47, 316-321.	1.6	185
16	Bacterial metabolism and growth efficiency in lakes: The importance of phosphorus availability. <i>Limnology and Oceanography</i> , 2004, 49, 137-147.	1.6	184
17	Unifying Nutrientâ€‘Chlorophyll Relationships in Lakes. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1989, 46, 1176-1182.	0.7	181
18	Change of fire frequency in the eastern Canadian boreal forests during the Holocene: does vegetation composition or climate trigger the fire regime?. , 2001, 89, 930.		172

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19	Patterns in CO_2 in boreal streams and rivers of northern Quebec, Canada. <i>Global Biogeochemical Cycles</i> , 2009, 23, .	1.9	152
20	The ecosystem size and shape dependence of gas transfer velocity versus wind speed relationships in lakes. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2013, 70, 1757-1764.	0.7	151
21	Greenhouse Gas Emissions from Freshwater Reservoirs: What Does the Atmosphere See?. <i>Ecosystems</i> , 2018, 21, 1058-1071.	1.6	145
22	Carbocentric limnology: looking back, looking forward. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2008, 65, 543-548.	0.7	139
23	Respiration in lakes. , 2005, , 103-121.		139
24	CO_2 emissions from saline lakes: A global estimate of a surprisingly large flux. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	137
25	Fluorescent dissolved organic matter in lakes: Relationships with heterotrophic metabolism. <i>Limnology and Oceanography</i> , 2004, 49, 2034-2045.	1.6	135
26	Browning of Boreal Freshwaters Coupled to Carbon-Iron Interactions along the Aquatic Continuum. <i>PLoS ONE</i> , 2014, 9, e88104.	1.1	134
27	Some aspects of the analysis of size spectra in aquatic ecology. <i>Limnology and Oceanography</i> , 1997, 42, 184-192.	1.6	132
28	Large increases in carbon burial in northern lakes during the Anthropocene. <i>Nature Communications</i> , 2015, 6, 10016.	5.8	124
29	The study of carbon in inland waters "from isolated ecosystems to players in the global carbon cycle. <i>Limnology and Oceanography Letters</i> , 2018, 3, 41-48.	1.6	118
30	The net carbon footprint of a newly created boreal hydroelectric reservoir. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	1.9	117
31	Large-scale patterns in summer diffusive CH_4 fluxes across boreal lakes, and contribution to diffusive C emissions. <i>Global Change Biology</i> , 2015, 21, 1124-1139.	4.2	116
32	Some misconceptions about the spurious correlation problem in the ecological literature. <i>Oecologia</i> , 1989, 81, 285-288.	0.9	113
33	Coupling Between Rates of Bacterial Production and the Abundance of Metabolically Active Bacteria in Lakes, Enumerated Using CTC Reduction and Flow Cytometry. <i>Microbial Ecology</i> , 1997, 34, 144-154.	1.4	111
34	Evaluating the predictive power of regression models. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1996, 53, 490-492.	0.7	109
35	Regulation of spatial and temporal variability of carbon flux in six hardwater lakes of the northern Great Plains. <i>Limnology and Oceanography</i> , 2009, 54, 2553-2564.	1.6	105
36	Element export in runoff from eastern Canadian Boreal Shield drainage basins following forest harvesting and wildfires. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2000, 57, 118-128.	0.7	102

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37	Spatial Heterogeneity of Surface CO ₂ Fluxes in a Newly Created Eastmain-1 Reservoir in Northern Quebec, Canada. <i>Ecosystems</i> , 2011, 14, 28-46.	1.6	92
38	Whole-system metabolism and CO ₂ fluxes in a Mediterranean Bay dominated by seagrass beds (Palma Bay, NW Mediterranean). <i>Biogeosciences</i> , 2005, 2, 43-60.	1.3	91
39	Empirical study of cyanobacterial toxicity along a trophic gradient of lakes. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2005, 62, 2100-2109.	0.7	91
40	pH change induces shifts in the size and light absorption of dissolved organic matter. <i>Biogeochemistry</i> , 2012, 108, 109-118.	1.7	91
41	The CO ₂ dynamics in lakes in the boreal region of northern Québec, Canada. <i>Global Biogeochemical Cycles</i> , 2009, 23, .	1.9	88
42	Effects of thermocline deepening on lake plankton communities. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2011, 68, 260-276.	0.7	85
43	Linking organic carbon sedimentation, burial efficiency, and long-term accumulation in boreal lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 836-847.	1.3	84
44	No Longer a Paradox: The Interaction Between Physical Transport and Biological Processes Explains the Spatial Distribution of Surface Water Methane Within and Across Lakes. <i>Ecosystems</i> , 2018, 21, 1073-1087.	1.6	81
45	Long-term C accumulation and total C stocks in boreal lakes in northern Québec. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	1.9	80
46	Anthropogenic alteration of nutrient supply increases the global freshwater carbon sink. <i>Science Advances</i> , 2020, 6, eaaw2145.	4.7	80
47	Practical guidelines for the use of zooplankton length-weight regression equations. <i>Journal of Plankton Research</i> , 1985, 7, 955-960.	0.8	77
48	The NSERC Canadian Lake Pulse Network: A national assessment of lake health providing science for water management in a changing climate. <i>Science of the Total Environment</i> , 2019, 695, 133668.	3.9	68
49	Methane oxidation kinetics in northern freshwater lakes. <i>Biogeochemistry</i> , 2019, 143, 105-116.	1.7	64
50	EFFECT OF CATCHMENT SIZE ON PHOSPHORUS EXPORT. <i>Journal of the American Water Resources Association</i> , 1986, 22, 465-470.	1.0	62
51	The Relative Contribution of Winter Under-Ice and Summer Hypolimnetic CO ₂ Accumulation to the Annual CO ₂ Emissions from Northern Lakes. <i>Ecosystems</i> , 2015, 18, 547-559.	1.6	61
52	Modeling Allochthonous Dissolved Organic Carbon Mineralization Under Variable Hydrologic Regimes in Boreal Lakes. <i>Ecosystems</i> , 2017, 20, 781-795.	1.6	60
53	Subsurface viruses and bacteria in Holocene/Late Pleistocene sediments of Saanich Inlet, BC: ODP Holes 1033B and 1034B, Leg 169S. <i>Marine Geology</i> , 2001, 174, 227-239.	0.9	58
54	A new pathway of freshwater methane emissions and the putative importance of microbubbles. <i>Inland Waters</i> , 2013, 3, 311-320.	1.1	55

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55	Linking forest fires to lake metabolism and carbon dioxide emissions in the boreal region of Northern Quebec. <i>Global Change Biology</i> , 2009, 15, 2861-2873.	4.2	54
56	The Optical, Chemical, and Molecular Dissolved Organic Matter Succession Along a Boreal Soil-Stream-River Continuum. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 2892-2908.	1.3	49
57	Fractal dimension estimates of a fragmented landscape: sources of variability. <i>Landscape Ecology</i> , 1994, 9, 279-286.	1.9	48
58	The Extent and Regulation of Summer Methane Oxidation in Northern Lakes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 3216-3230.	1.3	48
59	Improving the accuracy of electricity carbon footprint: Estimation of hydroelectric reservoir greenhouse gas emissions. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 136, 110433.	8.2	47
60	The relative importance of biological and chemical processes in the release of phosphorus from a highly organic sediment. <i>Hydrobiologia</i> , 1993, 253, 141-150.	1.0	44
61	Year-2020 Global Distribution and Pathways of Reservoir Methane and Carbon Dioxide Emissions According to the Greenhouse Gas From Reservoirs (G&res) Model. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006888.	1.9	44
62	Title is missing!. <i>Journal of Paleolimnology</i> , 2002, 27, 151-171.	0.8	43
63	Direct and indirect metabolic CO<sub>2</sub& release by humanity. <i>Biogeosciences</i> , 2007, 4, 215-217.	1.3	41
64	Temporal variability in the chemical characteristics along the Rivier de l'Achigan: How many samples are necessary to describe stream chemistry?. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1995, 52, 828-835.	0.7	40
65	Predicting bathymetric features of lakes from the topography of their surrounding landscape. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2015, 72, 643-650.	0.7	40
66	Variability in Fire Frequency and Forest Composition in Canada's Southeastern Boreal Forest: A Challenge for Sustainable Forest Management. <i>Ecology and Society</i> , 1998, 2, .	0.9	38
67	Influence of ultraviolet-B radiation, stratospheric ozone variability, and thermal stratification on the phytoplankton biomass dynamics in a mesohumic lake. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2000, 57, 600-609.	0.7	36
68	In situ dissolved organic carbon (DOC) release by submerged macrophyte"epiphyte communities in southern Quebec lakes. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2009, 66, 1522-1531.	0.7	36
69	Technical note: CO<sub>2</sub& is not like CH<sub>4</sub&: limits of and corrections to the headspace method to analyse <math>p</math>/<math>i</math>/CO<sub>2</sub& in fresh water. <i>Biogeosciences</i> , 2021, 18, 1619-1627.	1.3	36
70	Title is missing!. <i>Journal of Paleolimnology</i> , 2001, 26, 411-422.	0.8	35
71	Risk analysis of dissolved organic matter-mediated ultraviolet B exposure in Canadian inland waters. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2004, 61, 2511-2521.	0.7	35
72	Thermocline deepening and mixing alter zooplankton phenology, biomass and body size in a whole"lake experiment. <i>Freshwater Biology</i> , 2014, 59, 998-1011.	1.2	35

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73	Large-scale Landscape Drivers of CO ₂ , CH ₄ , DOC, and DIC in Boreal River Networks. <i>Global Biogeochemical Cycles</i> , 2019, 33, 125-142.	1.9	35
74	Evidence for surface organic matter modulation of air-sea CO ₂ and gas exchange. <i>Biogeosciences</i> , 2009, 6, 1105-1114.	1.3	34
75	Natural variability and the estimation of empirical relationships: a reassessment of regression methods. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1995, 52, 788-798.	0.7	33
76	Title is missing!. <i>Journal of Paleolimnology</i> , 2003, 29, 123-133.	0.8	32
77	Depositional fluxes and sources of particulate carbon and nitrogen in natural lakes and a young boreal reservoir in Northern Québec. <i>Biogeochemistry</i> , 2013, 113, 323-339.	1.7	31
78	Title is missing!. <i>Journal of Paleolimnology</i> , 2002, 27, 465-480.	0.8	30
79	Functional diversity is positively associated with biomass for lake diatoms. <i>Freshwater Biology</i> , 2010, 55, 1636-1646.	1.2	30
80	Niche separation within aerobic methanotrophic bacteria across lakes and its link to methane oxidation rates. <i>Environmental Microbiology</i> , 2020, 22, 738-751.	1.8	30
81	Is the introduction of benthic species necessary for open-water chemical reconstruction in diatom-based transfer functions?. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2002, 59, 938-951.	0.7	28
82	Statistical models for the estimation of net phosphorus sedimentation in lakes. <i>Aquatic Sciences</i> , 1989, 51, 192-210.	0.6	26
83	Dissolved Phosphorus Dynamics in Headwater Streams. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1988, 45, 200-209.	0.7	24
84	Tailoring palaeolimnological diatom-based transfer functions. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2004, 61, 2440-2454.	0.7	24
85	A new modelling framework to assess biogenic GHG emissions from reservoirs: The G-res tool. <i>Environmental Modelling and Software</i> , 2021, 143, 105117.	1.9	24
86	Particulate Phosphorus Dynamics in Headwater Streams. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1988, 45, 210-215.	0.7	23
87	Large-scale biogeography and environmental regulation of methanotrophic bacteria across boreal inland waters. <i>Molecular Ecology</i> , 2019, 28, 4181-4196.	2.0	23
88	Benthic and pelagic sources of carbon dioxide in boreal lakes and a young reservoir (Eastmain-1) in eastern Canada. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	1.9	22
89	THE INFLUENCE OF SUBMERGED MACROPHYTES ON SEDIMENTARY DIATOM ASSEMBLAGES ¹ . <i>Journal of Phycology</i> , 2011, 47, 1230-1240.	1.0	21
90	Apparent and real bias in numerical transfer functions in palaeolimnology. <i>Journal of Paleolimnology</i> , 2004, 31, 117-124.	0.8	20

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91	Changes in sediment viral and bacterial abundances with hypolimnetic oxygen depletion in a shallow eutrophic Lac Brome (Quebec, Canada). <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2000, 57, 1284-1290.	0.7	19
92	The carbon footprint of a Malaysian tropical reservoir: measured versus modelled estimates highlight the underestimated key role of downstream processes. <i>Biogeosciences</i> , 2020, 17, 515-527.	1.3	19
93	Paleolimnological reconstruction of forest fire induced changes in lake biogeochemistry (Lac Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.7	17
94	Rapid accretion of dissolved organic carbon in the springs of Florida: the most organic-poor natural waters. <i>Biogeosciences</i> , 2010, 7, 4051-4057.	1.3	17
95	Magnitude and drivers of integrated fluvial network greenhouse gas emissions across the boreal landscape in QuÃ©bec. <i>Water Research</i> , 2020, 173, 115556.	5.3	16
96	Magnitude and Drivers of Oxidic Methane Production in Small Temperate Lakes. <i>Environmental Science & Technology</i> , 2022, 56, 11041-11050.	4.6	16
97	The carbon footprint of large- and mid-scale hydropower in China: Synthesis from five China's largest hydro-project. <i>Journal of Environmental Management</i> , 2019, 250, 109363.	3.8	15
98	Title is missing!. <i>Journal of Paleolimnology</i> , 2003, 30, 167-181.	0.8	14
99	Changing sources and processes sustaining surface CO ₂ and CH ₄ fluxes along a tropical river to reservoir system. <i>Biogeosciences</i> , 2021, 18, 1333-1350.	1.3	14
100	Landscape heterogeneity influences carbon dioxide production in a young boreal reservoir. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2012, 69, 447-456.	0.7	13
101	Effects of late Holocene wildfires on diatom assemblages in Christina Lake, Alberta, Canada. <i>Canadian Journal of Forest Research</i> , 2003, 33, 2405-2415.	0.8	12
102	Diatom-inferred decline of macrophyte abundance in lakes of southern Quebec, Canada. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2012, 69, 511-524.	0.7	12
103	Changes in fish populations affected by the construction of the La Grande complex (Phase I), James Bay region, Quebec. <i>Canadian Journal of Zoology</i> , 1995, 73, 1860-1877.	0.4	11
104	Simulating carbon dioxide exchange in boreal ecosystems flooded by reservoirs. <i>Ecological Modelling</i> , 2016, 327, 1-17.	1.2	11
105	Coupling of stable carbon isotopic signature of methane and ebullitive fluxes in northern temperate lakes. <i>Science of the Total Environment</i> , 2021, 777, 146117.	3.9	11
106	On the use of structured time-series to detect and test hypotheses about within-lakes relationships. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1995, 52, 799-803.	0.7	10
107	PaleoNet: new software for building, evaluating and applying neural network based transfer functions in paleoecology. <i>Journal of Paleolimnology</i> , 2007, 38, 467-472.	0.8	10
108	The potential of Earth Observation in modelling nutrient loading and water quality in lakes of southern QuÃ©bec, Canada. <i>Aquatic Sciences</i> , 2018, 80, 1.	0.6	10

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109	Adjusting chlorophyll-a estimates through temporal weighting based on the seasonal development of phytoplankton biomass. <i>Aquatic Sciences</i> , 1994, 56, 106-114.	0.6	9
110	Anaerobic phosphorus release from sediments: a paradigm revisited. <i>Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology</i> , 2001, 27, 4013-4020.	0.1	9
111	The role of methanotrophy in the microbial carbon metabolism of temperate lakes. <i>Nature Communications</i> , 2022, 13, 43.	5.8	9
112	Model-Data Fusion to Test Hypothesized Drivers of Lake Carbon Cycling Reveals Importance of Physical Controls. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 1130-1142.	1.3	8
113	Modelling CO ₂ emissions from water surface of a boreal hydroelectric reservoir. <i>Science of the Total Environment</i> , 2018, 612, 392-404.	3.9	8
114	Rapid shifts in methanotrophic bacterial communities mitigate methane emissions from a tropical hydropower reservoir and its downstream river. <i>Science of the Total Environment</i> , 2020, 748, 141374.	3.9	8
115	Long-Term Trends in pCO ₂ in Lake Surface Water Following Rebrowning. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	8
116	The relative influence of topography and land cover on inorganic and organic carbon exports from catchments in southern Quebec, Canada. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2562-2578.	1.3	7
117	Travel Time and Source Variation Explain the Molecular Transformation of Dissolved Organic Matter in an Alpine Stream Network. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005616.	1.3	7
118	Mesozooplankton grazing and primary production: Reply to the comment by Laws. <i>Limnology and Oceanography</i> , 2003, 48, 1359-1362.	1.6	6
119	Weak density-dependence and short-term perturbations as determinants of phytoplankton temporal dynamics. <i>Ecoscience</i> , 1996, 3, 451-460.	0.6	5
120	Improving estimates and forecasts of lake carbon dynamics using data assimilation. <i>Limnology and Oceanography: Methods</i> , 2019, 17, 97-111.	1.0	3
121	The relative importance of seasonality versus regional and network-specific properties in determining the variability of fluvial CO ₂ , CH ₄ and dissolved organic carbon across boreal Québec. <i>Aquatic Sciences</i> , 2021, 83, 1.	0.6	3
122	A comment on "Nutrient status and nutrient competition of phytoplankton in a shallow, hypertrophic lake" (Sommer). <i>Limnology and Oceanography</i> , 1990, 35, 778-779.	1.6	2
123	The Carbon Cycle in Lakes: A Biogeochemical Perspective. , 2021, , .		2
124	Insights on riverine metabolism from continuous measurements of CDOM fluorescence in Eastmain-1 Reservoir, Quebec. <i>Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology</i> , 2010, 30, 1545-1548.	0.1	1
125	Sulfate and nitrate retention in lakes. <i>Verhandlungen Der Internationalen Vereinigung Fur Theoretische Und Angewandte Limnologie International Association of Theoretical and Applied Limnology</i> , 1990, 24, 152-154.	0.1	0
126	Weak density-dependence and short-term perturbations as determinants of phytoplankton temporal dynamics. <i>Ecoscience</i> , 1997, 4, 120-120.	0.6	0

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127	ROLE OF AQUATIC NETWORKS IN THE BOREAL CARBON CYCLE: EMERGING ISSUES WORKSHOP REPORT. Limnology and Oceanography Bulletin, 2011, 20, 36-37.	0.2	0