

Water quality of the Sha Chau & Lung Kwu Chau Marine Park in Year 2001

	N Lung Kwu Chau			Pak Chau		
No. of sample	4			4		
Depth	Surface	Middle	Bottom	Surface	Middle	Bottom
Temperature (°C)	24.47 (22-28.07)	24.12 (20.99-28.12)	23.83 (20.90-28.23)	24.58 (21.09-28.06)	23.94 (21.10-28.15)	23.92 (21.17-28.10)
Salinity (ppt)	19.45 (10.10-30.20)	21.63 (13.10-30.40)	26.73 (26.60-30.70)	18.73 (8.60-28.70)	26.83 (23.40-28.90)	27.65 (25.10-29.80)
Dissolved Oxygen (mg/L)	5.94 (4.46-6.53)	5.81 (4.38-6.39)	5.48 (3.91-6.55)	6.07 (4.88-6.97)	5.31 (3.63-6.63)	5.27 (3.52-6.67)
pH	8.00 (7.80-8.20)	8.00 (7.80-8.20)	8.03 (7.90-8.20)	7.93 (7.70-8.10)	8.00 (7.80-8.20)	8.03 (7.80-8.20)
Secchi Depth (m)	1.13 (1-1.50)			1.18 (1.00-1.40)		
Turbidity (NTU)	9.00 (7.70-11.10)	12.63 (5.90-25.10)	16.95 (9.60-28.40)	8.55 (6.10-11.40)	11.68 (6.20-16.40)	35.95 (9.10-23.50)
Suspended Solids (mg/L)	6.83 (4.24-9.11)	11.84 (4.93-28.60)	12.10 (4.80-27.10)	6.42 (4.34-8.40)	6.77 (5.07-10.80)	9.53 (5.24-16.06)
BOD (mg/L)	1.55 (1.15-2.23)	1.55 (1.20-1.92)	1.53 (1.23-2.06)	1.85 (1.22-2.96)	1.86 (1.23-3.34)	1.91 (1.09-3.93)
Ammoniacal Nitrogen (mg/L)	0.320 (0.01-0.87)	0.310 (0.02-0.87)	0.290 (0.18-0.85)	0.630 (0.01-1.19)	0.720 (0.01-1.14)	0.370 (0.01-0.75)
Unionized Ammonia (mg/L)	0.040 (0.00-0.09)	0.040 (0.00-0.09)	0.030 (0.00-0.09)	0.110 (0.00-0.25)	0.110 (0.00-0.14)	0.060 (0.00-0.14)
Nitrite Nitrogen (mg/L)	1.180 (0.05-3.07)	1.150 (0.04-3.10)	1.080 (0.04-3.26)	1.110 (0.08-2.91)	1.140 (0.08-3.35)	0.910 (0.06-2.79)
Nitrate Nitrogen (mg/L)	5.840 (1.42-8.66)	5.240 (1.29-8.72)	3.680 (1.32-6.07)	5.120 (1.90-7.47)	3.970 (2.09-4.29)	2.890 (1.80-4.39)
Total Inorganic Nitrogen (mg/L)	5.510 (1.32-11.75)	7.150 (1.49-11.84)	5.460 (1.48-9.34)	6.870 (3.08-10.20)	5.820 (3.21-9.45)	4.170 (2.47-7.19)
Total Kjeldahl Nitrogen (mg/L)	1.140 (0.22-2.37)	1.400 (0.38-3.15)	1.160 (0.51-2.31)	1.340 (0.71-2.38)	1.250 (0.43-2.32)	1.250 (0.65-3.06)
Total Nitrogen (mg/L)	7.890 (1.68-14.11)	7.500 (2.11-14.97)	5.650 (1.93-11.64)	7.330 (3.15-12.57)	6.140 (3.43-11.76)	4.900 (2.51-10.24)
Orthophosphate Phosphorus (mg/L)	0.220 (0.04-0.68)	0.220 (0.03-0.72)	0.230 (0.03-0.76)	0.310 (0.08-0.69)	0.290 (0.04-0.75)	0.210 (0.02-0.58)
Total Phosphorus (mg/L)	0.100 (0.02-0.23)	0.110 (0.02-0.25)	0.120 (0.02-0.25)	0.150 (0.07-0.23)	0.140 (0.07-0.19)	0.070 (0.02-0.15)
Silica (mg/L)	1.000 (0.09-2.48)	0.920 (0.09-2.40)	0.760 (0.09-1.91)	1.110 (0.03-3.05)	0.830 (0.07-1.95)	0.630 (0.01-7.50)
Chlorophyll-a (µg/L)	2.680 (1.41-3.95)	2.990 (1.29-6.06)	1.800 (1.08-2.52)	2.660 (1.69-4.82)	1.770 (1.40-2.57)	1.330 (0.62-2.27)
Phaeopigment (µg/L)	1.250 (0.79-1.62)	1.980 (0.79-3.22)	1.300 (0.97-1.70)	2.490 (1.08-4.78)	1.680 (1.08-2.14)	2.200 (0.80-5.40)
<i>E. coli</i> (CFU/100 mL)	45.8 (1.32-135)	45.2 (9.29-115)	30.7 (6.14-65)	56.5 (8.65-160)	33.7 (5.65-70)	66.1 (2.81-205)
Faecal Coliforms (CFU/100 mL)	511.0 (26-1295)	839.0 (35-2500)	800.0 (42-2650)	862.0 (103-1935)	1030.0 (36-2925)	1111.0 (167-3300)
No. of sample	3			3		
Phytoplanktons- Diatoms (cell/mL)	16000 (7501-21994)	21648 (6001-43988)	15975 (6901-21603)	19391 (5401-32258)	10567 (7501-15602)	12009 (5132-17702)
Phytoplanktons- Dinoflagellates (cell/mL)	100 (0-300)	100 (0-300)	0 (0-733)	600 (0-1800)	600 (0-1500)	1900 (0-5701)
Phytoplanktons- Others (cell/mL)	30874 (20102-50587)	35449 (2103-57185)	39474 (22503-61584)	50421 (23403-101173)	35558 (22203-44721)	38383 (23703-55718)
Zooplankton - Biomass (mg/m ³)	57 (6.8-166.8)			36 (27.3-43.8)		
Zooplankton - Copepoda (numbers/m ³)	16397 (1222-39440)			21214 (5609-33668)		
Zooplankton - Cladocera (numbers/m ³)	3447 (336-9783)			9484 (168-36061)		
Zooplankton - Larvae (numbers/m ³)	1245 (204-2140)			1194 (109-2230)		
Zooplankton - Noctiluca (numbers/m ³)	239 (0-764)			12 (0-46)		
Zooplankton - Others (numbers/m ³)	3091 (580-5465)			2125 (627-4032)		

* Data presented in mean value (range)