## Water quality of Tung Ping Chau Marine Park in Year 2000*

| | Lan Kwo Shui | | | Ma Kok Tsui | | | Cheung Sha Wan | | | Cham Keng Chau | | | Lung Lok Shui | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of sample | 5 | | | 5 | | | 5 | | | 5 | | | 5 | | |
| Depth | Surface | Middle | Bottom | Surface | Middle | Bottom | Surface | Middle | Bottom | Surface | Middle | Bottom | Surface | Middle | Bottom |
| Temperature (°C) | 25.08 (17.1-28.8) | 24.04 (17.1-28.6) | 23.32 (17.1-27.8) | 25.00 (17.1-28.8) | 23.74 (17.1-28.8) | 23.51 (17.1-28.7) | 25.07 (17.1-28.6) | 24.24 (17.1-29.3) | 23.61 (17.1-28.7) | 24.80 (16.9-28.7) | 24.20 (16.9-28.5) | 23.39 (16.8-28.5) | 24.88 (17.1-28.9) | 24.05 (17.1-28.9) | 23.29 (17.1-28.9) |
| Salinity (ppt) | 31.18 (30.2-32.1) | 31.90 (31.1-33.0) | 32.52 (31.1-33.5) | 31.14 (29.8-32.2) | 32.18 (31.0-33.2) | 32.52 (31.1-33.7) | 31.36 (30.3-32.7) | 31.88 (31.1-32.8) | 32.48 (31.1-33.6) | 31.30 (29.7-32.2) | 31.84 (31.0-33.2) | 32.60 (31.1-33.6) | 31.40 (30.9-32.1) | 31.74 (31.1-33.0) | 32.28 (31.1-33.7) |
| Dissolved Oxygen (mg/L) | 6.74 (6.22-7.59) | 6.40 (5.79-7.27) | 5.38 (3.63-7.08) | 6.74 (6.29-7.63) | 6.22 (4.91-7.58) | 5.81 (3.69-7.18) | 6.55 (6.60-7.11) | 6.50 (5.61-7.37) | 5.80 (3.06-7.14) | 6.67 (5.99-7.55) | 6.36 (5.61-7.18) | 5.77 (3.79-7.20) | 6.67 (6.26-7.52) | 6.46 (5.53-7.56) | 5.74 (2.25-7.55) |
| pH | 8.34 (8.1-8.5) | 8.36 (8.1-8.6) | 8.32 (8.1-8.6) | 8.38 (8.1-8.6) | 8.40 (8.2-8.6) | 8.38 (8.2-8.6) | 8.38 (8.2-8.6) | 8.38 (8.2-8.6) | 8.34 (8.2-8.4) | 8.36 (8.1-8.6) | 8.36 (8.1-8.6) | 8.36 (8.2-8.6) | 8.34 (8.2-8.6) | 8.38 (8.2-8.6) | 8.30 (8.1-8.6) |
| Secchi Depth (m) | 5.16 (3.5-6.0) | | | 5.10 (3..0-6.0) | | | 5.00 (2.0-7.0) | | | 6.38 (3.5-8.9) | | | 5.32 (4.3-6.7) | | |
| Turbidity (NTU) | 0.24 (0.0-1.4) | 0.68 (0.2-2.0) | 2.94 (0.6-7.2) | 0.66 (0.0-2.4) | 1.66 (0.6-3.4) | 2.88 (0.6-6.2) | 1.00 (0.0-4.0) | 1.24 (0.2-3.4) | 4.50 (0.5-11.5) | 0.16 (0.0-1.4) | 2.36 (0.62-4.68) | 3.32 (0.9-9.45) | 0.48 (0.96-2.17) | 0.76 (0.57-1.78) | 2.16 (1.11-2.57) |
| Suspended Solids (mg/L) | 1.30 (0.73-2.73) | 1.59 (0.56-3.01) | 1.70 (1.03-2.92) | 1.21 (0.55-2.26) | 1.53 (0.50-3.27) | 2.07 (0.60-4.35) | 1.72 (0.59-5.08) | 2.02 (0.77-5.05) | 3.03 (1.02-4.44) | 1.33 (0.58-2.44) | 1.93 (0.62-4.68) | 3.30 (0.62-4.68) | 1.36 (0.96-2.17) | 1.27 (0.57-1.78) | 1.84 (1.11-2.57) |
| BOD (mg/L) | 0.76 (0.07-1.26) | 1.29 (0.08-3.35) | 0.68 (0.21-1.30) | 0.97 (0.62-1.44) | 0.95 (0.36-1.64) | 0.78 (0.30-1.52) | 0.81 (0.33-1.46) | 0.82 (0.20-1.57) | 0.78 (0.369-1.34) | 0.89 (0.37-1.54) | 0.92 (0.53-1.54) | 0.69 (0.41-1.35) | 1.59 (0.43-4.06) | 0.87 (0.04-1.63) | 0.76 (0.24-1.05) |
| Ammoniacal Nitrogen (µg/L) | 143.93 (10.1-498) | 134.97 (40.3-340) | 57.78 (14.3-188) | 134.93 (6.79-532) | 194.11 (22.8-782) | 157.96 (5.73-587) | 114.71 (37.4-311) | 42.89 (10.3-111) | 25.49 (7.52-106) | 141.39 (19.5-423) | 62.66 12.1-187) | 84.50 (8.04-275) | 185.03 (43.0-658) | 77.42 (22.5-293) | 70.23 (10.8-271) |
| Unionized Ammonia (µg/L) | 19.92 (0.82-59.8) | 22.04 (4.05-40.9) | 8.22 (1.44-22.6) | 18.95 (0.55-63.9) | 23.12 (1.85-76.0) | 20.20 (0.57-57.0) | 16.74 (2.25-30.2) | 7.43 (1.03-8.74) | 3.94 (0.76-8.37) | 22.24 (1.95-50.9) | 9.79 (1.21-22.5) | 10.82 (0.81-26.7) | 26.08 (1.93-79.1) | 9.53 (1.01-28.5) | 8.95 (0.49-32.6) |
| Nitrite Nitrogen (µg/L) | 25.00 (5.31-75.6) | 24.76 (4.30-249) | 32.90 (9.92-245) | 21.69 (3.63-250) | 20.21 (3.80-245) | 22.66 (5.22-250) | 23.02 (3.38-243) | 18.95 (6.44-251) | 26.22 (6.51-251) | 25.14 (5.11-228) | 26.28 (6.14-230) | 16.14 (6.33-243) | 23.52 (5.66-241) | 27.50 (7.38-248) | 39.37 (5.59-243) |
| Nitrate Nitrogen (µg/L) | 632.80 (180-2137) | 500.57 (1.86-1801) | 581.56 (52.8-1913) | 455.78 (23.9-2085) | 451.04 (23.2-1911) | 471.14 (58.7-2005) | 492.40 (63.0-2517) | 442.44 (25.2-1718) | 452.64 (60.2-1886) | 599.68 (46.4-2289) | 544.14 (23.7-2083) | 411.14 (37.7-1938) | 653.08 (35.4-2390) | 601.76 (85.8-2297) | 672.28 (83.4-2084) |
| Total Inorganic Nitrogen (µg/L) | 25.37 (98.7-2710) | 69.43 (306-2207) | 31.38 (134-2185) | 34.10 (149-2455) | 39.43 (172-2431) | 68.28 (220-2361) | 41.21 (187-2875) | 29.74 (133-2079) | 34.50 (159-2243) | 25.71 (100-2611) | 26.24 (108-2443) | 29.07 (130-2302) | 29.02 (116-2772) | 42.89 (190-2672) | 36.14 (155-2446) |
| Total Kjeldahl Nitrogen (mg/L) | 2.01 (0.14-7.99) | 0.93 (0.35-2.5) | 2.00 (0.49-6.49) | 3.31 (0.10-15.0) | 0.29 (0.10-1.01) | 0.29 (0.10-0.96) | 1.11 (0.20-4.26) | 1.78 (0.15-7.17) | 0.32 (0.10-1.01) | 0.32 (0.10-0.96) | 2.78 (0.08-12.4) | 1.95 (0.12-7.96) | 1.83 (0.32-7.25) | 0.26 (0.10-1.03) | 0.42 (0.10-0.95) |
| Total Nitrogen (mg/L) | 6.65 (0.19-10.2) | 4.82 (0.35-4.37) | 5.03 (0.49-6.57) | 6.59 (0.16-16.5) | 2.41 (0.20-8.16) | 2.61 (0.30-3.21) | 4.54 (0.20-6.19) | 4.73 (0.21-8.57) | 2.95 (0.41-3.14) | 4.32 (0.23-3.99) | 7.03 (0.14-14.4) | 4.46 (0.19-9.11) | 6.10 (0.37-9.24) | 4.56 (0.37-9.24) | 4.38 (0.30-5.22) |
| Orthophosphate Phosphorus (µg/L) | 6.62 (3.36-23.5) | 7.06 (0.93-20.2) | 15.78 (2.04-50.0) | 9.90 (1.15-24.8) | 9.77 (0.62-22.6) | 20.59 (6.75-67.4) | 5.16 (2.25-23.1) | 7.46 (6.09-24.2) | 8.07 (1.52-24.9) | 7.35 (0.37-42.0) | 7.15 (2.59-31.7) | 8.71 (5.06-14.5) | 8.72 (2.52-22.6) | 9.65 (3.24-24.0) | 10.62 (1.16-24.9) |
| Total Phosphorus (mg/L) | 0.08 (0.02-0.20) | 0.30 (0.01-1.38) | 0.02 (0.01-0.05) | 0.06 )0.01-0.20) | 0.03 (0.02-0.06) | 0.08 (0.01-0.29) | 0.05 (0.02-0.42) | 0.04 (0.02-0.12) | 0.03 (0.02-0.06) | 0.22 (0.02-0.80) | 3.00 (0.02-14.9) | 0.11 (0.01-0.45 | 0.24 (0.02-1.02) | 0.04 (0.02-0.08) | 0.03 (0.02-0.07) |
| Silica (mg/L) | 0.21 (0.04-0.52) | 0.21 (0.04-0.51) | 0.26 (0.04-0.49) | 0.21 (0.04-0.48) | 0.20 (0.040.47) | 0.21 (0.04-0.48) | 0.19 (0.04-0.50) | 0.18 (0.04-0.48) | 0.25 (0.04-0.50) | 0.22 (0.04-0.51) | 0.20 (0.04-0.50) | 0.18 (0.04-0.49) | 0.22 (0.04-0.52) | 0.22 (0.04-0.53) | 0.28 (0.04-0.52) |
| Chlorophyll-a (µg/L) | 2.93 (0.78-2.72) | 3.16 (0.83-3.74) | 4.14 (0.90-3.19) | 2.50 (0.71-2.66) | 3.88 (0.82-7.05) | 3.59 (0.66-3.73) | 3.73 (0.76-5.51) | 3.74 (0.71-5.15) | 6.26 (0.47-6.20) | 2.76 (0.66-2.75) | 3.21 (0.55-3.73) | 6.22 (0.53-8.56) | 2.88 (0.63-2.25) | 3.38 (0.76-4.23) | 4.00 (0.68-4.23) |
| Phaeopigment (µg/L) | 0.43 (0.05-1.01) | 0.44 (0.01-0.88) | 0.75 (0.48-1.09) | 0.41 (0.16-0.93) | 0.64 (0.19-1.22) | 0.70 (0.35-1.50) | 0.58 (0.17-1.69) | 0.65 (0.23-1.70) | 1.31 (0.40-3.61) | 0.50 (0.18-1.25) | 0.47 (0.00-1.35) | 1.14 (0.28-2.98) | 0.50 (0.26-0.94) | 0.43 (0.00-0.96) | 0.75 (0.23-1.24) |
| *E. coli* (CFU/100 mL) | 0.0 (0-3.5) | 0.3 (0-2.5) | 1.1 (0-8.5) | 15.0 (0-74) | 4.4 (0-20) | 4.9 (0-23.5) | 1.1 (0-4) | 2.2 (0-6) | 0.9 (0-18.5) | 1.9 (0-6) | 1.0 (0-21.5) | 0.9 (0-5.5) | 1.50 (0-6) | 0.10 (0-66.5) | 0.30 (0-3.5) |
| Faecal Coliforms (CFU/100 mL) | 0.1 (0-0.5) | 0.4 (0-2.0) | 6.5 (0-20.5) | 10.4 (0-11.0) | 11.1 (0-146) | 12.3 (0-51.5) | 0.6 (0-51.5) | 1.9 (0-92) | 2.3 (0-3.0) | 5.7 (0-28) | 2.2 (0-2.5) | 2.9 (0-200) | 3.90 (0-19) | 0.00 (0-0) | 1.00 (0-2) |

* Data presented in mean value (range)