|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Months | **Temperature** | | **Salinity** | | **Oxygen** | | **Nitrous oxide** | | **Nitrate** | | **Chlorophyll-a** | |
| Trend | p-value | Trend | p-value | Trend | p-value | Trend | p-value | Trend | p-value | Trend | p-value |
| January | -0.60 | 0.200 | -0.03 | 0.390 | -0.03 | 0.390 | 41.12 | 0.470 | 3.52 | 0.390 | -7.18 | 0.240 |
| February | 0.43 | 0.710 | -0.10 | 0.710 | -0.10 | 0.710 | -2.52 | 0.710 | 21.59 | 0.230 | -5.48 | 0.130 |
| March | 0.65 | 0.250 | 0.60 | 0.230 | 0.60 | 0.230 | -5.35 | 1.000 | -4.20 | 0.440 | -5.15 | 0.190 |
| April | -0.11 | 0.550 | 0.03 | 1.000 | 0.03 | 1.000 | 4.82 | 0.370 | 8.61 | 0.050 | -2.09 | 0.580 |
| May | -0.30 | 0.920 | 1.44 | 0.350 | 1.44 | 0.350 | -12.32 | 0.710 | -7.68 | 0.150 | -0.41 | 0.250 |
| June | -0.44 | 0.920 | 0.36 | 0.440 | 0.36 | 0.440 | -3.40 | 1.000 | -4.28 | 0.320 | -0.64 | 0.010 |
| July | -1.41 | 0.150 | 0.99 | 0.210 | 0.99 | 0.210 | 12.96 | 0.130 | -0.56 | 1.000 | -1.10 | 0.130 |
| August | -0.86 | 0.350 | -0.32 | 0.680 | -0.32 | 0.680 | 2.26 | 0.370 | 9.41 | 0.040 | -1.34 | 0.090 |
| September | -0.77 | 0.030 | 0.28 | 0.320 | 0.28 | 0.320 | 3.45 | 0.860 | -1.45 | 0.480 | -0.12 | 0.500 |
| October | 1.20 | 0.760 | 0.63 | 0.240 | 0.63 | 0.240 | 0.69 | 1.000 | 2.05 | 1.000 | -7.96 | 0.210 |
| November | -0.16 | 0.880 | 0.20 | 0.850 | -0.20 | 0.850 | 20.85 | 0.370 | -4.33 | 0.880 | 6.94 | 0.440 |
| December | -0.64 | 0.760 | 0.34 | 0.020 | 0.34 | 0.020 | 25.81 | 0.540 | 5.91 | 0.440 | 12.75 | 0.010 |
| Annual | -0.32 | 0.210 | 0.10 | 0.020 | 0.15 | 0.320 | 13.97 | 0.110 | 1.58 | 0.280 | 0.37 | 0.380 |
| Anomalya | -0.40 | 0.210 | 0.34 | 0.830 | 0.13 | 0.320 | 0.51 | 0.110 | 0.22 | 0.280 | 0.05 | 0.380 |
| Spring–summer | -0.13 | 0.540 | 0.25 | 0.160 | -0.10 | 0.020 | 22.12 | 0.640 | 2.38 | 0.020 | 2.83 | 0.320 |
| Winter | -0.68 | 0.160 | 0.20 | 0.530 | 0.34 | 0.830 | -2.10 | 0.760 | -0.31 | 0.820 | -0.74 | 0.010 |

Table S2. Trends obtained from monthly (2003–2016) anomalies and for the summer and winter periods.

a based on differences between monthly value and the mean monthly climatological value obtained using the times series between 2003 and 2016.