|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Macroalgae** | **Octocorals** | **Sponges** | **Millepora** | **Zoanthids** |
| **OK and IDW Searching Window Parameters** | | | | | |
| **Points per Sector** | 5 | 5 | 5 | 5 | 5 |
| **Number of Sectors** | 4 | 4 | 4 | 4 | 4 |
| **Angle** | 9 | 11 | 9 | 13 | 9 |
| **Major axis (m)** | 10 | 10 | 5 | 10 | 15 |
| **Minor Axis (m)** | 150 | 150 | 145 | 150 | 130 |
| **IDW Weighting Exponentials** | | | | | |
|  | 2 | 2 | 2 | 2 | 2 |
| **OK Variography** | | | | | |
| **Number of Lags** | 12 | 12 | 12 | 10 | 10 |
| **Lag size (m)** | 7 | 5 | 4 | 5 | 5 |
| **Nugget** | 0.010 | 0.006 | 0.0011 | 0.0011 | 0.002 |
| **Model** | Exponential | Spherical | Spherical | Spherical | Exponential |
| **Anisothropy** | Yes | Yes | Yes | Yes | Yes |
| **Major Range** | 60 | 70 | 48 | 49 | 50 |
| **Minor Range** | 20 | 50 | 20 | 14 | 12 |
| **Direction (degrees)** | 365 | 9 | 205 | 19 | 18 |
| **Sill** | 0.058 | 0.030 | 0.001 | 0.001 | 0.002 |

Supplementary Table 1. Parameters of the best models of Inverse Distance Weighting (IDW) and Ordinary Kriging (OK) for the interpolation of Macroalgae, Octocorals, Sponges, *Millepora alcicornis* (Millepora) and Zoanthids of Madagascar reef, Gulf of Mexico.