**Table S1**.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Reef** | **Anthropogenic Factors** | | | |  | **Reef Metrics** | |
| **Fishing** | **Management** | **Year Established** | **Population** |  | **Area\*\* (km2)** | **Perimeter\*\* (km)** |
| Mermaid | Prohibited | Commonwealth Marine Reserve | 1991 | 0 |  | 42.4 | 36.25 |
| Clerke | Prohibited | DEC; Marine Park | 1990 | 0 |  | 58.9 | 38.54 |
| Imperieuse | Prohibited | DEC; Marine Park | 1990 | 0 |  | 72.7 | 43.18 |
| South Scott | Artisanal Fishing | MoU74 Box | 1974 | 0 |  | 99.0 | 108.60 |
| North Scott | Artisanal Fishing | MoU74 Box | 1974 | 0 |  | 56.0 | 48.90 |
| Seringapatam | Artisanal Fishing | MoU74 Box | 1974 | 0 |  | 25.0 | 26.74 |
| Ashmore | Artisanal Fishing | MoU74 Box; Marine Nature Reserve | 1983 | 0 |  | 179.3 | 101.45 |

**Table S1** (Cont’d).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Reef** | **Environment Factors** | | | |  | **Biota** | | | | |
| **Time-Averaged SST (ºC)** | **Time-Averaged Chl a (mg/m3)** | **Recent Bleaching Events** | **Recent Cycloninc Events** |  | **Number of Fish Species** | **Rare Species (<5% of sites)** | **Mean Abundance (m2)** | **Mean Coral Cover ± SE** | **Mean Algal Cover ± SE** |
| Mermaid | 28.36 | 0.76 |  | 1996 |  | 84 | 0 | 2.84 ± 0.72 | 38.54 ± 6.82 | 32.6 ± 22.56 |
| Clerke | 28.26 | 0.90 |  | 1996 |  | 89 | 0 | 3.31 ± 1.0 | 29.95 ± 10.1 | 35.39 ± 22.78 |
| Imperieuse | 28.09 | 0.20 |  | 1996 |  | 86 | 0 | 3.04 ± 0.94 | 29.8 ± 18.9 | 49.41 ± 23.41 |
| South Scott | 29.04 | 0.28 | 1998 |  |  | 127 | 18 | 2.76 ± 0.73 | 32.81 ± 25.93 | 35.97 ± 26.18 |
| North Scott | 29.10 | 0.61 | 1998 |  |  | 117 | 19 | 2.65 ± 0.73 | 32.25 ± 21.78 | 32.73 ± 21.17 |
| Seringapatam | 29.10 | 0.31 | 1998 |  |  | 134 | 10 | 2.63 ± 0.53 | 45.15 ± 18.38 | 28.5 ± 18.56 |
| Ashmore | - | - | - | - |  | - | - | - | - | - |

\* Sea Surface Temperature (SST; 2001 - 2008) and Chlorophyll a (Chl a; 1997 - 2008 ) were derived from remotely sensed imagery produced with the Giovanni online data system, developed and maintained by the NASA GES DISC at 4km resolution.

\*\*Area and perimeter derived from ARCGIS layers