Species-specific densities

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | Growth form (e.g. digitate) | Survey year | Location | **Colonies/m2** | Mean nearest neighbour/  intercolonial | Coral cover (%) | Clustering (uniform, random, clustered) | Size (m^2) | Juveniles included? | **Reference** | Notes |
| **Acroporidae** |  |  |  |  |  |  |  |  |  |  |  |
| *Acropora palmata* | Branching/  encrusting |  |  | 0.07 to 0.28 | NA |  | NA |  |  | (Williams et al. 2008) |  |
| *Acropora* cervicornis | Branching |  |  | <1.22 |  | <2 |  |  |  | (Miller et al. 2008) | Symposia proceedings |
| *Acropora palmata* | Branching |  |  | <1.25 |  | 25 |  |  |  | (Miller et al. 2008) | Symposia proceedings |
| *Acropora yongei* | Arborescent | 2015-2016 | Southern Ryukyu  Archipelago, Japan | 0.0006 –0.029 | 3.6±0.3 –20.7±5.2 |  |  |  |  | (Zayasu & Suzuki 2019) |  |
| *Acropora hyacinthus* | Table | 2014 | Moorea | 0.073±0.023 |  |  |  |  |  | (Ladd et al. 2021) | 10 m depth only |
| **Pocilloporidae** |  |  |  |  |  |  |  |  |  |  |  |
| *Madracis mirabilis* | Branching |  |  | 9.9 ± 2.2 |  | 1.2 ± 0.27 |  |  |  | (Brito-Millán et al. 2019) |  |
| *Pocillopora spp.* |  |  |  | 21.81 ± 1.56 |  |  |  |  | Juv. Density 2.56 ± 0.89 | (Edmunds et al. 2018) | Genus level – no species defined |
| *Seriatopora hystrix* | Branching |  |  | 0.5 |  |  |  |  |  | (Warner et al. 2016) |  |
| ***Merulinidae*** |  |  |  |  |  |  |  |  |  |  |  |
| *Montastrea annularis* |  |  |  | 20 |  |  |  |  |  | (Edmunds & Elahi 2007) | Documented declines over time |
| *Orbicella annularis* | Massive |  |  | 8 to 51 |  |  |  |  |  | Edmunds2019 | \*Note mostly small size class |
| ***Agariciidae*** |  |  |  |  |  |  |  |  |  |  |  |
| *Agaricia agaricites* | Foliose |  |  | 2.1 ± 0.4 |  | 0.5 ± 0.09 |  |  |  | (Brito-Millán et al. 2019) |  |
| ***Poritidae*** |  |  |  |  |  |  |  |  |  |  |  |
| *Porites astreoides* | Massive | 1999 |  | 1.7 ± 0.2 |  |  |  |  | Yes | (Edmunds 2010) |  |
| ***Mussidae*** |  |  |  |  |  |  |  |  |  |  |  |
| *Diploria strigosa* |  | 2003 |  | 0.35 ± 0.04 |  |  |  |  |  | (Edmunds 2010) |  |
| *Diploria strigosa* |  | 2007 |  | 0.98 ±  0.17 |  |  |  |  |  | (Edmunds 2010) |  |

Brito-Millán M, Vermeij MJ, Alcantar EA, Sandin SA (2019) Coral reef assessments based on cover alone mask active dynamics of coral communities. Mar Ecol Prog Ser 630:55-68

Edmunds PJ (2010) Population biology of Porites astreoides and Diploria strigosa on a shallow Caribbean reef. Mar Ecol Prog Ser 418:87-104

Edmunds PJ, Elahi R (2007) The demographics of a 15‐year decline in cover of the Caribbean reef coral Montastraea annularis. Ecol Monogr 77:3-18

Ladd MC, Winslow EM, Burkepile DE, Lenihan HS (2021) Corallivory varies with water depth to influence the growth of Acropora hyacinthus, a reef‐forming coral. Ecosphere 12:e03623

Miller S, Chiappone M, Rutten LM, Swanson DW (2008) Population status of Acropora corals in the Florida Keys.

Warner PA, Willis BL, Van Oppen MJ (2016) Sperm dispersal distances estimated by parentage analysis in a brooding scleractinian coral. Mol Ecol 25:1398-1415

Williams D, Miller M, Kramer K (2008) Recruitment failure in Florida Keys Acropora palmata, a threatened Caribbean coral. Coral Reefs 27:697-705

Zayasu Y, Suzuki G (2019) Comparisons of population density and genetic diversity in artificial and wild populations of an arborescent coral, Acropora yongei: implications for the efficacy of “artificial spawning hotspots”. Restor Ecol 27:440-446