Environmental Variation and How its Spatial Structure Influences the Cross-Shelf Distribution of High-Latitude Coral Communities in South Africa

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**Electronic Supplementary Material 2**

**Table S1.** Taxa recorded in the 419 transects surveyed across reefs in Maputaland. Min. = minimum percentage cover recorded in a transect. Max. = maximum percentage cover recorded in a transect. Average is the average percentage cover of that taxon across all 419 transects. SD = the standard deviation percentage cover of that particular taxon across 419 transects. Range is the maximum minus the minimum percentage cover values for each taxon. Non zero is the number of times the particular taxon was present within the 419 transects.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Group** | **Min.** | **Max.** | **Average** | **SD** | **Range** | **Non zero** |
| *Acanthaster planci* | Echinoderm | 0 | 7 | 0 | 0 | 7 | 2 |
| *Acanthastrea echinata* | Hard coral | 0 | 4 | 0 | 0 | 4 | 151 |
| *Acropora austera* | Hard coral | 0 | 28 | 1 | 4 | 28 | 130 |
| *Acropora clathrata* | Hard coral | 0 | 15 | 1 | 2 | 15 | 194 |
| *Acropora cyatherea* | Hard coral | 0 | 6 | 0 | 0 | 6 | 29 |
| *Acropora digitifera* | Hard coral | 0 | 0 | 0 | 0 | 0 | 1 |
| *Acropora hyacinthus* | Hard coral | 0 | 42 | 1 | 4 | 42 | 96 |
| *Acropora latistella* | Hard coral | 0 | 2 | 0 | 0 | 2 | 1 |
| *Acropora robusta* | Hard coral | 0 | 4 | 0 | 0 | 4 | 2 |
| *Acropora* spp. | Hard coral | 0 | 5 | 1 | 1 | 5 | 208 |
| Algal assemblages | Algae | 8 | 88 | 35 | 17 | 81 | 419 |
| *Alveopora allingi* | Hard coral | 0 | 54 | 0 | 3 | 54 | 35 |
| *Alveopora spongiosa* | Hard coral | 0 | 10 | 1 | 2 | 10 | 115 |
| *Anthosigmella orientalis* | Sponge | 0 | 12 | 1 | 2 | 12 | 81 |
| *Antipathes* sp. | Soft coral | 0 | 0 | 0 | 0 | 0 | 1 |
| *Astreopora myriopthalma* | Hard coral | 0 | 10 | 1 | 2 | 10 | 140 |
| *Blastomussa merleti* | Hard coral | 0 | 0 | 0 | 0 | 0 | 3 |
| *Caulastrea echinulata* | Hard coral | 0 | 0 | 0 | 0 | 0 | 1 |
| *Cladiella* spp. | Soft coral | 0 | 9 | 1 | 1 | 9 | 182 |
| Corallomorpharia | Soft coral | 0 | 3 | 0 | 0 | 3 | 5 |
| *Coscinaria* spp. | Hard coral | 0 | 2 | 0 | 0 | 2 | 81 |
| Crinoidea | Echinoderm | 0 | 1 | 0 | 0 | 1 | 8 |
| Crustose coralline algae | Algae | 0 | 1 | 0 | 0 | 1 | 6 |
| *Cryptodendrum adhaesivum* | Other | 0 | 1 | 0 | 0 | 1 | 2 |
| *Culcita schmideliana* | Echinoderm | 0 | 0 | 0 | 0 | 0 | 1 |
| *Dendronepthya* spp. | Soft coral | 0 | 4 | 0 | 1 | 4 | 79 |
| *Dendrophyllia* spp. | Hard coral | 0 | 0 | 0 | 0 | 0 | 2 |
| *Diadema setosum* | Echinoderm | 0 | 1 | 0 | 0 | 1 | 6 |
| *Diaseris* sp. | Hard coral | 0 | 4 | 0 | 0 | 4 | 5 |
| *Didemnum molle* | Ascidian | 0 | 6 | 1 | 1 | 6 | 202 |
| *Diplosoma virens* | Ascidian | 0 | 9 | 1 | 2 | 9 | 293 |
| *Echinophyllia aspera* | Hard coral | 0 | 8 | 0 | 1 | 8 | 151 |
| *Echinopora gemmacea* | Hard coral | 0 | 48 | 2 | 4 | 48 | 191 |
| *Echinopora hirsutissima* | Hard coral | 0 | 19 | 0 | 1 | 19 | 31 |
| *Echinostrephus molaris* | Echinoderm | 0 | 1 | 0 | 0 | 1 | 3 |
| *Echinothrix diadema* | Echinoderm | 0 | 1 | 0 | 0 | 1 | 5 |
| *Entacmea quadricolor* | Other | 0 | 0 | 0 | 0 | 0 | 1 |
| *Favia* spp. | Hard coral | 0 | 6 | 1 | 1 | 6 | 256 |
| *Favites* spp. | Hard coral | 0 | 6 | 1 | 1 | 6 | 336 |
| *Fungia* spp. | Hard coral | 0 | 4 | 0 | 1 | 4 | 44 |
| *Galaxea fascicularis* | Hard coral | 0 | 7 | 1 | 1 | 7 | 207 |
| *Gardineroseris planulata* | Hard coral | 0 | 4 | 0 | 0 | 4 | 9 |
| *Goniastrea* sp. | Hard coral | 0 | 2 | 0 | 0 | 2 | 8 |
| *Goniopora* spp. | Hard coral | 0 | 3 | 0 | 0 | 3 | 111 |
| Gorgonian species | Soft coral | 0 | 3 | 0 | 0 | 3 | 11 |
| *Gyrosmilia interupta* | Hard coral | 0 | 1 | 0 | 0 | 1 | 36 |
| *Herpolitha* sp. | Hard coral | 0 | 1 | 0 | 0 | 1 | 1 |
| *Heteractis aurora* | Other | 0 | 0 | 0 | 0 | 0 | 1 |
| *Heteractis magnifica* | Other | 0 | 6 | 0 | 1 | 6 | 45 |
| *Homophyton verrucosum* | Soft coral | 0 | 4 | 0 | 0 | 4 | 12 |
| *Horastrea indica* | Hard coral | 0 | 0 | 0 | 0 | 0 | 3 |
| *Hydnophora* spp. | Hard coral | 0 | 15 | 1 | 1 | 15 | 116 |
| Hydroid | Other | 0 | 1 | 0 | 0 | 1 | 4 |
| *Isopora palifera* | Hard coral | 0 | 8 | 0 | 1 | 8 | 4 |
| *Leptogorgia* sp. | Soft coral | 0 | 5 | 0 | 0 | 5 | 13 |
| *Leptoria phrygia* | Hard coral | 0 | 3 | 0 | 0 | 3 | 6 |
| *Leptoseris explanata* | Hard coral | 0 | 1 | 0 | 0 | 1 | 11 |
| *Linckia* spp. | Echinoderm | 0 | 1 | 0 | 0 | 1 | 4 |
| *Lobophyllia valenciennesi* | Hard coral | 0 | 2 | 0 | 0 | 2 | 70 |
| *Lobophytum crassum* | Soft coral | 0 | 10 | 1 | 1 | 10 | 259 |
| *Lobophytum latilobatum* | Soft coral | 0 | 12 | 1 | 2 | 12 | 126 |
| *Lobophytum patulum* | Soft coral | 0 | 20 | 1 | 2 | 20 | 186 |
| *Lobophytum* spp. | Soft coral | 0 | 14 | 1 | 2 | 14 | 244 |
| *Lobophytum venustum* | Soft coral | 0 | 11 | 1 | 1 | 11 | 205 |
| *Lobopytum depressum* | Soft coral | 0 | 7 | 1 | 1 | 7 | 260 |
| *Montipora* spp. | Hard coral | 0 | 28 | 6 | 5 | 28 | 383 |
| *Mycedium elephantotus* | Hard coral | 0 | 3 | 0 | 0 | 3 | 34 |
| *Nephthea* sp. | Soft coral | 0 | 1 | 0 | 0 | 1 | 12 |
| *Oulophyllia crispa* | Hard coral | 0 | 4 | 0 | 1 | 4 | 118 |
| *Oxypora lacera* | Hard coral | 0 | 9 | 0 | 1 | 9 | 34 |
| *Pachyseris speciosa* | Hard coral | 0 | 28 | 0 | 1 | 28 | 6 |
| *Pavona clavus* | Hard coral | 0 | 1 | 0 | 0 | 1 | 17 |
| *Platygyra daedalea* | Hard coral | 0 | 13 | 1 | 2 | 13 | 267 |
| *Platygyra lamelosa* | Hard coral | 0 | 0 | 0 | 0 | 0 | 1 |
| *Platygyra sinensis* | Hard coral | 0 | 2 | 0 | 0 | 2 | 28 |
| *Pocillopora damicornis* | Hard coral | 0 | 2 | 0 | 0 | 2 | 110 |
| *Pocillopora verucosa* | Hard coral | 0 | 8 | 1 | 1 | 8 | 150 |
| *Polycarpa mytiligera* | Ascidian | 0 | 20 | 2 | 3 | 20 | 294 |
| *Porites* spp. | Hard coral | 0 | 11 | 1 | 2 | 11 | 134 |
| *Pyura stolonifera* | Ascidian | 0 | 43 | 0 | 2 | 43 | 3 |
| *Rumphella* spp. | Soft coral | 0 | 6 | 0 | 1 | 6 | 37 |
| *Sarcophyton* spp. | Soft coral | 0 | 18 | 4 | 4 | 18 | 348 |
| *Sinularia abrupta* | Soft coral | 0 | 25 | 3 | 4 | 25 | 298 |
| *Sinularia brassica* | Soft coral | 0 | 25 | 3 | 4 | 25 | 329 |
| *Sinularia erecta* | Soft coral | 0 | 2 | 0 | 0 | 2 | 3 |
| *Sinularia firma* | Soft coral | 0 | 4 | 0 | 0 | 4 | 12 |
| *Sinularia gravis* | Soft coral | 0 | 26 | 1 | 2 | 26 | 204 |
| *Sinularia heterospiculata* | Soft coral | 0 | 15 | 2 | 3 | 15 | 247 |
| *Sinularia leptoclados* | Soft coral | 0 | 16 | 1 | 2 | 16 | 214 |
| *Sinularia macrodactyla* | Soft coral | 0 | 9 | 1 | 1 | 9 | 125 |
| *Sinularia notanda* | Soft coral | 0 | 2 | 0 | 0 | 2 | 7 |
| *Sinularia polydactyla* | Soft coral | 0 | 3 | 0 | 0 | 3 | 12 |
| *Sinularia* spp. | Soft coral | 0 | 30 | 6 | 6 | 30 | 399 |
| *Sinularia variabilis* | Soft coral | 0 | 6 | 0 | 1 | 6 | 70 |
| *Stereonephthya* spp. | Soft coral | 0 | 8 | 0 | 1 | 8 | 78 |
| *Stichodactyla mertensii* | Soft coral | 0 | 0 | 0 | 0 | 0 | 1 |
| *Stylophora pistillata* | Hard coral | 0 | 3 | 0 | 0 | 3 | 20 |
| *Suberites kelleri* | Sponge | 0 | 20 | 0 | 2 | 20 | 56 |
| *Tridacna* spp. | Other | 0 | 2 | 0 | 0 | 2 | 43 |
| *Tubastraea micrantha* | Hard coral | 0 | 4 | 0 | 0 | 4 | 2 |
| *Turbinaria mesenterina* | Hard coral | 0 | 8 | 0 | 1 | 8 | 70 |
| Unidentified ascideans | Ascidian | 0 | 1 | 0 | 0 | 1 | 18 |
| Unidentified Favidae | Hard coral | 0 | 5 | 1 | 1 | 5 | 180 |
| Unidentified sponges | Sponge | 0 | 16 | 2 | 2 | 16 | 327 |
| *Xenia* spp. | Soft coral | 0 | 5 | 0 | 1 | 5 | 161 |
| Zoanthidea | Other | 0 | 0 | 0 | 0 | 0 | 3 |