

## DAFTAR PUSTAKA

- Agustini, M. dan Madyowati, S. O. 2017. Biodiversitas Plankton Pada Budidaya Polikultur di Desa Sawahan Kecamatan Sedati Kabupaten Sidoarjo. Universitas Dr. Soetomo.
- Akbar, M. 2013. Kaitan Kondisi Oseanografi dengan Kepadatan dan Keanekaragaman Karang Lunak di Pulau Lae-Lae, Pulau Bonebatang, dan Pulau Badi. In *Angewandte Chemie International Edition*, 6(11), 951–952.
- Aldyza, N., & Afkar. 2015. Analisis Genus Dan Penyakit Karang Di Perairan Pulau Tuankecamatan Peukan Bada Kabupaten Aceh Besar. *Jurnal Biotik*, 3(2), 107–115.
- Arisandi, A., Tamam, B., & Fauzan, A. 2018. Profil Terumbu Karang Pulau Kangean, Kabupaten Sumenep, Indonesia <br><i>[Coral Reef Profile of Kangean Island, Sumenep District, Indonesia]</i>. *Jurnal Ilmiah Perikanan Dan Kelautan*, 10(2), 76. <https://doi.org/10.20473/jipk.v10i2.10516>
- Atjo, A. A., dan M. Nur. 2018. Status Ekologi Ikan Karang Herbivora Sebagai Pengontrol Laju Pertumbuhan Makroalga Di Paparan Terumbu Karang Pulau Battoa, Kabupaten Polewali Mandar. *Jurnal SAINTEK Peternakan dan Perikanan Vol. 2 (1)* Juni 2018.
- Baluk, W., and A. Radwanski. 1967. Miocene Cirripeds Domiciled in Corals. *Acta Palaeontologica Polonica*, Vol. XII: No. 4.
- Carpenter, S.R., Caraco, N.F., Correll, D.L., Howarth, R.W., Sharpley, A.N., Smith, V.H., 1998. Nonpoint pollution of surface waters with phosphorus and nitrogen. *Ecological Applications* 8, 559–568.
- Constina, Y., Amin, B., & Samiaji, J. 2017. Hubungan Kandungan Nitrat Dan Fosfat Dengan Kelimpahan Diatom Di Perairan Pantai Panipahan Kabupaten Rokan Hilir Provinsi Riau. 36–42.
- Coremap. 2016. Tentang Terumbu Karang. Dari CRITC COREMAP-LIPI. <http://coremap.oseanografi.lipi.go.id/berita/520#>.
- Dinas Kelautan dan Perikanan Provinsi Sulawesi Selatan. 2022. Informasi Publik – Pulau Samalona | Dinas Kelautan dan Perikanan (sulselprov.go.id)
- Ding, D.S., Patel, A.K., Singhania, R.R., Chen, C.W., Dong, C.D. 2022. Effects of Temperature and Salinity on Growth, Metabolism and Digestive Enzymes Synthesis of *Goniopora columnata*. *Biology (Basel)*. 2022 Mar 11;11(3):436. doi: 10.3390/biology11030436.
- Ditlev, H. 1980. A field guide to the reef-building corals of the Indo-Pacific. Dr. Bakhuys Publisher, Rotterdam. pp 291.
- Fajri, M. A., Surbakti, H., & Putri, W. A. E. 2011. Laju Penempelan Teritip pada Media dan Habitat yang Berbeda di Perairan Kalianda Lampung Selatan. *Maspari Journal*, 03, 63–68. <http://masparijournal.blogspot.com>

- Farhan, M.S. 2022. Keterkaitan Sedimentasi Dengan Tutupan Dasar Dan Kondisi Karang Di Pulau Samalona. Seminar Hasil Penelitian. Program Studi Ilmu Kelautan, Departemen Ilmu Kelautan, Universitas Hasanuddin. Makassar
- Goreau, T.F. 1959. The Ecology of Jamaican Coral Reefs I. Species Composition and Zonation. *Ecology*, 40, 67-90. <http://dx.doi.org/10.2307/1929924>
- Guntur. 2011. Ekologi Karang Pada Terumbu Buatan. Ghalia Indonesia.
- Hakanson, L., and Bryhn, A. 2008) Water Pollution (Methods and Criteria to Rank, Model and Remediate Chemical Threats to Aquatic Ecosystems). January.
- Halim, I., Rozirwan, R., & Agustriani, F. 2019. Prevalensi Penyakit Karang White Band Disease (Wbd) Dan Black Band Disease (Bbd) Di Daerah Perlindungan Laut, Pulau Sebesi [Universitas Sriwijaya]. <https://repository.unsri.ac.id/2402/>
- Hazrul, Palupi, R. D., & Ketjulan, R. 2016. identifikasi penyakit karang. *Identifikasi Penyakit Karang (Scleractinia) Di Perairan Pulau Saponda Laut, Sulawesi Tenggara.*, vol 1(2)(2), 32. <https://media.neliti.com/media/publications/210944-identifikasi-penyakit-karang-scleractini.pdf>
- Hawkins, J.P. and C.M. Roberts. 1992. Effects of recreational SCUBA diving on fore-reef slope communities of coral reefs. *Biological Conservation*, 62(3): 171–178.
- Hubbard, J. A., & Pocock, Y. P. 1972. Sediment rejection by recent scleractinian corals: a key to palaeoenvironmental reconstruction. *Geologische Rundschau*, 61(2), 598-626. Doi: 10.1007/BF01896337.
- Kaplan, E.H., 1982. A Field Guide to Coral Reefs. Houghton Mifflin Company Boston.
- Keputusan Menteri Negara Lingkungan Hidup Nomor 4 Tahun 2001. Kriteria Baku Kerusakan Terumbu Karang. Lampiran I. Menteri Negara Lingkungan Hidup Republik Indonesia. Jakarta.
- Krebs. 1998. Preface to the third edition. *Applied Mathematical Sciences (Switzerland)*, 127, vii–viii.
- Laura, F.B.M., Ferrier-Pages, Rottier, C., Bianchini, A., and Grover. 2020. Unravelling the different causes of nitrate and ammonium effects on coral bleaching. *Nature research. Scientific Reports.* 10: 11975. <https://doi.org/10.1038/s41598-020-68916-0>. [www.nature.com/scientificreports/](http://www.nature.com/scientificreports/)
- Levinton J.S. 1982. Marine Ecology. Prentice Hill Inc. Englewood Cliffs. New Jersey.
- Mahuri, W., Pratomo, A., & Idris, F. 2014. Laju Penempelan Teritip Pada Jenis Bahan Tiang Dermaga Yang Berbeda. *Anzdoc*, 1–10. <https://anzdoc.com/laju-penempelan-teritip-pada-jenis-bahan-tiang-dermaga-yang-.html>
- Makmur, M. (2010). Pengaruh Upwelling Terhadap Ledakan Alga (Blooming Algae) di Lingkungan Perairan Laut. *Prosiding Seminar Nasional Teknologi Pengolahan Limbah VI*, 240-245 ISSN 1410-6086.
- Maryanti, P. F., Armono, H. D., dan Supomo, H. 2012. Studi Eksperimen Laju Pertumbuhan Marine Growth pada Plat Baja ASTM A36 Akibat Pengaruh Kuat Cahaya dan Variasi Salinitas. *Jurnal Teknik Pomits* 1:1-6.

- Mason, C.F. 1981. Biology Freshwater Polution. 2nd edition. Longman Scientific and Technical. New York
- McCook LJ 1999. Macroalgae, nutrients and phase shifts on coral reefs: scientific issues and management consequences for the Great Barrier Reef. *Coral Reefs* 18:357–367
- McMellor, S., 2007. A Conservation Value Index to Facilitate Coral Reef Evaluation and Assessment. A thesis Submitted for the Degree of Doctor of Philosophy. Department of Biological Sciences. University of Essex.s
- Mirza, N., I. Dewiyanti, C. Octavina. 2017. Density of Barnacles (*Balanus* spp.) in Mangrove Rigaih Settlement Rehabilitation Area of Setia Bakti Sub-District, Aceh Jaya District, Aceh Province. *Jurnal Ilmiah Mahasiswa Kelautan dan Perikanan Unsyiah*, Vol. 2, Nomor 4: 534-540 November 2017 ISSN. 2527-6395.
- Mustofa, A. 2015. Kandungan Nitrat dan Posfat Sebagai Faktor Tingkat Kesuburan Perairan Pantai. Fakultas Sains dan Teknologi, UNISNU, Jepara.
- Mutahari, A., Riyantini, I., & Lintang Permata Sari Yuliadi Wahyuniar Pamungkas. 2019. Analisis Kondisi Terumbu Karang Kawasan Pariwisata dan Non Pariwisata di Perairan Gugus Pulau Kelapa Kecamatan Kepulauan Seribu Utara. *Jurnal Perikanan Dan Kelautan*, 10(2), 43–49.
- Naufal, faishal I. 2015. Pengaruh kawasan pariwisata terhadap kesehatan karang di pulau pari, kepulauan seribu. *Pengaruh Kawasan Pariwisata Terhadap Kesehatan Karang Di Pulau Pari, Kepulauan Seribu.*, March, 1–34. [http://file.pksdmo.lipi.go.id/id093-007f5-2650\\_239.pdf](http://file.pksdmo.lipi.go.id/id093-007f5-2650_239.pdf)
- Nontji, A. 2002. Laut Nusantara. Penerbit Djambatan. Jakarta: 59-67.
- Nybakken J.W., 1988. Biologi laut: suatu pendekatan ekologis (Terjemahan: H.M. Eidman, Koesoebiono, D.G. Bengen, M. Hutomo dan S. Sukardjo). PT, Gramedia. Jakarta.
- Octavia, Y. P., M. I. Jumarang, dan Apriansyah. 2018. Estimasi Arus Laut Permukaan yang Dibangkitkan oleh Angin di Perairan Indonesia. *Prisma Fisika*, 6(1): 1–8.
- Pataporn, K., Suchana, Ch., Voranop, V., Makoto, O., and Chiahsin L. 2015. Effects of temperature and salinity on survival rate of cultured corals and photosynthetic efficiency of zooxanthellae in coral tissues. *Ocean Sci. J.* 50, 263–268 (2015). <https://doi.org/10.1007/s12601-015-0023-3>
- Patricia, C., Astono, W., & Hendrawan, D. I. 2018. Kandungan Nitrat dan Fosfat di Sungai Ciliwung. *Seminar Nasional Cendekiawan*, 4, 179–185.
- Pearse, V. B. and L. Muscatine. 1971. Role of Symbiotic Algae (Zooxanthellae) in Coral Calcification. *Biol. Bull. Mar. Biol. Lab.*, Woods Hole, 141: 350-363.
- Peraturan Pemerintah Nomor 22 Tahun 2021. Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup. Lampiran VIII. Kementerian Sekretariat Negara Republik Indonesia. Jakarta.
- Poedjirahajoe, et al. 2013. Tutupan Lamun dan Kondisi Ekosistemnya di Kawasan Pesisir Madasanger, Jelenga dan Maluk, Kabupaten Sumbawa Barat. *Jurnal Ilmu dan Teknologi Kelautan Tropis*. 5 (1) : 36-46

- Prabowo, R. E., dan E. R. Ardli. 2010. Inventarisasi Teritip Non-Indigenous yang Menempel pada Ocean Going Vessel di Pelabuhan Tanjung Intan Cilacap. Fakultas Biologi Universitas Jenderal Soedirman, Purwokerto.
- Rahmat, M. ., Yosephine, T., & Giyanto. (2001). Manual Lifeform 5.1. CRITC and COREMAP, 32.
- Rahmi. 201). *Identifikasi Penyakit Karang Pada Karang Keras (Scleractinia) di Pulau Barrang Lombo*. Octopus 2 (2): 178-183.
- Randall dan Myers, R.F. 1983. Guide to coastal resources of Guam (Vol.2). The coral. University of Guam Press.
- Randall, R. H. 2003. An annotated checklist of hydrozoan and scleractinian corals collected from Guam and other Mariana Islands. *Micronesica* 35 (36):121- 137.
- Rani, C., Nessa, M. N., Jompa, J., Thoaha, S., & Faizal, A. (2014). Aplikasi Model Dinamik Dampak Eutrofikasi Dan Sedimentasi Bagi Pengendalian Kerusakan Terumbu Karang Di Perairan Sulawesi Selatan. *Jurnal Perikanan Universitas Gadjah Mada*, 16(1), 1–9. <https://doi.org/10.22146/jfs.9133>
- Rasyid, A. J., N. Nurjannah, B. A. Iqbal, M. Hatta. (2014). Karakter Oseanografi Perairan Makassar Terkait Zona Potensial Penangkapan Ikan Pelagis Kecil Pada Musim Timur. *Jurnal IPTEKS PSP*, Vol 1 (1) April 2014: 69-80.
- Raymundo, L. J., Couch, C. S., Bruckner, A. W., & Harvell, C. D. (2008). Coral Disease Handbook Guidelines for Assessment. In *Management*. The University of Queensland, Australia.
- Revelle, R., & R. Fairbridge. 1957. Chapter 10: Carbonates and Carbon Dioxide. Treatise on Marine Ecology and Paleoecology.
- Safiullah, M., M. Syahdan, dan Nursalam. 2017. Analisis Kondisi Terumbu Karang di Pulau Wisata Samalona Kecamatan Ujung Tanah Kota Makassar, Sulawesi Selatan. *MCSIJ (Marine, Coastal and Small Island Journal) - Jurnal Kelautan*, 1 (2): 105 - 116.
- Saruni, Z. 2010. Kajian Pemanfaatan Sumberdaya Terumbu Karang Bagi Wisata Snorkling di Pulau Samalona Kota Makassar, Sulawesi Selatan. Departemen Manajemen Sumberdaya Perairan, Fakultas Perikanan dan Ilmu Kelautan, Institut Pertanian Bogor.
- Simarmata, I., Arma, A. J. A., & Arnita. 2013. Aplikasi Analisis Faktor dengan Metode Principal Component Analysis dan Maximum Likelihood dalam Faktor-Faktor yang Mempengaruhi Pemberian Makanan Tambahan Pada Bayi Usia 0-6 Bulan di Desa Pematang Panjang Kecamatan Air Putih Kabupaten Batubara Tahun 2013. *FKM Universitas Sumatera Utara*, 1–17.
- Simatupang, C. M. 2016. Analisis Data Arus di Perairan Muara Sungai Banyuasin Provinsi Sumatera Selatan. *Maspuri Journal*. 8(1): 15-24
- Smith, F.G.W. 1948. Surface illumination and bernacle attachment. *Biol. Bull.* 94 (1) 33-39.:
- Soegianto, A. 1994. Ekologi kuantitatif. Usaha Nasional. Surabaya. 1 :12-13

- Sukarno, R., 1995. Kondisi terumbu karang di Indonesia dan usaha pengelolaannya. SNC-Lavalin International Inc. Association with International Development Program of Australian Universities and Colleges, PT. Hasfarm Dian Konsultan, MSEP-CPIU. Jakarta.
- Supriharyono. 2007. Pengelolaan Ekosistem Terumbu Karang. Penerbit Djambatan. 129 halaman.
- Syawal, M. S., Wardiatno, Y., & Hariyadi, S. 2016. Pengaruh Aktivitas Antropogenik Terhadap Kualitas Air, Sedimen dan Moluska di Danau Maninjau, Sumatera Barat. *Jurnal Biologi Tropis*, 16(1), 1–14. <https://doi.org/10.29303/jbt.v16i1.210>
- Westmacott, S., Teleki, K., Wells, S., Henning, J., Badan, I., Dunia, K., World, T., & Union, C. 2000. *Pengelolaan Terumbu Karang yang Telah Memutih dan Rusak Kritis*.
- Wijayanti, H., Herbowo, D. G., & Darmawan, A. 2020. Keberadaan Hewan Pengotor Teritip di Infrastruktur Teluk Kunyit, Pantai Sariringgung dan Pantai Mutun, Lampung. *Jurnal Biologi Tropis*, 20(1), 54. <https://doi.org/10.29303/jbt.v20i1.1540>
- Wyrtki, K. 1961. Physycal Oceanography of South East Asian Water. Naga Report Vol.2. Scripps Institution of Oceanography. University of California. California.

## DAFTAR LAMPIRAN

Lampiran 1. Nilai tutupan dasar (%) terumbu karang per stasiun.

| Kategori                   | Stasiun 1 |       | Stasiun 2 |       | Stasiun 3 |       |
|----------------------------|-----------|-------|-----------|-------|-----------|-------|
|                            | RataRata  | STDEV | RataRata  | STDEV | RataRata  | STDEV |
| CORAL ©                    | 18,49     | 21.73 | 46,8      | 31.27 | 29,5      | 7.74  |
| DEAD CORAL (DC)            | 4,82      | 7.91  | 40,71     | 29.6  | 8,61      | 3.49  |
| OTHER BIOTA (OTHER)        | 0,29      | 1.07  | 0,67      | 3.04  | 1,47      | 1.21  |
| ALGAE (ALGAE)              | 0,44      | 1.63  | 6,32      | 15.5  | 3,38      | 1.94  |
| ABIOTIK (SAND, SILT, ROCK) | 76,09     | 23.86 | 5,5       | 13.80 | 57,04     | 8.03  |
| TAPE, WAND, SHADOW (TWS)   | 1,3       | 2.43  | 1,65      | 2.35  | 1,88      | 0.79  |

Lampiran 2. Prevalensi teritip (%) per genera karang yang dilekati teritip

### Stasiun 1

| No. | Genera            | Plot  |       |    |     |     |     |     |    |
|-----|-------------------|-------|-------|----|-----|-----|-----|-----|----|
|     |                   | 1     | 2     | 3  | 4   | 5   | 6   | 7   | 8  |
| 1   | <i>Acropora</i>   | 100   | 0     | 0  | 0   | 0   | 0   | 0   | 0  |
| 2   | <i>Cyphastrea</i> | 0     | 0     | 0  | 100 | 100 | 100 | 0   | 0  |
| 3   | <i>Favia</i>      | 0     | 0     | 50 | 0   | 0   | 0   | 0   | 0  |
| 4   | <i>Favites</i>    | 100   | 33,33 | 0  | 0   | 0   | 0   | 0   | 75 |
| 5   | <i>Goniastrea</i> | 33,33 | 0     | 0  | 0   | 0   | 0   | 0   | 0  |
| 6   | <i>Platygyra</i>  | 0     | 0     | 0  | 0   | 0   | 0   | 0   | 0  |
| 7   | <i>Alveopora</i>  | 0     | 0     | 0  | 0   | 0   | 0   | 0   | 0  |
| 8   | <i>Isopora</i>    | 0     | 0     | 0  | 0   | 0   | 100 | 0   |    |
| 9   | <i>Porites</i>    | 0     | 75    | 0  | 0   | 0   | 50  | 100 | 60 |

### Stasiun 2

| No. | Genera            | Plot |     |    |       |     |       |    |     |
|-----|-------------------|------|-----|----|-------|-----|-------|----|-----|
|     |                   | 1    | 2   | 3  | 4     | 5   | 6     | 7  | 8   |
| 1   | <i>Acropora</i>   | 100  | 0   | 0  | 66,67 | 100 | 100   | 0  | 100 |
| 2   | <i>Cyphastrea</i> | 0    | 0   | 0  | 0     | 0   | 0     | 0  | 0   |
| 3   | <i>Favia</i>      | 0    | 0   | 0  | 0     | 0   | 0     | 0  | 0   |
| 4   | <i>Favites</i>    | 0    | 0   | 0  | 0     | 0   | 0     | 0  | 0   |
| 5   | <i>Goniastrea</i> | 100  | 0   | 0  | 0     | 0   | 0     | 0  | 0   |
| 6   | <i>Echinopora</i> | 0    | 0   | 0  | 0     | 0   | 0     | 0  | 0   |
| 7   | <i>Alveopora</i>  | 0    | 0   | 0  | 0     | 0   | 0     | 0  | 0   |
| 8   | <i>Isopora</i>    | 0    | 100 | 75 | 100   | 50  | 33,33 | 50 | 100 |
| 9   | <i>Porites</i>    | 0    | 0   | 0  | 0     | 0   | 0     | 0  | 50  |

### Stasiun 3

| No. | Genera            | Plot |    |       |     |     |     |     |     |
|-----|-------------------|------|----|-------|-----|-----|-----|-----|-----|
|     |                   | 1    | 2  | 3     | 4   | 5   | 6   | 7   | 8   |
| 1   | <i>Acropora</i>   | 100  | 0  | 0     | 0   | 0   | 0   | 0   | 0   |
| 2   | <i>Cyphastrea</i> | 0    | 0  | 0     | 0   | 0   | 0   | 0   | 0   |
| 3   | <i>Favia</i>      | 0    | 0  | 0     | 0   | 50  | 0   | 100 | 100 |
| 4   | <i>Favites</i>    | 0    | 50 | 0     | 100 | 100 | 0   | 0   | 0   |
| 5   | <i>Goniastrea</i> | 0    | 0  | 0     | 0   | 0   | 0   | 0   | 0   |
| 6   | <i>Echinopora</i> | 0    | 0  | 0     | 0   | 0   | 100 | 0   | 0   |
| 7   | <i>Alveopora</i>  | 0    | 0  | 33,33 | 0   | 0   | 0   | 0   | 0   |
| 8   | <i>Isopora</i>    | 0    | 0  | 0     | 100 | 0   | 100 | 100 | 0   |
| 9   | <i>Porites</i>    | 0    | 0  | 0     | 0   | 0   | 0   | 0   | 0   |

Lampiran 3. Hasil ANOVA prevalensi (%) karang yang terkena gangguan teritip pada setiap stasiun

| <b>DESKRIPTIF</b> |    |         |                |            |                                  |             |       |        |
|-------------------|----|---------|----------------|------------|----------------------------------|-------------|-------|--------|
| Prevalensi        |    |         |                |            |                                  |             |       |        |
|                   | N  | Mean    | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             |       |        |
|                   |    |         |                |            | Lower Bound                      | Upper Bound |       |        |
| 1.00              | 8  | 45,42   | 26,95812       | 9,53114    | 22,8799                          | 67,9551     | 16,67 | 100,00 |
| 2.00              | 8  | 75,00   | 19,41567       | 6,86448    | 58,7681                          | 91,2319     | 50,00 | 100,00 |
| 3.00              | 8  | 71,25   | 27,88568       | 9,85908    | 47,9370                          | 94,5630     | 33,33 | 100,00 |
| Total             | 24 | 63,8892 | 27,44157       | 5,60149    | 52,3016                          | 75,4767     | 16,67 | 100,00 |

### **ANOVA**

| Prevalensi     |                |    |             |       |      |
|----------------|----------------|----|-------------|-------|------|
|                | Sum of Squares | df | Mean Square | F     | Sig. |
| Between Groups | 4150,680       | 2  | 2075,340    | 3,309 | .056 |
| Within Groups  | 13169,239      | 21 | 627,107     |       |      |
| Total          | 17319,919      | 23 |             |       |      |

Lampiran 4. Hasil ANOVA prevalensi (%) pada setiap genera karang yang terkena gangguan teritip antara stasiun

**DESKRIFTIF**

|                   | N     | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min   | Max |     |
|-------------------|-------|------|----------------|------------|----------------------------------|-------------|-------|-----|-----|
|                   |       |      |                |            | Lower Bound                      | Upper Bound |       |     |     |
| <i>Acropora</i>   | 1     | 8    | 12,50          | 35,355     | 12,500                           | -17,06      | 42,06 | 0   | 100 |
|                   | 2     | 8    | 58,33          | 49,602     | 17,537                           | 16,87       | 99,80 | 0   | 100 |
|                   | 3     | 8    | 12,50          | 35,355     | 12,500                           | -17,06      | 42,06 | 0   | 100 |
|                   | Total | 24   | 27,78          | 44,685     | 9,121                            | 8,91        | 46,65 | 0   | 100 |
| <i>Cyphastrea</i> | 1     | 8    | 37,50          | 51,755     | 18,298                           | -5,77       | 80,77 | 0   | 100 |
|                   | 2     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 3     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | Total | 24   | 12,50          | 33,783     | 6,896                            | -1,77       | 26,77 | 0   | 100 |
| <i>Favia</i>      | 1     | 8    | 6,25           | 17,678     | 6,250                            | -8,53       | 21,03 | 0   | 50  |
|                   | 2     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 3     | 8    | 31,25          | 45,806     | 16,195                           | -7,04       | 69,54 | 0   | 100 |
|                   | Total | 24   | 12,50          | 30,396     | 6,205                            | -0,34       | 25,34 | 0   | 100 |
| <i>Favites</i>    | 1     | 8    | 26,04          | 40,197     | 14,212                           | -7,56       | 59,65 | 0   | 100 |
|                   | 2     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 3     | 8    | 31,25          | 45,806     | 16,195                           | -7,04       | 69,54 | 0   | 100 |
|                   | Total | 24   | 19,10          | 36,405     | 7,431                            | 3,72        | 34,47 | 0   | 100 |
| <i>Goniastrea</i> | 1     | 8    | 4,17           | 11,784     | 4,166                            | -5,69       | 14,02 | 0   | 33  |
|                   | 2     | 8    | 12,50          | 35,355     | 12,500                           | -17,06      | 42,06 | 0   | 100 |
|                   | 3     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | Total | 24   | 5,56           | 21,234     | 4,334                            | -3,41       | 14,52 | 0   | 100 |
| <i>Echinopora</i> | 1     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 2     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 3     | 8    | 12,50          | 35,355     | 12,500                           | -17,06      | 42,06 | 0   | 100 |
|                   | Total | 24   | 4,17           | 20,412     | 4,167                            | -4,45       | 12,79 | 0   | 100 |
| <i>Alveopora</i>  | 1     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 2     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | 3     | 8    | 4,17           | 11,784     | 4,166                            | -5,69       | 14,02 | 0   | 33  |
|                   | Total | 24   | 1,39           | 6,803      | 1,389                            | -1,48       | 4,26  | 0   | 33  |
| <i>Isopora</i>    | 1     | 7    | 14,29          | 37,796     | 14,286                           | -20,67      | 49,24 | 0   | 100 |
|                   | 2     | 8    | 63,54          | 36,715     | 12,981                           | 32,85       | 94,24 | 0   | 100 |
|                   | 3     | 8    | 37,50          | 51,755     | 18,298                           | -5,77       | 80,77 | 0   | 100 |
|                   | Total | 23   | 39,49          | 45,659     | 9,520                            | 19,75       | 59,24 | 0   | 100 |
| <i>Porites</i>    | 1     | 8    | 35,63          | 40,659     | 14,375                           | 1,63        | 69,62 | 0   | 100 |
|                   | 2     | 8    | 6,25           | 17,678     | 6,250                            | -8,53       | 21,03 | 0   | 50  |
|                   | 3     | 8    | 0,00           | 0,000      | 0,000                            | 0,00        | 0,00  | 0   | 0   |
|                   | Total | 24   | 13,96          | 29,154     | 5,951                            | 1,65        | 26,27 | 0   | 100 |

**ANOVA**

|                   |                | Sum of Squares | df | Mean Square | F     | Sig. |
|-------------------|----------------|----------------|----|-------------|-------|------|
| <i>Acropora</i>   | Between Groups | 11203.907      | 2  | 5601.954    | 3.388 | .053 |
|                   | Within Groups  | 34722.278      | 21 | 1653.442    |       |      |
|                   | Total          | 45926.185      | 23 |             |       |      |
| <i>Cyphastrea</i> | Between Groups | 7500.000       | 2  | 3750.000    | 4.200 | .029 |
|                   | Within Groups  | 18750.000      | 21 | 892.857     |       |      |
|                   | Total          | 26250.000      | 23 |             |       |      |
| <i>Favia</i>      | Between Groups | 4375.000       | 2  | 2187.500    | 2.722 | .089 |
|                   | Within Groups  | 16875.000      | 21 | 803.571     |       |      |
|                   | Total          | 21250.000      | 23 |             |       |      |
| <i>Favites</i>    | Between Groups | 4484.907       | 2  | 2242.454    | 1.811 | .188 |
|                   | Within Groups  | 25998.215      | 21 | 1238.010    |       |      |
|                   | Total          | 30483.123      | 23 |             |       |      |

Lampiran 4 (lanjutan). Hasil ANOVA prevalensi (%) pada setiap genera karang yang terkena gangguan teritip antara stasiun.

|                   |                |           |    |          |       |      |
|-------------------|----------------|-----------|----|----------|-------|------|
| <i>Goniastrea</i> | Between Groups | 648.157   | 2  | 324.079  | .700  | .508 |
|                   | Within Groups  | 9722.028  | 21 | 462.954  |       |      |
|                   | Total          | 10370.185 | 23 |          |       |      |
| <i>Echinopora</i> | Between Groups | 833.333   | 2  | 416.667  | 1.000 | .385 |
|                   | Within Groups  | 8750.000  | 21 | 416.667  |       |      |
|                   | Total          | 9583.333  | 23 |          |       |      |
| <i>Alveopora</i>  | Between Groups | 92.574    | 2  | 46.287   | 1.000 | .385 |
|                   | Within Groups  | 972.028   | 21 | 46.287   |       |      |
|                   | Total          | 1064.602  | 23 |          |       |      |
| <i>Isopora</i>    | Between Groups | 9106.174  | 2  | 4553.087 | 2.477 | .109 |
|                   | Within Groups  | 36757.394 | 20 | 1837.870 |       |      |
|                   | Total          | 45863.568 | 22 |          |       |      |
| <i>Porites</i>    | Between Groups | 5789.583  | 2  | 2894.792 | 4.418 | .025 |
|                   | Within Groups  | 13759.375 | 21 | 655.208  |       |      |
|                   | Total          | 19548.958 | 23 |          |       |      |

Lampiran 5. Kepadatan teritip (ind/cm<sup>2</sup>) yang melekat pada karang

Stasiun 1

| No. | Genera            | Plot  |       |       |      |      |      |      |       |
|-----|-------------------|-------|-------|-------|------|------|------|------|-------|
|     |                   | 1     | 2     | 3     | 4    | 5    | 6    | 7    | 8     |
| 1   | <i>Acropora</i>   | 0,041 | 0     | 0     | 0    | 0    | 0    | 0    | 0     |
| 2   | <i>Cyphastrea</i> | 0     | 0     | 0     | 0,01 | 0,03 | 0,03 | 0    | 0     |
| 3   | <i>Favia</i>      | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0     |
| 4   | <i>Favites</i>    | 0,03  | 0,07  | 0,015 | 0    | 0    | 0    | 0    | 0,015 |
| 5   | <i>Goniastrea</i> | 0,002 | 0     | 0     | 0    | 0    | 0    | 0    | 0     |
| 6   | <i>Leptastrea</i> | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0     |
| 7   | <i>Alveopora</i>  | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0     |
| 8   | <i>Isopora</i>    | 0     | 0     | 0     | 0    | 0    | 0,02 | 0    | 0     |
| 9   | <i>Porites</i>    | 0     | 0,037 | 0     | 0    | 0    | 0,01 | 0,01 | 0,01  |

## Stasiun 2

| No. | Genera            | Plot  |      |      |       |       |      |      |       |
|-----|-------------------|-------|------|------|-------|-------|------|------|-------|
|     |                   | 1     | 2    | 3    | 4     | 5     | 6    | 7    | 8     |
| 1   | <i>Acropora</i>   | 0,012 | 0    | 0    | 0,052 | 0,02  | 0,18 | 0    | 0,151 |
| 2   | <i>Cyphastrea</i> | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0     |
| 3   | <i>Favia</i>      | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0     |
| 4   | <i>Favites</i>    | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0     |
| 5   | <i>Goniastrea</i> | 0,09  | 0    | 0    | 0     | 0     | 0    | 0    | 0     |
| 6   | <i>Leptoseris</i> | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0     |
| 7   | <i>Alveopora</i>  | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0     |
| 8   | <i>Stylophora</i> | 0     | 0,03 | 0,07 | 0,03  | 0,006 | 0,5  | 0,01 | 0,054 |
| 9   | <i>Porites</i>    | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0,03  |

## Stasiun 3

| No. | Genera            | Plot |     |     |      |      |      |       |      |
|-----|-------------------|------|-----|-----|------|------|------|-------|------|
|     |                   | 1    | 2   | 3   | 4    | 5    | 6    | 7     | 8    |
| 1   | <i>Acropora</i>   | 0,15 | 0   | 0   | 0    | 0    | 0    | 0     | 0    |
| 2   | <i>Cyphastrea</i> | 0    | 0   | 0   | 0    | 0    | 0    | 0     | 0    |
| 3   | <i>Favia</i>      | 0    | 0   | 0   | 0    | 0,1  | 0    | 0,025 | 0    |
| 4   | <i>Favites</i>    | 0    | 0,1 | 0   | 0,03 | 0,07 | 0    | 0     | 0,05 |
| 5   | <i>Goniastrea</i> | 0    | 0   | 0   | 0    | 0    | 0    | 0     | 0    |
| 6   | <i>Leptoseris</i> | 0    | 0   | 0   | 0    | 0    | 0,01 | 0     | 0    |
| 7   | <i>Alveopora</i>  | 0    | 0   | 0,4 | 0    | 0    | 0    | 0     | 0    |
| 8   | <i>Stylophora</i> | 0    | 0   | 0   | 0,07 | 0    | 0,02 | 0,41  | 0    |
| 9   | <i>Porites</i>    | 0    | 0   | 0   | 0    | 0    | 0    | 0     | 0    |

Lampiran 6. Hasil ANOVA kepadatan total teritip (ind/cm<sup>2</sup>) yang melekat karang.

| DESKRIPTIF |    |        |                |            |                                  |             |         |  |
|------------|----|--------|----------------|------------|----------------------------------|-------------|---------|--|
| Kepadatan  |    |        |                |            |                                  |             |         |  |
|            | N  | Mean   | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Minimum |  |
|            |    |        |                |            | Lower Bound                      | Upper Bound |         |  |
| 1.00       | 8  | 0,1013 | 0,17545        | 0,06203    | -0,0454                          | 0,2479      | 0,01    |  |
| 2.00       | 8  | 0,1868 | 0,21767        | 0,07696    | 0,0048                           | 0,3687      | 0,02    |  |
| 3.00       | 8  | 0,1938 | 0,14735        | 0,05210    | 0,0706                           | 0,3169      | 0,07    |  |
| Total      | 24 | 0,1606 | 0,17956        | 0,03665    | 0,0848                           | 0,2364      | 0,01    |  |

### ANOVA

Kepadatan Total

|                | Sum of Squares | df | Mean Square | F    | Sig. |
|----------------|----------------|----|-------------|------|------|
| Between Groups | 394.889        | 2  | 197.444     | .123 | .886 |
| Within Groups  | 9617.333       | 6  | 1602.889    |      |      |
| Total          | 10012.222      | 8  |             |      |      |

Lampiran 7. Hasil ANOVA kepadatan teritip (ind/cm<sup>2</sup>) yang melekat setiap genera karang.

### DESKRIPTIF

|                   | N     | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | Min i  | Max   |
|-------------------|-------|------|----------------|------------|----------------------------------|--------|-------|
| <i>Acropora</i>   | 1.00  | 8    | .0051          | .01450     | .00513                           | -.0070 | .0172 |
|                   | 2.00  | 8    | .0519          | .07263     | .02568                           | -.0088 | .1126 |
|                   | 3.00  | 8    | .0188          | .05303     | .01875                           | -.0256 | .0631 |
|                   | Total | 24   | .0253          | .05410     | .01104                           | .0024  | .0481 |
| <i>Cyphastrea</i> | 1.00  | 8    | .0088          | .01356     | .00479                           | -.0026 | .0201 |
|                   | 2.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | 3.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | Total | 24   | .0029          | .00859     | .00175                           | -.0007 | .0065 |
| <i>Favia</i>      | 1.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | 2.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | 3.00  | 8    | .0156          | .03520     | .01244                           | -.0138 | .0451 |
|                   | Total | 24   | .0052          | .02082     | .00425                           | -.0036 | .0140 |
| <i>Favites</i>    | 1.00  | 8    | .0163          | .02431     | .00860                           | -.0041 | .0366 |
|                   | 2.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | 3.00  | 8    | .0313          | .03871     | .01368                           | -.0011 | .0636 |
|                   | Total | 24   | .0158          | .02839     | .00579                           | .0038  | .0278 |
| <i>Goniastrea</i> | 1.00  | 8    | .0003          | .00071     | .00025                           | -.0003 | .0008 |
|                   | 2.00  | 8    | .0113          | .03182     | .01125                           | -.0154 | .0379 |
|                   | 3.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | Total | 24   | .0038          | .01836     | .00375                           | -.0039 | .0116 |
| <i>Echinopora</i> | 1.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | 2.00  | 8    | .0000          | .00000     | .00000                           | .0000  | .00   |
|                   | 3.00  | 8    | .0013          | .00354     | .00125                           | -.0017 | .0042 |
|                   | Total | 24   | .0004          | .00204     | .00042                           | -.0004 | .0013 |

Lampiran 7 (lanjutan). Hasil ANOVA kepadatan teritip (ind/cm<sup>2</sup>) yang melekat setiap genera karang.

|                  |       |    |        |        |        |        |        |     |     |
|------------------|-------|----|--------|--------|--------|--------|--------|-----|-----|
| <i>Alveopora</i> | 1.00  | 8  | .00000 | .00000 | .00000 | .00000 | .00000 | .00 | .00 |
|                  | 2.00  | 8  | .00000 | .00000 | .00000 | .00000 | .00000 | .00 | .00 |
|                  | 3.00  | 8  | .05000 | .14142 | .05000 | -.0682 | .1682  | .00 | .40 |
|                  | Total | 24 | .0167  | .08165 | .01667 | -.0178 | .0511  | .00 | .40 |
| <i>Isopora</i>   | 1.00  | 8  | .0025  | .00707 | .00250 | -.0034 | .0084  | .00 | .02 |
|                  | 2.00  | 8  | .0875  | .16840 | .05954 | -.0533 | .2283  | .00 | .50 |
|                  | 3.00  | 8  | .0625  | .14250 | .05038 | -.0566 | .1816  | .00 | .41 |
|                  | Total | 24 | .0508  | .12710 | .02594 | -.0028 | .1045  | .00 | .50 |
| <i>Porites</i>   | 1.00  | 8  | .0084  | .01258 | .00445 | -.0021 | .0189  | .00 | .04 |
|                  | 2.00  | 8  | .0038  | .01061 | .00375 | -.0051 | .0126  | .00 | .03 |
|                  | 3.00  | 8  | .0000  | .00000 | .00000 | .0000  | .0000  | .00 | .00 |
|                  | Total | 24 | .0040  | .00973 | .00199 | -.0001 | .0081  | .00 | .04 |

### ANOVA

|                   |                | Sum of Squares | df | Mean Square | F     | Sig. |
|-------------------|----------------|----------------|----|-------------|-------|------|
| <i>Acropora</i>   | Between Groups | .009           | 2  | .005        | 1.672 | .212 |
|                   | Within Groups  | .058           | 21 | .003        |       |      |
|                   | Total          | .067           | 23 |             |       |      |
| <i>Cyphastrea</i> | Between Groups | .000           | 2  | .000        | 3.330 | .055 |
|                   | Within Groups  | .001           | 21 | .000        |       |      |
|                   | Total          | .002           | 23 |             |       |      |
| <i>Favia</i>      | Between Groups | .001           | 2  | .001        | 1.577 | .230 |
|                   | Within Groups  | .009           | 21 | .000        |       |      |
|                   | Total          | .010           | 23 |             |       |      |
| <i>Favites</i>    | Between Groups | .004           | 2  | .002        | 2.806 | .083 |
|                   | Within Groups  | .015           | 21 | .001        |       |      |
|                   | Total          | .019           | 23 |             |       |      |
| <i>Goniastrea</i> | Between Groups | .001           | 2  | .000        | .978  | .393 |
|                   | Within Groups  | .007           | 21 | .000        |       |      |
|                   | Total          | .008           | 23 |             |       |      |
| <i>Echinopora</i> | Between Groups | .000           | 2  | .000        | 1.000 | .385 |
|                   | Within Groups  | .000           | 21 | .000        |       |      |
|                   | Total          | .000           | 23 |             |       |      |
| <i>Alveopora</i>  | Between Groups | .013           | 2  | .007        | 1.000 | .385 |
|                   | Within Groups  | .140           | 21 | .007        |       |      |
|                   | Total          | .153           | 23 |             |       |      |
| <i>Isopora</i>    | Between Groups | .031           | 2  | .015        | .940  | .406 |
|                   | Within Groups  | .341           | 21 | .016        |       |      |
|                   | Total          | .372           | 23 |             |       |      |
| <i>Porites</i>    | Between Groups | .000           | 2  | .000        | 1.560 | .234 |
|                   | Within Groups  | .002           | 21 | .000        |       |      |
|                   | Total          | .002           | 23 |             |       |      |

Lampiran 8. Hasil analisis *Principal Component Analysis*: Prevalensi dan Kepadatan Teritip dengan Faktor Lingkungan dan Tutupan Karang

***Principal Component Analysis:***

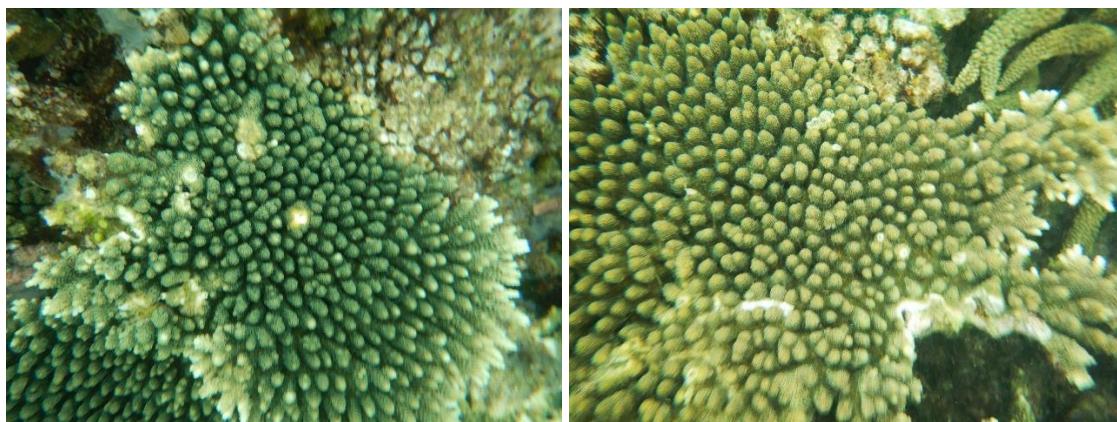
Eigenanalysis of the Correlation Matrix

|            |         |         |         |        |         |         |         |         |         |
|------------|---------|---------|---------|--------|---------|---------|---------|---------|---------|
| Eigenvalue | 7.1397  | 3.8603  | 0.0000  | 0.0000 | -0.0000 | -0.0000 | -0.0000 | -0.0000 | -0.0000 |
| Proportion | 0.649   | 0.351   | 0.000   | 0.000  | -0.000  | -0.000  | -0.000  | -0.000  | -0.000  |
| Cumulative | 0.649   | 1.000   | 1.000   | 1.000  | 1.000   | 1.000   | 1.000   | 1.000   | 1.000   |
| Eigenvalue | -0.0000 | -0.0000 | -0.0000 |        |         |         |         |         |         |
| Proportion | -0.000  | -0.000  | -0.000  |        |         |         |         |         |         |
| Cumulative | 1.000   | 1.000   | 1.000   |        |         |         |         |         |         |

| Variable     | PC1    | PC2    | PC3    |
|--------------|--------|--------|--------|
| Suhu         | 0.362  | -0.129 | -0.414 |
| Salinitas    | -0.294 | 0.314  | -0.298 |
| pH           | 0.095  | 0.492  | -0.034 |
| Kekeruhan    | -0.160 | 0.460  | -0.262 |
| Arus         | 0.374  | 0.002  | -0.013 |
| Nitrat       | -0.095 | -0.492 | -0.566 |
| Fosfat       | 0.365  | 0.112  | -0.281 |
| Karang Hidup | -0.345 | -0.196 | -0.312 |
| Karang Mati  | -0.288 | -0.326 | 0.291  |
| Prevalanesi  | -0.371 | 0.071  | 0.119  |
| Kepadatan    | -0.355 | 0.162  | -0.274 |

Lampiran 8. Gambar genera karang teridentifikasi saat pengambilan data prevalensi dan kepadatan teritip yang menginfeksi karang

1. *Acropora*



2. *Chypastrea*



3. *Favites*



4. *Favia*



5. *Goniastrea*



6. *Echinopora*



7. *Alveopora*



8. *Isopora*



9. *Porites*

