

V. KESIMPULAN DAN SARAN

A. Kesimpulan

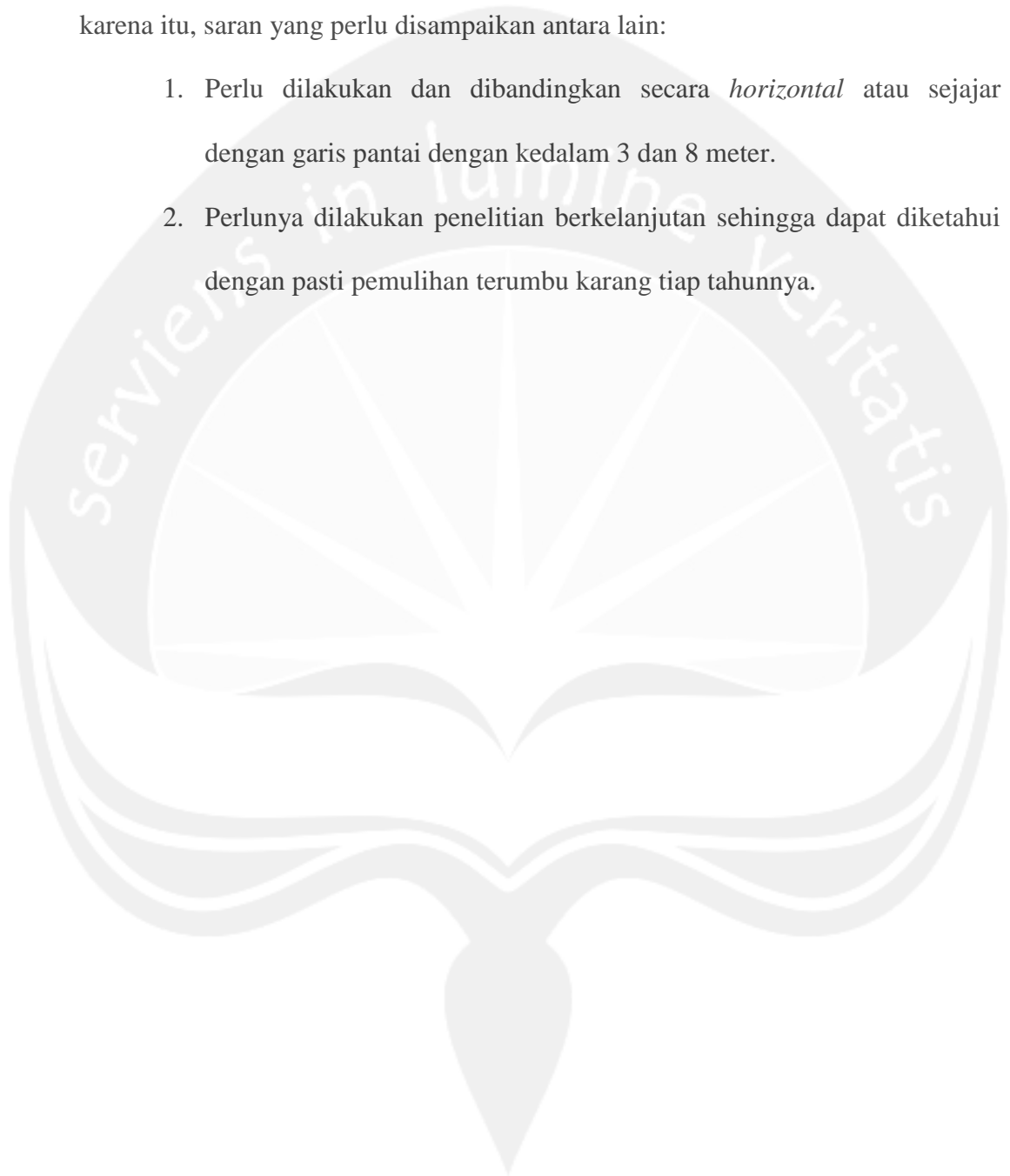
Berdasarkan penelitian yang telah dilakukan, dapat ditarik 2 kesimpulan, yaitu:

1. Persentase tutupan terumbu karang pada daerah Watu Lawang sebesar 32,48%. Tutupan terumbu karang pada daerah Teluk Pelita dan Karang Mayit sebesar 23,30%. Tutupan terumbu karang pada daerah Karang Ponpon sebesar 27,47%. Tutupan terumbu karang di daerah Watu Lawang dan Karang Ponpon masuk dalam kategori sedang, sedangkan Teluk Pelita dan Karang Mayit tergolong buruk.
2. Genus karang yang paling mendominasi di daerah Watu Lawang adalah *Acropora*. Genus karang yang mendominasi di daerah Teluk Pelita dan Karang Mayit adalah *Leptoseris*, *Acropora* dan *Porites*. Genus karang yang mendominasi di daerah Karang Ponpon adalah *Porites* dan *Acropora*.
3. Kondisi lingkungan di perairan Pantai Pasir Putih Situbondo bervariasi. Stasiun Watu Lawang didominasi dengan pasir, arus dan ombak yang sedang, serta jarak pandang 3 sampai 8 meter. Stasiun Teluk Pelita dan Karang Ponpon didominasi dengan lumpur, arus dan ombak yang sedang, serta jarak pandang 3 sampai 8 meter. Stasiun Karang Ponpon didominasi dengan daerah patahan karang, arus dan ombak sedang, serta jarak pandang 2 sampai 8 meter.

B. Saran

Penelitian ini masih terdapat kekurangan yang perlu diperbaiki. Oleh karena itu, saran yang perlu disampaikan antara lain:

1. Perlu dilakukan dan dibandingkan secara *horizontal* atau sejajar dengan garis pantai dengan kedalaman 3 dan 8 meter.
2. Perlunya dilakukan penelitian berkelanjutan sehingga dapat diketahui dengan pasti pemulihan terumbu karang tiap tahunnya.



DAFTAR PUSTAKA

- Amin. 2009. Terumbu Karang; Aset yang Terancam (Akar Masalah dan Alternatif Solusi Penyelamatannya). *Region I(2)*: 1-12.
- Arnata, W., Gunam, B. W., Anggreni, A. D., Aryanta, W. R., dan Loberto, P. M. 2013. Produksi Biomassa dan Potensi Nutrisi Mikroalga *Nannochloropsis* sp. K4. Dalam: *Seminar Nasional PATPI 2013*. 26-29 Agustus 2013, Jember.
- Burke, L., Selig, E., dan Spalding, M., 2002. *Terumbu Karang Yang Terancam di Asia Tenggara*. World Resources Institute, Amerika Serikat.
- Fadli, M., Suryanti, dan Ruswahyuni. 2013. Kelimpahan Jenis Teripang (Holothuroidea) Di Rataan Terumbu Karang dan Lereng Terumbu Karang Pantai Pancuran Belakang Pulau Karimunjawa, Jepara. *Diponegoro Journal of Maquares 2(3)*:288-297.
- Fagerstrom, J.A.,1985. *The Evolution Of Reef Communities*. John Wiley and Sons, Inc., New York.
- Giyanto, Manuputty, A. E. W., Abrar, M., Siringoringo, R. M., Suharti, S. R., Wibowo, K., Edrus, I. N., Arbi, U. Y., Cappenberg, H. A. W., Sihalo, H. F., Tuti, Y., dan Zulfianita, D. 2014. *Panduan Monitoring Kesehatan Terumbu Karang: Terumbu Karang, Ikan Karang, Megabenthos dan Penulisan Laporan*. Coremap CTI LIPI, Jakarta.
- Haruddin, A., Purwanto, E., dan Budiastuti, S. 2011. Dampak Kerusakan Ekosistem Terumbu Karang Terhadap Hasil Penangkapan Ikan Oleh Nelayan Secara Tradisional di Pulau Siompu Kabupaten Buton Propinsi Sulawesi Tenggara. *Jurnal Ekosains III(3)*: 29-41.
- Hayuni, D. S. B. 2007. Potensi Ekosistem Terumbu Karang untuk Pengembangan Wisata Bahari Pasir Putih Kabupaten Situbondo. *Tesis-S2*, Universitas Gadjah Mada, Yogyakarta.
- Johan, O. 2003. *Metode Survei Terumbu Karang Indonesia*. <http://staff.unila.ac.id/gnugroho/files/2014/06/metode-survei-terumbu-karang-indonesia-.pdf>. Diakses pada tanggal 14 Oktober 2015
- Johan, O., Hadie, W., Saputra, A., Haryadi, J., dan Listyanto, N. 2007. Budi Daya Karang Hias Mendukung Perdagangan Karang Hias Yang Berkesinambungan. *Jurnal Riset Akuakultur 2(3)*: 419-428.
- Kholish, M. N. 2013. Perlindungan Hukum Terhadap Kerusakan Terumbu Karang di Tinjau Dari Undang-Undang Nomor 5 Tahun 1990 Tentang Konservasi Sumber Daya Alam Hayati dan Ekosistem (Studi di Gili Air). *Jurnal Ilmiah Fakultas Hukum, Universitas Mataram, Nusa Tenggara Barat*.

- Kohler, K. E., dan Gill, S. M. 2006. Coral Point Count with Excel extensions (CPCe): A Visual Basic program for the determination of coral and substrate coverage using random point count methodology. *Computer and Geosciences* 32(9): 1259-1269.
- Menteri Lingkungan Hidup. 2001. *Keputusan Menteri Lingkungan Hidup Nomor 4 Tahun 2001 tentang Standar Baku Mutu Kerusakan Lingkungan Hidup*. Jakarta.
- Nontji, A. 1993. *Laut Nusantara*. Djambatan, Jakarta.
- Nybakken, J. W. 1998. *Biologi Laut: Suatu Pendekatan Ekologis*. PT. Gramedia Pustaka, Jakarta.
- Pasanea, Y. E., 2013. Kondisi Terumbu Karang dan Penyusunan Konsep Strategis Pengawasan Ekosistem Terumbu Karang di Pulau Mansinam, Kabupaten Manokwari. *Naskah Skripsi-S1*, Fakultas Ilmu Kelautan dan Perikanan, Universitas Hasanuddin, Makassar.
- Peraturan Bupati. 2012. *Pencadangan Kawasan Terumbu Karang Pasir Putih Sebagai Kawasan Konservasi Perairan Daerah Kabupaten Situbondo*. Sekretaris Daerah, Situbondo.
- Pitasari, A., Saptarini, D., dan Aunurohim. 2011. *Tingkat Rekrutmen Karang Pada Tiga Tipe Substrat Di Pantai Pasir Putih Situbondo*. Institut Teknologi Sepuluh November, Surabaya.
- Rappe, R. A. 2010. Struktur Komunitas Ikan Pada Padang Lamun yang Berbeda di Pulau Barrang Lompo. *Jurnal Ilmu dan Teknologi Kelautan Tropis*, 2(2): 62-73.
- Romimohtarto, K., dan Juwana, S. 2005. *Biologi Laut: Ilmu Pengetahuan Tentang Biota Laut*. Djambatan. Jakarta.
- Santosa, Y., Ramadhan, E. P., dan Rahman, D. A. 2008. Studi Keanekaragaman Mamalia pada Beberapa Tipe Habitat di Stasiun Penelitian Pondok Ambung Taman Nasional Tanjung Putting Kalimantan Tengah. *Media Konservasi* 13(3): 1-7.
- Santoso, A. D., dan Kardono. 2008. Teknologi Konservasi dan Rehabilitasi Terumbu Karang. *Jurnal Teknologi Lingkungan* 9(3): 221-226.
- Soekarno. 2007. Penentuan Kecepatan Pemulihan (Recovery Rate) Terumbu Karang Di Indonesia Dan Masalahnya. <http://www.coremap.or.id/print/article.php?id=595>. 22 April 2016
- Suharsono. 1984. *Pertumbuhan Karang*. Pusat Penelitian Biologi Laut. LON_LIPI, Jakarta.
- Suharsono. 1996. *Wisata Bahari Pulau Belitung*. P3O LIPI, Jakarta.

- Sunarto. 2006. Keanekaragaman Hayati dan Degradasi Ekosistem Terumbu Karang. *Karya Ilmiah*, Fakultas Perikanan dan Ilmu Kelautan, Universitas Padjadjaran, Jatinanggor.
- Supriharyono, M. S. 2000. *Pengelolaan Ekosistem Terumbu Karang*. Djambatan, Jakarta.
- Suryanti, Supriharyono dan Indrawan, W. 2011. Kondisi Terumbu Karang Dengan Indikator Ikan Chaetodontidae Di Pulau Sambangan Kepulauan Karimun Jawa, Jepara, Jawa Tengah. *Buletin Oseanografi Marina* Vol. 1: 106-119.
- Tomascik, T., Mah. A. A. J., Nontji., Moosa, M.K. 1997. *The Ecology Of The Indonesia Seas*. Part I. Periplus Edition, Singapore.
- Veron, J. E. N. 1995. *Coral in Space and Time*. Australian Institute of Marine Science. Townsville.
- Victoryus, A. 2009. Korelasi Antara Densitas *Diadema setosum* dan Tutupan Karang di Perairan Pantai Pasir Putih, Kecamatan Bungatan, Situbondo, Jawa Timur. *Skripsi-S1*, Program Studi Biologi FMIPA ITS, Surabaya.
- Yusnita, I. 2014. Kajian Potensi Dampak Wisata Bahari Terhadap Terumbu Karang di Kelurahan Pulau Panggang, Kepulauan Seribu. *Tesis-S2*, Sekolah Pascasarjana, Institut Pertanian Bogor, Bogor.

Lampira 1. Data Penutupan Karang di Stasiun Watu Lawang Berdasarkan

Analisis CPCe

Project : Keanekaragaman dan Penutupan Terumbu Karang Pantai

Pasir Putih Situbondo

Lokasi : Stasiun 1 Watu Lawang

Analysis date : 21 Maret 2016- 1 April 2016

Analysis by : Sandy Aprian Saputra

TRANSECT NAME	ST1WL	
Number of frames	202	
Total points	5998	
Total points (minus tape+wand+shadow)	5446	
MAJOR CATEGORY (% of transect)		MEAN
CORAL (HC)	32.48	32.48
NON SCLERACTINIAN CORAL (NSC)	0.00	0.00
RECENT DEAD CORAL (DC)	3.89	3.89
DEAD CORAL WITH ALGAE (DCA)	47.01	47.01
SOFT CORAL (SC)	0.02	0.02
SPONGE (SP)	1.36	1.36
FLESHY SEAWEED (FS)	0.09	0.09
OTHER BIOTA (OT)	0.39	0.39
RUBBLE (R)	5.67	5.67
SAND (S)	9.09	9.09
SILT (SI)	0.00	0.00
ROCK (RK)	0.00	0.00
TAPE, WAND, SHADOW (TWS)	9.20	9.20
Sum (excluding tape+shadow+wand)	100.00	
SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Acanthastrea (ACANT)	0.00	0.00
Acropora (ACRO)	21.87	21.87
Alveopora (ALVEO)	0.18	0.18
Anacropora (ANAC)	0.00	0.00
Astreopora (ASTRE)	0.04	0.04
Australogyra (AUSTR)	0.00	0.00
Australomussa (AUST)	0.00	0.00

SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Barabattoia (BARAB)	0.00	0.00
Blastomussa (BLAST)	0.00	0.00
Catalaphyllia (CATAL)	0.00	0.00
Caulastrea (CAULA)	0.00	0.00
Coeloseris (COELO)	0.09	0.09
Coral Bleaching (CB)	0.06	0.06
Coscinaraea (COSCI)	0.00	0.00
Ctenactis (CTENA)	0.00	0.00
Cycloseris (CYCLO)	0.00	0.00
Cynarina (CYNA)	0.00	0.00
Cyphastrea (CYPH)	0.02	0.02
Diaseris (DIASE)	0.00	0.00
Diploastrea (DIPLO)	0.11	0.11
Echinophyllia (ECHI)	0.00	0.00
Echinopora (ECHIN)	0.00	0.00
Euphyllia (EUPH)	0.00	0.00
Favia (FAVIA)	0.02	0.02
Favites (FAVIT)	0.00	0.00
Fungia (FUNGI)	0.00	0.00
Galaxea (GALAX)	0.00	0.00
Gardineroseris (GARDI)	0.00	0.00
Goniastrea (GONIA)	0.26	0.26
Goniopora (GONI)	0.02	0.02
Halomitra (HALO)	0.00	0.00
Heliofungia (HELIO)	0.00	0.00
Herpolitha (HERPO)	0.00	0.00
Heterocyathus (HETE)	0.00	0.00
Heterospsammia (HETER)	0.00	0.00
Hydnophora (HYDNO)	0.00	0.00
Leptastrea (LEPTA)	0.13	0.13
Leptoria (LEPT)	3.07	3.07
Leptoseres (LEPTO)	2.41	2.41
Lithophyllon (LITHO)	0.00	0.00
Lobophyllia (LOBO)	0.00	0.00
Madracis (MADRA)	0.00	0.00
Merulina (MERU)	0.18	0.18
Montastrea (MONTA)	0.00	0.00
Montipora (MONTI)	0.04	0.04
Mycedium (MYCE)	0.00	0.00
Nemenezophyllia (NEMEN)	0.00	0.00

SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Oulastrea (OULA)	0.00	0.00
Oulophyllia (OULO)	0.00	0.00
Oxypora (OXY)	0.00	0.00
Pachyseris (PACH)	0.00	0.00
Palauastrea (PALAU)	0.00	0.00
Paraclavarina (PARA)	0.00	0.00
Pavona (PAVON)	0.09	0.09
Pectinia (PECTI)	0.09	0.09
Physogra (PHYS)	0.00	0.00
Playgyra (PLATY)	0.02	0.02
Plerogyra (PLERO)	0.00	0.00
Plesiastrea (PLESI)	0.00	0.00
Pocillopora (POCILL)	0.62	0.62
Podabacia (PODA)	0.00	0.00
Polyphyllia (POLY)	0.00	0.00
Porites (PORI)	1.89	1.89
Psammocora (PSAMM)	0.17	0.17
Pseudosiderastrea (PSEU)	0.00	0.00
Sandalolotha (SANDA)	0.00	0.00
Scapophyllia (SCAPO)	0.00	0.00
Scolymia (SCOLY)	0.00	0.00
Seriatopora (SERIA)	0.59	0.59
Stylocoeniella (STYLO)	0.51	0.51
Stylopora (STYL)	0.02	0.02
Symphyllia (SYMP)	0.00	0.00
Trachyphyllia (TRACH)	0.00	0.00
Tubastrea (TUBA)	0.00	0.00
Turbinaria (TURBU)	0.00	0.00
Wellsophyllia (WELL)	0.00	0.00
Zoopilus (ZOO)	0.00	0.00
NON SCLERACTINIAN CORAL (NSC)		
Distichopora (DISTI)	0.00	0.00
Helipora (HELI)	0.00	0.00
Millepora (MILLE)	0.00	0.00
Stylaster (STYLA)	0.00	0.00
Tubipora (TUBI)	0.00	0.00
RECENT DEAD CORAL (DC)		
Recently Dead Coral (DC)	3.89	3.89
DEAD CORAL WITH ALGAE (DCA)		
Dead Coral with Algae (DCA)	41.92	41.92

SUBCATEGORIES (% of transect)	MEAN	
DEAD CORAL WITH ALGAE (DCA)		
Turf Algae (TA)	5.09	5.09
SOFT CORAL (SC)		
Soft Coral (SC)	0.02	0.02
SPONGE (SP)		
Sponge (SP)	1.36	1.36
FLESHY SEAWEED (FS)		
Algal Assemblage (AA)	0.09	0.09
Makro Algae (MA)	0.00	0.00
OTHER BIOTA (OT)		
Coralline Algae (CA)	0.02	0.02
Halimeda (HA)	0.00	0.00
Other (Fauna) (OT)	0.37	0.37
Zoanthid (ZO)	0.00	0.00
RUBBLE (R)		
Rubble (R)	5.67	5.67
SAND (S)		
Sand (S)	9.09	9.09
SILT (SI)		
Silt (SI)	0.00	0.00
ROCK (RK)		
Rock (RK)	0.00	0.00
TAPE, WAND, SHADOW (TWS)		
Tape, Wand, Shadow (TWS)	9.20	9.20
<hr/>		
MAJOR CATEGORY (occurring in transect)	SUMS	MEAN
CORAL (HC)	1769	1769.00
NON SCLERACTINIAN CORAL (NSC)	0	0.00
RECENT DEAD CORAL (DC)	212	212.00
DEAD CORAL WITH ALGAE (DCA)	2560	2560.00
SOFT CORAL (SC)	1	1.00
SPONGE (SP)	74	74.00
FLESHY SEAWEED (FS)	5	5.00
OTHER BIOTA (OT)	21	21.00
RUBBLE (R)	309	309.00
SAND (S)	495	495.00
SILT (SI)	0	0.00
ROCK (RK)	0	0.00
TAPE, WAND, SHADOW (TWS)	552	552.00
TOTAL TRANSECT POINTS	5998	5998

SUBCATEGORIES (occurring in transect)	SUMS		MEAN
CORAL (HC)			
Acanthastrea (ACANT)	0	0	0.00
Acropora (ACRO)	1191	1191	1191.00
Alveopora (ALVEO)	10	10	10.00
Anacropora (ANAC)	0	0	0.00
Astreopora (ASTRE)	2	2	2.00
Australogyra (AUSTR)	0	0	0.00
Australomussa (AUST)	0	0	0.00
Barabattoia (BARAB)	0	0	0.00
Blastomussa (BLAST)	0	0	0.00
Catalaphyllia (CATAL)	0	0	0.00
Caulastrea (CAULA)	0	0	0.00
Coelosseris (COELO)	5	5	5.00
Coral Bleaching (CB)	3	3	3.00
Coscinaraea (COSCI)	0	0	0.00
Ctenactis (CTENA)	0	0	0.00
Cycloseris (CYCLO)	0	0	0.00
Cynarina (CYNA)	0	0	0.00
Cyphastrea (CYPH)	1	1	1.00
Diaseris (DIASE)	0	0	0.00
Diploastrea (DIPLO)	6	6	6.00
Echinophyllia (ECHI)	0	0	0.00
Echinopora (ECHIN)	0	0	0.00
Euphyllia (EUPH)	0	0	0.00
Favia (FAVIA)	1	1	1.00
Favites (FAVIT)	0	0	0.00
Fungia (FUNGI)	0	0	0.00
Galaxea (GALAX)	0	0	0.00
Gardineroseris (GARDI)	0	0	0.00
Goniastrea (GONIA)	14	14	14.00
Goniopora (GONI)	1	1	1.00
Halomitra (HALO)	0	0	0.00
Heliofungia (HELIO)	0	0	0.00
Herpolitha (HERPO)	0	0	0.00
Heterocyathus (HETE)	0	0	0.00
Heterospsammia (HETER)	0	0	0.00
Hydnophora (HYDNO)	0	0	0.00
Leptastrea (LEPTA)	7	7	7.00
Leptoria (LEPT)	167	167	167.00
Leptosseris (LEPTO)	131	131	131.00
Lithophyllon (LITHO)	0	0	0.00

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
CORAL (HC)		
Lobophyllia (LOBO)	0	0.00
Madracis (MADRA)	0	0.00
Merulina (MERU)	10	10.00
Montastrea (MONTA)	0	0.00
Montipora (MONTI)	2	2.00
Mycedium (MYCE)	0	0.00
Nemenezophyllia (NEMEN)	0	0.00
Oulastrea (OULA)	0	0.00
Oulophyllia (OULO)	0	0.00
Oxypora (OXY)	0	0.00
Pachyseris (PACH)	0	0.00
Palauastrea (PALAU)	0	0.00
Paraclavarina (PARA)	0	0.00
Pavona (PAVON)	5	5.00
Pectinia (PECTI)	5	5.00
Physogra (PHYS)	0	0.00
Playgyra (PLATY)	1	1.00
Plerogyra (PLERO)	0	0.00
Plesiastrea (PLESI)	0	0.00
Pocillopora (POCILL)	34	34.00
Podabacia (PODA)	0	0.00
Polyphyllia (POLY)	0	0.00
Porites (PORI)	103	103.00
Psammocora (PSAMM)	9	9.00
Pseudosiderastrea (PSEU)	0	0.00
Sandalolotha (SANDA)	0	0.00
Scapophyllia (SCAPO)	0	0.00
Scolymia (SCOLY)	0	0.00
Seriatopora (SERIA)	32	32.00
Stylocoeniella (STYLO)	28	28.00
Stylopora (STYL)	1	1.00
Symphyllia (SYMP)	0	0.00
Trachyphyllia (TRACH)	0	0.00
Tubastrea (TUBA)	0	0.00
Turbinaria (TURBU)	0	0.00
Wellsophyllia (WELL)	0	0.00
Zoopilus (ZOO)	0	0.00
NON SCLERACTINIAN CORAL (NSC)		
Distichopora (DISTI)	0	0.00
Helipora (HELI)	0	0.00

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
NON SCLERACTINIAN CORAL (NSC)		
Millepora (MILLE)	0	0.00
Stylaster (STYLA)	0	0.00
Tubipora (TUBI)	0	0.00
RECENT DEAD CORAL (DC)		
Recently Dead Coral (DC)	212	212.00
DEAD CORAL WITH ALGAE (DCA)		
Dead Coral with Algae (DCA)	2283	2283.00
Turf Algae (TA)	277	277.00
SOFT CORAL (SC)		
Soft Coral (SC)	1	1.00
SPONGE (SP)		
Sponge (SP)	74	74.00
FLESHY SEAWEED (FS)		
Algal Assemblage (AA)	5	5.00
Makro Algae (MA)	0	0.00
OTHER BIOTA (OT)		
Coralline Algae (CA)	1	1.00
Halimeda (HA)	0	0.00
Other (Fauna) (OT)	20	20.00
Zoanthid (ZO)	0	0.00
RUBBLE (R)		
Rubble (R)	309	309.00
SAND (S)		
Sand (S)	495	495.00
SILT (SI)		
Silt (SI)	0	0.00
ROCK (RK)		
Rock (RK)	0	0.00
TAPE, WAND, SHADOW (TWS)		
Tape, Wand, Shadow (TWS)	552	552.00

RESULTS SUMMARY				
CHART	# Points	%	SW Index	Simpson (1-D)
CORAL (HC)	1769	32.48	1.32	0.53
NON SCLERACTINIAN				
CORAL (NSC)	0	0.00	0.00	1.00
RECENT DEAD CORAL (DC)	212	3.89	0.00	0.00
DEAD CORAL WITH ALGAE				
(DCA)	2560	47.01	0.34	0.19
SOFT CORAL (SC)	1	0.02	0.00	0.00
SPONGE (SP)	74	1.36	0.00	0.00
FLESHY SEAWEED (FS)	5	0.09	0.00	0.00
OTHER BIOTA (OT)	21	0.39	0.19	0.09
RUBBLE (R)	309	5.67	0.00	0.00
SAND (S)	495	9.09	0.00	0.00
SILT (SI)	0	0.00	0.00	1.00
ROCK (RK)	0	0.00	0.00	1.00
TAPE, WAND, SHADOW (TWS)	552	9.20		
TOTALS	5998	100.00		

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acanthastrea (ACANT)	0	0.00	0.00	0.00
Acropora (ACRO)	1191	21.87	0.27	0.45
Alveopora (ALVEO)	10	0.18	0.03	0.00
Anacropora (ANAC)	0	0.00	0.00	0.00
Astreopora (ASTRE)	2	0.04	0.01	0.00
Australogyra (AUSTR)	0	0.00	0.00	0.00
Australomussa (AUST)	0	0.00	0.00	0.00
Barabattoia (BARAB)	0	0.00	0.00	0.00
Blastomussa (BLAST)	0	0.00	0.00	0.00
Catalaphyllia (CATAL)	0	0.00	0.00	0.00
Caulastrea (CAULA)	0	0.00	0.00	0.00
Coeloseris (COELO)	5	0.09	0.02	0.00
Coral Bleaching (CB)	3	0.06	0.01	0.00
Coscinaeraea (COSCI)	0	0.00	0.00	0.00
Ctenactis (CTENA)	0	0.00	0.00	0.00
Cycloseris (CYCLO)	0	0.00	0.00	0.00
Cynarina (CYNA)	0	0.00	0.00	0.00
Cyphastrea (CYPH)	1	0.02	0.00	0.00
Diaseris (DIASE)	0	0.00	0.00	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Diploastrea (DIPLO)	6	0.11	0.02	0.00
Echinophyllia (ECHI)	0	0.00	0.00	0.00
Echinopora (ECHIN)	0	0.00	0.00	0.00
Euphyllia (EUPH)	0	0.00	0.00	0.00
Favia (FAVIA)	1	0.02	0.00	0.00
Favites (FAVIT)	0	0.00	0.00	0.00
Fungia (FUNGI)	0	0.00	0.00	0.00
Galaxea (GALAX)	0	0.00	0.00	0.00
Gardineroseris (GARDI)	0	0.00	0.00	0.00
Goniastrea (GONIA)	14	0.26	0.04	0.00
Goniopora (GONI)	1	0.02	0.00	0.00
Halomitra (HALO)	0	0.00	0.00	0.00
Heliofungia (HELIO)	0	0.00	0.00	0.00
Herpolitha (HERPO)	0	0.00	0.00	0.00
Heterocyathus (HETE)	0	0.00	0.00	0.00
Heterospsammia (HETER)	0	0.00	0.00	0.00
Hydnophora (HYDNO)	0	0.00	0.00	0.00
Leptastrea (LEPTA)	7	0.13	0.02	0.00
Leptoria (LEPT)	167	3.07	0.22	0.01
Leptosera (LEPTO)	131	2.41	0.19	0.01
Lithophyllon (LITHO)	0	0.00	0.00	0.00
Lobophyllia (LOBO)	0	0.00	0.00	0.00
Madracis (MADRA)	0	0.00	0.00	0.00
Merulina (MERU)	10	0.18	0.03	0.00
Montastrea (MONTA)	0	0.00	0.00	0.00
Montipora (MONTI)	2	0.04	0.01	0.00
Mycedium (MYCE)	0	0.00	0.00	0.00
Nemenezophyllia (NEMEN)	0	0.00	0.00	0.00
Oulastrea (OULA)	0	0.00	0.00	0.00
Oulophyllia (OULO)	0	0.00	0.00	0.00
Oxypora (OXY)	0	0.00	0.00	0.00
Pachyseris (PACH)	0	0.00	0.00	0.00
Palauastrea (PALAU)	0	0.00	0.00	0.00
Paraclavarina (PARA)	0	0.00	0.00	0.00
Pavona (PAVON)	5	0.09	0.02	0.00
Pectinia (PECTI)	5	0.09	0.02	0.00
Physogra (PHYS)	0	0.00	0.00	0.00
Playgyra (PLATY)	1	0.02	0.00	0.00
Plerogyra (PLERO)	0	0.00	0.00	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Plesiastrea (PLESI)	0	0.00	0.00	0.00
Pocillopora (POCILL)	34	0.62	0.08	0.00
Podabacia (PODA)	0	0.00	0.00	0.00
Polyphyllia (POLY)	0	0.00	0.00	0.00
Porites (PORI)	103	1.89	0.17	0.00
Psammocora (PSAMM)	9	0.17	0.03	0.00
Pseudosiderastrea (PSEU)	0	0.00	0.00	0.00
Sandalolotha (SANDA)	0	0.00	0.00	0.00
Scapophyllia (SCAPO)	0	0.00	0.00	0.00
Scolymia (SCOLY)	0	0.00	0.00	0.00
Seriatopora (SERIA)	32	0.59	0.07	0.00
Stylocoeniella (STYLO)	28	0.51	0.07	0.00
Stylopora (STYL)	1	0.02	0.00	0.00
Symphyllia (SYMP)	0	0.00	0.00	0.00
Trachyphyllia (TRACH)	0	0.00	0.00	0.00
Tubastrea (TUBA)	0	0.00	0.00	0.00
Turbinaria (TURBU)	0	0.00	0.00	0.00
Wellsophyllia (WELL)	0	0.00	0.00	0.00
Zoopilus (ZOO)	0	0.00	0.00	0.00
Non Scleractinian Coral				
Distichopora (DISTI)	0	0.00	0.00	0.00
Helipora (HELI)	0	0.00	0.00	0.00
Millepora (MILLE)	0	0.00	0.00	0.00
Stylaster (STYLA)	0	0.00	0.00	0.00
Tubipora (TUBI)	0	0.00	0.00	0.00
Recent Dead Coral				
Recently Dead Coral (DC)	212	3.89	0.00	1.00
Dead Coral with Algae				
Dead Coral with Algae (DCA)	2283	41.92	0.10	0.80
Turf Algae (TA)	277	5.09	0.24	0.01
Soft Coral				
Soft Coral (SC)	1	0.02	0.00	1.00
Sponge				
Sponge (SP)	74	1.36	0.00	1.00
Fleshy Seaweed				
Algal Assemblage (AA)	5	0.09	0.00	1.00
Makro Algae (MA)	0	0.00	0.00	0.00
Other Biota				
Coralline Algae (CA)	1	0.02	0.14	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Other Biota				
Halimeda (HA)	0	0.00	0.00	0.00
Other (Fauna) (OT)	20	0.37	0.05	0.91
Zoanthid (ZO)	0	0.00	0.00	0.00
Rubble				
Rubble (R)	309	5.67	0.00	1.00
Sand				
Sand (S)	495	9.09	0.00	1.00
Silt				
Silt (SI)	0	0.00	0.00	0.00
Rock				
Rock (RK)	0	0.00	0.00	0.00
Tape, Wand, Shadow				
Tape, Wand, Shadow (TWS)	552	9.20		1.00
Total pts. minus (tape+wand+shadow):	5446.00	100.00		

Lampiran 2. Data Penutupan Karang di Stasiun Teluk Pelita dan Karang Mayit

Berdasarkan Analisis CPCe

Project : Keanekaragaman dan Penutupan Terumbu Karang Pantai Pasir Putih Situbondo

Lokasi : Stasiun 2 Teluk Pelita dan Karang Mayit

Analysis date : 1 April 2016- 12 April 2016

Analysis by : Sandy Aprian Saputra

TRANSECT NAME	S2TPKM	
Number of frames	202	
Total points	6060	
Total points (minus tape+wand+shadow)	5939	
MAJOR CATEGORY (% of transect)	MEAN	
CORAL (HC)	23.30	23.30
NON SCLERACTINIAN CORAL (NSC)	0.00	0.00
RECENT DEAD CORAL (DC)	2.04	2.04
DEAD CORAL WITH ALGAE (DCA)	59.59	59.59
SOFT CORAL (SC)	0.07	0.07
SPONGE (SP)	0.61	0.61
FLESHY SEAWEED (FS)	0.00	0.00
OTHER BIOTA (OT)	0.59	0.59
RUBBLE (R)	2.22	2.22
SAND (S)	11.58	11.58
SILT (SI)	0.00	0.00
ROCK (RK)	0.00	0.00
TAPE, WAND, SHADOW (TWS)	2.00	2.00
Sum (excluding tape+shadow+wand)	100.00	
SUBCATEGORIES (% of transect)	MEAN	
CORAL (HC)		
Acanthastrea (ACANT)	0.00	0.00
Acropora (ACRO)	4.16	4.16
Alveopora (ALVEO)	0.20	0.20
Anacropora (ANAC)	0.00	0.00
Astreopora (ASTRE)	0.00	0.00
Australogyra (AUSTR)	0.00	0.00
Australomussa (AUST)	0.00	0.00

SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Barabattoia (BARAB)	0.00	0.00
Blastomussa (BLAST)	0.00	0.00
Catalaphyllia (CATAL)	0.00	0.00
Caulastrea (CAULA)	0.00	0.00
Coeloseris (COELO)	0.00	0.00
Coral Bleaching (CB)	0.02	0.02
Coscinaraea (COSCI)	0.00	0.00
Ctenactis (CTENA)	0.00	0.00
Cycloseris (CYCLO)	0.00	0.00
Cynarina (CYNA)	0.00	0.00
Cyphastrea (CYPH)	0.00	0.00
Diaseris (DIASE)	0.00	0.00
Diploastrea (DIPLO)	0.10	0.10
Echinophyllia (ECHI)	0.02	0.02
Echinopora (ECHIN)	0.00	0.00
Euphyllia (EUPH)	0.00	0.00
Favia (FAVIA)	0.02	0.02
Favites (FAVIT)	0.00	0.00
Fungia (FUNGI)	0.07	0.07
Galaxea (GALAX)	0.10	0.10
Gardineroseris (GARDI)	0.00	0.00
Goniastrea (GONIA)	1.06	1.06
Goniopora (GONI)	0.29	0.29
Halomitra (HALO)	0.00	0.00
Heliofungia (HELIO)	0.00	0.00
Herpolitha (HERPO)	0.00	0.00
Heterocyathus (HETE)	0.00	0.00
Heterospsammia (HETER)	0.00	0.00
Hydnophora (HYDNO)	0.00	0.00
Leptastrea (LEPTA)	0.34	0.34
Leptoria (LEPT)	1.92	1.92
Leptoseris (LEPTO)	4.41	4.41
Lithophyllon (LITHO)	0.00	0.00
Lobophyllia (LOBO)	0.00	0.00
Madracis (MADRA)	0.00	0.00
Merulina (MERU)	0.00	0.00
Montastrea (MONTA)	0.12	0.12
Montipora (MONTI)	0.49	0.49
Mycedium (MYCE)	0.00	0.00
Nemenezophyllia (NEMEN)	0.00	0.00

SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Oulastrea (OULA)	0.00	0.00
Oulophyllia (OULO)	0.02	0.02
Oxypora (OXY)	0.00	0.00
Pachyseris (PACH)	1.62	1.62
Palauastrea (PALAU)	0.00	0.00
Paraclavarina (PARA)	0.00	0.00
Pavona (PAVON)	0.30	0.30
Pectinia (PECTI)	0.12	0.12
Physogra (PHYS)	0.00	0.00
Playgyra (PLATY)	0.03	0.03
Plerogyra (PLERO)	0.00	0.00
Plesiastrea (PLESI)	0.00	0.00
Pocillopora (POCILL)	0.17	0.17
Podabacia (PODA)	0.00	0.00
Polyphyllia (POLY)	0.00	0.00
Porites (PORI)	3.33	3.33
Psammocora (PSAMM)	1.94	1.94
Pseudosiderastrea (PSEU)	0.00	0.00
Sandalolotha (SANDA)	0.00	0.00
Scapophyllia (SCAPO)	0.00	0.00
Scolymia (SCOLY)	0.00	0.00
Seriatopora (SERIA)	0.61	0.61
Stylocoeniella (STYLO)	0.02	0.02
Stylopora (STYL)	0.00	0.00
Symphyllia (SYMP)	0.00	0.00
Trachyphyllia (TRACH)	0.00	0.00
Tubastrea (TUBA)	0.51	0.51
Turbinaria (TURBU)	1.35	1.35
Wellsophyllia (WELL)	0.00	0.00
Zoopilus (ZOO)	0.00	0.00
NON SCLERACTINIAN CORAL (NSC)		
Distichopora (DISTI)	0.00	0.00
Helipora (HELI)	0.00	0.00
Millepora (MILLE)	0.00	0.00
Stylaster (STYLA)	0.00	0.00
Tubipora (TUBI)	0.00	0.00
RECENT DEAD CORAL (DC)		
Recently Dead Coral (DC)	2.04	2.04
DEAD CORAL WITH ALGAE (DCA)		
Dead Coral with Algae (DCA)	57.65	57.65

SUBCATEGORIES (% of transect)	MEAN		
DEAD CORAL WITH ALGAE (DCA)			
Turf Algae (TA)	1.94		1.94
SOFT CORAL (SC)			
Soft Coral (SC)	0.07		0.07
SPONGE (SP)			
Sponge (SP)	0.61		0.61
FLESHY SEAWEED (FS)			
Algal Assemblage (AA)	0.00		0.00
Makro Algae (MA)	0.00		0.00
OTHER BIOTA (OT)			
Coralline Algae (CA)	0.02		0.02
Halimeda (HA)	0.00		0.00
Other (Fauna) (OT)	0.57		0.57
Zoanthid (ZO)	0.00		0.00
RUBBLE (R)			
Rubble (R)	2.22		2.22
SAND (S)			
Sand (S)	11.58		11.58
SILT (SI)			
Silt (SI)	0.00		0.00
ROCK (RK)			
Rock (RK)	0.00		0.00
TAPE, WAND, SHADOW (TWS)			
Tape, Wand, Shadow (TWS)	2.00		2.00
<hr/>			
MAJOR CATEGORY (occurring in transect)		SUMS	MEAN
CORAL (HC)	1384	1384	1384.00
NON SCLERACTINIAN CORAL (NSC)	0	0	0.00
RECENT DEAD CORAL (DC)	121	121	121.00
DEAD CORAL WITH ALGAE (DCA)	3539	3539	3539.00
SOFT CORAL (SC)	4	4	4.00
SPONGE (SP)	36	36	36.00
FLESHY SEAWEED (FS)	0	0	0.00
OTHER BIOTA (OT)	35	35	35.00
RUBBLE (R)	132	132	132.00
SAND (S)	688	688	688.00
SILT (SI)	0	0	0.00
ROCK (RK)	0	0	0.00
TAPE, WAND, SHADOW (TWS)	121	121	121.00
TOTAL TRANSECT POINTS	6060	6060	

SUBCATEGORIES (occurring in transect)	SUMS		MEAN
CORAL (HC)			
Acanthastrea (ACANT)	0	0	0.00
Acropora (ACRO)	247	247	247.00
Alveopora (ALVEO)	12	12	12.00
Anacropora (ANAC)	0	0	0.00
Astreopora (ASTRE)	0	0	0.00
Australogyra (AUSTR)	0	0	0.00
Australomussa (AUST)	0	0	0.00
Barabattoia (BARAB)	0	0	0.00
Blastomussa (BLAST)	0	0	0.00
Catalaphyllia (CATAL)	0	0	0.00
Caulastrea (CAULA)	0	0	0.00
Coeloseris (COELO)	0	0	0.00
Coral Bleaching (CB)	1	1	1.00
Coscinaraea (COSCI)	0	0	0.00
Ctenactis (CTENA)	0	0	0.00
Cycloseris (CYCLO)	0	0	0.00
Cynarina (CYNA)	0	0	0.00
Cyphastrea (CYPH)	0	0	0.00
Diaseris (DIASE)	0	0	0.00
Diploastrea (DIPLO)	6	6	6.00
Echinophyllia (ECHI)	1	1	1.00
Echinopora (ECHIN)	0	0	0.00
Euphyllia (EUPH)	0	0	0.00
Favia (FAVIA)	1	1	1.00
Favites (FAVIT)	0	0	0.00
Fungia (FUNGI)	4	4	4.00
Galaxea (GALAX)	6	6	6.00
Gardineroseris (GARDI)	0	0	0.00
Goniastrea (GONIA)	63	63	63.00
Goniopora (GONI)	17	17	17.00
Halomitra (HALO)	0	0	0.00
Heliofungia (HELIO)	0	0	0.00
Herpolitha (HERPO)	0	0	0.00
Heterocyathus (HETE)	0	0	0.00
Heterospsammia (HETER)	0	0	0.00
Hydnophora (HYDNO)	0	0	0.00
Leptastrea (LEPTA)	20	20	20.00
Leptoria (LEPT)	114	114	114.00
Leptosera (LEPTO)	262	262	262.00
Lithophyllon (LITHO)	0	0	0.00

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
CORAL (HC)		
Lobophyllia (LOBO)	0	0.00
Madracis (MADRA)	0	0.00
Merulina (MERU)	0	0.00
Montastrea (MONTA)	7	7.00
Montipora (MONTI)	29	29.00
Mycedium (MYCE)	0	0.00
Nemenezophyllia (NEMEN)	0	0.00
Oulastrea (OULA)	0	0.00
Oulophyllia (OULO)	1	1.00
Oxypora (OXY)	0	0.00
Pachyseris (PACH)	96	96.00
Palauastrea (PALAU)	0	0.00
Paraclavarina (PARA)	0	0.00
Pavona (PAVON)	18	18.00
Pectinia (PECTI)	7	7.00
Physogra (PHYS)	0	0.00
Playgyra (PLATY)	2	2.00
Plerogyra (PLERO)	0	0.00
Plesiastrea (PLESI)	0	0.00
Pocillopora (POCILL)	10	10.00
Podabacia (PODA)	0	0.00
Polyphyllia (POLY)	0	0.00
Porites (PORI)	198	198.00
Psammocora (PSAMM)	115	115.00
Pseudosiderastrea (PSEU)	0	0.00
Sandalolotha (SANDA)	0	0.00
Scapophyllia (SCAPO)	0	0.00
Scolymia (SCOLY)	0	0.00
Seriatopora (SERIA)	36	36.00
Stylocoeniella (STYLO)	1	1.00
Stylopora (STYL)	0	0.00
Symphyllia (SYMP)	0	0.00
Trachyphyllia (TRACH)	0	0.00
Tubastrea (TUBA)	30	30.00
Turbinaria (TURBU)	80	80.00
Wellsophyllia (WELL)	0	0.00
Zoopilus (ZOO)	0	0.00
NON SCLERACTINIAN CORAL (NSC)		
Distichopora (DISTI)	0	0.00
Helipora (HELI)	0	0.00

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
NON SCLERACTINIAN CORAL (NSC)		
Millepora (MILLE)	0	0.00
Stylaster (STYLA)	0	0.00
Tubipora (TUBI)	0	0.00
RECENT DEAD CORAL (DC)		
Recently Dead Coral (DC)	121	121.00
DEAD CORAL WITH ALGAE (DCA)		
Dead Coral with Algae (DCA)	3424	3424.00
Turf Algae (TA)	115	115.00
SOFT CORAL (SC)		
Soft Coral (SC)	4	4.00
SPONGE (SP)		
Sponge (SP)	36	36.00
FLESHY SEAWEED (FS)		
Algal Assemblage (AA)	0	0.00
Makro Algae (MA)	0	0.00
OTHER BIOTA (OT)		
Coralline Algae (CA)	1	1.00
Halimeda (HA)	0	0.00
Other (Fauna) (OT)	34	34.00
Zoanthid (ZO)	0	0.00
RUBBLE (R)		
Rubble (R)	132	132.00
SAND (S)		
Sand (S)	688	688.00
SILT (SI)		
Silt (SI)	0	0.00
ROCK (RK)		
Rock (RK)	0	0.00
TAPE, WAND, SHADOW (TWS)		
Tape, Wand, Shadow (TWS)	121	121.00

RESULTS SUMMARY CHART	# Points	%	SW Index	Simpson (1-D)
CORAL (HC)	1384	23.30	2.46	0.89
NON SCLERACTINIAN CORAL (NSC)	0	0.00	0.00	1.00
RECENT DEAD CORAL (DC)	121	2.04	0.00	0.00
DEAD CORAL WITH ALGAE (DCA)	3539	59.59	0.14	0.06
SOFT CORAL (SC)	4	0.07	0.00	0.00
SPONGE (SP)	36	0.61	0.00	0.00
FLESHY SEAWEED (FS)	0	0.00	0.00	1.00
OTHER BIOTA (OT)	35	0.59	0.13	0.06
RUBBLE (R)	132	2.22	0.00	0.00
SAND (S)	688	11.58	0.00	0.00
SILT (SI)	0	0.00	0.00	1.00
ROCK (RK)	0	0.00	0.00	1.00
TAPE, WAND, SHADOW (TWS)	121	2.00		
TOTALS	6060	100.00		

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acanthastrea (ACANT)	0	0.00	0.00	0.00
Acropora (ACRO)	247	4.16	0.31	0.03
Alveopora (ALVEO)	12	0.20	0.04	0.00
Anacropora (ANAC)	0	0.00	0.00	0.00
Astreopora (ASTRE)	0	0.00	0.00	0.00
Australogyra (AUSTR)	0	0.00	0.00	0.00
Australomussa (AUST)	0	0.00	0.00	0.00
Barabattoia (BARAB)	0	0.00	0.00	0.00
Blastomussa (BLAST)	0	0.00	0.00	0.00
Catalaphyllia (CATAL)	0	0.00	0.00	0.00
Caulastrea (CAULA)	0	0.00	0.00	0.00
Coeloseris (COELO)	0	0.00	0.00	0.00
Coral Bleaching (CB)	1	0.02	0.01	0.00
Coscinaeaea (COSCI)	0	0.00	0.00	0.00
Ctenactis (CTENA)	0	0.00	0.00	0.00
Cycloseris (CYCLO)	0	0.00	0.00	0.00
Cynarina (CYNA)	0	0.00	0.00	0.00
Cyphastrea (CYPH)	0	0.00	0.00	0.00
Diaseris (DIASE)	0	0.00	0.00	0.00
Diploastrea (DIPLO)	6	0.10	0.02	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Echinophyllia (ECHI)	1	0.02	0.01	0.00
Echinopora (ECHIN)	0	0.00	0.00	0.00
Euphyllia (EUPH)	0	0.00	0.00	0.00
Favia (FAVIA)	1	0.02	0.01	0.00
Favites (FAVIT)	0	0.00	0.00	0.00
Fungia (FUNGI)	4	0.07	0.02	0.00
Galaxea (GALAX)	6	0.10	0.02	0.00
Gardineroseris (GARDI)	0	0.00	0.00	0.00
Goniastrea (GONIA)	63	1.06	0.14	0.00
Goniopora (GONI)	17	0.29	0.05	0.00
Halomitra (HALO)	0	0.00	0.00	0.00
Heliofungia (HELIO)	0	0.00	0.00	0.00
Herpolitha (HERPO)	0	0.00	0.00	0.00
Heterocyathus (HETE)	0	0.00	0.00	0.00
Heterospsammia (HETER)	0	0.00	0.00	0.00
Hydnophora (HYDNO)	0	0.00	0.00	0.00
Leptastrea (LEPTA)	20	0.34	0.06	0.00
Leptoria (LEPT)	114	1.92	0.21	0.01
Leptosera (LEPTO)	262	4.41	0.32	0.04
Lithophyllon (LITHO)	0	0.00	0.00	0.00
Lobophyllia (LOBO)	0	0.00	0.00	0.00
Madracis (MADRA)	0	0.00	0.00	0.00
Merulina (MERU)	0	0.00	0.00	0.00
Montastrea (MONTA)	7	0.12	0.03	0.00
Montipora (MONTI)	29	0.49	0.08	0.00
Mycedium (MYCE)	0	0.00	0.00	0.00
Nemenezophyllia (NEMEN)	0	0.00	0.00	0.00
Oulastrea (OULA)	0	0.00	0.00	0.00
Oulophyllia (OULO)	1	0.02	0.01	0.00
Oxypora (OXY)	0	0.00	0.00	0.00
Pachyseris (PACH)	96	1.62	0.19	0.00
Palauastrea (PALAU)	0	0.00	0.00	0.00
Paraclavarina (PARA)	0	0.00	0.00	0.00
Pavona (PAVON)	18	0.30	0.06	0.00
Pectinia (PECTI)	7	0.12	0.03	0.00
Physogra (PHYS)	0	0.00	0.00	0.00
Playgyra (PLATY)	2	0.03	0.01	0.00
Plerogyra (PLERO)	0	0.00	0.00	0.00
Plesiastrea (PLESI)	0	0.00	0.00	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Pocillopora (POCILL)	10	0.17	0.04	0.00
Podabacia (PODA)	0	0.00	0.00	0.00
Polyphyllia (POLY)	0	0.00	0.00	0.00
Porites (PORI)	198	3.33	0.28	0.02
Psammocora (PSAMM)	115	1.94	0.21	0.01
Pseudosiderastrea (PSEU)	0	0.00	0.00	0.00
Sandalolotha (SANDA)	0	0.00	0.00	0.00
Scapophyllia (SCAPO)	0	0.00	0.00	0.00
Scolymia (SCOLY)	0	0.00	0.00	0.00
Seriatopora (SERIA)	36	0.61	0.09	0.00
Stylocoeniella (STYLO)	1	0.02	0.01	0.00
Stylopora (STYL)	0	0.00	0.00	0.00
Symphyllia (SYMP)	0	0.00	0.00	0.00
Trachyphyllia (TRACH)	0	0.00	0.00	0.00
Tubastrea (TUBA)	30	0.51	0.08	0.00
Turbinaria (TURBU)	80	1.35	0.16	0.00
Wellsophyllia (WELL)	0	0.00	0.00	0.00
Zoopilus (ZOO)	0	0.00	0.00	0.00
Non Scleractinian Coral				
Distichopora (DISTI)	0	0.00	0.00	0.00
Helipora (HELI)	0	0.00	0.00	0.00
Millepora (MILLE)	0	0.00	0.00	0.00
Stylaster (STYLA)	0	0.00	0.00	0.00
Tubipora (TUBI)	0	0.00	0.00	0.00
Recent Dead Coral				
Recently Dead Coral (DC)	121	2.04	0.00	1.00
Dead Coral with Algae				
Dead Coral with Algae (DCA)	3424	57.65	0.03	0.94
Turf Algae (TA)	115	1.94	0.11	0.00
Soft Coral				
Soft Coral (SC)	4	0.07	0.00	1.00
Sponge				
Sponge (SP)	36	0.61	0.00	1.00
Fleshy Seaweed				
Algal Assemblage (AA)	0	0.00	0.00	0.00
Makro Algae (MA)	0	0.00	0.00	0.00
Other Biota				
Coralline Algae (CA)	1	0.02	0.10	0.00
Halimeda (HA)	0	0.00	0.00	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Other Biota				
Other (Fauna) (OT)	34	0.57	0.03	0.94
Zoanthid (ZO)	0	0.00	0.00	0.00
Rubble				
Rubble (R)	132	2.22	0.00	1.00
Sand				
Sand (S)	688	11.58	0.00	1.00
Silt				
Silt (SI)	0	0.00	0.00	0.00
Rock				
Rock (RK)	0	0.00	0.00	0.00
Tape, Wand, Shadow				
Tape, Wand, Shadow (TWS)	121	2.00		1.00
Total pts. minus (tape+wand+shadow):	5939.00	100.00		

Lampiran 3. Data Penutupan Karang di Stasiun Karang Ponpon Berdasarkan

Analisis CPCe

Project : Keanekaragaman dan Penutupan Terumbu Karang Pantai Pasir Putih Situbondo

Lokasi : Stasiun 3 Karang Ponpon

Analysis date : 13 April 2016 - 20 April 2016

Analysis by : Sandy Aprian Saputra

TRANSECT NAME	S3KP	
Number of frames	198	
Total points	5938	
Total points (minus tape+wand+shadow)	5864	
MAJOR CATEGORY (% of transect)	MEAN	
CORAL (HC)	27.47	27.47
NON SCLERACTINIAN CORAL (NSC)	0.00	0.00
RECENT DEAD CORAL (DC)	0.97	0.97
DEAD CORAL WITH ALGAE (DCA)	47.37	47.37
SOFT CORAL (SC)	0.00	0.00
SPONGE (SP)	0.19	0.19
FLESHY SEAWEED (FS)	0.00	0.00
OTHER BIOTA (OT)	0.14	0.14
RUBBLE (R)	6.75	6.75
SAND (S)	17.10	17.10
SILT (SI)	0.00	0.00
ROCK (RK)	0.00	0.00
TAPE, WAND, SHADOW (TWS)	1.25	1.25
Sum (excluding tape+shadow+wand)	100.00	
SUBCATEGORIES (% of transect)	MEAN	
CORAL (HC)		
Acanthastrea (ACANT)	0.00	0.00
Acropora (ACRO)	6.21	6.21
Alveopora (ALVEO)	0.00	0.00
Anacropora (ANAC)	0.03	0.03
Astreopora (ASTRE)	0.00	0.00
Australogyra (AUSTR)	0.00	0.00
Australomussa (AUST)	0.00	0.00

SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Barabattoia (BARAB)	0.00	0.00
Blastomussa (BLAST)	0.00	0.00
Catalaphyllia (CATAL)	0.00	0.00
Caulastrea (CAULA)	0.00	0.00
Coeloseris (COELO)	0.00	0.00
Coral Bleaching (CB)	0.00	0.00
Coscinaraea (COSCI)	0.00	0.00
Ctenactis (CTENA)	0.00	0.00
Cycloseris (CYCLO)	0.00	0.00
Cynarina (CYNA)	0.00	0.00
Cyphastrea (CYPH)	0.00	0.00
Diaseris (DIASE)	0.00	0.00
Diploastrea (DIPLO)	0.34	0.34
Echinophyllia (ECHI)	0.00	0.00
Echinopora (ECHIN)	0.00	0.00
Euphyllia (EUPH)	0.00	0.00
Favia (FAVIA)	0.00	0.00
Favites (FAVIT)	0.00	0.00
Fungia (FUNGI)	0.05	0.05
Galaxea (GALAX)	0.00	0.00
Gardineroseris (GARDI)	0.00	0.00
Goniastrea (GONIA)	2.22	2.22
Goniopora (GONI)	0.00	0.00
Halomitra (HALO)	0.00	0.00
Heliofungia (HELIO)	0.00	0.00
Herpolitha (HERPO)	0.00	0.00
Heterocyathus (HETE)	0.00	0.00
Heterospsammia (HETER)	0.00	0.00
Hydnophora (HYDNO)	0.00	0.00
Leptastrea (LEPTA)	0.00	0.00
Leptoria (LEPT)	2.88	2.88
Leptoseris (LEPTO)	1.45	1.45
Lithophyllon (LITHO)	0.00	0.00
Lobophyllia (LOBO)	0.00	0.00
Madracis (MADRA)	0.00	0.00
Merulina (MERU)	0.00	0.00
Montastrea (MONTA)	0.00	0.00
Montipora (MONTI)	1.91	1.91
Mycedium (MYCE)	0.00	0.00
Nemenezophyllia (NEMEN)	0.00	0.00

SUBCATEGORIES (% of transect)		MEAN
CORAL (HC)		
Oulastrea (OULA)	0.00	0.00
Oulophyllia (OULO)	0.00	0.00
Oxypora (OXY)	0.00	0.00
Pachyseris (PACH)	0.67	0.67
Palauastrea (PALAU)	0.00	0.00
Paraclavarina (PARA)	0.00	0.00
Pavona (PAVON)	0.03	0.03
Pectinia (PECTI)	0.02	0.02
Physogra (PHYS)	0.00	0.00
Playgyra (PLATY)	0.00	0.00
Plerogyra (PLERO)	0.00	0.00
Plesiastrea (PLESI)	0.00	0.00
Pocillopora (POCILL)	0.00	0.00
Podabacia (PODA)	0.00	0.00
Polyphyllia (POLY)	0.00	0.00
Porites (PORI)	9.50	9.50
Psammocora (PSAMM)	1.79	1.79
Pseudosiderastrea (PSEU)	0.00	0.00
Sandalolotha (SANDA)	0.00	0.00
Scapophyllia (SCAPO)	0.00	0.00
Scolymia (SCOLY)	0.00	0.00
Seriatopora (SERIA)	0.36	0.36
Stylocoeniella (STYLO)	0.00	0.00
Stylopora (STYL)	0.02	0.02
Symphyllia (SYMP)	0.00	0.00
Trachyphyllia (TRACH)	0.00	0.00
Tubastrea (TUBA)	0.00	0.00
Turbinaria (TURBU)	0.00	0.00
Wellsophyllia (WELL)	0.00	0.00
Zoopilus (ZOO)	0.00	0.00
NON SCLERACTINIAN CORAL (NSC)		
Distichopora (DISTI)	0.00	0.00
Helipora (HELI)	0.00	0.00
Millepora (MILLE)	0.00	0.00
Stylaster (STYLA)	0.00	0.00
Tubipora (TUBI)	0.00	0.00
RECENT DEAD CORAL (DC)		
Recently Dead Coral (DC)	0.97	0.97
DEAD CORAL WITH ALGAE (DCA)		
Dead Coral with Algae (DCA)	47.08	47.08

SUBCATEGORIES (% of transect)	MEAN		
DEAD CORAL WITH ALGAE (DCA)			
Turf Algae (TA)	0.29		0.29
SOFT CORAL (SC)			
Soft Coral (SC)	0.00		0.00
SPONGE (SP)			
Sponge (SP)	0.19		0.19
FLESHY SEAWEED (FS)			
Algal Assemblage (AA)	0.00		0.00
Makro Algae (MA)	0.00		0.00
OTHER BIOTA (OT)			
Coralline Algae (CA)	0.00		0.00
Halimeda (HA)	0.00		0.00
Other (Fauna) (OT)	0.14		0.14
Zoanthid (ZO)	0.00		0.00
RUBBLE (R)			
Rubble (R)	6.75		6.75
SAND (S)			
Sand (S)	17.10		17.10
SILT (SI)			
Silt (SI)	0.00		0.00
ROCK (RK)			
Rock (RK)	0.00		0.00
TAPE, WAND, SHADOW (TWS)			
Tape, Wand, Shadow (TWS)	1.25		1.25
<hr/>			
MAJOR CATEGORY (occurring in transect)	SUMS	MEAN	
CORAL (HC)	1611	1611	1611.00
NON SCLERACTINIAN CORAL (NSC)	0	0	0.00
RECENT DEAD CORAL (DC)	57	57	57.00
DEAD CORAL WITH ALGAE (DCA)	2778	2778	2778.00
SOFT CORAL (SC)	0	0	0.00
SPONGE (SP)	11	11	11.00
FLESHY SEAWEED (FS)	0	0	0.00
OTHER BIOTA (OT)	8	8	8.00
RUBBLE (R)	396	396	396.00
SAND (S)	1003	1003	1003.00
SILT (SI)	0	0	0.00
ROCK (RK)	0	0	0.00
TAPE, WAND, SHADOW (TWS)	74	74	74.00
TOTAL TRANSECT POINTS	5938	5938	

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
CORAL (HC)		
Acanthastrea (ACANT)	0	0.00
Acropora (ACRO)	364	364.00
Alveopora (ALVEO)	0	0.00
Anacropora (ANAC)	2	2.00
Astreopora (ASTRE)	0	0.00
Australogyra (AUSTR)	0	0.00
Australomussa (AUST)	0	0.00
Barabattoia (BARAB)	0	0.00
Blastomussa (BLAST)	0	0.00
Catalaphyllia (CATAL)	0	0.00
Caulastrea (CAULA)	0	0.00
Coeloseris (COELO)	0	0.00
Coral Bleaching (CB)	0	0.00
Coscinaraea (COSCI)	0	0.00
Ctenactis (CTENA)	0	0.00
Cycloseris (CYCLO)	0	0.00
Cynarina (CYNA)	0	0.00
Cyphastrea (CYPH)	0	0.00
Diaseris (DIASE)	0	0.00
Diploastrea (DIPLO)	20	20.00
Echinophyllia (ECHI)	0	0.00
Echinopora (ECHIN)	0	0.00
Euphyllia (EUPH)	0	0.00
Favia (FAVIA)	0	0.00
Favites (FAVIT)	0	0.00
Fungia (FUNGI)	3	3.00
Galaxea (GALAX)	0	0.00
Gardineroseris (GARDI)	0	0.00
Goniastrea (GONIA)	130	130.00
Goniopora (GONI)	0	0.00
Halomitra (HALO)	0	0.00
Heliofungia (HELIO)	0	0.00
Herpolitha (HERPO)	0	0.00
Heterocyathus (HETE)	0	0.00
Heterospsammia (HETER)	0	0.00
Hydnophora (HYDNO)	0	0.00
Leptastrea (LEPTA)	0	0.00
Leptoria (LEPT)	169	169.00
Leptosera (LEPTO)	85	85.00
Lithophyllon (LITHO)	0	0.00

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
CORAL (HC)		
Lobophyllia (LOBO)	0	0.00
Madracis (MADRA)	0	0.00
Merulina (MERU)	0	0.00
Montastrea (MONTA)	0	0.00
Montipora (MONTI)	112	112.00
Mycedium (MYCE)	0	0.00
Nemenezophyllia (NEMEN)	0	0.00
Oulastrea (OULA)	0	0.00
Oulophyllia (OULO)	0	0.00
Oxypora (OXY)	0	0.00
Pachyseris (PACH)	39	39.00
Palauastrea (PALAU)	0	0.00
Paraclavarina (PARA)	0	0.00
Pavona (PAVON)	2	2.00
Pectinia (PECTI)	1	1.00
Physogra (PHYS)	0	0.00
Playgyra (PLATY)	0	0.00
Plerogyra (PLERO)	0	0.00
Plesiastrea (PLESI)	0	0.00
Pocillopora (POCILL)	0	0.00
Podabacia (PODA)	0	0.00
Polyphyllia (POLY)	0	0.00
Porites (PORI)	557	557.00
Psammocora (PSAMM)	105	105.00
Pseudosiderastrea (PSEU)	0	0.00
Sandalolotha (SANDA)	0	0.00
Scapophyllia (SCAPO)	0	0.00
Scolymia (SCOLY)	0	0.00
Seriatopora (SERIA)	21	21.00
Stylocoeniella (STYLO)	0	0.00
Stylopora (STYL)	1	1.00
Symphyllia (SYMP)	0	0.00
Trachyphyllia (TRACH)	0	0.00
Tubastrea (TUBA)	0	0.00
Turbinaria (TURBU)	0	0.00
Wellsophyllia (WELL)	0	0.00
Zoopilus (ZOO)	0	0.00
NON SCLERACTINIAN CORAL (NSC)		
Distichopora (DISTI)	0	0.00
Helipora (HELI)	0	0.00

SUBCATEGORIES (occurring in transect)	SUMS	MEAN
NON SCLERACTINIAN CORAL (NSC)		
Millepora (MILLE)	0	0.00
Stylaster (STYLA)	0	0.00
Tubipora (TUBI)	0	0.00
RECENT DEAD CORAL (DC)		
Recently Dead Coral (DC)	57	57.00
DEAD CORAL WITH ALGAE (DCA)		
Dead Coral with Algae (DCA)	2761	2761.00
Turf Algae (TA)	17	17.00
SOFT CORAL (SC)		
Soft Coral (SC)	0	0.00
SPONGE (SP)		
Sponge (SP)	11	11.00
FLESHY SEAWEED (FS)		
Algal Assemblage (AA)	0	0.00
Makro Algae (MA)	0	0.00
OTHER BIOTA (OT)		
Coralline Algae (CA)	0	0.00
Halimeda (HA)	0	0.00
Other (Fauna) (OT)	8	8.00
Zoanthid (ZO)	0	0.00
RUBBLE (R)		
Rubble (R)	396	396.00
SAND (S)		
Sand (S)	1003	1003.00
SILT (SI)		
Silt (SI)	0	0.00
ROCK (RK)		
Rock (RK)	0	0.00
TAPE, WAND, SHADOW (TWS)		
Tape, Wand, Shadow (TWS)	74	74.00

RESULTS SUMMARY CHART	# Points	%	SW Index	Simpson (1-D)
CORAL (HC)	1611	27.47	1.90	0.80
NON SCLERACTINIAN CORAL (NSC)	0	0.00	0.00	1.00
RECENT DEAD CORAL (DC)	57	0.97	0.00	0.00
DEAD CORAL WITH ALGAE (DCA)	2778	47.37	0.04	0.01
SOFT CORAL (SC)	0	0.00	0.00	1.00
SPONGE (SP)	11	0.19	0.00	0.00
FLESHY SEAWEED (FS)	0	0.00	0.00	1.00
OTHER BIOTA (OT)	8	0.14	0.00	0.00
RUBBLE (R)	396	6.75	0.00	0.00
SAND (S)	1003	17.10	0.00	0.00
SILT (SI)	0	0.00	0.00	1.00
ROCK (RK)	0	0.00	0.00	1.00
TAPE, WAND, SHADOW (TWS)	74	1.25		
TOTALS	5938	100.00		

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acanthastrea (ACANT)	0	0.00	0.00	0.00
Acropora (ACRO)	364	6.21	0.34	0.05
Alveopora (ALVEO)	0	0.00	0.00	0.00
Anacropora (ANAC)	2	0.03	0.01	0.00
Astreopora (ASTRE)	0	0.00	0.00	0.00
Australogyra (AUSTR)	0	0.00	0.00	0.00
Australomussa (AUST)	0	0.00	0.00	0.00
Barabattoia (BARAB)	0	0.00	0.00	0.00
Blastomussa (BLAST)	0	0.00	0.00	0.00
Catalaphyllia (CATAL)	0	0.00	0.00	0.00
Caulastrea (CAULA)	0	0.00	0.00	0.00
Coeloseris (COELO)	0	0.00	0.00	0.00
Coral Bleaching (CB)	0	0.00	0.00	0.00
Coscinaeaea (COSCI)	0	0.00	0.00	0.00
Ctenactis (CTENA)	0	0.00	0.00	0.00
Cycloseris (CYCLO)	0	0.00	0.00	0.00
Cynarina (CYNA)	0	0.00	0.00	0.00
Cyphastrea (CYPH)	0	0.00	0.00	0.00
Diaseris (DIASE)	0	0.00	0.00	0.00
Diploastrea (DIPLO)	20	0.34	0.05	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Echinophyllia (ECHI)	0	0.00	0.00	0.00
Echinopora (ECHIN)	0	0.00	0.00	0.00
Euphyllia (EUPH)	0	0.00	0.00	0.00
Favia (FAVIA)	0	0.00	0.00	0.00
Favites (FAVIT)	0	0.00	0.00	0.00
Fungia (FUNGI)	3	0.05	0.01	0.00
Galaxea (GALAX)	0	0.00	0.00	0.00
Gardineroseris (GARDI)	0	0.00	0.00	0.00
Goniastrea (GONIA)	130	2.22	0.20	0.01
Goniopora (GONI)	0	0.00	0.00	0.00
Halomitra (HALO)	0	0.00	0.00	0.00
Heliofungia (HELIO)	0	0.00	0.00	0.00
Herpolitha (HERPO)	0	0.00	0.00	0.00
Heterocyathus (HETE)	0	0.00	0.00	0.00
Heterospsammia (HETER)	0	0.00	0.00	0.00
Hydnophora (HYDNO)	0	0.00	0.00	0.00
Leptastrea (LEPTA)	0	0.00	0.00	0.00
Leptoria (LEPT)	169	2.88	0.24	0.01
Leptosera (LEPTO)	85	1.45	0.16	0.00
Lithophyllon (LITHO)	0	0.00	0.00	0.00
Lobophyllia (LOBO)	0	0.00	0.00	0.00
Madracis (MADRA)	0	0.00	0.00	0.00
Merulina (MERU)	0	0.00	0.00	0.00
Montastrea (MONTA)	0	0.00	0.00	0.00
Montipora (MONTI)	112	1.91	0.19	0.00
Mycedium (MYCE)	0	0.00	0.00	0.00
Nemenezophyllia (NEMEN)	0	0.00	0.00	0.00
Oulastrea (OULA)	0	0.00	0.00	0.00
Oulophyllia (OULO)	0	0.00	0.00	0.00
Oxypora (OXY)	0	0.00	0.00	0.00
Pachyseris (PACH)	39	0.67	0.09	0.00
Palauastrea (PALAU)	0	0.00	0.00	0.00
Paraclavarina (PARA)	0	0.00	0.00	0.00
Pavona (PAVON)	2	0.03	0.01	0.00
Pectinia (PECTI)	1	0.02	0.00	0.00
Physogra (PHYS)	0	0.00	0.00	0.00
Playgyra (PLATY)	0	0.00	0.00	0.00
Plerogyra (PLERO)	0	0.00	0.00	0.00
Plesiastrea (PLESI)	0	0.00	0.00	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Pocillopora (POCILL)	0	0.00	0.00	0.00
Podabacia (PODA)	0	0.00	0.00	0.00
Polyphyllia (POLY)	0	0.00	0.00	0.00
Porites (PORI)	557	9.50	0.37	0.12
Psammocora (PSAMM)	105	1.79	0.18	0.00
Pseudosiderastrea (PSEU)	0	0.00	0.00	0.00
Sandalolotha (SANDA)	0	0.00	0.00	0.00
Scapophyllia (SCAPO)	0	0.00	0.00	0.00
Scolymia (SCOLY)	0	0.00	0.00	0.00
Seriatopora (SERIA)	21	0.36	0.06	0.00
Stylocoeniella (STYLO)	0	0.00	0.00	0.00
Stylopora (STYL)	1	0.02	0.00	0.00
Symphyllia (SYMP)	0	0.00	0.00	0.00
Trachyphyllia (TRACH)	0	0.00	0.00	0.00
Tubastrea (TUBA)	0	0.00	0.00	0.00
Turbinaria (TURBU)	0	0.00	0.00	0.00
Wellsophyllia (WELL)	0	0.00	0.00	0.00
Zoopilus (ZOO)	0	0.00	0.00	0.00
Non Scleractinian Coral				
Distichopora (DISTI)	0	0.00	0.00	0.00
Helipora (HELI)	0	0.00	0.00	0.00
Millepora (MILLE)	0	0.00	0.00	0.00
Stylaster (STYLA)	0	0.00	0.00	0.00
Tubipora (TUBI)	0	0.00	0.00	0.00
Recent Dead Coral				
Recently Dead Coral (DC)	57	0.97	0.00	1.00
Dead Coral with Algae				
Dead Coral with Algae (DCA)	2761	47.08	0.01	0.99
Turf Algae (TA)	17	0.29	0.03	0.00
Soft Coral				
Soft Coral (SC)	0	0.00	0.00	0.00
Sponge				
Sponge (SP)	11	0.19	0.00	1.00
Fleshy Seaweed				
Algal Assemblage (AA)	0	0.00	0.00	0.00
Makro Algae (MA)	0	0.00	0.00	0.00
Other Biota				
Coralline Algae (CA)	0	0.00	0.00	0.00
Halimeda (HA)	0	0.00	0.00	0.00

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Other (Fauna) (OT)	8	0.14	0.00	1.00
Zoanthid (ZO)	0	0.00	0.00	0.00
Rubble				
Rubble (R)	396	6.75	0.00	1.00
Sand				
Sand (S)	1003	17.10	0.00	1.00
Silt				
Silt (SI)	0	0.00	0.00	0.00
Rock				
Rock (RK)	0	0.00	0.00	0.00
Tape, Wand, Shadow				
Tape, Wand, Shadow (TWS)	74	1.25		1.00
Total pts. minus (tape+wand+shadow):	5864.00	100.00		