LAMPIRAN

Lampiran I. Parameter Perairan

Parameter	Stasiun			
	1	2	3	4
Kecerahan (%)	44,5	71,9	66,9	72,7
Kecepatan Arus (m/s)	0,06	0,09	0,05	0,03
Suhu (ºC)	29	29,23	29,13	29
Salinitas (ppt)	28	32,7	33	33,7
pH	7,88	8,05	7,96	8,1
DO (mg/L)	6,75	7,14	7,13	7,1
Kedalaman (m)	4	4,52	4,41	5,02

Lampiran II. Hasil pengolahan data tutupan karang Stasiun 1

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acropora Branching (ACB)	5	0,86	0,07	0,00
Acropora Digitate (ACD)	25	4,31	0,21	0,01
Acropora Encrusting (ACE)	2	0,34	0,03	0,00
Acropora Submassive (ACS)	4	0,69	0,06	0,00
Coral Branching (CB)	2	0,34	0,03	0,00
Coral Encrusting (CE)	15	2,59	0,15	0,00
Coral Foliose (CF)	49	8,45	0,30	0,03
Coral Massive (CM)	176	30,34	0,31	0,36
Coral Mushroom (CMR)	14	2,41	0,15	0,00
Recent Dead Coral				
Recently Dead Coral (DC)	57	9,83	0,00	1,00
Dead Coral with Algae				
Dead Coral with algae (DCA)	157	27,07	0,00	1,00
Soft Coral				
Soft Coral (SC)	6	1,03	0,00	1,00
Sponge				
Sponge (SP)				
Other Biota	5	0,86	0,00	1,00
Other (Fauna) (OT)	17	2,93	0,00	1,00
Rubble				
Rubble (R)	27	4,66	0,00	1,00
Sand				
Sand (S)	13	2,24	0,00	1,00
Bleached coral point				
Bleached coral point (BL)	6	1,03	0,00	1,00
Tape, wand, shadow				
Tape, Wand, Shadow (TWS)	0	0,00		0,00
Total pts. minus (tape+wand+shadow):	580,00	100,00		

Lampiran III. Hasil pengolahan data tutupan karang Stasiun 2

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acropora Branching (ACB)	33	5,50	0,27	0,02
Acropora Digitate (ACD)	1	0,17	0,02	0,00
Acropora Submassive (ACS)	61	10,17	0,34	0,06
Coral Encrusting (CE)	1	0,17	0,02	0,00
Coral Foliose (CF)	5	0,83	0,08	0,00
Coral Massive (CM)	105	17,50	0,37	0,17
Coral Mushroom (CMR)	3	0,50	0,05	0,00
Coral Submassive (CS)	45	7,50	0,31	0,03
Recent Dead Coral				
Recently Dead Coral (DC)	262	43,67	0,00	1,00
Dead Coral with Algae				
Dead Coral with algae (DCA)	29	4,83	0,00	1,00
Soft Coral				
Soft Coral (SC)	31	5,17	0,00	1,00
Fleshy Seaweed				
Algal assemblage (AA)	9	1,50	0,00	1,00
Other Biota				
Other(Fauna) (OT)	7	1,17	0,00	1,00
Rubble				
Rubble (R)	8	1,33	0,00	1,00
Tape, wand, shadow				
Tape, Wand, Shadow (TWS)	0	0,00		0,00
Total pts. minus (tape+wand+shadow):	600,00	100,00		

Lampiran IV. Hasil pengolahan data tutupan karang Stasiun 3

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acropora Branching (ACB)	13	2,17	0,14	0,00
Acropora Encrusting (ACE)	5	0,83	0,07	0,00
Acropora Submassive (ACS)	6	1,00	0,08	0,00
Coral Branching (CB)	11	1,83	0,13	0,00
Coral Encrusting (CE)	1	0,17	0,02	0,00
Coral Foliose (CF)	82	13,67	0,36	0,08
Coral Massive (CM)	85	14,17	0,36	0,09
Coral Mushroom (CMR)	71	11,83	0,35	0,06
Coral Submassive (CS)	13	2,17	0,14	0,00
Recent Dead Coral				
Recently Dead Coral (DC)	250	41,67	0,00	1,00
Dead Coral with Algae				
Dead Coral with algae (DCA)	1	0,17	0,00	1,00
Soft Coral				
Soft Coral (SC)	37	6,17	0,00	1,00
Sponge				
Sponge (SP)	13	2,17	0,00	1,00
Other Biota				
Other (Fauna) (OT)	2	0,33	0,00	1,00
Rubble				
Rubble (R)	8	1,33	0,00	1,00
Sand				
Sand (S)	2	0,33	0,00	1,00
Tape, wand, shadow				
Tape, Wand, Shadow (TWS)	0	0,00		0,00
Total pts. minus (tape+wand+shadow):	600,00	100,00		

Lampiran V. Hasil pengolahan data tutupan karang Stasiun 4

CATEGORIES	# Points	%	SW Index	Simpson (1-D)
Coral				
Acropora Branching (ACB)	1	0,17	0,03	0,00
Acropora Submassive (ACS)	93	15,50	0,35	0,24
Coral Foliose (CF)	8	1,33	0,13	0,00
Coral Massive (CM)	48	8,00	0,35	0,06
Coral Mushroom (CMR)	20	3,33	0,24	0,01
Coral Submassive (CS)	21	3,50	0,24	0,01
Recent Dead Coral				
Recently Dead Coral (DC)	296	49,33	0,00	1,00
Dead Coral with Algae				
Dead Coral with algae (DCA)	1	0,17	0,00	1,00
Soft Coral				
Soft Coral (SC)	28	4,67	0,00	1,00
Other Biota				
Other(Fauna) (OT)	82	13,67	0,01	0,98
Zoanthid (ZO)	1	0,17	0,05	0,00
Rubble				
Rubble (R)	1	0,17	0,00	1,00
Tape, wand, shadow				
Tape, Wand, Shadow (TWS)	0	0,00		0,00
Total pts. minus (tape+wand+shadow):	600,00	100,00		

Lampiran VI. Keterkaitan Kualitas Perairan Dengan Tutupan Karang Keras dan Karang Lunak di Pulau Kelagian

- Eigenvalues

	F1	F2	F3
Eigenvalue	5,969	1,571	0,460
Variability (%)	74,612	19,640	5,748
Cumulative (%)	74,612	94,252	100,000

- Screen Plot

- Eigenvectors

	F1	F2	F3
Kecerahan (%)	0,450	-0,086	-0,102
DO (mg/l)	0,242	0,556	0,155
Suhu (ºC)	0,111	0,644	0,097
Salinitas (ppt)	0,369	-0,239	0,478
pH	0,450	-0,086	-0,102
Arus	-0,369	0,239	-0,478
tutupan karang	-0,321	0,223	0,647
tutupan karang lunak	0,386	0,311	-0,264

- Factor loadings

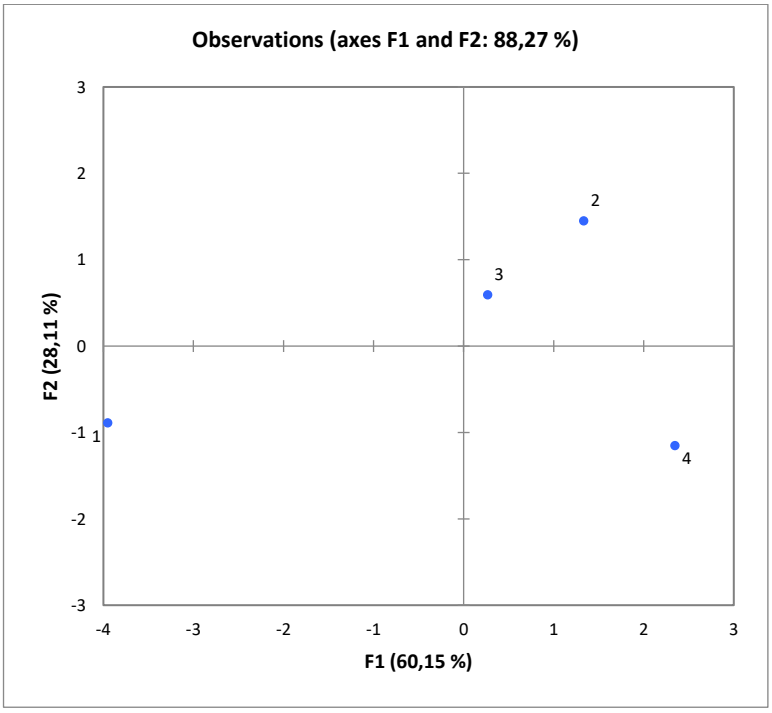
	F1	F2	F3
Kecerahan (%)	0,987	-0,130	-0,099
DO (mg/l)	0,530	0,834	0,150
Suhu (ºC)	0,243	0,965	0,094
Salinitas (ppt)	0,810	-0,359	0,463
pH	0,987	-0,130	-0,099
Arus	-0,810	0,359	-0,463
tutupan karang	-0,704	0,334	0,627
tutupan karang lunak	0,846	0,467	-0,256

- Contribution of the variables

	F1	F2	F3
Kecerahan (%)	20,226	0,747	1,050
DO (mg/l)	5,841	30,962	2,404
Suhu (ºC)	1,229	41,439	0,949
Salinitas (ppt)	13,646	5,719	22,869
pH	20,226	0,747	1,050
Arus	13,646	5,719	22,869
tutupan karang	10,295	4,973	41,836
tutupan karang lunak	14,890	9,694	6,972

- Contribution of the observations

	F1	F2	F3
1	81,128	8,773	15,941
2	9,271	23,299	0,008
3	0,371	3,897	45,698
4	28,660	14,737	8,171

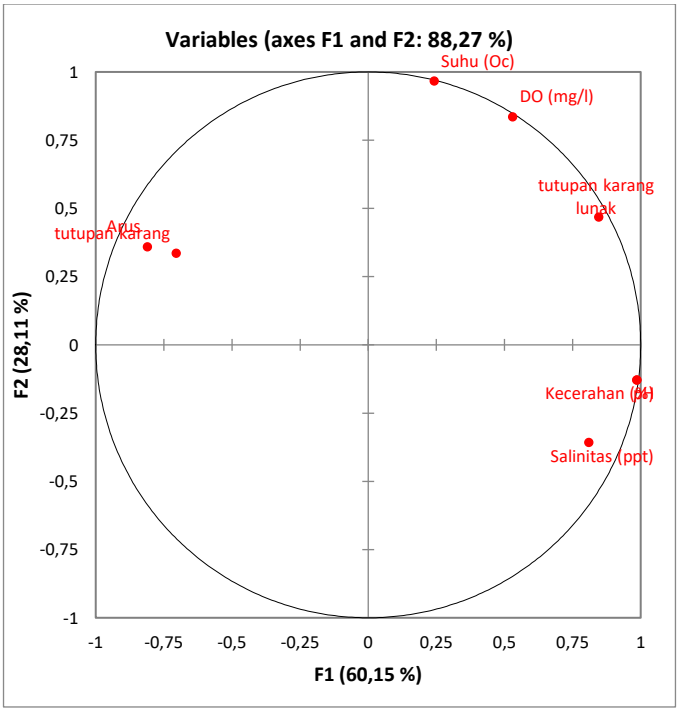


- Squared cosines of the variables

	F1	F2	F3
Kecerahan (%)	**0,973**	0,017	0,010
DO (mg/L)	0,281	**0,696**	0,023
Suhu (˚C)	0,059	**0,932**	0,009
Salinitas (ppt)	**0,657**	0,129	0,215
pH	**0,973**	0,017	0,010
Arus	**0,657**	0,129	0,215
Tutupan karang	**0,495**	0,112	0,393
Tutupan karang lunak	**0,717**	0,218	0,065

- Correlation between variables and factors

	F1	F2	F3
Kecerahan (%)	0,987	-0,130	-0,099
DO (mg/L)	0,530	0,834	0,150
Suhu (˚C)	0,243	0,965	0,094
Salinitas (ppt)	0,810	-0,359	0,463
pH	0,987	-0,130	-0,099
Arus	-0,810	0,359	-0,463
Tutupan karang	-0,704	0,334	0,627
Tutupan karang lunak	0,846	0,467	-0,256



- Squared cosines of the variables

	F1	F2	F3
Kecerahan (%)	**0,973**	0,017	0,010
DO (mg/L)	0,281	**0,696**	0,023
Suhu (ºC)	0,059	**0,932**	0,009
Salinitas (ppt)	**0,657**	0,129	0,215
pH	**0,973**	0,017	0,010
Arus	**0,657**	0,129	0,215
Tutupan karang	**0,495**	0,112	0,393
Tutupan karang lunak	**0,717**	0,218	0,065

- Factor Scores

Observation	F1	F2	F3
1	-3,952	-0,888	-0,774
2	1,336	1,448	0,018
3	0,267	0,592	1,310
4	2,349	-1,151	-0,554

- Squared cosines of the observations

	F1	F2	F3
1	**0,918**	0,046	0,035
2	0,460	**0,540**	0,000
3	0,033	0,164	**0,803**
4	**0,772**	0,185	0,043

Lampiran VII. Indeks Tutupan Karang Keras dan Karang Lunak

Indeks Tutupan Karang Keras Stasiun 1

Stasiun 1	%	point	ni/N(Pi)	ni/N^2	Ln Pi	∑ Pi Ln Pi
Acropora Branching (ACB)	5	30	0,1094891	0,01198785	-2,21193	0,242182
Acropora Submassive (ACS)	1,83	11	0,040146	0,0016117	-3,21523	0,129079
Coral Branching (CB)	1,67	10	0,0364964	0,00133198	-3,31054	0,120823
Coral Encrusting (CE)	2,33	14	0,0510949	0,00261069	-2,97407	0,15196
Coral Foliose (CF)	1,17	7	0,0255474	0,00065267	-3,66722	0,093688
Coral Massive (CM)	29,17	175	0,6386861	0,40791997	-0,44834	0,28635
Coral Mushroom (CMR)	4,5	27	0,0985401	0,00971016	-2,31729	0,228346
Jumlah	**45,67**	**274**		**0,43582503**		**1,252428**

Jumlah genus	**7**
H' maks	**1,94591**
Dominansi (C)	**0,43583**
Keanekaragaman (H')	**1,25243**
Keseragaman €	**0,64362**

Indeks Tutupan Karang Keras Stasiun 2

Stasiun 2	%	point	ni/N(Pi)	ni/N^2	Ln Pi	∑ Pi Ln Pi
Acropora Branching (ACB)	5,5	33	0,1299213	0,01687953	-2,04083	0,265147
Acropora Digitate (ACD)	0,17	1	0,003937	1,55E-05	-5,53733	0,021801
Acropora Submassive (ACS)	10,17	61	0,2401575	0,05767562	-1,42646	0,342575
Coral Encrusting (CE)	0,17	1	0,003937	1,55E-05	-5,53733	0,021801
Coral Foliose (CF)	0,83	5	0,019685	0,0003875	-3,9279	0,077321
Coral Massive (CM)	17,5	105	0,4133858	0,17088784	-0,88337	0,365174
Coral Mushroom (CMR)	0,5	3	0,011811	0,0001395	-4,43872	0,052426
Coral Submassive (CS)	7,5	45	0,1771654	0,03138756	-1,73067	0,306615
Jumlah	**42,34**	**254**		**0,27738855**		**1,452859**

Jumlah genus	**8**
H' maks	**2,07944**
Dominansi (C)	**0,27739**
Keanekaragaman (H')	**1,45286**
Keseragaman	**0,69868**

Indeks Tutupan Karang Keras Stasiun 3

Stasiun 3	%	point	ni/N (Pi)	ni/N^2	Ln Pi	∑ Pi Ln Pi
Acropora Branching (ACB)	2,17	13	0,0452962	0,00205174	-3,09453	0,14017
Acropora Encrusting (CE)	0,83	5	0,0174216	0,00030351	-4,05004	0,070558
Acropora Submassive (ACS)	1	6	0,0209059	0,00043706	-3,86772	0,080858
Coral Branching (CB)	1,83	11	0,0383275	0,001469	-3,26159	0,125009
Coral Encrusting (CE)	0,17	1	0,0034843	1,214E-05	-5,65948	0,019719
Coral Foliose (CF)	13,67	82	0,2857143	0,08163265	-1,25276	0,357932
Coral Massive (CM)	14,17	85	0,2961672	0,08771504	-1,21683	0,360385
Coral Mushroom (CMR)	11,83	71	0,2473868	0,06120021	-1,3968	0,34555
Coral Submassive (CS)	2,17	13	0,0452962	0,00205174	-3,09453	0,14017
Jumlah	**47,84**	**287**		**0,2368731**		**1,640354**

Jumlah genus	**9**
H' maks	**2,19722**
Dominansi	**0,23687**
Keanekaragaman	**1,64035**
Keseragaman	**0,74656**

Indeks Tutupan Karang Keras Stasiun 4

Stasiun 4	%	point	ni/N (Pi)	ni/N^2	Ln Pi	∑ Pi Ln Pi
Acropora Branching (ACB)	0,17	1	0,0052356	2,7412E-05	-5,25227	0,027499
Acropora Submassive (ACS)	15,5	93	0,486911	0,23708232	-0,71967	0,350417
Coral Foliose (CF)	1,33	8	0,0418848	0,00175434	-3,17283	0,132893
Coral Massive (CM)	8	48	0,2513089	0,06315616	-1,38107	0,347076
Coral Mushroom (CMR)	3,33	20	0,104712	0,01096461	-2,25654	0,236287
Coral Submassive (CS)	3,5	21	0,1099476	0,01208848	-2,20775	0,242737
Jumlah	**31,83**	**191**		**0,32507333**		**1,336909**

Jumlah genus	**6**
H' maks	**1,79176**
Dominansi	**0,32507**
Keanekaragaman	**1,33691**
Keseragaman	**0,74614**

Indeks Tutupan Karang Lunak Stasiun 1

Stasiun 1	%	point	ni/N (Pi)	ni/N^2	Ln Pi	Pi Ln Pi
Sinularia	1,03	6	1	1	0	0
		6				

Jumlah genus	**1**
H' maks	**0**
Dominansi	**1**
Keanekaragaman	**0**
Keseragaman	**#DIV/0!**

Indeks Tutupan Karang Lunak Stasiun 2

Stasiun 2	%	point	ni/N (Pi)	Pi^2	Ln Pi	Pi Ln Pi
Lobophytum	5,17	31	1	1	0	0
		31				

Jumlah genus	**1**
H' maks	**0**
Dominansi	**1**
Keanekaragaman	**0**
Keseragaman	**#DIV/0!**

Indeks Tutupan Karang Lunak Stasiun 3

Stasiun 3	%	point	ni/N (Pi)	Pi^2	Ln Pi	Pi Ln Pi
Clavularia	3,83	23	1	1	0	0
		23				

Jumlah genus	**1**
H' maks	**0**
Dominansi	**1**
Keanekaragaman	**0**
Keseragaman	**#DIV/0!**

Indeks Tutupan Karang Lunak Stasiun 4

Stasiun 4	%	point	ni/N (Pi)	Pi^2	Ln Pi	Pi Ln Pi
Lobophytum	4,67	28	1	1	0	0
		28				

Jumlah genus	**1**
H' maks	**0**
Dominansi	**1**
Keanekaragaman	**0**
Keseragaman	**#DIV/0!**

Indeks Keseluruhan Tutupan Karang Keras

Seluruh stasiun	point	ni/N (Pi)	ni/N^2	Ln Pi	∑ Pi Ln Pi
Acropora Branching (ACB)	77	0,076541	0,0058585	-2,5699319	0,196705
Acropora Digitate (ACD)	1	0,17	0,0289	-1,7719568	0,301233
Acropora Encrusting (ACE)	5	0,83	0,6889	-0,1863296	0,154654
Acropora Submassive (ACS)	171	0,16998	0,0288932	-1,7720738	0,301217
Coral Branching (CB)	21	0,020875	0,0004358	-3,8692149	0,080769
Coral Encrusting (CE)	16	0,015905	0,000253	-4,1411486	0,065863
Coral Foliose (CF)	102	0,101392	0,0102803	-2,2887645	0,232062
Coral Massive (CM)	413	0,410537	0,1685404	-0,8902898	0,365497
Coral Mushroom (CMR)	121	0,120278	0,0144669	-2,1179468	0,254743
Coral Submassive (CS)	79	0,078529	0,0061668	-2,5442895	0,1998
Jumlah	**1006**		**0,9526948**		**2,152542**

Jumlah genus	**10**
H' maks	**2,30259**
Dominansi	**0,95269**
Keanekaragaman	**2,15254**
Keseragaman	**0,93484**

Indeks Keseluruhan Tutupan Karang Lunak

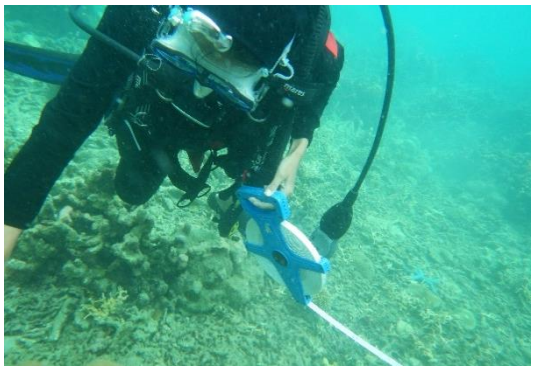
Seluruh stasiun	%	point	ni/N (Pi)	Pi^2	Ln Pi	Pi Ln Pi
Clavularia	3,83	23	0,261364	0,068311	-1,34184	0,350709
Lobophytum	9,84	59	0,670455	0,449509	-0,3998	0,268047
Sinularia	1,03	6	0,068182	0,004649	-2,68558	0,183108
Jumlah	**14,7**	**88**		**0,522469**		**0,801864**

Jumlah genus	**3**
H' maks	**1,098612**
Dominansi	**0,522469**
Keanekaragaman	**0,801864**
Keseragaman	**0,729888**

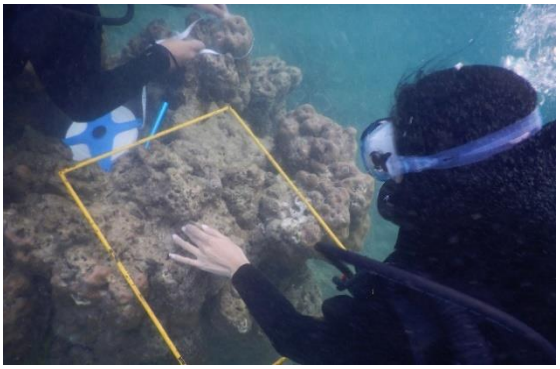
Lampiran VIII. Dokumentasi Pengambilan Data di Lapangan

Persiapan Alat

Penentuan Titik Lokasi



Memasang *line* transek



Pengambilan data terumbu karang

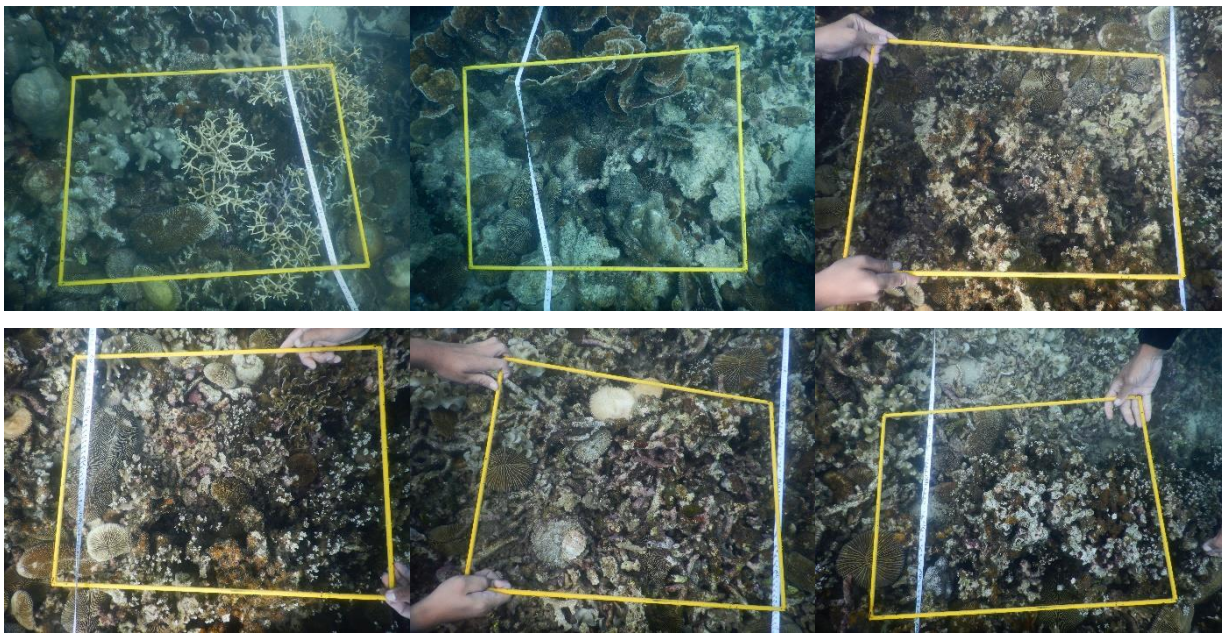
Pengukuran Salinitas

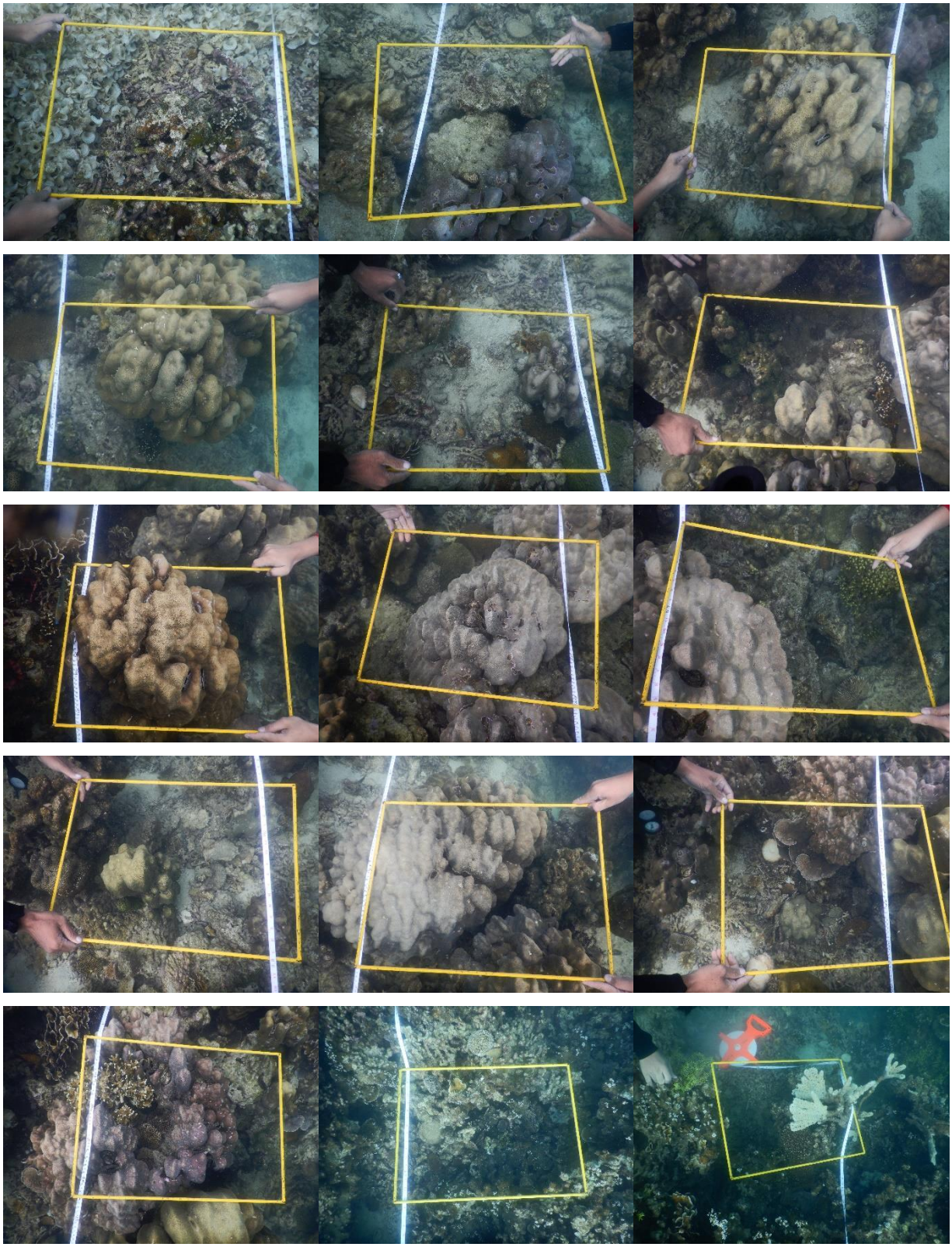
Pengukuran DO dan Suhu

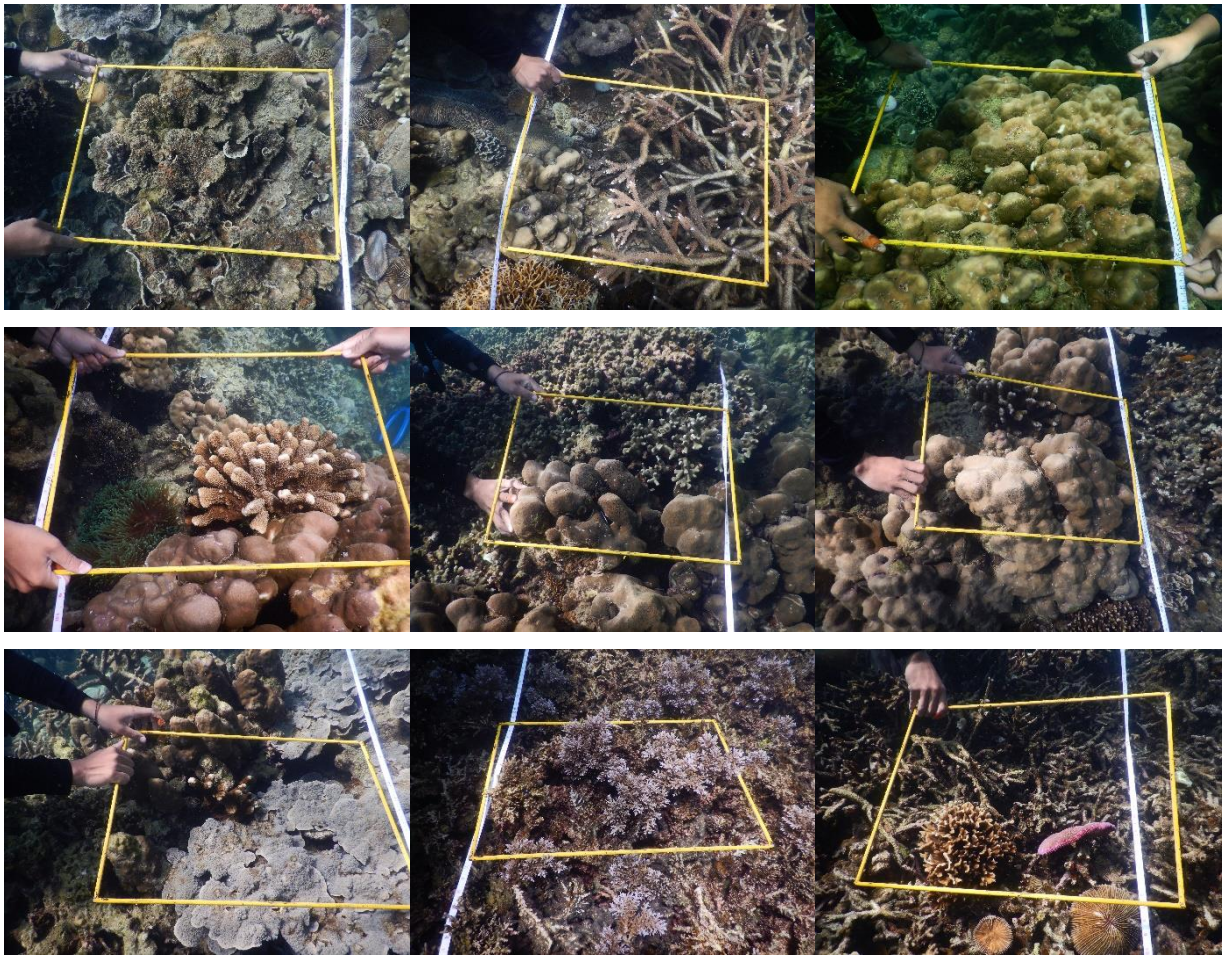
Pengukuran pH

Pengukuran Kecerahan

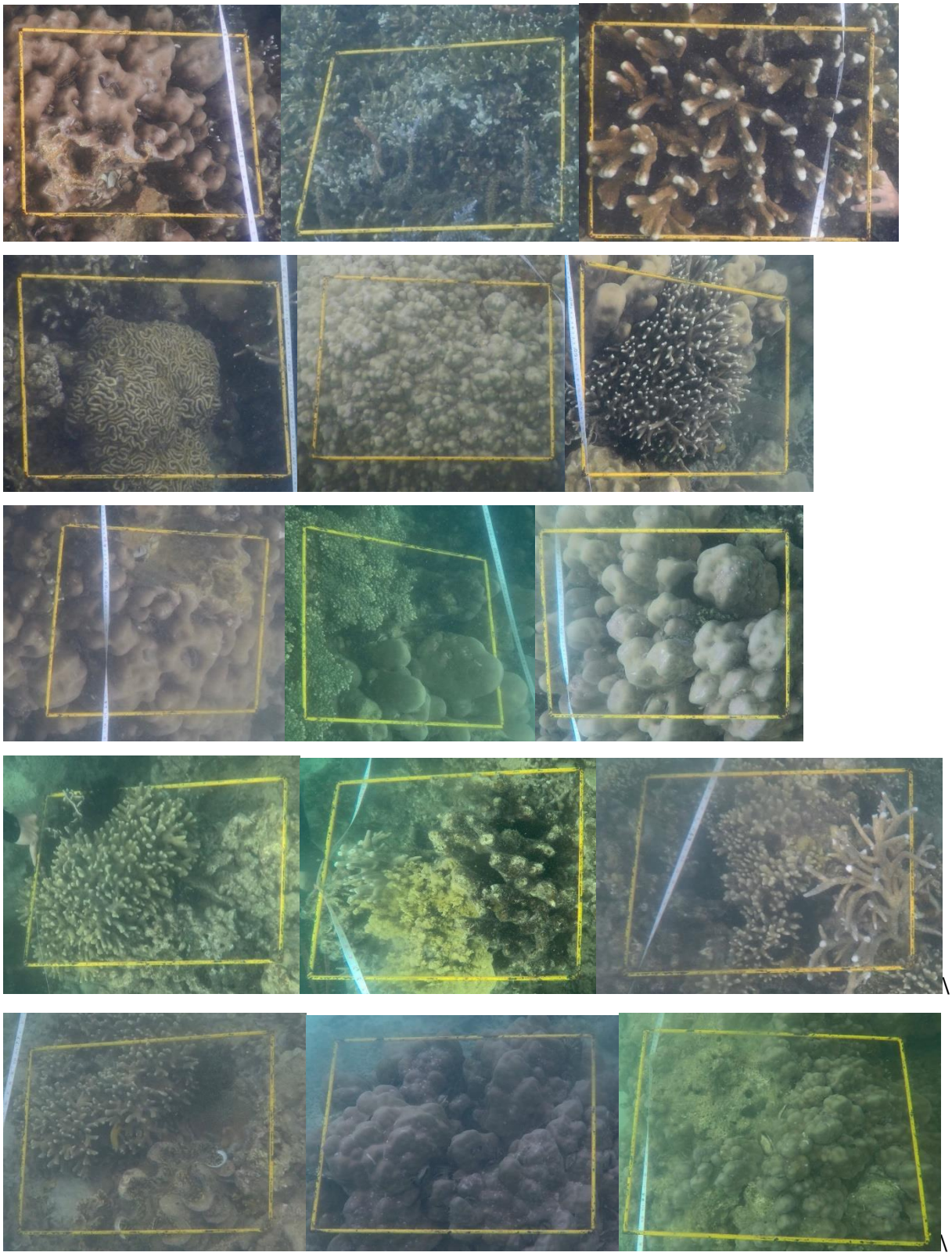
LAMPIRAN 9. Transek Stasiun 1

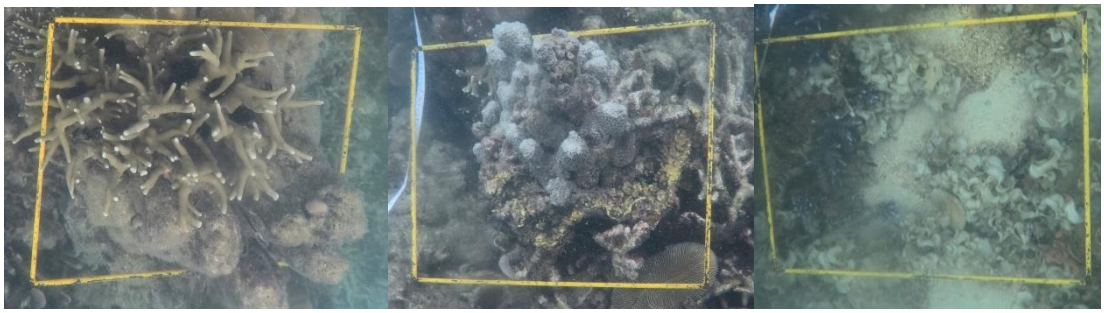


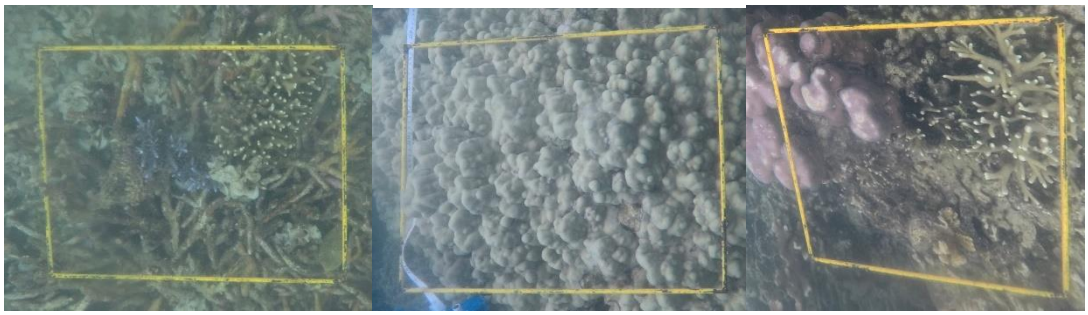


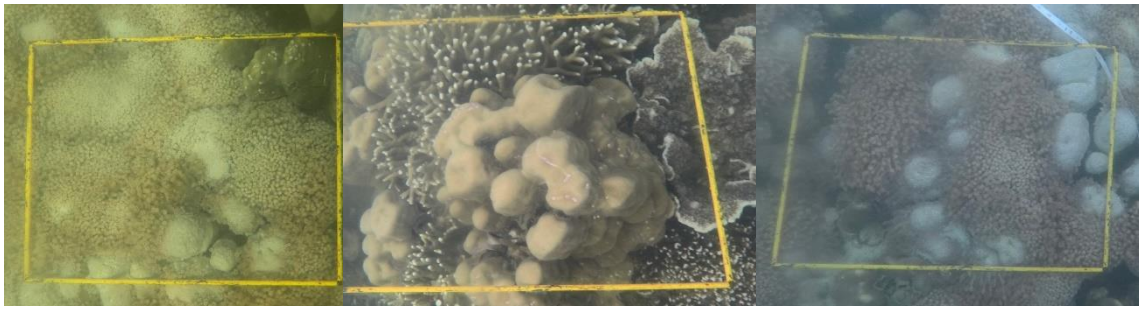


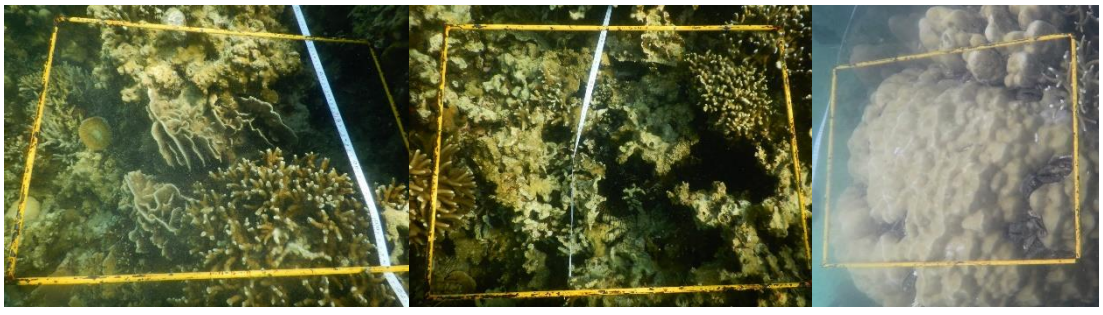
Lampiran IX. Transek Stasiun 2



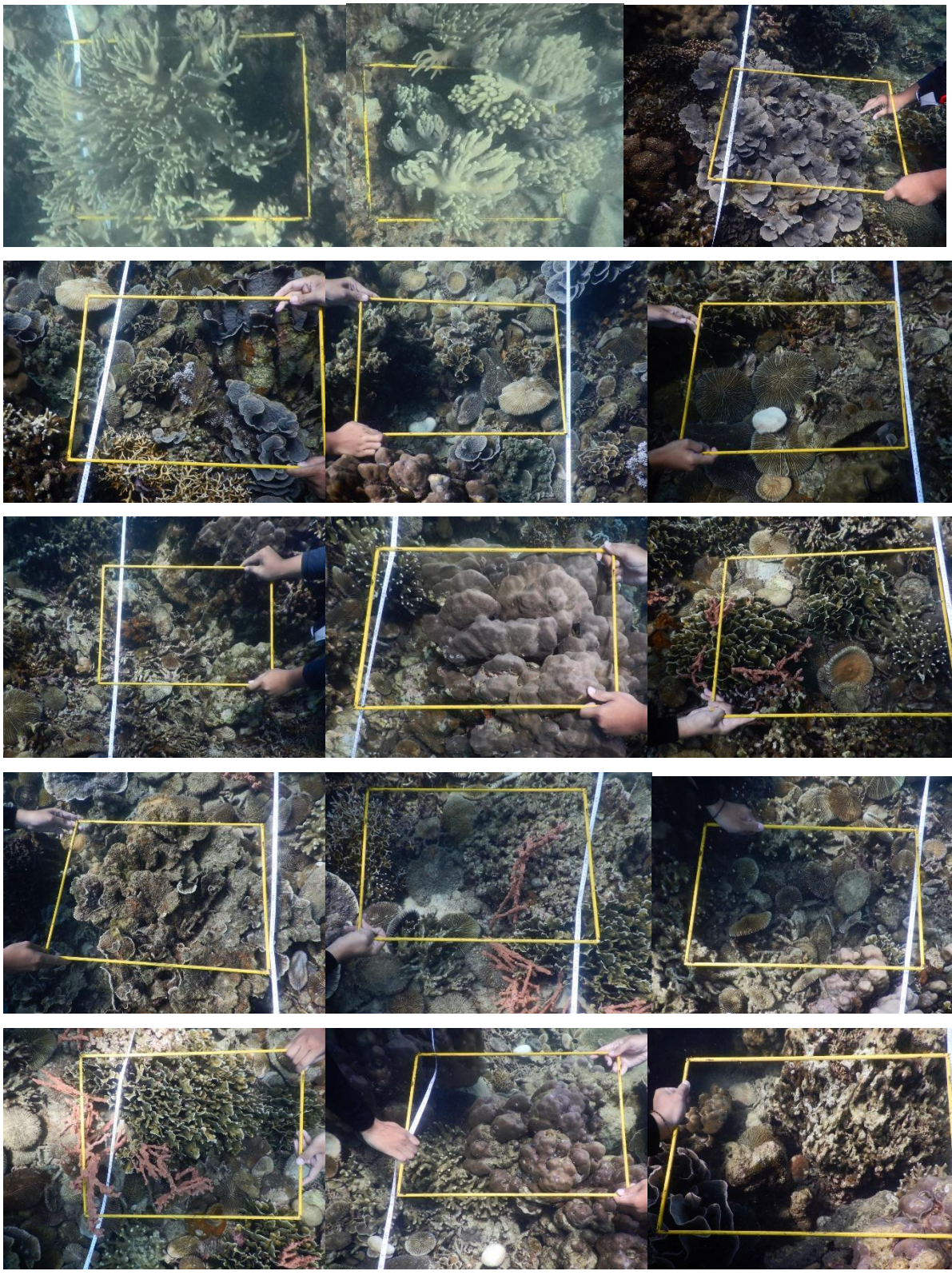


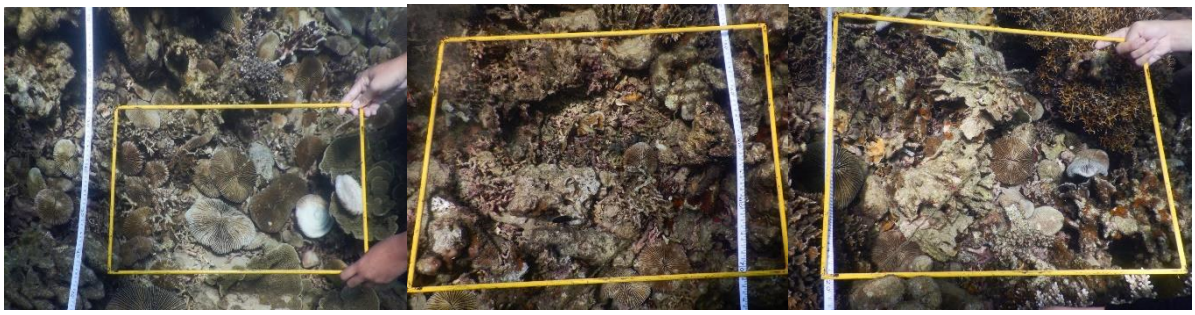
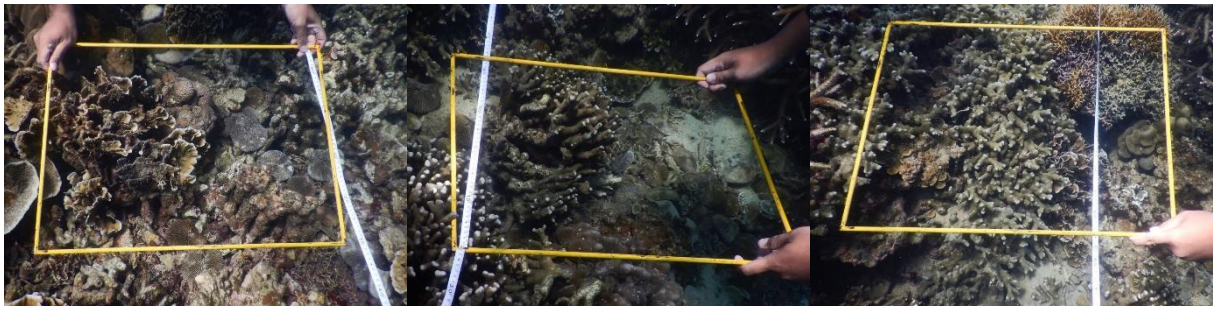


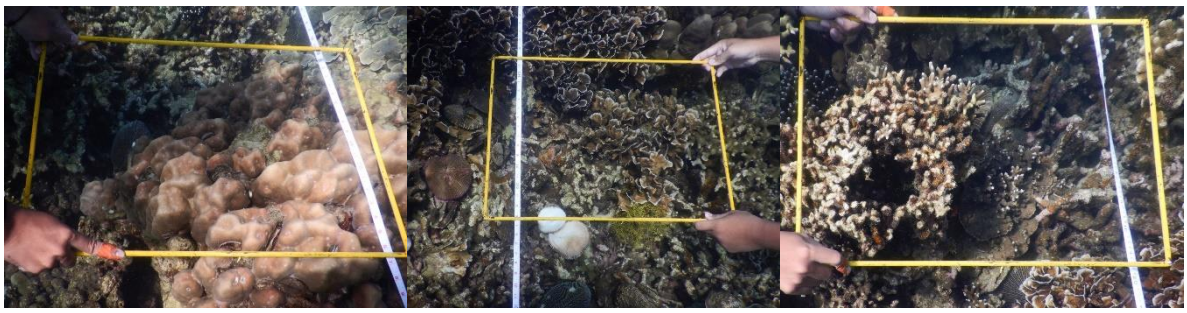
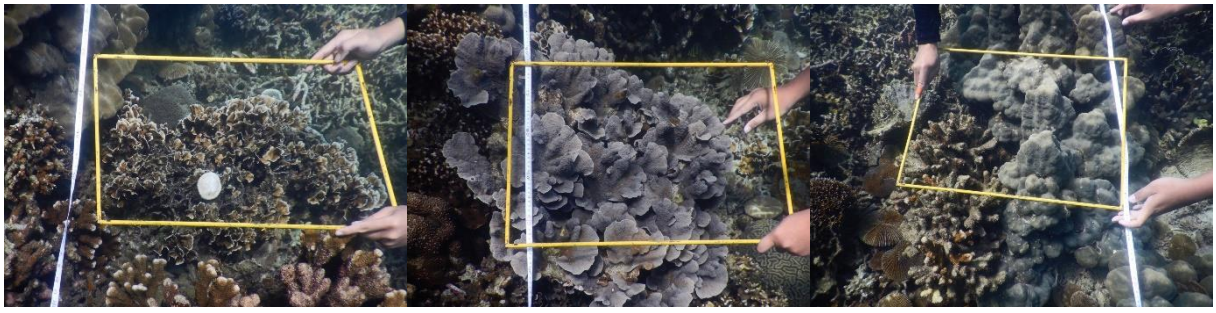




Lampiran X. Transek Stasiun 3



Lampiran XI. Transek Stasiun 4