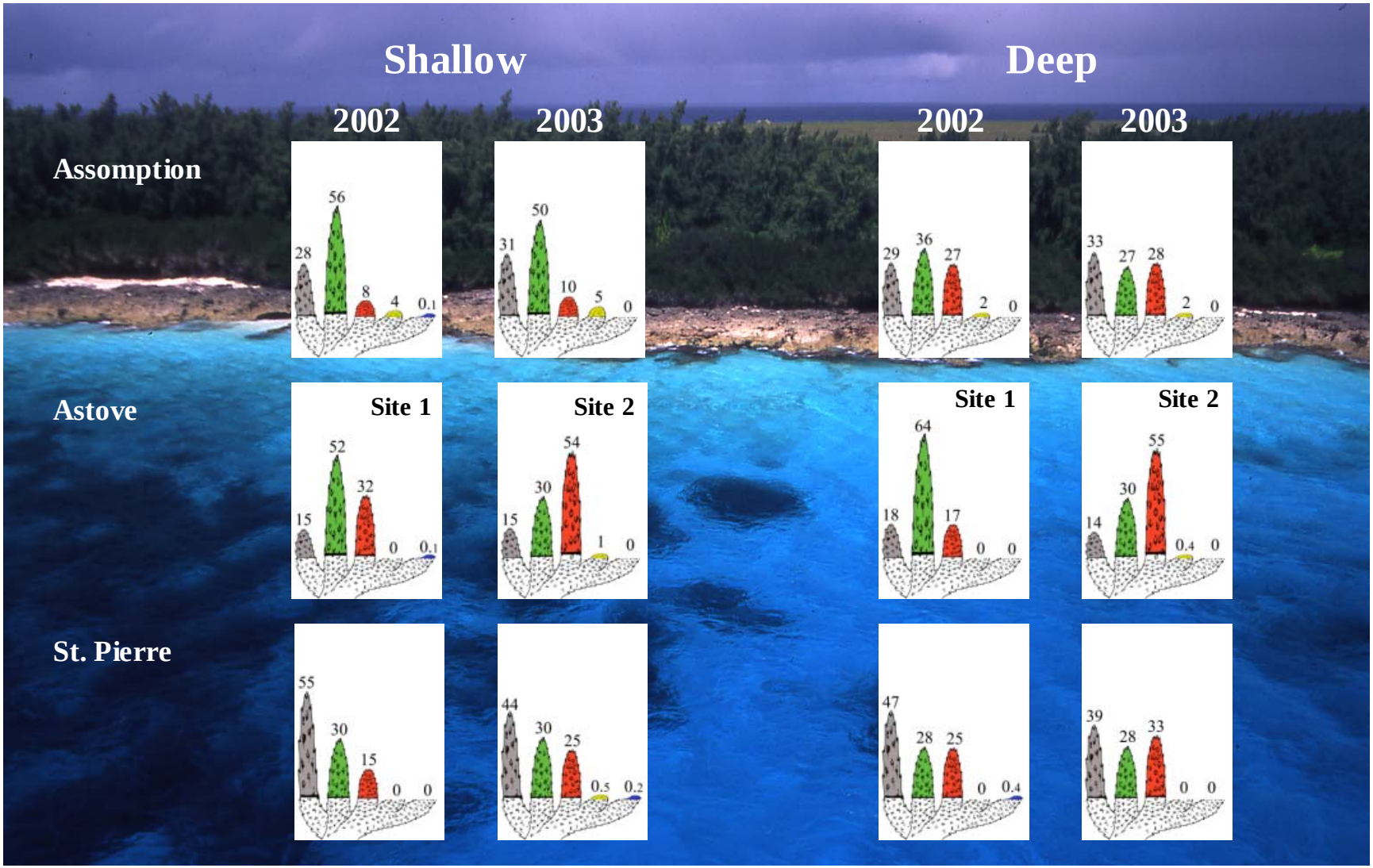
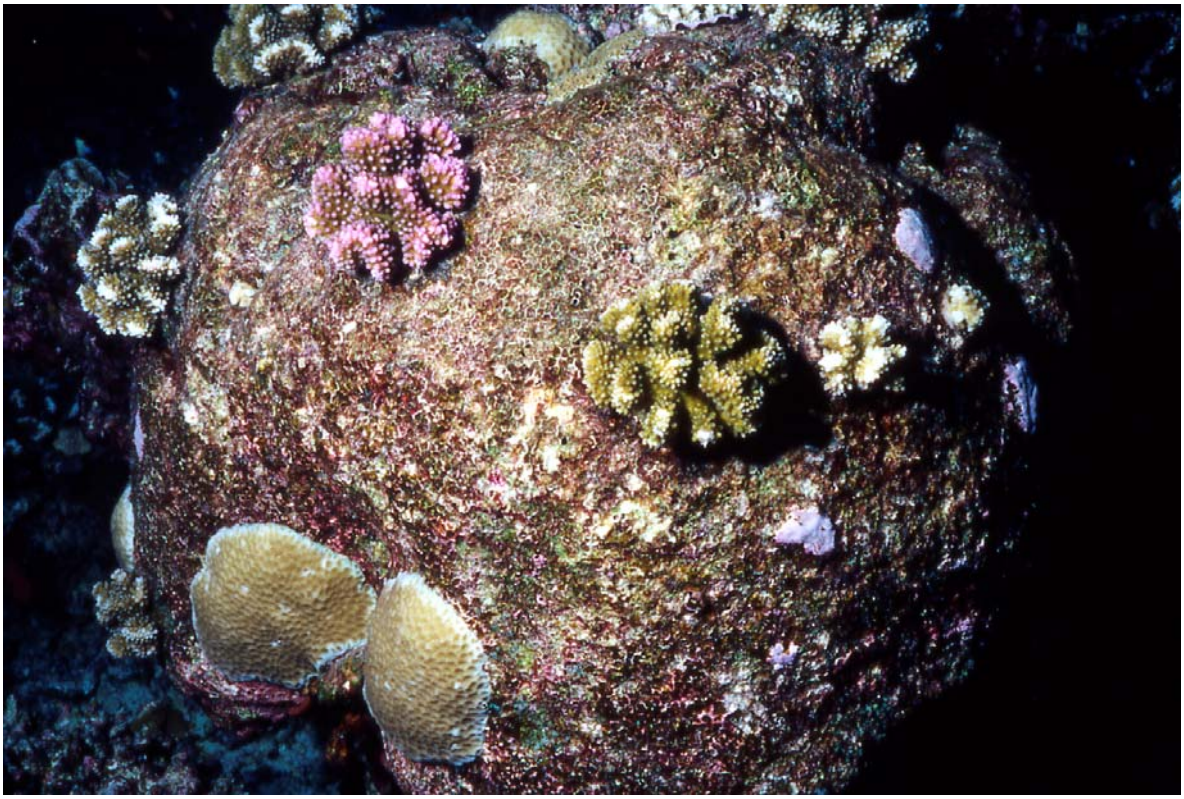


Figure 12. Calculated general substrate cover for shallow (10m) and deep (20m) sites at Assomption, Astove and St. Pierre in February 2002 and May 2003. Coral branch length and numbers indicate percent cover of category. Colours represent: ♦ Sand, rock, rubble; ♦ Algae; ♦ Live hard coral; ♦ Live soft coral; ♦ Dead coral. *Note site differences at Astove and percentages may not add to 100 due to omitted "others" category.*

Coral Recruitment and Tagging

Number of recruits

The average number of recruits per m^2 at each of the sampling sites is given in Table 1 along with average figures for February 2001 and 2002. At Aldabra levels of recruitment appeared higher at 8 out of the 10 sites surveyed, though there was only a *significant* increase in recruit numbers at Site 3 in shallow water and Site 1 in deep water ((P (T<=t) 2 tailed 0.002 for both sites). Average number of recruits per m^2 pooled for all Aldabra sites varied with depth from 9 recruits at 10m depth (s.e. ± 0.49, nº recruits = 1264, 142 $1m^2$ quadrats) to 6 recruits at 20m depth (s.e. ± 0.38, nº recruits = 893, 155 $1m^2$ quadrats). These results are higher than the average of 7 and 5 recruits per m^2 found in 2002 at 10m and 20m depth respectively.



Dead *Goniastrea* colony covered with *Pocillopora* recruits at St. Pierre. Note surviving *Goniastrea* portions recovering on top centre and bottom left of the dead colony.

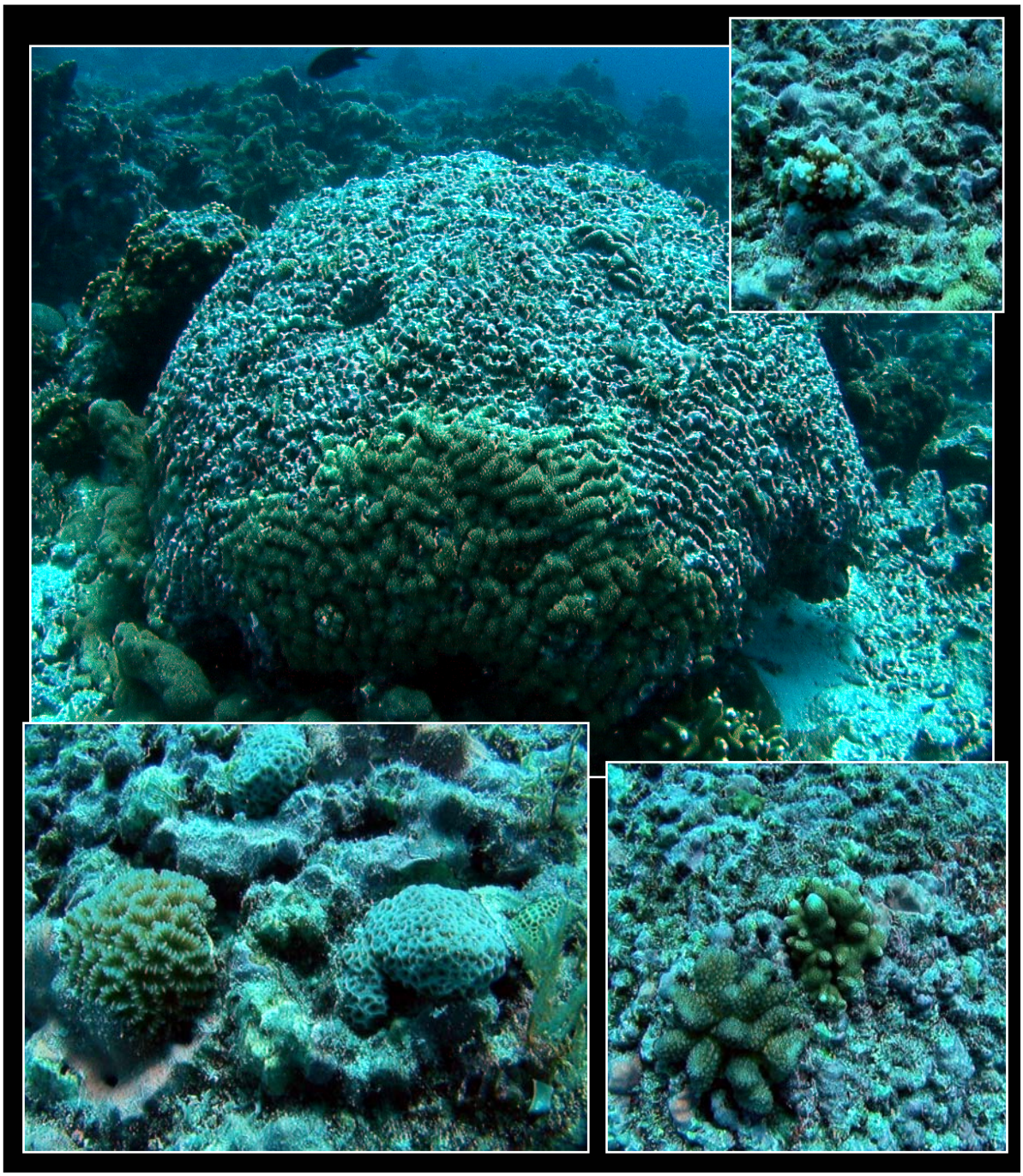
Coral recruitment at Assomption and St. Pierre also increased between February 2002 and May 2003, though only significantly at Assomption in deep water (P (T<=t) 2 tailed 0.0004). The St. Pierre shallow water recruitment was the only exception. The recruit numbers fell considerably although this difference was not significant. At the new Astove Site 2 recruitment was considerably higher than at the previously surveyed Site 1 (P (T<=t)

2 tailed 0.001), this probably reflecting a between site difference and not a between year difference.

Depth	Statistic	Site number											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**9**	**10**	**ASS**	**AST2**	**STP**
6m	**mean**								**6.3**	**8.3**			
	2002 mean	**3.4**					**2.8**		**7.7**	**10.1**			
	2001 mean	3.5	3.8	7.9	8.1	8.7	3.6		7.8	3.9			
	s.e. mean								1.0	1.1			
	s								5.3	5.7			
	max nº								22	24			
	n								177	232			
	# quadrats								28	28			
10m	**mean**	**6.4**	**8.1**	**12.7**	**13.5**	**7.1**	**4.8**	**8.1**			**12.6**	**11.5**	**7.8**
	2002 mean	**5.0**	**5.6**	**8.6**	**10.6**	**3.8**	**2.9**	**7.2**			**11.5**	**1.1**	**12.9**
	2001 mean	4.6	5.6	8.7	8.6	5.6	2.2	7					
	s.e. mean	0.7	0.9	0.9	1.4	1.0	1.1	0.8			1.2	2.0	1.1
	s	3.3	4.9	4.7	7.0	5.0	4.7	3.9			5.9	8.8	5.6
	max nº	14	20	21	27	20	15	20			29	39	25
	n	154	219	306	325	163	97	194			289	231	219
	# quadrats	24	27	24	24	23	20	24			23	20	28
20m	**mean**	**9.9**	**5.5**	**8.7**	**5.2**	**0.8**	**4.9**	**8.2**			**8.8**	**4.5**	**10.9**
	2002 mean	**5.5**	**6.5**	**6.3**	**4.2**	**0.5**	**4.3**	**7.6**			**4.7**	**1.1**	**8.8**
	2001 mean	5.8	3.1	6.3	4.1	0.7	1.7	8.6					
	s.e. mean	1.2.	0.6	0.9	0.6	0.2	0.5	0.8			0.9	0.9	1.7
	s	5.8	3.1	4.8	3.2	1.1	2.6	3.9			4.4	4.4	8.4
	max nº	26	13	23	13	4	11	19			22	18	43
	n	237	133	236	146	23	118	206			212	107	272
	# quadrats	24	24	27	28	28	24	25			24	24	25

Table 1. Average number of recruits/m^2 for three depths at Aldabra Atoll, and sites at Assomption (ASS), Astove (AST2) and St. Pierre (STP). All figures are for May 2003 with the exception of mean 2001 and 2002 recruit numbers given for comparative purposes. Grey cells represent means that differ significantly between selected years (α = 0.01). s. e. mean = standard error of the mean, s = standard deviation, max nº = maximum number of recruits per quadrat and n = total number of recruits.

***** Note that at Site 7 the recruit estimates labelled 10m and 20m were made at 5m and 15m respectively and that the mean for Astove 2002 corresponds to Site 1.



Coral recruit colonisation of dead *Lobophyllia* colony. Note surviving area of *Lobophyllia* on cenre bottom of colony. Insets are enlargements of coral recruits on colony surface.

Coral recruit size frequencies were very similar to previous years. The distribution of *Pocillopora* was again negatively skewed (possibly bimodal) suggesting a second older cohort of recruits with the second cohort more apparent in 2003 than 2002 (Figure 13). The distribution of *Acropora* was also very similar from year to year and maintained its bimodal appearance, again suggesting two cohorts. The main peak shifted to the right in line with expected colony growth. The distribution of *Favia* was close to normal with a

slight positive skew, very similar to that found in 2001. *Pavona* (n = 263) retained its normal distribution while *Psammocora* (n = 400) retained its negative skew that shifted slightly to the right, again indicating cohort growth.

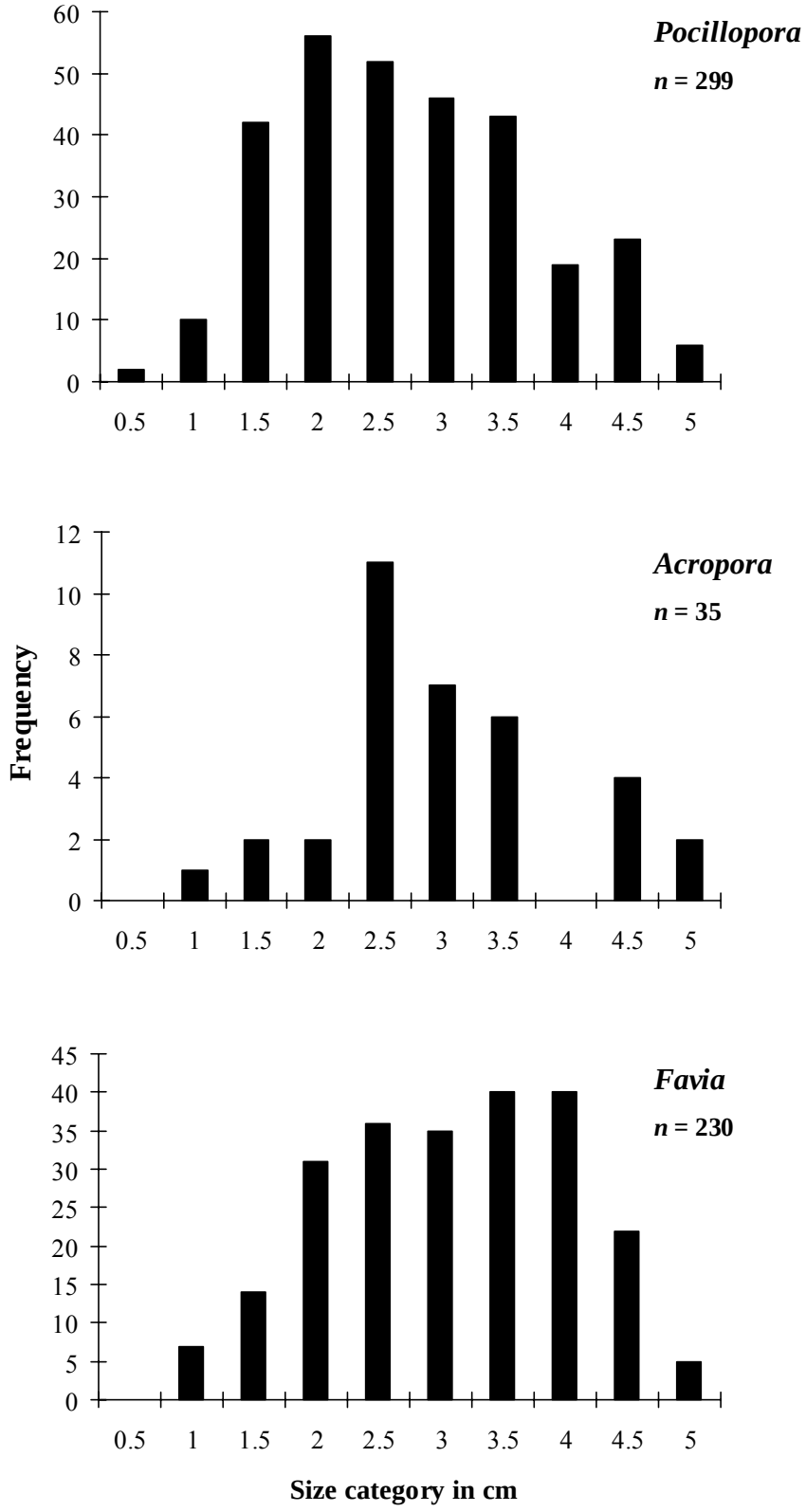


Figure 13. Size frequencies of three species of coral recruits at Aldabra in May 2003.

The mean diameter of *Pocillopora* recruits at Aldabra grew 2.2 cm between February 2002 and May 2003 (s.e. ± 0.2, min = -1.6, max = 6.3, n = 47). This figure includes colonies tagged in 2001 and 2002. Corals tagged in 2002 grew 2.8 cm in the same period (s.e. ± 0.3, min = 1.7, Max = 3.5, n = 6). *Acropora* recruits grew at a similar rate of 2.1 cm over the same period (s.e. ± 0.6, min = 0.4, max = 8.2, n = 13). Of the other species only a single *Pectinia* was found out of the 11 remaining labelled colonies. It had grown 1.2 cm. Although *Acropora* recruits grew slightly faster than *Pocillopora* between 2001 and 2002, growth of these two species has been very similar over the three years (Figure 14).

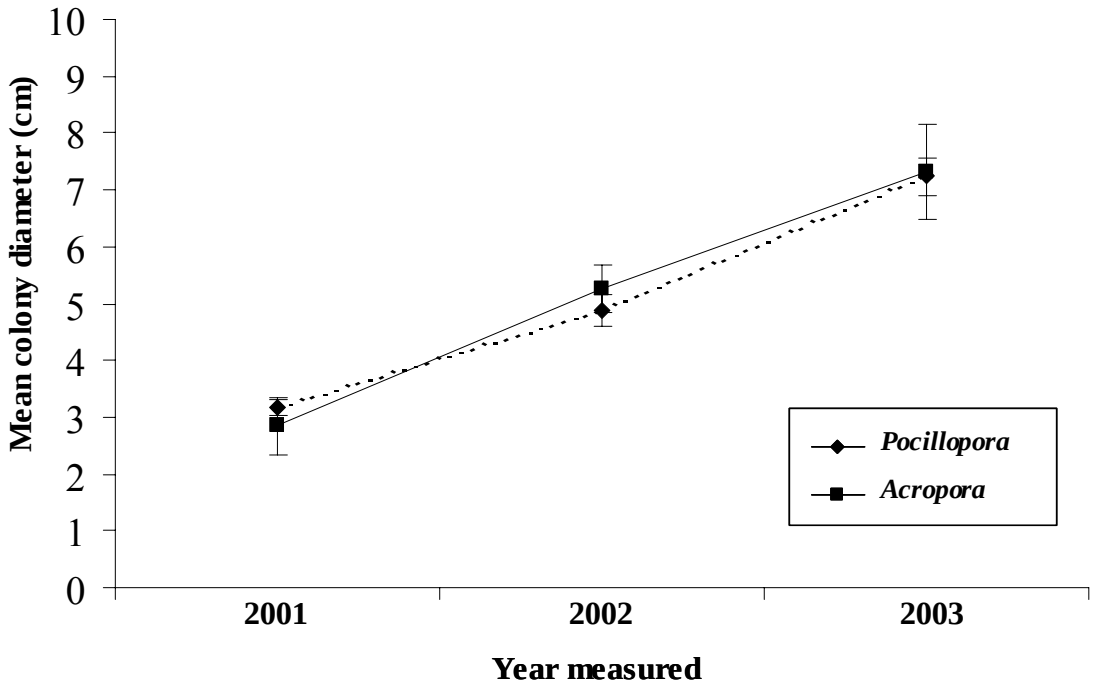
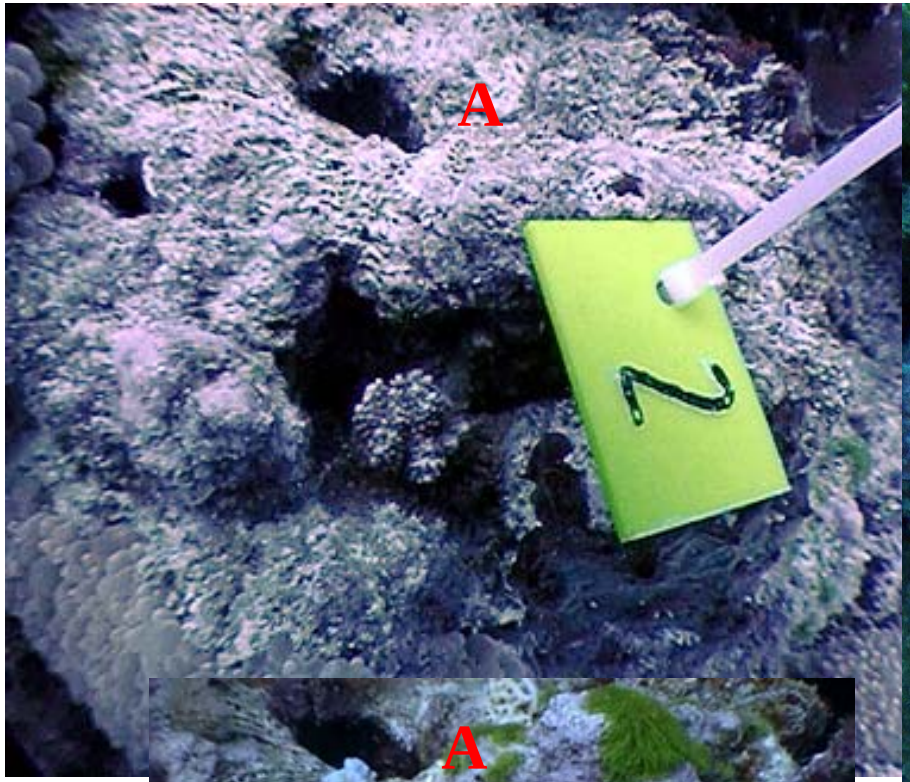


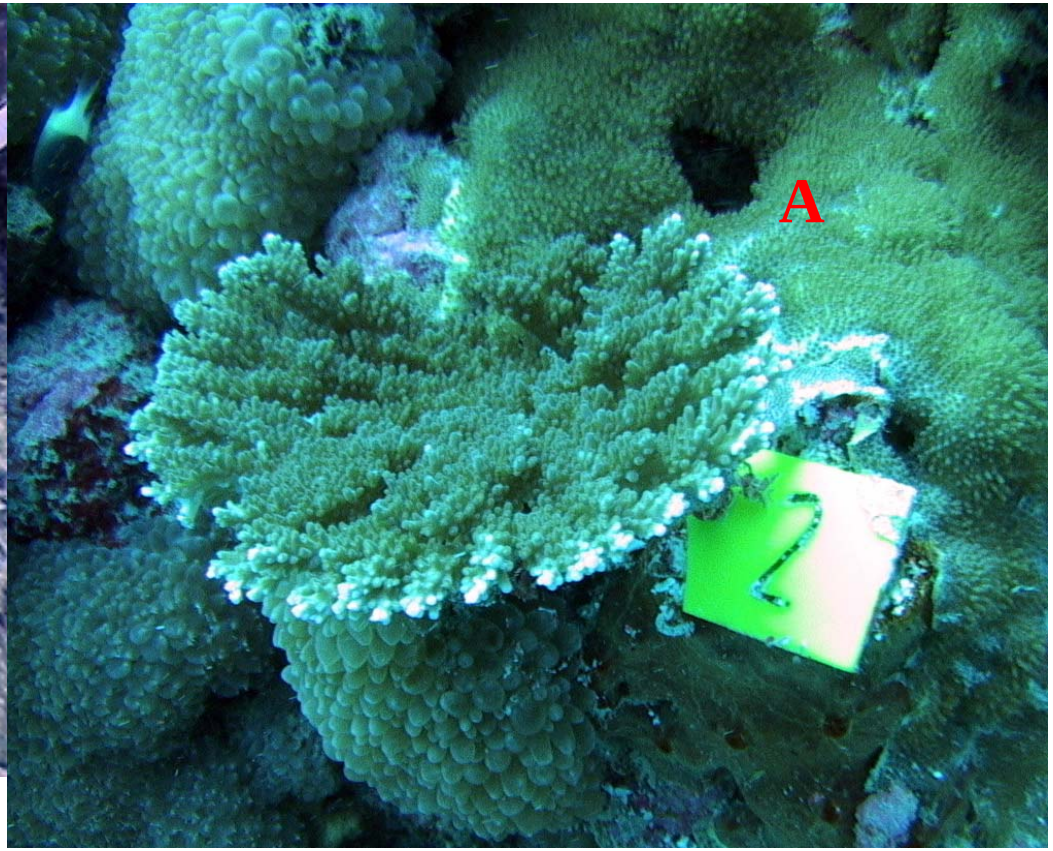
Figure 14. Mean (± 1 s.e.) increase of *Pocillopora* and *Acropora* recruit diameter (cm) at Aldabra between February 2001 and May 2003.

Of 148 *Pocillopora* colonies tagged in February 2001 and 2002, 82 were lost or not found, 16 died and 50 survived and were re-measured. Mortality of *Pocillopora* recruits was therefore 24%. For *Acropora,* of the 21 tagged colonies 6 were lost or not found, 2 died and 13 survived and were re-measured giving a mortality rate of only 13%. Mortality rate could not be calculated for remaining species as so few colonies were re-located.



2001

2002



2003

Growth of a tagged *Acropora* colony between February 2001 and May 2003. Tags measure 6cm x 4cm and photographs have been adjusted to be of similar scale. Common reference point has been highlighted with the letter "A". The soft coral *Rhytisma* has covered the coralline algae and almost surrounded the *Acropora* colony by 2003.

Fish Transects

Aldabra

We have used the same layout to report the results for 2003 as in previous years. The numbers of fish counted within the transect boundaries as well as species sighted off transect are shown for all sites, and all four survey years (Appendix 1). Key data from these years are summarised (Table 2). The 2003 results are also presented by survey site, transect depth and by fish size category in detail (Appendix 2), and in summary (Table 3). Fish count data, combined for both survey depths, are shown in diagram form for 2003 and previous years (Figures 15 and 16).

	2003	2003	2002	2002	2001	2001	1999	1999
	SITES 1-7	SITES 1-7	SITES 1-8	SITES 1-8	SITES 1-8	SITES 1-8	SITES 1-7	SITES 1-7
	Number in transects	Sighted off transect	Number in transects	Sighted off transect	Number in transects	Sighted off transect	Number in transects	Sighted off transect
Total Fish Counted	39154		71999		34901		61939	
Total Area Surveyed	2100m^2		2400m^2		2325m^2		2100m^2	
Fish/100m^2	1864		3000		1501		2949	
Number of Species	183	20	179	42	191	14	165	46
Total Number of Families Identified	34		37		45		40	
Total Number Species Identified	203		221		205		211	

Table 2. Summary of fish species counted at Aldabra in the transects and sighted off transect during the AMP surveys in May 2003, February 2002, February 2001 and November 1999.

Survey Transect Depths	10 m (Site 7 = 5m)				20 m (Site 7 = 15m)				10m + 20m
Total Area Surveyed	1400m^2				700 m^2				2100 m^2
Fish Size Group (Total Length)	<1-10cm	>10-20cm	>20cm	Total	<1-10cm	>10-20cm	>20cm	Total	Total
Total Fish Counted	19780	1261	852	21887	9167	732	7362	17261	39154
Number of Families	19	21	22	30	17	20	14	24	31
Number of Species	79	86	76	153	71	75	54	137	183
Fish/100m^2	1413	90	61	1563	1310	105	1052	2466	1864

Table 3. Summary of the number of fish counted at Aldabra, by transect depths and fish size groups, during the AMP surveys in May 2003.

Number of Species Recorded

Since the surveys began in 1999, the average species count within transect boundaries has been 180 species. For these same four survey years, the average total number of species, including both those seen within and outside the transect area, has been 210 species. For 2003 these species numbers were 183 and 203, respectively. In 2003, 34 families of fishes were identified combining counts for both within and outside the transects. This is a little lower than in previous years. In 2003, fish species richness was highest at Site 6 (104 species) and it was lowest at Site 5 (30 species).

Divers counting fish.

Numbers of Fish Recorded

Combining the counts from all 7 sites, the total fish number for 2003 was 39,154 which gave a density of 1,864 fish/100m^2. This was considerably less than in 1999 when the same 7 sites were surveyed (61,939 fish; 2,949 fish/100m^2). If one excludes Site 8 data from the 2001 and 2002 counts, the numbers were 31,338 in 2001 and 69,221 in 2002. In terms of numbers in 2003, Site 6 had the highest density of fish (4,414 fish/100m^2) and Site 5 had the lowest (187 fish/100m^2).

In all previous years the highest percentage of fish has generally been in the <1-10cm size category. This year at Site 1, 80% of fish counted were in the >20cm category. At all other sites (Sites 2 - 7) the usual pattern was maintained.

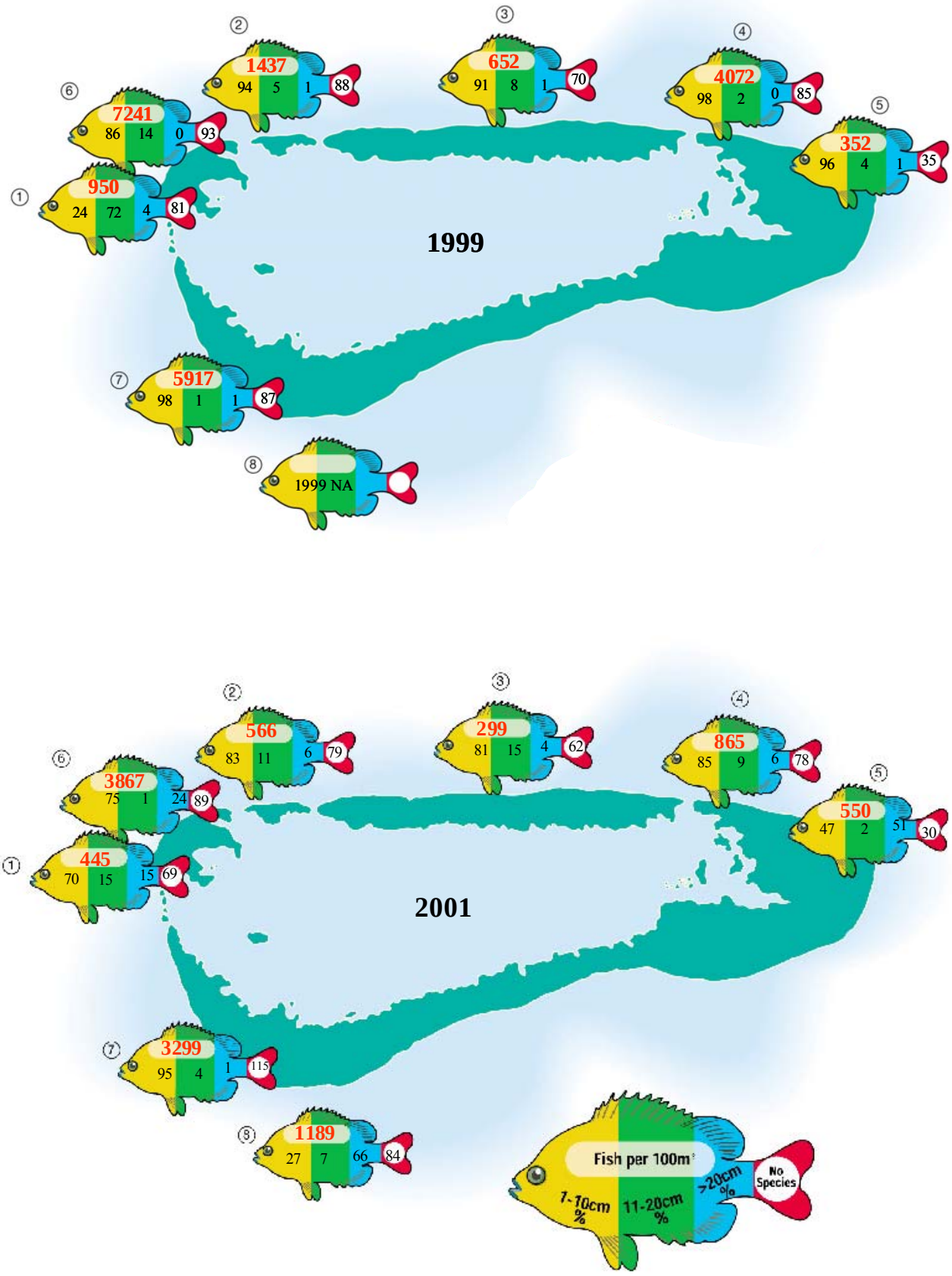


Figure 15. The pattern of fish species distribution around the outer reef of Aldabra Atoll in November 1999 and February 2001.

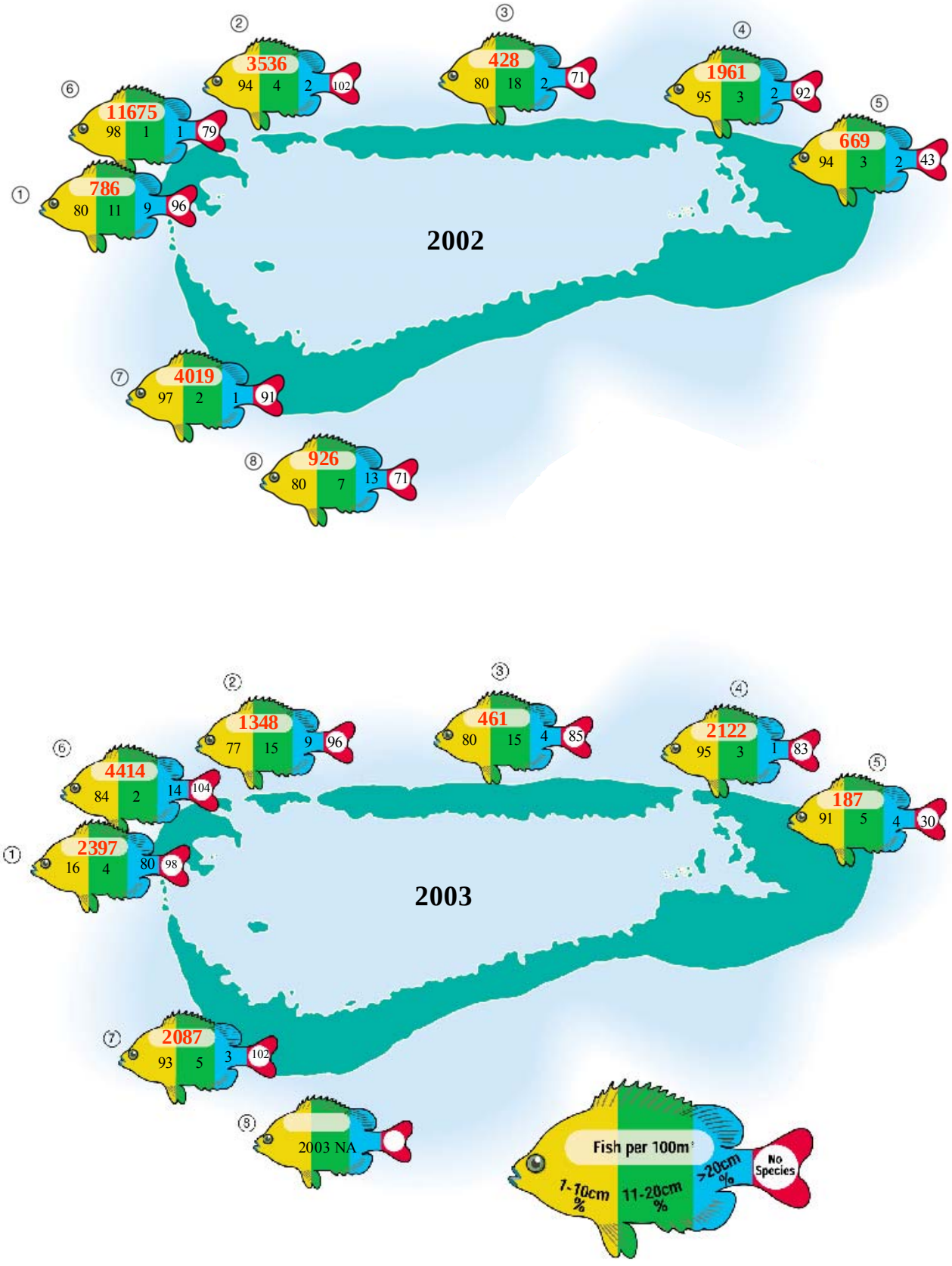


Figure 16. The pattern of fish species distribution around the outer reef of Aldabra Atoll in February 2002 and May 2003.

Fish Species and Numbers Distribution

There was a significant positive correlation between the number of species counted (both depths combined) at each of the seven sites surveyed in 2003, and the east to west positions of the survey sites along the northern shoreline of the atoll ($\alpha = 0.05$; $R^2 = 0.63$). There was no similar correlation between the density of fish at each of the seven survey sites, and the east to west positions of the survey sites ($\alpha = 0.05$; $R^2 = 0.31$).

Relationship with Coral Habitat

As in previous years, the relationships between the density of fish, or number of species, with the percent coverage of live coral habitat at each survey site, were analyzed ($\alpha = 0.05$) for the Holocentrids, Serranids, Chaetodontids, Pomacentrids and Labrids counted at both depths. Live coral habitat included both hard corals and soft corals, especially the prolific soft coral *Rhytisma* sp. Erect dead hard coral was not combined with live coral habitat for these analyses as in previous years, because in 2003 dead coral habitat comprised only a very small percent of the habitat (range 0% to 0.5%) at each site and thus had an inconsequential affect on the analyses.

In the analysis of density of fish with percent live coral habitat, there was a significant positive correlation for the Pomacentrids ($R^2 = 0.65$) at 10m depth, and for both the Chaetodontids ($R^2 = 0.80$) and Labrids ($R^2 = 0.58$) at 20m depth. In the analysis of the number of species with percent live coral habitat, there were significant positive correlations for the Serranids ($R^2 = 0.71$), Chaetodontids ($R^2 = 0.83$) and Pomacentrids ($R^2 = 0.68$) at the 10m depth, and the Chaetodontids ($R^2 = 0.67$) and Labrids ($R^2 = 0.73$) at the 20m depth.

Fusiliers: *Pterocaesio marri* (1) and *Caesio teres* (2).

The relationships between the total density of fish or number of species (both depths combined), with the percent coverage of live coral habitat at each survey site were also analyzed ($\alpha = 0.05$) in 2003. There was a significant positive correlation for total number of species ($R^2 = 0.67$), but not for the density of fish ($R^2 = 0.43$).

Assomption, Astove and St. Pierre

The number of fish counted at Astove, Assomption and St. Pierre is shown by transect depths and fish size groups (Appendices 3, 4, and 5). Summaries are tabulated (Tables 4, 5 and 6), and key data compared with that of Aldabra (Table 7).

Survey Transect Depths	10m				20m				10+20m	
Total Area Surveyed	200m^2				100m^2				300m^2	Sighted off transect
Fish Size Group (Tot. Length)	<1-10cm	>10-20cm	>20cm	Total	<1-10cm	>10-20cm	>20cm	Total	Total	
Total Fish Counted	2771	769	630	4170	984	328	420	1732	5902	
Number of Families	10	12	13	19	10	10	13	19	23	14
Number of Species	30	33	30	70	28	20	22	55	88	40
Fish/100m^2	1386	385	315	2085	984	328	420	1732	1967	
Total Species Identified										128

Table 4. Summary of the number of fish counted at Astove, by transect depths and fish size groups, during the AMP surveys in May 2003.

Survey Transect Depths	10m				20m				10+20m	
Total Area Surveyed	200m^2				100m^2				300m^2	Sighted off transect
Fish Size Group (Tot. Length)	<1-10cm	>10-20cm	>20cm	Total	<1-10cm	>10-20cm	>20cm	Total	Total	
Total Fish Counted	2030	736	2374	5140	920	1054	177	2151	7291	
Number of Families	10	17	11	21	12	12	7	20	25	7
Number of Species	36	39	21	74	30	21	9	49	88	10
Fish/100m^2	1015	368	1187	2570	920	1054	177	2151	2430	
Total Species Identified										98

Table 5. Summary of the number of fish counted at Assomption, by transect depths and fish size groups, during the AMP surveys in May 2003.

This year's survey at Astove was carried out at a new location (Astove Site 2). The 2002 site was inaccessible for fish surveys due to bad weather. Bearing this in mind, the species count was slightly lower (133 species in 2002 vs.128 species in 2003) as were the total numbers (6,147 in 2002 vs 5,902 in 2003) and corresponding densities. The Assomption species count was roughly equivalent for the two years (98 species in 2002 vs 100 species in 2003) but the density was up on last year (1,779 fish/100m^2 in 2002 vs 2,430 fish/100m^2 in 2003). At St. Pierre the number of fish species had increased by 19 to 128 species, and the density was yet higher (5,845 fish/100m^2 in 2002 vs 8,715 fish/100m^2 in 2003).

Survey Transect Depths	**10m**				**20m**				**10+20m**	**Sighted off transect**
Total Area Surveyed	**200m^2**				**100m^2**				**300m^2**	
Fish Size Group (Tot. Length)	**<1-10cm**	**>10-20cm**	**>20cm**	**Total**	**<1-10cm**	**>10-20cm**	**>20cm**	**Total**	**Total**	
Total Fish Counted	**13351**	**589**	**204**	**14144**	**10601**	**1244**	**157**	**12002**	**26146**	
Number of Families	**12**	**16**	**14**	**23**	**10**	**12**	**11**	**20**	**24**	**11**
Number of Species	**42**	**52**	**41**	**96**	**29**	**29**	**23**	**66**	**110**	**18**
Fish/100m^2	**6676**	**295**	**102**	**7072**	**10601**	**1244**	**157**	**12002**	**8715**	
Total Species Identified										**128**

Table 6. Summary of the number of fish counted at St. Pierre, by transect depths and fish size groups, during the AMP surveys in May 2003.

	Aldabra				**Assomption**		**Astove**		**St. Pierre**	
	1999	**2001**	**2002**	**2003**	**2002**	**2003**	**2002**	**2003**	**2002**	**2003**
	Sites 1-7	**Sites 1-8**	**Sites 1-8**	**Sites 1-7**						
Species in transect	165	191	179	183	91	88	83	88	107	110
Species total	211	205	221	203	100	98	133	128	109	128
Families in transect	29	32	31	31	24	25	21	23	25	24
Families total	35	40	38	34	24	26	29	24	26	27
Fish total	61939	34901	71999	39154	5336	7291	6147	5902	17534	26146
Fish per 100m^2	2949	1501	3000	1864	1779	2430	2049	1967	5845	8715

Table 7. Summary of Fish Count Data for Aldabra, Assomption, Astove and St. Pierre.

Caulerpa at Astove

Following the 2002 survey of Astove AMP reported a significant bloom of *Caulerpa* that was present from 10m to 65m and beyond at Site 1. *Caulerpa* was also observed on the steep western drop-off. Unfortunately it was not possible to survey for this species in May 2003 due to poor weather conditions and lack of time. However, it was still present in high abundance at Site 1 and was also seen at Site 2. A specimen was obtained from Site 1 for identification and the species has now been provisionally identified by Dr. Philip Basson and Possa Skelton as *Caulerpa racemosa* (Figure 17). DNA analysis by Dr. Jeanine Olsen is still pending. A further specimen of the same species was also found at Aldabra Site 5 but it is not abundant there.

Figure 17. *Caulerpa racemosa* specimen from Astove Site 1.

Temperature Data Loggers

In February 2002 the AMP team deployed a total of 13 loggers at Aldabra, and a further single logger at each of the other islands surveyed (Table 8). Three additional loggers were also deployed by a team member in March 2002. Following the problems encountered with Optic StowAway loggers (OSA) in February 2002 the AMP team was expecting similar problems with the new loggers deployed in that same year.

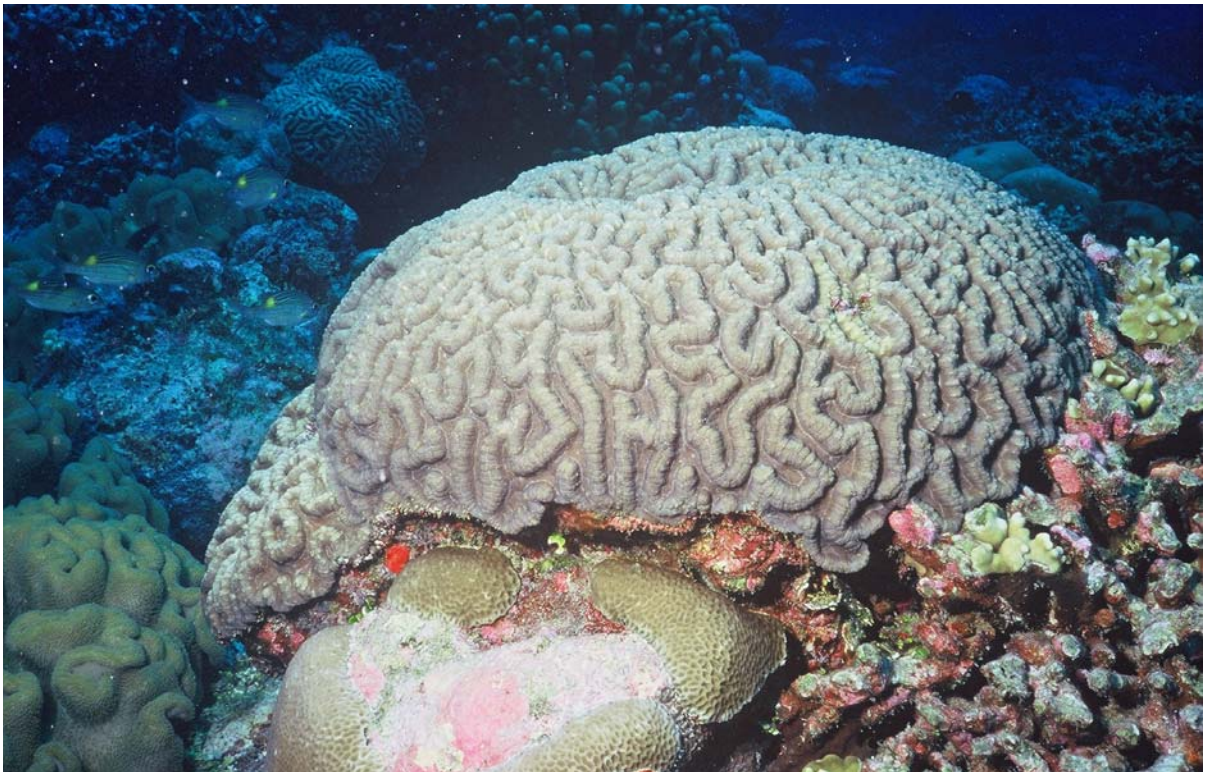
Logger location	Depth	Model	Deployment date	Recovery date
Aldabra Atoll				
Passe Dubois	3m	OSA-R	03-Feb-02	22-May-03
Passe Dubois	3m	HOBO	* March 02	22-May-03
Site 9, Passe Houareau	5m	OSA-R	06-Feb-02	20-May-03
Site 9, Passe Houareau	5m	HOBO	22-Mar-02	20-May-03
Site 1	10m	HOBO	19-Mar-02	23-May-03
Site 3	20m	OSA-R	05-Feb-02	19-May-03
Site 3	20m	OSA	05-Feb-02	19-May-03
Site 3	20m	HOBO	05-Feb-02	19-May-03
Site 6	10m	OSA	10-Feb-02	16-May-03
Site 1	20m	HOBO	19-Mar-02	23-May-03
Site 3	10m	OSA	05-Feb-02	19-May-03
Site 3	10m	OSA-R	05-Feb-02	19-May-03
Site 3	10m	HOBO	05-Feb-02	19-May-03
Site 3 - test outside cage	10m	HOBO-C/R	05-Feb-02	19-May-03
Site 3 - test outside cage	10m	HOBO-C	05-Feb-02	19-May-03
Site 8	10m	OSA	01-Feb-02	Still in situ
Site 8	20m	OSA	01-Feb-02	Still in situ
Assomption				
Site 1	10m	OSA	13-Feb-02	15-May-03
Astove				
Site 1	10m	OSA	15-Feb-02	14-May-03
St. Pierre				
Site 1	10m	OSA	18-Feb-02	11-May-03

Table 8. Retrieval of Temperature data loggers deployed by AMP in Phase III at Aldabra Atoll, Assomption, Astove and St. Pierre. Logger models OSA = Optic StowAway® Temp (new logger); OSA-R = Optic StowAway® Temp (refurbished logger); HOBO = prototype HOBO® Water Temp Pro; HOBO-C = prototype HOBO® Water Temp Pro (outer case only); HOBO-C/R = prototype HOBO® Water Temp Pro (outer case only with rubber cover). * date uncertain, likely between 19-22 March 2002.

In May 2003, eight OSA data loggers and six proto-type HOBO Water Temp Pro data loggers were recovered from Aldabra, and one OSA data logger each was recovered from Assomption, Astove and St. Pierre. The operation-indication lights on all of these data loggers were blinking indicating they were in working order. In order to help Onset with assessment of the performance of their loggers, the retrieved loggers were not downloaded in the field, but sent to Onset for analysis. Upon examination, Onset determined that the OSA loggers had been contaminated by moisture and the data was not useable. Two of these

loggers that had been retrieved from Site 3 at 10m and 20m passed the ice-bath test administered by Onset to confirm that they were calibrated correctly, as did all of the HOBO Pro loggers. This indicates the temperature sensors were working. However, comparison of plots of these loggers against HOBO loggers deployed alongside them revealed the OSA loggers had drifted during the deployment period rendering their data unreliable (Figure 18). It is possible the moisture corrupted the data storage capacity within the loggers.

Reliable temperature data records were obtained for Aldabra sites 1, 2, 10 (Passe Houareau) and Passe Dubois. Records revealed an annual cycle with lowest temperatures occurring between July and September and highest temperatures between January and April (Figures 19 and 20). The lowest temperature registered at outer reef sites was at Site 1 20m (23.2ºC minimum average daily temperature, 21.9ºC minimum individual reading) while the highest was at Site 1 10m (30.2ºC maximum average daily temperature, 30.7ºC maximum individual reading). At both of the channel sites temperatures reached 31ºC maximum and 23.8ºC minimum average daily temperature. Both high and low temperature extremes occurred at Passe Dubois where the maximum individual reading was 34.7ºC and lowest was 22.1ºC. Extremes at Passe Houareau were very similar. Overall, temperature records were similar for all sites. Of the outer reef sites Site 1 showed higher temperature variability than Site 3 (Figure 19). Channel temperatures tended to be higher than outer reef temperatures and closely followed a lunar cycle (Figure 20).



Lobophyllia sp. colony.

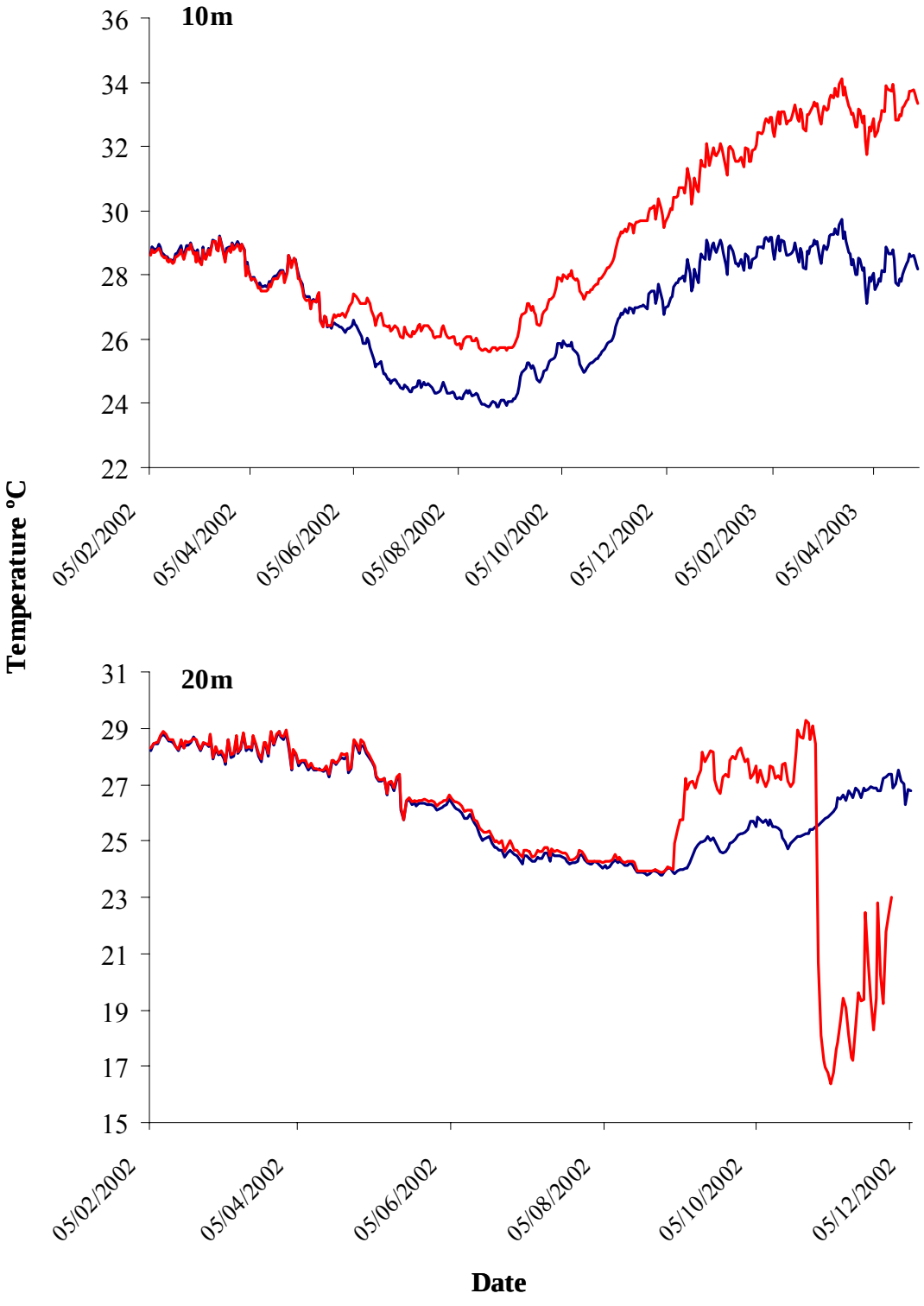


Figure 18. Average daily temperature comparison of OSA (red) and prototype HOBO (blue) temperature data loggers deployed at Aldabra Site 3 (10m and 20m depth) between February 2002 and May 2003. n = 48 temperature readings per day.

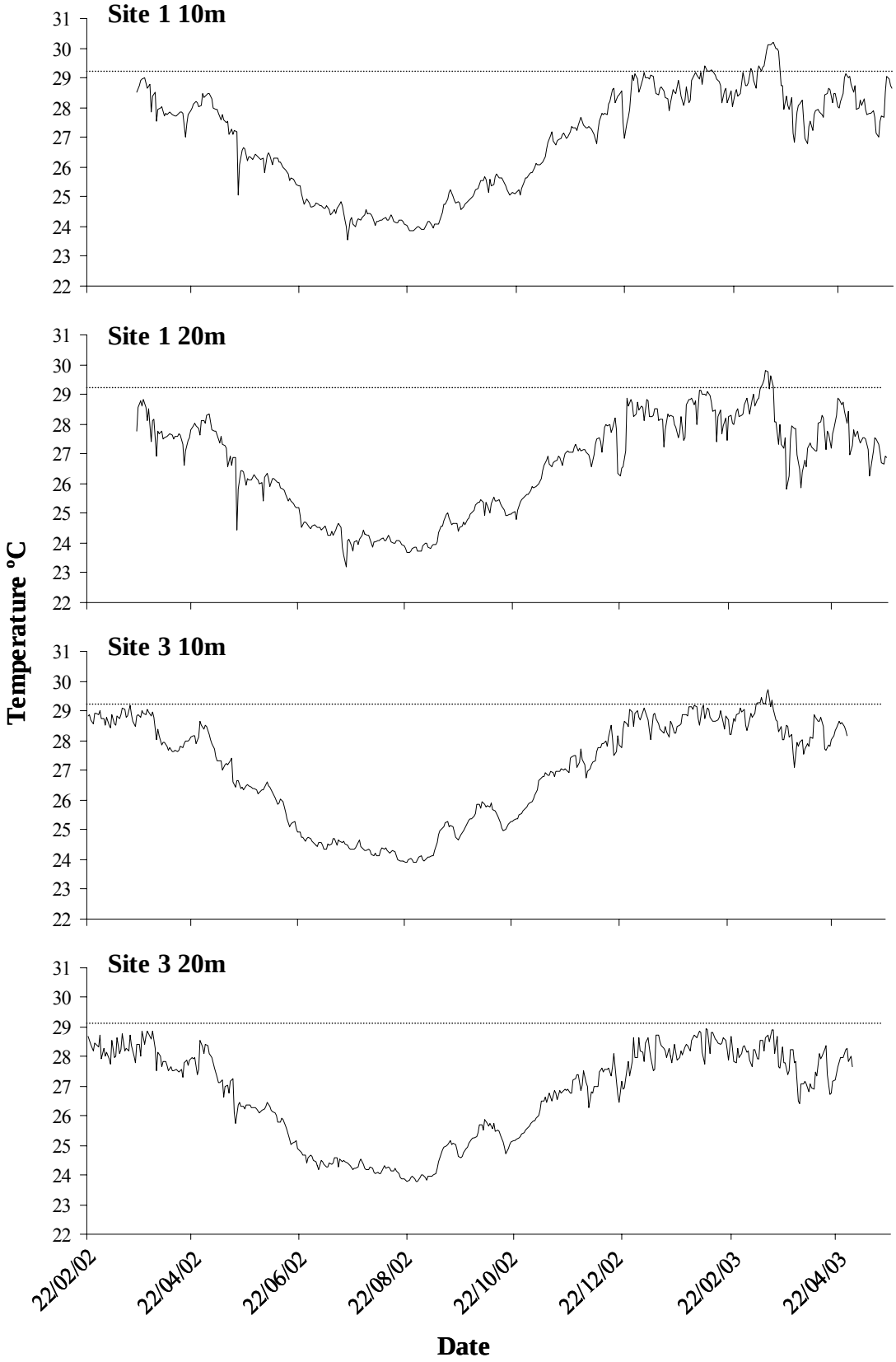


Figure 19. Average daily temperature records (n = 48 temperature readings per day) for Aldabra sites 1 and 3 in shallow (10m) and deep (20m) water between February 2002 and May 2003. Dotted line indicates estimated thermal threshold of 29.2ºC at which many corals bleach (Hoegh-Guldberg 1999).

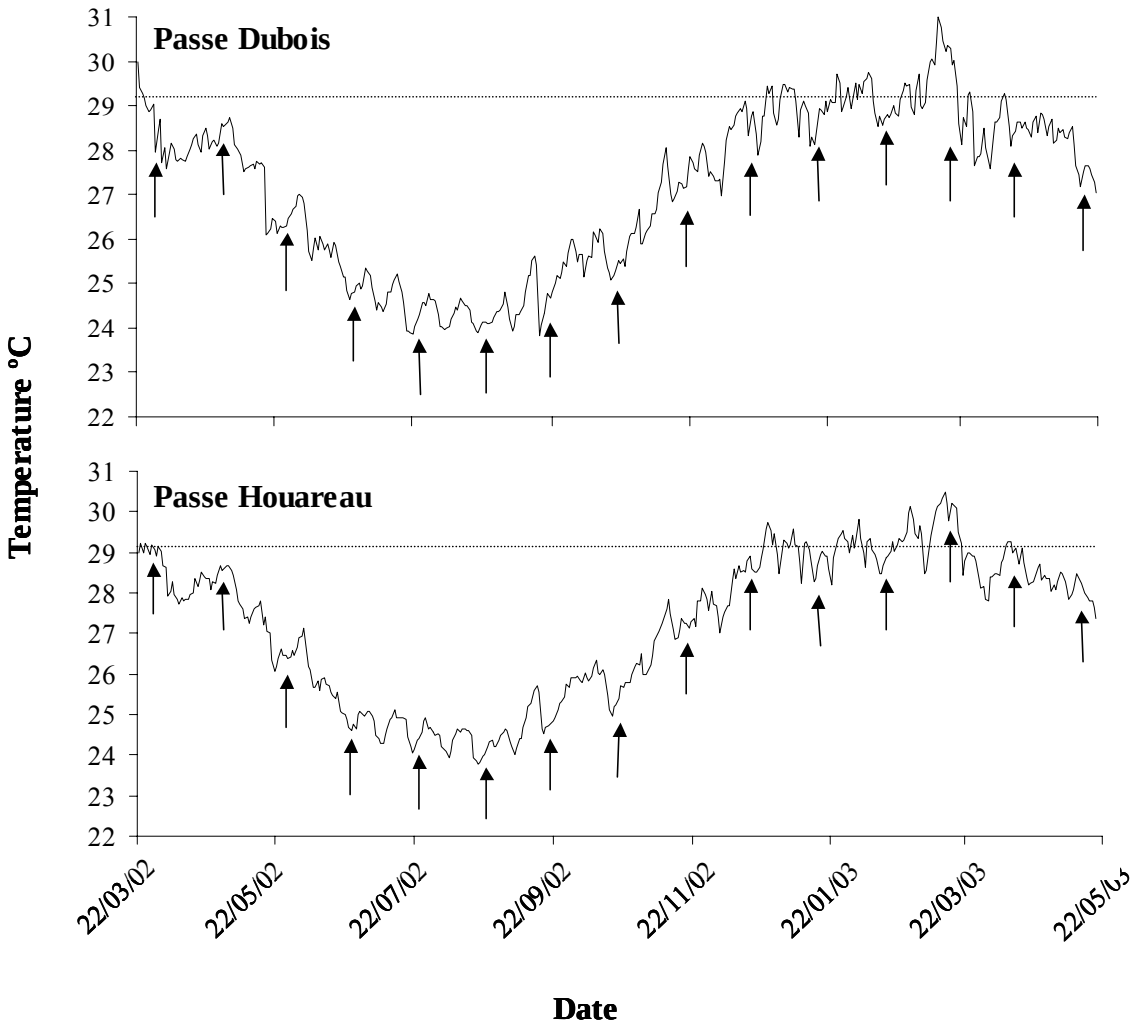
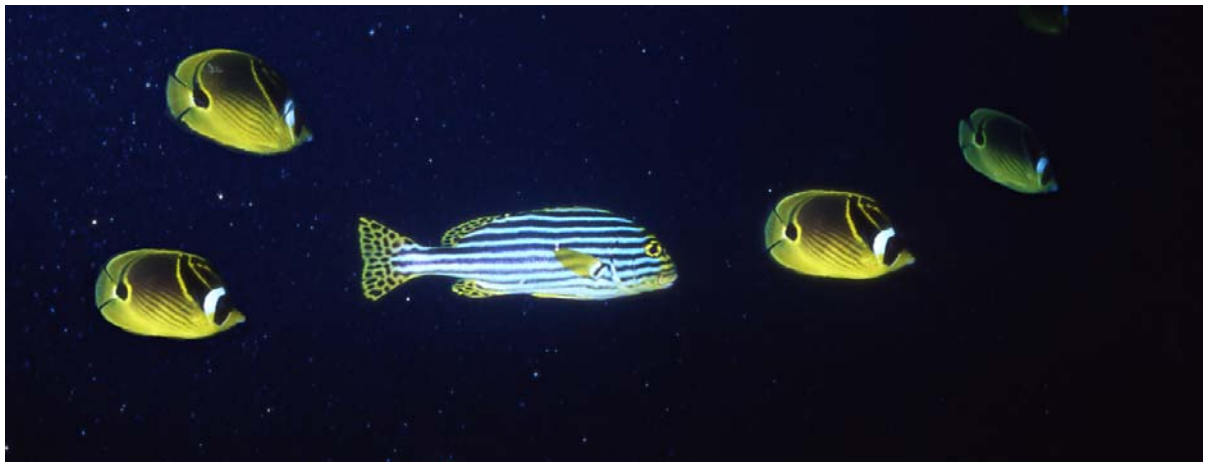


Figure 20. Average daily temperature records (n = 48 temperature readings per day) for Passe Dubois and Passe Houareau between February 2002 and May 2003. Arrows indicate full moon. Dotted line indicates estimated thermal threshold of 29.2ºC at which many corals bleach (Hoegh-Guldberg 1999).

During AMP phase IV a total of 39 new improved data loggers (HOBO Pro and TidbiT) were deployed at selected sites on Aldabra Atoll and Assomption, Astove and St. Pierre (Table 9).



Plectorhinchus orientalis (center) and *Chaetodon lunula.*

Deployment site	Deployment date	Deployment depth	Logger model
Aldabra Atoll			
Aldabra Site 3	19 May, 2003	6m	TidbiT
Aldabra Site 3	19 May, 2003	10m	TidbiT
Aldabra Site 3	19 May, 2003	20m	TidbiT
Aldabra Site 3	19 May, 2003	6m	Hobo Pro
Aldabra Site 3	19 May, 2003	10m	Hobo Pro
Aldabra Site 3	19 May, 2003	20m	Hobo Pro
Aldabra Site 4	21 May, 2003	10m	Hobo Pro
Aldabra Site 4	21 May, 2003	20m	Hobo Pro
Aldabra Site 4	21 May, 2003	6m	TidbiT
Aldabra Site 4	21 May, 2003	10m	TidbiT
Aldabra Site 4	21 May, 2003	20m	TidbiT
Aldabra Site 6	16 May, 2003	10m	TidbiT
Aldabra Site 6	16 May, 2003	20m	TidbiT
Aldabra Site 6	16 May, 2003	10m	Hobo Pro
Aldabra Site 6	16 May, 2003	20m	Hobo Pro
Aldabra Site 6	18 May, 2003	6m	TidbiT
Aldabra Site 6	18 May, 2003	6m	Hobo Pro
Aldabra Site 7	24 May, 2003	5m	Hobo Pro
Aldabra Site 7	24 May, 2003	15m	Hobo Pro
Aldabra Site 7	24 May, 2003	5m	TidbiT
Aldabra Site 7	24 May, 2003	15m	TidbiT
Aldabra Site 9	18 May, 2003	5m	TidbiT
Aldabra Site 9	18 May, 2003	5m	Hobo Pro
Aldabra Site 10	20 May, 2003	4m	Hobo Pro
Aldabra Site 10	20 May, 2003	4m	TidbiT
Passe Dubois	22 May, 2003		TidbiT
Passe Dubois	22 May, 2003		Hobo Pro
Assomption			
Assomption Site 1	15 May, 2003	20m	Hobo Pro
Assomption Site 1	15 May, 2003	10m	Hobo Pro
Assomption Site 1	15 May, 2003	20m	TidbiT
Assomption Site 1	15 May, 2003	10m	TidbiT
Astove			
Astove Site 2	14 May, 2003	20m	TidbiT
Astove Site 2	14 May, 2003	10m	TidbiT
Astove Site 2	14 May, 2003	10m	Hobo Pro
Astove Site 2	14 May, 2003	20m	Hobo Pro
St. Pierre			
St. Pierre Site 1	13 May, 2003	20m	TidbiT
St. Pierre Site 1	13 May, 2003	10m	TidbiT
St. Pierre Site 1	13 May, 2003	20m	Hobo Pro
St. Pierre Site 1	13 May, 2003	10m	Hobo Pro

Table 9. Deployment of TidbiT and HOBO Pro temperature data loggers by AMP at Aldabra Atoll, Assomption, Astove and St. Pierre in May 2003.

Discussion

Coral Community

In 2002 the reported results for the Aldabra coral community were encouraging. Subsequent separation of soft and hard coral data has, however, shown that most of the increase in coral cover can be attributed to soft coral, and in particular to the genus *Rhytisma*. Therefore, in spite of high levels of recruitment at Aldabra for the past three years, there has not been a significant increase in hard coral cover. Indeed it has shown minor decline at Sites 1 and 4. As explained in the 2002 report, the decline at Site 4 is not surprising due to the unstable nature of the reef slope, but the decline at Site 1 may be associated with anchor damage due to its proximity to the research station. New moorings recently placed infront of the station by the Seychelles Marine Conservation Society may help ameliorate this problem.

If we consider hard and soft coral cover together at both depths, there has been a considerable increase at Sites 2 and 6, and to a lesser extent Site 3. These sites are all situated on the more sheltered north coast of Aldabra, and it would seem to be no coincidence that Site 6 has shown the greatest level of both hard and soft coral growth. This site has a combination of relatively low exposure and high tidal currents. Much of the soft coral cover is composed of *Rhytisma* which is probably an opportunistic species taking advantage of the large amount of empty space made available by the 1998 coral bleaching event.

Over the past four years there has been a lack of new dead coral colonies at all sites indicating that there have been no further incidents of coral bleaching causing mortality. The only noticeable new dead colonies found in 2003 were the victims of crown of thorns starfish, *Acanthaster planci*, at Site 10.

Between 1999 and 2003 greatest changes in algal cover have occurred at the shallow water sites. This would be expected as most coral death occurred in shallow water, making space available for coralline algae to colonise, and at this depth algal cover is more prone to weather related changes. We see a sharp increase in coralline algae at most sites after 1999. These increased levels of coralline algae have started to decrease at many sites in the last year. The other notable alga is *Halimeda* that is common on the northern shoreline of Aldabra. *Halimeda* has decreased at some northern sites over the last two years. This could