possibly be associated with occasional high seas or rough weather. Changes in the deep water communities mirror those in shallow water but are much smaller reflecting lower levels of perturbation.

Within the lagoon, Site 9 has shown a promising increase in live hard coral cover so far, 9% in just over two years. This exceeds that of any other Aldabra site in the full three and a half year study period. It can probably be attributed to higher growth rates in shallow water and the benefits of protection from the weather within the lagoon. Channel sites at Passe Houareau have not shown similar growth. This may reflect the harsh conditions within the channels.

Beyond Aldabra, St. Pierre has shown a remarkable increase in coral cover over the past 15 months that surpasses any growth at Aldabra over the past three and a half years. This can be attributed to the very high numbers of fast growing *Pocillopora* recruits recorded in February 2002. There has been little coral growth at Assomption in the same period, and it is not possible to draw any conclusions from Astove as Site 1 could not be resurveyed in 2003. Coral cover at the new Astove site was very high and equivalent to the highest cover at Aldabra Site 9. In spite of this there was evidence that coral cover was even higher at Astove Site 2 prior to the 1998 bleaching.

Growth of coral recruits at Aldabra changed little between the 2001-2002 and 2002-2003. There is some indication that *Pocillopora* growth rate was higher in the latter period. *Pocillopora* and *Acropora* colonies appear to grow at almost identical rates. On average the number of coral recruits has increased at Aldabra between 2002 and 2003, with very few sites showing no change or a decrease. Recruitment at Aldabra therefore remains high. At the other island sites the most noteworthy change was the significant decline in recruits at the Assomption deep site. This decline may have been caused by the unstable nature of the substrate. As at Aldabra Site 4, there appears to have been a breakdown of dead coral colonies higher up the reef that have moved down the steep slope and smothered many surfaces with sand and rubble. Also noteworthy is the higher number of recruits at the new Astove site. In 2002 we reported an unusually low level of recruitment at Astove Site 1. It would now appear that low recruitment is not common to all of Astove, but rather a local phenomenon.

Fish Community

It is regrettable that the weather had such an impact on the fish census this year. It prevented the survey from being carried out in February, and so prevented a straight run of three consecutive February surveys from 2001 through to 2002. Furthermore the bad May weather contributed to poor underwater conditions. Visibility was reduced and currents were strong.

It is also unfortunate that weather prevented a re-survey of the 2002 Astove site. However, as noted earlier, the establishment of Site 2 should allow at least one site to be surveyed at Astove whether the wind is blowing out of the northwest or southeast.

In 2003 a significant correlation was found between the number of species counted and the east to west positions of the survey sites at Aldabra (Sites 1-7), This same correlation was found in 2001 (Sites 1-8), but not in 1999 (Sites 1-7) or 2002 (Sites 1-8).

Significant correlations have been found, as in previous years, between the density of fish or number of species in certain families in the surveys at Aldabra, and the habitat complexity at the survey sites as measured by the percentage of live coral habitat. In 2003 such correlations were found for Serranids, Chaetodontids, Pomacentrids and Labrids, but not for Holocentrids. Similar correlations were found in 2002 only for Serranids, Chaetodontids and Pomacentrids.

From these May 2003 data have emerged interesting observations. At Aldabra overall species diversity was still high, and the number of families counted was 34. The in transect family count over the years has been: 29 (1999), 32 (2001), 31 (2002) and 31 (2003), which is stable. On the other hand, some species appeared to be notably absent. For example the large dog-tooth tuna, *Gymnosarda unicolor*, was not seen, nor were the sweetlips *Plectorhinchus gaterinus* and *P. paulayi*. In terms of abundance, fish numbers were down compared to 1999 and 2002, but slightly higher than in 2001.

As in previous years, certain fish species made a disproportionate impact on the results in terms of abundance. For example, the high percentage of fish in the >20cm category at Site 1 was due to a very large school of *Lutjanus ehrenbergi*, which has not been seen in such

numbers at that location before. It may have been a spawning aggregation. The total *Nemanthias carberryi* count was exceptionally high (3,352) compared to previous years. *Lepidozygus tapeinosoma*, a pomacentrid that dominated the counts in 2002 and 2001 was reduced in numbers, but if their effect is removed the average densities for Sites 1 to 7 since 1999 become: 2,609 (1999), 787 (2001), 967 (2002), 1,260 (2003) fish/100m^2. The *Chromis lepidolepis* count was very high this year. *Chromis weberi* numbers were down, expecially compared to 1999, and virtually all were adult. *Caranx sexfasciatus* was not seen. *Naso vlamingii,* a mid-water acanthurid was virtually absent. Should one suppose this was an effect of reduced visibility, note that *Odonus niger*, a balistid found also in the water column, was very much in evidence.

While fish numbers were down at Aldabra, compared to 2002, at St. Pierre it was the opposite. Here the density was 8,715 fish/100m^2, the highest ever recorded at any site. *Lepidozygus tapeinosoma* counts were almost the same year on year (11,775 in 2002 vs 11,850 in 2003), and while *Nemanthias carberryi* was not seen in 2002, this year the count was 6,055. At Assomption numbers had also increased from 2002 (5,336 in 2002 vs 7,291 in 2003), and again *N. carberryi* made its first appearance.

In 2003 a significant correlation was found between the number of species counted and the east to west positions of the survey sites at Aldabra (Sites 1-7). This same correlation was found in 2001 (Sites 1-8), but not in 1999 (Sites 1-7) or 2002 (Sites 1-8). Significant correlations have also been found, as in previous years, between the density of fish or number of species in certain families in the surveys at Aldabra, and the habitat complexity at the survey sites as measured by the percentage of live coral habitat. In 2003 such correlations were found for Serranids, Chaetodontids, Pomacentrids and Labrids, but not for Holocentrids. Similar correlations were found in 2002 only for Serranids, Chaetodontids and Pomacentrids.

The above are some examples that highlight the degree of variability in fish numbers at Aldabra and the islands to the south and east. Multiple within-year surveys should be given a priority for future work, and so should repeat surveys at a given site over, for example, a lunar cycle. To this end, the training of the Seychellois rangers in the identification and surveying of two important families (Serranidae and Chaetodontidae) is already paying dividends. Weekly counts are being carried out at Site 1, while weather permits, and this

should give a good indication of the annual variability of these two groups at one location. Given that AMP is committed to a long term assessment of the outer reefs at Aldabra, in time a certain degree of predictability should be achieved and the quality of the baseline information further improved.

Beach and reef near Aldabra Station.

Temperature Data Loggers

Faulty temperature data loggers supplied by Onset in 2001 lead to the loss of two years temperature data. In 2002 we once again confirmed that the Optic StowAway loggers supplied by Onset were unable to work in field conditions. Fortunately a new range of HOBO loggers supplied by Onset and deployed in 2002 did function correctly and we were able to obtain data from four sites at Aldabra. A substantial deployment of HOBO loggers by AMP in May 2003 should yield reliable data when downloaded in 2004.

The temperature data for two outer reef and two lagoon sites obtained in 2003 suggests that seawater temperatures remained normal during the 2002 – 2003 period with temperature highs that would not be expected to cause coral bleaching over short periods. Studies elsewhere have shown that bleaching occurs at different temperatures depending on location (Hoegh-Guldberg 1999). If we take an estimated bleaching temperature of 29.2ºC as a reference (from Hoegh-Guldberg 1999 based on an average of bleaching events at 7 Pacific Ocean sites), we see that at Aldabra outer reef sites this temperature was only exceeded in March 2003 for a short period. The threshold was exceeded for longer periods at lagoon sites but corals in the lagoon are likely to be better adapted to high temperatures. Of the

outer reef sites it would appear that Site 3 has a more stable temperature regime than Site 1 where temperature oscillations are greater. This may be due to the steeper drop-off at Site 1 and higher currents associated with its proximity to the northwestern tip of Aldabra making the site more prone to cold water upwelling. Lagoon sites followed a similar temperature pattern to the outer reef sites but were more extreme and followed the tidal cycle much more closely.

Recovery to Date at Aldabra and Islands to the East

Five years after the 1998 bleaching event there are signs of recovery at some locations, but in spite of several years of high coral recruitment there has not been a notable recovery in hard coral cover at most sites. St. Pierre would appear to be the exception where a remarkable number of *Pocillopora* recruits have started to change the appearance of the reef which was almost completely destroyed by the 1998 bleaching event. Evidence of a sharp rise in cover of the soft coral *Rhytisma* at Aldabra suggests that this species may be an opportunist filling empty spaces made available by the bleaching event. There is no evidence of macroalgae taking advantage of empty space in a similar way at any sites. The exception is *Caulerpa* at Astove, although we do not know whether this outbreak is related to the 1998 bleaching event. It remains to be seen if the hard coral recruits are able to compete effectively with both of these species and increase their percentage cover.

Unfortunately, in relation to this bleaching event slow to moderate recovery appears to be the case at most other locations studied in the world. In many sites recovery has barely been evident (Wilkinson 2002).

"Champigñon" formation in the Aldabra lagoon.

The Aldabra Marine Programme: Short Term and Long Term

The AMP has increased its research base in 2003 by:

- Surveying a new site on the northwestern coast of Astove;
- Tagging new recruit corals at St. Pierre and Aldabra;
- Deploying 29 new temperature data loggers at all locations; and
- Collecting samples of *Caulerpa* at Astove and Aldabra for identification.

Poor weather conditions in February forced the AMP to cancel the first of two expeditions planned for 2003. As a result of this, research time was limited on the second expedition and it was not possible to establish a new permanent transect at Grande Passe in the Aldabra lagoon or to study "coralliths" Furthermore, poor weather in the second expedition meant that it was not possible to resurvey sites 8 and 11 at Aldabra, nor Site 1 at Astove. The weather also prevented re-measuring tagged *Acropora* colonies at Astove.

In spite of this most of the goals of the AMP Phase IV were met, and included training two Seychellois rangers to identify key fish species and conduct fish transects. Rangers also observed coral survey techniques and furthered their range of diving experience. The AMP also donated fish survey materials to the rangers and presented the station with two display posters of AMP research and a selection of postcards specifically produced to assist the station to raise operational funds.

The AMP has now conducted four surveys at Aldabra since 1999, and has expanded its work eastward to Assomption, Astove and St. Pierre. In 2004 AMP hope to expand the study to include a comprehensive survey of the mangrove system within the Aldabra lagoon, and of the lagoon itself. Data collected during this lagoon study will be combined with data already obtained by AMP on the outer reef to create an Adaptive Management Plan for Aldabra. The AMP also hopes to conduct a survey of *Caulerpa* at Astove, and to complete work intended for 2003 by establishing a new permanent monitoring site at Grande Passe and initiating the study of "coralliths". The problems caused by faulty temperature data loggers now appear to have been overcome and the new loggers should yield valuable data in 2004. Planned publications in refereed journals will make the data the AMP has obtained since the bleaching widely available. Due to the generosity of the Fondation d'Entreprise Total AMP will be presenting its findings at the 10th International Coral Reef Symposium in June 2004 at Osaka, Japan.

Acknowledgements

We would like to thank the following organisations and individuals for their invaluable support and advice:

Phase IV of the Aldabra Marine Programme would not have been possible without the continued financial support of the Fondation d'Entreprise Total. We are particularly grateful to Gina Sardella-Sadiki of the Fondation d'Entreprise Total for all of her help, and to Professor Bernard Salvat for his continued guidance and assistance.

We also thank the following organisations and individuals for their generous support: TUI AG (and in particular Dr. Wolf Michael Iwand), Mares, British Airways Assisting Conservation, Dahm International, Angel Fish Charters, PADI Project Aware, Mr. Shahram Pahlavi, Maya Moltzer, Tessa Ellis, ProfitAbility Business Simulations and Aldabra Productions.

Underwater observations are difficult to record at the best of times. This has proved to be much easier with the use of ICI Imagedata's 'permanent paper' (2EP169). We would like to thank ICI Imagedata, and particularly Godfrey Moore, who kindly arranged for this to be donated to AMP.

We are particularly grateful to Ian Laing and Rupert Cooper for generously supporting our programme by donating boat time on their beautiful sailing boat Thalassi that was crucial to the completion of AMP Phase IV. Venetia Hargreaves Allen formed an integral part of the scientific team and we thank her very much for her help. At the same time we thank the excellent crew of Thalassi, Captain Paul Jonkers, Callum Butler and Anne Taubitz for all of their tireless help and patience.

We thank Angel Fish Ltd. Boat charters for their excellent hospitality in February 2003 and their understanding and support of AMP when having to cancel a trip to Aldabra due to cyclones. We are particularly grateful to Mr. Achim Leiss for his patience and generosity.

We thank Onset Computer Corporation for their cooperation and support in resolving the problems associated with establishing the critical long-term water temperature monitoring system at AMP research locations.

The following people and groups are thanked for their advice, support in the field and assistance to the Aldabra Marine Programme:
Maurice Loustau-Lalanne SIF Chairman and Principal Secretary, Seychelles Ministry of Environment and Transport has been particularly supportive of this programme for which we are very grateful. We also thank Rolph Payet, Seychelles Ministry of Environment and Transport; Patrick Lablache, Ministry of Land Use and Habitat; Executive Director Lindsay Chong-Seng and Executive Officer Ronny Renaud (Seychelles Island Foundation), and David Rowat. At the Aldabra Research Station the manager Guy Esparon has continued to lend us every possible assistance in the field, and we were deligheted at the help and cooperation of rangers Terence Mahoune and Andy Dick, and scientific officer Rainer von Brandis. Finally we especially thank Glenny Savy (Executive Chairman of the Islands Development Company IDC) for permission to work at Astove which has proved invaluable, and Terence Coopoosamy (Manager of the Centre for Science and Technology) who as ever has helped us with the permits and requirements to work in the Seychelles.

Jeanne Mortimer continues to be a wealth of support and assistance both scientifically and with the logistics of conducting marine research on Aldabra.

Tom Spencer, *Shoals of Capricorn* Science Plan Co-ordinator, provided us with valuable advice on both the logistics and the science plan of the research programme.

Clare Bradshaw, Mark Spalding, Tom Spencer and Kristian Teleki made important contributions as members of the original Southern Seychelles Atoll Research Programme (SSARP) who first visited Aldabra in 1998 at the peak of the coral bleaching event.

The Cambridge Coastal Research Unit (CCRU), Department of Geography, has continued to provide both financial and logistic support and is thanked for allowing their personnel to participate in this research.

Fabrice Meziani, Eureka Design Ltd kindly helped with some of the artwork in this report. We also thank Camerapix Nairobi, Mr. Doi Malingri and NASA (Images courtesy of Earth Sciences and Image Analysis Laboratory, NASA Johnson Space Center) for use of their photographs.

We greatly acknowledge the ongoing assistance from Dr. Phil Basson and Possa Skelton in identifying *Caulerpa* specimens, and Dr. Jeanine Olsen for offering DNA analysis.

The enthusiasm, encouragement and support from Professor David Stoddart are deeply appreciated.

Finally and by far not least we dedicate this report to one of our key supporters, Mr. Guillermo Cryns, who sadly died in February this year. His enthusiasm and generosity shall not be forgotten.

References

Hoegh-Guldberg, O. (1999). Climate change, coral bleaching and the future of the worlds reefs. **Mar Freshwater Res, 50**, 839-866.

ISRS (1998). Statement on global coral bleaching in 1997-1998. International Society for Reef Studies, October 15 1998.

NOAA (1998). Record-breaking coral bleaching occurred in tropics this year. National Oceanic and Atmospheric Administration, Press release (October 23 1998).

Spencer, T., Teleki, K., Bradshaw, C. and Spalding, M. (2000). Coral Bleaching in the Southern Seychelles During the 1997-1998 Indian Ocean Warm Event. **Mar Poll Bull**, **40(7)**, 569-586.

Stobart, B., Buckley, R., LeClair, L., Teleki, K., Downing, N., Souter, D. and Callow, M. (2001). Aldabra Marine Programme: Phase II, February 2001. Cambridge Coastal Research Unit, University of Cambridge. 67 pp.

Stobart, B., Buckley, R., LeClair, Downing, N., Callow, M. L., LeClair, L. and Teleki, K., (2002). Aldabra Marine Programme Phase III: Extending the Survyey Eastward. Cambridge Coastal Research Unit, University of Cambridge. 89 pp.

Teleki, K. A., T. Spencer, C. Bradshaw and M. D. Spalding (1998). Coral Bleaching in the Western Indian Ocean – a sign of the times? International Society for Reef Studies – European meeting, 1-4 September, Ecole Pratique des Hautes Etudes, Université de Perpignan.

Teleki, K.A., Downing, N., Stobart B. and Buckley, R. (1999) Aldabra Marine Programme. Cambridge Coastal Research Unit, Department of Geography, University of Cambridge. 31pp.

Wilkinson, C. R. (2000). Status of coral reefs of the world: 2000. Global Coral Reef Monitoring Network and Australian Institute of Marine Science, Townsville, Australia. 363 pp.

Wilkinson, C. R. (2002). Status of Coral Reefs of the World: 2002. Global Coral Reef Monitoring Network and Australian Institute of Marine Science, Townsville, Australia. 378 pp.

Appendices

Appendix 1. Species of fish counted at Aldabra in the transects and sighted off transect during the AMP surveys in May 2003, February 2002, February 2001 and November 1999. **Note: Within the Acanthuridae the species *Ctenochaetus strigosus* has been renamed as *Ctenochaetus truncatus* and is referred to as such in the table.**

FAMILY/*Genus species*	**2003 SITES 1-7 Number in transects**	**2003 SITES 1-7 Sighted off transect**	**2002 SITES 1-8 Number in transects**	**2002 SITES 1-8 Sighted off transect**	**2001 SITES 1-8 Number in transects**	**2001 SITES 1-8 Sighted off transect**	**1999 SITES 1-7 Number in transects**	**1999 SITES 1-7 Sighted off transect**
MYLIOBATIDAE								
Aetobatis narinari				X				X
MURAENIDAE								
Gymnothorax breedeni		X					1	
Gymnothorax flavimarginatus	3				1		2	
Gymnothorax favagineus				X				
HETEROCONGRIDAE								
Heteroconger hassi								X
CHANIDAE								
Chanos chanos			2			X		X
BELONIDAE								
Tylosurus crocodilus					1			
SYNODONTIDAE								
Synodus jaculum	11						3	
Synodus variegatus	1		8				9	
HOLOCENTRIDAE								
Myripristis adusta	1		22		12		6	
Myripristis berndti	158		220		297		72	
Myripristis murdjan					36		98	
Myripristis vittata							52	
Neoniphon sammara		X	7		7		19	
Sargocentron caudimaculatum	69		34		92		106	

Appendix 1 Aldabra (continued)

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
Sargocentron diadema	8		3		13			X
Sargocentron spiniferum	2		2		2		14	
SERRANIDAE								
Aethaloperca rogaa		X	41		552		1	
Cephalopholis argus	1		23		21		2	
Cephalopholis leoparda	4				4		1	
Cephalopholis miniata	56		31		20		58	
Cephalopholis spiloparaea	1				27			X
Cephalopholis urodeta				X	16		176	
Cephalopholis nigripinnis	6							
Dermatolepis striolatus		X			1			X
Epinephelus fasciatus	16		2		27		60	
Epinephelus fuscoguttatus	2				1			X
Epinephelus multinotatus			3					X
Epinephelus polyphekadion					4		2	
Epinephelus spilotoceps	5		8		4		19	
Epinephelus tukula	2		1				2	
Gracilia albomarginata	10		16		10		7	
Plectropomus laevis	2		1		1		1	
Plectropomus punctatus	1			X				X
Variola louti	5		10		3		2	
Nemanthias carberryi	3352				1			X
Pseudanthias cooperi	13		4		17		1975	
Pseudanthias evansi	128		172		381		91	
Pseudanthias squamipinnis	1398		2747		2027		18679	
Plectropomus areolatus			3		6			X
Cephalopholis nigripinnis	78		100		64			
Pseudanthias ignitis				X	6			
Anyperodon leucogrammicus					1			
Epinephelus lanceolatus				X				
Epinephelus macrospilos	1							
APOGONIDAE								
Apogon angustatus	5			X				X
Apogon apogonoides	2241		3937		2237		13285	
Apogon fraenatus			2				6	

Appendix 1 Aldabra (continued)

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
Apogon nigrofaciatus			2				10	
Cheilodipterus artus (lachneri)	2							X
Cheilodipterus macrodon			1		1		3	
Cheilodipterus quinquelineatus			6					
HAEMULIDAE								
Plectorhinchus gaterinus				X	7			X
Plectorhinchus obscurus	2		1		7		2	
Plectorhinchus orientalis	1		2		4		1	
Plectorhinchus paulayi				X				X
Plectorhinchus plagiodesmus		X	2				2	
LUTJANIDAE								
Aphareus furca	14		17		17		17	
Aprion virescens					3		1	
Lutjanus bengalensis				X	1		5	
Lutjanus bohar	20		20		43		23	
Lutjanus fulvus								X
Lutjanus gibbus		X		X	6		1	
Lutjanus kasmira	2		149		715		166	
Lutjanus monostigma	3		1		14		37	
Lutjanus erenberghi	5000							
Lutjanus obscurus								X
Lutjanus argentimaculatus						X		
Lutjanus fulviflamma				X				
CAESIONIDAE								
Caesio teres	1300						275	
Caesio xanthonota	690			X	94		21	
Caesio caerulaurea	50							
Pterocaesio lativittata			8		75			X
Pterocaesio marri	50							X
Pterocaesio tile	510		23		3201		4438	
MULLIDAE								
Parupeneus barbarensis	3		64		2		3	
Parupeneus bifasciatus	22		18		20		17	

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
Parupeneus cyclostomus	13		15		10		5	
Parupeneus macronema	101		71		219		82	
Parupeneus pleurostigma	1		1		4		5	
Mulloidichthys vanicolensis				X	550			
Parupeneus rubescens					1			
PEMPHERIDAE								
Pempheris vanicolensis			1				1	
CHAETODONTIDAE								
Chaetodon auriga	50		12		30		26	
Chaetodon bennetti	9		13		6			X
Chaetodon falcula	14		14		14		11	
Chaetodon guttatissimus	55		33		40		26	
Chaetodon kleinii	30		39		20		33	
Chaetodon lineolatus	2		2		2		4	
Chaetodon lunula	4		14		10		15	
Chaetodon melannotus	10		11				3	
Chaetodon meyeri	7		19		7		12	
Chaetodon paucifaciatus							2	
Chaetodon trifasciatus	14		16		12		17	
Chaetodon unimaculatus			1					X
Chaetodon xanthocephalus	2				9		2	
Chaetodon zanzibariensis	12		2		5		2	
Forcipiger flavissimus	16		24		42		5	
Forcipiger longirostris	3		1				9	
Hemitaurichthys zoster	134		54		19		8	
Heniochus acuminatus	3		1		1			X
Heniochus diphreutes							3	
Heniochus monoceros	4			X	1		2	
Chaetodon mertensii	6							
Chaetodon interruptus			2		2			
Chaetodon madagaskariensis			2		8			
Chaetodon vagabundus	1		1		2			
Heniochus singularius					2			

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
LETHRINIDAE								
Gnathodentex aureolineatus								X
Lethrinus nebulosus	2			X	3			X
Monotaxis grandoculis	34		35		59		40	
Lethrinus xanthochilus				X		X		
Lethrinus obsoletus	2					X		
Lethrinus microdon				X				
EPHIPPIDAE								
Platax orbicularis	4		2		8			X
Platax teira								X
MALACANTHIDAE								
Malacanthus brevirostris			1				5	
Malacanthus latovittatus		X	2		1		1	
PINGUIPEDIDAE								
Parapercis hexophthalama					8			
Parapercis millipunctata					5			
Parapercis punctulata			62					
Parapercis signata	12				6			
POMACANTHIDAE								
Apolemichthys trimaculatus	4		3		12		19	
Centropyge acanthops	44		168		45		79	
Centropyge multispinis	292		231		100		226	
Pomacanthus chrysurus							2	
Pomacanthus imperator	5		5				6	
Pygoplites diacanthus	1		3		7		4	
Centropyge bispinosa	6		1		4			
Centropyge debelius					6			
Pomacanthus semicirculatus		X	1					
POMACENTRIDAE								
Amphiprion chrysogaster			2		2		5	
Amphiprion clarkii	1		10		1			X
Amphiprion fuscocaudatus	1							

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
Chromis dimidiata	2550		2267		1710		3289	
Chromis lepidolepis	1600						310	
Chromis nigrura	513		3438		303		2219	
Chromis ternatensis	145		926		729		1796	
Chromis weberi	166		511		431		2205	
Chromis xanthura			3				43	
Dascyllus aruanus					12			X
Dascyllus carneus	142		90		63		55	
Dascyllus trimaculatus	65		68		15		18	
Lepidozygus tapeinosoma	12680		48910		15985		7139	
Plectroglyphidodon dickii	19		11		24		1	
Plectroglyphidodon johnstonianus	17		58		53		33	
Plectroglyphidodon lacrymatus	91		129		104		59	
Pomacentrus caeruleus	227		118		69		101	
Pomacentrus sulfureus	5		3		1			X
Chromis xutha	37		36		107		16	
Chromis opercularis	12		13					
Abudefduf sexfasciatus					2			
Abedefduf vaigiensis						X		
Amphiprion allardi					5			
Chromis atripectoralis					1			
Pomacentrus chrysurus					1			
Pomacentrus philippinus			12		1			
LABRIDAE								
Anampses lineatus	1		6				2	
Anampses meleagrides	20		15		16		4	
Anampses twistii							3	
Bodianus axillaris	20		19		14		13	
Bodianus bilunulatus	5		2		3			X
Bodianus diana	35		26		20		63	
Cheilinus undulatus		X					1	
Cirrhilabrus exquisitus	1170		1898		754		555	
Coris cuvieri		X	12		2		3	
Coris aygula	1		2					X
Coris frerei			8		7		16	
Coris formosa	9							

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
Epibulus insidiator	2		1		1		1	
Gomphosus caeruleus	35		67		54		61	
Halichoeres cosmetus	115		256		198		258	
Halichoeres hortulanus	51		35		19		47	
Halichoeres marginatus							4	
Halichoeres vrolikii					6		2	
Hemigymnus fasciatus	6		13		2		5	
Hemigymnus melapterus			1				1	
Hologymnosus doliatus		X	19		3		1	
Labroides bicolor	99		21		18		24	
Labroides dimidiatus	415		395		214		305	
Labrobsis xanthonata	14		5		8		1	
Macropharingodon bipartitus	19		14		13		11	
Pseudocheilinus evanidus	216		317		155		306	
Pseudocheilinus hexataenia	369		483		221		254	
Pseudocheilinus octotaenia	38		54		42		92	
Pseudodax molucanus	15		30		2		17	
Thalassoma amblycephalum	264		629		41		624	
Thalassoma hardwicke	5		13		4		6	
Thalassoma herbraicum	85		43		66		103	
Thalassoma janseni	8		14				7	
Thalassoma lunare	52		34		26		14	
Cheilinus fasciatus	4		1					
Cheilinus chlorourus	3							
Macropharingodon ornatus			1					
Anampses caeruleopunctatus					1			
Bodianus anthioides	1		6		4		1	
Bodianus mesothorax					1			
Coris batuensis					37			
Coris caudimacula	32		93				99	
Hologymnosus annulatus		X			1			
Novaculichthys taeniourus	1			X	6			
Pseudojuloides kaleidas			10		14			
Stethojulis albovittata	21		27		11			
Cheilinus trilobatus			3					

Appendix 1 Aldabra (continued)

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
CIRRHITIDAE								
Cirrhitichthys oxycephalus	27		22		21		14	
Oxycirrhites typus				X				
Paracirrhites arcatus	41		35		39		50	
Paracirrhites forsteri	22		38		18		25	
SCARIDAE								
Bolbometopon muricatum			22			X		X
Scarus sordidus	239		272		117		106	
Scarus rubroviolatus	3		1		1		1	
Scarus frenatus					3			
Scarus strongylocephalus	2				8			
Scarus tricolor	20		33					
Scarus scaber				X				
Cetoscarus bicolor	1							
CARANGIDAE								
Caranx ignobilis	1			X	25			X
Caranx melampygus	15		159		50		29	
Caranx sexfasciatus			10		515			X
Elagatis bipinnulata				X	2			X
Trachinotus blochii								X
Scomberoides lysan	11		10			X		
Carangoides fulvoguttatus			21					
Gnathanodon speciosus		X	2					
SPHYRAENIDAE								
Sphyraena barracuda	1			X		X	1	
Sphyraena quenie								X
BLENNIIDAE								
Aspidontus taeniatus	2		4		15		11	
Ecsenius midas	2		16		4		9	
Plagiotremus rhinorhynchos	12		55		1		11	
Plagiotremus tapeinosoma	3		53		9		47	
Ecsenius minutus	8		11					
Cirripectes castaneus			15		17			

Appendix 1 Aldabra (continued)

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
GOBIIDAE								
Amblyeleotris periophthalmus				X			1	
Gunnellichthys curiosus	3						1	
Valenciennea helsdingeni	1			X	2		6	
Valenciennea puellaris							1	
Valenciennea strigata	10		10		4		8	
Eviota sebreei	11							
Gnatholepis anjerensis	71							
ACANTHURIDAE								
Acanthurus auranticavus				X	2		1	
Acanthurus leucocheilus	2		3		21		4	
Acanthurus leucosternon	34		113		93		74	
Acanthurus mata								X
Acanthurus thompsoni	202		91		88		116	
Acanthurus triostegus		X		X				X
Acanthurus tristis	2			X			5	
Acanthurus xanthopterus		X		X			16	
Ctenochaetus binotatus	11		19				14	
Ctenochaetus striatus	64		174		128		54	
Ctenochaetus truncatus	304		423		373		325	
Naso brevirostris	91		62		57		17	
Naso hexacanthus	5		1				1	
Naso lituratus	10		9		4		4	
Naso unicornis	1							X
Zebrasoma scopas	38		68		55		155	
Acanthurus lineatus		X	5		5			
Acanthusus nigricauda	6		7		4			
Acanthurus tennenti	4		12		1			
Naso vlamingii	1		144		14			
Zebrasoma desjardinii	3			X	2			
Paracanthurus hepatus	5		3					
ZANCLIDAE								
Zanclus cornutus	20		11		11		19	

Appendix 1 Aldabra (continued)

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
BALISTIDAE								
Balistapus undulatus	9		3		5		5	
Balistoides conspicullum	1		1					X
Balistoides viridescens	1			X	1			X
Melichthys indicus	29		42		72		22	
Melichthys niger		X	10					X
Odonus niger	91		25		10		13	
Rhinecanthus aculeatus								X
Sufflamen bursa	9		7		4		6	
Sufflamen chrysopterus	6		6		14		15	
Sufflamen albicaudatus				X				
OSTRACIIDAE								
Ostracion meleagris					2			X
TETRAODONTIDAE								
Arothron meleagris			1		3		1	
Arothron nigropunctatus	5		7		6		13	
Canthigaster valentini	6		4		7		4	
Canthigaster amboinensis	2						1	
Canthigaster coronata				X	1			
Canthigaster smithae			5					
SCOMBRIDAE								
Gymnosarda unicolor			8			X	5	
SCORPAENIDAE								
Pterois antennata				X				
Scorpaenopsis diabola					1			
Taenianotus triacanthus				X				
Pterois miles		X		X				
SIGANIDAE								
Siganus argenteus	5		7					X
Siganus stellatus			2		2			

FAMILY/*Genus species*	2003 SITES 1-7 Number in transects	2003 SITES 1-7 Sighted off transect	2002 SITES 1-8 Number in transects	2002 SITES 1-8 Sighted off transect	2001 SITES 1-8 Number in transects	2001 SITES 1-8 Sighted off transect	1999 SITES 1-7 Number in transects	1999 SITES 1-7 Sighted off transect
GINGLYMOSTOMATIDAE								
Nebrius ferrugineus				X		X		
CARCHARHINIDAE								
Carcharhinus melanopterus				X				
Negaprion acutidens				X				
Galeocerdo cuvier				X				
DASYATIDIDAE								
Himantura granulata				X		X		
KYPHOSIDAE								
Kyphosus vaigiensis						X		
MOBULIDAE								
Manta briostris		X			1			
OPHICHTHIDAE								
Myrichthys maculosus						X		
MICRODESMIDAE								
Nemateleotris magnifica	102		181		68		108	
Ptereleotris evides.			2		5			
Ptereleotris heteroptera		X						
Ptereleotris evides	24							
MONACANTHIDAE								
Amanses scopas	2				4			
Cantherinus pardalis					1			
Paraluteres prionurus	1						1	
Pervagor janthinosoma	1							
PLESIOPIDAE								
Calloplesiops altivelis						X		