

The following supplement accompanies the article

Ecological effects of marine reserves in Latin America and the Caribbean

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Supplement. Characteristics of the marine reserves and the species surveyed in each marine reserve used in the study

Table S1. Marine reserve locations, sizes (NA: not available), year of creation, reason for creation given in publications (BC: biodiversity conservation; SF: sustainable fisheries; R: research; T: tourism), type of organism (F: fish; I: invertebrate; A: algae), habitat type (CR: coral reef; RI: rocky intertidal; RR: rocky reef; SB: seagrass bed), comparison type (C-I: control [inside reserve] to impact [outside reserve]; BACI: before and after control [inside reserve] to impact [outside reserve]), biological variable measured (D: density; B: biomass; S: body size; SR: species richness), analysis level (R: reserve; T: trophic level; S: species), species correlations conducted (i.e. exploitation intensity, body size, mobility, trophic level and resilience) as indicated by 'X', and number of studies and source of data

Country	Marine reserve	Reserve size (km ²)	Year of creation	Reason for creation	Type of organism	Habitat type	Comparison type	Biological variable	Analysis level	Species correlations conducted	No. of studies and sources of data
Bahamas	Exuma Cays Land and Sea Park	409	1959	BC	F	CR	C-I	D, B, S	R, T, S	X	Stoner & Ray 1996, Sluka et al. 1997, Lipcius et al. 1997, 2001, Mumby et al. 2006
Barbados	Barbados	2.1	1981	SF	F	CR	C-I	D, S, SR	R, S	X	Chapman & Kramer 1999, Tupper & Juanes 1999

Belize	Glover's Reef	74	1993	BC, SF	I	CR	C-I	D, B	R, T, S	X	Acosta 2002, Acosta & Robertson 2003, Newman et al. 2006
	Half Moon Cay	39.25	1982	BC	F, I	CR	C-I	D	R		Carter & Sedberry 1997
	Hol Chan	2.6	1987	BC, SF	F	CR	C-I	D, B, S, SR	R, T, S		Williams & Polunin 2000, 2001, Newman et al. 2006
Brazil	Arquipelago	802	1983	BC	F	CR	C-I	D, S	R, S	X	Floeter et al. 2006
	Coral Coast	3	1999	BC	F	CR	C-I	D	R		Padovani & Maida 2007
	Corumbau	19	2000	SF	F	CR	C-I	B	R		Moura et al. 2007
	Fernando de Noronha	18.2	1988	BC	F	CR	C-I	D	R, S		Garla et al. 2006
Cayman Islands	Grand Cayman	6.94	1980	BC	F	CR	C-I	D, B	R, T		Williams & Polunin 2000
Chile	Las Cruces	0.04	1982	BC, R	I, A	RI	BACI	D, B, S	R, T, S	X	Oliva & Castilla 1986, Durán & Castilla 1989, Loot et al. 2005, Castilla et al. 2007
	Mehuín	0.01	1978	R	I	RI	C-I	D, S	R, T, S	X	Moreno et al. 1986
	Punta Coloso	2.18	1988	R	I	RI	BACI	D	R, S		Castilla & Rho 1997
Costa Rica	Manuel Antonio	6.82	1972	BC	I	RI	C-I	D	R, S		Ortega 1987
Cuba	Punta Francés	30.15	1968	BC	F	CR	C-I	D, B	R, T		Williams & Polunin 2000, 2001
Jamaica	Discovery Bay	NA	1997	R	F	CR	C-I	S	R, S		Munro 2000
Mexico	Loreto Bay	1.28	2001	BC, SF	F, I	RR	BACI	D, S, SR	R, S	X	Saenz-Arroyo et al. 2005
Netherlands Antilles	Saba	0.9	1987	BC, T	F	CR	C-I	D, B, S	R, S	X	Roberts 1995
Puerto Rico	Luis Peña	6.36	1999	BC, SF	F	CR	BACI	B, SR	R, T		Hernández-Delgado et al. 2007

St. Lucia	Soufriere	0.03	1995	SF	F	CR	BACI	B, SR	R, T		Roberts et al. 2001, Hawkins et al. 2006
Turks and Caicos	Admiral Cockburn Land and Sea National Park	4	1992	BC, T	F	CR	C-I	D, S, B	R, T, S	X	Tupper & Rudd 2003
	East Harbour Lobster and Conch Reserve	17.5	1993	SF	I	SB	C-I	D	R, S		Bene & Tewfik 2003
Venezuela	Los Roques	4	1972	BC	I	SB	C-I	D, S	R, S		Weil & Laughlin 1984

Table S2. Species surveyed in each marine reserve in Table S1. Data used at the species level analysis are designated by ‘S’ and data used at the reserve level is designated by ‘R’. Reserves are designated by number. 1: Exuma Cays Land and Sea Park; 2: Barbados; 3: Glover’s Reef; 4: Half Moon Cay; 5: Hol Chan; 6: Abrolhos; 7: Corumbau; 8: Fernando de Noronha; 9: Grand Cayman; 10: Las Cruces; 11: Mehuin; 12: Punta Coloso; 13: Manuel Antonio; 14: Punta Frances; 15: Discovery Bay; 16: Loreto Bay; 17: Saba; 18: Admiral Cockburn Land and Sea National Park; 19: East Harbour Lobster and Conch Reserve; 20: Los Roques. The following reserves did not list the species surveyed: Coral Coast, Luis Pena and Soufriere

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<i>Abudefduf saxatilis</i>		S	R		R	R														
<i>Acanthaster ellissi</i>																S				
<i>Acanthophora</i> spp.			R		R															
<i>Acanthostracion polygonia</i>						R														
<i>Acanthostracion quadricornis</i>						R														
<i>Acanthurus bahianus</i>		S	S	R	R	R			R					R				S		
<i>Acanthurus chirurgus</i>			S		R	R			R					R				S		
<i>Acanthurus coeruleus</i>		S	S	R	R	R			R					R				S		
<i>Acropora cervicornis</i>			R		R															
<i>Acropora palmata</i>			R		R															
<i>Aetobatus narinari</i>			R		R															
<i>Agaricia agaricites</i>			R		R															
<i>Agaricia humilis</i>			R		R															
<i>Agaricia tenuifolia</i>			R		R															
<i>Alphestes afer</i>						R														
<i>Aluterus scriptus</i>			R		R	R														
<i>Amblycirrhitus pinos</i>						R														
<i>Amphiaster insignis</i>			R		R											S				
<i>Amphiroa</i> spp.			R		R															
<i>Anadyomene</i> spp.																				
<i>Anisotremus moricandi</i>						R														
<i>Anisotremus surinamensis</i>			R		R	S			R					R				S		
<i>Anisotremus virginicus</i>			R		R	S			R					R						
<i>Arbacia incisa</i>																S				
<i>Arca mitabilis</i>																S				
<i>Arca pacifica</i>																S				
<i>Archosargus probatocephalus</i>																				

<i>Chaetodon capistratus</i>		S	S		R														
<i>Chaetodon ocellatus</i>			S		R														
<i>Chaetodon sedentarius</i>						R													
<i>Chaetodon striatus</i>		S	R		R	R													
<i>Chama</i> spp.																		S	
<i>Chicoreus erythrostomus</i>																		S	
Chlorophyta			R		R														
<i>Chromis cyanea</i>			S	R	R														
<i>Chromis flavicauda</i>						R													
<i>Chromis jubauna</i>						R													
<i>Chromis marginata</i>																			
<i>Chromis multilineata</i>			R		R	R													
<i>Clepticus brasiliensis</i>						R													
<i>Clepticus parrae</i>			R		R														
<i>Codium</i> spp.			R		R														
<i>Colpophyllia natans</i>			R		R														
<i>Concholepas concholepas</i>									S	S	S								
<i>Coryphopterus</i> spp.						R													
<i>Cryptotomus roseus</i>						R													
<i>Dactylopterus volitans</i>						R													
<i>Dasyatis</i> spp.			R		R														
<i>Dendrogyra cylindrus</i>			R		R														
<i>Dermatolepis inermis</i>						R													
<i>Dichocoenia stokesi</i>			R		R														
<i>Dictyosphaeria</i> spp.			R		R														
<i>Dictyota</i> spp.			R		R														
<i>Diodon holocanthus</i>			R		R														
<i>Diodon hystrix</i>			R		R	R													
<i>Diplectrum radiale</i>						R													
<i>Diplodus argenteus argenteus</i>						R													
<i>Diploria clivosa</i>			R		R														
<i>Diploria labyrinthiformis</i>			R		R														
<i>Diploria strigosa</i>			R		R														
<i>Doratonotus megalepis</i>						R													

<i>Echinaster tenuispina</i>																	S				
<i>Elacatinus figaro</i>						R															
<i>Emblemariopsis signifera</i>						R															
<i>Encrusting corallines</i>			R		R																
<i>Epinephelus adscensionis</i>	S							R						R				S			
<i>Epinephelus cruentata</i>	S	S	S					R						R				S			
<i>Epinephelus fulvus</i>	S	S	R	R	R			R						R				S			
<i>Epinephelus guttatus</i>	S		R		R			R						R				S			
<i>Epinephelus itajara</i>			R		R	S															
<i>Epinephelus labriformis</i>																		S			
<i>Epinephelus marginatus</i>						R															
<i>Epinephelus morio</i>			R		R	S															
<i>Epinephelus striatus</i>	S		R		R			R						R					S		
<i>Euapta godeffroyi</i>																		S			
<i>Eucidaris thouarsii</i>																		S			
<i>Eusmilia fastigiana</i>			R		R																
<i>Favia fragum</i>			R		R																
<i>Fissurela crassa</i>										S											
<i>Fissurella</i> spp.											S										
<i>Fistularia tabacaria</i>						R															
<i>Galaxaura</i> spp.			R		R																
<i>Gerrus</i> spp.			R		R																
<i>Ginglymostoma cirratum</i>			R		R																
<i>Gnatholepis thompsoni</i>						R															
<i>Gramma brasiliensis</i>						R															
<i>Gramma loreto</i>			R		R																
<i>Gramma melacara</i>			R		R																
<i>Gymnothorax funebris</i>			R		R																
<i>Gymnothorax moringa</i>			R		R	R															
<i>Gymnothorax vicinus</i>						R															
<i>Haemulon album</i>								R						R						S	
<i>Haemulon aurolineatum</i>			S		R	R		R						R							
<i>Haemulon carbonarium</i>		S	R		R			R						R					S		
<i>Haemulon chrysargyreum</i>		S	R		R			R						R					S		

<i>Haemulon flavolineatum</i>		S	S	R	R					R					R			S			
<i>Haemulon macrostomum</i>			R		R													S			
<i>Haemulon melanurum</i>			R		R																
<i>Haemulon parra</i>			R		R	S				R					R						
<i>Haemulon plumierii</i>			S	R	R	S				R					R						
<i>Haemulon sciurus</i>			S	R	R					R					R						
<i>Haemulon squamipinna</i>																					
<i>Haemulon steindachneri</i>						R															
<i>Haemulon striatum</i>			R		R																
<i>Halichoeres bivittatus</i>			S	R	S																
<i>Halichoeres brasiliensis</i>						R															
<i>Halichoeres dimidiatus</i>						R															
<i>Halichoeres penrosei</i>						R															
<i>Halichoeres poeyi</i>						R															
<i>Halichoeres radiatus</i>			R		R																
<i>Halimeda spp.</i>			R		R																
<i>Haliichoeres garnoti</i>			S	R	R																
<i>Heliaster kubiniji</i>																					S
<i>Helioceris cucullata</i>			R		R																
<i>Hexaplex princeps</i>																					S
<i>Holacanthus bermudensis</i>			R		R																
<i>Holocanthus ciliaris</i>			S		R	R															
<i>Holocanthus rufus</i>		S																			
<i>Holocanthus tricolor</i>		S	R		R	R															
<i>Holocentrus ascensionis</i>																					
<i>Holocentrus sp.</i>			R		R																
<i>Holothuria impatientis</i>																					S
<i>Hoplopagrus guentherii</i>																					S
<i>Hyotissa hyotis</i>																					S
<i>Hypleurochilus fissicornis</i>						R															
<i>Hypoplectrus indigo</i>			R		R																
<i>Inermia vittata</i>			R		R																
<i>Isophyllastrea rigida</i>			R		R																
<i>Isostichopus fuscus</i>																					S

<i>Jania</i> spp.			R		R														
<i>Kyphosus sectator</i>		S	R		R														
<i>Kyphosus</i> spp.						R													
<i>Labrisomus cricota</i>																			
<i>Labrisomus kalisherae</i>						R													
<i>Labrisomus nuchipinnis</i>						R													
<i>Lachnolaimus maximus</i>			R		R													S	
<i>Lactophrys triqueter</i>		S	R		R														
<i>Laurencia</i> spp.			R		R														
<i>Leiaster teres</i>																		S	
<i>Lima tetrica</i>																		S	
<i>Linckia columbiae</i>																		S	
<i>Lobophora</i> spp.			R		R														
<i>Lutjanus alexandrei</i>																			
<i>Lutjanus analis</i>			R		R			R					R						
<i>Lutjanus apodus</i>			S		R			R					R					S	
<i>Lutjanus argentiventris</i>																		S	
<i>Lutjanus cyanopterus</i>			R		R			R					R						
<i>Lutjanus griseus</i>			S		R	S		R					R						
<i>Lutjanus jocu</i>			R		R	S		R					R						
<i>Lutjanus mahogoni</i>		S	R		R			R					R						
<i>Lutjanus novemfasciatus</i>																		S	
<i>Lutjanus synagris</i>			S		R	S		R					R						
<i>Lyropecten subnodosus</i>																		S	
<i>Madracis formosa</i>			R		R														
<i>Madracis mirabilis</i>			R		R														
<i>Madracis</i> spp.			R		R														
<i>Malacanthus plumieri</i>			R		R														
<i>Malacoctenus delalandei</i>						R													
<i>Malacoctenus</i> sp.																			
<i>Manicina areolata</i>			R		R														
<i>Meandrina meandrites</i>			R		R														
<i>Megalops atlanticus</i>			R		R														
<i>Melichthys niger</i>			R		R			R							R				

<i>Metapeyssonelia</i> spp.			R		R														
<i>Microspathodon chrysurus</i>		S	R		R	R													
<i>Mithrodia bradleyi</i>																	S		
<i>Montastraea annularis</i>			R		R														
<i>Montastraea cavernosa</i>			R		R														
<i>Montastraea faveolata/franksi</i>			R		R														
<i>Mugil curema</i>		S				R													
<i>Mulloidichthys martinicus</i>		S	R		R	R													
<i>Mussa angulosa</i>			R		R														
<i>Mycetophyllia</i> spp.			R		R														
<i>Mycteroperca acutirostris</i>						R													
<i>Mycteroperca bonaci</i>	S		R		R	S		R					R						
<i>Mycteroperca interstitialis</i>						R		R					R				S		
<i>Mycteroperca jordani</i>																	S		
<i>Mycteroperca phenax</i>			R		R														
<i>Mycteroperca prionura</i>																	S		
<i>Mycteroperca rosacea</i>																	S		
<i>Mycteroperca tigris</i>	S		R		R			R					R					S	
<i>Mycteroperca venenosa</i>	S		R		R			R					R						
<i>Myrichthys ocellatus</i>						R													
<i>Myripristis jacobus</i>		S	R		R	R													
<i>Narcissia gracilis</i>																		S	
<i>Nidorellia armata</i>																		S	
<i>Octopus bimaculatus</i>																		S	
<i>Ocyurus chrysurus</i>			S	R	R	S		R					R						
<i>Odontoscion dentex</i>						R													
<i>Ogcocephalus vespertilio</i>						R													
<i>Ophioblennius atlanticus</i>																			
<i>Orthopristis ruber</i>						R													
<i>Padina</i> spp.			R		R														
<i>Panulirus argus</i>	S		S																
<i>Panulirus guttatus</i>			S																
<i>Panulirus inflatus</i>																		S	
<i>Parablennius marmoreus</i>						R													

<i>Paranthias furcifer</i>						R														
<i>Pareques acuminatus</i>						R														
<i>Pempheris schomburgki</i>			R		R															
<i>Penicillus</i> spp.			R		R															
<i>Pentaceraster cummingi</i>																			S	
<i>Perumytilus purpuratus</i>									S	S										
<i>Peyssonnelia</i> spp.			R		R															
<i>Pharia pyramidata</i>																			S	
<i>Phataria unifascialis</i>																			S	
<i>Pinctada mazatlanica</i>																			S	
<i>Pinna rugosa</i>																			S	
<i>Pomacanthus arcuatus</i>			S		R	R														
<i>Pomacanthus paru</i>			R		R	R														
<i>Pomacentrus diencaeus</i>				R																
<i>Pomacentrus leucostictus</i>				R																
<i>Pomacentrus partitus</i>				R																
<i>Pomacentrus</i> spp.		S																		
<i>Porites astreoides</i>			R		R															
<i>Porites porites/furcata</i>			R		R															
<i>Porites</i> spp.			R		R															
<i>Priacanthus arenatus</i>						R														
<i>Prognathodes brasiliensis</i>						R														
<i>Pseudocama inermes</i>																			S	
<i>Pseudocaranx dentex</i>						R														
<i>Pseudopeneus maculatus</i>		S	R		R	R														
<i>Pteria sterna</i>																			S	
<i>Rachycentron canadum</i>			R		R															
<i>Rhipocephalus</i> spp.			R		R															
Rhodophyta			R		R															
<i>Rypticus bistrispinus</i>						R														
<i>Rypticus saponaceus</i>		S				R														
<i>Rypticus</i> sp.			R		R															
<i>Sargassum</i> spp.			R		R															
<i>Scartella</i> cf. <i>cristata</i>																				

<i>Scarus coeruleus</i>																		S			
<i>Scarus compressus</i>																		S			
<i>Scarus croicensis</i>			S	R				R						R							
<i>Scarus ghoban</i>																		S			
<i>Scarus iserti</i>	R	S	R		R																
<i>Scarus perrico</i>																		S			
<i>Scarus rubroviolaceus</i>																		S			
<i>Scarus taeniopterus</i>		S	R	R	R			R						R				S			
<i>Scarus trispinosus</i>						S															
<i>Scarus vetula</i>	R	S	R		R			R						R				S			
<i>Scarus viride</i>			S																		
<i>Scarus zelindae</i>						S															
<i>Scolymia spp.</i>			R		R																
<i>Scomberomorus regalis</i>			R		R																
<i>Scorpaena brasiliensis</i>						R															
<i>Scorpaena plumieri</i>			R		R	R															
<i>Scyllarides astori</i>																		S			
<i>Selar crumenophthalmus</i>						R															
<i>Seriola rivoliana</i>			R		R																
<i>Seriola spp.</i>						R															
<i>Serranus baldwini</i>						R															
<i>Serranus flaviventris</i>						R															
<i>Serranus phoebe</i>						R															
<i>Serranus tabacarius</i>			R		R																
<i>Sicyases sanguineus</i>									S												
<i>Siderastrea radians</i>			R		R																
<i>Siderastrea siderea</i>			R		R																
<i>Siphonaria gigas</i>														S							
<i>Solenastrea spp.</i>			R		R																
<i>Sparisoma amplum</i>						S															
<i>Sparisoma atomarium</i>			R		R																
<i>Sparisoma aurofrenatum</i>	R	S	S	R	R			R						R	S			S			
<i>Sparisoma axillare</i>						S															
<i>Sparisoma chysopterygium</i>			R		R			R						R	S						

<i>Sparisoma frondosum</i>						S														
<i>Sparisoma radians</i>						R			R					R						
<i>Sparisoma rubripinne</i>		S	R		R													S		
<i>Sparisoma tuiupiranga</i>						R														
<i>Sparisoma viride</i>	R	S	R	R	R				R					R	S			S		
<i>Sphoeroides greeleyi</i>						R														
<i>Sphoeroides spengleri</i>			R		R	R														
<i>Sphyraena barracuda</i>			S		R															
<i>Sphyraena guachancho</i>																				
<i>Spondylus calcifer</i>																		S		
<i>Spondylus princeps</i>																		S		
<i>Stegastes fuscus</i>						R														
<i>Stegastes partitus</i>			R		R															
<i>Stegastes pictus</i>						R														
<i>Stegastes spp.</i>			S		R															
<i>Stegastes variabilis</i>						R														
<i>Stenorhynchus debilis</i>																		S		
<i>Stephanocoenia intersepta</i>			R		R															
<i>Stephanolepis hispidus</i>						R														
<i>Strombus gigas</i>	S		S																S	S
<i>Stypopodium spp.</i>			R		R															
<i>Synodus intermedius</i>						R														
<i>Synodus synodus</i>						R														
<i>Tamaria stria</i>																		S		
<i>Thais speciosa</i>																		S		
<i>Thalassoma bifasciatum</i>			S	R	R															
<i>Thalassoma noronhanum</i>						R														
<i>Toxonepneustes roseus</i>																		S		
<i>Trichogloea spp.</i>			R		R															
<i>Tripneustes depressus</i>																		S		
<i>Turbinaria spp.</i>			R		R															
<i>Udotea spp.</i>			R		R															
<i>Ventricaria spp.</i>			R		R															
<i>Santhichthys ringens</i>			R		R															

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