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Surveys of shore fishes in Banderas Bay and Isla Isabela, Mexico

October 21-31, 2003

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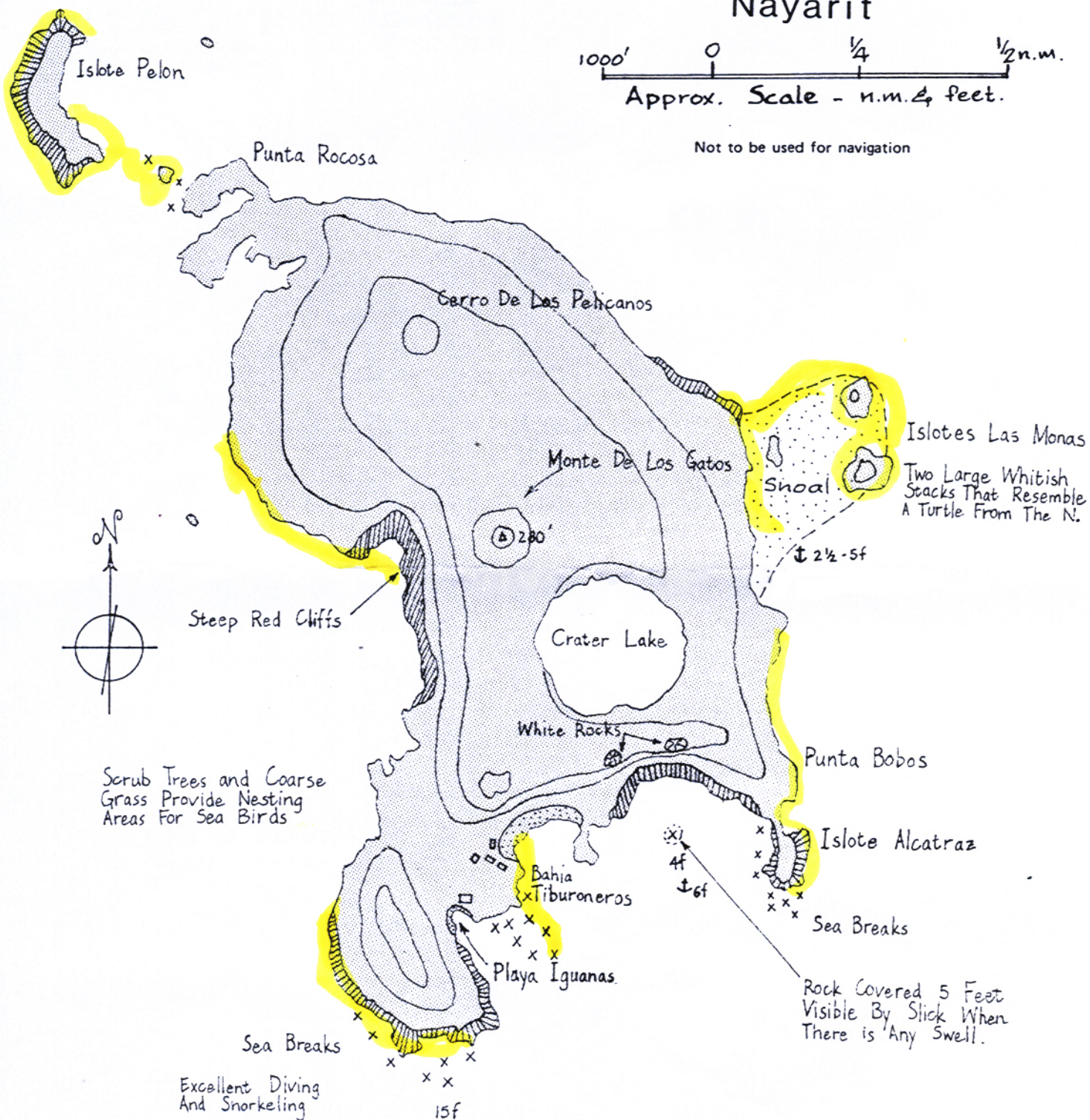
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ISLA ISABELA

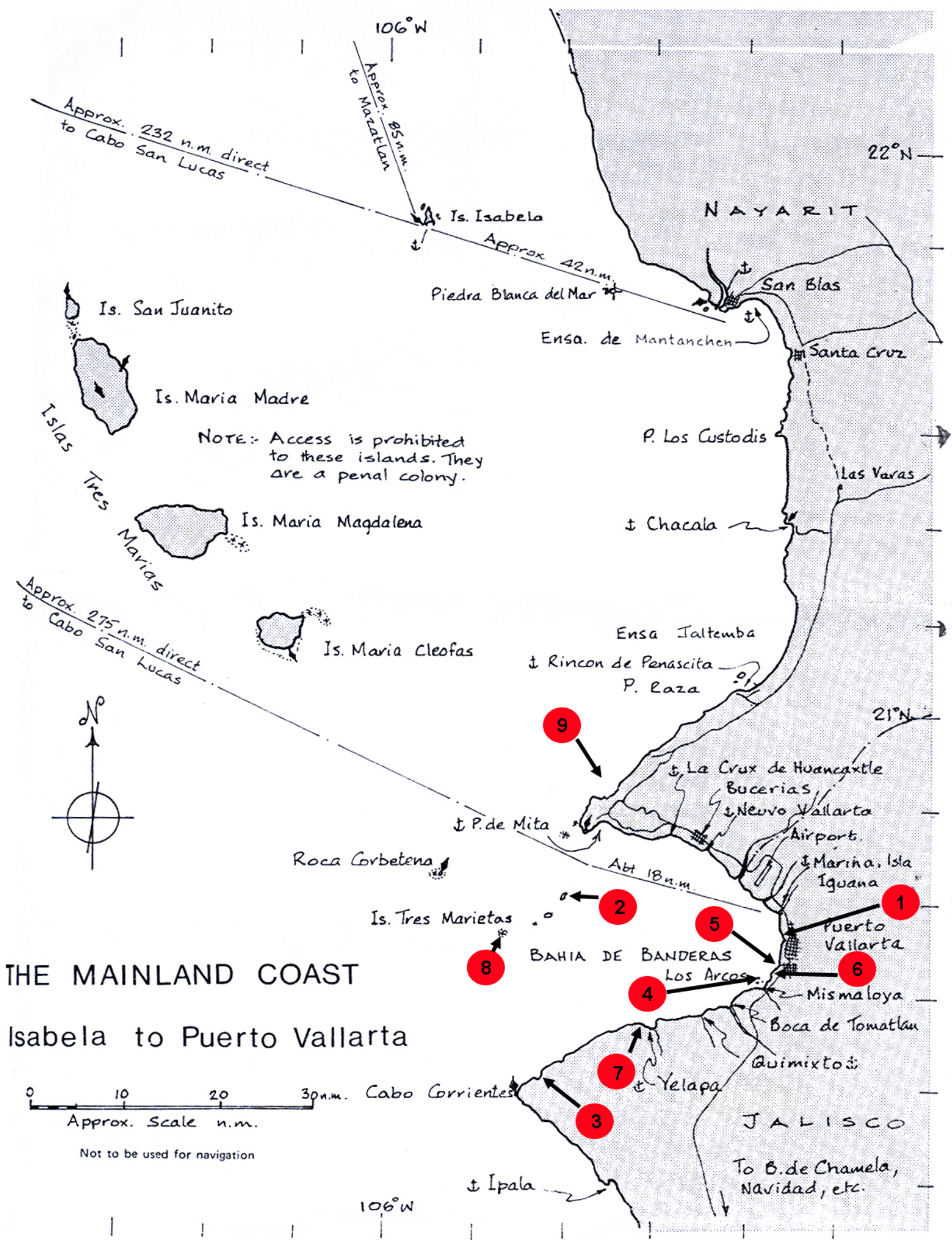
Nayarit

1000' 0 1/4 1/2 n.m.
Approx. Scale - n.m. & feet.

Not to be used for navigation



ISLA ISABELA FROM SSE, DISTANT ABOUT ONE MILE



ISABELA CENSUSES TABLE		Abundances on dive surveys: R = Rare, 1 per dive; UC = Uncommon, 2-5 per dive; NUC = Not uncommon, to 10 per dive; C = Common, dozens to scores per dive; A = Abundant, hundreds per dive.						
	Nth Islote Pelon Oct 29 / 30	Bahia Tiburoneros Oct / 30	South-west Wall Oct / 30	Islotes Las Monas Oct / 30	West Bay - steep red cliffs Oct / 31	Islote Alcatraz Oct / 31	Shore adjacent to Las Monas Oct / 31	
Species								
Echidna nocturna	r							
Enchelycore octaviana				r				
Gymnomuraena zebra								
Gymnothorax castaneus	r	r	c	r	nuc	nuc	nuc	
Gymnothorax dovii					r	r		
Muraena lentiginosa		r					r	
Chanos chanos	c							
Synodus lacertinus					r			
Antennarius sanguineus								
Tylosurus crocodilus fodiator	c			c		c		
Myripristis leiognathos	c		c	c	c	c	c	
Sargocentron suborbitalis	c	c	c	c	c	c		
Manta birostris	r							
Aetobatus narinari	r							
Dasyatis longa								
Fistularia commersonii	c	c	c	c	c		c	
Doryrhamphus excisus			r		r		r	
Scorpaena plumieri mystes	r		r					
Scorpaenodes xyris			r				r	
Alphestes immaculatus	r				r		r	
Cephalopholis panamensis	c	nuc	c	c	c	c	c	
Epinephelus labriformis	c	nuc	c	c	c	c	c	
Mycteroperca rosacea	nuc			r				
Paranthias colonus	c		c	nuc				
Rypticus bicolor		nuc	nuc	nuc			r	
Serranus psittacinus	c			c			c	
Apogon pacificus		c			c			
Apogon retrosella	nuc	nuc	c	c	c		c	
Opistognathus roseablatti	uc			c				
Scomberomorus sierra				nuc				
Harengula thrissina					c		c	
Scomberomorus sierra	nuc							
Carangoides caballus	c		c	c			c	
Caranx caninus	nuc		c	c	r	c	c	
Caranx melampygus	nuc	nuc	c	nuc		r		
Caranx sexfasciatus	c			c				
Elagatis bipinnulata	r			r			nuc	
Gnathanodon speciosus				r				
Trachinotus rhodopus	c	nuc	c		c		c	
Hoplopagrus guentherii	c	c		c	r	nuc	c	
Lutjanus argentiventris	c	c	c	c	c	c	c	
Lutjanus guttatus							nuc	
Lutjanus inermis	nuc							
Lutjanus novemfasciatus	nuc	nuc	c	c	nuc	nuc	nuc	
Gerres cinereus	nuc	c		c			nuc	
Bothus mancus	r			r				
Decapterus sp	c			c			nuc	
Anisotremus interruptus	nuc			nuc	r			
Haemulon maculicauda	c		c	c	c	c		
Haemulon sexfasciatum	nuc			c	nuc	c		
Haemulon steindachneri	nuc	c				nuc		
Microlepidotus brevipinnis	c			c		nuc		
Mulloidichthys dentatus	c	c		c	c	c	c	
Kyphosus analogus	r	c		c		nuc		
Kyphosus elegans	c	c	c	c	c	c	c	
Chaetodon humeralis	c	c	c	c	c	c	c	
Johnrandallia nigrirostris	c	c	c	c	c	c	c	
Holacanthus passer	c	c	c	c	c	c	c	
Pomacanthus zonipectus			nuc	r				
Cirrhitichthys oxycephalus	c	c	c	c		c	c	
Cirrhitus rivulatus	c	c	c	c		c	c	
Abudefduf declivifrons		nuc						
Abudefduf troschelii	c	c	c	c	c	c	c	
Chromis atrilobata	c	c	c	c	c	c	c	
Microspathodon bairdii		nuc		nuc	r		r	
Microspathodon dorsalis	c	c	c	c	c	c	c	
Stegastes acapulcoensis	c	c		c	c	c	c	
Stegastes flavilatus	c	c	c	c	c	c	c	
Sectator ocyurus	r		r	r				
Bodianus diplotaenia	c	c	c	c	c	c	c	
Halichoeres chierchiae		c		c	c	c	c	
Halichoeres dispilus	c	c	c	c	c	c	c	
Halichoeres melanotis				c			c	
Halichoeres nicholsi	nuc	nuc		c	nuc	nuc	nuc	
Halichoeres notospilus		c		nuc	nuc	nuc	nuc	
Iniistius pavo				c	nuc			
Novaculichthys taeniourus	r							
Thalassoma grammaticum	r			r		r		
Thalassoma lucasanum	c		c	c	c		c	
Nicholsina denticulata	r							
Scarus compressus	c	c	c	c	c	c	c	
Scarus ghobban	r			c	r	r	nuc	
Scarus perrico	c	c	c	c	c	c	c	
Scarus rubroviolaceus	c	c		c	c	c	c	
Axoclinus storeyae	c		c	c	c	c		
Enneanectes species A	nuc	nuc		r	r			
Enneanectes species C	nuc	c	c	c	c	c		
Labrisomus xanti					r			
Malacoctenus ebisui	c	c	c	c	c	nuc		
Malacoctenus hubbsi	r	nuc	nuc		r	nuc	nuc	
Malacoctenus margaritae	r				r			
Malacoctenus tetranemus	c		r			nuc		
Malacoctenus zonifer		nuc	nuc	nuc		nuc		
Starksia spinipenis		r						
Acanthemblemaria macrospilus	c	c	c	c	c	c	c	
Cirriemblemaria lucasana					r			
Coralliozetus angelicus						r		
Coralliozetus boehlkei					r			
Ekemblemaria myersi					r	r	nuc	
Emblemaria piratica							r	
Protemblemaria bicirris								
Hypsoblennius brevipinnis			c		nuc	c		
Ophioblennius steindachneri	c	c	c	nuc	c	c		
Plagiotremus azaleus	c	c		c	r	c		
Stethojulis bandanensis						r		
Bathygobius ramosus								
Coryphopterus urospilus		c	r	nuc			nuc	
Elacatinus digueti				r	r			
Elacatinus limbaughi		r		r			nuc	
Elacatinus punctulatus	c	c	c	c				
Chaetodipterus zonatus	c		c	c	nuc		c	
Zanclus cornutus	nuc	nuc	c	nuc	nuc		c	
Acanthurus triostegus triostegus						nuc	nuc	
Acanthurus xanthopterus	c	c	c	c	c	c	c	
Prionurus punctatus	c	c	c	c	c	c	c	
Prionurus laticlavius				r				
Sphyraena genie	nuc							
Balistes polylepis	c		c	c		c	c	
Pseudobalistes naufragium	c	c	c	c	c	c	c	
Sufflamen verres	c	c	c	c	c	c	c	
Aluterus scriptus	nuc		nuc	nuc		nuc	r	
Ostracion meleagris meleagris	r					r	r	
Arothron meleagris		c	c	c	c	c	c	
Canthigaster punctatissima	c	c	c	c	c	c	c	
Diodon holocanthus	c	c	c	c		c	c	
Diodon hystrix	nuc	nuc	c	c	nuc	c	c	
Bothus mancus								
Acanthurus nigricans	r							
Cantherhines dumerilii	r							
Mugil sp					nuc			
Rhinobatos glaucostigma								
Sphyrna lewini								
Dasyatis longus								
Cynoscion reticulatus								
Nebris occidentalis								
Sphyrna lewini								
Rhinobatos glaucostigma								
Cynoscion reticulatus								
Peprilus snyder								
Peprilus medius								
Synodus scutlicepe								
Polydactylus approximans								
Isopisthus remifer								
Lutjanus peru								

Bahia BANDERAS CENSUSES TABLE	Abundances on dive surveys: R = Rare, 1 per dive; UC = Uncommon, 2-5 per dive; NUC = Not uncommon, to 10 per dive; C = Common, dozens to scores per dive; A = Abundant, hundreds per dive.									
Species	Bahia Banderas total Oct 21-27/03	PV Harbor-Dive shop Boat Ramp and videos, Oct 21	Marietas east side of E island Oct 21/03	2 Chimo Oct 22/03	Los Arcos Oct 23/03	Conchas Chinas Oct 24/03	Mismaloya Oct 24/03	Yelapa Oct25/03	El Moro (Marietas) Oct 26/03	Bajo de la Viuda Oct 27/03
Elops affinis	uc				uc					
Echidna nebulosa	uc		uc					r		
Echidna nocturna	nuc					r				
Enchelycore octaviana	r			r	r		r			
Gymnomuraena zebra	nuc		nuc		nuc		r		r r	
Gymnothorax castaneus	c		c	nuc	nuc			nuc	c	
Gymnothorax dovii	uc								u	
Muraena argus		video								
Muraena lentiginosa	c		yellow spot	r	c	uc	uc		c	nuc
Scuticaria tigrina		video								
Uropterygius macrocephalus	nuc									
Uropterygius versutus	nuc		nuc	nuc				nuc		
Chanos chanos	r								r	
Synodus lacertinus	uc		r					nuc		
Antennarius sanguineus	r		r							
Antennatus strigatus	r		r							
Myripristis leiognathos	c		a	c	c	c	c	c		c
Sargocentron suborbitalis	c		a	nuc	c	c		c		c
Urolophus halleri	uc							r		r
Myrichthys tigrinus	r							r		
Manta birostris	uc									
Rhinoptera steindachneri	r	video								
Triacnodon		marietas								
Fistularia commersonii	c		c	nuc	c	u	u	c	c	
Doryrhamphus excisus	nuc		nuc		c			nuc	c	
Scorpaena histrio		video								
Scorpaena plumieri mystes	c		nuc		c		u u	nuc	nuc	r
Scorpaenodes xyris	r		r		r				r	
Alphestes immaculatus	nuc		nuc	nuc	nuc	nuc	nuc	nuc		c
Cephalopholis panamensis	c		c	c	c	c		c	c	c
Epinephelus labriformis	c		c		c c		c r	c	c	c
Mycteroperca prionura	r							r		
Paranthias colonus	c		c		c c			c	a	
Rypticus bicolor	nuc		c	nuc	nuc	nuc		nuc	nuc	r
Serranus psittacinus	c		c		c	nuc		nuc		uc
Heteropriacanthus cruentatus	r		r	r						
Apogon pacificus	c		c	c	c	c	c	c	nuc	
Apogon retrosella	c		c		c		c c	c	nuc	
Liopropoma fasciatus	r		deep							
Scomberomorus sierra	nuc									r
Harengula thrissina	nuc									beach
Opistognathus roseoblatti	nuc								nuc	
Carangoides caballus	c				nuc	c		nuc	c	
Caranx caninus	nuc						nuc	nuc	c	c
Caranx melampygus	nuc								c	r
Caranx sexfasciatus	c				h c	nuc		nuc	c	c
Gnathanodon speciosus	r							r		
Trachinotus rhodopus	c								c	nuc
Nematistius pectoralis	beach									beach
Hoplopagrus guentherii	nuc				r	nuc	c	r	c	uc
Lutjanus argentiventris	c	c	c	h	nuc	c	c	c	c	c
Lutjanus guttatus	c	nuc	nuc		r	c		c		c
Lutjanus inermis								nuc		
Lutjanus novemfasciatus	c	nuc					c		c	c
Lutjanus peru	fisher									
Lutjanus viridis	nuc			r					c	
Gerres cinereus	nuc									nuc
Nematistius	beach									
Mugil curema	c	c								
Bothus leopardinus	video									
Holacanthus clarionensis	marianas									
Anisotremus caesius	nuc					nuc				c
Anisotremus interruptus	c				nuc		c	nuc		nuc
Anisotremus taeniatus	nuc				nuc					c
Haemulon flaviguttatum	c		nuc		nuc	c		nuc	c	c
Haemulon maculicauda	c		c		c	c	c	c	c	c
Haemulon scudderi	nuc		nuc		nuc	c	c	nuc		r
Haemulon sexfasciatum	c		r			c	c			uc
Haemulon steindachneri	nuc		nuc		r	nuc	nuc	nuc	c	c
Microlepidotus brevipinnis	nuc					nuc	nuc		c	c
Calamus brachysomus	nuc				nuc	c				
Odontoscion xanthops	nuc			h		c	c	nuc		c
Pareques species A	nuc		nuc			nuc	nuc	nuc		c
Mulloidichthys dentatus	c		c	nuc				nuc		c
Pseudupeneus grandisquamis	nuc					nuc	r			r
Kyphosus analogus	uc		c	nuc	c	c		c		
Kyphosus elegans	c		c	nuc	c	c		c	c	uc
Chaetodon humeralis	c		c	r	c	c	c	c	c	c
Johnrandallia nigrirostris	c		c	nuc	c		c	c	c	c
Holacanthus passer	c		c	nuc	c	nuc	nuc	c	c	c
Pomacanthus zonipectus	nuc		c	nuc	nuc	nuc	c	nuc	nuc	c
Cirrhitichthys oxycephalus	c		c	c	c			nuc	c	
Cirrhitus rivulatus	c		nuc	c	c	c	c	nuc	c	
Abudefduf declivifrons	c					c		nuc		
Abudefduf troschelii	c		c	c	c	c	c	c	c	c
Chromis atrilobata	c		c	a	c	c		c	c	c
Chromis limbaughi	c		nuc	nuc				c	c	
Microspathodon bairdii	c		nuc				r	nuc		
Microspathodon dorsalis	c		c	nuc	c	c	c	c	c	c
Stegastes acapulcoensis	c		c	c	c	c	c	c		c
Stegastes flavilatus	c	nuc	c	c	c	c	c	c	c	c
Pareques fuscovittatus	nuc			c	nuc	nuc	r	nuc		c
Holacanthus clarionensis hibrid	video									
Pareques specie A vs fuscovittatus						?	?			
Bodianus diplotaenia	c		c	c	c	c	c	c	c	c
Halichoeres chierchiae	c		c	c	c	c	r	c		
Halichoeres dispilus	c		c	c	c	c	c	c	c	c
Halichoeres melanotis	nuc							nuc		
Halichoeres nicholsi	c		nuc	nuc	c			nuc		
Halichoeres notospilus	c		r	nuc	c	c	c	c		r
Iniistius pavo	uc							r		
Thalassoma lucasanum	c		a	a	c	a	nuc	c	c	c
Scarus perrico	c		nuc		c	c	c	nuc	c	c
Axoclinus storeyae	c		nuc	nuc	nuc	r		c		
Enneanectes carminalis	c								c	
Enneanectes species A	uc							nuc		
Enneanectes species C	nuc		yellow	c	nuc			nuc		
Labrisomus xanti	nuc			r			r	nuc		
Malacoctenus ebisui	c		c	c	c	nuc		c	c	
Malacoctenus hubbsi	r		nuc						c	uc
Malacoctenus margaritae	c									
Malacoctenus tetranemus	c		c	c	c	nuc		c	c	uc
Malacoctenus zonifer	c					nuc		nuc		
Starksia spinipenis	nuc		r	r	r	r				
Acanthemblemaria balanorum	c		c	c	c			c	c	
Acanthemblemaria macrospilus	c		c	c	c	c	r	c	c	c
Cirriemblemaria lucasana	nuc									
Coralliozetus boehlkei	nuc									
Ekemblemaria myersi	nuc									r
Protemblemaria bicirris	c		uc	nuc	nuc					nuc
Hypsoblennius brevipinnis	c		c		c				c	c
Ophioblennius steindachneri	c		c	c	c	c		c	c	c
Plagiotremus azaleus	c		c	c	c			c	c	
Coryphopterus urospilus	c		c	c		c	c	c	c	uc
Elacatinus digueti	r			r						
Elacatinus limbaughi	nuc		nuc	nuc	r			r	nuc	
Elacatinus punctilatus	c		c	c	c			c	c	uc
Gymneleotris seminudus	r					r				
Chaetodipterus zonatus	c				nuc					
Zanclus cornutus	nuc		c	nuc					r	
Acanthurus xanthopterus	c			h-c	nuc	nuc	nuc	nuc	c	c
Prionurus punctatus	c		c	c	c	c	c	c	c	c
Balistes polylepis	nuc				nuc					c
Pseudobalistes naufragium	c		c	nuc	nuc	c	c	nuc	c	uc
Sufflamen verres	c		c	c	c	nuc		nuc	c	uc
Aluterus monocerus	market									
Aluterus scriptus	nuc				nuc					
Ostracion meleagris meleagris	nuc		r	r	c	nuc	nuc	nuc	nuc	uc
Arothron hispidus	uc				r	r		nuc		uc
Arothron meleagris	c		c	c	c	c	r	c	c	c
Canthigaster punctatissima	c		c	c	c	c	c	c	c	
Diodon holocanthus	c		c	c	c	c	c	c	c	c
Diodon hystrix	c		nuc		nuc			nuc	c	c
Sphoeroides annulatus	nuc	r				r	r			
Sphoeroides lobatus	r						r			
Acanthurus nigricans	r				r					
Catherhines dumerilii	uc				nuc					uc
Bothus leopardinus		video								
Holacanthus clarionensis		video - Tres Marias								