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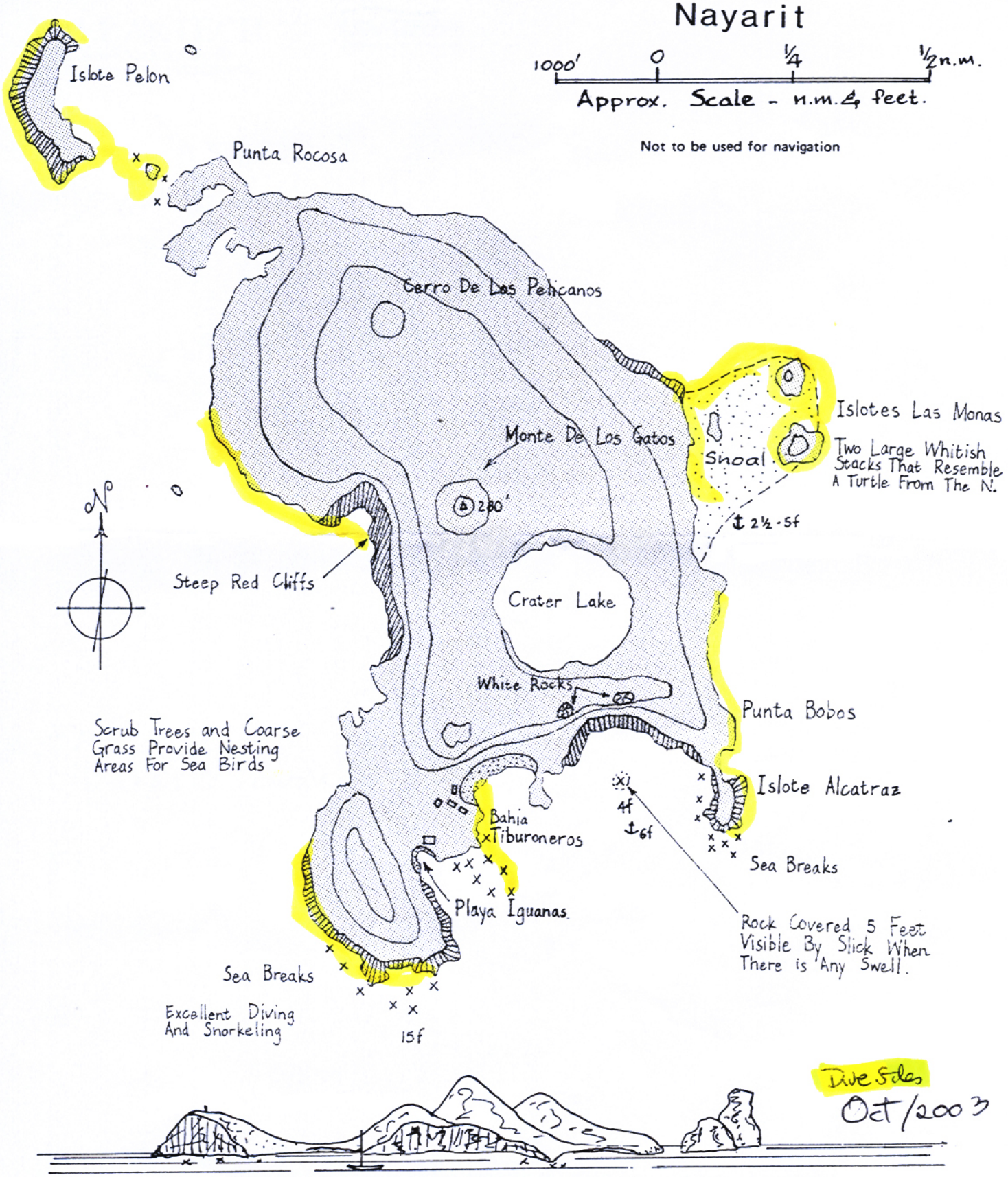
ISLA ISABELA

Nayarit

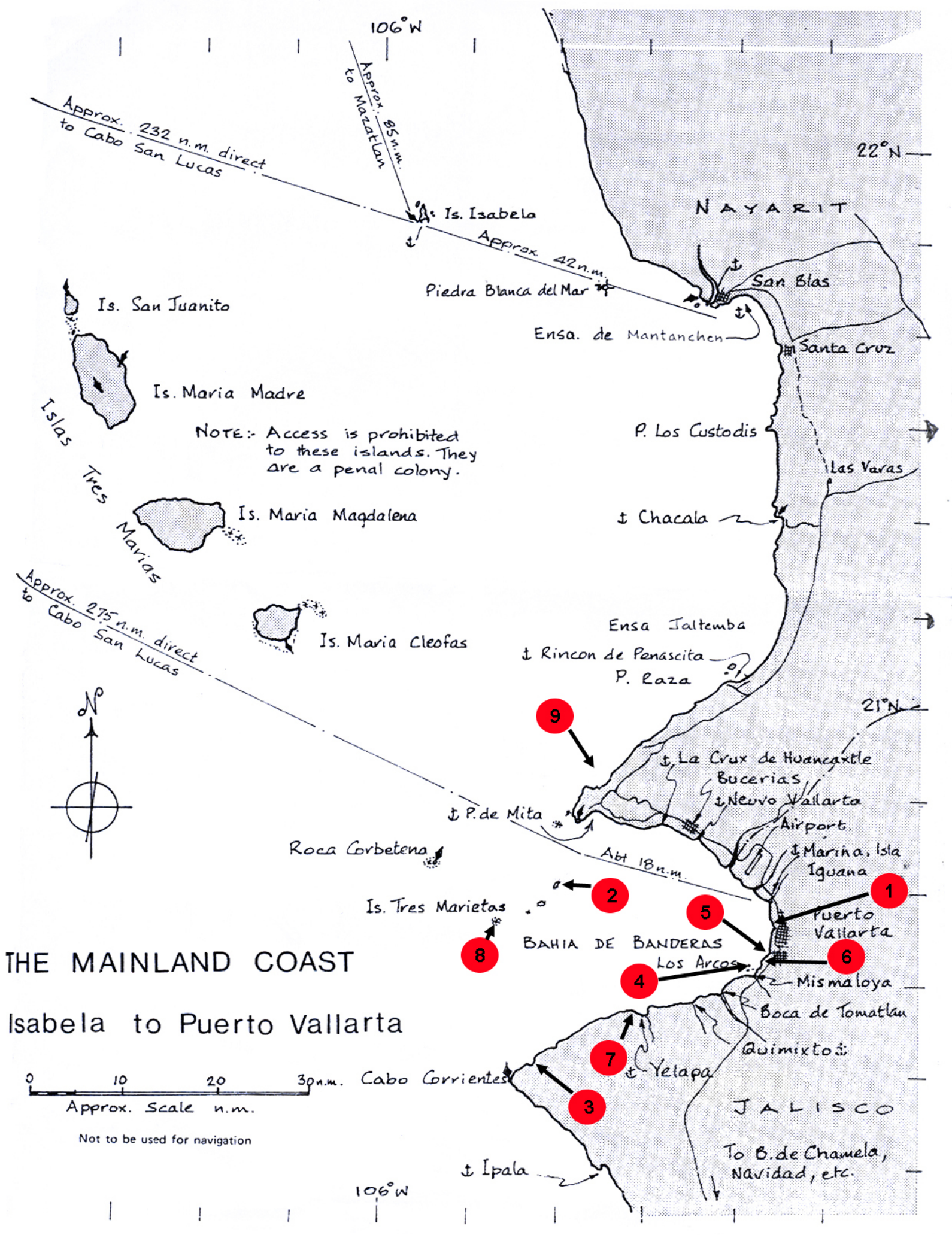
1000' 0 ¼ ½ n.m.

Approx. Scale - n.m. & feet.

Not to be used for navigation



ISLA ISABELA FROM SSE, DISTANT ABOUT ONE MILE


106°W
Approx. 232 n.m. direct to Cabo San Lucas
Approx. 85 n.m. to Mazatlan
Is. Isabela
Approx. 42 n.m.
22°N
NAYARIT
San Blas
Piedra Blanca del Mar
Ensa. de Mantanchen
Santa Cruz
Is. San Juanito
Is. Maria Madre
Islas Tres Marias
NOTE:- Access is prohibited to these islands. They are a penal colony.
P. Los Custodis
Las Varas
Is. Maria Magdalena
Chacala
Approx. 275 n.m. direct to Cabo San Lucas
Is. Maria Cleofas
Ensa Jaltemba
Rincon de Penascita
P. Raza
N
21°N
9
La Crux de Huanacxtle
Bucerias
Nuevo Vallarta
P. de Mita
Airport
Marina, Isla Iguana
Roca Corbetena
Abt 18 n.m.
2
1
Is. Tres Marietas
5
Puerto Vallarta
8
BAHIA DE BANDERAS
6
Los Arcos
4
Mismaloya
Boca de Tomatlan
7
Quimixto
Yelapa
Cabo Corrientes
3
JALISCO
To B. de Chamela, Navidad, etc.
Ipala
106°W
THE MAINLAND COAST
Isabela to Puerto Vallarta
0 10 20 30 n.m.
Approx. Scale n.m.
Not to be used for navigation

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.

Species	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
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 rosemblatti	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 punticulatus	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 qenie	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 scituliceps							
Polydactilus 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	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								
Triaenodon		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	c	nuc	
Liopropoma fasciatus	r		deep							
Scomberomorus sierra	nuc									r
Harengula thrissina	nuc									beach
Opistognathus rosemblatti	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 punticulatus	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					
Cantherhines dumerilii	uc				nuc					uc
Bothus leopardinus		video								
Holacanthus clarionensis		video - Tres Marias								