

**2012 Report Card for the Mesoamerican Reef  
Online Supplement**

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**1. CONTRIBUTORS**

Melanie McField, HRI Director  
Lorenzo Álvarez Filip, HRI Science  
Coordinator  
Ian Drysdale, HRI Honduras Coordinator  
Marisol Rueda Flores, HRI Mexico  
Coordinator  
Roberto Pott, HRI Belize Coordinator

Ana Giró, HRI Guatemala Coordinator  
Joaquín de la Torre Ponce, Communications  
consultant  
Eric Mercier, Graphic design consultant  
Samantha de la Gala, Graphic design  
consultant

**1.1. CONTRIBUTORS BY SECTION**

**Reef Health Indicators:**

Judy Lang and Ken Marks, AGRRA.

**Success stories**

MÉXICO

Luis Bourillón (Alianza Kanan Kay)  
Eglé Flores (Alianza Kanan Kay)

BELIZE

Audrey Matura-Shepherd, Oceana-Belize  
(Shrimp Trawling)  
Janet Gibson, Wildlife Conservation Society  
(Parrotfish Ban)

GUATEMALA

Ana Giró (HRI)  
Claudio González (MAR Fund)  
María José González (MAR Fund)

HONDURAS

Ian Drysdale (HRI)  
Andres Alegría (CEM)

## 1.2. DATA CONTRIBUTORS

### MEXICO

- Healthy Reefs Initiative (HRI) – 22 sites

Marisol Rueda Flores; Lorenzo Álvarez Filip (1)

With Cooperation of CEA: (David Placencia, Leif Emmelson and Layze Hoogland) (10 + 5 done with CONANP along)

With Cooperation of CONANP: Alejandro Vega and Nallely Hernández (5)

With Cooperation of external staff hired by HRI: Baruch Figueroa Zavala and Albert Franquesa (6)

- Centro Ecológico Akuma(CEA) – 10 sites

David Placencia

Miguel Angel Maldonado

Anallie Trottier

Layze Hoogland

Nathaniel Hatwel

Leif Emmelson

Egle Jasson

Serena Avolio

- Amigos de Sian Ka'an (ASK) y Global Vision International (GVI) - 16 sites

Punta Gruesa:

Kelly Rensing

Heather Exley

Peter Hollekim

Evan Raymond

Francis Cardinal

James Smith

Stevan James

Rachael Ross

Laura McHugh

Amanda Cota

Sarah Glanfield

Niels Prinnsen

Caroline Baille

Peter Burton

Jamie Krawciw

Matthew Peyton

Catherine Rosillon

Dave Sheppard

Mischa Wiliamson

Rosaella Sheba

Simon Brownlie

Meredith

Cavanagh

Jana Dlouha

Ixchel Garcia

Carrillo

Michael Grall

Emily Dave

Fernando Cobos

Trevor Dyke

Alexanger Wight

Adam Hoxey

Oliver

McGuinness

Eugene Beery

Katerina Dodds

Alexander Gowen

Erin Lawrence

Heather Williams

Hannah Norris

Gabriela Carvalho

Ben Booth

Jessica Fish

Pez Maya:

Neil Malcolm

Charlotte

Hammond

Nicola Baroni

Danny Shand

Martin Stelfox

Anneli Lindmark

Alexander Scott

Dulce Iris Silva

Figueroa

Jeran Poehls

Regina Young

Anyia Tober

Jemima Maunder

- Taylor

Michelle Clanahan

Valeria Hernandez

Urraca

Bradley Harris

Virginia Krone

Ryan Bare

Joseph Cairns

Ruaidhri LeMage

Heather Simpson

Alexander Fox  
Jonas Biebuyck  
Sarah Davies  
Kimberly Berglöf  
Esther Hantman  
Kenny Svenson  
Dov Sotkowitz  
Mathew Markides  
Maura Schonwald

Ben Booth  
Frank Spooner  
Peter Gray  
Eve Ashforth  
Victoria Bush  
David Larson  
María Elisa  
Sandoval Seres  
Nadia Raczkowski

Alison Booth  
Stephan Hilser  
Fergus Scott  
Martin Povea-  
Jimenez  
Carina Karlsson  
Ryan Withey  
Jenny Ekman

- Comunidad y Biodiversidad (COBI) – 15 sites

Stuart Fulton (COBI)  
Citlali Garcia (COBI)  
Álvaro Trejo Hernández (SCPP Puerto  
Morelos)  
Carmen Zacarías Morales (SCPP Puerto  
Morelos)  
Cristóbal Vázquez López (SCPP Puerto  
Morelos)  
Jhony Canul Tec (SCPP Puerto Morelos)  
José Francisco Castillo Quezada (SCPP  
Puerto Morelos)  
Juan Povedano Concha (SCPP Puerto  
Morelos)  
Luis Solís Calan (SCPP Puerto Morelos)  
Ramón Povedano Concha (SCPP Puerto  
Morelos)  
Pablo Catzim Pech (SCPP Cozumel)  
Mario Candelario Gongora Garcia (SCPP  
Cozumel)  
Pedro Cruz Be (SCPP Cozumel)  
Jose Luis Chan Caamal (SCPP Cozumel)  
Miguel Jesus Tun Catzin (SCPP Cozumel)  
Noe Roldan Castellanos Marrufo (SCPP  
Cozumel)  
Rodrigo Alberto Pantoja Cabrera (SCPP José  
María Azcorra)  
Erick Leonardo Balam Uh (SCPP José María  
Azcorra)  
Josue Daniel Hoil Galvez (SCPP José María  
Azcorra)

Juan Ignacio Soberanis Ricalde (SCPP José  
María Azcorra)  
Marcelino Yam Hernandez (SCPP José María  
Azcorra)  
Victor Manuel Ucan Chan (SCPP José María  
Azcorra)  
Marco Antonio Cel González (SCPP José  
María Azcorra)  
Arturo Lopez Rivero (SCPP José María  
Azcorra)  
Baltazar Hoil Santos (SCPP José María  
Azcorra)  
Alejandro Rodrigo Villanueva Puc (SCPP  
Andrés Quintana Roo)  
Jose Francisco Puc Torres (SCPP Andrés  
Quintana Roo)  
Angel Fidel Puc Torres (SCPP Andrés  
Quintana Roo)  
Noel Miranda Sarmientos (SCPP Banco  
Chinchorro)  
Guillermo Miravete Sarmientos (SCPP  
Banco Chinchorro)  
Andres Frias Sifuentes (SCPP Banco  
Chinchorro)  
Alberto Juarez Rosas (SCPP Banco  
Chinchorro)  
Carlos Enrique Ojeda Colli (SCPP Banco  
Chinchorro)

## **BELIZE**

### **- Healthy Reefs Initiative (HRI) - 37 sites**

Melanie Mcfield  
Roberto Pott  
Mito Paz  
Guadalupe V. Rosado

Lisa Carne  
Louis Godfrey  
Ian Drysdale

### **- Belize Audubon Society (BAS)**

Eliceo Cobb  
Celso Sho

### **- Belize Fisheries Department (BFD) - 12 sites**

Kirah Forman  
Isaias Majil  
Samuel Novelo

Henry Brown  
Grimaldo Acosta  
Jaime Bardalez

### **- Blue Ventures (BV)- 9 sites**

Jennifer Chapman  
Sarah Beach  
Sam Hope

### **- Toledo Institute for Development and Environment (TIDE) - 7 sites**

Dario Williams  
Gail McNabb  
Genevive Ramirez

James Foley  
Marlon Williams  
Kenworth Martin

### **- WWF-Belize**

Nadia Bood

## **GUATEMALA**

### **- Healthy Reefs Initiative (HRI) - 4 sites**

Ana Giró  
Angela Mojica  
María José González-Bernat  
(Cooperation DIPESCA)

Ana Beatriz Rivas (Cooperation  
PNUMA)  
Carlos Mechell (Cooperation  
ABIMA)  
Alerick Pacay (Cooperation CEMA)

## HONDURAS

- Healthy Reefs Initiative (HRI) – 46 sites

Melanie McField (11)  
Marisol Rueda Flores (11)  
Ana Giró (4)  
Roberto Pott (11)  
Ian Drysdale (46)

- Amigos de los Arrecifes de Tela (AMATELA) – 10

Alejandra Thompson (10)  
Antal Borcsok (10)  
Jaime Watt Kawas (4)

- World Wildlife Fund (WWF) – 7

Alicia Medina (7)

- Centro Universitario Regional del Litoral Atlántico (CURLA) – 12

Andrea Rivera (12)  
Cecilia Ramos (4)  
Arlene Rodríguez (4)

- Centro de Ecología Marina (CEM) – 12

Andrés Alegria (11)  
Andrzej Narozanski (12)  
Steve Canty (12)

- The Nature Conservancy (TNC) – 7

Calina Zepeda (7)

- Roatán Marine Park (RMP) – 14

Christianne Etches (14)

- The Coral Reef Alliance (CORAL) – 46

Jenny Myton (46)  
Dylan Bacon (4)

- Shark Legacy Project – 15

Giacomo Palavicini (15)

- Instituto de Conservación Forestal (ICF) – 4

Henry Granados (4)  
Rosalina Martinez (4)

- Atlantic and Gulf Rapid Reef Assessment (AGRRA) – 4

Ken Marks (4)

- Honduras Coral Reef Fund (HCRF) – 7

Marcio Aronne (7)

- Dirección de la Normativa de la Pesca y Acuicultura – 8

María José González Bernatt (8)

- Asociación Zootropic – 12

Marietta Marroquin (12)

- Fundación Mario Dary (FUNDARY) – 4

Mario Salazar (4)

Marlon Vásquez (4)

- Bay Islands Conservation Association – Roatán (BICA Roatan) – 8

Giselle Brady (8)

- Bay Islands Conservation Association – Utila (BICA Utila) – 14

Mónica Pérez (14)

Pamela Ortega (14)

- Fundación para la Protección de Punta Sal, Lancetilla y Texiguat (PROLANSATE) – 4

Nelbin Bustamante (4)

- Zona Libre Turística Islas de la Bahía (ZOLITUR) – 6

Oscar Maradiaga (6)

- Independent – 8

Angela Mojica (8)

Cristóbal Lopez (4)

Libby Rogers (6)

### 1.3. REGIONAL WORKSHOP PARTICIPANTS

#### MEXICO:

Luis Bourillón – Comunidad y Biodiversidad (COBI)  
Thomas Meller – MARTI  
Ernesto Arias – CINVESTAV  
Héctor Hernández – ECOSUR  
Paul Sánchez Navarro – Centro Ecológico Akumal (CEA)

Olmo Torres Talamante – RAZONATURA  
Gabriela Nava – Oceanus  
Judith Morales –WWF Mexico  
Adriana González – The Coral Reef Alliance  
Lyn Santos – Amigos de Sian Ka'an  
Vicente Ferreyra – Independent

#### BELIZE:

Amanda Burgos Acosta – Belize Audubon Society  
Nellie Catzim – Southern Environmental Association  
Nadia Bood –WWF Belize  
Jennifer Chapman – Blue Ventures  
Alejandro Martínez – The Nature Conservancy (TNC)

Isaias Majil – Belize Fisheries Department  
James Foley – Toledo Institute for Development and Environment  
Nicanor Requena – Environmental Defense Fund  
Audry Matura – Oceana  
Neal Floyd – Oceana

#### GUATEMALA:

Mario Díaz – Ministerio de Ambiente y Recursos Naturales  
Silja Ramírez – FUNDAECO  
Manuel Henry – Consejo Nacional de Áreas Protegidas

Claudio González – MAR Fund  
Edelweiss Hildebrand – FUNDARY  
Sergio Izquierdo – Asociación de Biología Marina

#### HONDURAS:

Marcio Aronne – HCRF  
Jennifer Keck – RMP  
Jennifer Myton – CORAL  
Alicia Medina – WWF Honduras

Calina Zepeda – TNC  
Helder Pérez – FIB  
Andrés Alegría - CEM

### 1.4. HRI INTERNATIONAL STEERING COMMITTEE – REVIEWERS

Carlos Saavedra – The Summit Foundation  
Fernando Secaira – The Nature Conservancy  
Janet Gibson – Wildlife Conservation Society  
Jenny Myton – The Coral Reef Alliance  
Judith Lang – Atlantic and Gulf Rapid Reef Assessment  
Lorenzo Rosenzweig – Fondo Mexicano para la Conservación de la Naturaleza

Regrets:  
María José González – MAR Fund - Chair  
Imani Fairweather Morrison – Oak Foundation  
Andreas Lenhoff - World Wildlife Fund  
Les Kaufman – Conservation International  
Patricia Kramer – Perigee Environmental  
Valerie Paul – Smithsonian Institution

## 2. REFERENCES

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- 6.-Kulbicki M., J.Beets, P. Chabanet, K. Cure, E. Darling, S. R. Floeter, R. Galzin, A. Green, M. Harmelin-Vivien, M. Hixon, Y. Letourneur, T. Lison de Loma, T. McClanahan, J. McIlwain, G. Mou Tham, R. Myers, J. K. O’Leary, S. Planes, L. Vigliola, L. Wantiez. 2012. Distributions of Indo-Pacific lionfishes *Pterois* spp.in their native ranges: implications for the Atlantic invasion. Mar Ecol Prog Ser. Vol. 446: 189–205, 2012 doi: 10.3354/meps09442.

### URBANIZATION

- 1.- Eakin M., C. J. Nim, R. E. Brainard, C. Aubrecht, C. Elvidge, D. K. Gledhi, F. Muller-Karge, P.J . Mumby, W. J. Skirving, A. E. Strong, M. Wang, S. Weeks, F. Wentz, and D. Zisin. Monitoring Coral Reefs from Space.Oceanography, Volume 23, Number 4, a quarterly journal of The Oceanography Society.

### MARINE RESOURCES- A SAFETY NET FOR COASTAL PEOPLE

Below is the data table used to calculate coastal Poverty MPI. The data in the table is drawn from the following site: [www.ophi.org.uk/policy/multidimensional-poverty-index/](http://www.ophi.org.uk/policy/multidimensional-poverty-index/). The MPI has three dimensions subdivided into 10 indicators: Health (Child mortality and Nutrition), Education (Years of Schooling and School attendance) and Standard of Living (Access to: Cooking Fuel, Sanitation, Water, Electricity and Assets-Ownership). The poverty estimates for these countries should be interpreted as lower bound estimates, meaning that multidimensional poverty is at least as great as their MPI values indicates.

Acronyms:

DHS- Demographic and Health Survey

MICS- Multiple Indicator Cluster Survey

ENSANUT - Encuesta Nacional de salud y nutrición

WHS – World Health Survey



Country	Sub-national region	MPI data source		Multi dimensional Poverty Index (MPI) of the country	Multidimensional poverty of the region			Total popula- tion	Number of MPI poor people
		Survey	Year		Multidim ensional Poverty Index (MPI = H*A)	Headcount ratio: Population in multidimensio nal poverty (H)	Intensity of deprivatio n among the poor (A)	Popula- tion 2010	Year of the survey
					Range 0 to 1	% Population	Average % of weighted deprivations	Thousand s	Thousands
Belize	Corozal	MICS	2006	0.024	0.006	1.6	38.6	46	1
Belize	Belize	MICS	2006	0.024	0.002	0.7	35.6	89	1
Belize	Stann Creek	MICS	2006	0.024	0.021	5.1	40.6	33	2
Belize	Toledo	MICS	2006	0.024	0.121	27.4	44	31	8
Guatemala	Izabal	WHS	2003	0.127	0.127*	-	-	-	-
Honduras	Atlantida	DHS	2006	0.159	0.061	13.7	44.2	373	47
Honduras	Colon	DHS	2006	0.159	0.111	22.6	49.3	273	57
Honduras	Cortes	DHS	2006	0.159	0.063	15.2	41.5	1413	198
Mexico	Quintana Roo	ENSA NUT	2006	0.015	0.011	3	37.9	1249	36

\*The National MPI for Guatemala was used as a default for Izabal, and is not treated in this section. Respective countries may choose to use different indicators for calculating respective national MPIs which makes it incomparable to MPIs calculated by Oxford Poverty & Human Development Initiative (OPHI). Also “The MPI for Guatemala is released as a “lower bound” MPI due to data issues. This means that the MPI in Guatemala is no lower than the reported MPI value, but that it may be (and in most cases, is likely to be) higher than the reported MPI value.”(OPHI Country Briefing: Guatemala 2011)

#### References:

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5. Torres, R., & Momsen, J. (2005). Planned tourism development in Quintana Roo, Mexico: Engine for regional development or prescription for inequitable growth?. *Current Issues in Tourism*, 8(4), 259-285.
6. Pott, Roberto F. Evaluating Local Access to Seafood in Urban Belize City. Diss. Duke University, 2010.

## **THREATS**

### **Acidification**

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### **Coral Bleaching**

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### **Coral Disease**

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### **Sea level rising**

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### **Oil pollution**

1.- Evans, D. L., S.B. Gudes and M.A. Davidson. 2001. Oil Spills in Coral Reefs. Planning and Response Considerations. National Oceanic and Atmospheric Administration . Office of Response and Restoration. February 2001.

### **Sedimentation**

1.- Rogers, S.C. Responses of coral reefs and reef organisms to sedimentation. Mar. Ecol. Prog. Ser: Vol. 62(1990): 185-202.

### **Nutrient overloading**

1.- Dubinsky, Z. and N. Stambler. Marine pollution and coral reefs. Global Change Biology. Volume 2, Issue 6, pages 511–526, December 1996.

2.- Szmant, A.M. 2002. Nutrient Enrichment on Coral Reefs: Is It a Major Cause of Coral Reef Decline?. Estuaries Vol. 25, No. 4b, p. 743-766 August 2002.

### **Overfishing**

1.- Robertson, D. R. . 1991. Increases in surgeonfish populations after mass mortality of the sea urchin *Diadema antillarum* in Panamá indicate food limitation. Marine Biology, Volume 111, Number 3 (1991), 437-444, DOI: 10.1007/BF01319416

2. Roberts, C.M. 1995. Effects of Fishing on the Ecosystem Structure of Coral Reefs. Conservation Biology. Volume 9, Issue 5, pages 988–995, October 1995.

### **Figure of rates of change. Page 17**

To create this figure, we use a scientifically robust meta-analytical approach. See detailed information of the methods in:

Côté, I. M., Gill, J. a, Gardner, T. a & Watkinson, a R. Measuring coral reef decline through meta-analyses. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences* **360**, 385–95 (2005).

Alvarez-Filip, L. *et al.* Drivers of region-wide declines in architectural complexity on Caribbean reefs. *Coral Reefs* (2011).doi:10.1007/s00338-011-0795-6

Côté, I., Gardner, T., Gill, J., Hutchinson, D. & Watkinson, A. new approaches to estimating recent ecological changes on coral reefs. *CONSERVATION BIOLOGY SERIES-CAMBRIDGE*- **13**, 293 (2006).

Paddock, M. J. *et al.* Recent region-wide declines in Caribbean reef fish abundance. *Current biology : CB* **19**, 590–5 (2009).

### **3. TABLE OF UNDERWATER DATA**

Please note that you can also download this table in excel format, PDF format, and also there is a Google Earth file (.kmz) to visualize the data and access basic site information.