Suggested Reading - Honduras Marine

Projects - *links to research areas*

Fish and Fisheries
Mangroves
Reef Structure and Benthic Coverage
Human Impact
Boas and Ctenosaur

Also check the Operation Wallacea website library pages for publications and research reports

Fish and Fisheries projects

The effects of changing reef structure on coral reef fish populations and its consequences for *fishermen/dive tourism*

The importance of fish to a healthy functioning reef

Appeldoorn RS (2008) Transforming reef fisheries management: application of an ecosystem-based approach in the USA Caribbean. *Environmental Conservation*. **35**; 232-241

Beck MW, Heck KL, Able KW, Childers DL, Eggleston DB, Gillanders BM, Halpern B, Hays CG, Hoshino K, Minello TJ, Orth RJ, Sheridan PF, & Weinstein MR (2001) The identification, conservation, and management of estuarine and marine nurseries for fish and invertebrates. *Bioscience* **51**:633-641

Bell JD, & Galzin R (1984) Influence of Live Coral Cover on Coral-Reef Fish Communities. *Marine Ecology Progress Series*. **15**:265-274

Caselle JE, Warner RR (1996) Variability in recruitment of coral reef fishes: The importance of habitat at two spatial scales. *Ecology*. 77:2488-2504

Chabanet P, Ralambondrainy H, Amanieu M, Faure G, Galzin R (1997) Relationships between coral reef substrata and fish. *Coral Reefs*. **16**:93-102

Dahlgren CP, Kellison GT, Adams AJ, Gillanders BM, Kendall MS, Layman CA, Ley JA, Nagelkerken I, Serafy JE (2006) Marine nurseries and effective juvenile habitats: concepts and applications. *Marine Ecology Progress Series* **312**:291-295

Francini RB, et al., (2008) Dynamics of fish assemblages on coral reefs subjected to different management regimes in the Abrolhos Bank, eastern Brazil. *Aquatic Conservation- Marine and Freshwater Ecosystems*. **18**; 1166-1179

Gratwicke B, & Speight MR, (2005) Effects of habitat complexity on Caribbean marine fish assemblages. *Marine Ecology Progress Series*. **292**; 301-310

Gobert, B., et al (2005) Early stages of snapper-grouper exploitation in the Carribean (Bay Islands, Honduras). *Fisheries Research*. **73**; 159-169

Grober-Dunsmore R, et al., (2008) Influence of landscape structure, on reef fish assemblages. *Landscape Ecology*. **23**; 37-53

Grober-Dunsmore R, et al., (2007) Reef fish and habitat relationships in a Caribbean seascape: the importance of reef context. *Coral Reefs*. **26**; 201-216

Kramer KL, & Heck KL (2007) Top-down trophic shifts in Florida Keys patch reef marine protected areas. *Marine Ecology Progress Series*. **349**; 111-123

Mumby PJ, et al., (2007) Thresholds and the resilience of Caribbean coral reefs. *Nature*. **450**; 98-101

Perez A (2009) Fisheries management at the tri-national border between Belize, Guatemala and Honduras. *Marine Policy*. **33**; 195-200

Pinnegar, J.K., Polunin, N.V.C, Francour, P., Badalamenti, F., Chemello, R., Harmelin-Vivien, M.L., Hereu, B., Milazzo, M., Zabala, M., D'Anna, G. and Pipitone, C. (2000) Trophic cascades in benthic marine ecosystems: lessons for fisheries and protected-area management. *Environmental Conservation* **27** (2): 179-200.

Tolimieri N (1995) Effects of microhabitat characteristics on the settlement and recruitment of a coral reef fish at two spatial scales. *Oecologia*. **102**:52-63

Mangrove Projects

The consequences of human disturbance and pollution on the health *and/or* functioning of the mangrove systems on Utila

General

Alongi DM et al., (2008) Growth and development of mangrove forests overlying smothered coral reefs, Sulawesi and Sumatra, Indonesia. *Marine Ecology Progress Series*. **370**; 97-109

Alongi DM (2002) Present state and future of the world's mangrove forests. *Environmental Conservation*. **29**; 331-349

Armitage D (2002) Socio-institutional dynamics and the political ecology of mangrove forest conservation in Central Sulawesi, Indonesia. *Global Environmental Change-Human and Policy Dimensions*. **12**; 203-217

Bosire JO, et al., (2008) Functionality of restored mangroves: A review. *Aquatic Botany*. **89**; 251-259

Cannicci S, et al., (2008) Faunal impact on vegetation structure and ecosystem function in mangrove forests: A review. *Aquatic Botany*. **89**; 186-200

Duke NC, et al., (2007) A world without mangroves? *Science*. **317**; 41-42

Ellison AM (2008) Managing mangroves with benthic biodiversity in mind: Moving beyond roving banditry. *Journal of Sea Research*. **59**; 2-15

Ewel KC, et al., (1998) Different kinds of mangrove forests provide different goods and services. *Global Ecology and Biogeography*. **7**; 83-94

Gilman EL, et al., (2008) Threats to mangroves from climate change and adaptation options: A review. *Aquatic Botany*. **89**; 237-250

Harborne AR, et al., (2006) The functional value of Caribbean coral reef, seagrass and mangrove habitats to ecosystem processes. *Advances in Marine Biology*. **50**; 57-189

Nagelkerken I, et al., (2008) The habitat function of mangroves for terrestrial and marine fauna: A review. *Aquatic Botany*. **89**; 155-185

Naylor RL, et al., (2002) Migration, markets, and mangrove resource use on Kosrae, Federated States of Micronesia. *AMBIO*. **31**; 340-350

Ronnback P, et al., (2007) The return of ecosystem goods and services in replanted mangrove forests: perspectives from local communities in Kenya. *Environmental Conservation*. **34**; 313-324

Walters BB, et al., (2008) Ethnobiology, socio-economics and management of mangrove forests: A review. *Aquatic Botany*. **89**; 220-236

Walters BB (2004) Local management of mangrove forests in the Philippines: Successful conservation or efficient resource exploitation? *Human Biology*. **32**; 177-195

Fish nurseries

Dorenbosch M, et al., (2006) Seagrass beds and mangroves as potential nurseries for the threatened Indo-Pacific humphead wrasse, *Cheilinus undulatus* and Caribbean rainbow parrotfish, *Scarus quacamaia*. *Biological Conservation*. **129**; 277-282

Dorenbosch M, et al., (2005) Indo-Pacific seagrass beds and mangroves contribute to fish density coral and diversity on adjacent reefs. *Marine Ecology Progress Series*. **302**; 63-76

Drew CA, & Eggleston DB (2008) Juvenile fish densities in Florida Keys mangroves correlate with landscape characteristics. *Marine Ecology Progress Series*. **362**; 233-243

Faunce CH, & Serafy JE (2008) Selective use of mangrove shorelines by snappers, grunts, and great barracuda. *Marine Ecology Progress Series*. **356**; 153-162

Gratwicke B, et al., (2006) Fish distribution and ontogenetic habitat preferences in non-estuarine lagoons and adjacent reefs. *Environmental Biology of Fishes*. **76**; 191-210

Grol MGC, et al., (2008) Mangroves and seagrass beds do not enhance growth of early juveniles of a coral reef fish. *Marine Ecology Progress Series*. **366**; 137-146

Mumby PJ, et al., (2004) Mangroves enhance the biomass of coral reef fish communities in the Caribbean. *Nature*. **427**; 533-536

Nagelkerken I (2007) Are non-estuarine mangroves connected to coral reefs through fish migration? *Bulletin of Marine Science*. **80**; 595-607

Nagelkerken I, & van der Velde (2004) Are Caribbean mangroves important feeding grounds for juvenile reef fish from adjacent seagrass beds? *Marine Ecology Progress Series*. **274**; 143-151

Tse P, et al., (2008) Nursery function of mangrove: A comparison with mudflat in terms of fish species composition and fish diet. *Estuarine Coastal and Shelf Science*. **80**; 235-242

Unsworth RKF, et al., (2008) High connectivity of Indo-Pacific seagrass fish assemblages with mangrove and coral reef habitats. *Marine Ecology Progress Series*. **353**; 213-224

Pollution and coastal protection

Fabricius KE, (2005) Effects of terrestrial runoff on the ecology of corals and coral reefs: review and synthesis. *Marine Pollution Bulletin*. **50**; 125-146

Granek EF, & Ruttenberg BI (2007) Protective capacity of mangroves during tropical storms: a case study from 'Wilma' and 'Gamma' in Belize. *Marine Ecology Progress Series*. **343**; 101-105

Hussian SA, & Badola R, (2008) Valuing mangrove ecosystem services: linking nutrient retention function of mangrove forests to enhanced agroecosystem production. *Wetlands Ecology and Management*. **16** (6); 441-450

Kristensen E, et al., (2008) Emission of CO2 and CH4 to the atmosphere by sediments and open waters in two Tanzanian mangrove forests. *Marine Ecology Progress Series*. **370**; 53-67

Lee SY, (2009) Mangrove macrobenthos: Assemblages, services, and linkages. *Journal of Sea Research*. **59**; 16-29

Luhar M, et al., (2008) Interaction between flow, transport and vegetation spatial structure. *Environmental Fluid Mechanics*. **8**; 423-439

Prasad MBK, (2008) Sedimentary nutrient dynamics in a tropical estuarine mangrove ecosystem. *Estuarine Coastal and Shelf Science*. **80** (1); 60-66

Vermaat JE, & Thampanya U, (2006) Mangroves mitigate tsunami damage: A further response. *Estuarine Coastal and Shelf Science*. **69**; 1-3

Walton MEM, et al., (2006) Are mangroves worth replanting? The direct economic benefits of a community-based reforestation project. *Environmental Conservation*. **33**; 335-343

Reef Structure and Benthic Coverage Projects

The importance of herbivory by *sea urchins* / *parrot fish* in maintaining coral dominance on coral reefs

Chiappone, M., Swanson, D.W., Miller, S.L. and Smith, S.G. (2001) Large-scale surveys on the Florida Reef Tract indicate poor recovery of the long-spined sea urchin *Diadema antillarum*. *Coral Reefs* **21**: 155–159.

Edmunds, P.J. and Carpenter, R.C. (2001) Recovery of *Diadema anitllarum* reduces macroalgal cover and increases abundance of juvenile corals on a Caribbean reef. *PNAS*. **98**: 5067-5071.

Lessios, H.A. (2005) *Diadema antillarum* populations in Panama twenty years following mass mortality. *Coral Reefs* **24**: 125-127.

Lessios, H.A., Robertson, D.R. and Cubit, J.D. (1984) Spread of Diadema mass mortality through the Caribbean. *Science* **226**: 335-337.

Miller, R.J., Adams, A.J., Ebersole, J.P. and Ruiz, E. (2007) Evidence for positive density-dependent effects in recovering *Diadema antillarum* populations. *Journal of Experimental Marine Biology and Ecology* **349**: 215-222.

Miller, R.J, Adams, A.J., Ogden, N.B. and Ebersole, J.P. (2003) *Diadema antillarum* 17 years after mass mortality: is recovery beginning on St. Croix? *Coral Reefs* **22** (2): 181-187.

Myhre, S. and Acevedo-Gutierrez, A. (2007) Recovery of *Diadema antillarum* populations is correlated to increased coral and reduced macroalgal cover. *Marine Ecology-Progress Series* **329**: 205-210.

Steiner, S.C.C. and Williams, S.M. (2006) The Density and size distribution of *Diadema antillarum* in Dominica (Lesser Antilles): 2001-2004. *Marine Biology* **149**: 1071-1078.

Human Impact Projects

Assessing the impact of SCUBA divers on a coral reef health

Barker NHL, & Roberts CM (2004) Scuba diver behaviour and the management of diving impacts on coral reefs. *Biological Conservation*, **120** (4); 481-489

Harriott V, et al., (1997) Recreational diving and its impact in marine protected areas in Eastern Australia. *AMBIO*. **26**; 173-179

Hasler H, & Ott (2008) Diving down the reefs? Intensive diving tourism threatens the reefs of the northern Red Sea. *Marine Pollution Bulletin*, **56** (10); 1788-1794

Hawkins JP, et al., (1999) Effects of recreational scuba diving on Caribbean coral and fish communities. *Conservation Biology*. **13**; 888-897

Lloret J, et al (2006) An alternative approach for managing scuba diving in small marine protected areas. *Aquatic Conservation – Marine and Freshwater Ecosystems*, **16** (6); 579-591

Medio D, et al., (1997) Effect of briefings on rates of damage to corals by scuba divers. *Biological Conservation*. **79**; 91-95

Moore SA, & Polley A (2007) Defining indicators and standards for tourism impacts in protected areas: Cape Range National Park, Australia. *Environmental Management*. **39**; 291-300

Rouphael AB, Inglis GJ (2002) Increased spatial and temporal variability in coral damage caused by recreational scuba diving. *Ecological Applications*. **12** (2); 427-440

Rouphael AB, Inglis GJ (2001) "Take only photographs and leave only footprints"?: An experimental study of the impacts of underwater photographers on coral reef dive sites. *Biological Conservation*. **100**; 281-287

Rouphael AB, & Inglis GJ (1998) Impacts of recreational scuba diving at sites with different reef topographies. *Biological Conservation*, **82** (3); 329-336

Tratalos JA, & Austin TJ (2001) Impacts of recreational SCUBA diving on coral communities of the Caribbean island of Grand Cayman. *Biological Conservation*. **102** (1); 67-75

Uyarra MC, & Cote IM (2007) The quest for cryptic creatures: Impacts of species-focused recreational diving on corals. *Biological Conservation*. **136** (1); 77-84

Uyarra M, et al., (2009) Managing Dive Tourism for the Sustainable Use of Coral Reefs: Validating Diver Perceptions of Attractive Site Features. *Environmental Management*. **43**; 1-16

Human impacts on the competition for space between corals and algae on a reef

Coelho VR, & Manfrino C, (2007) Coral community decline at a remote Caribbean island: Marine no-take reserves are not enough. *Aquatic Conservation: Marine and Freshwater Ecosystems*. **17**; 666-685

Crabbe JC, et al., (2008) Growth modelling indicates hurricanes and severe storms are linked to low coral recruitment in the Caribbean. *Marine Environmental Research*. **65**; 364-368

Fabricius KE, (2005) Effects of terrestrial runoff on the ecology of corals and coral reefs: review and synthesis. *Marine Pollution Bulletin*. **50**; 125-146

Flood VS, et al., (2005) Historical and ecological analysis of coral communities in Castle Harbour (Bermuda) after more than a century of environmental perturbation. *Marine Pollution Bulletin*. **51**; 545–557

Gratwicke, B. and Speight, M.R. (2005) Effects of habitat complexity on Caribbean marine fish assemblages. *Marine Ecology Progress Series*. 292: 310-310

Guzner B, et al., (2007) Population dynamics of the reef-building coral *Acropora hemprichii* as an indicator of reef condition. *Marine Ecology Progress Series*. **333**; 143-150

Hennige SJ, et al., (2008) Photoacclimation, growth and distribution of massive coral species in clear and turbid waters. *Marine Ecology Progress Series*. **369**; 77-88

Hoegh-Guldberg, O. (2006) Complexities of Coral Reef Recovery. *Science*. **311**: published by AAAS.

Hughes TP, & Connell JH, (1999) Multiple stressors on coral reefs; A long-term perspective. *Limnology and Oceanography*. **44**; 932-940

Lee, S.C (2006) Habitat complexity and consumer-mediated positive feedbacks on a Caribbean coral reef. *OIKOS* **112**: 442-447.

Lirman D, & Fong P, (2007) Is proximity to land-based sources of coral stressors an appropriate measure of risk to coral reefs? An example from the Florida Reef Tract. *Marine Pollution Bulletin*. **54**; 779–791

Mallela J, (2007) Coral reef encruster communities and carbonate production in cryptic and exposed coral reef habitats along a gradient of terrestrial disturbance. *Coral Reefs*. **26**; 775-785

McClanahan TR, et al., (2008) Long-term changes in coral colony size distributions on Kenyan reefs under different management regimes and across the 1998 bleaching event. *Marine Biology*. **153**; 755-768

Meesters EH, et al., (2001) Colony size-frequency distributions of scleractinian coral populations: spatial and interspecific variation. *Marine Ecology Progress Series*. **209**; 43-54

Mumby PJ, et al., (2007) Thresholds and the resilience of Caribbean coral reefs. *Nature*. **450**; 98-101

Ninio R, & Meekan MG, (2002) Spatial patterns in benthic communities and the dynamics of a mosaic ecosystem on the Great Barrier Reef, Australia. *Coral Reefs*. **21**; 95-103

River GF, & Edmunds PJ, (2001) Mechanisms of interaction between macroalgae and scleractinians on a coral reef in Jamaica. *Journal of Experimental Marine Biology and Ecology*. **261**; 159-172

Sams MA, & Keough MJ, (2007) Predation during early post-settlement varies in importance for shaping marine sessile communities. *Marine Ecology Progress Series*. **348**; 85-101

Schleyer MH, et al., (2008) Long-term community changes on a high-latitude coral reef in the Greater St Lucia Wetland Park, South Africa. *Marine Pollution Bulletin*. **56**; 493-502

Smith LD, et al., (2005) A demographic approach to monitoring the health of coral reefs. *Marine Pollution Bulletin*. **51**; 399-407

Wakeford M, et al., (2008) Decadal trends in a coral community and evidence of changed disturbance regime. *Coral Reefs*. **27**; 1-13

Boas and Ctenosaur Projects

Understanding the ecology and abundance of the endemic *Bay Island Boa Constrictor / Ctenosaur* on the Cayos Cochinos and the implications for its survival

Aubret F, et al., (2004) Adaptive development plasticity in snakes. *Nature*. **431**; 261-262

Boback, S.M. (2005) Natural History and Conservation of Island Boas (*Boa constrictor*) in Belize. *Copeia* **2005**: 879-884.

Boback, S.M. (2003) Body Size Evolution in Snakes: Evidence from Island Populations. *Copeia* **2003**: 81-94.

Burbrink, F.T. (2005) Inferring the phylogenetic position of *Boa constrictor* among the Boinae. *Molecular Phylogenetics and Evolution* **34**: 167-180.

Case, T.J. (1978) A General Explanation for Insular Body Size Trends in Terrestrial Vertebrates. *Ecology* **59**: 1-18.