

ALAIN DURAN, PhD
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CURRENT POSITION

Assistant Teaching Professor, Department of Biology, FIU
Research affiliate, Institute of Environment, FIU

EDUCATION

POST-DOCTORAL ASSOCIATE, FIU (Summer 2018 to Summer 2019)
Ph.D., Spring 2018. Biological Science, FIU
M.S., Summer 2013, Biological Science, FIU
BACHELOR IN BIOLOGICAL SCIENCES, June 2007 University of Havana, Havana, Cuba. *Major: Biology*

PROFESSIONAL EXPERIENCE

Teaching

Instructor

FIU (Spring 2019-today) Fish biology (Ichthyology) ZOO 4454 (ZOO 5456), Evolution PCB 4674, Biological Organization BSC 2300 RVC (New Online class; Q/M certified), PCB Marine Reserves 4467C RVC (New Online Class), PCB Ecology 3043 RVC (Online and synchronously).

MIAMI DADE COLLEGE (Fall 2014 - Spring 2019) General Biology (BSC2010, BSC2010L, BSC2011, BSC2011L, BSC1005)

FIU (Fall 2015) Scientific Diving, (Summer 2018) Senior Seminar

Undergrad Marine Biology Adviser,

FIU (Fall 2014-Spring 2015)

Biology Teaching Assistant (T.A) and Head T.A.

FIU (Fall 2011- Spring 2014)

Research

Research scientist, SECORE international (Jul-Nov 2019)

Research assistant, FIU, U.S. (2011-2017)

Research Assistant, Institute of Oceanology, Havana, Cuba (2007-2009)

PUBLICATIONS

Peer reviewed internationally

Pereira-Soares L., Diaz-Tapia P., **Duran A.**, Toyota-Fujii M., Collado-Vides L. 2022. *Digenea nana* sp. Nov (Rhodomelaceae, Rhodophyta), a new turf-forming, coral reef species from the Western Tropical Atlantic. *Phycologia*, doi:10.1080/00318884.2022.2073422

Scott JJ, Adam TC, **Duran A**, Burkepille DE, Rasher DB (2020) Intestinal microbes as an axis of niche differentiation among herbivorous coral reef fishes. *Proceedings of Royal Society Biology*. 287:20192367. Dx.Doi.org/10.1098/rspb.2019.2367

Flood J, **Duran A**, Barton M, Mercado-Molina AE, Trexler JC (2020) Invasion impacts on functions and services of aquatic ecosystems. *Hydrobiologia*:DOI10.1007/s10750-020-04211-3

Duran A, Adam TC, Palma L, Moreno S, Collado-Vides L, Burkepille DE (2019) Feeding behavior of surgeonfishes (Acanthuridae) indicates species-specific ecological niches on Caribbean coral reefs. *Marine Ecology*. 40(4):doi.org/10.1111/maec.12561

Speare KE, **Duran A**, Miller MW, Burkepille DE (2019) Sediment associated with algal turfs inhibits the settlement of two endangered species of coral. *Marine Pollution Bulletin*. 144:189-195

- Ruttenberg BI, Adam TC, **Duran A**, Burkepile DE (2019) Diversity of coral reef herbivores drives variation in ecological processes over multiple spatial scales. *Ecological Applications*
- Duran A**, Collado-Vides, Palma L, Burkepile DE (2018) Interactive effects of herbivory and substrate orientation on algal community dynamics on a coral reef. *Mar. Biol.* 165:156. Doi.org/10.1007/s00227-018-3411-2
- Adam TC, **Duran A**, Fuchs C, Roycroft M, Rojas M, Ruttenberg BI, Burkepile DE (2018) Comparative analysis of diet, foraging behavior and bite mechanisms reveals high functional diversity among Caribbean parrotfishes. *Mar Ecol Prog Ser* 597: 207-220
- Duran A**, Burkepile DE, Collado-Vides L, Ferrer VM, Gonzalez SP, Palma L, Ramos A and Shantz AA (2018) Fishing, pollution, climate change, and the long-term decline of coral reefs off Havana, Cuba. *Bull Mar Sci* 94:Doi.10.5343/bms.2017.1061
- Collado-Vides L, **Duran A**, Armenis E, et al. (2017) Seasonal recruitment and survival strategies of *Palisada cervicornis* comb. Nov. (Ceramiales, Rhodophyta) in coral reefs. *Journal of Phycology*. DOI.10.1111/jpy.12567
- Duran A**, Collado-Vides L and Burkepile D (2016) Seasonal regulation of herbivory and nutrient effects on macroalgal recruitment and succession in a Florida coral reefs. *PeerJ* 4:e2643. doi.10.7717/peerj.2643
- Rodriguez-Barreras R, **Duran A**, Lopez-Morell J and Sabat AM (2015) Effect of fish removal on the abundance and size structure of the sea urchin *Diadema antillarum*: a field experiment. *Marine Biology Research*. <http://dx.doi.org/10.1080/17451000.2015.1064140>
- Collado-Vides L, Cassano V, Senties A, Diaz-Larrea J, Medeiros A, **Duran A** and Fujii MT (2014) Spread of the introduced species *Laurencia caduciramulosa* (Rhodomelaceae, Rhodophyta) to the northwest Atlantic: A morphological and molecular analysis. *Phytotaxa*. 183(2): 93-107
- Duran, A** and Claro R (2009) Feeding activity of herbivorous fishes and their impact on coral reef with different levels of anthropogenic degradation. *Rev. Biol. Trop.* 57 (3): 687-697

Peer reviewed locally and scientific reports

- Ogurcak, D.E., Donoso M.C., **Duran A**, Ennis R.S., Gann D., Gulick A.G., Olivas P., Smith T.B., Stoa R., Vargas J., Wachnika A., Witman E. (2022) Natural Resource condition assessment: Buck Island Reef National Monument. Natural Resource Report NPS/BUIS/NRR-2022/2380. National Park Service, Fort Collins, Colorado. <https://doi.org/10.36967/nrr-2293288>.
- Cobian, D., J. H. Albornas, **A. Duran** and S. Perera (2013) Structure and composition of fish's communities in the northeast zone of San Antonia's Bank, Cuba. *Ecovida*. 4(1): 12-25
- Semidey, A., L. Busutil, J. Espinosa, N. Gonzalez-Rodriguez, **A. Duran**, S. Alvarez and J. L. Hernandez (2013) Inventory of Marine Species in the Keys north of Gulf of Batabano, SW of Cuba. *Serie Oceanologica*. 13. 95-109
- Cobian, D., J. I. Hernandez-Albornas, **A. Duran**, P. P. Chevalier, A. L. Cardenas, D. Rosales and K. Cantelar. (2012) Coral reef ichthyofauna of Guanahacabibes National Park, Pinar del Rio, Cuba. *Ecovida*.3(1): 16 pp
- Alcolado, P. and **A. Duran** (2011) System of scales for the classification and scoring of benthic and ichthyofaunal conditions in coral reefs of Cuba and the Wider Caribbean. *Serie Oceanologica* (8): 25-29
- Duran, A.** and R. Claro (2009) Impacts of Hurricane Ike on coral reef fishes in Santa Lucia touristic area, Camaguey, Cuba. *Serie Oceanologica* (5):111-127

SCIENTIFIC PRESENTATIONS

- Duran A. 2022.
- Duran A. 2020. Herbivory and resilience of Cuban Coral Reefs. 50th Anniversary of the Marine Research Institute (CIM), University of Havana. Guest speaker and Coral Reef Panel Member.
- Soares LP, A. Duran, P. Diaz-Tapia, MT Fujii MT, L Collado-Vides. 2019. Morphological and molecular analyses uncover a new species of Digenea (Rhodomelacea, Rhodophyta) from tropical western Atlantic. 73th Phycological Society of America. Poster presentation.
- Duran A. 2019. Services and sustainable use of Caribbean marine ecosystems. Understanding the economic value of natural resources. 4th annual FIU/Santa Fe College faculty seminar. Oral seminar

- Duran A, L Collado-Vides, P Gonzalez-Diaz. 2019. Past, present and future of Cuban Coral Reefs. Twelfth Conference on Cuban and Cuban-American Studies. FIU. Oral presentation
- Duran A, JC Trexler. 2019. Synchrony and spatiotemporal dynamics of wetland fishes on South Florida. Association for the Sciences of Limnology and Oceanography (ASLO-2020). Puerto Rico. Oral presentation
- Duran et al. 2019. Fishing, pollution, climate change, and the long-term decline of coral reefs off Havana, Cuba. 39th Punta Cana, Meeting Association of the Marine Laboratory of the Caribbean (AMLC). Oral presentation
- Duran A, et al. 2018. Comparative analysis of resource-use by Caribbean surgeonfishes reveals distinct trophic niches. International Conference, MarCuba 2018. Spring 2018. Oral presentation
- Duran A, et al. 2018. Food resource partitioning among Caribbean surgeonfishes (Acanthuridae) uncovers differential ecological roles on coral reefs. FIU-Bio-symposium, Spring 2018. Oral presentation
- Duran A, L Collado-Vides, L Palma, DE Burkepile. 2017. Structural complexity alters impact of herbivory on macroalgal dynamics on a Florida coral reef. Florida Coral Reef Task. Poster Presentation
- Duran A, et al. 2017. Influence of global stressors on the north-west coral reefs of Cuba. 38th Mexico, Meeting Association of the Marine Laboratory of the Caribbean (AMLC). Oral presentation
- Rodriguez, S, M. Banasco, A. Duran, L. Palma, DE Burkepile, L Collado-Vides. 2017 Differential availability of nutrient in high and low relief reefs of the Florida Keys. FIU-Bio-symposium, Spring 2017. Poster presentation
- Duran, A, et al. 2017. Influence of global and local stressors on the western-north coral reefs of Cuba. FIU-Bio-symposium, Spring 2017. Oral presentation
- Kelly E. Speare, C. Fuchs, A. Duran and Deron E. Burkepile 2016. Interactions of coral recruits and juvenile coral with sediment and algae on reefs in the Florida Keys. International Coral Reef Symposium. Hawaii, June 19-24, 2016. Poster presentation
- Fuchs. C., T. C. Adam, A. Duran, et al., 2016. Sediment removal increases turf algae grazing and alters algal community composition on coral reefs. International Coral Reef Symposium. Hawaii, June 19-24, 2016. Poster presentation
- Duran, A. et al. 2016. Influence of coral reef composition on feeding preferences of Caribbean herbivorous fishes. International Coral Reef Symposium. Hawaii, June 19-24, 2016. Poster
- Duran. A. 2016. Herbivory impact of macroalgal dynamics of Florida Keys. Graduate Student Appreciation Week. March, 28th. FIU
- Duran et al., 2016. Multiple-scale analysis effect of structural complexity on herbivory and dynamics of benthic communities on Florida Keys coral reef. Oral Presentation. FIU BioSymposium. 2nd place Awarded Talk.
- Armenis, E. and A. Duran. 2016. Eco-morphological studies on a red algal species *Laurencia cervicornis* (Ceramiales, Rhodophyta) in south Florida. Poster presentation. FIU BioSymposium.
- Moreno, S. W. Sanchez and A. Duran. 2016. Feeding behavior and species interactions of Caribbean herbivorous fishes. Poster presentation. FIU BioSymposium.
- Palma, L. and A. Duran. 2016. Sequential algal removal by herbivorous fishes on natural macroalgal assemblages. Poster presentation. FIU BioSymposium.
- Duran et al., 2015. Herbivory and structural complexity as drivers of algal dynamics on a coral reef. Oral presentation. 37th Meeting of the Association of Marine Laboratories of the Caribbean. Curacao, 2015.
- Cassano, V., M. Machin-Sanchez, A. I. Neto, M. C. Oliveira, A. Sentis, J. Diaz-Larrea, M. C. Gil-Rodriguez, L. Collado-Vives, A. Medeiros, A. Duran and M. T. Fujii. 2013. A DNA barcode approach of the *Laurencia* complex (Ceramiales, Rhodophyta) in the tropical and subtropical Atlantic Ocean. International Phycology Conference, Orlando 2013.
- Duran, A., L. Collado-Vides and D. Burkepile. 2013. Influence of structural complexity on coral reef macroalgal assemblages. 35th Annual Southeastern Phycological Colloquy. September 27-28, 2013. Dauphin Island, Alabama. Oral presentation.

- Duran A., L. Collado-Vides and D. Burkepile. Effect of multiple ecological drivers on recruitment and succession of coral reef macroalgal communities. 36th Scientific Conference of the Association of the Marine Laboratories of the Caribbean. June 17-21, 2013. Ocho Rios, Jamaica. Oral presentation.
- Duran A., L. Collado-Vides and D. Burkepile. Recruitment and post-settlement of coral reef macroalgae and their ecological drivers. 42nd Benthic Ecology Meeting. March 20-23, 2013. Savannah, Georgia. Oral presentation.
- Janina Rojas, Daphney Dorcius and A. Duran. Defensive behavior of *Stegastes partitus* and effects on coral reef fishes. 5th Annual Biology Research Symposium, FIU. February 2nd, 2013. Poster presentation.
- Duran, A., L. Collado-Vides and D. Burkepile. Recruitment and succession of coral reef macroalgae assemblages under different ecological factors. 34th Annual Southeastern Phycological Colloquy. October 20th, 2012. University of North Florida. Jacksonville, Florida. Oral presentation.
- Gonzales, N. and A. Duran. 2009. Fish community structure of Boca de Jaruco, Havana, Cuba. Colacmar. Cuba.
- Duran, A. and J. Espinosa. 2009. Evaluación de la población de quinconte rosa (*Cassia madagascariensis*) en la costa sur de la cayería Los Indios, Golfo de Batabanó, Cuba. Colacmar. Cuba.
- Duran, A. and R. Claro. 2008. Feeding activity of herbivorous fishes and their impact on coral reef with different levels of anthropogenic degradation. 11TH INTERNATIONAL CORAL REEF SYMPOSIUM, Poster presentation

AWARDS, GRANTS AND SCHOLARSHIPS

Awards

- Center of Coastal and Ocean Research, Graduate Student of the Year (2018)

Grants

- Duran, A. *International Center for Tropical Biology, 2016 (\$1,500)*
- Duran, A. *TINKER field research Grant, 2016 (\$2,500)*
- Duran, A *et al.*, 2016. Angell Family Foundation. (Impacts of Sharks on Coral Reef Ecosystems: Immersive Research Complemented by Innovative Educational Outreach, \$89,417)
- Burkepile, D.E, T. Adam, L. Collado-Vides and A. Duran. Florida's State Wildlife Grant, 2015 (Impact of sedimentation on herbivory and the control of algal communities and coral health on Florida Coral Reefs, \$128,735)

Scholarships

- Scholarships and other monetary supports from FIU graduate school and FIU Biology Department added up \$3, 800 for conference associated expenses during 2014 to 2016
- *AECI-Scholarship recipient*, Vigo, Spain (September 2009)

OUTREACH AND ENVIRONMENTAL EDUCATION

- Ecology of Fear II (Scientific leader). Shark Mission, Aquarius Underwater Research Station, Florida Keys, November, 2015
- Miami Underwater festival, Miami Science Museum (2014-2015)
- FIU Family science nights (Florida Keys, events 2013-2015)
- Ecology of Fear I (Scientific member). Shark Mission, Aquarius Underwater Research Station, Florida Keys, November, 2015
- *ProNaturaleza (NGO) Coordinator*, Institute of Oceanology, Havana, Cuba (2008-2009).

EXTRACURRICULAR ACTIVITIES

- Workshop instructor "Plant-herbivore interactions on Caribbean coral reefs. Identification of Knowledge Gaps" Center of Marine Investigation, University of Havana, Cuba. Spring 2018

- Coral reef instructor for the Duke University Study Abroad at Ecological Research Station (Bocas del Toro, Panama, Fall 2016, Spring 2017)
- Co-mentor of students awarded by NOAA with the Hollings Grant (summer 2016)
- Peer reviewer for Coral Reef (n=2), Oecologia (n=1), Phycological Research (n=1), Marine Environmental Research (n=1), Marine Biology Research (n=1), Revista de Investigaciones Marinas (n=3)
- Principal organizer of FIU Biological Symposium 2015
- Board member of the Graduate Biological Student Association
- Invited speaker to FIU lectures (Fall, 2015, Spring 2015, 2016) on topics such as coral reef ecology, community ecology
- Organizer of the 2011 South East Phycology Symposium, FIU

AFFILIATIONS

- Florida Marine Science Educators Association (FMSEA)
- Association of marine laboratories of the Caribbean, AMLC
- Phycological Society of America, PSA
- Professional Dive Instructor Corporation, PDIC

CERTIFICATIONS

- Fundamentals of Online Teaching (FIU, 2019)
- Aquatic species collecting certified (FMSEA)
- Dive Master, PADI certified, 2009. Diving and NITROX Instructor PDIC, 2011
- Certified 2010 Motor Boat Operator Certification Course (MOCC) since June 2013
- Florida Boating Safety Certificated since August 2016

ADDITIONAL INFORMATION

- Languages: Fluent in Spanish and English
- Computer skills. Proficient in PowerPoint, Excel, Word, Primer, Statistic, Photoshop, SPSS, PRIMER, R program
- Teaching skills that promote active learning (e.g., clickers, experience with hybrid teach format and in-class practical activities)