
JORDAN MARIE CASEY, PHD

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EDUCATION

2015 Ph.D. Marine Biology

ARC Centre of Excellence for Coral Reef Studies
James Cook University, Townsville, Queensland, Australia

2009 B.S. Ecology and Biodiversity (Honors); Spanish (Honors)

Summa Cum Laude, GPA: 4.0/4.0
Sewanee: The University of the South, Sewanee, Tennessee, USA

2007 Semester Study Abroad

Universidad de San Francisco de Quito, Quito, Ecuador
Galápagos Academic Institute for the Arts and Sciences, Puerto Baquerizo Moreno, Galápagos

2007 Summer Study Abroad

Universidad Complutense de Madrid, Madrid, España

PUBLICATIONS

PEER-REVIEWED ARTICLES:

* = shared first authorship

- 14) Parravicini, V*, **JM Casey***, NMD Schiettekatte, SJ Brandl, C Pozas-Schacre, J Carlot, GJ Edgar, NAJ Graham, M Harmelin-Vivien, M Kulbicki, G Strona, RD Stuart-Smith, and J Vii. (2020) [Global fish gut content data synthesis and phylogeny delineate reef fish trophic guilds](#). *bioRxiv*
- 13) Brandl, SJ, **JM Casey**, and CP Meyer. (2020) [Dietary and habitat niche partitioning in congeneric cryptobenthic reef fish species](#). *Coral Reefs*
- 12) **Casey, JM**, CP Meyer, F Morat, SJ Brandl, S Planes and V Parravicini. (2019). [Reconstructing hyperdiverse food webs: gut content metabarcoding as a tool to disentangle trophic interactions on coral reefs](#). *Methods in Ecology and Evolution* 10, 1157-1170.
 - * [Methods.blog](#), Chris Grieves
- 11) Brandl, SJ, RA Morais, **JM Casey**, V Parravicini, L Tornabene, CHR Goatley, IM Côté, CC Baldwin, NMD Schiettekatte and DR Bellwood. (2019). [Response to Comment on “Demographic dynamics of the smallest marine vertebrates fuel coral reef ecosystem functioning”](#). *Science* 366
- 10) Brandl, SJ, L Tornabene, CHR Goatley, **JM Casey**, RA Morais, IM Côté, CC Baldwin, V Parravicini, NMD Schiettekatte and DR Bellwood. (2019). [Demographic dynamics of the smallest marine vertebrates fuel coral reef ecosystem functioning](#). *Science* 364, 1189-1192.
 - * [The Atlantic](#), Ed Yong
 - * [National Geographic](#), Kennedy Warne
 - * [Los Angeles Times](#), Leila Miller
 - * [Scientific American](#), Stephanie Pappas

- * [AAAS](#), Walter Beckwith
- 9) Anderson, KD, NE Cantin, **JM Casey**, and MS Pratchett. (2019). [Independent effects of ocean warming versus acidification on the growth, survivorship and physiology of two *Acropora* corals](#). *Coral Reefs* 38, 1225-1240.
 - 8) Brandl, SJ, DB Rasher, IM Côté, **JM Casey**, ES Darling, JS Lefcheck and JE Duffy. (2019). [Coral reef ecosystem functioning: eight core processes and the role of biodiversity](#). *Frontiers in Ecology and the Environment* 17, 445-454.
 - * [Secore International](#), Sina Löschke
 - 7) Staaterman, E, SJ Brandl, M Hauer, **JM Casey**, AJ Gallagher and AN Rice. (2018). [Individual voices in a cluttered soundscape: acoustic ecology of the Bocon Toadfish, *Amphichthys cryptocentrus*](#). *Environmental Biology of Fishes* 101, 979.
 - 6) **Casey, JM**, AH Baird, SJ Brandl, MO Hoogenboom, JR Rizzari, AJ Frisch, CE Mirbach and SR Connolly. (2017). [A test of trophic cascade theory: fish and benthic assemblages across a predator density gradient on coral reefs](#). *Oecologia* 183, 161-175.
 - * Virginia Chadwick Award for outstanding graduate student publication
 - 5) Brandl, SJ, **JM Casey**, JE Duffy, and N Knowlton. (2017). [Marine dock pilings foster diverse, native cryptobenthic fish assemblages across bioregions](#). *Ecology and Evolution* 7, 7069-7079.
 - 4) **Casey, JM**, SR Connolly and TD Ainsworth. (2015). [Coral transplantation triggers shift in microbiome and promotion of coral disease associated potential pathogens](#). *Scientific Reports* 5, 11903.
 - 3) **Casey, JM**, JH Choat and SR Connolly. (2015). [Coupled dynamics of territorial damselfishes and juvenile corals on the reef crest](#). *Coral Reefs* 34, 1-11.
 - * Highlighted Report in *Coral Reefs*
 - 2) **Casey, JM**, TD Ainsworth, JH Choat and SR Connolly. (2014). [Farming behaviour of reef fishes increases the prevalence of coral disease associated microbes and black band disease](#). *Proceedings of the Royal Society B* 281, 20141032.
 - * [BBC Earth](#), Daniel Cossins
 - * [ABC News](#), Bianca Nogrady
 - 1) **Casey, JM**, ME Wilson, N Hollingshead and DG Haskell. (2009). [The effects of exurbanization on bird and macroinvertebrate communities in deciduous forests on the Cumberland Plateau, Tennessee](#). *International Journal of Ecology* 2009, 539417.

R PACKAGES:

- 1) Schiettekatte, NMD, SJ Brandl, and **JM Casey**. (2019). [fishualize](#): Color palettes based on fish species. R package, version 0.1.0.

THESES:

- 3) **Casey, JM**. (2015). The role of territorial grazers in coral reef trophic dynamics from microbes to apex predators. Ph.D. Thesis, James Cook University, Townsville, Australia.
- 2) **Casey, JM**. (2009). Effects of exurbanization on avian and macroinvertebrate diversity in Sewanee, Tennessee. Honors Thesis, Sewanee: The University of the South, Sewanee, USA.

- 1) **Casey, JM.** (2009). Ecofeminismo: El valor intrínstico de la naturaleza y de la mujer en *Me llamo Rigoberta Menchú y La mujer habitada*. Honors Thesis, Sewanee: The University of the South, Sewanee, USA.

POPULAR ARTICLES:

- 1) Evans, JP and **JM Casey.** (2007). Global Climate Change Comes to the Domain in an Unexpected Way. *The Sewanee Plant Press*, Volume XI, No. 3, Sewanee, USA.

GRANTS AND FUNDING

2018	“Make Our Planet Great Again” Postdoctoral Program (50,000 EUR)
2014	Graduate Research Scheme Funding, James Cook University (1,000 AUD)
2013	Australian Coral Reef Society Student Travel Grant, Sydney, Australia (500 AUD)
2013	Graduate Research Scheme Funding, James Cook University (1,000 AUD)
2012	Great Barrier Reef Marine Park Authority Science for Management Award (1,100 AUD)
2010–2013	James Cook University International Prestige Research Scholarship (162,900 AUD)
2010	Omicron Delta Kappa Foundation Scholarship (1,000 USD)
2009	NCAA Postgraduate Scholarship (10,000 USD)
2009	Wildlife Society Student Travel Grant, Monterey, California, USA (500 USD)
2008, 2009	Charleston Scientific and Cultural Education Scholarship (2,000 USD)

PRESENTATIONS

- 12) **Casey, JM.** (2019) Reconstructing hyperdiverse food webs with gut content metabarcoding. British Ecological Society Annual Meeting. Belfast, Northern Ireland (talk)
- 11) **Casey, JM.** (2019). Reconstructing hyperdiverse food webs: fish gut metabarcoding as a tool to disentangle trophic interactions on coral reefs. Imperial College. London, England (invited seminar)
- 10) **Casey, JM,** CP Meyer, S Planes, F Morat, R Galzin, V Parravicini. (2017). Reconstructing coral reef food webs in Moorea: fish gut metabarcoding as a tool to disentangle trophic interactions. Indo-Pacific Fish Conference. Papeete, Tahiti, French Polynesia (talk)
- 9) **Casey, JM,** AH Baird, SJ Brandl, MO Hoogenboom, JR Rizzari, AJ Frisch, CE Mirbach, and SR Connolly. (2016). A test of trophic cascade theory: fish and benthic assemblages across a predator density gradient. International Coral Reef Symposium. Honolulu, Hawaii, USA (talk)
- 8) **Casey, JM,** TD Ainsworth, JH Choat, and SR Connolly. (2014). Facilitators of coral disease: The impact of territorial damselfishes on benthic microbial communities. Scripps Institute of Oceanography. San Diego, California, USA (invited seminar)
- 7) **Casey, JM,** TD Ainsworth, JH Choat, and SR Connolly. (2014). Facilitators of coral disease: The impact of territorial damselfishes on benthic microbial communities. Western Society of Naturalists 95th Annual Meeting. Tacoma, Washington, USA (talk)

- 6) **Casey, JM**, TD Ainsworth, JH Choat, and SR Connolly. (2014). Fish, Germs, and Reefs: How the farming behavior of damselfishes shapes coral reef communities. Sewanee: The University of the South. Sewanee, Tennessee, USA (invited seminar)
- 5) **Casey, JM**, TD Ainsworth, JH Choat, and SR Connolly. (2014). Farming behaviour of reef fishes increases the prevalence of coral disease associated microbes and the occurrence of black band disease. 99th Ecological Society of America Annual Meeting. Sacramento, California, USA (talk)
- 4) **Casey, JM**, SR Connolly, TD Ainsworth, and JH Choat. (2013). Territorial grazers increase abundances of microbial taxa that promote coral disease. The Australian Coral Reef Society Annual Conference. Sydney, Australia (talk)
- 3) **Casey, JM**, ME Wilson, N Hollingshead, and DG Haskell. (2009). The effects of exurbanization on avian and macroinvertebrate diversity in Sewanee, Tennessee. The Wildlife Society 16th Annual Conference. Monterey, California, USA (poster)
- 2) **Casey, JM**, ME Wilson, and DG Haskell. (2008). The effects of exurbanization on avian and macroinvertebrate diversity in Sewanee, Tennessee. The Tennessee Ornithological Society Conference. Chattanooga, Tennessee, USA (talk)
- 1) **Casey, JM**, M Clark, M Early, E Tyrell, and D McGrath. (2007). Exurbanization of forest and farmland on Tennessee's southern Cumberland Plateau: A comparison of water quality under two development models. Emerging Issues Along Urban-Rural Interfaces Conference. Atlanta, Georgia, USA (poster)

PROFESSIONAL HISTORY

- 2018-present Postdoctoral Research Fellow** (April 2018-October 2020)
PSL Université Paris: EPHE-UPVD-CNRS, CRIOBE, Université de Perpignan, France
* Supervisors: Dr Valeriano Parravicini and Dr Serge Planes
- 2016-2018 Postdoctoral Research Fellow** (November 2016-March 2018)
National Museum of Natural History, Smithsonian Institution, Washington DC, USA
* Supervisors: Dr Chris Meyer and Dr Allen Collins
- 2016 Research Associate** (March 2016-October 2016)
National Museum of Natural History, Smithsonian Institution, Washington DC, USA
* Supervisors: Dr Chris Meyer and Dr Ellen Strong
- 2015 Research Associate** (May 2015-December 2015)
ARC Centre of Excellence for Coral Reef Studies
James Cook University, Queensland, Australia
* Supervisors: A/Prof Tracy Ainsworth and Prof Howard Choat
- 2010-2015 Ph.D. Candidate** (July 2010-April 2015)
ARC Centre of Excellence for Coral Reef Studies
James Cook University, Queensland, Australia
* Supervisors: Prof Sean Connolly and Prof Howard Choat
- 2009-2010 Nazca Booby Field Technician** (November 2009-May 2010)
Wake Forest University, Española, Galápagos Islands, Ecuador

2009 **Seabird Research Intern** (June-September 2009)
PRBO Conservation Science, Los Farallones, California, USA

TEACHING

2011-2017 **Co-Instructor**, *Belize Rainforests and Coral Reefs*, annual 10-day field course in Belize
Sewanee: The University of the South, USA

2011-2013 **Student Ambassador**, designed science lectures for high school students
Faculty of Science and Engineering, James Cook University, Australia

SUPERVISION AND MENTORING

* = primary supervisor, ** = laboratory mentorship

- 16) *Zoé Delecambre, Master's student, École Pratique des Hautes Études, France (2020)
Project: Temporal patterns of plankton communities around Moorea, French Polynesia
- 15) *Gabrielle Martineau, undergraduate intern, Université Laval, Canada (2019)
Project: The impact of coral bleaching on butterflyfish behavior and diet
- 14) *Chloé Pozas-Schacre, Master's student, École Pratique des Hautes Études, France (2019)
Project: Coral reef food webs: biogeographic patterns and future projections
- 13) *Kailey Bissell, research intern, Sewanee: The University of the South, USA (2018)
Project: Fish collections and dissections in Moorea, French Polynesia
- 12) **Calvin Quigley, research intern, Brigham Young University, USA (2018)
Project: Gut content DNA metabarcoding of sand gobies in Moorea, French Polynesia
- 11) Samuel Degregori, Ph.D. student, University of California Los Angeles, USA (2018-present)
Project: Evolutionary and ecological controls on coral reef fish gut microbiomes
- 10) Nina Schiettekatte, Ph.D. student, Université de Perpignan, Perpignan, France (2018-present)
Project: The role of fishes in nutrient cycling on coral reefs
- 9) **Julianna Jolly Renzi, research intern, University of Arizona, USA (2018)
Project: DNA barcoding of Indonesian marine biodiversity
- 8) **Eka Maya Kurniasih, research fellow, Indonesian Biodiversity Research Center, Indonesia (2017)
Project: DNA barcoding of Indonesian brachyurans from dead corals
- 7) **Taylor Danielle Ely, undergraduate intern, University of California Los Angeles, USA (2017)
Project: DNA barcoding of Indonesian marine biodiversity; DNA metabarcoding of plankton
- 6) **Kaimyn O'Neill, undergraduate intern, Colby College, USA (2017)
Project: DNA barcoding of Indonesian marine biodiversity; DNA metabarcoding of plankton
- 5) **Mark Lehtonen, Master's graduate, University of Maryland, USA (2017)
Project: DNA barcoding of Indonesian marine biodiversity
- 4) **Mahandry Andrianarisoa, Master's student, University in Antananarivo, Madagascar (2017)
Project: DNA barcoding of Malagasy insects
- 3) **Mahin Hamilton, undergraduate intern, University of Minnesota, USA (2017)
Project: DNA barcoding of Malagasy insects

- 2) **Aji Wahyu Anggoro, Ph.D. student, University of California Los Angeles, USA (2017-present)
Project: DNA metabarcoding of Indonesian marine biodiversity across an anthropogenic gradient
- 1) **Dita Cahyani, Ph.D. student, University of California Los Angeles, USA (2017-present)
Project: DNA metabarcoding of Indonesian marine biodiversity across a longitudinal gradient

FIELD EXPERIENCE

>500 open water dives

Emergency First Responder (First Aid and CPR) and Administer Emergency Oxygen

CERTIFICATIONS:

- 2019** European Scientific Diving Certification, Italian Association of Scientific Divers
- 2016** Smithsonian Institution Scientific Diver
- 2012** AQF (Australian Qualification Framework) Scientific Diver
- 2010** Australian Recreational Marine Driver License
- 2010** PADI Rescue Diver
- 2007** PADI Advanced Open Water Diver
- 2003** PADI Open Water Diver

FIELD SITES:

French Polynesia (Mo'orea, Mangareva, Tetiaroa), Australia, Indonesia, United Arab Emirates, Belize, Costa Rica, Panamá, St. Eustatius, Ecuador (Islas Galápagos), United States

HONORS AND AWARDS

- 2017** Virginia Chadwick Award, for outstanding graduate student publication
- 2009** A.T. Pickering Prize, for excellence in Spanish above and beyond departmental honor
- 2009** Outstanding Senior Female Athlete Award, Sewanee: The University of the South
- 2009** ITA/Arthur Ashe Jr. Award for Leadership and Sportsmanship, Atlantic South Region
- 2009** Omicron Delta Kappa, The National Leadership Honor Society
- 2008** Rhodes Scholarship Finalist
- 2008** Phi Beta Kappa Society, America's oldest Honor Society
- 2006** Sigma Delta Pi, Kappa Chapter, National Spanish Honor Society
- 2005** Valedictorian, James Island High School

AREAS OF TRAINING

LANGUAGES:

Fluent in English, Spanish
Intermediate in French
Basic in Portuguese, German

COMPUTER PROGRAMS:

Programming language: R, C/C++

Molecular Tools: QIIME, mothur, Geneious

PROFESSIONAL COURSES:

2017 A Roadmap to De-novo Genome Assembly of Higher Eukaryotes, Smithsonian Institution, USA

2017 RNA Extraction and RNAseq Workshop, Smithsonian Institution, USA

2017 Unix and High Performance Computing Workshop, Smithsonian Institution, USA

2016 Illumina Library Preparation Workshop, Smithsonian Institution, USA

2015 QIIME Workshop, QIIME Masters, Australian Institute for Marine Science, Australia

2015 Introduction to Linear Effects Models, GLMM, and MCMC with R, Highland Statistics

PROFESSIONAL SERVICE

REVIEWER FOR:

Coral Reefs

Functional Ecology

Ecology

Marine Ecology Progress Series

Ecology and Evolution

Scientific Reports

African Journal of Environmental Science and Technology

National Science Foundation

PRIMARY AND SECONDARY SCHOOL LECTURES:

Ashley River Creative Arts Elementary (3 lectures, Charleston, USA)

Ashley Hall School (4 lectures, Charleston, USA)

PUBLIC LECTURES:

Naturalist, Explorations Central (EXC) Program, Holland America Line (7 lectures 2019; 6 lectures 2020)

EXTRACURRICULAR ACTIVITIES

2005-2009 Sewanee Tennis Team, Tennessee, USA

- * Most Valuable Player (2009)
- * Academic All-American First-Team, CoSIDA and ESPN the Magazine (2008-2009)
- * #18 NCAA national doubles ranking (2008)
- * 3rd place, NCAA national team tournament (2007)
- * #15 NCAA national doubles ranking (2007)
- * Southern Collegiate Athletic Conference (SCAC) Champions (2007)
- * SCAC Academic Honor Roll (2006-2009)
- * International Tennis Association Scholar-Athlete (2006-2009)

2005 Sewanee Cross-Country, Tennessee, USA