

John Everett Parkinson, Ph.D.

Curriculum Vitae
2020-09-13

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thelifeaquatic.net
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EDUCATION

Ph.D., Department of Biology, Pennsylvania State University
2014

B.Sc. (*summa cum laude*), Marine Biology, University of Miami – RSMAS
2009

PROFESSIONAL APPOINTMENTS

University of South Florida, Department of Integrative Biology, Assistant Professor
2019 - present

SECORE International, Research Scientist: Bahamas Coral Restoration
2018-2019

POSTDOCTORAL TRAINING

Oregon State University, Department of Integrative Biology
2016-2018

University of the Ryukyus, Department of Marine Biology
2015-2016

Pennsylvania State University, Department of Biology
2014-2015

GRANTS

NSF Collaborative Grant OCE2023705
2021-2024; Co-PI; \$245,505 to JEP (\$1,329,245 Total)

Moore Foundation: *The Coral Symbiosis Genome Project*
2020-2023; Co-PI; \$0* to JEP (\$639,854 Total; *all funds to sequencing facility)

USF New Researcher Grant
2020; PI; \$10,000 (Internal)

Pre-Tenure Track

Japan Society for the Promotion of Science ORCHIDS Project
2017; Co-PI; \$2,700

Phycological Society of America Grant-in-Aid of Research
2017; PI; \$2,000

Japan Society for the Promotion of Science Research Funds
2015-2016; Co-PI; \$10,000
NSF RAPID Grant OCE1516763
2015; Contributing Author; \$138,816
NOAA Coral Reef Conservation Grant NA14NOS4820085
2014-2016; Lead Author; \$68,999

FELLOWSHIPS

Visiting Researcher Award: University of the Ryukyus, Japan
2020 (delayed due to coronavirus)
Visiting Professor Award: St. George's University, Grenada
2020 (delayed due to coronavirus)
Japan Society for the Promotion of Science Postdoctoral Fellowship
2015-2016
National Science Foundation Graduate Research Fellowship
2009-2014
Pennsylvania State University Graduate Fellowship
2009-2010
University of Miami Bowman Foster Ashe Scholarship
2005-2009
University of Miami RSMAS Summer Fellowship
2006

AWARDS AND HONORS

USF Faculty International Travel Award & College of Arts and Sciences Travel Award
2020 (delayed due to coronavirus)
Tyge Christensen Prize (Best paper published in Phycologia in 2014; Coauthor)
2016
Best Undergraduate Poster (44th Benthic Ecology Meeting; Coauthor)
2015
Conference Travel Awards (Various; 6 total)
2012-2014
Best Poster: Coral Reef Restoration Session (39th Benthic Ecology Meeting)
2010
Braddock Research Award (Pennsylvania State University)
2009-2010
Outstanding Marine Science Student Award (University of Miami)
2009
Phi Beta Kappa Induction (University of Miami)
2008
Foote Fellow (University of Miami)
2005

PUBLICATIONS

Google Scholar

Article Count = 23

Article Citations = 1246

h-Index = 14

i10-Index = 15

* Corresponding Author

^ Senior Author

23. Parker KE, Ward J, Eggleston E, Fedorov E, **Parkinson JE**, Dahlgren C, Cuning R* (2020) Characterization of a thermally tolerant *Orbicella faveolata* reef in Abaco, The Bahamas. *Coral Reefs* 39:675-685 doi: 10.1007/s00338-020-01948-0
22. Tivey TR*, **Parkinson JE**, Weis VW (2020) Host and symbiont cell cycle coordination is mediated by symbiotic state, nutrition, and partner identity in a model cnidarian-dinoflagellate symbiosis. *mBio* 11:e02626-19 doi: 10.1128/mBio.02626-19
21. Kavousi J, Denis V, Sharp V, Reimer JD, Nakamura T, **Parkinson JE**^* (2020) Unique combinations of coral host and algal symbiont genotypes reflect intraspecific variation in heat stress responses among colonies of the reef-building coral, *Montipora digitata*. *Marine Biology*. 167:1-5 doi: 10.1007/s00227-019-3632-z
20. Tivey TR*, **Parkinson JE**, Mandelare PE, Adressa DA, Peng W, Dong X, Mechref Y, Weis VM, Loesgen S* (2020) N-linked surface glycan biosynthesis, composition, inhibition, and function in cnidarian-dinoflagellate symbiosis. *Microbial Ecology* 80:223-236 doi: 10.1007/s00248-020-01487-9
19. **Parkinson JE**, Baker AC, Baums IB, Davies SW, Grottoli AG, Kitchen SA, LaJeunesse TC, Matz MV, Miller MW, Shantz AA, Kenkel CD* (2020) Molecular tools for coral reef restoration: beyond biomarker discovery. *Conservation Letters* e12687 doi: 10.1111/conl.12687
18. Baums IB*, Baker AC, Davies SW, Grottoli AG, Kenkel CD, Kitchen SA, Kuffner IB, LaJeunesse TC, Matz MV, Miller MW, **Parkinson JE**, Shantz AA (2019) Considerations for maximizing the adaptive potential of restored coral populations in the western Atlantic. *Ecological Applications* e01978. doi: 10.1002/eap.1978
17. Gabay Y, **Parkinson JE**, Wilkinson SP, Weis VM, Davy SK* (2019) Symbiont uptake in a model cnidarian-dinoflagellate symbiosis under heat stress: specificity supersedes acquisition of thermotolerant symbionts. *ISME Journal* 13:2489-2499. doi: 10.1038/s41396-019-0429-5

Pre-Tenure Track

16. LaJeunesse TC*, **Parkinson JE***, Gabrielson PW, Jeong HJ, Reimer JD, Voolstra CR, Santos SR (2018). Systematic revision of Symbiodiniaceae highlights the antiquity and diversity of coral endosymbionts. *Current Biology* 28:2570-2580. doi: 10.1016/j.cub.2018.07.008
15. **Parkinson JE***, Tivey TR, Mandelare PE, Adressa DA, Loesgen S, Weis VM (2018) Subtle differences in symbiont cell surface glycan profiles do not explain species-specific colonization rates in a model cnidarian-algal symbiosis. *Frontiers in Microbiology* 9:842. doi: 10.3389/fmicb.2018.00842
14. **Parkinson JE***, Bartels E, Devlin-Durante MK, Lusic C, Nedimyer K, Schopmeyer S, Lirman D, LaJeunesse TC, Baums IB (2018) Extensive transcriptional variation poses a challenge to thermal stress biomarker development for endangered corals. *Molecular Ecology* 27:1103-1119. doi: 10.1111/mec.14517
13. Noda H, **Parkinson JE**, Yang SY, Reimer JD* (2017) A preliminary survey of zoantharian endosymbionts shows high genetic variation over small geographic scales on Okinawa-jima Island, Japan. *PeerJ* 5:e3740. doi: 10.7717/peerj.3740
12. Gupstra CGB*, Coma R, Ribes M, Leydet KB, **Parkinson JE**, McDonald K, Catlla M, Voolstra CR, Hellberg ME, Coffroth MA (2017) Evidence for coral range expansion accompanied by reduced diversity of *Symbiodinium* genotypes. *Coral Reefs* 36:981-985. doi:10.1007/s00338-017-1589-2
11. Reimer JD*, Herera M, Gatins R, Roberts MB, **Parkinson JE**, Berumen ML (2017) Latitudinal variation in the symbiotic dinoflagellate *Symbiodinium* of the common reef zoantharian *Palythoa tuberculosa* on the Saudi Arabian coast of the Red Sea. *Journal of Biogeography* 44:661-673. doi:10.1111/jbi.12795
10. Kavousi J*, **Parkinson JE**, Nakamura T (2016) Combined ocean acidification and low temperature stressors cause coral mortality. *Coral Reefs* 35:903-907. doi:10.1007/s00338-016-1459-3
09. **Parkinson JE***, Yang SY, Kawamura I, Byron G, Todd P, Reimer J (2016) A citizen science approach to monitoring bleaching in the zoantharian *Palythoa tuberculosa*. *PeerJ* 4:e1815. doi:10.7717/peerj.1815
08. **Parkinson JE***, Baumgarten S, Michell CT, Baums IB, LaJeunesse TC, Voolstra CR* (2016) Gene expression variation resolves species and individual strains among coral-associated dinoflagellates within the genus *Symbiodinium*. *Genome Biology and Evolution* 8:665-680. doi:10.1093/gbe/evw019
07. **Parkinson JE***, Banaszak AT, Altman NS, LaJeunesse TC, Baums IB (2015) Intraspecific diversity among partners drives functional variation in coral symbioses. *Scientific Reports* 5:15667. doi:10.1038/srep15667

06. **Parkinson JE***, Coffroth MA, LaJeunesse TC (2015) New species of Clade B *Symbiodinium* (Dinophyceae) from the greater Caribbean belong to different functional guilds: *S. aenigmaticum* sp. nov., *S. antillogorgium* sp. nov., *S. endomadracis* sp. nov., and *S. pseudominutum* sp. nov. *Journal of Phycology*. 51:850-858. doi:10.1111/jpy.12340
05. **Parkinson JE**, Baums IB* (2014) The extended phenotypes of marine symbioses: ecological and evolutionary consequences of intraspecific genetic diversity in coral-algal associations. *Frontiers in Microbiology* 5:445. doi:10.3389/fmicb.2014.00445
04. LaJeunesse TC*, Wham D, Pettay DT, **Parkinson JE**, Keshavmurthy S, Chen C (2014) Ecologically differentiated, thermally tolerant endosymbionts in the dinoflagellate genus *Symbiodinium* (Dinophyceae) are different species. *Phycologia* 53(4):305-319. doi:10.2216/13-186.1
03. Cooper WT*, Lirman D, Porter M, **Parkinson JE**, Herlan J, McManus JW (2014) Assessing techniques to improve early post-settlement survivorship of corals for in situ restoration. *Bulletin of Marine Science* 90:651-664. doi:10.5343/bms.2013.1020
02. Baums IB*, Devlin-Durante MK, Polato NR, Xu D, Giri S, Altman NS, Ruiz D, **Parkinson JE**, Boulay JN (2013) Genotypic variation influences reproductive success and thermal stress tolerance in the reef building coral *Acropora palmata*. *Coral Reefs* 32(3):703-717. doi: 10.1007/s00338-013-1012-6
01. LaJeunesse TC*, **Parkinson JE**, Reimer JD (2012) A genetics-based description of *Symbiodinium minutum* sp. nov. and *S. psygmophilum* sp. nov. (Dinophyceae), two dinoflagellates symbiotic with Cnidaria. *Journal of Phycology* 48(6):1380-1391. doi:10.1111/j.1529-8817.2012.01217.x

ADVISING

Postdoctoral Scholars

Raul Gonzalez-Pech, Ph.D.
2020-present

Graduate Students

Matthew Gamache (USF '25)
2020-present

Undergraduate Students

Nicole Nauman (USF '21)
2019-2020
Sanika Phadnis (USF '20)
2019-2020

TEACHING

Organic Evolution (PCB 4674 University of South Florida)
2020 Fall
Advances in Marine Genomics (BSC 6932 University of South Florida)
2020 Fall
Symbiotic Evolutions in the Microbiome World (Online; University of South Florida)
2020 (Guest Lecturer)
Symbiosis and the Environment (BSC 4933/6932 University of South Florida)
2020 Spring
Honors Thesis I / II (IDH 4970 University of South Florida)
2019 Fall / 2020 Spring

Pre-Tenure Track

Molecular Host-Microbe Interactions (MCB 637 Oregon State University)
2018 Spring (Co-Lecturer)
Symbiosis and the Environment (BI 358 Oregon State University)
2017 Fall (Co-Lecturer)
Cell Biology Laboratory (BIOL 230W Pennsylvania State University)
2012, 2013 Fall (Teaching Assistant)

PROFESSIONAL SERVICE

USF Integrative Biology Website and Visibility Committee (Chair)
2020-present
USF Integrative Biology Graduate Admissions and Policy Committee (Member)
2019-present
NOAA Coral Restoration Consortium: Genetics Working group Member
2017-present

INVITED SEMINARS

University of the Ryukyus, Okinawa, Japan
2020 (delayed due to coronavirus)
Eckerd College, St. Petersburg, FL
2020 (delayed due to coronavirus)
St. George's University, Grenada
2020 (delayed due to coronavirus)
USGS/University of South Florida – College of Marine Science, St. Petersburg, FL
2019

Pre-Tenure Track

Cape Eleuthera Institute, Eleuthera, The Bahamas
2019
Westland Hialeah High School, Hialeah, Florida
2019

Environmental Protection Agency Gulf Ecology Division, Pensacola, FL
2018

Oregon State University Hatfield Marine Science Center, Newport, OR
2018

Coral Reef Consortium Science Working Group Meeting, State College, PA
2018

University of the Ryukyus, Okinawa, Japan (2x)
2018

University of Victoria—Wellington, Wellington, New Zealand
2018

Walla Walla University Rosario Beach Marine Laboratory, Anacortes, WA
2017

Oregon State University, Corvallis, OR
2017

NOAA Workshop on Caribbean Coral Restoration, Fort Lauderdale, FL
2016

Centre of Marine Science of the University of Queensland, Brisbane, Australia
2015

Okinawa Institute of Science and Technology, Okinawa, Japan
2015

Coral Traits Workshop, Florida Fish and Wildlife Commission, Miami, FL
2014

Pennsylvania State University, University Park, PA
2014

Astrangia Workshop, Ocean Genome Legacy, Ipswich, MA
2014

CONTRIBUTED PRESENTATIONS

Oral

14th International Coral Reef Symposium, Bremen, Germany (2x)
2020 (delayed due to coronavirus)

Reef Futures, Key Largo, FL (5x)
2018

Yosemite Symbiosis Workshop, UC Merced, Merced, CA
2018

Society for Integrative and Comparative Biology, San Francisco, CA
2018

Phycological Society of America Annual Meeting, Monterey, CA
2017

13th International Coral Reef Symposium, Honolulu, HI (3x)
2016

23rd Pacific Science Conference, Taipei, Taiwan
2016

East China Sea International Workshop, Jeju, South Korea
2015

Evolution Meeting, Snowbird, UT
2013
12th International Coral Reef Symposium, Cairns, Australia
2012
41st Benthic Ecology Meeting, Norfolk, Virginia
2012

Poster

ASMS Conference on Mass Spectrometry and Allied Topics, Houston, TX
2020
9th International Symbiosis Society Congress, Corvallis, OR
2018
26th Volcano Conference in Bioorganic Chemistry, Pack Forest, WA
2018
44th Annual Benthic Ecology Meeting, Quebec City, Canada
2015
12th Annual Ecological Genomics Symposium, Kansas City, MO
2014
10th Annual Ecological Genomics Symposium, Kansas City, MO
2012
Linking Science to Management in the Florida Keys, Duck Key, FL
2010
39th Benthic Ecology Meeting, Wilmington, NC
2010
11th International Coral Reef Symposium, Fort Lauderdale, FL
2008
University of Miami Research and Creativity Forum, Coral Gables, FL
2009

OUTREACH

Educational Outreach

University of South Florida (2019-present)
Panelist: 'Canes Conversation on Coral Restoration Research
Darwin Day Guest Lecture

Oregon State University (2017-2018)
Corvallis High School: visiting expert to discuss student presentations on ocean acidification
Salem Progressive Film Series: panelist for screening of Netflix documentary "Chasing Coral"
OSU: co-organizer and panelist for screening of Netflix documentary "Chasing Coral"
OSU School of Arts and Communication event: A Call to Life—Variations on a Theme of Extinction

OSU Biology Open House: Presented Weis lab projects incorporating posters and live animals

University of the Ryukyus (2015-2016)

Okinawa Prefectural Kyuyo High School: provided feedback on student science presentations

Pennsylvania State University (2012-2014)

Penn State Graduate Research Exhibition: judge (2x)

Pennsylvania Junior Science and Humanities Symposium: judge (2x)

Nittany Valley Charter School: taught two-hour interactive class on coral reefs and climate change to twelve 3rd and 4th graders, incorporating traditional lecture, video, and microscopy

Science Communication (articles I have written for non-scientific audiences)

Parkinson JE (2017) 'Chasing Coral' as they disappear. The Warwick Advertiser

Parkinson JE (2015) The greatest frag swap on earth. Reefs.com Magazine

LaJeunesse TC, Parkinson JE, Trench RK (2012) *Symbiodinium* Entry. Tree of Life

LaJeunesse TC, Parkinson JE, Trench RK (2012) *Symbiodinium* Entry. Wikipedia

Parkinson JE (2011) Coral Spawning Blog: Mexico. Baums Laboratory Website

Parkinson JE (2009) Coral Spawning Blog: Puerto Rico. Baums Laboratory Website

Parkinson JE (2009) Alumni Sounding. University of Miami Marine Science Magazine

Science Press (articles written about my research or in which I've been quoted)

Johnson S (2019) The world's coral reefs are dying. Shedd scientists in the Bahamas are searching for a chance for their survival. Chicago Tribune

Mandel K (2019) Seven bold ways scientists are saving coral reefs. Thehill.com

Halton M (2018) Coral reefs 'weathered dinosaur extinction'. BBC News

el-Showk S (2018) Old friends: coral-algal relationship goes way back. Nature: Middle East

Daley J (2018) Algae and coral have been BFFs since the dinosaur age. Smithsonian.com

Hunter P (2018) The revival of the extended phenotype. EMBO Reports. e46477

Blaszczak-Boxe (2016) Frogfish turns itself white to blend in with bleached corals. New Scientist

Kareiva P (2015) Ten environmental reasons to be thankful. UCLA Faculty Voice

English T (2014) How do you determine the age of coral, the 'trees of the ocean'? Pulse Radio

Penn State News (2009) Penn State is home to 14 new NSF graduate researchers.

RSMAS News (2009) Rosenstiel students come out on top.

SCUBA Certifications (>250 science dives since 2005)

AAUS Scientific Research Diver, IANTD Nitrox, SSI Advanced, PADI Open Water