



## Jeffrey A. Maynard, PhD

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**Summary of research interests:** My primary working interest is applying research advances to build capacity among coastal managers to address climate change threats. My colleagues and I work collaboratively with managers to identify and then meet information needs using: climate models, ecological community models, statistical and analytical frameworks and molecular techniques.

**Recent activities (2011-2017) as Manager, SymbioSeas and while holding research fellowships :** As an applied research scientist, I have served as the PI or co-PI on competitively awarded grants and contracts with/from all of the following agencies and organizations (total exceeding \$2,000,000 in research funding): Pacific Islands Climate Science Center of the USGS, Pacific Islands Climate Change Cooperative, NOAA Coral Reef Conservation Program, NOAA Pacific Islands Fisheries Science Center, US Department of Interior, NOAA Climate Program Office, Great Barrier Reef Marine Park Authority, The Nature Conservancy, the Secretariat of the Pacific Community, CNMI Division of Environmental Quality, the World Bank, The International Union for the Conservation of Nature, Western Pacific Coral Reef Institute, AusAID, World Wildlife Fund, Wildlife Conservation Society and UNEP.

### EDUCATION

**2008 – 2010 PhD - *Global Change Biology and Environmental Risk*;** School of Botany, University of Melbourne, Parkville, Melbourne, 3000, Australia.

Thesis title: *Improving resilience-based management of coral reef areas.*

Thesis supervisor (Professor Mark Burgman, current Editor-in-Chief of *Conservation Biology*). Graduated *cum laude* with 10 peer-reviewed papers published during PhD thesis tenure.

**2000-2004 BSc and MAppSc –*Tropical Marine Biology and Fisheries Ecology*;** James Cook University of North Queensland, Townsville, QLD 4810 Australia. Graduated with Honors.

### PREVIOUS EMPLOYMENT

**2004-2008 Project Manager,** Great Barrier Reef Marine Park Authority of Townsville, Australia

### RECENT/ONGOING RESEARCH GRANTS

*Note: These are as PI or Co-PI and are from last 2 years and ongoing only with total budgets across all partners >\$50K*

**2017-2019** – Assessing coral reef fisheries vulnerability in the U.S. Pacific, NOAA NMFS

**2017-2019** – Climate change vulnerability assessment for West Hawaii, NOAA NMFS

**2016-2018** – Adapting to long-term ecosystem change in the Gulf of Maine, NOAA NMFS

- 2016-2017** - Climate change impacts on the Central North Pacific green sea turtle population: sand temperature projections and population viability analyses, NOAA PIFSC.
- 2016-2017** – Outlook reporting in CNMI and Guam, NOAA CRCP.
- 2016-2017** – Climate impact summaries and outlook reporting for the Flower Garden Banks National Marine Sanctuary, NOAA CRCP.
- 2016-2017** – Climate impact summaries and outlook reporting for American Samoa, US Department of the Interior Coral Reef Advisory Group.
- 2016-2018** - Coral bleaching vulnerability assessments to inform coral reef conservation under climate change, TOTAL Fondation.
- 2015-2016** – Vulnerability assessment frameworks for Florida that combine maps of historic and projected future exposure to disturbances with resilience assessments, NOAA CRCP.
- 2015-2016** – Integrating vulnerability to climate change into marine protected area planning in Pohnpei, FSM, US-NFWF
- 2015-2017** – Assessing the relative resilience of coral reefs and herbivorous fish communities to climate change in U.S. territories to inform ecosystem-based fisheries management, Saltonstall-Kennedy NOAA NMFS.
- 2015-2017** – Assessing the sustainability of culturally important marine sites in Guam & CNMI, USGS-PICSC.

### **SELECTED PEER-REVIEWED PUBLICATIONS (20 most cited)**

Updated February, 2016

**Stats:** >70 peer-reviewed publications, current h-index is 23 with an associated m-value (h-index divided by years since first publication) of ~3 ( $\geq 2.5$  is ‘extraordinary’). These publications have attracted >2000 citations as of October, 2017. This list includes recent papers - a complete publications list is available at my [Google Scholar](#) page.

#### **Featured recent publications (last 2 years only)**

**Maynard, J.A.**, Marshall, P.A., Parker, B., Mcleod, E., Ahmadiya, G., van Hooidek, R., Planes, S., Williams, G.J., Raymundo, L., Beeden, R., Tamelander, J. (2017). A Guide to Assessing Coral Reef Resilience for Decision Support. Nairobi, Kenya: UN Environment. ISBN No: 978-92-807-3650-2

Dubé, C. E., Boissin, E., **Maynard, J. A.**, & Planes, S. (2017). Fire coral clones demonstrate phenotypic plasticity among reef habitats. *Molecular Ecology*.

van Hooidek R\*, **Maynard JA\***, ...Planes S (2016) Local-scale projections of coral reef futures and implications of the Paris Agreement. *Nature Scientific Reports*, 6, [39666](#); doi: [10.1038/srep39666](#) ; \*Project Co-leaders

Heron S, **Maynard JA**, et al. (2016) Warming Trends and Bleaching Stress of the World’s Coral Reefs 1985–2012. *Nature Scientific Reports* 6, 38402; doi: [10.1038/srep38402](#)

Salles O, Pujol B, **Maynard JA**...Planes S (2016) First genealogy for a wild marine fish population reveals multigenerational philopatry. *Proceedings of the National Academy of Sciences*, 201611797.

Mourier J, **Maynard JA**, ...Planes S (2016) Extreme Inverted Trophic Pyramid of Reef Sharks Supported by Spawning Groupers, *Current Biology* (2016), [http://dx.doi.org/10.1016/j.cub.2016.05.058](#)

Keith SA, **Maynard JA**,... Baird AH (2016) Coral mass spawning predicted by rapid seasonal rise in ocean temperature. *Proc. R. Soc. B* 283: 20160011. [http://dx.doi.org/10.1098/rspb.2016.0011](#)

**Maynard JA**, van Hooidek R, Harvell CD, Eakin CM, Liu G, Willis BL, Williams GJ, Groner M, Dobson A, Heron SF, Glenn R, Reardon K, Shields JD. (2016) Improving marine disease surveillance through sea temperature monitoring, outlooks and projections. *Philos T Roy Soc B*. <http://dx.doi.org/10.1098/rstb.2015.0208>

Groner M\*, **Maynard JA**\*...Harvell CD (2016) Managing marine disease emergencies in an era of rapid change. *Philos T Roy Soc B*. <http://rstb.royalsocietypublishing.org/content/371/1689/20150364>  
\*Co-first author

Marshall, P.A., Dowd, A.M., Luder, C., **Maynard, J.A.**, Beeden, R. (2015). *A Reef Manager's Guide to Fostering Community Stewardship*. Gland, Switzerland: IUCN.

Eisenlord, M. E., Groner, M. L., Yoshioka, R. M., Elliott, J., **Maynard, J.**, Fradkin, S., ... & Harvell, C. D. (2016). Ochre star mortality during the 2014 wasting disease epizootic: role of population size structure and temperature. *Phil. Trans. R. Soc. B*, 371(1689), 20150212.

**Maynard JA**, McKagan S, Raymundo L, Johnson S, Ahmadi G, Johnston L, Houk P, Williams GJ, Kendall M, Heron SF, van Hooidek R, Mcleod E, Tracey D, Planes S. (2015) Assessing relative resilience potential of coral reefs to inform management. *Biological Conservation*. DOI: 10.1016/j.biocon.2015.09.001

**Maynard JA**, Beeden R, Puotinen M, Johnson J, Marshall P, van Hooidek R, Heron SF, Devlin M, Lawrey E, Dryden J, Ban N, Wachenfeld D, Planes S (2015) Great Barrier Reef no-take areas include a range of disturbance regimes. *Conservation Letters*. DOI: 10.1111/conl.12198

van Hooidek R, **Maynard JA**, Yanyun L, Ki-Lee S (2015) Downscaled projections of Caribbean coral bleaching that can inform conservation planning. *Global Change Biology*. DOI: 10.1111/gcb.12901

**Maynard JA**, van Hooidek R, Eakin CM, Puotinen M, Garren M, et al. (2015) Projections of climate conditions that will increase coral disease susceptibility and pathogen virulence. *Nature Climate Change*. DOI: 10.1038/NCLIMATE2625

### Professional Referees:

Dr. Paul Marshall, Director – Reef Ecologic, E: [paul.marshall00@gmail.com](mailto:paul.marshall00@gmail.com)

Dr. Gabriella Ahmadi, Scientist – World Wildlife Fund, E: [gabby.ahmadi@wwfus.org](mailto:gabby.ahmadi@wwfus.org)

Dr. Gareth Williams, Reader – Bangor University School of Ocean Sciences, E: [g.j.williams@bangor.ac.uk](mailto:g.j.williams@bangor.ac.uk)

Prof. Drew Harvell, Department of Ecology and Evolutionary Biology, Cornell University  
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