

## GARETH J. WILLIAMS

School of Ocean Sciences, Bangor University, Menai Bridge, Anglesey, LL59 5AB

Tel: 01248 382588 Email: [g.j.williams@bangor.ac.uk](mailto:g.j.williams@bangor.ac.uk)

D.O.B: 05/10/80 Nationality: British

### A. Academic Employment

Jul 2018 – present	Associate Professor in Marine Biology, Bangor University
Sep 2015 – Jul 2018	Assistant Professor in Marine Biology, Bangor University
Mar 2014 – Aug 2015	Project Scientist, Scripps Institution of Oceanography
Sep 2010 – Feb 2014	Postdoctoral Scholar, Scripps Institution of Oceanography

### B. Publication history

Publication summary: **50** peer-reviewed articles over the period 2008 to present (18 as first author and 12 as second or last) and one book chapter.

Published in a range of journals including world-leading, high-impact: *Nature Climate Change*, *Nature Comms*, *PNAS* (5), broad biology/ecology: *Phil Trans Roy Soc B*, *Proc Roy Soc B*, *Ecography*, *ISME* (10), marine: *Coral Reefs*, *MEPS*, *Mar Poll Bull*, *Aquat Micro Ecol* (17), applied conservation: *Cons Biol*, *Biol Cons* (3), disease ecology: *J Invert Path*, *Dis Aquat Org* (5), and broad multidisciplinary: *PLoS One*, *PeerJ* (10).

**H factor of 22 (i10 index of 36) with 1328 citations** (see my [Google Scholar](#) page)

### C. Research grant capture

Total grant capture to date equates to over **£3.7 (\$4.7) million** as PI or Co-I. Examples include:

- Bertarelli Foundation (£648,564, Mar-18). “*Coral reef condition in the Chagos Archipelago.*”
- National Science Foundation (NSF) Standard Grant (\$750k, Jul-15). “*Coralline fungal disease epidemiology and global climate change.*”
- U.S. Fish & Wildlife Service (USFWS) (\$80k, Feb-14). “*Spatial drivers of a coral reef phase shift at a remote Pacific National Wildlife Refuge.*”
- USFWS (\$37k, Jun-13). “*Spatial mapping of a coral reef phase shift.*”
- Gordon & Betty Moore Foundation (GBMF) (\$2.5 million, Jul-12). Research Initiative Grant. “*Understanding coral reef resilience to advance science and conservation.*”
- GBMF (\$180k, Aug-11) Pre-planning grant. “*Understanding coral reef resilience to advance science and conservation.*”
- Scripps Postdoctoral Scholarship (\$45k, Aug-11; \$45k, Aug-10).

### D. Research supervision

Two PhD students supervised to completion (Scripps Institution of Oceanography - SIO) over the period 2011-2015. Currently supervise 7 PhD students and 2 post-docs. 10 papers co-authored with PhD students (as second or last author) in last 5 years, including *Nature Comms* (**IF=11.47**) and *PNAS* (**IF=9.67**).

### E. Recent and relevant publications (17 of 50 total)

**Williams GJ** et al. (2018) Biophysical drivers of coral trophic depth zonation. *Mar Biol* 165: 60. **IF = 2.12**

Safaie A ....**Williams GJ**, Davis KA (2018) High frequency temperature variability reduces the risk of coral bleaching. *Nature Comms* 9: 1671. **IF = 12.12**

- Thompson LR, **Williams GJ** et al. (2017) Metagenomic covariation along densely sampled environmental gradients in the Red Sea. *The ISME Journal* 11: 138-151. **IF = 9.33**
- Heenan A, Hoey A, **Williams GJ**, Williams I (2016) Natural bounds on herbivorous coral reef fishes. *Proc Roy Soc B* 283: 20161716. **IF = 4.82**
- Gove JM et al. **Williams GJ** (2016) Near-island biological hotspots in barren ocean basins. *Nature Comms*. **IF = 11.47**
- Maynard JA...**Williams GJ** et al. (2015) Climate conditions that increase coral disease susceptibility and pathogen abundance and virulence. *Nature CC* 5: 688-694. **IF = 14.55**
- Williams GJ** et al. (2015) Local human impacts decouple natural biophysical relationships on Pacific coral reefs. *Ecography* 38: 751-761 (**Editor's Choice**) **IF = 4.77**
- Gove JM, **Williams GJ** et al. (2015) Coral reef benthic regimes exhibit non-linear threshold responses to natural physical drivers. *MEPS* 522: 33-48. **IF = 2.62**
- Jouffray J et al. **Williams GJ** (2015) Human and natural drivers of multiple coral reef regimes across the Hawaiian Archipelago. *Phil Trans Roy Soc B* 370: 20130268. **IF = 7.05**
- Williams GJ** et al. (2014) Ocean warming and acidification have complex interactive effects on the dynamics of a marine fungal disease. *Proc Roy Soc B* 281: 20133069. **IF = 5.68 (Recommended by Faculty of 1000)**
- Kelly LW, **Williams GJ** et al. (2014) Local genomic adaptation of coral reef-associated microbiomes to gradients of natural variability and anthropogenic stressors. *PNAS* 111: 10227-10232. **IF = 9.67**
- Gove JM, **Williams GJ** et al. (2013) Quantifying climatological ranges and anomalies for Pacific coral reef ecosystems. *PLoS One* 8(4): e61974. **IF = 3.73**
- Williams GJ** et al. (2013) Benthic communities at two remote Pacific coral reefs: effects of reef habitat, depth, and wave energy gradients on spatial patterns. *PeerJ* 1:e81. **IF = 2.10**
- Barott KL, **Williams GJ** et al. (2012) Natural history of coral-algae competition across a gradient of human activity in the Line Islands. *MEPS* 460: 1-12. **IF = 2.55 (Feature Article)**
- Kelly LW...**Williams GJ** et al. (2012) Black reefs: iron-induced phase shifts on coral reefs. *The ISME Journal* 6: 638-649. **IF = 8.951**
- Williams GJ** et al. (2010) Modeling patterns of coral bleaching at a remote central Pacific Atoll. *Mar Poll Bull* 60: 1467-1476. **IF = 2.531**
- Williams GJ** et al. (2010) Predictive modeling of coral disease distribution within a reef system. *PLoS One*: 5(2): e9264 **IF = 3.73**

## F. Synergistic Activities

**Pedagogical:** Contribute to and oversee several BSc/MSc modules at Bangor University.

**Research tools:** Developed novel spatial routines (in R) for autocorrelated data (Gove & Williams et al. 2015 *MEPS*, Williams et al. 2015 *Ecography*) and multivariate multinomial data (Barott & Williams et al. *MEPS*). **Service:** **Associate Editor for *Proceedings of the Royal Society Biology*** (Jan 2018 onward). Assisted U.S. Fish & Wildlife Service and The Nature Conservancy with long-term benthic monitoring at Palmyra Atoll National Wildlife Refuge since 2007. Scientific advisor to NOAA. Regular reviewer for over 17 scientific journals including *PNAS*, *Nature CC*, *Nature Comms*. Former PI for the Reefs Tomorrow Initiative; a large collaborative grant funded by the Gordon and Betty Moore Foundation. **Leadership:** Have led >16 land-based expeditions and 3 ship-based expeditions to remote Pacific and Indian Oceans throughout 2007-2018. Coordinated a successful (US\$2.5 million) multidisciplinary grant application (Scripps, Stanford, UCSB, and the American Museum of Natural History) to the Gordon and Betty Moore Foundation.