



# Dieter Patrick Tracey

## Curriculum Vitae

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### SUMMARY

Dieter is an accomplished science communication professional with a diverse skillset who works with multidisciplinary teams at the interface of science, communication, graphic design and data visualisation.

He is adept at synthesising and communicating information, data, and concepts to inform the management and conservation of coastal and marine ecosystems. As the principal of **Science Insights**, an independent science communication consultancy, he collaborates with organisations such as **C2O Consulting** to deliver clear, engaging, and impactful outputs. With a broad science education and interdisciplinary skills in science writing, design, illustration, digital imaging, and spatial analysis (ArcGIS, R, QGIS), Dieter interprets scientific information clearly and cogently for diverse audiences.

### KEY ROLE

**Lead Writer — Reef Outlook**, Great Barrier Reef Marine Park Authority

As lead writer on the **Great Barrier Reef Outlook Report 2024**, I played a key role in its timely completion, drafting chapters and major sections, including the executive summary and chapter summaries. I engaged topic experts to ensure clarity and accuracy, coordinated staff input, and contributed to quality assurance through stakeholder engagement, editing, peer review, and design. My efforts in mentoring team members and enhancing visual storytelling were well received, earning positive feedback from managers, peer reviewers, and board members.

### EDUCATION

2006–2008	Bachelor of Photography, James Cook University (JCU) University Medal (2008)
1995–1999	Bachelor of Science (Hons I in Botany), The University of Queensland (UQ)   University Medal (1999)

### PROFESSIONAL HISTORY

2024–	Principle, <i>Science Insights</i> , providing a range of services including writing, spatial analysis and mapping (ArcGIS), graphic design, digital illustration, digital imaging, and page layout services
2022–2024	Lead Writer — Great Barrier Reef Outlook Report 2024 (GBRMPA Executive Level 1.3)
2013–2022	Casual research worker (HEWL6 Step 40), Catchment to Reef Processes team, <b>TropWATER</b> , James Cook University Freelance science communicator
2009–2010	Freelance and contract work, including for SymbioSeas (reporting to Dr Jeffrey Maynard, <b>GBRMPA</b> (Dr Roger Beeden), <b>TERN</b> (Prof. Stuart Phinn), <b>Centre for Marine Science</b> , UQ (Dr Simon Albert) and the <b>Remote Sensing Research Centre</b> , UQ (Dr Chris Roelfsema)
2008–2009	Project officer, reporting to Dr Roger Beeden, Climate Change Group, Great Barrier Reef Marine Park Authority
2002–2007	Environmental Officer, reporting to Malcolm Robb, Aquatic Science Branch, Department of Water, WA
2001–2002	Project Officer, reporting to Lynne Turner, (National Management Study Coordinator), Coastal CRC, Brisbane
2000–2001	Research Assistant for National Land and Water Resources Audit (Estuaries) and Ecosystem Health Monitoring Program, (A/Prof Bill Dennison, UQ)

### SKILLS AND ACCOMPLISHMENTS

#### SCIENCE COMMUNICATION

- Ability to synthesise diverse environmental information by integrating multiple information sources and expert insights.
- A demonstrated aptitude for distilling scientific concepts into a range of formats including text, conceptual diagrams, photographs and interactive visual tools, and compiling diverse material into newsletters, reports, books, posters, websites and presentations.

#### PROJECT MANAGEMENT AND LEADERSHIP

- As the lead writer on the **Great Barrier Reef Outlook Report 2024**, I was actively involved in managing the project using Azure DevOps for planning, tracking, and coordinating staff input and reviews.
- As a project lead for the **US Coral Reef Monitoring Data Summary 2018**, I developed regional templates and managed large volumes of text, figures, images, and data from US-affiliated territories, focusing on collating and processing this information into a cohesive report.

#### COMPUTING, DIGITAL IMAGING, DESIGN, GIS

- Familiar and comfortable working within a Microsoft-affiliated organization using Teams for remote collaboration and communication, and Outlook for managing emails and scheduling.
- Decades of experience with Adobe Creative Suite software with proficiency in InDesign, Illustrator, Photoshop, and Lightroom; comfortable working with vector, raster and pdf formats, designing and typesetting documents to a professional standard, creating accessible documents, and implementing efficient digital workflows.
- Over 7 years of experience with GIS spatial analysis using ArcGIS and Python, skilled in generating polished mapping products with ArcMap/QGIS and Adobe Illustrator. Completed GIS coursework at Curtin University, covering geographic information systems, geographic data analysis, and digital remote sensing.
- Deep knowledge of color theory for producing accurate graphics and clear scientific communication.
- Experience using R (especially ggplot2) for graphical and data visualization within an integrated design workflow.
- Experience in web graphic design using HTML, CSS, JavaScript (jQuery), Dreamweaver, and Google Maps API.

#### ENVIRONMENTAL MONITORING

- Practical experience in environmental monitoring programs, including the **GBR Marine Monitoring Program**, **Ecosystem Health Monitoring Program** (SEQ), and the **Swan-Canning Cleanup Program**.

#### PHOTOGRAPHY

- Professional commissions include aerial work for TropWATER, Coastal CRC, and WA Department of Water, with featured images in major reports like the Outlook Report (2019 and 2024) and the 2022 Scientific Consensus Statement (front and back cover images).

### REFEREES

Rohanna Rogan-Darvill, Assistant Director (Outlook Report)  
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Chloe Schauble, Director, Science for Management  
e: [chloe.schauble@brmpa.gov.au](mailto:chloe.schauble@brmpa.gov.au) | ph: 0404 207 185

Jane Waterhouse, Casual Senior Research Scientist – Catchment to Reef Processes, Centre for Tropical Water and Aquatic Ecosystem Research (**TropWATER**). e: [jane.waterhouse@jcu.edu.au](mailto:jane.waterhouse@jcu.edu.au) | ph: 0409 053 367

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### SELECTED PUBLICATIONS

Great Barrier Reef Marine Park Authority. 2024. *Great Barrier Reef Outlook Report 2024*. Reef Authority, Townsville.

Duke NC, Virly S and **Tracey DP**. 2023. *New Caledonian Mangroves. A Treasure to Protect*. MangroveWatch & James Cook University, Currumbin Queensland, Australia. 220 pages.

Gove JM, Maynard JA, Lecky J, **Tracey DP**, Allen ME, Asner GP, Conklin C, Couch C, Hum K, Ingram RJ, Kindinger TL, Leong K, Oleson KLL, Towle EK, van Hoodonk R, Williams GJ, Hospital J. 2022. *Ecosystem Status Report for Hawai'i 2022*. Pacific Islands Fisheries Science Center, PIFSC Special Publication, SP-23-01, 91p. doi:10.25923/r53p-fn97

NOAA. 2018. *US Coral Reef Monitoring Data Summary 2018*. NOAA Coral Reef Conservation Program. NOAA Technical Memorandum CRCP 31, 224 pp. doi: 10.25923/g0v0-nm61. Project Leaders: JA Maynard, **DP Tracey**, and JF Kimball

Devlin MJ, Lyons BP, Bacon J, Edmonds N, **Tracey DP**, Al Zaidan AS., Al Ajmi F, Al-Wazzan ZA, Al-Hussain MM, Al Khaled H, and Le Quesne WJF. 2019. Principles to enable comprehensive national marine ecosystem status assessments from disparate data: the state of the marine environment in Kuwait. *Estuarine, Coastal and Shelf Science*, 230. 106407.

Devlin MJ, Petus C, Da Silva E, **Tracey DP**, Wolff NH, Waterhouse J, and Brodie J. 2015. Water quality and river plume monitoring in the Great Barrier Reef: an overview of methods based on ocean colour satellite data. *Remote Sensing*, 7 (10). pp. 12909-41.

Maynard J, Byrne J, Kerrigan K, **Tracey DP**, Bohnsack K, Pagan F, Walczak J and Williams GJ. 2017. *Coral reef resilience to climate change in the Florida Reef Tract*. Florida DEP Technical Report.

Maynard J, Conklin E, Minton D, Williams GJ, **Tracey DP**, et al. 2019. *Assessing the Resilience of Leeward Maui Reefs to Help Design a Resilient Managed Area Network*. NOAA Coral Reef Conservation Program. NOAA Technical Memorandum CRCP 33, 40 pp.

Maynard JA, Gove JM, **Tracey DP**, Johnson JE, et al. 2019. *Coral Reefs: Vulnerability to climate change in West Hawai'i*. NOAA, 2019. 8pp.

Maynard J, McKagan S, Raymundo L, Johnson S, Ahmadiya GN, Johnston L, Houk P, Williams G, Kendall M, Heron SF, van Hoodonk R, McLeod E, **Tracey DP**, and Planes S. 2015. Assessing relative resilience potential of coral reefs to inform management. *Biological Conservation*, 192. pp. 109-119.

Maynard JA, **Tracey DP**, Ambariyanto, Anthony KRN, **Johnson JE**. 2010. *Guide to critical issues for coral reef managers of Indonesia*. Universitas Diponegoro Semarang and The University of Queensland. 70pp.

Maynard JA, **Tracey DP**, Williams GJ, Andradi-Brown DA, Grill G, Thieme M, Ahmadiya G. 2019. *Mangrove Cover Change between 1996 and 2016 Near River-Ocean Outlets: A Global Analysis to Identify Priority Rivers for Conservation*. World Wildlife Fund, 10.6084/m9.figshare.8094245

Petus C, Devlin M, Thompson A, McKenzie L, Da Silva E, Collier C, **Tracey DP**, and Martin K (2016), Estimating the exposure of coral reefs and seagrass meadows to land-sourced contaminants in river flood plumes of the Great Barrier Reef: validating a simple satellite risk framework with environmental data. *Remote Sensing*, 8 (3).

Turner L, **Tracey DP**, Tilden J, Dennison WC. 2004. *Where River Meets Sea: Exploring Australia's Estuaries*. Cooperative Research Centre for Coastal Zone, Estuary and Waterway Management. Brisbane, Australia. 277pp.

Waterhouse J, Brodie J, **Tracey DP**, Smith R, Vandergragt M, Collier C, Petus C, Baird M, Kroon F, Mann R, Sutcliffe T, Waters D, and Adame F (2017), *2017 Scientific Consensus Statement, Chapter 3: the risk from anthropogenic pollutants to Great Barrier Reef coastal and marine ecosystems*. Report Section. State of Queensland.

### DESIGN WORK EXAMPLES

#### REPORTS AND FLYERS: DESIGN AND LAYOUT

Albert, S. 2013. *Climate Change in Roviana Lagoon, Solomon Islands*. The University of Queensland. 24pp.

Albert S, Udy J, Tibbetts IR. 2013. *Solomon Islands marine life: information on biology and management of marine resources*. UQ. Brisbane. 126pp.

Australia Caribbean Coral Reef Collaboration. 2014. *Improving the Outlook for Caribbean Coral Reefs: A Regional Plan of Action 2014-2019*, Flyer, 4pp. | *Outlook for the Pitons and Soufriere Marine Management Areas*, 84pp. | *Outlook Report In Brief: Pitons and Soufriere Marine Management Areas*, Great Barrier Reef Marine Park Authority, Townsville. 36pp.

Belize Coastal Zone Management Authority & Institute and Australia-Caribbean Coral Reef Collaboration. 2014. *Framework for Marine and Coastal Biodiversity Offsets for Belize*, GBRMPA, Townsville. 32pp. | *Introducing the Framework for Marine and Coastal Biodiversity Offsets for Belize*. Flyer. 4pp.

Cefas, UKHO and National Oceanography Centre, UK. 2017. *Preliminary Outcomes of an Integrated Water Quality Assessment for Port Vila, Efate (Vanuatu)*, 6pp.

Great Barrier Reef Marine Park Authority. 2012. *Extreme Weather and the Great Barrier Reef*. GBRMPA, Townsville. 26pp. | 2014. *A reef manager's guide to community stewardship: harnessing people power for reef conservation*. GBRMPA, Townsville. 40pp.

Maynard JA, Marshall PA, Parker B, McLeod E, Ahmadiya G, van Hoodonk R, Planes S, Williams GJ, Raymundo L, Beeden R, Tamelander J. 2017. *A Guide to Assessing Coral Reef Resilience for Decision Support*. Nairobi, Kenya: UN Environment. 52pp.

#### CURRICULUM AND TRAINING MATERIALS

- Design and layout of training materials for World Bank-funded 'Wetland Conservation And Coral Reef Monitoring For Adaptation To Climate Change (WCCM) Project In Maldives' (National Coral Reef Monitoring Framework), 2013
- Design and layout of training materials for Packard Foundation-funded *Guide to critical issues for coral reef managers of Indonesia*. Universitas Diponegoro Semarang and UQ (2010)
- Great Barrier Reef Marine Park Authority. *Eye on the Reef — Reef Health and Impact Point Surveys: monitoring form and visual aid*. GBRMPA, Townsville (2012)
- Design and production of training materials for *Reserve Watch* coral reef monitoring program (2009)
- DVD artwork for *Mining The Future: A Journey of Discovery and Learning Across Melanesia*. UQ and LookLearn Media (2013) | *What is mining?* (12x A0 flipcharts) (2014), and *What does a mine look like?* (A2 poster) (2013). The Nature Conservancy

#### GRAPHICS AND FIGURES

- Figure and map support, *Great Barrier Reef Outlook Report 2024*
- Figure preparation for over 50 peer-reviewed journal articles
- Preparation of schematic diagrams for the National Water Account, Bureau of Meteorology (2013) | Digital illustration of Torres Strait Futures Workshop 'Imagined Futures' Drawings. CSIRO and C2O Consulting (2013) | Conceptual diagram development for the Terrestrial Ecosystem Research Network (TERN) (2010)
- Preparation of figures for publication, *Ernest Hodgkin's Swanland – Estuaries and Coastal Lagoons of South-western Australia* by Dr Anne Brearley, UWA Press 550pp. (2005)

### PHOTOGRAPHY

eyri photography (<https://www.eyri.photography>)

500px (<https://500px.com/dietertracey>)