

RICKARD ABOM, PH.D.

Townsville, Queensland, Australia | rickard.abom@gmail.com

Habitat Restoration • Carbon Farming • Invasive Species Management • Biodiversity Conservation



PROFESSIONAL SUMMARY

Accomplished environmental conservation professional with a Ph.D. in Conservation Biology and over 15 years of experience managing complex ecological programs across northern Australia and the Great Barrier Reef. Proven track record delivering multi-million-dollar conservation programs spanning habitat restoration, carbon farming, invasive species management, biodiversity corridors, and reef water quality. Skilled in leading multidisciplinary teams with a strong peer-reviewed publication record. Combines scientific rigour with adaptive management to deliver outcomes that are ecologically sound and economically viable for landholders.

CORE COMPETENCIES

Landscape-scale habitat restoration & rehabilitation
Carbon farming & climate-positive agriculture
Invasive species control & biodiversity monitoring
Biodiversity corridor design & connectivity
Crown-of-Thorns Starfish (COTS) control programs
Fire ecology & prescribed burn integration

Water quality improvement & precision agriculture
Drone-based ecological mapping (CASA RePL)
Multi-million-dollar program & budget management
Stakeholder & Traditional Owner engagement
Team leadership & organisational change management
Risk management & WHS systems

PROFESSIONAL EXPERIENCE

Crown-of-Thorns Starfish (COTS) Control Program Manager

Reef and Rainforest Research Centre (RRRC) | 2020 – Present

- Manage multiple Crown-of-Thorns Starfish control vessels in partnership with the Great Barrier Reef Marine Park Authority (GBRMPA)
- Drive strategic program development and operational efficiency optimisation for on-water control operators
- Oversee contract management, milestone reporting, and field data
- Liaise with GBRMPA to align operational protocols

Reef Coastal Restoration Program Manager

Reef and Rainforest Research Centre (RRRC) | 2024 – Present

- Map nutrient and sediment pollution hotspots across the Russell-Mulgrave catchment to target downstream restoration interventions
- Lead wetland restoration, reconnecting flow lines and habitat corridors for nature-positive outcomes
- Partner with Indigenous Rangers on “healing country” projects, integrating Traditional Ecological Knowledge and cultural benefits
- Coordinate landholder in-kind contributions

Water Quality Program Manager – Russell-Mulgrave Catchment

Reef and Rainforest Research Centre (RRRC) | 2021 – 2024

- Managed a Great Barrier Reef Foundation-funded water quality improvement program
- Reducing dissolved inorganic nitrogen (DIN) and sediment runoff
- Coordinated DIN hotspot mapping and drain intervention works; managed multi-agency partnerships across government and research sectors
- Delivered contract milestone reporting and outcome documentation supporting funding justification and policy development

Marine Science Technical Services Manager

James Cook University, College of Science and Engineering | 2011 – 2020

- Managed 20 research and 10 teaching laboratories, ensuring WHS compliance and developing risk assessments for 50 academic subjects
- Coordinated 8 domestic and 2 international field expeditions, managing logistics for up to 45 students and staff per group
- Held GBRMPA permits and led scuba, snorkelling and vessel operations to Australian standards for occupational and scientific diving
- Supported 40 academics across 50 subjects, managing between 25 and 350 students per practical class

EDUCATION

Ph.D., Conservation Biology / Ecology / Zoology — James Cook University, 2016

Thesis: The Impact of Weeds and Prescribed Fire on Faunal Diversity

Postgraduate Certificate in Zoology — James Cook University, 2008

Double Bachelor of Science (Marine Biology & Zoology) — James Cook University, 2007

CERTIFICATIONS & TECHNICAL SKILLS

- CASA Certified Remote Pilot Licence (RePL) – commercial drone operations for ecological survey work
- PADI Master Instructor (20+ specialty levels); PADI First Aid at Work Instructor Trainer
- Work Health & Safety Advisor (10312NAT); Advanced First Aid; Advanced Resuscitation Techniques
- Certificate IV in Training and Assessment (TAE40116); MBA Leadership (8001LEAD)
- Certificate II in Maritime Operations (Coxswain Grade 1); Certificate III in Driving Operations (medium rigid)
- Software: MS Office Suite, SPSS, CANOCO, PC-Ord, MARK, Riskware, Concur, Adobe Premiere Pro/Lightroom, GeoNADIR

PUBLICATIONS

- Davies, A.M., Webster, A.J., Fielke, S., Buono, L., Morris, S., & Abom, R. (2025). Trust frameworks and technology with Australian farming stakeholders. *Frontiers in Sustainable Food Systems*, 9:1638992.
- Macdonald, K., Driscoll, D.A., Craig, M.D., Doherty, T.S., Abom, R., et al. (2025). Cross-continental analysis shows that disturbance effects on reptile body condition do not predict abundance responses. *Global Change Biology*.
- Matthews, S.A., Williamson, D.H., Beeden, R., Emslie, M.J., Abom, R.T.M., et al. (2024). Protecting Great Barrier Reef resilience through effective management of Crown-of-Thorns Starfish outbreaks. *PLOS One*.
- Konow, N., Price, S., Abom, R., Bellwood, D., & Wainwright, P. (2017). Decoupled diversification dynamics of feeding morphology following a major functional innovation in marine butterflyfishes. *Proceedings of the Royal Society B*, 284:20170906.
- Abom, R., & Schwarzkopf, L. (2016). Behavioural differences in response to predation risk in tropical savannah rodents. *Animal Behaviour*, 122:117–124.
- Abom, R., Parsons, S., & Schwarzkopf, L. (2016). Complex mammal species responses to fire in a native tropical savannah invaded by non-native grader grass (*Themeda quadrivalvis*). *Biological Invasions*, 18:3319–3332.
- Abom, R., & Schwarzkopf, L. (2016). Short-term responses of reptile assemblages to fire in native and weedy tropical savannah. *Global Ecology and Conservation*, 6:58–66.
- Abom, R., Vogler, W., & Schwarzkopf, L. (2015). Mechanisms of the impact of a weed (*Themeda quadrivalvis*) on reptile assemblage structure in a tropical savannah. *Biological Conservation*, 191:75–82.
- Hacking, J., Abom, R., & Schwarzkopf, L. (2014). Why do lizards avoid weeds? *Biological Invasions*, 16:935–947.
- Abom, R., Bell, K., Hodgson, L., & Schwarzkopf, L. (2012). Moving day and night: highly labile diel activity patterns in a tropical snake. *Biotropica*, 44:554–559.
- Erdmann, S., Johnson, J., Abom, R., Waterhouse, J., & Haynes, D. (2021). Innovations in Crown-of-Thorns Starfish control on the Great Barrier Reef: A synthesis of NESP Tropical Water Quality Hub research. Report to the National Environmental Science Program.

LEADERSHIP HIGHLIGHTS

- Led teams through major organisational restructures at James Cook University (2015, 2017, 2018) and the COVID-19 response (2020)
- Led a team awarded the Certificate of Achievement for Excellence in Service (2019)
- Implemented project management and reporting systems to track delivery, budgets, and team performance
- Built professional development pathways and recognition systems supporting staff growth and retention

AWARDS

- Certificate of Achievement for Team Excellence in Service — James Cook University (2019)
- Certificate of Achievement for Excellence in Leadership — James Cook University (2018)
- Certificate of Achievement for Commitment to Continuous Improvement — James Cook University (2018)
- Certificate of Achievement for Outstanding Contribution — James Cook University (2017)

PROFESSIONAL AFFILIATIONS

Reef & Rainforest Research Centre | TropWater Quality Hub research network | Great Barrier Reef conservation partner organisations | Australian conservation and ecology professional networks