
ADAM BOURKE

CURRICULUM VITAE

ACADEMIC QUALIFICATIONS

Bachelor of Science, Honours (BSc Hons), Charles Darwin University, 2011
Bachelor of Environmental Science Environmental Management (BESEM), Charles Darwin University, 2010
Diploma of Marine Studies (Fisheries Management), TAFE, Western Australia

EMPLOYMENT HISTORY

2011- present Senior Environmental Scientist, EcoScience NT Pty Ltd
2016- present Research Associate, Hutley Eco-Physiology Lab, Charles Darwin University, NT
2010 - 2011 Research Associate, Tropical Rivers and Coastal Knowledge, Charles Darwin University, N.T
2008 –2010 Laboratory Technician, Intertek Mineral Services

PROFESSIONAL EXPERIENCE

Adam Bourke, senior scientist with EcoScience has a Masters degree in mangrove ecology and over 12 years of experience as an environmental consultant. He has been involved in a large number of major mangrove assessment and monitoring projects conducted by EcoScience NT in Darwin Harbour and participated in a diverse range of mangrove research projects across the Top End. Adam's experience in major biodiversity surveys extends to Groote Island, the Gulf of Carpentaria, Timor Leste and New Caledonia. Adam holds a RePL, is an experienced RPAS operator specializing in remote sensing in mangrove habitats. He is rapidly expanding his knowledge of aerial mapping and GIS analysis and will complete a Graduate Certificate in Spatial Science in 2023.

2011 - 2023 Senior Environmental Scientist, *EcoScience NT*

Relevant experience:

Sea Dragon Project, Mangrove Assessment and Monitoring Program, Bynoe Harbour 2021 - 2022– Sea Farms Pty Ltd
Annual Mangrove Surveillance Monitoring Program, 2018 to 2022 – CDM Smith for Santos (formerly ConocoPhillips)
Channel Island Pipeline Project, Mangrove Rehabilitation, 2021 – Spiecapag Australia Pty Ltd
Anindilyakwa Ranger Training, Mangrove Monitoring Program – Groote Island 2021 - Anindilyakwa Land Council
Ichthys Onshore Operations Mangrove Monitoring Program, Annual Survey, March 2020 – Jacobs
Monitoring of Mangrove Community Health, Ichthys Onshore Project, Nov '13 to Mar '19 – Greencap.
Monitoring of Mangrove Rehabilitation, Gas Export Pipeline Project, Sept 2014 to Dec 2016– INPEX Browse.
Mangrove Rehabilitation Project, Tiger Brennan Drive Darwin, November 2015 – Chief Group.
Baseline Flora and Fauna Survey, East Arm Marine Industry Park, April 2015 – URS Australia.
Preliminary Terrestrial Flora & Fauna Survey, Remote Radar Station, Berrimah - AEC & JKC
Mangrove Rehabilitation Project, Ichthys INPEX Gas Export Pipeline, Dec 2013 – Boskalis.
Mangrove Monitoring Program, Ichthys INPEX Gas Export Pipeline Project – Feb '12 – Boskalis Pty Ltd.
Mangrove Health Monitoring Program, Ichthys Nearshore EMP, Mar 2012–Mar '14 - Cardno & INPEX.
Monitoring of Mangrove Flora & Fauna at WPIAF, Oct 2011 – Oct 2013, Wickham Point Development.
Mangrove survey & impact assessment, Weddell EIA, April 2011 – DPI, NT Government.

RESEARCH EXPERIENCE

2019 – 2023 Coastal mangrove RSET-MH project, Darwin Harbour. Field installation and monitoring of research project examining sedimentation rates in relation to sea level rise in mangroves. Research Associate, Charles Darwin University

2021 Bush Blitz – Groote Eylandt, NT. Mangrove invertebrate and freshwater fish biodiversity survey of Groote Eylandt for Parks Australia, NT. Intensive field survey working in collaboration with MAGNT to collect species new to science (with particular emphasis on mangrove-associated molluscs and gobies).

2019 Coastal mangrove RSET-MH project, Timor-Leste. Field installation and community training project. Research Associate, Charles Darwin University for Sustainable Development Unit, UNDP Timor-Leste.

2018 - 2020 NESP, Gulf of Carpentaria Mangrove Dieback Study, QLD & NT. Field surveys measuring mass forest dieback, elevation profiles and sampling mangrove malacofauna. Research Associate, James Cook University and Charles Darwin University.

2018 *Our Planet Reviewed* KOUMAC 2 Expedition, Koumac, New Caledonia. Marine biodiversity survey with the National Museum of Natural History, Paris. Intensive field survey collecting and identifying mangrove-associated molluscs, focusing specifically on the gastropod families Ellobiidae and Onchididae (in collaboration with Benoit Dayrat Lab, Penn State University).

RESEARCH EXPERIENCE continued

- 2017** **RIEL PhD student project** - Potential greenhouse gas emission reductions and carbon sequestration benefits from rehabilitating mangroves in Sulawesi, Indonesia. Mangrove invertebrate fauna survey in North Sulawesi, Indonesia. Research Associate, Charles Darwin University.
- 2011** **Adam J Bourke (2011) *The Effect of Boardwalks on Macrofaunal Communities in Darwin Mangrove Forests***. BSc Honours thesis, Charles Darwin University, Darwin.

PUBLICATIONS

- Bourke, A. J. (2021). Observations on the gastropod prey of *Chicoreus capucinus* (Gastropoda: Muricidae) in Darwin Harbour mangroves. *Northern Territory Naturalist*. 30: 84-90.
- Goulding, T. C., Bourke, A. J., Comendador, J., Khalil, M., Quang, N. X., Tan, S. H., & Dayrat, B. (2021). Systematic revision of *Platevindex* Baker, 1938 (Gastropoda: Euthyneura: Onchidiidae). *European Journal of Taxonomy*, 737, 1-133.
- Harada, Y., Connolly, R. M., Fry, B., Maher, D. T., Sippo, J. Z., Jeffrey, L.C., Bourke, A.J., and Lee, S.Y. (2020). Stable isotopes track the ecological and biogeochemical legacy of mass mangrove forest dieback in the Gulf of Carpentaria, Australia. *Biogeosciences*, 17(22), 5599-5613.
- Dayrat, B., Goulding, T. C., Apte, D., Aslam, S.; Bourke, A., Comendador, J., Khalil, M., Ngô, X. Q., Tan, S. K., and Tan, S. H. (2020). Systematic revision of the genus *Peronia* Fleming, 1822 (Gastropoda, Euthyneura, Pulmonata, Onchidiidae). *ZooKeys*. 972: 1-224.
- Bourke, A. J. (2019). A record of fish predation by the mangrove crab *Epixanthus dentatus* (Brachyura: Oziidae). *Northern Territory Naturalist*. 29: 95-97.
- Dayrat, B., Goulding, T. C., Bourke, A. J., Khalil, M., & Tan, S. H. (2019). New species and new records of Melayonchis slugs (Gastropoda: Euthyneura: Pulmonata: Onchidiidae). *Raffles Bulletin of Zoology*, 67.
- Bourke, A. J. (2019). An observation of Burton's Legless Lizard (*Lialis burtonis* Gray, 1835) in a tropical mangrove forest. *Northern Territory Naturalist*. 29: 54-56.
- Dayrat, B., Goulding T. C., Khalil, M., Bourke A. J., Comendador, J., Tan, S.K., and Tan, S.H. (2019). A new genus of air-breathing marine slugs from South-East Asia (Gastropoda: Pulmonata: Onchidiidae). *Zootaxa*.
- Dayrat, B., Goulding, T. C., Khalil, M., Apte, D., Bourke, A. J., Comendador, J., and Tan, S. H. (2019). A new genus and three new species of mangrove slugs from the Indo-West Pacific (Mollusca: Gastropoda: Euthyneura: Onchidiidae). *European Journal of Taxonomy*. 500: 1-77.
- Bourke, A. J. (2018). First record of tree-climbing behaviour in the Striated Mudcreeper, *Terebralia sermistriata* (Gastropoda: Potamiidae). *Northern Territory Naturalist*. 28: 70-74.
- Bourke, A. J. (2016). Field identification of the *Platevindex* mangrove slugs (Mollusca: Gastropoda: Onchidiidae) of Darwin Harbour. *Northern Territory Naturalist*. 27: 102-105.
- Bourke, A. J., Walker, C. and Willan, R. C. (2016). First record of two mangrove leaf slugs, *Elysia leucolegnote* and *E. bangtawaensis* (Sacoglossa: Plakobranchidae) in mangrove forests in the Northern Territory. *Northern Territory Naturalist*. 27: 97-101.
- Levick, SR, K Metcalfe and A Bourke (2021) Monitoring mangrove rehabilitation with terrestrial laser scanning. CSIRO -EcoScience NT. CSIRO, Australia. Final report. 27 August 2021
- Neusser, T. P, Bourke, A. J, Metcalfe, K and Willan, R. C. (2015). First record of Aitengidae (Mollusca: Panpulmonata: Acochlidia) for Australia. *Northern Territory Naturalist*. 26: 27-31.

TRAINING & QUALIFICATIONS

- 2022 Remote Pilot Licence (RePL) & Aviation Radio Operators Certificate (AROC)
- 2021 Apply First Aid, St John Ambulance, N.T
- 2012 White Card – Construction Induction Certificate
- 2012 4wd Handling & Operation, SMART N.T
- 2004 Coxswain, SMIT, Darwin, N.T
- 2003 IANTD Nitrox Diver
- 2002 PADI Rescue Diver
- 2001-2002 Army Reservist, 16th Battalion, Royal Western Australia Regiment
- 1997 Australian Drivers Licence, classes C & L
- 1996 PADI Open Water and Advanced Diver