PROFILE



FISHERIES ECOLOGIST



Trent is a North Queensland local having grown up in Mackay and studied at JCU in Townsville. He enjoys the outdoors, is an avid recreational angler and has a keen interest in freshwater ecology. These interests fostered his career choice in aquatic ecosystem research and management. Trent has spent the past decade working throughout northern Australia in both consulting and research capacities, always driven by his desire to maintain functional aquatic ecosystems. Trent started with Catchment Solutions in 2014 and continues to apply his skills and knowledge through the Fisheries and Aquatic Ecosystems team.

Trent has been involved with numerous projects managing the design, construction and monitoring of fishways, research examining the ecological impacts of fish stocking, pest fish biology, ecology and integrated management, ecological baseline and rehabilitation monitoring, water quality assessments, as well as aquarium based fish physiology research.

Trent's current professional work involves the integrated management of pest fish in Central Queensland, fish barrier prioritisation, fishway design, construction and monitoring, as well as habitat restoration and improvement.

Trent has excellent project management and scientific skills gained from his work and educational experiences. His skills include experimental design and implementation, data collection using various techniques (e.g. electrofishing, netting, loggers etc.), remote area field work planning and operation, computer aided drafting, data analysis and report writing.

Trent is ideally placed to deliver on aquatic ecosystem monitoring activities and has the capacity to operate in freshwater, estuarine and near shore marine environments from a sub-catchment to regional level. Trent also has strong connections with industry, government and natural resource stakeholders, allowing him to effectively plan, develop, assess and manage freshwater and coastal habitats, fish barrier and fish passage developments, policy and management strategies, codes and guidelines.



"Trent has been involved with numerous projects managing the design, construction and evaluation of fishways, research examining the ecological impacts of fish stocking, pest fish biology, ecology and integrated management, ecological baseline and rehabilitation monitoring, water quality assessments, as well as aquarium based fish physiology research. Trent's current work includes the prioritisation of intertidal fish habitat loss in Central Queensland. With his considerable experience in fish passage and coastal ecosystems, Trent also leads many of the fishway and stream rehabilitation projects undertaken by the group."

KEY SKILL AREAS

- · Aquatic community monitoring and assessment
- Aquatic baseline assessment and management plans
- Aquatic pest assessment and management
- · Remote area planning and operations
- In-stream and bankside habitat rehabilitation
- Fishway design, construction and evaluation
- Experimental design and analysis applied applications
- · Aquatic policy and guideline development
- · Coastal development approvals
- Stakeholder engagement and liaison



EDUCATION AND TRAINING

Bachelor of Science (Aquaculture)

James Cook University - Townsville 2000-2006

Graduate Certificate of Science (Tropical Ecology)

James Cook University - Townsville 2009-2010

Certificate - Electrofishing Principles and Techniques

Fisheries NSW, Narrandera 2007

Certificate IV Engineering

TAFE, Mackay 2007

Certificate IV Computer Aided Drafting

TAFE, Townsville, 2009

Elements of Shipboard Safety

TAFE, Cairns, 2011

PAST EXPERIENCE

Fisheries Queensland

Fisheries Biologist 2006-2008

Agri-Science Queensland

Fisheries Technician 2010-2012

TropWATER (JCU)

Research Technician 2012-2014

RELEVANT PROJECTS

PROJECT	DESCRIPTION	ROLE	CLIENT	YEAR
Plantation & Sheepstation Creeks Fish Passage project	Design, Approvals & supervise the construction of 2 x rock ramp fishways	Construction supervision/ Suitably Qualified fish passage biologist	Lower Burdekin Water	2021
Scrubby Creek Fish Passage improvement project	Undertake fish passage options assessment & provide fish passage design requirements at a road causeway on Scrubby Creek	Suitably Qualified fish passage biologist	Logan City Council	2021
Mackay Whitsunday Fish Barrier Prioritisation	Using satellite imagery & GIS river network analysis identify & priority rank barriers to fish passage	Fisheries Ecologist, GIS	Reef Catchments NRM	2021
Petrie Creek Fish Passage project	Fish Passage Options assessment & design to remediate two weirs on Petrie Creek, Nambour	Suitably Qualified fish passage biologist	Sunshine Coast Council	2021
Queens Road & Gould Adams Weir Fish Passage project	Fish Passage Options Assessment, Design, Approvals at two fish barrier sites (causeway & weir) on Scrubby Ck	Suitably Qualified fish passage biologist	Logan City Council	2021
Dougherty's Road Fish Passage project	Design, Approvals & Construction supervision of culvert fish passage structure on Boundary Ck, Mackay	Fish Passage Design/ Suitably Qualified fish passage biologist	Mackay Regional Council	2020
DES Offset Fursden Ck Fishway Design	Fishway options Assessment, Fishway Design & Approvals	Suitably Qualified fish passage biologist	Dep. Environment & Science	2020
Clews Road Fish Passage Design & Construct	Fish Passage Options Assessment, Design, Approvals, Construction Supervision & Monitoring	Construction Supervision/ Suitably Qualified Fish Passage Biologist	Mackay Regional Council	2020
Palm Tree Rd (Sandy Ck) Causeway Fishway Design & Construct	Fish Passage Options Assessment, Design, Approvals, Construction Supervision & Monitoring	Site Supervisor /Suitably Qualified Fish Biologist	Mackay Regional Council	2020
Janes Creek Water Quality Treatment Train (FAE-1064)	Wetland design & construction	Operational planning & technical support	Reef Catchments	2019
Mackay regional pest fish monitoring – Jag Cichlid & Peacock Bass (FQ19010)	Fish community monitoring to assess the distribution & impact of pest fish within regional waterways	Operational planning & technical support	Qld Dept. of Agriculture & Fisheries/Mackay Regional Council	2018 - Ongoing
Jolimont Weir Fishway Design (1907-12040 SDA)	Design of Jolimont Weir fishway, Mackay including State Development Approval	Manager	Mackay Regional Council	2018 - 2019
Clews Rd upgrade, Murray Creek Fishway (1807-6114 SDA)	Design & construction supervision of fish passage provisions associated with new causeway structure	Design team technical support & construction supervisor	Mackay Regional Council	2018 - 2019
Central Qld Marine Urban Fish Community Monitoring (DAF1498CQB-4)	Identification, evaluation & management of Central Qld marine urban fish habitats	Manager	Qld Dept. of Agriculture & Fisheries	2017- 2019
Central Old Marine Fish Habitat Loss - Mapping & Prioritisation (DAF1498CQA-6 & 7)	Identification & prioritisation of tidal exclusion barriers for rapid rehabilitation decision making	Manager	Qld Dept. of Agriculture & Fisheries	2017- 2019

