**PhD Opportunity: CSIRO iPhD The goldlined rabbitfish *S.lineatus*; farming down the food chain for resilient, low trophic, Indigenous aquaculture.**

The Research Institute for Northern Agriculture (RINA) is seeking applicants for a unique opportunity to work with an in Indigenous enterprise in a remote Indigenous community which is developing a blue economy to safeguard the future of one of Australia's largest islands. The project will develop production methods for a herbivorous marine fish – the goldlined rabbitfish - to enable a more sustainable and climate-resilient future for Australian finfish aquaculture. The enhanced capacity of a strong collaboration between Charles Darwin University, Groote Aqua Aboriginal Corporation and the CSIRO, working alongside Anindilyakwa Traditional Owners, will yield a better understanding of goldlined rabbitfish propagation techniques and nutritional requirements. This will ultimately improve Groote Aqua's production efficiencies and consequently improve food security, revenues and employment prospects on Groote Eylandt, which are key milestones for the Aboriginal Corporation to prepare for and facilitate the transition from six-decades of mining to self-sufficiency.

**Scholarship and financial support:**

- A tax-exempt stipend commencing at $48,000 per year for four years, with annual increases over the four-year period (available to Australian citizens or permanent residents, and New Zealand citizens only)
- University relocation allowance may be available
- Generous project expense and development package of $13,000/year

**About the project:**

Australian finfish aquaculture involves carnivorous fishes that require a wild-caught fish component in their diet. Wild fishery landings plateaued three decades ago and thus the increasing demand for and use of wild-sourced ingredients for farming fish is unsustainable, particularly with respect to food security.

Rabbitfishes are marine herbivores, with some showing promising aquaculture potential. One of the largest rabbitfish species is the goldlined rabbitfish (GLR) *Siganus lineatus*, a popular fish in the South Pacific, which combines flexible nutritional requirements, high tolerance to variable water quality, and strong grazing capacity for fouling control in ponds, sea cages, and tanks, while also being an excellent food fish. Groote

Aqua Aboriginal Corporation (GAAC) is investigating the potential of including this species within its integrated low trophic aquaculture program to improve local food security and to develop a blue economy for a sustainable post mining future.

Over the past year, GAAC has established and maintained broodstock (monthly spawns) and conducted multiple successful larval rearing trials of GLR. This has enabled production of hatchery-bred juveniles, which have already been deployed in several trials. At the production facility, GLR were stocked into tanks deliberately allowed to develop significant macroalgal growth and successfully reduced algal biomass through active grazing, effectively "cleaning" the tanks. More recently, juvenile GLR were also supplied to the Darwin Waterfront to assist with macroalgae control. While this initiative is still in its early stages, the fish are grazing actively and showing good growth performance to date.

In this project, GAAC will work with CDU, the CSIRO and the successful candidate to develop and optimise hatchery and nursery production protocols for GLR so they can be introduced to sea cucumber production ponds to control macroalgae growth. In addition to being a 'cleaner fish', GLR also has great table fish potential as sustainable white flesh fish that does not require wild-caught fish in its diet. The benefits of growing this fish are therefore twofold: 1) reduced labour cost of cleaning ponds/tanks and 2) additional healthy protein produced locally. As per the Darwin Waterfront, GLR could also provide a solution beyond Groote Eylandt, such as for enclosed marinas and marine fish farms dealing with macroalgae outbreaks that are costly to remove. The project aims at enabling the assessment of the potential of GLR to play a key role for an Aboriginal community in their economic, environmental and social transition from a mining era to a blue future.

**About you:**

- You have a research background in fish biology, aquaculture, agriculture, animal science, veterinary science or similar and bring a high level of academic merit consistent with RTP stipend scholarship requirements
- Hold an Australian driving license or the capacity to obtain one
- Would ideally be based or willing to relocate to Darwin (other locations possible by negotiation)
- Have marine tropical fish breeding and rearing skills (desirable)
- Enjoy the tropics, wilderness and remote island life

**Benefits to you:**

- Generous stipend and support for project costs
- A professional development training program delivered alongside the PhD
- Direct industry engagement component provided by GAAC
- Quality supervision by CDU, CSIRO and GAAC
- Play an integral role in a highly collaborative multidisciplinary research team
- Contribute to research with real-world impact
- Access to Student Support Services and Wellbeing Support Program
- Work with a University committed to changing people's lives for the better through training, education, and research

**Selection criteria:**

- First Class Honours, MSc or equivalent containing a substantial research component in a relevant field such as aquaculture, agriculture, animal science, economics/business or similar field
- Fish handling skills with experience with aquaculture research facilities (desirable)

- Must meet the RTP stipend requirements, including being either an Australian permanent resident or citizen, or a New Zealand citizen

**How to apply:**
Email an expression of interest to Sunil Kadri (sunil.kadri@cdu.edu.au), including:

- A curriculum vitae, including a list of any peer-reviewed publications, conference presentations and relevant work and/or research experience
- A brief statement, not exceeding 500 words, describing your background, research experience and interest in this research project/area
- Names and contact details of two academic referees

**Application closing date:** 22 February 2026

**Commencement date:** March 2026

**Supervisory and Advisory Team:** Sunil Kadri (CDU), Valentin Thepot (GAAC), Tansyn Noble (CSIRO) eShepherd)

**Enquiries:** Professor Sunil Kadri sunil.kadri@cdu.edu.au, (08) 8946 7752

**Diversity and Inclusion:** At CDU, we actively celebrate our diversity. We innovate, embrace new ideas, and act with courage and kindness. We're about what we can give to the world rather than what we take, and we believe in the transformative power of education. We work hard to make sure every member of our university community feels that they truly belong. Understanding that it is through our focus on our people and leveraging our differences that will make CDU the most connected university in Australia, we are striving to ensure that our culture and our community are inclusive of all our staff, students and visitors. We are committed to maintaining a culture where everyone feels respected, safe, encouraged to speak up and supported in achieving their professional goals. You make CDU. And we want you to be exactly who you are.