Australian Government

Australian Institute of Marine Science

Research Scientist – Evolutionary Modeller

Coral Reef Adaptation

CANDIDATE INFORMATION PACK

Australian Government

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SAGE
SCIENCE IN AUSTRALIA GENDER EQUITY

AIMS was awarded Athena Swan Bronze status in 2020 by the Science in Australia Gender Equity (SAGE) program. This award recognises AIMS' commitment to improving gender equity, diversity and inclusion in STEMM disciplines.

The Australian Institute of Marine Science acknowledges the Traditional Owners of the land and sea on which we work. We recognise the unique relationships and enduring cultural and spiritual connection that Aboriginal and Torres Strait Islander people have to land and sea, and pay our respects to Elders past, present and future.

Photographic credit: *Shaun Hahn, Joe Gioffre, Christian Miller, Steve Clarke, Christian Miller, Chris Brunner, Nick Thake, David Deeley*

About AIMS

The Australian Institute of Marine Science is a corporate Commonwealth entity established under the *Australian Institute of Marine Science Act 1972* (AIMS Act). As Australia's tropical marine research agency, it is our mission to provide the research and knowledge of Australia's tropical marine estate required to support growth in its sustainable use, effective environmental management and protection of its unique ecosystems.

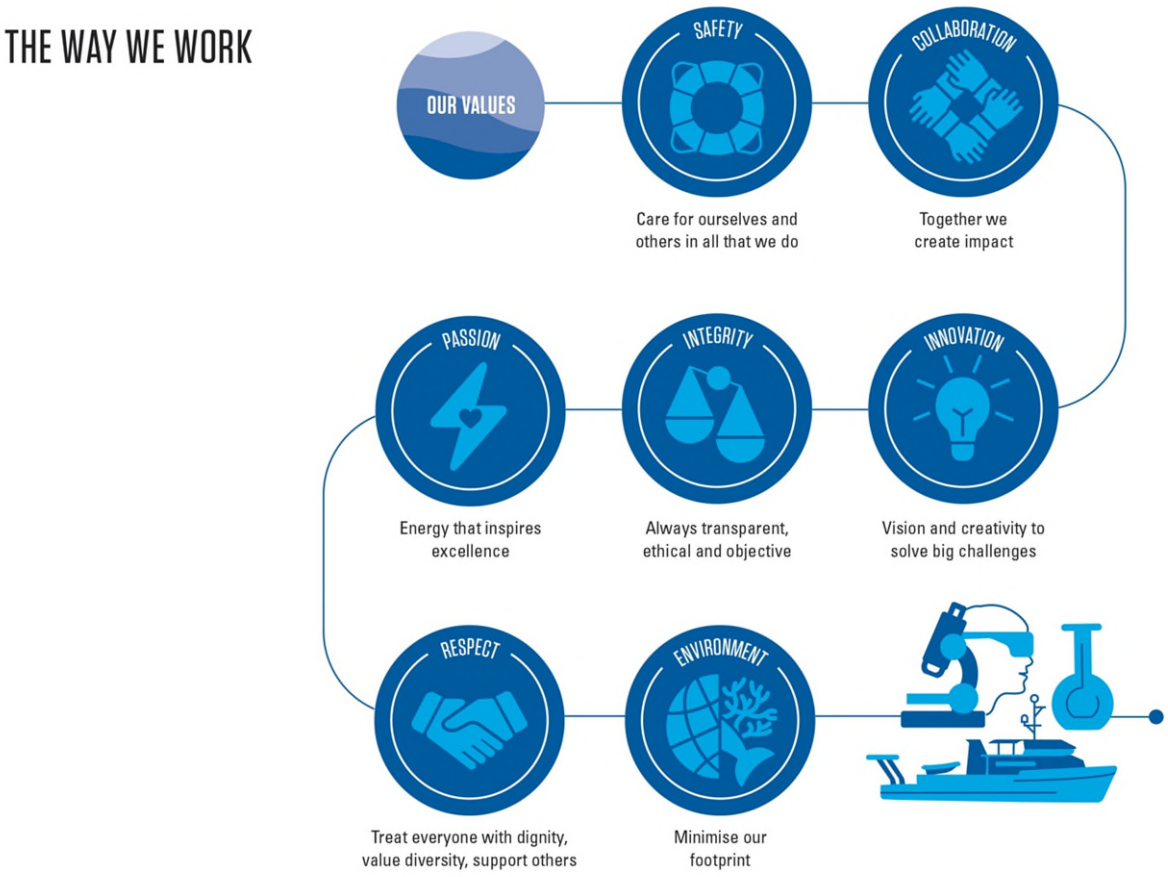
To accomplish our mission, AIMS delivers independent science to help realise three key long-term impacts for the nation:

- Improve the health and resilience of marine and coastal ecosystems across northern Australia.
- Create economic, social and environmental net benefits for marine industries and coastal communities.
- Protect coral reefs and other tropical marine environments from the effects of climate change.

Our research is focused on the priorities of Traditional Owners and our stakeholders, including Commonwealth, state and territory governments, and industry. Our research continues to:

- Underpin Australia's environmental management of the Great Barrier Reef (GBR) to ensure that this World Heritage Area remains healthy and resilient.
- Support the sustainable development of coastal industries and ports across northern Australia.
- Provide the environmental baselines and condition and risk assessments required for current and future resource and industrial developments in Northern Australia.

At AIMS, the way we work guides our team members' on their collective journey towards the successful delivery of our AIMS Strategy 2030 targets.



About Recovery Adaptation & Restoration Program's Coral Reef Adaptation Team

The *Reef Recovery, Adaptation and Restoration Program* delivers essential components of the *science for solutions* that are core to AIMS Strategy 2030.

Global and local stressors are increasingly impacting the Great Barrier Reef and reefs around the world. Corals that form key ecosystem functions must acclimatise and adapt to persist in a warming future. The Program's research progresses the understanding of the scope, rates and molecular mechanisms underpinning acclimatisation and adaptation- knowledge that is essential to forecast corals' responses, including bleaching susceptibility and mortality under different emission and management scenarios.

Applying this fundamental knowledge, the research and development delivered by this Program is testing the feasibility, benefits and risks of novel reef restoration and adaptation interventions that seed corals onto reefs. This includes developing techniques for coral enhancements that improve temperature tolerance and advancing large-scale aquaculture production of selected coral stock.

The Program is currently focused on four priority research areas:

- Delivery of coral propagation at scale, based on expanded knowledge of coral reproduction and early life history.
- Innovation to overcome bottlenecks in coral life-histories to optimise cost and scale of coral seeding techniques.
- Expanded knowledge of coral adaptation and the scope for enhancement to predict coral futures under climate change, and to evaluate the benefits and risks of enhancement.
- Expanded knowledge of the roles of microbial symbionts and innovation in hardening treatments for coral health and tolerance.

Program staff works closely with partners, particularly indigenous communities, and stakeholders to co-develop reef restoration and adaptation research and development and translate outcomes into benefits and value through relevant knowledge and tools.

The **Coral Reef Adaptation** team is focussed on understanding natural rates of acclimatisation and adaptation, if and how they can be enhanced for restoration and adaptation applications.

About Our Research Scientist – Evolutionary Modeler Position

About this opportunity

We are seeking someone to provide leadership in modelling of evolutionary and ecological processes to inform the estimation and monitoring of natural and enhanced evolutionary resilience in corals. Embedded in the Coral Reef Adaptation team you will collaborate with and provide linkages between empirical researchers and modellers.

As an experienced Research Scientist, your key responsibilities will include:

- Development of eco-evolutionary models of adaptation for corals using best available information on relevant ecological and evolutionary parameters under scenarios including and excluding assisted evolution;
- Designing and leading innovative research that is published in high impact journals to advance understandings of adaptation in wild, captive bred, and enhanced corals;
- Providing practical advice to scientists, aquaculture specialists, managers and practitioners regarding possible evolutionary and ecological trajectories under differing scenarios;
- Collaborating with a diverse team including geneticists, ecologists, aquaculturists, oceanographers and modellers;
- Supervising Early Career Researchers and students to execute impactful research.

About you

Your knowledge of population genetic and quantitative genetic theory will be supported by your PhD in evolutionary genetics or a relevant field. You are proficient in appropriate computer languages, working in an HPC environment, and implementing reproducible research principles. You have demonstrated experience using simulations or similar modelling approaches to address substantive questions in evolution and/or ecology.

You are passionate about teamwork and workforce diversity safety, and your respect for people and the environment will allow you to thrive in this position. You are skilled in communication, both written and verbal which will allow you to effectively communicate abstract concepts to non-specialists.

NB: *Non-Australian Citizens must hold an appropriate Visa with working entitlements that allows paid employment with AIMS from commencement and for the term of the appointment, depending on the relevant Department of Home Affairs current policies. AIMS may be able to consider sponsorship for international applicants for this role, however, please note that visa processing times can impact the ability for AIMS to consider sponsorship for vacancies. AIMS must meet the requirements of the Department of Home Affairs immigration policies and processes, including the necessity to test the local labour market for suitable applicants. This includes international talent pool members who are Australian visa holders who have relevant working rights.*

If, after reviewing the position description (refer pages 8 - 11), you believe that your qualifications, experience and professional capabilities will enable you to successfully deliver the position responsibilities, we would be very interested in hearing from you.

Apply now and join a world leading organisation with attractive working conditions which are detailed in our Enterprise Agreement. The successful candidate for this exciting opportunity will be rewarded with:

- AIMS AOF Level 5 to 7 salary ($113,275 to $167,524 per annum) plus 15.4% superannuation
- Full-time, Permanent opportunity
- Located in Townsville, Queensland. Commuter car arrangements to site available
- 9-day fortnight
- Flexible Work Arrangements considered (including tele-working where possible)
- Generous leave provisions
- Free onsite gym and optional Fitness passport
- Relocation assistance available.

How to Apply

Your application submission for this opportunity should include the following documentation:

- Current Resume (including the contact details for two current referees);
- Document addressing the Key Selection Criteria (refer to page 7) within the scope of the position description (refer to page 8-11); and
- A short cover letter.

NB: Our preference is that you include a list of your qualifications, publications, certificates and/or licences in your resume. Do not attach these documents to your application as these will not be provided to the selection panel.

Shortlisted applicants may be asked to complete a Personal Outlook Analysis Questionnaire using the Birkman Method.

How to apply: Please submit your application via our website (aims.gov.au).

Further information on the application process and tips for addressing Selection Criteria is available in our Recruitment Application Guide.

Recruitment contact: Position enquiries can be directed to Cynthia Riginos, Research Team Leader at c.riginos@aims.gov.au. *Applications must be made through our website per above.*

Closing date: MONDAY, 10 JUNE 2024 (midnight, AEST).

NB: *Applicant survey: All applicants will be invited to complete a voluntary survey after the vacancy closing date. Your responses to this survey do not form part of your application for this position. Further information about the purpose of this survey will be provided to you in the invitation.*

Key Selection Criteria

Your application submission should address the following Selection Criteria. Please address each Selection Criteria in a separate paragraph (maximum 250 words per criteria) and in a single document. The selection criteria and your CV are the documents against which we assess your suitability for the position.

Your responses to the following Key Selection Criteria must evidence your suitability for this exciting opportunity within the scope of the position description (pages 8-11).

Essential

- PhD in evolutionary genetics or similar field with demonstrable knowledge of population genetic and quantitative genetic theory.
- Demonstrated record of using simulations or similar modelling approaches to address substantive questions in evolution and/or ecology.
- Proficiency in appropriate computer languages (such as R, Python, and Eidos for SLiM), working in an HPC environment, and implementing reproducible research principles.
- Excellent statistical, writing, and communication skills including communicating abstract concepts to non-specialists.
- Passionate commitment to interdisciplinary teamwork, workforce diversity safety and respect for people and the environment.

Desirable

- A growing track record of mentoring students and Early Career Researchers to successful outcomes
- Experience with field research, although not necessarily with marine organisms
- Familiarity with conservation genetics

POSITION DESCRIPTION:
RESEARCH SCIENTIST – EVOLUTIONARY MODELER

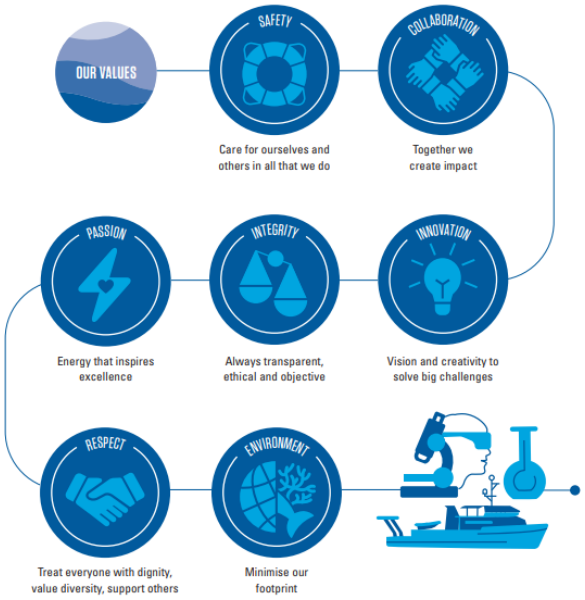
Position Description			
Position Title:	**Research Scientist – Evolutionary Modeler**		
Position Number:	21887		
Organisational Unit Name and Number:	Coral Reef Adaptation (7403)	**Program:**	Reef Recovery, Adaptation and Restoration (Program 10)
Salary cost centre:	7403		
Primary Location:	Townsville		
Agreement:	**AIMS Enterprise Agreement 2020 – 2023** (and any subsequent agreement)		
Position Classification:	AOF Level 5 to 7 (Dependant on appointee's relevant qualifications, knowledge, experience and skills)	**FTE Status:**	Full-time (1.0 FTE)
First Level Supervisor:	Research Team Leader – Coral Reef Adaptation Team (21121)		
Positions under Direct Supervision:	Up to 3		
Functional Area:	Research Scientist/ Engineer		

AIMS Strategy 2030

Our Mission

To provide the research and knowledge of Australia's tropical marine estate required to support growth in its sustainable use, effective environmental management, and protection of its unique ecosystems.

The Way We Work



Position Purpose	Provide leadership in modelling of evolutionary and ecological processes to inform the estimation and monitoring of natural and enhanced evolutionary resilience in corals. Collaborate with and provide linkages between empirical researchers and modellers.
Position Responsibilities	• Develop eco-evolutionary models of adaptation for corals using best available information on relevant ecological and evolutionary parameters under scenarios including and excluding assisted evolution. • Design and lead innovative research that is published in high impact journals to advance understandings of adaptation in wild, captive bred, and enhanced corals.

<table>
<tr><td></td><td>

Provide practical advice to scientists, aquaculture specialists, managers and practitioners regarding possible evolutionary and ecological trajectories under differing scenarios.
Collaborate with a diverse team including geneticists, ecologists, aquaculturists, oceanographers and modellers.
Supervise Early Career Researchers and students to execute impactful research.
Comply with AIMS' Code of Conduct ensuring the standards of conduct required of an AIMS staff member are upheld.
Be an active and contributing employee dedicated to upholding and promoting AIMS' Strategy 2030 and acting accordance with our Values.

</td></tr>
<tr><td colspan="2">Key Responsibilities and Performance Standards</td></tr>
<tr><td>Science Outputs:</td><td>
Milestones: Ensure the successful completion of specific tasks as outlined within the research team plan.

Publications: Balance leading and supporting roles in high impact peer reviewed publications including conceptualisation, experimental design, analyses, and writing

Presentations: Present original research in public settings including scientific conferences and public outreach
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<tr><td>Work Health and Safety (For All Staff)</td><td>

Comply with AIMS' WHS policies and procedures to ensure a safe workplace.
Identify workplace hazards and take corrective action with your supervisor's guidance.
Take reasonable care to ensure your own safety and health at work.
Avoid adversely affecting the safety and physical or psychological health of any other person.
Identify and report health and safety hazards, incidents, injuries or property damage at the workplace.
Comply with health and safety instructions as indicated.
Ensure correct Personal Protective Equipment (PPE) is used for the task or activity as applicable. Take care to follow signage and direction as indicated.
Complete WHS Inductions as directed.
Strong commitment to and sound knowledge of principles and practices of Work Health and Safety and Workplace Diversity and Inclusion.
Ensure early reporting of physical or psychological factors that may impact on the completion of your daily position responsibilities so that reasonable adjustments may be considered.
Comply with Visitor Registration procedures and ensure visitors that you sponsor complete the relevant WHS inductions prior to attendance at the applicable AIMS site.

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<tr><td>Work Health and Safety (for Supervisors/Managers/Leadership Team)</td><td>

Raise WHS awareness throughout AIMS Programs.
Facilitate continuous improvement and cultural beliefs around safety.
Actively promote and disseminate WHS information.
Provide and maintain workplaces, plant, and systems of work such that, so far as is practicable, employees are not exposed to physical or psychological hazards.
Provide information, instruction, training and supervision of employees as is necessary to enable them to perform their work in such a manner that they are not exposed, and do not expose others to physical or psychological hazards.
Implement components of WHS management systems.
Implement hazard identification, risk assessment and control.
Implement incident investigation, reporting and record keeping.

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<tr><td>Work Health & Safety – Minimum Functional Requirements</td><td>
It is a requirement of this role that you are and remain fully vaccinated against COVID-19. Please note the sighting of proof of vaccination will be required as a pre commencement requirement.

Participate in Manual Task (Functional) Assessments and Fit for Work medical assessments as required.

Minimum functional requirements*:
<table>
<tr><td>Maximum lift expected (5kg, 10kg, 25 kg)</td><td>10 kg</td></tr>
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<tr><td></td><td>
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<tr><td>% role mobilising</td><td>10 %</td></tr>
<tr><td>% role sitting</td><td>70 %</td></tr>
<tr><td>% role standing/static positions</td><td>20 %</td></tr>
<tr><td>% role diving</td><td>0 %</td></tr>
<tr><td>Work in offshore or remote locations for extended periods of time</td><td>No</td></tr>
</table>
AIMS is an inclusive employer and will assess if modifications to the above work requirements can be made if provided with Reasonable Adjustment criteria from your Treating Doctor or other suitably qualified medical professional. Please consider the inherent physical requirements of the Position when making your request for Reasonable Adjustment.
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<tr><td>Intellectual Assets:</td><td>

Ensure compliance with AIMS' Intellectual Property policies, procedures and guidelines to ensure AIMS' intellectual assets are appropriately protected and managed.

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<tr><td>Financial responsibilities and accountabilities and delegations:</td><td>

Delegations are in line with Financial and Contract Delegation Policy, which includes authorisation levels for Financial, Enterprise Agreement (supervisory), HS&E and General Administrative activities.
Contribute to positional budget requirements.
Manage AIMS funds and resources in a responsible manner and within delegation.
Comply with AIMS' Fraud Prevention Plan ensuring the standards of conduct and ethical behaviour required of an AIMS staff member are upheld and that suspected fraudulent activity is prevented and/or reported.

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<tr><td>Working as a team:</td><td>

To work as a member of a multi-disciplinary team that values diversity while ensuring the achievement of AIMS' goals and objectives. Participate in the AIMS Leadership and Culture program including having a personal action plan in place.
Well-developed interpersonal and communication skills including the capabilities to effectively consult, collaborate and liaise with other team members on science/technical and non-science/technical issues for the purpose of achieving team objectives and maintaining a positive team environment.
Provide direction and achievable goal setting for team members and uphold AIMS Values at all times.

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<tr><td>External Customer, Partner, Collaborator and Stakeholder Requirements:</td><td>

Nurture existing relationships and initiate new ones in consultation with supervisor, RTL, RPD, CEO and other ALT members.

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<tr><td>Innovation, problem solving and continuous improvement responsibilities:</td><td>

Assist in the improvement of the day-to-day operations, systems and processes associated with AIMS.
Support team members to review and analyse processes to identify improvements and celebrate efforts towards continuous improvement.
Approach all tasks and activities from a risk management prospective.

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<tr><td>Performance management and planning responsibilities:</td><td>

Plan work activities to ensure the achievement of timelines.
Ensure timely and accurate completion of required tasks.
Actively participate in own personal performance planning and evaluation.
Successfully participate in the AIMS annual Performance and Development program.
Ensure timely and accurate completion of annual performance and development evaluation for staff.
Contribute to positional requirements to operational planning. Identify recruitment needs and recommend to supervisor.

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<tr><td>Communication responsibilities:</td><td>

Participate in internal and external communication where appropriate.
Comply with AIMS' Social Media policy.
Ensure use of private Social Media accounts and other e-communication platforms are in compliance with AIMS policies and procedures, as amended from time to time.
Refer to Corporate Style Guide for the production of documents, procedures, presentations and other communication material.

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<tr><td>Technology and Equipment:</td><td>Utilise AIMS Technology and Equipment as required and directed such as:

Networked personal computer and general office equipment.
EDMS – TechOne ECM, Procurement, P&C, Finance modules

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	• Microsoft Project, Microsoft 365 applications • AIMS Fleet Vehicles (including Commuter Car Arrangements)
Selection Criteria **Qualifications, Skills and Experience**	
Essential Qualifications and Experience:	• PhD in evolutionary genetics or similar field with demonstrable knowledge of population genetic and quantitative genetic theory. • Demonstrated record of using simulations or similar modelling approaches to address substantive questions in evolution and/or ecology. • Proficiency in appropriate computer languages (such as R, Python, and Eidos for SLiM), working in an HPC environment, and implementing reproducible research principles. • Excellent statistical, writing, and communication skills including communicating abstract concepts to non-specialists. • Passionate commitment to interdisciplinary teamwork, workforce diversity safety and respect for people and the environment.
Desirable Qualifications and Experience:	• A growing track record of mentoring students and Early Career Researchers to successful outcomes • Experience with field research, although not necessarily with marine organisms • Familiarity with conservation genetics
Special Requirements	

AIMS requires all staff to:

- Provide Evidence of Right to Work in Australia.
- Provide original or certified copies of qualifications for sighting (where listed as Essential above).
- Provide 100 points of ID including at least one photograph (i.e. Drivers Licence and birth certificate or passport)
- Complete a satisfactory pre-employment medical from AIMS' provider.
- Provide a Covid-19 certificate evidencing proof of vaccination (where mandated by Government Direction or by AIMS policy or procedure).

Staff may be required to obtain and provide evidence of other checks and verifications such as Police Clearances or Working With Children Checks, and these will be indicated in the Selection Criteria above.

About our Location

Townsville (QLD) Facility

AIMS headquarters is south of Townsville, Queensland at Cape Ferguson. We are about 50 km from Townsville's CBD, is an international landmark in tropical marine science and home to the National Sea Simulator (SeaSim). We are adjacent to the centre of the Great Barrier Reef and surrounded by a 207-hectare national park and marine reserve. The area is free from development, is biosecure and has access to clean seawater and a protected harbour.

Finding us (see more on our website):

Head south from Townsville on the Bruce Highway (A1). Approximately 37 km from the city centre, turn left at the signposted turn-off to AIMS, onto Cape Cleveland Rd. Follow this road for a further 16 km until you arrive at the Institute. Please note there is **no public transport** to the Institute however employee commuter car arrangements are detailed in our Enterprise Agreement *(Part I – Commuting Arrangements – Cape Ferguson)*.

Townsville Traditional Owner Groups (visit the Townsville City Council website)

Our Traditional owners and custodians, the Bindal and Wulgurukaba People are the first people to have lived in the Townsville region.

- **The Bindal People**
  The Bindal people call the country "Thul Garrie Waja". An important symbol for the Bindal people is the shooting star. They believe that wherever the star fell, or the direction the star fell meant there was either danger coming or someone from that direction was in need of help or in danger.
- **The Wulgurukaba People**
  The Wulgurukaba people call their country "Gurrumbilbarra". Wulgurukaba means "canoe people". An important symbol of the Wulgurukaba people is the carpet snake. Wulgurukabas creation story tells the story of the creation snake that comes down from the Herbert River, went out to sea, creating the Hinchinbrook Channel, and down to Palm and Magnetic Islands. His body broke up, leaving parts along the coast. The tail of the snake is at Halifax Bay, his body is at Palm Island, while his head rests at Arcadia, Magnetic Island.

Living in Townsville

Townsville is a vibrant and rapidly growing city in North Queensland. Surrounded by the Great Barrier Reef, numerous coastal islands, the Wet Tropics rainforest and the outback, and less than two hours by plane from Brisbane, the region experiences a warm tropical climate with more than 300 days of sunshine each year.

A diverse economic base with strengths in government administration, health, defence, education, marine science, natural resource management, manufacturing and mining, ports and shipping and agriculture supports a current population of over 190,000 people.

Boasting a relaxed lifestyle, residents of Townsville enjoy access to world class educational, medical, sporting and recreational facilities. Townsville attracts high quality national and international festivals, cultural and sporting events.

For further information visit **www.townsville.qld.gov.au** and **Live North Queensland**