



POSITION DESCRIPTION

Position Title:	Coastal Biogeochemical Modeller
Team Membership:	Program 2 - Sustainable Coastal Ecosystems and Industries in Tropical Australia
Primary Location:	Townsville, Queensland
Direct Supervisor:	Marine Ecologist – Coastal Impacts
Position Classification:	AIMS AOF Level 6-7 (Exceptional candidates may be considered for appointment at AOF Level 7, dependent on demonstrated skills, experience and qualifications).
Functional Area:	Research Scientist
Position Summary:	Lead the development and application of biogeochemical modelling research relevant to Australia’s tropical continental shelf systems. Work across inter-disciplinary teams of oceanographers, hydrodynamic modellers, biogeochemists, marine ecologists and ecological modellers to develop and apply coastal biogeochemical models to investigate the drivers of coastal water quality, and its response to local management interventions and regional and global pressures.
Position Responsibilities:	<p>Research Program</p> <p>Develop, lead and deliver innovative research related to the advancement of numerical biogeochemical processes models, their application to improved process understanding and their use to support management of tropical coastal marine environments.</p> <p>Lead and participate in multi-disciplinary projects, contributing technical modelling skills, understanding of biogeochemical processes and scientific creativity to solve complex environmental problems.</p> <p>Identify new lines of research and promote original, creative and innovative paths to ensure uptake and impact of research outcomes.</p> <p>Develop research plans and negotiate resource requirements with internal and external clients.</p> <p>Build a position of national and international scientific leadership</p>

in coastal biogeochemical modelling through high level scientific outputs and relevant environmental and stakeholder outcomes.

Engage with key stakeholders within the research community, industry, and government at multiple levels to build and foster partnerships and maintain credibility in AIMS as a leading, high-quality science provider.

Collaboration / Clients

Undertake leading-edge scientific research and build collaborative partnerships that foster access to / sharing of, ideas, concepts and technology to advance project goals.

Demonstrate a high level of responsiveness in understanding client/s and / or stakeholder business and / or resource needs and act as a trusted adviser and honest broker.

Communicate research results to clients and the scientific community via oral and written reports, publications and emerging computer-mediated technologies in a manner that demonstrates science leadership.

Provide scientific advice to policy makers and inform and transfer knowledge to non-science audiences as required.

Identify, explore and make an initial assessment of new research and/or commercial opportunities in consultation with the Research Team Leader and Research Program Leader.

Teamwork / Supervision

Provide scientific leadership to colleagues, support staff and students and ensure that resources such as facilities, equipment and associated are coordinated and allocated effectively to address scientific and environmental management challenges.

Actively engage across multi-disciplinary teams to identify and promote opportunities for synergistic research resource allocation.

Promote teamwork in the completion of scientific projects and assume the role of mentor to lesser experienced staff.

Comply with AIMS' workplace safety policies and procedures to ensure a safe workplace.

Comply with AIMS' Intellectual Property policies and procedures to ensure AIMS intellectual assets are captured, managed and protected.

Comply with AIMS' Code of Conduct ensuring the standards of conduct required of an AIMS staff member are upheld.

Communicate in line with the AIMS' 'Way We Will Work'

	Principles and uphold these values when dealing with others.
Key Responsibilities and Performance Standards	
Science Outputs:	<p>Milestones: Ensure the successful completion of specific research tasks as outlined within the research project plans.</p> <p>Publications: Author, co-author or contribute to scientific papers for international refereed scientific journals.</p> <p>Presentations: Present own work and the work of the team to peers and end users in conferences and meetings.</p> <p>Participation: in relevant seminars and conferences.</p> <p>Intellectual Assets: Identify emerging intellectual property resulting from AIMS' research and take appropriate action to protect AIMS' IP Assets.</p> <p>Reports: Write or coordinate the writing of high-quality reports to meet contractual deadlines.</p> <p>Clients: Ensure client satisfaction with reports and results of research.</p>
Occupational Health & Safety:	<p>Comply with AIMS' workplace safety policies and procedures to ensure a safe work-place.</p> <p>Identify workplace hazards and with your supervisor's guidance take corrective action.</p> <p>Strictly conform to AIMS reporting requirements for any work-related accident, injury or near accident.</p>
Intellectual Assets:	Ensure compliance with AIMS' Intellectual Property policies, procedures and guidelines to ensure AIMS' intellectual assets are appropriately protected and managed.
Delegations:	<p>Financial: \$5000 in accordance with the approved Delegations Manual.</p> <p>Performance Management: Actively engage in the development and ongoing contributions of your own Annual Performance Agreement (APA) and for all direct reports, ensuring that objectives are aligned with the overall strategic and work objectives and that performance against these objectives is satisfactory.</p> <p>Leave: Manage own and direct reports' leave arrangements within provisions as outlined in the AIMS Enterprise Agreement.</p>
Team work/supervisory:	<p>Direct Reports: to be developed as the research portfolio matures.</p> <p>Demonstrate a strong commitment to ensuring the achievement of</p>

	<p>AIMS' objectives by working as a member of a multi-disciplinary, output-focused team.</p> <p>Build effective team work within the group that values diversity while ensuring the achievement of AIMS' goals and objectives.</p> <p>Manage the day-to-day performance of team members and any direct reports, and provide timely, fair and consistent feedback on work performance.</p>
External Customer, Partner, Collaborator and Stakeholder Requirements:	<p>Lead or coordinate external contracts to their successful completion, as required.</p> <p>Engage with key stakeholders at multiple levels to build and foster partnerships and to maintain trust and credibility in AIMS as a high-quality science provider.</p> <p>Establish networks amongst collaborators, clients and stakeholders that will help to identify needs, opportunities and movement in market/scientific directions.</p>
Internal Organisational relationships:	<p>Regular interaction with all members of the Program for the purpose of creative discussion and coordination of tasks and activities.</p> <p>Maintain close working relationships with staff from other Research Teams/Programs and relevant support functions.</p>
Financial responsibilities and accountabilities:	<p>Contribute to financial planning and management as required for the role.</p> <p>Manage AIMS' funds in a responsible manner and within delegation.</p> <p>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.</p>
Innovation, problem solving and continuous improvement responsibilities:	<p>Initiate and progress research characterised by innovation, creativity, quality, and timely delivery of research goals.</p> <p>Define and solve complex scientific problems through appropriate application of observational and experimental procedures, analysis and modelling.</p> <p>Assist in the improvement of the day-to-day operations, systems and processes concerning Team / Program activities.</p>
Planning responsibilities:	<p>Plan work activities to ensure the achievement of timelines and efficient production of reports and results of activities undertaken.</p> <p>Contribute to operational planning as required for the role.</p>

Communication responsibilities:	<p>Apply excellent communication skills to promote the reputation of AIMS as a leading science provider.</p> <p>Apply excellent verbal communication skills to influence and inform, interpret, liaise, advise, report and counsel.</p> <p>Interact with other team members to facilitate the achievement of group goals.</p>
Skills and Knowledge	
Essential Skills and Knowledge:	<p>Advanced skills and relevant contemporary knowledge to develop and lead research related to the development, improvement and application of coastal biogeochemical processes models.</p> <p>Demonstrated experience of working in multi-disciplinary teams integrating biogeochemical and physical oceanographic research activities to formulate and address research questions related to coastal biogeochemistry and water quality.</p> <p>Demonstrated publication / presentation skills.</p> <p>Demonstrated data management, analysis and report writing skills.</p> <p>Established advanced leadership and project management skills with the ability to work independently under limited guidance to complete complex tasks within deadlines.</p> <p>Ability to engage with key stakeholders at multiple levels to build and foster partnerships and to maintain trust and credibility in AIMS as a high-quality science provider.</p> <p>Ability to foster a collaborative research culture and effective working relationships among researchers from different disciplines and agencies.</p> <p>Personal attributes of a team player with strong self-awareness, and interpersonal skills and the ability to foster an atmosphere of innovation, creativity and excellence among others.</p> <p>Strong commitment to, and sound knowledge of, the principles and practices of Occupational Health and Safety and a knowledge of, and commitment to, the principles of Equal Employment Opportunity.</p>
Desirable Skills and Knowledge:	<p>Demonstrated experience working across bio-physical and ecological disciplines to incorporate biogeochemical process understanding and simulation abilities into ecosystem response models of tropical marine ecosystems.</p>
Qualifications and Experience	
Essential Qualifications and	<p>PhD and at least 5 years of postdoctoral experience in a relevant</p>

<p>Experience:</p>	<p>discipline such as bio-physical oceanography, biogeochemistry, or chemical oceanography.</p> <p>Demonstrated extensive experience in the application of biogeochemical process models to coastal marine environments.</p> <p>Demonstrated high level of familiarity with contemporary hydrodynamic and biogeochemical modelling tools and packages.</p> <p>Excellent numerical modelling skills and the capacity to augment, adapt and apply existing modelling packages or develop bespoke tools for marine biogeochemical simulations.</p> <p>An established international reputation for research excellence in the area of coastal biogeochemical modelling.</p> <p>Demonstrated experience in managing complex multi-disciplinary projects with the ability to deliver defined outcomes to external stakeholders and clients in a timely and professional manner.</p> <p>Team player with strong self-awareness, and interpersonal skills and the ability to foster an atmosphere of innovation, creativity and excellence among others.</p> <p>Strong commitment to, and sound knowledge of, the principles and practices of Occupational Health and Safety issues and a knowledge of, and commitment to, the principles of Equal Employment Opportunity.</p>
<p>Desirable Qualifications and Experience:</p>	<p>Advanced understanding of biogeochemical processes relevant to tropical coastal marine environments.</p> <p>A broad understanding of interdisciplinary coastal marine science and the role and applications of modelling.</p> <p>Experience working across bio-physical and ecological disciplines to incorporate biogeochemical process understanding and simulation abilities into ecosystem response models of tropical marine ecosystems.</p> <p>Experience working with in-situ and remotely-sensed data – with a focus on optics-based technology</p> <p>Developed skill in scientific programming (i.e. C, python, Matlab etc.)</p>
<p>Technology and Equipment</p>	
<p>Technology & Equipment Used:</p>	<p>Contemporary modelling, analysis and visualisation tools, packages and languages and their deployment on UNIX based systems.</p>
<p>Special Requirements</p>	

Other Special Requirements	Drivers Licence or the willingness to obtain.
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Delegate Acceptance Signature:	
Date:	

SELECTION CRITERIA

Essential:

- PhD in a relevant discipline (bio-physical oceanography, biogeochemistry, chemical oceanography) and extensive professional experience demonstrating substantive work in the application of biogeochemical process models to coastal marine environments.
- A demonstrated track record of scientific output and uptake in the application of biogeochemical process models to coastal marine environments to support environmental management.
- An international scientific reputation in the field of coastal biogeochemistry and modelling as reflected in a strong publication record and peer recognition.
- Excellent numerical modelling skills and the capacity to augment, adapt and apply existing modelling packages or develop bespoke tools for marine biogeochemical simulations.
- Demonstrated high level of familiarity with contemporary hydrodynamic and biogeochemical modelling tools and packages.
- Excellent written and oral communication skills, and ability to work effectively in a collaborative and multidisciplinary research team.
- Strong commitment to, and sound knowledge of, the principles and practices of Occupational Health and Safety, and a knowledge of, and commitment to, the principles of Equal Employment Opportunity.

Desirable:

- Advanced understanding of biogeochemical processes relevant to tropical coastal marine environments.
- A broad understanding of interdisciplinary coastal marine science and the role and applications of modelling.
- Experience working across bio-physical and ecological disciplines to incorporate biogeochemical process understanding and simulation abilities into ecosystem response models of tropical marine ecosystems.
- Experience working with in-situ and remotely-sensed data – with a focus on optics-based technology
- Developed skill in scientific programming (i.e. C, python, Matlab etc.)