

Role Description

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General information

Title:	Technical Grades Officer - Molecular Technologist			Classification:	TGO3
Division:	South Australian Research & Development Institute	Branch:	Aquatic and Livestock Sciences		Business Unit: Aquaculture
Type of Appointment:	Term contract	Hours of Duty:	37.5 hours per week	Location:	Adelaide Metropolitan (West Beach)

About us

South Australia is internationally recognised for the quality of its agriculture, food, and wine. Our regions are the backbone of our state and the economic powerhouse that drives prosperity for all South Australians.

The Department of Primary Industries and Regions (PIRSA) is a key economic development agency working in partnership with our primary industries, regional stakeholders and across all levels of government to advance the prosperity and sustainability of South Australia's primary industries and regional communities.

We are a passionate team of around 800 people working across metropolitan and regional South Australia to develop and protect our state's regions and food, wine, aquaculture, fisheries, forestry, grains, livestock, dairy and horticulture industries.

Purpose

The primary purpose of the Technical Grades Officer - Molecular Technologist is to manage, maintain and review molecular laboratory workflows, prepare and analyse environmental samples from field and monitoring programs and develop, validate, and apply molecular and genetic tools for the rapid and accurate detection of snapper eggs from mixed field samples. The role provides technical assistance to the preparation of samples for in-situ hybridisation, sample processing and qPCR assays, and identifies and evaluates new molecular technologies to enhance diagnostic capability. This role maintains accurate laboratory records, collects assesses and manages molecular data, and works closely with multidisciplinary teams in the delivery of reliable scientific data and reports that underpin seafood safety, environmental protection and ecosystem health management in South Australian waters. The role contributes delivering the agency's [priorities](#) including 'Sustain the resource' and 'Manage risk and recovery' by informing the sustainable management of South Australia's seafood and marine-based industries, effective management of marine environmental assets, and enhanced resilience of regional communities through science-led innovation and policy advice.

The role contributes to delivering SARDI Aquatic Sciences divisional objectives by contributing to the SARDI Molecular Biotechnology Subprogram within the Aquaculture Program.

Key Accountabilities

- Managing, maintaining and reviewing molecular laboratory workflows, including developing and adapting standardized technical methodologies and techniques and ensuring high standards of quality assurance, contamination control and data integrity.
- Preparing and analysing environmental samples from field and monitoring programs, ensuring timely delivery of accurate and reproducible results.
- Developing, validating and applying molecular and genetic tools for the rapid and accurate detection of snapper eggs from mixed field samples, including supporting the calibration of molecular methods against microscopy, imaging and environmental monitoring datasets.
- Reviewing published reports and scientific articles to evaluate new molecular technologies and ensure the most appropriate molecular tools are being used for the rapid and accurate detection of snapper eggs from mixed field samples.
- Providing technical support to the development, optimisation and application of molecular assays, such as in-situ hybridisation, qPCR, DNA barcoding, Sanger sequencing, and DNA metabarcoding, for the detection and quantification of snapper eggs from mixed field samples.
- Maintaining accurate laboratory records, metadata, and sample inventories in accordance with institutional data management protocols and contribute to laboratory safety, equipment maintenance, and continuous improvement of molecular capabilities within the HAB research program.
- Collaborating with, and providing technical advice to, research scientists, bioinformaticians, and technologists to refine molecular approaches and contribute to the integration of molecular diagnostics into rapid response and early warning systems and the preparation of research publications and reports.

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	Developing and maintaining collaborative working relationships to ensure seamless service delivery within and across team and ensure deliverables are met in a timely and effective manner.
Key Deliverables / Results	
- Maintaining and managing molecular workflows and quality assurance systems to ensure reproducibility and compliance with laboratory standards. - Developing and validating reliable molecular diagnostic tools for the rapid detection of snapper eggs from mixed field samples. - Collecting, assessing, entering, managing and storing high-quality molecular data to support research, monitoring and management decisions within the Snapper Additional Assessments Research Program. - Undertaking the efficient processing and analysis of environmental samples and delivering results in a timely and accurate manner.	- Integrating molecular results with microscopy, imaging, and modelling datasets to enhance understanding of snapper distribution and spawning grounds. - Developing and maintaining clear technical documentation and standard operating procedures (SOPs) to support consistency and continuity of operations. - Collaborating effectively with internal research teams, partner agencies, and industry stakeholders to strengthen snapper diagnostic capability. - Maintaining laboratory resources, instruments, and data systems in optimal working order and contributing to ongoing innovation and efficiency.
Relationships	
- Role formally reports to the Molecular Biotechnology Subprogram Leader who reports to the Program Leader Aquaculture. - Works closely with the Laboratory Manager and other technical staff in the Molecular Sciences Laboratory to ensure work is undertaken safely and efficiently.	Works closely with: Staff in the Snapper Additional Assessments Research Program and across relevant research programs (Fisheries, Marine Ecosystems, Aquaculture, Inland Waters and Catchment Ecology), PIRSA Fisheries and Aquaculture, the Department for Environment and Water (DEW), the Environmental Protection Authority (EPA) and other Snapper Program partners including industry stakeholders and university collaborators.
Requirements	
- Possession of a current driver's licence and willingness to drive. - Out of hours work and inter / intrastate travel may be required. - Undertaking field work. - You acknowledge your work, health and safety obligations and our expectations when applying for a role. - The incumbent will be required to undertake emergency management training and must be willing to participate in emergency preparedness, response and recovery activities required by government agencies. - The incumbent will be required to contribute to whole-of-agency working groups developing PIRSA policy responses to significant and emerging issues as required.	Qualifications Essential: - Diploma or Advanced Diploma in an approved and recognized qualification or an equivalent. Desirable: - Tertiary qualification (BSc with Honours or equivalent) in molecular biology, genetics, microbiology, or related discipline.

Capabilities

Capability	Behaviours
Professional & Technical Knowledge	Demonstrated knowledge of laboratory practises, including automation and high-throughput sample processing, molecular biology and genetic techniques for detecting snapper eggs from mixed field samples, including in-situ hybridisation, PCR, qPCR and sequencing.

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Demonstrates knowledge of molecular biology and genetic techniques for detecting snapper eggs from mixed field samples, including in-situ hybridisation, PCR, qPCR, sequencing, and molecular diagnostics.	- Demonstrated experience planning, managing and monitoring laboratory workflows, applying technical expertise in molecular and genetic techniques such as in-situ hybridisation, PCR, qPCR and sequencing to prepare and analyse environmental samples from field and monitoring programs, and providing expert technical advice to multi-disciplinary teams in the resolution of complex research problems. - Demonstrated experience in undertaking data analysis and bioinformatics processing, integrating molecular data with microscopy, imaging or modelling datasets, and developing and applying molecular tools for detecting snapper eggs from mixed field samples. - Experience recording all data, observations and results in specified forms with accuracy and attention to detail, using a full range of information systems and PC applications, including Microsoft Excel, Word, Access and Outlook and applying, reviewing and continuously improving existing procedures related to analytical methods and laboratory protocols. - Demonstrated ability to work independently and collaboratively within multidisciplinary teams, under general direction, to plan, prioritise and deliver high quality technical outcomes, integrate molecular outputs with ecological, imaging, and modelling data, and works effectively to meet project deadlines and resolve technical problems. - Well-developed interpersonal and communication skills, including the ability to communicate complex scientific information clearly, liaise effectively with technical and non-technical stakeholders and prepare a range of clear and relevant documents and reports to researchers, stakeholders, and decision-makers.
Achievement Orientation Sets and achieves individual goals; manages workload and plans to meet deadlines, accomplishing the results desired.	- Ability to work independently and appropriately manage workloads to meet set deadlines. - Shows initiative and innovation in developing new molecular methods or improving existing protocols. - Is open minded and flexible around planning and undertaking varying fieldwork activities
Attention to Detail Pays attention to detail to ensure one's own work is timely, accurate and reliable.	- Pays attention to detail to ensure one's own work is timely, accurate and reliable - Demonstrates attention to detail and high-quality standards in laboratory procedures and data management. - Monitors weather conditions to enable timely response to fieldwork opportunities
Flexibility Adapts to changes in environment and in work demands, working effectively with a variety of situations and people.	- Demonstrated working in multiple environments and people - Able to work on multiple tasks, including changing fieldwork requirements, at short notice - Flexibility and the ability to work across multiple Sub-programs as business needs may change

HRMS No:		ANZCO Code:	234514	Objective ID:	
Delegate Approval:	Executive Director SARDI			Date:	August 2026
Approved and Classified by People and Culture:	Principal HR Business Partner - August 2026				

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