



Pacific
Community
Communauté
du Pacifique

JOB DESCRIPTION

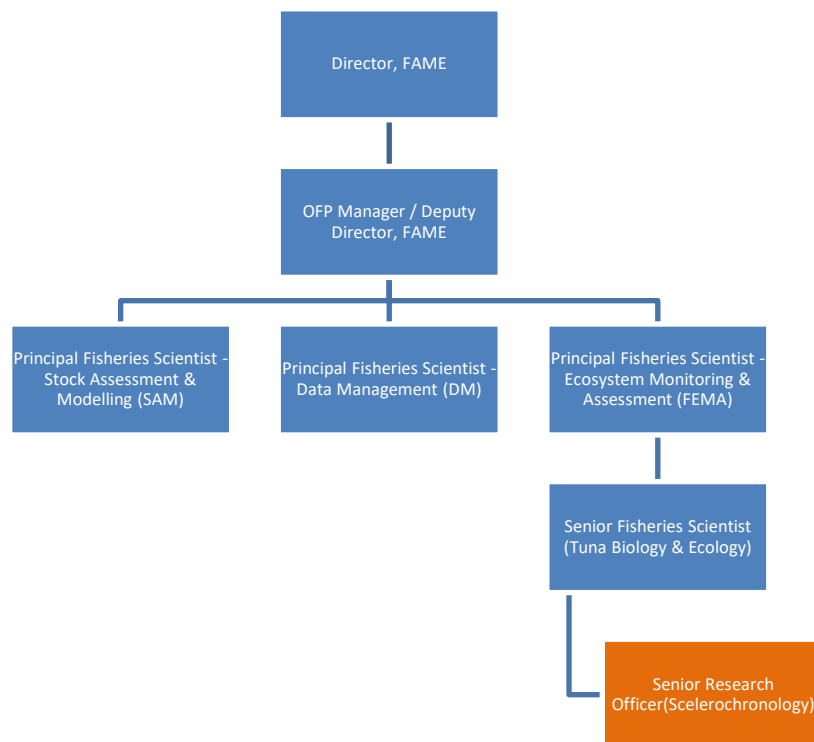
Job Title:	Senior Research Officer (Sclerochronology)
Division / Programme:	Oceanic Fisheries Programme, FAME
Location:	Noumea
Reporting to:	Senior Fisheries Scientist (Tuna Ecology and Biology)
Number of Direct Reports:	0
Purpose of Role:	The purpose of the job is to undertake a programme of work that supports the development and application of fisheries science to tuna fisheries in the western and central Pacific Ocean. The role with focus on the collection, preparation and analysis of fish otoliths, other hard parts and other biological samples to support the assessment and management of tuna stocks and associated species in the western and central Pacific Ocean and adjacent areas.
Date:	September 2022

Organisation Context:

The **Pacific Community** (SPC) is the principal scientific and technical organisation in the Pacific region, supporting development since 1947. We are an international development organisation owned and governed by our 26 country and territory members. In pursuit of sustainable development to benefit Pacific people, our unique organisation works across more than 25 sectors. We are known for our knowledge and innovation in such areas as fisheries science, public health surveillance, geoscience, and conservation of plant genetic resources for food and agriculture.

The **Fisheries, Aquaculture and Marine Ecosystems** (FAME) Division includes the Oceanic Fisheries Programme (OFP) and Coastal Fisheries Programme (CFP). The goal of the OFP is to ensure fisheries that exploit the region's resources of tuna, billfish and related species are managed for economic and ecological sustainability using the best available scientific information. In pursuing this goal, the OFP provides scientific support for the management of fisheries for tuna and associated species, with a strong focus on stock assessment and modelling, fisheries and ecosystem monitoring and analysis and data management. The OFP works closely with member countries and territories, the Western and Central Pacific Fisheries Commission, the Forum Fisheries Agency, the Parties to the Nauru Agreement and other regional and sub-regional entities.

The **Fisheries & Ecosystem Monitoring & Analysis** (FEMA) Section of the OFP undertakes a broad range of tuna fisheries and tuna ecosystem monitoring and analysis work. This work is supported by data collection and monitoring from the fisheries and the oceanic tuna ecosystem and the development of ecosystem and tuna models. The role – the Senior Research Officer (Sclerochronology) will focus on the collection, preparation and analysis of otoliths and other biological samples sourced from tunas and other species. The successful candidate will take a supervisory role in sclerochronology lab operations, be responsible for maintaining lab equipment, help develop analytical and quality control protocols, and assist with database support and report writing. They will also provide training and advice to SPC members and the WCPFC, as required.



Key Result Areas:

The position of Senior **Research Officer (Sclerochronology)** encompasses the following major functions or Key Result Areas:

- Sclerochronology and biological sample collection, preparation and analyses (35%)
- Supervision of sclerochronology lab and its maintenance (35%)
- Data quality and database support (15%)
- Communication, reporting and training (15%)

The requirements in the above Key Result Areas are broadly identified overleaf.

<i>Jobholder is accountable for</i>	<i>Jobholder is successful when</i>
1. Sclerochronology and biological sample collection, preparation and analyses • Provide high quality data related to otolith and fish hard part collection (including extraction in the field and lab), preparation and analysis (e.g. fish ageing, growth, chemical and morphological analyses). • Develop and adapt sampling and analysis protocols when required. • Implement good laboratory practices. • Contribute to routine biological sample collection and other analytical work when required, such as stomach contents examination, histology of gonads, molecular biology.	• Sclerochronology sample analyses completed to deadlines. • Otolith and hard part samples collected, prepared and analysed to deadlines. • Protocols established and improved for the different types of analyses required. • Contribute to a broad range of projects pertaining to the use of biological samples the within FEMA section.
2 Supervision of sclerochronology lab and its maintenance • Plan, organise, direct and coordinate activities in the sclerochronology laboratory at SPC Headquarters. • Ensure lab and equipment are clean and maintained in good condition. • Assist with lab equipment orders and purchases.	• Lab is functional and well organised, with all necessary equipment in place and operational, and sample storage procedures are streamlined and effective. • Quality control protocols developed and adhered to. • Health and Safety protocols adhered to.

Jobholder is accountable for	Jobholder is successful when
• Ensure SPC Health and Safety, Procurement and Staff policies are adhered to (as related to work in the lab). • Oversee tests and experiments and ensure that all tests and projects are completed on time. • Manage storage of otoliths and other hard parts associated with the Pacific Marine Specimen Bank. • Develop quality control protocols for operation of lab equipment. • Supervise sample preparation when required.	
3 Data quality and database support • Enter data in the BioDaSys database. • Screen, check and correct entered data to ensure high quality. • Assist with database development, maintenance and improvement. • Extract data from the database as required.	• High reliability and quality of data entered. • Ensure all data are entered in the database soon after sample examination. • Improved database features. • Data provided in a timely manner for reporting.
4 Communication, reporting and training • Produce reports as required and articles for newsletters and websites. • Contribute to the design and writing of scientific papers. • Train lab assistants, students, trainees and volunteers. • Participate in and contribute to workshops and training to build capacity for national and regional institutions across the Pacific Island Countries and Territories (PICTs) to obtain and interpret sclerochronology data.	• Lab assistants and trainees gaining knowledge and producing good quality work. • Reports, newsletters and scientific papers published and/or in development. • Fisheries and other natural resource management officers in SPC member administrations have improved understanding of otoliths and other hard parts and their use in fisheries science.

Note

The above performance standards are provided as a guide only. The precise performance measures for this position will need further discussion between the jobholder and manager as part of the performance development process.

This section may be copied directly into the Performance Development forms (Part 1 – Expected Results).

Work Complexity:

Most challenging duties typically undertaken:

- Developing and applying best-practice collection, preparation and analytical methods for sclerochronology data.
- Leading the development and refinement of appropriate quality control protocols for the operation and maintenance of lab equipment.
- Ensuring data entry and extraction procedures are accurate and efficient.
- Contributing to the preparation of technical and non-technical written material for websites, newsletters and scientific articles.
- Collaborating with other international experts from a diverse range of cultures.
- Capacity building for fisheries officers in PICTs to better understand sclerochronology data.
- Responding to ad-hoc requests for data and analyses.

Functional Relationship Skills:

Key Internal/External Contacts	Nature of the contact most typical
INTERNAL: • OFP-FEMA colleagues • OFP Stock Assessment and Modelling Section	• Collaboration and information sharing with other OFP sections • Performance appraisal, work planning

• OFP Data Management Section • Coastal Fisheries Programme • PCCOS • Climate Change and Environmental Sustainability Programme	• Collaboration on research programmes • Ad-hoc advice • Administrative tasks
EXTERNAL : • SPC member fishery departments across the PICTs • Officers from other regional institutions (FFA, PNAO) • WCPFC Scientific Committee • Research Organisations and Universities (e.g. IRD, CSIRO, UNSW, IATTC, IFREMER, UNC, SPREP, USP, NIWA) • International Climate Change institutions	• Provision of advice • Collaboration on research programmes • Response to ad hoc requests for data and analyses • Attendance at regional workshops, in-country visits • Presentation of results and related stakeholder consultations

Level of Delegation:

The position holder has no delegated responsibility as per SPC's Instrument of Delegation.

Person Specification:

This section is designed to capture the expertise required for the role at the 100% fully effective level. (This does not necessarily reflect what the current jobholder has.) This may be a combination of knowledge / experience, qualifications or equivalent level of learning through experience or key skills, attributes or job specific competencies.

Qualifications

Essential:	Desirable:
• Bachelor's degree in marine biology, fisheries science, earth science or a related field.	Postgraduate degree in marine biology, fisheries science, earth science or a related field.

Knowledge / Experience

Essential:	Desirable:
• 7 years' experience working with otoliths and/or other fish hard parts, particularly in the context of sample collection, preparation and sectioning for age reading, growth, morphological and chemical analysis. • Two years' experience in a laboratory supervisory/leadership position. • Experience of collecting otoliths and other biological samples in the field, and in the lab. • Proficiency in the use of relational databases (e.g. Microsoft Access, SQL databases). • Well developed technical writing competencies in English. • Excellent oral communication in skills in English.	• Working knowledge (or better) of French. • Experience in genetics and genomics studies. • Experience in fish stomach content examination. • Experience in fish histology studies. • Experience in database use, management and development. • Experience in one or more programming languages (e.g. R, Python). •

Key Skills /Attributes / Job Specific Competencies

The following levels would typically be expected for the 100% fully effective level:

Expert level	• Otolith collection (including extraction in the field and lab), preparation and sectioning for various downstream analyses. • Communication and organisational skills.
Advanced level	• Laboratory leadership. • Use and understanding of relational databases.
Working Knowledge	• Fisheries science methods • Tuna biology and ecology • Programming skills in R and/or Python
Awareness	• Good understanding of tuna fisheries in the western and central Pacific region • Fisheries management principals • SPC policies relating to recruitment, gender, harassment, and others

Key Behaviours

*All employees are measured against the following **Key Behaviours** as part of Performance Development:*

- Change and Innovation
- Interpersonal Skills
- Teamwork
- Promotion of Equity and Equality
- Judgement
- Building Individual Capacity
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Personal Attributes

- Highly motivated with strong interest in their work
- Effective communicator
- Patience and ability to keep focused on the job
- Thorough and conscientious
- Resilient
- High level of professional integrity and ethics

Change to Job Description:

From time to time it may be necessary to consider changes in the job description in response to the changing nature of our work environment – including technological requirements or statutory changes. Such change may be initiated as necessary by the Director Corporate Services. This Job Description may be reviewed as part of the preparation for performance planning for the annual performance cycle.