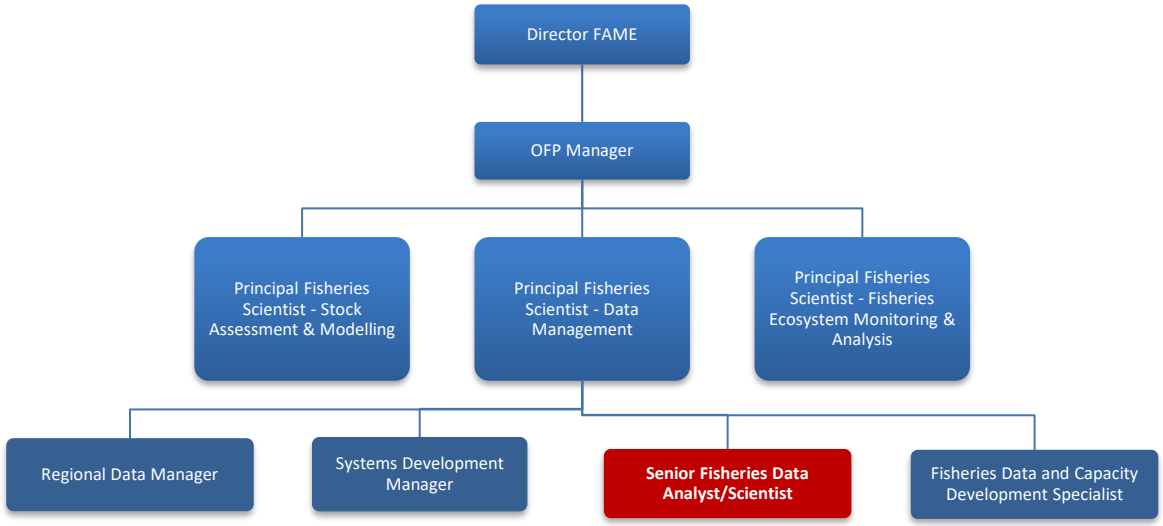
JOB DESCRIPTION

Job Title:	Senior Fisheries Data Analyst/Scientist
Division and Section:	FAME, Data Management Section of the Oceanic Fisheries Programme
Location:	SPC Headquarters, Noumea
Reporting to:	Principal Fisheries Scientist (Data Management)
Number of Direct Reports:	0
Purpose of Role:	This position exists to: • Support the enhanced development and processes for data management, analysis, and reporting • Continuously evaluate and improve data management systems to support science and management of regional tuna fisheries • Lead work with members to improve data quality and related scientific advice • Support stock assessment staff with data provision requests, advice and quality control • Engage with OFP sections and other divisions within SPC (e.g., PHD, SDD, PCCOS) on data-related matters and data quality
Date:	September 2024

Organisation Context and Organisation Chart:

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 27 country and territory members. In pursuit of sustainable development to benefit Pacific people, our organisation works across more than 25 sectors. We are known for our knowledge and innovation in such areas as fisheries science, public health, geoscience, and conservation of plant genetic resources for food and agriculture.

The Division of Fisheries, Aquaculture and Marine Ecosystems (FAME) has been providing scientific and technical expertise to support fisheries management and sustainable development in the Pacific for over 60 years. The goal of the division is that the fisheries resources of the Pacific region are sustainably managed for economic growth, food security and environmental conservation. In pursuit of this goal, SPC FAME provides scientific analyses and management advice to PICTs and regional agencies to support the sustainable management of oceanic and coastal fisheries resources.



Key Result Areas:

The position of Senior Fisheries Data Analyst/Scientist encompasses the following major functions or Key Result Areas:

- Data management services for WCPFC (30%)
- Process improvement and innovation (30%)
- Data analysis and support for scientific work (20%)
- Leadership and mentorship of section staff in contemporary data management good practices (20%)

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

Jobholder is accountable for	*Jobholder is successful when*
1. Data management services for WCPFC (30%) **Data Management** • Develop and maintain routines for management and reporting of fishery data for Member countries • Develop efficient and user-friendly approaches for scientists and staff to access and appropriately use data assets • Collaborate with the Regional Data Manager to improve data management systems • Collaborate with internal and external stakeholders to ensure smooth data exchange and collaboration **Data Integration and Reporting** • Monitor and report on the status of data loaded into the regional master database • Implement data integration processes to ensure comprehensive and coherent datasets • Generate regular reports on data availability and gaps **Data Quality Management** • Design and implement Data Quality (DQ) routines to identify and rectify data discrepancies and errors, in collaboration with Data Management Section staff • Collaborate with the Regional ER Technical Coordinator to adhere to data and data quality standards • Monitor data quality and initiate corrective actions as needed for logbook, port sampling, unloadings, transhipment, and other data sources	• Continuous evaluation of data assets to identify any potential shortcomings in the data validation and ensure quality control procedures are conducted • Data discrepancies have been analysed and processes developed to correct data issues • Documentation of the structure and administrative procedures of the regional tuna fisheries database systems are updated and improved upon to reflect new systems, changes to existing systems, and user needs • Fit for purpose systems are developed to track changes to the data and data load routines for transparency • Members are supported in their data needs and data provisions for scientific work of SPC and the WCPFC are prepared in a timely, accurate, and consistent manner

2. Process improvement and innovation (30%) • Continuously assess existing data management processes, propose and implement improvements • Stay up to date with the latest advancements in data handling technologies and recommend their implementation as appropriate • Identify opportunities for innovation in data collection, auditing, storage, and analysis **Database documentation** • Develop comprehensive metadata for regional databases according to good practice standards • Develop robust and effective database documentation to catalogue data assets for increased usability **Usability** • Enhance user data experiences by curating appropriate reporting databases, data views, and tools for enhanced efficiency, consistency, and transparency	• Systems and processes are continuously assessed, and inefficiencies/development needs identified • Innovative solutions, fit for purpose, are proposed, tested, and implemented • Data systems and process documentation is comprehensive, searchable, and robust to changes over time • Continuing education/learning is carried out to keep abreast of best/most appropriate advancements in data handling technologies • Communication with data users is open and effective to ensure data access is efficient, appropriate, and transparent • OFP scientists are supported to increase efficiency and transparency around use of data assets
3. Data analysis and support for scientific work (20%) • Provide high level support for data analyses, scientific reports, and research papers relevant to OFP scientific work, particularly in relation to stock assessment • Conduct descriptive and statistical analyses to support stakeholders with data and science-related queries • Collaborate with Member countries, WCPFC, FFA, and PNA in data-related matters for scientific projects • Assist in interpreting and presenting scientific findings to stakeholders • Regularly update the database to include new data and research outcomes • Collaborate with cross-functional teams to align data management efforts with broader organizational goals • Support the work of the Principal Fisheries Scientist with section management duties as required	• Data analyses, as requested by members, OFP scientists, and stakeholders, have been undertaken in a rigorous and timely manner • Data and data summaries have been disseminated in accordance with FAME Data Governance policy in an efficient and timely manner • Database development is appropriate and responsive to data collection and research needs • Relationships with stakeholders are productive and collaborative
4. Leadership and mentorship of section staff in contemporary data management good practices (20%) • The Senior level Analyst/Scientist will have the capability to work autonomously and take on a leadership role to elevate the capacity of the DM section staff and improve the work quality • Identify gaps in knowledge and skills within the team and among stakeholders and seek solutions to build and enhance capacity • Work with the Principal Fisheries Scientists to continually improve the delivery of data-related services	• Initiatives are developed and implemented to enhance data management and dissemination through process/systems improvement and mentorship/collaboration with section staff • Clear communication is developed with other section staff, specifically the stock assessment team, to understand and address data needs to support the scientific work of OFP

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 supervisor as part of the performance development process.

Most Challenging Duties Typically Undertaken (Complexity)

- Developing and maintaining state-of-the-art fisheries database management systems
- Ensuring fisheries data from a wide range of SPC and non-SPC countries are provided then entered/imported into the regional fisheries database in a timely, efficient, and standardized manner
- Ensuring data in the regional fisheries database are of high quality, complete, and available for use in the regional stock assessments and applied scientific research
- Ensuring that SPC scientists have the tools available to easily, reliably, and confidently access the regional fisheries databases, complete with sufficient metadata
- Developing the knowledge to understand OFP and member scientists' requirements and to critically evaluate the data to identify and mitigate potential data quality issues

Functional Relationships & Relationship Skills:

Key internal and/or external contacts	Nature of the contact most typical
External: • National Tuna Data Coordinators, Pacific Island Countries • WCPFC IT and Compliance Managers • FFA and PNA staff • Scientists external to SPC	• Training, provision of advice and support for the national tuna fishery database systems • Respond to ad hoc requests for data, data summaries, and analyses • Support development to improve data available for scientific work, including fisheries stock assessments
Internal: • OFP Principal Fisheries Scientist (Data Management) • OFP Regional Fisheries Data Manager • OFP Senior Analyst/Developer • OFP Fisheries Data and Capacity Development Specialist • Regional ER Technical Coordinator • Data Control Technicians • Other OFP Sections staff, most notably the stock assessment scientists	• Database management, development and maintenance of data handling tools and software • Understand user requirements and continually work toward improving accuracy and efficiency of data flow (ingestion to dissemination) • Collaboration on the design of database modules and fulfillment of data requests • Conduct analyses of the data to address data and scientific needs • Understanding of fishery dynamics and curiosity to explore the data , including to identify data gaps and inconsistencies

Level of Delegation:

Routine Expenditure Budget: EUR 0.

Budget Sign off Authority without requiring approval from direct supervisor: EUR 2,000.

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 position holder 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:
• Tertiary qualification preferably at a PhD level in Fisheries Science, Data Science, Information Technology, or related field	• Qualification in implementing database/ data management solutions • Qualification in data science and analytical methods

Knowledge / Experience

Essential:	Desirable:
• At least five-years of (post PhD) or eight years (post Master's degree) of experience in data management and developing/maintaining large-scale relational database management systems using SQL Server or similar database development environments • Knowledge of fisheries and experience with fisheries database systems • Experience with Git and CI/CD • Experience with data integration, data transformations, SQL • Experience with database documentation and development of appropriate metadata • Experience as a data analyst supporting clients in their data and reporting needs • Good communication skills • Ability to work and travel in a multicultural and multilingual environment	• Experience conducting statistical analyses, particularly with skill in the R programming environment • Experience with Geographic Information Systems (GIS) • Familiarity with stock assessment principles • Knowledge of computer networking • If anglophone, a working knowledge of French. If francophone, a working knowledge of English

Key Skills /Attributes / Job Specific Competencies

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

Expert level	• Relational database development • Efficient and transparent management and integration of large-scale fisheries databases • Database and data process documentation • Statistical analyses
Advanced level	• Data Management principles (MS SQL SERVER) • CI/CD best practices • ETL processes • R programming • GIS techniques • Git
Working Knowledge	• Tuna fisheries in the Western and Central Pacific Ocean • Fisheries data collection methods
Awareness	• Principles of fisheries management • Principles of fisheries stock assessment

Key Behaviours

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

- Ability to make decisions independently
- Responsibility for key function of the OFP
- Showing personal accountability
- Demonstrating technical expertise
- Responding quickly and efficiently to problems
- Showing commitment

Personal Attributes

- Strongly advocates equal opportunity
- Ability to work effectively within a team
- Interest in fostering a collaborative and supportive work environment
- Patience and ability to keep focused on the job
- Effective communicator
- Innovative
- High motivation
- Resilience

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.

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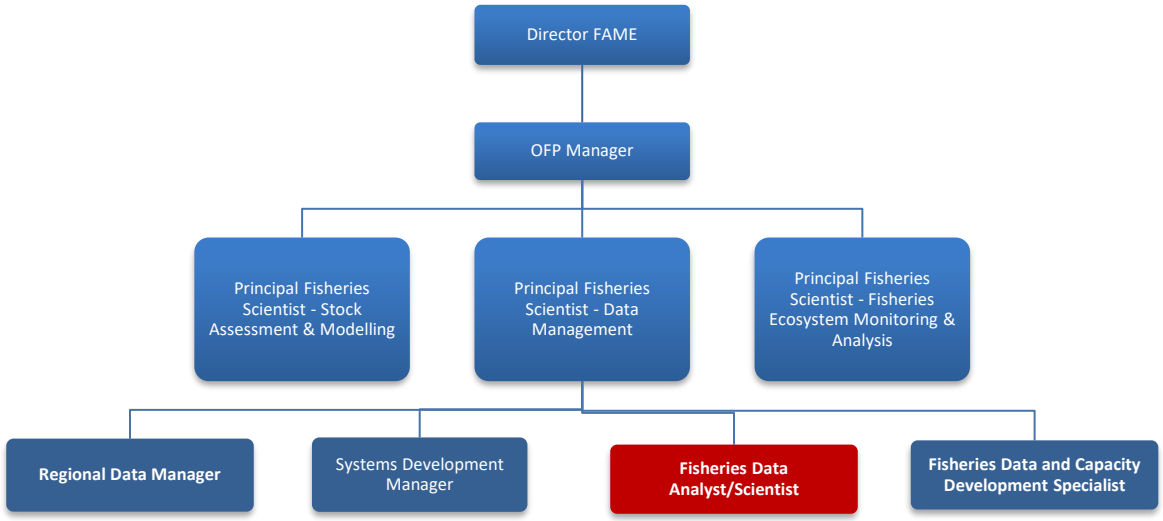

Key Result Areas:

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Routine Expenditure Budget: EUR 0.

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Person Specification:

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Qualifications

Essential:	Desirable:
• Post-graduate degree in Fisheries Science, Data Science, Information Technology, or related field	• Qualification in implementing database/ data management solutions • Qualification in data science and analytical methods

Knowledge / Experience

Essential:	Desirable:
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