

JOB DESCRIPTION

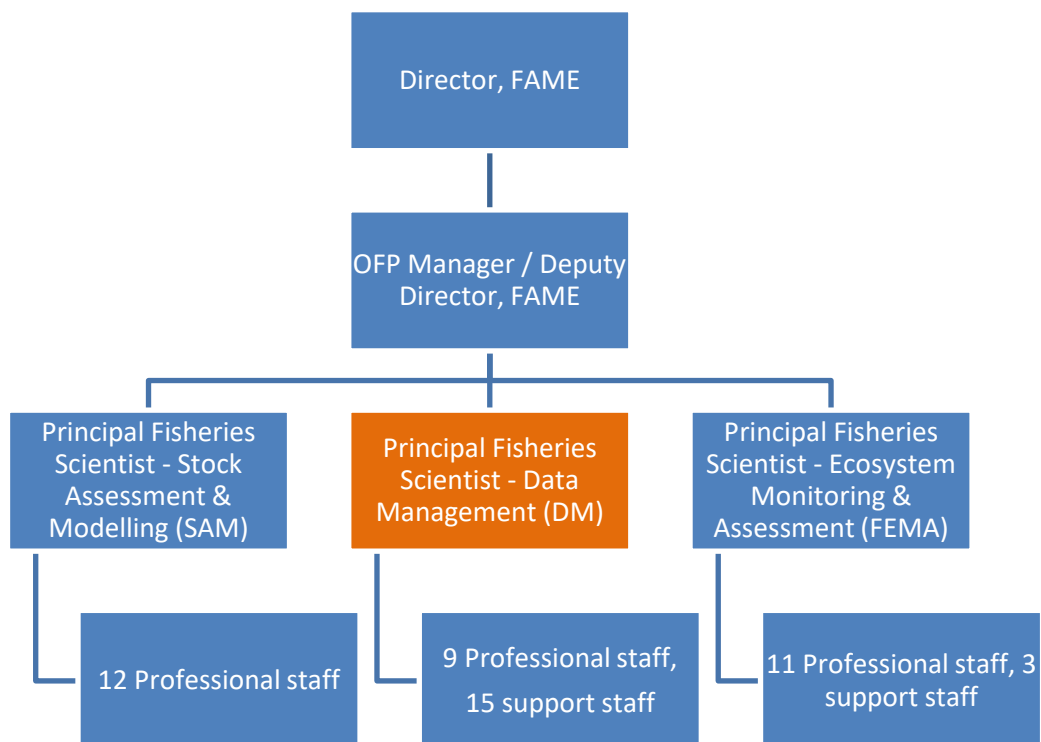
Job Title:	Principal Fisheries Scientist (Data Management)
Division / Programme:	Fisheries, Aquaculture and Marine Ecosystems (FAME), Oceanic Fisheries Programme
Location:	Noumea
Reporting to:	Deputy Director OFP, FAME
Number of Direct Reports:	3 Professional staff, team of 24 in total
Purpose of Role:	<p>Leading the Data Management team of currently twenty-four staff members (nine Professional staff and fifteen support staff), the position is directly responsible for regional fisheries databases and is the authority on all aspects of large-scale national and regional fisheries database systems and regional data collection and reporting requirements in the Western and Central Pacific Ocean (WCPO).</p> <p>The job exists to:</p> <ul style="list-style-type: none"> – Plan, manage and communicate the work of OFP Oceanic Fisheries Data Management (DM) Section. – Act as the WCPFC Data Manager, requiring comprehensive understanding of the WCPFC data rules, requirements and procedures, strong facilitation skills, and strong report-writing skills. – Ensure that regional tuna fisheries databases are as comprehensive as possible and are capable of providing high-quality data products for use in regional and national-level stock assessment and fishery management. – Ensure the DM Section provides authoritative, high-level technical advice and support in areas covering database design/development/maintenance, web and mobile applications/tools and the design of fishery monitoring and data management systems is provided to SPC clients (e.g. OFP scientists, SPC member countries, Western and Central Pacific Fisheries Commission (WCPFC)¹, the Pacific Islands Forum Fisheries Agency (FFA) and the Office of the Parties to the Nauru Agreement (PNAO) and other groups. – Contribute to the investigation, trial and implementation of new technologies such as E-Reporting and E-Monitoring in regional tuna fisheries, and identification of new data sources to ensure regional fisheries data are as comprehensive as possible. – Ensure that the required analyses of fishery data, providing advice on important fishery-related areas not covered by other OFP positions are conducted. – Ensure the DM Section provides authoritative, high-quality training on data collection and management systems to fisheries officers in the region to ensure high-quality data are produced for use in regional and national-level stock assessments and fishery management decision making.
Date:	February 2023

¹ Western and Central Pacific Fisheries Commission (WCPFC) - see <https://www.wcpfc.int/about-wcpfc> . The OFP DM Section are the contracted managers of the WCPFC scientific data.

Organisation Context:

The Fisheries, Aquaculture and Marine Ecosystems (FAME) Division has two core units, the Oceanic Fisheries Programme (OFP) and the Coastal Fisheries Programme (CFP). In line with the FAME Business Plan, the goal of the OFP is that fisheries exploiting 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 OFP is organized into three sections, the Stock Assessment & Modelling Section, the Data Management Section and the Fisheries & Ecosystem Monitoring & Analysis Section. The programme is supported by a Finance & Administration Unit. The OFP organizational chart, with a focus on this position, is shown below.



Key Result Areas:

The position of **Principal Fisheries Scientist (Data Management)** encompasses the following major functions or Key Result Areas:

- Management, administration and communication (FAME OBJ 1)
- Data management services for WCPFC (FAME OBJ 3.1)
- Management of regional tuna fisheries databases for OFP scientific work (FAME OBJ 3.1)
- Develop/maintain systems to acquire, manage and report fishery data for Member Countries (FAME OBJ 3.2)
- Capacity building and data management services for Member Countries (FAME OBJ 3.1, FAME OBJ 7.2)
- Data management services for FFA and PNA (FAME OBJ 3.1)

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

<i>Jobholder is accountable for</i>	<i>Jobholder is successful when</i>
<p>1. Management, administration and communication (25%)</p> <ul style="list-style-type: none"> • Assists the Deputy Director FAME (OFP) in strategic planning to ensure that the work for the Section meets the needs of SPC members and other Programme clients • Develops, in consultation with the Deputy Director FAME (OFP) and other senior Programme staff, annual work plans and work plan reports for the Section consistent with the strategic plan • Manages the activities of the Section consistent with annual work plans and available funding • Implements the SPC staff performance planning and management system for the Section • Liaises with Deputy Director FAME (OFP), OFP clients, other regional and global fisheries agencies and the scientific community on statistics-related issues • Contributes to Programme, Divisional and Corporate publications, including the Fisheries Newsletter, annual reports, Divisional reports for CRGA and Pacific Plan reports • Maintains and updates the FAME data policy and liaises with members to ensure it reflects their needs. 	<ul style="list-style-type: none"> • Work plans address the needs of SPC members, as judged by reviews by Heads of Fisheries and independent Programme reviews • Annual work plans and work plan reports for the section are produced on schedule • Section activities are implemented according to annual work plans and budgets and key indicators are achieved • Staff appraisals and performance planning for Section staff are completed on schedule • Inputs to Programme, Divisional and Corporate publications are provided in a timely fashion. • The Section contributes at least one article per year to the SPC Fisheries Newsletter • Section web content is updated at least once per year and is current as at 31 December
<p>2 Data management services provided to the WCPFC (45%)</p> <ul style="list-style-type: none"> • Oversee the registration, acknowledgement and evaluation of scientific data provided by WCPFC members as per WCPFC data provision requirements, incorporate these data into WCPFC databases and facilitate access of Commission secretariat staff to those data as appropriate. • Compile estimates of catch and effort in support of the functions of the WCPFC and its subsidiary bodies. • Provide authoritative advice and technical support to WCPFC international meetings. • Prepare working papers for and present at the WCPFC Scientific Committee (SC) meetings and contribute to OFP and other technical reports, as required. SC Working papers prepared by this position include: <ul style="list-style-type: none"> • Overview of the Western and Central Pacific tuna fisheries • Estimates of Annual tuna catches in the WCPFC Convention Area • Scientific data available to the WCPFC, highlighting data gaps 	<ul style="list-style-type: none"> • WCPFC Data submission process is managed appropriately including acknowledgement of data submissions within one week. • New data submissions incorporated into WCPFC databases at the offices of the WCPFC Secretariat staff at least twice per year. • WCPFC Secretariat staff familiar with the use of OFP-developed reporting systems used to extract data from WCPFC databases. • Provisional estimates for previous calendar year compiled one month prior to the Scientific Committee. • Papers completed according to requirements and deadlines. • Status of data provisions is accurate and published on a timely basis. • Work undertaken to the required level and on a timely basis.

<i>Jobholder is accountable for</i>	<i>Jobholder is successful when</i>
<ul style="list-style-type: none"> • Prepare and present working papers and provide advice to the WCPFC Technical and Compliance Committee (TCC) meetings and the WCPFC Regular sessions, as required. • Summarise the status of the provision of scientific data to the Commission, identify known data / information gaps and publish on the WCPFC web site. • Provide technical advice and participate in the WCPFC-administered West Pacific East Asia (WPEA) Data Collection Project (involving Philippines, Indonesia and Vietnam). Work includes convening workshops (in collaboration with WCPFC), data audits, database systems, training, technical reports/papers. • Prepare public domain catch, effort and size data for dissemination on the Commission's website at agreed level of resolution on an annual basis. • Maintain the WCPFC tuna fishery data inventory for dissemination on the Commission's website • Generate and publish ACE Tables on the Commission's website at regular intervals. • Maintain the WCPFC public domain bycatch data (using the BDEP protocol) for dissemination on the Commission's website. • Advisory role in provision of advice related to E-Reporting and E-Monitoring standards for the WCPFC. • Develop, implement, and oversee WCPFC projects to improve data available to the region, as appropriate • Ensure confidentiality of regional data is maintained through application of the relevant WCPFC data policies for all products and requests. 	<ul style="list-style-type: none"> • Public domain key species and bycatch (BDEP) data published at least once per year according to WCPFC Rules and Procedures. • ACE Tables are generated and published at regular intervals on the WCPFC web site. • High-level technical advice on data provided to WCPFC Working Groups • Establishment and ongoing maintenance of WCPFC ER scientific data field standards • WCPFC project outputs delivered on time and to accepted quality.
<p>3 Management of regional tuna fisheries databases (10%)</p> <ul style="list-style-type: none"> • Ensuring the efficiency, resources and relevance for the planning, design, development, maintenance and integrity of the regional tuna fisheries databases (coordinated through the Regional Data Manager position), including provision of documentation (as the authority on all aspects of large-scale fisheries database systems). Databases include annual catch estimates (ACE), ACE by EEZs/high seas areas, aggregate and operational catch and effort logsheet data, landings data, port sampling data, observer data, tagging data, oceanographic data, and other types of data. • Conduct analyses of tuna fishery data, respond to ad hoc requests for summarised statistics from OFP clients and provide advice on important fishery-related areas not covered by other OFP positions • Assist OFP scientists with access to data for stock assessments and other analyses 	<ul style="list-style-type: none"> • Databases exist with the required level of integrity and are readily available to authorised users. • Required level of database documentation exists. • The output from analyses, the summarised statistics and advice are appropriate to the request and are provided on a timely basis. • Data processed are accurate and are produced on a timely basis • OFP scientists have a good understanding and have ready access to data on a timely basis
<p>4 Develop/maintain systems to acquire, manage and report fishery data for MEMBER COUNTRIES (5%)</p> <ul style="list-style-type: none"> • Ensuring the efficiency, resources and relevance for the work of the section in the design, development and enhancement of national tuna fishery data management systems, such as TUFMAN2 and related web and mobile device applications as managed/coordinated through the Systems Development Manager • Advisory role in provision of advice related to E-Reporting and E-Monitoring standards. • Provide advice on the development of procedures and manuals for auditing national tuna fishery data collection and management systems undertaken by relevant staff in the DM Section 	<ul style="list-style-type: none"> • Database systems and web and mobile device applications are appropriate to national (and regional) requirements and are readily available. • High-level technical advice to processes such as the SPC/FFA Data Collection Committee. • Auditing systems cover all aspects of data quality control and are readily available. • Accurate data are collected according to regional standards at the national level.

Jobholder is accountable for	Jobholder is successful when
<ul style="list-style-type: none"> Contribute to the design and regional coordination of national fishery monitoring systems (conducted through FEMA who have the primary role). Ensure confidentiality of national data is maintained through application of the relevant SPC FAME data policies for all products and requests. At request of members, support national-level certification activities by ensuring provision of supporting information. 	
<p>5 Capacity building and data management services for MEMBER COUNTRIES (5%)</p> <ul style="list-style-type: none"> Ensuring the efficiency, resources and relevance for the capacity building work of the section, as coordinated by the Systems Analyst/Training Advisor, including: <ul style="list-style-type: none"> the design and conduct of annual Tuna Data Workshops the training of national tuna fishery data management staff in (i) fisheries statistics and preparation of data summaries and (ii) the use of OFP-developed tuna fishery database management systems under the TUFMAN 2 framework the development and provision of training resource material to enhance the skills of fisheries staff in SPC member countries. 	<ul style="list-style-type: none"> Tuna Data Workshops are undertaken once every year, are appropriate to requirements and based on recommendations from PICTs and including obligations to WCPFC Hosting of the Pacific Islands Professional Officer on their one-year attachment at SPC. At least two in-country visits per year by DM Section staff to provide training in database systems and data management. At least one short-term training attachment conducted at SPC per year based on PICT requirements (including obligations to WCPFC). Resource materials are appropriate to requirements and readily available to PICTs
<p>6 Data management services provided to the FFA and the PNAO and other relevant sub-regional groups (10%)</p> <ul style="list-style-type: none"> Oversee the collaboration and provision of technical advice and support for various FFA and PNAO initiatives, including work on fisheries management (e.g. Vessel Days Scheme), Catch Management and Documentation systems, the implementation of regional E-Reporting and E-Monitoring standards. Prepare technical papers for FFA and PNAO meetings/consultations, including the annual consultation of the multilateral US purse-seine treaty, as required. Respond to ad hoc requests for analysis and data summaries. 	<ul style="list-style-type: none"> Information in response to FFA and PNAO requests is appropriate and provided on a timely basis. Papers are provided at least one week before the meetings/consultation.

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:

- Managing the diverse work programme and the highly-skilled team of the Oceanic Fisheries Data Management Section, including high demands for support from SPC members and other clients in funding-limited situations and an evolving environment
- Ensuring the continued integrity of the regional/WCPFC data is a fundamental requirement for the various users of the data, particularly for the national- and regional-level stock assessment and fishery management. Intimate understanding of the data rules, and WCPFC and FAME data policies is critical to ensure data confidentiality is not breached by products.

- In our role as science and data service provider to the WCPFC, a major challenge is the work to be undertaken in resolving the important gaps/problems in current and historic tuna fishery data throughout the region, but particularly in WPEA countries, which have significant fisheries exploiting the shared tuna stocks of the western and central Pacific Ocean.
- Directly dealing with other countries beyond the SPC membership (e.g. Japan, Korea, China, Chinese Taipei, USA, Indonesia, Philippines, Vietnam) in regard to data provisions and issues in their data.
- Understanding and supporting the WCPFC compliance systems where data are one of the most important sources of information in identifying compliance issues.
- Provision of concise and authoritative on-the-spot advice to members are national, sub-regional and regional meetings.

Functional Relationship Skills:

Key Internal/External Contacts	Nature of the contact most typical
INTERNAL: <ul style="list-style-type: none"> • Deputy Director, FAME (OFP) • OFP Fisheries Stock Assessment Section • OFP Fisheries Ecosystem Monitoring & Assessment (FEMA) • FAME CFAP and DO staff • SPC Pacific data hub • PCCOS • GEM 	<ul style="list-style-type: none"> • Management, direction and advice to section staff • Provision of advice on sources, content and quality of data • Assistance in analyses to scientific staff • Contribution to Programme management • Review of outputs for consistency with SPC, national and regional data policies • Courtesy, giving/receiving information, explaining things, advising, liaising, gaining co-operation, facilitating, influencing and persuading, resolving minor conflicts, mediating, supervising, leading.
EXTERNAL : <ul style="list-style-type: none"> • National and regional tuna fisheries data specialists • Regional fisheries officers • Secretariat and members of the WCPFC • FFA • PNA • SPG • Scientists/Data Coordinators from member countries of the WCPFC (including USA, Japan, Korea, Chinese Taipei, China, Philippines and Indonesia). 	<ul style="list-style-type: none"> • Provision of advice on sources, content and quality of data and related fishery information • Respond to wide range of requests for analyses, data summaries • Dissemination of data • Requesting the provision of data and resolving issues in data • Courtesy, giving/receiving information, explaining things, advising, gaining cooperation, liaising, facilitating, influencing and persuading.

Level of Delegation:

The position holder:

- Routine Expenditure Budget: approx. 2.500.000 EUR. Budget sign off authority without requiring approval from direct supervisor: as per SPC Delegations policy

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:
------------	------------

<ul style="list-style-type: none"> • Postgraduate degree in fisheries science, information technology or a related field 	<ul style="list-style-type: none"> • Undergraduate degree in fisheries science (if post-graduate qualifications are in IT) • PhD degree in fisheries science, information technology or a related field
---	---

Knowledge / Experience

Essential:	Desirable:
<ul style="list-style-type: none"> • At least ten years of relevant postgraduate experience with at least 5 years of relevant experience at a senior level in fisheries-related data management. • At least 5 years of experience in staff management, team leadership, project development and project management • Demonstrated high-level skills and experience in RDBMS (relational database management software, preferably SQL SERVER), with very strong programming experience in SQL. Experience with R is ideally required and knowledge of Geographic Information Systems (GIS) concepts, with an aptitude to stay in touch with the concepts of the latest development platforms. • Demonstrated strong technical report writing skills necessary to prepare technical reports and papers which include a range of fisheries data summaries, basic statistical analyses of fisheries data, standards on data fields and fisheries database documentation. • Communication skills of a high order required to interact with colleagues from member countries and non-member countries involved in tuna fisheries of the Western and Central Pacific Ocean and to present fishery- and database-related material at national and international forums. • Strong understanding of fisheries data collection systems and protocols, and their limitations • Strong data analytical skills and understanding of database theory • Knowledge of statistical methods used in fisheries science. • Understanding the concepts and methods used in fisheries stock assessment and the use of scientific information in fisheries management. • Demonstrated ability to manage a medium-sized technical programme and supervise professional and technical staff • Interpersonal skills necessary to supervise technical and support staff. 	<ul style="list-style-type: none"> • Formal qualifications in management. • Extensive relevant practical experience at the required level in international tuna fisheries, with preference for experience in the Western and Central Pacific Ocean. • Knowledge of the data requirements and rules of the WCPFC • Experience in designing fisheries monitoring systems. • 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	<ul style="list-style-type: none"> • Fisheries database management • Programming skills for data extraction and analysis • Aptitude for the provision of high-quality service and advice;
Advanced level	<ul style="list-style-type: none"> • WCPO Tuna Fisheries • Fisheries Statistics

	<ul style="list-style-type: none"> • Fisheries data collection systems • Organizational skills • Communication skills • Staff supervisory skills (internal); • High-level interpersonal skills (internal and external); • A flexible approach and a willingness to assist with a variety of tasks, as required.
Working Knowledge	<ul style="list-style-type: none"> • Tuna fishing operations • WCPFC key documents and purpose • Technical report writing • GIS techniques • Auditing concepts • Oral and written communication skills • Ability to design and conduct training courses • Ability to deal with confidential information in a professional manner. • English and French language;
Awareness	<ul style="list-style-type: none"> • Fisheries stock assessment methods • Tuna biology • Fisheries management principals • Fisheries economics • Tuna Fisheries in other oceans • 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

Personal Attributes

- Highly motivated with strong interest in their work
- Ability to lead and motivate a team
- Ability to adapt to change and innovate
- Clear and effective communicator
- Patience and ability to keep focused on the job
- 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.