



Australian Government

SFIOBS302 Collect reliable scientific data and samples

Release: 1

SFIOBS302 Collect reliable scientific data and samples

Modification History

Release	Comments
Release 1	This version released with SFI Seafood Industry Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to collect a wide range of reliable scientific data and samples for fisheries and/or environmental management. It includes the ability to identify sampling plans, assemble equipment, conduct measurements and observations, collect, store and preserve samples, and collect and report data.

The unit applies to observers who collect scientific data and samples related to fisheries and/or environmental management.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety, biosecurity and environmental regulations, legislation and standards that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Fisheries Observer (OBS)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for measurements and sampling	1.1 Confirm and explain purpose of collection to relevant personnel 1.2 Identify relevant sampling plans, procedures, materials and equipment 1.3 Confirm required measurements, observations, samples and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	sampling frequencies 1.4 Assemble, check and calibrate all measuring and sampling equipment before use
2. Conduct measurements and observations	2.1 Perform required sequence of measurements and observations according to sampling plan 2.2 Operate equipment according to manufacturer instructions and health and safety requirements 2.3 Record measurements and estimations with the appropriate units, required precision and accuracy 2.4 Recognise atypical or out-of-specification data and record explanatory notes 2.5 Identify and rectify procedures or equipment problems that have led to atypical data 2.6 Clean and store measuring equipment and dispose of any wastes according to environmental requirements
3. Obtain samples	3.1 Collect samples ensuring that sample types and sampling conditions are according to the sampling plan 3.2 Place, preserve and store samples in labelled containers to maintain security, integrity and traceability 3.3 Recognise and record atypical observations made during sampling 3.4 Clean and store sampling tools and dispose of any wastes according to environmental requirements
4. Report on data and samples	4.1 Provide feedback to relevant personnel at key stages of the data collection and sampling processes 4.2 Validate measurements, observations and samples for relevance and quality promptly after collection 4.3 Complete documentation of data and samples promptly, check for completeness and quality, and duplicate as required 4.4 Prepare reports on sampling and data outcomes in the required format 4.5 Arrange transportation and storage of samples 4.6 Respect confidentiality of data collected from individual sources

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Numeracy	Prepares and measures samples according to sampling plans, and conducts basic measurements, calculations and estimations to reflect fishing operations and environmental impacts
Reading	Interprets sampling plans, procedures, scientific data and sampling information
Interact with others	Selects and uses appropriate vocabulary, conventions and protocols, including technical language, to communicate and engage with crew members

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
SFIOBS302 Collect reliable scientific data and samples	SFIOBSV302B Collect reliable scientific data and samples	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273>

Assessment Requirements for SFIOBS302 Collect reliable scientific data and samples

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has collected three different scientific data and samples sets for fisheries and/or environmental management research purposes, including:

- communicating with relevant personnel on data collection purpose and observations
- calibrating, operating and maintaining measuring and sampling equipment
- identifying and applying measurements and quality data collection processes that yield outcomes that are valid and comparable to other data sources
- preserving or protecting samples to minimise change or deterioration
- identifying atypical measurements and samples and suggesting possible causes and effects
- identifying samples to ensure a link to their origins
- completing accurate records on data collection and sampling and presenting the information in formats suitable for use in fisheries and/or environmental management research.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- environmental management procedures, regulations and codes of practice relevant to the specific sector within the seafood industry
- current and emerging sampling equipment and technologies
- measurement techniques, including calibrating equipment
- principles of sampling, including:
 - achieving consistency in sampling procedures
 - maintaining the identification or traceability of samples relative to their source, including labelling
 - obtaining representative or randomised samples
 - preserving the integrity of samples

- storing and transporting samples
- fisheries and unique aspects relevant to the fishery, sector or geographic area
- fisheries management methodologies and associated data requirements
- fisheries research methodologies and the application of scientific data to management processes
- species, product, work regime and typical equipment used.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a fishery workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - sampling equipment and materials
 - recording media
- specifications:
 - workplace procedures for sampling and data collection, including advice on health and safety and environmental requirements
 - sampling and data collection plans
 - manufacturer instructions for operating and maintaining equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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