



Australian Government

Department of Education, Employment and Workplace Relations

SFIOBSV301B Monitor and record fishing operations

Release: 1

SFIOBSV301B Monitor and record fishing operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit of competency covers the requirements to be an observer with a designated fishing vessel. An observer validates logbook data and collects other scientific information for research and resource management purposes.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit. Therefore it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this unit.</p>
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Application of the Unit

Application of the unit	<p>This unit has application to the work undertaken by observers who are placed on board designated fishing vessels by the Australian Maritime Fisheries Authority, to monitor and record fishing operations for research purposes. An observer generally works alone although they work and live in a cooperative arrangement with the vessel crew during the cruise.</p> <p>All enterprise or workplace procedures and activities are carried out according to <i>relevant government regulations, licensing and other compliance requirements</i>, including <i>occupational health and safety (OHS) guidelines</i> and <i>ecologically sustainable development (ESD) principles</i>.</p> <p>Equipment operation, maintenance, repairs and calibrations are undertaken in a safe manner that conforms to manufacturer instructions. Appropriate <i>personal protective equipment (PPE)</i> is selected, checked, used and maintained.</p>
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan <i>onboard</i> work activities	1.1. Work activities are broken down into achievable components and efficient sequences. 1.2. Timing of activities is planned to suit fishing operations, conditions and crew routines. 1.3. Tasks and priorities are modified to suit changed circumstances or requests from the cruise master and crew. 1.4. Completion of activities is logged to confirm outputs. 1.5. Cooperation and engagement of vessel crew are sought by explaining the purpose of, and procedures for, information collection.
2. Conduct onboard observations of fishing operations	2.1. Vessel <i>compliance with conditions</i> of fishing permits and agreements is verified. 2.2. Accuracy and validity of vessel logbook records are checked. 2.3. Observation protocols and plans are followed under a <i>range of work conditions</i> . 2.4. Judgement is exercised to detect <i>unusual or irregular events</i> on board the vessel and when suggesting possible causes and effects. 2.5. All onboard <i>safety procedures</i> are followed. 2.6. Cooperative relationships are maintained with cruise master and crew to enhance the value of information obtained.
3. Record and report observations	3.1. <i>Observations</i> are recorded in the required format. 3.2. Regular radio or telephone communication is maintained with shore personnel according to requirements. 3.3. Onshore reporting and post-cruise debriefing sessions are conducted, as required.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

REQUIRED SKILLS AND KNOWLEDGE**Required skills**

- demonstrating capacity and judgement to identify unusual or irregular events and to suggest possible causes and effects that may have implications for fisheries research and management
- engaging vessel crew in cooperating with the collection and interpretation of information
- estimating, measuring and sampling fishing operations and production
- identifying a range of species, seafood/aquatic products, equipment and resources relevant to the industry, sector or geographic area
- recording, reporting and debriefing on fishing activity, catch, effort and other relevant information according to set protocols and plans.

Literacy skills used for:

- recording information related to fishing activity.

Numeracy skills used for:

- estimating catch and effort
- measuring biological features of species and environmental conditions
- sampling of catch and other relevant variables.

Required knowledge

- basic environmental management legislation, regulations and codes of practice relevant to the specific sector within the seafood industry
- ESD principles and practices
- commercial fisheries and unique aspects relevant to the fishery, sector or geographic area
- data collection, measurement and sampling methodologies
- fisheries management methodologies and associated data requirements
- fisheries research methodologies and the application of scientific data
- radio and telephone communication systems at sea
- relationship of observation activities to fisheries management processes
- species, product, work regime and typical equipment used.

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment evidence required to demonstrate competence in this unit	<p>Assessment must confirm the ability to complete a range of onboard observations, measurements and sampling tasks over time, according to set protocols and plans and under difficult and arduous work conditions.</p> <p>Assessment must confirm the ability to:</p> <ul style="list-style-type: none"> • employ quality information collection processes that produce data that is valid and comparable to data from other sources • follow the observation, data collection and sampling routines outlined in cruise plans • identify relevant information and findings likely to be of interest for scientific and resource/environmental management purposes • engage vessel crew in cooperating with the collection and interpretation of information • cope with disruptions and changed circumstances by modifying work plans in consultation with relevant personnel • recognise non-standard events, data and samples and suggest possible causes and effects • record and report observations in appropriate formats and within the required timeframe. <p>Assessment must confirm knowledge of:</p> <ul style="list-style-type: none"> • the Australian fishing industry, including fishing methods, equipment and major species • fisheries research methodologies and the importance of accurate, complete and comprehensive scientific data • fisheries and environmental management strategies • measurement and biological sampling techniques and other data collection methodologies designed to capture information of use to scientific research and

EVIDENCE GUIDE	
	fisheries management.
Context of and specific resources for assessment	<p>Assessment is to be conducted at the workplace or in a simulated work environment.</p> <p>Resources may include:</p> <ul style="list-style-type: none"> • relevant documentation, such as: <ul style="list-style-type: none"> • observation procedures and protocols • data collection plans and recording forms.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • examples of records, reports and other documentation completed by the candidate • observation of the candidate while conducting onboard observations • practical exercises involving the design and conduct of measurement and sampling processes • third-party reports, including reports from shore-based supervisors and cruise crew members • written or oral short-answer questions to assess underpinning knowledge
Guidance information for assessment	<p>This unit may be assessed holistically with other units in the Observer Skill Set:</p> <ul style="list-style-type: none"> • SFIOSV302B Collect reliable scientific data and samples • SFIOSV303B Collect routine fishery management data • SFIOSV304B Analyse and report onboard observations.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised** wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and

RANGE STATEMENT	
regional contexts) may also be included.	
<i>Relevant government regulations, licensing and other compliance requirements</i> may include:	<ul style="list-style-type: none"> • biodiversity and genetically modified organisms • biosecurity, translocation and quarantine • Australian Quarantine Inspection Service (AQIS) and other import requirements • business or workplace operations, policies and practices • correct marketing names and labelling • ESD principles, environmental hazard identification, risk assessment and control • fisheries or aquaculture regulations, permits and licences • health and welfare of aquatic animals • Indigenous land rights and cultural activities, including fishing by traditional methods • maritime and occupational diving operations, safety at sea and pollution control • OHS hazard identification, risk assessment and control.
<i>OHS guidelines</i> may include:	<ul style="list-style-type: none"> • appropriate workplace provision of first aid kits and fire extinguishers • codes of practice, regulations and/or guidance notes which may apply in a jurisdiction or industry sector • enterprise-specific OHS procedures, policies or standards • hazard and risk assessment of workplace, maintenance activities and control measures • safe lifting, carrying and handling techniques, including manual handling, and the handling and storage of hazardous substances • safe systems and procedures for outdoor work, including protection from solar radiation, fall protection, confined space entry and the protection of people in the workplace • the appropriate use, maintenance and storage of PPE.
<i>ESD principles</i> may include:	<ul style="list-style-type: none"> • applying animal welfare ethics and procedures • controlling effluents, chemical residues, contaminants, wastes and pollution • maintaining biodiversity by sustainable

RANGE STATEMENT	
	<p>fisheries or broodstock/seedstock collection</p> <ul style="list-style-type: none"> • reducing energy use • improving energy efficiency • reducing emissions of greenhouse gases • reducing use of non-renewable resources • increasing use of renewable, recyclable and recoverable resources • undertaking environmental hazard identification, risk assessment and control.
PPE may include:	<ul style="list-style-type: none"> • buoyancy vest or personal floatation device (PFD) • gloves, mitts or gauntlets, and protective hand and arm covering • insulated protective clothing for freezers or chillers and refrigeration units • non-slip and waterproof boots (gumboots) or other safety footwear • personal locator beacon or Emergency Position Indicating Radio Beacon (EPIRB) • protective hair, beard and boot covers • protective outdoor clothing for tropical conditions • respirator or face mask • safety harness • sun protection (e.g. sun hat, sunscreen and sunglasses) • uniforms, overalls or protective clothing (e.g. mesh and waterproof aprons) • waterproof clothing (e.g. wet weather gear).
Observers may be placed on board :	<ul style="list-style-type: none"> • Australian registered vessels • foreign fishing vessels • operations on the high seas • operations within Australian fishing zones • squid jiggers • trawl vessels • tuna long lines.
Compliance with conditions may include:	<ul style="list-style-type: none"> • compliance with permits and agreements • conduct of fishing operations in approved areas • maintenance of approved levels of fishing effort • use of fishing equipment and gear approved for

RANGE STATEMENT	
	the fishery.
<i>Range of work conditions</i> may include:	<ul style="list-style-type: none"> • difficult work and sleeping conditions • embarkation at any Australian port • isolation • long, irregular hours on deck, typically working up to ten hours a day, seven days a week • short notice to travel • transference between vessels at sea • unfamiliar customs and language • unfamiliar food • varying durations of cruises, typically two weeks to two months.
<i>Unusual or irregular events</i> may include:	<ul style="list-style-type: none"> • by-catch • catch of sea birds and marine mammals • catch of unexpected species • inefficient fishing techniques (as an explanation of catch rates) • law breaking or breach of permit conditions • unusual biological features of catch, including size, weight and age • unusual environmental conditions.
<i>Safety procedures</i> may include:	<ul style="list-style-type: none"> • avoiding interference with fishing operations • communicating regularly with shore-based supervisors • following all onboard safety procedures • keeping crew informed of activities • locating a safe work area free from hazards • minimising risks • wearing PPE.
<i>Observations</i> may include:	<ul style="list-style-type: none"> • long line: <ul style="list-style-type: none"> • baits at surface • environmental conditions • hook sizes • presence of seabirds • quantities of bait • snood lengths • tangles in setting bins • time of set • other commercial fishing operations

RANGE STATEMENT

	<ul style="list-style-type: none"> • trawl: <ul style="list-style-type: none"> • by-catch • gilled fish • percentage of bin • quantity • time at hand • weight.
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Unit Sector(s)

Unit sector	Observer operations
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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