

Modification history

Release	Comments
Release 1	This version released with SFI Seafood Industry Training Package Version 3.0.

SFICRO4X2	Carry out crocodile breeding activities
Application	<p>This unit of competency describes the skills and knowledge required to establish crocodile breeding programs and to select and prepare crocodiles for breeding. It includes implementing breeding and conducting post-mating procedures.</p> <p>The unit applies to individuals who work with crocodiles in a farm environment. While this unit relates mostly to saltwater crocodiles, it may also entail incidents with other crocodile species.</p> <p>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. Licences or permits may be required for the use of firearms or restricted drugs on crocodiles or if operating vehicles.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Use Prerequisite Unit	Nil
Unit Sector	Crocodiles

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. Establish crocodile breeding programs	1.1 Set crocodile breeding procedures, incorporating breeding season, genetic diversity principles, personal health and safety, crocodile care, biosecurity and regulations 1.2 Discuss crocodile breeding procedures with relevant personnel to establish or confirm processes and roles 1.3 Design or implement data collection crocodile breeding records in line with workplace procedures
2. Select crocodiles and for breeding	2.1 Select crocodiles for mating in line with specific production line requirements 2.2 Monitor male and female crocodiles selected to identify changes in their behaviour that indicates they are ready for mating 2.3 Use personal protective equipment (PPE) and comply with workplace health and safety (WHS) procedures when placing crocodiles selected for mating in the appropriate environment
3. Implement crocodile breeding procedures	3.1 Apply appropriate mating procedures in accordance with the breeding program 3.2 Monitor crocodiles during and after mating to monitor the welfare of the female and to ensure that mating has been successful
4. Perform post mating procedures	4.1 Monitor gravid female crocodiles for signs of nesting and hatching 4.2 Once eggs are hatched, monitor their quality in accordance with workplace safety procedures 4.3 Document breeding processes in accordance with workplace procedures

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Foundation Skills	
<i>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.</i>	
Skill	Description
Oral communication	<ul style="list-style-type: none">Communicate in a culturally sensitive manner
Writing	<ul style="list-style-type: none">Complete breeding documentation using appropriate technical terminology

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
SFICRO4X2 Carry out crocodile breeding activities	N/A		New unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.edesuscation.gov.au/Pages/TrainingDocs.aspx?q=e31d8c6b-1608-4d77-9f71-9ee749456273
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SFICRO4X2 Carry out crocodile breeding activities

TITLE	Assessment requirements for SFICRO4X2 Carry out crocodile breeding activities
Performance Evidence	
An individual demonstrating competency must satisfy all of the elements, performance criteria and foundation skills in this unit.	
There must be evidence that the individual has:	
<ul style="list-style-type: none">• managed at least two real or simulated crocodile breeding exercises	
In doing the above, evidence must also include:	
<ul style="list-style-type: none">• observing crocodile risk and safety standards• observing legislation and regulation associated with crocodiles• observing biosecurity and health and safety guidelines• locating and applying required documentation, policies and procedures.	

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Knowledge Evidence

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

- general knowledge about different 'crocodilian' species and their breeding habits, including:
 - estuarine/saltwater crocodiles - *Crocodylus porosus*
 - fresh-water crocodiles - *Crocodylus johnstoni*
 - alligators
 - gharials and caimans
- selecting appropriate crocodiles for mating considering health and congenital factors relating to their skin quality
- crocodile risk factors in remote waterway environments:
 - estuarine crocodile habitat - any body of water in northern Australia within 100 km off the coast
 - increased risk at night because crocodiles are more active at night
 - increased risk during crocodile breeding season from September to April
 - aggressive female crocodile behaviour when they are defending their nests and young hatchlings
- safe and humane crocodile handling techniques and procedures
- the principles of crocodile welfare and ethics as set out in relevant codes of practice
- daily crocodile pen management procedures for gravid female crocodiles and crocodiles with breeding potential
- crocodile body condition, including:
 - visual inspection of the neck, abdomen and base of tail to ensure sufficient fat stores
 - ratio of body weight to length
 - growth rates and size of crocodiles in the pens
 - crocodile social problems resulting in uneven crocodile growth patterns
 - crocodile survival rates compared farm historical records and survival rates from other similar farms
- reasons for poor crocodile survival rates, including:
 - incubation conditions
 - disease
 - injury
 - inappropriate husbandry
 - genetics
- types of potential incidents involving crocodiles during breeding:
 - male aggression causing harm or death to the female
 - heightened risk factors
- safe working practices, including:
 - PPE
 - hygiene and biosecurity procedures
 - basic manual handling techniques
- appropriate action if confronted by an aggressive crocodile:
 - maintaining sight of crocodile while retreating as rapidly as possible
 - climbing a tree or getting into a safe place (vehicle)
 - raising the alarm and identify location of crocodile to others
 - if in a team, ensuring all team members are accounted for and uninjured

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- using communication systems
- state and territory legislation or regulation associated with crocodile waterways and crocodile activity
- biosecurity guidelines for crocodile farms, for:
 - farm personnel and visitors
 - cleaning processes
 - pens
 - water quality
 - feed
 - animal handling processes
 - care of gravid females
 - use of equipment, infrastructure and consumables
 - observing standard operating procedures (SOPs).
- diseases of crocodiles in captivity, including:
 - metabolic bone disease (MBD) due to incorrect diet and husbandry
 - non-specific septicaemia
 - trichinellosis
 - nutritional diseases osteomalacia
 - fat necrosis and gout
 - mouth rot, or stomatitis
- crocodile health issues, including:
 - thermal stress - where the animal is unable to thermoregulate correctly
 - capture stress - when the animal is caught and handled
 - social stress - arising out of competition, male crocodile aggression during mating
 - stress causing eating disorders and breeding issues
 - low temperatures causing impediments to food digestion
- crocodile farm maintenance procedures, including:
 - adequate water temperatures
 - adequate and functioning water chlorination
 - fault-free infrastructure and equipment
 - adequate supply and use of cleaning chemicals and equipment
 - adequate storage facilities
 - effective cleaning procedures
 - maintenance of records
 - replacement of old chemical solutions
 - social stress.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - access to crocodile farms and crocodiles with breeding potential
 - access to crocodile safety documentation, policies and procedures
 - crocodile mannequins??
 - equipment required for manual manipulation techniques

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

Links

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