Modification history

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| Release | Comments |
| Release 1 | This version released with SFI Seafood Industry Training Package Version 2.0. |

| SFICRO3X1 | Support hatchery and juvenile crocodile care |
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| Application | This unit of competency describes the skills and knowledge required to support hatchery and juvenile crocodile operations, including monitoring the collection and care of hatchlings and juvenile crocodiles.The unit applies to individuals who work in farms, wildlife parks or research facilities and have responsibility for hatchling and juvenile crocodiles, working under broad direction and having limited responsibility for the work of others.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. |
| Use Prerequisite Unit | Nil  |
| Unit Sector | Crocodiles  |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for crocodile hatchery production | 1.1 Identify crocodile hatchery program aims1.2 Confirm hatchery labour and equipment requirements with relevant personnel1.3 Identify risk factors that could affect hatchery operations, and plan to minimise risk |
| 2. Process crocodile eggs | 2.1 Examine crocodile eggs to detect and remove dead specimens to prevent contaminants entering the incubator2.2 Wash surface contaminants off eggs using clean water (24-34 degrees Celsius)2.3 Place eggs in incubator maintaining appropriate environmental factors to maximise survival rates2.4 Monitor egg hatching and re-position eggs that are due to hatch so that waste released at hatching does not fall onto incubating eggs below them  |
| 3. Support crocodile egg hatching  | 3.1 When the first crocodile eggs of a clutch hatch, check the hatchlings to determine whether the residual yolk has been withdrawn completely into the abdominal cavity to determine if incubation conditions have been identical for all eggs 3.2 When the incubation conditions are found to be identical for all eggs, open the remaining crocodile eggs by hand in accordance with hatchling handling procedures |
| 4. Care for hatchlings | 4.1 Wash hatchlings with warm water (28-32 degrees Celsius) and transfer to appropriate pens that facilitate easy movement between land and water and reduce the need for unnecessary handling of the hatchlings4.2 Euthanise obviously weak or deformed hatchlings using a World Organisation for Animal Health approved method 4.3 Monitor and maintain water quality and temperature and heated areas on land allowing crocodile hatchlings to rapidly heat to 30-32 degrees Celsius 4.4 Feed hatchlings five to seven times per week in their first few months of life and monitor their food intake, increasing the amount fed as required4.5 Monitor and document hatchlings behaviour and environmental parameters, maintaining a hygienic and functional work area |
| 5. Address care activities with hatchling and juvenile crocodiles  | 5.1 Gather required equipment, including personal protective equipment (PPE) to prepare for work with juvenile crocodiles in a controlled environment5.2 Determine appropriate crocodile protection legislation or regulation and biosecurity issues associated with working with crocodiles in a controlled environment5.3 Care for hatchling and juvenile crocodiles that are up to 1.2 metres and/or have attained one year of life within a controlled environment to ensure successful survival rate5.4 Treat crocodiles humanely, ensuring their body condition is healthy and consider their welfare at all times5.5 Ensure crocodile pens are not crowded and that all operational activity is conducted in a manner that prevents crocodile skin damage5.6. Discuss the need to move disruptive or larger crocodiles to another pen with supervisor 5.7 Monitor and document stock behaviour and environmental parameters, maintaining a hygienic and functional work area |
| 6. Feed hatchling and juvenile crocodiles  | 6.1 Identify the nutritional needs of hatchling and juvenile crocodiles in a controlled environment 6.2 Prepare food and food supplements in line with crocodile feeding plansfood temperature requirements for preparation and storage in accordance with food safety requirements6.3 Provide food to hatchling and juvenile crocodiles in a controlled environment following standard operating procedures (SOPs) and in accordance with crocodile safety procedures and workplace practices6.4 Observe variations to individual crocodile eating and thermoregulation patterns, looking for signs of dehydrated crocodiles6.5 Record feeding process, food and food supplement stock levels and any individual feeding abnormalities |
| 7. Clean juvenile crocodile pens  | 7.1 Remove any excess food and record leftover amount in accordance with workplace procedures and WHS standards7.2 Remove and dispose of dead crocodiles in accordance with workplace processes 7.3 Secure drain gate and drop drains to pens about to be cleaned 7.4 Hose pens thoroughly in accordance with workplace procedures7.5 Scrub pens with a broom and appropriate disinfectant agent, allowing enough time for it to take effect7.6 Hose away all traces of disinfectant and clean the drain and grate of meat and other debris 7.7 Replace drain grate and fill water 7.8 Ensure water is turned off after pen is full and monitor the water temperature to ensure it is between 30 -32 degrees |
| 8. Secure crocodile faciltyentry and exits  | 8.1 Ensure all crocodile facility entry and exit is through one point for all employees and visitors8.2 Instruct drivers of vehicles or delivery trucks to drive through wash down bays in accordance with biosecurity guidelines 8.3 Lock gates to restrict access to the crocodile pens and clearly display a 'no entry unless authorised' sign  |
| 9. Conduct hatchling and juvenile crocodile stock administrative activity  | 9.1 Check cleaning of work area and disposal of waste materials is completed according to workplace procedures, biosecurity and environmental requirements9.2 Check condition and storage of tools and equipment, and forward repair requirements to supervisor9.3 Record relevant data and observations and report any abnormal records to supervisor  |

| Foundation SkillsThis 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. |
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| Skill | Description |
| Oral communication | * Communicate in a culturally sensitive manner
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| Reading | * Interpret technical information relating to crocodile hatchlings
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| Writing | * Complete workplace records legibly and accurately using correct technical terminology
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| Numeracy | * Estimate quantities of feed and containers
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| Unit Mapping Information |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| SFICRO3X1 Support hatchery and juvenile care | N/A |  | New unit |

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

| TITLE | Assessment requirements for SFICRO3X1 Support hatchery and juvenile crocodile care  |
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| 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 on at least two occasions:* carried out crocodile egg incubation care
* carried out hatchling and juvenile crocodile care

In doing the above, evidence must also include:* applying risk assessment processes and putting controls in place to mitigate hatchling survival risks
* observing hatchling and juvenile crocodile biosecurity and regulatory guidelines
* treating crocodiles and crocodile hatchlings humanely
* observing crocodile risk and safety standards
* maintaining a hygienic and functional work area during and after hatchery operations
* securing facilities entry and exit points
* conducting stock administrative activity
* maintaining accurate records on hatchery and juvenile crocodile operations.
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| Knowledge Evidence |
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| 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:* key facts about crocodile hatchlings physiology and developmental process:

egg incubation process and the effect of temperature and humidity on embryo survival and sex determination growth rates behavioural patterns * crocodile egg monitoring, including:

maintaining precisely controlled environmental conditions inspecting eggs regularly, throughout the incubation period and removing dead specimens * hatchling care, including:

housing hatchlings in pens with adequate shade for all individualsmaintaining water temperatures in the range of 30-32 degrees Celsius and/or heated areas on the land allowing crocodiles to thermoregulate protecting hatchlings from wind likely to cause prolonged cooling, undue visual disturbance, changing noise levels, predatorsavoiding unnecessary handlingmaking provision for sufficient water areas for all crocodiles to be submerged ensuring that there is not more than 10 to 15 individual crocodiles per square metre of water and land in their first year of lifefeeding hatchlings at five to seven times per week in their first few months of life and providing the size of food that is reflective of the size of individual hatchlingsscheduling for hatchery operations adequatelyunderstanding the importance of pen cleaning to reduce bacterial and disease riskidentify risk factors that cause disease in hatchling crocodiles* care for juvenile crocodiles, including:

food preparation methods and storage requirementshow to deliver food to juvenile crocodiles (under 1.2 metres) preventing cross-contamination of foodsafe and humane crocodile handling techniques and proceduresthe principles of crocodile welfare and ethics as set out in relevant codes of practicedaily juvenile crocodile pen management procedures, including adequate shadewater/land temperatures that maintain crocodile body temperatures of 30-34 degrees Celsius protection of juvenile crocodiles from wind causing prolonged coolingreduction of aggressive interactions between individual crocodiles avoiding aggressive competition at feeding time by spreading out food or feeding within separate areasfeeding at least two to three times per week and providing the size of food that is reflective of the size of individual crocodileschanging or filtering of water after feeding* crocodile body condition, including:

visual inspection of the neck, abdomen and base of tail to ensure sufficient fat storesratio of body weight to lengthgrowth rates and size of crocodiles in the penscrocodile social problems resulting in uneven crocodile growth patternscrocodile survival rates compared to historical records and survival rates from other similar crocodile controlled environments* reasons for poor crocodile survival rates, including:

inappropriate husbandrydiseaseinappropriate nutritioninappropriate pen maintenanceinappropriate incubation conditionsinjurygenetics* cleaning and disinfection requirements for hatchery operations
* safe and humane crocodile handling techniques and procedures
* the principles of crocodile welfare and ethics as set out in relevant codes of practice
* the importance of crocodile skin quality and what this means in the handling of hatchling and juvenile crocodiles
* zoonotic diseases that can affect hatchlings and juvenile crocodiles
* World Organisation for Animal Health approved methods for euthanising animals
* workplace health and safety (WHS) practices related to crocodile operations
* relevant legislation, including biosecurity control measures.
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| Assessment Conditions |
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| Assessment of skills must take place under the following conditions: * physical conditions:
* skills must be demonstrated in a controlled crocodile environment that includes a crocodile hatchery or an environment that accurately represents workplace conditions
* resources, equipment and materials:
* hatchling and juvenile crocodiles
* monitoring equipment
* access to workplace procedures for hatchery and juvenile crocodile operations, including advice on health and safety, hygiene and environmental requirements

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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