

AEC STANDARD OPERATING PROCEDURES

SOP No:	12	
SOP	Dunnart (Fat tailed)	
Scientific Name:	<i>Sminthopsis crassicaudata</i>	
Category:	2 only	
Approved activities:	Activity	Category
	a. The appropriate care of classroom pet dunnarts	2
	b. Measurement of body weight, body condition, growth and body proportions (non-invasive)	2
	c. Observation of a particular behaviour in dunnarts	2
	d. Animals on loan from the Nature Education Centre	2
Approval Level:	<p>Where an activity is not listed in this SOP, approval must be sought from the Animal Ethics Committee and confirmed before it can be undertaken.</p> <p>Government Schools – Department for Education and Childhood Development Animal Ethics Committee</p> <p>Independent and Catholic Schools – Non-Government Schools Animal Ethics Committee (NGSAEC)</p>	
Authority:	<p>Government Schools – Department for Education and Childhood Development Animal Ethics Committee</p> <p>Independent and Catholic Schools – Non-Government Schools Animal Ethics Committee (NGSAEC)</p>	
Authority Approval Date:	1 August 2010	
Last Update	21 April 2020	
Disclaimer:	<p><i>This document may be updated at any time. You should check the web site regularly to ensure that you are meeting the most recent recommendations. If you note any concerns with the information provided (inadequate, incorrect) please contact the relevant AEC.</i></p>	
Licensing Requirement:	Not applicable	
Compliance Requirement:	<p>The keeping of this species requires approval from the School Principal. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.</p>	

General Information:

There are many species of dunnart. The Fat-tailed Dunnart (*Sminthopsis crassicaudata*) is the most wide-spread and comprises of two sub-species, The *Sminthopsis crassicaudata centralis*, found in the more northern arid areas of Australia and the *Sminthopsis crassicaudata crassicaudata*, which occurs in the less arid southern areas, including Victoria. Fat tailed dunnarts occupy open habitats, including woodlands, arid and low shrublands. They are insectivorous, though they have been known to also eat small lizards and juvenile mice. Both species have the ability to store fat in their tails, giving it a swollen appearance which helps them survive periods of food shortage.

Physical Attributes:

- **Size (adult):** head and body length of approx. 60-90mm and tail length of approx. 45-70mm.
- **Weight (adult):** 10-20 grams. Their tail can be used to store fat and is thinner in winter when food supplies are generally lower.
- **Life span:** 18 months in the wild and 30 – 48 months in captivity
- **Sexual maturity:** approx. 5 months in females and 8 months in males

Behaviour:

Dunnarts are nocturnal marsupials. Normal behaviours exhibited by dunnarts in captivity include huddling to transfer scent between individuals and social grooming characterised by licking or rubbing the face, muzzle or body of another. During winter they may enter a temporary torpor reducing their energy demands. They take shelter against cold, heat and predators under rocks, stumps, logs or within deep cracks in the soil. Here they create nests made of grass or other natural litter. At times a number of them may congregate in a single nest aiding conservation of body heat. Enrichment should be provided to prevent the development of stereotypical behaviours such as pacing. Toilet rolls and empty egg cartons can be used for environmental enrichment. During the breeding season dunnarts tend to be solitary nesters but they are more social when not breeding, with several dunnarts found in a nest when not breeding.

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Environment:

Housing/Space: Housing should consist of a galvanised cage with minimum space requirements of 0.25m² per dunnart. Additional dunnarts require 0.25 x 0.25m of floor area per animal. Cages should be a minimum height of 40cm and have a plate-glass front, a removable tray floor and a galvanised mesh top with a hinged flap at the front. Loam is used to cover the floor (sawdust is unsuitable) and a nest-box loosely filled with shredded paper provided for shelter. Nest boxes should be a minimum of 10 x 10 x 10cms with a removable lid. The entrance hole must be at least 5cm wide. Grass tussocks, rocks, natural foliage and blossoms and logs can be used as enclosure furniture.

Water: Water is available via a cage bird seed/water dispenser (sipper tubes are ineffective).

Shelter: A number of hollow logs of varying diameter should be provided for shelter and grass tussocks can provide alternative options.

Coverings: Dunnarts are escape artists so all enclosures should be enclosed.

Cleaning: Enclosures should be checked daily and spot cleaned weekly, with spoiled food removed and clean water always provided. Dunnarts tend to have specific toileting areas, which should be cleaned weekly to maintain hygiene and odour control, or more often if needed. Water containers and food bowls should be cleaned weekly. Nesting material and enclosure furniture (e.g. logs) arrangements should be changed weekly. Full enclosure cleaning should be done monthly including floor substrate replacement and log cleaning or replacement.

Feeding:

Diet: Good quality canned cat food (meat variety only) e.g. Jellymeat Whiskas, is a good basic diet. Live insects and dry cat food in small amounts can also be fed. Always supply fresh water with dry cat food. Please note that dried dog food is usually unacceptable unless soaked first.

Daily requirements: The daily rations for dunnarts are made up of Whiskas wet cat food supplemented with mealworms and dry cat food. (See Husbandry guide in the Resources for daily meal plan ideas)

Supplementary diet: mealworms (*Tenebrio larvae*) can be provided as a treat but only a few times a week due to their high fat content. Dry cat food can also be used but water must be provided if fed.

Breeding:

- **Gestation period:** 13-16 days
- **Number of offspring:** 6-8 per litter
- **Birth weight:** 14-16 grams
- **Weaning of young:** 70 days

Dunnarts are seasonal breeders with litters born between July and February. Females may raise 2 litters in this period. During gestation, the young attach to nipples for about 40 days and then weaned at 70 days. Dunnarts can raise a maximum of 10 young though more may be born than they can feed. The pouch is well developed in both species. Females are sexually mature at 5 months and males at 8 months of age in both species.

Sexing dunnarts: In the males the testes, covered by a well-furred scrotum, are very prominent and thus the presence/absence of pouch-testes makes sex determination simple.

Handling:

Observational activities should be undertaken only (e.g. monitoring feeding habits). Dunnarts move quickly and can bite if provoked and scared. Handling of dunnarts should be avoided where possible and if handling them use a small catching bag to do so. Adults should only handle dunnarts, not children.

Hygiene:

Thoroughly wash hands with soap and running water for at least 15 seconds after working with or handling dunnarts. Dry hands with clean paper towel or air dryer. Turn off the tap with the paper towel if possible. Follow first aid procedures should a bite occur.

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Signs of illness:

Indicators:

- loss of appetite,
- weight loss,
- lethargy,
- inactivity
- hair loss and
- injuries

Treatments:

Schools are encouraged to develop relationships with a Veterinarian or Animal industry representative (e.g. pet shop staff) familiar with small animals. These contacts can be used for disease diagnoses, treatment options and dietary, husbandry and welfare advice, Veterinarians can also assist with emergencies particularly when euthanasia is needed, Treatments must be documented in the appropriate records.

Disposal/fate planning:

When no longer required Dunnarts must be rehomed. Dunnarts can be loaned from the Nature Education Centre preventing the need for rehoming. As a captive species they must NEVER be released into the environment. Bodies must be disposed of correctly in accordance with local council regulations.

Euthanasia:

When an illness or injury is such that recovery is unlikely then the dunnart must be euthanised by a Veterinarian. Schools should contact their local Veterinarian to discuss emergency treatment options prior to an event occurring when keeping dunnarts. Any adverse event including death must be reported to the AEC using the ADVERSE EVENTS form. Forms must be returned to the AEC within 7 days of the event occurring.

Holiday and weekend care:

Dunnarts can be sent home for weekends or holiday care with students providing consent is received from the school Principal and the parents. Staff should provide carers with animal care and record-keeping instructions, emergency contacts and provide appropriate equipment and food. Animals must be checked daily, records kept and any problems reported to the school immediately whether kept onsite or taken offsite.

Approved activities:

Where an activity is not listed in this SOP, approval must be sought from the Animal Ethics Committee and confirmed before it can be undertaken.

A. THE APPROPRIATE CARE OF CLASSROOM DUNNARTS

Activity:

Category 2

Category:

To demonstrate the appropriate care of dunnarts to students

Objective:

Staff must supervise students all times when interacting with or observing dunnarts in the classroom. Handling must be kept to a minimum. Dunnarts are nocturnal and during winter may enter a temporary torpor reducing their energy demands. Staff should be aware of this behaviour when planning activities.

Activity:

B. MEASUREMENT OF BODY WEIGHT, BODY CONDITION, GROWTH AND BODY PROPORTIONS (NON-INVASIVE)

Category:

Category 2

Objective:

To demonstrate the measurements of weight and growth variables to students

Staff must supervise students all times when interacting with or observing

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dunnarts in the classroom. Any equipment required must be ready prior to handling a dunnart. Dunnarts are nocturnal and during winter may enter a temporary torpor reducing their energy demands. Staff should be aware of this behaviour when planning activities. Other species may be more suitable for this activity.

Activity:

C. OBSERVATION OF A PARTICULAR BEHAVIOUR IN DUNNARTS

Category:

Category 2

Objective:

To demonstrate to students the observation of a particular behaviour in dunnarts

Staff must supervise students all times when interacting with or observing dunnarts in the classroom. Handling must be kept to a minimum.

Activity:

D. ANIMALS ON LOAN FROM THE NATURE EDUCATION CENTRE

Category:

Category 2

Objective:

To provide adequate care for animals on loan from the Nature Education Centre.

When borrowing dunnarts from this Centre, schools must ensure that they have resources and experienced staff available to provide adequate care and welfare for those they are planning to use in activities. Schools are recommended to contact the Nature Education Centre prior to commencing any activities to discuss the needs to a particular species they are interested in. Teaching kits are also available that may provide an alternative to using live animals in the classroom.

Resources:

NSW Fauna and Marine Park Association - Fat Tailed Dunnart husbandry guidelines

nswfmpa.com.au/wp-content/uploads/2017/11/Mammals.-Fat-tailed-Dunnart-2012KW.pdf

State Wide Integrated Flora and Fauna Teams - Fat Tailed Dunnart

www.swifft.net.au/cb_pages/sp_fat-tailed_dunnart.php

Soft Schools - Fat Tailed Dunnart facts

www.softschools.com/facts/animals/fat_tailed_dunnart_facts/1868/