

Non-Government Schools Animal Ethics - STANDARD OPERATING PROCEDURES

SOP No:	16	
SOP	Yabby	
Scientific Name:	<i>Cherax destructor</i>	
Category:	2 & 4 only	
Approved activities:	Activity	Category
	a. The appropriate care of classroom pet yabbies	2
	b. Observation of a particular yabby behaviour	2
	c. Aquaculture	4 (see SOP #14)
Approval Level:	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.	
Authority:	Government Schools – Department for Education and Childhood Development Animal Ethics Committee Independent and Catholic Schools – Non-Government Schools Animal Ethics Committee	
Authority Approval Date:	1 August 2010	
Last update	3 July 2023	
Disclaimer:	<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>	
Licensing Requirement:	Not applicable for observation purposes (Category 2 & 3). Commercial operations (Category 4) will need to meet a variety of local and state government requirements in relation to licences, permits, local council land use, use and discarding of water, conservation constraints and fisheries requirements.	
Compliance Requirement:	If the keeping of yabbies onsite is for observation only, application approval is required from the school principal (Category 2). If yabbies are being kept for commercial operations (Category 4) (i.e. including breeding, commercial aquaculture, measuring, weighing or scientific activity), approval by the Non-Government Schools Animal Ethics Committee is required. Refer also to the AEC SOP 14 – Aquaculture. It is recommended that this Standard Operating Procedure be followed as a minimum in the provision of appropriate care and housing for this species.	

General Information:

Yabbies are crustaceans. They are green or brown in colour. Yabbies live in streams, lakes, dams, and ponds in south-eastern Australia. In the water, yabbies like to hide under rocks, mud, and branches. They can survive out of water for several days but do need water to breed. They eat a vegetarian diet, preferring fresh food where available.

If you plan to use yabbies for commercial farming operations, *this needs to be researched thoroughly before commencing – set up, feeding, harvesting and legal obligations. See SOP 14 Aquaculture.*

- **Extensive Farming:** this uses pre-existing bodies of water – wetlands, dams etc.
- **Intensive Farming:** This approach requires purpose-built dams and ponds outdoors or tanks housed indoors. Usually a 1 metre deep, lined with plastic, earthen pond, 0.25 hectares in size, pumping for drainage and harvesting. They also provide artificial hiding areas – tyres, pipes, and pots. Smaller operations may use poly tanks or tubs indoors.

Physical Attributes:

- **Size (adult):** At 1 year old approx. 6cm, 2 years; 10cms and 3 years; 12cms. They can grow up to 20 cm and grow more at higher tank temperatures (e.g. 24°C vs 12°C) than cooler ones.
- **Weight (adult):** Approximately 100gms.
- **Life span:** Average life span is three years, up to seven years old. Their lifecycle has three stages: the egg, juvenile and adult.
- **Sexual maturity:** Usually when they are 10-20gms they can begin to breed.

Yabbies breathe by using their gills to absorb oxygen from the water. They draw water under the back of their exoskeleton (hard shell), over their gills and out through a hole near their head.

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- Behaviour:**
- Normal:** They are very adaptable, highly active, and dependent on correct environmental conditions for breeding. Temperature, weather conditions (drought, flood) water quantity and quality determine the number of healthy yabbies in a water source.
 - Socialisation:** Yabbies are aggressive and when several are together in a small space they will fight. Yabbies should be kept with other yabbies of an equivalent size.
 - Activity levels (moult etc.):** As they grow fast, they regularly shed their exoskeleton and grow a new one. During this time they are very vulnerable and will lay 'shivering' on their side out of the water. It takes up to two days for the new exoskeleton to harden. They like to dig and hide in shelters when provided.
- Environment:**
- Housing/ Space:** You will need an aquarium 60cm x 30cm x 30cm. There should be a gravel or sand base deep enough so that the yabbies can dig down into it. Aquatic plants, logs, rocks, terracotta pots and rocky overhangs can be used within tanks.
 - Movement:** Yabbies have large claws used for defence, fighting, holding food, and digging. They have four pairs of walking legs and a long thick tail. To move through the water quickly, they flap their tail. A flip with the tail will propel them backwards rapidly.
 - Water:** Change a quarter of the tank water every 3 - 4 weeks. The water level should not be so high in the tank that yabbies can climb out. A water conditioner should be used to remove chlorine from the water and the water should be alkaline (pH 7.5 -10.5).
 - Temperature:** Heating should also be provided to warm the tank water. Aim to keep the tank's water temperature 12 – 20°C. Keeping the tank temperature around 24°C will encourage breeding.
 - Filtration:** An under-gravel filtration system will assist to keep water clean removing soiled food and waste materials. This filter should be cleaned fortnightly or more often if water quality is an issue
 - Lighting:** Natural lighting can be used.
 - Covering:** As yabbies are escape artists and to prevent unsupervised handling by students, all tanks should be covered. Ensure no sprays (e.g. insect spray or room deodorisers) or fumes are used around the aquarium as they contaminate the tank water.
 - Shelter:** The aquarium should provide an area for refuge from lights, noise, and other yabbies. If breeding occurs there needs to be lots of spots for the babies to hide. Removing the male may assist with their survival but be advised mothers may also eat their young. Ideally, they could be placed in a separate aquarium.
 - Cleaning:** Regular daily removal of food waste is required. To clean the whole tank, remove and place the yabbies in a secure container. Remove the substrate and any equipment such as logs or rocks. If reusing the substrate, it should be cleaned by thorough rinsing. Clean any rocks or logs or discard if damaged or dirty. Rinse the tank carefully and once dry fill it again with substrate and other items. Do not use chemicals.
- Feeding:**
- Diet:** Yabbies only require small amounts of food when feeding. Yabby pellets can be used as a dietary staple with algae, dead and decaying plants, and small fish or insects also eaten when found sinking in their tank or along the bottom. They can be fed finely chopped vegetables, some fruit, and goldfish pellets. Juvenile and young yabbies eat the same diet as adult yabbies.
 - Daily requirements:** They only need a small amount of food each day made up of mainly pellets.
 - Supplementary feeding:** Finely chopped vegetables, garden worms and most fruit can be offered a few times a week. Feeding of fresh raw meat is not advised as they often hide the meat and this can result in fouling the water.
- Breeding:**
- **Gestation period:** 1-2 months.
 - **Number of offspring:** 30 - 450 eggs per brood
 - Mating:** The male deposit spermatophores at the base of the females fourth and fifth pair of walking legs. Yabbies tend to mate at night.
 - Pregnancy:** Yabbies will only breed when the temperature is high enough and there is sufficient water. The female releases eggs, which mix with the spermatophores and fertilisation occurs. The fertile eggs attach to swimmerets located on the underside of the female's tail. The eggs take 19-40 days to hatch depending upon water temperature. Adult do eat their young so the babies should be moved to another tank.
 - If adding new yabbies to a tank,** it is recommended that you change the positioning of rocks and other materials within the tank. Yabbies can be very territorial so remove all existing yabbies, change the tank layout, and then put old and new yabbies into the tank at the same time to prevent fighting.

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Handling:	<p>Human: adults can easily handle yabbies and children can hold them if taught the proper technique. Keep handling to a minimum as handling can be stressful to yabbies and they tend to dry out when removed from water. To pick up a yabby, grasp it at the level of the body behind the two large claws far enough back that they cannot grasp your fingers with these claws when you hold it. Be careful not to squeeze too hard. Children should not knock on tanks.</p> <p>Equipment: Yabbies can be caught in nets or strainers as required or protective gloves can be worn when handling them to prevent being bitten.</p> <p>Transport: Yabbies should be transported in a container that has been lightly sprayed with water to maintain humidity or cover them with a wet cloth. Transport quickly and do not leave unattended or allow the yabby to get hot.</p>
Hygiene:	<p>Thoroughly wash hands with soap and running water for at least 15 seconds after working with or handling yabbies. Dry hands with clean paper, cloth towel or air dryer. Turn off the tap with the paper towel if possible.</p>
Signs of illness:	<p>Indicators:</p> <ul style="list-style-type: none">• failure to thrive;• lethargy;• difficulty moving;• issues with moulting;• loss of limbs including missing claws; and• other injuries.
Treatments:	<p>Schools are encouraged to establish relationships with a Veterinarian and Animal Industry Representative familiar with yabbies. These contacts can assist with 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.</p>
Disposal/fate planning:	<p>When no longer, required yabbies must be rehomed. They must NEVER be released into the environment or waterways. Bodies must be disposed of correctly in accordance with local council regulations.</p>
Euthanasia:	<p>When an illness or injury is such that recovery is unlikely then the animal must be euthanised. Schools should contact their local Veterinarian to discuss emergency treatment options prior to an event occurring when keeping yabbies onsite. Any adverse event including death must be reported to the NGSaec using the Adverse Events form. Forms must be returned to the NGSaec within seven days of the event occurring</p>
Holiday and weekend care:	<p>Yabbies can be sent home for weekend or holiday care with students providing that 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 equipment and food. Animals must be checked daily, records kept and any problems reported to the school immediately whether kept on site or taken offsite.</p>

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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.

Activity: a. THE APPROPRIATE CARE OF CLASSROOM PET YABBIES

Category: Category 2

Objective: To instruct students on the appropriate care of classroom pet yabbies

Students must be supervised when feeding the yabbies or uncovering the tank for any reason. A roster should be constructed to ensure overfeeding does not occur. Students can assist with partial or full tank cleaning. Records should show feeding and cleaning regimes and include school holiday periods.

Activity: b. OBSERVATION OF A PARTICULAR YABBY BEHAVIOUR

Category: Category 2

Objective: To instruct students on observing a particular behaviour in yabbies.

Observation does not involve capture so these activities must be done by simply observing the yabbies within a tank. Children must not knock on the tank during observation.

Activity: c. AQUACULTURE AND RELATED ENTERPRISES (See SOP 14 Aquaculture)

Category: Category 4

Objective: To demonstrate the methods used for undertaking yabby farming as an aquaculture enterprise

Schools should consult with Primary industries and Resources South Australia and Aquaculture industry representatives including Veterinarians before establishing any yabby farm. Schools must ensure they have appropriate housing, tanks or ponds, storage and other equipment needed for running a successful enterprise.

Resources: **Aquaculture Industry in Australia**
www.agriculture.gov.au/fisheries/aquaculture/aquaculture-industry-in-australia

Farming yabbies – Government of Western Australia
www.fish.wa.gov.au/Documents/aquaculture_yabbies/farming_yabbies_information.pdf